Responding to health skills shortages:
Innovative directions from
vocational education and training

Sue Kilpatrick

Quynh Lê

Susan Johns

Pat Millar

Georgie Routley

University of Tasmania

NCVER

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Publisher's note

Additional information relating to this research is available in *Responding to health skills shortages: Innovative directions from vocational education and training: Support document*. It can be accessed from NCVER's website <http://www.ncver.edu.au/publications/1833.html>.

Acknowledgements

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Foreword

This research was undertaken under the National Vocational Education and Training Research and Evaluation program, a national research program managed by the National Centre for Vocational Education Research (NCVER) and funded by the Department of Education, Science and Training on behalf of the Australian Government and state and territory governments.

Skill shortages are a highly topical issue. This project is one of several commissioned with the aim of understanding what might be done to remedy them at an industry level. The focus on specific industries is intentional, as the nature of the shortage, its consequences and remedies, will vary from one industry to another.

In this report Sue Kilpatrick and colleagues from the University of Tasmania focus largely on VET-trained workers in the health industry, such as enrolled nurses, nursing assistants, personal care assistants, allied health assistants and Aboriginal and Torres Strait Islander health workers.

By examining existing models the authors are able to identify a range of innovative ways for addressing skill shortages. The authors suggest that a mix of short-term solutions (training only) and medium-to-longer-term solutions (such as job redesign) are required, as are a number of other features, such as collaboration and partnerships, industry involvement and flexible delivery of training.

The report is likely to be of particular interest to the health services industry itself, since effective models for addressing skill shortages must be industry-driven. Readers might also wish to read *Understanding and resolving the skills shortage in the Australian printing industry* by Victor Callan, which examines how the printing industry is responding to shortages.

Tom Karmel
Managing Director, NCVER

Key messages

This study examines how the vocational education and training (VET) sector can respond to skill shortages in the health sector. The study focuses largely on VET-trained workers in the health industry, such as enrolled nurses, nursing assistants, personal care assistants, allied health assistants and Aboriginal and Torres Strait Islander health workers.

✧ Responsibility for addressing skills shortages should be jointly shared between the health sector, education and training organisations and government, with industry and employers taking a proactive role. A partnership approach is necessary to provide the commitment and breadth of human, infrastructure and financial resources necessary for addressing skills shortages sustainably.

✧ Industry-driven approaches are a recurring characteristic of well-developed and effective models for addressing skills shortages.

✧ Innovative models first consider the tasks involved in the skills shortage, identify the requisite competencies, then design the training and/or redesign the job.

✧ Targeted training appears to be most effective in meeting skills shortages. Training components of programs within organisations should be complemented by a focus on retention of workers, increased job satisfaction and better career paths.

✧ There needs to be a mix of short-term solutions (training only) and medium-to-longer-term solutions (job redesign, holistic approaches).

Executive summary

Introduction

This study examines innovative approaches from the vocational education and training (VET) sector in response to skill shortages in the health sector. 'Innovative' models are defined as models which introduce something new into the context and/or make a change in something established; for example, training in a context where there was no training before, or redesigning jobs and providing training for new skills.

The study focuses largely on VET-trained workers in the health industry, such as enrolled nurses, nursing assistants, personal care assistants, allied health assistants and Aboriginal and Torres Strait Islander health workers.[1] Although considered part of the community services sector, aged care workers are included, because qualifications and training in this area appear to be increasingly forming a training and career pathway for health workers. The selected occupations are linked to VET qualifications that are part of the Australian Qualifications Framework, with a focus on certificates II to IV and diploma-level training.

The current structure of the national health and community services workforce has several characteristics that differentiate it from the labour forces of many other industries. In particular, there has been an adjustment of the mix of occupations in nursing toward lower-paid occupations. Personal care workers now form the bulk of the aged care workforce, while allied health assistants almost doubled from 1996 to 2001. There are persistent job vacancies and overtime in the health sector, as well as poor retention and pay rates. Women make up 78% of the health workforce, and the workforce is ageing.

The study considers how the problem of health skills shortages requires a multi-faceted approach from government, the education sector and industry, drawing on the Productivity Commission (Productivity Commission 2005) report on Australia's health workforce.

The study consisted of four stages. Stage 1 identified and analysed statistics and literature on the structure of the national health workforce and perceived skill shortages in health. Stage 2 identified when and where skill shortages in health have been addressed with innovative and effective models. Models were identified from the literature and an internet and database search, supplemented by a request for nominations from key contacts in health. Some innovative international programs addressing skills shortages and with the potential to be aligned to the Australian VET system are also included. In the third stage 50 models which appeared to be effective in addressing the areas of skill shortage were selected for further analysis. Information from public sources was used to write brief summaries. Six of the 50 models were then selected for writing up as case studies. The 50 effective models and the case studies are included in the support document accompanying this report.

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[1] For explanation of these job classifications, see Glossary, p.38.

Findings

Two overarching themes to emerge from the literature are the use of a partnership approach to address skills shortages and the targeting of specific groups for training and employment. At a national level the partnership approach is being promoted through the National Skill Ecosystem project (ANTA 2005). Strategies include but are not restricted to training solutions. Partnership approaches in which health providers work with communities are noted as particularly relevant in rural and remote communities, where access to resources is limited (Cunliffe 2004). At a national level, there is a focus on addressing unemployment and underemployment issues amongst disadvantaged groups of potential employees, such as the disabled, those over 45 years of age, and those from culturally and linguistically diverse backgrounds, by targeting them for training or retraining to fill skill shortages in the health and community services sector (Department of Education, Science and Training 2003).

This project found 74 models which were developed in Australia and internationally as a response to skills shortages in health. Using a typology that incorporates Perri's (1993) three levels of innovation[2], three categories of models were identified according to the mix of activities involved: training only; job and/or workforce redesign and training; and holistic. Most models were training only, followed by job and/or workforce redesign and training. Only about one in ten were holistic. Most were in rural/regional areas where skills shortages and the need for innovative, partnership-based solutions is the greatest.

In the 'training only' group, the vast majority were targeted training, many in the aged care sector. Target groups are VET in Schools students, youth, special needs groups (including Aboriginal and Torres Strait Islander people, rural and remote, and older workers), and people returning to the workforce after an absence.

Job and/or workforce redesign and training models involve upskilling and providing career pathways for existing workers, mobility across health roles in line with multi-disciplinary team-based approaches to care, and the creation of new health worker roles.

Holistic approaches are overarching and medium-to-long-term, and are largely designed to address protracted skill shortages in a sustainable manner. They cover relatively large geographical regions, include multiple stakeholders engaged in ongoing consultation, and employ a range of solutions to skill shortages in addition to training (such as job redesign, industrial relations and the effects of skill shortages in supply chains).

Findings of the project suggest that a mix of short-term solutions (training only), and medium-to-longer-term solutions (job redesign, holistic approaches) is required in order to meet existing and projected future skills shortages.

The project found that the characteristics of effective models include the following.
- *Collaboration and partnerships*: this means that responsibility for addressing skills shortage is jointly shared between the health sector, education and training organisations and governments, with industry and employers taking a proactive role. Partners have a high level of commitment and effective communication channels.
- *Industry involvement*: a hallmark of a well-developed model is demonstrated responsiveness to industry needs. Innovative models first consider the tasks involved in the skills shortage, identify the requisite competencies, then design the training and/or redesign the job. Health and aged care facilities are strongly involved in the development of training and job-redesign models.

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[2] Perri's three levels of innovation are: radical (a wholly new way of delivering services); differentiated service (existing delivery changed into something different); and differentiated labour market segment (existing service provided to or by new group).

- *Flexible delivery of training*: this tends to increase the accessibility of training, especially for rural and remote trainees, but also for workers in metropolitan centres.
- *Pathways to and from other training*: these increase the expertise of the health workforce and also facilitate succession planning within organisations.
- *Transferability*: although the models develop from local collaborations and are customised to local needs, replicability of core processes in their development and implementation can occur elsewhere in contexts of similar need.

There were some recurring issues relating to barriers or challenges to developing the models. These included the requirement for both policy and organisational flexibility to accommodate changing workplace needs and to support collaborative solutions to skill shortages.

Implications

The implications of this report are relevant to stakeholders at all levels. Everyone needs to be aware of what is being done—the effective processes that enable solutions, the potential for transferability to new sites, the barriers to innovation—and the implications of this for policy and practice. All partners need to share responsibility.

At a system-wide level there is a need for sustainable funding for innovative solutions to skills shortages in the health services. One element of this is an investigation of specific funding to cover clinical placements. Much training depends on completing clinical placements. Ongoing skills shortages amongst health professionals will also impact negatively on clinical placement availability.

If the models are to be transferable, information about them must be disseminated to give organisations the opportunity to learn from one other. Furthermore, it is important that consumers and the broader community are informed of the advent of new roles and service delivery models in this industry. Program stakeholders need to be mindful of their responsibilities for dissemination of information to the wider world. The Industry Skills Council, the Department of Education, Science and Technology and state training authorities are well placed to assist in dissemination.

Effective models make use of aspects of the VET system that allow for flexibility and customisation of training. At the same time there is a need for flexibility in the endorsement and accreditation of programs. This has become a time-consuming and cumbersome process for developers of some models, to a certain extent inhibiting program innovation.

Implications for resourcing include the need for organisations to support an appropriate level of risk-taking in developing new models. Resourcing also involves adequate and ongoing funding and human resources to enable partnership work. Skills for working collaboratively must be developed. Where practicable, co-location and other structures, such as regular network meetings, should be considered.

It is imperative that solutions to health skills shortages be industry-driven. Industry's involvement in model development will emphasise the practical. The process involves: first, a consideration of the tasks involved in the skills shortage and identification of the requisite competencies, then design of the training and/or redesign of the job. Skills of trainees and trainers must also be considered. In the early development stage unions and workers need to be involved in order to overcome possible issues relating to organisational boundaries.

Targeted training appears to be most effective in meeting skills shortages. Training components of programs within organisations should be complemented by a focus on retention of workers, increased job satisfaction and better career paths.

Evaluation needs to be built into models from the development stage, and sufficient resources allocated to this process. Quantitative measures such as outputs and low-level outcomes need to be

supplemented by qualitative measures such as case studies, which capture the interactions and processes of the initiative as it builds to the desired longer-term outcomes. Feedback from evaluation needs to be far more rigorous and should include input from all stakeholders on model effectiveness and suggestions for improvement. Evaluation enhances continuous improvement and sustainability of models.

Context

Research purpose

This study examines innovative approaches from the vocational education and training (VET) sector in response to skill shortages in the health sector. Of the 16 professions on the Australian National Skill Shortage List 2004, 11 are in health (Department of Employment and Workplace Relations 2004). The health and community services industry has experienced ongoing recruitment difficulties. Vacancy levels have increased over the last five years (ABS 2005). Recently released figures (Department of Employment and Workplace Relations 2006) indicate shortages in all states and territories of general and specialist registered nurses and most allied health specialists, as well as shortages of or difficulties recruiting enrolled nurses in most states and territories. In Western Australia and New South Wales enrolled nurse shortages are particularly evident in the aged care sector.

The Department of Rural Health at the University of Tasmania undertook this research project to locate, analyse and make accessible innovative models of health training and service delivery that have been developed in response to a shortage of skills. The study concentrates largely on VET-trained workers in the health sector of the health and community services industries, such as enrolled nurses, nursing assistants, personal care assistants, allied health assistants and Aboriginal and Torres Strait Islander health workers. The study includes workers in mainstream health as well as special needs areas (Aboriginal and Torres Strait Islander health and mental health services). Aged care workers are included because qualifications and training in this area appear to be increasingly forming a training and career pathway for health workers. The selected occupations are linked to VET qualifications in the Australian Qualifications Framework (AQF), with a focus on certificates II to IV and diploma-level training.

The research maps the characteristics of and the demand for health workers to establish the current and projected skill shortage contexts to which the models could be applied or adapted.

'Innovative' models are defined as models which introduce something new into the context and/or make a change in something established; for example, training in a context where there was no training before, or redesigning jobs and providing training for new skills. Perri (1993) identifies three levels of innovation: radical (a wholly new way of delivering services); differentiated service (existing way of delivering service changed into something different); and differentiated labour market segment (existing service provided to or by a new group). Our typology of models in the chapter in which the findings are discussed incorporates Perri's three levels of innovation.

The majority of models draw on training from the Community Services and Health Industries Training Packages. In addition, some international models, and models with the potential to be aligned to the Australian VET system are included.

Research questions

The study addressed the following research questions.

✧ When and where have innovative and effective training and/or service delivery models been developed in response to skill shortages in health?
  ◆ What are the features and indicators that are perceived to signal a skill shortage in models reported in the literature?
  ◆ What are the characteristics of models reported in the literature developed in response?

✧ What do readily available statistics and related literature tell us about the current and likely future structure of the national health workforce in terms of likely future health skill shortages? Do these issues relate to:
  ◆ location (state and rurality)
  ◆ demographics of the workforce (for example, age, gender)
  ◆ job vacancies
  ◆ numbers of trained people likely to enter the health workforce, with an emphasis on VET qualifications, but considering the spillover effects of shortages of higher education qualified professionals on VET-qualified health workers?

✧ Where and how could the identified innovative models be applied to address current and predicted skill shortages in health?

Policy and practice issues

The shortage of health professionals has resulted in pressures for VET workers to perform some of the tasks traditionally undertaken by professionals—with appropriate training and supervision. The study considers how the problem of health skills shortages requires a multi-faceted approach from governments and industry, drawing on the Productivity Commission (2005) report on Australia's health workforce, and foreshadows the sorts of innovative solutions that have been developed to address local shortages of health professionals. These include the upskilling of paraprofessionals and the adoption of a skills ecosystem approach (ANTA 2005).[3] Rural and remote areas in particular have become home to a set of innovative service delivery models, such as multiskilling allied health assistants working across several areas (Goodale & Lin 2005), as well as a range of community-based solutions (Cunliffe 2004). Collation and analysis of these innovative models will assist policy-makers and practitioners to select appropriate models for various contexts.

Methodology

This section outlines the main methodological aspects of the project. Further details are to be found in the support document.

Project reference group

A project reference group was established, including representatives of the Community Services and Health Industry Skills Council, the Australian Rural Health Education Network, health professional bodies, a state government health department and health consumer groups. The role of the reference group was to advise on the validity of outcomes of stages of the research, assist in

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[3] The skills ecosystem approach encourages collaboration between governments, industry and registered training organisations to identify reasons for labour shortages and develop strategies to address them. Government acts as a facilitator or broker to foster ownership of industry training requirements by industry, and to encourage registered training organisations to be more responsive to industry needs. A skills ecosystem is an holistic approach to addressing skill shortages and includes education and training, workforce management, organisation, job (re)design, industry image and industrial relations.

nominating innovative models in stage 2 by distributing a call for nominations through their networks, assist in the selection of six models as case studies in stage 3, and comment on the draft final report. It is expected that the reference group's familiarity with the project findings will increase their uptake in members' organisations.

Stages of the research: Sample

The research was designed in three stages.

Stage 1 identified and analysed readily available statistics and literature on the structure of the national health workforce and perceived skill shortages in health.

Stage 2 identified when and where skill shortages in health have been addressed with innovative (see Perri's definition explained earlier) and effective models. Seventy-four models were identified from the literature and an internet and database search and supplemented by a request for nominations from key contacts in health.

In the third stage 50 models that appeared to be effective in addressing skill shortages were selected for further analysis (see below for selection criteria). Information from public sources was used to write brief summaries. Six of the 50 models were then selected for writing up as case studies. The 50 effective models and the case studies are included in the support document to this report.

Analysis

Summaries of models

Consistent with qualitative (Patton 2002) and inductive (Johnson & Christensen 2004) methodology, the models were analysed for commonalities or themes, and broad categories and levels were identified. To select 50 models for further analysis from the 74 identified, we used seven criteria, which were established with the assistance of the reference group:

✧ sustainability/likelihood of sustainability

✧ evaluation—has it been built in/done/started?

✧ ease of transferability/replicability

✧ flexible delivery

✧ pathways to/from other training

✧ fit with training package (is/could be aligned with competencies)

✧ contribution to overall variety of models in terms of type, level, targeted training group, involvement of employers, location.

Models with insufficient information and models which had not been progressed beyond very early conceptual stages were excluded. The remainder were assessed according to the number of criteria they met. All of the final 50 models meet at least four of the criteria, and most meet more than four.

Selected models not based on published material were sent back to nominators for checking and amendments were made accordingly.

Limitations of the study

We anticipated that around 200 models would be found; however, only 74 were identified. The majority came from the literature and internet searches. Fewer than expected came from nominations by stakeholders, with an increase as a result of our presence at the Community Services and Health Industries Skills Council Conference in Brisbane in June 2006.

We attribute the small number of nominations to a lack of time to share what is being done in the health sector, partly because of widespread skill shortages, including at management levels, meaning that people are fully occupied dealing with the everyday implementation of innovative solutions. However, the data did seem to reach a point of saturation (Oberle 2002); that is, the point in the research beyond which no new models were emerging from the analysis, and we are confident that we had identified the full range of models in operation.

The relatively small number of international models is due to the variations in VET-type systems and our unfamiliarity with these systems.

Summary of issues identified in the literature

This section gives an overview of issues identified in the literature that affect skills shortages in the health industry. It examines what statistics and related literature tells us about the current and likely future structure of the national health workforce in terms of skill shortages, and outlines characteristics of models developed in response.

A full literature review can be found in the support document to this report.

Snapshot of the VET health workforce

According to the Australian Institute of Health and Welfare report (2003), in 2001 the largest occupational group in health was nursing workers (over half of those employed); in community services occupations the largest group was aged/disabled carers.

In recent years there has been an adjustment in the mix of occupations in nursing toward lower-paid occupations. Significantly for the VET sector, the number of enrolled nurses decreased by 21% from 1996 to 2001 (ABS 2001). The national shortage of enrolled nurses is confirmed by the *State skills in demand lists* (Department of Employment and Workplace Relations 2006). At the same time, personal care assistants and nursing assistants, occupations that are lower paid than enrolled nurses, increased by 20%, apparently substituting for enrolled nurses or taking over some of the less skilled tasks of registered or enrolled nurses (Australian Institute of Health and Welfare 2003). The Productivity Commission (2005) notes that personal care workers now comprise the bulk of the workforce in the aged care sector. Although there are skill shortages in the allied health area, specifically in relation to allied health professionals, statistics show that the number of allied health assistants has almost doubled in the five-year period from 1996 to 2001 (Australian Institute of Health and Welfare 2003). Shortages of Aboriginal and Torres Strait Islander health workers were highlighted in 2004 by the Australian Medical Association in a media release suggesting that an additional 2000 were needed (Australian Medical Association 2004).

The current structure of the national health and community services workforce has several characteristics that differentiate it from the labour forces of other industries. The following is a brief outline of these.

High female proportion in the health workforce

Women make up 78% of the health workforce, the highest proportion of all industries (ABS 2001). They are more likely than males to be in lower-income occupations (Australian Institute of Health and Welfare 2003) and to work part-time. That the health and community services workforce is comprised of a high proportion of females may affect supply of health professionals in accommodating the increasing demands of health and community services. The gender stereotyping integral to the industry discourages prospective male workers (McQuaid, Bond & Robertson 2004).

Ageing health workforce

Australia has an ageing health workforce (Productivity Commission 2005). Within the health and community services labour force, 38% (Australian Institute of Health and Welfare 2003) of workers are aged 45 years and over (see figure 1). The occupations with a relatively high proportion of workers aged 45 years and over were nurse managers, aged/disabled carers and personal care assistants. As the number of health and community services workers retiring will increase in coming years and demand for their services will also increase due to general population ageing, pressure will be placed on the capacity of the health labour force. The aged care sector is especially vulnerable to this pressure.

Figure 1   Employees aged 45 and over in selected health occupations
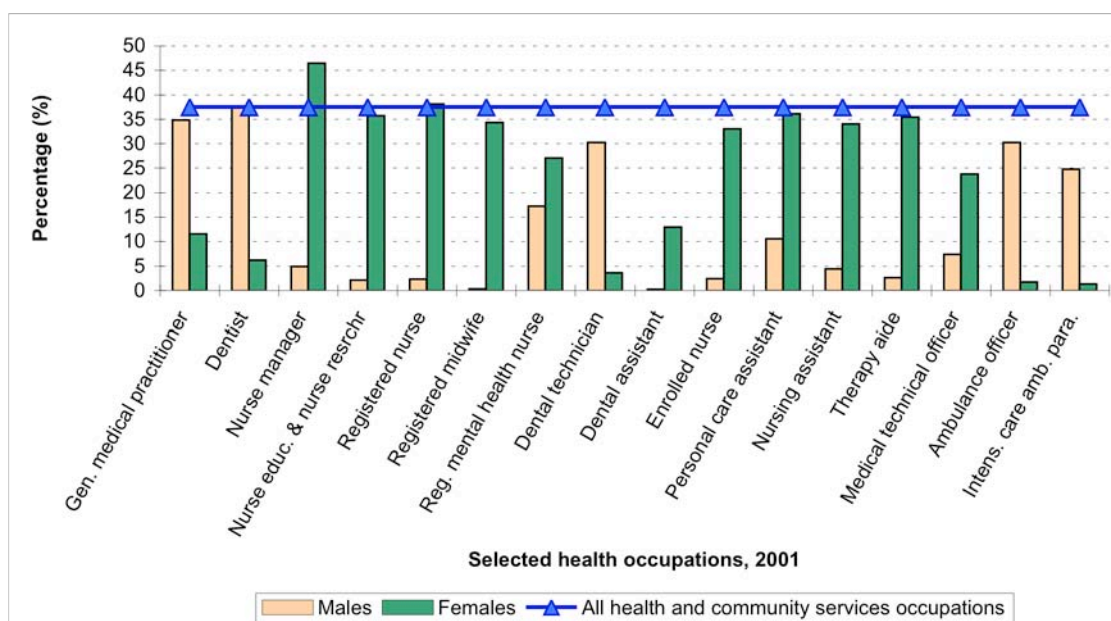
Source: ABS (2001); Australian Institute of Health and Welfare (2003, tables A14 & A15)

Statistics indicate a low proportion of young people aged between 15 and 24 (9.8%) in the health workforce (Australian Institute of Health and Welfare 2003). The relatively low number of Aboriginal and Torres Strait Islander health workers aged 15–24 (9.2%) supports findings from the Productivity Commission (2005) in relation to increasing difficulties in recruiting younger Aboriginal and Torres Strait Islander people to the health workforce.

Geographical location of the health workforce

Access to a wide range of health and community services workers, particularly medical specialists and other services relying on infrastructure and services of hospitals, may be limited in rural and remote areas (Australian Institute of Health and Welfare 2004).

Figure 2   Practitioner-to-population ratios
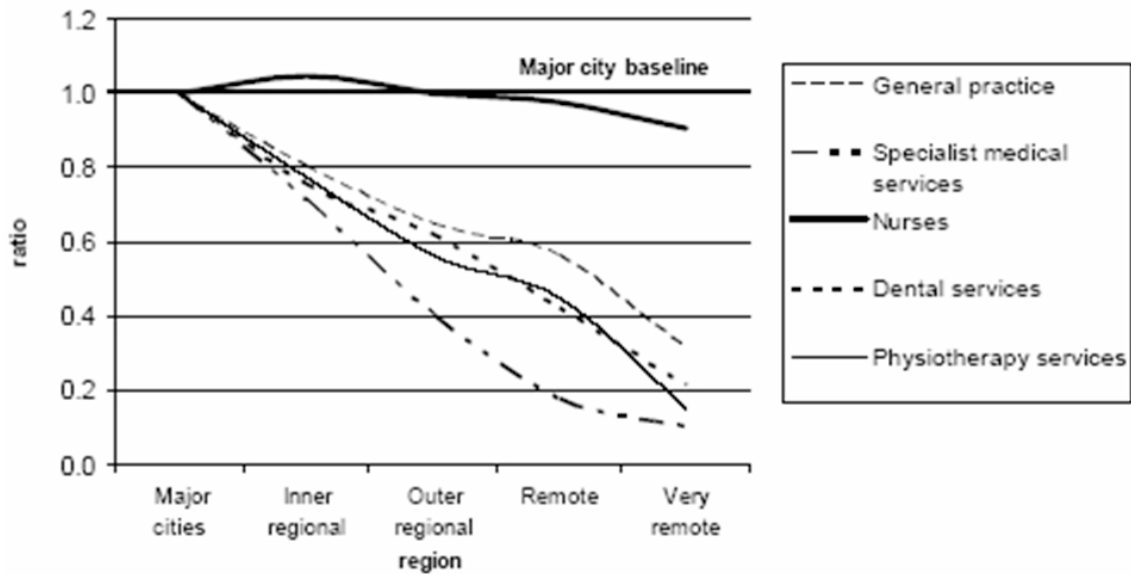
Source: Productivity Commission (2005, p.xxvii)

This finding is supported by the Productivity Commission (2005, p.xxvii), which expresses particular concern over the lack of access to health workers by Aboriginal and Torres Strait Islander communities. The majority of health workers work in capital cities (see figure 2). However, the situation is reversed for aged/disabled personal care assistants and enrolled nurses. For example, 151 per 100 000 population enrolled nurses were employed in other regions compared with 74 per 100 000 population in capital cities (Australian Institute of Health and Welfare 2004). This suggests substitution of lower-qualified workers for professionals may be taking place in rural and regional areas.

Persistent job vacancies and long hours worked

The health and community services industry has experienced ongoing recruitment difficulties. Vacancy levels have increased over the last five years (ABS 2005). The increase in job vacancies can be explained in terms of factors such as the expansion of the workforce, career change and early retirement. It can be interpreted as an indication of an imbalance between job availability and skills shortages.

With reference to job growth and employment vacancies statistics, the Department of Employment and Workplace Relations (2004, cited in Community Services and Health Industry Skills Council 2005) has identified the widespread health skills shortages, particularly for registered nurses (unemployment rate low; vacancies are 29.1% of the number employed), enrolled nurses (unemployment rate below average; 29.8% of those employed), medical practitioners (unemployment rate low; 36.1% of those employed), Indigenous health workers (unemployment rate low; 32.1% of those employed) and most of the allied health workers (including physiotherapists, dentists and medical imaging professionals). In rural and remote areas these shortages, particularly in the allied health area, are of increasing concern (Productivity Commission 2005). The rapid increase in the number of allied health assistants noted in table 1 in the support document suggests this may be a response to the job vacancies amongst allied health professionals.

Many of these occupations have traditionally had high vacancy rates, which have been attributed to the high level of female participation, as female workers tended to work part-time, often due to family commitments (Community Services and Health Industry Skills Council 2005, p.48). The full-time share of employment of registered nurses, enrolled nurses, and nursing/personal care

assistants are respectively, 52.6%, 56.1%, 47.6% (Department of Employment and Workplace Relations 2004, cited in Community Services and Health Industry Skills Council 2005). Skill shortages are difficult to predict for areas which are highly dependent on the participation of female workers, again because many of those qualified tend to work part-time (Australian Institute of Health and Welfare 2003, p.12).

The trend towards working shorter hours for certain groups within the health and community services workforce, such as enrolled nurses, personal care/nursing assistants, and aged/disabled person carers, is evident in figure 3. This reflects the casualisation of work opportunities for these groups. The proportion working 16–34 hours has increased since 1987, while the numbers of those working very long or short hours have gone down. Overall, two out of every three workers worked part-time in 2001 (Department of Education, Science and Training 2001).

Figure 3   Enrolled nurses, personal care/nursing assistants and aged/disabled carers, hours worked, 2001
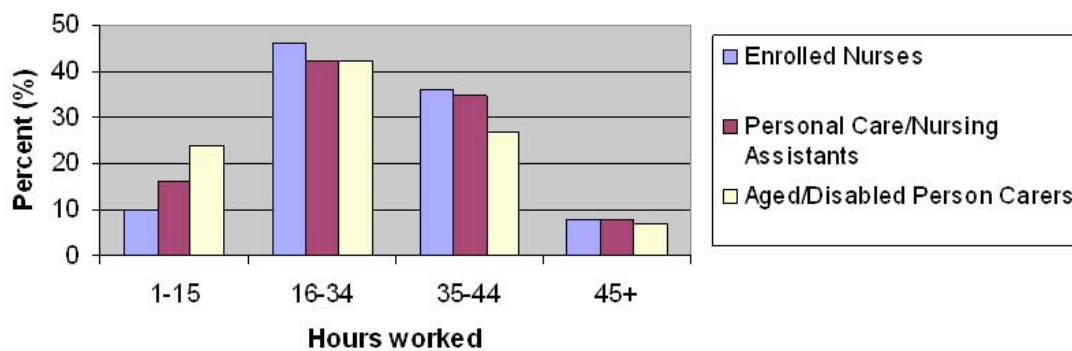
Source: Data derived from Department of Education, Science and Training (2001).

In contrast to the large numbers of part-time workers in the female-dominated occupations, over a quarter of ambulance officers, dental technicians, and intensive care paramedics worked more than 49 and over hours per week (see figure 4).

Figure 4   People employed in selected VET-trained health occupations, hours worked, 2001
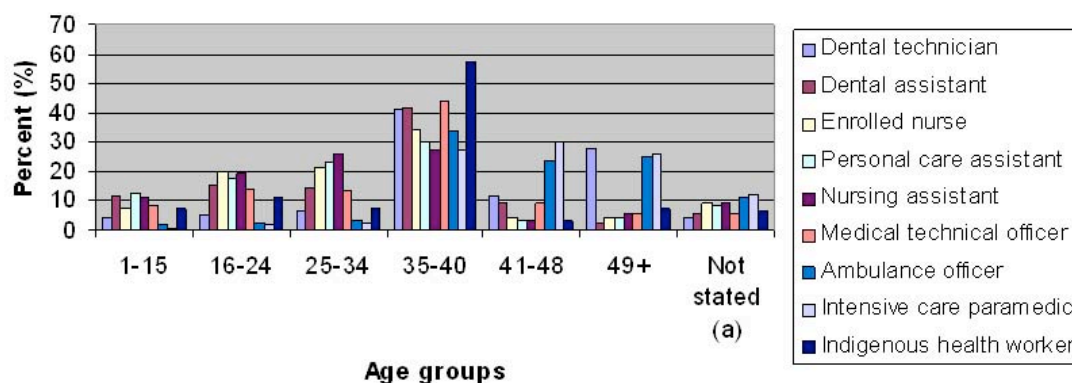
Source: Australian Institute of Health and Welfare 2003 (tables A.16 & A17)

Among health professionals there were also indications of long working hours. For example, 41.74% of medical practitioners and 43.96% of radiologists worked 49 and over hours per week (Australian Institute of Health and Welfare 2004, p.261). The long working hours indicate that there is a strong demand for highly qualified professionals. There may be scope to upskill workers with lower qualifications to take on some of the tasks currently being undertaken by health professionals.

Poor retention and pay rates

Poor retention in some health occupations can be a significant factor causing workforce shortages, compounding the shortages related to the low full-time participation rate. At any point in time there will be just over half of the eligible nursing workforce active in nursing, either full- or part-time. In the area of mental health, extremely high turnover rates have been noted (Community Services and Health Industry Skills Council 2005). Poor retention may be due to unsatisfactory working hours, relatively low remuneration, poor working conditions, structural constraints and highly specialised skills needs (Community Services and Health Industry Skills Council 2005).

Education and training levels

According to a report from the Department of Education, Science and Training (2001), in May 2000, 57% of those working as enrolled nurses, personal care/nursing assistants and aged/disabled person carers had a basic vocational qualification, 24% had attained a diploma and 12% had no post-school qualification (see figure 5). Half of those without a post-school qualification were undertaking further studies. A majority of personal care and nursing assistants and aged/disabled person carers had no post-school qualifications.

Figure 5   Qualifications profile of enrolled nurses, personal care/nursing assistants and aged/disabled person carers, Australia, 2000
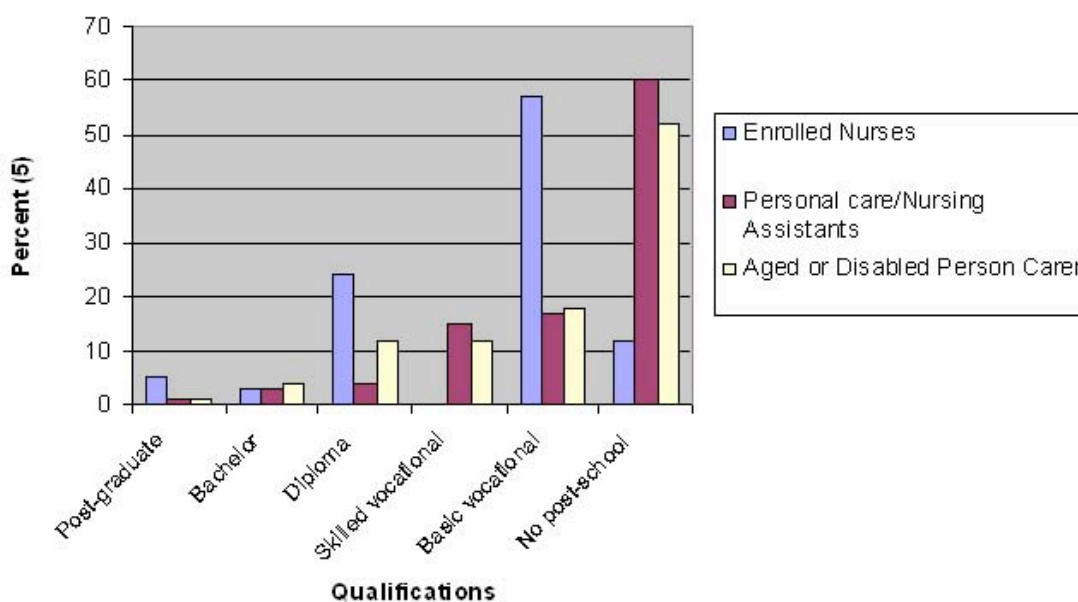
Notes: 1   The postgraduate category includes higher degrees and postgraduate diplomas; the diploma includes undergraduate diplomas and associate diplomas. The percentages may not add to 100 because of rounding.
           2   These figures have been reproduced from the Department of Education, Science and Training (2001), but there appears to be an inaccuracy in the 12% of enrolled nurses reported as having no post-school qualifications.
Source: ABS (2000, cited in Department of Education, Science and Training 2001)

The availability of higher-quality work placements is a key part of training for health professionals (see, for example, Department of Health and Ageing 2005), and for vocationally trained workers (see, for example, Country Education Project & Youth Research Centre 2001). However, the shortage of health professionals within Australia cited earlier in the report suggests that there is limited time and opportunity for clinical supervision of health professional students and for supervision of VET health workers. This will have a cascading effect on the ability and willingness of health facilities to take students for VET placements, and also on the ability of the sector to address skill shortages.

Impact of workforce issues on skill shortages

The workforce issues outlined above have contributed in no small way to the skills shortages which affect the industry. Current and future demands on the health industry and the changing face of the health and community services workforce mean that there is an urgent need to implement strategies to increase the uptake of training in particular areas of skill shortage, such as aged care, and to vigorously pursue recruitment and retention of workers. With many of the skills shortages involving VET-trained workers, the sector is clearly in a position to contribute significantly to such strategies.

Models that address skill shortages

Clearly there is a need for innovative service delivery and training models to help reduce health skill shortages. These same issues are also being addressed internationally (Department of Health [United Kingdom] 2005; Chapman et al. 2004). Such models are likely to focus on creative recruitment and outreach strategies for potential employees, the development of training and accreditation for new industry areas, and increasing employee retention and job satisfaction through appropriate professional development and other support services (Chapman et al. 2004).

Two overarching themes appeared to emerge from the literature: use of a partnership approach for addressing skill shortages, and the targeting of disadvantaged groups for training and employment in health and community services occupations. At a national level the partnership approach is being promoted through the National Skill Ecosystem project[4] (ANTA 2005). The skills ecosystem approach is illustrated in a demonstration project currently being undertaken in New South Wales by the Community Services and Health Industry Skills Council and Central Coast Health Mental Health Services. The project is studying mental health services in the Central Coast as a skill ecosystem, whereby a range of strategies will be identified and implemented to improve productivity and better use of limited resources by facilitating greater collaboration amongst mental health services. These strategies will include but will not be restricted to training solutions. Partnership approaches where health providers work with communities are noted as particularly relevant in rural and remote communities, where access to resources is limited (Cunliffe 2004). The Katherine Regional Allied Health project described by Cunliffe relies on creating linkages between health providers, other organisations (such as schools), and community members (through the employment and training of local community-based health workers).

At a national level, there is a focus on addressing unemployment and underemployment issues amongst disadvantaged groups of potential employees, such as the disabled, those over 45 years of age, and those from culturally and linguistically diverse backgrounds, by targeting them for training or retraining to fill skill shortages in the health and community services sector (Department of Education, Science and Training 2003). As a result of research funded by the Department of Education, Science and Training (2003), the Community Services and Health Industry Skills Council identified a range of barriers that prevented these target groups from accessing employment and provided recommendations for facilitating their participation in the health workforce. Key recommendations included: developing more appealing industry marketing; encouraging employers to actively recruit employees from these target groups; ensuring adequate funding is available to support training for these groups; and focusing on males in the over 45 years age group, as this group is identified as more resistant to considering a career in the health and community services sector. This includes promoting men in non-traditional roles, and individually tailoring bridging courses for this sub-group.

Summary

This overview of the literature on the current and likely future structure of the national health workforce in terms of skill shortages presents a picture of recruitment difficulties, poor retention

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[4] This project was established by the Australian National Training Authority (ANTA); ANTA was abolished in 2005 and its functions taken over by the Department of Education, Science and Training.

and a low full-time participation rate contributing to increasing vacancy levels. The workforce includes a high proportion of women, part-time workers, and is ageing. There has been an adjustment of the mix of occupations in nursing towards lower-paid occupations. Rural and remote areas, and Indigenous communities in particular, are hit hard by skill shortages.

With regard to models developed in response, two main themes emerge from the literature—use of a partnership approach for addressing skill shortages, and targeting disadvantaged groups for training and employment in health and community services occupations.

Findings

Categories of models

A typology was developed incorporating Perri's (1993) three levels of innovation. Three categories of models were identified according to the mix of activities involved.

✧ training only (corresponding to Perri's differentiated labour market segment level of innovation, where an existing service is provided to or by a new group):
  - non-targeted training
  - targeted training
  - youth
  - special needs groups (Aboriginal and Torres Strait Islander, ethnic, low socioeconomic status, rural and remote, older workers)
  - other (the existing health support workforce, those returning to the workforce after an absence)

✧ job and/or workforce redesign and training (corresponding to Perri's differentiated service level of innovation, where an existing way of delivering service is changed into something different):
  - upskilling and providing career pathways for existing workers
  - mobility across health roles in line with multi-disciplinary team-based approaches to care
  - creation of new health worker roles

✧ holistic approach (corresponding to Perri's radical level of innovation, a wholly new way of delivering a service):
  - ongoing consultation with and ownership of skill shortages by all relevant stakeholders (government, industry, registered training organisations etc.). These models employ a range of solutions to skill shortages in addition to training. Other strategies include job (re)design, industry image, industrial relations, and the effects of skill shortages in the supply chain.

Levels of models

It was clear that models operated within three different spheres of geographic influence—local, regional, and state/national. They were classified according to these three levels. Definitions of each are provided below.

✧ *local:* developed and delivered in one geographical location or health service only by a limited number of stakeholders (for example, one registered training organisation, one health care provider). May have been adapted/licensed for delivery elsewhere

✧ *regional:* developed by multiple stakeholders (often including government health, education and/or training departments) for application across a number of sites/communities within a region

✧ *state/national focus:* developed by stakeholders (involving or commissioned by government health, education and/or training departments) for widespread application either across a state or nationally.

Characteristics of models

The models discussed in this chapter reveal important characteristics of effectiveness. The models are clearly focused: they focus on skilling/upskilling existing employees or on identifying a target group of employees who may not otherwise have considered a career in health. The partnership approach means that responsibility and resources for addressing skills shortages is jointly shared by the health sector, education and training organisations and government, with employers taking a proactive role. The training component in the models is complemented by a focus on retention of workers, with better career paths and increased job satisfaction. Finally, they demonstrate the need for a balance between short-term solutions (training only), and medium-to-longer-term solutions (job redesign, holistic approaches) that also address projected skills shortages. Most were in rural/regional areas where skills shortages and the need for innovative, partnership-based solutions are the greatest.

Training only

More than half of the models identified (39 out of 74) are 'training only'. The majority of these are almost evenly divided between local and regional models, with seven state or national models; the vast majority of 'training only' models involve targeted training, many in aged care. These models train youth (particularly VET in Schools programs), special needs groups (Aboriginal and Torres Strait Islander, ethnic, low socioeconomic status, rural and remote, older workers), or other groups (such as the existing health support workforce or those returning to the workforce after an absence).

Figure 6   Groups targeted by 'training only' models
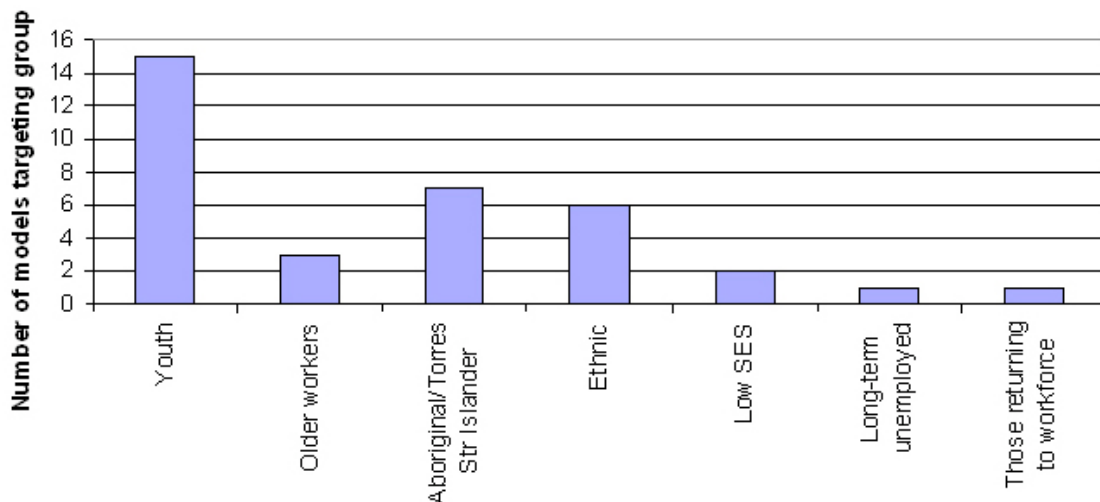
Note: Some models target more than one group.

VET in Schools programs often use aged care facilities for student work placement, but the training may lead to careers in health other than aged care, such as nursing. 'Training only' models targeting special needs groups include a strong focus on Aboriginal and Torres Strait Islander health workers.

Figure 7   Main shortages addressed by 'training only' models
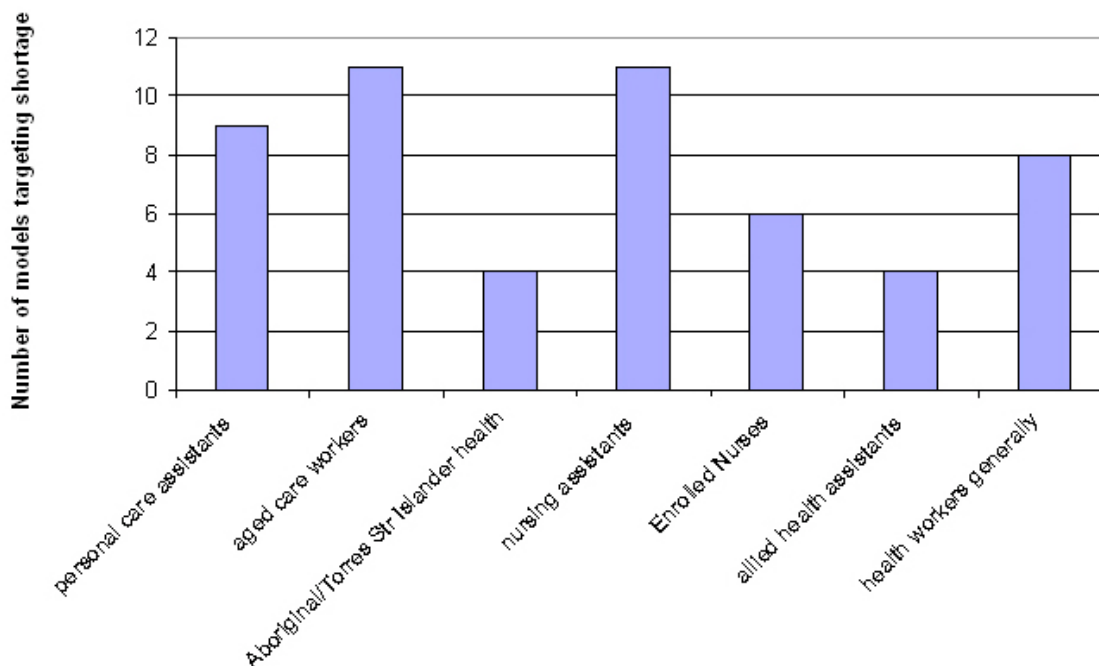
Note: Some models address more than one shortage.

'Training only' models provide aged care and health facilities with new workers, often in the same facility where they undertook their work placement training. The models link supply and demand sectors. Many 'training only' models are local and are customised for specific communities. However, they may have been, or may be adapted for delivery elsewhere.

Although there were so many 'training only' models, we chose only one (Riverland VET in Schools nursing pathway) for a case study, largely because of the saturation point (Oberle 2002) reached by the data collected. Riverland is a replicable example of models typical of VET in Schools and school-based Australian Apprenticeship programs and shows how school and health facility partnerships can work to mutual advantage. The multiple benefits of VET in Schools programs for young people, industry and communities, particularly in rural Australia, have been identified in other research (Johns et al. 2004).

Job and/or workforce redesign and training

Job and/or workforce redesign and training models involve upskilling and providing career pathways for existing workers. They include 'training only' elements and more. These models also promote mobility across health roles in line with multi-disciplinary team-based approaches to care, and may also include the creation of new health worker roles.

Job and/or workforce redesign and training models have local, regional and state or national contexts, with regional models being the largest group. These models address a range of skill shortages (see figure 8).

Figure 8   Main shortages addressed by 'job redesign and training' models
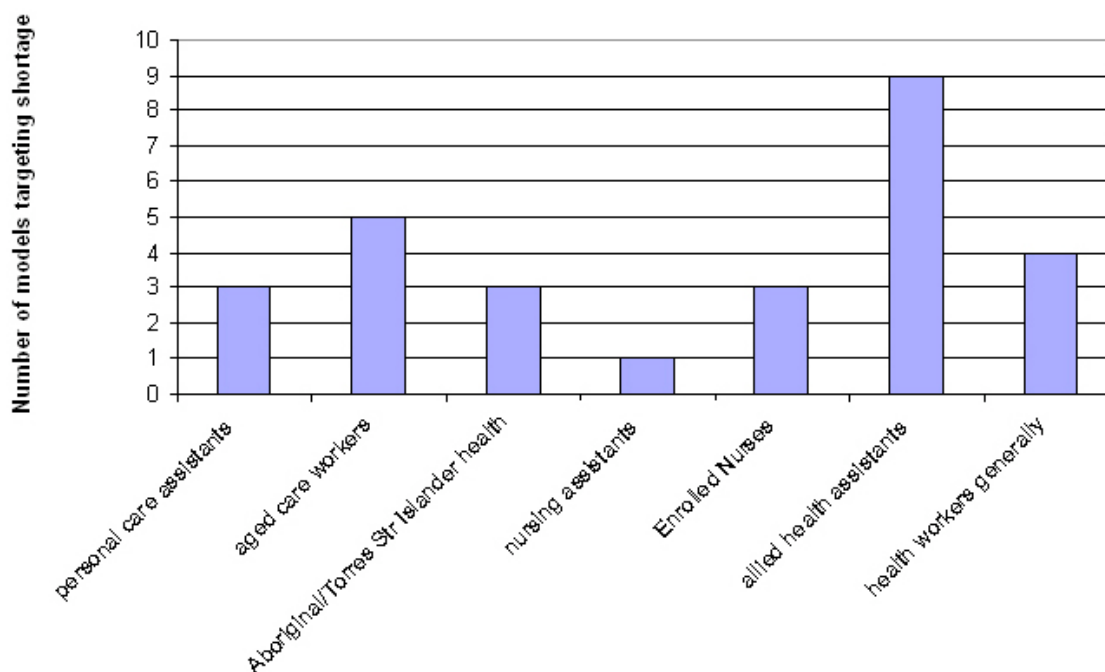
Note: Some models address more than one shortage.

Job redesign and training models produce effective outcomes for organisations, as they enable organisation-wide responses to skills shortages through redesign of jobs, creation of new roles, and facilitating mobility across health roles, as well as training.

Three diverse examples from this group were selected for writing up as case studies—the Introduction of Endorsed Enrolled Nurses in Haemodialysis Units, a metropolitan model addressing the shortage of registered nurses; the Western Australian Country Health Service Allied Health Assistant Training Initiative, associated with a significant rural and remote workforce; and the Aboriginal Health Worker Oral Health Training program, an innovation in the Aboriginal and Torres Strait Islander health worker model, which is critically important in the delivery of services to remote communities with chronic skills shortages.

Holistic models

Models using an holistic approach are overarching and medium-to-long-term, addressing projected skill shortages in a sustainable manner. They cover large geographical regions and involve or are commissioned by government health, education and/or training departments, and include multiple stakeholders, such as state and/or national industry skills and training councils, industry organisations and registered training organisations. Holistic models involve ongoing consultation with and ownership of the skill shortage problem by all relevant stakeholders. Holistic models tend to involve government departments and important non-government organisations, such as industry skills councils. They employ a range of solutions in addition to training; for example, job (re)design, industry image, industrial relations, and effects of skill shortages in a supply chain. As a result of these factors, holistic approach models have perhaps the best chance of long-term sustainability. Because of this, two models from this relatively small group were chosen for writing up as case studies: the New South Wales Central Coast Mental Health Skills Ecosystem and the Queensland Aged Care Skills Formation Strategy.

Innovative directions addressing skills shortages

Analysis of the models revealed features of innovative models to be: collaboration in development; industry involvement; cultural appropriateness; flexible delivery of training; pathways to and from other training; and transferability.

Collaborative development

A more receptive attitude to partnership approaches is a feature of the models. In local models these may be relatively small-scale, but are nevertheless vital to the development and ongoing sustainability of the models. Regional and state or national models usually involve multiple stakeholders, and models using an holistic approach always do. Partnerships may involve health and aged care facilities and schools, registered training organisations, government and non-government organisations, employee unions, industry skills councils, and other organisations.

Skills in partnership forming and maintenance cannot be taken for granted. The New South Wales Central Coast Mental Health Ecosystem project offers learning opportunities in this via a worker exchange program between organisations providing services in mental health.

New South Wales Central Coast Mental Health Ecosystem project

This mental health services project, led by the Community Services and Health Industry Skills Council, seeks to improve the quality of care to consumers by developing the structures and skills necessary to improve collaboration between services. Strategies designed to enhance both consumer-focused and organisational collaboration are being trialled. The project strengthens an existing inter-agency network, the Central Coast Mental Health Community Consultation Committee, and further develops partnerships relevant to mental health service delivery in the area, with the aim of more efficient use of limited resources and increased innovation in total mental health service delivery.

Effective communication channels strengthen partnerships, and co-location promotes communication. Rural communities may provide a cohesion that promotes partnerships, even when stakeholders are separated by some distance. In the Riverland VET in Schools case, a health facility's director of nursing who came up with the idea for the program was a former pupil of the district VET coordinator. They worked together to develop the initiative. The community, spread over a number of towns, became strongly supportive of the program.

Riverland VET in Schools Nursing Program

The Riverland VET in Schools Nursing program in regional South Australia, a training-only model, is an example of the importance of partnerships in developing a model—here, partnerships between educational institutions (four high schools and a TAFE[5] institute) and industry (four hospitals with aged care facilities). All partners benefit: the model offers clinical placement and post-school employment opportunities for the school/TAFE students, with a training pathway to higher education and nursing; it also addresses the shortage of workers in local aged care and health facilities. Hallmarks of the model are: VET responsiveness to industry needs; flexibility—with regard to placement training shifts, to TAFE tuition sessions and to school timetabling; and strong community support for the program. Funding for the program came from the South Australian Department of Health and from the schools' own funds.

A high profile within communities also strengthens the commitment of partners.

The partnership approach, with its broader resource base, increases the likelihood of sustainability of the models. Holistic models, such as the Queensland Aged Care Skills Formation Strategy, are

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[5] TAFE = technical and further education

more likely to be sustainable because of the involvement of strong partners, in this case, an industry skills council committed to industry ownership of training and workforce issues.

Queensland Aged Care Skills Formation Strategy

An holistic and long-term solution to skill shortages in the aged care sector, this strategy challenges traditional thinking about skill shortages and training, offering an innovative solution to problems where traditional solutions have failed. Industry is the driver of reform, working collaboratively with government, registered training organisations, unions and other key stakeholders. The ability and willingness of stakeholders to risk-take and think outside the square are hallmarks of the model. The model is a long-term approach to skill shortages in the aged care industry, involving all relevant stakeholders and including a range of solutions, such as education and training, job redesign, and supply chain issues. It is applicable across different industry sectors and can be applied at a regional or statewide level. The model is based on the concept of skill ecosystems, which have been supported nationally by the Department of Education, Science and Training and the former Australian National Training Authority (ANTA).

The development phase of this project lasted approximately twelve months and focused on bringing together the stakeholders, encouraging dialogue, building trust, developing networks, and accessing and analysing data on industry skills needs.

Industry involvement

Innovative models first consider the tasks involved in the skills shortage, identify the requisite competencies, then design the training and/or redesign the job. Health and aged care facilities are strongly involved in the development of training and job-redesign models.

Baptist Community Services' care supervisors model provides a solution to skill shortages in their aged care facilities by upskilling VET-trained workers in a new care supervisor role, as an adjunct to that of registered nurses.

Care supervisors

Baptist Community Services developed the care supervisors model in response to skill shortages in their aged care facilities in Sydney, Newcastle and Canberra. The role is an adjunct to the registered nurse role. There are two qualification pathways for the care supervisor position: Certificate IV in Aged Care Work and Medication Management for endorsed enrolled nurses. An industrial award was negotiated for the salary. There are now 23 care supervisors in Baptist Community Services and demand within the organisation for further Certificate IV in Aged Care Work courses has increased. While there remains some discomfort over people other than registered nurses administering medication and the cost at facility level for releasing staff for training is a problem, the organisation plans to maintain and develop the group of care supervisors with further education and updating of skills.

For this model, a care supervisor workgroup first developed position descriptions, policy, and a communication and change strategy. The recruitment and selection process followed.

Responsiveness to industry needs is a hallmark of a well-developed model. As a stakeholder in the Riverland VET in Schools nursing program said:

> You've got to take advice from industry as to what is best for them. The hospital is doing the training, and what suits them the best, what is best at the end of the day for their patients, these are integral to the whole plan.

Collaborative work at an industry level is also a feature of the Queensland Aged Care Skills Formation Strategy. An industry reference group works with the Queensland Community Services and Health Industry Training Council, overseeing implementation of the strategy. Industry–school partnerships targeting Grade 10 students for careers in aged care are being developed as part of the model.

Cultural appropriateness

The high valuing of Aboriginal health workers by their communities was particularly apparent. Community participation in and ownership of programs and their sustainability were critical to program success and acceptance. The Aboriginal Health Worker Oral Health Training program is one of a range of Aboriginal health worker programs sensitive to community cultural traditions.

Aboriginal Health Worker Oral Health Training program

The Aboriginal Health Worker Oral Health Training program is a partnership involving a university, state health department, and an Aboriginal medical services council. It is offered in various locations in rural and remote Western Australia and expands the scope of Aboriginal health workers to include a focus on dental care, in order to meet the specific health needs of participating communities. This culturally appropriate, basic preventative oral health delivery program is delivered by a specially established registered training organisation. Trained Aboriginal health workers complete a stand-alone oral health module designed to complement Aboriginal Health Worker Certificates III and IV. On completion, they are encouraged to implement preventative measures at a local level to reduce the need for later dental interventions. While there are early indications of pockets of improved knowledge about dental practices in areas where the program has been run, concrete evidence is yet to be collected about the long-term effects of the model.

The cultural fit of programs extends to alignment of curriculum, delivery and pedagogy with local Indigenous cultural perceptions, values and needs. In remote communities in particular, local Aboriginal health workers also act as cultural brokers, linking community members and medical staff.

Flexible delivery of training

Flexible delivery tends to increase the accessibility of training, especially for rural and remote trainees, but also for workers in metropolitan centres. Some models have incorporated a computer skills component to assist trainees to participate in flexibly delivered training. In Western Australia's Existing Worker Traineeships in Aged Care model, the state's Country Health Service and a regional TAFE institute combine to offer flexible delivery to trainees spread across 158 000 square kilometres.

Existing Worker Traineeships in Aged Care

In this model CY O'Connor TAFE and the Western Australian Country Health Service—Wheatbelt, in consultation with the Western Australian Department of Education and Training and the Community Services Health and Education Industry Training Advisory Body, offer traineeships to all eligible non-regulated (that is, not registered by a board or authority determining industry standards in education and/or care delivery) aged care workers without a certificate III level in the Wheatbelt. This is the single largest sign-up of workers in the entire Western Australian Country Health Service. The project is seen as a model of collaboration between industry and training providers. Results are outstanding: Western Australian Country Health Service—Wheatbelt has over half of all the state's trainees in aged care work and has moved from a situation in 2005, where only 4% of non-regulated carers had nationally recognised qualifications in aged care, to one in 2006, where 96% of staff hold a nationally recognised qualification.

Most of the trainees required computer access and learning support. The Western Australian Country Health Service—Wheatbelt provided this. CY O'Connor College of TAFE provides an orientation program at four campuses throughout the Wheatbelt and two identical workshops per month to accommodate rostering and to enable health services to continue service delivery. It has also developed an interactive WebCT CD, as well as course materials and assessment support for the workplace.

Flexibility is also a key to other successful programs. In the Riverland VET in Schools Nursing Program schools manage largely to coordinate their timetables with TAFE institute classes and workplace learning. Students can do shift work or work during holidays if they prefer. The Aboriginal Health Worker Oral Health Training program, set up as an additional, complementary

unit to the existing health worker program, was designed as a flexible, stand-alone module to allow it to be taught at various certificate levels.

Pathways to and from other training

Some models are first steps on a training pathway for people who have never before undertaken VET. Western Australia's Existing Worker Traineeships in Aged Care provide training for staff, most of whom were over the age of 47, had not finished high school, and had not been involved in formal training since. Other models permit people to build on earlier training. Riverland VET in Schools Nursing Program students are not locked into aged care. For these students, Flinders University recognises qualifications from TAFE as suitable prerequisites for its Bachelor of Nursing degree. The program can thus be a pathway to a nursing career, as well as to aged care work.

Pathways to and from training increase the expertise of the health workforce and also facilitate succession planning within organisations.

Transferability

A number of models are pilot studies and resulted in transferability to other contexts. The Western Australian Country Health Service Allied Health Assistant project built on a number of earlier pilots to develop its statewide training program.

Western Australian Country Health Service Allied Health Assistant project

Development of the allied health assistant project was driven by demand for therapy services and shortages of allied health professionals in rural and remote Australia. A number of regional and statewide pilot projects laid the foundations for the model, the purpose of which was to develop generic standards and benchmarks for allied health assistant work in rural and remote areas, thereby ensuring quality and consistency of delivery throughout the Western Australian Country Health Service; and to provide allied health assistants with training immediately useful for their work. A partnership with West Coast TAFE in 2005 has linked training developed by the Western Australian Country Health Service to formal accreditation, enabling participants to enrol in distance mode and receive prior learning credit towards Certificate III in Health Service Assistance (Allied Health Assistance). The model has now been adopted statewide, and is regarded as enhancing the role of allied health assistants.

The broad base of support across sectors in holistic models promotes transferability. Similarly, support bases of 'training only' and job redesign and training models also promote transferability of the models, depending on the type and the strength of partnerships. Partnerships involving health and aged care facilities between government departments, industry skills councils, schools and other organisations currently operating across Australia could conceivably be replicated anywhere. The high level of transferability of the Aboriginal Health Worker Oral Health Training program has led to links with people from international locations looking to develop programs based on it.

Transferability of the models is enhanced by the availability of detailed documentation of the processes involved in developing and implementing solutions, as well as by broad dissemination of innovative models. The models featured in this section have either been the subject of articles, presentations at seminars and conferences, or on websites.

Barriers to development of skills shortage models

Our findings are consistent with the Productivity Commission's (2005, p.67) conclusion that the education and training system is complex and insufficiently responsive to changing needs and circumstances. Our study suggests that these concerns extend to other aspects of the health sector. The following are the specific barriers to development of models addressing skills shortages.

Systemic/policy issues

✧ *Policy that is not sufficiently flexible*: innovation will be difficult where policy has not kept pace with changing work and training needs. Programs will not be effective if policy misunderstands the needs of participants. For example, policy has not always recognised that Aboriginal and Torres Strait Islander communities differ widely in their education and training needs.

✧ *Unwillingness and/or inability of government, VET and industry representatives to take risks to develop new models*: administrative and funding arrangements are informed by these mindsets. As the Queensland Aged Care Skill Formation Strategy indicates, attitude change is an ongoing process, with some more willing to embrace a new way of working than others.

✧ *The complexity of the accreditation process*: this can be time-consuming and cause delays.

✧ *VET monitoring and reporting systems*: these are largely quantitative and do not measure holistic approaches. Quantitative measures do not capture the richness, complexity and long-term nature of outcomes being achieved by, for example, the Queensland Aged Care Skill Formation Strategy.

Organisation/workplace issues

✧ *Health service workplace culture*: in some instances this may be resistance to change.

✧ *Issues related to working in partnership*: for example, different cultures, ways of operating, priorities and timelines. The New South Wales Central Coast Mental Health Skills Ecosystem Project underlines the fact that specific skills are needed for working in partnerships. The basic logistics of organising school timetabling and supervisor rostering at student work-placement facilities are challenges in VET in Schools models.

✧ *Organisational boundaries*: for example, implications for pay and grading of staff. Organisational boundaries need to be addressed early in the process of developing models, in collaboration with appropriate health and community services unions. Some barriers persist, however; the Baptist Community Services' care supervisors model faced ongoing difficulties with the Nurses and Midwives Registration Board.

✧ *Cost*: funding considerations are crucial to the development of models. Releasing staff for training involves the cost of replacing them in the workplace, as the care supervisors and Existing Worker Traineeships in Aged Care models observe. Funding cuts may influence participation by organisations in a model. The cost to trainees may discourage potential trainees.

✧ *Obtaining clinical placement*: this is likely to be an ongoing problem if more people undertake training, as is desirable.

✧ *Increased workloads for teaching staff and clinical assessors*: this barrier is linked to the shortage of clinical placements referred to in the previous point.

Resourcing issues

✧ *Lack of literacy or technology or general education skills among target groups*: these are barriers noted in many models, including the Existing Worker Traineeships in Aged Care. While this barrier applied most to trainees, the lack of more advanced technology skills among course development staff from the nursing and welfare areas may also be a barrier.

✧ *No direct link between skill development and employment*: this may come about when funding to develop solutions is linked to a specific set of criteria, but not necessarily to identified industry and community skill needs. When this occurs, it undermines the whole point of training and may discourage others from undertaking it.

Implications for policy and practice

The implications of this report into innovative solutions for skills shortages in the health sector apply to stakeholders at all levels. Everyone needs to be aware of what is being done—the effective processes that enable solutions, the potential for transferability to new sites, the barriers to innovation—and the implications of this for policy and practice.

Systemic implications

If effective solutions are to be developed and maintained, sustainable funding is necessary. All partners need to share responsibility jointly for funding, as well as for development and implementation of models. Short-term funding may enable development of a model, but if there is no ongoing funding or no mechanism for linking to other funding sources, the model's future, as a solution to skills shortages, will be endangered. Even programs that have won national recognition and praise (for example, Riverland VET in Schools Nursing Program) may be threatened by cessation of adequate funding.

In addition to overall funding, specific funding to cover clinical placements needs to be investigated to ensure that sustainability is an integral part of a workplace-centred training system. A number of models are experiencing stresses as a result of the demand for clinical placements. It is to be expected that the situation will become more acute as more training programs addressing skills shortages are established.

It is important that new roles and new approaches to service delivery are communicated to consumers and the broader community. As noted in the methodology section of this report, there is presently a lack of time to share what is being done by way of innovative models, partly because of widespread skill shortages, including at management levels. This is largely attributable to people being fully occupied dealing with the everyday implementation of their solutions. However, if the models are to be transferable, information about them must be disseminated. The Community Services and Health Industry Skills Council's annual conference in 2006 provided a forum for a number of program developers and trainers to discuss their innovations, and there are many other avenues for dissemination of information. Program stakeholders need to be mindful of their responsibility for channelling information out to the wider world. The Industry Skills Council, the Department of Education, Science and Training and state training authorities are well placed to assist in dissemination.

There needs to be more flexibility in the endorsement and accreditation of programs. Models such as the Aboriginal Health Worker Oral Health Training program indicate that this has become a time-consuming and cumbersome process, to a certain extent inhibiting program innovation.

Resourcing

Organisations need to support an appropriate level of risk-taking in developing new models. An interviewee in one of our case studies described this as 'thinking outside the square'. Old solutions to skills shortages have not provided the health sector with an adequate response to the ongoing problem. Innovative approaches are required.

Resourcing involves adequate and ongoing funding (see above), but also human resources for partnership work. An important part of this prerequisite is the possession of skills for working collaboratively. As an interviewee in one of our case studies remarked, it cannot be assumed that people have these skills. They are skills separate from health workforce-specific skills and may need to be learned. Successful models allocate time early in the process for people to learn such skills, build relationships and develop shared understandings. Successful models such as the Queensland Aged Care Skills Formation Strategy, the New South Wales Central Coast Mental Health Skills Ecosystem and the Western Australian Country Health Service Allied Health Assistant Program tapped into existing interagency networks and extended these. The network that developed the Riverland VET in Schools program was formed when existing regular meetings of school principals and school VET coordinators were extended to include representatives from TAFE institutes and directors of nursing from four local health and aged care facilities.

As an enhancer of partnership building, co-location, where practicable, might be considered. Other structures, such as regular network meetings, also provide the basis for effective collaboration.

Processes

For models to be effective in addressing skills shortages in the health sector, they need to be industry-driven. VET is predicated on strong, multi-level links with industry, ranging from state and national advisory groups, such as industry skills councils, to the workplace where learning and training occurs with industry supervisors. Innovative solutions to skills shortages need to bring these links strongly into their models.

Industry's involvement in model development will emphasise the practical. It is important first to consider the tasks involved in the skills shortage, identify the requisite competencies and then design the training and/or redesign the job. Skills of trainees and trainers must also be considered. In the early development stage unions and workers need to be involved in order to overcome possible issues relating to organisational boundaries. Figure 9 provides a decision-making model designed to assist in the selection of a skill-shortage solution appropriate to the context in which it occurs.

Targeted training appears to be most effective in meeting skills shortages. Training components of programs within organisations should be complemented by a focus on retention of workers, increased job satisfaction and better career paths.

Evaluation needs to be built into models from the development stage, and sufficient resources allocated to this process. The feedback from evaluation is important to funding bodies, who want to know that their money is being well spent; evaluation is also important to the programs themselves, so that ongoing improvements can be made. Many models do not have evaluation as an integral component, mainly because of financial constraints. Where evaluation was built in, much of it focused on quantitative measures (outputs/low-level outcomes). While these measures are necessary as indicators, they need to be supplemented by qualitative measures, such as case studies, which capture the interactions and processes of the initiative as it builds to the desired longer-term outcomes.

Feedback from evaluation needs to be far more rigorous. It should include input from all stakeholders on program effectiveness and offer suggestions for improvement. Evaluation enhances continuous improvement and sustainability of models.

Figure 9 draws on the findings of this report to illustrate the process of selecting and designing a model to address a health skills shortage.

Figure 9   Process of selecting and designing a model to address a health skill shortage

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│                    THE CHALLENGE                         │
│                    Skills shortage                       │
└─────────────────────────────────────────────────────────┘
                          │
                          ▼
┌─────────────────────────────────────────────────────────┐
│                  AREA OF SHORTAGE                        │
│   •  VET qualification skills shortage                   │
│   •  Professional qualification skills shortage          │
└─────────────────────────────────────────────────────────┘
                          │
                          ▼
┌─────────────────────────────────────────────────────────┐
│              CONSIDER RESOURCE CONTEXT                   │
│   •  Availability of unskilled workers                   │
│   •  Availability of lower-level VET workers             │
│   •  Availability of higher-level VET workers            │
│   •  Availability of partners (training, health, other)  │
│   •  Funding and infrastructure                          │
└─────────────────────────────────────────────────────────┘
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                          ▼
┌─────────────────────────────────────────────────────────┐
│              SELECT SOLUTION DURATION(S)                 │
│   •  Immediate (within 12 months)                        │
│   •  Medium-term (one-three years)                       │
│   •  Long-term (more than three years)                   │
└─────────────────────────────────────────────────────────┘
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┌─────────────────────────────────────────────────────────┐
│                SELECT SCOPE OF SOLUTION                  │
│   •  Local (one health service/geographic location)      │
│   •  Regional (multiple stakeholders/ sites within region)│
│   •  State/national (multiple stakeholders and statewide │
│      or national focus)                                  │
└─────────────────────────────────────────────────────────┘
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CONSIDER CHECKLIST OF GOOD PRACTICE
- Partnership involving industry and training sector
- Customisation of solution to suit context
- Training and employment pathways
- Monitoring and evaluation

CONSIDER ACTION CONTEXT
- Health, education, VET policy/environment
- Workplace environment
- Industrial relations
- Resources
- Willingness of partners to work together
- Community factors (Indigenous, rural, culturally and linguistically diverse)
- Technology and training options

MODEL 1: TRAINING

Features
- Targeted to specific worker/ potential worker cohort
- Customised to meet identified skill needs of job and worker(s)
- Articulated training providing a career path
- Clear link between training and gaining employment
- Direct response to shortage of specific group of VET worker skills

MODEL 2:   JOB REDESIGN & TRAINING

Features
- Incorporates most features of model 1
- Looks at tasks first, then redesigns job, identifies competencies and develops training
- Encourages retention of workers through career paths and job satisfaction
- Develops mobility across health roles
- Encourages organisation-wide response to skill shortage

MODEL 3: HOLISTIC

Features
- Features of models 1 and 2 incorporated
- Multi-faceted solution including training, job redesign, supply chain, industrial relations, industry image
- Industry/government response to skill shortages
- Response to skill shortages within an entire industry sub-sector (e.g. aged care)

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Glossary

Many of the occupational titles within the VET health area vary across different states and territories and across different organisations. For consistency the researchers have used the following terminology in this report. International models retain their own health worker terminology, as it was beyond the scope of this project to align international models to the Australian VET system.

Aboriginal and Torres Strait Islander Health Worker	This term is used when discussing qualifications and accreditation and as an inclusive term when it is not clear which Indigenous people are involved. Also known as Aboriginal Health Worker, Indigenous Health Worker
Allied health	Includes physiotherapy, occupational therapy, speech therapy, podiatry, dietetics, social work
Allied health assistant	Also known (depending on field) as therapy assistant, therapy aide, nutrition assistant, podiatry assistant, dietetic assistant
Health professionals	Generic term applying to university-trained health practitioners
Health worker	Generic term applying to workers in the health sector who are not university-trained
Nursing assistant	Also known as assistant in nursing
Personal care assistant	Sometimes referred to as personal carers
VET-qualified health worker	A health worker who has trained and has qualifications under the Australian Qualifications Framework (AQF)

Support document details

Additional information relating to this research is available in *Responding to health skills shortages: Innovative directions from vocational education and training—Support document*. It can be accessed from NCVER's website <http://www.ncver.edu.au/publications/1833.html> and contains:

✧ Literature review

✧ Methodology

✧ Models

✧ Case studies

✧ References

✧ Appendices