

Nurses in Health Service Leadership: The Power to Influence

By

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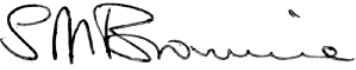
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Declaration

This thesis is the result of my own work and includes nothing that is the outcome of work done in collaboration, except where specifically indicated in the text. It has not been previously submitted, in part or whole, to any university or institution for any degree, diploma, or other qualification.

In accordance with the Oxford Brookes University guidelines for PhD by Published Works, the main text of this thesis is guided by the expectation of a 7,500 to 15,000-word count. The final work count is 15,386 inclusive of abstract and 15,010 exclusive of abstract.

Signed: 

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Abstract

This thesis argues the need for a model of ‘purposeful’ leadership focused on enhancing nurses’ effective policy engagement in global health systems. The central themes within the submitted work include activities focussed on influencing policy in health and nursing workforce flexibility, health workforce innovation and capacity development. The subsequent development of a purposeful model of leadership is informed by my experience in nursing in clinical and health service leadership across the course of my career along with the scholarly activity and publications analysed in this thesis. Submitted work includes six original research publications involving rigorous methods of inquiry (both mixed and qualitative methods) with results and aligned themes disseminated via peer reviewed journals and ISBN-numbered reports. The thesis includes eighteen additional pieces of work as exemplars to aid research dissemination and policy influence, and, in building a strong nursing workforce to help prevent and mitigate rising levels of chronic disease. Combined, these works demonstrate politically engaged nursing leadership using established networks, crossing geographical boundaries, straddling multiple sectors and working within varying cultural contexts—the aim being to influence health workforce policy and practice, and build capacity in human resources for health (HRH). Each paper was published with the intent to influence major issues of public opinion, health policy and HRH development; urgent topics given contemporary global health workforce issues at the time of publication.

Textual narrative analysis and critical interpretive synthesis are used to highlight the central themes across the submitted works illustrating the utility and relevance of these works in influencing policy pertaining to health and nursing workforce use and development. Critical analysis of the identified literature and submitted work focus on three key questions:

1. What mechanisms can nurses use to demonstrate leadership and harness the power to effectively influence health service and nursing workforce policy?
2. What personal attributes of empowered practice can nurses implement to influence policy across various global contexts?
3. How can nurses lead and positively influence policy despite seeming disempowerment in such contexts?

The eighteen pieces of aligned work include communiqués in health periodicals, policy briefs, news/social media, and photographic competitions. These highlight the use of popular online and social media platforms (e.g. professional blogs, twitter, Facebook and LinkedIn) for persistent and purposeful communication of key policy messages and themes – the key themes within this thesis

being the leadership strategies and mechanisms used to influence policy in health and nursing workforce flexibility, health workforce innovation and capacity development

This thesis provides a unique contribution by proposing a new model of politically engaged, purposeful nursing leadership with power to influence health service delivery and facilitate effective development of nursing and health service personnel. The purposeful leadership model identifies attributes for effective policy influence at every level of nursing and health service leadership.

1. Introduction

1.1 Background

Empowered, well-educated nurses are needed to address global health challenges and improve quality of life across communities and nations (Salvage and Stilwell, 2018). Nurses must respond to this challenge and recognise their professional responsibilities as leaders, advocates and agents of change (Bryant, 2012a, Wolf, 2012). Empowered nurse leaders can make significant contributions across professional, community, clinical and policy settings, especially if they raise their voices in different contexts including published literature (Edmonson et al., 2017, Scott, 2017). However, mechanisms by which nurses can impact health systems and positively influence health policy and practice have not been fully explored or clearly articulated.

Nursing is the largest healthcare profession; around 23 million nurses worldwide work across all levels of healthcare (Crisp et al., 2018, World Health Organization, 2020 -a). Nurses are closest to the point of care. They work at bedside and in homes and communities, and witness the impact of social, environmental, economic, and political factors on population health. Nurses are integral to effective health systems, and can potentially influence health- and socioeconomic-related policy and practice, including on a global scale (Daly et al., 2015a, Crisp et al., 2018). Addressing global health challenges requires defining the health workforce, for example: who is available to help in the context of shortages; what skill sets and competencies are needed to address current patterns and levels of disease burden; how can workforce capacity be enhanced; and how can workforce competency be developed and maintained (Frenk et al., 2010, Aiello and Mellor, 2019, World Health Organization, 2020 -a). As the largest cadre in the healthcare workforce, nurses have the greatest potential to influence change (Wolf, 2012, Avolio, 2014, Laurant et al., 2018, Crisp et al., 2018, World Health Organization, 2020 -a).

Historically, nurses have had minimal influence on healthcare policy or reform (Avolio, 2014, Olshansky, 2009). Reasons cited for this lack of involvement include lack of skills and awareness, limited time and resources, insufficient opportunity, inadequate nursing education on healthcare policy and advocacy and perceived disempowerment (Brockaw, 2016, Arabi et al., 2014, Bryant, 2012b, Jackson and Daly, 2011). There are also powerful structures that act to silence and control women (Wolak, 2020), including within the nursing profession where nurses are often disregarded and excluded (Carrier, 2019, Rasheed et al., 2020). Every nurse has the opportunity and responsibility to positively influence policy and practice at individual, organisational or systems levels (Tomajan, 2012a, Bryant, 2012b). However, they are often not supported or face significant

barriers in doing so (McKeown, 2018, Mckeown, 2019, Carryer, 2019, Rasheed et al., 2020). Scaling up nurses' political leadership capability can positively influence health and social service provision, including addressing challenges associated with ageing populations and rising levels of non-communicable diseases (Kurth et al., 2016, All-Party Parliamentary Group APPG on Global Health, 2016, Salvage and Stilwell, 2018, Edmonson et al., 2017, World Health Organization, 2020 -a). However, insufficient guidance is available or included in nursing curricula/continuing professional education regarding the practicalities and processes by which this may be achieved (Wolak, 2020). Further, commonly cited models of leadership do not appear to have a clear focus on policy influence.

Thousands of definitions and many different leadership models can be drawn upon to examine the concept of leadership. Among the models published, a core focus is the relationship between followers and leaders (Frey, 2018, Vogel and Masal, 2015). Models include leader to follower (top down), follower to leader (bottom up), and/or collaborative or partnership-based leader/follower relationships (Frey, 2018). In earlier years, leadership tended to be more autocratic and transactional with top down direction providing guidance to followers. As leadership models have evolved, a shift in emphasis more often expects bottom up involvement of followers. New models of collaborative leadership can be identified where leaders not only work in partnership with followers but where the views and involvement of consumers and stakeholders are also paramount (Vogel and Masal, 2015).

The field of leadership theory is noted as complex and continually evolving (Clark and Harrison, 2018). A review of 10 top journals across 14 years of published works (2000 to 2014) identified six approaches as the most commonly appearing leadership theories/ approaches, specifically, charismatic leadership, strategic leadership, transformational leadership, participative/shared leadership, trait leadership, and, leadership in diversity (Meuser et al., 2016). Charismatic leadership theory is a trait-based leadership theories in which leaders inspire vision and common direction by virtue of charm, persuasion and communication skills (de Moura et al., 2019). Strategic leadership theory focuses on the strategies prioritized by top management executives and teams and the impact of their decisions on organizations (Sierra and Banzato, 2016). Transformational leadership involves a leader working with individuals and teams to develop and inspire members to perform above and beyond. Transformational leaders grow followers into leaders and enhance loyalty, commitment and job performance as an outcome of this leadership style (Lai et al., 2020). In this model leadership and followers motivate each other to perform at the best level possible (Xu, 2017). Participative/share leadership is also known as democratic leadership and/or collectivist leadership is an approach which takes the views of others into account in all organizational decisions (Saleeby

et al., 2014, De Brún et al., 2019). Trait theories of leadership focus on various personality traits of the leader such as communication ability, persuasiveness, confidence, and organizational skills (O'Boyle, 2015). The era of globalization has resulted in increased demographic and cultural diversity in communities and organizations. Combined with shifts in societal attitudes regarding the role of women, respecting the rainbow community, and, tolerating age diversity and disability, today's leaders need to increasingly display competence in leading in diversity (Meuser et al., 2016, De Brún et al., 2019). Many other authors' models are reported including autocratic leadership, laissez faire leadership and more (Samanta and Lamprakis, 2018, Gnambs, 2019, Joseph Ezale and Samuel, 2019).

All the aforementioned models and approaches are utilized within the health sector; however, literature suggests that transformational leadership approaches are commonly preferred in nursing contexts with the focus being on team building and quality care. A plethora of literature exists linking varying leadership models and styles to quality of care and patient outcomes in health settings (Sfantou et al., 2017, Kiwanuka et al., 2021, Castle and Decker, 2011). While an abundance of literature exists pertaining to leadership models and the impact of leadership style on team building, productivity and/or quality of care, the literature is largely silent in respect to a model of leadership best suited to enhance the capacity of nurses to effectively influence health and social related policy.

This thesis aims to fill this knowledge gap by presenting a body of published work as exemplars of empowered practice and policy influence in action, and, from which can be drawn mechanisms to inform a new model of nursing leadership – a leadership model focussed on positioning nurses as influential leaders versus a followers or simply collaborating partners. The exemplars central to this thesis demonstrate scholarly work undertaken with deliberate intent to influence developments in health service and nursing workforce policy.

1.2 Aim and Research Questions

This thesis includes critical analysis of work I have completed in different global settings. The works utilize mechanisms to enhance nurses' influence and power and positively impact the nursing workforce and nurses' role in health service development. In building on this work, this thesis aim to:

1. Identify mechanisms nurses can use to demonstrate leadership and effectively influence health service and nursing workforce policy
2. Present a model of political influence that nurses can apply to effect positive change in a range of settings

Fulfilling these aims will answer the following questions.

1. What mechanisms can nurses use to demonstrate leadership and harness the power to effectively influence health service and nursing workforce policy?
2. What personal attributes of empowered practice can nurses implement to influence policy across various global contexts?
3. How can nurses lead and positively influence policy despite seemingly disempowered contexts?

Importantly, this thesis proposes a new model of politically empowered nursing leadership.

1.3 Policy, Politics, Mechanisms, Power, Empowerment, and Influence

My experience in nursing and health service leadership over the past 35 years informed the aims of this thesis. This is supported by key scholarly works that demonstrate policy influence in action, which informed the proposed model of political influence for nurses and health service leaders across various global contexts. In starting this discussion, it is important to define key terms, specifically: 'policy', 'politics', 'influence', 'mechanisms', 'power' and 'disempowerment'. These terms have varying meanings; therefore, concepts were drawn from relevant literature to guide readers' understanding.

The term 'policy' refers to plans, ideas and guidelines that have been formally agreed (e.g. by nations, organisations, professions, service providers) (Boswell and Smith, 2017). Policy development is a complex non-linear process whereby evidence influences policy, and policy influences research, personal opinion and political viewpoints (Boswell and Smith, 2017, Mayne et al., 2018). Likewise, 'leadership' is a complex, multivariate construct. Similarly, multiple definitions abound for 'politics' (Alexander, 2014). In the 19th century, politics referred to the state and mechanisms by which governments led and shaped nations (Alexander, 2014). Politics is now considered a broader concept by which governments, businesses, groups and individuals gain power over people and resources (Alexander, 2014, Boswell and Smith, 2017, Mayne et al., 2018). 'Influence' involves the ability to enact change, achieve results, change beliefs and change behaviour (Scharlatt and Smith, 2015). Used effectively, influence can bring about positive social change. Effective leaders use multiple 'mechanisms' (i.e. approaches, strategies, methods or techniques) to influence others and effect change (Irwin, 2018). Collaborative, people-orientated mechanisms yield better results in health and social change (Daniel and Tarun, 2018).

Notions of ‘power’ and ‘disempowerment’ are frequently entwined; however, there are no universally agreed definitions (Tomajan, 2012a). Power is described as the ability to choose or act, whereas disempowerment involves lack of control over factors such as life, work or environment (Oudshoorn, 2005). The concept of empowerment appears regularly in nursing literature. It offers a solution to disempowered states and is the mechanism by which nurses can gain the power to act (Rao, 2012). Issues of power, empowerment and disempowerment may be either enablers or barriers to nurses’ engagement in the policy process (Shariff, 2014, Salvage and Stilwell, 2018, Salvage and White, 2019). Policy, politics, influence, power, disempowerment, empowerment and the use of mechanisms all occur within political contexts. The term ‘political’ is particularly complex; it pervades all aspects of human affairs and is one that social and political scientists struggle to define (Miller, 1980). Further, being political is considered a fraught endeavour with multiple personal and professional risks (Gooblar, 2017, Schuhmann, 2014). In our daily lives, politics, power and disempowerment are used to refer to different things, including organisations, conflicts, resource allocation, team exchanges, professional groupings and working relationships (Alexander, 2014). The notion of ‘being political’ involves multiple phenomena constantly encountered in daily life, such as seeking to influence others, engaging in active debate, voting, promoting and disseminating viewpoints and influencing resource allocation. Being political also refers to the way power is secured and used. The all-encompassing nature of this concept underpins the research questions and explains why it is challenging to define and develop a model of politically engaged leadership.

1.4 My Personal Journey and Genesis of the Research Questions

Development of the present research questions follows more than 30 years of executive leadership experience across the health, higher education, social service, and business development sectors. I have worked in various national and international contexts, including Australia, New Zealand, Fiji, Vietnam, the United Arab Emirates (UAE), East Africa, Egypt, and Pakistan. During this time, I have gained first-hand leadership experience in nursing and health services from positions both internal and external to the profession and health sector.

The foundation for these opportunities began 46 years ago when I entered a New Zealand hospital-based nursing programme as a school leaver. This started with a 3-month preliminary programme (‘prelims’), after which participants were enrolled in either registered or enrolled nurse programmes depending on their results. I passed the prelims and progressed to my first surgical ward rotation. A week into my rotation I received a mid-shift summons to the principal nurse’s office. Filled with fear, I imagined infringements that may have brought me to her notice.

Upon reaching her office, I was directed to take a seat. 'Nurse' she said, 'it has come to my attention that your performance is well above average. Starting next week, you will be rostered 1 day a week to teach what you have learned to nurses in our enrolled nurse programme.' My journey in teaching and leading others began. I was just 17 years of age, but this scenario established the platform for my interest and subsequent passion in policy influence and change.

I quickly realised that I did not know much about nursing theory, processes, or education, and enrolled in degree-level studies at the local university in the second year of my training. Each semester, I completed one full-time subject on top of my full-time nursing programme. My summons to the principal nurse's office continued and I gained my first experience of a supportive mentoring relationship – a relationship which fuelled my growing confidence in an ability to lead and influence. Committed to learn more, I successfully completed my first 6 months of nursing practice and entered midwifery training. By age 21, I was a registered nurse and midwife, married and expecting my first daughter, as well as completing part-time degree studies. However, after enrolling in my first nursing-specific course, I encountered opposition within the nursing profession. I was an outlier; a young graduate who had simultaneously completed eight courses of a 24-course degree. I had completed all foundation courses for a Bachelor of Arts (Nursing), including courses in sociology, psychology, human development, and education. In these nursing-specific courses, I was 15–20 years younger than other classmates and significantly younger than course tutors. I was naïve and did not expect the full force of the phenomenon whereby nurses reportedly 'eat their young'. Inexperienced in dealing with continuous put-downs, I returned to my mentor for guidance and support. She guided me to the university student support services, which resulted in transferring my studies to a Bachelor of Education versus a Bachelor of Nursing.

During 8 years of nursing and midwifery practice, I worked in both educational and clinical contexts and completed my degree while also enjoying my growing daughters. The advice to complete a Bachelor of Education paid dividends, and at age 31 years, I was appointed to a senior leadership role in the polytechnic sector, which was transitioning to offer degree programmes following the cessation of hospital-based training. It was here that I had opportunity to lead substantive change. Over the ensuing 5 years, I led teams of nurse educators in my role as Associate Head of the Department of Nursing and Health Studies. I continued part-time study, completed a Master's in Educational Administration (first class honours), and received the annual businesswoman of the year award for the course expansion and enrolment growth I had led in nursing and health service education. However, I still faced barriers in the nursing community. Completion of my master's degree paralleled establishment of the New Zealand College of Nursing (Aotearoa) New Zealand. I believed that I met the College admission criteria for 'fellow'

status and applied enthusiastically. I was advised that I could not be admitted as a member/Fellow of the College because I had not demonstrated sufficient commitment to the nursing profession. This was because I had obtained bachelor's and master's degrees in education, rather than strengthening my nursing knowledge via degrees in nursing. A phone call to the College advised that even though I met the experience criteria and held a master's degree, they had determined I was 'not a proper nurse'. However, I had the right of appeal. I was determined, and so persisted – an attribute I now understand as fundamental to the successful leadership and policy influence. Following appeal and prolonged delay, I was eventually admitted as an inaugural Fellow of the College.

Reflecting on my experiences in nursing, I concluded that despite my success in my initial nursing leadership roles, I was constrained by the seemingly learned helplessness of some nursing colleagues about the dominance of doctors and lack of opportunity to lead. My reading of available literature confirmed this was a widespread rather than a local problem. Therefore, I actively and 'purposefully' sought leadership roles that would help me develop competencies to influence positive health and socioeconomic changes. I sought leadership roles with significant capacity building, workforce development, regional development, business growth and change management mandates. My work in local development, education and health sector settings helped to assist in building strong and sustainable social and economic conditions that enable organisations and communities to thrive and grow. Over the years, I continued my quest for learning, completing further master's-level degrees in health service leadership and applied nursing management, and a professional doctorate focused on local development and partnership-based public policy. My efforts were driven by a desire to learn as much as I could about the contexts in which I worked, while developing my capacity to effectively influence public policy. The scholarly works presented in this thesis provide examples of work I undertook to influence policy and decision-makers across globally different contexts and levels of influence.

Working in a range of settings developed my skills in adapting and achieving in different academic, professional, political, and cultural contexts. Despite earlier assertions regarding the accepted profile of a 'proper nurse', I am a nurse and at heart, once a nurse, always a nurse. For more than 40 years I have actively maintained clinical competence and registration as a nurse and midwife, while informing my leadership practice through ongoing professional education, research, scholarly endeavours, and publications. Over the last decade, I returned to nursing and worked in academic and nursing leadership roles with significant opportunity to engage in scholarly activity and power to influence.

My leadership roles enabled me to use global networks, cross geographical boundaries, straddle multiple sectors and work in varying cultural contexts. I witnessed the powerful influence and impact of many amazing nurse leaders, both in the boardroom and at the frontline. However, several questions have remained: Why is the voice of nurses often silent? Why are nurses often excluded from key policy forums? Why are they not able to work to their full potential and why is their energy sometimes internally focused nurse against nurse? Against this background, I embarked on this second doctoral-level endeavour near the endpoint of my professional career. I hope that the scholarly works and synthesising commentary I have presented shed light on the mechanisms by which nurses can become more visible, politically engaged and effectively influential.

2. Critical Analysis

2.1 Critical Analysis Models

This thesis involves critical analysis and discussion of a suite of my scholarly work for which I am primary author. Of the work tabled to the research committee, I have then selected six original works as central to this thesis (Research Degrees Committee, 2019). Dixon-Woods (2006) critiqued methodological options for critical analysis and indicated that meta-analysis is commonly used to analyse results from original research. However, the six primary works are methodologically, geographically, and culturally diverse, and conventional systematic review techniques have limitations in this context. A review of analysis methods showed that textual narrative analysis and critical interpretive synthesis were suitable methods for this thesis. These two models were used to critically appraise the published works in relation to the role and power of nurses in health service leadership and policy development. The following sections describe these models and how they fit together and were applied in this thesis.

2.1.1 Textual narrative analysis

Textual narrative analysis allows the text/narrative in different publications to be sorted into homogenous groupings. This is useful when different types of evidence (including qualitative) require critical appraisal (Green, 2008, Barnett-Page and Thomas, 2009b, Reid, 2009, Trotsuk, 2015, Symon et al., 2018). It is particularly useful when works appear disparate in approach or focus. Textual narrative analysis was instrumental in identifying commonalities and key themes across the included works and sorting these into two homogenous groups: 1) health and nursing workforce capacity development; and 2) nursing roles in managing escalating health demand (e.g. non-communicable and chronic diseases). The six core publications are detailed in Appendices B and C.

2.1.2 Critical interpretive synthesis

Critical interpretive synthesis involves critical analysis of the 'content' and 'relevance' of the findings of various works, rather than focusing on methodology (Barnett-Page and Thomas, 2009b). This supports analysis of mixed method studies that include a qualitative component (Dixon-Woods et al., 2006a, Dixon-Woods et al., 2006b). A unique feature of this method is the focus on 'relevance', rather than on quantitative methods as the measure of research quality and impact. It uses lines-of-argument synthesis to build understanding of the findings of different studies (Dixon-Woods et al., 2006b). The focus on content and relevance mean critical interpretive synthesis is suited to generating theory (Barnett-Page and Thomas, 2009b). Critical interpretive synthesis focuses on the usefulness/benefit of the work, which is central to political influence. This clarifies if the work aligns

with contemporary real-world issues and is relevant in helping to address these issues. Therefore, critical interpretive synthesis was appropriate as this thesis aimed to propose a model for nursing leadership and positive political influence.

2.2 Application of Identified Models

These analytical techniques allowed a broad conceptualisation of the published works. The analysis focused on how the health and nursing workforce may be more flexibly used and options for building the capacity, role and positioning of nurses. The analysis considered culture and context, and the relevance of these factors to the key themes. This allowed consideration of the relevance of the diverse themes, constructs and evidence across the primary works, and translation into a coherent whole. Textual narrative analysis and critical interpretative analysis were undertaken simultaneously. First, I reviewed the content of the six publications for common themes relevant to real-world problems in nursing and health workforce capacity and as exemplars of policy influence. Identified themes included:

1. Nursing in health service leadership and policy influence
2. Nursing in health workforce capacity building
3. The use of competency-based frameworks and education as a mechanism for nursing and health workforce capacity development.

All the identified themes focus on enhanced utilization and capacity development of nurses in health service leadership and policy influence.

The six scholarly works are presented in Chapter 4 and discussed in Chapter 5.

3. Scoping the Literature

3.1 Search Strategy

A scoping review was undertaken to identify previous publications related to the topic under study. Scoping reviews offer a broad or general overview of a topic regardless of study quality, meaning original research, expert opinion and non-peer reviewed information can be considered (Tricco et al., 2016). Regulations governing PhD theses by published works state that critical appraisal of the published works shall review the 'general literature' in the field and place the candidate's submitted work in the context of this literature (Research Degrees Committee, 2019). This requirement guided the choice of a scoping review versus a full systematic review.

3.1.1 Scoping review advantages and disadvantages

A scoping review presents a broad map of available literature in a field of inquiry (Arksey and O'Malley, 2005), and offers an overview of a diverse literature relating to a broad topic (Grant and Booth, 2009, Tricco et al., 2016). This approach is useful in emerging subject areas or when little previous literature is available. A scoping review clarifies major concepts and pinpoint gaps, as it can include a range of methodologies and study designs to offer a comprehensive overview of a topic (Levac et al., 2016, Tricco et al., 2016). A disadvantage is that scoping reviews do not include detailed quality analysis of identified items. In contrast, systematic reviews collate evidence gathered from research endeavours around a focused research question, and have the advantage of analysing research quality (Pham et al., 2014, Levac et al., 2016). Scoping reviews are useful in identifying gaps in knowledge, scoping a body of literature, clarifying concepts and supporting synthesis of evidence over a broad field (Munn et al., 2018, Grant and Booth, 2009); therefore, a scoping review was appropriate for this thesis.

3.1.3 Search inclusions

The search sought to uncover literature directly relevant to the research questions and included published work at all levels of evidence and research design over a 10-year timeframe (early 2010 to February 2020). Given the paucity of research identified in the initial search, a 5-year timeframe was deemed too short, whereas a 10-year period located additional work without raising issues of currency. While the profession of nursing spans more than two centuries with a well-known historic narrative calling nurses to be more politically active – a more contemporaneous view was sought for the purposes of this thesis. Nursing continuously evolves in response to factors such as law changes, revised scopes of practice, health service innovations, new treatment discoveries and greater consumer involvement. Therefore, the search sought to identify contemporary works that

would best fit where nursing is today and be reflective of current contexts and scopes of practice – hence the 10-year timeframe. All studies in English were included.

3.1.4 Databases and keywords

PubMed, Scopus, CINAHL, Cochrane CENTRAL, DH-Data and PsycINFO were searched for relevant studies. Key search terms included nursing; workforce; policy; politics; political; influence; impact; and mechanism. Specific terms used in the literature search (with synonyms and closely related words) were:

- (“Nursing” OR “Health Service Leadership”) AND (“Political Influence”)
- (“Nursing” OR “Health Service Leadership”) AND (“Policy Influence”)
- (“Nursing” OR “Health Service Leadership”) AND (“Policy Mechanisms”)
- (“Nursing Workforce” OR “Health Service Leadership”) AND (“Policy Influence”)
- (“Nursing” OR “Health Service Leadership”) AND (“Political Impact”)
- (“Nursing” OR “Health Service Leadership”) AND (“Policy Impact”)
- (“Nursing Workforce” OR “Health Service Leadership”) AND (“Political Impact”)
- (“Nursing Workforce” OR “Health Service Leadership”) AND (“Policy Impact”)

3.1.5 Exclusion criteria

The searches were not limited by study design but were limited to publications in the English language. Works published before 2008 were also excluded.

3.1.6 Search methods

This scoping review drew on the framework proposed by Arksey and O’Malley (2005) and refined by other researchers (Colquhoun et al., 2014, Tricco et al., 2016, Tricco et al., 2018, Aveyard, 2018, Aveyard and Bradbury-Jones, 2019). The review followed five steps: 1) detailing the research question/s; 2) identifying studies; 3) selecting studies; 4) charting the data; and 5) collating, summarising and reporting results. The search highlighted a lack of relevant empirical studies using these search methods. Therefore, additional search methods were used including examining the reference lists of identified articles and hand-searching specialist nursing leadership and health service leadership journals. This additional search was restricted to the 10-year timeframe

In charting the identified data (step 4), the preferred reporting method for literature reviews and meta-analyses (PRISMA) (Moher et al., 2009) was used to present findings in a flow chart (Figure 1).

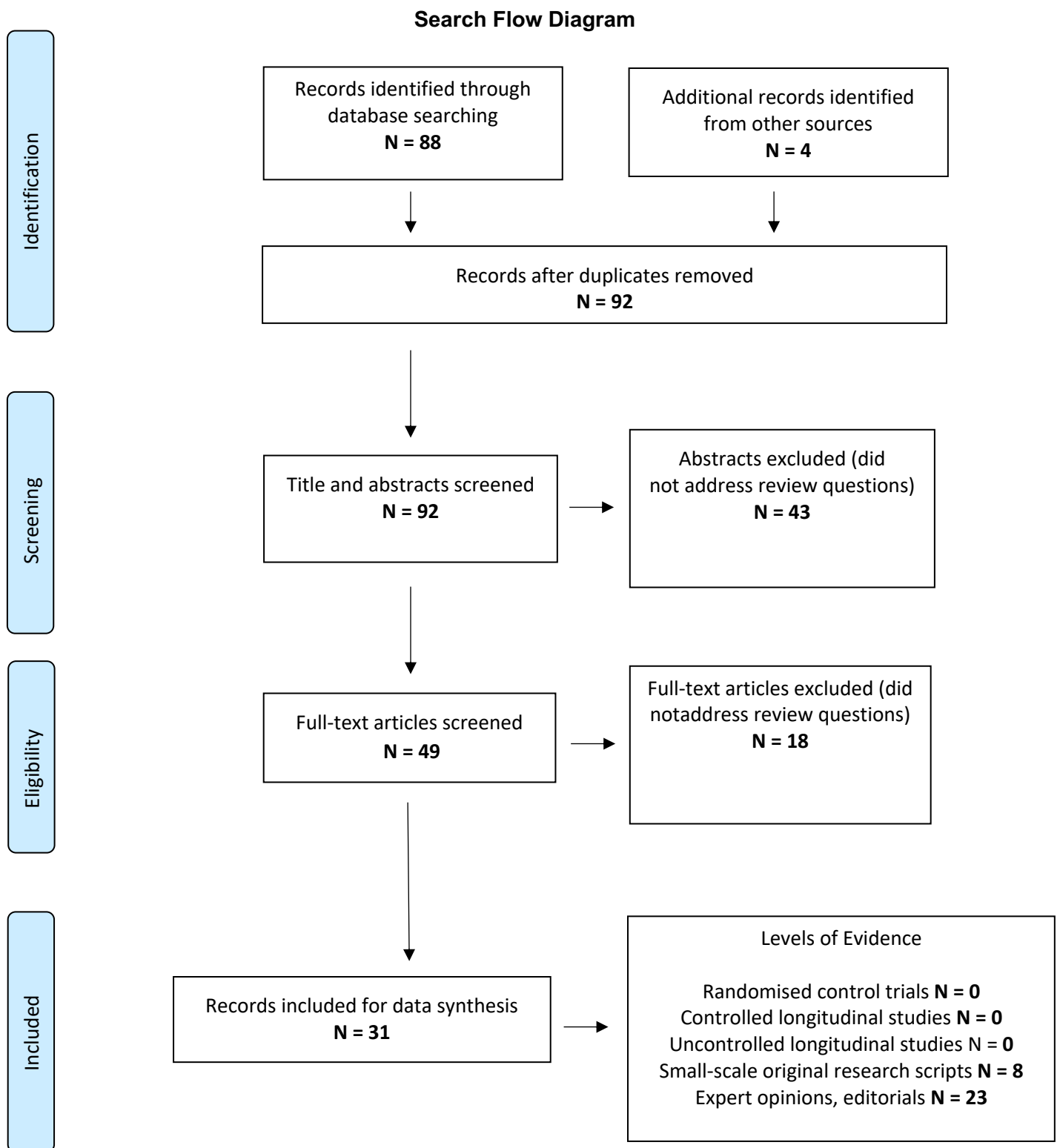


Figure 1: Search Flow Diagram (Moher et al., 2009)

3.2 Identified Literature

The search highlighted limited literature relevant to the research questions and involvement of nurses in the policy process. Eight original research studies were located, of which three were reports from a single study. Twenty-three expert opinions were also found (editorials and discussion papers). This revealed a paucity of original research and a low level of evidence in the field of inquiry (Table 1). No original research was identified that proposed a comprehensive model or framework of political influence for positive change in nursing and health service settings. No works were identified regarding the use of publications or social media as tools by which nurses could strengthen their policy influence. No works presented a comprehensive set of attributes and detailed mechanisms for nurses to effectively influence nursing and health workforce policy. Further, there was limited mention of culture in works pertaining to policy influence, suggesting that leadership is ‘one-size-fits-all’ irrespective of culture and context.

3.2.1 Original research

The search returned eight original research publications, three of which were drawn from a single study. This was a Kenyan-based doctoral study using a three-stage Delphi approach to investigate nurse leaders’ involvement in the policy process (Shariff and Potgieter, 2012, Shariff, 2014, Shariff, 2015). The single study origins are highlighted because multiple publications from a single study should not confuse impressions of the extent of literature located and this approach may not be viewed positively in the academic literature (Gray and Baker, 2016, Collyer, 2019). Therefore, the search is noted as identifying six original studies rather than eight – these are summarized in Table 1. One of the six original research studies involved a literature review and concept analysis, which was limited in that it did not include the search terms used in the review process (Arabi et al., 2014). Of the remaining five studies, three were US-based, one was from Iran and one was from South Africa. No globally comparative studies were located. Only two studies included quantitative components, which precluded critical review through a meta-analysis of large datasets.

Section 2.1 explained the choice of textual narrative analysis and critical interpretative analysis (Barnett-Page and Thomas, 2009b, Reid, 2009, Trotsuk, 2015, Symon et al., 2018) as the optimal methods to analyse the identified studies. Given the qualitative nature of most of the works, these were then reviewed to identify common themes and relevance to the research questions. Consistent themes included the assertion that nurses should be involved in policy development and have the capacity to make significant contributions (Byrd et al., 2012, Arabi et al., 2014, Ditlopo et al., 2014, Shariff, 2014, Waddell et al., 2018). Cited reasons for non-participation included empowerment, disempowerment and the need for improved education and professional development to support

nursing leaders engaging in policy arenas (Byrd et al., 2012, Ditlopo et al., 2014, Arabi et al., 2014, Shariff, 2015, O'Rourke et al., 2017, Waddell et al., 2018). Tables 2 and 3 detail the outcomes of the thematic content analysis and mechanisms and personal attributes reported across all of the 31 included studies.

3.2.2 Expert opinions

The search process located 23 expert opinions and discursive commentaries, which highlighted several common views related to this thesis, including the importance of nurses taking active roles in policy development and direction. A very systematic approach to the thematic analysis within these publications showed that several opinion pieces emphasised nurses' responsibility to be involved in policy formation, and suggested that silence is 'damaging' to the profession (Boswell et al., 2005, Halter, 2011, Turale, 2013, Bryant, 2012a, Benton, 2013, Schaeffer and Haebler, 2019). An editorial promoting the potential of the nursing workforce called for nurses to 'break the silence' and become more active in influencing a range of people (Salvage and Stilwell, 2018). Shamian (2014) comprehensively illustrated the groups that should be influenced. The scale and complexity of this task was portrayed as significant and the breadth of 'who' needs to be influenced in the policy process extended across ward and board levels (Shamian, 2014). The reviewed expert opinions describe several mechanisms by which nurses could effectively influence policy and the personal attributes needed to achieve this (Tables 2 and 3).

Table 1: Original Research Papers Relating to Nurses and Policy Influence

Authors, Year, Country	Published Aim	Methodology	Sample	Results	Limitations
Shariff and Potgieter (2012) Kenya *	Identify the extent of nursing leaders' participation in health policy processes	Delphi survey (expert panelists, three iterative rounds, qualitative and quantitative analysis, consensus building processes): 78 participants (initial 47% response); 64.8% second round participation; 100% third round participation	National nurse leaders from Kenya, Tanzania and Uganda (professional associations, regulatory bodies, Ministry of Health, universities) <i>Delphi survey round one</i>	• Nurse leaders participated in health policy development to some extent • Participation limited and inconsistent across the stages of health policy development	• Findings based on a Delphi study using a purposive sample of experts: participants may/may not represent the broader views of nurse leaders • Does not report the full study
Shariff (2014) Kenya *	Identify barriers and facilitators to nurses' involvement in policy processes	As above	As above <i>Delphi survey round two</i>	• Barriers: insufficient time and skills, and structural exclusion • Facilitators: holding policy roles, having the skills to participate, working within empowering structures and processes	• Findings based on the results of a Delphi study using a purposive sample of experts: participants may/may not represent the broader views of nurse leaders • Does not report the full study
Shariff (2015) Kenya *	Develop an empowerment model for nurse leaders' participation in health policy development	As above	As above <i>Delphi survey round three</i>	• Consensus achieved on essential leadership attributes that enhance nurse leaders' participation in health policy development	• Model conceptualised by the author and notes the need to test/validate more widely • Delphi study with purposive sampling: participants may/may not represent the broader views of nurse leaders (third publication from a single study)
Waddell et al. (2015) USA	Describe and quantify experiences of nurse leaders in policy influence, and build	The conceptual model for nursing and health policy and the Adams influence model (2009) were combined in a framework to guide a two-round modified Delphi study	Round 1 focus group: 22 nurse leaders of a state action coalition (15 completed the Round 2 electronic survey)	• Round 1 showed the value of having a passion for policy, the importance of clear communication and understanding who to	• Findings based on a Delphi study using a purposive sample of nurse leaders: participants may/may not represent the broader views of nurse leaders

Authors, Year, Country	Published Aim	Methodology	Sample	Results	Limitations
	consensus for priority skills/knowledge in policy efforts			influence and when to exert influence in policy processes • Round 2 reinforced these findings	
Ditlipo et al. (2014) South Africa	Analyse the dynamics, strengths and weaknesses of nurses' participation in four national health workforce policies	Qualitative interviews using a policy analysis framework	In-depth interviews with 28 key informants and 73 frontline nurses in four South African provinces	• Nurses' participation in policymaking was complex • Limited consensus regarding presenting nursing issues in the policy arena • Power relationships influenced participation • Proactive leadership, health policy capacity and skills development plus strong support from the national nursing association helped	• Limited to four provinces and four policies only
Arabi et al. (2014) Iran	Clarify the concept of nurses' policy influence and propose the definition of this concept, considering the Iranian context	Literature review and concept analysis using Walker and Avant's (Walker and Avant, 2019) eight stages approach to guide concept analysis	Reviewed English language literature published between 1990 and 2012	• Nurses could influence health policy, but this needed knowledge of healthcare systems and a framework of empowered practice	• Did not include a systematic review • Did not describe databases searched • Significant weaknesses in the search methodology

Authors, Year, Country	Published Aim	Methodology	Sample	Results	Limitations
O'Rourke et al. (2018) USA	Describe US nurse practitioners' political efficacy and political participation of and explore factors associated with political interest and engagement	Paper-based survey: Trust in Government (external political efficacy) and the Political Efficacy (internal political efficacy) scales	632 respondents from the American Academy of Nurse Practitioners' database	• Nurse practitioners had low political efficacy • Older age, health policy mentoring and specific education on health policy were positively associated with internal political efficacy and political participation • Political activities were largely limited to voting and contacting legislators	• Cross-sectional design provided information specific to this population at one point in time • Survey relied on self-reporting: under- or over-reported political participation due to inaccurate recall or perceived social desirability could limit the internal validity of the findings
Byrd et al. (2012) USA	Describe changes in political astuteness after baccalaureate nursing student participation in a public policy learning series	One-group pretest/posttest design	300 undergraduate nursing students enrolled in the public/community health nursing course	• Participation in public policy learning activities increased students' political astuteness scores	• Measured information specific to this population only • Replication would require adjustment of the instrument to culture and context

* These three papers report a single study

3.3 Assessing the Literature in Relation to the Research Questions

3.3.1 Mechanisms for leadership and influence

Leading in the social policy arena is challenged by multiple intersecting technical, social, political and cultural variables and the potential to impact social/behavioural change at individual and group levels. The first research question concerns mechanisms for nurses to lead and harness the power to effectively influence health service and nursing workforce policy. Effective leaders use multiple mechanisms (i.e. approaches, strategies, methods or techniques) to influence others and effect change (Irwin, 2018), with collaborative, people-orientated mechanisms yielding better results (Daniel and Tarun, 2018). Step five in the review process included collating and summarising data (Arksey and O'Malley, 2005). The included manuscripts were assessed to identify mechanisms reported as useful for effective policy leadership. Figure 2 shows mechanisms identified as important for effective policy influence, including planned strategies, a clear vision and purpose, cultural alignment and multidisciplinary engagement. Continuous messaging, collaboration across boundaries, management of potential self-interest and building political capital are equally important. Table 2 maps the manuscripts from which these mechanisms were drawn.

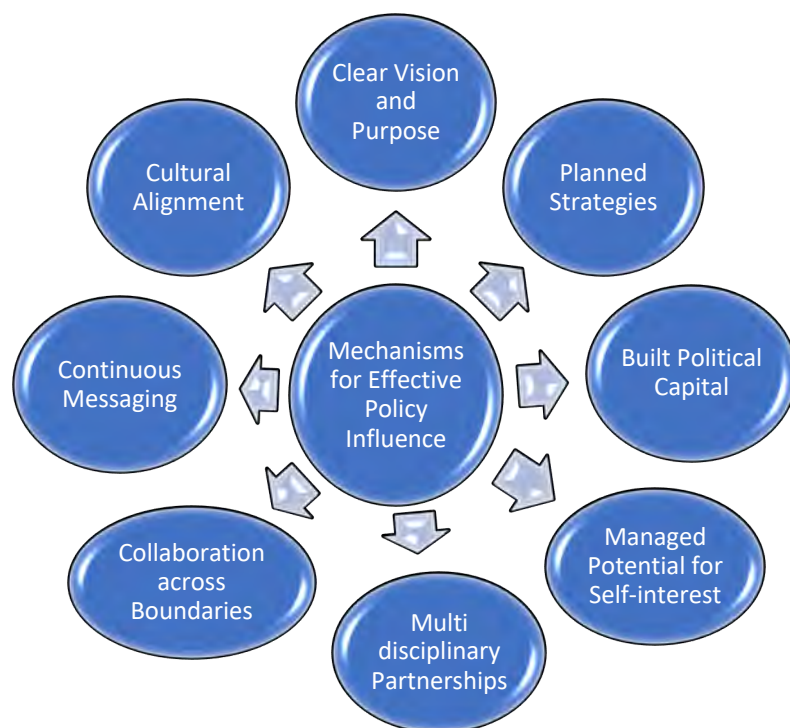


Figure 2: Mechanisms for Effective Policy Influence

Table 2: Mechanisms for Effective Policy Influence

Publications (author and year)	Cultural Alignment	Clear Vision and Purpose	Planned Strategies	Built Political Capital	Continuous Messaging	Collaboration across Boundaries	Manages Potential for Self-interest	Multidisciplinary Engagement
Original Research								
1. SHARIFF and POTGIETER (2012)*		✓ *	✓ *			✓ *		✓ *
2. SHARIFF (2014)*	✓ *		✓ *	✓ *		✓ *	✓ *	
3. SHARIFF (2015)*	✓ *	✓ *		✓ *		✓ *		✓ *
4. ARABI et al. (2014).		✓	✓	✓	✓	✓		✓
5. O'ROURKE et al. (2017)	✓		✓		✓	✓		
6. BYRD et al. (2012)	✓	✓		✓		✓		✓
7. DITLOPO et al. (2014)	✓	✓		✓	✓		✓	
8. WADDELL et al. (2018)		✓	✓	✓	✓	✓	✓	
Expert Opinions and Case Studies								
1. RASO (2018)		✓	✓	✓		✓		✓
2. MUND (2018)				✓				
3. ADAMS and ERICKSEN (2011)		✓	✓	✓	✓			✓
4. SHAMIAN (2014)	✓			✓	✓	✓		✓
5. HALTER (2011)		✓	✓	✓		✓		
6. SALVAGE and STILWELL (2018)	✓	✓		✓	✓			
7. SALVAGE et al. (2019)		✓	✓	✓	✓	✓		✓
8. SALVAGE and WHITE. (2019)	✓		✓	✓		✓	✓	✓
9. GIMBEL et al. (2017)	✓		✓	✓		✓		✓
10. TOMAJAN (2012)		✓	✓		✓	✓		

Publications (author and year)	Cultural Alignment	Clear Vision and Purpose	Planned Strategies	Built Political Capital	Continuous Messaging	Collaboration across Boundaries	Manages Potential for Self-interest	Multidisciplinary Engagement
11. RAFFERTY (2018)		✓	✓		✓			
12. CARRYER (2019)	✓	✓		✓		✓	✓	
13. BENTON (2013)				✓	✓		✓	
14. BENTON (2012)	✓	✓	✓	✓	✓	✓		✓
15. BENTON et al. (2020)	✓	✓	✓	✓	✓	✓		✓
16. DEL CASTILLO et al. (2017)	✓	✓	✓	✓	✓	✓	✓	✓
17. DALY et al.(2015)		✓		✓	✓	✓		
18. DALY, SPEEDY et al. (2015)	✓	✓		✓		✓		✓
19. JACKSON and DALY (2011)			✓	✓		✓		✓
20. HADER (2013)			✓	✓		✓		
21. BILAZARIAN and CACERES (2019)	✓			✓				✓
22. SCHAEFFER and HAEBLER (2019)		✓	✓	✓	✓	✓	✓	
23. VESTAL (2015)		✓		✓	✓	✓		

* Three papers reporting a single study

3.3.2 Personal attributes for policy influence

The second research question concerned identifying personal attributes nurses can implement to influence policy across various global contexts and considering how nurses can lead and positively influence policy despite seeming disempowerment. Figure 3 illustrates personal attributes essential for effective policy influence and empowered practice. These attributes were drawn from relevant literature (refer Tables 1-3) and include the abilities to overcome barriers and resistance, identify common purpose and empower others from an authentic, culturally aligned values base. Effective policy influencers are passionate, confident, and thoroughly prepared. The literature describing these attributes is mapped in Table 3.

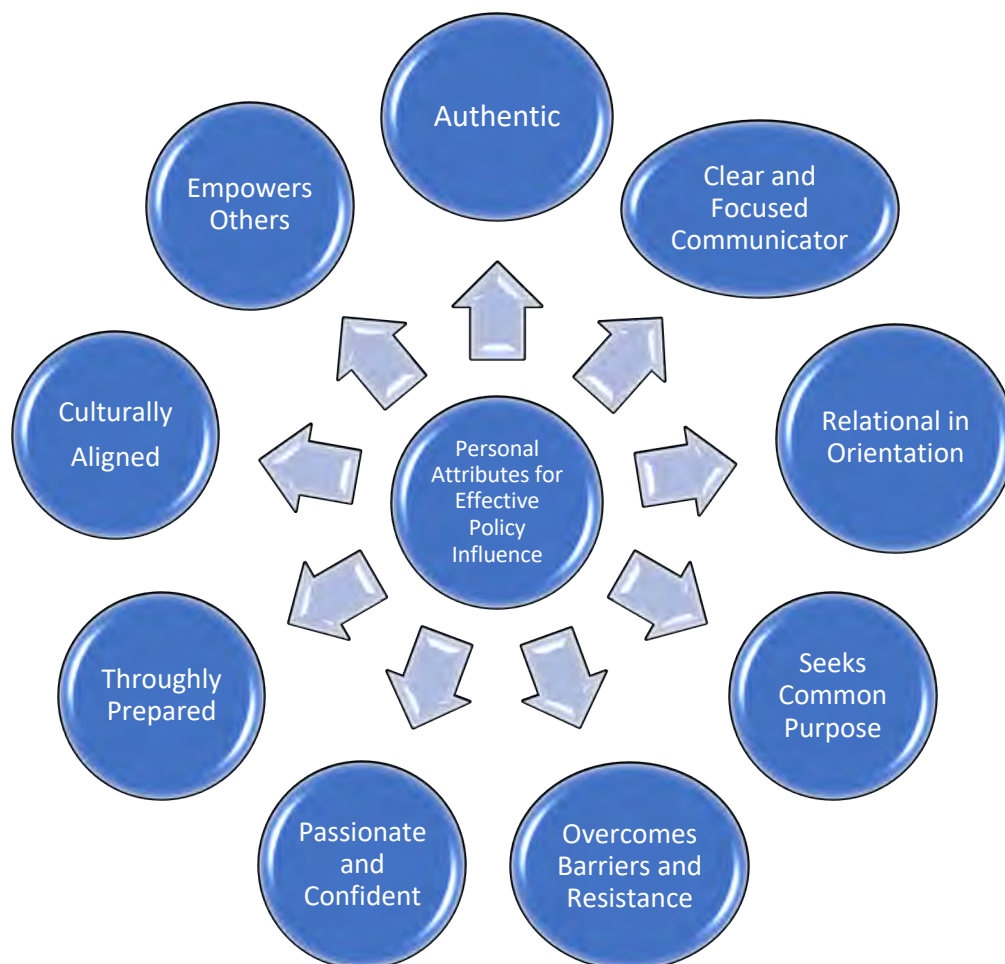


Figure 3: Personal Attributes for Successful Policy Engagement

Table 3: Personal Attributes for Effective Policy Influence

Publications	Culturally Aligned	Empowers Others	Authentic	Clear and Focused Communicator	Overcomes Barriers	Seeks Common Purpose	Relational in Orientation	Passionate and Confident	Thoroughly Prepared
Original Research									
1. SHARIFF and POTGIETER (2012)*		✓ *		✓ *	✓ *	✓ *	✓ *		✓ *
2. SHARIFF (2014)*	✓ *	✓ *			✓ *	✓ *	✓ *	✓ *	✓ *
3. SHARIFF (2015)*	✓ *	✓ *		✓ *	✓ *	✓ *	✓ *		
4. ARABI et al. (2014)	✓			✓		✓	✓		✓
5. O'ROURKE et al. (2017)	✓		✓	✓		✓	✓	✓	✓
6. BYRD et al. (2012)	✓			✓		✓	✓	✓	✓
7. DITLOPO et al. (2014)	✓		✓	✓		✓			✓
8. WADDELL et al. (2018)				✓		✓	✓		✓
Expert Opinions									
1. RASO (2018)				✓	✓		✓	✓	✓
2. MUND (2018)		✓	✓	✓			✓		✓
3. ADAMS and ERICKSEN (2011)				✓		✓	✓		✓
4. SHAMIAN (2014)	✓		✓	✓		✓	✓		
5. HALTER (2011)				✓			✓	✓	✓
6. SALVAGE and STILWELL (2018)			✓	✓	✓			✓	
7. SALVAGE et al. (2019)	✓			✓	✓	✓	✓	✓	✓
8. SALVAGE and WHITE (2019)	✓	✓	✓	✓	✓	✓	✓	✓	
9. GIMBEL et al. (2017)	✓	✓		✓		✓	✓		✓
10. TOMAJAN (2012)				✓		✓	✓	✓	
11. RAFFERTY (2018)				✓				✓	✓
12. CARRYER (2019)	✓		✓		✓		✓	✓	

Publications	Culturally Aligned	Empowers Others	Authentic	Clear and Focused Communicator	Overcomes Barriers	Seeks Common Purpose	Relational in Orientation	Passionate and Confident	Thoroughly Prepared
13. BENTON (2013)				✓					✓
14. BENTON (2012)	✓	✓		✓		✓	✓	✓	✓
15. BENTON et al. (2020)	✓			✓	✓	✓		✓	
16. DEL CASTILLO et al. (2017)	✓		✓	✓	✓	✓	✓	✓	✓
17. DALY et al. (2015)		✓	✓	✓	✓				
18. DALY, SPEEDY et al. (2015)	✓	✓	✓	✓		✓	✓	✓	✓
19. JACKSON and DALY (2011)				✓	✓		✓	✓	✓
20. HADER (2013)	✓						✓		
21. BILAZARIAN and CACERES (2019)				✓				✓	✓
22. SCHAEFFER and HAEBLER (2019)			✓	✓	✓		✓	✓	✓
23. VESTAL (2015)			✓	✓	✓			✓	✓

* Three papers reporting a single study.

The attributes highlighted in Figures 3 and 4 were based on detailed mapping of themes presented in Tables 2 and 3. The ability to effectively overcome barriers and resistance in contexts that may be difficult and disempowered was regularly mentioned. This encompasses attributes that are commonly referred to as ‘grit’, such as courage, resilience, and persistence.

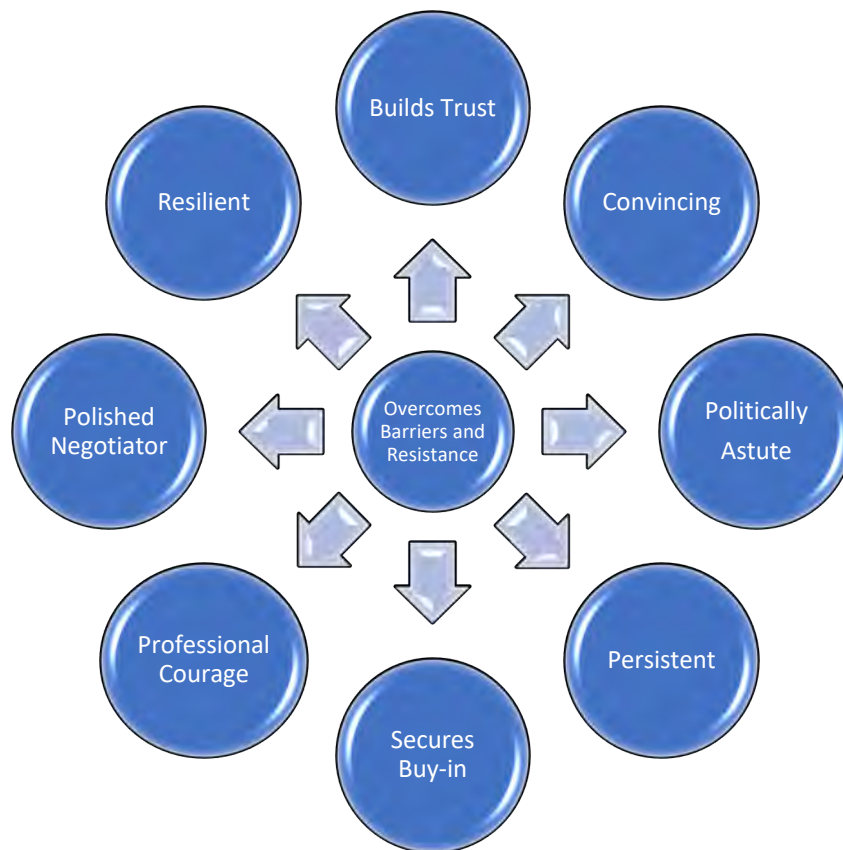


Figure 4: Attributes to Overcome Barriers and Resistance

Each attribute in Figure 4 requires many aspects to be successfully enacted. For example, overcoming barriers and resistance requires an extensive skill set including political astuteness, professional courage and resilience (essential tenants of empowered practice), along with the ability to build trust and secure buy-in while using convincing messages and polished negotiation skills (Mannix et al., 2015, Daly et al., 2015b, Hader, 2013, Raso, 2018). Critical analysis of these attributes shows how nurses can ‘purposefully’ demonstrate leadership and effectively influence policy. Development of these attributes is necessary across all levels of the nursing workforce and within the next generation of nursing leaders (Byrd et al., 2012).

3.3.3 Empowered practice

Powerless and disempowered nurses are ineffective nurses. Nurses need power to effectively advocate for patients and influence various health system actors (Manojlovich, 2007, Carryer, 2019). There are many definitions of power and empowerment. Delineation of ‘power to’ versus ‘power

over' is relevant to this thesis, given the focus on 'power to' for issues of influence and effectiveness (Tomajan, 2012b). Empowerment is frequently referenced in nursing literature, with the ability to act effectively considered central to empowerment (Rao, 2012). Issues of power, empowerment and disempowerment are described as enablers or barriers to nurses' engagement in the policy process (Shariff, 2014, Salvage et al., 2019, Salvage and White, 2019, Carryer, 2019). Empowered practice refers to individual and collective action. Individual action involves the opportunity for every nurse to exercise power and advocate for patients, communities and health systems (Boswell et al., 2005). Collective action occurs via organisational forums (e.g. professional nursing associations) whereby nurses can magnify efforts through the collective voice (Manojlovich, 2007, Friend, 2015). Nurses are empowered when they have the confidence, skills and resources to act; however, the primarily female nursing profession faces challenges in a world where women's roles in policy and political leadership remain inequitable (Joshi and Goehrung, 2018, Lamm et al., 2019).

3.4 Limitations of Existing Research

Considering previous research is a first step towards understanding the strategies by which nurses can influence nursing and health service policy and practice. Existing literature discusses the mechanisms and attributes needed for effective policy engagement. Although information is reported regarding 'who' needs to be influenced, little guidance is available regarding 'how' to effectively influence policy. Most nursing-related literature is nursing-centric, and does not consider nursing in multidisciplinary contexts. Common principles in varying cultures and contexts across geographical boundaries/borders have received little attention. The eight original research papers are country specific, and three papers reported the same study. No papers were identified with global comparisons. The evidence in these papers was low-level as it comprised case studies and small-scale cohort studies versus higher-level evidence (e.g. from randomised controlled trials).

3.5 Unanswered Questions

The literature highlighted nurses' limited and inconsistent involvement in policy processes. Although the complexity of mechanisms and attributes needed to influence the policy process was discussed, several key aspects were not addressed. It remains unclear 'how' nurses can best exert influence, including 'how' the power of their voice can be effectively enhanced.

3.6 Reflections on Findings in the Literature

The literature resonates with my personal experience; specifically, that there is a paucity of information to guide nurses in exerting political influence. The importance of engagement and how to engage in policy development/political processes was not covered in my nursing and midwifery education, including at university. However, I received early mentoring from a nurse leader who

took an interest in my development and provided me with opportunity to influence decisions in both the hospital and school of nursing. Despite this nurturing, I was politically naïve and ill-equipped to deal with some early experiences in the nursing profession. The gaps highlighted in the literature resonate with these gaps in my education. My mentor guided me to work in areas where I continued to develop and grow skills for political engagement and influence. With her encouragement, I aspired to change the status quo and took a leadership position in nursing education, followed by a senior role in health service planning in the early 90s. In that role, I received executive mentoring from the District Health Board Chairman, who taught me how to write policy documents to maximise attention from politicians and funding agencies. This was a critical enabler at a time when professional development for nurses about these topics was lacking. I continued to grow the technical competencies and personal attributes needed to influence and enact change. The reviewed literature aligns with my personal experience of the lack of guidance in the field, along with the complexities of and personal attributes needed to engage in policy development, power and influence. The literature focuses on what should be done and what personal attributes are needed, but offers little direction about how.

3.7 Filling the Gap

No prior studies were identified in the search period presenting a model of nursing leadership and political influence that nurses can apply to effect positive change across various practice settings. This thesis proposes a new and deliberate approach to fill this gap, based on the six primary works describing workforce strategies and innovation to enhance politically empowered leadership and positively impact policy and practice. These examples informed development of a new model of leadership for policy engagement. I argue the need for ‘purposeful’ leadership, focused on enhancing effective policy engagement.

4. Published Works

4.1 Introduction

Table 4 presents six original scholarly research works concerning leadership to inform policy agendas relating to the nursing and broader health workforce. This chapter describes these works and explains their relevance to the real-world context. Appendix B includes full copies of these works.

Table 4: Profiled Scholarly Works

Leadership Focus	Citations for Body of Published Scholarly Work
National policy initiative exploring competency-based education approaches to enable health workforce development and greater flexibility in nursing/health workforce use	1. BROWNIE, S., BAHNISCH, M. & THOMAS, J. 2012a. Competency-based education and competency-based career frameworks: Informing Australia health workforce development. <i>Report on NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks</i>. University of Queensland, Australia: University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. 2. BROWNIE, S., BAHNISCH, M. & THOMAS, J. 2012b. Exploring the literature: Competency-based education and competency-based career frameworks. <i>Deliverable fulfilling part of the requirements for NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks</i>. University of Queensland: University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. 3. BROWNIE, S., BAHNISCH, M. & THOMAS, J. 2012c. Listening to our stakeholders: Analysis of interviews regarding competency-based education and training and competency-based career frameworks. <i>Third report for NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks</i>. University of Queensland University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. 4. BROWNIE, S. & THOMAS, J. 2014. A single competency-based education and training and competency-based career framework for the Australian health workforce: Discussing the potential value add. <i>International Journal of Health Policy and Management</i>, 3, 215-221.
Study to inform policy directions to enhance indigenous workforce development	5. BROWNIE, S., ROSSITER, R., HAMAD, A. & AQTASH, S. 2017. The role and value of nurses in care provision: Views and expectations of Emirati Nationals in the western region of Abu Dhabi, United Arab Emirates. <i>Journal of Hospital Administration</i> 6, Online.
Three-nation evaluation study to confirm work-study programmes as an effective policy response to build nursing capacity in low- and middle-income settings	6. BROWNIE, S., ROBB, W., HUNTER, L. H., ALIGA, C., KAMBO, I., MACHAR, A., MWIZERWA, J., NAMUGUZI, M., NAMUKWAYA, C., NDERITU, E., SANDE, L., SKRZYPCZYNSKI, V., VASTANI, M. & XAVIER, M. 2016. <i>Supporting healthy futures for East Africa: Celebrating 15 years of partnership in nursing education</i>. Nairobi, Kenya, Aga Khan University School of Nursing and Midwifery.

Each work presents an exemplar of politically engaged leadership in a significant area of policy relevant to real-world nursing and health workforce challenges. These publications focus on health and nursing workforce flexibility, innovation, and capacity development, with competency-based

frameworks and education as enablers of health workforce flexibility. The work was undertaken and published to influence policy and practice. Appendices C and D list additional works submitted in support of these themes, including policy briefs, expert opinion, blogs and photographic essays relevant to the multiple mechanisms needed to effectively influence health workforce and nursing policy. The works in Appendices B–D reflect multi-author team efforts that I had the privilege to lead (Appendix B presents letters of author contribution). In each instance, I held the role of lead researcher and first author and undertook a minimum of 65% of the activity required to progress the work to publication. In other supporting works, I undertook 100% of the work involved in the scholarly activity.

The six papers and aligned works were accepted by the Oxford Brookes Research Degrees Committee. Each was recognised as being designed to enact leadership in influencing major issues of public opinion and health policy regarding use of the health workforce and human resources for health (HRH) capacity building, including nursing workforce development. The commonality across these works is leadership relating to health and nursing workforce capacity, including ways this can be influenced. My leadership intent was to provide insights and recommendations to enhance support for current and burgeoning health service needs. In Australia, I led a large-scale research initiative exploring a universal competency-based framework to support enhanced health workforce flexibility. In East Africa, I led an evaluation of the effectiveness of a nursing work-study programme in upskilling and improving leadership in the nursing workforce. The cross-cultural research I led in the Middle East provided an avenue for traditional, culturally informed voices to be heard and supported development of the local Emirati nursing workforce. Despite similarities in health and nursing workforce capacity building, the works differ in size, scope, and geographical and cultural contexts. These diverse works were selected to demonstrate that leadership opportunities for policy influence take many forms and can have impact irrespective of size, scale, and location.

4.1.1. Competency-based health workforce development and innovation

This major endeavour was commissioned by Health Workforce Australia (HWA) to locate existing descriptions of health workforce competencies and determine the feasibility of proposing a taxonomy or classification for competency-based standards across the entire health workforce. The enquiry explored evidence-based options for competency-based health career framework/s in Australia that would improve workforce flexibility and utilisation. The work was informed by a literature review and semi-structured interviews with key health sector informants. Results were disseminated in three ISBN-badged, peer-reviewed reports. 1) A detailed report of the entire project, entitled *‘Competency-based education and competency-based career frameworks: Informing*

Australian health workforce development' (Brownie et al., 2012a). 2) A summary of evidence from the literature, entitled '*Exploring the literature: Competency-based education and competency-based career frameworks*' (Brownie et al., 2012b). 3) A final report entitled '*Listening to our stakeholders: Analysis of interviews regarding competency-based education and training and competency-based career frameworks*' (Brownie et al., 2012c), which included thematic analysis of interviews with key informants. The first report explored Australian and global examples of the use of whole-of-workforce competency-based frameworks to enhance health workforce development and utilisation. The second report included a scoping review of literature related to the topic. The third report involved qualitative interviews with 30 health professional, consumer and government stakeholders selected by HWA. The voices of this diverse participant group informed HWA about stakeholder responses to the controversial concept of competency-based health professional education. These publications reflect major pieces of work that informed health workforce innovation and reform, with a (peer-reviewed) summary published to further disseminate the findings (Brownie and Thomas, 2014). Ongoing funding was won for further work and invitations were received to present the findings to panels informing policy work for the Australian Health Practitioners' Authority. The inclusion of ISBN numbers assisted dispersion, with citations in Spanish journals, the Vietnamese language, and various studies across Europe and the US. The work has been cited across various professions and fields, including pharmacy and intellectual disability.

4.1.2 Perceptions of nursing

As nations seek to address health service needs, development may be impeded by a lack of evidence-based planning information or misperceptions about health user needs/perceptions. This work provides an example of politically engaged nursing leadership. As a professor in health workforce development, I was invited by the United Arab Emirates (UAE) Nursing and Midwifery Council to undertake scholarly work to inform their strategic endeavours to attract more indigenous nurses to the profession. The work was a voluntary contribution (unpaid). The invitation was received after 2–3 years of relationship building with Emirati leaders and decision makers. That study obtained qualitative information regarding health and nursing service expectations of Emirati nationals in the remote western region of Abu Dhabi. The research was unique, as no prior inquiry of this nature had been conducted in this population. The complex cross-cultural methodology required continuous cultural and political engagement to establish trust and ensure the authenticity of participants' voices. A key aim was to obtain direct culturally-informed health user perspectives to inform the policy planning and processes for local health providers, and highlight the value and contribution of nurses in a rural Bedouin context (Brownie et al., 2017). The findings countered the commonly held view that Emirati nationals do not value the nursing profession. The findings were

presented to the UAE Nursing and Midwifery Council and Health Authority of Abu Dhabi (the funders and licensing agency for nursing education across the Emirate), and has been cited by policy-active leaders and scholars across the region (e.g. Jordan and the Kingdom of Saudi Arabia).

4.1.3 Impact of nursing education in a low- and middle-income setting

Sub-Saharan Africa is challenged by major health and nursing workforce shortages, including disparities in nursing workforce distribution and qualifications. This mixed method study used online structured questionnaires, focus group interviews and individual semi-structured interviews to evaluate the impact of 15 years of nursing workforce capacity building across East Africa (Kenya, Uganda and Tanzania). The study obtained evidence to inform the policy stance of East African regulatory authorities in accrediting work-study programmes as an effective tool for nursing workforce capacity development. The findings demonstrated the effectiveness of donor investment in partnership-based nursing workforce capacity building and provided an evidence-base for further investment (Brownie et al., 2016). The findings were published to achieve wide dissemination and repeat key messages from the original report. Subsequent publications focused on highlighting the value of a work-study programme for nursing workforce capacity building in a low- and middle-income country (Brownie et al., 2019), and provided evidence of the programme's positive impact on women's empowerment and intergenerational mobility (Brownie et al., 2018b). Multiple forums were used to disseminate the findings and key messages, including conference presentations, web posting of the full report, peer-reviewed publications and focused social media messaging on days of global importance (e.g. international health workers) (Brownie, 2018c, Crisp et al., 2018, Brownie, 2013, Zaman, 2013). The purposeful ongoing messaging illustrated nursing leadership and policy influence in practice. Production of the report resulted in three funding grants (each of USD1.6 million) to support nursing scholarships and faculty development in Kenya, Tanzania and Uganda.

4.2 Key Themes and links within Published Works

The commonality of themes within the published centre around the role of nurses in health service leadership and their capacity for policy influence; nurses involvement in health workforce capacity building; and how competency based education and frameworks can be used as a mechanism for nursing and health workforce development. All the identified themes focus on enhanced utilization and capacity development of nurses in health service leadership and policy influence. The works are exemplars of how scholarly work can be used to influence policy decisions. However, single pieces of work do not effectively create change in and of themselves. The literature search informing this study emphasized the need for continuous messaging of central and aligned themes as key mechanism for effective policy influence (O'Rourke et al., 2017, Ditlopo et al., 2014, Arabi et al.,

2014, Waddell et al., 2018, Adams and Ericksen, 2011, Shamian, 2014). The aligned works in appendixes C and D of this thesis are included as examples of this strategy in action.

Messaging can be portrayed via various forums, for example, further peer reviewed publication through which readership and citation can be electronically tracked (see appendix A, C and D). Specific examples includes publication of the policy brief providing update to the development of regulatory systems to enhance nursing practice in the UAE with 23 citations recorded to-date (Brownie et al., 2015). This publications provided an entrée to later work within this thesis pertaining to the role and value of Emirati nurses within the health service (Brownie et al., 2017). In a similar vein, the 2018 report to the World Innovation Summit for Health - 'Nursing and Midwifery: The key to the rapid and cost effective expansion of universal healthcare' (Crisp et al., 2018) with 37 citations to-date further strengthens messages included within the suite of work pertaining to competency-based career frameworks (Brownie et al., 2012a, Brownie et al., 2012b, Brownie et al., 2012c). Continuous activity over extended time periods is also reflective of attributes of persistence, resilience and the professional courage needed for effective policy influence (Mannix et al., 2015, Daly et al., 2015b, Hader, 2013, Raso, 2018).

4.3 Demonstrating Leadership

The six studies were undertaken in three geographically and culturally diverse contexts: Australia, East Africa, and the Middle East. Each work intended to exercise leadership in influencing the understanding and resourcing decisions of political leaders in respect to HRH. The works sought to illuminate support requirements and options for flexible HRH use, while highlighting the pivotal role of nurses across the system. The publications focused on capacity and competency-based development of the health and nursing workforce, and nursing roles in managing escalating health demand.

4.4 Relevance to the Context of Inquiry

As relevance is a key tenet of critical interpretive analysis (Dixon-Woods et al., 2006b), it is important to consider the context of inquiry and relevance to real world issues. The global context in which nurses practice is challenged by major opposing forces; specifically, increasing health demand including age- and non-communicable disease-related health service needs (Gakidou et al., 2016) in a context where almost 1 billion people have inadequate access to healthcare (Crisp et al., 2018). This is exacerbated by the global COVID-19 pandemic and projected long-term health and socioeconomic impacts (Raab et al., 2020, Rauch et al., 2020). The opposing force is the decreasing health workforce/deficiencies in health workforce supply (The Lancet Editor, 2016, Edmonson et al., 2017), which has also been exacerbated by COVID-19 (Daly et al., 2020). This scenario presents a

perfect storm from which no nation, government or health service is exempt (Figure 5), and means advocacy by and on behalf of nursing is increasingly important (Daly et al., 2020).

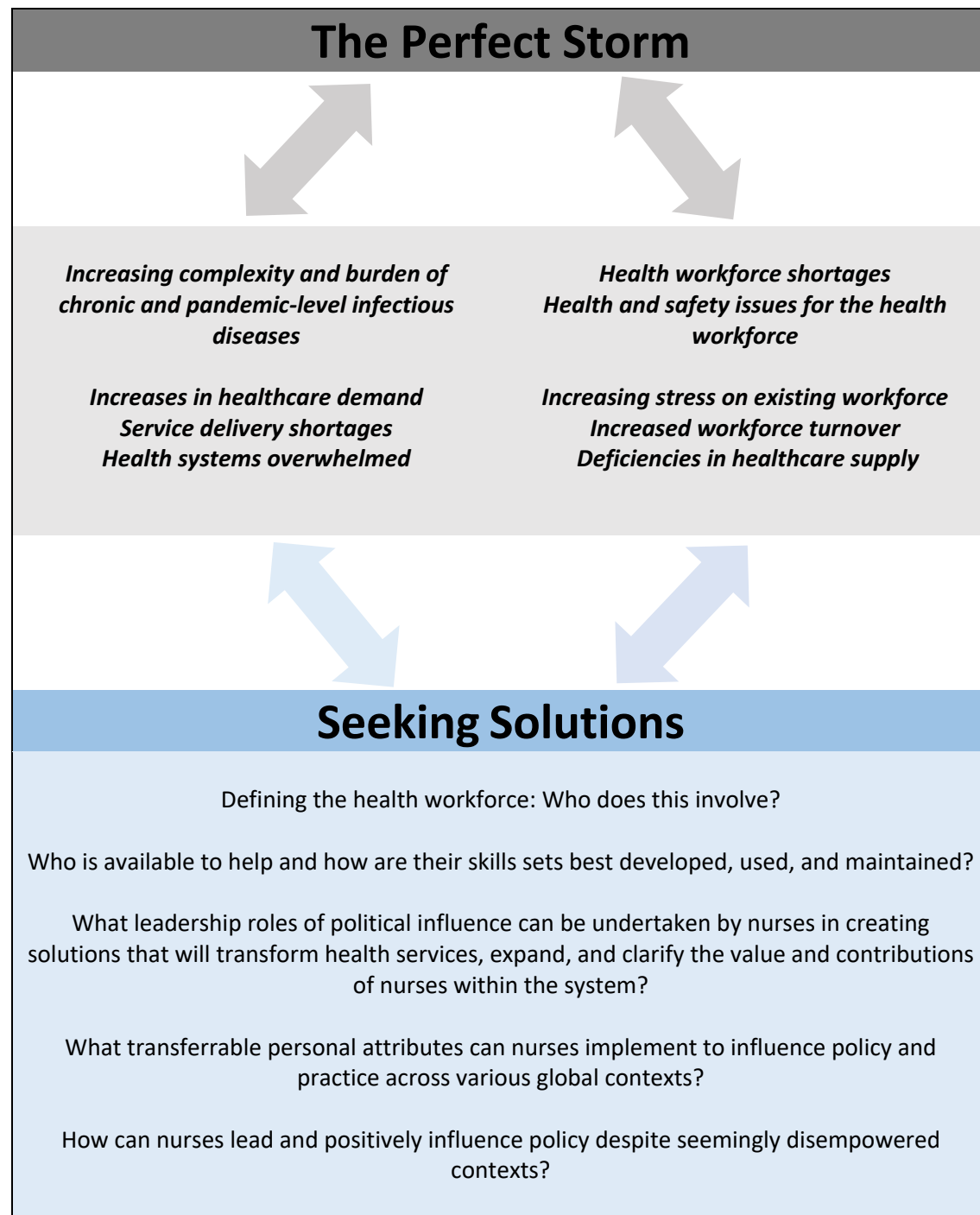


Figure 5: The Perfect Storm

Figure 5 illustrates the context that informed my leadership focus in engaging in scholarly activity and policy-related activities that sought to support and build capacity in the nursing and broader health workforce.

4.5 Aligned Works

The primary works (Section 4.1) are not the only mechanisms I have used in my policy influence leadership efforts. These works are central to this thesis because they are consistent with the regulations governing PhD theses by Published Works and critical analysis of scholarly work (Research Degrees Committee, 2019). I presented additional publications to the Committee as examples of the policy messaging forums I have used throughout my career. These aligned works (Appendices C and D) extend beyond the primary publications, which is consistent with the evidence-base concerning actions needed for effective leadership and policy influence. Simply put, effective policy influence requires persistence, clear communication and repeat messaging fuelled by an ongoing passion for leadership and policy advocacy (Waddell et al., 2018, Woodward et al., 2016, Jackson and Daly, 2011). The aligned works demonstrate ongoing leadership endeavours through continuous pursuit of knowledge and contributions to policy development through academic activity and policy advocacy. These efforts focus on policy change around health and nursing workforce capacity development and promote expanded nursing roles in managing escalating health demand (e.g. non-communicable and chronic diseases).

Appendix D lists additional publications with a health workforce focus. Appendix E includes publications focused on nursing roles in managing the increasing challenge of chronic and non-communicable diseases. Some offer supporting evidence for the mechanisms I used in policy advocacy throughout my career, including various media to disseminate messaging across multiple forums and increase the effectiveness of political engagement. For example, the non-peer reviewed Arab Health Journal provides opportunity for messaging to a large cohort of influential health leaders, funders and policy makers (Brownie, 2014, Brownie et al., 2014b). These works illustrate how political engagement requires a purposeful focus on specific target audiences, with repeated messaging to broad audiences (e.g. beyond academic peer-reviewed literature). Therefore, the primary works (Section 4.1) are supported by a range of publications across peer-reviewed journals, ISBN peer-reviewed reports (Crisp et al., 2018), health periodicals (Brownie et al., 2014b, Brownie, 2014), photographic competitions (Brownie, 2015a, Brownie, 2015b), national news reports (Zaman, 2013, Brownie, 2018a, Brownie, 2018b), mainstream news (Brownie, 2018a, Brownie, 2018d) and social media (Brownie, 2018c, Brownie, 2018b). These aligned works provide exemplars of purposeful, politically engaged nursing leadership that uses global networks, crosses geographical and cultural boundaries and straddles multiple sectors to influence health workforce policy/practice and build HRH capacity.

4.6 Methods used in Developing the Presented Works

The included works used various methods. The Australian-based work (Section 4.1.1) adopted a mixed method approach involving an initial scoping review followed by qualitative stakeholder interviews. The UAE-based study (Section 4.1.2) used an exploratory descriptive design with cross-cultural methodology and in-depth qualitative interviews with Arabic-speaking Emirati health service users. Arabic speakers and Emirati nationals were included in the research team. All Arabic speakers completed specialist training in qualitative interviewing. Interviews were conducted in Arabic and translated into English for thematic analysis. The results were reviewed by participants to ensure accuracy of translation and interpretation. Finally, a mixed method approach was used to explore the impact of nursing upgrade programmes in East Africa (Section 4.1.3). That study included quantitative features (e.g. survey) along with qualitative in-depth interviews and focus group discussions with stakeholders.

The primary research works involved original research in which quantitative, qualitative and mixed method approaches were used to gather evidence associated with two key themes: 1) capacity development of the health and nursing workforce; and 2) expanded roles for nursing in managing escalating health demand (e.g. non-communicable and chronic diseases). Subsequent works adopted various methods to increase the impact on practice change and strengthen policy influence, and included original research, literature reviews, policy briefs, public health communiqués, teaching and professional development resources and best practice guides (Appendix C and D).

Methodological details are included within each the original research works (Appendix A) with a summary included in Appendix E. Appendix B provides details of author contributions.

4.7 Reflections on Creating Policy Impact

Both my experience and the scoping review highlighted that although the evidence-base for policy influence includes scholarly work, multiple mechanisms are needed to effect change. One such example is the UAE-based work (Section 4.1.2), which provided evidence to help Emirati leaders dispel myths and promote the image and value of nursing (Brownie et al., 2017). The study depended on extensive relationship building among Emirati leaders in the UAE Nursing Council and relevant health authorities. The work is situated in a work stream spanning several years, where I was able to establish a presence, build trust and work to influence and enhance the image and participation of nurses across the Middle East and North African region (Brownie, 2013, Brownie, 2014, Brownie et al., 2014a, Brownie et al., 2015, Brownie et al., 2017, Brownie et al., 2018b, Brownie, 2018c, Brownie et al., 2018a). My personal approach is to use every mechanism needed for effective policy influence and ensure I have a planned strategy, clear vision and purpose, while seeking cultural alignment and multidisciplinary engagement. Continuous messaging, collaboration across boundaries and reflection to ensure awareness of any potential self-interest are also important (refer Figure 3). Politically engaged leadership is a relational activity; therefore, I continuously engage in formal and informal discussions with groups, networks, political leaders, and others as mechanisms for influence and change. Consistent with the themes identified in the literature, my experience suggests that influencing change requires hard work, resilience, professional courage, and consistency.

5. Discussion of Scholarly Works

5.1 Scholarly Works

The textual narrative analysis focused on the homogeneity of the published works in terms of health/nursing workforce flexibility, nursing workforce innovation and capacity development, along with contributions of nursing to healthcare systems. The critical interpretive analysis focused on relevance and connected the discussion with nurses' power to positively impact policy and lead health service improvements.

5.1.1 Competency-based health workforce development and innovation

This project took a unique whole-of-workforce approach to explore whether HWA could lead greater workforce flexibility in the Australian context (Brownie et al., 2012a). The literature pertaining to the health workforce and HRH (including nursing and midwifery) is substantial, diverse, and complex. A key challenge was analysing complex and disparate information to inform a comprehensive description of the overall workforce. This resulted in defining and describing the health workforce (Figure 6). At the time, this model was unique in that the whole-of-workforce description extended beyond professional cadres and included family support carers and voluntary and paid healthcare assistants as legitimate health workforce contributors.



Figure 6: Health Workforce Cadres (Brownie et al., 2012a)

This analysis described the workforce in two key groups: 1) a regulated subject to specific legislative and licensing requirements and clearly defined scopes of practice; and 2) an unregulated workforce comprising health non-licensed professionals (e.g. social workers) and the paid and unpaid support workforce (e.g. healthcare assistants, volunteers, supporting friends and family members) (Brownie

et al., 2012a). Nursing is the largest regulated workforce group in Australia and globally. Nurses were noted as having significant ability to expand practice and provide supervision and leadership across the support and voluntary workforces. Engagement of regulated/licensed health workers under the supervision of registered health professionals, particularly nurses, was a mechanism by which nursing could enhance workforce capacity and flexibility (Brownie et al., 2012b). These themes were drawn from the project literature review and stakeholder consultations (Brownie et al., 2012b, Brownie et al., 2012c).

Despite the congruence of findings regarding using various cadres flexibly and general agreement that whole-of-workforce competency alignment was possible, several major barriers were identified. Some regulated workforce cadres (especially the medical profession) objected because of a perception of competency-based education as ‘cook-book’ education and practice. Tensions were also evident between the higher education (university) and vocational education sectors, with elitist thinking presenting a barrier to policy implementation. Finally, some regulated health workforce groups argued against the described policy direction because of a perceived hidden agenda of ‘industrial intent and deregulation’, rather than workforce innovation (Brownie et al., 2012c). However, these concerns were not universal and consensus was achieved. This suggested that HWA, as the national health workforce policy entity, could develop a Canadian Medical Education Directives for Specialists (CanMEDs)-style framework (Figure 7) with broad competency categories relevant to all health workers at all levels. Further, it was agreed that this could be aligned with the various levels of the Australian Qualifications Framework.

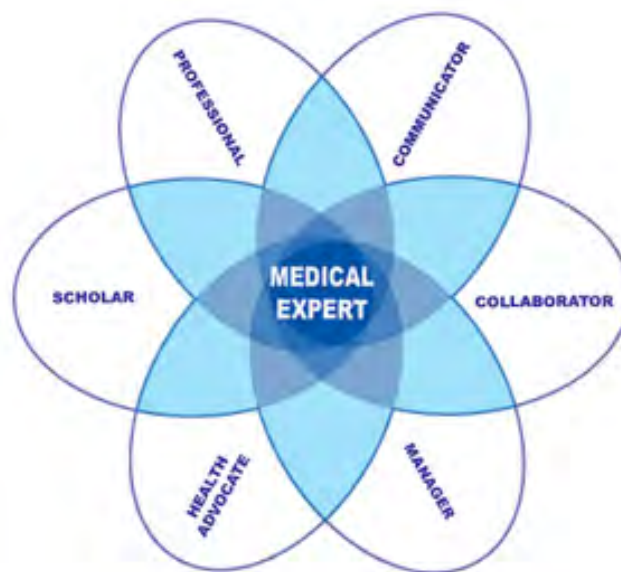


Figure 7: CanMeds Framework

Skills migration, task sharing and working to the full scope of practice are particularly relevant for the nursing workforce and align with the theme of health workforce development in the presented works. The commissioning entity (HWA) requested further dissemination of key findings. The contributions of the various cadres/levels of health workers are more visible in the literature 6–7 years after these publications. For example, focus has returned to the role and value of second-level nurses rather than exclusively on a fully registered nurse workforce (Brownie et al., 2018a, Freund et al., 2015). As the full scale of health workforce need is better understood, greater attention can be paid to the whole-of-workforce grouping (Figure 7) (Freund et al., 2015, Niezen and Mathijssen, 2014). My work in policy advocacy and leadership has continued, with a recent focus on the role of nurses and midwives in achieving universal health coverage (Crisp et al., 2018, Brownie, 2018b) that included active press/social media communiqués highlighting how effective policy engagement requires ongoing work. The themes are also evident in the UK ‘Triple Impact Report’, which called for nurses to be better used and supported to work to their full scope of practice (All-Party Parliamentary Group on Global Health, 2016). My leadership work in these areas was among an increased number of voices in the 2018–2019 Nursing Now campaign (Nursing Now, 2019) and built up to the WHO-mandated 2020 Year of the Nurse and Midwife (World Health Organization, 2020 -c). The centrality of health and nursing workforce messages are especially important in the context of the COVID-19 pandemic, as comprehensive understanding, support and use of the health workforce is essential (Edmonds et al., 2020, World Health Organization, 2020 -b, International Council of Nurses, 2020).

5.1.2 Perceptions of nursing

Common perceptions of nursing are not always correct. For example, anecdotal views exist that local Arab populations in the Middle East undervalue nurses and view them as holding similar status to maids or servants (El-Haddad, 2006, Mebrouk, 2008). These perceptions exist in the absence of an evidence base of views collected from indigenous Arab communities or health service users. Therefore, existing reports of views and needs of health service users are potentially incomplete or inaccurate. Accurate health user information is needed to inform workforce and health service planning (Mosadeghrad, 2014). Against this backdrop, the work entitled ‘*The role and value of nurses in care provision: Views and expectations of Emirati Nationals in the western region of Abu Dhabi*’ (Brownie et al., 2017) was written up and published. This work arose from a qualitative study designed to gather the views and expectations of rural-dwelling traditional Emirati nationals regarding their understanding of the role of nurses and expectations of nurses in providing care. The research team agreed that locally-based, culturally relevant views were essential to inform health

service planning. The enquiry is the first and only such endeavour with this focus across the Gulf region.

News media and local reporters were used as messaging forums to highlight the value of nurses and need for more Emirati nurses as important issues for political advocacy and influence (Zaman, 2013). The project countered perceptions of nursing as an under-valued 'servant role' across the UAE and Gulf region. Interestingly, local Emirati nationals valued both the science (clinical skills) and softer art of nursing (comfort, reassurance and translator of medical complexity). They wanted greater valuing of nurses and more nurses who understood the local culture and context (Brownie et al., 2017). Further investigation of perceptions of nursing is warranted across the Middle East. Ongoing leadership, advocacy and political influence are also needed to promote the role, value and contributions of nurses in that context. My work on this project was situated in a multi-year work stream focused on capacity development across the Middle East, including providing technical support to the newly established UAE Nursing and Midwifery Council (Brownie et al., 2015) and leading technical advisory and curriculum development teams revising the educational framework and scope of practice for the government of Egypt (Brownie et al., 2018a). Consistent with the themes in the literature, my experience showed influencing change requires continual engagement with key stakeholders and developing culturally relevant solutions pursued with commitment, resilience, and relationship-based support.

5.1.3 Impact of nursing education in a low- and middle-income setting

Low- and middle-income countries experience severe shortages and maldistribution of nurses, midwives and other health professionals (Scheffler et al., 2018). In 2001, a health workforce innovation provided the first East African nursing upgrade programmes for working nurses wishing to transition from enrolled- to diploma-level nurses and from diploma-level to a Bachelor of Science in Nursing. Entitled '*Supporting healthy futures in East Africa*', that work involved an impact evaluation of a 15-year work-study approach to nursing workforce capacity development (Brownie et al., 2016). The study adopted a mixed method approach including a survey, focus group interviews, key informant interviews and case studies. Results were reported against the pillars of the university's mission: access, relevance, quality and impact (Aga Khan University, 2016). Access was a particularly important consideration, as this posed major barriers to upgrading the East African nursing workforce (Lakati et al., 2012). These barriers were nurses' inability to take leave from their job and salary to undertake full-time study, and their inability to pay tuition fees. Fees were unaffordable as the average nurse in that context earns USD250–400 per month, and is often the family's only income earner. The work-study programme combined with donor-funded scholarships via a strong industry partnership provided effective solutions to access issues (Brownie

et al., 2019). Relevance was equally essential to ensure that local culture and workforce needs were reflected. The educational programme focused on producing graduate nurses with advanced leadership, policy influence and critical thinking skills. The 15-year impact evaluation showed the programme had successfully developed these attributes (Brownie et al., 2016). Educational strategies such as small class sizes, individualised tutor-student mentoring, student-to-student peer engagement and well-resourced library/support services also supported acquisition of these attributes (Brownie et al., 2019).

The impact of the initiative was demonstrated by the high proportion of graduates in key research, policy, clinical and education leadership roles. The results also revealed a significant impact on women's empowerment and intergenerational mobility (Brownie et al., 2018c). In summary, the work-study programme effectively enhanced nursing workforce capacity and leadership development in a low- and middle-income setting (Brownie et al., 2016, Brownie et al., 2018b, Brownie et al., 2019, Brownie et al., 2020). The impact evaluation demonstrated that the work-study programme positively impacted economic factors, gender and health status in the communities where the graduates worked and lived. Ongoing publications further disseminated the results and shared the success of the work-study model (Brownie et al., 2018c, Brownie et al., 2019), with persistence and continued messaging noted as essential to successfully influence policy (del Castillo et al., 2017).

5.2 Themes and Synergy within the Presented Works

This thesis addresses questions related to nurses' leadership potential and power to effectively influence policy. The literature demonstrated that clear focus and articulation of the topic for which policy changes are advocated are essential for effective policy influence. Absolute clarity about the area of focus is needed to ensure success (Benton, 2012). Textual narrative analysis (Barnett-Page and Thomas, 2009a) confirmed the themes and homogeneity across the published works, especially with regard to the need for increased leadership, policy influence and advocacy related to the health and nursing workforce. Further, the homogeneity of the work highlights the perfect storm scenario (Figure 6), and emphasises the need for: increased health and nursing workforce flexibility; improved understanding, perception and use of the nursing workforce; and mechanisms by which nursing contributions can be used effectively and nurses/midwives can better impact health systems in both developed and low-income settings. Critical interpretative analysis (Barnett-Page and Thomas, 2009a) provided further insight into these themes, particularly their relevance to nursing workforce development and use. Nurses' potential to demonstrate leadership and positively impact health policy and practice was apparent.

5.3 Reflections on Synergy, Diversity, Scale and Scope

The six scholarly works presented in this thesis illustrate several key points in a career spanning more than 30 years of health and nursing service leadership. The synergy between the works relates to their focus on the health and nursing workforce. The diversity relates to the scale, scope and cultural context of the work; despite this diversity, my experience was consistent. Successfully progressing this agenda required various mechanisms, including preparedness, thoroughness, collaboration and political acumen. These works drew on personal attributes of resilience, courage, persistence and ability to collaborate with others, and needed a strong commitment to ensure consideration of and alignment with the relevant culture and context. Situated in Australia, East Africa and the Middle East, these works required different approaches in communicating key messages, gaining consent, collecting data, and permission to publish. I found that cultural alignment (e.g. synergy of purpose, intent and values) was an essential mechanism for effective policy influence, along with the personal aptitude to work across geographical boundaries and cultural contexts.

5.4 Leadership: the Link from Policy to Practice

The six publications have a clear policy focus (health and nursing workforce development). A key question concerns how nurse leaders can exert power and influence to translate themes from research endeavours to implementable policy and accepted practice. Other questions concern the mechanisms that can be used and style of leadership that is required. These questions are central to the core purpose of this thesis; namely, to clarify how nurses can best influence and positively impact practice in the health and nursing workforce.

5.4.1 The leadership challenge

Effective impact on healthcare policy and reform is a daily process of influence requiring competent, engaged and courageous leadership (Maetz and Balié, 2008, McKeown, 2018, Rast et al., 2018). Large-scale meaningful change involving better use of the nursing workforce requires impactful engagement by a significant proportion of the international nursing workforce (World Health Organization, 2018) in policy discussion and formation (Wilmoth and Shapiro, 2014, McKeown, 2018). However, to-date, relatively few nurses have been involved in influencing healthcare policy or reform, which encapsulates the leadership challenge. There are multiple reasons for nurses' lack of involvement, including an absence of political understanding/acumen, poor negotiation skills, insufficient awareness, limited time and resources, inadequate opportunity, disempowerment and the perception that this is not a nursing role (Carrier, 2019). The issue of marginalisation of the predominantly female nursing profession has also been noted. For example, nurses' non-

participation in policy development is based on historical forms of discriminatory exclusion and marginalisation (Ward, 2019, Carryer, 2019). Therefore, the view that nurses can rise en masse and effectively influence health-related public policy and resourcing may be wishful thinking. While much has been gained in women's positioning in the workforce, the backlash against women leaders persists (Brescoll et al., 2018). Although strong in numbers, is the current nursing workforce suitably positioned and skilled to overcome opposition and exclusion, raise a collective voice and be effectively influential?

Leadership is a complex construct. Despite the huge amount of literature devoted to various leadership models, guidance in applied leadership fundamentals ('how' and 'who' to influence) and the practicalities and processes by which effective, politically-engaged policy influence occurs is limited. Effective policy influence requires nurses to have the political aptitude to effectively engage, be part of a community, be aware of social, cultural and resourcing issues, actively advocate around important issues and overcome marginalisation and exclusion (McKeown, 2016, Brescoll et al., 2018, Rast et al., 2018). Gaps exist in current models of nursing leadership in relation to the links between policy and politics and leading from a marginalised position. A key challenge is the complexity of leadership concepts and the relationships involved in navigating and effectively influencing healthcare policy and change from a position that may be considered 'atypical' (Gaffney et al., 2018). To address these gaps, future models of leadership should develop a new generation of nurses with the ability to rise above past limits (Carryer, 2019), strengthen group and professional identity (Rast et al., 2018, Brescoll et al., 2018), lead from marginalised/atypical positions of power (Gaffney et al., 2018) and move forward with courage and resilience to advocate for change (Jackson and Daly, 2011, McKeown, 2019, McKeown, 2018, McKeown, 2016).

The need for the nursing workforce to move from the 'hand-maiden' subservience of the past is embraced by contemporary nursing leaders and writers (Carryer, 2019, McKeown, 2019, Salvage and Stilwell, 2018, Ward, 2019). The untapped power of the 23 million-strong workforce and nurses' capacity to exponentially enhance patient-focused health services and access has also been highlighted (All-Party Parliamentary Group on Global Health, 2016, Crisp et al., 2018, Nursing Now, 2019). However, exclusion and marginalisation remain real threats. The predominantly female nursing profession faces significant challenges in a world where undermining and denigration of women leaders continues despite advances in gender equity and diversity (Brescoll et al., 2018).

Brescoll and colleagues (2018) suggested women leaders receive backlash (e.g. lack of opportunity or disproportionately unfair appraisal) because they may be seen as 'gender norm deviants' who threaten the status quo of the traditional gender power base. This is reality for many nurse leaders,

meaning calls to 'put aside the past' and 'speak up more regularly' are insufficient. Therefore, revised models of leadership development must enable nurses to develop skills to successfully negotiate such landscapes and lead from atypical positions (Gaffney et al., 2018). While being atypical has disadvantages, nothing is gained by a victim mentality. Nurses must work together to better understand how to gain influence and lead from atypical/marginalised positions. Leading from such positions is more successful in conditions of identity certainty (i.e. close alignment between the leader and associated group) (Gaffney et al., 2018). Global initiatives (e.g. Nursing Now initiative) strengthen nursing identity, thereby providing opportunity for nurses at all levels to unite and move from marginalised positions; the desired endpoint being for nurses to be fully used and central to health service solutions and delivery.

5.4.2 Mechanisms for effective policy influence

This thesis explored mechanisms nurses can use to demonstrate leadership and harness the power to effectively influence health service and nursing workforce policy. The literature review and analysis of the published works identified mechanisms nurses can implement to effectively demonstrate leadership and use power. This centres on clearly identifying focus areas, and eight mechanisms: clear vision and purpose; planned strategy; built political capital; use of multidisciplinary partnerships; collaboration across boundaries; sound cultural alignment; managed potential for self-interest; and continuous messaging of key policy themes (Figure 3).

Purposeful skills acquisition in policy advocacy and influence is a priority. Content that supports skills development needs to be embedded in contemporary nursing education programmes to enable nurses to learn these skills from the start of their careers (Ellenbecker et al., 2017, Gimbel et al., 2017). After developing a core set of personal attributes, purposeful leadership with single-minded focus and a planned strategy is fundamental to success. Wavering leadership and lack of focus/planned strategies results in poor outcomes (Benton, 2012). Collaboration across boundaries (organisational, geographic and political) along with strong multidisciplinary engagement and partnerships are mechanisms that must be adopted early (Sugimoto-Matsuda and Braun, 2014). Parochial and nursing-centric views limit successful policy engagement. Finally, it is clear that effective policy change is a political activity requiring specific leadership capacity (Raso, 2018, Hader, 2013, Primomo and Björling, 2013, Mund, 2018). The prevailing models of 'transformational' and 'authentic' leadership have gaps compared with what is required for leadership for effective policy engagement. New leadership skills must be purposefully acquired, with nursing schools being the optimal context for skills development (Ellenbecker et al., 2017, Shariff, 2014). Capacity to build political capital strengthens the platform for success (Hader, 2013).

5.4.3 Personal attributes for policy influence

The second focus area in this thesis was the personal attributes of empowered practice that nurses can implement to influence policy across different contexts. Individual leaders are central to policy influence and change (Bleich, 2017), but the principles for empowered practice that nurses can draw on to build success remain unclear. As with the previous commentary, the starting premise is a clear focus. It is important that the focus in policy advocacy is consistent, as inconsistency unravels the effectiveness of policy influence. Figure 4 highlights personal attributes nurse leaders need to achieve effective policy influence. Authenticity, trustworthiness and lack of corruption are cornerstones to facilitating policy change, with the ability to build trust central to effective practice (Wei-Skillern and Silver, 2013, LaMorte, 2016). Politically connected policy influencers focus on promoting the cause rather than their own agenda (Wei-Skillern and Silver, 2013). Their practice is underpinned by strategic clarity arising from consideration of the whole system, big-picture visioning and a strong focus on mission and purpose (Wei-Skillern and Silver, 2013, Vega, 2015). Importantly, an empowered leader exudes passion and confidence in policy development and political advocacy (Varghese et al., 2018). Passionate enthusiasm is essential in making a convincing case for policy change (Waddell et al., 2018, Woodward et al., 2016, Katriina et al., 2013). Empowered leaders are also relational in seeking areas of common purpose and alignment. They focus on aligning diverse stakeholders, even if their personal beliefs and agendas are divergent. Relational orientation includes building teams, working with others, engaging in multidisciplinary activity and finding common areas of agreement. Such leaders know who and when to influence (Waddell et al., 2018). Understanding these basic principles of engagement and partnership is fundamental for effective practice and essential for solving complex problems, enacting innovative solutions and achieving policy change (Stroh, 2015, Brownie et al., 2019).

5.4.4 Overcoming barriers and resistance

The question of how nurses can lead and positively influence policy despite seeming disempowerment is central to this thesis. Barriers and resistance are common, (Brownie et al., 2012a, Brownie et al., 2012b, Brownie et al., 2012c), and effective leaders require specific attributes to overcome barriers and opposition. Personal characteristics of empowered leaders include the ability to build trust; persistence; resilience; professional courage; polished negotiation skills; political astuteness; ability to be convincing; and secure buy-in. Effective policy work involves thorough preparation, a clear strategy, political astuteness, savvy reading of culture and context, constant messaging and persistence (Raso, 2018, Mund, 2018, Byrd et al., 2012). Courage in the face of opposing views, criticism and political 'nastiness' can take a heavy toll on those leading change, making resilience a critical attribute for effective policy influence (Daly et al., 2015a, Jackson and

Daly, 2011). This makes it important that nurses entering the profession receive training and development in areas such as skilled negotiation and collaboration. Such training should be included in basic nursing programmes. Recognising that multiple attempts are important in the process of working through various barriers and resistance, the six publications profiled in this thesis represent beginning works in change conversations. They represent the foundations of a change movement in health and nursing workforce development. Given that sustainable change occurs with persistence, resilience and constant messaging over time, I have undertaken substantive ongoing work in the field. The ongoing publications in different formats listed in Appendices B and C provide examples of the persistence needed to keep messaging around key areas for policy influence.

6 Conclusion

6.1 Leadership Model for Nursing Political Influence and Change

Effective policy engagement requires leadership competencies beyond current models, and a new model of leadership is required. The leadership requirements for effective influence and policy engagement are complex and multi-dimensional. It is common for leaders to be overwhelmed and develop a sense of hopelessness/helplessness in the face of this complexity and lack of skills (Shariff, 2015). Therefore, it is important to clarify the mechanisms that can be used to translate policy concepts and ideas into implementable action and practice change. This thesis aimed to develop a leadership model for political influence that nurses can apply to effect positive change across different settings (from 'ward to board'), geographical boundaries and disciplines. Nurses involved in policy work need to acknowledge the inherent complexity and necessity of purposefully building skills, competencies, networks and political capital. Issues and relationships are multi-dimensional, inter-related and intertwined. Solutions are non-linear and multivariate (Mund, 2018). Success demands courage, persistence and resilience (Jackson and Daly, 2011). Passion and an interest in policy development and political influence are also paramount. Finally, personal staying power or grit is essential.

This thesis answers three key questions:

1. What mechanisms can nurses use to demonstrate leadership and harness the power to effectively influence health service and nursing workforce policy?
2. What personal attributes of empowered practice can nurses implement to influence policy across various global contexts?
3. How can nurses lead and positively influence policy despite seeming disempowerment?

Eight mechanisms have been identified by which nurses can increase the effectiveness of their endeavours (Table 2 and Figure 2). These include a clear and focused vision, planned strategy, purposefully built political capital and multidisciplinary partnerships with continuous culturally aligned messaging and collaboration across boundaries, while managing potential for self-interest.

Second, eight personal attributes were identified for empowered practice inclusive of the ability to overcome barriers and resistance (Table 3 and Figure 4 & 5). These included the abilities to be clear and focused, empower others and establish common purpose with an appropriate degree of cultural alignment. Authenticity, passion and confidence, a relational orientation, thorough preparation, and clear communication are equally important to success.

The ability to ‘front the tough stuff’ (grit) and overcome inevitable barriers and resistance is also critical for success. This ability is a highly skilled competency requiring resilience, courage, persistence, polished negotiation skills and the ability to be convincing, build trust, secure buy-in and exercise political astuteness. The combination of these mechanisms and personal attributes highlights the complex, multivariate and non-linear nature of effective policy influence. Success depends upon multiple interacting actions and personal responses. This thesis shows that the starting point of any effective policy engagement is a specific focal point for policy advocacy and change. The primary works focus on health and nursing workforce flexibility, innovation, and capacity development. These works are complemented by aligned works that illustrate the ongoing requirement for policy messaging across multiple forums, including health periodicals, policy briefs, photographic competitions, short reports, news/social media, web-based forums and original research.

My personal experience in this work required use of all the identified mechanisms and drew heavily on the personal attributes I had gained over my years of experience. Figure 8 presents a proposed model of purposeful leadership. The model arises from critical analysis of my experience in leading the tabled works and the findings of the scoping review. This model of leadership for policy influence draws together the mechanisms needed for effective engagement of nursing and health service leaders, with the personal attributes required to effectively influence while overcoming barriers and obstacles.

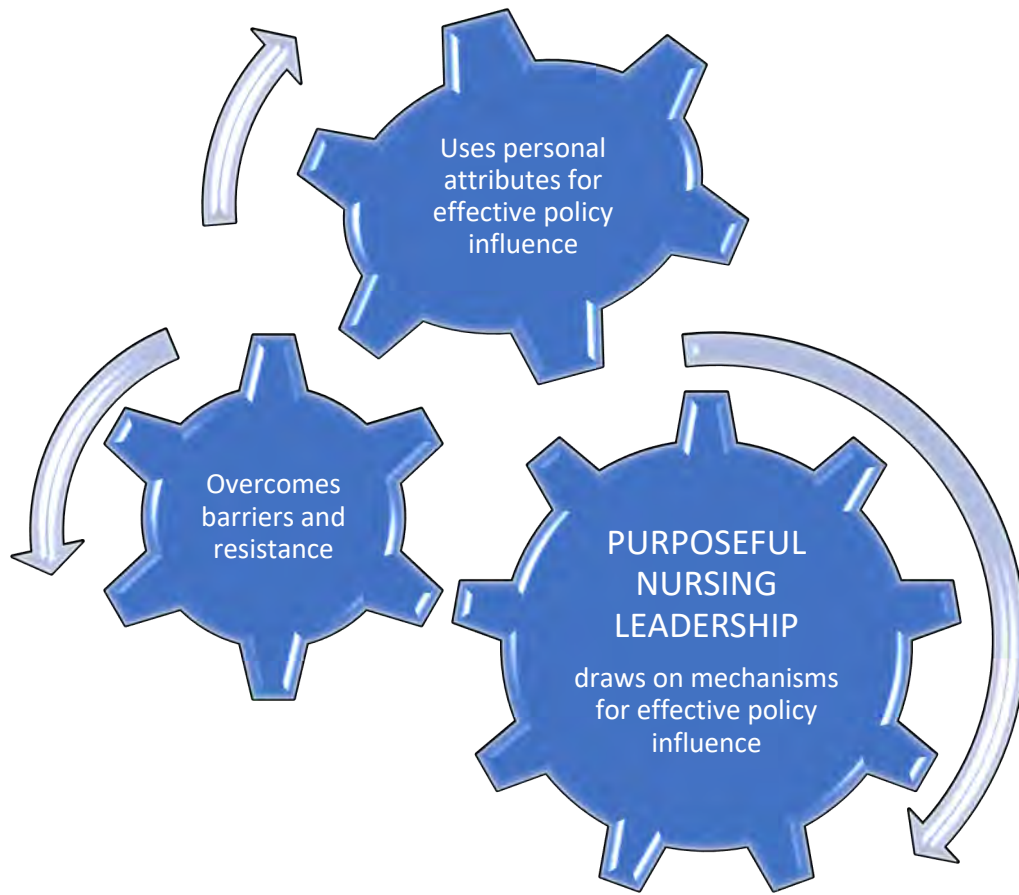


Figure 8: Model of Purposeful Leadership

The model includes purposefully used mechanisms, along with the personal attributes needed for effective influence and to overcome barriers and resistance. Each is of importance and revolves in a non-linear and non-sequential manner to underpin the evolution of ‘purposeful’ nursing leadership and policy influence.

6.2 Purposeful Leadership

I have constructed the term ‘purposeful leadership’ as a descriptor as a new model of policy influence because the ability to effectively influence policy is not something that happens by chance. Wilmoth and Shapiro (2014) spoke of the need for ‘intentional’ development of nurses as leaders (i.e. intentionally planned, resourced and supported) (Wilmoth and Shapiro, 2014). This thesis highlights a complex array of mechanisms and personal attributes needed for effective policy influence. Purposeful intent is needed to unleash the power of the 23 million-strong global nursing workforces, and this should begin as a core component of nursing education programmes. This was recommended by the WHO more than 7 years ago, but is not yet widely implemented (World Health Organization, 2013). Subsequent authors have continued to advocate for the inclusion of policy-

related competency development in nursing education programmes (Arabi et al., 2014, Shariff, 2015, Waddell et al., 2018, Bilazarian and Caceres, 2019).

6.3 Recommendations for Practice

Recommendations for practice close the loop on the discussion of the potential for nurses to identify clearly defined areas of policy focus and link these with the new model of effective policy leadership and advocacy. Successful implementation of the purposeful leadership model is an act of policy influence. The experience I accrued in leading the works discussed within this thesis underpins my understanding that policy influence is a complex, politically entwined long-term activity, and that education is required to effectively harness the power of the nursing workforce. Wilmoth and Shapiro (2014) highlighted the need to reform nursing education and incorporate content for the 'intentional' development of nurses as leaders in all contexts. Those authors noted a lack of consensus regarding a common framework and core competencies needed for nursing leadership (Wilmoth and Shapiro, 2014). A fundamental issue is that nursing education embeds a few lectures about leadership in one or two courses in an overall programme (Morrow, 2015). In contrast, politically-engaged leadership attributes should be embedded in every aspect of nursing education and practice (Knight and Hamilton, 2019). Affirming the view that patient advocacy and leading for change are core competencies and responsibilities of all nurses, nursing education must prepare nurses with the competencies to speak up, advocate for their patients and contribute to policy reforms necessary to achieve accessible and affordable healthcare systems with measurable progress towards the Sustainable Development Goals. Nurses need to be educated in a manner that sets aside any form of timidity or subservience inherent in our history (Carrier, 2019). Further, they should be prepared as young professionals with courage to lead with the level of radicalism required to generate real change (McKeown, 2016, McKeown, 2019). These competencies should underpin every aspect of nursing education. Equally important is the need for existing nursing leaders to purposefully commit to mentoring the next generation of nursing leaders (Ellenbecker et al., 2017, Bilazarian and Caceres, 2019). Nurses at every level must be educated about 'who' and 'how' to influence, and be supported to develop the resilience, persistence, and professional courage to do so.

6.4 My journey and Commitment to Continuing Influence

The research questions in this thesis arose from my early leadership encounters and subsequent experience in nursing, health and social service capacity development and delivery. My passion for continued influence is unabated. Since commencing this thesis, I have engaged on a global scale and been a strong advocate in promoting the role of nurses and midwives in achieving universal health

coverage. Specifically, my involvement in co-authoring the 2018 WISH (World Innovation Summit for Health) report '*Nursing & Midwifery: The key to the Rapid and Cost Effective Expansion of High-Quality Universal Health Coverage*' (Crisp et al., 2018) provided opportunity for global dissemination of key messages (International Council of Nurses, 2018, World Innovation Summit for Health, 2018, CNBC Africa, 2018, Brownie, 2018d). Development of this thesis provided opportunity to reflect on 35 years of leadership experience, and better understand the personal attributes I needed to strengthen and the mechanisms available to effectively demonstrate leadership in policy areas. I have been able to critically analyse current literature and my own work relating to nurses' involvement in effective policy influence. These reflections led to a greater understanding of the complexities of effective policy leadership, along with the comprehensive and long-term effort required for policy change. I am encouraged to persist with endeavours to articulate and enact the contributions and power of nurses in the health workforce. My proposed model of purposeful nursing leadership is a concept I will continue to explore, with the next step being to dissemination for collegial peer review and critique in published literature.

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Appendices

Appendix A: Body of Scholarly Work

Area of Focus	Citations and Impact of Included Scholarly Works Source Google Scholar https://scholar.google.com/citations?user=YIOhvKgAAAAJ&hl=en
Competency-based health workforce development and innovation	• BROWNIE, S., BAHNISCH, M. & THOMAS, J. 2012a. Competency-based education and competency-based career frameworks: Informing Australia health workforce development. <i>Report on NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks</i>. University of Queensland, Australia: University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. 33 citations • BROWNIE, S., BAHNISCH, M. & THOMAS, J. 2012b. Exploring the literature: Competency-based education and competency-based career frameworks. <i>Deliverable fulfilling part of the requirements for NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks</i>. University of Queensland: University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. 30 citations • BROWNIE, S., BAHNISCH, M. & THOMAS, J. 2012c. Listening to our stakeholders: Analysis of interviews regarding competency-based education and training and competency-based career frameworks. <i>Third report for NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks</i>. University of Queensland University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. 2 citations • BROWNIE, S. & THOMAS, J. 2014. A single competency-based education and training and competency-based career framework for the Australian health workforce: Discussing the potential value add. <i>International Journal of Health Policy and Management</i>, 3, 215-221.
Perceptions of nursing	• BROWNIE, S., ROSSITER, R., HAMAD, A. & AQTASH, S. 2017. The role and value of nurses in care provision: Views and expectations of Emirati Nationals in the western region of Abu Dhabi, United Arab Emirates. <i>Journal of Hospital Administration</i> 6, Online. 23 citations
Impact of nursing education in a low and middle income setting	• BROWNIE, S., ROBB, W., HUNTER, L. H., ALIGA, C., KAMBO, I., MACHAR, A., MWIZERWA, J., NAMUGUZI, M., NAMUKWAYA, C., NDERITU, E., SANDE, L., SKRZYPCZYNSKI, V., VASTANI, M. & XAVIER, M. 2016. <i>Supporting healthy futures for East Africa: Celebrating 15 years of partnership in nursing education</i>. Nairobi, Kenya, Aga Khan University School of Nursing and Midwifery. Secured 3 x USD \$1.6 mill grants for nursing scholarships. 5 citations

Competency-based Education and Competency-based Career Frameworks: Informing Australian health workforce development

Report by the National Health Workforce
Planning & Research Collaboration

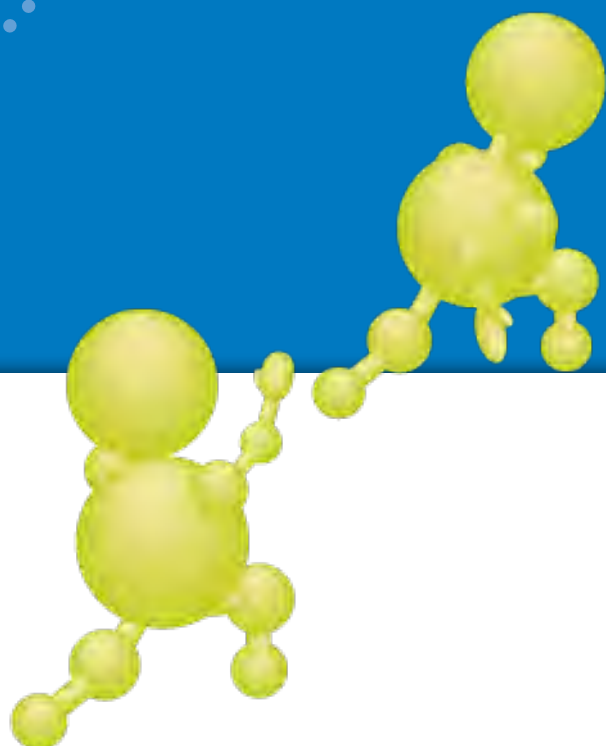
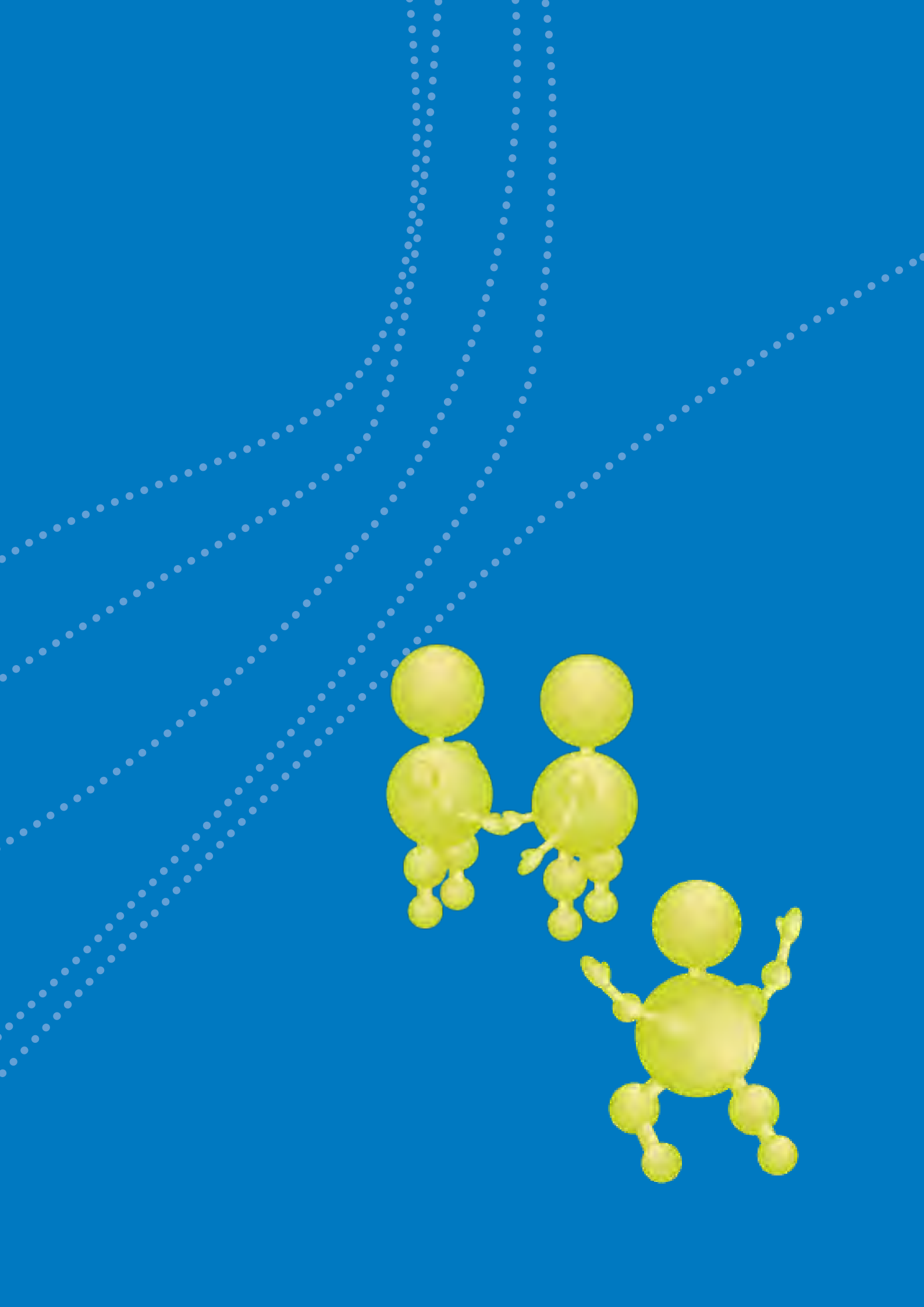
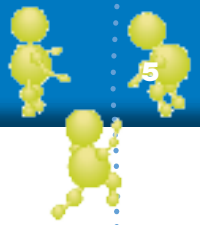


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1. Project briefs

1.1 National Health Workforce Planning and Research Collaboration

The National Health Workforce Planning and Research Collaboration, a consortium comprising Health Workforce Australia (HWA), Australian Health Workforce Institute and PricewaterhouseCoopers Australia, is in the final year of its substantial three-year program of national health workforce planning and research projects.

Australian Health Workforce Institute itself is a consortium of The University of Melbourne and The University of Queensland and for the purposes of this collaboration has established links with Australian National University, The University of Adelaide and Monash University.

The projects informing this report are situated in the Year 2 stage of project work. During the project procurement stage, the initial Chief Investigator was Professor Helen Chenery. This role then transferred to Associate Professor Sharon Brownie, Director of The University of Queensland node of the Australian Health Workforce Institute.

1.2 Contracted projects

The remits for the contracted work underpinning this report consist of two distinct health workforce projects, namely:

- mapping health workforce competencies, with a view to developing a taxonomy (classification framework) for competency-based standards in health
- exploring evidence-based options for competency-based health career frameworks in Australia.

As the projects were developed, the extent of synergy and overlap between the projects became increasingly obvious, and the contracting organisation, HWA, requested that a combined report covering both projects be produced, as outlined below. The projects are unique in their whole-of-workforce focus

1.2.1 Mapping health workforce competencies by developing a taxonomy for competency-based standards in health

The objectives of the project are as follows:

- report on research into definitions and terminologies used with potential relevance to the broader health sector in Australia, based on key informant interviews and a search of the peer-reviewed and grey literature
- produce examples of major types of competency-based frameworks and standards already in use in the health sector in Australia
- delineate existing roadmaps of key competency-based frameworks and standards in use in Australia now, demonstrating consistencies and inconsistencies, and relationships
- recommend a taxonomy for competency-based education and training in health.

The project scope consists of the following activities:

- literature review, including national and international sources and identification of level of evidence, which meshes with the competency-based career frameworks project (Project 5)
- interviews conducted with key informants, or respondents, to clarify, confirm or review gaps arising during project activities
- organising and conducting a comprehensive workshop of the research team
- organisation of meetings of the research team, consisting of the core University of Queensland team plus subject matter experts
- writing and delivery of interim and final report.

1.2.2 Evidence-based options for competency-based health career frameworks in Australia

The project objectives are as follows:

- a review of the literature on models for competency-based career frameworks
- articulation of the purpose and value of a competency-framework and its place in the Australian health workforce
- identification of evidence-based options for models of health career frameworks likely to facilitate a more flexible workforce in the Australian sector, and case studies to illustrate such models
- identification of lessons learned from previous experience in developing competency-based career frameworks—what to do, what not to do.

The project scope is twofold:

- to explore and articulate the purpose of a competency framework in health and its place in the health care sector in Australia
- to explore options for generic (that is, horizontally integrated—multi-professional—and vertically integrated) competency-based health career frameworks at a national level based on experiences in Australia and overseas.

1.3 Project team

The research projects involved extensive work across a number of complex fields. This report is the combined effort of many contributors.

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Australian Association for Social Workers

Australian College of Health Service Management

Australian Institute of Radiography

Australian Medical Association

Australian Medical Council

Australian Medical Students' Association

Australian Nursing Federation

Australian Peak Nursing and Midwifery Forum, comprising Australian Nursing and Midwifery Council, Congress of Aboriginal and Torres Strait Islander Nurses, Australian Nursing Federation, Royal College of Nursing Australia, Council of Deans of Nursing and Midwifery (Australia & New Zealand), Australian College of Midwives, and Coalition of National Nursing Organisations

Australian Physiotherapy Council

Australian Qualifications Framework Council

Carers Australia

Committee of Presidents of Medical Colleges

Community Services & Health Industry Skills Council

Department of Health and Human Services, Tasmania

Department of Health, England, United Kingdom

Department of Health, Victoria

WA Health, Government of Western Australia

Dietitians Association of Australia

Faculty of Health, Queensland University of Technology

Faculty of Health Sciences, The University of South Australia

Faculty of Health Science, University of Tasmania

Faculty of Health Sciences, Curtin University

Faculty of Health Sciences, La Trobe University

Faculty of Health Sciences, The University of Sydney

Faculty of Medicine, Health and Molecular Science, James Cook University

Faculty of Science, Charles Sturt University

Healthe Care

Lifeline

Manchester Business School, United Kingdom

Medical Board of Australia

Medical Deans Australia and New Zealand Inc.

National Rural Health Students' Network

New Zealand Nurses Organisation

NT Mental Health Services, Northern Territory Government

NSW Ministry of Health, Government of New South Wales

Nursing and Midwifery Board of Australia

Pharmacy Board of Australia

Physiotherapy, School of Community Health, Charles Sturt University

Queensland Health

Ramsay Health Care

Royal College of Physicians and Surgeons of Canada

San College of Education

School of Medicine, Flinders University

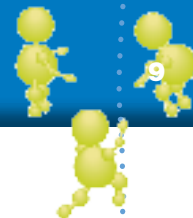
Services for Australian Rural and Remote Allied Health

Skills Australia

Skin and Cancer Foundation Australia

Society of Hospital Pharmacists of Australia (The)

SA Health, Government of South Australia



3. Glossary of terms

Unless otherwise referenced, this glossary was adapted from 'Health workforce competency principles: A Victorian discussion paper', published in March 2009 by the Victorian Government Department of Human Services. Terms defined by our research team are also noted in the glossary.

Term	Definition
Articulation	The key feature of articulation is the existence of pathways that allow graduates of one course of study to progress, or 'articulate', to another. The pathways are usually seen as 'upwards', especially from vocational education and training (VET) to university, but 'reverse articulation' can apply to traffic between higher education and VET. It can also refer to moving between related courses at the same level. Articulation is important because it relates to opportunity and status; 'dead end' courses that do not have pathways to opportunities for further study have less status than programs that do provide further study options.
Capability	The sum of expertise and capacity.
Capacity	The actual or potential ability to perform.
Career frameworks	Career frameworks, as defined by our research team, include a number of clearly defined levels at which a role could be performed from initial entry level roles to the more expert of specialist level roles. They can be used to aid workforce flexibility, provide a common currency to map competence portfolios of employees, and identify areas of transferability to other job roles. This allows progression in directions that may not have been identified through traditional routes (National Health Services 2009).
Competence	• This generic term refers to a person's overall capacity to perform a given role, including not only performance but also capability. It involves both observable and unobservable attributes, such as attitudes, values and judgemental ability. • A dynamic combination of knowledge, understanding, skills and abilities. Fostering competences is the objective of educational programs. Competences will be formed in various course units and assessed at different stages (Tuning Educational Structures in Europe 2011).
Competency	• Competency is a component part of competence. It refers to specific capabilities in applying particular knowledge, skills, decision-making attributes and values to perform tasks safely and effectively in a specific health workforce role (Tilley 2008; Verma et al. 2009). • It is also the ability to consistently perform work activities to agreed standards over a range of contexts and conditions (Knight and Nestor 2000; Ridoutt et al. 2002). • Competency is the consistent application of knowledge and skills to the standard of performance required in the workplace. It embodies the ability to transfer and apply skills and knowledge to new situations and environments (National Quality Council 2009).

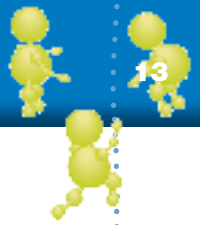
Term	Definition
Competency-based career frameworks	Competency-based career frameworks, as defined by our research team, group competencies under 'domains' (headings for classifying related competencies) in order to enable practitioners or workers to be assessed, to move up a career pathway or to have their skills and learning recognised for lateral movement. The frameworks may or may not be aligned with remuneration.
Competency-based education and Training	Competency-based education and training focuses on the ability of students and practitioners to deploy skills, attributes and knowledge to perform specific tasks and, more broadly, a clinical or health care role or function (defined by research team)
Competency-based education and training frameworks	These frameworks are carefully designed structures for enclosing and supporting sets of concepts, values, assumptions, roles, competencies and/or practices. They are a useful way of arranging curricula and expected learning outcomes. They can guide providers and/or participants in the content and standard of what is to be taught, learned, assessed, demonstrated and/or practised. Many professions and educational providers have published frameworks to specify competencies relevant for registration, assessment of practice and curriculum (defined by research team).
Competency field	The competency field reflects the way units of competency are categorised in training packages or denotes the workforce sector, specialisation or function. It is an optional component of the unit of competency.
Core competencies	Core competencies are considered to be essential competencies. They may exist within a workforce role or span across different workforce roles.
Competency frameworks	This term is used widely in the literature, can have different meanings, and can be found shortened to the term 'framework'. Sometimes competency standards are called competency frameworks. For example, when units of competency are grouped under 'domains' (main headings for grouping related competencies) it may be called a framework. In broader application, competency frameworks can describe and may also map related sets of competency standards that cover the operational level of different roles within a workforce group, such as level 1, level 2, level 3 and level 4 in a particular work role, and nurse practitioner, midwife, division 1 and division 2 in another role.
Competency standards	Competency standards are groups of competencies specified by the workplace and professional associations that are required to operate effectively in a particular workplace role. They specify what the public can expect from a practitioner. Sometimes related competencies within competency standards are clustered under 'domains' that refer to groups of related units of competency. Competency standards are sometimes referred to as competency frameworks.
Delegated	Individuals working under supervision, for instance, physician assistants and dental therapists (defined by research team).
Domain	A realm or range of attributes such as personal knowledge or responsibility.



Term	Definition
Educational frameworks	Educational frameworks are carefully designed structures for enclosing and supporting sets of concepts, values, assumptions, roles, competencies and/or practices. They are a useful way of arranging curricula and expected learning outcomes. A framework provides the providers and/or participants a guide in respect to the content and standard of what is to be taught, learned, assessed, demonstrated and/or practised (defined by research team).
Elements of competency	These elements describe outcomes that contribute to a unit of competency
Expertise	Skilfulness by virtue of possessing special knowledge.
Horizontal substitution	Movement of a discipline outside its traditional boundaries to take on tasks that are normally performed by other health service providers, or interdisciplinary change (Nancarrow and Borthwick 2005).
Learning objectives	Learning objectives, as distinct from learning outcomes, refer to a line of thought that defines educational outcomes by clarifying the type of behaviour a program of study should develop among students. Attainment is characterised by the behaviour specified.
Learning outcomes	Statements of what a learner is expected to know, understand and/or can demonstrate after completion of learning. They can refer to a single course unit or module or else to a period of studies, for example, a first- or a second-cycle program. Learning outcomes specify the requirements for award of credit (Tuning Educational Structures in Europe 2011).
Performance criteria	These are evaluative statements that specify what is to be assessed and the required level of performance. Performance criteria specify the activities, skills, knowledge and understanding that provide the evidence of competent performance.
Practitioner	An individual accredited, licensed and/or registered as a health professional upon meeting the specified requirements.
Professional standards	Professional standards relate to systems, procedures and information used by individuals to achieve a level of conformity and uniformity for a particular service provision, for instance running a healthcare service facility.
Proficiency level	Degree of mastery of a skill or area of knowledge, performance, and attributes (characteristics of person).
Professional	Individual with the knowledge and/or skills to contribute to the physical, mental and social wellbeing of patients and a community (defined by research team).
Recognition of prior learning	Recognition of prior learning (RPL) involves assessment of previously unrecognised skills and knowledge that an individual has achieved outside the formal education and training system. RPL is an assessment process that assesses the individual's non-formal and informal learning to determine the extent to which that individual has achieved the required learning outcomes or competency standards. The outcome of an application is that RPL will be either granted or not granted, and is reported against the relevant Australian Vocational Education and Training Management Information Statistical Standard codes.

Term	Definition
Regulated and unregulated professions	The professions are divided into health worker groups: - regulated professions—regulated by a nationally consistent legislation and supported by the Australian Health Practitioner Regulation Agency - partially regulated professions—regulation is limited to a number of Australian states that will move to national regulation in the future - unregulated health worker groups—no regulatory systems in place but may be supported by a professional body (defined by research team).
Specialist workforce	Individuals whose practice or role has a high degree of focus on a particular skill, area of knowledge and practice or expertise. These individuals are not limited to medical specialists, but to any health worker whose practice or role has a very specifically focused objective (defined by research team).
Subject matter content	Knowledge, skills, attitudes and attributes.
Supplementary healthcare workforce	Individuals whose scope of practice is either delegated or who perform assistant roles within the health workforce.
Taxonomy	Classification system (defined by research team).
Training packages	Training packages are aligned with the VET sector. They are sets of determined competencies for workforce sectors, designed to support competency-based training and assessment. Training packages are usually developed by workforce sector skill councils and involve employers, government and employee organisations.
Unit of competency	A unit of competency is a discrete component within competency standards. A unit of competency is the lowest level at which competence can be defined.
Vertical escalation	Vertical escalation or substitution involves the delegation or adoption of tasks across disciplinary boundaries where the levels of training or expertise are not equivalent between workers, for example, the extension of nursing roles to include prescribing, a role traditionally the domain of the medical profession (Nancarrow and Borthwick 2005).





4. Project recommendations

4.1 Australian health workforce

- That HWA further interrogates data describing the full profile of the Australian health workforce as per the categories identified in this report and disseminates information to further enhance whole-of-workforce understanding.
- That HWA undertakes further work to gauge the full extent of the emergent workforce categories, including consultation with key stakeholder groups regarding actual workforce and health service demand with a view to forming a strategic framework to guide increasingly emergent innovations and developments.
- That, at a national level, HWA adopts a whole-of-government coordination role on the allocation of funding and activities of direct relevance to the Australian health workforce.

4.2 Terms and conditions

- That HWA consults, develops and confirms an agreed set of terms and definitions to reduce ambiguity and ensure maximum clarity of communication and meaning across its work portfolio and in its interactions with key stakeholders. The glossary of terms included in this report could be a starting point for undertaking such consultation.

4.3 Competency-based education and training frameworks

- That HWA considers the requirements of competency-based education and training frameworks—for example, a clear communication and consultation exercise—to enhance increased understanding of, rationale for, and benefits of developing a whole-of-workforce competency framework. Vocational education and training (VET) sector informants indicated that an extensive communication strategy would not be required for the VET workforce, as the language of this sector is already one of competency.
- That HWA considers three options for a competency-based framework adaptable to a whole-of-workforce application within the Australian context. These options are to start afresh and develop a national workforce competency model; to adapt an existing model identified as having increasing acceptance and update across the workforce; or do nothing, and simply allow current unguided market developments to continue to unfold.

4.4 Competency-based career frameworks

- That HWA notes the potential benefits in developing and implementing a competency-based career framework for the Australian health workforce.
- That HWA notes the case studies and lessons profiled in this report.
- That HWA undertakes further analysis regarding the juncture between development of a competency-based career framework (a 'workforce project') and implementation of a competency-based career framework (an 'industrial project') and that these frameworks are fully explored and understood to optimise successful outcomes for any proposed development activity.
- That HWA notes the New Zealand *Let's Get Real* case study as an example of a competency-based career framework that has been implemented as a health workforce project without industrial adjustments.

- That HWA notes the Australian experience in reform of the Engineering Industry Award as a possible example of a competency-based career reform project implemented through aligned industrial adjustments (see Annex 6).
- That HWA notes the concept of levels contained within the notion of a competency-based career framework and collaborates with other key national initiatives (for example, Australian Qualifications Authority) to ensure optimal whole-of-government coordination in any developments going forward, so as to avoid frameworks with varying number of levels that do not match.

4.5 Further research

A suite of supporting papers, and a literature review, is being prepared to supplement this report, which together will help to inform ongoing work in the Australian health workforce context. The research team maintains that further research is necessary to provide a stronger evidence base for this work, and recommends further work in the following focus areas.

- Work to develop and enhance common understanding and an agreed glossary of terms associated with competency-based education and training and competency-based career frameworks.
- Interrogation of data describing the full profile of the Australian health workforce as per the categories outlined in this report.
- Work to gauge the full extent of the emergent workforce categories, including consultation with key stakeholder groups regarding actual workforce and health service demand, with a view to forming a strategic framework to guide increasingly emergent innovations and developments.
- Analysis and exploration of the juncture between development and implementation of a competency-based career framework in order to optimise successful outcomes for any proposed development activity.

In addition, the research team believes that significant gaps exist in the contextual literature informing health workforce debates, and has suggested a series of additional research. These are detailed in section 11.6.

5. Project summary



This publication reports on two distinct but closely aligned research projects designed to map health workforce competencies and to develop taxonomy for competency-based standards in health, and to explore evidence-based options for competency-based health career frameworks in Australia. The report is informed by a literature review and by semi-structured interviews with key informants from the health sector. Along with other National Health Workforce Planning and Research Collaboration projects, the outcomes are fundamental pieces of work to inform the development of future workforce innovation and reform initiatives.

5.1 The Australian health workforce

These two particular projects are unique in exploring competency frameworks from a 'whole' or 'entire' health workforce focus, with the term 'health workforce' in this report having a broader formulation than often adopted. Thus, an initial task of the project team was to identify and define the groups that make up the Australian health workforce. Several distinct groupings were identified, namely the following:

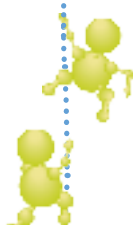
- specialist workforce
- regulated health workforce
- unregulated health workforce
- support workforce
- voluntary unpaid and carer workforce
- emergent workforce, including new roles within other categories.

Notably, an increasing number of emergent health worker groups were identified which do not fit easily within the categories above, for example, the newly graduating physician assistants whose lack of formal recognition within the broader health workforce community marks their employable contributions as unclear.

The research team noted two distinct categories of roles within the grouping of emergent health workforce, namely delegated health worker roles (for example, physician assistant and anaesthetic assistant roles) and autonomous health worker roles (for example, nurse practitioner roles). No clear model is apparent for these emerging roles either globally or across Australia. Nor is the workforce modelling underpinning start-up of corresponding courses within educational institutions clear.

It is recommended that HWA further interrogate data describing the full profile of the Australian health workforce as per the categories identified in this report and disseminate information to further enhance whole-of-workforce understanding.

It is recommended that HWA undertake further work to gauge the full extent of the emergent workforce categories, including consultation with key stakeholder groups regarding actual workforce and health service demand, with a view to forming a strategic framework to guide the increasingly emergent innovations and developments.



5.2 Terms and definitions

Another early task of the project group was to source and agree on a range of definitions for key terms used in this project. This emerged as a complex task, with the literature clearly illustrating the difficulty, as highlighted by the many different references to the notion of competence. Specifically, when exploring recent literature on competence, the one commonality is that there is no common definition of competence (Boon and van der Klink 2001; Whiddett and Hollyforde 2003; LeDeist and Winterton 2005; Lans and Mulder 2009; Winterton 2009).

A lack of understanding and agreement around a consensus definition is increasingly apparent to many working in the field of competency-based education and training. Subsequently, initiatives to develop more universally agreed definitions and glossaries of terms are beginning to appear in the literature, for example, those arising from the International Consensus Conference on Competency-based Medical Education and subsequent publications (Frank, Snell et al. 2010).

In the face of the existing definitional complexities, the research team agreed that despite the difficulties, a common understanding of key terms was essential to moving HWA commissioned competency-based projects forward. The research team noted the fully accepted definition of competence within the Australian vocational education and training (VET) sector (National Quality Council 2009); however, commonality of understanding and consensus of definition was not found to be present across both VET and higher education sectors. On this basis, a glossary of terms has been included for the purposes of this document. The terms identified in the glossary may be used in the context of workplace requirements, learning and development of the workforce or to address professional regulatory and accreditation requirements. The research team have produced this glossary table to assist clarity of understanding within this document and as a starting point for ongoing consultation, discussion and consensus.

5.3 Project drivers

Recent health policy (NHHRC 2009) has rightly emphasised the crucial importance of the health workforce to the future ability of Australia's health system to deliver quality outcomes. This focus on workforce policy arises from:

- a recognition that workforce shortages in some areas and unplanned growth in others impairs the capacity of the health system to meet health service needs and deliver patient/client-focused care
- a need for each nation and regional area to achieve workforce sustainability in its own right, taking into account the increased patterns and ease of global health worker migration
- an understanding that growth in interprofessional and multidisciplinary health teams responding to particular health needs is vital for health service outcomes
- a belief that workforce reform and innovation can embed operational agility and responsiveness in the health system
- an understanding that some currently structured health workforce roles may be unaffordable in the future, with a need to more effectively utilise the scarcer, more highly specialised members of the health workforce team.

A central response to the need to reshape policy thinking on the health workforce has been the idea of a health workforce competency framework which would inform competency-based education and training. Thus, many competency-based developments began as a way to realign education with societal and patient needs by providing greater emphasis of the full range of



practitioner roles than technical skills alone. Further, more broadly detailed health workforce competencies have the potential to deliver more integrated cross-professional teams and to ensure that health workers are flexible enough to respond to changing patterns of need and care.

A whole-of-workforce competency framework holds the promise of consistency and portability of education and training provision that connects across the learning and practice continuum and adds value to existing professional competencies. A framework increases accountability by making health workforce roles and functions more explicit. It provides the basis for greater recognition of prior learning and transferability of learning across and between educational institutions. A framework aligns education with health service and patient/client needs.

In addition, a whole-of-workforce competency-based career framework promises that the health workforce can be recruited, developed and retained in a more transparent and coordinated fashion, that individuals within the sector can progress in a more seamless way to greater levels of clinical responsibility (vertical escalation) and for practitioners to deploy their skills across professional boundaries (horizontal integration). A health competency-based career framework can assist in creating the sustainable and quality health workforce Australia needs to meet its health challenges over the next several decades.

A range of key national reports and Australian Government policy responses highlights the need for a coordinated, integrated system-wide approach for planning future workforce requirements inclusive of workforce competence. Of note is the National Health and Hospitals Reform Commission's final report *A Healthier Future for All Australians* (NHHRC 2009), the National Preventative Health Taskforce Report, and the National Primary Health Care Strategy.

Included in the priority areas for workforce reform is the enhanced alignment between education and industry, improvements in workforce flexibility, team-based collaborative models of care, and the achievement of a skilled competent workforce, which are enabled by education and training throughout the continuum of health service delivery. In addition to these national initiatives, State and Territory Governments have been progressing workforce innovation and work reform programs that have workforce competence as the key focus of their initiatives. (Many of these initiatives are embargoed, awaiting Director General and/or Ministerial approval.) Similarly, there is congruence between the workforce reform agenda and other reform initiatives, including educational reform and the forward activity of the Australian Health Practitioner Regulation Agency.

It is in this context that the National Health Workforce Planning and Research Collaboration was commissioned to research and report on mapping health competencies, develop taxonomy for competency-based standards in health, and provide evidence-based options for competency-based career frameworks in Australia.

5.4 Framework mapping exercise

This report includes a literature search for existing educational and training frameworks with a view to mapping the frameworks and recommending a national taxonomy or classification system for possible implementation across the Australian health workforce. The task of mapping existing competency frameworks was difficult because of the large number of frameworks that emerged during the literature review. Many more were sourced during the key informant interview process. Frameworks were identified in the higher education and VET sectors as the standards used by professions to provide expectations of practice, and workplace competencies were expressed as capabilities designed to meet the needs of service providers either at the jurisdictional or local level. The search located frameworks for almost every professional grouping, along with most support worker roles and also care giving roles (see Annex 3 for a sample).

There is wide variance in terminology, number of domains and levels of detail utilised. Many frameworks are profession specific and not readily applied to a whole-of-workforce scenario. Multiple frameworks exist, with many under review and many new ones emerging. In short, mapping frameworks is a moveable feast. Even though a large number of frameworks were identified, none included a whole-of-workforce perspective. Results from the work on mapping frameworks are detailed in Annex 4; noting that only a small sample was analysed due to the resources available for the project and the proliferation of frameworks.

Further, we found polarised views in both published literature (Matters and Curtis 2008; Sultana 2009) and among key informants in the definition, purpose and usefulness of competency-based frameworks in general and particularly in developing a framework encompassing a whole-of-health workforce approach.

We found that a range of adverse views exist on the notion of competency in higher education (with evidence of alternative frameworks, involving capabilities, roles and outcomes as other current trends). No clear agreement was identified around definitions, structure, parameters or conceptual models. There was widespread divergence of views, but also a surprising degree of endorsement for a greater consistency of approach, with many informants expressing significant support for the concept. It became very clear that progress towards an agreed national framework and taxonomy (classification system) is quite possible and has many potential benefits, but that such progress will require widespread consultation over a longer timeframe than permitted by the timeline of this project.

A key recommendation of this project is that HWA consider the requirements for a whole-of-workforce competency framework, for example, a clear communication and consultation exercise, which would be necessary to enhance increased understanding, along with the rationale for and benefits of developing a whole-of-workforce competency framework. To advance this recommendation, the way forward could include:

- publication of this research report on the HWA website to commence discussion across the sector
- publication of a comprehensive literature review on the HWA website to engender discussion, better inform the sector and increase understanding of key issues associated with competency-based education and training developments and competency-based career frameworks
- production and dissemination of information bites pertaining to key terms and concepts on which there is current debate, ambiguity and variance in understanding, for example, on competence, competency, taxonomy, framework, horizontal integration, competency-based education and training framework, and competency-based career framework
- commencement of consultation with the sector by development of a detailed discussion paper that adopts a workforce approach and outlines opportunities, options, benefits and implementation requirements associated with a whole-of-workforce approach to competency-based education and training and competency-based workforce utilisation and career progression.

5.5 Case studies of competency-based frameworks

This project has identified and profiled a number of case studies to illustrate the benefits and potential for a whole-of-workforce national competency framework and the diversity in existing approaches. Profiled case studies have been chosen from the areas of education, the professional arena and the workplace, and include international examples. This report highlights a

number of lessons drawn from the development experiences contained within these case studies, including the following:

- Successful development and implementation is dependent upon adequate preparation and extensive consultation.
- Costing must include costs of development, consultation, implementation (including training of supervisors and students), along with maintenance and updating, as like websites, frameworks must be maintained.
- Moderate levels of specification only are optimal to successful implementation and utilisation and to enable adequate flexibility to cater for region- or workforce-specific needs.
- Overspecification (too many domains and too many levels) impedes implementation and is too costly to maintain and/or upgrade.
- Overspecification interferes significantly with optimal time balances between teaching, supervision and patient care. A competency-based education and training framework is essential for quality assurance purposes but must not detract unduly from time needed for patient care and service delivery.

The Canadian model, called CanMEDS Physician Competency Framework), a high-level matrix framework, has many features suitable and adaptable for whole-of-workforce application within the Australian context. The seven CanMEDS roles can be adapted and equally applied to all categories and levels of worker within the Australian health workforce, including clinical, education, leadership and management roles. Equally, existing frameworks can over time be readily aligned with the overarching domains of the CanMEDS model without detracting from the specificity and uniqueness of existing professional or health worker roles.

In noting the potential of the CanMEDS model, this report highlights three options for consideration by HWA, namely:

- start afresh and develop a national workforce competency model
- adapt an existing model that is identified as having increasing acceptance and update across the workforce
- do nothing, and simply allow current unguided market developments to continue to unfold.

5.6 Health workforce competency-based career frameworks

This report summarises a review of the literature on models for competency-based career frameworks that focus on the purpose and value of a competency-based career framework and its potential place in the Australian health workforce. The report also profiles a number of case studies and identifies a range of lessons learned from the experience of others in developing competency-based career frameworks by highlighting relevant policy lessons.

The initial review process yielded very little information arising from the published literature. Upon subsequent discussion, the National Health Workforce Taskforce (later HWA) agreed to a variation in the project scope for the inclusion of key informant interviews to seek more information to underpin project viability and validity. These interviews proved to be highly valuable, from which emerged significant information in grey literature, including unpublished jurisdictional papers and project reports. Findings sourced through key informant interviews also provided a very different and richer perspective to the project's rationale. For example, drivers such as workforce planning, pay parity, role clarity, accountability, workforce utilisation, and enablers for increased horizontal and vertical integration were identified.

In response to questions on the purpose and value of a competency-based career framework, jurisdictional employers were very clear about purposes, value and benefits. Jurisdictions reported significant workforce shortages, surpluses and maldistribution. Duplications, inflexibility, role clarity and parity issues between various regulated professions and between professional employees and support workers—with 3000-plus role types reported in some jurisdictions—were key drivers in the move towards competency-based career frameworks. Many viewed a whole-of-workforce competency-based framework as a possible solution to current workforce flexibility, role and parity issues.

In contrast, other key informants, particularly educators, employees and professional groupings, were often puzzled and uncertain about the concept. Many did not know what a competency-based career framework consisted of or how to describe it. Similarly, a range of informants indicated they did not know what the concept meant, so were unable to comment either positively, negatively or neutrally, with ‘never heard of it’ being a common response. A small number equated a competency-based career framework with the United Kingdom Department of Health’s Skills Escalator, and mostly offered adverse comments in this respect. However, the research team was unable to identify any informants outside of the jurisdictional employers who were fully informed regarding the Skills Escalator development.

Very little evidence is yet available in published literature about competency-based career frameworks for the health workforce. However, discussions with key informants usefully highlighted a range of activities and associated benefits. In particular, Australian health workforce employers believe that some real win-win outcomes would be available through the development and implementation of a competency-based career framework on either a state-, territory- or nation-wide basis.

Perceived benefits include:

- greater clarity and transparency regarding workforce roles and accountabilities
- improved patient and consumer care through increased flexibility in utilising the health workforce, and clear articulation and maintenance of skills and competencies
- clearer career pathways and opportunities for the health workforce
- greater horizontal and vertical flexibility in workforce utilisation
- simplification of complex employment arrangements and control of burgeoning new worker categories
- strong base for maintaining role and remuneration parity between workforce groupings
- minimisation of escalating health workforce costs through more flexible use of the workforce.

A number of lessons were distilled during discussion with key informants who had undertaken the process of career framework development.

Lessons included:

- the essential requirement to consult extensively before starting the process . Insufficient up-front consultation resulted in the Skills Escalator initiative involving allied health workers only. The project had to be halted mid-point to undertake six months of road shows to allay fears and enable continued development
- understanding that consultation must include all key stakeholders with multiple Q&A sessions to allay fears and establish a common platform and agreement for moving forward





- avoidance of complexity. If the framework is too complex, it is highly expensive to develop, maintain and assess, and it becomes counterproductive to the delivery of quality health care, due to time and resources being diverted from care delivery
- that implementation in a federal environment such as Australia may be more complex and will possibly require 'award simplification' and 'award amalgamation' to enable nation-wide development and implementation.

A degree of parallel activity is occurring, which is conceptually congruent with the notion of a competency-based career framework. However, these developments are not necessarily occurring in tandem across the health and education sectors.

Concurrent work includes:

- review of Australian Qualifications Framework developments
- developments by the Australian Learning and Teaching Council in threshold learning outcomes.

Significant opportunity exists for HWA to align framework developments with the Australian Qualifications Framework and to ensure that the framework develops on the basis of congruent conceptual underpinnings and useful practical alignments, for example, with a matching number of levels .

On the concept of a competency-based career framework for the Australian health workforce, it is the recommendation of this report that HWA:

- note the potential benefits in developing and implementing a competency-based career framework for the Australian health workforce
- note the case studies and lessons profiled in this report
- undertake further analysis regarding the juncture and associated issues between development of a competency-based career framework (a 'workforce project') and implementation of a competency-based career framework (an 'industrial project') and that these frameworks are fully explored and understood to optimise successful outcomes for any proposed development activity
- note the New Zealand *Let's Get Real* case study as an example of an implemented competency-based career framework that has been undertaken as a health workforce project without industrial links
- note the Australian experience in reform of the Engineering Industry Award as a possible example of a competency-based career reform project implemented through aligned industrial adjustments (see Annex 6)
- note the concept of levels contained within the notion of a competency-based career framework and collaborate with other key national initiatives (for example, Australian Qualifications Authority) to ensure optimal whole-of-government coordination in any developments going forward, so as to avoid frameworks with varying number of levels that do not match.

6. Project methodology



This project was informed by two sources: a review of the published and grey literature and by formal semi-structured interviews and informal consultations with key informants across the health care sector. Informants included curriculum developers, employers, representative bodies, regulating bodies and end-user representative bodies. Interviewees were asked questions pertaining to their understanding of competence within education and training, and of a competency-based career framework. Areas covered included benefits, challenges, language, resource implications and scope.

Interviews were digitally recorded. Interview audio files were edited to remove information that could identify interviewees, and transcripts were classified according to the group from which the informants were drawn. Each transcript was given a numerical designation. In addition, a written submission and commentary was received from the Australian Peak Nursing and Midwifery Forum on behalf of their seven member organisations, representing their agreed-upon position. ACT Health responded to the interview by pre-written preparation of a questionnaire response.

The complete set of interview data was analysed by one member of the research team by two complete read-throughs, and by hand coding the data according to identified themes. In addition, Leximancer was used to validate the patterning of the data established by hand coding and analysis. Findings from the data were further validated through a process of peer review, involving a teleconference workshop and opportunity for identified reviewers to make written comments. A detailed methodology, including ethics approval, participant information sheet and consent form, and interviewee question sets, can be found in Annex 1.

7. Profiling the Australian health workforce

7.1 Introduction

Health service delivery and the associated education and training of the health workforce are specialized and labour intensive. Further, demand for health services is increasing as the population grows and ages (NHHRC 2009). Costs are increasing, driven partly by advances in medical technology and partly by increasingly complex co-morbidities in an ageing population. Against this backdrop, there is an increasing focus on the preparation and flexibility of the health workforce, as education and training of the health workforce takes many years.

The skills, size and distribution of the health workforce therefore have become increasingly important areas for policy investigation and action, particularly over the past decade.

In 2010, 'health and social assistance' became the largest employing sector in Australia for the first time, accounting for 1.27 million employees or just over 11% of workers (ABS YEAR). In 2006, the Australian Institute of Health and Welfare (AIHW) analysed census data and found that 548,384 people were employed as health workers. This number had increased by 22.8% from the 2001 census.

Almost a quarter (23.6%) of health workers are in unregulated occupations (AIHW 2006). There are many overlaps with 'social assistance' and 'community service' workforce categories, for example, in aged and disability care and mental health.

Many government reports, from the Productivity Commission's influential study, *Australia's Health Workforce* (2006), through to the final report of the National Health and Hospital Reform Commission in 2009, *A Healthier Future for All Australians*, have expressed concern about health workforce shortages, and a variety of remedies have been proposed.

This concern might appear paradoxical given the apparent strong growth in the overall size of the workforce. However, the picture is more complex than it seems. Overall, the clinical workforce is ageing, and increases in workforce supply through the import of overseas labour and an increase in domestic training places have led to bottlenecks and failures to adequately address issues of distribution. Within particular jurisdictions, there are shortages in some workforce categories and locations, but surpluses in others. In Australia, and in comparable countries such as the United Kingdom, there is a significant literature on increasing the career attractiveness of particular professions and specialties, but few studies exist on the career intentions of and possible lateral and vertical pathways in the health workforce.

At the same time, the unregulated and frequently invisible support health care workforce has a large component of less highly skilled labour, including many volunteers and home-based carers whose contributions are not fully understood or recognised.

Social, cultural and economic trends also shape the workforce context. While not fully seamless, labour markets are globalising and fast changing, and unstable economic conditions and the effect of government decisions impact on both the supply and demand for health workers and the degree of workforce mobility (WHO 2005). Career patterns have become relatively more fluid, with a shift to self-direction and autonomy, rather than intra-organisational career development (Lips-Wiersma and Mcmorland 2006). Hours worked can vary according to economic conditions, perceived insecurity and differing generational attitudes towards work-life balance (Productivity Commission 2005).

The entrepreneurial activity of both educators and employers, and the market model of health worker demand and supply in an increasingly competitive context for health education providers,

can unwittingly exacerbate surpluses in some worker categories but shortages in others. Many jurisdictions have recognised that simple linear projection models of workforce planning are inadequate. Thus, in a search for solutions a number of initiatives to better utilise existing skills, and to upskill existing workers, have arisen throughout the sector in a relatively uncoordinated manner. The Australian Government's Review of Australian Higher Education (Bradley et al. 2008) includes extensive reference to commercial and entrepreneurial activity within the education sector. Three years on, the market model has demonstrated duplications and shortages, signalling a need to ensure ongoing monitoring of trends and strategic policy responses across both the health and education sectors.

7.2 Whole of health workforce

The most recent Australian Bureau of Statistics (ABS) quarterly labour force figures show that 'Health and Social Assistance' has become the largest category of employment for the first time, accounting for 1.27 million employees or just over 11% of workers.

ABS definitions under the heading of 'social assistance' encompass many employees who are not health workers, but the overall number is a valid trend indicator. The Australian Institute of Health and Welfare (AIHW) report, *Health and Community Services Labour Force 2006*, provides a more useful picture for health policymakers, as it is based on an analysis of census data. AIHW found that 842,615 people were employed within 'health and community services' occupations in 2006, of whom 548,384 (65.1%) were health workers (AIHW 2006). The number of health workers had increased by 22.8% between the 2006 and 2001 census years, and by 11.6% between 2001 and 1996. As a proportion of the overall workforce, the health workforce was also increasing, to 6.0% in 2006 from 5.1% in 1996.

The health workforce is much larger than the sum of those workers directly employed by state and territory jurisdictions. It is also larger than the regulated and unregulated categories, usually thought of as core health workers, and which exists across non-government, private and government sectors. AIHW found that almost a quarter (23.9%) of the health workforce were best categorised as 'other health workers'. Most of these workers would be in the unregulated health workforce.

In 2008 the Council of Australian Governments, or COAG, agreed to create a national registration and accreditation scheme for health professionals, which came into operation on 1 July 2010 and is administered by the Australian Health Practitioner Regulation Agency, or AHPRA. Initially, professions registered in all or majority of states and territories were incorporated into the scheme, and a later call by the Australian Health Ministers' Advisory Council resulted in the identification of four partially regulated professions for inclusion by 2012: Aboriginal and Torres Strait Islander health workers, Chinese medicine practitioners, medical radiation practitioners, and occupational therapists.

To add to this complexity, people employed within the health sector, but not having an occupational title or qualifications directly related to health, are omitted from the data. For instance, administrators in a state health department without any clinical qualification would not be counted, nor would receptionists at a general practice, even though many administrators are health practitioners and receptionists may be enrolled or registered nurses, which would bring them within an occupational and sectoral classification. In areas such as mental health, aged care, and personal care for people with disabilities or chronic conditions—all of which can be anticipated to grow—there is overlap with other professional occupations (for instance, social workers) and also a growing number of sometimes ill-defined assistant and workforce categories (for instance, care givers) whose educational and training qualifications are likely to fall outside the ambit of health. The ABS 'social assistance' and 'public administration' sectoral



classifications (to name only the two most obvious), as well as the 'Community Services' occupational classifications of the Australian and New Zealand Standard Classification of Occupations used by AIHW, are likely to contain significant numbers of employees whose work falls primarily within the health sector.

Historically, the Australian health workforce has developed around the professions of medicine and nursing, with allied health professions and support health workers later attaining varying recognition. In addition to the previously identified complexity of people employed as health workers are those workers who have combined roles involving one or more of the following: clinical practice, education and training, supervision, management and leadership.

Approaches to workforce planning and supply have addressed the distribution and size of particular professions by seeking to improve supply through an increase in training places and the importation of labour. However, there has been little attempt to conceptualise the health workforce as a whole.

Educating the health workforce

Health workers are educated and trained through universities, specialist colleges and vocational education providers and health services. Most higher education continues to be professional in orientation, with interprofessional education only recently appearing on the agenda. However, universities and technical and further education, or TAFE, colleges, have been beginning to offer more generalist health qualifications over the past few years, as detailed in Annex 2. At the vocational education and training, or VET, level, the picture is very structured and detailed, with a plethora of qualifications at diploma- and certificate-level training for various categories of delegated health workers and increasingly for other health workers. The boundaries of health education and training are porous, with some professions (for example, psychologists and social workers) extending beyond health and with some categories of health workers receiving vocational training under the auspices of retail, administration and care.

Recent debates around workforce innovation and reform (Ellis et al. 2006) have often focused on role substitution and the expansion of the scope of practice of existing health professions, for instance, nurses and pharmacists. However, while there may be sound and indeed compelling rationales for expanded scope of practice, this approach does not represent a magic bullet for positioning the capabilities of the existing workforce to be responsive to current and future patient/client health service requirements.

The nursing workforce is the single largest health worker category and is ageing (AIHW 2006). Additionally, across the professions, problems are being encountered with the supply of clinical training places, and the cost of education and training in both monetary and time terms is neither properly quantified nor unaffected by other demands on existing practitioners. There is little firm evidence base for the proposition that role substitution leads to cost savings, with some research in the United Kingdom suggesting that decreased labour costs are outweighed by lower productivity (Laurant et al. 2005; Sibbald et al. 2006).

In parallel with the pressure for more autonomous practice, a delegated model of practice has become attractive. Emergent categories such as physician assistants and physiotherapy assistants have been developed, along with corresponding courses and qualification requirements. Some informants have suggested that the drivers for the creation of assistant categories include a belief that some clinical skills and tasks are better encompassed by practitioners where their scope of practice is limited and supervised, and entrepreneurialism on the part of educators and jurisdictions. A plethora of workforce categories arise, often on an as-needed basis, with little broader rationale.

One jurisdiction reported an audit found that more than 3000 job titles were in use throughout a particular state's health workforce. A sample of job titles from positions recently advertised across non-government, private and government sectors is attached as Annex 3.

Workforce planning has focused largely on the public hospital sector systems in each jurisdiction, and on the supply and projected demand for particular professional groups. However, the health sector comprises a multitude of employers from primary health care practitioner partnerships through to large private hospitals. Aged care and mental health encompass a wide variety of employers, spread across public, community and private sectors.

Aged care provides a good example of the diversity of the health workforce, with registered practitioners comprising a minority of employees.

Some submissions to the recently announced Productivity Commission Inquiry into Aged Care (Productivity Commission 2010) encapsulate this trend, with tension arising between issues of safety and cost control and a desire of existing professional groups to defend their turf and bring care assistants under the auspices of regulated professions. At the same time, there is a realisation among some jurisdictions that the public interest requires attention to the training and provision of appropriately skilled workers for the entire sector, but many decisions still reflect the power of entrenched interests and a narrow understanding of the workforce as radiating outwards from a core of the professions and specialties.

The experience in the United Kingdom demonstrates that an unintended outcome of even a whole-of-workforce approach can be facilitating the creation of new semi-professional roles with a delegated scope of practice (for instance, rehabilitation assistants and health care assistants). One informant to this project from the United Kingdom commented on the cyclical nature of this dynamic—where professionalisation can lead to the abolition of relatively unskilled workforce categories as they become more expensive to employ and as scope of practice becomes contested, only to see workers fulfilling the same basic functions reinvented as a new category decades later. A similar story can be told of the history of various second-level nurse categories in New Zealand where, over a period of 70-plus years, the second-level nurse evolved from a registered hospital aid, to community nurse, through to enrolled nurse, and then neared extinction, resulting in the cessation of all but two training programs (Brownie 1993).

Numerous examples exist where upskilling is perceived to lead to the function of care being delegated to other practitioners or workers. In a societal sense, this is indicated by the massive increase in voluntary carers and low-paid care givers, who are often educated only to secondary school or certificate I TAFE level. The research team has been impressed with the argument made by several informants, or respondents, that patients and clients are indifferent to the exact professional or vocational designation of care providers, being concerned rather that care is delivered in an expert, responsive and respectful manner. A move to a patient/client focus in health workforce requires a re-centring of workforce planning, education and training, and career pathways around that fundamental recognition.

None of this should suggest that appropriate levels of specialisation and clinical skill are not vital and necessary, but rather the research team argues that health workforce debates need to remain focused on the patient/client and their family and the systemic goals of health care delivery. The two areas encompassed by these research projects—a national competency-based education and training taxonomy and a competency-based career framework—must seek to balance appropriate workforce innovation and reform with a whole-of-sector perspective that transcends immediate needs and particular interests and remains firmly focused on patient/client care.

7.3 Summary

This project identifies the Australian health workforce as including several distinct groupings as illustrated in Figure 1, specifically, the following:

- specialist workforce
- regulated health workforce
- unregulated health workforce
- support workforce
- voluntary unpaid and carer workforce.

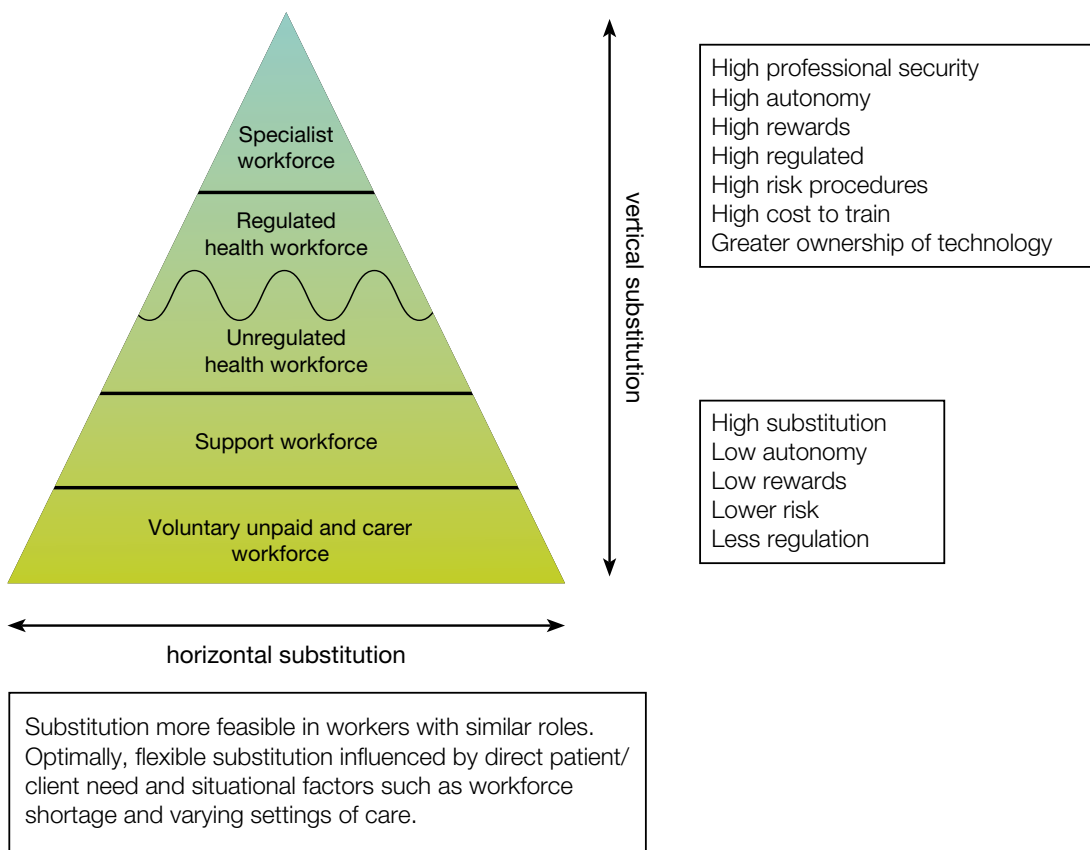


Figure 1. The Australian workforce comprises distinct groupings (adapted from (Nancarrow and Borthwick 2005).

An increasing number of emergent health worker groups were identified that do not fit easily within the current workforce categories, for example, newly graduating physician assistant workers whose lack of national formal recognition within the health workforce marks their employable contributions as currently unclear.

The research team noted two distinct categories of roles within the emergent health workforce, namely, delegated health worker roles (for example, physician assistant and anaesthetic assistant roles) and autonomous health worker roles (for example, nurse practitioner). No clear model is apparent for the emergence of these roles or for the workforce modelling underpinning the start-up of corresponding courses within their educational institutions.

A key recommendation of this report is that HWA further interrogate data describing the full profile of the Australian health workforce as per the categories identified in this report and disseminate information to further enhance whole-of-workforce understanding.

Additionally, it is a recommendation of this report that HWA undertake further work to gauge the full extent of the emergent workforce categories, including consultation with key stakeholder groups on actual workforce and health service demand in order to form a strategic framework to guide the increasingly emergent developments.



8. Findings from the literature

While there is a very extensive academic literature on the concept of competence (Grzeda 2005; LeDeist and Winterton 2005), largely concerned with its application to debates around education and training (Jones and Moore 1993), professional requirements, work organisation and human resource management (Cheetham and Chivers 1996; Stoof et al. 2002), there is little published literature on the rationale or the pros and cons for the different types of competency-based frameworks and competency-based health career frameworks. Given the gaps in the published literature, the research team has distilled evidence and findings from both peer reviewed and grey literature to inform this section of the report, rather than simply summarising existing academic publications.

It should also be noted that the research team has not found any rigorous evaluations of either competency-based education or career frameworks in the academic literature. This may be because the former primarily entered the higher education and vocational education and training (VET) sectors in the past 20 years and the latter was primarily a development of the 2000s. There is some evidence about the application of the Skills Escalator and the National Health Service (NHS) career framework in the United Kingdom, which at this early stage of their implementation, are somewhat ambiguous as to their benefits. This will be discussed below and in the case study of the NHS career framework development (section 10.2.4).

The research team confronted both a scant published literature and the need to bring together some quite diverse bodies of knowledge in order to address the research topics. However, **confidence in the findings and recommendations increased through validation** by the process of interviews with key informants, and the analytical work done by the team. General agreement on the topics was found among the literature, insights from informants, and views formed by the research team as the project developed.

Little has yet been published on the rapid proliferation of competency-based education frameworks within the education and training sectors, professional bodies and health service sectors. In addition there is little firm knowledge of the contribution of competency-based career frameworks (and much misconception about the nature of the Skills Escalator).

8.1 Competency-based education and training frameworks

Different terminologies are used in the literature and in published education and training and career frameworks, including capability, role, standards, competence and competency. While there have been attempts to discern subtle differences in meaning between these terms, they are often interchangeable and the choice of descriptor depends on ideology, fashion or the desire to secure consensus.

Given the diversity of understandings of the terms utilised, and the importance of harmonising and clarifying them in achieving a well-articulated policy goal communicable to all stakeholders, the research team recommends that HWA seek to formulate an agreed-upon and readily understandable set of definitions as a means of structuring further consultations. High-quality work in this area has already been carried out by jurisdictions and professional bodies, which have informed the preparation of the glossary within this report.

8.1.1 History

The concept of competence first arose during the 1960s, and since then has had many definitions and reconceptualisations (Brown 1993; Sandberg 2000; Garavan and McGuire 2001; Stoof et al. 2002; Lans and Mulder 2009). The competence movement had two interrelated objectives: closer specification of tasks performed as part of roles at work and rationalisation of the training system. The first objective had its origins in the scientific management movement of the early 20th century, and in later movements largely termed as ‘personnel management’, such as human relations. Put simply, while the scientific management paradigm of Taylorism sought knowledge about efficiency and time in performing particular tasks (Bahnisch 2000), the human relations perspective viewed job design and evaluation through the lens of industrial psychology and social science (Manley and Garbett 2000).

Comparable desires to modernise education, and particularly vocational education and training, coalesced in the concept that a ‘competence’ or ‘competency’ could be a common tool capable of being taught, assessed and utilised across formal educational institutions, workplace training settings and human resource management contexts (Hager and Gonczi 1996). Still later, attempts to render management and leadership more transparent and scientific led to the extension of competence to higher-order work roles (Antonacopoulou and FitzGerald 1996), and various reformist outlooks in public sector management adopted the concept (Horton 2000).

As it developed, the competency movement also drew on a range of competing and consolidating insights about the acquisition of knowledge, skills and attributes (Guthrie 2009). Additionally, the movement articulated the desire to make the economy more efficient through better mobility of labour and more productive labour utilisation, a goal that it said could be obtainable through training being comparable across industry and vocational sectors, rather than dominated by the needs of particular workplaces, craft or guild traditions, and/or pedagogical philosophies particular to different education institutions (Smith 2010).

8.1.2 Australian contexts

The current Australian debate on the utility of competency frameworks in health workforce innovation and health education draws both on this broader history and on factors specific to Australian education and training and the health sector.

Following policy debates in the mid-to-late 1980s, the Australian Government made important reforms to the VET sector in the early 1990s (Smith 2010). These reforms standardised vocational education and training (VET) qualifications across the nation, and moved to the use of competency standards through training packages (Allais et al. 2009). These changes envisaged the development of a flexible workforce with a high degree of transferability of skills across workforce categories and needs. Since the initial reframing of qualifications, curriculum and assessment within VET, the shift towards competency standards as a basis for education, accreditation and work evaluation has gathered pace (Allais et al. 2009). Competencies, though often labelled differently and conceptualised as outcomes, are now becoming an important benchmark for higher education standards (ANF 2005; AMA 2010; AMC 2010). Such developments are clearly evident through the activity of the various professional groupings within both health and other sectors and the desire of the Commonwealth to refine the Australian Qualifications Framework to rank all recognised qualifications from certificate I level through to doctoral level (AQF Council 2009).

8.1.3 Health sector contexts: *Clinical competencies and minimal competencies*

Within the health sector, a number of different trajectories can be distinguished. Across Australia, from the early 2000s onwards, postgraduate medical specialty colleges have increasingly been following the lead of Canadian exemplars and the CanMEDS framework in articulating

competency standards for education and practice. A number of professions are either adopting a similar approach or, in the case of nursing and midwifery, have an extensive history in the use of competency frameworks to a point of being possible pioneers in the field (Chiarella et al. 2008). In the case of nursing and allied health professions, the adoption of competency frameworks has often been part of the process of gaining legitimacy as professions, leading and/or following an expansion in scope of practice. Competencies were discussed as desirable for nursing education as early as 1977 (Bueno 1978). Meanwhile, frameworks for interprofessional education and practice have also been growing, again most notably in Canadian jurisdictions.

A sample of frameworks in use in Australia is given in Annex 4 of this report, and the CanMEDS and British Columbia interprofessional frameworks are described and analysed in case studies in sections 10.1.1 and 10.2.3.

Concerns about risk, legal liability and safe practice have also driven the competency agenda. These patterns are highly evident across all industries. Development and adoption of various frameworks specifying safety competencies for particular procedures, and/or seeking to ensure public or employee safety, are commonplace in matters pertaining to occupational health and safety, or OH&S, requirements. These include the safe use of equipment; a broad range of emergency procedures, including fire safety; and matters pertaining to public and/or patient safety, such as the safe handling and administration of drugs. Regulatory activity is common in these areas. A number of these competency requirements also align with international frameworks and/or regulatory requirements, for example, the World Health Organization providing health-related examples (WHO 2005) or the airline industry and associated international aviation standards.

Much of the concern articulated in the higher education literature has revolved around a fear that narrowly drawn competencies and the level of task specificity required in VET may compromise capacity to educate and develop higher-order clinical reasoning skills necessary for expert practice—a concept recently described as ‘tacit knowledge’ (AMC 2010). However, CanMEDS and other frameworks that have adapted a similar model seek to counter this perception by adopting a small number of top-level domains that are applicable across a range of practice areas and levels of learning and expertise (Frank, Mungroo et al. 2010). Similarly, educators in Australia argued for years that there is no necessity to the reductionist use of competencies (Gonczi 1996).

8.1.4 The Australian vocational education and training (VET) sector

The Community Services and Health Industry Skills Council, or CS&HISC, is responsible for the definition of a competency framework across the Australian VET health workforce, including defining existing and emergent roles (CS&HISC 2011).

The national VET competency standards and qualifications for the community services and health industries are agreed to nationally, and reflect roles of about 700,000 Australian workers. The qualifications and standards are located in the HLT07 Health and CHC08 Community Services Training Packages (CS&HISC 2011, 2011) and are maintained by the council. These packages house more than 1000 competency standards and 170 qualifications. The packages have been in place since 1999 for community services and 2002 for health. The council updates the qualifications and competency standards based on industry supply and demand drivers captured annually in an environmental scan (CS&HISC 2011).

The competency standards describe generic and specialist work, skills and knowledge across different roles and levels extending from certificate I through to vocational graduate diploma. Domains, or areas of work, are used to group and cluster competency standards, and include

occupational (for example, enrolled nurse); functional (for example, case management); and sectoral (for example, aged care) groupings.

The packages form the basis of VET qualifications and have influenced the formation of job roles and industry classifications across the range of different employer structures. A key feature of these packages is that they influence development of integrated skills and design of services and work, which are driven by industry and client demand at a national level. In theory, if such a model was applied across the whole of the workforce rather than the VET sector only, formation of new and changed work roles could more quickly respond to client and patient demand, and the innovation and reform objective of more integrated and interdisciplinary changes could be significantly realised.

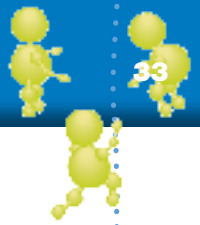
The qualifications and competency standards in CS&HISC's training packages as positioned against the Australian Qualifications Framework deliver the same function as the Skills Escalator developed as part of the Agenda for Change pay modernisation initiative for the National Health Service in the United Kingdom over the past decade (Agenda for Change Project Team 2004), although for the VET sector only. However, the packages enable development of competency standards at the highest levels. For example, the Vocational Graduate Diploma of Family Dispute Resolution reflects work undertaken by solicitors, lawyers, barristers, psychologists, mediators or welfare workers. Similarly, the Vocational Graduate Diploma of Community Services (Statutory Child Protection) reflects work undertaken by a university graduate in social work or psychology or a worker with VET qualifications or on the job experience.

The VET sector of the workforce has not been historically organised and recognised in the way the regulated professions have been. Arguably, the benefits of structural flexibility and integration achieved through the packages have been achieved due to the absence of strong professional silos.

The packages are now integral to ongoing discussion of a more integrated workforce and research in relation to potential whole-of-industry competency frameworks. Developments have now reached a juncture where expansion of the VET competency standards (and their potential expansion) is influencing design of the broader health and community services team and service models. New delegation and substitution arrangements are being enabled in key areas such as allied health and aged care through the Certificate IV in Allied Health Assistance and Certificate IV in Aged Care (TGA 2011a, 2011b). The competency standards in these qualifications reflect functions previously recognised as within the domain of degree-qualified professions but are now undertaken as part of the broader team.

The VET competency standards and qualifications framework have clearly been delivering what may be termed 'innovative' solutions for the health and community services industry. New service models that focus on clients remaining in community settings will require new combinations of specialist and generic skills working independently and/or in delegated or substituted arrangements across medical, nursing and allied health areas. Opportunity now exists for the policy debates about the relative merits of VET or higher education sectors and between VET and professional roles to move beyond oppositional attitudes and to reposition the debates in support of client demand-driven solutions.

Similarly, opportunity exists for deliberating on and researching all-of-workforce competency frameworks and related policy development and reform, and for this to include detailed consideration of nomenclature and structure, as well as the development and implementation contexts of the VET competency standards—the aim being to better share 'whole-of-workforce' learning and developments across both VET and higher education sectors.



8.1.5 Benefits and drivers

This report has already noted many benefits and drivers to support the development and use of competency frameworks. These can be summarised as follows:

- to enhance alignment between education and the needs of industry and related client base
- in the health context, to enhance alignment between education and the needs of individual health consumers and communities
- to facilitate consistent practice standards
- to provide open and equitable assessment of international practitioners
- to regulate a profession
- to guide curriculum development
- to provide a public statement about the profession
- to identify relationships between professions
- to more readily assist processes for the recognition of prior learning
- to increase accountability
- to assist in recruitment
- to facilitate performance review evaluation
- to improve staff morale
- to guide clinical supervision, mentoring and continuing education (PSA 2003; Spencer 2005).

The literature demonstrates that some gains have been made through the facilitation of interprofessional education and translatability of professional skills, as well as workplace planning. Evidence for the contribution that competency-based education frameworks make to ensuring appropriate skill mix for the delivery of care and to staff motivation is less clear-cut.

There are polarised views within the literature over the purpose and usefulness of competency-based frameworks. In particular, educators tend to be suspicious of the implications of the terms 'competence' and 'competency', fearing that these detract from the broader liberal purposes of higher education and imply assimilation with VET. Related concerns exist among some professions about the difficulty of reducing higher-order clinical decision-making skills, and an ethos of care, to the language of competencies.

A wide range of drivers have been identified in this report for the increased adoption of competency-based education and training frameworks, and their potential utility across the whole of workforce. These are summarised in Section 5.3.



8.1.6 Examples

An important finding of this research project has been a developing awareness of the sheer proliferation of competency frameworks in a range of Australian contexts. This has been revealed from sourcing grey literature and from the views of informants. While terminology differs considerably, competency frameworks have been adopted or are being developed by numerous health stakeholders, ranging from employers, through to professional groups, to educators. Many are concealed under the guise of contemporary terminology, including outcome-based frameworks, capability frameworks, threshold learning outcomes and more. Nevertheless, each defines expectations of skill and competence. Some of the most significant examples of frameworks are highlighted in Annex 4.

In addition, the following three competency-based frameworks are described in detail in section 10.1:

- CanMEDS
- Australian Learning and Teaching Council, or ALTC, Threshold Learning Outcomes Framework
- Hunter New England Capability Framework.

8.1.7 Recent crucial international developments

Three significant publications, all of them very recent, exemplify some of the most advanced insights internationally.

- Frank and colleagues (Frank, Snell et al. 2010) report on an international consensus conference designed to 'examine competency-based medical education conceptual issues and current debates'. Simultaneously, Frank and co-authors also published a systematic review of published definitions (Frank, Mungroo et al. 2010). Further work is being done internationally to attain consensus about concepts and definitions for the use of competencies in clinical education. This work builds on the impetus of the increasingly widely disseminated CanMEDS model. The research team has identified the possibility that international developments have to some extent outrun the state of the debate in Australia.
- The recent paper, 'Health professionals for a new century: Transforming education to strengthen health systems in an interdependent world' (Frenk et al. 2010), representing the findings of a commission of 20 international educational and professional leaders, spells out a transformative vision for health education in the 21st century. The authors identify numerous areas where professional education has failed to meet population health challenges, including a 'mismatch of competencies to patient and population needs'. The authors argue that 'laudable efforts' to redress the disjunction between existing models of professional education and changing social, cultural, demographic and epidemiological conditions have failed due to 'the tendency of the various professions to act in isolation from or even in competition with each other'. The authors see competencies as integral to their vision for a transformation of the health systems of the world and for renewing health practice in this new century of challenges.
- A major review (Collins 2010) was conducted of the United Kingdom Foundation Programme for postgraduate medical education and workplace training, an initiative that formed part of a suite of measures associated with the Modernising Medical Careers agenda developed since 2003. While the review was detailed and far ranging, Collins found disquiet in several areas of the training program. Much criticism was rightly levelled at overspecified and overly frequent workplace assessments, and their subsequent burden on the core delivery of patient care—importantly illustrating what can go wrong during the implementation of a competency-based curriculum development.

All of these papers provide further validation of the analytical insights and conclusions developed during the process of these research projects.

8.1.8 Resourcing Implications

Our research project has revealed several resource implications for competency-based education and training frameworks.

- Grey literature on the implementation of competency-based education and training frameworks emphasises that resourcing demands are significant.
- The cost of competency development and maintenance is high, as sufficient resources in time and cost need to be devoted to consultation and revision of competencies to ensure their currency.
- Concern has been expressed about the degree to which the use of competency frameworks for assessment within clinical placements and for workplace evaluation can tie up limited human resources, which might otherwise be more appropriately and productively devoted to patient care (Collins 2010).

8.1.9 Lessons

Our research project also noted several important lessons arising from documented projects and case studies in Australia and overseas.

- Overspecification (too many domains, too many levels) impedes implementation and is too costly to maintain and upgrade.
- Adequate preparation, extensive consultation and moderate specification are instrumental to successful implementation and utilisation.
- Costings must cover development, consultation, implementation (including training of supervisors and students) plus maintenance and updates.
- Overspecification interferes significantly with optimal time balances between teaching, supervision and patient care. A competency-based education and training framework is essential for quality assurance purposes but must not detract unduly from the time needed for patient care and service delivery.

8.1.10 Transcending opposed positions: *Beyond 'good tools, used badly'*

Examination of the literature, published and unpublished, and discussions with key informants led the researchers in this project team to a view that many of the apparent concerns expressed regarding the validity and value of competency-based frameworks can be reconciled.

There is increasing Australian-based acceptance and rapidly expanding international activity highlighting the utility of such frameworks for a range of uses and in a variety of contexts—all of which can be harmoniously aligned if an excessively narrow approach is avoided. Competency frameworks can yield substantial benefits in creating and maintaining a common language among different professional traditions, better aligning education to health service need to deepen the knowledge skills and awareness across the health workforce, and systematising and preparing medical and health education for new challenges, in partnership with jurisdictions, professions and employers.

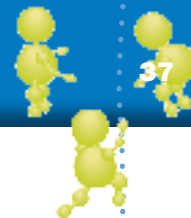
Much of the concern expressed revolves around the view (mistaken, in principle) that competencies necessarily have to be narrowly task focused and highly specified. Experience has shown that this is a real risk in practice, with some frameworks having too many levels,

and encompassing a far too detailed and specific set of competencies under a proliferation of domains. This could lead to a situation where the part drives out the whole, and exacerbates the significant demands on clinical educators and workplace assessors at the cost of patient care, thus nullifying the aim of well-aligned frameworks.

Because good tools can be used badly, it does not mean that they are bad tools and should be avoided. Professions have already widely adopted competency-based education and training frameworks, and if used well, the worries about a lack of time to develop higher-order clinical skills and tacit knowledge are avoidable.

The research team has framed the recommendations of this report with care. This report aims to underline the lessons learned from the mis-application of frameworks while also emphasising the view that the introduction of well-designed frameworks, including an overarching whole-of-workforce framework, is a far from impossible task, and can bring significant benefits across the workforce and the health sector.





8.2 Competency-based career frameworks

8.2.1 Definitions/Terminology and contexts

Policy impetus for the introduction of a competency-based career framework in Australia derives largely from concerns relating to workforce supply and the impact of shifting patterns of work, career progression and motivation. At the same time, there is a belief that such frameworks will aid in workforce mobility, vertical escalation and horizontal integration. The National Health and Hospitals Reform Commission report, *A Healthier Future for All Australians* (NHHRC 2009), and the Productivity Commission report, *Australia's Health Workforce* (Productivity Commission 2005), are key contributors to a developing agenda for ensuring that workforce skills can be harnessed effectively to meet current and changing population and patient health needs. Discussion of a competency-based career framework arises from this policy debate, but as yet there has been no clear articulation of its possible nature and purpose in the Australian context.

International literature does not adequately supplement the paucity of Australian publications on competency-based career frameworks. While a body of literature on changing career patterns exists, a more specific focus on sectoral career frameworks is largely absent. The exception is some literature on the Skills Escalator, which we consider briefly below and in more detail in section 10.2.4.

As noted earlier in this report, the terms 'competence' and 'competency' have been the subject of a very lively and extensive debate about their meaning (Boon and van der Klink 2001; Whiddett and Hollyforde 2003; LeDeist and Winterton 2005; Lans and Mulder 2009; Winterton 2009). However, there is no comparable body of literature on the nature of career frameworks or competency-based career frameworks.

The research team has defined the concepts based on grey literature, with inference from the scant published literature, and drawing on the views of informants, as follows.

Career frameworks include a number of clearly defined levels at which a role could be performed, from initial entry level roles to more expert or specialist level roles. A career framework can be used to aid workforce flexibility, provide a common currency to map employees' competence portfolios, and to identify areas of transferability to other job roles. This allows progression in directions that may not have been identified through traditional routes.

Competency-based career frameworks group competencies under domains (headings for classifying related competencies) in order to enable practitioners or workers to be assessed, to move up a career pathway, or to have their skills and learning recognised for lateral movement. Such domains may or may not be aligned with remuneration.

As already observed, no paper has sought to conceptualise the purpose and contributions of a competency-based career framework. However, published documents on the conceptualisation, development and implementation of the Skills Escalator and its associations with the NHS Knowledge and Skills Framework in the United Kingdom, and the single job evaluation tool embodied in the Agenda for Change pay modernisation initiative, as well as unpublished grey literature, enable the elucidation of some key points.

- A career framework can rationalise an ever-expanding set of workplace categories and role designations (particularly among the emergent supplementary and delegated practice 'assistant' workforces) into a more comparable set of roles that can be defined according to work value.

- A career framework may assist in better deployment of skills within multi-skilled teams, interprofessional collaborative teams, and where there are surpluses in some professional categories and deficits in others.
- A career framework can unlock hidden skills in the lower-paid proportion of the workforce, and encourage vertical escalation.
- A career framework can assist in enabling better utilisation of existing skills, particularly among allied health professions and nursing.
- A career framework may encourage recruitment and retention.
- A career framework may enable more systematic and evidence-based workforce planning.

The United Kingdom literature also demonstrates that flexible implementation over a few years can build momentum for professions to develop their own frameworks that align with the overall framework, and for the emergence of a more rational and clearer approach to determining appropriate scope of practice among a diverse set of professions and workforce categories. The facilitative nature of the process has also spread its benefits outside the NHS core into the private and not-for-profit sectors.

8.2.2 Examples

Only one attempt has been made to secure and implement whole-of-workforce and whole-of-sector coverage—the suite of initiatives based around the Skills Escalator in the United Kingdom. From the late 1990s, much policy activity occurred within that country around modernisation of the NHS generally, and health careers, job evaluation and skills assessment more specifically. The Skills Escalator is an indicative framework, allowing existing skills to be assessed to facilitate horizontal and vertical movement. It was the basis for an NHS-wide career framework for allied health professionals, published in 2008. However, implementation has been slow, and buy-in was not obtained from nurses and medical doctors. Nevertheless, comparability among existing and emerging roles is facilitated across the NHS by the intersection of pay banding and job evaluation through the Agenda for Change initiative, and a range of tools can be utilised by the employers, or NHS Trusts, for workforce planning and deployment, tools that are maintained and facilitated by the statutory authority, Skills for Health. More recently, some United Kingdom jurisdictions have encompassed social care occupations within the health sector framework, and Skills for Care applies the same principles to these care occupations.

Further detail of the published studies on the career framework experience in the United Kingdom is given in the corresponding case study (section 10.2.4).

Developments for a whole-of-workforce framework have been articulated in New Zealand, but for various reasons (considered in the case study below), the only competency-based career framework to be implemented to date is for a subset of the health workforce, namely mental health.

South Australia has implemented an allied health framework (South Australia Department of Health 2010), tied to awards through the state's public sector enterprise bargaining process.

8.2.3 Resourcing and barriers/limitations—lessons learnt

The literature (both peer reviewed and commissioned by the Department of Health and the Skills for Health in the United Kingdom) on that country's experience shows:

- significant resourcing is vital, as is a framework that avoids complexity and promotes flexibility
- a framework may have most effect in enabling the creation of new 'assistant' categories of the workforce with delegated rather than autonomous practice, something on which there is a divergence of views among key informants. Specifically, some key informants expressed the view that a number of the new 'assistant' categories of workers had very narrowly specified scopes of practice, which quite unintentionally could lead to less, rather than more, workforce flexibility
- the process in the United Kingdom was accompanied by a very significant expansion of public funding for the NHS, and it is unclear how the benefits of the framework will continue in an environment where funding pressure has returned owing to the recent global financial crisis and change of government
- expectations raised about the alignment of pay with skills have often been realised, and this may provide a disincentive for staff to upskill.

8.2.4 Lessons

The United Kingdom literature reveals broader concerns and lessons, which have applications for the development of competency frameworks in Australia.

- Consultation with both unions and professions is essential for successful implementation.
- Consultation must begin before the proposal for implementation of a framework to allay fears and to communicate clarity about the project and its goals and benefits.
- There must be clarity about linkage with remuneration and the industrial system.

A publishable literature review is a deliverable from this project, and will expand on the literature noted in this section.

9. Findings from key informants

As noted in the methodology (section 6 and Annex 1), the research team conducted a rigorous process of qualitative research, involving interviews with key informants from selected groupings, both nationally and internationally. While specifics of the representation of informants' views will be detailed in this section, it is important to underline by way of introduction that many respondents' opinions emphasised:

- a lack of readily apparent justification for both a national competency-based education and training taxonomy and a competency-based career framework, with the recurrent question of 'Why?' put to the research team by almost every informant .
- a belief that workforce issues have been treated as secondary to other health policy initiatives and that there is an urgent need for whole-of-government coordination and a broadening of focus beyond professions and direct employees of jurisdictions
- that the recent education-led increases in graduate numbers, new programs and new categories of health workers is not well connected to an understanding of workforce demand, and is exacerbating rather than solving a range of workforce supply issues
- that solutions to perceived workforce and quality-of-care issues have often been developed in a haphazard nature based on urgent need and that a strategic overview, including the development of appropriate developed frameworks across the whole sector, is an essential task.

9.1 Competency-based education and training frameworks

Consultations conducted by the research team revealed that the idea of a competency-based education and training framework was better understood among most respondents than a career framework. Many respondents were aware of frameworks that were in place within particular professions, for example, the Australian Nursing and Midwifery Council national competency standards, which guide both curriculum and professional assessment (ANMC 2006). Some respondents had been personally involved in the development of such frameworks.

A significant finding of this project is the sheer multiplicity of such frameworks and the varying bodies involved in developing, studying, accrediting or articulating them. Frameworks arose from a wide variety of motivations, often being developed to respond to perceived needs bridging education and practice settings. Agreement on the value of a national framework is broad based, but with some reservations and widely expressed notes of caution. The research team and HWA representatives concluded that it was simply impossible, at this stage, to be definitive about the number of frameworks in use or in prospect.

Respondents from the higher education sector often expressed concern about the introduction of competency frameworks assimilating content to vocational education and training (VET) level, and some professionals and educators had serious reservations about the applicability of competencies to higher level expertise and to clinical decision making.

Despite the level of expressed reservation, some **professionals**, particularly in specialist colleges and allied health professions, were very positive about the possible contribution of competency-based education frameworks, provided they were limited to a range of domains that could apply commonly across all of the health sector without undue complexity.

Despite polarities of view, many recognised the utility of facilitating interprofessional practice and clinical assessment across a range of placement types and disciplines. This was noted as partly



reflecting the wide use of the Australian Medical Council-endorsed CanMEDS framework as a model for professional frameworks, often postgraduate ones (Frank 2005; AMC 2010).

Some respondents emphasised that a clearly articulated rationale for a whole-of-sector framework had still to be made, and a concurrent point was that the process, to date, appeared to be fairly profession-specific. Because many frameworks had been developed either for university or professional purposes, it was not obvious how a national framework would apply to unregulated workers holding post-secondary qualifications obtained (if at all) through the VET sector. One professional informant, for instance, commented that some pharmacy assistants outside the hospital sector were trained under the auspices of retail, not health.

While there was general recognition that a national taxonomy (classification framework) could be of use in facilitating knowledge-sharing and interprofessional collaboration and in avoiding the fragmentation of care—particularly through the refinement and development of a shared language—an understanding about the purpose of a national competency-based education and training framework was less developed than an understanding of the concept of such frameworks.

9.1.1 Benefits

Reflecting the significant activity in the competency-based education and training framework area, an understanding of potential benefits was fairly common across all respondent groups. Further, this commonality emerged as a current topic of discussion throughout much of the sector. Perceived benefits include:

- development of a shared language
- better alignment between education and the industry, that is, the health sector
- opportunities for further understanding and knowledge sharing across different professions and workforce categories
- enhanced understanding among students of the contributions and knowledge base of different professions
- possibility of more seamless articulation and recognition of prior learning, not only between VET and higher education but also within higher education and postgraduate training through colleges
- potential for skills migration within the existing workforce, and better preparation for new and emergent demands on the health system
- potential for less fragmented care, and for more patient-centred practice
- potential for better utilisation of skills in geographical areas and demographics where the full gamut of health specialties and occupations is never likely to be present
- improved planning of workforce, education and training provision, and skill mix, both generally and within particular jurisdictions and employers.

Although respondents identified benefits, this does not mean that respondents believed that achievement of them would be a simple matter, nor that the successful development of a national taxonomy would be a panacea for the health system.

9.1.2 Limitations and resources

While jurisdiction and employer informants saw potential in a framework that facilitated alignment between education and the health sector, gave more seamless recognition of prior learning, and had potential utility in workforce development, some cautioned that the overall result would not be a decrease in training time, because of the potential increases in workforce assessment time and associated resources.

One of the commonalities of views around competency-based education frameworks is the proposition that supervision and training are already stretched, and that a shift towards competency-based frameworks would exacerbate this problem without a significant injection of resources. Many feared the possibility of an imbalance in the number of work-place assessments that might accompany widespread implementation of competency-based education training frameworks, and viewed the potential for over-assessment as negatively impacting on both the trainee experience and the time available for both supervisor and trainee to deliver patient care. There was little if any evidence that competency-based education would shorten training across the sector. This was particularly true for registered professional and specialist roles where a retention of complementary time-based systems were perceived as necessary for the formation of higher-order functioning, such as tacit knowledge and clinical reasoning—a point also highlighted in the recent Australian Medical Council consultation document, *Competence Based Medical Education: AMC Consultation Paper* (AMC 2010).

The widely held view that competency-based education would necessarily shorten training time was not upheld.

One respondent commented that a cultural change would be required among supervisors, and that well-developed implementation resources as part of a change management program would be essential, for success of competency-based education in the health sector. Another respondent believed that a 'dogmatic insistence on difference' among professions would be a major barrier.

Respondents were aware that the alignment of whole-of-workforce competencies with existing professional competency frameworks and other standards would be politically sensitive, and that it was essential to achieve buy-in from professional groups and to avoid the perception of cursory consultations. While many respondents, including from professions, were hopeful about the prospect of breaking down professional 'silos' and facilitating interprofessional learning and collaboration, others cautioned that it would be unwise to ignore the barriers stemming from many decades of embedded historical practice in both education and professional identities.

Respondents viewed the alignment of competencies across different university faculties and schools, professional bodies, colleges and VET providers as a very significant exercise. Some respondents were concerned that numerous initiatives (including the Medical Deans Competency Project, the Australian Qualifications Framework review and the development of Teaching and Learning Outcomes) could experience confusion if they proceeded without the overall coordination and policy purpose of competency alignment. However, some respondents emphasised that professional silos were repositories of professional knowledge, and expressed apprehensive about the possible loss of necessary specialist expertise, fearing the introduction of more 'generic health worker' categories. Attitudes to issues about task substitution appeared to have influenced respondents' thinking, but some respondents were confident that a robust professional identity would not be threatened by greater collaboration.

A significant number of respondents saw the potential for a CanMEDS-type framework to more clearly articulate and value profession-specific expertise along with the broader roles, which together underpin contemporary professional practice.

A wide range of informants were convinced that, overall, the development of a basis for aligning existing frameworks to a national standard was a potentially worthwhile project, with benefits including better alignment between education and health service need, more transparent articulation of profession-specific roles and contributions, a strengthened focus on health outcomes, and enhanced workforce flexibility.

9.1.3 Implementation

A number of points were made about implementation:

- A large number of respondents from the perspectives of curriculum, professions and educators and some jurisdictions and employers heavily emphasised that timeframes, to be realistic, had to be medium term. Five years to 20 years were the figures nominated. Respondents suggested that real inertia has to be overcome gradually, in a systematic and consultative manner. One university respondent observed that the structure of professions and education had developed in an unplanned manner for more than a century. Clearly, time spans of 5–20 years are too long given the workforce issues currently confronting the sector. Despite the historical timeframes associated with change, the authors of this report suggest that well thought-out strategies need to be identified to progress complex agendas of importance in a timely manner to address critical workforce issues.
- Resources were mentioned by almost all respondents. Pressures on clinical supervision are already extreme, and in the eyes of some respondents, the system works on the voluntary donation of time. Where workforce shortages exist, the time required or spent on clinical supervision and assessment can be challenged. A related view was that delivery of patient care must be appropriately balanced with assessment, training and supervision.
- Respondents often emphasised the importance of a strong lead, including a political lead, and that whole-of-government coordination and carriage of any development of a national framework was vital to its realisation.
- For a national framework to be meaningful, numerous respondents recognised that the health sector would need to extend beyond jurisdictions and cover a broader focus than professions and public hospitals. Primary care, aged care, mental health, and the extensive number of unpaid and low-paid workers and carers need to be considered, as do the private and community sectors with their great diversity of employers.

9.2 Competency-based career frameworks

Consultations conducted by the research team revealed that the idea of a competency-based career framework was well understood and supported by jurisdictions and employers, but little understood by other informants, some of whom indicated no prior knowledge of the concept.

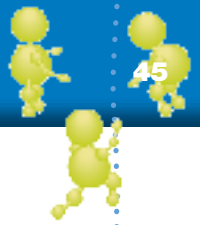
Jurisdictions were very clear about the purposes, value and benefits of a framework. A health competency-based career framework would help to create the sustainable and quality workforce that Australia needs for the 21st century. They noted that whole-of-workforce competency-based career frameworks held the promise of more rational and clearer policies, practices and procedures in health workforce recruitment, development and retention. Such frameworks, they noted, more seamlessly progressed individuals in the health sector to greater levels of clinical responsibility (vertical escalation) and more easily allowed practitioners to deploy their skills across professional boundaries (horizontal integration).

A career framework was perceived by employers as a priority, a potential solution, to two related problems:

- difficulties in aligning work value and parity among employees, particularly those in allied health and semi-professions and for support workers
- inability to best deploy skills across professional boundaries.

Recruitment of a future workforce and retention of an existing workforce were also possible contributions to a career framework, but its prime value was seen in rationalising current workforce categories to bring parity, order and structure into planning, costs and management of health needs and delivery.

Other key informants (for instance, educators and professions) were unsure about the nature of a competency-based career framework and, therefore, most often unable to comment either positively, negatively or neutrally. The United Kingdom model was primarily understood through hearsay only. Some respondents were dubious of the model or even hostile, based on their limited knowledge of the Skills Escalator mechanism. Many aspects of contentious debates (such as role or task substitution) around workforce flexibility appeared to have influenced negative perceptions. Some informants were suspicious that development of a competency-based career framework might become an agenda to introduce a 'generic health worker category'. Of those professionals who did understand the concept, support for the principle of a career framework was stronger in informants from allied health professions, where limitations of clinical career pathways were recognised. Most of the adverse comments came from only some of those informants who had difficulty understanding the nature of competency-based career framework. The greater number of interviewees from categories other than employers and jurisdictions knew nothing or very little about the concept or implications of a competency-based career framework, and did not comment at all or stated that they were not in a position to make an informed comment.



9.2.1 Benefits

While the majority of educational and professional respondents indicated little understanding of the potential benefits of a competency-based career framework, one respondent commented that such a framework might lead to health workers viewing themselves as ‘specialists in care’ rather than in any particular professional grouping. Better translatability of skills across disciplines and workplace categories would aid patient focus was a common view among educational and professional respondents.

Several respondents identified benefits around better communication and teamwork, and the promotion of interprofessional practice.

Discussions with Australian health workforce employers provided more detailed insights into the perceived benefits of a competency-based career framework. Those interviewed perceived some real win-win outcomes would be available through the development and implementation of what was commonly described as a ‘single-spine’ workforce framework on either a state-, territory- or nation-wide basis. Perceived benefits include:

- greater clarity and transparency regarding workforce roles and accountabilities
- improved patient and consumer care through increased flexibility in utilising the health workforce, and clear articulation and maintenance of skills and competencies
- clearer career pathways and opportunities for the health workforce
- greater horizontal and vertical flexibility in workforce utilisation
- simplification of complex employment arrangements and control of burgeoning new worker categories
- strong base for maintaining role and remuneration parity between workforce groupings (for frameworks with links to industrial workforce agreements)
- minimisation of escalating health workforce costs through more flexible use of the workforce (for frameworks with links to industrial workforce agreements).

Issues over scope of practice, and any tensions between delegated and autonomous practice, could be resolved more deftly through clear pathways both horizontal and vertical, and by the formulation and dissemination of a shared language in communications based on competency frameworks.

9.2.2 Cautionary note

One respondent cautioned that the translation of professional competencies into workforce banding and work allocation might have the effect of utilising ‘an industrial instrument to put a fence around the profession’.

The issue of specialisation was raised by a range of informants from professions, with concern being expressed that a competency-based career framework might lead to the replacement of the existing workforce with generic health workers and a reduction in specialty practitioners. However, other respondents from professions believed that an appropriate balance between profession-specific and common competencies could be struck. As with sensitivities expressed around the term ‘competency’ in debates over education and training, language was seen as being very important politically and ideologically to discussions about competency-based career frameworks.

Another respondent commented on the difference between the development of competencies for graduate- or entry-level practice from an education and training perspective and the codification of workplace competencies. It was emphasised that difficulties could arise in building a career framework based on entry-level workers, as the expectation from employers and the workplace would be that further acquisition of skills would be the main driver of career progress, particularly if awards and pay scales were aligned. It should be recognised, however, that not all skills can be used in work roles, and that attitudinal and performance-related factors also need to be expressed as competencies designed for workplace progression.

Few respondents had given much thought to a whole-of-workforce approach over the entire sector. Many believed that the movement towards a competency-based career framework was largely being driven by jurisdictions, and that it tended to only focus on the public sector hospital workforce. One employer respondent commented that the degree to which private hospitals accounted for beds, surgical cases and share of employment had not really been considered in the development of such a framework. Some respondents believed that the framework concept made most sense for rural and regional practice, where it was unrealistic to expect the whole range of medical and allied health specialties to be present.

9.2.3 Resourcing and implementation

In timeframes for implementation, most respondents suggested that the design and implementation of a career framework would take several years, at best. A respondent familiar with the United Kingdom Department of Health's Skills Escalator emphasised that the National Health Service, or NHS, in that country had a much more unified governance structure, with closer links and agreements between educators and the department, than was historically the case in Australia's largely federated system of health governance. Also, compared with the health system in the United Kingdom, the Australian system had a much larger proportion of workers employed in the private sector.

Key informants who had undertaken the process of career framework development in United Kingdom and New Zealand contexts highlighted a number of principles, or lessons, for implementation success.

- The essential requirement is to consult extensively in the developmental phase before implementation. Insufficient up-front consultation in the United Kingdom initiative resulted in only allied health workers being involved in the scheme. The project had to be halted mid-point to undertake six months of road shows to allay fears and enable continued development.
- Consultation must include all key stakeholders with multiple question-and-answer, or Q&A, sessions to allay fears and establish a common platform and agreement for moving forward.
- Complexity should be avoided. If the framework is too complex, it becomes highly expensive to develop, maintain and assess, and counter to quality and safety agendas—specifically, a complex framework requires so much workplace measurement time that it detracts from time available for patient care.

9.2.4 A competency-based career framework—the nature of the project

Industrial relations and the award system were also emphasised by jurisdictions, employers and regulators as an important focus for consideration by those aiming to develop and implement a competency-based career framework, with these issues being identified as both a barrier to and an enabler of implementation.

All informant groups expressed the view that development of a competency-based career framework was a workforce project, while its implementation was largely seen as an

industrial project. Further, the view was expressed that implementation is complex in a federated environment such as Australia, and might require ‘award simplification’ and ‘award amalgamation’ to enable nation-wide development and implementation.

However, according to researchers in this project, implementation of a competency-based career framework may or may not be an industrial project. The Australian experience in reform of the award system for the engineering sector in the 1990s is an example of an implemented framework with clear industrial links (see Annex 6). In contrast, the New Zealand mental health framework *Let’s Get Real* (National Centre of Mental Health Research Information and Workforce Development 2009) is an example of a competency-based career framework (see section 10.2.2) that is nearing full implementation without industrial links.

One respondent described industrial relations as ‘the elephant in the room’, with many others sounding a similar note. A key issue with the NHS Knowledge and Skills Framework in the United Kingdom (see case study in section 10.2.4) was expectations that pay would align with increased qualifications or competencies. The United Kingdom experience, which included the creation of a single job evaluation tool and three common pay spines, is more complex than is sometimes realised. But the principle remains the same—respondents indicated that while great benefits could be reaped from industrial simplification, direct linkage to remuneration would raise enormous political and implementation issues.

The experiences of implementation in the United Kingdom and New Zealand demonstrate in different ways that some gains can be made in rationalising pay bands and in rewarding effort and productivity without imposing a tight linkage between classification of competencies and pay bands. Potential positives exist here for recruitment, retention and motivation for employees, as well as for jurisdictions and employers. However, in the Australian context, frameworks that involve particular classes or groupings of workers (and/or pilot programs or initiatives at the jurisdiction level) may be the optimum way of proceeding. In either instance, clarity as to whether a competency-based career framework is an industrial project or a workforce project (or both), and an understanding of the respective advantages and challenges, is essential.

Implementation processes include substantive, consultation, resourcing and industrial considerations. Thorough planning, along with adequate consultation and resourcing, is essential to the success of workforce reform processes.

Few respondents were aware that there are existing Australian career frameworks, namely, the allied health and nursing occupations in South Australia (through enterprise bargaining), the Sydney Adventist Hospital and the capability framework in the Hunter and New England Area Health Service. Similarly, respondents were unaware of offshore developments, such as the *Let’s Get Real* framework, produced by the New Zealand mental health organisation Te Pou. One respondent suggested analysing the history of award reforms in Australia’s engineering sector to highlight the value of career frameworks to the country’s health sector. Some respondents suggested a pilot program would be a sensible step in providing an evidence base, dispelling misconceptions and enabling evaluation of benefits (Hunter New England Area Health Service 2009; South Australia Department of Health 2010) before wide-scale development within the Australian context.

10. Framework examples

As previously highlighted, the search for current examples of competency-based frameworks yielded a large number of frameworks (see sample list and content analysis in Annex 4) for which the research team noted various terminologies and descriptors. These include competency-based frameworks, standards-based frameworks, capability frameworks, outcomes-based frameworks, roles-oriented frameworks, and skills and knowledge frameworks. These can be found in varying degrees within the education and training sector, professional bodies and health services sectors.

Not surprisingly, the search for unarguably agreed definitions for frameworks of competency, outcome, standard, capability or skill proved as elusive as the search for agreement on the definition of the competency concept alone. When this difficulty was raised with key informants, their many explanations suggested that the terms were either ‘much the same’ or ‘same but different’ and highly dependent on ‘ideological perspective, changing perspectives, and/or fashion.’ One informant remarked:

It seems that the changing terminology is really renaming things that already exist... developing finer definitions and new ways of looking at things we already do...

What we are really doing is defining what we want health professionals to know and do and how we want them to behave. This has been the essence of health professional education over many years. Whether we call them competencies, capabilities or outcomes are not the point...the thing is whether or not we can define, assess and measure performance...we shouldn't get distracted by the terminology...

Other informants were more passionate about the different terminologies. A number of strong views expressed that competency-based training is the realm of the vocational education and training (VET) sector alone, and that outcomes-based models are gaining popularity within the higher education and professionally regulated sectors.

Subsequently, the research team focused on the identification and case examination of a sample of frameworks associated with various terminologies. The examples, listed in Table 1, indicate terminology variances in current Australian and international health workforce settings. Also in Table 1 is a list of resources and references pertaining to each framework.

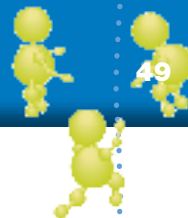
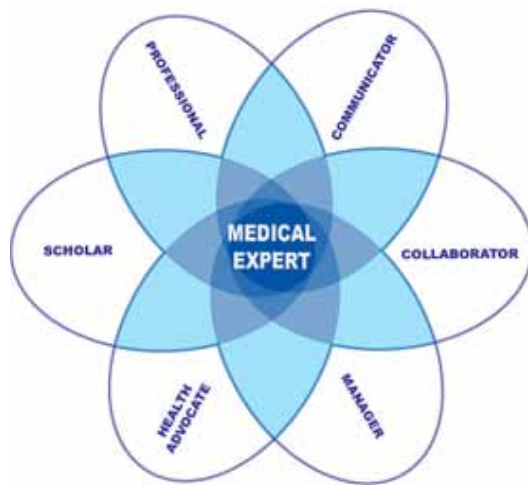


Table 1. Summary of framework case studies—type of framework and key resources

Name of framework	Type of framework	Key resources
CanMEDS	Roles-based framework	Royal College of Physicians and Surgeons of Canada website http://rcpsc.medical.org/canmeds/index.php
Australian Learning and Teaching Council (ALTC) threshold learning outcomes project	Outcomes-based framework	ALTC Learning and Teaching Academic Standards Project website http://www.altc.edu.au/standards
Hunter New England capability framework	Capability framework	Hunter New England Area Health Service 2009 (unpublished document)
New Zealand health workforce career framework	Career framework	District Health Board 2007 http://www.moh.govt.nz/moh.nsf/pagesmh/6945/\$File/career-framework-consultationjune07.pdf
New Zealand <i>Let's Get Real</i> competencies for the mental health workforce	Career framework	New Zealand Ministry of Health <i>Let's Get Real</i> website http://www.moh.govt.nz/moh.nsf/indexmh/letsgetreal
Canadian interprofessional competency frameworks	Inter-professional framework	Canadian Interprofessional Health Collaborative, Interprofessional network of British Columbia, website http://www.cihc.ca/library/handle/10296/221 University of British Columbia College of Health Disciplines website http://www.chd.ubc.ca/

10.1 Competency-based frameworks

10.1.1 CanMEDS



Description

The CanMEDS Physician Competency Framework is a roles-based framework developed by the Royal College of Physicians and Surgeons of Canada for use by physicians. It focuses on defining the key roles required of physicians to meet the health care needs of the patients, communities and societies they serve. The framework is centred on seven key roles that form the key framework domains under which a range of competencies and outcomes then flow. CanMEDS is used by educators, teachers and researchers, as a guide to curriculum development, as a basis for clinical teaching, and to inform research in health professions development. The key roles are as follows:

- medical expert
- communicator
- collaborator
- manager
- health advocate
- scholar
- professional.

Development and implementation

The CanMEDS initiative began in the early 1990s as a desire to reform medical education. It was then developed from 1993 to 1996 through extensive consultation with many specialties (Fellows of the Royal College of Physicians and Surgeons of Canada), expert stakeholders and health care organisations. Identification of core competencies and assembly into the roles framework of CanMEDS was facilitated by CanMEDS Roles Working Groups comprising hundreds of member Fellows. The framework itself was initially trialled in 1996–1997 in a number of small pilot projects in faculties of medicine across Canada. CanMEDS was then implemented in 1997–2002, during which time the Office of Education ensured that the CanMEDs roles and competencies were incorporated into all of the standards in residency education. Each specialty was involved in a five-year process to rework the CanMEDS standards specifically for that specialty. In 2003 the framework was revised by groups of expert volunteers, and in 2005 a new CanMEDS framework was approved (Frank 2005).

During the data collection phase of our research project, discussions with informants of the Royal College of Physicians and Surgeons of Canada provided insight into transitions from initial conceptualisation of their project to its current day form, for example, the initial use of 'roles' because of aversion to the concept of 'competency/ies'; the success of the implementation process, leading to the patenting of the CanMEDS brand, logo and high-level framework; and current moves to more openly define this framework as a 'competency' framework, given increased understanding and broad-based acceptance of competency concepts.

International implementation

In addition to its widespread use in Canada, CanMEDS has also been adopted internationally, with several countries including Denmark, the Netherlands, New Zealand and Australia adapting and using this framework as a model for postgraduate medical and other specialist education (Ringsted et al. 2006). For example, the Royal Australasian College of Surgeons has customised the CanMEDS principles to suit its purposes, expanding the seven CanMEDS roles into nine attributes (RACS 2010). Similarly, developers of the Australian Curriculum Framework for Junior Doctors drew on CanMEDS to define three major areas and six categories (Graham et al. 2007). Evidence exists that the CanMEDS model of competency is gathering increasing acceptance worldwide, and within the Australian context is increasingly being noted as a useful reference point for future framework development and implementation (DHS 2009). Further evidence of its relevance and useability is highlighted in the recent Australian Medical Council (AMC) consultation document, which indicates significant AMC support for the framework, with explicit encouragement regarding its increasing use in the Australian context (AMC 2010).

Success factors

The CanMEDS framework is among the most successful case studies identified by the research team. Its success appears to be based on the following factors.

- The framework was developed 'by the profession for the profession', rather than emerging as an outcome of a centralised policy mandate.
- Extensive and genuine consultation processes were included in the initial stages of development.
- The overarching domains (roles) and associated competency statements and outcome measures remain high level enough for sufficient autonomy for adaptation to local conditions, but avoid the implementation trap of excessive detail.
- The overarching domains are highly logical and equally applicable to all of the sixty postgraduate medical specialist and sub-specialty professions that relate to the Royal College of Physicians and Surgeons of Canada and to the Canadian practice environment.
- Significant research and development effort and resources has been invested in the ongoing quality improvement of the CanMEDS model over the past 15-20 years.

Applicability to Australian health workforce

The CanMEDS model emerges as highly applicable for whole-of-workforce adaptation in the Australian context. This assertion is made on the following basis.

- The seven domains of profession or role, specifically, expert, communicator, collaborator, manager, health advocate, scholar, and professional are equally relevant to all worker categories within the Australian health workforce and could be adapted to all levels of practice within both regulated and non-regulated sectors.
- The model has a substantial research and development base extending back almost two

decades, and therefore many initial development and implementation challenges have been addressed.

- The model is accompanied by extensive implementation and support resources developed over the past two decades, which could also be adapted to encompass the uniqueness of the Australian practice environment and across the full range of professions and support roles within the Australian health workforce.
- A high degree of acceptance is emerging for the model across the Australian health professional workforce, encouraged by key accrediting bodies such as the AMC.
- Strong and effective collaborative relationships already exist between a number of key Australian professional entities and the Canadian development teams.

10.1.2 ALTC Threshold Learning Outcomes Framework

Description

The Australian Learning and Teaching Council (ALTC) completed the Learning and Teaching Academic Standards (LTAS) Project in December 2010. The outcomes of this project have been the identification of threshold learning outcomes (TLOs) for Australian health care disciplines at professional entry level across the different levels of qualification. As part of the project, professional accreditation standards and competencies have been mapped to the developed TLOs. Within each discipline, the TLOs were determined by consensus among academic communities, professional bodies and employers, with reference to existing national and international work, and to existing accreditation standards where appropriate (ALTC 2010). The key themes of the TLOs are professional, assessment, planning and management, promotion and maintenance, activities supporting performance, safety and effectiveness, self-review and reflection, access, and use of evidence-based information.

Development and implementation

Outcomes arising from the TLO project have the potential to inform future national workforce competency work. In turn, this work offers significant opportunity to inform the development of clear and transparent alignment between an education qualification, professional accreditation process and workforce competence. Progressing coordination and collaboration relationships between these key reform initiatives will be essential. From 2011 the TLOs will inform some of the activities within the newly established Tertiary Education Quality and Standards Agency (TEQSA).

Further advancement and monitoring of implementation will be the responsibility of TEQSA, and will include the following activities:

- developing strategy for assuring academic standards (in consultation with disciplines)
- developing guidelines for institutions in consultation with higher education providers
- developing policy for reviewing the context of assuring academic standards
- accrediting and maintaining a register of Australian and international discipline experts who can independently judge samples of assessment tasks and results (ALTC 2010).

This framework is currently in its infancy. To date, challenges identified to the development and implementation of this framework include:

- defining outcomes at an appropriate level, so they are useable, assessable and encourage broad adoption across the higher education sector
- interface with the health workforce sector, as there is significant potential for duplication of



effort between health and education, with both sectors initiating developments in state-wide frameworks

- gaining multi-sector buy-in—ensuring involvement and ownership by all relevant sectors
- ensuring alignment of the threshold standards with other currently emerging national frameworks (ALTC 2010)
- envisaging progression from education to employment as the threshold standards are developed for utilisation to the point of graduation from initial undergraduate health qualifications only
- providing the resources to complete development of the framework and to commence the implementation process.

Threshold learning outcomes, or TLOs, are defined as the ability to:

- practice health care in a professional manner
- assess patient/client health status and to formulate and implement a management plan in consultation with the patient/client/carer/owner
- promote, maintain and/or support patient/client health
- retrieve and evaluate evidence to inform health care practice
- work in a team to deliver safe health care
- reflect on clinical practice and plan ongoing professional development needs for

Applicability for Australian health workforce

The ALTC Threshold Learning Outcomes Framework has the potential to usefully inform future national workforce competency work in the Australian context. This assertion is made on the basis that the framework has been developed on an Australia-wide basis with significant educational and health professional input. However, the framework has significant limitations (highlighted above), the main one being the lack of connection with health service employers during the development stage and the cessation of progression past the point of initial pre-employment undergraduate graduation.

10.1.3 Hunter/New England Capability Framework

Description

The Hunter New England (HNE) Health Workforce Capability Framework is a results- and values-driven framework applicable to all staff of the HNE Area Health Service. The framework describes the capabilities (defined as skills, knowledge and abilities) required of all health service staff to ensure a workforce that will deliver high quality services to the community. This framework establishes a platform to implement capabilities across a range of human resource practices, including learning and development, managing for performance, recruitment, workforce planning, and career development (Hunter New England Area Health Service 2009).

The Three Streams

Organisational Culture

Direction

Capacity to Deliver

The framework comprises three broad streams (organisational culture, direction and capacity to

deliver), which together are defined by 15 capabilities applicable to various groups within HNE Health. The organisational culture stream defines capabilities that are common to all jobs in the public sector, which in this context implies all HNE Health staff. The direction stream applies to organisational managers, and the capacity-to-deliver stream describes capabilities applicable to particular jobs within HNE Health. The framework is an adaptation of the NSW Public Sector Capability Framework (NSW Government 2008), which was released in 2008 while the HNE Health framework was being developed. In addition to the Public Sector Capability Framework contents, the HNE Health Framework also contains a maturity model to ensure the continued strategic integration of the framework for building sustainable workforce capability.

Development and implementation

The HNE Health framework took for more than five years of ongoing development, and was completed in 2009. During its development, Federal and State Governments were examining the application of workforce competency and capability models, so the framework needed to incorporate both best practice and government directions. The framework was contextualised for use in the health services environment through the joint effort of workforce development staff at both HNE and South East Sydney Illawarra Area Health Services. Key informants indicated that successful development and implementation of the framework was led by two highly supportive CEOs and an ongoing director of workforce. Other key drivers for success included dedicated resources and a majority buy-in by staff.

Applicability for Australian health workforce

The HNE capability framework has the potential to significantly inform future national workforce competency work in the Australian context. This assertion is made on the basis that the framework takes a uniquely whole-of-workforce perspective. Further, it is underpinned by five years of development history, including early implementation experience with strongly attached early evaluations in place. Its limitations, if any, rest around the relatively small geographic development base within a single health jurisdiction in contrast to the wider Australian landscape.

10.2 Competency-based career frameworks

10.2.1 A Career Framework for the Health Workforce in New Zealand



Figure 2 The New Zealand Health Workforce Career Framework (Ministry of Health & District Boards New Zealand Workforce Group 2007)

Description

A New Zealand career framework based on a whole-of-workforce model has been proposed to provide a framework for the consistent development of a flexible New Zealand health workforce. The framework was designed for clinical and non-clinical, regulated and non-regulated workforces. Its aim was to enhance understanding of the similarities and differences in various health workforce roles, enable strong branding for specific careers, establish a structure for the unregulated workforce, provide specific career pathways for differing groups within the health workforce, and improve retention and recruitment for the sector (Ministry of Health and District Health Boards New Zealand Workforce Group 2007).

The initial focus of the framework's development was to engage the health and disability sector in the development of a future workforce more closely based on competency, and less profession specific. Early engagement was seen as important to build a whole-of-workforce conceptual view, raise awareness of the issues, trigger common understandings and language, secure initial buy-in, and to obtain early stakeholder and government support for the concept.

The development group deemed it essential to develop an understanding and acceptance of a career framework for the New Zealand health and disability workforce that the whole New Zealand workforce could understand and own. All parties and individuals involved in the extensive consultation highlighted the importance of not rushing to implement a concept not yet understood or accepted.

Development History

The proposal for a career framework was first made by the Health Workforce Advisory Committee in 2006. Backed by the New Zealand Ministry of Health and District Health Boards, the original vision included development of a career framework for both the health and disability workforce sectors.

Initial work commenced via three national workshops, which were attended by a wide range of sector representatives. A Career Framework for the Health and Disability Workforce in New Zealand Consultation Document was released 19 June 2007 for a period of six weeks' consultation that included a series of four public meetings in main cities across the nation.

A key outcome of the consultation was rejection of the notion of a whole-of-workforce framework for the combined health and disability workforces. According to one informant to our research study, the rejection occurred primarily because of an 'ideological split between health and disability services'. (In New Zealand, all of the disability services and workers are funded via Vote: Health, which is the amount of public money the National Government decides will be spent on health care each year.) Informants explained that the disability workers and associated health professionals had adopted a more 'sociological language', including 'walking alongside', 'helping', 'supporting' and the like, and perceived the health workforce as being aligned to principles, activities and language revolving around notions of 'illness' and 'wellness'. The development group was unable to reconcile the ideological differences between the two groups. Disability workers (including carer representatives) insisted that they did not want to be 'submerged back into the health model'. Thus, the current framework in New Zealand covers the health sector workforce only.

Within the health workforce in New Zealand, the whole-of-workforce model was most readily accepted by the non-regulated workforce, which, during the life of the project, indicated a keenness for clearer career pathways, greater role transparency and improved recognition of skills and capabilities. The regulated professions were reported as being 'reasonably accepting' but 'less enthusiastic' overall, with nursing seeing the greatest potential benefits and New Zealand midwifery stakeholders the most strongly opposed to the model.

Current implementation status

Informants to our research project described implementation of the New Zealand framework as ‘currently in abeyance’ as a result of the change in government and its recent establishment of Health Workforce New Zealand, which is focusing on new priorities and their detailing.

Key informants indicated that the timing for implementation of the framework was now not optimal (‘not the right time to push it’), as New Zealand and various District Health Boards were in the midst of wage bargaining rounds. The comment was recognition that implementation of a competency-based career framework is as much (if not more) an industrial project than a workforce project.

In the interim, however, the concept is being picked up across New Zealand’s Aged Care and Mental Health sectors. The model is being progressed by the aged care and mental health workforces because, according to the New Zealand informants, these sectors have a larger proportion of non-regulated support staff that can benefit from improved flexibility of career pathways and greater recognition of prior learning. New Zealand-based key informants familiar with the framework suggested that its uptake within the aged care and mental health sectors might also be due to the framework giving many aged care and mental health workers a more formalised identity and clearer role definition that had been previously absent. The *Te Pou Let’s Get Real* project was highlighted as a whole-of-workforce project across the New Zealand mental health sector (Ministry of Health 2010a, 2010b). This project is described in more detail in the next section.

Enablers to implementation

New Zealand informants highlighted several enablers or essential precursors to implementation of a competency-based career framework, which can be summarised as follows.

- **Secure buy-in:** ensuring adequate up-front consultation and development of a high-level framework and concept to secure early ownership of the concept.
- **Plan, and do not rush implementation:** avoid the obvious pitfalls of implementation during the initial buy-in and producing stage. Plan around known pitfalls, which include resistance due to existing professional boundaries; existing scopes of practice embedded in training programs and existing roles; remuneration issues and existing industrial frameworks; and any restrictions in existing legislative frameworks, based on profession specific roles.
- **Reform legislative and industrial frameworks:** like many countries, New Zealand had legislation governing the practice of specific health professions. This has changed however, as New Zealand has laid the legislative basis for health workforce reform via passage of the Health Practitioners Competency Act, which is now the vehicle for public safety and the regulatory instrument of the health workforce. All health professions are now covered under this one Act, which encourages professions to set up ‘broad scopes of practice’. The Act enables overlaps in scope of practice and increased interdisciplinary activity. It is the enabling legislation for a whole-of-workforce development and reform, including implementation of a whole-of-workforce competency-based career framework. Informants indicated that the next steps are the development of a clear implementation pathway, including alignment of existing professions, links with existing professional development recognition programs, multi-employer collective agreements, and various merit scales (for example, those held by the allied health workforce). A single-spine industrial framework was seen as an important precursor to implementation.
- **Ensure adequate resources:** implementation was noted as a highly resource-intensive process requiring attention to a broad range of issues. An example of what needs to be



included in an implementation roll-out can be seen on the Te Pou website (refer to the *Let's Get Real* project below) for the entire mental health workforce..

Applicability for Australian health workforce

The New Zealand health workforce career framework might usefully inform a national competency-based career framework in the Australia. The New Zealand case study highlights the need for consultation and awareness raising during the development of a framework and before its implementation on a nation-wide basis. Ongoing discussions between HWA and key informants within the New Zealand Ministry of Health and Health Workforce New Zealand would provide HWA with direct access to the lessons learned on consultation, awareness raising and early implementation processes.

10.2.2 New Zealand *Let's Get Real* competencies for the mental health workforce

Description

Let's Get Real is a whole-of-workforce skills-based career framework covering the New Zealand mental health workforce. The framework includes 'Seven Real Skills', which describe the knowledge, skills and attitudes required to deliver effective mental health and addiction services. It is applicable to all people working in these services, irrespective of their role, discipline, type of organisation or population group they service.

The Ministry of Health has mandated *Let's Get Real* and 'Seven Real Skills' as the foundation framework to support the delivery of mental health and addiction services, and as such, the framework aligns itself with a range of national initiatives. For example, *Let's Get Real* skills are complemented by specialist skill sets and other specialist competency frameworks, some in existence before *Let's Get Real*, others at different stages of development (Ministry of Health 2010a).

The 'Seven Real Skills' are:

- working with service users
- working with Māori
- working with families and whānau (extended family)
- working with communities
- challenging stigma and discrimination
- law, policy and practice
- professional and personal development

Development and implementation

Development of the *Let's Get Real* framework began in 2006 and involved initial meetings with key sector stakeholders, a review of existing frameworks, a literature review of methodologies to develop competency frameworks, and establishment of expert advisory and drafting groups. It brought together a decade's worth of work undertaken by people in the sector on competency and capability frameworks specific to mental health and addiction services (Ministry of Health 2010a).

Let's Get Real was launched in 2008, following the development of enablers and learning modules extending over a two-year timeframe from 2007 to 2009. These implementation resources include an overview DVD/video, a leaders and managers' guide, a human resources

tool, a team planning tool, workplace learning modules, and an education review tool. The comprehensiveness of these implementation resources provides a unique insight into the extent of resources required to effectively implement a skills- or competency-based career framework.

The implementation process has two clearly described phases—the transition phase extending from 2009 to 2011 and the consolidation phase from 2011 to 2013. During the transition phase, mental health and addiction service providers will have the opportunity to become familiar with *Let's Get Real*.

The main goals of the transition phase are to ensure that:

- services are aware of and understand the framework
- managers understand how to integrate *Let's Get Real* into their organisational policies, processes and systems
- education providers are enabled to review and develop course content and teaching methods with *Let's Get Real* in mind
- professional organisations understand how to integrate *Let's Get Real* into their policies, processes and systems.

During the consolidation phase, it is anticipated that:

- the above-mentioned groups will integrate the framework into their policies, processes, systems, course content, and teaching methods
- workers will have learning opportunities to upskill as necessary
- organisations will be supported in the development of individual and team 'Seven Real Skills'.

The *Let's Get Real* framework is the only example that clearly demonstrates the extent of resources, investment and change management required for implementation of a whole-of-health workforce framework.

Applicability for Australian health workforce

The *Let's Get Real* career framework has the potential to inform future considerations regarding national workforce competency-based career frameworks in the Australian context. The *Let's Get Real* framework is the only example that clearly demonstrates the extent of resources, investment and change management required for implementation of a whole-of-health workforce framework. Further, the case study provides a useful example of implementation activities that can occur without significant industrial linkages and/or reforms.

Although confined to the mental health workforce alone, the case study yields a wealth of freely available implementation resources (with appropriate referencing) to provide considerable opportunity for adaptation and utilisation in the Australian context. Further, a range of pre-existing collaborative Australian–New Zealand government department relationships provide fertile ground for ongoing collaborative exchange, including parallel developments and evaluation activity.



10.2.3 Canadian interprofessional competency frameworks

Collaborative care and interprofessional practice

The concepts of collaborative care, interprofessional education, interprofessional teams, horizontal integration, workforce flexibility and cross-sectoral collaboration are fundamental rationales underpinning the move to competency-based frameworks for both education/training and health workforce career development—each of these concepts are noted as key drivers in our research project.

The importance of these concepts is evident in our report through the placing of collaborative roles and competencies as first-order domains within the range of our case study frameworks. For example, the CanMEDS collaborator role and the ALTC threshold learning outcome (an ability to work in a team to delivery safe health care) is also noted in our report, which includes the capability for health practitioners to demonstrate effective interpersonal relations and communication skills, along with an understanding and commitment to interprofessional practice. Against this backdrop, educators, professional bodies and employers are increasingly engaging in activities to better understand, define, teach and assess the fundamentals of interprofessional practice.

Changes in professional practice do not happen by chance. Rather, they are the result of realigned curricula, targeted efforts in continuing professional development, or CPD, and implementation of organisational reform and change processes. Such processes include the introduction of revised quality systems—for example, specifically designed competency frameworks for interprofessional collaboration, of which several Canadian initiatives are particularly noted.

Canadian interprofessional competency frameworks

The British Columbia Competency Framework for Interprofessional Collaboration

The British Columbia Competency Framework for Interprofessional Collaboration is organised into three domains:

- interpersonal and communication skills
- patient-centred and family-focused care
- collaborative practice
 - » collaborative decision making
 - » roles and responsibilities
 - » team functioning
 - » continuous quality.

Initially, a range of province-based examples were developed within the Canadian context, of which the British Columbia Competency Framework for Interprofessional Collaboration emerged as a well-researched and clearly articulated example (College of Health Disciplines and Interprofessional Network of BC 2008).

The framework was developed by University of British Columbia College of Health Disciplines via the Interprofessional Network of British Columbia, which sought out, compared and contrasted 15 existing frameworks.

The purpose of the development framework is to inform curriculum development in the context of both pre-registration education and post-registration CPDs.

In articulating this purpose, the British Columbian development team referenced the CanMEDS framework and highlighted development of a competency as ‘the process of translating core abilities in effective practice into educationally useful elements’ (College of Health Disciplines and Interprofessional Network of BC 2008).

The view espoused by the development team was that practitioners who can demonstrate their own professional specific competencies plus the interprofessional competencies will have the skills and knowledge deemed necessary to deliver 'optimal, integrated care' (College of Health Disciplines and Interprofessional Network of BC 2008).

Canadian National Interprofessional Competency Framework

The work of the provinces was further expanded by the development of a national interprofessional competency framework.

In 2008 Health Canada provided the Canadian Interprofessional Health Collaborative (CIHC) a funding grant to enable CIHC members to establish a working group with a mandate to:

- review literature related to competencies
- review the literature related to existing province-based frameworks (for example, the British Columbia Interprofessional Competency Framework)
- develop a Canada-wide competency framework for interprofessional collaboration.

CIHC is a consortium consisting of health organisations, educators, health professionals, researchers and students from all across Canada. Over the past three years, the CHIC consortium has worked together to develop a set of well-researched, clearly defined and measurable set of nationally mandated interprofessional competencies.

Published in February 2010 (CIHC 2010), the Canadian National Interprofessional Competency Framework includes six competency domains, specifically, interprofessional communication, patient/client/community-centred care, role clarification, team functioning, collaborative leadership, and interprofessional conflict resolution, as depicted in the following diagram.

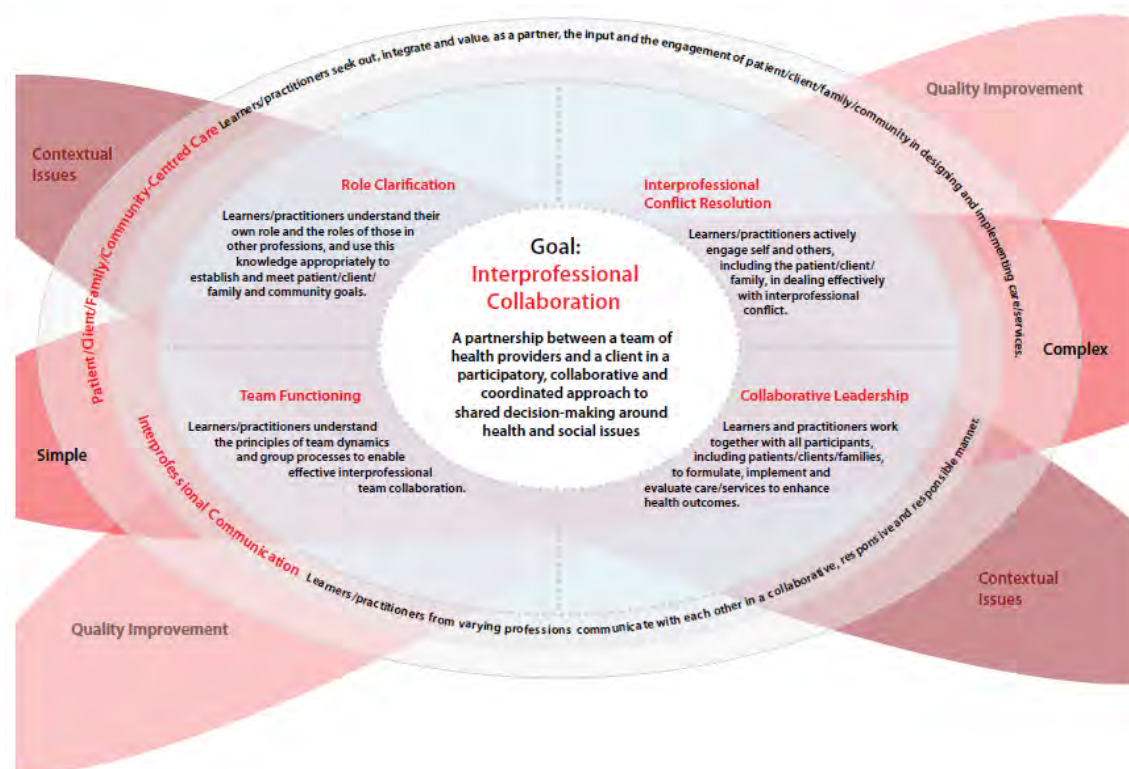
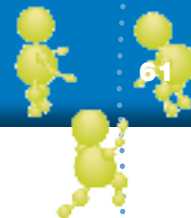


Figure 3 The National Competency Framework (source: CIHC 2010:11)



Applicability to the Australian Health Workforce

The Canadian interprofessional competency frameworks emerge as highly relevant and applicable for whole-of-workforce adaptation in the Australian context. This assertion is made on the following basis.

- Similar to other global health care systems, interprofessional education and integrated collaborative care are of increasing importance to the Australian health service reform and quality care agendas.
- Interprofessional functioning is a critical underpinning to many government health service delivery initiatives, for example, super clinics focused on complex care.
- The new paradigm will not happen across the existing Australian workforce unless focused education and CPD are regarded as essential aids to enhancing interprofessional practice.
- Many excellent initiatives exist within Australian educational and service provision contexts, but these are not yet coordinated at a national level; therefore, opportunity exists to undertake a national consultation exercise and achieve mandates for a series of national interprofessional competencies as highlighted in the Canadian examples included in this report.
- A number of effective partnerships and collaborative agreements are in place between Australian and Canadian professional bodies and government organisations, which provide fertile ground for ongoing collaborative development and evaluative change.

10.2.4 UK Skills Escalator

The United Kingdom has progressively adopted a suite of related measures designed to modernise pay scales, enable interprofessional practice and modernise the health workforce and careers within the National Health Service (NHS), with an overriding goal of the promotion of patient-focused care. The country's policy initiatives began in the late 1990s, as the Labour Government elected in 1997 sought to ensure that large increases in health spending—designed to better approximate the European average and lift standards of population health and wellbeing—were not diverted largely into higher workforce costs. A substantial phased increase in core funding for health was accompanied by a devolution of governance, namely through the empowerment of Foundation Trusts and, later, Trusts generally ('Trusts' are the immediate employing bodies for health workers in particular regions and localities in the United Kingdom). At the same time, a process of political devolution with the inauguration of the Scottish Parliament and Welsh Assembly in 1999, and the subsequent reinstatement of self-governance in Northern Ireland, allowed for further flexibility and innovation across a unified health system responsive to the four Departments of Health.

Pay modernisation under Agenda for Change (flagged in 1999 and implemented from 2004) led to three spines for the health system, but with one method of job evaluation, known as 'banding'. Accompanying Agenda for Change was the development of a Knowledge and Skill Framework, which would enable employers to assess the comparative value of staff in terms of their skill and knowledge base and to attain parity of skills and costs when rationalising the remuneration of health workers across a large range of job titles and professional and semi-professional occupations. While the principles behind this modernisation agenda are centrally driven, and were negotiated with relevant unions, implementation has been gradual and localised, with several pilots and demonstration programs designed to accompany each phase of change.

The original NHS Knowledge and Skills Framework included the concept of a Skills Escalator, which had the intent of facilitating vertical escalation and horizontal integration and seeking

to produce a win-win for both existing employees and for clinical and workplace planners in matching the deployment of skills to needs (Agenda for Change Project Team 2004). The overall vision was for less rigid professional demarcations, and an articulation of patient care priorities and cost control, efficiency and quality assurance (for instance, through the integration of health and social care in some Trusts, allowing ongoing care for those with chronic conditions to take place in the community but integrated more seamlessly with primary and hospital-based care). A central agency, Skills for Health, later accompanied by Skills for Care, exists to disseminate knowledge and provide tools for workforce planning and job evaluation by employers.

The intention was to design an overall competency-based career framework for the entire NHS to complement the other workforce measures. However, buy-in was not obtained successfully from medical doctors and nurses, and the process was halted for six months to explain the aims and goals of the framework and to dispel misconceptions about its implications. Informants to our research project felt that success would have been more likely had this process taken place before implementation, and if greater effort had been made over a longer period of time to secure support across crucial professions. The result was a Career Framework for Allied Health Professions, published in 2008, which only now is starting to be trialled. With a change of government to a Conservative–Liberal Democrat administration in 2010, and much pressure on public finances as a result of the government's deficit reduction strategy in the wake of the global financial crisis, it is unclear whether moves towards a whole-of-workforce framework will still proceed. Although the NHS is quarantined from direct budget cuts, it is under renewed financial pressure from a combination of the end of higher-than-inflation phased funding increases delivered by the Labour Government for a decade and the increased health and social care demands likely to flow on from the broader impact of reductions in public spending elsewhere.

Skills for Health has now released a non-prescriptive Career Framework Tool, which enables individual employers to build on the range of measures available within their own specific workplaces. The workforce tools available are linked to education and training through specification of particular competencies from National Vocational Qualifications (NVQ) and tertiary degrees (NVQ are the British equivalent of Australian VET-level certificates and diplomas). Potential interactions between the range of tools and frameworks are best illustrated diagrammatically in Figures 4 and 5:

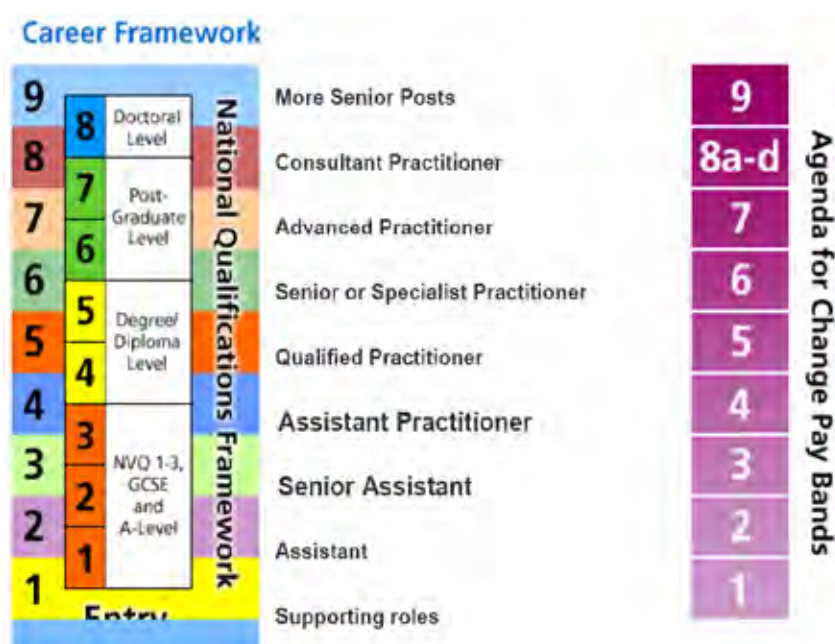


Figure 4: The Skills Escalator





Figure 5: Example of career progression

It is important to note that there is no automatic linkage between the Skills Escalator and the Agenda for Change pay bands. Indeed, some United Kingdom literature suggests that misunderstandings among staff about such connections have been a major challenge to implementation. Expectations have been created that acquisition of additional qualifications or competence modules translates into pay increases, but pay is still dependent on appointment to roles. However, the suite of workforce measures has been used by some Trusts to create new workforce roles to facilitate career progression.

The program for the modernisation of the NHS implemented from 2000 onwards has as one of its key objectives a decreasing reliance on purely hospital-based care and an integration of social care with clinical care. It is in this field that a range of new workforce categories—for instance, rehabilitation assistants—has been created and where allied health professionals from different professional backgrounds can be deployed within teams in coordination, care planning and management roles and with a broader scope of practice. Similarly, within the hospital environment, a range of roles has been developed for health care assistants, assistant practitioners, advanced support workers and general assistants. Importantly, the overall policy has provided a stimulus for the autonomous development of particular professional frameworks (for instance, podiatry, and public health) and for complementary education and curriculum projects.

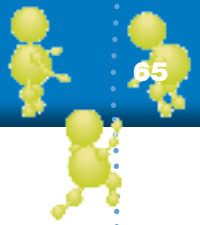
Literature on United Kingdom workforce modernisation programs

While no schematic overview of the modernisation of the entire health workforce in the United Kingdom has been published, a reasonable body of literature exists on aspects of innovations in the country's health workforce. Some are studies from the perspective of a particular profession or empirical studies on an activity within particular employers or groups of Trusts and regions. Some conclusions can be drawn, but United Kingdom informants to our research project expressed some disappointment about the lack of encompassing views or published evaluations in these studies. Annex 5 summarises a sample of relevant literature examined by our research team.

Applicability to the Australian health workforce

The United Kingdom model provides valuable insights and lessons for the development and implementation of competency-based career frameworks in Australia. The case study is nation-wide and extensive, with a range of evaluative material starting to appear in the published literature, and a great deal more available by direct discussion with key informants and access to the grey literature. The assertion of the study's value in the Australian context is based on the following observations.

- The United Kingdom model strikes a good balance between central policy direction and local adaptability. Governance, however, in the Australian health sector is more variegated and complex, and comparable initiatives would need a stronger whole-of-government lead and focus.
- Although coverage of all professions has not been secured, the United Kingdom experience suggests that gains can be derived from a flexible framework that has the potential for adaptability to various workforce settings and to professional and other workforce categories.
- It is difficult to adopt a workforce model that closely enmeshes primary care, social care and hospital care, but to the degree that Australian policy makers might wish to adopt a whole-of-workforce scope, the UK experience shows promise for delivering a range of flexible and interprofessional roles that can respond to current and developing health needs.
- Utilising the one workforce model for both health and social care (as per the United Kingdom Sector Skills Council model) seems an ideal way to address the lack of a whole-of-workforce focus in the Australian context. More generally, the United Kingdom model has the capacity to extend goals in developing skills and ensuring flexibility beyond the narrow focus of hospital employment contexts and workforce planning based solely around supply entering and graduating from particular professions.
- In particular, the United Kingdom measures, if adapted for an Australian context, might be useful in channelling and rationalising unplanned and 'as needed' development of new roles and job titles in supplementary, delegated and assistant categories.
- The United Kingdom case study yields many lessons on the levels of detail and optimality for the development and implementation of a competency-based career framework.
- Difficulties in implementation in the United Kingdom stemmed most prominently from the lack of a clear explanation of the purposes of workforce reform, and insufficient time for consultation and buy-in. Australian policy makers need to avoid these pitfalls, and this report presents recommendations that draw on this experience.
- While the Agenda for Change process in the United Kingdom did not make a direct link between acquisition of skills and increased remuneration, a simplified three-spine model for the whole workforce (negotiated with unions) made it much easier to bring rationality and clarity into cost control and work value parity among a range of workforce categories. The implementation of the workforce change program was accompanied by a very significant injection of financial resources and investment in agencies and tools to support workforce management and planning.



11. Conclusions and recommendations

11.1 Detailing current demographics and innovation activity within the Australian health workforce

This report takes a whole-of-workforce approach, and therefore has included a section detailing the range of health worker categories that make up the entire Australian workforce. Information regarding the full breadth, demographics and interrelationship across the health workforce is not readily available in an easily sourced location. The full breadth of the workforce is not readily understood, and a significant number of the respondents tended to view the workforce as comprising only the historically well-known range of professional groupings plus a small range of support workers and assistants.

However, many issues were raised about workforce shortage, with many references to the concept of workforce innovation. One of the findings of this report has been the unconstrained tendency of emergent workforce categories to be created organically in response to urgent needs.

A combination of attempts to manage optimal delivery of care among a wide range of employers and decision makers within jurisdictions, and responsive entrepreneurial and growth activity by educators, has led to a proliferation of job titles and workforce categories. Some of these emergent and supplementary workforce categories have direct relationships to professions, and seek to embody a delegated scope of practice under supervision (for instance, physician assistants and dental therapists). Others are more generalist or targeted at particular disease classifications, tasks and patterns of patient and population need, without necessary linkage to any one profession. Various other occupational titles and roles are created to facilitate career pathways for less skilled workers. In many instances, a variety of motivations is present and often coalesces between different innovators, for instance, educators, employers and health workers.

Much of this activity appears to be occurring under the justifying banner of innovation. In particular, the creation of intermediate forms of worker under this guise can often attract funding and support. However, the research team has been unable to discern a satisfactory conceptualisation of innovation that recognises the requirement of some form of planning, control, accountability and evaluation in the context of the health sector seeking to meet public needs.

Innovation as a national policy goal normally assumes market discipline as a discriminator between valuable and less valuable initiatives. Entrepreneurial activity in small business, for instance, typically has a failure rate of between 80% and 90%.

Ad hoc innovation in the health and education sectors is a resource intensive activity and materially affects the quality of care and patient safety, and needs a well-articulated discriminator for evaluation and judgement. The concept of health workforce innovation requires both an urgent definition and a guiding framework to help in the establishment of optimal investment and evaluation of scarce publicly funded development resources.

It is recommended that HWA further interrogate data describing the full profile of the Australian health workforce as per the categories identified in this report and disseminate information to further enhance whole-of-workforce understanding.

It is recommended that HWA undertake further work to gauge the full extent of the emergent workforce categories, including consultation with key stakeholder groups regarding actual workforce and health service demand, with a view to forming a strategic framework to guide the increasingly emergent innovations and developments.

11.2 Whole-of-government leadership and coordination

The presence of overlapping and/or duplicative activity became increasingly evident over the course of this research project. Large-scale framework development initiatives were identified at a federal, state and professional level, for example, the Learning and Teaching Academic Standards Project funded by the Australian Learning and Teaching Council, the Medical Deans Competencies Project funded by the Australian Government Department of Health and Ageing, and this project funded by National Health Workforce Taskforce/HWA.

Similarly, a range of new worker categories are emerging from different lead points across health, education and a range of other government departments. Examples include the 20 new worker categories being piloted under the HWA aged care strategy, the physician assistant programs initiated by the educator, and the Personal Helpers and Mentors Program via the Department of Families, Housing, Community Services and Indigenous Affairs.

The researchers in our study do not wish to raise these developments as problematic. Rather, the research team highlights its observation that many of the program and project funders or leaders were frequently unaware of similar or overlapping or even competing initiatives—signalling an opportunity for HWA in its early stages of establishment to prioritise the adoption of a whole-of-government leadership role in health workforce matters.

It is recommended that, at a national level, HWA adopt a whole-of-government coordination role in the allocation of funding and activities of direct relevance to the Australian health workforce.

11.3 Definitions and glossary of terms

Exploration of the literature and discussion with key informants revealed large-scale differences in knowledge base, understandings and opinion regarding word terms central to this project, for example, competence, competency, minimum, outcome, framework, and taxonomy.

Further, we found an ideological aversion by several informants to various terms, with some terms being categorised as ‘taboo’ within certain professional contexts. There was, however, a consistently reported view that the notion of competency and competency-based education frameworks was growing in acceptance and use, with most professional groupings having well-developed and established competency frameworks, expected practice standards and/or training outcomes.

Most respondents highlighted the need for agreement on a set of common terminology, definitions and understandings—signalling this as an essential precursor to discussions across the whole health workforce and the possibility of the development of an overarching national competency framework.

Respondents were further of the view that the work of HWA would be enhanced by the development of an agreed glossary of terms to ensure consistency of communication and understanding across all HWA endeavours—it was seen as important that the organisation did not contradict itself by expressing different understandings of the same term.

A key recommendation of this report is for HWA to consult, develop and confirm an agreed set of terms and definitions to reduce ambiguity and ensure maximum clarity of communication and meaning across its work portfolio and in its interactions with key stakeholders. The glossary of terms included in this report could be a starting point from which such a consultation could be undertaken.

11.4 A competency-based education and training framework for the Australian workforce

The presence of a large number of existing and emerging competency-based frameworks quickly became evident in the early stages of this project. Despite the concerns about the concept of competency-based education and training expressed by a number of higher education and professional informants, there is extensive use of such models within most professions and standard settings organisations. No whole-of-workforce framework was identified by informants.

Against this backdrop, the project funders agreed that a large-scale mapping exercise was not the most useful way to advance discussion about such frameworks. Instead, the project funders requested that our research focus on a number of Australian and international studies and investigate lessons observed from the development and/or implementation of each case study , along with applicability for adaptation to an Australian whole-of-workforce setting.

The Canadian CanMEDS model has many features suitable and adaptable to whole-of-workforce application within the Australian context. The seven CanMEDS roles can be adapted and equally applied to all categories and levels of worker within the Australian health workforce. Equally, existing frameworks over time can be readily aligned with the overarching domains of the framework without detracting from the specificity and uniqueness of existing professional or health worker roles.

Of course, any model would require adaptation and alignment with the unique elements of the Australian context and ideally would involve fully evaluated pilots before widespread roll-out. If the CanMEDS model was adopted, the seven roles would either require review and potential adaptation of existing role descriptors, addition of one or two extra roles in areas such as practice within varying cultural contexts or the increasing need for health workers at all levels of the workforce to possess skills to teach and assess others—although this latter requirement could fit within the existing scholarly role .

This report highlights three options for the consideration of HWA in respect to the development of an overarching competency-based education and training framework for the whole Australian workforce: first, start afresh and develop a centrally regulated model; second, adapt an existing model that is identified as having increasing acceptance and update across the workforce; or third, do nothing and simply allow current unguided market developments to continue to unfold.

The writers of this report support option two, that is, a move towards the development of an overarching framework to guide the entirety of the Australian health workforce. In a similar manner to the Tuning Educational Structures in Europe project (Tuning Educational Structures in Europe 2011), a recommendation of this nature does not seek to direct, prescribe or mandate uniformity of curricula or roles. Rather, the intended benefit is to develop a framework that will enable convergence, points of reference, common understanding and increased flexibility across the Australian health workforce. In no way, however, would development of such a framework seek to restrict the independence and standards setting capacity of various academic institutions and/or professionals, or undermine capacity to undertake adaptations based on local need.

It is recommended that HWA consider the requirements for a clear communication and consultation exercise to enhance increased understanding of, along with the rationale for (purpose) and benefits of, developing a whole-of-workforce education and training framework. To advance this recommendation, the way forward could include:

- publication of this research report on the HWA website to commence discussion across the sector
- publication of a comprehensive literature review on the HWA website to engender

discussion, better inform the sector and increase understanding of key issues associated with competency-based education and training developments and competency-based career frameworks

- Production and dissemination of information bites pertaining to key terms and concepts on which there is current debate, ambiguity and variance in understanding, for example, on competence, competency, taxonomy, framework, horizontal integration, competency-based education and training framework, and competency-based career framework
- commencement of consultation with the sector by development of a detailed discussion paper that adopts a workforce approach and outlines opportunities, options, benefits and implementation requirements associated with a whole-of-workforce approach to competency-based education and training and competency-based workforce utilisation and career progression. (It should be noted that vocational education and training (VET) sector informants indicated that an extensive communication strategy would not be required for the VET workforce, as the 'language' of this sector is one of competency.)

11.5 A competency-based career framework for the Australian health workforce

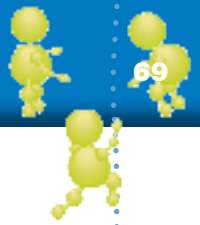
As highlighted through this report, the concept of a competency-based career framework emerged as a little understood concept outside of jurisdictional and health service employers. The research team found a paucity of information in the published literature but significant information in the grey literature, including unpublished and unreleased documents within jurisdictions.

The majority of employers indicated that a single-spine framework was essential in the context of an uneven pattern of workforce shortage and/or oversupply, increasing parity issues between various registered and unregistered health workers, unplanned free market, workforce innovations, and the need for enhanced workforce flexibility and more clearly articulated career pathways for health workforce participants.

A case study approach was taken to explore a number of international experiences in the development of competency-based career frameworks. A range of valuable development lessons were expressed by key informants associated with the case studies profiled in this report. These lessons will help to inform HWA's health workforce innovation and reform agenda going forward.

Regarding the concept of a competency-based career framework for the Australian workforce, it is recommended that HWA:

- note the potential benefits in developing and implementing a competency-based career framework for the Australian health workforce
- note the case studies and lessons profiled in this report
- undertake further analysis regarding the juncture and associated issues between development of a competency-based career framework (a 'workforce project') and implementation of a competency-based career framework (an 'industrial project'), and that these frameworks are fully explored and understood to optimise successful outcomes for any proposed development activity
- note the New Zealand *Let's Get Real* case study as an example of an implemented competency-based career framework that has been undertaken as a health workforce project without industrial alignments and links



- note the Australian experience in reform of the Engineering Industry Award as an example of the possibility of an implemented competency-based career reform project with aligned industrial adjustments (see Annex 6)
- note the concept of levels contained within the notion of a competency-based career framework and collaborate with other key national initiatives (for example, Australian Qualifications Authority) to ensure optimal whole-of-government coordination in any developments going forward, so as to avoid frameworks with varying number of levels that do not match.

11.6 Further research recommendations

As highlighted in this report, the research team found few integrated publications on the topics of competency-based education and training frameworks and competency-based career frameworks. Thus, a major project challenge was the identification, distillation and synthesis of disparate and patchy literatures. Much value was added through sourcing key informant insights and a range of grey literature. While this publication provides significant information to inform ongoing work, it is the view of the researchers that further inquiry is needed to more comprehensively inform HWA and the various key informant communities associated with this report.

A suite of supporting papers is being prepared to supplement this report. While this will go some way to providing additional information to inform ongoing work in the Australian context, the research team believes that further research (see Annex 7) is necessary to provide a stronger evidence base for this work.

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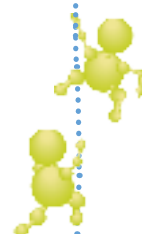
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Annexes

Annexe 1. Project methodology

Literature search and review

A literature search was undertaken using the terms listed below. Online databases MEDLINE, Web of Science, PsycINFO, PubMed, CINAHL Plus and the Australian Public Affairs Information Service were searched using the following inclusion and exclusion criteria.

Inclusion	
Term	Competence, competency, competent framework, standard, education, training, career, health, pathway, framework, skills escalator, workforce
Date	> 1990
Source type	Electronic sources (journal articles, reports and web pages)
Exclusion	
Education Level	High school education
Language	Non-English
Date	< 1990

Of the articles found, the relevance of each article was determined by review of the title and abstract by two individual reviewers, with inclusion on agreement. This search approach yielded in the order of 1200 articles, of which fewer than 10% were considered useful to inform the project. In addition, this search method found none of the grey literature that is essential to understanding the social and political basis of health workforce management. After discussion with Health Workforce Australia (HWA) it was therefore decided to widen the strategy to incorporate more traditional paper-trail methods; in other words, to find significant documents and trawl through their references to find yet more significant documents and trawl again—that is, a recursive search strategy based on peer-reviewed and grey literature publication reference lists.

The research team thought it important to note that systematic review strategies have received criticism (Greenhalgh and Peacock 2005) for being inappropriate or too narrow to provide coverage in complex domains (such as health workforce), and this has been our experience in undertaking this current project.

As the research strategy has further developed, more relevant publications have been identified through further literature searches based on exploration of insights and themes arising from interviews and from analysis by the research team, and through sourcing of grey literature via suggestions from interview respondents and other stakeholders.

An EndNote library has been compiled and will be available to other researchers and stakeholders as an outcome of this project.



Project reference group

The National Health Workforce Taskforce, now HWA, commissioned and supported this project through direct funding via the Australian Health Workforce Institute–PricewaterhouseCoopers partnership agreement. HWA also provided advice on project direction and focus, and assistance in contacting key national, state and territory health jurisdictions.

At the inception of the project, a reference group meeting was convened with senior representatives from three universities and seven disciplines (medicine, nursing and midwifery, physiotherapy, occupational therapy, human movements, speech pathology and education):

Professor Doune Macdonald, The University of Queensland

Professor Justin Beilby, University of Adelaide

Dr Caroline Lawrence, University of Adelaide

A/Prof Ray Petersen, The University of Queensland

A/Prof Steve Trumble, University of Melbourne

Prof Bill Vincenzino, The University of Queensland

Prof Sylvia Roger, The University of Queensland

Prof Cathy Turner, The University of Queensland

Discussion with this group clarified the research direction and interpretation of the initial literature review, and helped to identify knowledge gaps and key stakeholders for subsequent interview. The discussion paper for this meeting is included in this annex.

Selection of key informants

In consultation with the reference group and HWA, five central sectoral groups were identified as key informants on the basis of their ability to inform a competency-based education and training taxonomy and a proposed career framework. These groups were selected to sample the breadth of the Australian health care sector, and comprised curriculum developers, employers, representative bodies, regulating bodies and end-user representative bodies. As interviews proceeded, a snowballing technique was used to identify other key informants, as well as to source grey literature of relevance to the project.

Ethics approval

Following the development of the research plan and the meeting with the reference group, an ethics application was submitted to The University of Queensland Behavioural and Social Sciences Ethical Review Committee on 16 May 2010, with approval for a period of 12 months granted on 15 June 2010. The documents related to ethics (the ethics approval form, the information sheet for key informants and the consent form) are included below.



THE UNIVERSITY OF QUEENSLAND
Institutional Approval Form For Experiments On Humans
Including Behavioural Research

Chief Investigator: Professor Helen Chenery, A/Prof Sharon Brownie

Project Title: Project 4: Mapping Health Workforce Competencies,
Developing A Taxonomy For Competency-Based
Standards In Health - 21/06/2010 - AMENDMENT

Supervisor: None

Co-Investigator(s) None

Department(s): Faculty of Health Sciences

Project Number: 2010000637

Granting Agency/Degree: Health Workforce Australia

Duration: 31st December 2010

Comments:

Name of responsible Committee:-

Behavioural & Social Sciences Ethical Review Committee

This project complies with the provisions contained in the *National Statement on Ethical Conduct in Human Research* and complies with the regulations governing experimentation on humans.

Name of Ethics Committee representative:-

Dr Jack Broerse

Chairperson

Behavioural & Social Sciences Ethical Review Committee

Date

22/06/10

Signature



THE UNIVERSITY OF QUEENSLAND
Institutional Approval Form For Experiments On Humans
Including Behavioural Research

Chief Investigator: Professor Helen Chenery

Project Title: Project 5: Evidence-Based Options For Competency-Based Health Career Framework/s In Australia - 02/07/2010 - AMENDMENT

Supervisor: None

Co-Investigator(s) A/Prof Sharon Brownie

Department(s): Faculty of Health Sciences

Project Number: 2010000638

Granting Agency/Degree: Health Workforce Australia

Duration: 31st December 2010

Comments:

Name of responsible Committee:-

Behavioural & Social Sciences Ethical Review Committee

This project complies with the provisions contained in the *National Statement on Ethical Conduct in Human Research* and complies with the regulations governing experimentation on humans.

Name of Ethics Committee representative:-

Dr Jack Broerse

Chairperson

Behavioural & Social Sciences Ethical Review Committee

Date 06/07/10

Signature



Participant Information

UQ Project Team

Project Lead: Professor Helen Chenery, UQ Deputy Executive Dean (Academic)	h.chenery@uq.edu.au
Chief Investigator: A/Prof Sharon Brownie, UQ Associate Professor Health Workforce Innovation	s.brownie@uq.edu.au
Senior Project Officer: Lynnette Knowles, UQ	l.knowles@uq.edu.au
Senior Project Officer: Dr Gregory Hooper, UQ	g.hooper@uq.edu.au
Research Assistant: Thuy Vu	t.vu2@uq.edu.au

Purpose of the studies

Over the last two decades there has been a steady growth in the diversity of different approaches to competencies and competency-based frameworks. As the scope of practice for health workers and providers is redefined there is an ongoing need to define and understand the relationship and use of these frameworks in the Australian health sector to ensure their relevance to learning and best practice across the health care sector.

Furthermore a need has been identified for the development of a national career framework that encompasses training and professional development, encourages flexibility and mobility across positions within the health sector, and allows the definition and assessment of knowledge and skills to be more closely related to health service. appraisal and articulation of the value of such a framework is central to its endorsement and implementation within Australia's health care sector.

The aims of these studies are 2 fold. Firstly, to map the key health workforce competencies and develop a taxonomy for competency-based standards in health and secondly to explore and articulate the purpose and place of competency-based career frameworks in the health care sector in Australia.

Details of participation

We would like to invite you to contribute to a single one (1) hour recorded semi-structured interview, undertaken by a UQ Research Group team member, either face to face in Brisbane or via teleconference. The information that we collect from your interview will be used to inform a written report to Health Workforce Australia.

You are free to withdraw from this study at any stage and without penalty.

Confidentiality

All information relating to your participation will be treated confidentially. All data will be stored securely with limited access only to the UQ Project Management Group.

A collaboration of:





Benefits to participants

By participating in this study you have the opportunity to contribute to and inform the report investigating competency-based frameworks, their use in Australia and the development of a taxonomy for use within the Australian Health Sector.

More specifically you will:

- Contribute to the literature and research of relevance to their area of educational and training practice;
- Inform the literature and research of relevance to roles as Health Service Managers and within the professional management and development of their health workforce;
- Contribute to the literature and research of relevance to professional bodies and organisations of relevance to the education, training;
- Have access to related reports made available by Health Workforce Australia.

Further information

Any further questions you have regarding the study may be directed to the project Chief Investigator, A/Prof Sharon Brownie (s.brownie@uq.edu.au), (07) 3346 4979 or to the Project Manager, Lynnette Knowles (l.knowles@uq.edu.au), (07) 3346 5293.

Ethics Clearance Statement

This study has been cleared by one of the human ethics committees of the University of Queensland in accordance with the National Health and Medical Research Council's guidelines. You are free to discuss your participation in this study with project staff. If you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Officer on 3365 3924.

A collaboration of:



Interviews

Semi-structured interviews were carried out with 73 key informants (noted in Acknowledgments). The response rate to requests for interview was about 85% for both national and international invitees. After the first few interviews, it became apparent that the questions needed refining to fully engage with the interviewees' expertise and knowledge, and because respondents viewed the topics explored in a holistic way. The initial and revised interviewee question sets are included in this annex.

Data collection

Each interview was digitally recorded using either an Olympus DM-450 Professional Recorder or the teleconference recording service provided by Chorus Call (Brisbane, Queensland). Interview audio files were edited in Adobe Audition to remove identifying comments (for example, names), remove noise where necessary, and optimise levels, before uploading to a transcription service (Pacific Transcription Solutions, Brisbane, Queensland).

In line with ethical protocols approved by The University of Queensland, transcripts have been stripped of identifying information. However, given that the interviews sought to encompass the view of a variety of groups of stakeholders, each transcript has been classified according to the group from which the informants were drawn, and each transcript has been given a numerical designation.

Data analysis

Preliminary analysis of the interview texts was conducted on the basis of:

- two complete read-throughs of all transcripts by one member of the research team
- hand coding of all transcripts according to identified themes
- further coding of transcripts grouped according to nature of informants.

Validity of the analysis was ensured through triangulation by:

- analysis being conducted by a different research team member than the interviewers
- semi-automatic derivation of themes using Leximancer textual analysis and concept mapping software
- iteration between data analysis and insights derived from the literature.

In particular, as the data set resulting from the interviews is a very rich one, Leximancer was used to validate the patterning of the data established by hand coding and analysis, and to understand the varying relations between responses to research questions expressed by stakeholders from particular groups.

Peer review

Findings from the data were further validated through a process of peer review, involving the submission of an interim report to HWA and formal peer review through the National Health Workforce Planning and Research Collaboration Research Committee.



Survey Questions National Health Workforce Taskforce

Mapping health workforce competencies and developing a taxonomy for competency-based standards in health

- What is your understanding of competency-based education and training?
- What do you think are the major benefits/pitfalls in adopting a competency-based training approach?
- What are the resource implications for adopting a competency-based training and education framework across the Australian Health Sector?
- Do you think that language/definitions are a potential barrier to the implementation of competency-based frameworks across multiple disciplines?
- How do you think competency-based education and training would most benefit their particular professional group or employment setting?
- If a national framework was to be adopted who do you think should be responsible for its implementation?
- What do you think are the critical sign-off processes in gaining agreement regarding a national competency-based education and training framework for the health workforce?
- Do you think that competency-based education and training is equally relevant to the professional vs VET sector of the health workforce?

Evidence-based options for competency-based health career framework/s in Australia

- Are there any other frameworks of a similar compass to the UK Skills for Health framework?
- Could the UK Skills for Health framework be suitable for the Australian context?
- Are there any apparent difficulties applying the UK model to the Australian health sector?
- What are the core generic capabilities for anyone working in the health sector?
- What are the core capabilities for your particular profession?
- Which professions within the health care sector will find a competency based career framework easiest to implement?
- Which professions within the health care sector will find a competency based framework most difficult to implement?
- How can implementation of competency based career frameworks be facilitated within professions?
- What do you foresee as the primary difficulties in developing mappings between professions?
- How can the development of horizontal mappings between professions be facilitated?

A collaboration of:

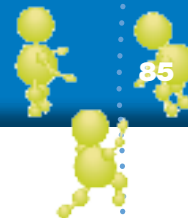


Revised interviewee question set**Survey Questions National Health Workforce Taskforce****Mapping health workforce competencies and developing a taxonomy for competency-based standards in health**

1. What is your understanding of competence within education and training?
2. What is the evidence for major benefits in adopting a competency-based training approach?
3. What is the evidence for major challenges in adopting a competency-based training approach?
4. What is your personal experience and perspective on the benefits and challenges?
5. If a national competence-based taxonomy was to be adopted would you find language a potential barrier?
6. If a national taxonomy was adopted what terms could be common across all of the Australian Health Sector?
7. What aspects would need to be specific to professions?
8. How could we achieve an agreement across professions for a national taxonomy?
9. How do you think a national taxonomy would benefit your particular professional group/ employment setting?
10. In what ways do you think a national taxonomy would impact on interprofessional collaboration?
11. What are the resource implications for adopting a national taxonomy for competence-based training and education across the Australian Health Sector?
12. Who do you think would be responsible for implementing a national taxonomy?
13. Who are the bodies that need to agree to a national taxonomy for it to be implemented?

Evidence-based options for competency-based health career framework/s in Australia

1. What is your understanding of a competency based career framework?
2. Do you know of any career frameworks in use either nationally or internationally that could have a national scope? (UK skills for health)
3. In what ways could these frameworks be suitable to the Australian health care sector at a national level?
4. Are there any apparent challenges in applying these frameworks nationally to the Australian health care sector?
5. If a national career framework was to be developed what would it look like?
6. What problems could a national framework solve or create?
7. What would be the scope of a national competence-based career framework? (training, pay linkage, career progression)
8. Could a national career framework make comparison of competency levels between professions easier?
9. Are there any particular professions that may benefit from a national career framework?
10. Are there any particular professions that may be disadvantaged by a national career framework?
11. What impact would a national career framework have on an individual practitioner in the Australian Health care sector?



Annexe 2. Sample of generalist health education and training programs

Summary

Provision for an expanding allied and supplementary health workforce is being made in the higher education and vocational training sectors. Universities in all states offer undergraduate degrees in health science, which do not have a clinical component but include the common themes of population health, public health, Indigenous health, nutrition and health services management. These tend to be general degrees that can be used as a stepping stone to graduate master's programs in the allied health professions, including physiotherapy, pharmacy, speech pathology and occupational therapy. Alternatively, graduates from these degrees can be qualified for a broad range of health-related careers, including health policy and planning, health promotion, health research, community health, sales representatives and clinical trials. In addition, The University of Queensland offers a Master of Physician Assistant Studies, graduates from which are mid-level health care practitioners working under the delegated authority of a medical practitioner. Physician assistants provide continuity of care, increase provider accessibility and improve quality of life for both patients and practitioners, to better meet the long-term needs of the community.

A sampling of technical and further education (TAFE) college course listings has highlighted the wide availability of certificate III and IV courses in allied health assistance and health services assistance. These provide entry-level qualifications for people wishing to take on allied health assistants' roles, including physiotherapy assistants, occupational therapy assistants and general therapy assistants. A variety of other health sector courses are offered by TAFE colleges, including mental health, aged care, nursing, nutrition and dietetic assisting, dental assisting and health administration.

Course details: tertiary

University of Queensland Bachelor of Health Sciences

http://www.uq.edu.au/study/program.html?acad_prog=2252

See the 'Bachelor of Health Sciences (BHlthSc)' page of The University of Queensland website at <www.uq.edu.au/study/program.html?acad_prog=2252>.

Components:

year 1: broad overview of preventive health care and health services management; for example, human anatomy and physiology, physical activity, nutrition, health behaviour change, human disease states, human psychology, population health, health systems, Indigenous health, management and health promotion

year 2: specialise in nutrition, health services management, Indigenous health or population health, and health promotion

year 3: major of health promotion and population health, health services management, Indigenous health or nutrition, plus minor of either organisational communication in health services or marketing and advertising in health promotion, then at least 90 hours of work experience at health industry placement sites.

Career opportunities in non-clinical health, clinical health or research may involve further study:

The University of Queensland offers Master of Physician Assistant—mid-level health care practitioner working under the delegated authority of a medical practitioner. At the core of the physician assistant profession is a team approach to patient care. With this approach, a physician assistant can provide continuity of care, increase provider accessibility and improve quality of life for both patients and practitioners, to better meet the long-term needs of the community. Entry requirements are a bachelor degree in biological or health sciences or a related field.

The University of Sydney Bachelor of Health Sciences

Details from the 'Bachelor of Health Sciences' page of The University of Sydney website at <www.usyd.edu.au/courses/?detail=1&course_sef_id=Bachelor_of_Health_Sciences_920>.

Components:

core: foundations of health science, health science and research, health determinants and interventions, health care resources and systems, and psychology

elective: include health and Indigenous populations, health information science, health service strategy and policy, health ethics and the law, evidence-based health care, research methods in health, international health project, health and lifelong disability, and rural health.

Career opportunities:

- health knowledge manager, and record keeping
- project officer delivering health initiatives in Indigenous communities
- sales representative for a health-related corporation
- health development officer—planning, implementing and evaluating health care projects
- drug and alcohol services coordinator.

Macquarie University Bachelor of Health

Details from the 'Bachelor of Health' page of the Macquarie University website at <www.courses.mq.edu.au/public/view/2011/Undergraduate/Degree/Bachelor+of+Health>.

Components:

year 1: drugs across cultures, human biology, demographic fundamentals, and geographies of global change

year 2: illness and healing, contemporary health issues, geographical perspectives on population, and methods of social research

year 3: population, health and the environment, care and human services, and health placement.

Career opportunities:

- community development and social planning
- health advocacy
- health policy and planning
- health promotion
- health research
- specialised areas of health, such as multicultural and refugee health, environmental health, and early childhood health.

Monash University Bachelor of Health Science

Details from the 'Bachelor of Health Science' page of the Monash University website at <www.monash.edu.au/study/coursefinder/course/3882/>.

Components:

year 1: data evidence and critical thinking in health, foundations of public health, biological bases of health and disease 1, health and social care systems and policy, biological bases of health and disease 2, and global health: opportunities and challenge

year 2: analysing patterns of health and disease; health promotion: global and local; health, society and culture; research methods in the health sciences; plus majors

year 3: health law and ethics, disease prevention and control, and health for all in a global world, plus majors.

Major streams: health programs and policy, or clinical and public health sciences.

Career opportunities: include public health/health promotion programs and policy, and public health sciences, leading to a wide range of careers. It also provides a pathway to postgraduate clinical programs (for example, medicine, social work, nursing and allied health).

La Trobe University Bachelor of Health Sciences

Details from the 'Health Science' page of the La Trobe University website at <www.latrobe.edu.au/coursefinder/local/2011/Bachelor-of-Health-Sciences.6581.html>.

Components:

year 1: human biosciences A, interprofessional practice A, perspectives of health and wellbeing, individual determinants of health, human biosciences B, interprofessional practice B, and social determinants of health

years 2 and 3: ergonomics, safety and health, human anatomy and physiology or public health streams.

Career opportunities: include health administration, health promotion, research and evaluation, specialist occupational health and safety and occupational rehabilitation fields, and non-clinical aspects of client management including community-based rehabilitation and case management.

Flinders University Bachelor of Health Sciences

Details from the 'Bachelor of Health Science' page of the Flinders University website at <www.flinders.edu.au/courses/undergrad/bhs/>.

Components:

available streams: disability and development education, health education/promotion, health management, life sciences, nutrition and paramedic.

Career opportunities: include administration, nutrition, community health, clinical trials, research and laboratory roles, welfare and advocacy, and human resources.

The University of Adelaide Bachelor of Health Sciences

Details from the 'Bachelor of Health Science' page of The University of Adelaide website at <www.adelaide.edu.au/programfinder/2011/bhlth_bhealthsc.html>.

Components:

level 1: human biology, public health

level 2: biology of disease, drugs, chemicals and health, and health sciences courses

level 3: major in medical sciences, psychology, public health or molecular and biomedical science.

Career opportunities: include laboratory manager, occupational health and safety officer, health administrator, hospital worker, health educator and health officer.

The University of Western Australia Bachelor of Health Science

Details from the 'Undergraduate' page of The University of Western Australia website at <www.studyat.uwa.edu.au/courses-and-careers/undergraduate>.

Components:

level 1: human biology or biology, public health, and at least one business unit, and may include chemistry, psychology, human movement, physics, geography, anthropology, mathematics, philosophy, computer programming and/or some arts units such as a language or history

level 2: science and public health studies, plus one science major; for example, microbiology, pharmacology, human biology, anthropology, biochemistry, physiology, genetics, psychology, pathology, biophysics, computer science and geography

level 3: complete science major, continue with public health major and complete the professional practice unit

level 4: complete public health major—these units discuss health administration, health economics, health promotion and disease control, and work placement.

Career opportunities: health promotion, health counselling, community health, local government health services, health informatics, health statistics, health planning, epidemiology, health services, clinical trials research, health policy officer, health economist, health care/public health administration, and health technologies.

Edith Cowan University Bachelor of Health Science

Details from the 'XXXX' page of the Edith Cowan University website at <www.ecu.edu.au/future-students/our-courses/search2?sq_content_src=%2BdXJsPWWh0dHAIM0EIMkYIMkZ3ZWJzZXJ2aWNlcy53ZWluZWV1>

LmVkdS5hdSUyRmZ1dHVyZS1zdHVkZW50cyUyRmNvdXJzZS12aWV3LnBocCUzRmlkJTNEMDAwMDAwMTc1NCUyNmXvY2F0aW9uJTNEdG9wbGV2ZWwmYWxsPTE%3D>.

Components:

year 1: population health, personal health, systems physiology, nutrition and public health, health in society, introduction to occupational health and safety, addiction studies and epidemiology

year 2: statistics, health promotion planning and administration, and health research methodology

year 3: Aboriginal communities, health research project, and health sciences professional practices.

Majors: addiction studies, health promotion, nutrition, and occupational health and safety.

Career opportunities: range of workplaces including aged care facilities and hospitals, rural and regional settings, asthma/diabetes/cancer/injury prevention councils, heart foundations, family planning associations, alcohol and other drug agencies, community development and local government organisations, disability services, justice and correctional agencies, research institutes, international aid organisations, and mental health support agencies.

Course details: TAFE

Southbank Institute of Technology

See the 'Courses and careers' page of the Southbank Institute of Technology website at <www.southbank.edu.au/site/Programs/CourseProcess.asp>.

Courses:

Certificate IV in allied health assistance—podiatry

Diploma of paramedical science (anaesthesia)

Diploma of nursing (enrolled/division 2 nursing)

Certificate III in sterilisation services.

Gold Coast Institute of TAFE

See the 'Course search' page of the Gold Coast Institute of TAFE website at <<http://gcit.edu.au/cis>>.

Courses:

Certificate III in health services assistance

Advanced diploma of nursing.

Northern Sydney Institute of TAFE

See the 'Search' page of the Northern Sydney Institute of TAFE website at <www.nsi.tafensw.edu.au/Search.aspx>.

Courses:

Certificate III in allied health assistance

Certificate III in health services assistance (nursing in acute care).

Sydney Institute of TAFE

See the 'Course and career finder' page of the Sydney Institute of TAFE website at <www.sit.nsw.edu.au/courses/?Media_Index_ID=169>.

Courses:

Certificate IV in mental health

Certificate III in health services assistance (nursing in acute care)

Certificate III in sterilisation services

Certificate III in nutrition and dietetic assistance

Certificate II in access to nursing.



**Canberra Institute of Technology**

See the 'Course finder' page of the Canberra Institute of Technology website at <<http://cit.edu.au/future/courses>>.

Courses:

- Certificate IV in mental health
- Certificate IV in allied health assistance
- Certificate III in health services assistance
- Certificate IV in dental assisting
- Certificate IV in aged care.

North Melbourne Institute of TAFE

See the 'Find a course' page of the North Melbourne Institute of TAFE website at <www.nmit.edu.au/courses>.

Courses:

- Certificate III in aged care
- Certificate III in health services assistance
- Certificate IV in mental health
- Certificate III in home and community care.

Central Institute of Technology (WA)

See the 'Courses' page of the Central Institute of Technology website at <www.central.wa.edu.au/Courses/Pages/default.aspx>.

Courses:

- Certificate III in allied health assistance
- Certificate III in health services assistance
- Certificate III in health support services
- Certificate III and IV in hospital/health services pharmacy support
- Certificate IV in health administration
- Certificate IV in health science foundations
- Certificate IV in mental health.

Tasmanian Polytechnic

The NAME OF DOCUMENT can be downloaded from the 'NAME OF WEBPAGE' page of the Tasmanian Polytechnic website at <www.polytechnic.tas.edu.au/pdfs/2010-Health-and-Wellbeing-Pathways.pdf>.

Courses:

- Certificate III in health services assistance
- Certificate IV in allied health assistance
- Certificate III and IV in aged care work.

Annexe 3. Sample of health vacancy listings

To give a snapshot of the types of health workforce positions available, we sampled job availability in the non-government, private and government sectors over a two-month period.

Non-government agencies

Job description	Source	Date advertised
Domestic violence specialist worker	Salvation Army website (http://salvos.org.au)	30 August 2010
Caseworker, drug and alcohol	Salvation Army website (http://salvos.org.au)	22 July 2010
Support worker	St Vincent de Paul website (www.vinnies.org.au)	31 August 2010
Settlement caseworker	St Vincent de Paul website (www.vinnies.org.au)	31 August 2010

Private sector

Job description	Source	Date advertised
Ward receptionist	Ramsay Health, job search website (http://jobs.seek.com.au)	1 September 2010
Pre-admission officer	Ramsay Health, job search website (http://jobs.seek.com.au)	1 September 2010
Sterilising technician CSD	Ramsay Health, job search website (http://jobs.seek.com.au)	1 September 2010
Ward clerk	Ramsay Health, job search website (http://jobs.seek.com.au)	30 August 2010
Ward receptionist	Ramsay Health, job search website (http://jobs.seek.com.au)	30 August 2010
Health information services clerk	Ramsay Health, job search website (http://jobs.seek.com.au)	25 August 2010
Assistant in nursing	Ramsay Health, job search website (http://jobs.seek.com.au)	25 August 2010
Day program patient coordinator	Ramsay Health, job search website (http://jobs.seek.com.au)	25 August 2010
Pathology collector	Healthscope website (www.healthscope.com.au)	2 September 2010
Phlebotomist	Healthscope website (www.healthscope.com.au)	2 September 2010
Occupational therapy assistant	Healthscope website (www.healthscope.com.au)	2 September 2010

Government

Job description	Source	Date advertised
Generalist health worker	Queensland Health website (www.health.qld.gov.au/jobs)	6 September 2010
Advanced health worker	Queensland Health website (www.health.qld.gov.au/jobs)	6 September 2010
Senior therapy assistant	Queensland Health website (www.health.qld.gov.au/jobs)	13 September 2010
Senior health worker	Queensland Health website (www.health.qld.gov.au/jobs)	6 September 2010
Health worker coordinator	Queensland Health website (www.health.qld.gov.au/jobs)	13 September 2010
Health promotion officer	Queensland Health website (www.health.qld.gov.au/jobs)	6 September 2010
Biomedical technician	Queensland Health website (www.health.qld.gov.au/jobs)	13 September 2010
Home care worker	Queensland Health website (www.health.qld.gov.au/jobs)	13 September 2010
Theatre assistants	Queensland Health website (www.health.qld.gov.au/jobs)	13 September 2010
Aboriginal health worker	Northern Territory Government Department of Health website (www.health.nt.gov.au/Careers/)	2 September 2010
Aboriginal community worker	Northern Territory Government Department of Health website (www.health.nt.gov.au/Careers/)	2 September 2010
Senior dental assistant	Northern Territory Government Department of Health website (www.health.nt.gov.au/Careers/)	2 September 2010
Bed manager discharge planner	Northern Territory Government Department of Health website (www.health.nt.gov.au/Careers/)	2 September 2010
Aboriginal mental health worker	Northern Territory Government Department of Health website (www.health.nt.gov.au/Careers/)	2 September 2010
Senior Aboriginal community worker	Northern Territory Government Department of Health website (www.health.nt.gov.au/Careers/)	2 September 2010
Allied health assistant	Northern Territory Government Department of Health website (www.health.nt.gov.au/Careers/)	2 September 2010

Job description	Source	Date advertised
Strong women worker	Northern Territory Government Department of Health website (www.health.nt.gov.au/Careers/)	2 September 2010
Rural allied health assistant	NSW Health website (www7.health.nsw.gov.au/healthjobs)	8 September 2010
Aboriginal environmental health officer trainee	NSW Health website (www7.health.nsw.gov.au/healthjobs)	8 September 2010
Aboriginal family violence worker	NSW Health website (www7.health.nsw.gov.au/healthjobs)	24 September 2010
Youth health worker	NSW Health website (www7.health.nsw.gov.au/healthjobs)	9 September 2010
Sterilising technician	NSW Health website (www7.health.nsw.gov.au/healthjobs)	17 September 2010
Nuclear medicine technologist	NSW Health website (www7.health.nsw.gov.au/healthjobs)	13 September 2010
Child protection counsellor	NSW Health website (www7.health.nsw.gov.au/healthjobs)	3 September 2010
Occupational therapy assistant	NSW Health website (www7.health.nsw.gov.au/healthjobs)	3 September 2010
Female Aboriginal health education officer	NSW Health website (www7.health.nsw.gov.au/healthjobs)	10 September 2010
Youth worker	SA Health website (www.sahealth.tmpw.com.au)	10 September 2010
Aboriginal family worker	SA Health website (www.sahealth.tmpw.com.au)	17 September 2010
Anaesthetic technician	WA Health website (www.jobs.health.wa.gov.au/)	6 September 2010
Support services officer	Tasmania Health (www.jobs.tas.gov.au/)	3 September 2010



Annexe 4. Sample of competency-based education and training frameworks

This annex provides a sample of the extensive range of frameworks in use or under development in the health sector. Those highlighted by an asterisk (*) were analysed in detail to identify their similarities and differences in structure and content. The summary of this analysis is as follows.

A very significant finding of this research has been twofold:

- there is a large number of competency frameworks in use and in development across the health sector
- this fact has not been previously apparent—the research team was unable to locate any substantive published literature highlighting this point in the Australian context.

Subsequently, the research team could not readily map all frameworks in use or in contemplation—the scenario involved an extensively moving target as frameworks are continually being developed, updated, expanded and/or retired.

The important implication of this finding is that frameworks are and have been proliferating across the sector. In the Australian health sector, numerous competency-based frameworks have been implemented or are under development, a sample of which is tabulated below in this annex.

In practical terms it was inadvisable, if not impossible, to harmonise every existent framework into a single taxonomy without substantive further research, consultation and additional resourcing. Given the large number of frameworks located and the constantly changing status of the frameworks, it was quickly agreed that the resources within this project were simply insufficient to attempt a mapping exercise as originally envisaged. Subsequently, discussion took place with the project funders, who agreed that a smaller scale mapping of selected frameworks was the optimal approach to inform this project.

The team analysed 10 frameworks (highlighted by an asterisk (*) in the list of frameworks in this annex) to identify their similarities and differences in structure and content. Purposeful sampling was used to select frameworks for analysis. Selection was made on the basis of the ability of the selected framework to illustrate salient points that had been identified in the research process regarding the nature of competency frameworks in the health sector and the way in which frameworks are developed for a number of purposes by differing stakeholders (for instance, professional bodies and jurisdictions).

All of the frameworks analysed used hierarchical structuring where first-level domains were identified as functional areas of the professions. Second-level elements covered units of competencies, which were then broken down into smaller, third-level units containing performance criteria, ranges of variables and evidence guides suited to assessment. Within the hierarchical structure, the frameworks varied considerably in the number of domains in each tier. Some frameworks contained as few as three domains within the first tier, with others comprising up to 12. Similarly, in lower levels of each hierarchy, the number of points or competencies numbered from as few as one and up to 12 in some cases.

Reference to the literature highlighted the fact that a hierarchical levelling structure can assist in the assessment of competencies and help individuals identify their strengths and weaknesses regarding their ability to perform in the profession or role (Hager and Gonczi 1991). Additionally, the hierarchical nature of a typical framework structure is useful for translating different languages characteristic of different professions for interprofessional practice and planning and deployment of skill-mix in varying workplace and clinical contexts.

A good example of a framework specifically designed for interprofessional practice has been provided in the case study of the British Columbia Competency Framework for Interprofessional Collaboration (see case study in section 10.2.3; College of Health Disciplines and Interprofessional Network of BC 2008). Similarly, CanMEDS (see case study in section 10.1.1) has been utilised to align a range of skill-based competencies under broad domains common to various scopes of practice and specialties, and this report has underlined its growing acceptance among a number of professions and internationally (Frank 2005).

While concern is often expressed that frameworks can be reductionist, this is not necessarily so. The team noted that for this reason some models and frameworks made it explicit that no single domain or unit of competencies is valid on its own.

The team noted that the frameworks vary considerably in terms of language or terminology, highlighting the

fact that there is no nationally agreed format for competency standards, including the terminology used. For example, competencies are variably referred to as competencies, performance criteria statements, capabilities and standards.

It is also apparent that competency statements acquire their meaning in the context of specific professions, and are not necessarily meaningful across professions. That is, they need to be interpreted in context by the user, and only the individual profession can fully 'decode' profession-specific competencies.

In general, the themes of the domains of each framework could be loosely grouped into four categories: professional, technical, social and operational competencies.

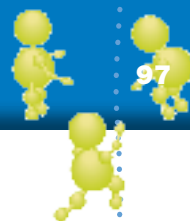
All models contained some component of professional competencies, either in a single first-level domain, in several first-level domains, or integrated within technical task-based domains of the profession. They included areas such as accountability and responsibility, operation within scope of practice, reflective practice, maintaining standards and improvement of practice. Most frameworks described a list of technical competencies undertaken by professions in the treatment of the patient/client. In addition to activity-based competencies, some frameworks listed knowledge and skills that are required for the job in the technical competency category. These lists are diverse and include descriptive tasks, outcomes (for example, patient safety, collaborative care), standards or management of practice (for example, adverse event, emergencies). Social competencies relate to ways in which health professionals collaborate and interact with people and their environment; hence, there is some degree of overlap between social and professional competencies. This overlap is evident in that some frameworks listing social competencies under professional attitudes and behaviours, while other frameworks integrated them with technical/functional competencies or listed them in separate single domains constituting overall competence. Operational competencies relate to how individuals operate in an effective, efficient and safe manner. They are context specific and dependent on settings of practice; hence, operational competencies vary greatly among frameworks. They include management of practice, use of information technology to enhance own practice, management of patient records, workplace safety and self-management of workload.

The conclusion that can be drawn from this analysis is that competency frameworks have exhibited a range of classificatory strategies depending on context. It is also notable that the process of mapping and aligning competency frameworks is rendered more complex by the variance in the number of domains and hierarchical tiers employed. The team is confident that this analysis of a sample of frameworks, while not statistically representative, does capture some key features and dynamics of frameworks as developed in the Australian health care context. A key implication of our analysis is that it is vital that any prospective national or interprofessional framework avoids overspecification of detail in subsidiary domains (that is, competencies) and has a top-level domain that is both broad enough and well conceptualised so as to enable the aim of harmonisation and alignment to occur.

Sector	Profession	Frameworks/Projects	Location/References
Health professionals	Audiologists	The ASA professional standards of practice for audiologists (1997)	Audiological Society of Australia 1997 , The ASA professional standards of practice for audiologists, ASA, Forest Hill, Vic., www.audiology.asn.au/standards.htm accessed DAY MONTH YEAR
	Australian and New Zealand medical practitioners	Committee of Presidents of Medical Colleges: LEAP framework	www.ranzcog.edu.au/leapframework/index.shtml
	Canadian Medical practitioners	The Royal College of Physician and Surgeon of Canada (2005): CanMEDS	www.par-program.org/CanMEDS2005Framework.pdf

Sector	Profession	Frameworks/Projects	Location/References
	Cancer nursing	A national professional development framework for cancer nursing (2009)	S. Aranda and P. Yates 2009, A national professional development framework for cancer nursing, 2nd edn, National Cancer Nursing Education Project (EdCaN), Cancer Australia, Canberra, < www.edcan.org/news.htm > accessed DAY MONTH YEAR.
	Chiropractors	Competency based standards for entry level chiropractors (2003)	Council on Chiropractic Education Australasia 2003 , Competency based standards for entry level chiropractors, Council on Chiropractic Education Australasia, Armadale, Vic. , < www.ccea.com.au/Publications/Publications.htm > accessed DAY MONTH YEAR.
	Dental	Registration standards (2010)	Dental Board of Australia 2010 , 'Registration standards', < www.dentalboard.gov.au/Registration-Standards.aspx > accessed DAY MONTH YEAR.
	*General practitioners	A quality framework for Australian general practice (2005)	Royal Australian College of General Practitioners 2006, 'A quality framework for Australian general practice', < www.racgp.org.au/qualityframework > accessed DAY MONTH YEAR.
*Junior doctors	Australian curriculum framework for junior doctors (2009)	Confederation of Postgraduate Medical Education Councils 2009 , 'Australian curriculum framework for junior doctors project', < www.cpmec.org.au/Page/acfjd-project > accessed DAY MONTH YEAR.	http://www.cpmec.org.au/Page/acfjd-project
*Registered nurses	National competency standards for the registered nurse (2005)	Australian Nursing and Midwifery Council 2005 , < www.nursingmidwiferyboard.gov.au/Codes-and-Guidelines.aspx > accessed DAY MONTH YEAR.	http://www.nursingmidwiferyboard.gov.au/Codes-and-Guidelines.aspx
*Enrolled nurses	National competency standards for the enrolled nurse (2005)	Australian Nursing and Midwifery Council 2005 , < www.nursingmidwiferyboard.gov.au/Codes-and-Guidelines.aspx > accessed DAY MONTH YEAR.	http://www.nursingmidwiferyboard.gov.au/Codes-and-Guidelines.aspx
Occupational therapists	Australian competency standards for entry-level occupational therapists (1994)	Australian Association of Occupational Therapists 1994 , Australian competency standards for entry-level occupational therapists, < www.ausot.com.au/inner.asp?pageid=22 > accessed DAY MONTH YEAR.	http://www.ausot.com.au/inner.asp?pageid=22
*Pharmacists	Competency standards for pharmacists in Australia (2003)	Pharmaceutical Society of Australia 2003 , Competency standards for pharmacists in Australia, < www.psa.org.au/site.php?id=643 > accessed DAY MONTH YEAR.	http://www.psa.org.au/site.php?id=643
Pharmacy	Professional practice standards (2005)	Pharmaceutical Society of Australia 2005 , Professional practice standards, < www.psa.org.au/site.php?id=84 > accessed DAY MONTH YEAR.	www.psa.org.au/site.php?id=843

Sector	Profession	Frameworks/Projects	Location/References
	*Physiotherapists	Australian standards for physiotherapy (2006)	Australian Physiotherapy Council 2006, Australian standards for physiotherapy, Australian Physiotherapy Council, Canberra, < www.physiocouncil.com.au/australian_standards_for_physiotherapy > accessed DAY MONTH YEAR.
	South Australian nursing and midwifery	Professional practice	South Australian Nursing and Midwifery, < www.nursingsa.com/prof_career.php > accessed DAY MONTH YEAR.
	Specialist surgeons	Surgeons' competencies	Royal Australasian College of Surgeons, < www.surgeons.org/Content/NavigationMenu/EducationandTraining/Training/Standardsandprotocols/Competencies1.htm > accessed DAY MONTH YEAR.
	*Speech pathologists	Competency-based occupational standards for speech pathologists (1994, 2001)	Speech Pathology Australia 1994, 2001, < www.speechpathologyaustralia.org.au/professional-standards-ps/competency-based-occupational-standards > accessed DAY MONTH YEAR.
	Psychology	Accreditation standards for psychology (2009)	Australian Psychology Accreditation Council 2009, Rules for accreditation and accreditation standards for psychology,
Health workers	Community workers	Community sector workforce capability framework	Community Services & Health Industry Skills Council, < www.cshisc.com.au/index.php?option=com_content&task=projectstatus&Itemid=162 > accessed DAY MONTH YEAR.
	Health and community workers	Industry Skills Council: Community services and health	Community Services & Health Industry Skills Council 2009, 2010, Environmental Scan
	Health workers	Health training package	Community Services & Health Industry Skills Council 2007, HLT07: Health training package, CS&HISC, Strawberry Hills, NSW.
	Medicare service staff	Capability framework (undated)	Medicare Australia n.d., < www.medicareaustralia.gov.au/about/careers/capability/index.jsp > accessed DAY MONTH YEAR.
	Social workers	Australian social work education and accreditation standards (2008)	Australian Association of Social Workers 2008–09, Australian social work education and accreditation standards, Australian Association of Social Workers, Canberra.
	Social workers	Practice standards for social workers (2003)	Australian Association of Social Workers 2003, Practice standards for social workers: Achieving outcomes, Australian Association of Social Workers.



Sector	Profession	Frameworks/Projects	Location/References
Multi-disciplinary	Allied health professionals	Health activity hierarchy (2001)	National Allied Health Casemix Committee 2001 , Health activity hierarchy version 1.1 , NAHCC, Melbourne , < www.nahcc.org.au/hierarchy.htm > accessed DAY MONTH YEAR.
	*Allied health workforce	Hunter New England NSW Health: HNE Health Workforce Capability Framework	Hunter New England Area Health Service 2009
	*Cancer workforce	Cancer professional development framework	Cancer Australia 2006 , Cancer professional development framework, Cancer Australia, Canberra , < www.cancerlearning.gov.au/plan/index.php > accessed DAY MONTH YEAR.
	Health care workers	National patient safety education framework (2005)	Australian Council for Safety and Quality in Health Care 2005 , National patient safety education framework, < www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/NSQF > accessed DAY MONTH YEAR.
	*Mental health workforce	National practice standards for the mental health workforce (2002)	AHMAC National Mental Health 2002 , 'National practice standards for the mental health workforce', < www.health.gov.au/internet/main/publishing.nsf/Content/mental-pubs-n-workstds > accessed DAY MONTH YEAR.
	Musculoskeletal care	Australian Musculoskeletal Education Competencies (on-going) : Australian core competencies in MKS care	Australian Musculoskeletal Education Collaboration , < http://amsec.org.au > accessed DAY MONTH YEAR.
	Allied health	Competency standards for health and allied health professionals in Australia (2005)	B. Spencer, et al. 2005, Competency standards for health and allied health professionals in Australia, Department of Human Service, Victoria.
All health sectors	Health workforce management	Management competency for health professionals (2010)	Australian College of Health Service Executives 2010, Information booklet
	Multidisciplinary including health sciences	Australian Learning and Teaching Council: Academic standards project	Australian Learning and Teaching Council , < www.altc.edu.au/standards/team > accessed DAY MONTH YEAR.

Annexe 5. Select literature on implementation and implications of the United Kingdom programs

Reference	Key findings
Manley and Garbett 2000	Described the aims of the National Health Service (NHS) human resource management strategy as: equity and fairness through paying people for what they do rather than titles; breaking down professional boundaries; identifying essential work competencies for delivering care; articulating career progression to pay and performance; and increasing access through more flexible pathways into the professions.
McBride et al. 2004	Evaluated role redesign in the NHS and identified management culture, remuneration, and education and training as key to implementation.
Meadows et al. 2004	Described the development and validation of a competency framework for advanced pharmacy practice and noted the NHS modernisation programs as a driver.

Reference	Key findings
Bosanquet et al. 2006	Critical of workforce planning models, which are restricted to considerations of the supply of particular professions.
Gould et al. 2007	Argued that the use of the NHS Knowledge and Skills Framework for continuing professional development in nursing implies closer liaison between employers and educators, and cautioned about the increase in HRM roles for nurses and managers at the expense of patient care.
Cox et al. 2008	Reviewed the impact of the Skills Escalator and its interaction with Agenda for Change pay modernisation and job evaluation banding in 13 NHS Trusts, focusing on the implications for cleaners and health care assistants. The report found that opportunities for career progression were variable according to management implementation of the Skills Escalator, and that management strategy determined the creation of new intermediate roles that could enable career progression. Concern from employees about disparities between skills gained and the ability to be transitioned into higher roles (the only way that pay recognised skills) was noted.
Spilsbury et al. 2009	Reported on the NHS modernisation program's facilitation of the spread of new categories of assistant practitioner roles across all English Strategic Health Authorities.
Wright et al. 2008	Outlined the development of a framework for public health practitioners, which aligns with the NHS programs.
Copnell 2010	Outlined the motivations and nature of Skills for Health as its practice applies to allied health professions.
McClimens et al. 2010	Noted some reservations that the pay spine under Agenda for Change worked against interprofessional practice, despite intentions otherwise.

Informants from the United Kingdom report that formal evaluations by the Department of Health and by Skills for Health are in the pipeline for publication, though some have been held up by the change of government. Only one appears to have been published thus far—McBride et al. in 2004, on the progress of pilots of Skills Escalator activity. However, the research team was provided with and informed by some of the grey literature that is not yet in the public domain.

Annexe 6. Award restructuring as a case study of aligning workforce with industrial projects

A range of informants, particularly but not limited to jurisdictions, commented that implementation of a competency-based career framework would require significant industrial reform to derive its optimal potential benefits. The research team has chosen to conceptualise this issue analytically by distinguishing between the formulation of a career framework as a 'workforce project' and its full implementation as also involving an 'industrial project'. This annex elucidates the reasoning behind this distinction, and draws lessons from both the United Kingdom Skills for Health experience and the process of award restructuring under the Keating Federal Labor Government around the Engineering Award as a model for aligning remuneration and classification with competencies (a case study suggested as highly pertinent by a number of informants).

From the point of view of health workers, a career framework should enable both a shift to a skill-mix more relevant to existing or prospective practice (horizontal movement) and, if desired, vertical movement to either an enhanced scope of practice or to another health workforce category. For instance, a career framework should enable nurses to move between different areas of practice (perhaps from aged care to oncology or theatre) or to an enhanced scope of practice, which may not be a simple vertical progression to a nurse practitioner or the like, but may involve recognition of prior learning and competencies enabling a more seamless shift to another health profession.

From the point of view of employers, managers and planners, a competency-based career framework should enable a more fine-grained deployment of skill-mix, better articulation between different forms of care or sites of practice, and a finer understanding of costs of care, particularly given the shift to a case-mix model of funding.

From the point of view of the public and of patients and clients, the design of the health workforce and its supply and disposition should enable care to be delivered in a timely fashion with expertise and empathy, and in the most holistic manner possible.

As discussed earlier in the United Kingdom case study, some implementation issues entailed:

- an expectation among workers that the gaining of additional competency-based qualifications or certification of higher competencies would automatically lead to increased pay; this expectation was often not met, as pay was still largely tied to roles, but it sometimes led to the creation of new workforce categories more through pressure for career pathways than from an assessment of their potential value in workforce and care needs
- difficulties in achieving the full range of goals set for the competency-based career framework through lack of understanding and clarity and its limitation to particular professions or workforce categories.

However, as also previously noted, rationalisation of multiple pay spines and the creation of well-resourced tools for defining and evaluating work value—and thus aligning competencies and remuneration bands—have contributed to the achievement of the intention behind the introduction of a competency-based career framework.

In Australia, our jurisdictional informants have told the research team that:

- a huge number of job titles and the often unplanned emergence of new workforce categories (as a result of entrepreneurial activity among educators and sometimes managers and professions) impedes an optimal deployment of the workforce and rational management of demand and supply of entrants
- complexity within jurisdictions in job titles and workforce categories is reflected in the industrial arena, with single jurisdictions having a number of enterprise bargaining agreements, each encompassing multiple underlying awards
- the alignment of workforce supply and care and patient needs is complicated by different industrial instruments operating in public, private and community sectors
- the work value (and cost) of existing workforce categories and emergent categories is quite often unclear, and parity can be difficult to assess because of historical discrepancies compounding.

All this both highlights the potential value of a competency-based career framework, and the complexities and challenges of implementation.

As mentioned, a number of respondents pointed to the award restructuring process, which began in 1989, as having pertinent lessons. The then Labor government and trade unions (along with many employers) sought to link qualifications and skills much more closely to remuneration bands, in order to encourage greater flexibility in the workforce and to provide incentives for maximising skills and productivity. It was envisaged that workers would be able to move between different employers, and undertake differing roles in organisations, while maintaining linkage between skills and remuneration banding.

Before the introduction of enterprise bargaining, the Engineering Award was chosen as something of a model or test case, partly because relativities within the centralised industrial system had traditionally been set in relation to the Metal Trades awards. A consultative process, stretching over several years, involved close liaison between unions, the Australian Council of Trade Unions, government and employers, supported by research, policy and analytical capability within the public service and universities. The bands within the award were to reflect the reforms to vocational education and training, and align with the first iteration of the Australian Qualifications Framework. After the Industrial Relations Reform Act of 1993, and the consequent introduction of enterprise bargaining, it was anticipated that underlying award classifications would continue to reflect attainment of skills, but could be tailored to the needs of particular employers and employees through bargaining for over-award remuneration in each enterprise or workplace.

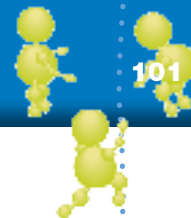
However, over time, there has been a tendency for the classifications denoted by bands in awards to be disaggregated through uncoordinated bargaining activity across different workplaces, and thus for the alignment of competencies, training and remuneration to decay. Shifts in the architecture of training, both in terms of the entry of a large number of private providers and the proliferation of qualifications and training packages too narrowly focused on limited skills, have compounded this tendency. The recent reform process to the Australian Qualifications Framework, and the coordinating activity and policy initiatives of Industry Skills Councils and Skills Australia, are designed to restore an appropriate level of planning and comparability in the education and training system, and to better articulate outcomes and workplace productivity.

While the award modernisation process undertaken by Fair Work Australia over the past three years has been designed to simplify the vast number of awards and to restore integrity to the award system, the same level of linkage with skills and competencies has yet to be achieved. Within the health sector, this is complicated by awards that are sometimes particular to particular subsectors interacting with other awards that are profession or occupation specific, and industry or single employer awards. In aged care, for instance, some workers fall under the Nurses Award, while others are covered by the Social and Community Services Award, and yet others are employed under site-specific or occupational awards that transcend the health sector. Transparency and comparability of work value is thus difficult to achieve. As also emphasised in this report, much voluntary labour falls outside the scope of the industrial system altogether, and its value—both in terms of work performed and social contribution—has a tendency to be obscured.

Our informants did not wish to minimise the policy, political and change management difficulties inherent in modernising the industrial framework to enable the benefits sought through a competency-based career framework to be achieved. It would be a task that would involve:

- liaison and a common sense of purpose and buy-in from multiple stakeholders inside and outside of government
- a change of orientation from unions, and a realisation that wins are potentially greater for employees than through existing forms of industrial activity
- revitalisation of alignment between workforce, education and training, and industrial and human resource management
- very clear communication of the purposes and goals of an industrial reform program.

However, the research team believes that it is essential to reflect the views of key informants, and to note that these views find support in the literature related to the implementation of a competency-based career framework in the United Kingdom.



Annexe 7. Further research recommendations

Depending on stakeholder feedback and forward articulation of HWA priorities, there are areas where HWA may wish to commission or undertake further work; for example:

- **Defining and evaluating innovation:** conceptual work needs to be done on the adequacy of innovation in the health workforce context. It should not be assumed that any initiative described in this way is automatically positive. Criteria for evaluation and measurement should be developed, and innovations should be evaluated within a whole-of-workforce and sector context.
- **Understanding the development of new health qualifications:** it would be helpful to develop a greater insight and understanding of the processes by which universities and educators launch new qualifications, leading to a supply of graduates in workforce categories with unclear career paths and employability.
- **The workforce and health outcomes contributions of unregulated and voluntary workers and carers:** a better understanding of the contribution and existing competencies and deployment of unregulated workers and voluntary workers is essential. The full implications of the contributions of around 2.4 million carers and volunteers need exploring, particularly as the population ages. While the National Health and Hospitals Reform Commission recommended a range of strategies for increasing health knowledge in the general population, more work must be done in this increasingly important area.
- **Career paths and intentions across the whole workforce:** much of the literature scanned to inform these projects on health careers focused on retention and workplace exit (particularly among nurses), choice of specialty among medical students and junior doctors, and incentives for health professionals of all descriptions to enter and remain in rural and regional practice. Very little, if any, work has been done on the attractors for the unregulated workforce, and on the potential for prospective and existing workers to view their career progress in terms of health as a whole.
- **Anticipated savings from task and role substitution:** a number of findings from the literature suggest that task and role substitution may not result in cost savings. Such findings need further exploration and should inform developments in this area in the Australian context.
- **Processes for developing common language across professions:** the process involved in developing common terminologies for interprofessional practice should be explored more extensively.
- **Development and implementation lessons from existing Australian frameworks:** further research regarding a range of frameworks located in the grey literature and consultations for this report (for example, the Medical Deans project and the South Australian Allied Health Framework) could provide useful insights in a range of areas; for example, implementation lessons.
- **Development, implementation and change management issues for resourcing frameworks:** further research on the processes involved in the development of resources underpinning and supporting frameworks, and costs and change management issues arising, would be informative.
- **Deepening understanding of international pilots:** further research on pilots undertaken in comparable international jurisdictions (for instance, the United Kingdom, Canada and New Zealand) should precede any implementation.
- **Agreed upon definitions for interprofessional education competencies:** attention needs to be given to the ongoing process, initiated in Canada, to agree upon definitions and language of competency-based education through international consensus conferences.
- **Health professionals as educators:** increasingly, all health professionals are expected to be educators, taking responsibility for clinical training and assessment within workplaces. Yet the responsibility for developing these competencies appears to lie mainly with employers. Research needs to occur to determine the optimal way to develop competencies as tools for trainers, assessors and supervisors within all undergraduate curricula.
- **Research into optimal balance in first-level competency domains:** this report recommends use of a CanMEDS type framework to provide a range of role or competency domains that could form a national whole-of-workforce competency framework. Further work is needed to identify the optimal levels to

be included in a framework. The experience of the United Kingdom Skills Escalator demonstrates that a balance is needed between specification of detail and the juncture at which a national framework provides the overarching guidance and where it then leaves the rest to professional and/or regional autonomy to define the further layers.

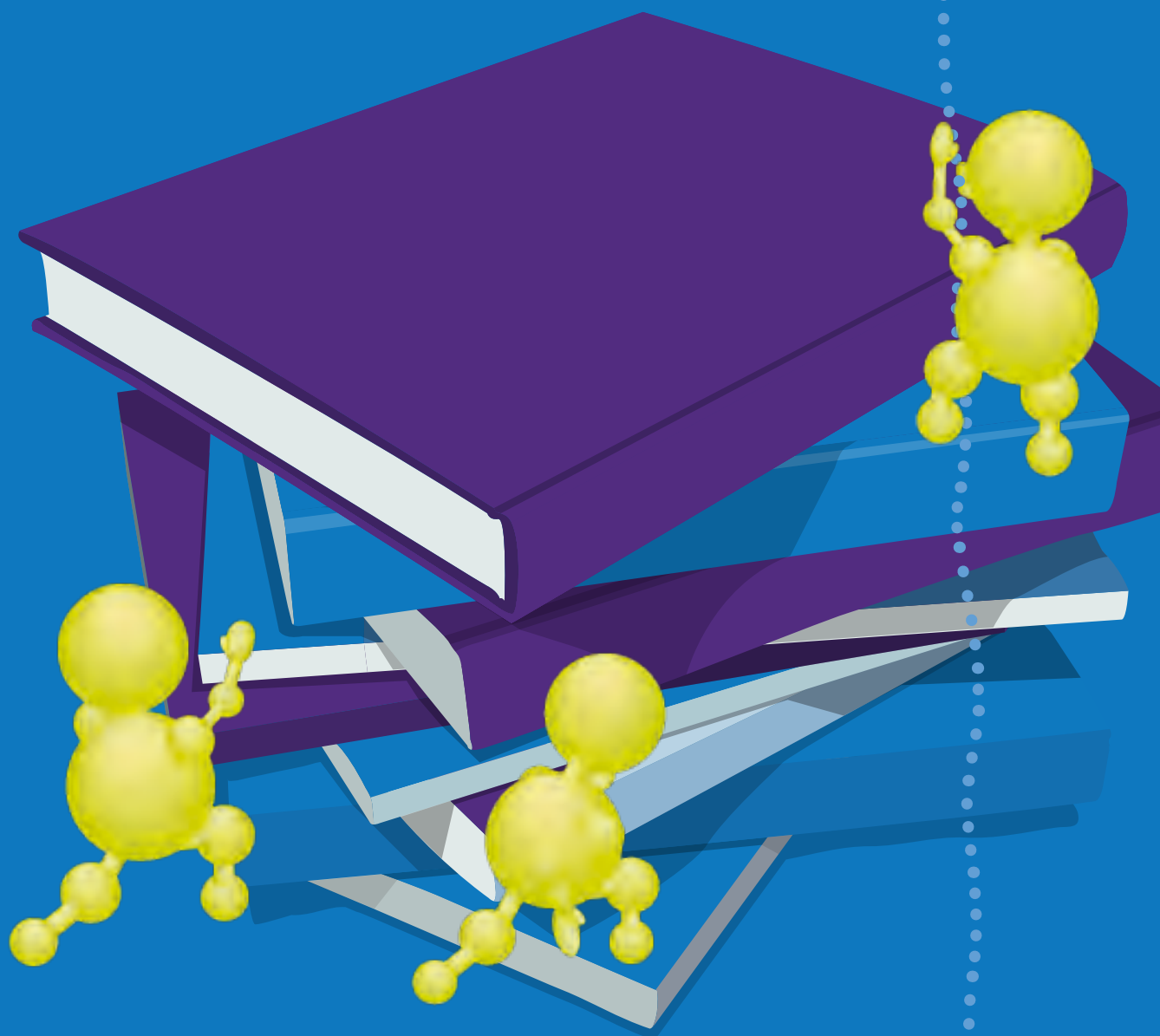
- **Sustainable approaches for a national approach to competency-based framework development:** further research and a whole-of-government approach is also required to ensure funding of the implementation of a competency-based framework in Australia is efficient and there is no duplication between agencies and jurisdictions (CS&HISC 2007, 2008).
- **Alignment of competency-based education and training and workplace assessment:** similarly, further research is needed to understand the optimal alignment of competency-based education and training and workplace assessment. The recent United Kingdom Evaluation of the Foundation for Excellence medical postgraduate training program should be noted in this regard; particularly its findings that overly detailed specification of clinical competencies led to a surfeit of assessment and evaluation points. As emphasised in this report, a balance is needed between achieving the aims of a competency framework and tools that are sensitive to the key role of clinicians to deliver patient care.

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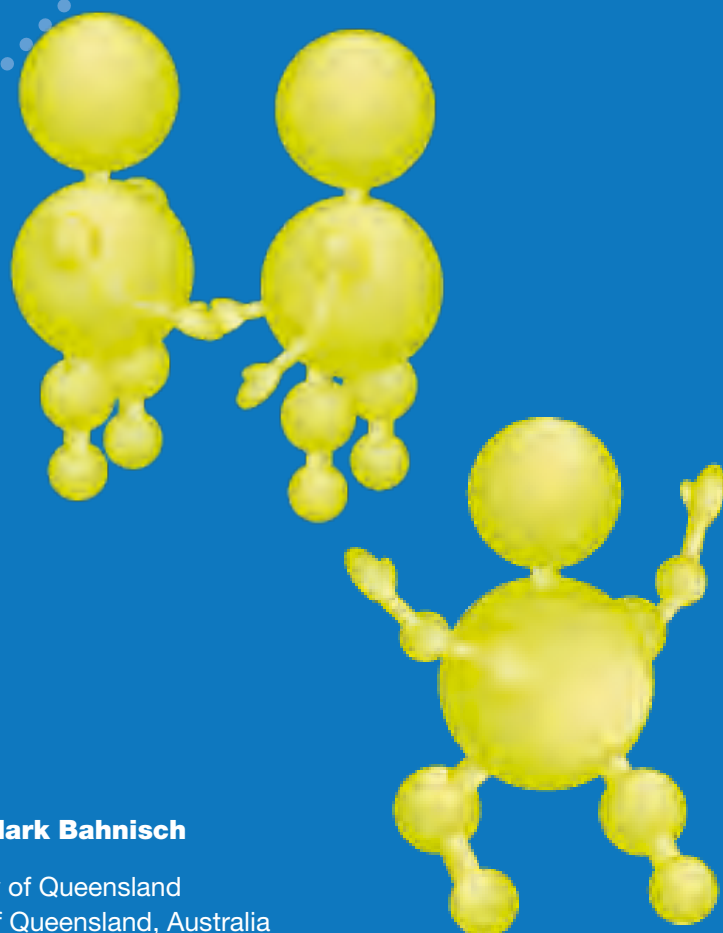
April 2012





Exploring the Literature: Competency-based Education and Training & Competency-Based Career Frameworks

Report by the National Health Workforce Planning & Research Collaboration



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1. Project Brief

National Health Workforce Planning and Research Collaboration

The National Health Workforce Planning and Research Collaboration, a consortium comprising Health Workforce Australia (HWA), Australian Health Workforce Institute and PricewaterhouseCoopers Australia, is in the final year of its substantial three-year program of national health workforce planning and research projects.

Australian Health Workforce Institute itself is a consortium of The University of Melbourne and The University of Queensland and for the purposes of this collaboration has established links with Australian National University, The University of Adelaide and Monash University.

The projects informing this report are situated in the Year 2 stage of project work.

Contracted projects

The remits for the contracted work underpinning this report consist of two distinct health workforce projects, namely:

mapping health workforce competencies, with a view to developing a taxonomy (classification framework) for competency-based standards in health

exploring evidence-based options for competency-based health career frameworks in Australia.

As the projects were developed, the extent of synergy and overlap between the projects became increasingly obvious, and the contracting organisation, HWA, requested that a combined report covering both projects be produced, as outlined below. The projects are unique in their whole-of-workforce focus.

Project deliverables

The commissioned project deliverables included a review of the literature of relevance to the Australian health workforce, and publication areas for focus were as follows:

- competency-based education and training frameworks
- competency-based career frameworks
- a taxonomy (classification framework) for competency-based standards in health.

Project team

The aforementioned research projects involved work across several complex fields and was preceded by a comprehensive exploration of the literature, which was then updated after completion of the initial project report.

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2. Introduction

This paper examines literature of relevance to two specific constructs that are core to the current innovation and reform discussions and agenda of Health Workforce Australia (HWA). The two constructs are:

- competency-based education and training frameworks
- competency-based career frameworks.

The topics are explored within the context of the Australian health workforce, and commentary is included on the scope of the workforce.

The paper refers to literature pertaining to the following matters:

- growing development and increasing use of competency-based education and training frameworks within the Australian health workforce
- current considerations and options that are emerging in the development and use of competency-based career frameworks in the Australian context
- inclusion of levels of both knowledge and competence inherent within all frameworks. (A hierarchy of such levels is commonly known as a taxonomy or classification system and is clearly modelled within the recently revised Australian Qualifications Framework.)

The cited literature is drawn from both published sources and available grey literature, and covers a number of genres including definitional terms, the historical and policy context, the mechanics of development, underpinning rationale and debates, current trends, resourcing considerations, and implementation enablers and barriers. Each of these bodies of literature could be developed as a comprehensive publication in its own right. This paper also includes case study examples of relevance to the Australian health workforce and the addressing of policy considerations.

The cited literature was initially sourced to inform the main project commissioned by HWA and carried out by researchers from the Faculty of Health Sciences at The University of Queensland. That project was commissioned to explore the utility of competency-based education frameworks and competency-based career frameworks for the Australian health workforce, with a specific focus on the development of options and recommendations for a whole-of-health workforce approach. Results of this research project are comprehensively reported in *Competency-based Education and Competency-based Career Frameworks: Informing Australian Health Workforce Development*.¹ The material presented in that report informs this paper and vice versa.

Difficulties in the definition of competence and competency concepts are discussed, with a range of relevant definitions included in this paper to inform the discussion. The historical context and policy drivers underpinning the competency movement are discussed, along with the underpinning rationale, oppositional concepts, debates and current trends. Specific sections pertaining to competency-based education and training frameworks, competency-based career frameworks and the concept of health workforce taxonomy are included.

Resourcing requirements are also examined, along with literature pertaining to implementation enablers and barriers. Three case studies are described as exemplars of current tangible examples of both education and training and career frameworks. The paper highlights a range of valuable development and implementation lessons, along with issues that the sector would need to address before its progression to a whole-of-workforce approach. Conclusions include an outline of benefits, or a value proposition of relevance, to a whole-of-workforce framework, and a summary of key points.

3. The Literature: Published and Unpublished

Literature to inform this paper was obtained from two sources; specifically:

- published literature
- available unpublished or grey literature pieces, which were sourced directly from key informants and their organisations.

Published literature was found through searches of MEDLINE, Web of Science, PsycINFO, PubMed, CINAHL Plus, and Australian Public Affairs Information Service databases, using the terms competence, competency, competency framework, standard, education, training, health, pathway, framework, career framework and workforce. The reference lists included in a number of the sourced publications also provided leads for the procurement of further items of relevance. Use of the 'Summons it' function in The University of Queensland library provided further leads to published literature.

While valuable, the search of published literature found information of relevance primarily to the first construct of competency-based education and training frameworks. The research team initially adopted a search strategy consistent with the compilation of a systematic literature review. However, it became quickly apparent that this would not capture many of the salient articles and reports published. It also became clear that, for projects of this nature, ranking studies according to evidential quality could provide misleading results, in that few papers have a comparable methodology to scientific studies, and many are policy or organisational documents. For instance, much less academic literature emerged in competency-based career frameworks. In the absence of published literature, access to available grey literature became essential to enable understanding of this second construct, which was core to the commissioned research project.

In response, a process of qualitative research inquiry was utilised to uncover grey literature via key informants. This process was of assistance in filling some of the gaps in the published literature and in enabling a more comprehensive understanding of the specific questions of policy concern to the workforce reform and innovation work program of HWA. A sample of 40 informants were sourced from five key groups, namely, educators and curriculum developers, health workforce employers, health professional representative bodies, health regulating agencies, and representative bodies of the future health workforce (that is, organisations representing health professionals in training). The sample was generated initially from the identification of key informants by project staff, and continued through snowballing until saturation of themes was reached.

The key purpose of the semi-structured interviews was to gain insights not otherwise available in the published literature and to provide leads related to key issues for consideration and exploration. A useful by-product of the interview process included access to a range of grey literature of relevance to competency-based career frameworks. Despite the results of this process of discovery, the literature remains scant, with significant need for further research and publication in competency-based career frameworks—an area of specific policy interest to the workforce reform and innovation agenda of HWA. While numerous suggestions are made in the project report for further research, this paper synthesises the results of the literature search to give a picture of the state of the debate as reported in both peer-reviewed and grey literature. This paper takes the form of a policy-relevant literature review, and in the process of evaluating literature, the researchers used policy relevance as a heuristic measure for assessing the value of articles.

Full details regarding informant profiles, interview structure, and ethics can be found in the report by the National Health Workforce Planning and Research Collaboration, entitled *Competency-based Education and Competency-based Career Frameworks: Informing Australian Health Workforce Development*.¹

4. Competence and competency: Terms and definitions

Up until the 1980s, 'competence' and 'competency' tended to be interpreted narrowly in terms of demonstrable skills or personal attributes, reflecting its association with training.²⁻⁴ Since then, competency research has considerably expanded and deepened, and a broader range of variables has been identified that can constitute competence. These include factors such as personal competence, job competence and meta-competence^{5,6}. The further application to formal systems of competency-based training has expanded exponentially and now pervades most educational sectors across Australia, United States, United Kingdom, Canada and beyond.⁷⁻¹⁰

Despite the competency movement growing over the past several decades, the burgeoning uptake of competency-based training models and the ongoing attempts to specify the type, components and meaning of competencies and related terms, contestation over their meaning persists.¹¹ Definition of concepts such as competency, competence, competency-based education and training frameworks, competency-based career frameworks and many related terms emerges as a complex task bedevilled by significant divergence of views. Authors frequently assert that the one commonality of view is that there is no common definition of competence.^{5,12-15}

Definitions are no clearer in the field of health professional education where additional terms such as clinical proficiency, judgement, performance and reasoning abound, appearing interchangeably without clarification.^{16,17} In this literature, competency has recently been highlighted as 'complex and ill-defined because of varying contextual factors and philosophical approaches'.¹⁸

American researcher Lawrette Axley notes that 'unfortunately, there is no officially agreed upon theoretical or operational definition of competency among nurses, educators, employers, regulating bodies, government, and patients' (p. 216).¹⁹

A consensus view exists on a nationally accepted definition within the Australian vocational education and training (VET) sector. This definition is facilitated and supported by the Community Services and Health Industry Skills Council, which also carries responsibility for the definition of a competency framework across the Australian VET health workforce.²⁰ However, this degree of clarity and consensus is not shared across the higher education and broader health sector.

Given the ambiguities, lack of consensus and existing definitional complexities, the development of shared understandings is increasingly essential in order to inform ongoing discussion, health workforce policy and program development.¹

Considering the current variances, this paper does not attempt to promote a single definition; rather, it includes several relevant definitions as an aid, or platform, to inform ongoing discussions, consultation, and consensus formation. The following definitions are selected and included on this basis. Definitions have been selected and constructed with both international comparability and relevance to the Australian health workforce in mind.

Competence: a dynamic combination of knowledge, understanding, skills and abilities. Fostering competences is the objective of educational programs. Competences will be formed in various course units and assessed at different stages.²¹

Competence: a generic term referring to a person's overall capacity to perform a given role, including not only performance but also capability. It involves both observable and unobservable attributes, such as attitudes, values and judgmental ability.²²

Competence: the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values and reflection in daily practice for the benefit of the individual and community.¹⁷

Competency: an observable quality of a health professional, integrating multiple components such as knowledge, skills, values and attitudes. Since competencies are observable, they can be measured and assessed to ensure acquisition by a professional. Competencies can be assembled like building blocks to facilitate progressive development.¹⁸

Competency: the consistent application of knowledge and skills to the standard of performance required in the workplace. It embodies the ability to transfer and apply skills and knowledge to new situations and environments.²⁰

Competency: a component part of competence. It refers to specific capabilities in applying particular knowledge, skills, decision-making attributes and values to perform tasks safely and effectively in a specific health workforce role.^{23,24}

Competency: the ability to consistently perform work activities to agreed standards over a range of contexts and conditions.^{25,26}

Competency: the concept of competency focuses on what is expected of an employee in the workplace rather than the learning process, and embodies the ability to transfer and apply skills and knowledge to new situations and environments.²⁷

Competency: the ability to perform the activities within an occupation or function to the standards expected in employment.²⁸

Competency in the clinical setting: the ability to handle a complex professional task by integrating the relevant cognitive, psychomotor and affective skills.²⁹

Axley¹⁹ asserts that 'quality care can only be accomplished if the providers of care are deemed to be competent to provide the best possible standard of care' (p. 214) and then points out an unarguable reality, specifically, that 'the absence of competency results in serious medical errors, poor patient outcomes, and an inability to make sound decisions' (p. 220).

The requirement and responsibility to ensure competence across the Australian health workforce is obvious. Given the considerable differences in views, definitions and interpretation of concepts such as competence and competency, initiatives to develop more universally agreed definitions are of increasing importance, with efforts ensuring consensus beginning to appear in the literature.³⁰

Arguing that a consensus definition has utility, Frank and colleagues³⁰ report on an international consensus conference designed to examine competency-based medical education regarding conceptual issues and current debates, and highlight the potential benefits and challenges of taking a competency-based approach to medical education. Simultaneously, Frank and co-authors also report a systematic review of published definitions³¹ and identify themes of use to health workforce policy makers and health professional educators contemplating and enacting the use of models of competency-based education and training in health workforce clinical education.

The work of Frank et al. builds on the impetus of the increasingly widely disseminated CanMEDS Physician Competency Framework used by the Royal College of Physicians and Surgeons of Canada,³² which has been adapted to inform a number of other frameworks, including many of the Australian postgraduate medical colleges, and due to its proven utility is being increasingly adopted and adapted by other professional groups.

5. Frameworks and taxonomies: Utilising concepts of competence and competency

As the competency movement has progressed, an array of terminology and jargon has emerged, which given the aforementioned definitional ambiguities has the capacity to confuse even the most informed members of the health and education communities.

The terms frameworks and taxonomies are now commonly used in discussions pertaining to the health workforce. Competency-based education and training, competency-based career development, and whole-of-workforce taxonomy are core to the current reform and innovation agenda of HWA. Therefore, it is essential that these concepts are fully understood if a reform agenda is to be effectively progressed. What exactly do these terms mean? What is a framework? What is taxonomy? What is meant by the terms competency-based education and training framework and competency-based career framework?

The authors of this paper have attempted to either locate or construct as clear a description as possible from which to guide investigation and discussion. As with attempts to clearly define concepts of competence and competency, the literature yields a similarly confusing and ambiguous picture for notions of competency-based education and training frameworks and competency-based career frameworks. The notion of whole-of-workforce taxonomy has not been located in the published literature. Where no definitions exist, the authors have suggested definitions for these recent terms, and on this basis the following definitions are included or suggested. Again, a number of definitions are included with a view to increasing clarity of understanding while avoiding any assertion that any particular definition is the single best definition for adoption in this early stage of sector-wide discussion.

Framework: a structure for supporting or enclosing something else; a fundamental structure, as for a written work; and a set of assumptions, concepts, values and practices that constitutes a way of viewing reality.³³

Educational frameworks: carefully designed structures for enclosing and supporting sets of concepts, values, assumptions, roles, competencies and/or practices. They are a useful way of arranging curricula and expected learning outcomes. They can guide providers and/or participants in the content and standard of what is to be taught, learned, assessed, demonstrated and/or practised. This definition was provided by The University of Queensland research team.

Competency-based education and training frameworks: frameworks that are constructed to specify competencies relevant for registration, assessment of practice and curriculum design, and education and training. This definition was provided by The University of Queensland research team.

Competency-based career frameworks: a framework with clearly defined levels at which a role could be performed from initial entry level roles to the more expert of specialist level roles. They can be used to aid workforce flexibility, provide a common currency to map competence portfolios of employees, and identify areas of transferability to other job roles. This allows progression in directions that may not have been identified through traditional routes.³⁴

Taxonomy: the practice and science of classification and a taxonomic scheme, or a particular classification ('the taxonomy of') arranged in a hierarchical structure.³⁵

Taxonomy: when applied to learning, is a systematic classification of what is learned. Classification sorts the kinds of capability that the individual acquires or demonstrates as a result of the events of learning.³⁶

Scaffolding: has an important role in the development of meaningful learning activities. The term emphasises the cumulative nature of learning and competence acquisition. One experience builds on the other to advance the learner/practitioner to higher levels of skill and competence.^{36,37}

Taxonomy of educational objectives: a framework for classifying statements of what we expect or intend students to learn as a result of instruction and what we expect them to know after different levels of education.³⁸

Whole-of-workforce taxonomy: a framework for classifying levels of performance and accountability, which are generic to the entire health workforce (as defined by The University of Queensland research team).

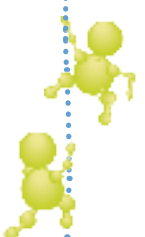
Thus, we can see that a framework is a method for sorting or structuring content, including curriculum information or content relating to sets of concepts, values, assumptions, roles, competences, competencies and/or practices. Within the health sector, professional groupings use frameworks to construct or specify competencies relevant for registration and assessment of practice.³⁹

If the framework includes curriculum content, such as education and training objectives, expected competence achievements or standards of performance, the framework is typically known as a competency-based education and training framework. The CanMEDS Physician Competency Framework used by the Royal College of Physicians and Surgeons of Canada is a clear example of a competency-based education and training framework.³²

If the framework includes practice standards, levels of work accountability and steps for career progression, it is more typically known as a competency-based career framework. The levels of work accountability or career steps may or may not be linked to an enterprise bargaining agreement, industrial award and/or specific remuneration provisions.^{40,41} The United Kingdom Skills for Health's Career Escalator is a clear example of a competency-based career framework.^{28,42}

Both competency-based education and training frameworks and competency-based career frameworks include a taxonomy, or classification system, within the framework, which in an educational or clinical training context usually pertains to levels of knowledge (educational application) or in an employment or clinical training context to levels of practice (workforce application).

The Australian Qualifications Framework is a clear example of a taxonomy classification system defining levels of learning and achievement that sit within the framework.⁴³ Given the underpinning aim of the recent Australian Qualifications Authority review process to assist in improved alignment and pathways between sectors, it seems essential that any future taxonomy of health workforce functioning and accountabilities is developed in a manner that aligns well with the same or similar levels within the revised Australian Qualifications Framework.⁴³ Such alignment is an essential aid for clear learning pathways, recognition of prior learning, and articulation for the engagement of the workforce between the health and education sectors.



6. Frameworks and taxonomies: Three illustrations

A more detailed portrayal of a small number of contemporary examples is useful in increasing clarity and shared understanding of the recurring terms within this paper, specifically:

- competency-based education and training framework
- competency-based career framework
- taxonomy.

These case studies have been selected as exemplary of typological variation between the types of frameworks identified through the process of definitional and policy review.

The CanMEDS framework: A competency-based education and training framework

Developed by the Royal College of Physicians and Surgeons of Canada for use by physicians, the CanMEDS framework focuses on defining the key roles and competencies required of physicians to meet the health care needs of the patients, communities and societies they serve. It is centred on seven key roles, which form the key framework domains under which a range of competencies and outcomes then flows. CanMEDS can be of use to educators, teachers and researchers, as a guide to curriculum development and a basis for clinical teaching, and to inform research on the development of health professions.

The CanMEDS initiative began in the early 1990s as a desire to reform medical education. It was then developed from 1993 to 1996 through extensive consultation with Fellows of the Royal College of Physicians and Surgeons of Canada from many specialties, as well with as expert stakeholders and health care organisations. Identification of core competencies and assembly into the roles framework of CanMEDS was facilitated by CanMEDS Roles Working Groups comprising hundreds of member Fellows. The framework itself was initially trialled in 1996–1997 in a number of small pilot projects in faculties of medicine across Canada. CanMEDS was then implemented in 1997–2002, during which time the Office of Education ensured that the CanMEDS roles and competencies were incorporated into all of the standards in residency education. Each specialty was involved in a five-year process to rework the CanMEDS standards specifically for that specialty. In 2003 the framework was revised by groups of expert volunteers, and in 2005 a new CanMEDS framework was approved.³²

In addition to its widespread use in Canada, CanMEDS has also been adopted internationally, with several countries including Denmark, the Netherlands, New Zealand and Australia adapting and using this framework as a model for postgraduate medical and other specialist education.⁴⁴ For example, the Royal Australasian College of Surgeons has customised the CanMEDS principles to suit its purposes, expanding the seven CanMEDS roles into nine attributes.⁴⁵ Similarly, developers of the Australian Curriculum Framework for Junior Doctors drew on CanMEDS to define three major areas and six categories.⁴⁶ Evidence exists that the CanMEDS model of competency is gathering increasing acceptance worldwide, and within the Australian context is increasingly being noted as a useful reference point for future framework development and implementation.²² Further evidence of its relevance and useability is highlighted in the recent Australian Medical Council (AMC) consultation document, which indicates significant AMC support for the framework, with explicit encouragement regarding its increasing use in the Australian context.¹⁸

United Kingdom Skills Escalator: A competency-based career framework

The United Kingdom has progressively adopted a suite of related measures designed to modernise pay scales,⁴⁷ enable interprofessional practice and modernise the health workforce and careers within the National Health Service (NHS), with an overriding goal of the promotion of patient-focused care. The country's policy initiatives began in the late 1990s, as the Labour Government elected in 1997 sought to ensure that large increases in health spending—designed to better approximate the European average and lift standards of population health and wellbeing—were not diverted largely into higher workforce costs. A substantial phased increase in core funding for health was accompanied by a devolution of governance, namely through the empowerment of Foundation Trusts and, later, Trusts generally ('Trusts' are the immediate employing bodies for health workers in particular regions and localities in the United Kingdom). At the same time, a process of political devolution with the inauguration of the Scottish Parliament and Welsh Assembly in 1999, and the subsequent reinstatement of self-governance in Northern Ireland, allowed for further flexibility and innovation across a unified health system responsive to the four Departments of Health.

Pay modernisation for the NHS under Agenda for Change (flagged in 1999 and implemented from 2004) led to three spines for the health system, but with one method of job evaluation, or 'banding'. Accompanying Agenda for Change was the development of a Knowledge and Skill Framework, which would enable employers to assess the comparative value of staff in terms of their skill and knowledge base and to attain parity of skills and costs when rationalising the remuneration of health workers across a large range of job titles and professional and semi-professional occupations. While the principles behind this modernisation agenda are centrally driven, and were negotiated with relevant unions, implementation has been gradual and localised, with several pilots and demonstration programs designed to accompany each phase of change.

The original NHS Knowledge and Skills Framework included the concept of a Skills Escalator, which had the intent of facilitating vertical escalation and horizontal integration and seeking to produce a win-win for both existing employees and for clinical and workplace planners in matching career aspirations with the deployment of skills to needs. The overall vision was for less rigid professional demarcations, greater career progression options for health professionals, and an articulation of patient care priorities and cost control, efficiency and quality assurance (for instance, through the integration of health and social care in some Trusts, allowing ongoing care for those with chronic conditions to take place in the community but integrated more seamlessly with primary and hospital-based care). A central agency, Skills for Health, later accompanied by Skills for Care,⁴⁸ exists to disseminate knowledge and provide tools for workforce planning and job evaluation by employers.

The intention was to design an overall competency-based career framework for the entire NHS to complement these other workforce measures. However, buy-in was not obtained successfully from medical doctors and nurses, and the process was halted for six months to explain the aims and goals of the framework and to dispel misconceptions about its implications. Informants to our project felt that success would have been more likely had this process taken place before implementation, and if greater effort had been made over a longer period of time to secure support across crucial professions. The result was a Career Framework for Allied Health Professions, published in 2008, which only now is starting to be trialled.

Skills for Health has now released a non-prescriptive Career Framework Tool, which enables individual employers to build on the range of measures available within their own specific workplaces. The workforce tools available are linked to education and training through specification of particular competencies from National Vocational Qualifications (NVQ) and tertiary degrees. NVQ are the British equivalent of the Australian vocational education and training, or VET, level certificates and diplomas.

The Australian Qualifications Framework: An educational taxonomy

As highlighted earlier, taxonomy 'is a framework for classifying statements of what we expect or intend students to learn as a result of instruction'.³⁸ Further, when applied to learning, it is a systematic classification of what is learned. Classifications sort the kinds of capability that the individual acquires or demonstrates as a result of the events of learning.³⁶

A taxonomy is of direct relevance to the concepts of competency-based education and training frameworks and competency-based career frameworks, on the basis that levels of knowledge, skills, performance, expected practice standards, job accountabilities and competence are contained within such frameworks.

Equally relevant is the recently revised Australian Qualifications Framework. The Australian Qualifications Framework has been revised to include 10 levels that are detailed as a 'taxonomy of learning outcomes and an explicit reference levels based structure'. The revised structure was approved by the Ministerial Council for Tertiary Education and Employment on 18 March 2011.⁴⁹

Significant literature regarding the notion of a taxonomy stems from the work of American educational psychologist Benjamin Bloom and his colleagues. Bloom's initial work was published in 1956 under the title, *Taxonomy of Educational Objectives: The Classification of Educational Goals*.⁵⁰ Since that time, Bloom's taxonomy has been used as the basis for curriculum development, instructional design, framework development, setting assessment levels and more.^{51,52} The original taxonomy includes the following levels, with health-related examples provided by fellow American educational researcher David R. Krathwhol to further clarify this discussion.³⁸

Knowledge: the recall of specifics or related facts. This process emphasises the psychological processes of remembering. It includes knowledge dealing with specific facts, trends, classifications and the tasks, as well as procedures employed in a specific subject field. Knowing the major risks for a patient with a particular illness would be an example of this level.

Comprehension: this represents the lowest level of understanding. Comprehension involves making use of an idea without necessarily relating it to other material or realising its full implication. Examples are interpreting the meaning of a graph or predicting the continuing spread of a contagious disease.

Application: the use of abstractions or principles to solve problems. These may be in the form of generalisations or theories that must be remembered and applied. Examples include applying scientific terms discussed in a paper to other situations or solving health problems using scientific knowledge.

Analysis: the breaking down of complex information into simpler parts to understand how they are related or organised. Analysis is intended to clarify and provide an understanding of the interactions between elements. An example would be relating a patient's previous symptoms to a current medical condition.

Synthesis: the process of combining concepts to constitute a new whole. This includes creating completely new products, such as writing a composition or developing a differential diagnosis for a patient.

Evaluation: making value judgements based on some given criteria or standard. Comparing two different medical procedures regarding patient prognosis is an example of this level.

The recent revision of the Australian Qualifications Framework went from 9 to 10 levels via a process involving two years of consultation. Revisions were 'developed in response to the need for improved linkages and connections between qualifications and sectors' and to achieve a

‘Taxonomy of learning outcomes and an explicit reference levels-based structure’.⁵³

The final document regularly refers to the need for ‘cross-sectoral linkages and pathways improvement policies’.⁵⁴ Consequently, it is imperative that subsequent developments in other areas and sectors (for example, Australian health workforce) are cognisant of the recent Australian Qualifications Framework changes and work towards optimal alignment of frameworks and taxonomies between sectors.

In addition to these cited examples of a competency-based education and training framework, competency-based career framework and a framework to illustrate application of a taxonomy within a national framework, the literature has also identified several other types of framework emerging from recent health sector developments. A key example is the Hunter New England capability framework.⁵⁵

Analysis of the literature and cited examples has led the authors of this paper to distil a number of guidelines, which seem fundamental to effective framework development; specifically, a framework should:

- be able to be adopted in multiple contexts to advance a range of purposes, rather than being of limited value
- be based upon a commonly agreed series of terms and definitions
- include a clear classification system (taxonomy) to acknowledge and accommodate varying skill levels from student, to beginning practitioner, through to expert
- acknowledge and accommodate the profession-specific attributes and unique contributions within the health sector
- accommodate lifelong learning—undergraduate, vocational, pre-vocational and postgraduate studies, and lifelong continuing professional development
- within the Australian context, align with and enhance existing nationally agreed developments, such as the Australian Qualifications Framework and the Community Services and Health Industry Skills Council-developed framework for the Australian VET health workforce.^{43,56}

7. The competency movement : Historical background and policy context

Some writers assert that the competency movement has its precursors in management, with moves towards greater task efficiency beginning early in the 20th century,⁵⁷ while others attribute the genesis of the competency movement to a wider range of other causes or settings.^{2,58–60} In reviewing these works and in attempting to provide greater clarity to the origins of the competency movement and competency-based training, Hodge⁷ highlights the potential role that the world's first artificial satellite, Sputnik, created in the impetus for the birth of competency-based training. Simply put, the efforts of the Soviet Union to launch Sputnik into orbit around the earth (4 October 1957) in advance of the United States space program is postulated to have led to federal critique of the country's education system, which resulted in the introduction of nationally mandated competency standards and competency-based training across the system by the end of the 1970s.

Researcher R. J. McCowan traces the origins back to the work of theorists, such as Frederick Taylor's scientific management theory, Edward Thorndike's theory of behaviourism and John Dewey's progressive educational theory, as providing the foundations for the birth of the competency movement.⁶¹ Meanwhile, others highlight calls for increased public sector transparency and accountability as being key to the historical development and uptake of models of competency-based education and training.^{7,62–65}

Whatever the origins, a range of writers indicate that in the clamorous rush to implement competency-based training there has been 'little effort to chronicle either the genesis or the effectiveness of the movement'.⁷ In its initial stages, the movement was considerably narrower and more behaviourally focused than it is today.

Throughout the 1970s and 1980s, the competency approach was widely adopted by business and industry for workplace recruitment and efficiency.⁶⁶ Among others, researcher D. C. McClelland established the behavioural approach that concentrates on the characteristics of the individual who performs successfully. This approach is exemplified by the researcher R. E. Boyatzis who in 1982 defined a set of 'underlying characteristics that lead to effective performance'.⁶⁷

The United Kingdom Government adopted the competency approach as national training policy by the mid-1980s, in the context of falling industrial competitiveness attributable to an insufficiently trained or skilled workforce. The National Vocational Qualifications framework⁶⁸ was established in the United Kingdom with a narrow functional definition of competence as 'the ability to perform satisfactorily in a range of occupational tasks', in contrast to the parallel development in Europe of more broadly based concepts of competency.⁶⁹ 'Occupational Standards' were developed by functional analysis of work task components,⁷⁰ and the United Kingdom model strongly influenced Australian training policy since 1989.⁶⁹

In Australia, over the past 20 years, the United Kingdom model of skills-based or functional competency has become national government training policy, with all Australian vocational education and training, or VET, now delivered by competency-based training.⁷¹ Concurrently, however, thinking about competence has been broadened to include professional occupations, and approaches that integrate behavioural, functional and cognitive domains.⁷²

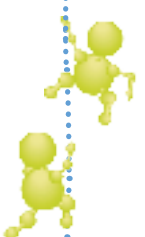
Clinical competence is now the professional and organisational context within which most health professional practice is conceptualised.^{10,18,73–76} This move towards measuring trainee and health workforce outcomes, articulated as competencies, signals a major pedagogical shift away from previously more traditional methods of education and workforce management.⁷⁷

Key policy drivers underpinning the widespread uptake of competency-based education within health professional education include unprecedented calls for greater accountability in all aspects of professional functioning;⁷⁶ a need to better structure career and clinical progression;¹⁰ and increasing regulatory, public, organisational and professional requirements to better articulate the combined contributions of the health professional workforce and the unique contributions of each profession.⁶³

Other drivers, including the global trends and changes in health service delivery, and the increasing workforce shortage, underpin a growing recognition of the current inadequacy of many aspects of current workforce structures and health professional education.^{65,78} Calls for better alignment between health and education, consideration of revised scopes of practice, creation of new categories of professions or assistants, improved interprofessional practice and enhanced models of collaborative care all emerge in response to the requirement for a health workforce that can more competently, flexibly and cost effectively meet the increasingly complex needs of health consumers and their families, now and into the future^{65,78,79}

More recently, a range of health sector reform developments^{80,81} and profession-specific utilisation^{18,82} strengthen the increasing consideration of competency-based career frameworks to further extend directions already achieved via the competency-based training movement.^{8,64,83,84}

Health policy researcher Nick Bosanquet and his colleagues⁸⁵ highlight the current path of health reforms in the United Kingdom as including movement towards a much more 'patient-led integrated system of care', which includes significantly more of the care being provided outside of acute care settings and in which there is a requirement for greater workforce flexibility to move between public, private, non-government organisation and community settings. Increasingly, care in this context will be provided in efficient local primary care organisations, such as envisaged specialist super clinics and Medicare local environments. In this service delivery model, specialist medical staff and other health workers will no longer be employed in one location for all of their contracts, with current conceptions of workplace setting and career likely to undergo significant change.⁸⁶ Further consumer expectations of interprofessional cooperation and collaborative-based care will continue to increase.⁸⁷



8. Collaborative care and interprofessional competence

Partnership-based public policy

Over the past two decades, public policy makers have increasingly introduced models of joint and collaborative working to enhance social and economic outcomes.^{88–91} Growing evidence exists to demonstrate the increasing popularity of such models and the increased emphasis on whole-of-government or joined-up government activity.^{81, 92}

In describing this policy trend, it is evident that this new paradigm underpins both social and economic development activities. A key assumption underpinning the partnership-based policy trend is that inter-organisational collaboration and partnership-based service delivery is a more effective means of yielding improved outcomes; that is, if everyone cooperates, collaborates and works together, improved results will be achieved.

Researchers Jane Nelson and Simon Zadek describe this concept as the ‘alchemical effect’ (p. 15) or the dynamic that arises when ‘participants seek to achieve more than the sum of their individual parts by creating leverage and synergy based on and between key components of the partnership’.⁹³ Simply put, ‘collaboration means that one plus one can equal three’.⁹⁴ The objective of a partnership is to deliver more than the sum of the individual parts.⁹⁵

However, the concept is far from simple, as this is a complex and continually evolving development pathway in public policy evident in a broad range of socioeconomic contexts—the health service context being no exception.^{96–98}

Within the health arena, international public health policy has seen a dramatic shift from isolated models of health care towards ‘new governance’ health care arrangements involving local health systems that are collectively responsible and accountable for the health needs of a community.^{96,99} Although a little slower than the rest of the world, the same movement is occurring across the Australian healthcare system⁹⁷ and will soon be enacted with the full implementation of wide-scale health reforms involving the establishment of Local Hospital Health Networks and Medicare Locals.^{81,92}

The trend towards inter-agency collaboration is no more evident than at the clinical level where the increasing complexity of health care has generated an expectation and a need for interdisciplinary activity and for health professionals to work as a team. While there is growing evidence to suggest that effective interdisciplinary practice improves consumer health outcomes,⁹⁸ there is also a recognition that effective collaborative practice does not ‘just happen’.¹⁰⁰

Within this context, Western health systems worldwide are seeking to define the key criteria and strategies to maximise, promote and support collaborative practice and interprofessional competency.^{101,102} The development of effective collaborative practice necessitates multifaceted strategies that address both the structural (systems, tools) and relational factors (human relationships) at a local level^{100,103}—an increasing expectation of consumers and their families—and which is clearly reflected in current health service policy and practice trends.¹⁰⁴

Effective interprofessional networks offer the potential to identify and resolve systemic barriers to collaboration, such as development of referral protocols to improve bilateral communication between primary and secondary care, and encourage the development of productive working relationships between service providers and health professionals.

Collaborative care

Partnership-based public policy context underpins the concept of collaborative care, models of which are increasingly seen as needed to ensure optimal service delivery in complex health contexts. In short, collaborative care is viewed by many as a necessary evolution¹⁰⁵ in a context where physicians are challenged by the increasingly 'complex care required for complex patients in a complex time'.¹⁰⁶ Factors contributing to this increasing complexity are noted as ageing population, increasing patient expectations, patients with chronic diseases and co-existing conditions, and health workforce shortages. Against this backdrop, collaborative interface activity is 'increasingly seen as an essential feature of high-quality, safe mental health services'.¹⁰⁷

The 2008 Canadian National Physician Survey revealed that most doctors interviewed agreed that new primary care models providing collaborative care are 'better suited for providing the complex care many patients now require'.¹⁰⁶ In reporting how patients benefit from collaboration, descriptors of a patient-centred model supported by a collaborative team of professional, allied health workers, community providers and carers provide a service delivery framework within which patients can enjoy enhanced support and care, as someone is there ready to answer each health need as it arises.¹⁰⁵ In addition to forming networks between a team of health care professionals, the new models increasingly integrate models of family intervention and carer participation alongside the models of integrated specialist and primary care.¹⁰⁸

The concepts of collaborative care, interprofessional teams, horizontal integration and workforce flexibility and cross-sectoral collaboration are fundamental rationales underpinning the move to competency-based frameworks for both education/training and health workforce career development.

There is a large literature regarding both interprofessional education and interprofessional practice.^{83,109} Multiple reports exist about particular interprofessional education programs or courses, as well as evaluations and attempts to quantify the contributions interprofessional education may make to care.^{110,111} Interprofessional education is so widely discussed that a number of papers pose the question of whether its agenda has become too diffuse or ambitious.¹¹²⁻¹¹⁴

At a global level, interprofessional education and interprofessional practice are now seen as being central to health policy, as instanced in recent work by the World Health Organization^{115,116} and the previously cited *Lancet* article reporting on an international consultation designed to explore the role of health professionals in the 21st century.³⁰

The interprofessional education literature often assumes that optimal interprofessional working will be an outcome of changing educational and training philosophies, curricula and pedagogies, but that those outcomes will not necessarily be secured until sufficient time has elapsed for new graduates to progress throughout their careers.¹¹⁰ There is, for instance, an Australian study that discerns different dispositions towards teamwork and interprofessional working from younger visiting medical officers.¹¹⁷ The pressures for the introduction of models of collaborative care are usually viewed as urgent, and therefore attention turns to more immediate levers for cultural change. It is in this context that interprofessional competency frameworks are advocated and developed.¹¹⁸

Such frameworks are in their infancy; however, new models are rapidly emerging. Existing literature reports on developments in Sweden and Norway¹¹⁹ and primarily within countries with politically and culturally comparable health systems. Most activity appears to have taken place in Canada, where expansion of the CanMEDS framework is being applied more broadly to allied health professions^{23,120} and where the development of a National Interprofessional Competency Framework¹²¹ is seen as a major globally recognised development.

Interprofessional education and competency frameworks as a platform to enhance collaborative care

Any new policy and delivery change is much easier to advocate than to practice.¹²² In particular, service coordination, collaboration and partnership pose complex implementation challenges.^{123,124} Embedding interprofessional practice is not easy.¹²⁵ Successful implementation requires thought, planning, leadership and education.^{126,127} Thus, purposefully planned education becomes a key platform to support and enhance learning and change.

Interprofessional education is noted as having a range of advantageous outcomes, in that it promotes interprofessional collaboration; involves interactive learning between professional groups; develops knowledge and understanding of other professions; encourages professionals to learn with, from and about one another; improves relationships; increases trust, strengthens referral networks, provides opportunity for consumer and carer engagement; and respects the contributions and integrity of others.^{83,128–130} The delivery of interprofessional education is mooted as being essential to engender the cultural change necessary to fully embed effective models of collaborative care.^{87,131} In short, the path to the successful implementation of collaborative care involves interprofessional education, which is based on the clear articulation of the competencies that are essential to effective team work and the delivery of collaborative care.^{87,132} Increasingly, competencies are structured within interprofessional frameworks.^{83,133,134}

Interprofessional and collaborative competencies

Before embarking on framework development, it is important to clearly identify the nature of interprofessional and collaborative competencies. Without such clarity, an unhelpful blurring of sectors, professional identities and accountabilities can occur.¹³⁵ Simply, it is essential to understand and identify the competency clusters and competencies of interest versus those which are exclusive to a particular sector, profession or group.^{135–138} Typically, these areas of common interest include competencies such as leadership, conflict resolution, client assessment, team functioning, negotiation and problem solving.¹³⁴

The following commentary highlights examples of how these competencies have been developed within the Canadian health service context.

The British Columbia Competency Framework for Interprofessional Collaboration

Initially, a range of province-based examples were developed within the Canadian context, of which the British Columbia Competency Framework for Interprofessional Collaboration emerges as a well-researched and clearly articulated example.^{134,139}

The framework was developed by University of British Columbia College of Health Disciplines via the Interprofessional Network of British Columbia, which sought out, compared and contrasted 15 existing frameworks. The purpose of the development framework has been to inform curriculum development in the context of both pre-registration education and post-registration continuing professional development. Further, Canadian researcher Victoria Wood and her colleagues¹³³ assert that the development of this framework has been an essential underpinning of the ‘road to collaboration’, with collaborative practice noted as a prime strategy for both enhanced patient outcomes and also for improved health workforce retention.^{133,140}

Canadian National Interprofessional Competency Framework

The work of the Canadian provinces was further expanded by the development of a national interprofessional competency framework. In 2008 Health Canada provided the Canadian Interprofessional Health Collaborative (CIHC) a funding grant to enable CIHC members to establish a working group, with a mandate to review literature related to competencies and existing province-based frameworks (for example, British Columbia Interprofessional Competency Framework) and to develop a Canada-wide competency framework for interprofessional collaboration.¹⁴¹

The Canadian National Interprofessional Competency Framework¹²¹ includes six competency domains, specifically, interprofessional communication, patient/client/community-centred care, role clarification, team functioning, collaborative leadership, and interprofessional conflict resolution. The model is increasingly used as a guide to similar Australian-based developments.

Further directions in interprofessional practice and collaborative care

The literature pertaining to interprofessional education, interprofessional practice and collaborative care is prolific.^{114,121,142–144} The increasing evidence arising from CIHC literature reviews is best summarised as follows :

Mounting research shows that health care delivered by nurses, physicians, and other health professionals working in teams not only improves quality, but also leads to better patient outcomes, greater patient satisfaction, improved efficiency, and increased job satisfaction on the part of health professionals .⁸⁷

9. Benefits of competency-based approaches

Multiple benefits have been identified that support the development and use of competency frameworks.⁸⁵ These include enhancing alignment between education and the needs of industry, health consumers and communities; facilitating consistent practice standards; providing open and equitable assessment of international practitioners; a transparent mechanism for regulating a profession; a useful tool for guiding curriculum development; providing a public statement of a profession; identifying relationships between professions; assisting processes for recognition of prior learning; increasing accountability; assisting recruitment; facilitating performance review evaluation; improving staff morale; and guiding clinical supervision, mentoring and continuing education.^{27,145,146}

Provision of common platforms for learning, along with clear articulation pathways for those seeking recognition of prior learning, is noted as being of particular benefit in the context of current health workforce developments^{65,147} These factors are viewed as having particular applicability to different groups within the health community,⁴² including:

Health consumers

- improved patient and consumer care through increased flexibility in utilising the health workforce, and clear articulation and maintenance of skills and competencies
- potential for less fragmented care and for more patient-centred practice

Health professionals

- enhanced understanding among students of the contributions and knowledge base of different professions
- clearer career pathways and opportunities for the health workforce
- greater clarity and transparency regarding workforce roles and accountabilities
- simplification of complex employment arrangements and control of burgeoning new worker categories
- opportunities for further understanding and knowledge sharing across different professions and workforce categories

Health employers

- greater horizontal and vertical flexibility in workforce utilisation
- better alignment between education and the health sector
- strong base for maintaining role and remuneration parity between workforce groupings (for frameworks with industrial links)

Health educators

- possibility of more seamless articulation and recognition of prior learning, not just between vocational education and training, or VET, and higher education, but also within higher education and postgraduate training
- opportunity to work in closer partnership with the health sector

Health planners, regulators and registration authorities

- potential for skills migration within the existing workforce, and better preparation in meeting new and emerging demands within the health system.

10. Utilisation of competency-based frameworks in the health sector

Competency-based education and training frameworks

Over the past 20 years, there has been a significant and steady increase in the movement of various health professions to define standards of practice in the form of competencies.⁶³ In recent years, multi-dimensional frameworks have been adopted by a variety of professions as a means to define scope of practice and regulate career entry, set accreditation and quality practice standards, support multidisciplinary and interprofessional engagement, and create greater alignment between occupational requirements and higher education outcomes.⁶³

Nurses were the initial group to commence wide-scale definition of competency expectations,¹⁴⁸ with most professions now actively engaged with this approach.^{10,78,149} The literature search associated with this paper was unable to locate any health profession in the Australian context that does not use various forms of competency expectations to define practice and registration requirements.

Competency frameworks are widely used in the health sector,^{136,150} with most health professions now fully embedding competence as a 'central constellation of principles and values that inform the profession'.^{56,84,146} Recently, there has been much debate over the potential utility of competency frameworks as part of a broader health reform agenda, and particularly in response to health workforce shortages in the sub-field of health workforce innovation¹⁵¹, with support for their introduction being underlined in several prominent reports.^{81,92} In particular, given that much of this support is predicated on the utility of frameworks for the better coordination, planning and delivery of patient-centred and collaborative care, interprofessional frameworks are key to this agenda.¹⁵² They represent a potential model for sectoral or other frameworks (for instance, those encompassing an organisation) that seek to act as a lever for change across the workforce, rather than simply supporting practice in particular roles, professions or areas of practice.

The envisaged use of sector competency frameworks and large-scale interprofessional frameworks represents a significant leap from the use of competency frameworks in health in Australia, to date. Replicating international trends, nursing was first to adopt competency standards,¹⁵³ followed by many allied health professions.¹³⁶ Concerns about defining and delineating scope of practice, and attaining greater legitimacy, were significant drivers,⁶⁵ as have been shifts in the legal architecture of registration and the introduction and growth of nursing and allied health education in the tertiary sector.²² From the early 2000s, many medical specialist colleges adopted competency frameworks for postgraduate education, usually based on the CanMEDS model, and a lively debate continues on the scope and utility of competencies within medical education.^{18,146}

At the same time, regulation and concerns about patient safety and quality care have driven the development of competency frameworks specific to particular procedures or tasks, and some employers and jurisdictions have adopted workforce-wide frameworks (sometimes described as 'capability frameworks') or frameworks that apply to particular professions, workforce categories or groups of professions (for example, allied health). The impetus for these developments is often partly organisational (reflecting industrial and cost drivers) and partly designed to attain the optimal skill mix within particular contexts of care.¹⁵⁴

It is not surprising then that issues surrounding workforce shortages, surplus and distribution⁸¹ are significant drivers underpinning the increased use of competency-based education and training frameworks in the Australian context.

In recent times, the uptake and dissemination of such frameworks has been exponential, with a major problem now being faced on the large number of frameworks that are continuing to be produced. Many professions are now facing information overload, with a growing belief

that ‘there are just too many framework documents being produced’.¹⁰ Further, the variance in framework and taxonomy design, levels, complexity and detail is a major inhibitor to workforce flexibility and/or to the ready implementation of desired models of recognition of prior learning, assessment of international health professionals, and workable articulation agreements between educational and health sector providers.

Competency-based career frameworks

The notion of competency-based career frameworks and their use within the health sector are much less researched and understood. Search of the literature highlights a paucity of utilisation and information in this field. There are, however, a number of examples within the Australian contexts. Some of the literature sourced to inform this paper was located in unpublished papers and project reports from key contacts within the Australian public and private health system. Subsequently, examples of competency-based career frameworks were identified in South Australia for the allied health and nursing occupations (through enterprise bargaining) and at the Sydney Adventist Hospital, although these are not yet available in published format. International developments, such as the *Let's Get Real* framework produced by the New Zealand mental health organisation Te Pou, were also identified.^{155,156} Sourcing of unpublished literature, along with discussion with leaders in the sector, suggests that the aforementioned examples are by no means a definitive list and that considerable activity is currently underway but as yet their experience is unpublished or uncirculated—due, in part, to the commitment of organisations to first consult with professional groupings and industrial representatives throughout the development process and before the release of information on their framework. Career frameworks have been promoted on a range of premises,^{42,85} including their capacity to:

- provide a framework for a clearer pathway towards a ‘patient-led integrated system of care’¹⁸⁵ with features allowing staff to move easily between acute, primary care, private and non-government organisation sectors
- provide opportunity for career progression in directions that may not have been previously possible through more traditional routes
- aid increased workforce flexibility by providing a map to identify areas of transferability to other job roles
- enhance patient care through improved workforce capability and alignment
- improve staff retention through extension of current roles, emergence of new roles and transferability of competences
- identify staff development needs, and to subsequently plan and provide appropriate training that will develop the required skills and competences
- as a tool, to initiate curriculum change and achieve better alignment between the health and education sectors

Competency-based career frameworks are not yet prevalent within the Australian healthcare system; however, exploration of this topic is clearly on the innovation and reform agenda of HWA, with the commissioning of this paper designed to raise awareness and commence discussion around the utility of these approaches within the Australian context.

In addition to providing benefits for health consumers and health professionals, the United Kingdom Skills for Health website¹⁵⁷ highlights ways in which a competency-based career framework can be used by health service managers, such as:

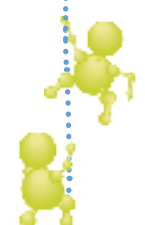
- conducting service reviews
- during workforce planning and development
- redesigning or defining roles
- during appraisal, self-appraisal and personal development planning
- conducting reviews of skill mix
- developing and delivering training programs or qualifications.

Other emerging frameworks

A range of as yet unpublished work is currently underway within various Australian-based public and private sector health provider contexts. Given the nature of this development work, it is expected that increasing publications will emerge over the next two to three years. Some of the developments sourced during the researching of this article have similarities to competency-based education and training and/or competency-based career frameworks, but are significantly different to these types of framework. One such example is the Hunter New England (HNE) Health Workforce Capability Framework. The framework is a results- and values-driven framework applicable to all staff of the HNE Area Health Service. The framework describes the capabilities (defined as skills, knowledge and abilities) required of all health service staff to ensure a workforce that will deliver high-quality services to the community. This framework establishes a platform to implement capabilities across a range of human resource practices, including learning and development, managing for performance, recruitment, workforce planning, and career development.⁵⁵

The framework comprises three broad streams (organisational stream, direction, and capacity to deliver), which together are defined by 15 capabilities applicable to various groups within HNE Health. The organisational culture stream defines capabilities that are common to all jobs in the public sector, which in this context implies all HNE Area Health Service staff. The direction stream applies to organisational managers, and the capacity-to-deliver stream describes capabilities applicable to particular jobs within HNE Health. The framework is an adaptation of the NSW Public Sector Capability Framework, a New South Wales Government document released in 2008 while the HNE Health Workforce Capability Framework was being developed. In addition to the Public Sector Capability Framework contents, the HNE framework also contains a maturity model to ensure the continued strategic integration of the framework for building sustainable workforce capability.

We therefore suggest that such developments will increase in Australia as the current health reform agenda gains momentum.



11. Considerations of a whole-of-workforce framework for the Australian health workforce

Similar to the establishment of the Australian Health Practitioner Regulation Agency, HWA is of significant strategic and operational importance within the current context of Australian health reform. In its first year of operation, HWA commenced discussion and exploration of the notion of the development of competency-based education and training frameworks and competency-based career frameworks for the Australian health workforce. The ongoing discussions and consultations are intended to explore a whole-of-workforce approach to the development of these envisaged frameworks—a possible global first.

Problem identification and development of a value proposition is an essential precursor to the progression of work activity in this area. In short, is there a problem to be resolved? The answer is a clear 'yes', given that this paper has highlighted significant ambiguities, lack of alignment, workforce inflexibilities and more. Current problems within the Australian context include the following factors.

- Everyone is developing frameworks with little, if any, alignment and with increasing disparity.
- Frequently, frameworks are not aligned with the recently revised Australian Qualifications Framework. This exacerbates problems related to:
 - » variable standards and levels of competency within health qualifications and professions
 - » difficulties in transition between the vocational education and training (VET) and higher education sectors
 - » difficulties in recognition of prior learning for health workers wishing to build on their careers, change careers or migrate to Australia
 - » increasing professional demarcation and protection of professionally siloed roles
 - » difficulties for health employers wishing to increase workforce flexibility.

These problems are common across Western countries and are increasingly being tackled by the development of cross-professional, interprofessional and cross-sectoral competency frameworks. Examples include the CanMEDS framework and the Tuning Educational Structures in Europe project.^{21,76}

Understanding and defining the scope and breadth of the Australian health workforce is also an essential precursor to whole-of-workforce considerations. Little, if any, literature exists to comprehensively describe the entire workforce; however, references to demographic health data by government and health professional organisations, non-government entities such as Carers Australia, and the work of researchers exploring health workforce issues^{54,65,147,158} lead to the conclusion that whole-of-workforce considerations should include the following groupings:

- specialist workforce, for example, medical specialists, dental specialists (orthodontists)
- regulated health workforce, for example, allied health professionals, nurses, registered medical officers
- unregulated health workforce, for example, social workers, paramedics, Indigenous health workers
- emergent health workforce, for example, physician assistants, nurse practitioners

- support workforce, for example, nursing, allied health assistants
- voluntary unpaid and carer workforce.

The emergent workforce category includes new health worker groups identifiable within the literature and which do not fit easily within the more traditionally understood workforce categories listed above—for example, newly graduating physician assistant workers whose lack of national formal recognition within the health workforce marks their employable contributions as currently unclear.^{159,160}

Two distinct roles categories can be identified within the emergent health workforce, specifically, delegated health worker roles (for example, physician assistant and anaesthetic assistant roles) and autonomous health worker roles (for example, nurse practitioner roles), whose scope is not yet fully defined within either specialist metropolitan or specialist rural and remote settings).^{161,162}

No clear model is yet apparent regarding the emergence of these roles or the workforce modelling underpinning start-up of corresponding courses within educational institutions. It is clear that further work is needed to enhance a whole-of-workforce understanding.

Such work should be underpinned by a clear value proposition, which highlights the benefits of a whole-of-workforce approach. Provision of common platforms for learning, along with clear articulation pathways for those seeking recognition of prior learning, is of particular benefit in supporting health workforce developments.^{65,147} Common frameworks inclusive of these features are clearly of value to most groups within the health community,⁴² including the following perceived benefits:

Health consumers

- improved patient and consumer care through increased flexibility in utilising the health workforce, and clear articulation and maintenance of skills and competencies
- potential for less fragmented care and for more patient-centred practice
- greater focus on integrated collaborative practice and patient-centred care
- greater openness and transparency regarding the roles and responsibilities of those providing the care

Health professionals

- enhanced understanding among students of the contributions and knowledge base of different professions
- clearer career pathways and opportunities for the health workforce
- greater clarity and transparency regarding workforce roles and accountabilities
- simplification of complex employment arrangements and control of burgeoning new worker categories
- opportunities to further understanding and knowledge sharing across different professions and workforce categories
- enhanced overall career flexibility, clearer processes for recognition of prior learning, maintenance of practice, maintenance of registration and articulated learning pathways

Health employers

- greater flexibility in workforce utilisation
- better alignment between education and the health sector
- strong base for maintaining role and remuneration parity between workforce groupings (for frameworks with links to industrial workforce agreements)
- greater confidence regarding the certainty and comparability of standards

Health educators

- possibility of more seamless articulation and recognition of prior learning, not only between VET and higher education but also within higher education and postgraduate training
- opportunity to work in closer partnership with the health sector and graduate health professionals who are better prepared for the workforce
- clearer definition of health workforce roles and accountabilities, against which curriculum development can be undertaken

Health planners, regulators and registration authorities

- clearer definition of health workforce roles and accountabilities, against which health service planning can be undertaken
- greater flexibility in health workforce utilisation and deployment
- potential for increased skills migration within the existing workforce, and better preparation in meeting new and emerging demands on, and health service re-design requirements in, the health system.

12. Counterviews and barriers to the use of competency-based approaches in health

The introduction of competency-based frameworks for professional education and training has not been without controversy, particularly over issues to do with time and clinical reasoning and competence¹⁸ and the perception that only technical skills can be competency-based, and many of the reservations expressed revolve around their use or potential use in the workplace and in health system management and policy.

Despite their increasing utilisation, various critiques have argued that those frameworks being assessed, 'deserve more than the counting and measuring of only those of their abilities which can be narrowly defined into units and elements of competence in order to be demonstrated, measured and objectively assessed'.¹⁶³

Assertions of this nature are based on the view that competency-based education is 'narrow', 'simplistic' and 'reductionist' and that significant aspects of learning, such as clinical judgment, clinical reasoning, empathy and interpersonal functioning, are not easily measured.^{163–166} Further, medical practitioners may prefer traditional types of learning and more passive methods of teaching and assessment, particularly regarding mandated continuing education.¹⁶⁷

Critiques of competency-based education and training frequently propose greater diversity and a more balanced blending of a variety of teaching and learning models while also calling for ongoing innovation in the manner in which health professionals are taught and assessed.^{83,84,165,168–172}

Literature in this field usually advocates moving beyond the concept of a competency-based model only or seeks to expand the definition and scope of behaviourally defined, profession-specific competencies. Examples of such work include concepts of meta-competencies, interprofessional competence, competency-based supervision practice, professional practice discourse, and symbiosis—a recently proposed model for medical education whereby the focus is on the mutual benefit obtained by both educator and trainee in the educational processes, rather than perception of acquisition and demonstration of competence only.^{83,84,170–172}

In a bid to mitigate the notion of competency approaches as reductionist, some responses have sought universal coverage but, as illustrated below, are likely to prove unwieldy in practice.

According to American researchers Ronald Epstein and Edward Hundert, competence is the 'habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served' (p. 226) and depends on 'habits of mind, including attentiveness, critical curiosity, self-awareness, and presence' (p. 227).¹⁷ Competence therefore refers to the professional's overall suitability for the profession, reflecting his or her knowledge, skills, and attitudes and their integration; that is, competence is developmental, incremental and context dependent.

Others have more succinctly portrayed the increasingly accepted view that competency models despite their complexity are not necessarily narrow or reductionist, asserting that 'competency is clearly more than the mere attainment of skills as it also involves other qualities such as attitudes, motives, personal insightfulness, interpretive ability, receptivity, maturity and self-assessment' (p. 218). Axley 2001

Meanwhile, others have identified alternative ways to frame the debate by endorsing both a competency-based approach (recognised as an essential underpinning to professional accountability) plus a range of other mechanisms for the teaching and assessment of more complex forms of 'tacit knowledge', such as advanced clinical judgement and

reasoning.^{18,76,82,173–175} A common aim is to extend the behaviourist focus of competencies and complement the acquisition of professional knowledge through additional and/or alternative teaching and learning models.

Examination of published and unpublished material indicates that many of the apparent concerns expressed on the validity and value of competency-based frameworks can be reconciled. Much of the concern expressed revolves around the view (mistaken, in principle) that competencies necessarily have to be narrowly task focused and highly specified. This is a real risk in practice. Further, some frameworks have too many levels, and encompass far too detailed and specific sets of competencies under a proliferation of domains. This could lead to a situation where the part drives out the whole and exacerbates the significant demands on clinical educators and workplace assessors at the cost of patient care, thus nullifying the aim of well-aligned frameworks.

Because good tools can be used badly, this does not mean that they are bad tools and should be avoided. Professions have already widely adopted competency-based education and training frameworks, and if used well, the worries about a lack of time to develop higher-order clinical skills and tacit knowledge are avoidable.^{18,176} Further, newly developed practice models and increased interprofessional collaborations can be formed on the basis of varying models of applied competency-based education and training initiatives and interventions.^{87,176,177} Further, competency models can be used as an effective tool to transparently and accountably reassure consumers of the quality of care.¹⁹

13. Resource and implementation considerations

The development and implementation of competency-based education and training frameworks and competency-based career frameworks include significant resourcing demands. The cost of competency maintenance and development is high. Sufficient resources in time and cost must be devoted to consultation, development and revision to ensure their currency.

Because of potential industrial alignments, competency-based career frameworks are more complex tools than competency-based education and training frameworks. Considering the consultation and development requirements, the design and implementation of a career framework would take several years, at best.

Competency standards are generally developed through a process of evaluating international competency standards where available, as well as reviewing relevant literature, then utilising specialist reference groups or committees consisting of experts in the field and other relevant stakeholders. Reference groups consult widely with members of the profession, employers and educators to develop draft competency standards. To validate the scope and level of draft standards, a process of field testing within a profession is usually undertaken.²⁷ This process is defined by Anne Marrelli and colleagues as comprising the following seven steps—defining objectives, obtaining support of a sponsor, developing and implementing a communication and education plan, planning the methodology, identifying competencies and creating the model, applying the competency model, and evaluating and updating the competency model.¹⁷⁸

The processes used to develop frameworks have been documented in several cases, for example, development of the United Kingdom-wide Public Health Skills and Career Framework was led by the Department of Health in England. Competencies were agreed upon using a bottom-up approach, through a series of multi-agency, multi-professional, nation-wide workshops with public health practitioners and specialists engaged in the work at national and local levels.⁴² Similarly, the CanMEDS Physician Competency Framework, which is used by the Royal College of Physicians and Surgeons of Canada, was developed through an extensive consultation process with Royal College fellows, family physicians, educators and expert volunteers. Its development involved a substantial literature review, stakeholder surveys, consultation, consensus building, debate and educational design over a period of more than 10 years.¹⁴⁰ It has since been adopted by other Canadian interprofessional bodies after review of relevant competencies for each profession, and subsequent matching to the core competency framework.²³ Similarly, United Kingdom researchers C. L. Walsh and colleagues¹⁷⁹ describe development of an interprofessional learning framework for use by students of health and social care professions, formulated based on benchmark statements relating to undergraduate programs for medicine, dentistry, nursing, midwifery and social work.

More specifically, development of an advanced practice competency framework for pharmacists was detailed by N. Meadows and colleagues.¹⁸⁰ The process involved a literature review of relevant policy, professional body strategy and research documents, which were used by a panel of pharmacists to establish the basic structure of a competency framework; this comprised competency clusters, individual competencies for each cluster, and a progression scale. To establish content validity, the framework was reviewed by three consensus development panels of pharmacists who made recommendations for the revised framework. The final stage of development involved mapping the framework against the current level of practice of leading practitioners, to provide expert validation. A similar process was used in the development of a competency framework for diabetes nursing in the United Kingdom.¹⁸¹ In the Australian setting, a process similar to that described by Meadows et al. above was used to develop competencies

for musculoskeletal education.^{182,183} A second Australian report described the initial competency development process in the setting of community rehabilitation, a procedure that involved four stages of competency, namely, identification, definition, validation and endorsement.¹¹⁸

Concern has been expressed about the degree to which the use of competency frameworks for assessment within clinical placements and workplace evaluation may detract from limited human resources that might more appropriately be devoted to patient care.¹⁸⁴ To avoid this and other pitfalls, resourcing and implementation activities must include the following items:

- extensive consultation before beginning —this is essential to ensure common understanding, and gain buy-in to allay fears that could halt a project and disable continued development
- recognition of and provision for all costs—costs must include provision for consultation, development, implementation including the training of supervisors and students, along with the resources required for maintenance, regular review and updates, with maintenance of currency a significant resource consideration
- avoidance of complexity—if a framework is too complex, it is highly expensive to develop, implement, maintain and assess. Further, it becomes a ‘good tool used badly’, in that it requires so much workplace assessment time that it detracts from time available for patient care
- need for improved alignment—embarking on a literature review pertaining to competency-based education and training frameworks places the researcher face-to-face with the dilemma of how to best locate, map and analyse what is an increasingly moving feast. Every professional body makes use of competency-based frameworks to regulate some or all aspects of the profession’s activity. These frameworks are then often duplicated in non-matching forms across jurisdictions, sectors and employer bodies. Alignment is currently the exception rather than the norm—a factor that inhibits workforce flexibility, ease of articulation pathways and more.

14. Conclusions

There is increasing Australian-based acceptance, and rapidly expanding international activity, highlighting the utility of competency-based frameworks. Competency models and frameworks have been adopted by all Australian health professions as core constructs defining scopes of practice and registration requirements.¹⁸⁵ Unarguably, it seems that the competency movement is here to stay. Further, professional groupings are increasingly asserting that achievement and maintenance of competence are essential to the delivery of quality patient care.^{19,30,31,175}

Despite the history of controversy, increased consensus and enhanced alignment can be achieved, if too narrow an approach is avoided. Professional groupings within the health workforce have a long history of learning and working in silos. The literature cited signals that competency frameworks can yield substantial benefits in increasing collaborative activity and enhanced workforce flexibility among different professional traditions. Further, better alignment between education provision and health service needs can be achieved. The utilisation of competency-based frameworks provides opportunity for members across the entire health workforce to work in closer partnership with each other and with health educators, health employers and regulatory authorities, in a move towards new and improved models of patient-centred collaborative care.

Key issues going forward include:

- the need for commonly agreed definitions and shared language to better inform cross-professional discussion and enhance future health workforce development and innovation
- cessation of the rampant multiplication of non-aligned models and frameworks, which severely limits the capacity for shared learning platforms and ready articulation of health work qualifications and experience
- greater alignment of frameworks and taxonomies between health professions to better enable recognition of prior learning
- clear alignment between the 10 levels of the recently revised Australian Qualifications Framework and any envisaged whole-of-workforce competency framework or taxonomy to ensure maximum provision for shared learning pathways, recognition of prior learning and articulation agreements
- increased alignment between the vocational education and training, or VET, and higher education sectors
- increased inter-sectoral alignment, so that any envisaged whole of health workforce developments maximise potential for shared learning pathways, recognition of prior learning and articulation agreements
- ongoing innovation in curricula and education models across the health sector to complement and contract competency-based developments
- significantly increased emphasis on interprofessional education at both an undergraduate level and across the health workforce to enhance workforce flexibility and to further develop and embed effective models of collaborative-based health service delivery and collaborative care.

15. Moving Forward

HWA's recently approved work plan includes competency-based initiatives.¹⁸⁶ It may be quite challenging, however, to envisage how these concepts could be progressed to implementable reality. Competency-based initiatives must not increase existing confusion or unnecessarily ignite resistive reaction from professional groups or educational sectors that may either misunderstand or misconstrue the envisaged intent.

Opportunity exists for HWA to progress competency-based initiatives, including the concept of a whole-of-workforce competency framework, in a pragmatic and constructive manner. In the first instance, this could be progressed via activities such as a clear communication and consultation exercise to enhance increased understanding of, along with the rationale for and benefits of, utilising competency-based models that include the development of a whole-of-workforce competency framework.

To advance this work option, the way forward could include:

- publication of recently commissioned reports on the HWA website to commence discussion across the sector
- publication of a comprehensive literature review on the HWA website to engender discussion, better inform the sector and increase understanding of key issues associated with competency-based education and training developments and competency-based career frameworks
- production and dissemination of information bites pertaining to key terms and concepts on which there is current debate, ambiguity and variance in understanding, for example, on competence, competency, taxonomy, framework, horizontal integration, competency-based education and training framework, and competency-based career framework
- commencement of consultation with the sector by the development of a detailed discussion paper that adopts a workforce approach and outlines opportunities, options, benefits and implementation requirements associated with a whole-of-workforce approach to competency-based education and training and competency-based workforce utilisation and career progression.

This discussion paper, and other associated works, provides an opportunity for HWA to advance this particular work stream for the benefit of Australia's health care system in the medium to long term.

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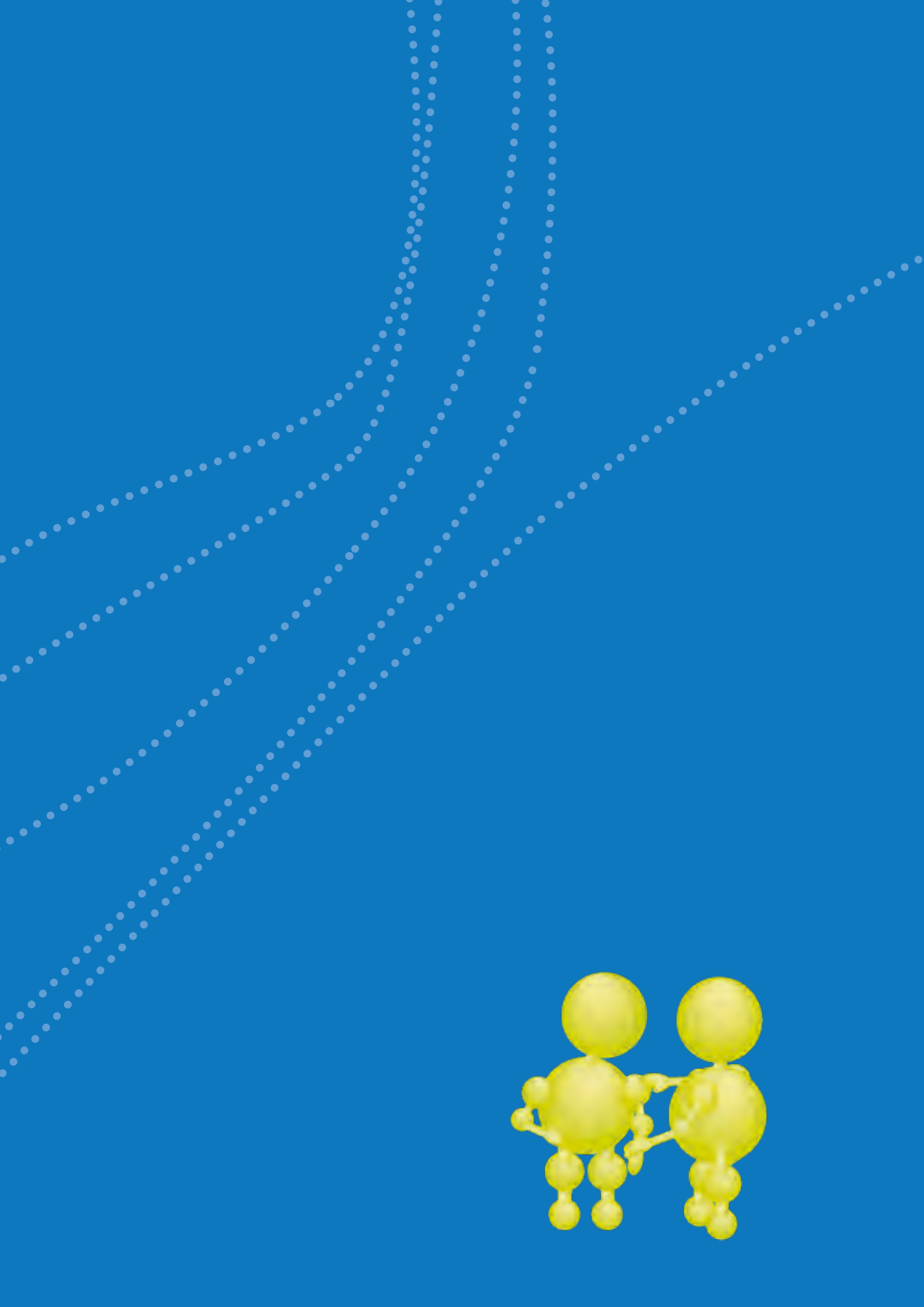
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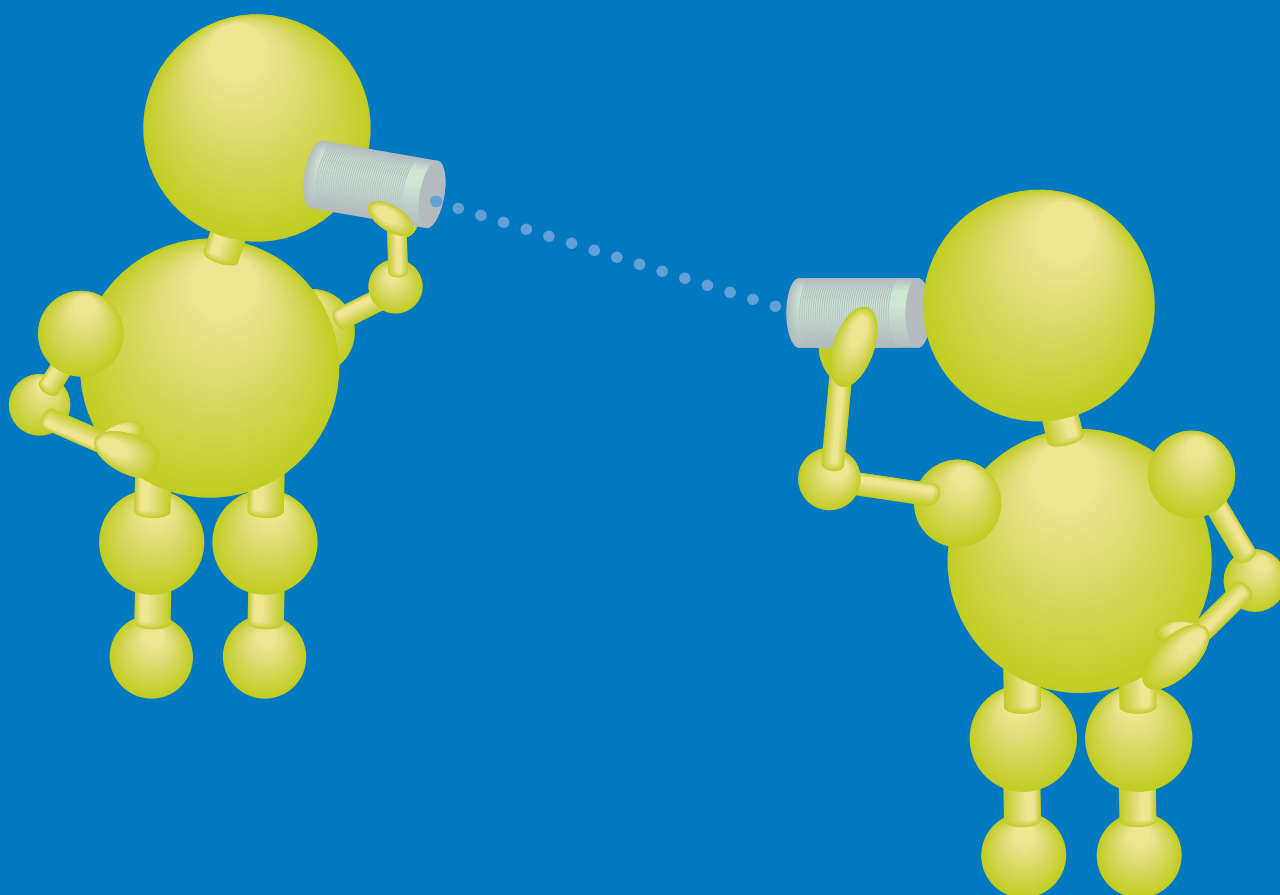
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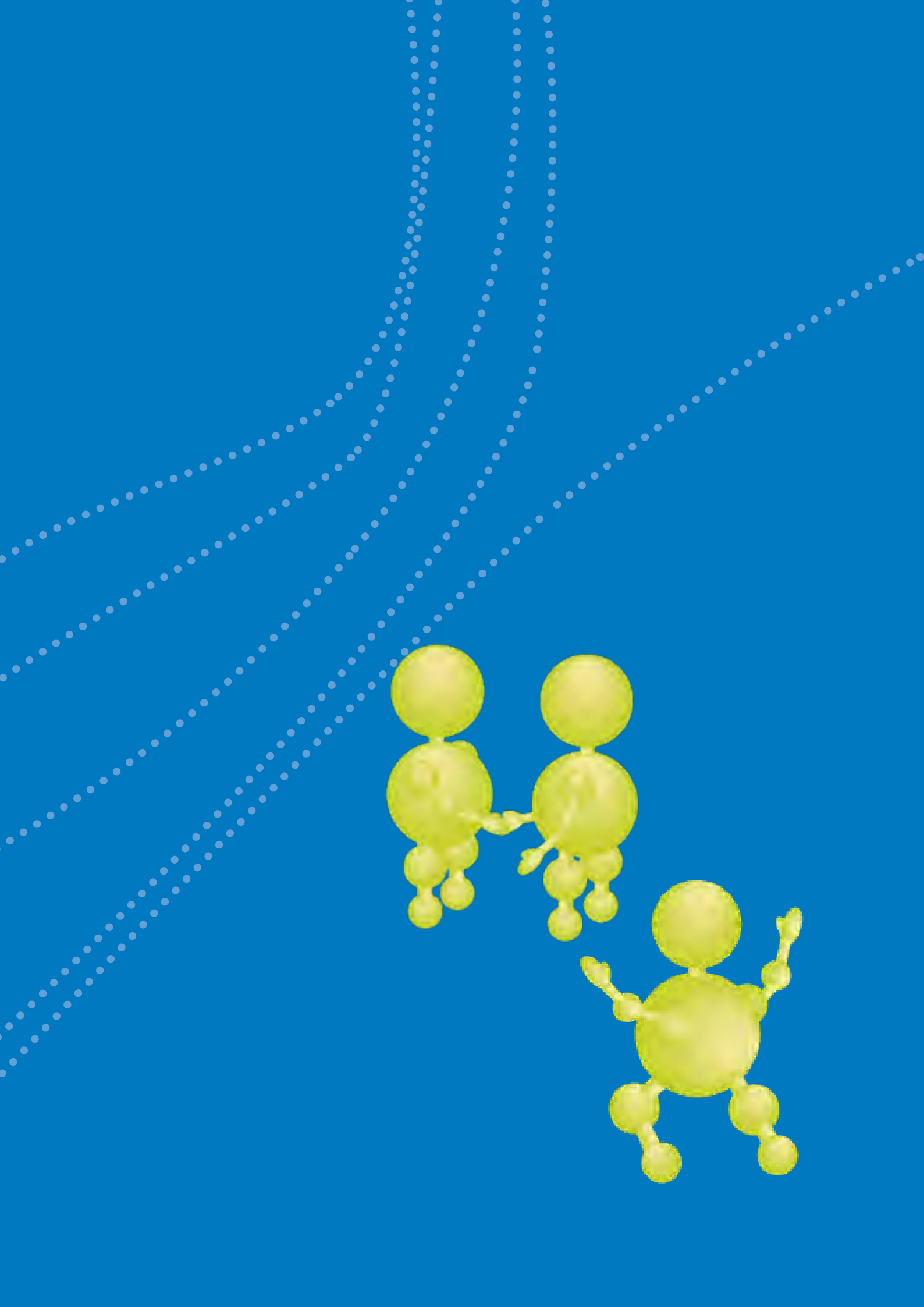
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Listening to our Stakeholders: Analysis of interviews regarding competency-based education and training & competency-based career frameworks.

Report by the National Health Workforce Planning & Research Collaboration





Project Background and Brief

The National Health Workforce Planning and Research Collaboration (NHWPRC) is a collaboration between HWA and a consortium comprising the Australian Health Workforce Institute (AHWI) and PricewaterhouseCoopers (PwC), and has included a substantial program of national health workforce planning and research projects to complete within a three year scope (2008-2011).

AHWI is a consortium of the University of Melbourne and the University of Queensland and for the purposes of this Collaboration has established links with the Australian National University, the University of Adelaide and Monash University.

In 2010 the University of Queensland Node of the Australian Health Workforce Institute (AWHI) undertook two competency related projects awarded under the NHWPRC partnership agreement and contracted as Projects 4 & 5 – the Competency Projects, namely:

- Mapping health workforce competencies with a view to developing a taxonomy (classification framework) for competency-based standards in health.
- Exploring evidence-based options for competency-based health career framework/s in Australia.

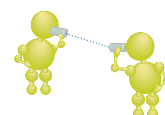
The competency projects were informed by two sources: 1) a review of the published and grey literature and 2) by formal semi-structured interviews and informal consultations with key informants across the health care sector.

As the projects proceeded, the extent of synergy and overlap between the projects became increasingly obvious. On this basis, the contracting organisation, Health Workforce Australia, requested a combined report covering both of the projects.

The initial report (Brownie, Bahnisch, & Thomas, 2011a) and the associated literature review (Brownie, Bahnisch, & Thomas, 2011b) were formally endorsed by the governing board of Health Workforce Australia on 5 December 2011 and released for publication in April 2012 and can be cited as follows:

- Brownie, S., Bahnisch, M. & Thomas, J. (2011) *Competency-based Education and Training & Competency based Career Frameworks: Informing Australian health workforce development*. Report on NHWPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks. University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia.
- Brownie, S., Bahnisch, M. & Thomas, J. (2011) *Exploring the Literature: Competency-based Education and Training & Competency-based Career Frameworks*: Deliverable fulfilling part of the requirements for NHWPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks. University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia.

Following receipt and formal endorsement of these reports, HWA requested further analysis and write-up of the semi-structured interview data, which had been obtained from members of HWA's stakeholder community who had been interviewed during the course of the aforementioned research enquiries. The key messages from HWA stakeholders form the basis of this report.



As highlighted in previous reports, the research projects involved extensive work across a number of complex fields. This report is the combined effort of many contributors.

LISTENING TO OUR STAKEHOLDERS: Analysis of interviews regarding Competency-based Education and Training & Competency-Based Career Frameworks

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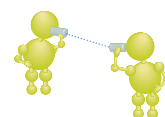


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Introduction

The first Health Workforce Australia (HWA) strategy plan was endorsed by Australian Health Ministers in November 2011 (HWA, 2011). The plan includes a work stream related to exploration of the viability and utility of a whole-of-health workforce competency framework.

This report is the outcome of a request from HWA for a more detailed analysis of the semi-structured interviews undertaken as part of the 2010-2011 research process which resulted in two reports, specifically, the initial project report (Brownie, Bahnisch, et al., 2011a) and the associated literature review (Brownie, Bahnisch, et al., 2011b). These reports were formally endorsed by the governing board of Health Workforce Australia 5 December 2011 and released for publication in April 2012. A full PDF copy of the reports can be accessed from the HWA website <http://www.hwa.gov.au/publications/hwa-reports> under the following header:

National Common Health Competency Resource for the Australian Health Workforce

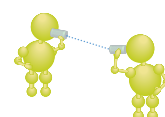
- Exploring the Literature: Competency-based Education and Training & Competency-Based Career Frameworks (.pdf) - report by the National Health Workforce Planning & Research Collaboration
- Competency-based Education and Competency-based Career Frameworks: Informing Australian health workforce development (.pdf) - report by the National Health Workforce Planning & Research Collaboration

This third report adds to the initial two project reports providing more detailed commentary regarding the views expressed by HWA stakeholders during the semi-structured interview process.

Prior to interviews, interviewees were forwarded a copy of the questions which would provide focus for the interview discussion (Annex 1). Informants included curriculum developers, employers, professional associations, unions and regulating bodies. A full list of participating groups/organisations is included in Annex 2.

As highlighted in the initial report (Brownie, Bahnisch, et al., 2011a), questions focussed on the understanding of informants in respect to concepts such as competence within education and training and of a competency-based career framework. Areas covered included competency-related benefits, challenges, language and descriptors along with matters pertaining to implementation and resourcing.

This report attempts to complement, rather than duplicate, material in the previous report. The information in this third report provides readers with additional rich data including many direct informants' quotes. This provides HWA and other interested parties with the opportunity to access additional insights regarding the experiences, perceptions and views of those who were interviewed during the initial research project. While these views are not generalizable (due to the limitations of this study and the small cohort size), it is intended that the additional data presented in this report will be helpful to both HWA and the project advisory group which have been formed to consider the next steps in this important piece of work.



Seeking views from HWA Stakeholders: Method

Ethics approval

Following the development of the research plan and meeting with the reference group, a full proposal was submitted to the University of Queensland Ethics Committee. Approval to proceed was subsequently granted and collection of data commenced.

The ethics application was submitted to the University of Queensland Behavioral and Social Sciences Ethical Review Committee (UQBSSERC) on the 16th May, 2010 with approval for a period of 12 months granted on the 15th of June, 2010. A copy of the ethics approval certificate is included in Annex 4.

Identifying and classifying key stakeholder groups

In consultation with the National Health Workforce Planning and Research Collaboration (NHWPRC) reference group and with HWA, stakeholders were classified as belonging to one of six groups:

1. Education and training providers
2. Professions
3. Health service users
4. Employers
5. Regulatory bodies
6. International participants

Groups were selected on the basis of their ability to inform the development of a competency-based education and training & the proposed competency-based career framework.

The groups were identified as a sample exemplifying the breadth of the Australian health care sector, and comprised education and training providers, health professions, health service users, employer's regulatory bodies and international participants. As interviews proceeded, a snowballing technique was used to identify other key informants within each of these groups, to source grey literature of relevance to the project.

The Interview Process

Interviews were digitally recorded. Interview audio files were edited to remove identifying information, and transcripts were classified according to the group from which the informants were drawn. Each transcript was given a numerical designation. In addition, a written submission and commentary was received from the Australian Peak Nursing and Midwifery Forum on behalf of their seven member organisations, representing their agreed upon position. Further, one jurisdictional health provider responded by providing a written response to the semi-structured interview questions.

Limitations

This study provides a sample of views about competency-based education and training & competency-based career frameworks gleaned via 59 interviews with individuals and groups within the Australian health sector community. Analysis of the data gathered provides useful insights to assist the thinking of Health Workforce Australia regarding options for the ongoing exploration of competency-based concepts. Equally, the information gathered provides useful information for consideration by the participant groups.

However, given the number and scale of groups within the HWA health stakeholder community (including health care professionals, educational providers of health workforce education plus health service providers, users and regulators), this study is limited by the comparatively small sample of the interviewed cohort against the size of the health community overall. As a result, views canvassed in this report may not represent views within the stakeholder community as a whole.

Data Analysis

In order to inform the initial report, the complete set of interview data was analysed by one member of the research team by two complete read-throughs, and by hand coding according to identified themes.

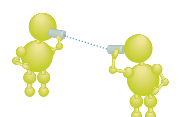
Largely, the themes which emerged were consistent with the questions explored such as 'enablers to competency-based education and training;' 'barriers to competency-based education and training; and/or 'key considerations in the implementation processes'. However, three other themes also emerged, specifically:

1. The espoused reductionist nature of competency-based approaches and long standing debate regarding the relevance of competency-based education and training to higher education,
2. the work that will need to occur to better align the VET and higher education sectors and,
3. the extent to which the envisaged project was a workforce project only versus a project with industrial implications and/or components.

Findings from the data were further validated through a process of peer review, involving a teleconference workshop and the opportunity for identified reviewers to make written comments.

For the purposes of this report, the complete set of interview data was further reviewed by the lead author with detailed hand coding undertaken to identify key themes requested by HWA in the work order pertaining to this report. A list of these themes is included in Annex 1.

Themes are reported accordingly and build on the commentary included in chapter nine of the original project report, which summarizes findings from key informants (Brownie, Bahnisch, et al., 2011a) pp. 40-47.



Analyzing views from the HWA Stakeholder Community: Results from the Data

The questions which formed the basis of the semi-structured interviews (Annex 2) included a series of questions against which the themes emerging from analysis of the interview data are now reported.

Stakeholder understanding of competency concepts

Consultations undertaken by the research team highlighted that, albeit varied, concepts related to competency-based education and training were much better understood than those relating to competency-based career frameworks.

Understanding also varied between the higher education and VET sectors.

Findings highlighted a significant need for further consultation followed by the development and confirmation of an agreed set of terms and definitions to reduce ambiguity and ensure maximum clarity of communication and meaning across HWA and its key stakeholders groups.

This is an important underpinning to successful progression of projects within HWA's competency-related work stream.

Understanding of competency-based education & training concepts

The interview scripts revealed multiple slants, perspectives and insights into the complexities associated with competency related concepts and competency-based education and training and associated definitions and/or concepts.

When questioned about competency-based education and training concepts, and competency concepts in general, a number of informants immediately articulated an active working knowledge and/or familiarity with the Australian VET sector definition of competency along with their understanding of the TAFE use of competence-related terminology.

"Well basically, it's when you've got the knowledge, skills and attributes which allow you to do a particular activity or task well." Participant 8

"Competency-based training involves a set of competency standards (which are set by industry in collaboration with clients/patients) that each student is assessed against to ensure the stand of knowledge, skills and attributes have been achieved." Participant 7

"In a nutshell, it's the skills, knowledge and attitude that are needed for a profession and based on standards which the profession sets." Participant 4

Others espoused a definition which they described as a 'practical' working definition of competence, for example:

"Well it generally requires you to have a reasonably good understanding of whatever the role is that the person is being trained for and to ensure that they can adequately fulfil their role once their training is complete." Participant 36

"So generally speaking, I see competence as being able to do whatever it is that you do at a reasonable level." Participant 49

Others specifically highlighted the view that competence within their discipline or service was much broader than the VET sector definition. Not infrequently, informants held a view that the TAFE definition was skills-based only and that the VET sector utilization of competency-based education and training related only to that which could be directly observed.

“Well my understanding of competence within education and training — actually we don’t use it in the TAFE terms of skills ... it’s much broader it’s the skills, knowledge, values, and our understanding of the competence at the end of training...” Participant 39

Others added additional definitional characteristics including the notion of competence being both skills-based (practical) and conceptually or theoretically-based (cognitive) – with competence including abilities able to be measured and quantified at a specifically designated time.

“Competence is the assessment at a point in time of the ability to undertake a particular skill, whether that be practical or cognitive ... essentially an observable ability that is able to be quantified at a specific point in time” Participant 37

Responses also included reference to the idea that competence was context and profession specific:

“So it depends of course on what the field is, about what competence represents in that field.” Participant 50

Others highlighted links between theoretical understanding; clinical & workplace application; and, job performance, specifically:

“Competence is sort of bi-fold ... It’s really a demonstration of theoretical understanding and its clinical applications. ... We are actually moving the paradigm away from years of practice being a measure to actually the demonstration of clinical contributions and competence.” Participant 6

Understanding of competency-based career frameworks

Conversely, the majority of participants admitted a lack of knowledge or understanding of concepts related to competency-based career frameworks.

“I don’t think I can help you much here but anyway ... I’ve got a vague idea what it is, big public sector essentially” Participant 8

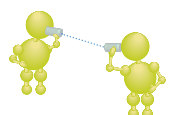
“No I am not really familiar with that sorry.” Participant 32

“No don’t know a great deal ... I presume you are going to have a list of competencies as you move up the list. So your career fields and so if you are a junior doctor (cites other examples) has these. Once you’ve ticked them you reach those levels, you’re salary kind of reflects those ... you’ve kind of go a bunch of things that you tick off and that determines the level at which you operate.” Participant 20

In respect to those participants who did have an understanding of the concepts associated with a competency-based career framework, this was obviously strongest amongst the UK-based informants working directly with the UK Skills Escalator project.

Australian-based understanding of the concept was strongest amongst employers, regulatory and accreditation bodies. Some of these articulated the view that a competency-based framework could be used solely as a workforce instrument; however, others immediately articulated the view that development of a competency-based career framework was both a workforce and an industrial concept/initiative.

“The legal structures that you have in the states/jurisdictions actually mitigate against having single nationally agreed terminology ... so it would need to have the same kind of radical overhaul that you have done with the registration legislation in the sense that you would have



to have a single national piece of industrial legislation with all the categories etc that were there.” Participant 23

Variances in understanding

Participant responses also highlighted significant discrepancies in the use and understanding of terminology and definitions associated with competency concepts.

Areas of discrepancy or difference were greatest in respect to agreement or non-agreement with a specific definition, terminology and underlying philosophy.

“I think the language definitions are significant. I work in inter-professional education with eighteen different disciplines. The languages between the different health disciplines are almost foreign languages in many ways so there is a huge amount of work to get clarification on what everybody is talking about.” Participant 43

“I think there’s a range of understandings of competence, but when I consider competence within a health professional setting, at least it’s the ability for the professional to satisfactorily perform the task or activities or professional role that they’re assigned to.” Participant 22

“Re the question of what is your understanding of competency-based education and training ... that’s a very good question because in the Australian context there’s a lot of, particularly in the health environment, there’s a lot of confusion.” Participant 21

In summary, considerable variances were identified in informants understanding and agreement about competency concepts. This finding informed and confirmed the recommendation that HWA consults, develops and confirms an agreed set of terms and definitions to reduce ambiguity and ensure maximum clarity of communication and meaning across its work portfolio and in its interactions with key stakeholders (Brownie, Bahnisch, et al., 2011a).

Strengths, benefits and/or barriers for a national framework

While there is considerable support and many perceived strengths for the development and implementation of national competency-based frameworks across the Australian health workforce, respondents also highlighted legitimate issues related to potential barriers such as the need to secure a common understanding and agreement across the VET and higher education sectors and the need to provide reassurance regarding a commitment to minimize the limitations associated with competency-based approaches. There is a clear need to work through these issues in any future project.

Perceived strengths and benefits

Perceived benefits included the envisaged promise of consistency of standards; transparency of training outcomes and professional practice; increased career flexibility; improved interprofessional communication; and, ultimately with these factors, the promise of improved health outcomes.

“... the competency approach which brings in the discipline of assessment of competency does have a value add in terms of consistency and ultimately quality of service delivery”. Participant 26

“Hopefully it will lead to better consistencies of standards ... You know it is fairly daunting to realise that if you get a cancer in Australia and you are not in Sydney, Melbourne or Adelaide, you have a 20% higher chance of dying.” Participant 28

“The benefits of adopting a competency-based training approach is perhaps the transparency that’s clearly understood and the outcomes are very easily articulated.”

Participant 31

“I guess the hypothesis is that it may lead to better communication in health care and that’s got to be good for outcomes.” Participant 35

“The benefits ... it’s about how do we ensure people across a range of disciplines develop expertise, that sort of higher level clinical expertise.” Participant 32

“A national framework gives opportunity for side-ways advancement as well ... not everyone wants to just go upwards.... There needs to be opportunity to broaden your skills as well.”

Participant 12

Some expressed caution that while benefits could be perceived, care should be taken to not over specify a rigidly applied standard approach to education and training.

“The benefits are plentiful but I would just worry that people would apply it too rigidly”

Participant 33

Perceived barriers

A range of issues were cited as perceived or likely barriers to the implementation of a national framework. These included issues such as professional tribalism, the reality of human nature, pedagogical controversies, resourcing requirements and resistance of change.

“Given human nature, there’ll be a lot of nit-picking and all the reasons will come out why we can’t do it.” Participant 4

“Some of the concerns are around the risk of boxing people.” Participant 10

Some expressed fears that higher education would be subject to reductionist approaches while others expressed views that did not denote full understanding of VET sector roles and functions.

“Competency-based training ... it’s based on a premise that everything can be reduced to a string of activities to get an outcome. In the health area in particular, that’s just not the case.”

Participant 24

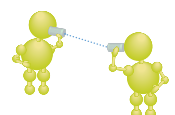
Various limitations of the competency approach were also raised as a perceived barrier to the implementation success of a national, whole-of-workforce framework. There was a clear need to undertake further consultation and systematically work through these issues in any future project.

“It is easy to design competencies around skills acquisition but other things are more difficult to define in terms of competencies. Initiation and induction are very difficult to write as competencies... these require assessment of thinking systems, thought processes, problem solving and these sorts of things. Initiation is learning the social and professional morays and the ethical basis of what you are doing.... These areas require complex judgement which is difficult to define in competency terms. ” Participant 20

The geographical and complex state-based jurisdictional differences were also highlighted as probable barriers to the development and implementation of national frameworks.

“While you have jurisdictional, state focussed processes that vary, that obviously going to be an impediment.” Participant 23

“There is a lot we can learn but we are not the UK and any-one who thinks a national model such as the UK model can be readily adoptable in the Australian system is ignoring



the diverse, the jigsaw nature of the Australian health care system compared to the NHS.”
Participant 21

Finally, some of the pragmatics of what the envisaged project would actually involve taxed the mind of at least one participant.

“What competencies and what learning outcomes should be included in the framework? To me that would be the biggest challenge.” Participant 30

The envisaged project is obviously a large-scale undertaking and the issue of what to include and what not to include and how to gain agreement across an interrelated but diverse stakeholder community is a significant consideration.

Controversial considerations

Perhaps the biggest controversy rested around the pedagogical concerns and perceived limitations of the competency-based approach and the work that will need to occur to better align the VET and higher education sectors.

Concerns also emerged in regards to the extent to which the development and implementation of a competency-based career framework is an industrial rather than a workforce development initiative.

Another concern of significance included the tension between the concept of ‘autonomous’ versus ‘collaborative’ practice as highlighted by a range of key informant responses included in this section of the report.

The range of pedagogical concerns raised included fear of locking education into a defined set of competencies; the potential reductionist limitations that may ensue, and the difficulty of defining some attributes as defined competencies, for example, critical thinking.

“Once you go down a competency path ... the risk is that can easily lock learning into a defined set of competencies but things are always changing. Evidence-based practice cannot be locked into static competencies.” Participant 24

“I think the major challenge is that the whole is much greater than the sum of the parts and its not being able to get over a set series of hurdles at a point in time, but it’s the way in which those competencies are melded together.” Participant 37

“If we try and reduce practice, which is what we’re doing, to a list of things that you can and can’t do, we somehow lose the complexity of what we’re doing.” Participant 33

“Teaching critical thinking in current VET training is generally not seen as being done well. The literature says outcomes-orientated programs are considered best educational practice.” Participant 7

“Competency is essential ... but a lot of work we do is also focused determining someone’s capacity to perform within an environment rather than necessarily their competence alone.” Participant 23

Another theme commonly raised by participants related to the tension that exists between the nursing profession and other professional groupings. The tension was described as a tension based on the concepts of ‘autonomous’ versus ‘collaborative’ practice with nursing being seen as driving an ‘autonomous’ model which was not necessarily understood by other professions.

Some felt that nursing had placed too many boundaries around their practice with increasing articulation by nurses of ‘what we do and what we don’t do’ (participant 5) and that this had left gaps which had triggered a necessity to develop new categories of health workers.

“There are increasing gaps of stuff that nurses no longer do any more ... Nursing is putting its own boundaries around it which is why we are getting other professional groupings to fill the gaps, physicians’ assistants, care assistants etc. ” Participant 5

Some noted these new roles as viewed as ‘servant or subordinate roles’ in contrast to the moves towards ‘autonomous practice’ roles being developed within nursing including the roles for nurse practitioners. The well-known controversial issues between a medically-led health workforce versus other models of health leadership and health service delivery were entwined within these debates and controversies.

These controversies need to be fully considered in moving the competency-based discussion forward and it is very clear that HWA will need to undertake more discussion, consultation and consideration around the issue of new and emerging roles. Opportunity exists for nursing to contribute to these developments by increasing awareness raising effort regarding the role of nurse practitioners and the significant contributions that can be provided by these increasingly emerging roles within the nursing profession and how they fit within the broader health care team.

However, in highlighting these controversies it is equally important to note the widespread support, utilisation and acceptance of competency-based approaches that exists among professional groups in the Australia health sector.

Albeit the concerns and controversies, it is important to note the existing widespread use and support of a competency-based approach across every health discipline within the Australian context. Almost universally, standard setting activities are articulated within profession-specific competency frameworks. Within this context, competency approaches are accepted and widely used.

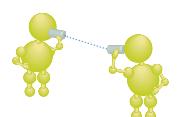
Irrespective of the concerns, every discipline has to varying extents found a way to make peace with the competency movement and utilise the approach to confirm standards of practice and increase accountability within the scope of their professional standards.

The key controversy that existed in respect to competency-based career frameworks versus competency-based education and training frameworks, was of an industrial nature and articulated by one participant as the *“elephant in the room”* Participant 2

The controversial issues highlighted by informants including pedagogical concerns about the limitations of competency-based education and training; the need for closer alignment between the VET and higher education sectors; and, clarification of the purpose of a competency-based career framework; workforce strategy versus industrial strategy and, autonomous versus collaborative practice emerged as the most controversial issues to be resolved in any future project initiative.

Identified generic/core competencies for health sector employment

The question of generic or core competencies received generic agreement in respect to several unarguable competencies such as communication, record keeping and assessment. However, the point was highlighted that the level of skills would vary in these areas depending upon the level of practice (for example, undergraduate, novice, expert) or the profession/health stakeholder group involved.



So, while a number of core competencies were identified (for example, communication), these were noted as requiring adaptation depending on the level of practice (beginning to experienced practitioner) or the health workforce group involved, for example, care givers, nurse practitioners, medical specialists.

“Core competencies could include things such as communication ... that would be a uniform competence, I would think - also the ability to take a history but then there are various performance indicators around each of these that would vary between each profession.” Participant 27

One respondent put forward the view that there were five clear areas of commonality, specifically: “Interaction with the client; the health professional; the practice environment; interaction with professional colleagues; and, responsibilities to the community.” Participant 7

Other core or generic competencies highlighted included “an ability to practice health care in a professional manner that includes legal, ethical, and cultural competency; a willingness to share knowledge with other health professionals; an ability to assess patient/client health status and to formulate and implement a care plan in consultation with the patient/client/carer involved; to provide promote, maintain and support patient/client health; ... an ability to retrieve and evaluate evidence to inform healthcare practice; and, an ability to work in a team to deliver safe health care.” Participant 17

A significant number of respondents dismissed the topic of core or generic competencies as a controversial topic. The objection appeared to relate to issue of semantics with the term ‘core competencies’ currently being viewed by some as a dated or redundant terminology.

“We have found that there are some ‘no-go words’ that it’s like ‘wash your mouth-out words’ ... At the moment we don’t talk to anybody about core or generic competencies because it is totally unacceptable ... We find that we have to talk to them about shared competencies ... This fits in well with the notion of interprofessional collaboration and increasingly accepted concepts of interprofessionalism.” Participant 23

Identified profession specific competencies

Profession-specific competencies were found to be plentiful and were presented to the research team via multiple frameworks which were either fully developed or endorsed by either professional or regulatory bodies, under review or under new development.

So many examples were either provided or sourced by the research team that it was impossible to map these. A representative list is detailed in Brownie, Bahnisch, et al. (2011a) Annex 4, page 93 and, for ease of access, repeated in Annex 6 of this report.

Perceptions regarding which professions may find it difficult to implement a framework

This question was largely by-passed with none of the respondents having any particular view that it would be more or less difficult for any particular professional group.

Interprofessional competencies – relevance to a national framework

Interprofessional competencies were noted as integral to the concept of a national competency-based education and training framework and a national competency-based career framework.

Respondents articulated clear rationale for the inclusion of interprofessional competencies in a national framework, including the increasingly collaborative and multidisciplinary nature of contemporary models of care; the desire of health professionals to be multi-skilled and have broader and more flexible career and employment opportunities, the teaching benefits and improved learning outcomes that could be achieved through integrated provision of some shared aspects of health professional education versus a more silo style educational model, and, the essential need for increased inter-professional competence and collaboration to underpin the ongoing development and re-design of health service delivery.

Albeit the relevance of developing and including interprofessional competencies within a national framework, a national career framework was not seen as the sole input to advance the development of interprofessional practice. The importance of significant investment in communication and clinical education and training was also highlighted.

“If you are looking at a business case to improve interprofessional practice, it’s not going to be solved by a career framework; it’s going to be solved by money going into appropriate clinical training ... Interprofessional collaborative practice is not about role substitution and if you have a look at the literature it’s about learning with, from and about each other and understanding where the different roles are” Participant 23

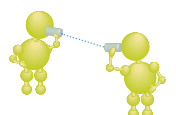
To be effective, the implementation of interprofessional competence and interprofessional practice was noted as having to be promoted and enacted broadly across the practising health workforce rather than being taught at undergraduate level only.

“One of the gaps in interprofessional — has been now, is that even though you teach that with an institution, unless it’s happening in practice when they go to clinical placement then it doesn’t become embedded in their practice as well. So, we’ve still got to somehow move the workplace at the same time ... Otherwise there’s that tension where the uni’s taught me this but I’ve not seen it working in the workplace so do I or don’t I actually do it?” Participant 33

Overall participants emphasised the necessity for increasing moves towards interprofessional competence and practice including inclusion of such competencies within a national framework. Additionally, interprofessional competence was noted as a core or generic competency that should be possessed by all participants within the health workforce and as including

“the ability to work in a team to deliver safe healthcare, so that’s demonstrative effective interpersonal relations and communication skills and an understanding of interprofessional practice and awareness of the importance of leadership delegation and supervision.” Participant 17

However as highlighted, the effective advancement of collaborative practice was also noted as an issue requiring significant resourcing to support widespread communication and education across the entire sector.



Views from participating HWA Stakeholder Groups

In contrast to the more generic themes highlighted in the preceeding section, this section attempts to provide insight into various understandings and views expressed by the various informant/participating HWA stakeholder groups who participated in this study. Thus, the information in this section reports findings specific to the participating stakeholder groups, namely, education and training providers, accreditation and regulatory authorities, employers, health consumers, professions and international participants.

That is, the analysis of data also sought to distil understandings and beliefs specific to the Australian health sector that were included. While the insights gleaned from this process provide useful points for reflection, discussion and further project planning, it is essential that readers of this report understand and acknowledge the limitations of the reported data.

Specifically, the interview cohort represents a very small sample from the health sector overall. The cohorts are even smaller when broken down into the sub-groups which follow, and as such cannot be considered as either generalisable or fully representative of the group profiled.

Also, the findings outlined under each of the cohort groups in this section are not the only views expressed by that participant grouping. Rather, they constitute highlights or themes which appeared more predominant within the cohort responses than others.

Education and training providers

Some significant differences existed in the views expressed by representatives of educational and training providers. The differences were most widespread between higher education versus TAFE and Industry Skills training providers.

It was possibly within the sector of this cohort grouping that the most controversial and negative views were expressed within this study with both VET and higher education groupings holding some quite strong views about each other.

“There are schools, VET and higher education all with different language ... knowledge skills and application as expressed in VET is actually very different ... I’m not sure higher education really understand what competency-based is about” Participant 25

“In fact, higher education reacts quite negatively to that language ... that’s VET stuff — that’s nothing to do with us, that’s VET.” Participant 51

“I think that there may be some lingoies that universities are about education and training and higher thinking and the VET sector is about competencies. I know that there would be a lot of people, particularly in the university sector, who think that the job of competency training should belong to the VET sector. I personally don’t subscribe to that.” Participant 24

Registered training entities and others aligned with the Industry Skills council articulated consistent views regarding the functionality of the existing systems across the VET and Industry Skills contexts. Detailed information and feedback was provided in respect to the historical background and strongly embedded presence of existing VET sector competency-based education and training packages including those specific to the health workforce.

In several instances, informants indicated that the response that they wanted to provide was of such importance that they also wished to table a written response either at the time of, or shortly after, the interview process, with an example as follows:

“The national vocational education and training (VET) competency standards and qualifications for the community services and health industries are nationally agreed and reflect roles of approximately 700,000 Australian workers. The qualifications and standards are located in the HLT07 Health and CHC08 Community Services Training Packages and are maintained by the Community Services and Health Industry Skills Council (CS&HISC). These packages house over 1000 competency standards and 170 qualifications. The packages have been in place since 1999 for community services and 2002 for health. The CS&HISC updates the qualifications and competency standards based on industry supply and demand drivers captured annually in an Environmental Scan.

The competency standards describe generic and specialist work, skills and knowledge across different roles and levels extending from Certificate I to Vocational Graduate Diploma. Domains or areas of work are used to group and cluster competency standards and include occupational (e.g. Enrolled Nurse), functional (e.g. case management) and sectoral (e.g. aged care) groupings.

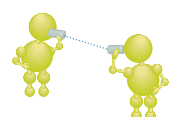
The packages form the basis of VET qualifications and have influenced the formation of job roles and industry classifications across the range of different employer structures. A key feature of these packages is that they influence development of integrated skills and design of services and work driven by industry and client demand at a national level. In theory if such a model were applied across the whole of the workforce rather than the “VET” sector only then formation of new and changed work roles could more quickly respond to client and patient demand; and the innovation and reform objective of more integrated and interdisciplinary could be significantly realised.

The Training Packages qualifications and competency standards as positioned against the Australian Qualifications Framework deliver the same function as the skills escalator developed as part of the Agenda for Change in the United Kingdom over the last decade; albeit for the “VET” sector only. However the packages enable development of competency standards at the highest levels. For example the Vocational Graduate Diploma of Family Dispute Resolution reflects work undertaken by solicitors, lawyers, barristers, psychologists, mediators or welfare workers. Similarly the Vocational Graduate Diploma of Community Services (Statutory Child Protection) reflects work undertaken by a social work or psychology university graduate or a worker with VET qualification or on the job experience.

The VET sector of the workforce has not been historically organised and recognised in the way the regulated professions have been. Arguably the benefits of structural flexibility and integration achieved through the packages have been achieved due to the absence of strong professional silos.

The packages are now integral to ongoing discussion of a more integrated workforce and research in relation to potential whole-of-industry competency frameworks. We have reached a juncture where expansion of the VET competency standards (and their potential expansion) is influencing design of the broader health and community services team and service models. New delegation and substitution arrangements are enabled in key areas such as allied health and aged care through the Certificate IV in Allied Health Assistance and Certificate IV in Aged Care. The competency standards in these qualifications reflect functions previously recognised as within the domain of degree qualified professions but now undertaken as part of the broader team.

Future consideration and research in relation to all-of-industry competency frameworks and related policy development and reform should include detailed consideration of nomenclature and structure as well as the development and implementation contexts of the VET competency standards.” Participant 19



In considering responses around this topic, it is also essential to highlight that not all higher education providers articulated adverse views regarding the VET sector model of competency-based education and training. Supportive views were also articulated from representatives within the higher education sector.

“The benefits of adopting a competency-based training approach is perhaps the transparency that’s clearly understood and the outcomes are very clearly articulated. For the learner it is very clear what they are expected to do and be able to demonstrate at every level of their training. I mean it’s very clear, it’s very transparent and its very consistent and there are no ambiguities about what people are expected to know – I know that there are some criticisms about the reductionist side of it but I think that stems from a misunderstanding of what competency-based means.” Participant 30

Professions

Overall professional groups provided balanced responses to matters pertaining to competency-based education and training. Universally, each group participating in the research process acknowledged widespread use of competency frameworks as standard setting tools within their profession. Subsequently, professional groups were able to offer views based on direct experience that were both supportive of competency approaches while also providing very realistic commentary regarding limitations.

Typically, professional groups expressed the view that standards and competency requirements were set by the professions and that health professionals were the key drivers of the system.

Many acknowledged the voice of other groups such as consumers, service users, employers and regulators as increasingly important but remained firm in the view that the role of standard setting and definition of competency rested with the profession/s.

“So the standards are set by the profession then drive the curricula that we would then implement in Universities and TAFE’s and what-not and then the assessment drives ‘sic’ the assessment closes the loop on the curricular that’s developed.” Participant 4

Considerable understanding was evident among professional groups, in respect to the concepts of competency-based education and training including relevance and applicability beyond TAFE level right through to the highest levels of specialty training.

Understanding and support was particularly strong among health practitioners directly connected to professional Colleges with existing competency and standards based frameworks and among those involved in workplace education and in the provision of post graduate specialty medical education.

The presence of existing professional frameworks was often cited as evidence that the concepts were relevant, viable and implementable, however, a commonly expressed view related to how agreement could be reached among the various professions to merge and align the various frameworks.

“People have their own taxonomies and don’t really want to change them to a new one. They’ve put a lot of time and effort into what they already have It’s a bit like cutting a cake. You can cut it in many different ways so there are a whole lot of arguments there

..... how you design it, how you label your headings, whether you are going horizontally or vertically or in a matrix....these have been worked through within each profession. ”

Participant 36

Another key message raised by professional groups related the need to avoid the risks of competency approaches trying to over-specify a role with countless checklists. An equally recurring theme related to the limitations of a competency approach in measuring some aspects of performance, particularly those aspects relating to clinical judgment, interpersonal interaction and professional insight.

“The other challenge is ... that often times there are things that it is very difficult for us to even write the competency language for, but also the assessment and understanding of the certain elements of what people do in their jobs... sometimes it’s the unspoken, the unwritten and almost the unconscious parts of some of the performance that occurs- say in our case of being doctors.” Participant 37

Whilst acknowledging various limitations of the approach along with the challenges of navigating the ‘professional tribalism’ that would be encountered in attempting to seek agreement re the alignment of frameworks diverse professional groups, the task was not viewed as insurmountable.

As a solution, the CanMEDS model was cited as evidence of a framework widely accepted across more than sixty medical specialties and sub-specialties and of increasing global relevance beyond medical education alone.

“CanMEDs is the preferred taxonomy for us to all communicate about. So, if you want to talk about national taxonomy for competence-based training it is definitely the CanMEDs principal. I mean that’s an internationally recognised standard.” Participant 39

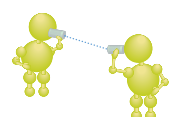
“ Consider CAnMEDs – I mean... if people are using it and finding it successful after a long period of time, why would you change it?” Participant 23

Health service users

Health service users articulated a very strong user focus as the issue of primary concern to any future project involving whole-of-workforce competency developments.

“It is all very well to have an academic and carefully considered dissertation around the concept of competency but at the end of the day, what we need is stuff (education and standards) that helps people deliver services and intervene to prevent the loss of life.” Participant 26

“The focus should be the patient. It’s the competency to care for patients in a particular way or perform a particular task. I think the focus should be the competency rather than the registered health profession and where they come from or what specific profession.” Participant 24



Accreditation and regulatory authorities

Due to their roles and function across the whole of the Australian health workforce, the accreditation and regulatory authorities possess detailed understanding and insights into the competency-based education and training and career framework implementation status, benefits barriers and issues.

Thus, this participant group was able to provide comment from whole of workforce, sub-sector and profession specific basis.

The authors of this report suggest that the insights and active participation of the overarching accrediting and regulatory authorities would be essential partnerships to successfully moving this project forward.

Informants from the cohort of accreditation and regulatory authorities provide broad insights:

“The understanding of competence within education and training, their use of the terminology is a bit of a concern to us because it seems to be fairly variant between competency, competence, competencies and performance ... so I think our view would be that there needs to be some clarification of terminology because without that I think we’re going to get misunderstandings and perhaps confusion and waste a bit of time to move these issues forward.” Participant 23

“Nursing is a really good example and they’ve embraced qualifications - regulated, competency based qualifications very early on which have enabled a clear career pathway. When we look at some of the other areas, we don’t see there is much of a flow in dentistry for example, where there are dental nurses and dental assistants but we can’t see a clear pathway for a dental nurse to become a dentist.” Participant 26

Employers

During the process of semi-structured interviews, employers added significant additional information to inform this project than that which was available in the published literature only.

Whereas other informants confirmed things present in the literature, employers were able to contribute additional insights; however, some of this was then embargoed.

Employing agencies (including the major jurisdictions) tended to have a considerable amount of un-published grey literature. Some of this was shared with the research team but some material was embargoed with confidentiality constraints applied due to the potential industrial implications of competency-based career frameworks which could be linked with pay scales.

All employers were using competency-based training in one form or another including the almost universal use of this form of training within orientation and mandatory training programs.

Other involvement included partnership activities with the professional entities of clinicians within their employ such as the use of the CanMEDS models by medical colleges during registrar training rotations.

In contrast, most employers were actively exploring (rather than utilising) concepts associated with competency-based career frameworks. Universally, employers were exploring multiple mechanisms to enhance the flexibility, scope of practice and cost effectiveness of their health workforce. The development of competency-based career frameworks was included within the explorations described by employers.

Most frequently, this exploration included activities such as policy research; think tanks focused on health service re-design; and the development of discussion papers rather than active possession of confirmed plans for implementation of competency-based career frameworks.

Where models and documents existed under embargo, this was usually due to the timing of development of discussion papers. Intended next steps included consultation with staff and their representative unions prior to broader public release including any formal release within this research project.

All of the employers spoken to within this study were grappling with the challenge of finding more innovative and flexible ways to deliver health services to a demographically expanding and ageing population of health consumers. All highlighted the challenges of negotiating existing professional demarcations, award structures and state-based differences when exploring and implementing new/redesigned models of care. All highlighted the tensions in the potential and possibly need for the project to be an industrial project rather than workforce project alone.

“I think the big elephant in the room in all of – a lot of workforce reform in Australia is the underlying industrial context ... I think the reality for health going forward; we need to have a consistent industrial framework to achieve reform.” Participants 2

It was noted that industrial issues have the potential to disrupt efforts to develop and effectively implement and realise the benefits of a national competency-based framework for both education and training and also career progression.

“We need to move to take the industrial argument out of the debate as soon as possible otherwise it’s got the power to just hijack the whole discussion, and the risk for this discussion is that it becomes an industrial debate and a bread and ration debate and it shouldn’t be. I do think we need to get the key industrial principles agreed to very quickly so this is off the table and we can really start to talk about the clinical competency rather than what you get paid to attain a certain level. Otherwise I think it has the potential to derail the whole discussion.” Participant 2

Industrial issues aside, employers were keen to explore the potential benefits that clear and consistent national education and training framework and career frameworks might deliver.

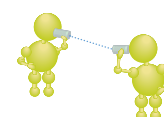
“With this project I think there is the potential for the interprofessional merging of current boundaries to appear and I think that’s a good thing - for patients and staff.” Participant 8

“a project of this nature will allow focus on the competent clinician providing appropriate care in a caring manner — care is more important than the professional badge.” Participant 2

International participants

The international participants in this study all had first-hand experience in the development of either competency-based education or training frameworks or a competency-based career framework. Subsequently, they were able to provide unique insights into the implementation challenges, realities and benefits of a whole of work-force or profession-wide approach within their country.

Interviews were conducted with informants directly involved in major competency-based developments within three countries offshore to Australia, specifically; informants involved in the development and implementation of:



1. the Canadian CanMEDS framework (J. R. Frank, 2005) ;
2. the UK Skills Escalator (Agenda for Change Project Team, 2004) and,
3. the Career Framework for the Health Workforce in NZ (Ministry of Health and District Health Boards New Zealand Workforce).

Whilst uniquely different, a number of common messages emerge when analysing transcripts associated within the three diverse international projects included in this study. Specifically:

- language and shared agreement regarding key terms and definitions is important; consultation and development takes time and must be adequately resourced;
- whole of workforce inclusion is essential;
- over specification of competencies is counter intuitive, impedes implementation and destroys the balance between education and the delivery of patient care; and
- finally strong leadership with whole of government buy-in and political support is essential to full realisation of the envisaged developments.

In addition to the common messages articulated by each of the international informants, a number of useful project specific insights were also offered. Key messages from each of the international projects profiled in this study are included in section 10 of the initial project report (Brownie, Bahnisch, et al., 2011a) pp 50-65. Similar to domestic informants, international informants articulated a high level of collegiality and willingness to continue to engage with HWA and share learning going forward.

CanMEDS

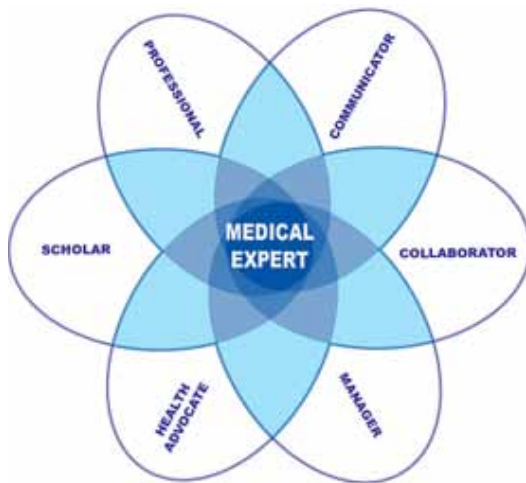


Figure 1

The CanMEDs team highlighted a number of pragmatic realities associated with the development and progression of their model. These included:

Language: Language is important and you just need to work with the reality of where your work force is at the time. For example, when the CanMEDS project was started there was a lot of reaction of the use to the word 'competency' or related terminology. On this basis the project initially commenced as a 'roles' based framework as this as non-controversial at the time.

The lesson was that it is important of project implementers to understand the current views of workforce and to make the necessary adjustments to work within these to achieve the desired result.

“At the start there was a lot of reaction to the concept of competency so we used the term roles. It was non-controversial at the time but now the CanMEDS framework is so embedded we are re-badging it for what it is, i.e. a competency-based framework” Participant 16

Myths: The topic was raised of the need for framework developers to manage common myths such as the notion that competency-based training will automatically shorten training and the need for active management of political expectations of this nature.

“I think the politicians, at least in Canada, immediately assume that competency-based models will lead to shortened training but we try and emphasise that this is not necessarily the case. Perhaps for some of the fast learners this may be the case but for some it is also perceivable that training could lengthen. There is also the immeasurable maturity/maturation that occurs over the length of a training program.” Informant 15

Envisioning the future: Informants within the CanMEDS team also provided useful insights into the envisaged future of competency-based programs and the health workforce five years out. These included an emphasis on increased accountability and transparency of practice; increasing team based/collaborative models of care; and, shifts in role allocations across various members of the health workforce.

“Five years out – I think that at the individual practitioner level there will be much greater transparency and accountability on activities one engages in and how these are assessed and profiled in practice – both clinical and non-clinical” Participant 15

“There will also be increasing emphasis on team competencies and how we can actually foster and relate more collaboratively with other health professions around learning and change in practice improvement strategies.” Participant 15

“In contrast and parallel we are seeing an expansion upwards and extension sideways of scope of practice for other professions – particularly nursing and midwifery – re the autonomous models there are some real tensions to be worked through re how this fits with the team.” Participant 16

NZ Competency-based career framework

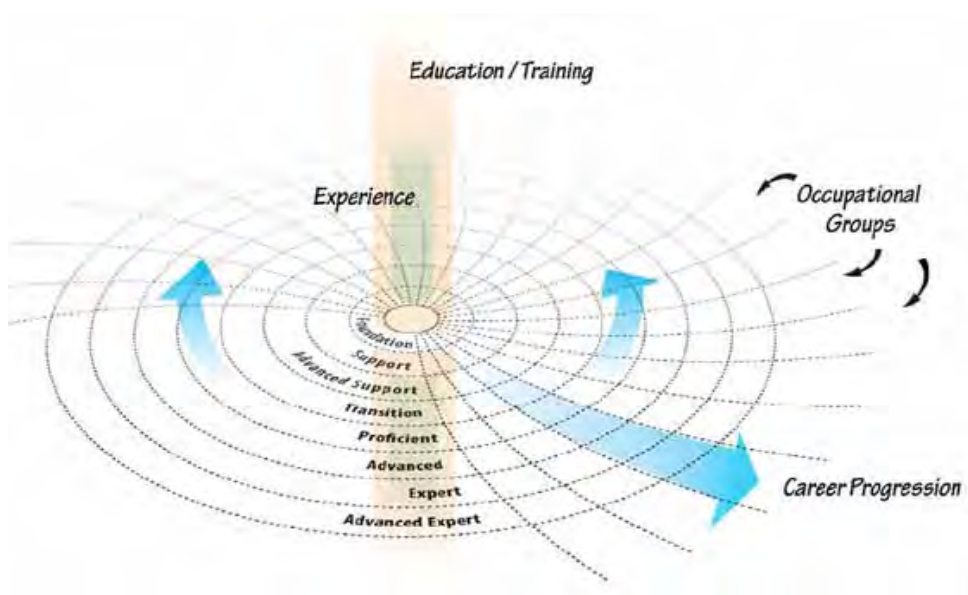
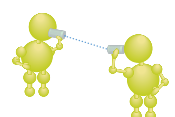


Figure 2 The New Zealand Health Workforce Career Framework (Ministry of Health & District Boards New Zealand Workforce Group 2007)



Key messages from New Zealand focused on the need to secure buy-in; engage in thoughtful and careful pre-planning; ensure adequate resourcing; and, to ensure adequate consideration of the economic, political and industrial context in which the project is being planned and implemented.

While the New Zealand framework had been designed but not yet been implemented at the time of the study, informants highlighted a number of benefits in support of the intended future move to implementation.

“I think that having a national taxonomy that is overt and publicly available is very helpful. People do not necessarily know what we do as health professionals, what level of knowledge we have or what services various professionals can provide.” Participant 10

However, clear cautionary messages were emphasised in relation to the risks of implementing the framework in a manner which was too prescriptive and restrictive.

“It is essential that the framework remains competency based in a broad sense rather than prescriptively skills based. If you make it too restrictive, that is going to decrease our ability as health professionals to be proactive and meet the changing needs of people and the health care system. We know that things are going to change into the future including new discoveries, technologies, treatments etc so we must be able to respond within a clear competency framework that is not overly prescriptive or restrictive.” Participant 11

UK Skills Escalator

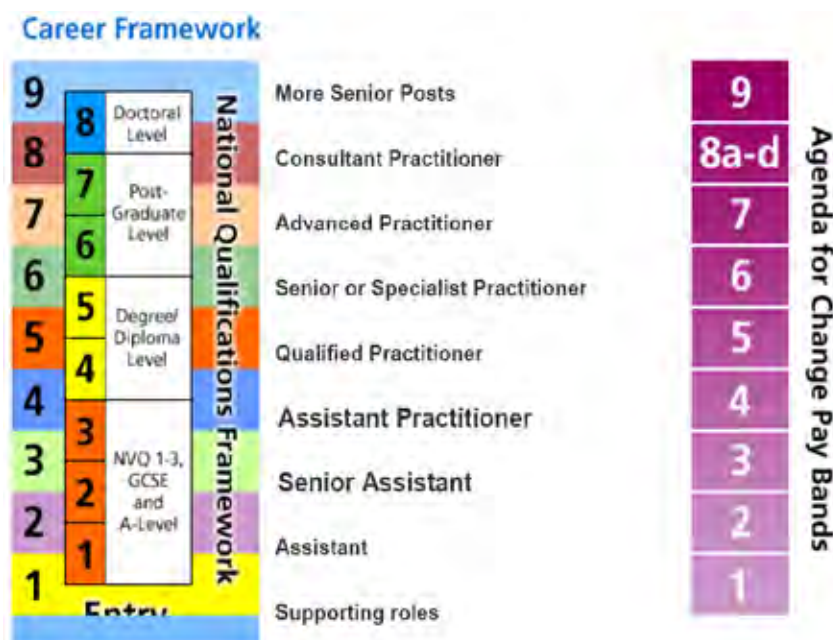


Figure 3: The Skills Escalator

A very important message from the UK Skills Escalator included the need for clearly articulated purpose statements and a value proposition that is talked about and understood by health stakeholders before the project is embarked upon. As highlighted in the main project report (Brownie, Bahnisch, et al., 2011a) p 63, the difficulties that the UK experienced in implementation stemmed primarily from the lack of upfront sector familiarisation and consultation.

“One of the things we would do differently is to consult more upfront. Our project rushed into it and we met so much resistance we had to stop the project entirely for six months and go out and engage in an extensive round of sector familiarisation.” Participant 14

Another interesting point which emerged in discussion with members of the UK project team was that the implementation was much, much more than developing the framework and then posting it on a national web-site.

“I must admit that we were very surprised that our people did just keep re-inventing their own things. The idea was that the developments would be posted on a national web-site that people could access to get ideas — they don’t.” Participant 14

Further discussion with the informants associated with the UK Skills Escalator project highlighted the realities and enormities of the costs involved in post implementation communication, promotion and continuing maintenance/update.

Application of UK Skills Escalator Model to the Australian Context

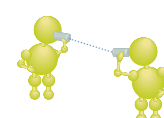
All of the overseas models explored within the context of this project highlighted valuable lessons for consideration to HWA as a pre-cursor to planning the next steps of the project. However, a number of informants also pointed out some of the unique complexities of the Australian context which would preclude direct application of the UK Skills Escalator model, in particular.

“Yes, we can learn a lot from it and there is much that we can usefully adopt from it. But, we are not the UK, and anybody who thinks that the UK model would be readily adoptable in the Australian system is ignoring the diversity, the jigsaw nature of the Australian health care system compared to the NHS.”

Repeatedly, informants pointed out desirable features and sound valuable lessons that could be gained from exploration of the overseas models.

Overall, the UK Skills Escalator project raised the most concerns as informants who were aware of this project had a tendency to be wary of the potential industrial implications of the model.

In contrast the CanMEDS model was more widely acknowledged as a globally transferable framework with the potential for whole-of-workforce application.



Implementation considerations

Identified resource implications for adoption of a national competency framework

Universally, respondents identified substantial implementation challenges, including the need to secure consistency of definitions and common understandings on which to base the initial projects discussions; change management issues; pedagogical paradigms shifts, resourcing issues in respect to both time and funding; and, boundary issues related to existing professional frameworks.

“The implementation challenges involve a substantial paradigm shift where that those ‘sic’ charged with supervising and assessing within a competency-based system haven’t gone through that system themselves. So they are used to a certain model of supervision and now need to move to workplace-based assessment with the role of supervisor, assessor and appraiser have much more of a job in quality assurance than just the training process.” Participant 34

“It requires a dialogue; it requires people sitting down together; it requires thinking. All of those have resource implications because that’s people’s time to actually work through that and then the hardest thing will be the time and resources to change practice.” Participant 33

“It is probably a more expensive system with a lot more training and a lot more assessment..... Also is the health system prepared to pay people at higher levels of remuneration if they can demonstrate greater expertise?” Participant 32

Stakeholders views regarding who should be responsible for development of a national framework

A broad range of responses were received in respect to this topic. Some participants thought a potential national project must be profession led, others emphasised the need for multi-party engagement; others focused on the issue of who should pay; and, some thought that the National Health Workforce Taskforce (HWA was just emerging at this point in time), should lead developments.

“Clearly each of your professional groups is going to have some form of engagement in that and provide some leadership to it - if you don’t it’s certainly not going to roll out into the field. Obviously the education providers will have to be involved as well and there obviously has to be some link between what the education providers are doing and what is required in the workplace or by the professional group.” Participant 23

“It would have to be government funded. I think that for the professions to have to come and do this all over again would require government support therefore, if there’s to be a net benefit back the community should have some sort of funding by government.” Participant 27

“I think it can and should be the National Health Workforce Taskforce.” Participant 28

Connecting the Professions, Higher Education and VET sector

Analysis of data revealed that significant work needs to occur to better align the disparate views and articulation pathways between VET and higher education sector. An approach recommended by several participants included endorsement of the strengths of very well established competency-based models within the VET sector systems while also reassuring higher education providers that a competency-based education system is capable of avoiding reductionist pitfalls.

“It needs champions, the right sort of leaders and there are people out there ... I can name some who can make the connections and lead this through.” Participant 28

Recommended sign-off processes

A diversity of view existed as to as to who should be the actual leaders of who should sign-off on the end product. Again, responses highlighted the need for comprehensive consultation, broad sector buy-in and effective leadership.

“You won’t get ownership if it’s not profession-based.” Participant 38

“I don’t think there is any ideal body to do it. No matter who you give it to there is going to be a gap. Everyone will want their two bobs worth.” Participant 24

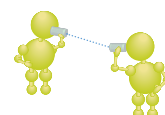
“If it is actually going to work, I think you need all the major stakeholders. Everybody will need to be responsible for it. So it would be the health practice areas where everyone is working, it would need to be education providers, it would need to be the professions; the accrediting bodies; all those players who have an interest in this.” Participant 33

Political and industrial considerations

As highlighted, both in this report and the preceding reports (Brownie, Bahnisch, et al., 2011a, 2011b) the majority and possibly all health professional groupings have already developed their own professional frameworks. In many instances, these are linked to industrial awards. Thus, alignment to develop a whole-of-workforce framework requires a future project team to successfully negotiate these sizeable political and industrial considerations. At least one participant put forward the view that movement to a national awards structure would be required.

“You have to make the awards national ... different terms are used in different awards and different levels are contained within different awards So I think that will be a show-stopper in the final update of your terms.” Participant 38

Albeit this view, it is very clear that frameworks for both education and training and career progression can be developed without industrial and/pay links and that this is by far the most pragmatic and implementable approach to take this project forward.



The future: Development opportunities for the use of competency-based education and training and competency-based frameworks across the Australian Health Workforce

Significant opportunity exists for HWA to undertake further consultation and collaborate with its health workforce stakeholder community to develop a whole-of-workforce framework for education and training across the sector and for greater definition of career opportunities and progression.

Clear opportunity exists for HWA to establish and progress a project which could develop a CanMEDS type framework with broad competency categories of relevance to all groups within the Australian health workforce and with levels which are aligned to the Australian Qualifications framework.

Analysis of transcripts identified a range of benefits to HWA and its stakeholder community through the further progression of this project. The potential for significant benefit is clearly evident within the interview responses with development opportunities of benefit to all of the key groups talked with during the process of semi-structured interview.

Provision of common platforms for learning, along with clear articulation pathways for those seeking recognition of prior learning, is of particular benefit in supporting health workforce developments (Duckett, 2005; Ellis, Robinson, & Brooks, 2006). Common frameworks inclusive of these features are of value to most groups within the health community (Wright, M., & Walker, 2008), including:

Health Consumers

- Improved patient and consumer care through increased flexibility in utilising the health workforce, and clear articulation and maintenance of skills and competencies
- The potential for less fragmented care and for more patient-centred practice

Health Professionals

- An enhanced understanding among students of the contributions and knowledge base of different professions
- Clearer career pathways and opportunities for the health workforce
- Greater clarity and transparency regarding workforce roles and accountabilities
- Simplification of complex employment arrangements and control of burgeoning new worker categories
- Opportunities to further understanding and knowledge-sharing across different professions and workforce categories
- Increased job satisfaction as a result of working more fully to scope.

Health Employers and Health Planners,

- Greater flexibility in workforce utilisation
- Better alignment between education and the health sector

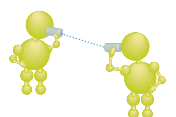
- Strong base for maintaining role and remuneration parity between workforce groupings (for frameworks with industrial links)
- Greater confidence in respect to certainty and comparability of standards

Health Educators

- The possibility of more seamless articulation and recognition of prior learning not just between VET and higher education, but also within higher education and post-graduate training
- Opportunity to work in closer partnership with the health sector and graduate health professionals who are better prepared for the workforce

Regulators and Registration Authorities

- The potential for skills migration within the existing workforce, and better preparation in meeting the new and emergent demands within the health system



Next Steps: Key Considerations

The stated intent of HWA in commissioning this report was to gain a fuller understanding of the views of the community as expressed in the initial key informant interviews with an intent to key input to guide future planning.

HWA's current work plan includes competency-based initiatives. It may be quite challenging, however, to envisage how these concepts could be progressed to an implementable reality.

The informants to this study have emphasised the point that it is essential to ensure that initiatives do not increase existing confusion or unnecessarily ignite resistive reaction from professional groups or educational sectors that may either misunderstand or misconstrue the envisaged intent.

Analysis of the data confirms some important points requiring clarification by HWA in planning the next steps of the project. It is recommended that the first steps include clarification of the project purpose, underpinning rationale (evidence), descriptions (terminology) and support partners, specifically:

Purpose including why this project is needed, why it is being undertaken and what exactly is intended was a commonly raised question. Participants frequently asked questions regarding the purpose of expected outcome of the intended project. Clarification regarding this issue was regularly sought; therefore, preparation and communication of a 'value statement' would be an important consideration in moving the project forward. A draft value statement has been prepared by the research team and is attached in Annex 5 of this report.

Evidence to confirm the rationale and projected benefits of the intended project is a high expectation of a qualified workforce. Not surprisingly, educators, health professionals, and users of the health system wanted to discuss and view evidence regarding the effectiveness and enhanced health and educational comes that could be realised should a project of this nature be progressed.

"I'm not aware of evidence which shows there are major benefits, certainly when you come to healthcare for example ... It seems more of an idea or a dream rather than something people have actually done studies on 'sic' – you know longitudinal studies. So we can only go with the theoretical benefits such as like, well understand ability I guess are the issues, transfer ability and those sort of things." Participant 22

Terminology emerged as a major consideration in project progression. The need to reach common understanding and agreed terminology was a consistent theme expressed by almost every informant to the study.

Partnership was noted as an essential underpinning to success in a project of this nature. Informants pointed out that implementation of a project to develop a national framework for competency-based education and training and competency based career progression across the entire Australian health workforce is a major undertaking.

The authors of this report support the view that HWA would need partners in this process and that the invaluable whole-of-workforce insights and the active participation of the overarching accrediting and regulatory authorities would be essential partners to successfully move this project forward.

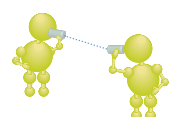
Having gained insight into the views of the sample of stakeholders who participated in this study, there is opportunity for HWA to progress competency-based initiatives including the concept of a whole-of-workforce competency framework in a pragmatic and constructive manner.

In the first instance, this project should be progressed via activities that include a clear communication and consultation exercise to enhance increased understanding of the rationale for and benefits of utilising competency-based models including development of a whole-of-workforce competency framework. A well-articulated value statement would be an essential component of the communication strategy moving forward.

It is suggested that the way forward could include:

- Profiling of recently published reports on the HWA web-site to increase discussion across the sector
- Utilisation of the literature review on the HWA web-site to engender discussion, better inform the sector and increase understanding of key issues associated with competency-based education and training developments and competency-based career frameworks
- Consideration of each of the initial project recommendations (see Annex 5) with a view to progressive implementation of these as appropriate
- Production and dissemination of a project 'value statement' (see example in Annex 6)
- Production and dissemination of information bites pertaining to key terms and concepts regarding which there is current debate, ambiguity and variance in understanding, for example, competence, competency, taxonomy, framework, horizontal integration, competency-based education and training framework and competency-based career framework
- Commencement of further consultation with the sector by development of a detailed discussion paper which adopts a workforce approach and confirms opportunities, options, benefits and implementation requirements associated with a whole-of-workforce approach to competency-based education and training and competency-based workforce utilisation and career progression
- Development of a detailed plan for progression of the envisaged project

All of the aforementioned resources are ready and available to allow HWA to quite promptly open discussion and move forward with the first steps in this particular work stream.



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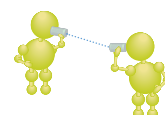
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Annex 1 List of Themes: HWA Data Analysis Request

REQUESTED:

Further data analysis and reporting of key Informant Interviews to support HWA taking the next steps in developing a National Competency Framework

- **Specific data analysis requested** That data analysis and reporting be undertaken in the following categories:
 - Education and training (e.g. universities, VET , ALTC projects etc)
 - Professions
 - Future users (e.g. students and health insurers)
 - Accreditation
 - Employers
 - Government
 - Industrial
 - Feedback from International groups
 - Other (identification of feedback from other groups which were identified inclusive of those who were identified as part of the snowball effect)
 - Request a review of the themes and questions provided below.
 - Survey question responses to the theme of mapping health workforce competencies and taxonomy
 - Identification of the range of understanding of competencies
 - Identified major benefits or pitfalls
 - Identified resource implications for National adoption of a developed framework
 - Identified who should be responsible for framework
 - Identified critical signoff processes in gaining agreement
 - Any issues identified regarding relevance and connection required between professional and VET sector
 - Survey question responses to the theme of evidence based options for competency based health career frameworks
 - Identified core generic capabilities for anyone working in health sector
 - Identified core capabilities for specific professions
 - Identified which professions would find it most difficult to implement a framework
 - Any comments on inter-professional competency as an informing principle
 - In addition to the survey themes identified the following also need to be identified
 - Any key controversies and sensitivities regarding a national framework raised by the



different stakeholder groups interviewed

- Any strengths or benefits for a national framework raised by the different stakeholder groups
- Any perceived or likely barriers to a national framework
- Any comments made on the future of competencies in Australia
- Any comments or information on activities or projects conducted by stakeholder groups which were raised in the interviews

Annex 2 Interview Questions



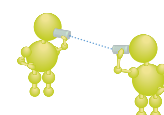
Survey Questions National Health Workforce Taskforce

Mapping health workforce competencies and developing a taxonomy for competency-based standards in health

1. What is your understanding of competence within education and training?
2. What is the evidence for major benefits in adopting a competency-based training approach?
3. What is the evidence for major challenges in adopting a competency-based training approach?
4. What is your personal experience and perspective on the benefits and challenges?
5. If a national competence-based taxonomy was to be adopted would you find language a potential barrier?
6. If a national taxonomy was adopted what terms could be common across all of the Australian Health Sector?
7. What aspects would need to be specific to professions?
8. How could we achieve an agreement across professions for a national taxonomy?
9. How do you think a national taxonomy would benefit your particular professional group/ employment setting?
10. In what ways do you think a national taxonomy would impact on interprofessional collaboration?
11. What are the resource implications for adopting a national taxonomy for competence-based training and education across the Australian Health Sector?
12. Who do you think would be responsible for implementing a national taxonomy?
13. Who are the bodies that need to agree to a national taxonomy for it to be implemented?

Evidence-based options for competency-based health career framework/s in Australia

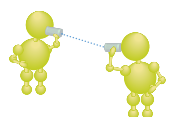
1. What is your understanding of a competency based career framework?
2. Do you know of any career frameworks in use either nationally or internationally that could have a national scope? (UK skills for health)
3. In what ways could these frameworks be suitable to the Australian health care sector at a national level?
4. Are there any apparent challenges in applying these frameworks nationally to the Australian health care sector?
5. If a national career framework was to be developed what would it look like?
6. What problems could a national framework solve or create?
7. What would be the scope of a national competence-based career framework? (training, pay linkage, career progression)
8. Could a national career framework make comparison of competency levels between professions easier?
9. Are there any particular professions that may benefit from a national career framework?
10. Are there any particular professions that may be disadvantaged by a national career framework?
11. What impact would a national career framework have on an individual practitioner in the Australian Health care sector?



Annex 3 Key Informants: Participating Organisations

- ACT Department of Health
- Allied Health Professions Australia
- Australasian College of Health Service Management
- Australian Association for Social Workers
- Australian College of Health Service Management
- Australian Institute of Radiography
- Australian Medical Association
- Australian Medical Council
- Australian Medical Student Association
- Australian Nurses Federation
- Australian Peak Nursing and Midwifery forum (comprising Australian Nursing and Midwifery Council, Congress of Australian and Torres Strait Islander Nurses, Australian Nurses Federation, Royal College of Nursing Australia, Council of Deans of Nursing and Midwifery, Australian College of Midwives, The Coalition of National Nursing Organisations)
- Australian Physiotherapy Council
- Australian Qualifications Framework Council
- Carers Australia
- Committee for Presidents of Medical Colleges
- Community Services & Health Industry Skills Council
- Department of Health & Human Services, Tasmania
- Department of Health, England, UK
- Department of Health, Victoria
- Department of Health, Western Australia
- Dieticians Association of Australia
- Faculty of Health Science, QUT
- Faculty of Health Sciences, Curtin University of Technology
- Faculty of Health Sciences, La Trobe University
- Faculty of Health Sciences, University of Sydney
- Faculty of Medicine, Health and Molecular Science, James Cook University
- Faculty of Science, Charles Sturt University
- Health Sciences Faculty, University of South Australia

- Health Sciences Faculty, University of Tasmania
- HealtheCare
- Lifeline
- Manchester Business School, UK
- Medical Board of Australia
- Medical Deans Australia and New Zealand
- National Rural Health Students Network
- New Zealand Nurses Organisation
- Northern Territory Mental Health Services
- NSW Department of Health
- Nursing & Midwifery Board of Australia
- Pharmacy Board of Australia
- Physiotherapy, Faculty of Science, Charles Sturt University
- Queensland Department of Health
- Ramsay Health Care
- Royal College of Physicians and Surgeons of Canada
- San College of Education
- School of Medicine, Flinders University
- Services for Australian Rural and Remote Allied Health
- Skills Australia
- Skin & Cancer Foundation
- Society of Hospital Pharmacists of Australia
- South Australian Department of Health



Annex 4 Ethics Approval

 THE UNIVERSITY OF QUEENSLAND Institutional Approval Form For Experiments On Humans Including Behavioural Research	
Chief Investigator:	Professor Helen Chenery
Project Title:	Project 4: Mapping Health Workforce Competencies, Developing A Taxonomy For Competency-Based Standards In Health
Supervisor:	None
Co-Investigator(s)	A/Prof Sharon Brownie
Department(s):	Faculty of Health Sciences
Project Number:	2010000637
Granting Agency/Degree:	National Health Workforce Taskforce (NHWT)
Duration:	31st December 2010
Comments:	
Name of responsible Committee:- Behavioural & Social Sciences Ethical Review Committee This project complies with the provisions contained in the <i>National Statement on Ethical Conduct in Human Research</i> and complies with the regulations governing experimentation on humans.	
Name of Ethics Committee representative:- Dr Jack Broerse Chairperson Behavioural & Social Sciences Ethical Review Committee	
Date <u>15/06/10</u>	Signature 

Annex 5 Recommendations: National Health Planning Workforce Planning and Research Collaboration

Based on its findings, the research team (Brownie, Bahnisch, et al., 2011a) made a range of recommendations to Health Workforce Australia (HWA) as replicated below. A full copy of the report and associated literature review be accessed from the HWA website <http://www.hwa.gov.au/publications/hwa-reports> under the following header:

National Common Health Competency Resource for the Australian Health Workforce

- Exploring the Literature: Competency-based Education and Training & Competency-Based Career Frameworks (.pdf) — report by the National Health Workforce Planning & Research Collaboration
- Competency-based Education and Competency-based Career Frameworks: Informing Australian health workforce development (.pdf) — report by the National Health Workforce Planning & Research Collaboration

Australian health workforce

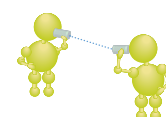
- That HWA further interrogates data describing the full profile of the Australian health workforce as per the categories identified in this report and disseminates information to further enhance whole-of-workforce understanding.
- That HWA undertakes further work to gauge the full extent of the emergent workforce categories, including consultation with key stakeholder groups regarding actual workforce and health service demand with a view to forming a strategic framework to guide increasingly emergent innovations and developments.
- That, at a national level, HWA adopts a whole-of-government coordination role on the allocation of funding and activities of direct relevance to the Australian health workforce.

Terms and definitions

- That HWA consults, develops and confirms an agreed set of terms and definitions to reduce ambiguity and ensure maximum clarity of communication and meaning across its work portfolio and in its interactions with key stakeholders. The glossary of terms included in this report could be a starting point for undertaking such consultation.

Competency-based education and training frameworks

- That HWA considers the requirements of competency-based education and training frameworks—for example, a clear communication and consultation exercise—to enhance increased understanding of, rationale for, and benefits of developing a whole-of-workforce competency framework. Vocational education and training (VET) sector informants indicated that an extensive communication strategy would not be required for the VET workforce, as the language of this sector is already one of competency.
- That HWA considers three options for a competency-based framework adaptable to a whole-of-workforce application within the Australian context. These options are to start afresh and develop a national workforce competency model; to adapt an existing model identified as having increasing acceptance and update across the workforce; or do nothing, and simply allow current unguided market developments to continue to unfold.



Competency-based career frameworks

- That HWA notes the potential benefits in developing and implementing a competency-based career framework for the Australian health workforce.
- That HWA notes the case studies and lessons profiled in this report.
- That HWA undertakes further analysis regarding the juncture between development of a competency-based career framework (a 'workforce project') and implementation of a competency-based career framework (an 'industrial project') and that these frameworks are fully explored and understood to optimise successful outcomes for any proposed development activity.
- That HWA notes the New Zealand *Let's Get Real* case study as an example of a competency-based career framework that has been implemented as a health workforce project without industrial adjustments.
- That HWA notes the Australian experience in reform of the Engineering Industry Award as a possible example of a competency-based career reform project implemented through aligned industrial adjustments (see Annex 6).
- That HWA notes the concept of levels contained within the notion of a competency-based career framework and collaborates with other key national initiatives (for example, Australian Qualifications Authority) to ensure optimal whole-of-government coordination in any developments going forward, so as to avoid frameworks with varying number of levels that do not match.

Further research

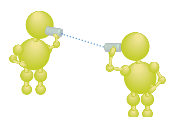
A suite of supporting papers, and a literature review, is being prepared to supplement this report, which together will help to inform ongoing work in the Australian health workforce context. The research team maintains that further research is necessary to provide a stronger evidence base for this work, and recommends further work in the following focus areas.

- Work to develop and enhance common understanding and an agreed glossary of terms associated with competency-based education and training and competency-based career frameworks.
- Interrogation of data describing the full profile of the Australian health workforce as per the categories outlined in this report.
- Work to gauge the full extent of the emergent workforce categories, including consultation with key stakeholder groups regarding actual workforce and health service demand, with a view to forming a strategic framework to guide increasingly emergent innovations and developments.
- Analysis and exploration of the juncture between development and implementation of a competency-based career framework in order to optimise successful outcomes for any proposed development activity.

In addition, the research team believes that significant gaps exist in the contextual literature informing health workforce debates, and has suggested a series of additional research. These are detailed in section 11.6 (Brownie, Bahnisch, et al., 2011a).

The full citation for the report within which these recommendations are included is as follows:

- Brownie, S., Bahnisch, M. & Thomas, J. (2011) *Competency-based Education and Training & Competency based Career Frameworks: Informing Australia health workforce development*. Report on NHWPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks. University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia.



Annex 6 Draft Value Statement: Competence, Competency & Frameworks - Advancing the Discussion

Understanding the Terms

Multiple definitions exist with little consensus and considerable controversy. Opportunity exists for HWA to take the lead and develop a set of shared definitions with common agreement across the health workforce. Definitions of relevance to health workforce settings include:

Competence: A generic term referring to a person's overall capacity to perform a given role, including not only performance but capability. It involves both observable and unobservable attributes such as attitudes, values, and judgemental ability (Victoria Government Department of Human Services, 2009)

Competency: The ability to consistently perform work activities to agreed standards over a range of contexts and conditions (Knight & Nestor, 2000; Ridoutt, Dutneall, Hummel, & Smith, 2002)

Competency in the clinical setting: The ability to handle a complex professional task by integrating the relevant cognitive, psychomotor and affective skills (Carter & Jackson, 2009)

Competency-based education and training frameworks: Frameworks which are constructed to specify competencies relevant for registration, assessment of practice and curriculum design, and, education and training. UQ Research team (Brownie, Thomas, & Bahnisch, 2011)

Is there a problem to be solved?

Significant problems exist that are common across westernised countries and are increasingly being tackled by the development of cross professional, interprofessional and cross sectoral competency frameworks. Examples include the CanMEDS framework and the European Tuning Project (Jason R. Frank & Danoff, 2007; Tuning Educational Structures in Europe, 2011). Current problems within the Australian context include:

- Everyone is developing frameworks with little if any alignment and increasing disparity
- Frequently, frameworks are not aligned with the recently revised Australian Qualifications Framework. This exacerbates problems related to:
- Variable standards/levels of competency within health qualifications & professions
- Difficult transition between the VET and higher education sectors
- Difficulties in recognition of prior learning for health workers wishing to build on their careers, change careers or migrate into Australia
- Increasing professional demarcation and protection of professionally siloed roles
- Difficulties for health employers wishing to increase workforce flexibility

Value Proposition: What are the benefits?

Provision of common platforms for learning along with clear articulation pathways for those seeking recognition of prior learning is of particular benefit in supporting health workforce developments (Duckett, 2005; Ellis, et al., 2006). Common frameworks inclusive of these features are of value to most groups within the health community (Wright, et al., 2008), including:

Health Consumers

- Improved patient and consumer care through increased flexibility in utilising the health workforce, and clear articulation and maintenance of skills and competencies
- The potential for less fragmented care and for more patient-centred practice

Health Professionals

- An enhanced understanding among students of the contributions and knowledge base of different professions
- Clearer career pathways and opportunities for the health workforce
- Greater clarity and transparency re workforce roles and accountabilities
- Simplification of complex employment arrangements and control of burgeoning new worker categories
- Opportunities to further understanding and knowledge sharing across different professions and workforce categories

Health Employers

- Greater flexibility in workforce utilisation
- Better alignment between education and the health sector
- Strong base for maintaining role and remuneration parity between workforce groupings (for frameworks with industrial links)
- Greater confidence in respect to certainty and comparability of standards

Health Educators

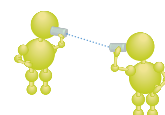
- The possibility of more seamless articulation and recognition of prior learning not just between VET and higher education, but also within higher education and post-graduate training
- Opportunity to work in closer partnership with the health sector and graduate health professionals who are better prepared for the workforce

Health Planners, Regulators and Registration Authorities

- The potential for skills migration within the existing workforce, and better preparation in meeting the new and emergent demands within the health system

A whole-of workforce framework: Is this an option?

Understanding and defining the scope and breadth of the Australian Health Workforce is an essential precursor to any 'whole-of-workforce' considerations. Little if any literatures exist to comprehensively describe the entire workforce, however, reference to demographic health data by both government and health professional organisations, non-government entities such as Carers Australia, and the work of researchers exploring health workforce issues (Australian Qualifications Framework Council, 2011; Duckett, 2005; Ellis, et al., 2006; Nancarrow & Borthwick, 2005) lead to the conclusion that any 'whole-of-workforce considerations should include the following groups:



- Specialist workforce, e.g., medical specialists, dental specialists (orthodontists)
- Regulated health workforce, e.g., allied health professionals, nurses, registered medical officers
- Unregulated health workforce, e.g., social workers, paramedics, indigenous health workers
- Emerging health workforce, e.g., physician assistants, nurse practitioners
- Support workforce, e.g., nursing, allied health assistants
- Voluntary unpaid and carer workforce

Opportunity exists for HWA to develop a whole-of-workforce framework with the following potential benefits:

- **Consumers:** Greater focus on integrated collaborative practice and patient centred care. Greater openness and transparency regarding the roles and responsibilities of those providing the care
- **Health Workforce:** Increased career flexibility, clearer processes for recognition of prior learning, maintenance of practice, maintenance of registration and articulated learning pathways. Greater certainty re standards and level of competency
- **Health Planners & Employers:** Clearer definition of health workforce roles and accountabilities against which health service planning can be undertaken. Greater flexibility in health workforce utilisation and deployment
- **Health Educators:** Clearer definition of health workforce roles and accountabilities against which curriculum development be undertaken

Annex 7 Sample of Competency-based Education and Training Frameworks

This annex provides a sample of the extensive range of frameworks in use or under development in the health sector. Those highlighted by an asterisk (*) were analysed in detail to identify their similarities and differences in structure and content. The summary of this analysis is as follows.

A very significant finding of this research has been twofold:

- there is a large number of competency frameworks in use and in development across the health sector
- this fact has not been previously apparent—the research team was unable to locate any substantive published literature highlighting this point in the Australian context.

Subsequently, the research team could not readily map all frameworks in use or in contemplation—the scenario involved an extensively moving target as frameworks are continually being developed, updated, expanded and/or retired.

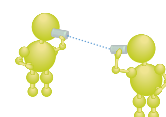
The important implication of this finding is that frameworks are and have been proliferating across the sector. In the Australian health sector, numerous competency-based frameworks have been implemented or are under development, a sample of which is tabulated below in this annex.

In practical terms it was inadvisable, if not impossible, to harmonise every existent framework into a single taxonomy without substantive further research, consultation and additional resourcing. Given the large number of frameworks located and the constantly changing status of the frameworks, it was quickly agreed that the resources within this project were simply insufficient to attempt a mapping exercise as originally envisaged. Subsequently, discussion took place with the project funders, who agreed that a smaller scale mapping of selected frameworks was the optimal approach to inform this project.

The team analysed 10 frameworks (highlighted by an asterisk (*) in the list of frameworks in this annex) to identify their similarities and differences in structure and content. Purposeful sampling was used to select frameworks for analysis. Selection was made on the basis of the ability of the selected framework to illustrate salient points that had been identified in the research process regarding the nature of competency frameworks in the health sector and the way in which frameworks are developed for a number of purposes by differing stakeholders (for instance, professional bodies and jurisdictions).

All of the frameworks analysed used hierarchical structuring where first-level domains were identified as functional areas of the professions. Second-level elements covered units of competencies, which were then broken down into smaller, third-level units containing performance criteria, ranges of variables and evidence guides suited to assessment. Within the hierarchical structure, the frameworks varied considerably in the number of domains in each tier. Some frameworks contained as few as three domains within the first tier, with others comprising up to 12. Similarly, in lower levels of each hierarchy, the number of points or competencies numbered from as few as one and up to 12 in some cases.

Reference to the literature highlighted the fact that a hierarchical levelling structure can assist in the assessment of competencies and help individuals identify their strengths and weaknesses regarding their ability to perform in the profession or role (Hager and Gonczi 1991). Additionally, the hierarchical nature of a typical framework structure is useful for translating different languages characteristic of different professions for interprofessional practice and planning and deployment of skill-mix in varying workplace and clinical contexts.



A good example of a framework specifically designed for interprofessional practice has been provided in the case study of the British Columbia Competency Framework for Interprofessional Collaboration (see case study in section 10.2.3; College of Health Disciplines and Interprofessional Network of BC 2008). Similarly, CanMEDS (see case study in section 10.1.1) has been utilised to align a range of skill-based competencies under broad domains common to various scopes of practice and specialties, and this report has underlined its growing acceptance among a number of professions and internationally (Frank 2005).

While concern is often expressed that frameworks can be reductionist, this is not necessarily so. The team noted that for this reason some models and frameworks made it explicit that no single domain or unit of competencies is valid on its own.

The team noted that the frameworks vary considerably in terms of language or terminology, highlighting the fact that there is no nationally agreed format for competency standards, including the terminology used. For example, competencies are variably referred to as competencies, performance criteria statements, capabilities and standards.

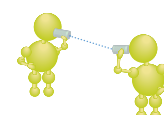
It is also apparent that competency statements acquire their meaning in the context of specific professions, and are not necessarily meaningful across professions. That is, they need to be interpreted in context by the user, and only the individual profession can fully 'decode' profession-specific competencies.

In general, the themes of the domains of each framework could be loosely grouped into four categories: professional, technical, social and operational competencies.

All models contained some component of professional competencies, either in a single first-level domain, in several first-level domains, or integrated within technical task-based domains of the profession. They included areas such as accountability and responsibility, operation within scope of practice, reflective practice, maintaining standards and improvement of practice. Most frameworks described a list of technical competencies undertaken by professions in the treatment of the patient/client. In addition to activity-based competencies, some frameworks listed knowledge and skills that are required for the job in the technical competency category. These lists are diverse and include descriptive tasks, outcomes (for example, patient safety, collaborative care), standards or management of practice (for example, adverse event, emergencies). Social competencies relate to ways in which health professionals collaborate and interact with people and their environment; hence, there is some degree of overlap between social and professional competencies. This overlap is evident in that some frameworks listing social competencies under professional attitudes and behaviours, while other frameworks integrated them with technical/functional competencies or listed them in separate single domains constituting overall competence. Operational competencies relate to how individuals operate in an effective, efficient and safe manner. They are context specific and dependent on settings of practice; hence, operational competencies vary greatly among frameworks. They include management of practice, use of information technology to enhance own practice, management of patient records, workplace safety and self-management of workload.

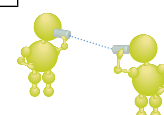
The conclusion that can be drawn from this analysis is that competency frameworks have exhibited a range of classificatory strategies depending on context. It is also notable that the process of mapping and aligning competency frameworks is rendered more complex by the variance in the number of domains and hierarchical tiers employed. The team is confident that this analysis of a sample of frameworks, while not statistically representative, does capture some key features and dynamics of frameworks as developed in the Australian health care context. A key implication of our analysis is that it is vital that any prospective national or interprofessional framework avoids overspecification of detail in subsidiary domains (that is, competencies) and has a top-level domain that is both broad enough and well conceptualised so as to enable the aim of harmonisation and alignment to occur.

Sector	Profession	Frameworks/Projects	Location/References
Health professionals	Audiologists	The ASA professional standards of practice for audiologists (1997)	Audiological Society of Australia 1997 , The ASA professional standards of practice for audiologists, ASA, Forest Hill, Vic., < www.audiology.asn.au/standards.htm > accessed DAY MONTH YEAR .
	Australian and New Zealand medical practitioners	Committee of Presidents of Medical Colleges: LEAP framework	< www.ranzcog.edu.au/leapframework/index.shtml >
	Canadian Medical practitioners	The Royal College of Physician and Surgeon of Canada (2005): CanMEDS	< www.par-program.org/CanMEDS2005Framework.pdf >
	Cancer nursing	A national professional development framework for cancer nursing (2009)	S. Aranda and P. Yates 2009, A national professional development framework for cancer nursing, 2nd edn, National Cancer Nursing Education Project (EdCaN), Cancer Australia, Canberra, < www.edcan.org/news.htm > accessed DAY MONTH YEAR.
	Chiropractors	Competency based standards for entry level chiropractors (2003)	Council on Chiropractic Education Australasia 2003 , Competency based standards for entry level chiropractors, Council on Chiropractic Education Australasia, Armadale, Vic. , < www.ccea.com.au/Publications/Publications.htm > accessed DAY MONTH YEAR.
	Dental	Registration standards (2010)	Dental Board of Australia 2010 , 'Registration standards', < www.dentalboard.gov.au/Registration-Standards.aspx > accessed DAY MONTH YEAR .
	*General practitioners	A quality framework for Australian general practice (2005)	Royal Australian College of General Practitioners 2006, 'A quality framework for Australian general practice', < www.racgp.org.au/qualityframework > accessed DAY MONTH YEAR.
*Junior doctors	Australian curriculum framework for junior doctors (2009)	Confederation of Postgraduate Medical Education Councils 2009 , 'Australian curriculum framework for junior doctors project', < www.cpmec.org.au/Page/acfjd-project > accessed DAY MONTH YEAR.	http://www.cpmec.org.au/Page/acfjd-project



Sector	Profession	Frameworks/Projects	Location/References
*Registered nurses	National competency standards for the registered nurse (2005)	Australian Nursing and Midwifery Council 2005, <www.nursingmidwiferyboard.gov.au/Codes-and-Guidelines.aspx> accessed DAY MONTH YEAR.	http://www.nursingmidwiferyboard.gov.au/Codes-and-Guidelines.aspx
*Enrolled nurses	National competency standards for the enrolled nurse (2005)	Australian Nursing and Midwifery Council 2005, <www.nursingmidwiferyboard.gov.au/Codes-and-Guidelines.aspx> accessed DAY MONTH YEAR.	http://www.nursingmidwiferyboard.gov.au/Codes-and-Guidelines.aspx
Occupational therapists	Australian competency standards for entry-level occupational therapists (1994)	Australian Association of Occupational Therapists 1994, Australian competency standards for entry-level occupational therapists, <www.ausot.com.au/inner.asp?pageid=22> accessed DAY MONTH YEAR.	http://www.ausot.com.au/inner.asp?pageid=22
*Pharmacists	Competency standards for pharmacists in Australia (2003)	Pharmaceutical Society of Australia 2003, Competency standards for pharmacists in Australia, <www.psa.org.au/site.php?id=643> accessed DAY MONTH YEAR.	http://www.psa.org.au/site.php?id=643
Pharmacy	Professional practice standards (2005)	Pharmaceutical Society of Australia 2005, Professional practice standards, <www.psa.org.au/site.php?id=84> accessed DAY MONTH YEAR.	www.psa.org.au/site.php?id=843
	*Physiotherapists	Australian standards for physiotherapy (2006)	Australian Physiotherapy Council 2006, Australian standards for physiotherapy, Australian Physiotherapy Council, Canberra, <www.physiocouncil.com.au/australian_standards_for_physiotherapy> accessed DAY MONTH YEAR.
	South Australian nursing and midwifery	Professional practice	South Australian Nursing and Midwifery, <www.nursingsa.com/prof_career.php> accessed DAY MONTH YEAR.
	Specialist surgeons	Surgeons' competencies	Royal Australasian College of Surgeons, <www.surgeons.org/Content/NavigationMenu/EducationandTraining/Training/Standardsandprotocols/Competencies1.htm> accessed DAY MONTH YEAR.

Sector	Profession	Frameworks/Projects	Location/References
	*Speech pathologists	Competency-based occupational standards for speech pathologists (1994, 2001)	Speech Pathology Australia 1994, 2001 , < www.speechpathologyaustralia.org.au/professional-standards-ps/competency-based-occupational-standards > accessed DAY MONTH YEAR.
	Psychology	Accreditation standards for psychology (2009)	Australian Psychology Accreditation Council 2009, Rules for accreditation and accreditation standards for psychology,
Health workers	Community workers	Community sector workforce capability framework	Community Services & Health Industry Skills Council , < www.cshisc.com.au/index.php?option=com_content&task=projectstatus&Itemid=162 > accessed DAY MONTH YEAR.
	Health and community workers	Industry Skills Council: Community services and health	Community Services & Health Industry Skills Council 2009, 2010, Environmental Scan
	Health workers	Health training package	Community Services & Health Industry Skills Council 2007, HLT07: Health training package, CS&HISC, Strawberry Hills, NSW.
	Medicare service staff	Capability framework (undated)	Medicare Australia n.d. , < www.medicareaustralia.gov.au/about/careers/capability/index.jsp > accessed DAY MONTH YEAR.
	Social workers	Australian social work education and accreditation standards (2008)	Australian Association of Social Workers 2008–09, Australian social work education and accreditation standards, Australian Association of Social Workers, Canberra.
	Social workers	Practice standards for social workers (2003)	Australian Association of Social Workers 2003, Practice standards for social workers: Achieving outcomes, Australian Association of Social Workers.
Multi-disciplinary	Allied health professionals	Health activity hierarchy (2001)	National Allied Health Casemix Committee 2001 , Health activity hierarchy version 1.1, NAHCC, Melbourne, < www.nahcc.org.au/hierarchy.htm > accessed DAY MONTH YEAR.
	*Allied health workforce	Hunter New England NSW Health: HNE Health Workforce Capability Framework	Hunter New England Area Health Service 2009



Sector	Profession	Frameworks/Projects	Location/References
	*Cancer workforce	Cancer professional development framework	Cancer Australia 2006, Cancer professional development framework, Cancer Australia, Canberra, < www.cancerlearning.gov.au/plan/index.php > accessed DAY MONTH YEAR.
	Health care workers	National patient safety education framework (2005)	Australian Council for Safety and Quality in Health Care 2005, National patient safety education framework, < www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/NSQF > accessed DAY MONTH YEAR.
	*Mental health workforce	National practice standards for the mental health workforce (2002)	AHMAC National Mental Health 2002, 'National practice standards for the mental health workforce', < www.health.gov.au/internet/main/publishing.nsf/Content/mental-pubs-n-workstds > accessed DAY MONTH YEAR.
	Musculoskeletal care	Australian Musculoskeletal Education Competencies (on-going): Australian core competencies in MKS care	Australian Musculoskeletal Education Collaboration , < http://amsec.org.au > accessed DAY MONTH YEAR.
	Allied health	Competency standards for health and allied health professionals in Australia (2005)	B. Spencer, et al. 2005, Competency standards for health and allied health professionals in Australia, Department of Human Service, Victoria.
All health sectors	Health workforce management	Management competency for health professionals (2010)	Australian College of Health Service Executives 2010, Information booklet .
	Multidisciplinary including health sciences	Australian Learning and Teaching Council: Academic standards project	Australian Learning and Teaching Council , < www.altc.edu.au/standards/team > accessed DAY MONTH YEAR.

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SUPPORTING HEALTHY FUTURES FOR EAST AFRICA

Celebrating 15 years of
partnership in nursing
education



THE AGA KHAN UNIVERSITY

Johnson & Johnson

CORPORATE CITIZENSHIP TRUST





"I have long felt the enhancement of the nursing profession to be absolutely critical to the improvement of health care in the developing world."

*His Highness the Aga Khan
Chancellor, The Aga Khan University*



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Isabel Kambo, Academic Projects Manager in Kenya, assisted in the process of preparing ethics applications and securing approvals across East Africa.

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Victor Skrzypczynski, intern, produced transcripts for Kenyan focus groups/interviews, undertook Ugandan case study interviews, reviewed the use of NVivo and web technologies, prepared text for the report and prepared a summary report.

Atem Machar, intern, reviewed and recommended

changes to the existing website, provided updated content for the site and prepared a demonstration web version of this report.

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The following SONAM-EA faculty members undertook the interviews and focus groups, prepared transcripts and undertook case study interviews:

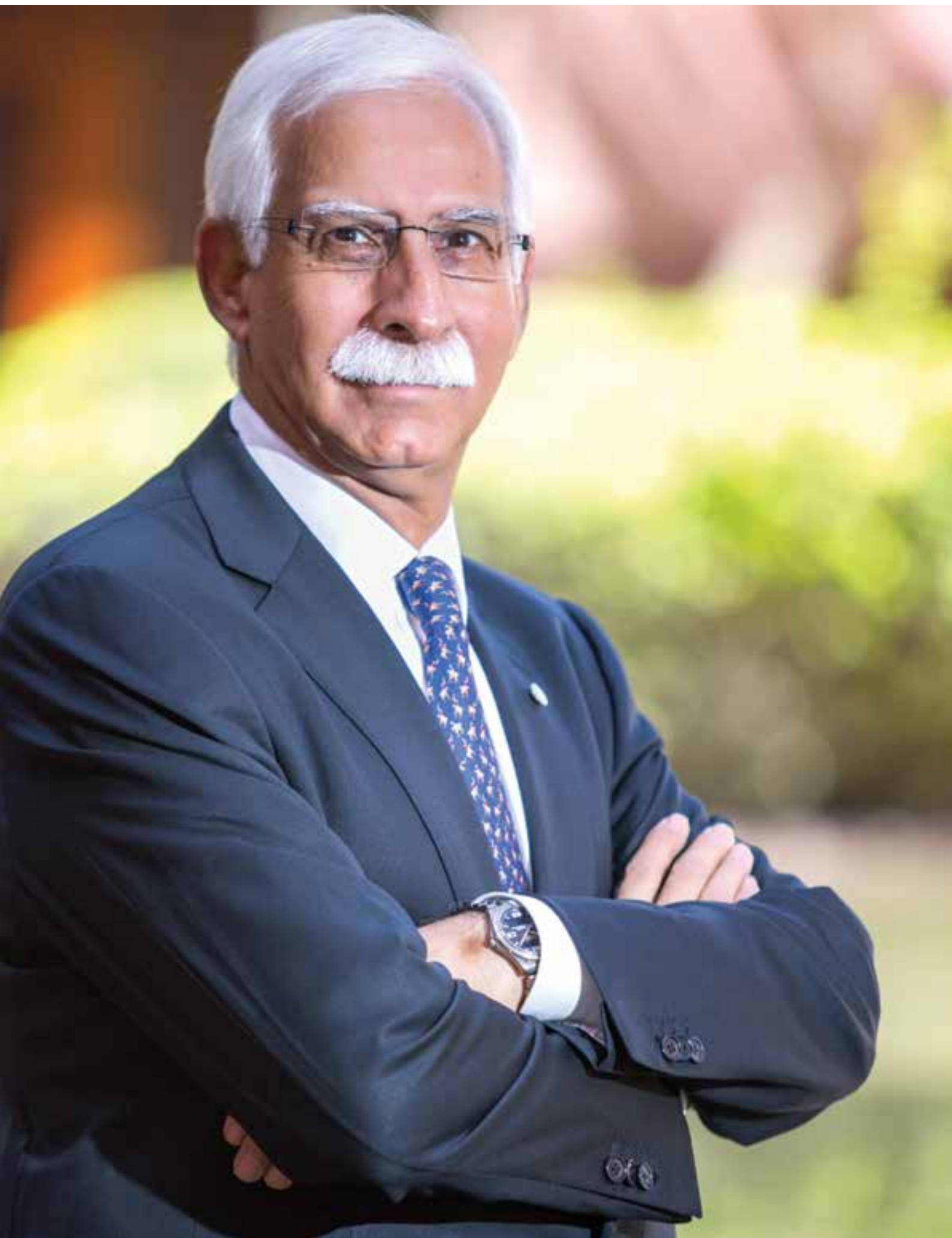
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- Joseph Mwizerwa

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Mercy Shuma and Michael Njuguna at *centrepres media* completed the graphic design.



President's Foreword

Nurses and midwives are the backbone of East Africa's health systems. They are on the front lines of the fight to overcome all the major global health challenges, including the growth of non-communicable diseases such as diabetes and cardiovascular disease; infectious diseases such as HIV/AIDS, malaria and tuberculosis; and persistently high levels of maternal and child deaths. Given the dire shortage of health workers in the region, they perform tasks that normally would be handled by physicians. Given the absence of equipment and resources considered standard in other contexts, they must innovate and improvise to address novel cases and situations. Because the people they serve often lack basic health knowledge or are alienated from the health system, their role combines that of the clinician, community organizer, advocate and educator. Lives depend on their abilities.

In such a situation, highly skilled and motivated nurses and midwives have a remarkably large impact. With the Johnson & Johnson Corporate Citizenship Trust's support, Aga Khan University's School of Nursing and Midwifery has produced more than 2,100 such leaders in East Africa over the last 15 years. As this report shows, our alumni are making a mark in clinical, administrative, educational, community and policy settings. They are providing outstanding care, improving the effectiveness of existing institutions as managers, founding new institutions that meet critical needs, expanding the health workforce as much-needed nurse educators, serving disadvantaged communities and acting as role models who inspire their colleagues. Together, they are helping to transform the nursing profession – and graduates of our new midwifery programme will surely play a similarly important role within their field.

On behalf of the University's faculty, staff, alumni and students, I am pleased to take this opportunity to thank the Johnson & Johnson Corporate Citizenship Trust for its long commitment to the Aga Khan University and to the cause of advancing nursing and midwifery in East Africa. There are a great many East Africans whose lives would be very different were it not for its support. Our graduates have been transformed and empowered, and have used their new capabilities to engage with their communities. They have acquired new knowledge, built new skills, broadened their horizons, gained confidence, deepened their passion for helping others

and enhanced their earning power. Throughout the alumni review project, our alumni have expressed gratitude to the Johnson & Johnson Corporate Citizenship Trust for the opportunities and support it has provided. No one has benefitted more than the nearly 1,760 women who have attended the School of Nursing and Midwifery. As our Founder and Chancellor, His Highness the Aga Khan, has said, nursing “empowers women and improves their status in their communities. It provides positive role models for other women, strengthens their decision-making and problem-solving capabilities in the eyes of others, and promotes their personal, professional and financial autonomy.”

Yet our alumni constitute just a fraction of those whose lives have been changed through the Trust's generosity. Because of our graduates, mothers in remote areas are giving birth safely, patients are achieving full recoveries thanks to improved attention to safety and children are living free of HIV. Further, because of their work as educators, more nurses are entering the workforce ready to make a difference. On behalf of all these beneficiaries as well, I wish to thank the Johnson & Johnson Corporate Citizenship Trust. It has been a privilege to partner with it for so many years. Ours is a partnership we hope will endure for years to come.

FIROZ RASUL

President

The Aga Khan University

Johnson & Johnson Corporate Citizenship Trust Foreword

A partnership that has lasted for more than 15 years is something to celebrate. Not only because of its duration, but more importantly because of how it has evolved, developed and to some extent also re-invented itself over these years. Such partnerships are explored, developed and ultimately shaped by pioneering individuals. By the nurses and midwives whom this partnership seeks to support through scholarships and training; by the communities they serve upon graduation; by the tireless efforts of the faculty and support staff across Aga Khan University in East Africa; and, by those who represent the Aga Khan Development Network and the Johnson & Johnson Corporate Citizenship Trust (Trust).

For the last three years, I have had the pleasure of managing this relationship from the Trust's position and view this responsibility as being the custodian of the ethos and objectives of the 'joining together' of shared values that brought two very different, yet also similar organizations into a powerful alliance that is striving every day to improve the quality of life and human health in the communities in which we both operate.

As you read through this report, I hope you will be inspired not only by the numbers and statistics, which are truly impressive, but also by the real-life stories of nurses and midwives who have gone on to challenge both themselves and the health care systems in which they work. Pushing boundaries, be they individual, institutional or societal is what ultimately makes a difference and leaves a lasting legacy. As the Trust, we believe that by empowering individuals we can affect sustainable change to support, strengthen and, in some cases, even transform health systems.

The relationship between the Trust and AKU in East Africa was the start of a long-term relationship that expanded both geographically and programmatically in the ensuing years. Today, the partnership spans not only East Africa but also Egypt, Portugal,



Tajikistan and Kyrgyzstan, where in addition to nursing and midwifery training, we partner on strengthening Early Childhood Development and Community Health programmes. It is rewarding to see how our partnership has matured and how multiple interventions help shape an even greater impact. None more so than with nursing in East Africa, where, in addition to the scholarship grants, Johnson & Johnson employees have transferred their knowledge and expertise to help strengthen nursing and midwifery professional support organisations in the region, through long-term secondments with the Trust Secondment Strategy Programme. This is an important area of work that we will continue to support in the years to come, both through funding and knowledge transfer.

These are exciting times in an evolving and deepening partnership. I hope you enjoy reading what we have achieved together so far, and that you will join and partner with us on our ongoing journey of making a difference to the quality of life and human health in communities across the world.

BENJAMIN DAVIES

*Partnership Director
Johnson & Johnson Corporate Citizenship Trust*

Dean's Introduction

Nurses are universally recognized as the heartbeat and lifeblood of global health systems, and this report focuses on the impact of graduates of our nursing programmes in East Africa. Specifically, the report analyzes and celebrates the impact of the 15-year partnership between the Aga Khan University and the Johnson & Johnson Corporate Citizenship Trust focused on improving the health of East Africans by developing nursing leaders in Kenya, Uganda and Tanzania.

It is, therefore, very much a celebration of the nursing profession and the immense contribution it makes to the well-being of individuals, communities and countries. Nursing's role within the health system has often been defined by its focus on the patient, in all his or her human complexity and embeddedness in a given environment. Typically the first point of contact with the health system, nurses receive people at their most pained, uncertain and fragile. Nurses provide counsel and comfort, seeking to reassure and empower individuals and their families as they endure pain and confront difficult decisions and complex information in unfamiliar environments.

The importance of this role in the context of East Africa can hardly be overstated. In societies where health services are frequently overloaded and can be forbiddingly impersonal or unresponsive, a warm welcome, competent assessment, clear and steady guidance and the ability to understand and sympathetically address cultural differences and constraints are as important for improving health as any medicine.

Of course, nurses' roles go far beyond the above description. Nurses assess, diagnose and coordinate care. They advocate for patients' interests. They are leaders and managers who transform systems to produce better patient outcomes. Rather than waiting for the ill to come to them, they venture into communities to share knowledge and change behavior so that people can avoid becoming sick in



the first place. In countries where they constitute as much as 85 percent of the health workforce, their job descriptions are as various as the extraordinarily diverse populations they serve. Yet whether they are helping to safely bring a baby into the world or to ease the pain of the dying, they leave an enduring mark.

It is to the great credit of the Johnson & Johnson Corporate Citizenship Trust that it has seen fit to invest so much in nursing and the development of nursing leadership in East Africa, and over so long a period. In reading this report, I hope that you will gain insight into the impact of this investment, which has supported the graduation of 2,138 nurses, of whom 93.1 percent were employed at the time of our survey, and more than 100 of whom now hold high-impact leadership positions. On behalf of our School of Nursing and Midwifery faculty, I take this opportunity to join with our University President in thanking the Trust for its generosity and support in this longstanding and enduring partnership.

PROFESSOR SHARON BROWNIE

Dean

School of Nursing and Midwifery, East Africa

Programme Leaders

Many have contributed to the success of the AKU Nursing Programmes in East Africa over the past 15 years. Acknowledgement is given to all teaching faculty, administrative staff and supporting parties, particularly those who have provided clinical placement experience for our students and the employers who released their nurses for further education. However, none of this would have been possible without the leadership of the academic nurse educators, whom we acknowledge for their leading contributions.



Professor Laetitia King

Appointed as the initial academic leader and Associate Dean of the Advanced Nursing Studies Programme East Africa (2003-2007), Professor King established the EN-RN programme. Additionally, she commenced the HIV management training programme by securing funding through the African Regional Capacity Building Network for HIV/AIDS Prevention, Treatment and Care. She is also remembered for the capacity building partnerships she established with the Universities of South Africa and Nottingham, supporting faculty upgrading to the Master's and PhD level.



Professor Yasmin Amarsi

Served as the founding Dean of the School of Nursing and Midwifery, East Africa. Yasmin initially oversaw the school and the commencement of programmes from the University base in Karachi. She transitioned to East Africa in 2007 and was based in Nairobi until her retirement in 2015. Professor Amarsi was instrumental in initiating the BScN programme in East Africa. Additionally, she took the lead in commencing the harmonisation of nursing education across East Africa.



Connie Mureithi

Served as Academic Head in Kenya (2004-2010) and Uganda (2010-2012). Connie helped establish the EN-RN distance learning programme and was the external liaison link with various government organizations such as the Nursing Council of Kenya and the Ministry of Health. She was very active in enhancing clinical collaboration with various public and private hospitals.



Jemimah Mutabaazi

Appointed in August 2002, Jemimah was a founding faculty member for the AKU campus in Uganda. She quickly transitioned to programme coordinator and finally the Academic Head role before she left in 2006. In parallel, she was the longest serving nursing council chairperson and was instrumental in leading the accreditation of the AKU nursing programmes in Uganda – the first campus to achieve this status in East Africa. Her active marketing and recruitment of students established a strong and enduring foundation.



Joseph Mwizerwa

Has served as the Academic Head in Uganda since January 2011. During this period, Joseph has been very active in building positive relationships with government and regulatory bodies. Under his lead, the Bachelor of Science in Midwifery programme was accredited and implemented in Uganda. In recognition, he was awarded the “50th Uganda Independence Medal” by the President of the Republic of Uganda. The award recognizes civilian individuals for their outstanding service and loyalty to the country.



Khairunnisa Dhamani

Appointed in 2002 as one of the founding members of the faculty in Tanzania, where she served for 14 years. Coming from AKU Karachi, Khairunnisa was instrumental in the initial implementation of the AKU programme in East Africa. One of the longest-serving Academic Heads in Tanzania, she took up a broader leadership role as Associate Dean, East Africa, in 2015-2016.

Executive Summary

This impact evaluation study was designed on the basis of quality and accountability. It focused on sourcing evidence regarding the impact and achievements of a 15-year investment in nursing education and workforce capacity building. The study was also designed to enhance alumni connection and establish sustainable models for monitoring and evaluation.

A mixed method research methodology sourced data to inform this study. First, a review of international practices in alumni monitoring and evaluation was completed, with information drawn from a range of top nursing schools. Second, quantitative data was drawn from health and workforce statistics, AKU graduate registrars and an online alumni survey that yielded an 80 percent response from available contacts. Finally, qualitative data was drawn via 49 focus group and semi-structured interviews with key stakeholders, followed by 12 case study interviews.

Quantitative findings provide evidence of a good geographic spread of graduates and that alumni are very positive about their SONAM-EA experience, commenting particularly on the quality of faculty and information resources along with the relevance of programmes. Many graduates achieve promotion within two years of graduation and more than 100 are currently employed in senior leadership positions within the East African nursing and health professional workforce.

More than 90 percent of students benefitted from Johnson & Johnson Corporate Citizenship Trust support during their education. Alumni interviewed expressed a high level of desire to contribute back to the Aga Khan University in some capacity, whether it be via research collaborations, guest lectures or financial contribution.

Qualitative findings provide positive stakeholder feedback regarding SONAM-EA, particularly the impact of graduates in clinical, educational and leadership roles. AKU-SONAM emerges as a valued brand. High demand exists for more graduates at both

the diploma and degree levels (BScN and BScM), along with a strong interest in access to higher qualifications at the Master's and PhD level. Access (both geographical and financial) remains an issue, with rural and remote access being of particular concern. A useful range of solutions are suggested.

The findings provide a strong foundation to celebrate the positive impact of the 15-year partnership between Aga Khan University and the Johnson & Johnson Corporate Citizenship Trust. Graduates have and are continuing to transition to key leadership roles. They also impact many patients by improving clinical practices of other nurses: the ripple effect. Further, as a result of the study, alumni connections have been enhanced and clear direction exists regarding ongoing graduate engagement, monitoring and evaluation.

Unarguably, the model of University/Trust partnership emerges as a proven mechanism for nursing workforce capacity building and an effective contributor to *healthy futures* for the people of East Africa.



Programme Outputs

The partnership has produced 2,138 graduates, with over 100 in leadership positions across East Africa.

2,138	Graduates since 2002
1,095	Diplomas
997	Bachelor of Science in Nursing
36	Dip. Accident and Emergency
10	Dip. Critical Care

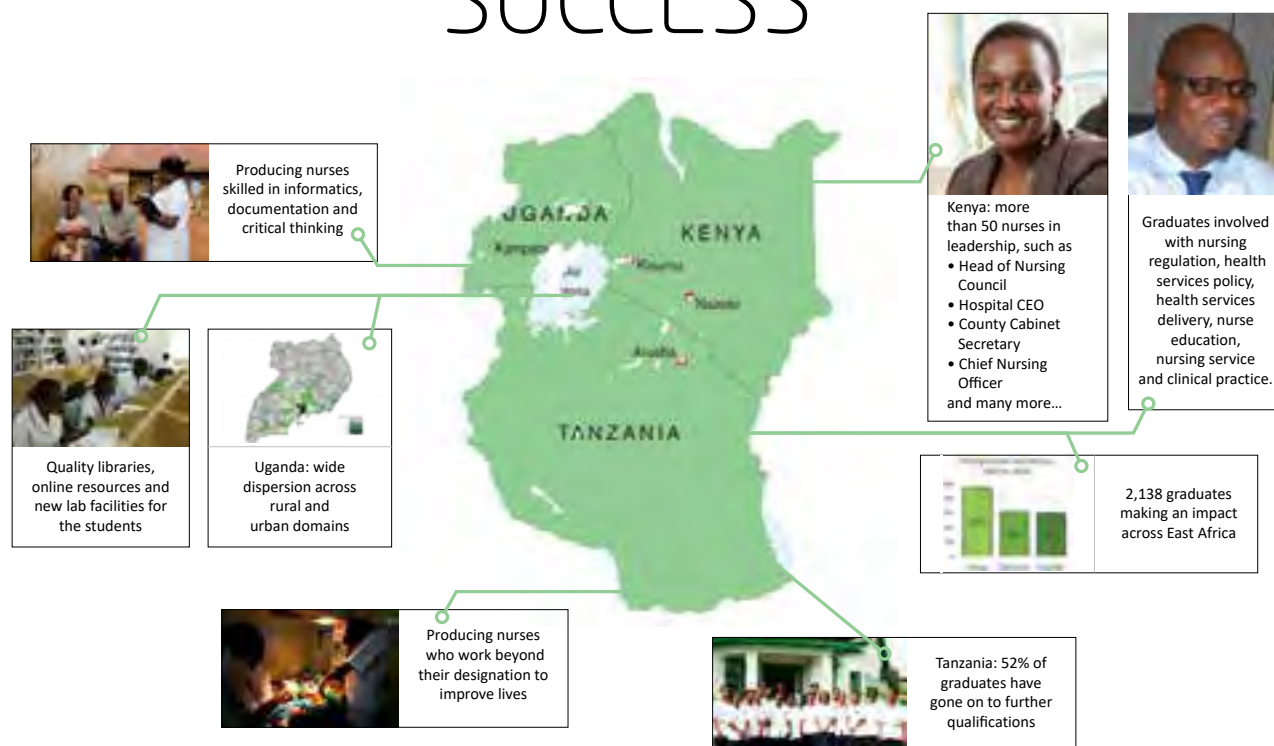
Over 100 graduates are now in leadership positions across 3 countries

IMPACT

Making a Difference

Over the 15-year partnership, SONAM-EA improved clinical nursing by enhancing nursing skills, and strengthened the health system, through alumni in leadership advancing nursing regulation, health services policy, health services delivery, nurse education and clinical practice.

15 Years of SUCCESS





IMPACT

Some Alumni Making a Difference



WINNIE SHENA '10

National Chairperson, National Nurses Association of Kenya

Winnie first put the skills she learned at AKU to use upon returning to her native Kajiado County, home to much of Kenya's Maasai community. There, she focused her efforts on reducing early pregnancies, sexually transmitted diseases, female genital mutilation and high dropout rates among girls. For four years, she travelled the county, teaching classes on sexual and reproductive health that involved girls, boys and parents, training fellow nurses in the subject and working with teachers and school administrators to try to keep girls in school. In her current position at the helm of the National Nurses Association, one of her main goals is to instill in her fellow nurses a deeper sense of confidence, professionalism, agency and responsibility. "For me, the starting point was to realize that nursing is not just the skills you use by the bedside, it's responding to the needs of the community," she says. "You can influence policies, you can contribute to economic development. And that I learned at AKU."



RAHEEMA PANGA '13

Nursing Officer, Reproductive & Child Health Services, Mbezi Health Centre, Tanzania

Raheema found the community nursing modules at AKU very useful in responding to a number of challenges, including a low level of male partner testing for HIV/AIDs and limited male involvement in prevention of mother-to-child transmission services. She started with health education and sensitization about couple testing. Priority was given to those who came with their partners/spouses. Sensitization was done through community meetings, and display posters in different locations at the facility and in the community. During the sessions, the experience of males who had done couple testing was shared. There has been an increased number of men accompanying their spouses to clinic, increased use of antiretroviral treatment by mothers with HIV, followed by good adherence to antiretrovirals and breast feeding method adoption. "Our centre was identified as a Centre of Excellence in male involvement," Raheema says.



GITA DEBORAH '08

Divine Day Care Centre and Nursery, Uganda

Milday sponsored Gita for a BScN course at the Aga Khan University. At her graduation, Gita received the academic excellence award for 2005-2008. In the course of her work, Gita realized that working mothers and staff at Milday faced many challenges providing care for their children in their homes. Gita is the founder, administrator, school nurse, programme builder and education manager at Divine Daycare, where she also handles medical issues, record keeping, communication with parents, nutrition and mental health – drawing on a number of skills she acquired at AKU.



Programme Achievements

Access

Most East African students cannot afford the full fees of SONAM-EA programmes and would not have been able to attend without sponsorship. Students are extremely grateful for the assistance they received.

The SONAM-EA work-study programme was a major attraction, permitting nurses to continue working to support their families. The programme permits students to study on their own time, when their workplace does not support students leaving the workplace to study.

Given the difficulties of distance and travel times, SONAM-EA has achieved good coverage of each country, as demonstrated by the location of graduates at convocation.

If it had not been for the donation from our great funders, we would not reach the community where we are reaching now! So I would advise them that the investment they are doing is very valuable, and not to just one person, but to the community at large. Employer, Private Hospital NGO, Tanzania

I chose Aga Khan because of the flexibility of time. It was only 2 days/week, and at that time I had a young family, so it was easy to balance between work, family and education. Alumni, Kenya

Thanks be to Johnson & Johnson. Otherwise, I think some of us would not have completed. Alumni, Uganda

Relevance

The work-study approach ensures graduates are employed (93 percent) and are in jobs that are very related (90 percent) to their study. Over 60 percent had received promotions or pay raises within two years of graduating. The qualitative survey found that our graduates are being recognized with additional responsibilities and awards.

Respondents also said that SONAM-EA alumni are skilled at applying theory to practice. In particular, their application of the nursing process in clinical situations is well received.

Over 85 percent of alumni strongly agreed that the education and training they received was relevant to their career goals, and that the programme provided the right level of learning and challenge.

AKU graduates are considered by employers to be competent and up-to-date with current nursing knowledge.

Our AKU nurses can manage the first line of malaria treatment with glucose, (because that is what malaria diminishes – the blood glucose) in the health centre and without referring them to the major hospital. They manage them there, and they go home.

Employer, rural hospital, Kenya

Quality

About 98 percent of alumni agreed or strongly agreed that faculty were excellent at imparting knowledge, and that they guided and stimulated professional development.

The quality of the programmes is evidenced by the foundation they provide for further education. The Alumni survey indicated that completion of a SONAM-EA programme is often a step in ongoing professional development for many graduates. Since their graduation from SONAM-EA, 34 percent of respondents have completed studies at other institutions, with over a quarter of these having completed more than one qualification.

The quality of graduates was positively commented upon.

They are patient oriented, which I really like. They are capable, and they are doing it right. We trust them. They have never disappointed us. Every person that has come from Aga Khan, they do wonders! I am proud of them, and that is why I do not hesitate to employ them. They are very good team players. The graduates are professional in their manner.

Private Hospital Employer, Tanzania

The quality of the faculty teaching the students (is high). They are well committed – and this is why we are knowledgeable, because they were following us in practical areas compared with other universities. I think Aga Khan is the best.

Alumni, Tanzania

Sustainable Impact

I think AKU nursing impact is durable. And you have nursing education services! The BScN nurses will teach us, educate us, and as a consequence, we will also change the (leadership) structure. We have now moved to Programme Administrators, who are nurses. We have programme administrators of medicine, surgery and maternity.

Private Hospital Employer, Tanzania



Future Challenges

Access

Improving access to education for rural and remote areas and areas with low socioeconomic status remains a challenge.

Alumni expressed the need for additional support for rural students in terms of improved access to programmes through accommodation and transport assistance, as well as innovative delivery approaches, such as online learning and different modes of attendance, with suggested options including weekly and monthly release. They also sought enhanced student support services including liaison between SONAM-EA and employers, nursing rooms for mothers and family engagement, such as open days and family counselling.

Alumni Engagement

The consultation revealed widespread interest in stronger alumni engagement. Alumni expressed pride in being a graduate of SONAM-EA and an interest in professional development through alumni events. They were pleased that SONAM-EA was connecting with them. Alumni and other stakeholder groups emphasised the potential benefits of greater engagement of alumni in research by SONAM-EA.

As a result of this project, an engagement strategy has been developed. The challenge will be to apply sufficient resources to sustain the engagement at a beneficial level.

Programme Development

Employers and regulators expressed the need for further development of nursing programmes to the Master's level and beyond. This would require development of SONAM-EA faculty capacity. While upgrading of faculty is currently occurring, additional qualified faculty may be needed to supplement them in the short term.

Because of the perceived quality and relevance of the SONAM-EA programmes, there is also demand for more graduates at both the diploma and bachelor's levels. This would require additional faculty members and student support.

Contribution to Development of Nursing Services, Regulations and Licensure

Regulators and employers valued the work currently being done by SONAM-EA to assist harmonisation of curricula across East Africa and support ongoing collaboration. Regulators also recognise the valuable contribution of SONAM-EA in promoting the development of schemes of service (official titles and ranks of the profession) and seek ongoing support in this area. While SONAM-EA is keen to support the development of the profession, allocating limited resources to this is an ongoing challenge.

Monitoring and Evaluation

This project will deliver a new strategy for monitoring the ongoing performance of SONAM-EA. While the approach leverages existing data gathering, it will also require additional collections and analysis. The development of an integrated database with dashboard will demand IT expertise to implement and capability within SONAM-EA to maintain.

A photograph of a woman with dark hair and a pink headband holding a baby. The baby is wearing a white onesie with colorful floral patterns. A large, bright green diagonal stripe runs from the top left to the bottom right. Overlaid on this stripe is a white circle containing the number '1' in a green, sans-serif font.

1



CHAPTER 1

OUR PARTNERSHIP

Success Begins with a 15-Year Partnership

The partnership between Johnson & Johnson Corporate Citizenship Trust and the Aga Khan Development Network has supported the Aga Khan University School of Nursing and Midwifery, East Africa from inception. For 15 years, the partnership has supported experienced nurses who wished to upgrade their nursing qualifications, from Nursing Certificate to Nursing Diploma, and from Diploma to Bachelor of Science in Nursing.

Without the partnership, East African nurses would not have access to high-quality nursing programmes. With access addressed, SONAM-EA has delivered programmes of quality and relevance, producing nursing leaders.

Partnership between Johnson & Johnson Corporate Citizenship Trust and AKDN

In 2001, Johnson & Johnson Corporate Citizenship Trust (Trust) and SONAM-EA, through AKDN, committed to a partnership which aimed to improve the quality of healthcare in East Africa by producing more skilled nurses and midwives.

The collaborative programme started with strengthening the SONAM-EA programme and provision of scholarships to nursing students in need of support in Kenya, Tanzania and Uganda. In addition, considerable efforts were put into

developing a strong SONAM-EA alumni network across the region.

The Trust has also supported SONAM-EA alumni activities, transport to clinical sessions and clinical placement fees, a regional alumni conference in 2013 and the East African regional scientific conference in July 2015, where SONAM-EA alumni shared their experience through scientific papers and posters. In 2016, a project to enhance monitoring was also funded by the Trust (Figure 1).



Timeline of 15-Year Partnership

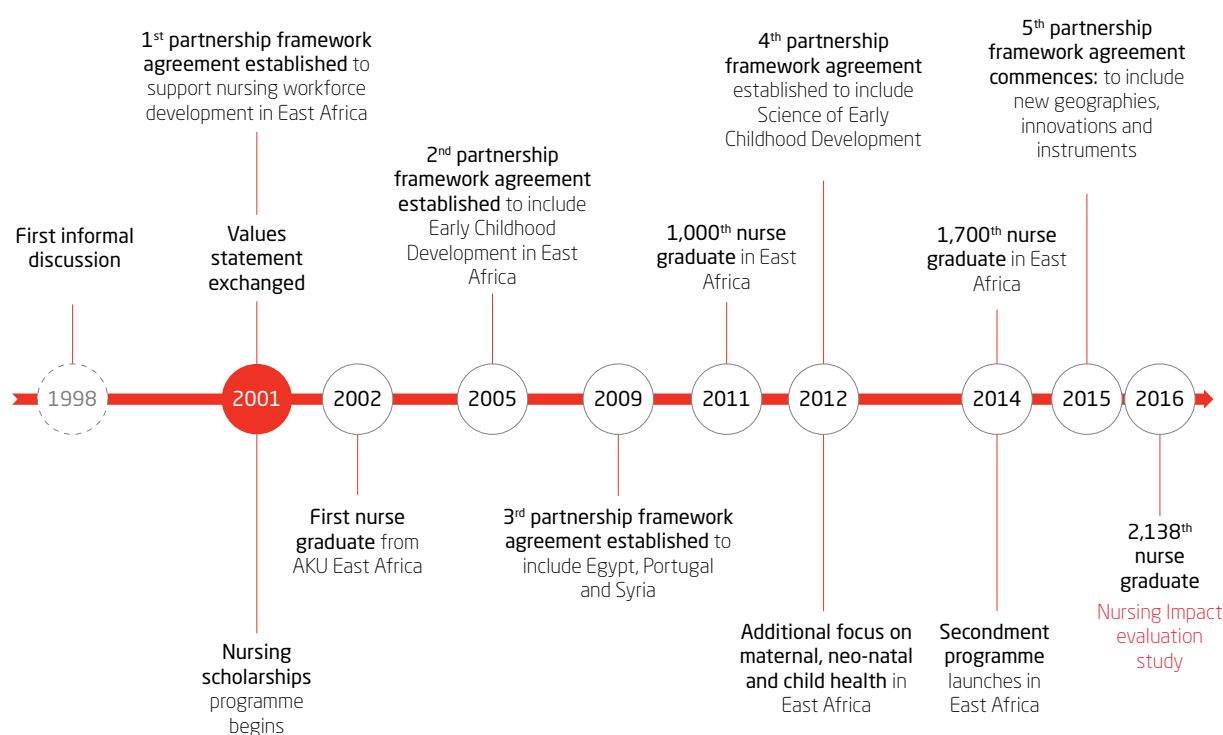


Figure 1: Johnson & Johnson Corporate Citizenship Trust/AKDN Partnership Timeline

Johnson & Johnson Corporate Citizenship Trust Strategic Priorities

Johnson & Johnson is the world's largest healthcare company. For 130 years, Johnson & Johnson has been committed to improving the health of individuals, families and communities around the world. It is guided by its credo, created 75 years ago, which outlines the company engagement to people, places and communities.

The commitment to make the world a healthier place is part of the Johnson & Johnson mission. In order to fulfill its mission, Johnson & Johnson develops partnerships focusing in three strategic areas:

- Saving and improving the lives of women and children;
- Preventing disease among the most vulnerable; and
- Strengthening the healthcare workforce.

Through these strategic partnerships and by investing in innovative solutions, Johnson & Johnson aims to make sustainable, long-term differences to human health.

The Johnson & Johnson Corporate Citizenship Trust (Trust), founded in 2007, is responsible for managing the company's Corporate Social Responsibility programmes across Europe, the Middle East and Africa (Figure 2). Its mission is to make sustainable, long-term differences in human health by investing in strategic partnerships and innovative solutions that add value to society and impact people's lives. It focuses on six strategic priorities:

- Improve maternal and infant health;
- Promote the health and development of children and youth;
- Prevent HIV transmission and improve care and supportive services;
- Increase access to integrated solutions that prevent onset of chronic conditions and support those coping with them;
- Improve the skills of health workers and community members who care for the underserved; and
- Improve leadership and management in healthcare systems.

J&J Worldwide Corporate Contributions Strategy

The Trust focuses on six strategies*

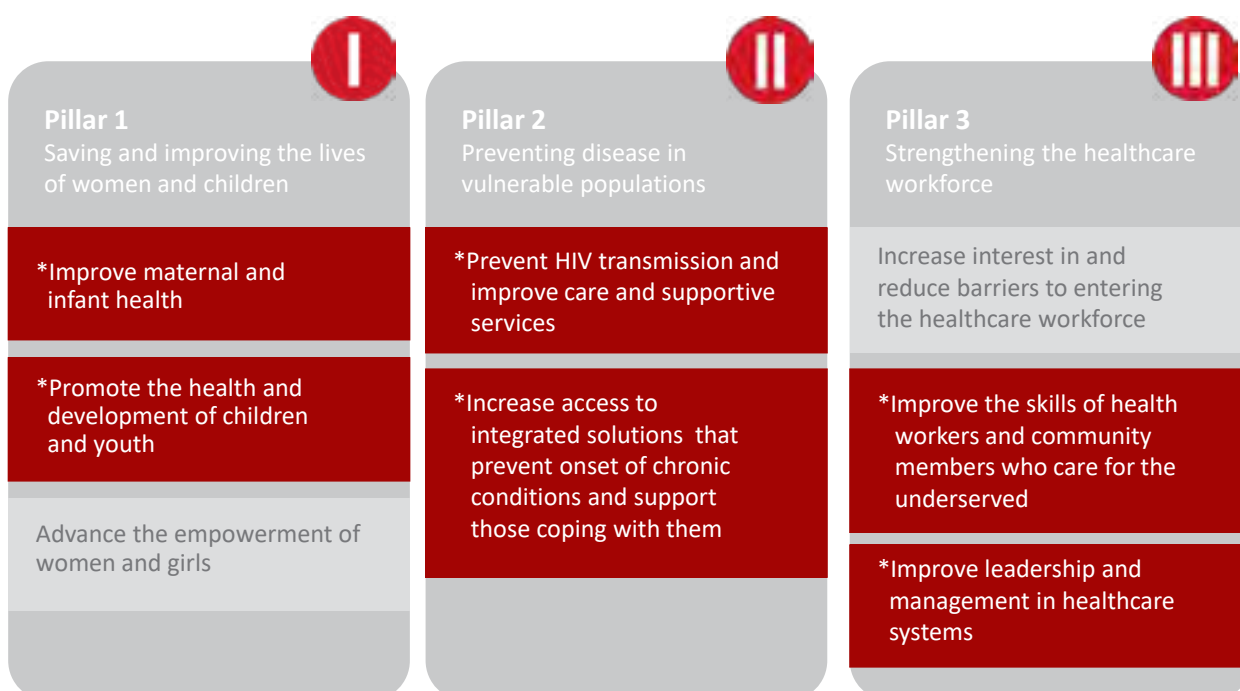


Figure 2: Johnson & Johnson Worldwide Corporate Contributions Strategy

AKDN Goals and Mission

The AKDN brings together development agencies and institutions in the poorest parts of Asia and Africa to design and implement strategies to help those in need achieve self-reliance and improve the quality of their lives.

As part of the AKDN, Aga Khan University is guided by the principles of quality, access, relevance and impact. AKU aims to build nursing capacity in East Africa, enable and empower people in the developing world to solve problems affecting their societies, build bridges across communities, embrace diversity and pluralism, and improve the quality of their lives (Figure 3).

AKU is committed to the development of human capacities through the discovery, dissemination and application of knowledge.

It seeks to prepare individuals for leadership roles, and to shape public and private policies, through strength in research and excellence in education, all with the goal of making meaningful contributions to society.

To advance its goals and mission, AKU:

- Offers programmes of international quality
- Responds to identified needs in the countries and regions it serves
- Prioritizes teaching and research which will inform and underpin intellectual innovation and change
- Provides service to advance its educational and research mandate
- Fosters and develops leadership capacity through its education and research programmes
- Assesses its impact and effectiveness
- Promotes access and equity by taking positive measures to make the University inclusive of all socio-economic groups, addressing the particular needs and circumstances of the disadvantaged, and promoting the welfare and advancement of women
- Engages in knowledge networking and with emerging technologies
- Adds value by promoting partnership and networking across the AKDN, and with other national and international institutions

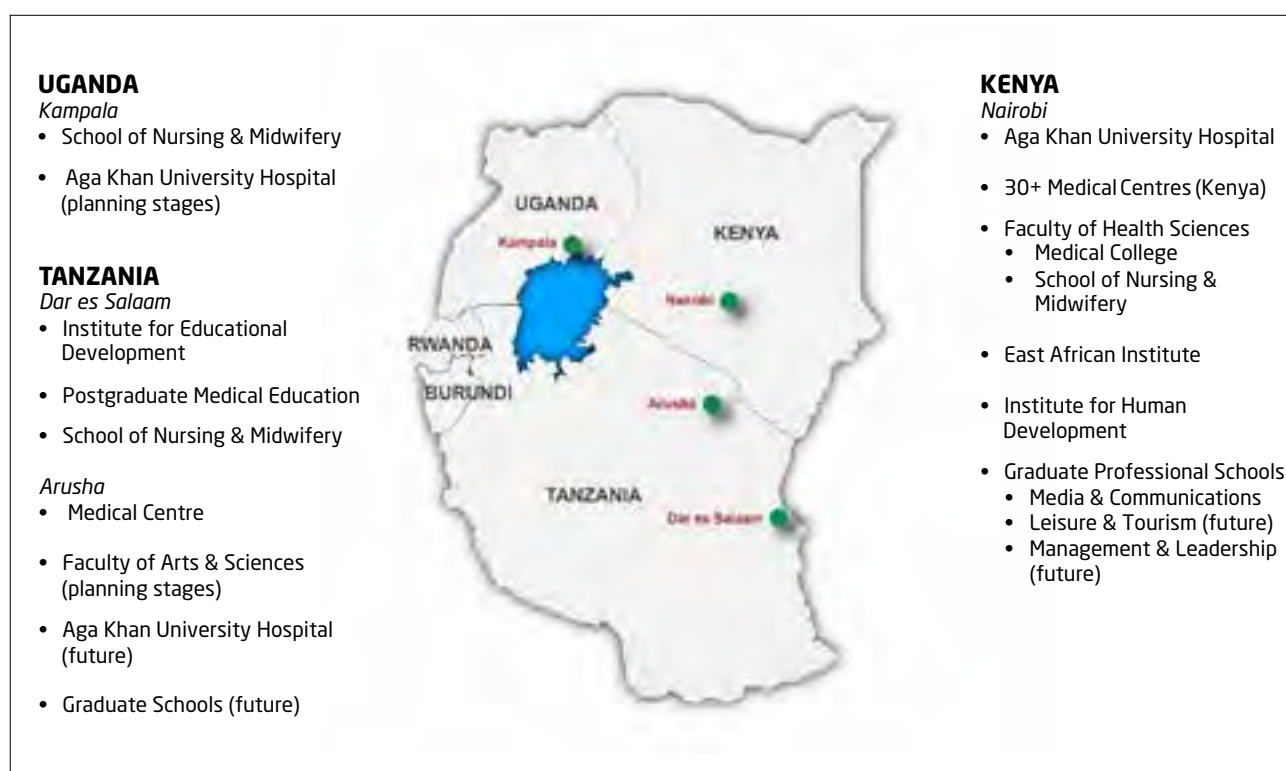


Figure 3: AKU Programmes in East Africa

SONAM-EA Goals and Mission

SONAM-EA is responsible for managing AKU's nursing and midwifery programmes across East Africa. It is integrated within a global, autonomous, not-for-profit university focused on increasing human resource and leadership capacity in the developing world.



SONAM-EA aims at making a major contribution to enhancing the quality of nursing education in East Africa by ensuring that current and future programmes:

- Facilitate curriculum reforms to transform nursing education to meet the health care challenges of the 21st century;
- Promote student-centred pedagogies through practice and faculty professional development opportunities;
- Follow clinical best practices; and
- Employ a variety of learning resources, including modern technologies such as e-learning.

Within East Africa, SONAM-EA is active in Kenya, Tanzania and Uganda (Figure 4).

Our mission is to provide nurses and midwives with internationally benchmarked quality education that is relevant, innovative, accessible, affordable and needs-based.

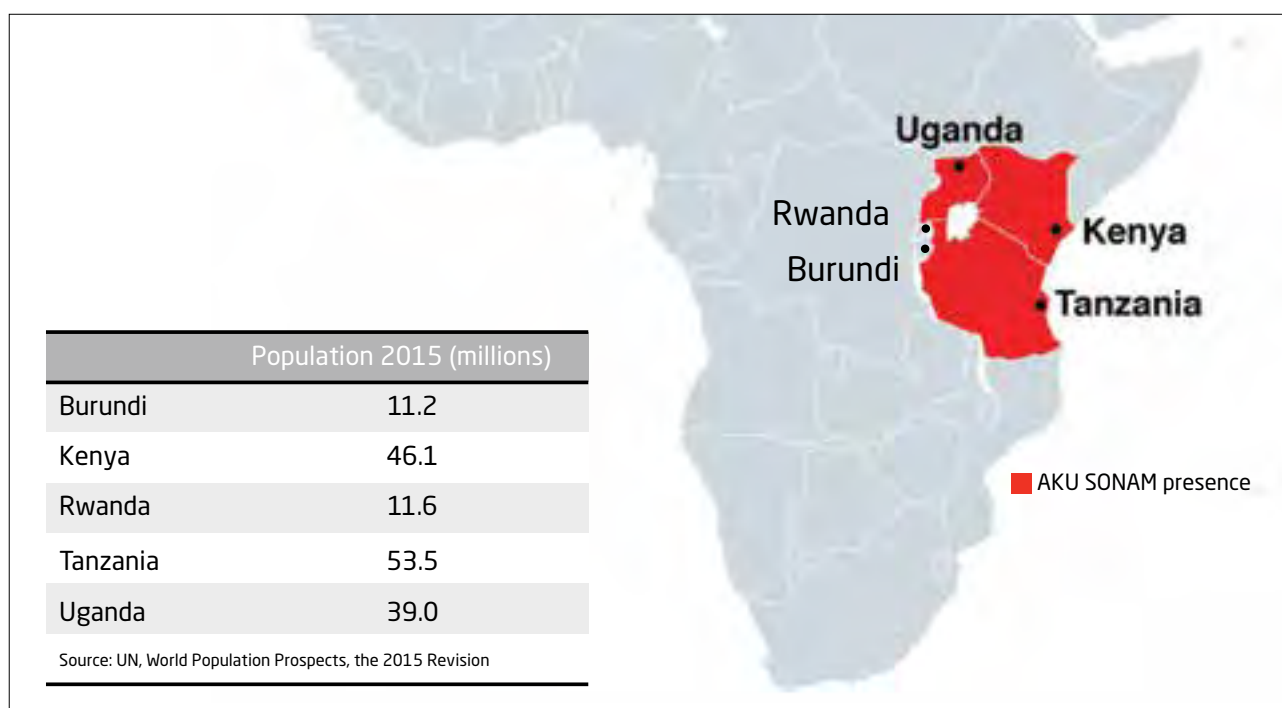


Figure 4: SONAM-EA Presence in East Africa

The Nursing Workforce in East Africa

Nurses and midwives form the backbone of the healthcare system in East Africa. They account for approximately 85 percent of the total healthcare force in the region.¹

As per the Nurses Act of Uganda,² a nurse is a person who is trained and qualified in the promotion of health, the prevention of disease and the care of the sick and who is registered or enrolled; and a midwife is trained and qualified in the care of women in relation to childbirth and in the care of infants and who is registered or enrolled. Tanzania Nursing and Midwifery Council includes care of newborns in midwifery.

As professionals devoted to people-centred care, and as key figures for promoting equitable access to primary healthcare in both rural and urban centres, nurses are essential for the advancement of developing health systems. Based on an estimate from a rural project in Kaloleni, a single nurse can come into contact with approximately 4,000 patients in a year. This abundant potential for community contact, leading to impacts in primary and acute

care, as well as in the dissemination of community health education, makes nurses figures of vital influence in East Africa. As the primary health contact for many people, nurses are key influencers. The role of a typical East African nurse, due to limitations in resources (both material and human), often expands past its formal designation, especially in rural locations, where referral hospitals may be few and far between, and nurses may be required to act beyond the scope of their practice, engaging in prescribing, referrals, minor surgery and difficult and obstetric emergencies.³

Responsibilities may be even further intensified by the need to fill management roles at the dispensary/clinic level, where nurses are often the most qualified individuals.

In East Africa, women dominate both the nursing and the midwifery profession, with men constituting 10-20 percent of nurses/midwives in most countries.^{4,5}

While the number of nurses continues to grow, so

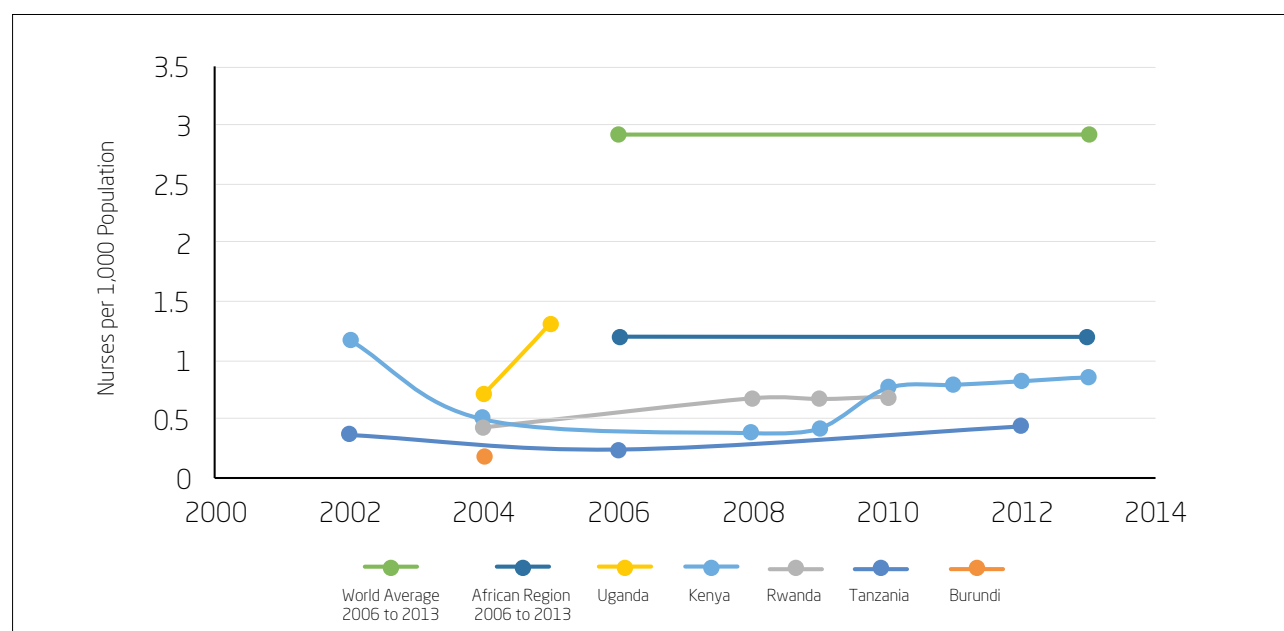


Figure 5: Nurse Density in East Africa

Source: WHO Global Health Observatory

¹ Africa Health Workforce Observatory available on <http://www.hrh-observatory.afro.who.int/en/country-monitoring.html>

² There is no clear definition in the Tanzania and Kenya Acts.

³ Patricia Thornton, (2012) Our Side of the story; Ugandan Health Workers Speak Up, ISBN 1903697123

⁴ The nursing workforce in Sub-Saharan Africa – Issue 7. International Nursing Council - 2005

⁵ Human Resources for Health Country Profile – Uganda. Africa Health Workforce Observatory. October 2009

⁶ WHO Global Health Observatory

does the population. There is a clear shortage of nurses based on international averages. East Africa has approximately 0.94 nurses and midwives per 1,000 inhabitants.⁶ This can be compared with the African region average of 1.2 per 1,000 and the global average of 2.92 nurses per 1,000 (Figure 5).⁷

There are a number of factors which contribute to this shortage. Migration of nurses and midwives to developed countries, limited supply worsened by inefficient public sector health systems in recruitment, and limited career and professional opportunities are some of the reasons.

Low salaries impede attracting candidates and the development of the profession. For example, in Kenya base salaries range from KES 16,700 (about USD 165) per month for an Enrolled Nurse to KES 45,880 (about USD 455) per month for a Senior Nursing Officer.

In East Africa there is an important disparity in the availability of nurses and midwives in rural versus urban areas. For example, in Uganda 64 percent of the nurses and midwives are concentrated in the central urban area, even though this region only accounts for 27 percent of the country population. A similar reality can be found in Kenya, where nurse density between counties can range from 1.4 per 10,000 to 13.1 per 10,000 – rural counties

experiencing the lowest of this range. This lack of human resources in remote areas of the country is further exacerbated by a lack of health institutions, poor access conditions and higher levels of workforce attrition.⁸

A study in Kenya reports that, at current rates of growth, large gaps in available nurses will remain for many years. Enrolments in graduate nurse programmes need to be increased to meet demand (Figure 6).

Training of nurses and midwives in East Africa is relatively new. Most formal training programmes started in the late 20th century and those offering university degrees in nursing are much more recent. The different countries have made efforts to define the career progression for nurses and midwives. Currently, their career can start with a certificate of nursing/midwifery, then progress to a diploma, followed by a degree and, ultimately, a master's degree. We can see in Figure 7 an example of career progression in Uganda. Kenya and Tanzania follow similar educational schemes and provide both diploma and degree level programmes for midwifery, but neither formally acknowledges the midwife designation, which is instead included under the nursing umbrella. Though the overall number of health workers in training has seen little growth in the past eight years, the number of

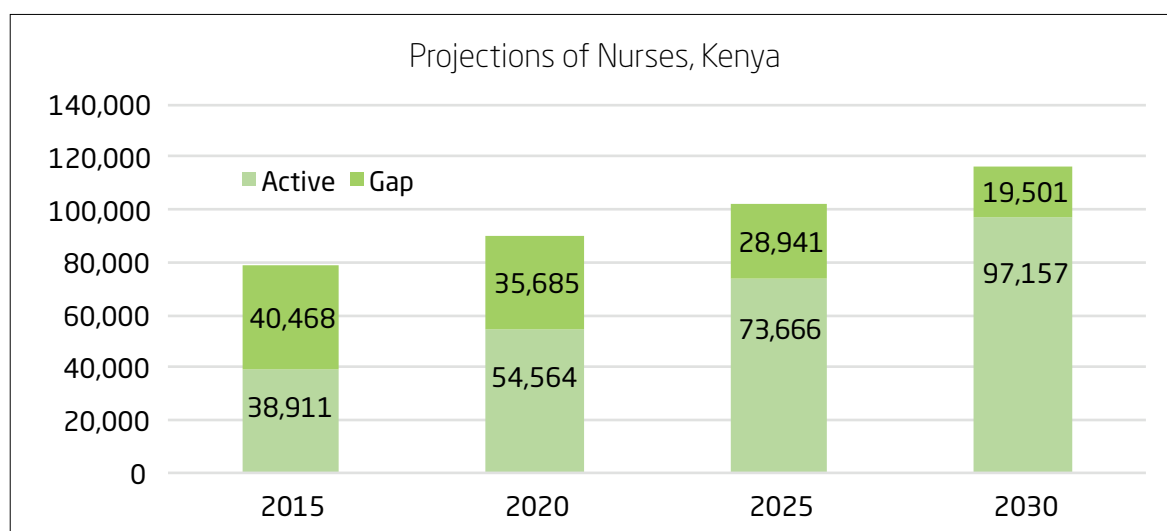


Figure 6: Gap between Supply and Demand for Nurses, Kenya

⁷ WHO (2014) World Health Statistics 2014, http://www.who.int/gho/publications/world_health_statistics/EN_WHS2014_Part3.pdf?ua=1

⁸ Wakaba, M., Mbindo, P., Ochieng, J., Kiriinga, R., Todd, J., Waudo, A., Noor, A., Rakuom, C., Rogers, M., and English M. (2014). The public sector nursing workforce in Kenya: A county level analysis. Human Resources for Health 12:6

⁹ Health Sector Human Resource Strategy 2014-2018, Ministry of Health, 2014

nursing students is an exception. Between 2008 and 2012 Kenya saw an increase in BScN students of nearly 130 percent.⁹

The spread of nursing programmes across East Africa has yet to translate to a representative nursing presence in policy and leadership roles. Even though the importance of nurses' contributions to all levels of the health system has been widely acknowledged, nurses have yet to find an equitable voice in decision-making.¹⁰ The 49th World Health Assembly (WHA 49) recognized the potential of nursing to make a major contribution to the quality and effectiveness of health services. It is, in part, the hope of new nursing programmes to promote and emphasize the involvement of nurses within policy development and management.

The need for investment in the nursing and midwifery workforce has been a common feature at the World Health Assembly (WHA 49, WHA 56/19 and WHA 64.7). Such an investment, in part, requires the implementation of sustainable evaluative and monitoring systems that present insights regarding the impact and needs of nurses across East Africa.

Currently, regulation of the nursing and midwifery professions in East Africa is done by the Nursing and Midwifery Councils, which are statutory bodies governed by Acts of Parliament. They are placed under the control of Ministries of Health, which limits their independence. To date, many nursing and midwifery policies and guidelines/position papers/frameworks are quite recent or still in draft form.

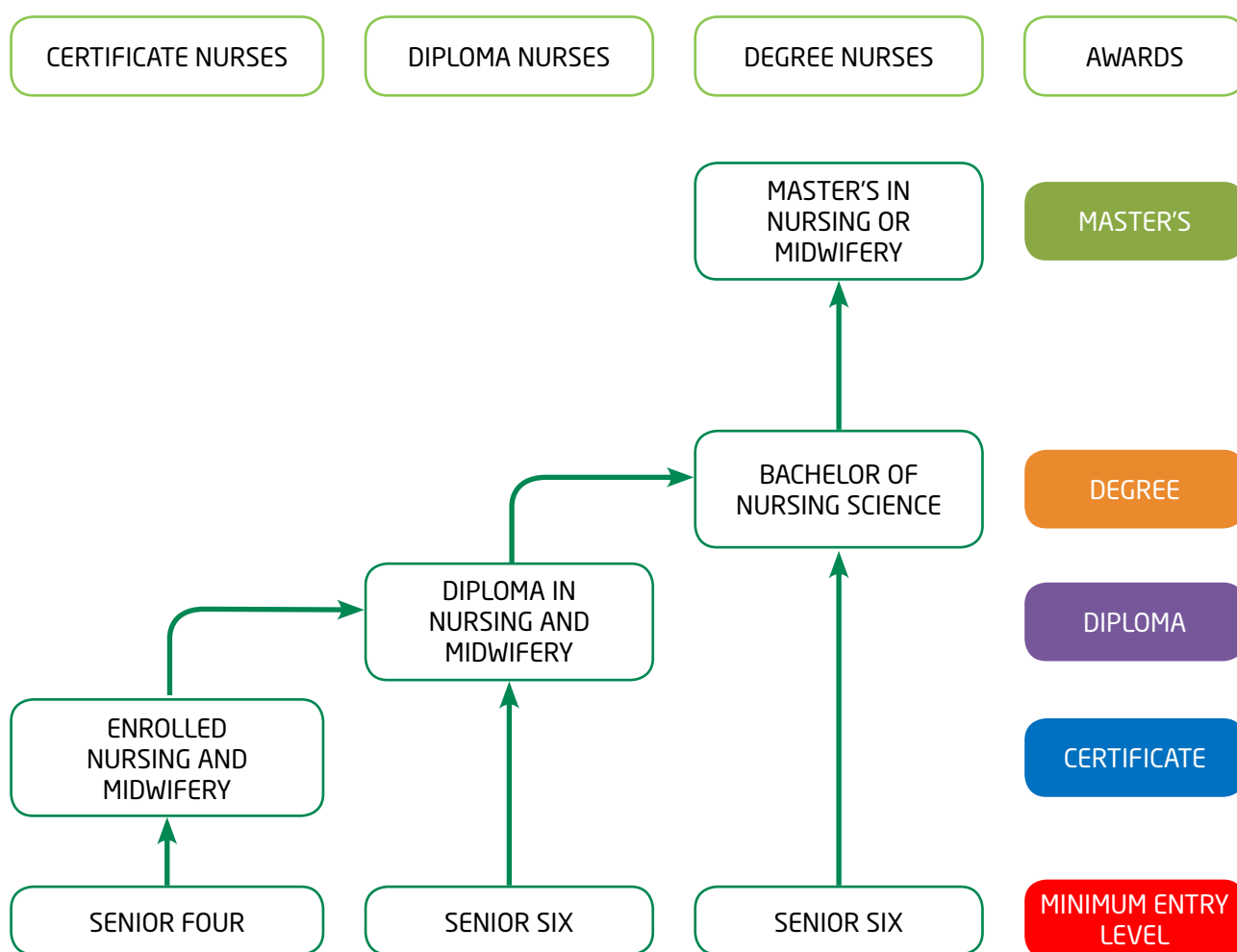


Figure 7: Career Progression for Nurses and Midwives in Uganda

¹⁰ Shariff, N., and Potgieter, E. (2012). Extent of East-African Nurse Leaders' Participation in Health Policy Development. Nursing and Research Practice.



Programmes

At the invitation of nursing leaders of the governments of East Africa, SONAM-EA was established to enhance the skills of working nurses throughout the East African region.

In 2000, AKU's first SONAM programme in East Africa began in Uganda, followed by Kenya and Tanzania in 2002. Currently, there are about 375 nurses enrolled in SONAM-EA programmes throughout East Africa, and we have graduated 2,138 students.

SONAM-EA aims to enhance the overall health status of the people of East Africa by preparing a critical mass of qualified nursing professionals. Its programmes are unique in their needs-based design for working nurses. We specifically aim to prepare nursing professionals to meet the healthcare needs of the East African region.

The SONAM-EA programmes in East Africa are aimed at providing well-trained nurse graduates who can improve clinical outcomes in all health settings, by local practice improvements and through leadership in the development of the profession. If we achieve this aim, we will improve healthcare outcomes.

SONAM-EA offers four programmes across three East African countries. These programmes include: Post-RN Bachelor of Science in Nursing (BScN), Post-RM Bachelor of Science in Midwifery (BScM), Diploma in Oncology Nursing, the first of its kind in the region, and a Diploma in General Nursing.

Programmes include clinical education, critical thinking and leadership skills.

The programmes are all focused on upgrading the skills of working nurses. Through consultation with employers, nurses and other stakeholders, we developed the work-study approach wherein working nurses attend full-time studies scheduled over two days. They are available to their workplace for three to five days per week, depending upon the degree of employer support.

Post-RN Bachelor of Science in Nursing

The programme is designed to give experienced registered nurses an opportunity to acquire in-depth knowledge, skills and attitudes necessary to provide holistic nursing care. The programme enables the graduates to use the existing theories and research findings in the provision of health promotion, illness prevention and management of patients/clients in a variety of settings. It further enables the graduates to develop and integrate critical thinking and problem-solving skills into the practice of nursing. The graduates are able to provide leadership at the institutional and national level, and influence policy in public and private sectors.

Post-RN Bachelor of Science in Midwifery

The midwifery education honours the normalcy of women's lifecycle events and appropriate use

of interventions and technology for current or potential health problems. Midwifery includes consultation, collaboration and referral with other members of the healthcare team to provide optimal healthcare for women and their families. This programme will prepare midwives to provide safe, competent, culturally responsive and high-quality care at all levels of the healthcare system, with a focus on reproductive, maternal, newborn and child health for families and communities by integrating knowledge, skills and attitudes from humanistic, behavioural and natural sciences.

Diploma in Oncology Nursing

AKU is the first university to offer a specialty Diploma in Oncology Nursing in the region. This 18-month work-study programme, fully approved by the Nursing Council of Kenya, is a work-study programme. Classes and clinical experiences are scheduled for two days per week so that students can continue working while taking classes. The programme is offered at the Nairobi Campus and is open to any nurse who meets the minimum requirements. Nurses enrolled in the programme must be able to travel to the Nairobi campus for

two days per week to attend classes and clinical placements. Opportunities for graduates may include: working as generalist nurses in a general ward or as specialist nurses in an oncology ward, outpatient oncology clinic, chemotherapy suite, radiotherapy unit, paediatric ward or palliative care unit.

Diploma in General Nursing (EN-RN)

This programme is designed to give experienced enrolled nurses an opportunity to develop in-depth knowledge, skills and attitudes necessary to provide holistic nursing care. The programme will enable the nurses to use the existing theories and research findings in the provision of health promotion, illness prevention and management of patients/clients in a variety of settings.

The following Table 1 shows the first year of graduating classes of programmes, the last year of study for discontinued programmes and the total number of graduates to date. The first graduates were in 2002 in Uganda. These were from the Enrolled Nurse to Registered Nurse (EN-RN) programme.

Campus	Programme	Year of First Graduating Class	Last Year of Study for Discontinued Programmes	Total Graduates to Date
Uganda	EN-RN	2002	..	317
	Post-RN BScN	2004	..	276
	Post-RM BScM	2017	..	0
Tanzania	EN-RN	2005	2009	295
	Post-RN BScN	2005	..	311
Kenya (Nairobi)	EN-RN	2004	2009	405
	Post-RN BScN	2005	..	410
	Specialist Diploma in Acdt/Emrg & Disaster Mgmt	2004	2009	36
	Specialist Diploma in Critical Care Nursing	2007	2007	10
Kenya (Kaloleni)	EN-RN	2013	2014	78
All Campuses	EN-RN	..	..	1095
	Post-RN BScN	..	..	997
	Post-RM BScM	..	..	0

Table 1: SONAM-EA Programmes and Graduates

Source: AKU Registrar's Office

Students Supported

The Johnson & Johnson Financial Assistance Programme “is aimed to assist genuinely needy students who are unable to meet their educational expenditure.”¹¹ Students who were already benefiting from another scholarship, and students who were being supported for more than 25 percent by their employer were not eligible to apply.

As AKU contributions and endowments cover 70 percent of the costs of SONAM-EA, the Johnson & Johnson Corporate Citizenship Trust assistance is used to assist the neediest students, representing about 18 percent of total SONAM-EA programme costs.

The selection of students to benefit from the scholarships is managed by the Financial Assistance Committee, composed of representatives of the Aga Khan University, Aga Khan Foundation, alumni, NGOs and the Nursing Council/Ministry of Health. The Committee reviews income, justification for assistance, student’s fee payment history and student performance to determine who will benefit and the amount of benefit. Nearly 90 percent of the 2,138 students who graduated from the programmes were supported to some degree by the Trust through scholarships. They received support of between 30 percent and 80 percent of fees.

	Country			
	Kenya	Uganda	Tanzania	Total
Number of Students	803	540	553	1,896
Percent of Students	85%	91%	91%	89%

Table 2: Number of Students Supported by Country, 2003 to 2015

Application of Funds

Through the Johnson & Johnson Corporate Citizenship Trust/AKDN partnership, SONAM-EA has received USD 2.6 million from 2003 to 2015. Analysis of the application of these funds from 2012 to 2015 indicates that over 60 percent has been applied to direct student scholarships and another 13 percent to other student costs, such as convocation. Other benefits to be obtained from the application of the funds include alumni events (9.4 percent), faculty development (13.9 percent) and capacity building studies (3.2 percent).

Future of the Partnership

Why a Partnership is Necessary

Strategic partnerships which include scholarships for nursing and midwifery are essential to address issues of inequality and access to higher education.

Nurses provide essential health services with significant requirements and benefits for ongoing capacity building. They are often poorly paid. Their employer organisations are usually lacking adequate

resources to fund their qualification upgrades, hence the need to support these professionals through these corporate partnerships.

What Makes a Successful Partnership

The success of this partnership has been based on shared values, mission and common purpose, trust and mutual respect, continuous communication, accountability and delivery, and measurable benefits.

¹¹ AKU, “Advanced Nursing Studies Programme, Johnson & Johnson Financial Assistance Guide”

Healthy Futures Project

In November 2014, Johnson & Johnson Corporate Citizenship Trust initiated the Healthy Futures project, which aims at enhancing outcome monitoring and impact evaluation (M&E) and transparency of the Trust's grantees. The project was scoped with AKU SONAM-EA and a final draft proposal submitted 24 April 2015. The Trust supported the Healthy Futures project to assist AKU SONAM-EA in improving its alumni survey;

create cost-effective and standardized survey tools that track the nursing and midwifery alumni; and measure their competence, skills and performance through employer and client/patient satisfaction surveys. The project is expected to effectively link the data and information collected through the surveys with the University's quality assurance and monitoring and evaluation systems.

Objectives

The objectives of the Healthy Futures project were to assist in developing standard monitoring surveys that allow the University to:

- Determine the relevance of SONAM-EA's education programmes in relation to knowledge, skills and attitudes needed to carry out the nursing-midwifery job;
- Measure employer and client/patient satisfaction in relation to competence and level of performance of nurses/midwives trained by SONAM-EA; and
- Link the survey data and information with the University's quality assurance and M&E systems.

The project was proposed to support SONAM-EA through technical assistance and a pilot to:

1. Advance the specific M&E survey instruments of the current SONAM-EA education programme, including the alumni tracking and the employer and client/patient satisfaction tools; and
2. Create a wider framework for the University's M&E system under which the survey tools can be adopted/replicated for M&E of other AKU higher education and training programmes.

The proposed duration of the project was one year.

Anticipated Outcomes

The following specific project results were expected to be achieved within a period of one year.

1. Report on results of desk study: international best practice models of outcome monitoring and impact evaluation of higher education programmes
2. Description of the identified cost-effective and suitable methodologies
3. Three standard tools for the alumni survey:
 - a) alumni tracking survey tool; b) alumni-employer survey tool; and c) alumni-client/patient survey tool; including estimated costs for implementation of the tools on a regular basis
4. AKU alumni M&E system framework
5. Final report including analysis and recommendations
6. Instruction manual for SONAM-EA survey tool(s)



2



CHAPTER 2

OUR SUCCESS STORY

This chapter focuses on the SONAM-EA success story. It presents:

- Demographic and programme findings of the quantitative analysis and survey
- Rich personal and anonymous alumni testimony from the qualitative survey
- Case studies and alumni stories

2.1 Products of AKU SONAM-EA

Alumni are often described by themselves, as well as employers and senior officers, as “*a product of the Aga Khan University*.” AKU SONAM-EA is a strong brand.

Since 2002, graduates have been produced in all years except 2003 and 2008. Students who completed their programme in 2008 graduated with the class of 2009. Demand for programmes has been influenced by policy. In 2005, the Nursing Council of Kenya announced they would no longer support enrolled nurses (ENs), and required that ENs upgrade to

registered nurse via the diploma programmes. This led to the rapid increase in demand for diploma programmes. This led to a “rush” on the SONAM-EA work-study programme because it allowed nurses already in leadership positions to retain the position with the better qualification.

The numbers of graduates of diploma level programmes from SONAM-EA have declined as the BScN programmes have been established. Numbers of BScN graduates have been maintained at consistent levels over the last four to six years.



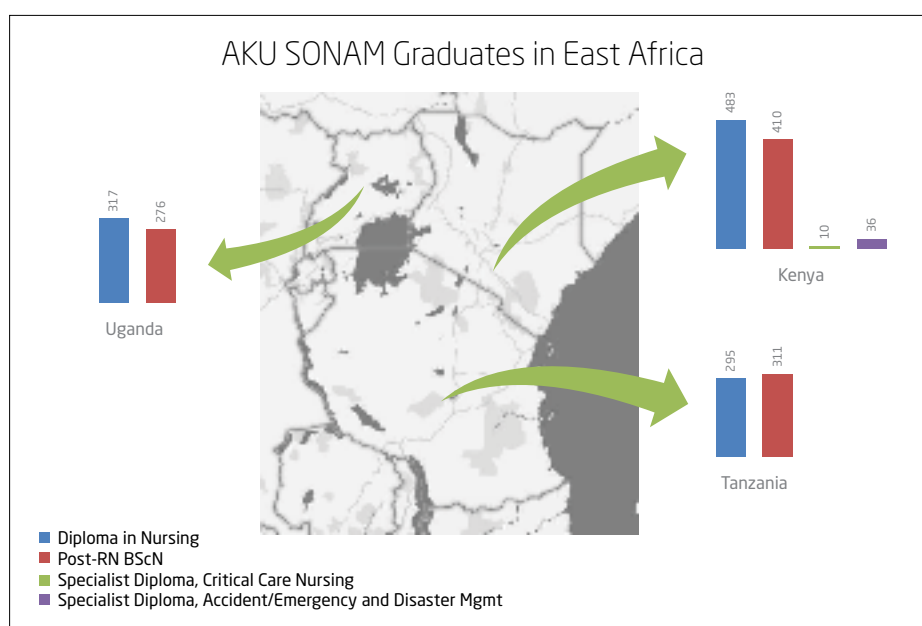


Figure 8: Total Number of SONAM-EA Graduates by Country, 2002 to 2016

Source: AKU Alumni Office, 2016

The diploma level programme in Tanzania was put on hiatus pending some clarifications with the Tanzania Nursing Council regarding entry criteria and if resolved will commence again. The Nairobi-based programme was discontinued from 2010 with reference to the WHO guidelines for entry to the profession by degree. However, the level of demand continues for the EN to Diploma Programme to continue as a pathway to degree.

Therefore, exploration for re-establishment in Nairobi is currently occurring. In Kenya, a rural programme of the diploma programme was undertaken in Kaloleni from 2012-2014. This was highly successful, but to the dismay of this rural and remote county, it has been discontinued, as it is currently unsponsored. The community has offered facilities if it were to continue.

Country	Year of Graduation															
Programme	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Kenya			46	62	117	164		179	70	76	29	60	38	66	32	939
Diploma in Nursing, Kenya			41	42	97	97		76	24	38	0	30	11	27	0	483
Post-RN BScN, Kenya			0	20	20	44		85	46	38	29	30	27	39	32	410
Specialist Diploma in Acdt/Emrg & Disaster Mgmt, Kenya			5	0	0	13		18	0	0	0	0	0	0	0	36
Specialist Diploma in Critical Care Nursing, Kenya			0	0	0	10		0	0	0	0	0	0	0	0	10
Tanzania				66	57	65		151	82	104	8	20	13	18	22	606
Diploma in Nursing, Tanzania				48	37	30		75	40	57	8	0	0	0	0	295
Post-RN BScN, Tanzania				18	20	35		76	42	47	0	20	13	18	22	311
Uganda	3		27	36	40	52		113	47	49	16	54	53	49	54	593
Diploma in Nursing, Uganda	3		20	23	23	33		58	22	20	0	28	29	27	31	317
Post-RN BScN, Uganda	0		7	13	17	19		55	25	29	16	26	24	22	23	276
All Programmes	3		73	164	214	281		443	199	229	53	134	104	133	108	2,138

Table 3: Graduates by Country, Programme and Year of Graduation

Source: AKU Alumni Office

Our Stories

To illustrate the achievements of our alumni, we captured a number of case studies to demonstrate the many ways in which they are making a significant impact.



George, the Nursing Services Manager at Pumwani Maternity Hospital, attended Kenya Medical Training College Kisumu for a Diploma in Health Nursing. When he graduated in 1997, he was posted by the Ministry of Health to the National Spinal Injury Hospital in Nairobi. Then he studied for a Diploma in Advanced Nursing at Kenyatta University and took classes in leadership, management, governance, hospital operations and other subjects in institutions in Kenya and South Korea. From 2012 to 2014, he studied for a Master of Science degree in Health Economics and Policy at the University of Nairobi while he worked at the Nairobi Remand Prison's health centre, where he partnered with Maltesa International in renovating and constructing new buildings – one for the general public and one for the prisoners.

He enrolled at AKU for a Bachelor of Science in Nursing (BScN) in 2007. In 2008 George was posted to Pumwani Maternity in the position of lecturer (nursing and midwifery). After seven years, in 2015, he was appointed to his current position.

“When I took up this position, it was after the 2015 strike that had 60 nurses sacked. The ‘paralyzed environment’ and press stories dented the hospital’s

image. My appointment was viewed as part of the management solution to the difficulties,” George explains.

George says he was well prepared by AKU for the task. “The first thing I did was study the environment and carry out a skills audit of the hospital, after which I reshuffled departmental managers, rotated nurses and changed the admission process in wards. I also focused on transforming the working environment by increasing inter-departmental communication and faculty feedback. The impact of the changes is reflected in the work output. Before I took over, deliveries per month were at 900. Now they are at 1,800, and newborn extended stays fell from 90 to 40. This is because now when mothers arrive, they are taken in immediately and assisted. This move has also reduced the neonatal mortality in the hospital. Maternal mortality has gone down from two per month to two in the past seven months.”

According to George, it was not easy because initially, nurses were suspicious about his motives – rotating nurses, coming in early and looking at all reports. But now the working environment has been transformed and the improvements recognized by the county government. “The AKU unit called ‘clinical practice’

prepared me to bring the public sector to a higher level,” George says.

Pumwani Maternity offers myriad services, including training and development (nurses), midwifery and obstetrics, maternal/child health and family planning. The Comprehensive Care Centres (for HIV and AIDS) handle counseling, testing, treatment and prevention of mother-to-baby transmission. An adolescent clinic offers reproductive health services and counseling on HIV and AIDS, and is staffed by young health workers. Pumwani Maternity’s main population is pregnant mothers from Kajiado, Kiambu, Naivasha and Nairobi, especially the mostly low income Eastlands area. There are 265 beds, 150 cots and two theatres. Nurses handle around 200 outpatients daily.

“My day starts at 6:00 a.m., when I start my rounds in the labour ward – the epicentre of the hospital,” George says. “I get reports, patients’ status and challenges. After discussions with nurses, I go to my office and address pending work. At 7:30 a.m. I look at night reports and catch up with my studies. I head to the labour ward at 8:00 a.m. and listen to handover reports and make decisions if there are problems. I work until 5:00 pm. I do some more private studies before I go home.”

During his final year at AKU, George took an elective unit in problem solving that had him seconded to Mbagathi Hospital. “It made me grow,” he says. “The 170 nurses and all the patients have different personalities and backgrounds and I have to work with them all.”

Married and with three children, George owes much to AKU, the only university in the region that offered a nursing degree in his time. Like other students with families to support, he could not afford to pay his fees with his meager earnings. AKU’s payment plan allowed him to pay in installments, giving him time to concentrate on academics.

At AKU, one of the things that stood out for George was the conducive learning environment. AKU lecturers, he says, were always available for face-to-face consultations – including heads of departments – unlike in other learning institutions. Meeting nurses in a variety of jobs changed his mindset and motivated him because he realized he could advance his career.

His main challenge at the moment is human resources. The hospital’s 170 nurses are not enough for the busy facility. Three hundred would be a more realistic figure, he says.



“I constantly reflect back to my education at AKU to guide the decisions that I make as both a leader and educator.”

Currently, when a nurse misses work, there is a crisis because someone has to do their work. Pumwani depends on funds from the county government, and George says the hospital needs more funds.

Apart from his administration job at Pumwani, George is a researcher, author, consultant and part-time lecturer in health economics, health financing and maternal health at the Jaramogi Oginga Odinga University of Science and Technology in Kisumu.

His personal goal is to complete his PhD on the *Economic Evaluation of Health Care Programmes in*

the Region. His goal for Pumwani Maternity is to take it to another level – to make it the maternity hospital of choice for all mothers, not just mothers from low-income areas.

When George picked the nursing option after high school, fellow villagers could not understand how a man can study nursing, a predominantly female profession. His success has inspired young men in his community to take up nursing as a career and he has encouraged many Pumwani Maternity nurses to enroll at AKU. So far, four have done so. New nurses at Pumwani Maternity call him “role model.”



'MAAMA MARIA'

WORKPLACE: *Domiciliary Clinic, Uganda*



CASE STUDY

Mary Musoke has been a health professional most of her life. She is popularly known as “Maama Maria,” a nickname coined by colleagues. Before opening Maama Maria’s Domiciliary Clinic, she served as a nurse and midwife in a public hospital in Mulago and in a one-room clinic she had opened in her community.

Although she enjoyed her work at Mulago, Mary realized at some point that, “women in the community needed me more,” because the average Ugandan woman found the charges, overcrowding and distance to public hospitals daunting. She was also aware that distrust and cultural expectations were other reasons why women shied away from public hospitals.

Mary recalls how expectant mothers used to go to her home for advice and to be examined. When a mother delivered in her living room on one of these visits, Mary decided to resign from Mulago Hospital to start a private clinic in the heart of her community.

In 2006, she enrolled in the BScN programme at AKU, a move she describes as transformative and empowering, as it gave her, among other things, the confidence to move her clinic from a single room to the large facility that she works in and heads today. Her work at the clinic played a major role in her being appointed president of the Private Midwives Association of Uganda (PWAU), which has representatives from most of the 111 districts in the country.

The bright blue and yellow of Maama Maria’s Domiciliary Clinic – a stark contrast to the dull, earthen hues of the other neighboring buildings – are the colours of the only private clinic in Kagoma that specializes in maternal care. The clinic has four beds for post-delivery admission and one delivery bed. The health centre has three midwives, a lab technician, a clinical officer and a part-time radiologist, and also functions as an immunization, educational and adolescent health space. The clinic also offers syphilis, malaria and cancer screening services, as well as post-abortion care for a population that is often marginalized by other institutions.

The main purpose of the clinic, according to Mary, is to educate those who seek their services, and to fill the gap between the services provided by traditional birthing assistants (in rural settings) and those offered by public hospitals.

At Maama Maria’s Domiciliary Clinic, she has introduced a documentation system, an infection control programme, and new birthing strategies that ease the delivery process.

Mary has faced many challenges on her journey: raising a family, joining AKU when she was older than the typical student, getting funds to finance her various goals and educational pursuits and leaving a secure job to pursue a passion. Lack of funds was the biggest challenge for Mary when she started out, especially after her loan applications were rejected. In her current role, finding qualified human resources remains a problem, and she needs



a permanent radiographer. Also, power outages are frequent and her generator is unreliable.

AKU showed me how the midwife's role can extend beyond its often narrow designation... You don't just have to be one thing. You can be a leader, manager, mentor, educator, spokeswoman, and advocate... Not just one thing!

Mary offers her staff continuous professional development opportunities, but states she would prefer to have more well-trained individuals. She reveals that while most of the challenges are getting resolved, the pace is slow. Fundraising contributed funds for continuous education and the growth of the clinic, which has prompted the hiring of new staff and the acquisition of more equipment. Her next goal is to expand the clinic further so she can serve more people in her community.

As president of the PWAU, Mary is the spokeswoman, guide to new areas of growth, overseer, chief planner, proposal writer and chief lobbyist for support from the government. PWAU

a 780-member organization, holds monthly meetings that focus on the continuous professional development of members. Agendas are set based on current issues such as effective infection control.

Her biggest challenge when she was appointed PWAU leader was lack of knowledge about the advocacy process. But now she feels comfortable advocating at high levels – in the Ministry of Health and in parliament.

Mary has focused on advocating for midwives and on empowering individual members of PWAU by encouraging them to take on more responsibilities. Mary has also directed her efforts at enhancing the quality of continuous professional development in the organization, which includes a leadership mentoring programme in which past presidents will work with new presidents to transfer valuable knowledge. She has also reworked the entire electoral process by introducing a feedback system that has so far increased transparency in the organization. Her most recent achievement has been successfully lobbying for a large chunk of land – the site of a planned mentorship and model training institution.

Mary explains that the thinking behind establishing a mentorship and model training institute is that

new midwives often do not receive the assistance they need to successfully perform their duties after graduation. The training school will therefore focus on mentoring students and giving them on-the-job training so they can understand what is expected of them after their studies.

At AKU, Mary gained writing, leadership, documentation and administration skills. “The expertise I received at AKU has helped me stand out as a leader in the community and in my clinic and as president of PWAU,” she says. Mary believes she was appointed to the presidential position at PWAU

based on the skills she acquired at AKU, and she adds that the superior education she received distinguishes her in her field. She says she has transferred with ease the competencies she acquired at AKU to her practice and management positions and that the skills also helped her implement many new techniques, strategies and programmes at her clinic.

So far, Mary has encouraged 13 nurses to enrol at AKU and has invited alumni to speak to midwives at PWAU. Such is her confidence in the training offered at her alma mater.

2.2 Access

The generous support of our partner Johnson & Johnson Corporate Citizenship Trust provides financial access to nursing education.

Awareness

Many nurses and midwives discover AKU by observing the skills of a colleague who has attended the University. Word-of-mouth is powerful. The strongest reason for choosing to study at AKU is

the positive reputation AKU SONAM-EA holds for producing superior quality graduates with strong career prospects.



Affordability

Most East African students cannot afford the full fees of SONAM-EA programmes and would not have been able to attend without the assistance of sponsors.

Students are very grateful for the support they have received:

“Thanks be to Johnson & Johnson. Otherwise, I think some of us would not have completed.”

Alumni, Uganda

There is always a social and financial cost to the student and their family. Across East Africa, nurses’ families (and friends) support nurses as best they can.

There is no gain without pain! I mean that for a short while, it was very painful. I was anxious.

Alumni, rural Uganda

My family was positive towards my education and they helped to support me in a number of ways through paying tuition. The few animals they had, they sold until they remained with nothing! Even the land that they had, they sold – but still they could not pay all the tuition. They supported me while I was away from home. My wife would run the family. I managed to go through the course successfully. Alumni, rural Uganda

This situation is so commonplace, we are told, that most nurses forget to mention it.

Geographical Access

To indicate student access to the programmes, we analyzed the location of students’ employment at the time of graduation for the 2011 to 2015 cohorts. The following maps (Figure 9) show where our graduates were at graduation. While there are substantial numbers near the campuses, there are some from dispersed areas.

Location of a student’s employment affects access, as the qualitative survey reveals that the majority

of graduates are loyal to and return to their place of work, especially if the workplace facilitated their study with sympathetic staff scheduling.

In Kenya, we had two locations where programmes were run, Nairobi and Kaloleni, a rural settlement about 50 kilometres from Mombasa. While many students were employed near the campuses, some undertook long journeys to access the programmes.



Rural Access

While access to a campus is difficult for regional, rural and remote students, some students are so committed to furthering their nursing education that they find a way to attend.

Nurses said:

I had a very hard experience. It was either go back, or come to attend lectures. It was a very hard experience, staying in the car, sleeping on the streets. Alumni, rural, Uganda

I became a member of Uganda Bus Company, because the best time for me to travel was at night. I would leave Lira at midnight so that by 5:30, 6:00 a.m., I am here. Then I come and rest in the lounge waiting for 8 a.m. to come for class. It was not easy to keep myself alert throughout lectures.

Alumni, rural, Uganda

Many alumni tell stories of classmates who struggled to surmount the distance, poor roads, lack of public transport, lack of accommodation, lack of electricity, and conflicting priorities with work and family to achieve their professional development goals. Many alumni advocate for subsidised student accommodation, and transport for students.

Rural employers stress that only the Diploma programme had been accessible, and some indicate that there is anger concerning the poor quality and lack of health care in rural communities.

We have nurses but they are not adequate. We have poor nurse/patient ratios. Some units or departments have very few nurses compared with the standard that is necessary. Therefore, that support is very, very necessary. Employer, rural county, Kenya

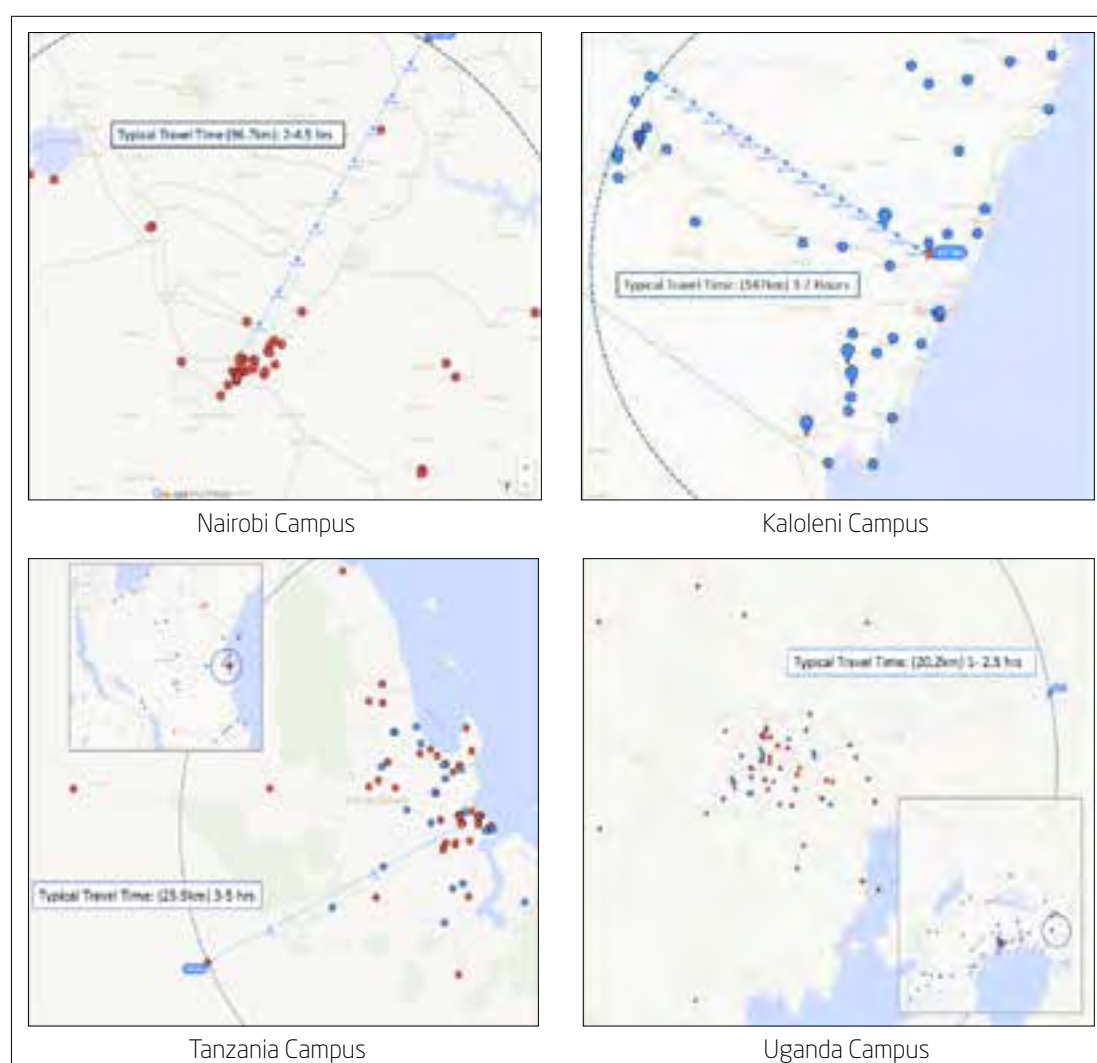


Figure 9: Location of Graduates at Time of Graduating by Campus

Access to University Services

From the AKU alumni survey question on access to University resources, services and student life satisfaction, we find that the majority of alumni rated their student life experience at AKU as very good/excellent (Figure 10). This was very evident in the focus groups and interviews as well. Alumni frequently recall enjoying the opportunity to study at a University of such high standing, despite the great difficulties of accessing the campus, and the insufficiency of skills labs.

The Financial Assistance Office was relevant for 90 percent of alumni and over 55 percent said it was very good or excellent. This is also supported by the qualitative survey, where alumni made clear their dependence upon financial support from AKU, Johnson & Johnson Corporate Citizenship Trust, family and friends, and government higher education loan facilities.

Given the structure of the SONAM-EA programmes, athletics facilities, housing assistance and student societies were not applicable for many nursing students in East Africa, while others said they did not use or participate in these services.

While there was limited interest in the availability of athletics venues and opportunities to socialize and work together as students, there was one call for inter-varsity sports days in the qualitative survey.

However, there was considerable interest among alumni in accessing housing assistance and/or student hostel accommodation, transport assistance or access to a University minibus, and access to mothers' rooms with cots for nursing mothers. One alumna recalled her dependence on the student lounge, which had a daybed where she could recover from the six-hour journey to campus by bus, before starting her two-day programme.

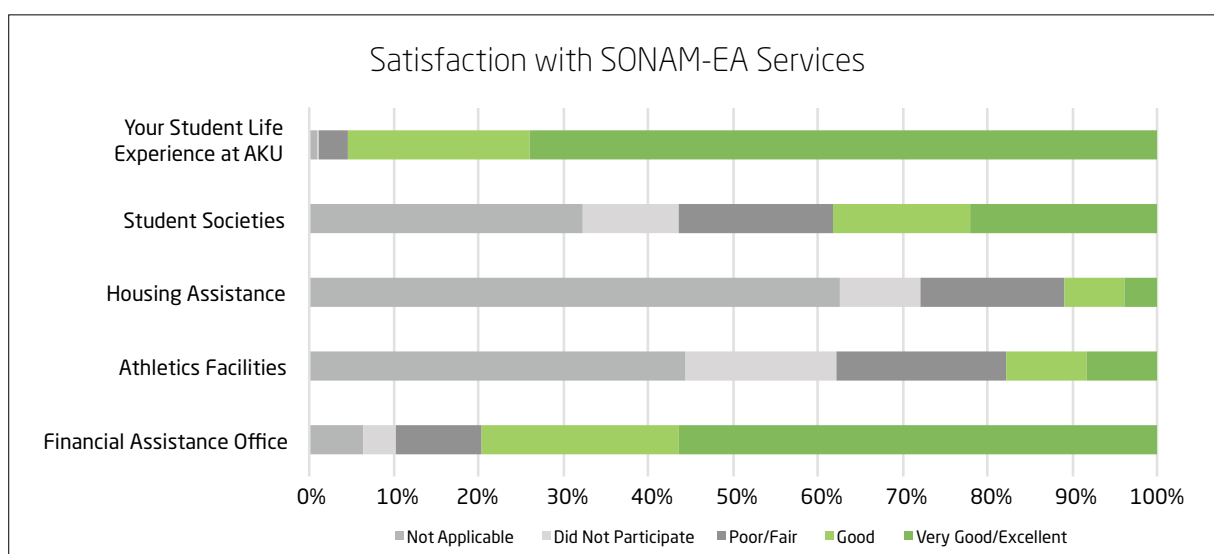


Figure 10: Satisfaction with SONAM-EA Services



Work-friendly Programme

The SONAM-EA work-study programme was a major attraction, friendly to experienced, mature nurses, and permitting nurses to continue working to support their families. Nurses attend lectures even when they are not approved to do so. By juggling their work schedules with colleagues, this programme allows nurses to attend campus on their days off in time which would otherwise be spent relaxing and with family.

Although most alumni regarded most facilities as good (free internet access, good library, good classrooms), they invariably commented on the limited space in the Skills Labs and IT Rooms. Skills labs were recently upgraded across all SONAM-EA campuses.

Alumni discussed alternatives to the current work-study programme to improve access to study from remote areas, and from unsupportive or under-staffed workplaces. There was some interest in e-learning alternatives, but a purely online programme would not allow for hands-on learning or clinical experience.

I chose Aga Khan because of the flexibility of time. It was only two days/week, and at that time I had a young family, so it was easy to balance between work, family, and education. Alumni, Kenya

The blended learning approach, currently a feature of the SONAM-AE training programmes, is considered useful. It uses Moodle software to create a “virtual classroom” so that students can access lecture notes and work together in groups online. However, it fails in situations where the student’s access to the internet is poor, which applies to much of rural East Africa.

Variations of “Blocks of Learning,” where the student attends campus for a week or a month at a time, were considered to be possibly friendlier to the workplace, and are being considered by the Nursing Council in Tanzania. However, the support for the work-study programme is strong from all stakeholder groups.

Workplace

Employers' and Senior Officers' responses vary greatly when nurses ask to study at SONAM-EA. Some are aware of the nature of the SONAM-EA programme, are encouraging and provide support in scheduling shifts, days off for study, extra days for exams (and sometimes assignments) and even transport.

Some employers have sponsored the entire cost of study, though this high level of support is unusual. Many employers are only able to help with scheduling shifts and cannot provide any days off nor other incentives. Some supervisors are reported as openly hostile, scheduling shifts to conflict with exams and university study days, threatening students with dismissal or bad reports if not available for work, and finding the students "distracted and unreliable" at work. Some supervisors are threatened by the students' aspirations and qualifications. There are "old guard" versus "new guard" issues in many students' workplaces.

Mostly, peer colleagues are supportive, and help students juggle their competing priorities.

When nurses are refused access to a SONAM-EA programme by their employer, many alumni have enrolled anyway, and attended AKU on their days off, changing shifts with colleagues. Eventually they are "discovered," and this increases any existing hostility or resistance to advancement from supervising nurses, who can make work life very difficult. Nurses may be allocated unpleasant and unrelated duties, "quick shifts" and shifts which clash



with school and exams. Nurses may be taken off the roll if they miss a shift.

Some SONAM-EA alumni work five days, study two days and, thus, have no time for their family or themselves. They may be distracted at work, and sleepy at school. If the employer is not supportive, the nurse feels less loyalty to the existing employer after graduation.

Workforce Aspects

In the context of a shortage of nurses across East Africa, especially of well-trained and capable nurses, workplaces put ceilings on the numbers of nurses permitted to study at one time. This is often a Ministry of Health strategy. The cap may be only one or two students studying at a time per workplace.

Some nurses miss out being able to attend SONAM-EA because they are considered too valuable at work. This applies to both BScN and Diploma applicants. For any rural or regional nurse to access SONAM-

EA campuses requires the support and sacrifice of a whole community. Where nurses get this support, they are overwhelmingly loyal to the workplace and the community.

The qualitative data collection revealed that some private employers believed that their nurses were not eligible for support. More communication of eligibility may clear up this misunderstanding.

2.3 Relevance

Our programmes are relevant for clinical and leadership enhancement.

Aga Khan is like a mother or a godmother to many nurses who were low in their education.

Diploma alumni, Tanzania

Employment

Most respondents (93.1 percent) to the alumni survey were employed at the time of survey, with 88.7 percent in full-time employment and 4.4 percent in part-time employment. Some 2.6 percent were in training or further studies, 2 percent were not currently employed, and another 2.4 percent said they were doing other things. Qualitative data did not give any indication of any unemployed, underemployed or unemployable AKU graduates.

A large percentage of respondents said their main job was “very related” to their AKU programme (Figure 11). The lowest was 82 percent for the diploma programme in Tanzania, and the highest was 95 percent for the BScN programme in Tanzania. Those who said the job was “somewhat related” to the programme were working in a range of health-related businesses including medical insurance, pharmacy, education, screening and specimen collection, development partner and research. There was no significant difference between males and females.

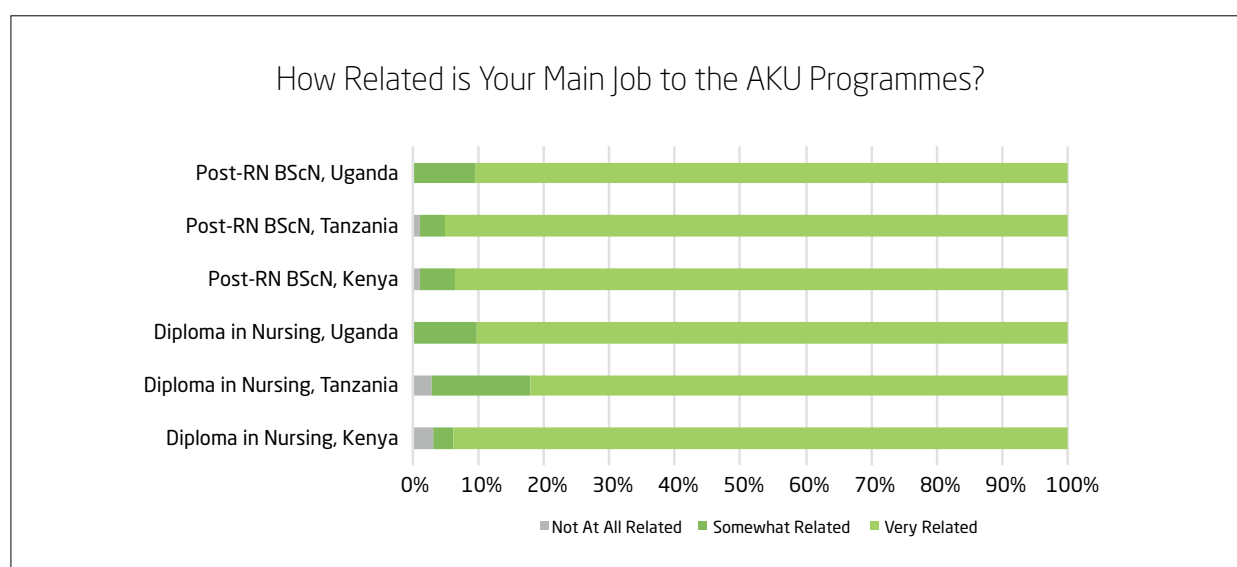


Figure 11: How Related is Your Main Job to the AKU Programmes You Completed?



Career Improvement

Within two years of graduating, 37 percent of respondents said they had achieved a promotion within the same job, 15 percent had a pay raise in the same job, and 10 percent had a promotion to another organization. Around a quarter of respondents did not have a change to their employment within that two-year period. There was a significant difference between men and women: only 16 percent of men did not have an improvement in conditions, compared with 28 percent for women.

Promotion Seeking

There is an attitude among some stakeholders that these experienced, mature and highly capable nurses

are “maybe” overly interested in promotion or may be “escapees from the bedside,” who will escape an unsatisfactory workplace to obtain a promotion elsewhere. While it is true that AKU alumni are readily identified for promotion, and do achieve this, we have no direct data to support that they are “always looking” or that they have the inordinate degree of self-interest sometimes attributed to them.

Employer Organizations

Whilst government is the main employer of our graduates, there is a range of relevant employment places, including private hospitals and health facilities, universities and schools (Figure 12).

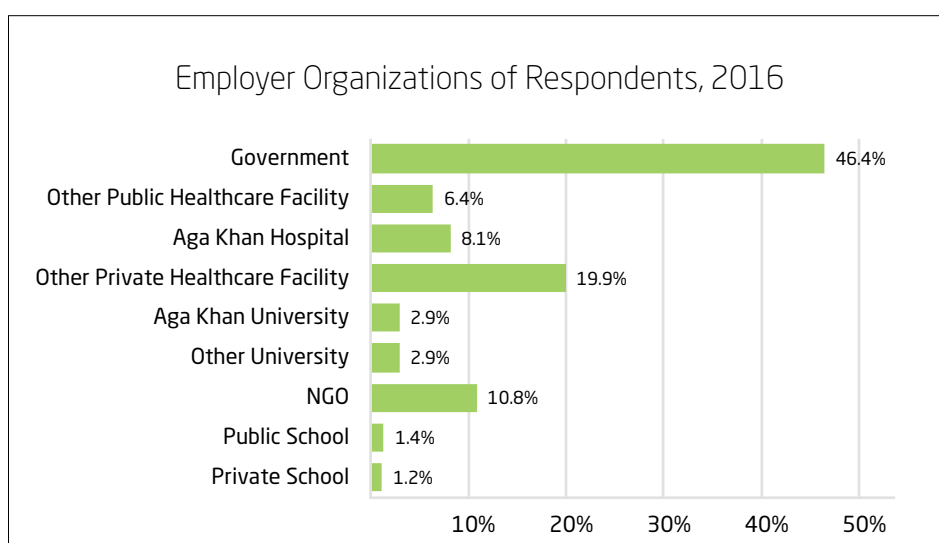


Figure 12: Employer Organizations of Respondents, 2016

Relevance to Career

Over 85 percent of alumni strongly agreed that the education and training they received was relevant to their career goals, and over 70 percent strongly agreed that the programme provided the right level of learning and challenge (Figure 13).

The qualitative survey strongly supports this finding. It found ample evidence of nurses being recognized, awarded, given additional responsibilities and promoted. It found many nurses with increased work satisfaction and renewed dedication to patient care. Many graduates had expanded horizons, which included further study, and exciting new career opportunities and challenges.

However, we also found evidence of career goals thwarted by pay-scales that do not differentiate

among qualifications. We found qualitative evidence of the resistance to change, denial of opportunity and even hostility of direct supervisors. This was noted by both graduates and other stakeholder groups. There is widespread demand for fairer remuneration, promotion and clarity about pay rates and conditions of service.

While Nursing Council curricula mean that all universities in a country offer the same curriculum, the actual content of the subjects can vary. SONAM-EA is known to have international connections, so East African nurses may be exposed to international lecturers, seminars and workshops. Library resources are also up to date, with the latest textbooks and journal access.

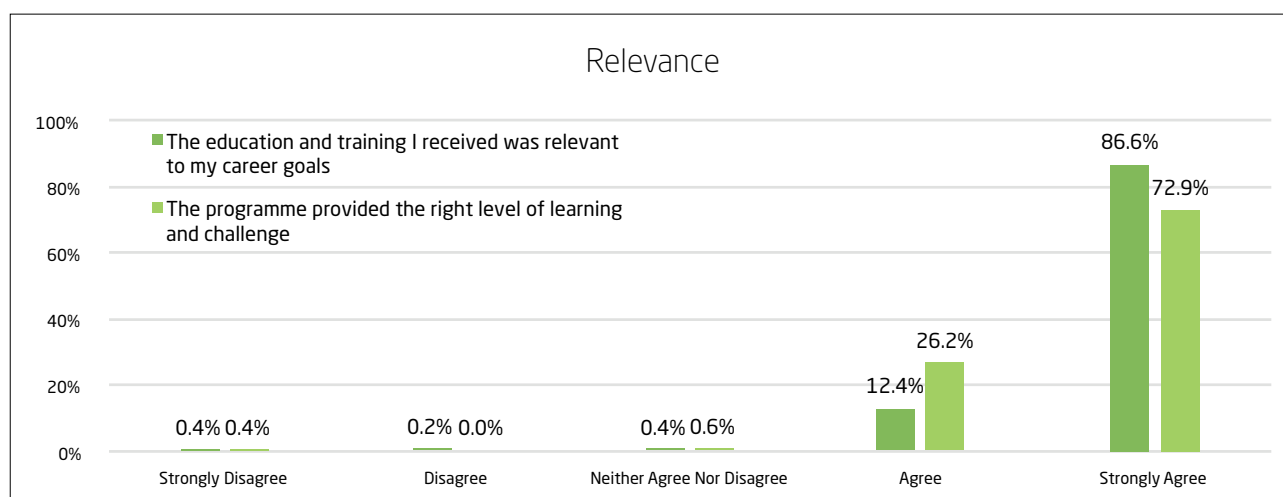


Figure 13: Relevance of SONAM-EA Programmes



Relevant Skills

Both alumni cadres, diploma and BScN, say the SONAM-EA programme is highly relevant to their employment, and regard their skill levels as having been greatly improved by attending SONAM-EA. Both cadres cite improvement in a similar range of skills, which include nursing process, critical thinking, problem solving, computer skills, informatics, research and presentations.

AKU graduates are widely considered:

...competent and up-to-date with current nursing knowledge. Employer, Uganda

The main difference is that diploma alumni generally attest that they are comparatively better in the practical nursing and bedside tasks, and more dedicated, professional and efficient than other nurses at the bedside. The BScN alumni generally attest to their leadership, management and administration skills.

All stakeholder groups regard both alumni cadres highly. Most extol the BScN alumni, and defend the value of diploma nurses to the nursing workforce. While all AKU nurses are experienced in bedside nursing, compared to alumni of all other universities, our stakeholders say the AKU graduate is more likely to be seen in leadership positions.

Employers said:

We have the nurses with the right skills. And knowledge! The only bit (missing) is the numbers of nurses needed. Employer, rural hospital Kenya

I am a malaria-focused person. When a patient comes with signs and symptoms of severe malaria we are supposed to refer to a major hospital where much of the lab acumen is. Our AKU nurses can manage the first line of malaria treatment with glucose, (because that is what malaria diminishes - the blood glucose) in the health centre and without referring them to the major hospital. They manage them there, and they go home. Rural county employer, Kenya

One employer/regulator/alumni in Uganda said:

The Nursing Process, this is what (AKU) nurses really have! That helps (AKU) nurses to identify the priority area for the patient's nursing care. That (skill) also has been very helpful. We met (one AKU nurse) in a Regional Referral Hospital. She is really trying very hard to implement the Nursing Process.



The others don't know it! The Principal Nursing Officer said, "In Continuing Medical Education, we should really try to make all nurses understand (the Nursing Process); so that we know how to nurse our patients well!" That (nurse) is good because (others) just get discouraged and put it aside, and say "After all, the others are not doing it. Why should I continue?" Uganda

AKU alumni generally are able to apply theory to practice. They are frequently observed by colleagues and superiors reflecting back to the steps of a methodology as they work, e.g. concept mapping, critical thinking and problem solving. Being noticed in this way creates a ripple effect where other nurses want the same knowledge and skill base as AKU nurses have.

Relevant Attitudes

A BScN alumni said:

I think the commitment and the kiu (thirst). We had kiu of learning. We need this. It was something which was very important to me and even to other nurses who went to Aga Khan. Tanzania

Employers comment on the confidence, assertiveness and caring attitudes of SONAM-EA alumni.

AKU alumni can adjust to any challenging environment. Any environment! Uganda

Relevant Qualifications

A diploma alumni said:

We have to consider that the nursing profession is dynamic. The more we do, the more it is updated and developing. The more we upgrade (and respond to) the needs, the more they are going to demand somebody at higher level; a holder of Master's degree to be in the ward! It is not a problem. That a patient is cared for by someone with a Master or a Degree it is not a problem! Patients may feel satisfied getting good care. We have to see that more

people are developed in education, because we are in a new world. Tanzania

BScN alumni said:

I am able to identify health needs (and priorities) from the news. I apply this in the class, to help the students think critically about an issue that may be happening in the country at the moment. Kenya



Relevance to the Workplace

In Uganda, both the diploma programme and the BScN programme produce Registered Nurses, whereas in Kenya and Tanzania the diploma programme has been discontinued.

Diploma Programme

The phasing out of the AKU diploma programme has been met with dismay in the workplace, because the quality of the AKU diploma nurse is considered to be very good. Also, the flexibility of the AKU diploma is not on offer by other diploma institutions. While they are often promoted to in-charge positions, diploma nurses generally remain close to bedside nursing.

The diploma nurse, along with existing certificate nurses, is now seen as the “workhorse” of the East African health system by some, and AKU diploma nurses are particularly considered to be highly employable, capable and professional nurses.



BScN Programme

There are many employers who would (if they could) only employ BScN nurses; and it seems most AKU diploma nurses would upgrade, given the opportunity. The requirement for the diploma nurse to first work for two years, before continuing to the BScN, also acts to slow down the transition to BScN. The demand for AKU BScN nurses is high, and they are rapidly taken up into management and leadership positions.

A private hospital employer said:

Our challenge is that a large number of Registered Nurses are available, but AKU BScN graduates are basically unavailable to us. AKU do not do “fresh” intake, people are not coming out of school and going straight into the AKU. 60% of nurses will come from the public sector, where they are already wanted by,

and committed to the institutions they serve! There are only around 50 nurses graduating every year that we could possibly attract to come to work here! And they are not in the market for you to select! (The BScN programme) is of benefit to the country, but it's of no direct benefit to this institution. For us, it is not the question of finance, is the question of free nurses! In the Private Sector there are very few nurses available from which you can recruit. We cannot recruit from the public sector. Tanzania

There is a tension among employers concerning the proper deployment of the highly trained, highly skilled AKU trained nurse that exists across East Africa. Many argue passionately that these nurses should be deployed at the bedside, as they are the most clinically skilled nurses available.

I want the BScN to be down at the bedside, providing nursing care. The (prevailing) attitude is that by the time they get out of the university, graduates feel they will be the leaders, and others will provide the clinical services! This is something that we need to change as a country. If you train 20 graduates, not all 20 can be leaders! You will get two as leaders and the 18 will remain in the clinical area. That's the attitude that we need to put in our trainees and graduates. Employer, Uganda

Some others point out that AKU nurses (who all have many years of experience at the bedside) are better suited to positions of influence, leadership and management. Some employers stress the need for a proper balance in the workplace.

Direct patient contact, bedside nursing, is not the most important thing for AKU graduates to be engaged in. I want a balance! Both areas are important, leadership and clinical. Most of the nurses from Aga Khan are very good at sharing knowledge, so having AKU nurses in the clinical team, and sharing their knowledge at the bedside improves the quality of nursing. We have another group in leadership, who help drive the organization. So is the matter of balance, I will say 30/70 or 40/60 – a few in leadership, and many in clinical. Employer alumni, Tanzania

Relevance to the Workforce

Maturation of the Workforce

Many of the workplace issues for AKU alumni and their employers are related to the shortage of nurses and budgetary problems in hiring highly qualified nurses. When the workforce matures and the average nurse has a BScN, instead of a diploma or certificate; there will be many more AKU alumni involved in direct patient care. Already, employers for regional and rural areas are telling us “we’ve got leadership opportunities for AKU BScN alumni if you come to work with us.” This will not happen rapidly because the system of employers releasing nurses for a couple of days a week to study ensures most nurses return from whence they came. If the employer or in-charge is kind and flexible, AKU nurses are overwhelmingly loyal to the workplace they came from.

Currently, with AKU alumni being encouraged to take positions of greater responsibility, it appears that alumni are under-represented in bedside nursing. Efforts by supervisors and influential nurses to keep alumni in bedside nursing, without recognition, promotion or reward, are demoralizing to some alumni.

Releasing Nurses

The desire to upgrade nursing qualifications is strong, and yet releasing nurses to study has been a problem for workplaces. When too many apply to study at AKU, it presents a problem to hospital hierarchies. The Ministry of Health has intervened and requested hospitals to plan for and cap numbers of students upgrading through the AKU work-study programme, so that workplaces are adequately covered by these capable nurses.

Shortage of Nurses

East African health services often claim not to be in the financial position to address nursing shortages. Qualitative evidence suggests that, because of budgetary reasons, smaller urban as well as regional and rural East African health facilities can often only afford certificate and diploma nurses, with perhaps a few BScN nurses. When AKU alumni are employed by regional and rural health services, they are often nurses who have remained loyal to their employer, or who have strong local ties. Their remuneration is often at the original pay level.

An employer/regulator in Kenya said:

In Kenya, because of our level of economic growth, we have a shortage of nurses, and we maximally utilize what we have. In most areas, there are not enough nurses, and, despite a nurse’s higher qualifications, they may be asked by the ward administrator to do the lower job. NOT because they do not have the skills for a higher operation level, but because of the nursing shortage. Because AKU nurses have grown through the system, they can be utilized at any level. At times the nurses complain, but if the patient has a need, that is the priority. It doesn’t matter whether you are a BScN or a PhD holder, when you are in that ward, you have to give service to the patient.

Schemes of Service

Stakeholders repeatedly said that the pay scales for nurses, the “Schemes of Service,” do not differentiate between nursing cadres. There is a Scheme of Service in Kenya, but employers are not always implementing it, so nurses are forced to take jobs below their qualifications. There are BScN nurses still receiving certificate wages. AKU alumni may seek employment where their qualifications are appreciated. Many AKU alumni are recognized and rewarded with additional responsibilities only. Sometimes, that is enough.

Devolution

In Kenya, the recent devolution of health care services to the counties complicates workforce issues. Some counties have a preference (even requirement) for local nurses, who may be certificate and untrained nurses, but who are cheaper and familiar with the county’s cultural and social context.



2.4 Quality

Quality is our key to success.

Faculty Expertise

Over 90 percent of respondents from all campuses agreed or strongly agreed that:

- The faculty were experts in their professional fields and knew the subjects they taught intimately;
- The faculty were excellent at imparting knowledge and they guided and stimulated alumni professional development;
- The instructional facilities at AKU, including classrooms, labs, clinics, wards, etc., met or exceeded their expectations; and
- The availability and collection of information resources such as the library, computer access, etc., met or exceeded their expectations (Figure 14).

The qualitative evidence supports the finding that AKU faculty and facilities are highly regarded by alumni.

BScN alumni said:

The faculty teaching the students are well committed! This is why we are knowledgeable. Compared with other universities, they follow us in practical areas. I think Aga Khan is the best! Tanzania

Academic Experience

About 90 percent of respondents said their AKU experience was very good or excellent (Figure 15).

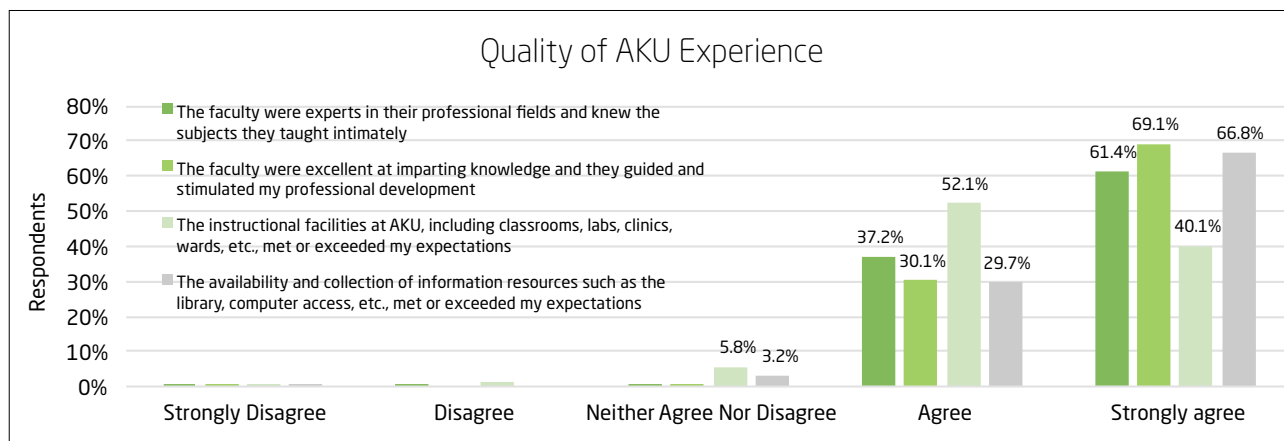


Figure 14: Quality of Experience

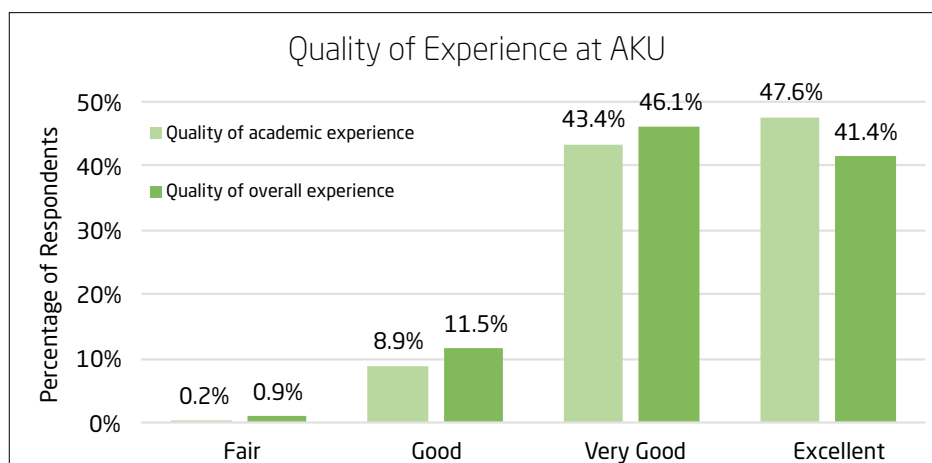


Figure 15: Quality of Academic Experience and Overall Experience



Diploma alumni said:

When you study at Aga Khan University you are different from other professional nurses. When we studied the diploma course, we studied from advanced international books in the library. We got quality knowledge (yaani). Other nurses don't know how to get quality knowledge independently. They wait to be fed. We are different because we can find it out for ourselves. Tanzania

The lecturers were so open and always willing. The teachers taught us to understand exactly what a patient is, and what we should do for the patient.

Uganda

We did mathematics with Mama Sande. This helped us do (dose calculations) in the labour ward. We have magnesium sulphate containing 50%. I was able to calculate and change from 50% to 20% to give it intravenously. Some other nurses from other schools couldn't manage how to change this. Tanzania

We learnt how to give CPR to the non-responsive patient. It really helped us. We saved one pregnant mother last week who came from far away with shock. We saved her before the doctor arrived. We did CPR, we introduced oxytocin fluid, and sent investigation. The woman was sent for an emergency caesarean section, but unfortunately placental abruption had already occurred. We found the baby's heartbeats; we worked as a team. The baby and the woman were saved. Tanzania

A private school of nursing employer (alumni) said:
We had a professor that used to treasure his nurses! The way he treated us made us to be confident and assertive, and in a position to communicate with the doctors. He used to tell doctors that as far as the surgery is concerned, here the nurses are the king. And that made us to be more confident.

Uganda

A large private hospital employer (BScN alumni) said:

I had you (as teacher), Mama Sande, I say asante sana, Mama Sande! You made me what I have become today. If I look at myself before I did my degree at Aga Khan and after, I am now a completely different person! I learnt a lot at Aga Khan, in terms of leadership and management. Mama Sande taught us about community, which was very crucial in my daily work, dealing with people. I wasn't so confident, but after the training I really have the confidence. I feel proud, and am happy that the teachers at Aga Khan made me what I am today. Even the position I am sitting today is because of the knowledge and skills that I got from Aga Khan. Thank you Mama Sande! I take this opportunity to thank you from the bottom of my heart, that you have taken the time for us, and you have shared your reflection. It's very impressive, and we wish you all the best whatever you are doing for your organization. We are really very proud of you. Tanzania

Likelihood of Recommending AKU

A significant percentage of respondents from each programme strongly agreed that they would recommend the AKU programme. Tanzanian Diploma alumni (at 69 percent) are the least likely, and Kenyan Diploma graduates (at 94 percent) are the most likely to do so (Figure 16).

Many Tanzanian diploma alumni would like to upgrade to BScN but are unable to. Some employers believe that a diploma qualification, especially from AKU, is sufficient and will not approve attendance for work-study. Tanzanian diploma alumni are concerned about admission criteria which require credits in pre-requisite high school subjects physics, chemistry and biology (PCB).

These mature and experienced nurses often did not do or pass basic sciences, and they find it impossible to go back to secondary school as mature students. Often, they are in remote locations. Diploma alumni plead for a Foundation Course which would act as a bridging programme to the BScN.

They said:

To get a chance to study in this university, one should have a nurse and midwifery diploma, certificates and transcript. If you don't have PCB you cannot get a BScN degree. So you are telling me that I should go in secondary school to study in order to get credits for science courses such as physics, chemistry, and biology, and English. That becomes difficult! Tanzania

Age affects the education venue (options) of an individual. Going to class to study chemistry and all that, at my age! It will be a hard trial. Tanzania

Please tell them we would also like to be candidates of AKU, but we are missing the science subjects and the chance to study. Tanzania

Some alumni express a deep concern that AKU no longer offers the highly regarded diploma programme.

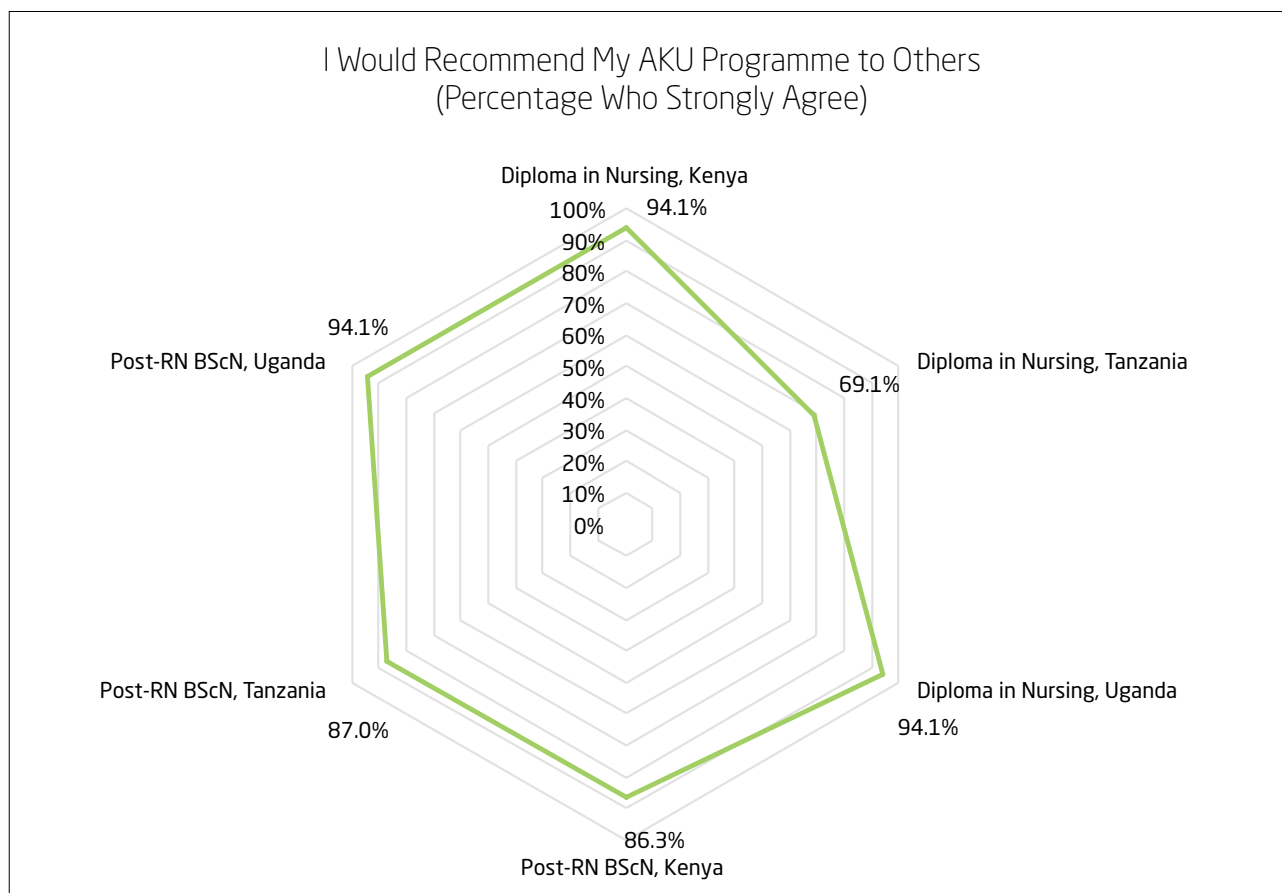


Figure 16: Likelihood of Recommending AKU by Programme

Basis for Further Education

Further Studies

There was strong interest in a continuum of qualifications which stretched from diploma to doctorates. All stakeholder groups were interested in developing a highly trained nursing workforce.

The alumni survey indicated that completion of an SONAM-EA programme is often a step in ongoing professional development for many graduates. Since their graduation from SONAM-EA, 34 percent of respondents have completed studies at other institutions, with over a quarter of these having completed more than one qualification (Figure 17).

The qualitative survey indicated widespread and strong demand for a master's in nursing. Some fear that doing a master's in other fields will mean a nurse lost to the profession, so there is a call for master's degrees in Nursing Education, Nursing Informatics, and Nursing Administration amongst others.

When I was doing my master's, the base that I had from Aga Khan University really helped me.

Alumni, Kenya

Of SONAM-EA alumni not currently undertaking study, 85 percent of respondents with BScN or specialized diplomas thought they may do some study in the future. Most of these intend to undertake a master's in nursing or another master's. Some are considering a PhD in nursing (8 percent) or Other PhD (6 percent). Of respondents with



a Diploma in Nursing, 90 percent thought they may do some study in the future, of which 60 percent thought they might undertake the BScN. These figures indicate demand for postgraduate qualifications (Figure 18).

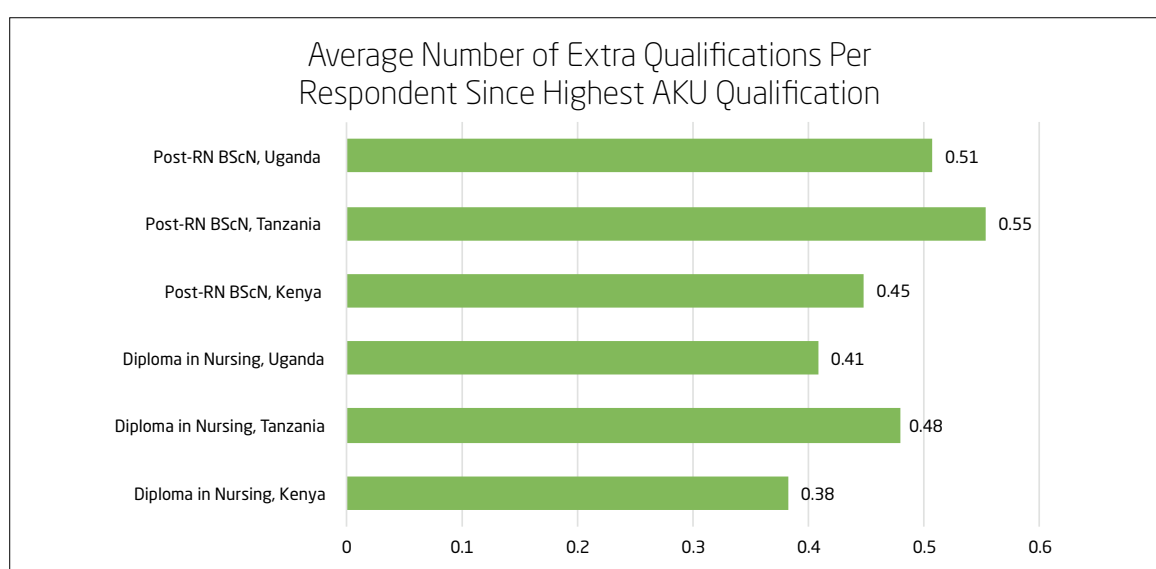


Figure 17: Additional Qualifications Done Since Highest AKU Qualification

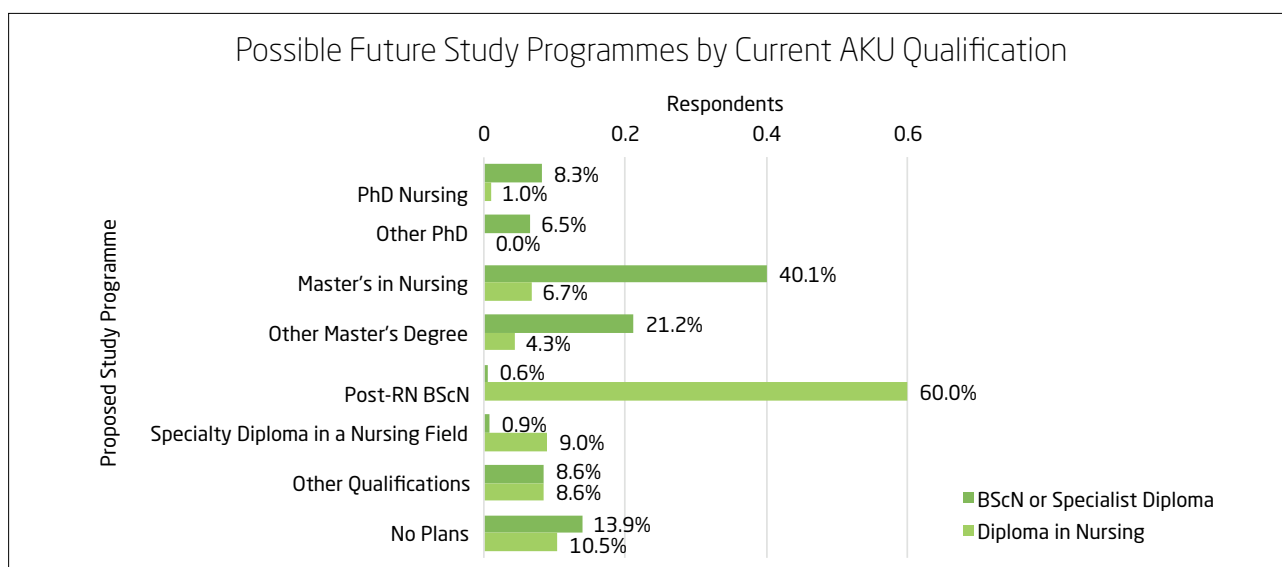


Figure 18: Alumni Who May Do Other Qualifications in the Future

Quality Curriculum

SONAM-EA offers compulsory and elective subjects. Some topics are delivered by seminar and workshop. All stakeholder groups praised some subjects repeatedly. These included Research, Academic Writing, Advanced Nursing Concepts, including the Nursing Process, Concept Mapping, Critical Thinking and Problem Solving, Leadership, Management, Mentorship, Supervision, Teaching and Learning. Many students worked on computers for the first time, and became experts in their use on return to the workplace. Informatics was highly valued. Skills in documentation have been well received.

An employer, in a private hospital said:

Excellent with documentation skills! AKU graduates are some of my focal people in the wards that spread this skill. They are the leading and addressing issues about documentation. Tanzania

BScN alumni said:

AKU SONAM-EA made me a better nurse and taught me to think critically. Kenya

By the time I was in Clinical, I was able to diagnose and manage the patient according to the nursing diagnosis I had developed. Advanced Nursing Process helped me take care of the emergency patients from road traffic accidents. I was able to make the nursing diagnosis according to the injuries they had, and treat them, and categorize patients according to their severity by using the knowledge from Aga Khan. Uganda

Some alumni said that the organization of community clinical sessions had been problematic at times, with the work unrelated to their skill set, and much time wasted, sitting around. Even so, in every country it is considered relevant, even vital.

Rural alumni said:

The course was relevant because it was integrated. It involved almost all aspects of health, psychiatry, gynecological aspects. It was well utilized. You could integrate all other things. Uganda

When I first joined the university, I did not understand what I was coming for. But when I got exposed and started learning, I discovered that there was a lot I was missing, which I needed to apply in my place of work. The course content was very useful in my workplace, and I really appreciated every subject, or every course unit that was offered.

Uganda

SONAM-EA's work-study strategy, which recognizes prior learning, was well received by those canvassed in the qualitative survey.

AKU appreciated the earlier competences that we had. That's a very important point for upgrading – to appreciate prior learning. Not to think they are incompetent! You know they are adults and they are building in experience. The experience that they have is very important, and the nurses of the country appreciate that avenue. Employer Alumni, Uganda

Quality of Graduates

All stakeholders extolled the comparative quality of BScN alumni. There were no reported instances of unethical or poor behavior, and many reports of superior knowledge, skills, attitudes and behaviours. Widespread agreement exists that BScN alumni are more confident, assertive and independent, have more influence, and are more inquisitive and innovative than alumni from other universities. They are excellent planners, leaders, managers, administrators, supervisors, mentors, coaches and teachers. They freely share their knowledge and skills with colleagues who were trained in other learning institutions, regardless of their colleagues' qualifications or remuneration. They can debate the merits of medical intervention "as equals" with doctors and senior staff, and do not wait to be told (or ordered) what to do. Their professionalism saves lives, and raises the quality of nursing in East Africa, both directly and indirectly. They are team workers,

work for the ultimate benefit of the patient and work very hard. They are driven by a deep commitment to nursing and patient care, and tend to be very resilient. Almost all of them have a story of personal sacrifice in obtaining their degree.

Alumni know they are the "cream of the crop" because they always have to impart their knowledge and skills to non-AKU nurses. Almost all stakeholders would agree. AKU Alumni are generally admired, emulated and respected, and are sometimes feared by their superiors.

A BScN alumni said:

I have been supervising internship of nurses with [AKU] bachelor's degrees. All in all, from what I have seen in the places I have visited, and the places where I supervise internship, you cannot compare them with other nurses! Uganda



2.5 Impact

SONAM-EA alumni have an impact on clinical, educational and leadership outcomes.

A Regional Nursing Officer in a rural, coastal region said:

I can't see any area where AKU BScN graduates are not useful! They are doing good work in all areas. They are doing a lot to sustain the institution and to promote the institution and improve the quality of life of people. Tanzania

SONAM-EA Impact on Graduates

From the alumni survey, most respondents strongly agreed that:

- They developed a greater sense of community service and had opportunities for engagement and outreach;
- Their leadership abilities were further groomed and sharpened;
- They developed a greater sense of self-esteem and self-confidence; and
- They developed their abilities for interpersonal communications and relationship building (Figure 19).

Many alumni refer to attending AKU SONAM-EA as “life-changing”, even “life-saving.” Alumni

frequently report becoming “a better person”, more assertive, confident, organized, resilient and patient.

I thank AKU because it is part of my family. I wedded from this place. I got friends, was introduced and had a baby. I was pregnant reading the books! They nursed my baby when I had an exam. I passed without doing a retake. So Aga Khan became a family. It saved me! Alumni, rural Uganda

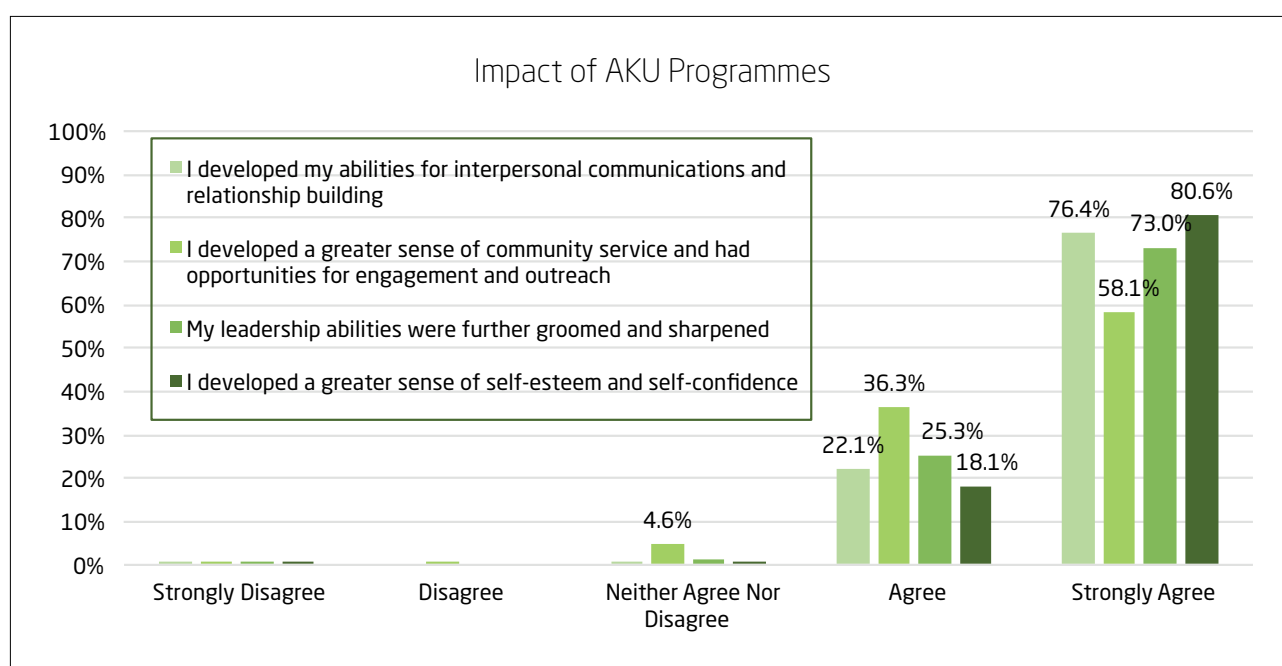


Figure 19: Impact of AKU Programmes on Students

Rewards and Recognition

Some 251 respondents (46 percent) gave information about rewards and recognition. The main forms of recognition were awards, promotions and certificates of appreciation. The most common were workplace awards for “Best Employee.” Some alumni received awards for innovation, entrepreneurship and “Woman of the Year”. Some received promotions

to very senior positions. An analysis of job titles indicates that 5.6 percent of SONAM-EA graduates are in senior management positions, 21.1 percent are managers, particularly in clinical situations; 9.8 percent are engaged in education or research. For the majority, the main improvement was in their professional competence.

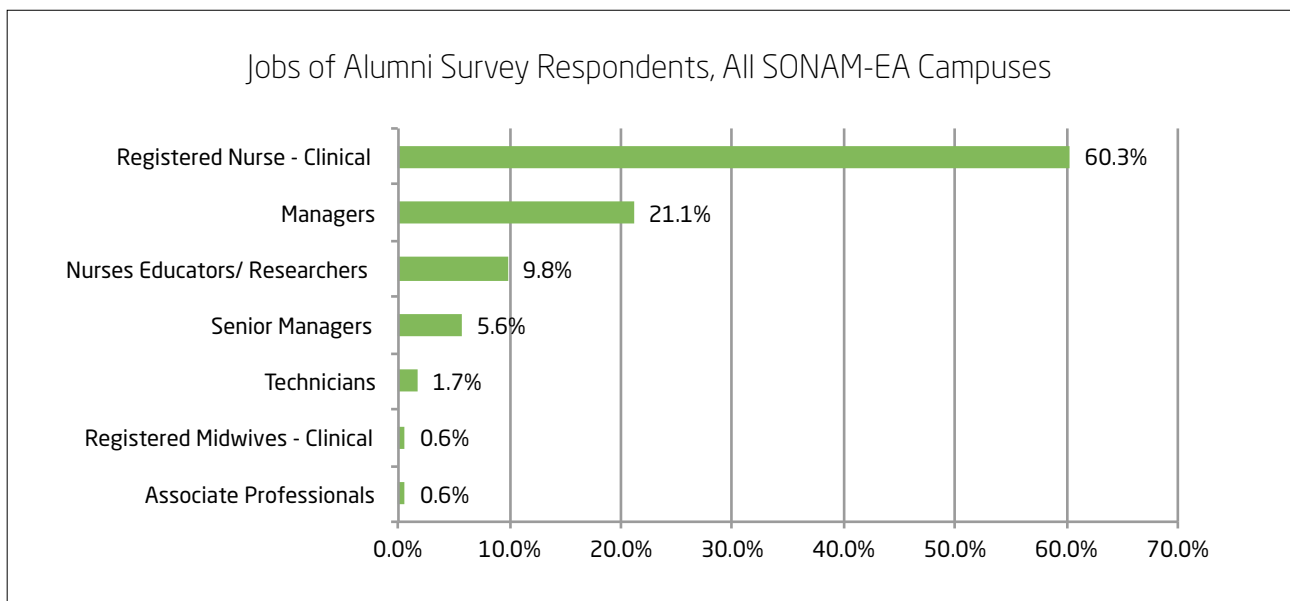


Figure 20: Jobs of Alumni Survey Respondents, 2016

Clinical Impact

A substantial percentage of our alumni are in clinical settings, with 60.3 percent of respondents registered nurses in clinical jobs, and another 21.1 percent are managers, many of whom are in clinical management jobs (Figure 20). Our graduates' clinical impacts occur directly through the care they give, and also through the skills transfer that they implement in the workplace to improve the capability of those around them. Given that a clinical nurse may come into contact with up to 4,000 patients a year, the impact of our graduates on patient outcomes is magnified by this “ripple effect” (Figure 21).



Figure 21: Ripple Effect Magnifies Impact of Nurses

An employer in a major urban public teaching hospital says:

AKU programmes have improved the work skills of the working nurses in our teaching hospital. From the AKU programmes, their students have training in the practical things that happen daily in the clinical area. Kenya

Another employer in a major urban public teaching hospital says:

AKU graduates are best in the clinical area! That added knowledge can only help every last client. If AKU graduates can implement evidence-based patient care to the “common client,” that allows the maximum benefit to the client. Kenya

An employer/regulator says:

When you go to health facilities, they say “Oh, I

think that nurse trained from Aga Khan!” I think that’s really a great impact when (other nurses) say “she trained from AKU, and that’s why the things are happening the way they are happening!” Uganda

AKU alumni are regarded as willing and able to share their knowledge, among nurses, interns and junior doctors. Their supervisory, mentorship and coaching skills are well honed. They will be found delivering practical presentations to other staff.

A private hospital employer said:

Aga Khan University cannot meet the education needs of the country. But we can produce leaders who will be catalysts in improving quality, safety and so forth. However, the impact is there for everyone see, and I say it is tremendous impact.

Tanzania



Impact on Health Systems

Geographical Impact

To gauge the geographical impact of alumni, we mapped the locations where alumni were working in March 2016 (Figure 22). The first map shows how graduates can be found across East Africa. The second map shows concentrations in the major population centres of Kenya and dispersion across 17 of 47 counties. A similar dispersion is evident in Tanzania and Uganda. Lack of responses from the more remote areas may be partly explained by loss of contact with alumni or lack of access to email.

An employer/regulator said:

AKU nurses are (found) in all levels of our health facilities, from national right down to our health centre floors. They are scattered all over. The majority is (located) in towns, but even in rural areas. There are some in regional referral (hospitals). The Districts they have taken them. District hospitals are under local government. But even local government is under Ministry of Health.

Uganda

The AKU work-study programme is viewed by some employers and graduates as a bonding arrangement, and acts to reduce nurse migration. To achieve an increase of nurses in rural and remote locations, some communities have helped sponsor their own nurses for upgrading. These communities make a short term sacrifice for a long-term gain. Remote communities may be deeply distrustful of hospitals,

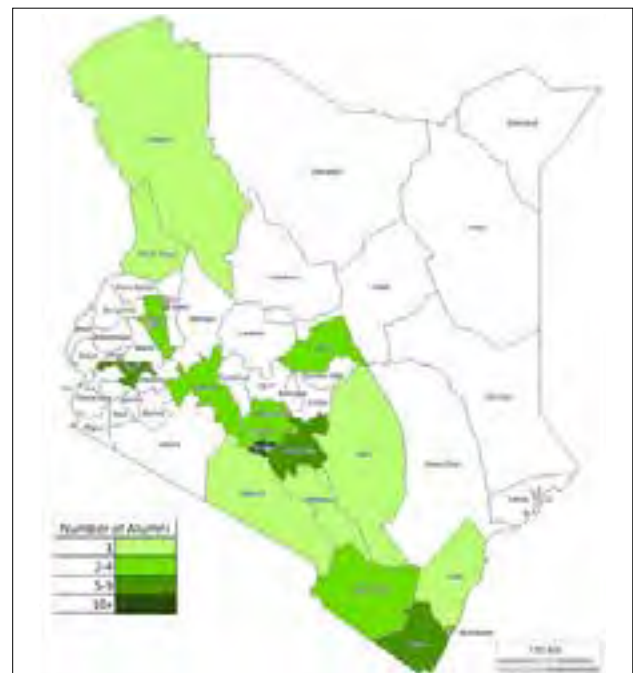
modern medicine and immunizations, and trust their own nurses more than outsiders.

An employer in a rural region says:

Many diploma graduates go to the health centres and I do not meet them very frequently. They are there in faraway communities in health centres, providing the direct care to the community. Tanzania



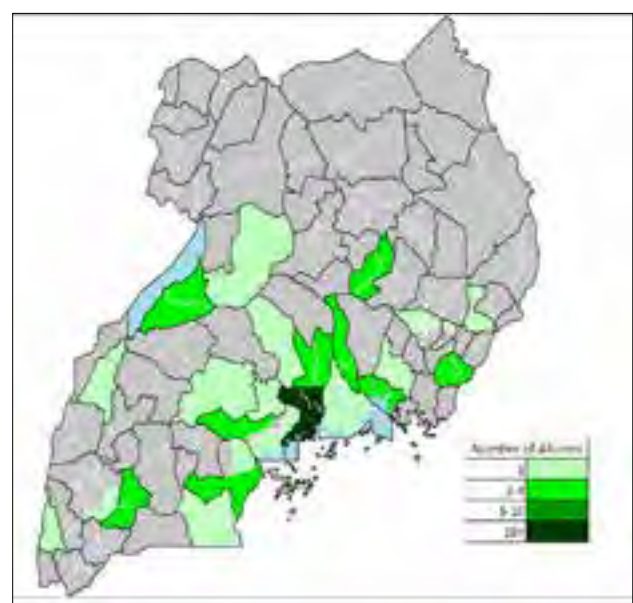
Distribution of Alumni Across East Africa



Alumni in Kenya



Alumni in Tanzania



Alumni in Uganda

Figure 22: Successful Dispersion of Alumni Across East Africa

Leadership Impacts: Health Services and Systems

Alumni are in strategic leadership positions at national, county and institutional levels (Table 4).

Country	Position
Tanzania	Academic Head, Masana College of Nursing
Tanzania	District Nursing Officer, Kibaha District Council
Tanzania	Deputy Chairman, Nursing Council
Tanzania	Director, Nursing and Midwifery Services
Kenya	Chief Nursing Officer, Aga Khan University Hospital
Kenya	County Cabinet Secretary, Kajiado County
Kenya	Head of Examination Department, Nursing Council
Kenya	CEO, Pumwani Maternity Hospital
Uganda	Ag. Assistant Commissioner, Ministry of Health
Uganda	National Supervisor, National Immunization Programme & Senior Principal Nursing Office Lira Hospital
Uganda	Principal, Mulago School of Nursing and Midwifery
Uganda	President, Uganda Nurses and Midwives Union

Table 4: Graduates in Strategic Leadership Positions – a Selection

An employer in a large teaching hospital says:

The impact of AKU graduates on the outcomes of our organization! They always add quality, and commitment, to the organization. Kenya

An employer in a major urban public teaching hospital says:

I have many AKU alumni in managerial positions. They are having a lot of impact through their positive contributions: knowing how to work with the other clinical nurses in a harmonious way, and how to implement policies in a more structured way so that implementation can be achieved easily. Kenya

AKU faculty and alumni were instrumental across East Africa in drawing attention to the lack of specific job descriptions and for formulating nursing “Schemes of Service.” Stakeholders say that at a health system level, specific job descriptions for all nurses at every level are yet to be developed. An officer in a professional association said that without clarity of job descriptions:

You will find all nurses do the same job, regardless of qualification. Tanzania

Improved Documentation

A county employer of both diploma and BScN alumni said:

Most of our nurses could not document well, especially in hospitals, where nursing diagnosis was a big issue initially. Now that the level of skill has improved in most nurses, it is now easy for them to grasp ideas. There is an improvement in documentation. We are slowly getting out of the traditional way of documenting, i.e. “Had a calm night. Slept well!” We are not doing that. We are documenting each and every intervention we have done to our client, even at dispensary level. For every single patient that comes to the dispensary for delivery, there is partograph chart. You can trace a file and the care that a health worker did. There is improved documentation at all levels, whether you go to dispensary, or the hospital. Kenya

Impacts on Profession

A regulator said:

The AKU programme itself has big impact in the nursing profession. The nursing profession

will remain stagnant in the diploma level. Since AKU establishments have taken mature entry, there has been an increase in the number of BScN programmes. AKU influences change in the Scheme of Service, where nurses lagged behind for not being represented. With the increased number of BScN nurses, (we) struggled to have a nursing officer (classification) in the Scheme of Service. It created a lot of questions to why nurses have many categories; yet it increased the opportunity for nurses. AKU influenced other universities to establish BScN programmes (e.g. St John, KCMC, and Hubert Kairuki). We hope that if you establish a master's programme, then other universities will also establish one. Tanzania

An officer in a professional association said:
I have known AKU nurses who are (involved); but very few nurses are. Most AKU nurses are in association leadership (positions), which means you are actively participating! Our leadership, currently and (several) former chairmen, and probably first vice, and second vice, are all graduates from AKU.

Kenya

Impact on Health Outcomes

A county employer said:

AKU trained nurses reduce mortality by knowing who to send to major hospitals. All our people that you have trained in AKU are all in the rural areas. And wherever they are, there has not been mortality. I am proud that in 2014 we had no casualties due to malaria! All the malaria casualties took place in the big hospitals – not in rural facilities. This could be a signal that all these people are working well, and this includes the profession



trained in AKU SONAM-EA. In the rural set up, efficiency is created by timely referral, assessing that this patient is going to be bad, and having an effective management response. Kenya

Another county employer of both Diploma and BScN alumni said:

We have many who have come in who lack the skill that the AKU trained nurses have, who were trained in different areas in the country. We have so many gaps in the nurses that we have out there.

Before we improved our health care workers (with AKU), we were struggling with our indicators. I had so many fresh stillbirths, in our health facilities. This is data by Demographic Health Survey. Of late, I have very few fresh stillbirths. Why? Because the skill level has improved! Now, we can strengthen our partnership with AKU, because chances are there we can train even more.

In May, I only had two fresh stillbirths in the entire sub-county, and they were all here in the hospital. They were referrals, and they were all inevitable! By the time we brought the client here and we went to theatre, we lost the child. Coming from 32 fresh stillbirths per month, to just two – this is great news. Because now, I have nurses who know when a patient needs to have a referral.

For a long time we were at 22 percent hospital delivery. Now we are at 64 percent! Most of our clients now deliver in hospital. Initially many mothers delivered in the hands of traditional birth attendants. Since skill upgrading, the relationship between the nurse and the client has improved. Now, our mothers are coming in!

The contraceptive prevalence rate is now up to about 70 percent. Now I have people who are (able to relate to the patient). Kenya

An employer in a rural coastal region said:

Our organization's goals are to improve the lives of the community, making sure that they are healthier, and if they get diseases they are cured and they get good care from the nurses. Nurses coming from Aga Khan meet our goals. They are saving life, they can rehabilitate. They give health education, they can prevent diseases, and that means that they are promoting health to the community. AKU graduates are most useful in the nursing care of patients. They are useful in administration, and as managers. They know how to solve situations! Tanzania



3



CHAPTER 3

THE EVIDENCE BASE

Context

Existing Data

The AKU alumni database, admission, enrolment and graduation registers provided a basis for the collection and provided summary information on graduates. Statistics from WHO, UN and a country's official statistics provided a context of key outcome measures historically and since the programme started, such as infant mortality, maternal mortality and workforce numbers.

Rather than create a separate alumni survey, we worked in partnership with the AKU Alumni Affairs Office to update questions in the core alumni survey and to add specific questions about the impact of the SONAM-EA programmes the alumni completed.

Existing AKU Alumni Survey

To track its graduates and assess the results and achievements of its education programmes, SONAM-EA carries out a regular (three-year) alumni survey across the three countries in East Africa where it operates. Because it was scheduled for 2016, the Dean decided to use it as the nursing alumni survey tool. Recommendations for later years would be based on learning from this experience. It was decided to obtain graduate feedback and some impact information from the alumni survey.

Supplementing the Data with Qualitative Methods

As is usual for the development of quantitative surveys, focus groups provide ideas for the questions and response categories in the future. The Dean decided that the best initial approach to gain valuable insights from employers was to undertake, in parallel with the alumni survey, semi-structured interviews and focus groups targeting alumni and relevant stakeholders to provide data on the access, relevance, quality and impact of the AKU programmes.



Alumni Survey Information

A review of published material on alumni surveys showed that there are four types in use:

1. Student satisfaction surveys – usually done during courses and at exit.
2. Graduate destination surveys – usually within one year, focusing on job or further study. Output reports may include the following:
 - a. Graduate destinations
 - b. Graduate salaries
 - c. Postgraduate destinations
 - d. Graduate course experience
 - e. Postgraduate research experience
3. Employer satisfaction surveys
 - a. For graduates – to assess the value of University programmes – usually one to three years after graduation, depending on the time that graduates would have spent in employment and the desired size of the population to be sampled.
 - b. For alumni – to assess career progression and longer term value of graduates – after three years.
4. Graduate impact surveys – most often measuring economic or financial impacts.

Alumni Benefits

A review of alumni benefits revealed that the leading universities with schools of nursing in America, Europe, Asia and Oceania all are beginning to harness the potential of alumni, and providing benefits such as account login, lifetime email, library access, access to continuing practice development in the form of conferences and guest lectures, as well as facilitating alumni chapters and social get-togethers.

From their web sites, we benchmarked the Aga Khan Alumni Association for benefits offered against the alumni associations of the leading nursing schools around the world. These included the University of Sydney's Nursing School, the National University of Singapore's Alice Lee Centre of Nursing Studies, the University of Toronto's Lawrence S. Bloomberg Faculty of Nursing, Kings College London's Florence Nightingale Faculty of Nursing, and the University of Pennsylvania's School of Nursing.

We found that leading universities are increasingly interested in identifying and harnessing their alumni, for sponsorship and mentorship primarily. They all offer degree verification, and a university alumni magazine. Most leading universities have moved from an “update your details” page, and now offer a unique alumni ID, account login, online personal profile and a lifetime email which will reroute to private email as necessary. This allows the university and the alumni to benefit from each other's reputation. Leading universities have ongoing alumni services with administrative support, chapter groups and have established links to alumni social media, particularly LinkedIn, Facebook and Twitter.



Some leading nursing schools additionally offer their own alumni newsletter, and own website linked to the main university site, which may be interactive and require registration and login. Where nursing schools are active in liaising with alumni, administrative support and/or a separate alumni support officer is deployed.

All leading universities offer ongoing benefits and opportunities to alumni, which include access to facilities, reunions, networking events, fundraisers and recognition awards. At least one leading university offers campus room-booking for meetings. It has become usual to provide some sort of ongoing professional development in the form of

conferences, guest lectures and short courses, and to ask for alumni assistance in mentoring students. All universities offer limited library access, usually for a fee. We found no instance where full library resources (as are available to currently enrolled students) were made available to alumni. Online access to electronic resources for alumni is not offered.

University ranking is based in part on the impact it makes through research publications. It seems leading universities cannot yet benefit from the impact of the research of their alumni – unless alumni are also faculty or associates. Research partnership with alumni “in-the-field” has not been harnessed. The connection of any research publications done by alumni is not necessarily gathered under the wing of the University.

This is interesting in light of the strongly expressed interest in East African employers for AKU alumni to engage in, publish and present their research. One private hospital employer (Tanzania) said that they would be prepared to sponsor AKU alumni research to help get it established, and an employer in a large public hospital Kenya said that they would be interested in a research partnership.

In summary, creating a research community among alumni is worth further investigation. Establishing a separate SONAM-EA alumni web presence which includes lifetime email account, and social media connection is urgent. Maintaining a separate East Africa nursing alumni secretariat function is necessary to achieve anticipated engagement.

Working the Alumni Connection: Quantitative Methodology

Overall Framework

The overall management of the quantitative survey was implemented using the Generic Statistical Business Process Model (GSBPM, Version 5.0, December 2013).

Questionnaire Development

The AKU alumni survey provides an online survey form. It clearly introduces the purpose of the survey and the use to which the data will be put. It is clear that the AKU confidentiality policy applies to the data.

The questionnaire has the following main sections: personal information; education, training and employment; achievements; satisfaction with the AKU educational experience; and connection with AKU.

SONAM-EA worked with the Alumni Affairs Office to refine the questions and accepted an invitation to add a small number of questions specific to our reporting needs. We advised on the benefits of using international statistical classifications amended as necessary to suit local conditions, including the list of countries for country of birth and nationality. We also indicated a preference for drop down lists where possible, because these remove errors of typing in

free text fields and result in standardized responses that are more suitable for statistical analysis. Suggestions were also made to the sequence of questions and the standard ways of collecting certain data such as employment status. To the extent that was feasible in the timeline, our suggestions were generally implemented.

In other surveys that have been developed and implemented over many years, well developed sets of scales are in place to measure the educational experience. For example, to assess course experience, there are a number of scales including the good teaching scale; overall satisfaction scale; learning resources scale; and appropriate workload scale. These scales include a number of items that are aggregated to provide an overall score for the scale.

The AKU alumni survey that was undertaken in 2016 had the following groups of questions to obtain feedback on the AKU programmes:

1. Experience as a student at AKU – 11 items;
2. University resources and student life – five items;
3. General assessment – two items; and
4. Level of connection with AKU – one overall item, followed by five yes/no questions for specific means of connection.

SONAM-EA proposed four additional questions:

1. Current specialty within nursing – we proposed a classification which was implemented as a drop down list;
2. Change of employment after graduating – we prepared a response list including pay rise and promotion options;
3. Intention for further study – with a response list related to higher nursing degrees; and
4. Improvements in nursing practices, patient outcomes and/or professional competence – planned to be able to tick as many as apply.

Collection: Alumni Affairs Office Process and SONAM-EA Assistance

The Alumni Affairs Office started with introductory emails in early March, including a request to “like” on Facebook. They released the survey on 17 March by emailing prospective respondents to access the online survey tool and providing a short deadline, as is appropriate for email-based survey requests. There were several follow up emails and two extensions to the timeline with the final date being 13 May 2016. A thank you email was sent to respondents on 24 May 2016.

SONAM-EA assisted in driving up response numbers using innovative methods including:

- Use of mobile technologies;
- Support to access Wi-Fi connection in remote areas; and
- Social media links among alumni.

Response Rates and Representativeness

The alumni survey is not a census of all alumni because contact emails, phone numbers or addresses are not available for many of the alumni. Also, some of the contact details that are held by AKU are not current, so these alumni could not be contacted. This would particularly include alumni from earlier programmes who did not have email addresses. As a result, only an estimated 30 percent of all alumni were contactable.

The definition of “response rate” used in this study is:

$$= \frac{\text{The number of alumni who responded}}{\text{The number of alumni who were asked to respond and received the questionnaire}}$$

This is substantially different from the “percentage of all alumni who responded.”



Early advice from the Alumni Affairs Office was that the number of respondents was low, so a concerted effort was made by each of the SONAM-EA campuses to extend the reach of the connection to alumni using networks and social media. The purpose was to ensure we had sufficient numbers and distributions to support robust analysis.

In the end, we achieved 549 responses. This represents 25.7 percent of our 2,138 graduates. Given that only approximately 30 percent of alumni could be contacted, this represents an overall response rate for SONAM-EA alumni of about 80 percent of those contacted.

To interpret the survey results, it is essential to know the extent of likely bias in the respondent group. A source of potential bias includes the absence of groups who may have a different view such as:

- Earlier graduates who may not have up-to-date contact information;
- Rural and remote graduates who do not have access to online systems to undertake the survey; and
- Older graduates who may not have internet or email accounts.

The following table indicates that respondents spanned all years of graduation and all programmes. Noticeably, there are fewer Diploma in Nursing respondents than BScN graduates. This could be explained in part by the likelihood that diploma graduates are in more isolated locations and may not have access to email facilities.

Country	Year of Graduation													
Programme	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Kenya	1	4	2	10	5	6	12	21	8	8	24	11	22	134
Diploma in Nursing, Kenya		4	1	3		1	3	6	2	3	8	1	2	34
Post-RN BScN, Kenya	1		1	6	3	4	9	15	6	5	16	10	20	96
Specialist Diploma, Accident/Emergency and Disaster Mgmt, Kenya					1									1
Specialist Diploma, Critical Care Nursing, Kenya				1	1	1								3
Tanzania		3	9	9	13	15	22	43	17	6	11	9	17	174
Diploma in Nursing, Tanzania		3	5	5	5	8	5	22	15	2	1			71
Post-RN BScN, Tanzania			4	4	8	7	17	21	2	4	10	9	17	103
Uganda	3	5	11	9	8	15	18	22	20	27	25	34	44	241
Diploma in Nursing, Uganda	2	3	7	3	2	6	5	3	10	12	13	17	22	105
Post-RN BScN, Uganda	1	2	4	6	6	9	13	19	10	15	12	17	22	136
All Programmes	4	12	22	28	26	36	52	86	45	41	60	54	83	549

Table 5: Respondents by Country, Programme and Year of Graduation

Figure 23 provides the age-sex distribution of the respondents. Whilst we do not have the ages of all alumni, we believe the respondents adequately span the range of ages.

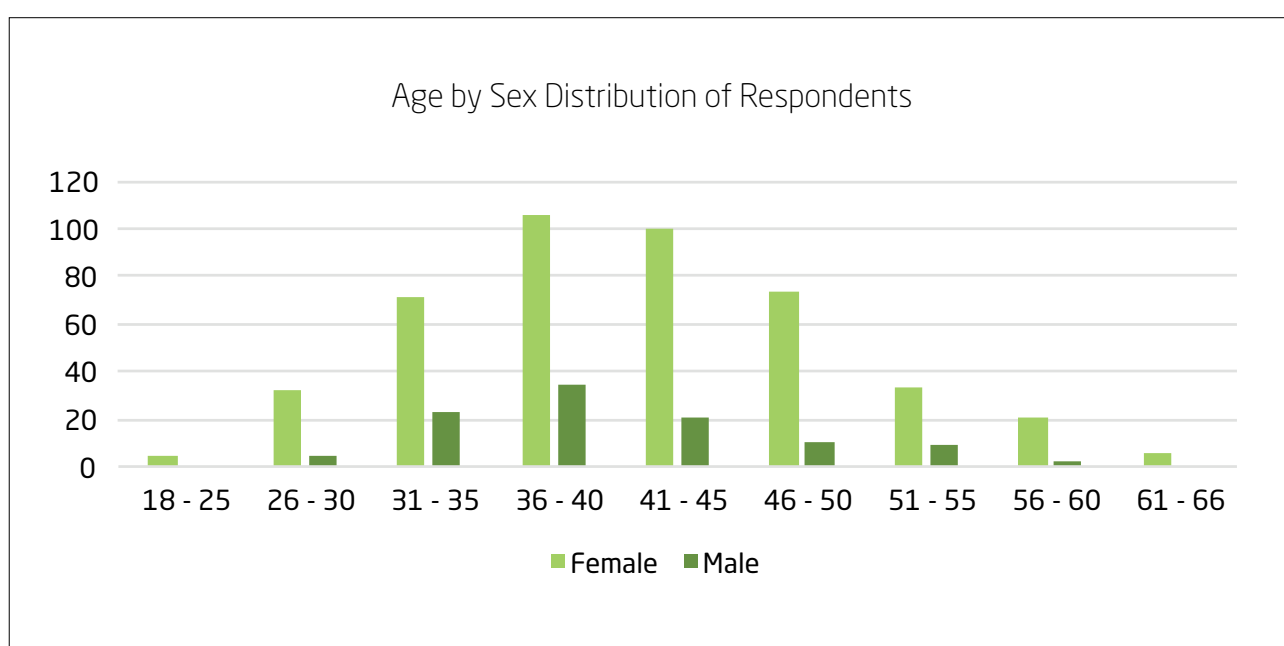


Figure 23: Age/Gender Distribution of Respondents

We can be reasonably confident that our respondents are broadly representative of the wider population of alumni. Even so, we have not attempted to estimate the responses of missing alumni, preferring to show actual responses or percentages.

Data Processing and Validation

The Alumni Affairs Office provided an early output from the survey to assist in the review. We applied a number of validation tests including identification of duplicates; checking of response categories; identification of the need for recoding; and assessment of free text fields.

In preparing for the analysis, a number of questions required detailed inspection, development of classifications and recoding. These were mainly free text fields including:

- AKU programmes – respondents selected programmes and years that were not available to them;
- Additional qualifications – respondents entered duplicate records;
- Locations – free text fields allowed a vast array of responses with multiple spellings, multiple locations in some fields, mismatching places, and rural locations in metropolitan areas;
- Job titles – did not match any standards within the profession and included other location details;
- Nursing specialties – although a list was provided many more alternatives were given in “Other”;
- Business and industry – resulted in many different options which had to be recoded; and
- Employer/organization – whilst a list was provided, respondents selected many options which were combined into one field and there were a range of text options in “Other.”

Lessons Learned

As a result of the above issues, future surveys would benefit from careful consideration of the following:

- Baseline information
 - The alumni database could contain all demographic variables, education, employment and other factual and non-confidential information
 - Alumni could access to update their baseline information
- Qualifications
 - Clear instructions are essential to ensure entry of additional qualifications does not duplicate
 - Institution should have all currently existing in the alumni database as a drop down list with “Other, please specify” as an option
 - Should have a drop down list for level of qualification (Certificate, Diploma, Bachelor etc.)
 - Also a drop down list for field of study
 - And a list for specialization
- Location – standard statistical geography should be available for each country, so that after respondents select their country, they only get valid options for the next level of geography (province or county) and then only have access to a list of communities/towns/cities within province or county
- Job titles and specialties need classifications for drop down lists
- Business and industry needs to be reframed with reference to the International Standard Industrial Classification (ISIC)
- Respondents should be asked to select their “main” employer organization with the explanatory note “Select the employer you spend most time for. If 2 equal, select the one with highest level of position”
- The question about dual nationality received few legitimate response and is not of great value for East Africa

Undertaking an alumni survey should only be done to obtain information not already in the alumni database, such as opinion and attitudes. These data would then be subject to the usual high standards of confidentiality.

Sustainability

Maintaining Alumni Contact

For a regular and sustainable monitoring and evaluation system, we recommend that SONAM-EA maintains an alumni database that it can update and that alumni can update themselves. The current AKU alumni database has an update page, but does not provide alumni with the information already in the database.

The database should be accessible by alumni through either the web or an app for those with only a mobile phone. The alumni database would contain all of the demographic data that would allow analysis of the continuing impact of all alumni. This would be linked with the AKU alumni database and would retain all historical records, including every time an alumnus updates their profile. SONAM-EA would annually contact all alumni to ask them to update their profile online and offer facilities for them to access the database if they do not already have access.

The database would contain two critical linking fields:

1. The original student number as their unique identifier; and
2. A perpetual email address, linked to their preferred regular email address, which they can update as necessary.

The data in the database can be fitted with a dashboard, so that at any time the Dean can provide

a summary of the alumni, as well as other key indicators of the School, such as enrolments, faculty qualifications and faculty research outputs.

The AKU alumni survey can be used to supplement the data in the SONAM-EA alumni database. Specific questions about nursing should be in the local database, if not in the whole-of-AKU database.

Monitoring the Graduate Experience

For the collection of data from graduates, it is recommended that SONAM-EA implement an annual survey of graduates within four months of their convocation. This could start as early as convocation, when they are present and they could be asked to complete the survey. The content of it would include aspects of their student experience, using some international scales similar to those identified in the literature. This survey could also capture updates to their employment and further studies.

Understanding the Employer Perspective

A survey of employers should be undertaken annually, using the annual update of the alumni data to survey specific employers and using standard questions from international experience tailored to local conditions.



¹² Tong A, Sainsbury P and Craig J (2007), Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups, *International Journal for Quality in Health Care*; Volume 19, Number 6; pp. 349–357

Building the Alumni Connection: Qualitative Survey

The qualitative survey was based on the principles in the consolidated criteria for reporting qualitative research (COREQ).¹² Our process model shows the steps applied (Figure 24).

Ethics Clearance

Because the qualitative data collection and case studies were to include human subjects, ethics clearance was obtained from AKU's Health Research Ethics Committee in Nairobi. Legislation governing ethics in Uganda required a separate approval, which was obtained from the Uganda National Council for Science and Technology.

Data Collection

We undertook a qualitative stakeholder survey using:

- Focus groups – where groups of stakeholders of similar interests could be convened and for graduates;
- Semi-structured interviews – for senior people who would have a unique view; and
- Case studies – to demonstrate in more detail some of the impacts of SONAM-EA.

Officers from each campus came to a training session. In this session we determined the range of stakeholders to canvass and the different approaches that would be applied to get their input. The number of focus groups and interviews was constrained by the capacity of the team to one day per week for 10 weeks for the data gathering. The following Table 6 shows the stakeholder groups, the approach to be used for each group, the approximate coverage to be achieved and the numbers achieved.

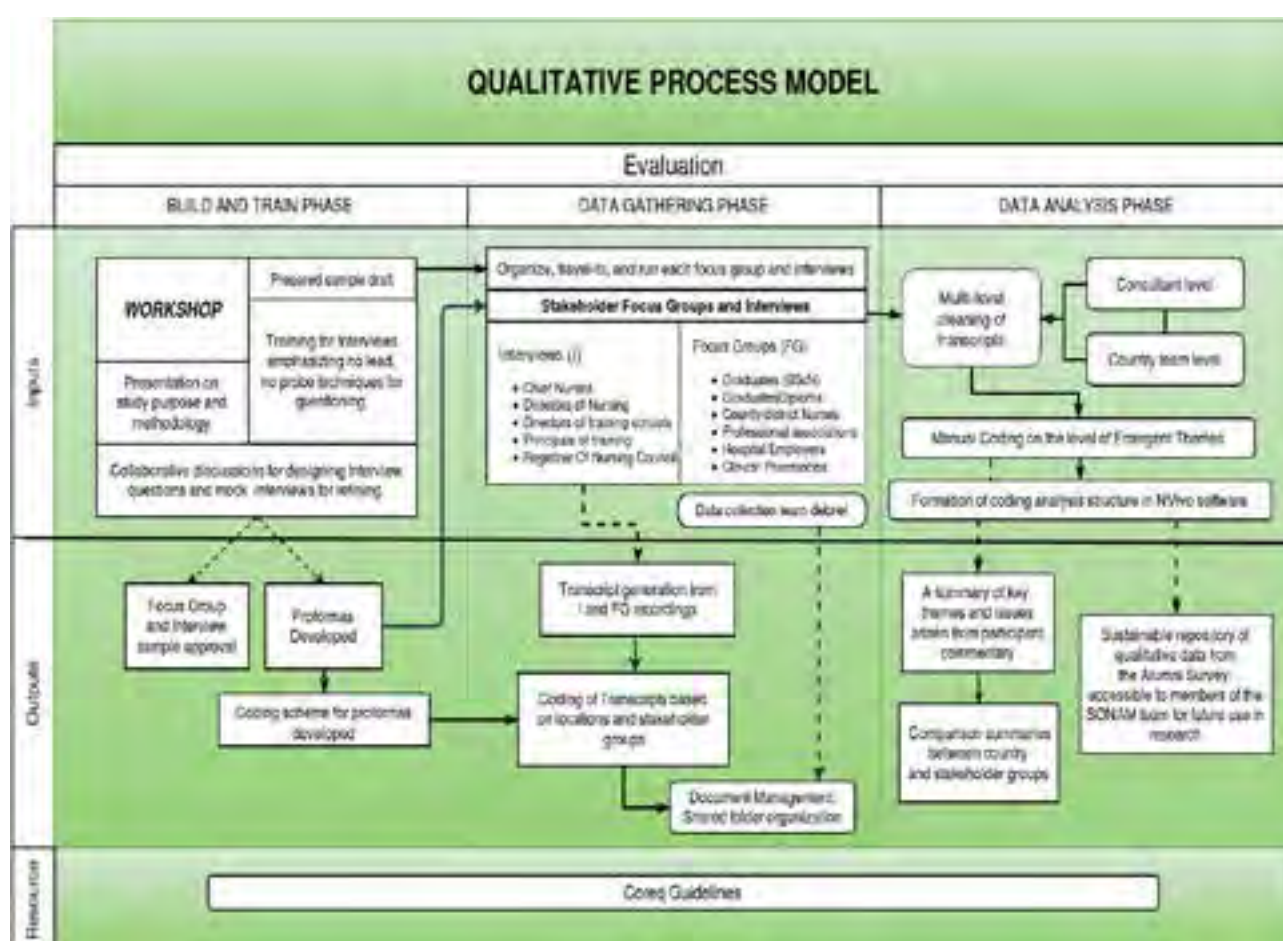


Figure 24: Qualitative Collection Process Model

Category of Stakeholder	Type of Approach to Apply	Transcripts Achieved
Chief Nurse, Ministries of Health Directors of Nursing Directors of Training School Principals of Training Registrar of Nursing Council	1-1 interviews	12
Nursing Councils incl. Registrar	1 focus group of up to 6 people	
County/District Nurse Chiefs	Focus groups of up to 6 people · Nairobi, Kampala, Dar es Salaam, sub-county on the coast · Consider urban/rural balance of people present	
Professional Associations	1 focus group of approx. 6 people	5
Hospital Employers/Boards	1 private sector group, 1 faith-based, 1 government	11
Clinics/Pharmacies	1 private sector group, 1 faith-based, 1 government	6
AKU Diploma Graduates	1 rural, 4 or 5 others, government/private/ faith-based	8
AKU BScN Graduates		7
Total: Interviews/Focus Groups		49

Table 6. Stakeholder Groups and Approaches

Volunteer consultants prepared the initial proformas for focus group and structured interviews, and provided a training session on the use of the tools. During this workshop, the tools were reviewed and updated by the faculty teams. Teams were also instructed on interview techniques and data management to ensure all data were captured appropriately and could be easily accessed. Transcripts were prepared of all sessions.

Thematic Analysis

Because of the flexible nature of the semi-structured interviews and varied forms of data collection (focus groups and interviews), and because the proformas used in the interviewing varied across stakeholder groups, the NVivo software's auto-coding tool could not be used. As a result, a manual approach to coding and thematic analysis was implemented.

Detailed analysis of transcripts was undertaken by one person to establish the key themes and to provide consistency across stakeholder groups. The transcripts provided a rich source of information and were substantial in length, mainly between 50 and 75 pages. Substantial cleaning was needed to enhance the usability of the transcripts. The cleaning focused on removing unusable information, correcting spelling, clarifying "voice" and summarizing circular passages.

In the time available, over 50 percent have been thematically analysed. A prioritization of transcripts resulted in substantial coverage of all stakeholder groups in each of the three countries. Stakeholders often had multiple roles, with one person representing regulator, employer, professional association and alumni views.

These thematically analyzed transcripts will be entered into NVivo for later analysis and research. The remaining transcripts can be summarized into the themes already constructed to add to the wealth of information already produced in the thematic analysis.

Lessons Learned

The semi-structured questionnaires provided a good framework for collecting both breadth and depth of relevant information. Cleaning of transcripts required an extensive effort by an analyst who had not participated in the interviews. In future, interviewers need to be assessed for skill in process interviewing. Then cleaning could be done by those who attended, with reference to the notes they take during the interview. Analysis of the transcripts was also time consuming because the key themes were not clear in advance. In future, those who attend the focus groups/interviews should also summarise the key themes after each interview/focus group.

A workshop of interviewers should then be held to develop an agreed set of themes before the processing of interviewer notes and transcripts.

Sustainability

The semi-structured interview and focus group scripts for each stakeholder group can be reused by SONAM-EA. The thematic analysis has produced a substantial database for further research of a number of issues being faced by nurses in East Africa.

Application of Nvivo skills will facilitate access to this rich source of data.

Case Studies

Purpose

The case studies were implemented to:

- Highlight and recognize the impacts and achievements of specific alumni;
- Provide information, often anecdotal, that quantitative and focus group discussions / key individual interviews (FGD/KII) could not capture as well;
- Disseminate the gathered information in various forms (publication, website, conferences, brochures, etc.), and in doing so, promote the sustainability of the project; and
- Further enhance the strength of AKU's alumni relationship through individual connections.

Design of the proforma commenced with an initial set of prompt questions to suit the purposes of the project. This form was updated to include suggestions from other AKU marketing and communications staff.

Selection of Case Studies

Case studies were chosen by local teams in each of the respective countries due to their strong connection with past alumni. A major emphasis was placed on capturing a diverse set of individuals,

especially in terms of specialty, area of work (rural, urban), and institutional environment (hospital, government, faith-based). The case studies were intended to cover the streams of:

- Clinical – graduates with clinical successes or applying higher qualifications in specialist fields;
- Education – people working in nurse education; and
- Policy – graduates generating good impact, including senior officers.

As the interviews were performed on location, they were often restricted by availability and access (cost and time to reach workplace).

An interview template was drafted to focus questioning, but flexible data gathering methodology was encouraged to stimulate broad discussions. The interview template focused on capturing information on personal background, AKU experience, workplace roles, impacts and challenges.

On-site, the interviewing followed a similar scheme to that of the qualitative FGDs and KIIs. One interviewer was tasked with questioning, and the other with scribing. Occasionally, AKU staff familiar with the environment and individual would accompany the primary duo in a supportive role. Following an informal introductory block where the purpose and intent of the visits was established, a consent form (publication, photo and video release) was offered for signing.

Two recorders were used throughout the main discussion, which lasted anywhere between 20-40 minutes. After the interviews, teams were shown around the workplace of the participant, allowing for further informal discussions and photo taking.

Ethics

As stated earlier, ethics clearance was obtained. For case studies and any other activity involving potential release of details or photographs, the AKU consent form was also completed.





4



CHAPTER 4

SUSTAINING THE ALUMNI CONNECTION

Developing the Alumni Connection

Through this project, we have:

- Extended the centralized alumni database;
- Connected with a wide group of alumni through interviews, focus groups and case studies;
- Improved the existing website alumni pages;
- Identified interest in greater alumni connection; and
- Discovered ways alumni want to connect.

Most respondents rated their level of connectedness with AKU as 4 or 5 on a 5-point scale, where 5 is “very connected” (Figure 25). The qualitative survey points to AKU being a powerful and positive experience in alumni’s lives. They are often proud of being “the product of AKU” and express great keenness to be involved with and active in an alumni group.

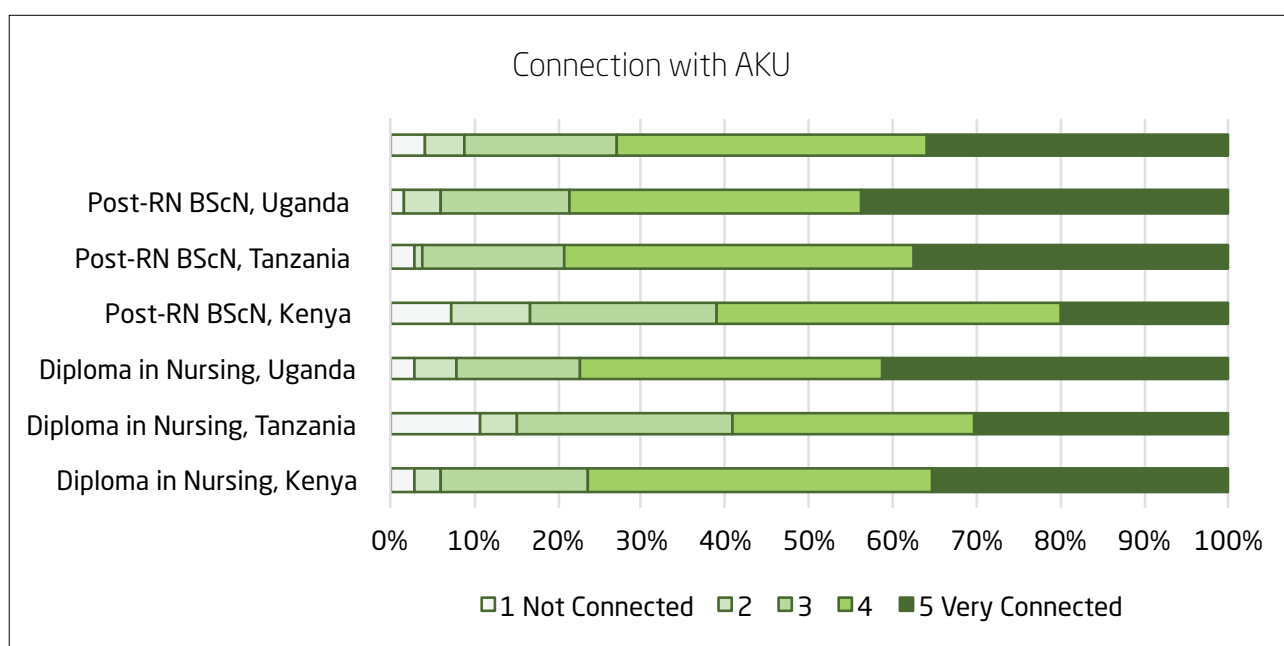


Figure 25: Level of Ongoing Connection with AKU

As a result, we will:

- Improve our website to feature and engage with alumni;
- Work with the Alumni Affairs Office to improve the online database and systems;
- Implement an Alumni Awards programme to reward high achievers in a number of categories;
- Regularly publish cases studies on our web site;
- Implement a system of email for life;
- Send an annual email/SMS to ask alumni to update their records in the alumni database;
- Propose an alumni association to be managed by alumni members with SONAM-EA support, including describing the benefits of membership;
- Distribute an association newsletter; and
- Engage alumni at convocation for some feedback.

Sustainability of Our Monitoring and Evaluation Systems

Throughout this study, we have identified a range of key performance indicators (KPIs) relating to students, graduates and faculty, which can be implemented now. Data can be obtained through leveraging existing registers including:

- Alumni database;
- Enrolment database; and
- Graduate lists.

Additional data will be collected through:

- Student surveys during study programmes;
- Graduate destination surveys immediately after convocation;
- Employer satisfaction surveys; and
- The periodic AKU alumni survey.

These data will be analyzed and placed into a dashboard of KPIs for use of the Dean (Figure 26).

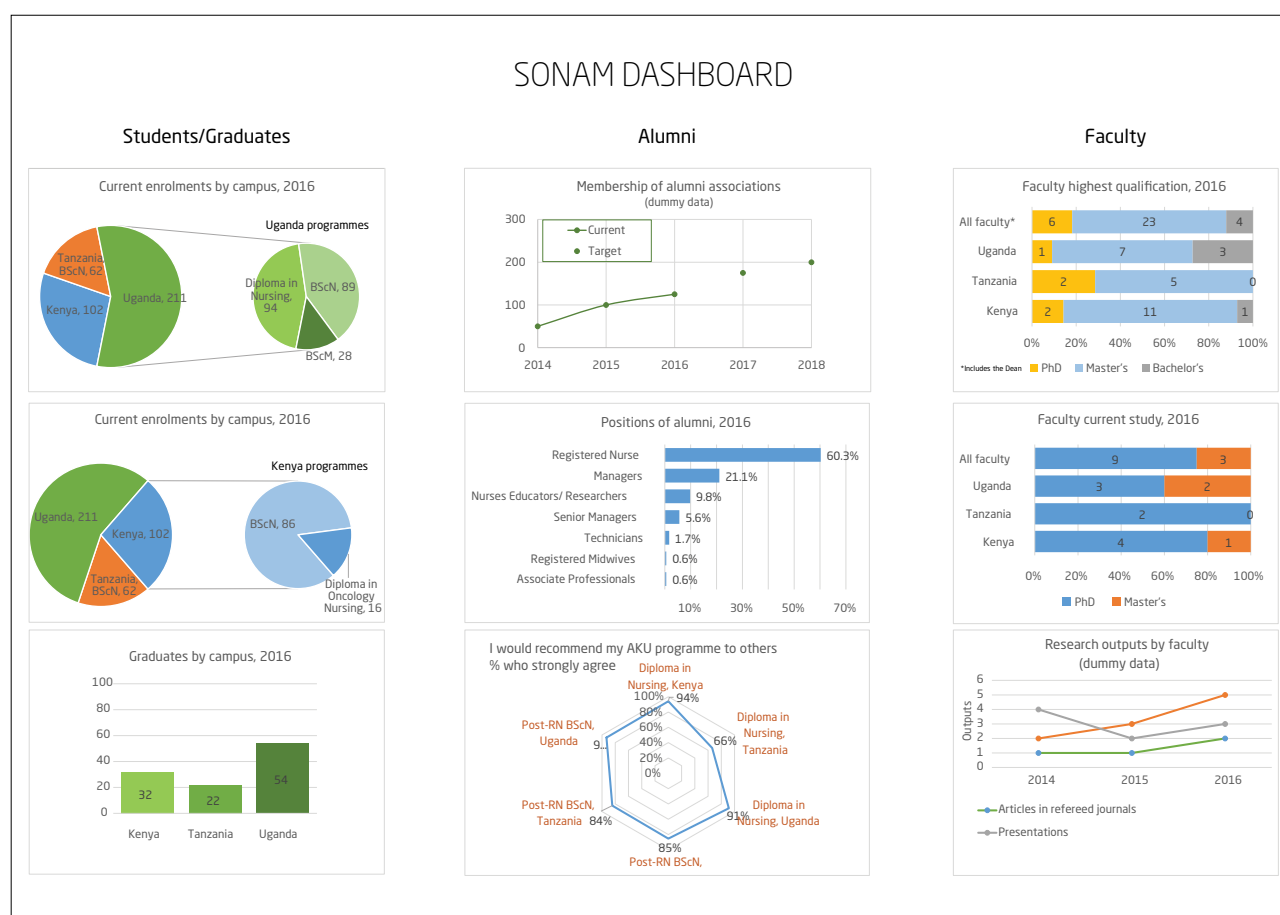


Figure 26: Proposed Dashboard for Monitoring



Disseminating Our Good Work

A range of research outputs will be produced from the data collected:

- Report of statistics from AKU alumni survey;
- Report on qualitative survey with case studies;
- Donor briefings and reports; and
- Research articles on specific issues identified in the qualitative survey.

Findings will be widely disseminated and will be accessible via:

- Partner websites, SONAM-EA and Johnson & Johnson Corporate Citizenship Trust;

- Peer-reviewed publications;
- Conference papers; and
- Case studies, highlighting graduate leadership roles and contributions.

Action Plan

The following annual schedule indicates activities for both alumni engagement (Table 7) and monitoring and evaluation that are planned for coming years.

The plan leverages existing activities.

Table 7: Sustainability Action Plan

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alumni												
Update Website	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Case Studies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Newsletter			✓			✓			✓			✓
Alumni Events		1				2			3		4	
Conference (Biannual)						✓						
Request to Update Alumni Details	✓				✓			✓		✓		
Monitoring and Evaluation												
Student Surveys					✓							✓
Graduate Survey	4 weeks after convocation											
Alumni Database Analysis				✓								
Employer Survey		✓										
Dashboard Update	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

1. Continuing Professional Development event; 2. Alumni Awards celebrations during conference; 3. International speaker; 4. Alumni meeting associated with associations conference.



KIDWATHI
2021

AMISHA AINA ZA MANENO

Mwalimu anafundisha kinauli fasaha.
Neno liklo pigina mtawi ni KICHEZI.

ama husaidia utawi wao.

thi (i) nomino shikunguchi

• neno hantika lomechamika kame.

elezi shikunguchi estikakilishi.

mti wa dawa la tano. Neno 'na' ni

nomino shikunguchi.

no lachaka! lomechamika kame

ziob kitenzi

Polopale ni

itishi

**“The SONAM programme prepares
nurses better than any other
programme I know for the demands in
our hospital.”**

County Chief Nursing Officer, Kenya





For more information on the report, please contact:

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www.jjcct.org
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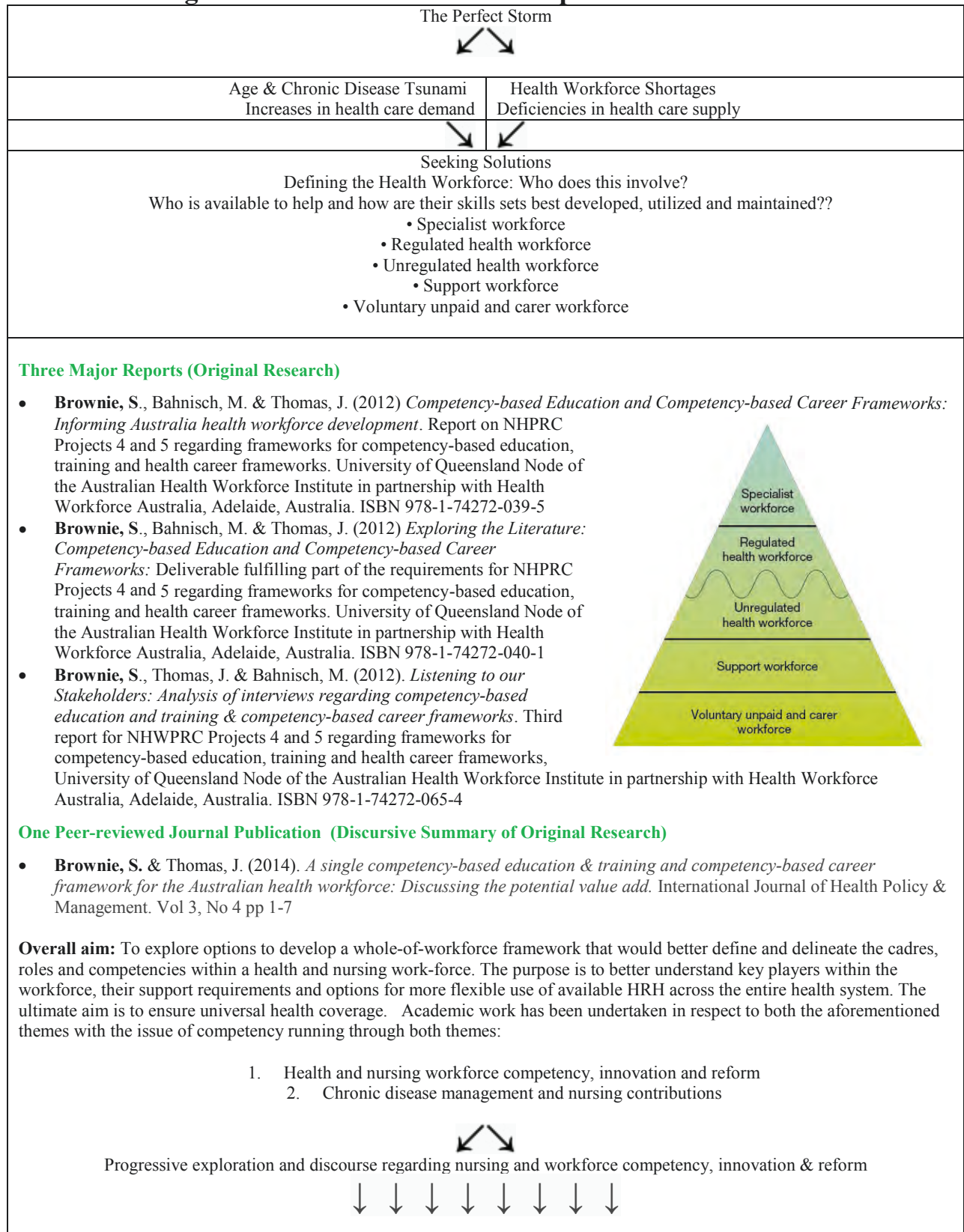
An article has been removed from this version of the thesis due to copyright restrictions:

Brownie, S.M., Rossiter, R.C., Hamad, A.O., and Aqtash, S. (2017) *The role and value of nurses in care provision: Views and expectations of Emirati Nationals in the western region of Abu Dhabi, United Arab Emirates*, Journal of Hospital Administration 6(6), 42-50
doi: 10.5430/jha.v6n6p42

Appendix B: Letters of Support re use of Multi-authored Work

Use of Published Works

Nursing and Health Service Leadership: The Power to Influence



A. Original research publications x 6

Brownie, S., Bahnisch, M. & Thomas, J. (2012) *Competency-based Education and Competency-based Career Frameworks: Informing Australia health workforce development*. Report on NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks. University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. ISBN 978-1-74272-039-5

Brownie, S., Bahnisch, M. & Thomas, J. (2012) *Exploring the Literature: Competency-based Education and Competency-based Career Frameworks*: Deliverable fulfilling part of the requirements for NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks. University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. ISBN 978-1-74272-040-1

Brownie, S., Thomas, J. & Bahnisch, M. (2012). *Listening to our Stakeholders: Analysis of interviews regarding competency-based education and training & competency-based career frameworks*. Third report for NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks, University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. ISBN 978-1-74272-065-4

Brownie, S. & Thomas, J. (2014). A single competency-based education & training and competency-based career framework for the Australian health workforce: Discussing the potential value add. *International Journal of Health Policy & Management*. Vol 3, No 4 pp 1-7
doi [10.15171/IJHPM.2014.88](https://doi.org/10.15171/IJHPM.2014.88)

Brownie, S., Rossiter, R., Hamad, A. & Aqtash, S., (2017) The Role and Value of Nurses in Care Provision: Views and expectations of Emirati Nationals in the Western Region of Abu Dhabi, UAE. *Journal of Hospital Administration*. Vol 6, No 6. doi 10.5430/jha.v6n6p42

Brownie, S., Robb, W., Hunter, L., Aliga, C., Kambo, I., Machar, A., Mwizerwa, J., Mutyabule, J., Namuguzi, M., Namukwaya, C., Nderitu, E., Sande, L., Skrzypczynski, V., Vastani, M., & Xavier, M. (2016). *Supporting Healthy Futures for East Africa: Celebrating 15 years of partnership in nursing education*. School of Nursing and Midwifery in East Africa, Aga Khan University, Nairobi, Kenya. ISBN 978-9966-098-75-7

B. Case Study x 1

Brownie, S., Williams, G., Barnewall, K., Bishaw, S., Cooper, J.L., Robb, N., Younis, N. & Kuzemski, D. (2015). Pedagogy and Culture: An Educational Initiative in Supporting UAE Nursing Graduates Prepare for a High-stakes Nurse Licensing Examination. *International Journal of Higher Education*. Vol 4, No 1, pp 200-216, doi 10.5430/ijhe.v4 n1 p200

C. Discursive Style Publication x 8

Nursing Workforce Development

Brownie, S., Hills, A. P., & Rossiter, R. (2014). *Primary Health service options for affordable and accessible non-communicable disease and related chronic disease prevention and management*. *Journal of Multidisciplinary Healthcare*. Vol 7, pp 543–549. Early On-line Nov 24, doi 10.2147/JMDH.S72636

Brownie, S., Aqtash S., Hunter, L. & Day, G. (2015). *Establishing Policy Foundations and Regulatory Systems to Enhance Nursing Practice in the United Arab Emirates*. *Journal of Nursing Policy, Politics & Practice*. Published online before print May 5, 2015, doi:

10.1177/1527154415583396

Brownie, S. (2015). The Changing Role of Nursing: Opportunities for Nurse-led Services for the Management of Chronic Disease and Diabetes in the UAE. *Arab Health Magazine: Informa Life Sciences* (Annual Show Issue), 124 - 126

Brownie, S. & Owyer, E. (2016). Mental Health Professionals in Kenya: Strategies to Expand Reach and Reduce Brain Drain. *BJPsych International*, Vol 13, No 3, pp 55-58.

Chronic Disease Management

Brownie, S., Hunter, L, Robb, W, Rossiter, R., Hills, A., Aljunaibi, A. & Hag-Ali, M. (2014.) Diabetes in Abu Dhabi, UAE: Valid data sets essential for health service planning. *Lancet Diabetes and Endocrinology*. Vol 2, No 7, doi 10.1016/S2213-8587(14)70025-7

Brownie, S. (2014). The Changing Role of Nursing: Opportunities for nurse-led services in the management of chronic disease & diabetes in the UAE. *Arab Health. Show Issue*, pp 24-26

Brownie, S., Hills, A. P., & Rossiter, R. (2014). Primary Health service options for affordable and accessible non-communicable disease and related chronic disease prevention and management. *Journal of Multidisciplinary Healthcare*. Vol 7, pp 543–549. Early On-line Nov 24, doi 10.2147/JMDH.S72636

Rossiter, R. & **Brownie, S.** (2015). Difficult and frustrating? Caring for those with chronic and complex conditions. *American Nurse Today*, Vol 10, No 2.

D. Other Publication Forms – Chronic Disease Management x 1

Competitive Photographic Messaging

Brownie, S. (2015). New Traditions in Middle Eastern Hospitality. *Lancet Diabetes & Endocrinology*. Published on-line 21 January, doi 10.1016/S2213-8587(14)70254-2

Brownie, S. (2015). I'll have what they're having. *Lancet Diabetes & Endocrinology*. Published on-line 21 January, doi 10.1016/S2213-8587(14)70269-4

Nursing Professional Development

Brownie, S., Scott, R. & Rossiter, R. (2016) Therapeutic Communication and Relationships in Chronic & Complex Care. *Nursing Standard*. Vol 31, No 6, pp 54-61

Description of Sharon Brownie's role in the research and publication process for publications co-authored with Janelle Thomas.

With regard to the four publications that we have co-authored:

- **Brownie, S., Bahnisch, M. & Thomas, J.** (2012) *Competency-based Education and Competency-based Career Frameworks: Informing Australia health workforce development*. ISBN 978-1-74272-039-5
- **Brownie, S., Bahnisch, M. & Thomas, J.** (2012) *Exploring the Literature: Competency-based Education and Competency-based Career Framework*. ISBN 978-1-74272-040-1
- **Brownie, S., Thomas, J. & Bahnisch, M.** (2012). *Listening to our Stakeholders: Analysis of interviews regarding competency-based education and training & competency-based career frameworks*. ISBN 978-1-74272-065-4
- **Brownie, S. & Thomas, J.** (2014). A single competency-based education & training and competency-based career framework for the Australian health workforce: Discussing the potential value add. *International Journal of Health Policy & Management*. Vol 3, No 4 pp 1-7

I verify that Sharon Brownie provided the following contributions:

A. For the major research project and three peer-revised ISBN reports

- Provided leadership to the research team
- Made substantial contributions to the conception and design of research endeavour and published works
- Engaged with stakeholders
- Undertook research interviews with stakeholders and completed the thematic analysis of the transcribed interviews
- Contributed to reviewing relevant literature
- Wrote select pieces for the initial reports and reviewed the pieces written by the research team
- Was the principal writer for the second and third report (literature review and listening to stakeholders)
- Liaised with the research group on a twice weekly basis or more frequently as necessary
- Liaised with funding group (for reports) or publisher (for paper) to facilitate review, revision and publication of these three publications
- Sourced the desk top publisher and oversaw the publishing contract
- Contributed to editing and proof-reading of each version prepared by the desk top publishers
- As per the funder request arranged independent pre-publication peer review of the final reports and oversaw adjustments based on reviewer feedback

B. In respect to the follow-up peer review manuscript

- Wrote manuscript for IJHPM journal article
- Liaised with journal as corresponding author responsible for responses to reviewer comments



Janelle Thomas

janelle_barry@hotmail.com

14 February 2018

From:

Isabel Kambo
The Aga Khan University, Nairobi
School of Nursing & Midwifery
Wangapala road
P.O. Box 39340 – 00623,
Nairobi, Kenya
Tel: +254720920426
Tel: +254203747483/3745808
Email Isabel.kambo@aku.edu

: Verification of author contribution - Prof. Sharon Brownie

Am writing to confirm Prof Sharon Brownies' contribution to the following project:

Brownie, S., Robb, W., Hunter, L., Aliga, C., Kambo, I., Machar, A., Mwizerwa, J., Mutyabule, J., Namuguzi, M., Namukwaya, C., Nderitu, E., Sande, L., Skrzypczynski, V., Vastani, M., & Xavier., M. (2016). *Supporting Healthy Futures for East Africa: Celebrating 15 years of partnership in nursing education*. School of Nursing and Midwifery in East Africa, Aga Khan University, Nairobi, Kenya. ISBN 978-9966-098-75-7

She was Principle investigator and did the following:

- As principal investigator for the study she held responsibility for the research process from design to publication of results
- Lead oversight of the ethics applications and approvals for three East African nations (Uganda, Kenya and Tanzania)
- Designed the mixed method research methodology
- Lead the research team involving faculty and volunteers
- Helped train qualitative interviewers
- Oversaw schedules of data collection, recording, back-up and protected storage
- Contributed significantly to data analysis including thematic analysis of qualitative interviews and focus group discussions
- Wrote significant aspects of the report including the executive summary
- Managed the contract with desk top publishers
- Selected photos for inclusion in the published research report
- Reviewed final drafts
- Maintained responsibility for integrity and rigor of the overall research process

Free to answer any further queries.

Best regards,



Isabel Kambo

Date: 09/02/2018

To whom it May Concern,

My name is Dr. Salah Aqtash. I am writing this statement to confirm that I have worked with Professor Sharon Brownie on different research projects in the last few years. I have also co-authored several papers with her and I would like to highlight her role during the research and publication process for the following publications:

Publication	Remarks
Brownie, S., Rossiter, R., Hamad, A. & Aqtash, S., (2017) The Role and Value of Nurses in Care Provision: Views and expectations of Emirati Nationals in the Western Region of Abu Dhabi, UAE. <i>Journal of Hospital Administration</i> . Vol 6, No 6. doi 10.5430/jha.v6n6p42	Professor Brownie fulfilled the role of Principle Investigator for this study and oversaw the research process from the beginning. She contributed to preparation of the ethics application and responded to all comments and requests by the committee. She worked along with Dr. Rachel Rossiter on interpreting the results of the study after Dr. Rossiter completed the thematic analysis. Professor Brownie also led the process of writing the manuscript, responding to the reviewers' comments and completing the final draft after consulting with the co-authors.
Brownie, S., Aqtash, S., Hunter, L. & Day, G. (2015). <i>Establishing Policy Foundations and Regulatory Systems to Enhance Nursing Practice in the United Arab Emirates</i> . <i>Journal of Nursing Policy, Politics & Practice</i> . Published online before print May 5, 2015, doi: 10.1177/1527154415583396	Professor Brownie played a pivotal role in making this project see the light by assuming the responsibility of planning the framework then compiling and arranging the ideas provided by each co-author for each title. Professor Brownie also took the responsibility for communicating with the journal, developing the manuscript, responding to the reviewers' comments and finalizing the manuscript after consulting with all co-authors.

Sincerely yours,



Dr. Salah Aqtash

Adjunct Faculty, Walden University, USA and Griffith University, Australia

Nursing Management Expert, The Medical office, Ministry of Presidential Affairs, UAE.

Appendix C: Examples of Additional Publications with a Health Workforce Focus

Year	Publication Type	Publication Details and Impact
		Source Google Scholar https://scholar.google.com/citations?user=YIOhvKgAAAAJ&hl=en
2015	Peer-reviewed journal article	BROWNIE, S., WILLIAMS, G., BARNEWALL, K., BISHAW, S., COOPER, J. L., ROBB, W., YOUNIS, N. & KUZEMSKI, D. 2015. Pedagogy and culture: An educational initiative in supporting UAE nursing graduates prepare for a high-stakes nurse licensing examination. <i>International Journal of Higher Education</i>, 4, 200-216. 8 citations
2015	Peer-reviewed journal article	BROWNIE, S. M., BROWNIE, S. M., HUNTER, L. H., AQTASH, S. & DAY, G. E. 2015. Establishing policy foundations and regulatory systems to enhance nursing practice in the United Arab Emirates. <i>Policy, Politics & Nursing Practice</i>, 16, 38-50. 23 citations
2016	Peer-reviewed journal article	BROWNIE, S. & OWYER, E. 2016. Mental health professionals in Kenya: Strategies to expand reach and reduce brain drain. <i>BJPsych International</i>, 13, 55-58. 6 citations
2018	Peer-reviewed journal article	EDWARDS, G., KYAKUWAIRE, H. & BROWNIE, S. 2018. Developing a work/study programme for midwifery education in East Africa. <i>Midwifery</i>, 59, 74-77. 5 citations
2018	Peer-reviewed journal article	VINAYAK, S. & BROWNIE, S. 2018. Collaborative task-sharing to enhance the Point-of-Care Ultrasound (POCUS) access among expectant women in Kenya: The role of midwife sonographers. <i>Journal of Interprofessional Care</i>, 32, 641-644. 3 citations
2018	Peer-reviewed journal article	BROWNIE, S., WAHEDNA, A. H. & CRISP, N. 2018. Nursing as a pathway to women's empowerment. <i>Journal of Clinical Nursing</i>, 27, 4050-4057. 5 citations
2018	Peer-reviewed journal article	BROWNIE, S., GATIMU, S. M., WAHEDNA, A. H., KAMBO, I. & NDIRANGU, E. 2018. Assessing the impact of a partnership-based work/study nursing upgrade programme in a low and middle income setting. <i>Journal of Clinical Nursing</i>, 28, 209-220. 3 citations
2018	Peer-reviewed journal article	BROWNIE, S., DOCHERTY, D. AL-YATEEM, N. GADALLAH, M. H. & ROSSITER, R. 2018. Developing a national competency-based curriculum for technical nurses in Egypt. Special Issue re scaling-up a skill health workforce and its performance in the Eastern Mediterranean Region in the <i>Eastern Mediterranean Health Journal</i>, 24, 922-932. 8 citations
2018	ISBN Report	CRISP, N., BROWNIE, S. & REFSUM, C. 2018. Nursing and midwifery: the key to the rapid and cost-effective expansion of high-quality Universal Health Coverage. WISH Forum, Doha, Qatar. ISBN 978-1-912865-06-2. 37 citations
2018	BLOG	BROWNIE, S. 2018. The Power of Nurses. <i>RNL Reflections on Nursing Leadership</i> [Online]. Available from: https://www.reflectionsonnursingleadership.org/news/more-news/postmark-melbourne-the-power-of-nurses

Appendix D: Publication Examples with Non-communicable & Chronic Disease Focus

Year	Publication Type	Publication Details and Impact
		Source Google Scholar https://scholar.google.com/citations?user=YIOhvKgAAAAJ&hl=en
2014	Peer-reviewed journal article	BROWNIE, S., HILLS, A. P. & ROSSITER, R. 2014. Public health service options for affordable and accessible non-communicable disease and related chronic disease prevention and management. <i>Journal of Multidisciplinary Healthcare</i>, 7, 543-549. 13 citations
2014	Peer-reviewed journal article	BROWNIE, S., HUNTER, L., ROSSITER, R. & HILLS, A. P. 2014. Diabetes in the United Arab Emirates: the need for valid datasets for health service planning. <i>The Lancet. Diabetes & Endocrinology</i>, 2, 535-537. 9 citations
2014	Magazine article	BROWNIE, S. 2014. The changing role of nursing: Opportunities for nurse-led services in the management of chronic disease and diabetes in the UAE. <i>Arab Health Magazine: The Official Magazine of the Arab Health Exhibition</i>, Show Edition, 124-126. Editor's pick for printed magazine annual Arab Health Conference
2014	Magazine article	BROWNIE, S., LEBOGO, N. & HAG-ALI, M. 2014. Health care for all: Building a public health workforce to achieve the UAE 2021 vision for health. <i>Arab Health Magazine: The Official Magazine of the Arab Health Exhibition</i>, 1-6. 4 citations
2015	Peer-reviewed photo essay	ROSSITER, R. & BROWNIE, S. 2015. Difficult and frustrating? Caring for those with chronic and complex conditions. <i>American Nurse Today</i>, 10, online.
2015	Peer-reviewed photo essay	BROWNIE, S. 2015. New traditions in Middle Eastern hospitality. <i>The Lancet. Diabetes & Endocrinology</i>, 3, 304-304.
2015	Peer-reviewed journal article	BROWNIE, S. 2015. I'll have what they're having. <i>The Lancet Diabetes & Endocrinology</i>, 3, 392.
2016	Peer-reviewed education module	BROWNIE, S., SCOTT, R. & ROSSITER, R. 2016. Therapeutic communication and relationships in chronic and complex care. <i>Nursing Standard</i>, 31, 54-63. 20 citations

Appendix E: Methodology of Body of Published Works

Method	Publications
Original research: Mixed method including quantitative on-line surveying, literature reviews, focus group interviews and qualitative semi- structured interviews	- BROWNIE, S., BAHNISCH, M. & THOMAS, J. 2012. Competency-based education and competency-based career frameworks: Informing Australian health workforce development. <i>Report on NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks</i>. University of Queensland, Australia: University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. - BROWNIE, S. & THOMAS, J. 2014. A single competency-based education and training and competency-based career framework for the Australian health workforce: Discussing the potential value add. <i>International Journal of Health Policy and Management</i>, 3, 215-221. - BROWNIE, S., ROBB, W., HUNTER, L. H., ALIGA, C., KAMBO, I., MACHAR, A., MWIZERWA, J., NAMUGUZI, M., NAMUKWAYA, C., NDERITU, E., SANDE, L., SKRZYPCZYNSKI, V., VASTANI, M. & XAVIER, M. 2016. <i>Supporting healthy futures for East Africa: Celebrating 15 years of partnership in nursing education</i>. Nairobi, Kenya, Aga Khan University School of Nursing and Midwifery.
Original research: qualitative semi- structured interviews	- BROWNIE, S., BAHNISCH, M. & THOMAS, J. 2012. Listening to our stakeholders: Analysis of interviews regarding competency-based education and training and competency-based career frameworks. <i>Third report for NHWPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks</i>. University of Queensland University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia. - BROWNIE, S., ROSSITER, R., HAMAD, A. & AQTASH, S. 2017. The role and value of nurses in care provision: Views and expectations of Emirati Nationals in the western region of Abu Dhabi, United Arab Emirates. <i>Journal of Hospital Administration</i> 6, Online.
Literature review	BROWNIE, S., BAHNISCH, M. & THOMAS, J. 2012. Exploring the literature: Competency-based education and competency-based career frameworks. <i>Deliverable fulfilling part of the requirements for NHPRC Projects 4 and 5 regarding frameworks for competency-based education, training and health career frameworks</i>. University of Queensland: University of Queensland Node of the Australian Health Workforce Institute in partnership with Health Workforce Australia, Adelaide, Australia.