Executive Summary

The 2005 review of Queensland Health Systems identified recruitment, retention and utilisation of the allied health workforce to be a priority area for Queensland Health. Subsequent funding was provided to support recruitment in regional and rural areas and increase allied health leadership across the state. Additionally, negotiations for and the release of the Health Practitioner (Queensland Health) Certified Agreement (No. 1) 2007 (HPEB1) provided the opportunity to dedicate funding to system-wide allied health workforce redesign and reform initiatives. The development of the HP Classification Structure supported structured career progression for allied health professionals, with recognition of increasing levels of responsibility across clinical, management and executive streams.

Small and consistent investments over a 10 year period have resulted in workforce redesign and reform initiatives to optimise allied health scope of practice within contemporary health care models. Allied health expanded scope of practice roles can assist health services to meet key performance indicators, including emergency department length of stay targets, specialist outpatient targets and specialist outpatient waiting times.

Ongoing support for and targeted investment in allied health research over this time has contributed to an enhanced research culture and profile within and outside of Queensland Health. Despite these improvements, most research remains centered in metropolitan areas, with limited access to research support in regional and rural areas.

Finally, investment in education and training initiatives has ensured that health services are able to maintain support for current activity and meet rising demands for pre-entry and new graduate training. A limited range of education and training programs have also been delivered to support full and expanded scope of practice tasks and roles.

Despite a focus on innovation and workforce reform, progress remains challenged by allied health culture, a reliance on traditional professional boundaries and limited succession planning for expanded scope models of care. Moving forward, there is a need for sustainable education and training to support expanded scope of practice roles, funding to support high quality research and data management and executive allied health leadership that can continue to drive change.
Background

The 2005 review of Queensland Health Systems (Forster Review) identified allied health professionals to be the most critical area of workforce shortage for Queensland Health. It was noted that a range of recruitment and retention strategies were required to address long-term vacancies and maximise the utilisation of the allied health workforce.\(^{(1, 2)}\) Funding of $6.2 million was provided to target recruitment, particularly in rural and regional areas and increase allied health leadership and workforce development roles across the state.

At this time, the number of new graduate clinicians rapidly increased as additional universities offered pre-entry programs for the allied health professions. The *Ministerial Taskforce on Clinical Education and Training* recognised clinical education, training and research as core business within Queensland Health.\(^{(3)}\) Additional funding was then provided to support the previously limited resources available for allied health practitioners to supervise a growing number of pre-entry students and new graduate clinicians.

Negotiations for and the release of the *Health Practitioner (Queensland Health) Certified Agreement (No. 1) 2007 (HPEB1)* provided dedicated funding to key areas - Health Practitioner (HP) career structures, leadership, allied health workforce reform (expanded scope of practice), research and education and training. As it is now 10 years since the first industrial agreement, it is timely to explore the impact of the investment in allied health staff and services within Queensland Health.

In Queensland Health, the allied health professions include:

- Audiologists
- Breast imaging radiographers
- Clinical measurement scientists and technicians
- Dietitians and nutritionists
- Exercise physiologists
- Leisure therapists
- Music therapists
- Neurophysiologists
- Nuclear medicine technologists
- Occupational therapists
- Orthoptists
- Orthotists, prosthetists and technicians
- Pharmacists and technicians
- Physiotherapists
- Podiatrists
- Psychologists
- Radiation therapists
- Radiographers
- Rehabilitation engineers and technicians
- Social workers
- Sonographers
- Speech pathologists

**Health Practitioner Career Structure**

An integral component of HPEB1 was the development of a new eight level Health Practitioner (HP) Classification Structure, based on skill and knowledge requirements, and including recognition of minimum qualifications. This enabled health service allied health departments to create their own structures to enable career progression, with recognition of increasing levels of responsibility and complexity across clinical and management streams.

The HP Classification Structure includes generalist positions (e.g., entry level and developing clinicians), senior and advanced positions (e.g., clinicians with an advanced level of knowledge, skill and experience) and consultant and manager level positions (e.g., managers, directors and senior directors). The adoption and implementation of the new structure as well as workforce reform initiatives proved to be a turning point in the attraction and retention of allied health staff within Queensland Health.
Allied Health Workforce Profile

The allied health professional workforce has grown considerably over the past 10 years, from 4357 FTE positions in 2008, through to 7865 FTE positions in 2017. While the number of new graduate positions (HP3.0 - HP3.1) has remained fairly consistent at approximately 1000 positions, the growth in the allied health professional workforce has resulted in a reduction in the proportion of new graduate positions, from 26% in 2008 to 11% in 2017. Additionally, the number of allied health assistants working in Queensland Health has almost doubled, from 593 FTE positions in 2008 to 958 FTE positions in 2017. However, this growth is consistent with changes to the overall professional workforce. Despite strategies to better utilise and expand the scope of practice of this workforce, the proportion of allied health assistants in the total allied health workforce has remained steady at 12%.

Between 2009 and 2012 there was investment in and a subsequent increase in positions at HP4 level and above. The new career structure provided a pathway for career advancement and enabled considerable growth in senior and advanced level clinicians. The development of these roles provided health services with the opportunity to optimise allied health roles in the delivery of contemporary and high-value health care.

The growth of the allied health workforce occurred for almost all professions and health services. However, staffing increases were consistent with the overall size of the professional workforce. For example, there was a more significant increase in staffing for small professions, such as orthoptics, audiology and pharmacy, when compared to the larger professions of physiotherapy and occupational therapy. The growth in the Queensland Health allied health professions from 2008 to 2017 is shown in Appendix 1.

Growth in the allied health workforce was similar to that of the nursing workforce, with a 60% and 53% change over the 10 years for each group respectively. Growth in both allied health and nursing were considerably less than the medical workforce, which had a 74% increase in FTE over the same timeframe. While both the allied health and nursing workforces had a 4 - 5% decrease in FTE between 2012 and 2013, the medical workforce increased by 1% (Figure 2).
Impacts of Allied Health Workforce Changes

The development of the HP Classification Structure supported structured career progression for allied health professionals, with recognition of increasing levels of responsibility across clinical and management streams. However, a focus on career progression and more senior positions has resulted in reduced focus on new graduate positions, with implications for succession planning to develop new clinicians and support new and existing services. The ratio of allied health assistants to allied health professionals has also remained unchanged over the 10 years, despite strategies to better utilise and expand the scope of practice of this workforce.

Allied Health Leadership

The last 10 years have seen steady increase in allied health leadership positions within Queensland Health. However, the impetus for this growth began prior to this period, influenced by the Director General’s Allied Health Recruitment and Retention Taskforce (1999-2000), the appointment of the first Principal Allied Health Advisor and funding provided as a result of the Forster Review. This funding also enabled the appointment of workforce development officers in some health services to support the Directors in undertaking their leadership roles.

Directors of Allied Health positions now exist in all HHSs, however not all are included within health service executive management teams. There is also considerable diversity in the roles and responsibilities of allied health leaders, with some having only professional accountability for the allied health professions, with no operational control of budgets or staffing. A recent study found that executive allied health roles provided leaders with high level representation, as well as the opportunity to build positive relationships with other executives, contribute to health service planning and resource allocation and build innovative and cohesive allied health teams. Additionally, in organisational structures where allied health leaders were included within the executive team, allied health staff perceived that their services were valued.

The HP career structure also enabled clinical leadership positions to be established. This provided the opportunity for skilled and experienced clinicians to remain in clinical roles, supporting new and developing clinicians and providing local and statewide leadership within their professions and service areas.

While the opportunities for allied health leadership roles have expanded over time, there is a need to maximise the benefits that can be gained from these positions. Advocating for allied health leadership roles to be included within HHS decision making bodies and providing them with the ability to manage their resources to meet health service needs should be a priority. Consideration should also be given to
expanding high level clinical leadership or consultant type roles to include more structured accountabilities for research, education and training and leadership across service areas.

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**Allied Health Leadership**

There has been significant growth in allied health leadership and workforce development support roles over the last 10 years. However, not all allied health leadership positions are on health service executive and/or have operational control of allied health services. This limits the capacity of these key roles to lead change and innovation and to maximise allied health's contribution to health service deliverables. Additionally, clinical leadership roles should be further developed to include high level consultant positions to support workforce development, career progression, changes to clinical practice, education and training and research.

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**Allied Health Workforce Reform**

**Allied health models of care**

The development of the Health Practitioner career structure provided the foundation to enable allied health workforce reform to respond to increasing health service demands and optimise the use of available resources. Funding of $17 million from HPEB1 was allocated to workforce reform and clinical practice initiatives over a three year period. This was initially dedicated to two rounds of *Queensland Health Practitioners’ Model of Care* demonstration projects. Thirty projects were funded in the first round in early 2009, while 34 projects were funded in round two in 2011. At the time this program was the largest allied health reform initiative in Australia. Projects spanned 14 allied health disciplines and focused on trialling new and innovative models of care.\(^6\),\(^7\)

Initiatives focused on:

- working to full scope or upskilling to advanced or extended scope of practice,
- redesigning services and/or roles to allow skill sharing between allied health professionals and delegation to allied health assistants,
- developing primary contact allied health services to improve patient access to timely care and reduce unnecessary referrals to medical specialists, or
- using technology to enhance service delivery.

An evaluation of funded projects found positive outcomes at patient, service and organisational levels including:

- improved consistency of admission criteria and referral pathways, reduced waiting times and improved patient flow,
- cost efficiencies, including potential savings through reduced length of stay, and
- improved patient outcomes and, patient and staff satisfaction.

Despite these positive outcomes, only 25% of funded models were established as part of routine practice at the end of the funding period. Challenges to embedding new models of care included difficulty accessing ongoing funding, a lack of leadership and support for change and difficulty moving beyond traditional professional boundaries.\(^6\)

At the conclusion of the projects, recurrent funding of approximately $3.5 million was allocated to fund 40 FTE positions across the state on an ongoing basis.

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**Allied health expanded scope of practice**

The *Ministerial Taskforce on health practitioner expanded scope of practice* (the Taskforce) was a commitment made in the second industrial agreement (HPEB2). The focus of the Taskforce was to
explore opportunities for more effective and efficient use of allied health professionals in Queensland Health in order to achieve better outcomes for patients, the workforce and the health system.\cite{8,9}

The *Ministerial Taskforce on health practitioner expanded scope of practice: final report* \cite{8} was released in 2014. The Taskforce made six recommendations to facilitate the delivery of client-centred, cost-effective services through expanding allied health scope of practice. This included supporting allied health professionals to work to full scope of practice, extend scope of practice in appropriate contexts and delegate specific tasks to the support workforce. These initiatives were designed to assist HHSs to meet key performance indicators, including emergency length of stay targets, specialist outpatient targets and specialist outpatient waiting times.

The *Allied Health Expanded Scope Strategy 2016-2021* \cite{10} was developed in June 2016. The priorities outlined in this strategy build on work completed during the Taskforce implementation phase to facilitate and support the development of a modern, responsive and efficient allied health workforce.

**Establishing expanded scope models of care**

As part of Taskforce activities, seed funding was provided to HHSs to implement specific initiatives that trialled allied health professionals undertaking expanded scope tasks and working in expanded scope of practice roles. This included developing primary contact roles, establishing an allied health rural generalist employment and training model and supporting HHS collaborations using a hub and spoke approach.

**Primary contact allied health roles**

Non-recurrent funding was provided to support health services to develop, implement and establish primary contact allied health positions in outpatient, emergency department and inpatient settings. Primary contact allied health services can assist HHSs to meet key performance indicators and deliver on Queensland Health policies, including *My health, Queensland’s future: Advancing health 2026* \cite{11} and the *Specialist Outpatient Strategy: Improving the patient journey by 2020*.\cite{12} Workforce surveys from 2014 to 2016 showed a 68% increase in the number of allied health professionals working in primary contact roles, from 68 to 114 FTE positions.\cite{13}

The initiatives have targeted:

- **Allied health professionals delivering primary contact services in emergency departments (ED):** Most initiatives use physiotherapists to treat clients triaged with category 3, 4 and 5 musculoskeletal conditions. These roles typically include assessment, intervention, onward referral for further assessment and treatment and discharge as appropriate. These services have assisted health services to meet to meet emergency length of stay targets.

- **Allied health primary contact outpatient clinics:** These models of care involve allied health professionals as the first point of contact for category 2 and 3 referrals that are likely to benefit from conservative intervention. In this setting, allied health professionals perform triage, assessment, conservative intervention and onward referral to other allied health services or medical specialists as required. Allied health-led outpatient services have assisted HHSs to meet specialist outpatient targets, as well as to reduce specialist outpatient waiting times.

Allied health primary contact outpatient clinics have been evaluated against selected core metrics as part of the *Allied health specialist clinics project*. This reporting has enabled analysis of the outcomes of each clinic and assisted in determining the value of these clinics and their impacts on specialist outpatient waiting lists.\cite{14}

**Allied Health Rural Generalist Pathway**

An allied health rural generalist pathway was established in 2013 to increase the accessibility, effectiveness and sustainability of allied health services for rural and remote communities. This pathway was developed in conjunction with health sector stakeholders including the Cunningham Centre, HHSs,
Services for Australian Rural and Remote Allied Health (SARRAH), the former Greater Northern Australia Regional Training Network (GNARTN) and healthcare agencies in other states and territories. The pathway includes service, workforce and education components.

Allied health rural generalist services were developed to meet the needs of local communities. A range of strategies are used to address the challenges of providing services across vast geographical distances, including telehealth, skill sharing between professions and delegation to allied health assistants.

Funding of $1.26 million per year was re-purposed from a previous scholarship program to implement the pathway. This included the appointment of eleven supernumerary early career positions in nine HHSs in 2014-15. In 2016, 10 supernumerary positions were implemented in eight HHSs. These positions covered six professions - nutrition and dietetics, radiography, physiotherapy, occupational therapy, speech pathology and pharmacy. Eleven positions were implemented for a two-year period in 2017-18 in new sites. This funding round included podiatry and social work training roles for the first time. In addition to the Department of Health funded supernumerary positions, a further six rural generalist training positions have been established from within existing establishments in three HHSs. These positions include dedicated training time and funding to undertake training.

A recent evaluation found positive early indicators of rural retention, with 73% of staff continuing to work in the same health service or within other regional, rural or remote areas of Queensland in the six months following the completion of their temporary rural generalist training position. These positions have also been found to contribute to improved client access to allied health services, increased use of telehealth and integration of services between providers.(13)

The Department of Health recently commissioned James Cook University, in collaboration with the QUT, to develop, implement and evaluate a two-level, formal rural generalist education program for seven professions. This program provides clinicians with the clinical and non-clinical skills required to work as a generalist in their profession. Level 1 of the Rural Generalist Program commenced in May 2017, with Level 2 starting in February 2018.

Embedding expanded scope models of care using a hub and spoke approach

As part of Taskforce activities, seed funding was provided to HHSs to implement proven expanded scope models of care using a hub and spoke approach. This approach involved multiple sites working together in a formal collaborative to adopt and adapt effective models of care.(15) A total of $1 million funding was provided to 21 projects from 2014 to 2016. All projects had at least one hub site and between one and 13 spoke sites. A broad range of models were supported with allied health professionals working in primary contact roles and extended scope of practice activities. Models included involvement from 10 allied health professions and were spread across metropolitan, regional and rural areas of Queensland.

A further $500,000 was provided in the 2016-2017 financial year as part of the Allied Health Expanded Scope Strategy 2016-2021 to support HHSs to test emerging expanded scope of practice models and/or adapt proven expanded scope of practice models. Projects spanned seven allied health professions and a broad range of geographic locations.

Examples of funded projects include:

- **Expansion of dysphagia telepractice - speech pathology:** A collaborative was established to translate a validated telepractice service model for the assessment of adult dysphagia across multiple clinical sites within Queensland Health. The model enables a speech pathologist to direct a swallowing assessment online and from a distant location while an allied health assistant or nurse assists the patient to complete assessment tasks.

- **Vestibular collaborative:** A collaborative was formed to evaluate and expand to other health services, physiotherapy- and audiology-led models of care for the management of patients with vestibular dysfunction.

- **Occupational therapy-led paediatric burns telehealth model:** This project trialled an occupational therapy-led paediatric burns model of care using telehealth and delegation to allied health assistants.
Internal evaluations completed at the end of each funding round found that most projects had been successful in meeting their identified deliverables and had contributed to:

- reduced waiting lists and more timely access to care
- reduced duplication of services
- improved patient outcomes and patient and staff satisfaction.

A recent follow-up of expanded scope projects showed that 80 models of care had been implemented across 29 sites from 2014 to 2016. Of these new models, 48 had continued two years after the end of the initial funding period.

Challenges to establishing expanded scope models of care were identified and include leadership and managerial attitude to change; competing priorities and access to ongoing funding; succession planning; staff recruitment; and access to sustainable training models.

**Legislative and policy changes**

A number of legislative and policy barriers have been identified that inhibit allied health professionals from working to full scope of practice or limit extended scope of practice activities.

Since 2014, progress has been made in revising key pieces of legislation to expand allied health scope of practice, including:

- revision of the *Health (Drugs and Poisons) Regulation 1996* in April 2014 to enable podiatrists with a national endorsement for scheduled medicines to work to their full scope of practice and prescribe scheduled medicines for the treatment of podiatric conditions;
- temporary legislative approvals under *Section 18 of the Health (Drugs and Poisons) Regulation 1996* to enable trials of a number of extended scope activities, including nine allied health prescribing trials involving physiotherapists and pharmacists; and
- changes to the *Radiation Safety Regulation 2010* to allow physiotherapists to request x-rays and extend the range of plain film x-rays that podiatrists are authorised to request.

Additionally, a number of policy documents have been amended or developed, including:

- amendment to the Queensland Health List of Approved Medicines (LAM) to include endorsed podiatrists;
- development of an *Allied Health Clinical Governance Framework* (16) along with a credentialing guideline for health services to support clinicians to engage in extended scope of practice activities; and
- development of an *Allied Health Assistant Framework* (17) package (including Governance Guidelines and Documentation Guide) to assist HHSs to integrate assistant roles into service delivery practices.

**Impacts of Allied Health Workforce Reform Initiatives**

Allied health workforce reform and redesign initiatives have contributed to reduced waiting times and improved access to care; reduced duplication and improved integration of services; and improved patient outcomes and satisfaction. These initiatives align with Queensland Health policies and have assisted HHSs to meet key performance indicators, including emergency length of stay targets, specialist outpatient targets and specialist outpatient waiting times. Despite this progress, the number of primary contact positions remains low at 114FTE, the percentage of allied health assistants is just 12% of the total allied health workforce and legislative, policy and cultural barriers persist. Leadership is required to assist allied health services to reallocate resources to high-value care and provide an effective and efficient contribution to health service delivery.
Health Practitioner Research

During negotiation of the first industrial agreement, the workforce identified the need to invest in and build research capacity in health services. Prior to the HPEB1, there were six dedicated allied health research positions and limited allied health grant funding of $100,000 per year. The establishment of the Health Practitioner Research Capacity Building Program provided an investment of $2.2 million to create 15 new research positions and additional funds of $300,000 per annum to support allied health research projects.\(^\text{(18)}\)

The aims of the initiative were to:

- enhance clinical skills and improve patient outcomes through building a greater understanding of the role of research and evidence in improving health practitioner clinical practice
- enhance research skills and experience in the general workforce
- build infrastructure that supports health practitioners, research and researchers
- create networks for communication, coordination and collaboration
- focus on research that is relevant to clinical practice and then translate this research into practice.

A Health Practitioner Research Advisory Group was established to monitor and evaluate research activities.

Health Practitioner Research Fellows

Funding for 15 FTE research fellow positions was optimised by academic institutions agreeing to conjointly fund 5.7 FTE positions at various sites across the state. This enabled 20.7 FTE allied health research fellow positions to be implemented across 11 different health services, including Brisbane metropolitan centers and regional Queensland sites. Positions were created in a range of clinical service areas. Research fellows ranged from early career researchers through to professorial positions and included a range of professions.\(^\text{(18, 19)}\) Despite budget cuts within HHSs, most research fellow positions have been maintained since the establishment of the program.

The outcomes of research fellow positions have been monitored through annual reporting on grant funding, peer reviewed publications, number of research higher degree students supervised, education and training provided and participation in collaborative networks.

Data collected from research fellows from 2011 to 2016 highlights the following achievements:

- 1,118 publications in peer-reviewed journals
- 951 national and international conference presentations
- supervision of 266 honours, masters and doctoral students
- almost $21 million in additional research funding

A recent study explored the impact of research fellow positions on allied health research capacity, as well as the mechanisms that facilitated or hindered their success. Nine key outcomes were identified across individual, service and organisational levels. These outcomes included:

- building individual and team research skills and activity,
- increasing collaborations and research outputs,
- improving research culture and clinical services and
- enhancing the profile of allied health research within HHSs.\(^\text{(19)}\)

This research investment and resulting publications and conference presentations has increased the profile of Queensland Health allied health professionals at state, national and international levels.

Health Practitioner Research Scheme

The Health Practitioner Research Scheme was established in 2009 with the aim of improving the value
of allied health services for clients and adding to the research expertise of health practitioners. Since 2009, there have been 960 applications to the scheme, with funding awarded to 161 research projects. Funding has been awarded to both novice and experienced researchers and has targeted research projects that examine service delivery and workforce models, including models that expand allied health scope of practice.\(^{(20)}\)

### Health Practitioner Research Capacity

Two Health Practitioner Research Capacity Surveys have been conducted, the first in 2012 and the second in 2015. Findings from the 2015 survey indicated high levels of external and multidisciplinary collaboration in research projects, as well as an increase in the number of junior staff undertaking research as part of their workload. Although these results should be interpreted with caution due to a small sample size, staff from regional and rural areas consistently reported lower levels of perceived support for research activities when compared to staff from metropolitan centers. Additionally, allied health professionals in regional and rural areas reported a lack of local implementation and sharing of evidenced-based knowledge. In line with findings from 2012, respondents indicated the need for ongoing support in key research activities such as applying for and obtaining grant funding and publishing findings in professional journals.\(^{(21)}\)

#### Impacts of Health Practitioner Research Initiatives

Investment in the Health Practitioner Research Capacity Building Program has contributed to increased allied health research skills and activity; increased collaborations with academic institutions; increased research outputs; an improved research culture; and an enhanced profile of allied health research at health service, national and international levels. Research initiatives have contributed to the evidence base for allied health expanded scope of practice roles and models of care. Despite demonstrated improvements in research capacity, access to research support remains limited in regional and rural areas.

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### Education and Training

#### Ministerial Taskforce on Clinical Education and Training

The Ministerial Taskforce on Clinical Education and Training was established in 2006 to review and make recommendations on issues related to clinical education and training across medical, nursing and midwifery, allied health and oral health professions. The Taskforce identified a number of common outcome areas and recommendations focusing on high quality and evidence based clinical education and training; integration of clinical education and training; funding; data systems to support clinical education and training; collaboration and communication; and workforce planning.\(^{(3)}\)

As a result of recommendations from the Taskforce report, the allied health professions received recurrent funding of over $22 million to support clinical education and training and new graduate positions. During a review of workforce needs during negotiation of HPEB1, $12 million of this funding was repurposed to support the Clinical Education Workload Management Initiative (CEWMI), providing the equivalent of 139 FTE allied health professionals to enhance the delivery of clinical education within Queensland Health. Most professions used this funding to employ designated clinical educators and/or clinical education coordinators at a senior (HP4) level or above.\(^{(3, 22)}\)

A mixed-methods evaluation undertaken in 2011 found that the CEWMI provided a coordinated and collaborative response to building placement capacity. In addition to being highly valued by staff and managers, the CEWMI was perceived to assist the professions and health services to meet a rapid increase in demand for clinical placements. The CEWMI also enabled collaboration between internal and external stakeholders across jurisdictions and between health and education sectors.\(^{(23)}\)

Funding from the Ministerial Taskforce on Clinical Education and Training was also used to establish profession-specific clinical education and training program managers and invest in frameworks and
training packages to support safe and efficient clinical practice.

This substantial investment in allied health clinical education and training came at a time of rapid growth in allied health student numbers and has enabled Queensland Health to respond to an increased demand for clinical placements. In the period 2010 to 2016, there was a 100% increase in the number of students commencing allied health entry level training programs. Clinical education data from five allied health professions (nutrition and dietetics, occupational therapy, physiotherapy, speech pathology and medical radiation professions) shows a 40% increase in the number of placement days offered from 2010 to 2016. It is important to note that growth of allied health professionals occurred at a slower rate of 25% during this period. The increase in placement days, commencing students and allied health staff FTE for the five professions are shown in Figure 3 below.

**Figure 3 Six-year trend for key factors impacting on placement demand and supply, comparing data for 2011-2016 with data from 2010**

The organisational and structural reform that occurred within HHSs in 2012 resulted in a substantial loss of funding (approx. $9 million). While the profession-specific clinical education and training managers and clinical educator positions were largely retained and are now hosted in the health services, the capacity to develop and embed clinical training frameworks and vocational training programs and pathways has been significantly impacted.

**Building competency and delivering targeted training**

The Department has also supported post-graduate education and training. In partnership with education providers, training courses were provided to build allied health workforce capacity and support specific expanded scope of practice tasks and roles. Over 350 allied health professionals received support to complete a variety of programs, including:

- prescribing for physiotherapists, pharmacists and podiatrists;
- vestibular management for physiotherapists and audiologists;
- image interpretation for physiotherapy;
- upper limb image interpretation for physiotherapists and occupational therapists;
- allied health pathology requesting training;
- provision of advice on insulin dose for dietitians;
- paediatric glue ear for audiologists;
- administration of Fiberoptic Endoscopic Evaluation of Swallowing (FEES) for speech pathologists;
- provision of written comment for radiographers.

In addition, a self-directed training package for both allied health professionals and assistants was developed and made available to support safe and effective delegation practices.\(^{(24)}\)

**Impacts of Education and Training Initiatives**

Investment in education and training initiatives has ensured that health services are able to maintain support and meet rising demands for pre-entry and new graduate support. A limited range of education and training programs have been delivered to support full and expanded scope of practice tasks and roles. In order to build workforce capacity and capability, there is a need for education and training to be better recognised within all allied health roles, particularly to support sustainable vocational post-graduate training pathways.

**Allied Health Information Management**

Since 2008, AHPOQ has actively worked towards the standardised collection of allied health data to inform its strategies and fully utilise the opportunities that the transition to integrated electronic medical records (ieMR) will bring.

In 2008-2009, funding totalling over $900,000 was distributed to health services to upgrade or implement information management systems to facilitate the collection of the Allied Health Minimum Data Set in acute care facilities across the state. This data set primarily describes allied health practitioner activity, providing valuable information to managers to support workforce planning and resource allocation decisions.

In the same period a Business Requirement Specification was commissioned by AHPOQ to identify the data requirements of allied health clinicians throughout the patient journey from referral to discharge. This work marked the start of a journey to create the Queensland Health Allied Health Data Set Specification which was endorsed by the Chief Information Officer in 2013. This data set specification, which has been created in consultation with statewide profession groups and has been modified over time, provides standardised activity and clinical data elements across the allied health professions and profession specific code sets for the clinical data elements. All code sets have been mapped to SNOMED to enable their inclusion in the ieMR and it is anticipated that they will be trialled using an allied health service event form in 2018.

Parallel work has also been undertaken at a national level, with four National Allied Health Best Practice Data Sets being developed and submitted for endorsement as national allied health data standards.
Conclusion

The release of HPEB1 and subsequent negotiations has provided the opportunity to dedicate funding to system-wide allied health workforce redesign and reform initiatives. Small and consistent investments over the 10 year period have resulted in initiatives to embed allied health expanded scope of practice roles and models, generate high-quality research and evidence, grow clinical education capacity and support workforce capacity and capability.

However, there are still challenges associated with workplace culture and traditional professional boundaries that impede productive change and enable and support allied health professionals to take on expanded scope of practice roles.

Moving forward, there is a need for sustainable education and training to support expanded scope of practice roles, funding to support high quality research and data management and executive allied health leadership to drive change.

Recommendations

Allied Health Workforce Reform

Further work is required to support health services to establish roles and models of care that optimise the scope of practice for allied health professionals. This should include supporting health services to:

- Invest in high-value and evidenced based interventions that offer the greatest benefits to patients. This will involve identifying and discontinuing low or no-value practices ("disinvestment"), in order to redirect scarce resources towards more effective interventions. Investing in high-value activities also assists health services to meet key performance indicators.
- Establish expanded scope consultant roles to assist in embedding expanded scope models as part of usual care. These roles are required to provide clinical leadership, training and education and to lead research in these areas across the state.
- Address workforce shortages and mal-distribution in regional and rural areas through support for the Rural Generalist Pathway for early career clinicians engaged in formal post-graduate rural generalist education.
- Develop recognised and sustainable vocational training pathways for allied health professionals. These pathways should include structured supervision, support and professional development to assist early career professionals to optimise their scope of practice.

Research and data management

To promote research capacity across the state there is a need to:

- Continue investment in the Health Practitioner Research Capacity Building Program to ensure that allied health researchers are well placed to make an effective contribution to health service research agendas.
- Build research capacity through partnerships between rural/regional, including the University Departments of Rural Health, and metropolitan researchers.
- Implement career structures for allied health researchers within Queensland Health. This should include the provision of support and training for allied health researchers and students to contribute to health service research agendas, forming partnerships and collaborating with academic institutions and investing in conjoint research positions.
- Participate in multi-disciplinary and health service level research within established academic and health service alliances.
• Support the development of state and national projects to assist health services to collect, produce and report nationally-consistent, high quality and reliable clinical and activity, outcome data.

Leadership for change

To ensure that allied health leaders are well equipped to add value and make an effective contribution to health service outcomes, there is a need to:

• Review allied health leadership structures (including executive roles) within health services to maintain consistency and advocate for allied health leaders to have professional and operational control over allied health services.

• Integrate education and training programs and focus on succession planning to enable allied health professionals to take on senior management roles. This is likely to be most effective if staff are supported to participate in leadership and management programs, linked with appropriate mentors and are provided with opportunities to gain experience in leadership role at all levels.
References


Appendix 1. Growth in the Queensland Health allied health professional workforce (FTE), 2008-2017

<table>
<thead>
<tr>
<th>Profession</th>
<th>FTE 2008</th>
<th>FTE 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audiologists</td>
<td>25</td>
<td>56</td>
</tr>
<tr>
<td>Breast Imaging Radiographers</td>
<td>50</td>
<td>64</td>
</tr>
<tr>
<td>Clinical Measurement Scientists and Technicians</td>
<td>112</td>
<td>225</td>
</tr>
<tr>
<td>Dietitians/Nutritionists</td>
<td>209</td>
<td>394</td>
</tr>
<tr>
<td>Exercise Physiologists</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>Leisure Therapists</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
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