



# Innovations in models of care for the health practitioner work force in Queensland Health

2011–2014

## Acknowledgements

This report is the culmination of the efforts and commitment of many contributors. Queensland Health acknowledges each of their contributions, including:

- the project officers, service teams and project sponsors who had the ideas, went on the journey and took on the challenges
- the research mentors who shared their knowledge and expertise
- the staff of the Allied Health Professions' Office of Queensland who supported and coordinated the initiative
- the members of multiple project steering committees around Queensland who invested significant time and effort.

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Published by the State of Queensland (Queensland Health), June 2014  
ISBN 978-1-876532-89-5



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## Overview

Like the health sector more broadly, the health practitioner workforce in Queensland Health faces a number of challenges in delivering effective, efficient and responsive services to Queenslanders. These challenges include high and escalating demand for services, limited published evidence about optimal workforce utilisation, and ongoing system and process changes.

The health practitioner models of care project challenged the workforce to redesign Queensland Health clinical practice to optimise the use of available resources to more effectively respond to increased demand and provide greater value for money. This is in line with the *Blueprint for better healthcare in Queensland* which outlines the need for a highly-skilled, capable and sustainable workforce which is empowered to provide the best healthcare services for Queensland.

From July 2011, the Allied Health Professions' Office of Queensland provided oversight to a second round of workforce redesign and reform projects. These projects were designed to promote sustainable clinical services and align service provision with Queensland Health and national strategic directions. The projects were authorised in the *Health Practitioners (Queensland Health) Certified Agreement (No 2) 2011*. Funding for the projects came from a combination of sources including funding allocated to implement the industrial agreement, Hospital and Health Service (HHS) resources and the Allied Health Professions' Office of Queensland.

The second round of projects focussed on trialling innovative models of care featuring<sup>1</sup>:

- working to full scope of practice
- upskilling to advanced or extended scope of practice
- restructuring and redesigning services and/or roles to allow skill-sharing between allied health professionals (AHPs) and delegation to allied health assistants (AHAs)
- development of allied health-led services including first-line triage, assessment and treatment to improve access to appropriate care and reduce unnecessary referrals to medical specialists
- use of technology to enhance service delivery.

The projects were variable in scope and included:

- inpatient, outpatient and community-based services
- populations across the life span
- diverse service domains (e.g. emergency department, acute medical, community aged care and general paediatrics)
- metropolitan, regional and remote locations across Queensland
- a range of allied health professions including audiology, physiotherapy, occupational therapy, speech pathology, dietetics, psychology, radiography and pharmacy.

The *Calderdale Framework*<sup>2</sup> underpins a number of the projects. This framework provides a structure for service and task analysis and a process for identifying clinical tasks that can be shared between professions or delegated to AHAs.

It offers the health workforce not only the tools to support workforce redesign, but the opportunity to build their skills to undertake the process.

Positive outcomes from the models of care projects were realised at a patient, service and organisational level including:

- improved client outcomes
- increased clarity of admission criteria and referral pathways
- decreased waiting times
- enhanced patient flow
- cost efficiencies, including potential savings through reduced inpatient length of stay and decreased re-admissions
- increased patient/client and staff satisfaction.

A number of successful models of care from this second round of projects have already been adopted into routine practice and replicated in other services. Others are linked to research projects that will potentially contribute to the evidence-base for contemporary allied health practice.

This publication summarises the aims, governance, process, project outcomes and critical success factors from these workforce reform initiatives. Specifically, this report documents outcomes from individual projects and from the process as a whole to inform ongoing reform of clinical practice by health practitioners in Queensland Health.

<sup>1</sup> Nancarrow S, Roots A, Moran A, Grace S, Lyons K. Queensland "Health Practitioners Models of Care Project": Evaluation, learning, and upscaling of results for a national audience. Phase 1: A systematic review of the literature. Southern Cross University. 2012.

<sup>2</sup> Smith R, Duffy J. Developing a competent and flexible workforce using the Calderdale Framework. *International Journal of Therapy and Rehabilitation* 2010;17(5): 254-62.

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## Selection criteria for participation in the second round of the models of care project

Findings of the initial models of care project showed that clear criteria in selecting initiatives to be funded are essential. Funding for projects was provided through a competitive selection process based on the following criteria:

1. Alignment with national and Queensland Health strategic directions and funding priorities, including:
  - a. elective surgery waiting lists
  - b. patient flow
  - c. emergency department (ED) and Medical Assessment and Planning Unit (MAPU) interface
  - d. internal medicine
  - e. hospital and community interface
  - f. persistent pain management
  - g. subacute care
  - h. renal care
  - i. rural and remote care.
2. Evidence of strong leadership, local sponsorship and partnership with other stakeholders.
3. Evidence of patient focus, improved patient care, enhanced patient outcomes and consumer engagement.
4. A multidisciplinary approach.
5. A strong project design, realistic budget and effective resource use.
6. Linkages with a research mentor, an appropriate research methodology, comprehensive and relevant data collection, and an evaluation plan to adequately measure outcomes.
7. Transferability of the model, or major components of the model, to other centres.
8. A commitment to training and education of staff to support clinical skill development, process redesign and supervision.
9. Sustainability of the model on completion of the project.
10. A commitment to share new knowledge and project lessons.

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## Key lessons

In a recent evaluation of the health practitioners' models of care project, Nancarrow et al<sup>3</sup> identified three overarching enablers to optimise the success of workforce redesign projects:

1. Drivers for change which are close to practice.
2. Contexts which are supportive both locally and legislatively.
3. Mechanisms for successful workforce change which include<sup>3</sup>:
  - a. a thorough service analysis to understand the context and need for the model of care
  - b. realistic expectations of the model of care which are patient focussed not profession focussed
  - c. models of care that are designed to maximise service impact
  - d. effective leadership to support the implementation of the new model of care
  - e. powerful champions to support the development and implementation of the model of care
  - f. clearly defined accountabilities, delegations and responsibilities
  - g. clear role definitions through training, education, and accountability structures
  - h. involvement of supervisory staff in developing training models and competencies
  - i. established and codified training practices
  - j. appropriate support through supervision skills and structures
  - k. appropriate stakeholder engagement
  - l. effective evaluation of new models of care to provide supporting evidence.

A number of common themes emerged from the models of care project that are consistent with the key lessons derived from other published examples of health workforce innovation and reform. These have been summarised below.

### Patient-centred approach

Better patient outcomes are associated with:

- putting the patient rather than the health practitioner at the centre of the new model
- actively engaging patients in making decisions about their healthcare<sup>4</sup>.

Sustainable health workforce reform requires cultural change, with workforce redesign and reform being both a process and a mindset.

*Better Skills Best Care 2005–2011 Learnings from six years of health workforce innovation and reform in Victoria.*

Locally driven, clinician-led approaches gain the local support and buy-in necessary for change to occur and to be sustained and are important in capturing ideas and building sector momentum for change.

*Better Skills Best Care 2005–2011 Learnings from six years of health workforce innovation and reform in Victoria.*

<sup>3</sup> Nancarrow S, Roots A, Moran A, Grace S, Lyons K. Evaluation of the Queensland Health Practitioners Models of Care Project: Lessons for successful workforce change, 10th National Allied Health Conference. 2013. [Abstract].

<sup>4</sup> Department of Health. *Better Skills Best Care 2005–2011 Learnings from six years of health workforce innovation and reform* in Victoria. State of Victoria. 2013.

## Evaluation

- A strong evaluation framework, including a robust research methodology and meaningful baseline measures, facilitates collection of valid evidence of effectiveness, economic value and improved patient outcomes.
- Evaluation through effective links between HHS allied health clinicians and research mentors, ensures project findings can be used to inform evidence-based practice.

Linking all proposed changes back to improvements in the patient journey provides a mechanism to deactivate and negotiate through professional ownership of some tasks, as well as being a reference point for the redesign process.

*Better Skills Best Care 2005–2011 Learnings from six years of health workforce innovation and reform in Victoria.*

## Change management

Success is optimised by:

- ensuring strong local leaders and champions play a key role in supporting change
- providing adequate time for project initiation to enable change management, recruitment, local buy-in and building of networks with stakeholders, and education and training
- including stakeholders in all steps of the process, including the design of changes
- continually monitoring stakeholders' understanding of, commitment to and participation in the change process
- considering the adaptability of staff and using change management strategies that respond to specific needs
- establishing a clear communication strategy to ensure all stakeholders are informed of proposed changes and have a clear understanding of their obligations
- developing clearly defined roles and responsibilities for all team members in the proposed new model
- providing ongoing education and training to build the skills and attitudes required for change
- establishing a feedback process to stakeholders and supporters of the project (e.g. executive sponsors, steering committee members) that is integral to the project plan.

## Sustainability

Ongoing success is enabled by strategies that support sustainability such as:

- ensuring strong leadership from the outset through executive sponsorship, skilled project management, and medical, nursing, and allied health clinical champions
- effective evaluation demonstrating positive outcomes within the life of the project such as potential cost savings, improved timeliness of access and enhanced coordination of case management
- implementing a model of care that has been proved effective elsewhere.

Embedding workforce change requires change throughout the system. Difficulties remain in changing funding models to align with and support successful innovations.

*Better Skills Best Care 2005–2011 Learnings from six years of health workforce innovation and reform in Victoria.*





## Advanced allied health assistant—rural outreach

### How the need was identified

Staff and stakeholders identified the need to develop a more sustainable workforce skill mix for the delivery of the allied health outreach services. Implementation of the *Calderdale Framework's* 'service analysis' and 'task analysis' stages subsequently identified the need for an AHA role. Further scoping of service gaps highlighted the potential for the assistant to have greater impact on service efficiency if undertaken at an advanced level, supported by the integration of computer tablet technology into the model of service delivery.

### How the service was developed

The allied health team reviewed current service delivery demand and explored opportunities to improve service design as well as scope the role of the advanced AHA. Key tasks undertaken included consultation with stakeholders, review of the literature, benchmarking with other services, and implementation of the *Calderdale Framework*.

A full-time advanced AHA was appointed to the trial phase in May 2013. A Multidisciplinary intake and referral form was used by the AHP staff, in conjunction with a weekly intake meeting, to determine appropriateness of delegation of clinical tasks to the advanced AHA. The primary tasks undertaken by the role included:

- completion of the initial intake and information gathering in relation to referrals for patients requiring outreach services
- undertaking a defined range of clinical screening assessments which are supported by the development of agreed procedures and protocols and where necessary, a computer tablet enabled remote supervision from the relevant health practitioner
- undertaking training in, and delivery of, a range of competency-based clinical support tasks in the areas of physiotherapy, occupational therapy, speech pathology, podiatry and nutrition and dietetics
- taking a lead role in the coordination and delivery of group education and intervention programs (e.g. chronic disease self-management).

### Outcomes

The following outcomes were realised:

- a model of care for an advanced AHA—rural outreach which integrates information and communication technology into the delivery of the allied health outreach service, and enables efficiencies to be made in the current allied health management of rural patients requiring allied health intervention
- a defined scope of practice for the advanced AHA—rural outreach including competencies and training required to perform the role
- increased confidence and competence of AHPs in supervision and delegation of clinical tasks to an advanced AHA
- increased confidence and competence of all staff in the use of Telehealth as a means for supporting the remote supervision of the advanced AHA and delivering allied health clinical outreach services.

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## Advanced allied health practitioner-led ear, nose and throat services

### How the need was identified

The ear, nose and throat (ENT) outpatient department at Logan Hospital was unable to provide services within a reasonable timeframe for Category 2 and 3 patients on the waiting list. An audit of the adult ENT waiting list indicated that a significant proportion of the Category 2 and 3 referrals would be eligible for an advanced allied health professional-led service. Such a service would lead to improved access for these patients, and in the longer term, a reduction in the ENT waiting lists.

Prior to a new paediatric ENT service from December 2013, paediatric ENT patients did not have access to consistent ENT services at Logan Hospital. The pressure of the additional workload on the ENT outpatient department, combined with data demonstrating that the majority of middle ear disease in children is transient and self-limiting, suggested that a paediatric glue ear pathway managed by an advanced audiologist would have a significant impact on the paediatric ENT caseload.

### How the service was developed

Three advanced allied health practitioner pathways were developed, with speech pathologists and audiologists providing clinical services to those ENT patients meeting referral criteria for each pathway. The three pathways were:

- audiology-led paediatric glue ear pathway to assess children referred to ENT outpatient waitlists for routine middle ear disease and/or hearing and speech concerns; and to provide post-operative review clinics for children undergoing routine grommet insertion
- ENT-speech pathology dysphagia and dysphonia pathway to assess and manage referrals to ENT for voice or swallowing difficulties
- adult audiology pathway for assessment of patients referred for asymmetrical hearing loss, vertigo and dizziness, and tinnitus and other hearing related disorders.

Advanced allied health practitioners worked in conjunction with, or under the supervision of, an ENT consultant according to evidence-based clinical protocols and guidelines. Advanced skill areas were identified and training packages developed to address the need for increased clinical competence.

Data and learning from the pilot clinics were used to guide the further refinement of the protocols and clinical training packages. Consultation with key stakeholders was ongoing throughout the project to manage issues as they arose and to ensure stakeholder buy-in during all phases of the project.

### Outcomes

Three advanced allied health practitioner pathways were developed to improve patient access to ENT outpatient services. Results from the clinical pilots indicated that:

- approximately 25 per cent of the paediatric Category 2 and 3 ENT waiting list and 63 per cent of all paediatric grommet insertions were eligible to be seen in an audiology-led clinic
- 50 per cent of children seen in the pre-ENT trial clinic and 73 per cent of those seen in the post-grommet review clinic were able to be discharged after a single appointment
- 35 per cent of children were directly referred to the ENT clinic to discuss surgical options
- 73 per cent of children in the post-operative grommet clinic were able to be discharged to a general practitioner (GP) after one appointment
- up to 30 per cent of adult Category 2 and 3 referrals were eligible for an advanced AHP-led pathway
- almost 10 per cent of adult Category 2 and 3 referrals were eligible to be seen in a joint speech pathology/ENT clinic.

Other outcomes included:

- development of learning packages to skill clinicians to provide services along identified pathways
- streamlining of patient journeys with a reduced number of ENT review consultations
- high-level of patient and stakeholder satisfaction
- referral for medical imaging for appropriate patients on adult audiology pathway
- referral for modified barium swallow for appropriate patients on the speech dysphagia pathway
- diagnostic vestibular assessment and vestibular rehabilitation as required
- referral to ENT as required, with full diagnostic workup thereby reducing the number of ENT appointments.

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## Advanced allied health practitioner—aged care within the geriatric outpatient service

### How the need was identified

The population that the Sunshine Coast HHS serves is expected to increase by 23 per cent from 2001 to 2021, with the greatest proportional increases in older age groups. An external consulting team performed a needs analysis in 2009 targeting work practices of health practitioners working with older people. The result was an innovative new model of care to meet the complex needs of older persons across the community–hospital interface in the Sunshine Coast HHS.

### How the service was developed

The objectives of the project aligned with the National Framework for Action on Dementia and the Queensland Health Dementia Framework 2010–2014 in five key priority areas:

- care and support
- access and equity
- information and education
- research
- workforce and training.

The role of the advanced allied health practitioner included early assessment, intervention and improved coordination of care for clients referred to geriatric outpatient clinics. The majority of referrals to the geriatric outpatient service related to dementia, stroke and Parkinson's disease.

Clinics co-located with geriatricians facilitated diagnosis and treatment of cognitive impairment and memory loss. Triage interventions improved communication with GPs referring to the service, improved the quality and quantity of information available to aid diagnosis and treatment, facilitated patient attendance at appointments (often an issue with the frail aged), and provided follow-up on patients who cancelled or did not attend appointments. Pre-outpatient and post-outpatient clinic phone calls, outpatient appointments and home visits were provided for various needs including formal cognitive assessment, assessment of decision-making capacity, coordination of community support services, and carer education and support (particularly in the area of dementia).

### Outcomes

During the trial period (January–June 2013) the following outcomes were achieved:

- increased and more timely access to outpatient clinics with 326 patients (average 54 per month; range 49–59) receiving a total of 924 occasions of service (average 154 per month; range 119–190)
  - pre-triage activity—161 patients (average 27 per month); 231 triage-related phone calls (average 39 calls per month)
  - geriatric outpatient clinics—36 clinics (average 6 per month) servicing 89 patients (average 15 per month; range 10–22)
  - additionally, there was an average of 5 referrals per month for individually tailored support interventions for patients/carers and an average of 2 referrals per month received from the geriatricians for cognitive assessment
- avoidance of unnecessary hospital admissions and premature permanent placement in aged care facilities
- positive feedback from geriatricians regarding the role of the advanced allied health practitioner.

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## Allied health assistant outreach delegation model

### How the need was identified

The Wide Bay Rural Allied Health Team covers a large geographical area. Current service provision is delivered solely by AHPs using an outreach model where communities have access to AHPs on a fortnightly basis. This model has several limitations including AHPs spending on average 24 to 32 hours per month travelling to outreach sites. This alone has a considerable impact on the quantity, as well as the quality, of service provision. An AHA based in the outreach communities was identified as a solution to significantly improve client access to allied health services and ultimately improve client outcomes.

The AHA outreach delegation model aimed to determine how the AHA role could be implemented with the rural communities to support AHPs in providing clients with more consistent and cost-effective access to allied health services.

### How the service was developed

The *Rural and Remote Statewide Scoping Framework* and the *Calderdale Framework* were used to inform the development of a new model of care that focussed on an ageing population and patients with chronic disease. The team developed a set of work unit specific AHA competencies using Rasmussen's *SRK framework* along with the task analysis component of the *Calderdale Framework*.

AHPs participated in supervision and delegation training locally and through the *Allied health rural and remote training and support program*. An AHA role was trialled at one outreach site which demonstrated that the processes around competency training, delegation and supervision were sound, and that the team could sustain this model at each outreach site.

### Outcomes

The following outcomes were realised:

- successful trial of an outreach delegation model with an AHA at one site
- development of AHA competencies for physiotherapy and dietetics
- development of an AHA role description and orientation manual
- supportive AHPs who embraced the AHA outreach delegation model
- rollout of AHA model across the health service in 2014.

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## Exploring the utility of a transprofessional allied health professional and allied health assistant role in persistent pain management services

### How the need was identified

Multidisciplinary pain clinics provide coordinated specialised care for people living with persistent pain. Increased demand for services has led to increased waiting times which can lead to a decline in patient health.

Patient feedback reported content duplication of AHP persistent pain initial assessment. This duplication was confirmed by qualitative research that compared the content of typical physiotherapy, occupational therapy and psychology assessments for a selection of patients presenting to the Professor Tess Cramond Multidisciplinary Pain Centre at the Royal Brisbane and Women's Hospital (RBWH). Streamlining the assessment was seen as an opportunity to improve service efficiency and access to the service.

### How the service was developed

The *Calderdale Framework* was used to address the identified needs. An integrated transprofessional allied health assessment was implemented to assess Category 2 and 3 patients. Physiotherapists, occupational therapists and psychologists were trained to enable the administration of an integrated online assessment tool. Each professional was then able to identify suitable internal and external treatment options for patients and determine if a profession-specific assessment was required.

An AHA was employed to undertake routine operational and administrative tasks to free-up allied health practitioner time.

Both roles have been continued in the service following the completion of the project.

### Outcomes

Implementation of a transprofessional AHP assessment and AHA to support allied health service delivery resulted in:

- reduced assessment duplication for patients
- improved access to an allied health assessment in the pain clinic with a 150–200 per cent increase in the number of assessments performed
- decreased wait time with a current year-to-date reduction in the number of patients on the waiting list of 66 per cent
- increased capacity of AHPs for more complex tasks with delegation of tasks to the AHA
- potential for allied health role to expand to include triage and case management.

### Contact

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## Allied health clinical leader and allied health assistant—acute medical services

### How the need was identified

Acute medical wards are recognised as areas of high allied health service demand with large volumes of patients. Previous investigations at Toowoomba Hospital had highlighted inefficiencies (e.g. duplication of allied health assessment and intervention, underutilisation of AHAs), as well as delays in allied health response to referrals and commencement of discharge planning. Opportunities were identified to trial and evaluate a skill-shared model for advanced allied health practice in the MAPU and the implementation of an AHA in the acute medical wards.

### How the service was developed

Current service delivery was reviewed and opportunities identified to improve service design. Key tasks undertaken included:

- consultation with stakeholders
- review of the literature
- benchmarking with like roles
- implementation of the *Calderdale Framework*.

A physiotherapist and an occupational therapist were appointed to job share the full-time allied health clinical lead role with a primary focus to facilitate timely discharge of patients with multiple allied health needs from the MAPU. Secondary aims included the improvement of coordination of care across allied health and the enhancement of the patient experience. Training was undertaken in key competency areas and resources developed.

Implementation of the Calderdale Framework identified that a number of tasks being undertaken by AHP staff could be delegated to an AHA, particularly for occupational therapy and speech pathology. As a result, a full-time AHA was also trialled.

### Outcomes

The allied health clinical lead role resulted in:

- a reduction in the overall hospital length of stay by 82 hours—approximately 40 per cent on average
- a reduced rate of ED re-presentation—10 per cent compared to 24 per cent at one month
- improved patient outcomes—mobility and quality of life measures at one month
- earlier identification and assessment of patients with allied health needs—nine hours earlier on average
- earlier comprehensive transdisciplinary allied health assessment—93.5 per cent of allied health domains compared to 32.7 per cent
- greater identification of allied health need—64 referrals for 25 patients compared with 2 referrals for 2 patients
- earlier ongoing care pathway identification via referrals to rehabilitative services
- positive feedback from allied health colleagues regarding the impact on patient flow, as well as allied health profile, communication and cohesion
- positive feedback from senior medical staff working in the MAPU
- patient safety maintained.

The implementation of an AHA role resulted in:

- improved clinician confidence and satisfaction with access to AHA support, particularly from disciplines of occupational therapy and speech pathology
- improved confidence of AHPs in delegating tasks to an AHA
- improved capacity for AHP staff to work to their full scope of practice.

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## Rehabilitation model of care

### How the need was identified

The need to better coordinate the referral and management of rehabilitation patients across the health service was the catalyst to explore different options for the model of service delivery. There are no rehabilitation specialists working at Redland Hospital and geriatrician time was limited. Rehabilitation patients are not medically managed by the geriatrician however the geriatrician supports the team through weekly reviews of patients. Recommendations from the weekly rehabilitation case conference were not always carried through by treating medical teams. Key issues relating to rehabilitation service provision were:

- no designated rehabilitation beds
- patients managed on any of three hospital wards
- significant issues in relation to referral to allied health, coordination of care and interdisciplinary communication resulting in confusion for patients and family
- poor coding of rehabilitation patients and collection of data
- potential for prolonged length of stay or premature discharge, poor discharge planning and poor coordination of care.

### How the service was developed

The project identified the need to focus on two initiatives:

- Initiative one—develop an appropriate rehabilitation model of care that would meet patient needs.
  - Current inpatient rehabilitation services at Redland and Wynnum hospitals were mapped, including identification of trends, processes and factors that impacted on rehabilitation service.
  - Strengths and weaknesses in service delivery were identified.
  - Published evidence to inform the development of a model of care was reviewed.
  - Training needs for multidisciplinary staff (including nursing and medical) were identified.
- Initiative two—develop an advanced health practitioner role to enhance patient identification, care planning and coordination.
  - Core advanced scope competencies identified and advanced scope health practitioner role description developed.

An advanced health practitioner provided clinical leadership in relation to multidisciplinary assessment, treatment and coordination of care for rehabilitation and geriatric patients including decision-making in relation to admission to the rehabilitation program. The role also coordinated shared care of rehabilitation and geriatric patients in consultation with medical specialists.

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### Outcomes

The implementation of the rehabilitation model of care has resulted in:

- development of inclusion and exclusion criteria for Redland and Wynnum hospitals
- development of referral form and referral pathways for rehabilitation and geriatric patients
- provision of acute stroke management and rehabilitation education
- allocation of four rehabilitation beds on the medical ward with weekly ward round.

Implementation of the advanced health practitioner role has resulted in:

- a single point of contact for rehabilitation and geriatric referrals, coordinating shared care for the medical management of patients and making recommendations under the clinical supervision of a geriatrician
- implementation of medical management shared care model for rehabilitation patients
- accreditation of advanced health practitioner to complete and enter online a comprehensive geriatric assessment resulting in improvements to the efficiency of the geriatrician
- improved timing and accuracy of coding of rehabilitation patients with improved funding implications
- improvement in time between referral to geriatrician and initial assessment.

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## Clinical measurements—a 12 month multidisciplinary graduate training framework

### How the need was identified

Sole practitioners and small clinical measurement departments in regional hospitals reported multiple workforce issues including:

- inability of current training models to adequately skill clinical measurement scientist graduates to competently work across different clinical disciplines, which is required in smaller services
- inability to source appropriate cover of required clinical areas when a sole practitioner takes leave
- clinical measurement services ceasing for the duration of leave
- expensive outsourcing and/or overtime costs.

### How the service was developed

Local and statewide clinical measurement scientists collaborated to develop a multidisciplinary graduate training framework incorporating four clinical measurement disciplines—cardiac science, neurophysiology, respiratory science and sleep science.

The training framework was structured as follows:

- two week orientation and induction
- four single discipline training blocks of 10 weeks duration
- an eight week multidisciplinary training block
- two week 'wrap-up'.

Two supernumerary HP3 trainees recruited in January 2012 trialled the framework.

### Outcomes

The following outcomes were realised:

- development of a replicable and adaptable framework for use in regional health facilities
- continuous delivery of clinical measurement services during periods of sole practitioner leave with appointment cancellations minimised
- improved workforce capacity in clinical measurements
- trainees able to support routine service delivery across four clinical measurement disciplines.

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## Dietitian-first gastroenterology clinic—a pilot study

### How the need was identified

The RBWH gastroenterology outpatient department receives more than 1300 referrals a year, resulting in lengthy waiting times for patients to be seen and assessed. There are examples from the United Kingdom where dietitians engage in extended scope of practice to triage patients using a range of screening tests, and where appropriate, provide dietary and lifestyle advice prior to patients progressing to see the gastroenterologist.

In 2012–13, the RBWH nutrition and dietetics department worked with the gastroenterology department to pilot this innovative model of care with the aim of expediting patient assessment and reducing waiting lists. The purpose of the project was to pilot a 'dietitian-first gastroenterology clinic' for specific referrals to the gastroenterology outpatient department and treat patients whose presentations could be managed or resolved through dietary or lifestyle advice.

### How the service was developed

The referral criteria negotiated with the gastroenterologists included patients less than 40 years old with abdominal pain, altered bowel motions, and no alarming investigations as determined by a set of screening tests to exclude more serious gastroenterological disorders such as bowel cancer and inflammatory bowel disease.

The dietitian provided screening and comprehensive clinical assessment and intervention as appropriate/relevant for eligible patients attending the dietitian-first clinic. The dietitian independently requested and interpreted relevant pathology and diagnostic tests under the jurisdiction of the gastroenterology consultant and referred on to a gastroenterologist for opinion, review or discharged back to community-based services as required.

Quality of care was ensured through a formal and well-defined supervision model and regular reporting to both nutrition and dietetics and gastroenterology.

### Outcomes

Results from the pilot clinic reveal this model of care resulted in:

- reduced wait times for patients—up to 283 days
- improved patient satisfaction with service
- gastroenterology staff satisfaction with service
- fewer appointments required with gastroenterology consultants—opportunity cost savings.

This model of care will continue at the RBWH at no additional service cost with the view for it to become standard care for the target patient group and realise the potential cost savings.

## Multi-professional allied health assistant as part of the Eat Walk Engage program

### How the need was identified

More than 50 per cent of overnight admissions to the RBWH are aged more than 65 years, with this proportion increased to almost two-thirds in the internal medicine and aged care department. Previous research conducted in the RBWH general medical wards demonstrated that programs focusing on physical activity, cognitive stimulation and preventing malnutrition were effective in improving functional status, reducing delirium and showed a trend to reduced falls. To maintain the functional status of this population, the Eat Walk Engage program was established. To support this program, particularly in relation to more generic strategies and tasks, a multi-professional AHA role was developed.

### How the service was developed

A local multi-professional implementation group was established and several resources were developed:

- a role description for the position
- a guideline for governance of the position that detailed a model that used existing physiotherapy department AHA line management capability alongside a multidisciplinary clinical practice supervision model
- a basic scope of practice for the AHA position that included an initial task list
- a training manual for the position that combined resources from previous projects on delirium and malnutrition, as well as additional information on mobility and functional activities.

Education for both the AHA and multidisciplinary team was provided.

### Outcomes

The aim of the AHA project was to support the Eat Walk Engage program. Evaluation of this program showed:

- patients enrolled in the program demonstrated improved participation in mobility activities, improved access to nutrition assistance and improved participation in cognitive stimulation activities. In particular, improvements in walking activity could be closely related to the addition of the AHA role
- the proportion of older patients identified as potential Eat Walk Engage program participants increased from 77 per cent in March 2011 to 90 per cent in December 2011<sup>5</sup>
- the length of stay decreased by three days during the implementation period with no increase in reported falls despite greater throughput (i.e. an increase in discharge rate from 55 per month in 2011 to 80 per month in 2012)<sup>5</sup>.

Additional specific AHA project evaluation demonstrated:

- improved job satisfaction for the multidisciplinary team
- perceived ability by allied health team members to complete more quality activities, therapy interventions and patient education
- perceived positive influence of AHA position on the multidisciplinary team and patients
- a high degree of commitment to the continuation of the AHA position
- a high-level of job satisfaction for the AHA including a perception of inclusion into the multidisciplinary team and sense of achievement through the learning of new skills and acquiring a broader knowledge base.

<sup>5</sup> Mudge AM, McRae P, Cruickshank M, Eat Walk Engage: An interdisciplinary collaborative model to improve care of hospitalised elders, *American Journal of Medical Quality* published online 22 November 2013.

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## Redesigning ear, nose and throat care paths through innovative audiological practice

### How the need was identified

In 2010, the ENT Category 2 and 3 waiting lists were closed at Mater Health Services as patients were unlikely to be seen within an appropriate timeframe. A collaborative ENT-audiology department trial was conducted with results suggesting that audiology services could assist in improving patient access.

As the audiology department was functioning at full capacity, it was essential that strategies such as the introduction of an AHA role and extension of service hours be investigated to increase patient access and ensure sustainability of the model of care.

### How the service was developed

The model was developed in collaboration between the audiology, ENT and nursing professions. The AHA role was developed using the *Calderdale Framework* with participation from audiologists at Mater Health Services. The AHA was trained using competencies developed. Formal research measuring patient and staff satisfaction and cost benefit analysis was conducted in partnership with the Mater Medical Research Institute.

Audiology services were introduced for children on Saturday mornings to provide more appropriate access for this group.

### Outcomes

The following outcomes were realised:

- improved patient access to audiology services for those requiring a hearing assessment but not eligible for otorhinolaryngology (i.e. ENT) services
- improved GP education processes, enabling a more streamlined patient flow from GP to audiology outpatients
- improved quality of less than three-year old infant audiology results by changing processes for same-day ENT services
- implementation of an audiology assistant role, including formal acknowledgement by Audiology Australia of the assistant role in the audiology profession with the release of a position paper
- development of audiology assistant competencies and role description
- successful introduction of Saturday clinics for audiology with an attendance rate of 80 per cent compared to 78 per cent for regular weekday clinics
- development of policy and processes for operating extended audiology service hours.

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## Musculoskeletal pathway with physiotherapy extended scope of practice including prescribing and injecting

### How the need was identified

Existing musculoskeletal pathways have long waiting lists and low surgical conversion rates. Some successful overseas models permit allied health professionals greater autonomy, particularly in areas of medicines management and extended scope practice. This project aimed to explore and improve services through changes that maximise the contribution of the allied health workforce through innovation and extended scope practice. This involved research to trial allied health prescribing in an Australian setting and a musculoskeletal program to evaluate current service delivery, opportunities for enhancement of the allied health contribution and the redesign of services accordingly.

### How the service was developed

An injection research trial sought to explore and design a service delivery trial involving allied health use of medicines for musculoskeletal patients. Originally intended as a service-based trial, this work migrated completely into the research domain in order to obtain the required legislative authorisation.

A rheumatology screening service has been established and is being piloted on a small scale. In this model, a physiotherapist sees new rheumatology referrals identified by the rheumatologist. The project leader has been credentialed (through the radiology department) to request blood tests and ultrasound-guided corticosteroid and local anaesthetic injections.

### Outcomes

This musculoskeletal program has achieved:

- wide stakeholder support for change to care pathways
- implementation of research involving prescribing and injecting of corticosteroids for shoulders by a physiotherapist
- increased allied health responsibility for clinical decision-making
- integration of new extended scope practice into services, including requesting of ultrasound guided corticosteroid and local anaesthetic injections and blood tests.

The results of formal evaluation of this research project will be available late 2014.

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## Hospital to home outreach for malnourished elders project

### How the need was identified

Many older patients admitted to hospital for acute medical admissions are undernourished, which increases the number and length of hospital admissions. The research group has previously shown that treating malnutrition during a short hospital admission produces only modest outcomes. As a result, the model of care has been redesigned with the delivery of nutrition care continuing into the post-discharge period. *The Hospital to home outreach for malnourished elders* (HHOME) program aims to improve health outcomes for nutritionally vulnerable older patients as they move from hospital to the community.

### How the service was developed

An action research approach was used to help develop the new model of care. The *Look, Think, Act* cycles provided a clear and practical framework for engaging stakeholders, mapping existing processes and working with clinicians to facilitate change to clinical routines.

Patients on the HHOME program received phone follow-up from their hospital dietitian to reinforce nutritional advice, coordinate community-based nutrition services and re-intervene after care would traditionally cease.

### Outcomes

The HHOME model of care was implemented at the RBWH from February to June 2013. Sustainability measures were implemented to ensure continuation beyond this period, and post-implementation research will be finalised late 2014.

Process evaluation of the program showed:

- increased knowledge of, and confidence in, referral to community services for nutrition related activities by dietitians, ward case managers and discharge facilitators
- increased dietitian time allocated to home focussed nutrition assessments, discharge planning and post hospital follow up
- dietitians regularly completing a dietetic discharge summary within the enterprise discharge summary
- positive patient response to the post hospital follow up and appreciation of the continuity of care and relationship
- improved job satisfaction experienced by the dietitians completing the HHOME program.

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## High intensity aphasia clinics—embedding the evidence into Queensland Health

### How the need was identified

Aphasia is a language disorder which affects a person's ability to use and understand language. It is seen in approximately a third of individuals following stroke. Aphasia contributes to reduced quality of life and is associated with increased hospital stays, increased likelihood of nursing home placement, and increased short-term and long-term risk of death and other illnesses.

A review of the current literature by the Gold Coast HHS suggested that treatment provided intensively (i.e. eight to nine hours a week) is associated with more optimal outcomes for individuals with aphasia compared to non-intensive models (e.g. two hours a week). Current Queensland Health services are non-intensive and delivered predominantly through one-on-one therapy with a speech pathologist. Consequently, the delivery of intensive treatment within this service model would be resource intensive and inefficient, thus identifying the need to investigate models of care which provide increased intensity in a more cost efficient manner.

### How the service was developed

The high intensity aphasia clinics were developed using a research framework. The research aimed to explore the cost effectiveness and clinical feasibility of embedding three different intensive treatment models for aphasia at different Queensland Health subacute facilities (Gold Coast, Ipswich, and Queen Elizabeth II hospitals). Computer therapy, group therapy, and speech pathology therapy assistants were identified in the literature as facilitating increased intensity of treatment in aphasia. The cost effectiveness and clinical application of these models were compared with the standard service using a two cohort comparison study design.

### Outcomes

The following outcomes were realised:

- A statistically significant reduction ( $p=0.004$ ) in the perceived impact of aphasia in the intensive service models when compared to the standard service routinely delivered within Queensland Health facilities.
- Demonstrated cost efficiency of aphasia treatment for the intensive models of care (i.e. 30 per cent cheaper) utilising computer therapy (\$41 per hour) and group therapy (\$39 per hour) when compared to the standard service (\$53 per hour).
- Clinically and statistically significant improvements to client outcomes using the speech pathology therapy assistant model. The combination of speech pathology therapy assistants with the use of prescriptive tasks and computer based therapy would further enhance the cost efficiency of this model.
- High client and caregiver satisfaction with 97 per cent of participants indicating they would recommend the intensive models of care to others. Participants and caregivers reported clinics fostered a supportive environment and facilitated increased participant confidence.
- Speech pathology staff reported overall satisfaction. Staff also reported increased professional development by participating in the clinics.
- High participant attendance in the intensive aphasia clinics (average 94 per cent, range 89–99 per cent), with comparable attendance rates within the standard service (average 93 per cent).

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## Orthoptist-led ophthalmic clinics—paediatric strabismus and amblyopia review

### How the need was identified

The need to improve patient flow became the catalyst for the multidisciplinary ophthalmology clinic at the Royal Children's Hospital (RCH) to explore different options for their model of service delivery. A review of patient throughput, new-to-review ratios and waitlist data in March 2011 confirmed both the clinical need and viability of orthoptist-led clinics for patients with a presentation of strabismus and/or amblyopia.

### How the service was developed

The models implemented were based on commonly practiced models in the private sector and published clinical regimes and benchmarks .

The trial included RCH's sole orthoptist leading a weekly half-day clinic for patients requiring screening for strabismus and a fortnightly half-day clinic for patients requiring conservative review and management of their disorder of visual acuity (amblyopia). The amblyopia review clinic was trialled from September 2011 for a period of nine months and the strabismus screening clinic was trialled from January 2012 for a period of six months.

### Outcomes

The following outcomes were realised:

- improved access to clinical services for patients referred to the RCH eye clinic with suspected strabismus and for those requiring conservative management of the diagnosis of amblyopia
- a decrease of 372 days wait from referral to initial appointment for patients referred for strabismus
- improved identification and management of a high number of patients (approximately 33 per cent with pseudo-strabismus) who were discharged after an initial strabismus screening appointment
- 20 per cent reduction in patients exceeding the long wait status with the most significant impact felt by those exceeding the long wait status for a Category 3 appointment
- improvements in visual acuity that no longer responded to ongoing conservative management for 88 per cent of patients, taking an average of 1.66 review appointments to observe these improvements
- the successful trial of the two orthoptist-led models of care led to the continued roll-out of both clinics within the paediatric eye clinic at the RCH.

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## Redesigning occupational therapy services on medical wards

### How the need was identified

The need for this model of care was first identified through team discussion at a departmental planning day. Following this, departmental statistical data was reviewed to examine patterns and potential shortfalls within the existing service model. This data demonstrated a reduced length of stay and a high turnover for the majority of patients admitted to the medical wards resulting in a reactive service with a tendency to focus on the screening and assessment of patients immediately prior to discharge. In addition, patients admitted with more complex conditions were noted to experience significant functional deterioration during their admission.

To overcome these service inefficiencies, a model of care was proposed to redefine the occupational therapy role. The objectives were to provide a post-acute approach to service delivery and enable more occupational therapy time to be dedicated to working with patients with complex needs and extended hospital admissions. The employment of an AHA was proposed as part of this model of care to complete important tasks which could be delegated to allow the therapist to work to their full scope of practice.

### How the service was developed

The Calderdale Framework was used to identify tasks undertaken by an occupational therapist on the medical wards and determine tasks that could be delegated to an assistant. The occupational therapy role was redefined to enable the implementation of a post-acute approach, with more time dedicated to patients with complex needs. This was supported through employment of an AHA to complete key tasks which would be delegated by the occupational therapist. Regular structured reflective sessions were held for troubleshooting and to ensure service quality was maintained.

### Outcomes

The following outcomes were realised:

- AHA competencies developed
- consistent task completion for tasks delegated to assistants employed within the occupational therapy department
- improved job satisfaction and morale for both the occupational therapist and the AHA providing services within the project
- improved ability of occupational therapists to work to their full scope of practice
- improved service efficiency through the appropriate use of assistants to ensure the right task is undertaken by the right person at the right time
- shift in departmental culture with improved use of existing departmental assistants
- anticipated shorter length of stay and fewer hospital readmissions for occupational therapy related reasons (pending research findings)
- projected reduction in length of stay and improved occupational performance outcomes for patients receiving the new model of care.

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## Using an advanced-scope pharmacy assistant to support pharmacy services in chronic centre-based haemodialysis units

### How the need was identified

Chronic centre-based haemodialysis (CCHD) unit patients commonly take more than 20 tablets a day, prescribed by multiple doctors and in complex dosing regimes. The experience of the CCHD clinical teams was that medication regimes are changed frequently in response to monthly blood testing of biometrics and multiple medical attendances. They noted there was no mechanism to share treatment driven changes in medication regimes and patient recall of the changes and the associated reason was inaccurate. Decisions about patient care were consequently fraught with risk of adverse medication events.

### How the service was developed

A literature review and consultation with key stakeholders identified desirable pharmacy service characteristics. To meet these, the existing medication supply service for CCHD units was expanded to include clinical pharmacy services. The role descriptions of a pharmacist and an advanced-scope pharmacy assistant were developed. Tasks were identified which could be transferred from the pharmacist to the advanced-scope pharmacy assistant and protocols for these tasks developed. The resultant model of care was an advanced-scope pharmacy assistant working under the supervision and delegation of a pharmacist, particularly in medication supply, medication history and reconciliation. Any additional pharmacist service needs identified, such as counselling and education, were referred to a pharmacist.

Education was delivered to patients and staff at the CCHD units prior to the implementation of the model of care to ensure the scope of the pharmacy services to be provided, the role of the advanced-scope pharmacy assistant, and the boundaries within which they worked were clearly understood. The pharmacy assistant was recruited, orientated and up-skilled in the advanced-scope role. The model of care was then implemented in three CCHD units across Metro North HHS.

### Outcomes

The following outcomes were realised:

- a centrally located accurate list of patient's medications—Enterprise-wide Liaison Medication System (eLMS)—in the dialysis chart for the use of patients and staff
- from a baseline of zero, 25 per cent of patients carrying a current eLMS list to their dialysis treatments and 29 per cent to their medical consultations at three months
- improvement to 32 per cent and 54 per cent respectively at nine months
- medication supply procedures rationalised with a \$31,800 reduction in medication expenditure in CCHD units over the nine months of the project
- nursing staff no longer required to perform medication ordering functions, freeing up time to concentrate on their clinical role
- pharmacist able to perform additional clinical services such as medication counselling and education
- 12 month extension of project positions to continue the model of care.

## Professional skill-sharing in the Mackay Hospital and Health Service

### How the need was identified

A baseline chart audit identified that there was duplication in allied health services through information collection, history taking and assessments. A model of professional skill-sharing was implemented to reduce duplication and improve service efficiency and patient experience.

### How the service was developed

The Calderdale Framework is a comprehensive, risk-managed approach to workforce redesign, which involves:

- engaging staff in the change process
- identifying clinical tasks that are currently carried out by each profession
- analysing which tasks can be either delegated or professionally skill-shared
- identifying clinical task instructions for those tasks to be delegated or skill-shared
- establishing governance mechanisms to support the change in practice
- training staff in clinical task instructions
- putting mechanisms in place to sustain the new ways of working.

The Mackay HHS implemented the Calderdale Framework in a community setting and evaluated the clinical effectiveness through a randomised controlled trial. Qualitative studies explored staff perceptions of barriers and enablers to the model and patients' experiences of contact with the healthcare system.

### Outcomes

This project identified:

- Professional skill-sharing between occupational therapists and physiotherapists was equivalent in clinical outcome to uni-professional intervention (usual care), in a cohort of community dwelling older people experiencing functional decline, as evidenced through a randomised controlled trial.
- Clinicians preferred a skill-sharing model of care, and also identified benefits for patient outcomes, service efficiency, team functioning and clinical practice. Staff identified community settings as more appropriate for professional skill-sharing than acute, emergency care settings.
- Patients preferred care provided by one primary allied health clinician, in preference to multiple treating clinicians. The patient qualitative study additionally provided data on the factors that both facilitated and inhibited their engagement with the healthcare system, in terms of the quality of their interactions with agents of the healthcare system and the efficacy of treatment provided.

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## Rural generalist allied health clinical lead

### How the need was identified

Chinchilla has had significant population growth. During the period 2009–2011 there has been an average increase of approximately 30 per cent in outpatient department and ED presentations at the Chinchilla Health Service. Chinchilla outpatient department and ED staff reported many of these patients presented with chronic and/or complex presentations that would benefit from planned, ongoing, multidisciplinary care. The Chinchilla ED and outpatient department model of care did not provide any preventative risk assessment and screening, ongoing management of chronic conditions, care planning or multidisciplinary referrals.

There is published evidence to support the role of an advanced allied health practitioner role working in an ED setting, with a focus on providing a coordinated and integrated multidisciplinary approach to clients with chronic and/or complex conditions. The rural generalist allied health clinical lead role was developed as the patient's first point of contact with the health service to perform multidisciplinary screening and assessments and to initiate timely and appropriate referrals to allied health.

### How the service was developed

The scoping phase of the project encompassed stakeholder identification, consultation and engagement, a literature review of national and international research, service profiling and the implementation of the Calderdale Framework. The data and information collection processes provided the basis for the development of the lead role including role description, competencies, training, development of a multidisciplinary allied health assessment tool and a recommended model within which the lead role would function.

### Outcomes

During the trial period (January–May 2013) the following outcomes were achieved:

- increased access to allied health services
  - a total of 32 patients were assessed—the majority of whom were identified within the acute setting (72 per cent) with the remaining 28 per cent identified in the outpatient or emergency setting
  - there was a 32 per cent increase in the number of acute service referrals generated before (28 referrals) and during the trial (37 referrals)
- development of an allied health intake process in the acute setting for those admitted with chronic and/or complex conditions
- improved coordination of case management and allied health services in the acute setting
- improved referral documentation and appropriate prioritised referrals to allied health outpatient services
  - a total of 76 referrals (61 accepted) were made to allied health during the implementation phase
- improved clinical outcomes as a result of timely intervention and management as per best practice recommendations
- improved ability to meet best practice guidelines
- improved allied health service coordination within the Chinchilla Health Service
- positive shift in allied health staff confidence in skill-sharing some clinical tasks across AHPs.

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## Development and evaluation of an advanced practice radiation therapist in palliative radiation therapy

### How the need was identified

Radiation therapy plays a significant role in the palliation of pain and other symptoms caused by advanced cancer. Overall, it has been estimated that 50 per cent of radiation treatments are given with palliative intent. Often these patients wait for extended periods of time in the radiation therapy department before having their treatment, sometimes in pain. We expect that the advanced practice radiation therapy (APRT) role will help to provide a more efficient pathway and reduce the time the patient spends within the radiation therapy department. The role is currently being evaluated with respect to efficiency and patient satisfaction.

### How the service was developed

The role of an APRT remains a new concept in Australia despite it being embraced in the United Kingdom and Canada. The potential workforce advantages to having an APRT position in a radiation oncology department have led the Australian Institute of Radiography and the Royal Australian and New Zealand College of Radiologists to endorse such positions. Australian universities have responded to this need through the development of post-graduate courses in various sub-specialities of radiation oncology. At a local level, the Radiation Oncology Mater Centre has developed a robust role description through interdepartmental consultation and liaison with Queensland Health committees. The radiation therapist currently working in this role is enrolled in a specialist post-graduate palliative advanced practice course and is mentored clinically by the radiation oncologist.

### Outcomes

The introduction of the APRT role has delivered the following outcomes:

- streamlining of radiation therapy treatment and associated appointments for palliative patients who have symptomatic advanced disease
- coordination and alignment of appointments (on the same day) for radiation therapy treatment and clinic attendance
- improved patient satisfaction
- improved staff satisfaction.

The results of formal evaluation of this research project will be available in late 2014.

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## Rural generalist allied health clinical leader in emergency department

### How the need was identified

Historically, 80 per cent of the 20,000 presentations to the ED at Warwick Hospital were Category 4 and 5 (non-urgent). Allied health staff perform multiple roles across the facility and are not available to attend ED at short notice resulting in missed referrals or referrals to allied health via inpatient or outpatient allied health services. Increased waiting lists for allied health outpatient services, difficulty in meeting best practice guidelines for early allied health intervention, and the introduction of activity based funding key performance indicators were the impetus for a review of allied health services.

### How the service was developed

Entry to most services at Warwick Hospital is via the ED or outpatient department, so ED activity was examined in the context of a potential allied health presence. Based on evidence from international studies, the project trialled the role of an extended scope generalist allied health position to provide screening and early intervention, and facilitate appropriate referrals to other services. The rural generalist allied health clinical lead role was present in ED from 9 am to 1 pm Monday to Friday corresponding with peak activity times.

The Calderdale Framework was used to analyse allied health services. Competency training for the lead role was provided within the HHS. Regular information sessions were held with ED nursing staff in triage roles to assist in identification of patients suitable for allied health intervention in the ED. The skill set identified aligns to physical function assessment, and particularly to the physiotherapy scope of practice, with some skills from other AHPs.

### Outcomes

The rural generalist allied health clinical lead role in the ED resulted in:

- a 50 per cent reduction in referrals from ED/outpatients to allied health outpatients, including a reduction of 53 per cent for physiotherapy and 63 per cent reduction each for dietetics and social work
- an overall reduction of 118 occasions of service in allied health outpatients
- improved ability to meet best practice guidelines for conditions (e.g. falls and stroke) in ED
- agreement across medical, nursing and allied health staff that the lead role adds value to the ED in improving patient care and service coordination
- agreement across medical, nursing and allied health staff that the rural generalist allied health clinical lead role is able to work as a first point of contact practitioner
- patient perception that the integration of the service improved their experience and outcome.

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## Sunshine Coast persistent pain management service—advanced practice, skill-sharing and delegation

### How the need was identified

Persistent pain affects approximately one in five adults, which equates to around 3.2 million Australians. There are both human and economic costs associated with persistent pain, such as long-term ongoing demand for medical intervention, medication dependence, disability, unemployment, deterioration of health, development of associated mental health issues and impact on families. Effective intervention is essential.

The Sunshine Coast persistent pain management service was based on a biomedical model and provided by a full-time specialist medical officer, who had to cover both inpatient and outpatient needs. The waitlist was more than 700 patients, with up to three years wait. As a result, patients were managed in the community—usually without specialist pain management advice—or via ED admissions. There was chronic high-level usage of opioid medication within the persistent pain population. This was inconsistent with the contemporary evidence-based best practice for treating persistent pain patients. It was recognised that chronic high-level opioid use can result in increased sensitivity to pain, escalating the costs of persistent pain and the demand for pain management services.

### How the service was developed

The service was initially developed using the ethos, structure and processes of the Calderdale Framework. A business analyst was consulted to assist with systems planning.

Patients attended a group education program. The advanced scope allied health practitioner provided transprofessional assessment prior to the specialist medical officer appointment (similar to a medical registrar role plus allied health assessment) and allied health practitioners provided a range of non-pharmacological interventions.

This project trialled the application of the Calderdale Framework to establish a multi-disciplinary team service for persistent pain management, and the specific roles of advanced scope allied health practitioner and advanced AHA.

### Outcomes

The following outcomes were realised:

- improved triage key performance indicator (KPI) performance—now 96.7 per cent within five working days, compared with pre-project 6.7 per cent
- substantial reduction in waitlists—from more than 700 patients to approximately 50
- improved waitlist category KPI performance—now 100 per cent within KPI timeframe for each category—under the previous model of care, the wait for Category 3 patients could be up to three years
- a reduction in costs in terms of specialist medical officer time and required medical officer staffing levels
- a substantial increase to weighted activity unit-related revenue through increased numbers of patients seen and increased ratio of new to review patients
- provision of an evidence-based best practice service for the treatment of persistent pain
- improved flexibility and continuity of service delivery, with concomitant improved through-put of patients
- improved case management
- establishment of a research relationship with University of the Sunshine Coast
- education and mentoring of other medical and allied health practitioners in the health service regarding persistent pain
- education of community-based GPs and allied health practitioners regarding persistent pain, with a view to maximising sustainable community-based care options and minimising demand on Sunshine Coast HHS resources.

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## Teleradiography

### How the need was identified

The lack of a visual component and real-time delivery of assistance to X-ray operators has been a long-term limitation of the telephone supervision method. The reliance on telephone supervision is due to the large distances involved between medical imaging service staff, as well as the low purchase cost, usage costs and availability of the devices. Decreases in the purchase costs of video conference equipment and increased use of the technology meant that its use in X-ray operator supervision may now be a viable method in which to provide assistance to/and training of X-ray operator staff.

A review of the advantages and disadvantages of the current telephone support model was compared to other telecommunication methods, and videoconference was identified as a possible solution to the current limitations on X-ray operator supervision.

### How the service was developed

Medical imaging sites that use or provide X-ray operator supervision were identified. Sites were assessed for equipment requirements and locations suitable for installation. Each site had a contact method and frequency of such contact established. Contact frequency reflected the support needs of the individual operator and the availability of radiographers in the supervising department.

### Outcomes

The primary outcome of the project was the improvement of X-ray operator image quality and patient outcomes through the provision of radiographer advice, support and assistance via videoconference at the time of image acquisition.

Further outcomes included:

- reduced need for radiographer/X-ray operator site visits
- reduced repeat images taken and associated reduction in radiation dose
- improved image quality leading to more accurate and timely diagnosis
- increased X-ray operator confidence in performing difficult or complex examinations
- improved confidence in using videoconference equipment
- reduced number of patients recalled for imaging purposes
- improved identification of when to call for assistance.

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## Allied health-led vestibular screening and rehabilitation service

### How the need was identified

An initial audit of the RBWH ENT waitlists indicated that 38 per cent of Category 2 and 22 per cent of Category 3 referred patients had symptoms, signs or diagnoses suggesting vestibular dysfunction and/or hearing dysfunction suitable for review by the Vestibular Screening and Rehabilitation Service. There were long wait times for ENT consultant appointments for these patients.

### How the service was developed

The Vestibular Screening and Rehabilitation Service was established to screen, assess and treat dizzy patients referred to the ENT department at the RBWH. This service was conducted by an experienced vestibular physiotherapist with the assistance of audiologists for further investigations and interpretation of results, and with administrative assistance for patient appointment management. The service provided:

- screening of wait lists and initial appointment offers
- assessments and treatment as required
- referrals to the audiology department and other relevant health professionals
- discharge back to the care of the director of ENT and the referring doctor on completion of rehabilitation.

Such a new service would effectively fast-track conservative intervention for those patients not requiring surgery, who would normally wait 5–10 years before being seen by an ENT medical specialist.

### Outcomes

The following outcomes were realised:

- successful clinical outcomes for common causes of dizziness
  - 98 per cent of patients identified with benign paroxysmal positional vertigo (22 per cent of cohort) experienced complete resolution of symptoms following intervention
  - 100 per cent of patients identified with unilateral vestibular hypofunction (61 per cent of cohort) experienced complete resolution of symptoms following intervention
  - 5 per cent of referrals were escalated to Category 1 ENT consultant clinics.
- patient safety maintained—no falls or other adverse reactions to intervention were recorded
- effective audiology/physiotherapy working relationship in the area of vestibular assessment
- more informed director of ENT regarding patients' conditions and likely need for ENT review, with potential to reduce wait lists.

### Contact

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## An innovative approach to wait-list management for general paediatric outpatient referrals

### How the need was identified

The need for an innovative approach to wait-list management for general paediatric outpatient referrals was identified as part of a broader demand-capacity matching strategy within general paediatrics at the RCH. Given that a large number of children were exceeding the long-wait status for review in this specialist outpatient clinic, an audit of the long-wait list was undertaken which revealed that a significant proportion of children referred to this clinic could be managed by allied health professionals without the need to see a general paediatrician. In addition, for the children who were delegated to an allied health professional as the first step in their care and required medical input following assessment and/or intervention, it was proposed that this model would allow for a more efficient use of the initial appointment with a general paediatrician.

### How the service was developed

To ensure adequate scoping of the population needs within the clinical context of general paediatrics, the first and most important step in the process of developing the service was to ensure that the target patient cohort was clear and defined. The engagement and collaboration between key medical and allied health staff in the development of the service parameters was also key. A steering committee with key hospital and community representatives from medical and allied health backgrounds assisted in managing communication and refining of the service throughout the project period. An action research design methodology ensured that the service model was reviewed every three months and modified according to demonstrated outcomes. This allowed for the model to be refined to the point that it could be effectively embedded into practice following project completion to ensure continuity of care for patients and maintenance of service outcomes.

### Outcomes

The following outcomes were realised:

- improved access to services for patients referred to see a general paediatrician who could be better managed by an allied health professional as the best first step in their care as evidenced by
  - a reduction of 84 per cent in the average number of days waited from receiving a referral to initial scheduled appointment of 116 to 19 days
  - a significant decline in the number of patients waiting to see a general paediatrician—a reduction of 70 per cent in the general paediatrics waitlist and 85 per cent in the long waitlist over the course of the project
- improved efficiency of services for a specified population of children through focusing on parent self-efficacy using a brief intervention model of service delivery
- right care, right practitioner, right time, right place—of the 283 referrals delegated to allied health
  - 50 per cent were for psychology, 25 per cent were for speech pathology, 18 per cent were for occupational therapy and 7 per cent were for physiotherapy
  - 42 per cent of referrals were for challenging behaviour, speech and language concerns in children older than 3 years 11 months (25 per cent) and functional incontinence (19 per cent)
  - 11 per cent of referrals required onward referral to general paediatrics.
- a statewide model for linking hospital and community services to better meet population needs.

### Contact

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## Community rehabilitation model of care

### How the need was identified

The demand for community rehabilitation is increasing and traditional work roles and services are unlikely to sustain our changing healthcare needs. This project established a new model of care for community rehabilitation in Metro South HHS.

This new model of care was designed to increase workforce capabilities and embed the tools of chronic disease management through task delegation, competency sharing, and multi-skilling of existing clinicians and assistants.

### How the service was developed

This project used the Calderdale Framework to explore skill-sharing to develop an inter-professional screening tool to aid in maximising service delivery. Training packages for chronic disease management within the community rehabilitation setting were also embedded into practice.

### Outcomes

The following outcomes were realised:

- improvements in staff knowledge and skills for chronic disease principles as indicated by the Health Promotion Capacity Checklist, an informal survey tool.
- increased capacity for chronic disease management was captured within a chart audit and recognised by staff as reported in the Assessment Chronic Illness Care, a tool to identify chronic illness care within a service.
- improved team dynamics and communication associated with the development of the shared skill inter-professional screening tool, as reported within focus groups.
- increased number of joint visits by professions and improved coordination of care was also identified by a chart audit.
- The cost effectiveness data suggests that despite the increase number of joint interventions, nil additional therapist costs were identified.

### Contact

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## Abbreviations

<b>AHA</b>	Allied health assistant
<b>AHP</b>	Allied health professional
<b>CCHD</b>	Chronic centre-based haemodialysis
<b>ED</b>	Emergency department
<b>ENT</b>	Ear, nose and throat
<b>HHOME</b>	Hospital to home outreach for malnourished elders
<b>HHS</b>	Hospital and Health Service
<b>MAPU</b>	Medical Assessment and Planning Unit
<b>APRT</b>	Advanced practice radiation therapist/therapy
<b>RBWH</b>	Royal Brisbane and Women's Hospital
<b>RCH</b>	Royal Children's Hospital

## Glossary

### Advanced scope of practice

An advanced level of clinical practice requires a high-level of clinical skill, knowledge and practice, closely integrated with clinical leadership skills, applied research and evidence-based practice capacities, and competence in facilitating education and learning of others. Advanced clinical practice is relevant to generalist and focussed clinical contexts, profession-specific situations, and situations relating to specific client groups or geographic settings.

### Delegation

Delegation occurs when practitioners authorise another healthcare worker to provide treatment or care on their behalf. In making the decision to delegate, practitioners make the judgment that the person to whom they are delegating tasks has the appropriate education, knowledge and skills to undertake the activity safely. The delegating practitioner remains responsible for the overall management of the client and for the decision to delegate. The person to whom responsibility has been delegated is accountable for their decisions and actions, not the delegating allied health professional.

### Extended scope of practice

A discrete knowledge and skill base additional to the recognised scope of practice of a profession and/or regulatory context of a particular jurisdiction. The tasks involved are usually undertaken by other professions. Over time, what once constituted extended scope of practice may become part a professions' full scope of practice. Extending scope of practice is relevant where it allows more efficient management and care of the patient and decreases the number of visits or transactions in the patient journey. Legislative change may be required to legally enable extended scope of practice.

### Full scope of practice

The full spectrum of roles, functions, responsibilities, activities and decision-making capacity that individuals within a profession are educated, competent and authorised to perform. The full scope of a profession is set by professional standards and in some cases legislation. Working to full scope means working to the full extent of the profession's recognised skill base and/or regulatory guidelines, acknowledging that some functions may be shared with other professions, individuals or groups.

# Innovations in models of care for the health practioner workforce in Queensland Health

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QH257 06/14