



# ClinEdq

Clinical Education and Training **Queensland**

## **The Capricornia Project:**

*Developing and implementing an  
interprofessional student-assisted  
allied health clinic*

ISBN 978 1 921707 30 8

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#### Funding

The work which is reported in this document was funded under the Research and Publication Initiative of Clinical Education and Training Queensland.

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#### Suggested Citation

Frakes, KA., Tyack Z.F., Miller, M., Davies, LA., Swanston, A., Brownie, S. (2011). *The Capricornia Project: Developing and implementing an interprofessional student-assisted allied health clinic*. Clinical Education & Training (ClinEdQ), Queensland Health. Brisbane, Australia

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## Contents

Purpose	4
Part 1: Background to interprofessional student-assisted health clinics	5
1.1 Interprofessional education (IPE)	5
1.2 Student-assisted clinics	6
1.3 Interprofessional student-assisted health clinics in Australia	9
1.4 An introduction to an interprofessional student-assisted clinic in regional Queensland	9
Part 2: Developing an interprofessional student-assisted clinic	11
2.1 Selecting a model of care	11
2.2 Planning for change	15
2.3 Risk mitigation strategies	24
2.4 Budgeting	26
2.5 Sustainability	26
Part 3: Implementing an interprofessional student-assisted clinic	28
Part 4: Monitoring and evaluating an interprofessional student-assisted clinic	30
Part 5: Summary of Outcomes and Conclusion	33
References	34
<b>THE CAHP CLINIC TOOLKIT</b>	38
Annexe 1: Setting up a student-assisted clinic	39
Tool 1. Clinic supervisor job description	39
Tool 2. CAHP Project Implementation Plan	43
Tool 3. Capricornia Allied Health Partnership Clinic Vision statement	65
Annexe 2: Running a student-assisted clinic	66
Tool 1. Student welcome letter	66
Tool 2. CAHP Student welcome and orientation pack (2011)	68
Tool 3. Student placement timetable	90
Tool 4. Example timetable for a student-assisted clinic	94
Annexe 3: Clinic tools	96
Tool 1. Initial screening tool	96
Tool 2. Post-intake summary forms	106
Tool 3. Case conferencing template	108
Annexe 4: Evaluating a student-assisted clinic	113
Tool 1. Student destination survey	113
Tool 2. Exit interview employing the Most Significant Change (MSC) technique	114
Tool 3. Commitment survey	117
Tool 4. Partnership survey	118
Tool 5. Request and dissemination log	124
Tool 6. Cost benefit matrix focus group protocol	126
Annexe 5: General resources	128



## Purpose

This *Document and Toolkit* is designed to support the set-up and delivery of an interprofessional student-assisted allied health chronic disease ambulatory clinic. It outlines the essential elements that should be considered when first embarking on the development of an innovative workforce strategy such as this.

Service providers and clinicians within Queensland Health should use this Guide to support their local efforts to set-up and run an ambulatory service using a student workforce. This information can, however, be generalised to a broader range of services. For example, it may also be applicable to tertiary institutions, educational providers (who send students on placements) and other private providers across jurisdictions who may be interested in setting up and operating a similar model of care.

The first part of this document is divided into five sections covering the following areas:

1. Background to interprofessional student-assisted health clinics
2. Developing an interprofessional student-assisted clinic
3. Implementing an interprofessional student-assisted clinic
4. Monitoring and evaluating an interprofessional student-assisted clinic
5. Summary of outcomes and conclusions

A *Toolkit* containing documentation useful to the design, implementation and evaluation of interprofessional student-assisted clinics, as well as general resources, is included at the end of this document as Annexes 1 to 4.

The Capricornia Allied Health Partnership (CAHP) is a student-assisted allied health chronic disease ambulatory service currently operating in Rockhampton, Central Queensland. This clinic has been provided as a case study in the current document.

This *document* is one of a suite of supporting resources available through ClinEdQ: [www.health.qld.gov.au/clinedq/](http://www.health.qld.gov.au/clinedq/)

## Part 1: Background to interprofessional student-assisted health clinics

Within Australia, allied health student placements usually involve placing one or more students within services where training occurs predominantly by each profession alone. This traditional placement model has recently been described as inadequate to address future health workforce requirements, and limits the available skill mix of new graduates (WHO, 2010; Davidson et al., 2008; National Health and Hospitals Reform Commission [NHHRC], 2008; Reeves et al., 2008). Furthermore, the work readiness of allied health graduates from a traditional placement model has also been queried, with concern centred on the ability of graduates to work in a team environment, communicate professionally and understand the role of their profession within the broader health context (WHO, 2010; Davidson et al., 2008; NHHRC, 2008; Reeves et al., 2008). Part one of this guide provides a brief overview of interprofessional education and the role student-assisted health clinics play in the development of work-ready health professionals who meet contemporary health care needs.

### 1.1 Interprofessional education (IPE)

The notion of an industry-based IPE model is well supported in the literature and the World Health Organisation (WHO) first identified IPE as an important aspect of primary healthcare in 1978. While traditionally, healthcare professionals were and still are trained within their own disciplines, the move towards IPE has been viewed as a necessary method to: a) increase students' knowledge about other disciplines; b) improve their ability to work within a team (Cook, 2005); and c) achieve the goal of enhancing patient health outcomes (Barr et al., 2006). There is sufficient evidence to indicate that IPE enables effective collaborative practice which in turn optimises health services, strengthens health systems and improves health outcomes (WHO, 2010). Some of the benefits associated with interprofessional education at the patient, student and service delivery level are presented in Table 1.

Interprofessional education (IPE), defined as two or more professions learning about, from and with each other to enable effective collaboration and improved health outcomes (WHO, 2010), is increasingly being incorporated into undergraduate health programs. Im-



**Table 1. Benefits of an IPE approach**

Benefits	
<b>Client</b>	Improved access to coordinated health care Improved health outcomes for people with chronic disease Improved client care and safety (Lemieux-Charles & McGuire, 2006; Hughes et al., 1998)
<b>Students</b>	Exposure to other disciplines Development of relationships and collaboration with colleagues, as well as team working abilities A fostering of mutual respect and understanding between colleagues (Moskowitz et al., 2006; Freeth et al., 2005; Robinson et al., 2004; Clark et al., 2003) Increased readiness for IPE learning (Coster et al., 2008) Decreased negative attitudes towards other health professionals (Coster et al., 2008) Better preparation for encountering complexities of real life interprofessional problems in the work environment (O'Neill et al., 2000) Encouragement to challenge stereotypes about other health professions and strengthening of professional identities (O'Neill et al., 2000) Real world experience and insight (Rodger & Hoffman, 2010)
<b>Service delivery</b>	The WHO (2010) reports that IPE based, student assisted clinics provide: Improved workplace practices and productivity Improved workplace morale Healthier communities Improved quality of care

plementation of IPE in these programs commonly includes: use of lectures and presentations by faculty experts; small group discussions with fellow students; team work to discuss and resolve patient cases and; the care of people in the community and patients under the direction of a practitioner (Rodger & Hoffman, 2010). In this context, five factors have been identified as important to the success of IPE in undergraduate programs (WHO, 2011):

1. IPE should be a mandatory component
2. IPE should be offered based on explicit learning outcomes
3. IPE should be assessed with respect to what students intend to learn
4. IPE should be offered by trained facilitators who received staff development in this area
5. IPE should be evaluated for both processes and outcomes

### 1.2 Student-assisted clinics

Student-assisted clinics (also commonly referred to as 'student-led' or 'student-run' clinics) have become increasingly popular in recent decades with most of the activity generated in North America (Simpson & Long, 2007) and Europe. Most student-assisted clinics are administered under the umbrella of a medical school (Moskowitz et al., 2006), however, can involve students from social work and other health professions (Simpson & Long, 2007). Student-assisted clinics typically provide students with the opportunity to have real clinic experiences early in their careers, with the added benefit of providing health services to the local community in which the clinic operates. They also serve as a learning opportunity for students to manage clients and to develop leadership, communication and other skills essential to the effective functioning

of clinical teams (Hughes et al., 2002). Although student-assisted clinics have not been well described in the literature to-date, they have been classified as "a health care delivery program in which... students take primary responsibility for logistics and operational management [of the clinic] and which is capable of prescribing disease-specific treatment to patients" (Simpson & Long, 2007).

Over the last two decades a number of hospital-based interprofessional initiatives involving students in real-life health care settings have emerged from Sweden, London and Denmark. Commencing in Sweden in 1996 an eight bed orthopaedic training ward was established. Each student had a minimum two week period on the ward in their last year of study. Shift teams were organised to include a minimum of one medical student and two nursing students, alongside a physiotherapy, occupational therapy, community care and medical laboratory technology student. All students performed general care tasks such as serving meals as well as tasks more specific to their own profession (Fallsberg & Hammar, 2000). Based on this Swedish initiative, similar orthopaedic training wards followed in London in 1999 (Ponzer, 2004), and in Denmark in 2004 (Hansen, 2009; Ponzer, 2004). The orthopaedic training wards in London were established at three teaching hospitals, as part of a three year project. The Danish Interprofessional Training Unit (ITU) used eight beds in a 30 bed ward for training medical, nursing, occupational therapy and physiotherapy students (Hansen, 2009). Groups of four to six nursing students, two occupational therapy students, two physiotherapy students, and one to two medical students worked on morning and afternoon shifts for a period of two weeks (Jacobson, 2009). Staff from the ward took care of patients when there were no students. Students were supervised by discipline-specific supervisors who as-

sumed responsibility for the patient as well as the students. A project manager organised, coordinated, documented and evaluated functioning of the Danish ITU (Jacobsen, 2009). Curtin University and Royal Perth Hospital trialled a similar model to the European Clinical Education Wards in April 2010.

In the United States, a total of 111 student-assisted clinics are operated by 49 medical schools which receive more than 36,000 annual patient-physician visits (Simpson & Long, 2007). The average clinic has 16 student volunteers, typically operating out of homeless shelters or other community organisations. Care is mostly provided to the uninsured (88 per cent) with funding from private grants (77 per cent). Student-assisted clinics are mostly based in regional areas with serious shortages of health professionals, as new physicians tend to choose urban over rural practices (Rabinowitz & Paynter, 2000; Pathman et al., 1999).

Table 2 provides a brief overview of some of the benefits associated with student-assisted clinics.



**Table 2. Benefits of student-assisted clinics**

	Benefits
<b>Clients</b>	<ul style="list-style-type: none"> <li>Physical benefits of health care (Salinsky, 2004)</li> <li>Psychological benefits of having time and attention spent on their needs (Salinsky, 2004)</li> <li>Satisfaction with care delivered (Freeman &amp; Dobbie, 2010)</li> <li>Increased perceived quality of care (Freeman &amp; Dobbie, 2010)</li> </ul>
<b>Students</b>	<ul style="list-style-type: none"> <li>Enhanced student understanding of the psychosocial context of illness</li> <li>Development of social awareness, compassion, empathy and confidence within a professional setting (Clark et al., 2003)</li> <li>Enhanced communication skills (Hughes et al., 2002)</li> <li>Responsibility for, and regular contact with, patients (Hughes et al., 2002)</li> <li>Clinical experience with patients of diverse socio-economic and ethnic backgrounds (Buchanan &amp; Witlen, 2006) leading to greater self-worth and satisfaction (Eckenfels, 1997)</li> <li>Clinical experience with underserved populations aids students' ability to be dutiful and demonstrate altruism to meet society's expectations of them (Buchanan &amp; Witlen, 2006)</li> </ul>
<b>Supervisors</b>	<ul style="list-style-type: none"> <li>Enhanced provider education (Freeman &amp; Dobbie, 2010)</li> <li>Increased supervisor joy of practice (Freeman &amp; Dobbie, 2010)</li> </ul>

Despite the obvious benefits of inter-professional student-assisted clinics, there are considerable barriers to embedding students in this kind of clinical service delivery model. These can include differences in curricula, timing and timetabling of programs across participating universities as well as local facility culture and lack of skills in educators (Capra, 2008). Sufficient allocation of supervision time in interprofessional clinics is also a critical issue as significant support is required for students to learn the complex clinical reasoning, negotiation and teamwork skills necessary to operate a health service (Copley et al., 2007). Orchard et al (2005) describes three key barriers to collaborative client centred care as:

- organisation structuralism** - the administrative organisation and decision making processes adopted within institutions
- power relationships** - between health care professions (e.g. perceived status differentials) and between health care professions and their clients

- role socialisation** - development of behaviours and attitudes deemed necessary to fit into a cultural group
- These barriers can lead to a lack of shared decision making between health professions and frustration should clients feel that their needs are not heard.

Please refer to Part 2.3 of this guide for further information on how to mitigate these (and other) potential risks to implementation of interprofessional student-assisted clinics.

The potential risks associated with the operation of student-assisted clinics have also been reported in the literature and include (but are not limited to) concerns around giving students real responsibility for patient care (Hughes et al., 2002) and decreases in service productivity (i.e. decrease in occasions of service provided per day) (Freeman & Dobbie, 2010).

### 1.3 Interprofessional student-assisted health clinics in Australia

Clinical education is an integral component of allied health training programs, with students required to undertake a prescribed amount of clinical training to meet registration and/or practice requirements. However, there are increasing difficulties for universities in securing sufficient quality clinical placements in health services outside the university setting. In order to meet this increased demand the creation of on-campus clinics has increased in Australian Universities. These clinics provide a teaching, learning and research facility where students get their early clinical experience in diagnosis and client management. Clients are charged a reduced fee to have their health care provided to them by students under the supervision of professionally registered staff. This model of service delivery differs greatly among clinics, however they are primarily outpatient style services in either uni-disciplinary or interprofessional teams.

Examples of uni-disciplinary student-assisted clinics include the University of Canberra's student-led physiotherapy clinic (<http://www.canberra.edu.au/healthclinic/physiotherapy/student-led>), University of Queensland's student-led dentistry clinic (<http://www.dentistry.uq.edu.au/index.html?page=99177>) and University of Western Australia's student podiatry clinic (<http://www.meddent.uwa.edu.au/podiatry/clinic/student>).

Student-assisted clinics which are based on an IPE approach include the University of Queensland's School of Health and Rehabilitation Sciences (UQSHRS) which provides professional training for students of physiotherapy, occupational therapy, speech pathology and audiology (<http://www.shrs.uq.edu.au/clinics>) and a clinic operated by Victoria University which places students from dermatology, massage, nutrition, osteopathy and psychology

(<http://www.vu.edu.au/facilities-and-services/health-and-personal-services>).

An interprofessional student-assisted allied health chronic disease ambulatory clinic, Capricornia Allied Health Partnership (CAHP), also operates in regional Queensland (Rockhampton) accepting students from Occupational Therapy (OT), Podiatry (POD), Dietetics (DT), Exercise Physiology (EP), Pharmacy (Pham) and Social Work (SW) from multiple universities across Australia. The concept of the CAHP clinic was conceived in late 2006 and is unique as it was formed on the basis of an initiative proposed by clinicians in order to better address client need and engage students in rural and remote clinical practice with the expectation that it would lead to future recruitment success. The contents of this document were informed by the development and implementation of this clinic and as such this clinic is referred to throughout the document.

### 1.4 An introduction to an interprofessional student-assisted clinic in regional Queensland

The Central Queensland Health Service District (CQHSD) has a population of approximately 200,000 across 101,100 square kilometres on the Tropic of Capricorn in Northern Australia. It has a high proportion of Aboriginal and Torres Strait Islander peoples (4.7 per cent) compared to the Queensland population overall (3.3 per cent) (Baker et al., 2008). Population projections for CQHSD suggest that the proportion of individuals aged 65 years and over is likely to grow at a faster rate than Queensland overall (Queensland Health, 2008). In addition, Central Queensland has an index of relative socioeconomic disadvantage score of 973 (score for Australia = 1000) indicating a high disadvantage compared to the rest of Australia (Australian Bureau of Statistics).

Central Queensland also has a significant health workforce shortage with the General Practitioner rate per population, medical specialties and allied health services below State and National workforce benchmarks (Public Health Information Development Unit, 2007). Regional/rural areas such as Central Queensland are typically difficult to recruit to, despite offering a wide range of valuable learning experiences in a supportive environment. As a consequence of limited workforce availability, some services such as community based chronic disease early intervention & management, falls prevention and mobility improvement simply cannot be provided.

#### **The Capricornia Allied Health Partnership (CAHP)**

A partnership between Central Queensland Health Service District (CQHSD) and the Capricornia Division of General Practice, named *Capricornia Allied Health Partnership (CAHP)*, was formed in 2007 to drive the development of a chronic disease service that embedded pre-entry allied health students into interprofessional clinical service delivery and afforded them the ability to consolidate their clinical skills. The result was the opening of an interprofessional student-assisted allied health chronic disease ambulatory clinic in 2010. The CAHP clinic aims to:

- Address service delivery gaps for chronic disease early intervention and management
- Provide an exceptional clinical education and training opportunity for allied health students; and
- Demonstrate leadership in developing future health workforce trainees to attain appropriate levels of interprofessional capacity and work-readiness

This service provision model aims to:

- Encourage an interprofessional approach to health care provision and provide clinical activity that is currently considered a gap in the community, leading to improved client health outcomes
- Provide a catalyst for strengthening partnerships with general practice and other public and private primary health providers through engagement in primary care partnerships
- Support clinical education and training opportunities for allied health pre-entry students, in an interprofessional environment to enhance working relationships and workforce participation
- Assist in the development of a professional identity for participating students as well as skills in collaborative practice
- Provide sustainable, affordable allied health care and management strategies for the community (as clients will not be charged a co-payment for services received)
- Strengthen workforce recruitment, retention and service delivery capabilities through innovative service delivery design

## **Part 2: Developing an interprofessional student-assisted clinic**

### **2.1 Selecting a model of care**

This section presents information on appropriate models of care which need to be considered when setting up an interprofessional student-assisted clinic. The CAHP clinic combines aspects of the: 1) International Classification of Functioning (ICF) bio-psycho-social model in order to address interprofessional education and practice aspects of the clinic; and 2) Wagner chronic care model to assist in the delivery of health services to individuals with chronic disease.

#### **Bio-psycho-social models of care**

The WHO (2010) encourages the use of the International Classification of Functioning (ICF) as a framework in health-care, as it allows users to document the impact of health conditions on human functioning from biological, individual and social perspectives.

The value of adopting the ICF framework in an interprofessional context is easily recognisable to health professionals (Allan et al., 2006). It offers a comprehensive understanding of the contextual nature of health concerns and considers the multitude of factors that contribute to health problems from an interprofessional education approach (Shaw & Mackinnon, 2004). The framework can also be used to create opportunities for health professionals to learn about other professions.

The complexity of client care requirements necessitates a collaborative approach to care. The key to developing an interprofessional model of service is being able to provide a platform for team members to reach a consensus about clients' health intervention goals. This is as opposed to a multidisciplinary model where different disciplines func-

tion independently, but in parallel (King, 2010). An interprofessional approach recognises the perspective and expertise of a variety of health professions to enable a participatory, collaborative and coordinated approach to decision making around health issues (Orchard et al., 2005).

Moving to a service delivery model that supports interprofessional collaborative practice requires a paradigm shift in health professionals' attitudes, values and socialisation patterns. This new "culture" supports trust amongst health professions, willingness to share in client care decision making and accountability to meet the needs of the clients (Orchard et al., 2005). Moreover, the client and their carer(s) views must be respected and as such they should be regarded as an integral member of the interprofessional team. Despite much support for client-led service provision, the pragmatics of being able to do this in a learning environment is difficult.

The ICF bio-psycho-social model effectively creates a culture for interdisciplinary collaborative practice that addresses the barriers and enablers as described by Orchard et al (2005). Namely, it provides an organisation and procedural structure that supports interprofessional education and collaborative practice; addresses power imbalances –particularly role conflict and goal conflict; encourages role valuing and respect for each profession's knowledge and contribution; and develops trusting relationships.

For most students, working in an interprofessional clinical environment is a new experience; therefore a facilitated process that supports the student's development in interprofessional and collaborative practice is required. This process includes a pre-placement orientation pack and a student learning enhancement workbook, along with interprofessional tutorials and individual support sessions that encourage re-



flective practice, self-awareness and promote life-long learning. A process whereby students were encouraged to contribute to the non-clinical growth of the service was also developed, with all students undertaking a quality improvement activity during their placement. It was thought that this would assist students' understanding of the importance of quality improvement cycles in health care.

### Chronic disease models of care

#### The Wagner Chronic Care Model

There are a number of chronic disease models commonly applied in health-care settings. The *Wagner Chronic Care Model* (Wagner, 1998) is one approach that has been widely utilised (and modified) by the health sector in chronic disease management (Savage, 2009). It draws on empirical research and practice that is aimed at improving care for the chronically ill and may also be applied to a broad range of chronic conditions, populations and in a variety of health settings. The key features of this model include:

- self-management
- decision support (using evidence-based guidelines)
- delivery system design (ensuring clients receive the correct care in a coordinated fashion by the right professionals)
- clinical information system (involves using quality records, follow up and recall)
- organisation of care (involves maintaining a quality culture of chronic disease service delivery)
- community (involves developing strategic partnerships and alliances with the wider community) (Wagner, 1998).

### The CAHP clinic

The underpinning framework for CAHP service delivery is based on the ICF framework (WHO, 2010) and the Wagner chronic care model (Wagner, 1998). The CAHP model of care is suited to chronic disease management, however it may be applied in any context. Figure 1 provides an overview of the CAHP service delivery and education model, and Figure 2 outlines the learning experience of students during their CAHP placement.

Figure 1. CAHP Model of Care

**4** The final step in the clients care involves a formal discharge procedure, which CAHP is currently in the process of implementing. Clients will be required to undergo a similar procedure to the initial assessment to measure any changes to their health condition (e.g. changes to the client's perceived understanding of their health condition, changes to weight and or changes to medication).

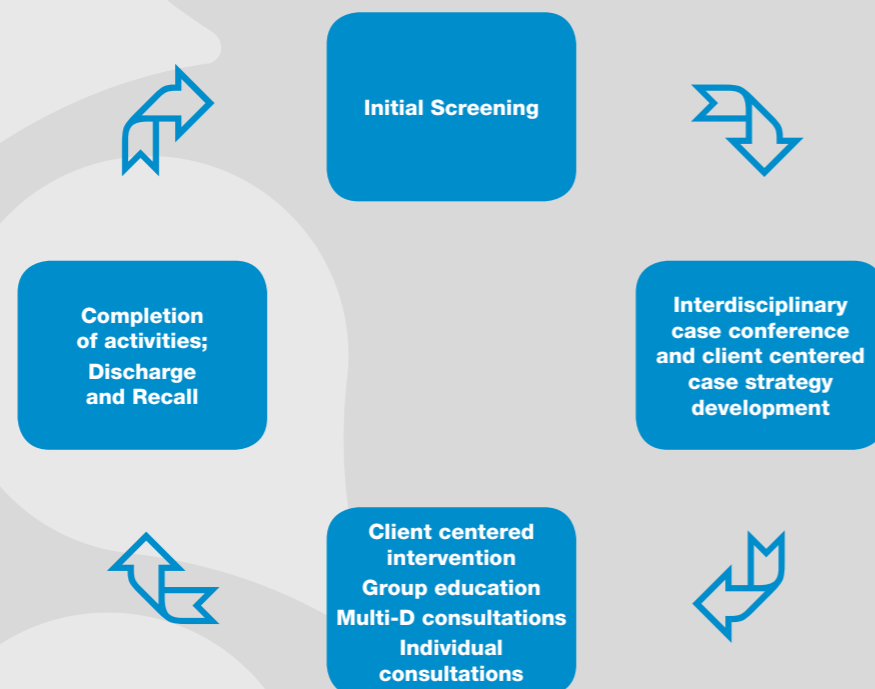
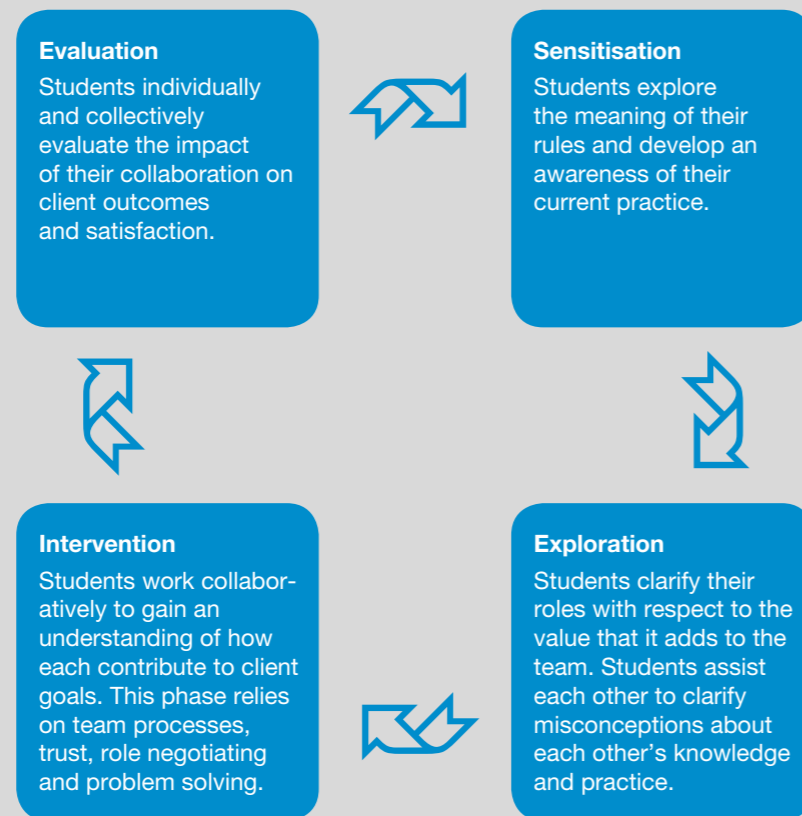
**1** Students are rostered on for one or two intake sessions per week (8 hours in total) with another student from a different profession (their peer is different for each intake session). This stage represents the first step of the model, whereby the client undergoes a standard assessment and is asked a number of questions regarding their health concerns. These questions are specified on an intake form (see Annexe 3) and are based on the ICF framework (e.g. physical, social and environmental functioning perspectives). Overall, the assessment process requires the student to document the key indicators and determine which services are most suitable to the client. The assessment usually takes an hour and a half. Students are debriefed after each intake consult with a senior clinician to discuss the client's main health concerns, any contradictions and any other key indicators that arose during the consult.



**3** The third step involves the client-centred intervention, whereby the client receives the recommended services (e.g. from the OT, dietetics or Pod students). This may include individual consultation (e.g. the dietician student with the client), or the multidisciplinary team consultation (e.g. Students from OT and Podiatry see the client together). The students are primarily responsible for the intervention process however this is dependent on the client's requirements and stage of learning for the student. By the end of the student's practicum, they will be expected to carry a suitable clinical lead for their stage of learning. Students work collectively with their supervisors to formulate therapy and management strategies and debrief following each session. Students are also involved in the delivery of group education for clients. The clinic currently offers three eight week education programs involving up to 20 clients at one time. Students are required to prepare and present these education sessions.

**2** The second step in the model is the case conference. This involves an interprofessional team approach involving all allied health students on placement. Students are encouraged to collaboratively discuss client cases using a holistic approach and together develop a treatment plan. The clients GPs are also invited to attend the case presentation. Following the case conference, the students discuss treatment options with their supervisor and together they decide on which services will be offered to the client. The student will then phone the client to offer the services and schedule appointments. Finally, the student will document the treatment schedule/plan in a letter and forward this to the client's GP.

Figure 2. The Student Journey



## 2.2 Planning for change

An interprofessional student-assisted clinic may incur some resistance from key stakeholders. For example, stakeholders may hold more favourable views and attitudes towards discipline specific clinics or may have quality and safety concerns regarding the use of a student workforce. Successful planning and implementation should always include strategies and tools to facilitate change. Using a valid framework to ensure that the move towards an interprofessional student-assisted clinic is a smooth process is essential.

Kotter's (1996) eight steps is a widely used framework which outlines the step by step process to avoid failure and become adept at change. They are:

1. Create a sense of urgency
2. Form a powerful coalition
3. Create a vision
4. Communicate the vision
5. Empower broad based action
6. Create short-term wins
7. Don't let up
8. Make it stick

A more detailed description of these steps as they relate to the development and implementation of the CAHP clinic is provided.

*Please note that the eight steps should be viewed as a non-linear process. For example, step one may be continuously visited at several stages in the implementation process.*





## Step 1: Create a sense of urgency

Establishing a sense of urgency is necessary to gain the cooperation to drive a significant change effort. Creating urgency for change to interprofessional practice begins with a focus on the market and competitive realities. This may involve communicating the potential revenue drops and potential crises or threats that may arise in the future if change doesn't happen. Using honest and convincing dialogue will help motivate key stakeholders to 'buy into' the idea (Ackerman-Anderson & Anderson, 2003; Kotter, 1996).

### CAHP Clinic: Presenting the facts

The CAHP project manager used chronic disease and workforce statistics and the increasing complexity of chronic disease in Rockhampton to create a sense of urgency to move toward an interprofessional student-assisted clinic.

Complexity of health care needs in Central Queensland	<ul style="list-style-type: none"> <li>• <b>Population of Central Queensland Health Service District is 190,000 across 101,100 km<sup>2</sup></b> (Baker et al., 2008)</li> <li>• <b>4.7% Aboriginal &amp; Torres Straits Islanders - Central Queensland Health Service District (5.4% Rockhampton)</b> (Baker et al., 2008)</li> <li>• <b>&gt; 8000 persons with Type 2 diabetes mellitus</b> (Chief Health Officer Report, 2009)</li> <li>• <b>&gt; 25,000 + with cardiovascular disease</b> (Australian Bureau of Statistics, 2006a; Chief Health Officer Report, 2009)</li> <li>• <b>Approximately 5000 people with chronic obstructive pulmonary disease</b> (Australian Bureau of Statistics, 2006b; Chief Health Officer Report, 2009)</li> <li>• <b>Disproportionately high levels of chronic kidney disease, obesity, osteoarthritis and rheumatoid arthritis</b> (Baker et al., 2008; Chief Health Officer Report, 2009)</li> <li>• <b>&gt; 500 days waiting list for treatment of chronic back pain</b> (Rockhampton Hospital, 2009)</li> </ul>				
Workforce shortages (ABS website, from the 2006 census of Occupation based on LGA data)	<b>Profession</b>	<b>QLD</b>	<b>Per 10,000 Pop.</b>	<b>Central QLD</b>	<b>Per 10,000 Pop.</b>
	Dietitians	483	1.09	24	0.51
	Pharmacists	2886	4.27	218	2.62
	Occupational Therapists	1246	2.81	89	1.88
	Physiotherapists	2197	4.96	114	2.4
	Podiatrists	337	0.76	24	0.51
	Speech Pathologists and Audiologists	942	2.13	75	1.58

The CAHP project manager also conducted a SWOT analysis to identify potential strengths, weaknesses, opportunities and threats to the development of the clinic.

<b>Strengths</b> Support from Queensland Health	<b>Weaknesses</b> Stakeholder perceptions are that costs will outweigh benefits
<b>Opportunities</b> Address workforce shortages Increase client access (and decrease waiting time) to allied health services in the local community Development of clinical, interprofessional skills for students, increased confidence and work readiness	<b>Threats</b> Quality and safety risks of introducing students into clinic

## Step 2: Forming the guiding coalition

Successful implementation of an interprofessional student-assisted clinic is impossible unless your organisation is an active supporter. Gaining support may start with one or two people, but it is also important to identify a leader and assemble a group (three to five people) with enough power to lead the project. The group should include influential people from senior management or others with expertise and/or political influence as credibility will help bring others on board with the new idea. Teamwork is essential for creating urgency around the need to move towards interprofessional practice. Conducting a stakeholder analysis is a good place to start. The following stakeholder analysis tool may assist with this process (Ackerman-Anderson & Anderson, 2003; Kotter, 1996).

### Stakeholder Analysis

Identify all potential stakeholders needed for successful implementation of an interprofessional clinic. These may include individuals, groups and/or organisations that will be directly impacted by the project, as well as the person(s) responsible for managing the project.

#### Consider the following questions and stakeholder roles

<ul style="list-style-type: none"> <li>• Who is involved?</li> <li>• Who must buy into the proposed idea?</li> <li>• Who must learn new knowledge, skills and abilities to implement it and sustain it?</li> <li>• Who must work differently because of the proposed project?</li> <li>• Who has political influence?</li> <li>• Who is likely to impede the success of the project if they are not involved now?</li> </ul>	<ul style="list-style-type: none"> <li>• Champions - individuals who want the project implementation to be successful</li> <li>• Participants - the individuals who will be affected by the implementation of the clinic</li> <li>• Target - individuals who must be won over because their involvement is critical to success</li> <li>• Authorising sponsors - managers who can commit resources that are required to implement the clinic successfully</li> <li>• Reinforcers for the sponsor - other managers who provide reinforcement for successful implementation of the clinic</li> <li>• Enablers - steering committee (or project team) responsible for management of the project</li> <li>• Change agents - individuals (external or internal) who manage the project implementation on behalf of the authorising sponsor</li> </ul>
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### CAHP clinic: Stakeholder analysis used to set up the clinic

<b>Champion</b>	CAHP project manager
<b>Participants</b>	People with chronic disease, allied health students, referrers (e.g. GPs), allied health professionals, educational providers
<b>Target</b>	Local GPs, educational providers, broader health department
<b>Authorising sponsor</b>	Allied Health Workforce Advice and Coordination Unit, Queensland Health
<b>Reinforcing sponsor</b>	District Executive Director of Clinical Support Services, Allied Health Workforce Advice and Coordination Unit, Allied Health Clinical Education and Training Unit, ClinEdQ
<b>Steering committee</b>	Representatives from CQHSD; Union representative, DED, HP research fellow; CEO Capricornia Division of General Practice; Executive Dean FSEH CQ University; consumer representative; Director AHCETU
<b>Change agent</b>	CAHP project manager

### Step 3: Create a vision for the project

Communicating a clear vision that is easy to remember is essential to help direct the implementation of an interprofessional clinic. The coalition should spend time developing a vision that is relatively easy to communicate and appealing to stakeholders. For instance, you should be able to communicate the vision to someone in five minutes or less. If it cannot be explained quickly in a way that makes intuitive sense, it becomes useless (Ackerman-Anderson & Anderson, 2003; Kotter, 1996).

#### Effective visions have six key characteristics

<b>Imaginable</b>	They convey a clear picture of what the future will look like
<b>Desirable</b>	They appeal to the long-term interest of employees, customers, shareholders and others who have a stake in the enterprise
<b>Feasible</b>	They contain realistic and attainable goals
<b>Focused</b>	They are clear enough to provide guidance in decision making
<b>Flexible</b>	They allow individual initiative and alternative responses in light of changing conditions
<b>Communicable</b>	They are easy to communicate and can be explained quickly

#### CAHP Clinic: Objective and vision

<b>Objective</b>	<ul style="list-style-type: none"> <li>To establish an Allied Health Chronic Disease Ambulatory Clinic that will address service delivery gaps for Chronic Disease early intervention and management, and provide an exceptional clinical placement for allied health students</li> </ul>
<b>Vision</b>	<ul style="list-style-type: none"> <li>To provide the community of Central Queensland with excellent inter-professional client centred care supporting those with, or at risk of, chronic disease</li> <li>To deliver innovative chronic disease early intervention and management strategies to the highest standard by continuously improving the quality, safety and efficiency of our service models and be positioned to respond to future challenges in line with best available evidence</li> <li>To support the future Allied Health workforce by providing exceptional education and training opportunities to pre-entry students in an inter-professional environment to enhance working relationships and workforce participation</li> <li>To improve workforce capacity through the use of innovative approaches to service delivery including embedding clinical research into core business</li> <li>To demonstrate an efficient and effective use of innovative Information Technology / Information Management strategies to deliver contemporary health practice</li> <li>To be responsive to local community needs and priorities and consider local community engagement and input as a key strategy in the design and management of the service</li> <li>To be a key team member in primary care partnerships with the Capricornia Division of General Practice and Central Queensland Health Service District.</li> </ul>

### Step 4: Communicate the vision

Widely communicate the new vision and strategies for getting it up and running using all existing communication channels. Refrain from limiting your channels to one meeting or a couple of emails – lack of communication and inconsistent communication will not help your progress. The leader of the project must show a ‘walking of the talk’ - this may involve, for example, presenting the vision at quarterly meetings, information sessions, presentations and conferences. One selling point may include communicating success stories about other IPE clinics. Developing a communication plan is an essential first step for communicating the vision. Your communication plan should include:

1. The key stakeholders/target audience
2. The purpose of the communication
3. The communication pathway/medium
4. Frequency (Ackerman-Anderson & Anderson, 2003; Kotter, 1996)

#### CAHP Clinic: Communication plan used to set up the clinic

<i>Key stakeholders/target audience</i>	<i>Purpose of communication</i>	<i>Communication medium</i>	<i>Frequency</i>
Capricornia Division of General Practice <i>General Practitioners, Practice managers, Practice nurses</i>	Inform; Consult Involve	meetings; teleconferences; email	Ongoing
Central Queensland University	Consult; Involve; Collaborate	Face-to-face meetings; teleconferences; email	Ongoing
Chronic Disease Services	Collaborate	Face-to-face meetings; teleconferences; email	Ongoing
Domiciliary nursing services including: Blue Care, OzCare, PresCare; other service providers in community; private allied health practitioners.	Inform; Consult; Involve; Collaborate	Focus groups and workshops; face-to-face meetings; teleconferences; email	Ongoing
Queensland Health Allied Health Workforce Advice and Coordination Unit; Allied Health Clinical Education and Training Unit	Inform; Consult; Involve; Collaborate; Empower	Regular contact with Directors, Program Managers and staff through project management activities	Ongoing
Tertiary education providers including: Allied Health Departments; University of Queensland Rural Clinical School, Rockhampton; and students undertaking their placement in Central Queensland for the duration of the project	Inform; Consult; Involve; Collaborate	Face-to-face meetings; tel- conferences; email	Ongoing



### Step 5: Empowering broad-based action

Successful implementation of a project should involve removing any obstacles. The obstacles may include systems or structures or person(s) that are resisting the innovation. Ensure that the current organisational structures are in line with the vision. It is also important to encourage risk-taking and promote non-traditional ideas, activities and actions. A force field analysis is a useful project management tool that will help in examining the obstacles that are likely to impact on the success of the project and its final outcomes. This tool involves identifying the forces that both drive and resist a proposed idea. The force field analysis undertaken for the CAHP Clinic is set out below.

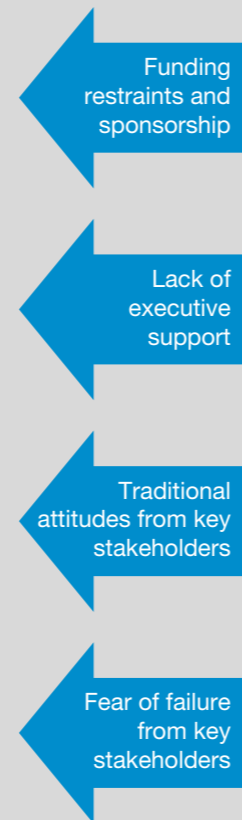
#### CAHP Clinic: Force field analysis

##### Driving Forces



**CAHP Clinic**  
*Address the recognised critical workforce shortage of health professionals and improve the wellbeing of underserved clients with complex health needs in the rural area of Rockhampton, via the introduction of a student assisted clinic and interprofessional centred care.*

##### Restraining Forces



### Step 6: Create short-term wins

To ensure success, short term wins must be both visible and unambiguous. The wins must also be clearly related to the change effort. Such wins provide evidence that the sacrifices that people are making are paying off. This increases the sense of urgency and the optimism of those who are making the effort to change. These wins also serve to reward the change agents by providing positive feedback that boosts morale and motivation. The wins also serve the practical purpose of helping to fine tune the vision and implementation strategies (Ackerman-Anderson & Anderson, 2003; Kotter, 1996)

#### CAHP Clinic: Short-term wins

From day one of CAHP opening, the project manager applied an evaluation strategy which included the collection of data that demonstrated clear service delivery and clinical education outcomes. This data was communicated to senior management and other key stakeholders on an ongoing basis (see Figure 3).

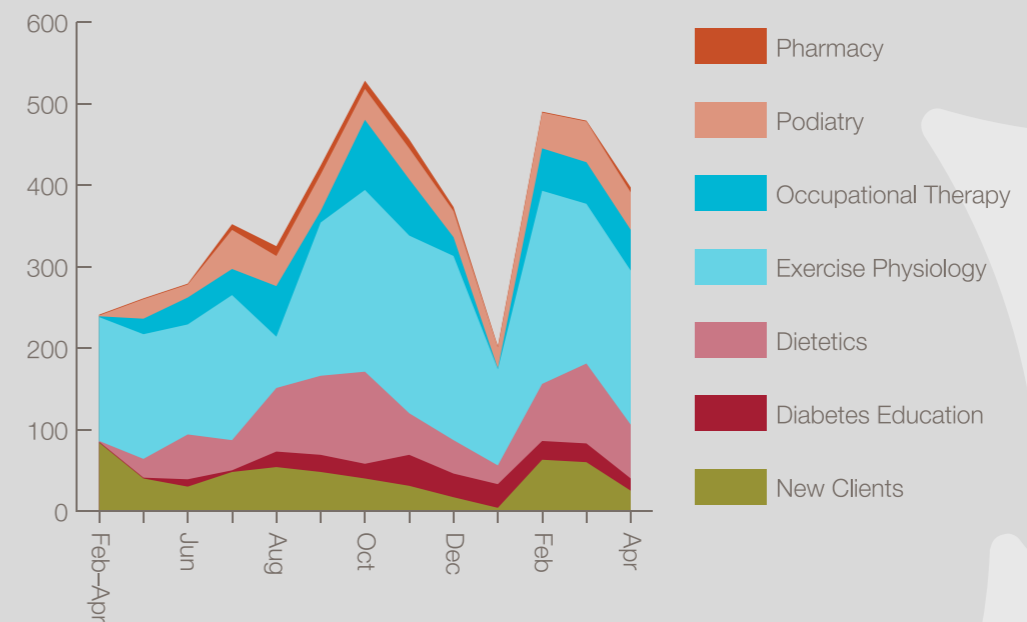


Figure 3. Number of occasions of service (February 2010-April 2011)

### Step 7: Don't let up

Build on the project's success and avoid declaring victory too early. Resistance is always waiting in the wings to re-assert itself. Analyse and review systems, structures and policies that are consistent with the vision and consider those that may need improving or updating. This may involve reengineering the project and setting long-term goals to build on the achievements so far (*Ackerman-Anderson & Anderson, 2003; Kotter, 1996*).

In a successful major change initiative, by stage 7 you will begin to see:

- More projects being added
- Additional people being brought in to help with the changes
- Senior leadership focused on giving clarity to an aligned vision and shared purpose
- Employees empowered at all levels to lead projects
- Reduced interdependencies between areas
- Constant effort to keep urgency high
- Consistent show of proof that the new way is working

#### CAHP Clinic: Strategies adopted by CAHP to reinvigorate the project

- Hiring additional staff for the clinic
- Review and changes to current structures and systems (eg recall and reminder systems)
- Implementation of further evaluation measures
- Improvements to the availability of equipment/resources
- Increased number of allied health disciplines involved in student placements



### Step 8: Make it stick

Tradition is a powerful force, therefore keep change in place by creating a new, supportive and sufficiently strong organisational culture. You can do this by continuously showing stakeholders how the new systems and approaches have helped improve performance. Also consider developing the means to ensure leadership development and succession.

#### CAHP Clinic: Improved outcomes

Clients	Students
Improved access to coordinated health care	Interprofessional knowledge
Improved health outcomes for people with chronic disease	Collaboration and teamwork abilities
Improved patient care and safety	Communication skills
Patient centred and holistic care	Increased confidence and work-readiness

#### A brief overview and guide to successful leadership succession planning

The alarming allied health workforce shortage and increasing ageing population of patients, as well as an increase in the complexity of chronic healthcare needs will mean continuous and significant changes to the healthcare system. One strategy to manage the changes to the healthcare system is through succession planning (Cadmus, 2006).

Succession planning is a key long term strategy that involves assessing and planning for future leadership needs within an organisation (Redman, 2006). This requires strategic thinking to ensure leadership competencies are continuously developed in individuals that have the potential to take on leadership roles in the future (Bolton, 2004). There are two key advantages to having a leadership succession plan: 1) recruitment (the opportunity to grow and develop attracts external individuals to the organisation); and 2) retention (ensures that talented internal individuals have the opportunity to develop in the organisation as opportunities arise).

Succession planning should not be confused with the replacing of leaders; rather it involves implementing strategies that will help in effective management of a changing health system.

The first critical element concerning succession planning involves commitment of the board and senior members of an organisation to the concept and value of a succession plan. A second critical element is to introduce a mentoring and/or coaching program that will provide opportunities for leadership development and career guidance. Mentors serve a variety of functions in the development of leaders, including facilitating new learning opportunities, guiding career decisions and the providing of support, direction and personal development. A coach similarly, facilitates an employee's development, which may include setting mutual goals, assessing the needs, performance and motivation of the employee, defining expectations, teaching and educating, observation and providing feedback (Manion, 1998). A third critical element of succession planning is to conduct periodic assessments of employee's level of leadership competencies and abilities. The information from such assessments will help identify potential leaders within the organisation. A final critical step is to periodically evaluate the succession plan and process and introduce improvements as needed.



## 2.3 Risk mitigation strategies

Risk management is a process of thinking systematically about all possible risks and problems before they happen, and setting up procedures that will avoid the risk or minimise its impact. This section provides an overview of some of the strategies used to mitigate risks identified by the CAHP clinic.

### Apply best practice principles for the development and administration of student placement courses

Placement courses are those that give students practical experience in the application of theoretical concepts and knowledge, and are generally designed to enable students to practice the skills of the profession in a real-life setting. Placements generally occur in an authentic work environment, and usually at an organisation external to the University.

Guidelines exist for the development and implementation of student placements which are based on best-practice and are usually defined by the universities offering these real-life clinical experiences.

Developing student placements based on best practice ensures university and discipline registration requirements are met and student experiences are useful. The University of Queensland's guidelines for student placements outline the following list of requirements for placement organisations:

*A close and obvious relationship between the theoretical and practical components of a course, as evidenced by:*

- explicitly stated learning outcomes
- a prominent and clearly defined rationale for placement courses
- learning experiences which are planned to integrate the theoretical and practical elements of the course/program

- reflection upon and articulation of the learning experience
- quality monitoring of the learning process; and
- a comprehensive range of experiences related to the roles of practitioners in the profession

*A clearly defined set of core competencies, as evidenced by:*

- a statement of core competencies relevant to the field of study
- identification of both generic and discipline-specific competencies
- inclusion of these core competencies in literature on the course; and
- assessment of student performance against these core competencies

*Adequate preparation for supervisors and students, as evidenced by:*

- adequate preparation of students for the placement experience, preferably by the academic supervisor, including appropriate standards of professional behaviour
- adequate training / briefing of supervisors, including
- providing knowledge about institutional program goals, assessment modes and techniques
- modelling appropriate professional behaviours
- organising learning activities; and
- provision of briefing materials for both supervisors and students, which explicate the expectations and responsibilities of each

*Thoughtfully planned learning experiences, as evidenced by:*

- clearly defined aims and learning outcomes for the placement course
- design and structure of the placement to address these aims and outcomes
- integration of students into the work environment
- active involvement of all students in learning opportunities

- concurrence between academic instruction and workplace learning; and
- evaluation of the success of these experiences as stimuli for learning

*Best practice in assessment, as evidenced by:*

- identification of criteria, derived from core competencies and expected learning aims and outcomes
- description of standards of achievement in each criterion
- use of criterion-referenced standards framework to assess student work
- provision of this framework to both students and placement supervisors, prior to the placement
- appropriate briefing in the levels of achievement and associated descriptors
- appropriate range and spread of assessment tasks in each course
- assessment by more than one assessor (e.g. by both placement supervisor and academic supervisor)
- award of final grade by the academic supervisor; and
- formative assessment practices where applicable.

For further information on guidelines for student placements please refer to UQ Handbook of University Policies and procedures Policy Number: 3.40.5 available at <http://www.uq.edu.au/hupp/index.html?page=25120>

### Create an organisational culture for IPE through the recruitment of clinical leaders

Leadership and handling of conflicts within a team are very important when creating a culture for interprofessional education and practice. Leadership should reflect the non-hierarchical relationships between the professions in an interprofessional environment and endorse equitable distribution of work, au-

thority, responsibility and credit for success. One leader alone cannot provide all the leadership necessary in complex situations. The selection of clinic supervisors with leadership skills is key to creating a successful interprofessional working environment. Clinic supervisors should model respect and facilitate a culture of openness where team members can trust each other's knowledge, decision making and ethical conduct (Orchard et al., 2005). Clinicians that consider themselves as team players who are flexible and creative problem solvers are most likely to survive in a complex interprofessional environment. Please refer to the Queensland Health Toolkit for the clinic supervisor job description used by CAHP to recruit/select their leaders (Annexe 1, Tool 1).

### Recruit qualified and experienced clinical educators

Until recently (e.g. prior to the Ministerial Taskforce on Clinical Education and Training, 2007) it was at the initiative of clinicians to drive their own professional development in the area of clinical supervision. The training of clinicians in student supervision and in providing students with good clinical practice experience is still not consistent across professions or universities. There is also disparity between clinicians' experience and self-perceived skill in this area and great variability in those wanting to engage in clinical supervision. This highlights the importance of using a thorough recruitment strategy to select the clinical leaders who will be supervising Australia's future allied health workforce.

### Timing and timetabling of student placements at student-assisted clinics

Differences between university program start dates and length of placements are influenced by universities who participate in student-assisted clinics. Student availability to attend placements at

student-assisted clinics is also dependent on other course requirements and commitments/responsibilities they have (e.g. part time or full time jobs). Those student-assisted clinics that deal with more than one university may find it difficult at an organisation level to continually induct new students. For example, over the course of a 12 month period, the CAHP student-assisted clinic may have up to 17 'first days' and therefore have to provide 17 student inductions, which is quite disruptive to the team environment and therefore needs to be planned for.

In addition, the objectives of placements are usually not as cut and dry as "meet 400 clinical contact hours". There is also great variability in each student's individual objectives as well as placement requirements which are dependent on the discipline involved. This is particularly true if the same objectives are to be met for students of the same discipline with different placement lengths. Further difficulties arise when student start dates are staggered as juggling students learning objectives when they are at different stages in their placement is complicated. It is on the basis of these challenges that some student-assisted clinics choose to offer placements to students from one university alone, however, there are still difficulties associated with organising placements across schools and faculties within the same institution.

Please refer to the CAHP Clinic Toolkit (Annexe 2) for resources such as weekly student placement timetables for a range of disciplines and student learning enhancement workbooks which aim to support peer learning and interprofessional development.

## 2.4 Budgeting

The costs (financial and non-financial) of initially setting up a student-assisted clinic may be substantial and quite com-

plex to estimate depending on the circumstances. Costs can be broken into labour and non-labour costs. Labour costs may include staff (e.g. managers, clinical supervisors and administrative officers). Non-labour costs may include property rental, equipment and consumables. The costs associated with the set-up and delivery of services for the first year of CAHP operation is provided in Annexe 1, Tool 2 – the CAHP Project Implementation Plan. (Note: These costs exclude student related costs e.g. travel, accommodation.)

The CAHP student clinic was in a unique position, being part of the establishment of a new service and having financial support from a combination of funding sources including an industrial agreement, district resources and the Queensland Health Allied Health clinical education unit. Although this model could be transposed into an existing service, it does not mean it is the only model suitable for the development of student-assisted clinics in existing services. It is recommended that existing resources are utilised where possible.

However, this funding covered only the set-up phase, and other sources of income need to be considered to ensure the clinic is able to run on a financially viable basis, e.g. the ability to utilise Medicare item numbers for revenue particularly for new, expanded services. A number of possible structural solutions are discussed in the next section.

## 2.5 Sustainability

This Guide is published in the context of significant structural reform within the Australian health care system. The CAHP clinic itself now faces the need to strategically consider options for sustainability as up to this point it has been strongly subsidised as a health service and education workforce innovation and demonstration project. Others seeking to build on and use the experience

of this demonstration project, like the CAHP clinic itself, need to consider the strategic options for sustainability.

Strategic decisions around sustainable options need to be considered at the district level and require buy-in around service development and reform. The options for sustainability of the clinic in the context of current Australian structural reforms, as well as the nature of health system structures in place in other countries include:

**Partnership with a university (or wholly owned and operated by a university):** The CAHP clinic could establish a partnership with a university and integrate within the university campus environment (on a university owned and operated premise). Clinic placements could be undertaken by students from the local university and from outside the local area.

*Issues for consideration:* Licensing (and university accreditation as a health provider), joint appointments, inter-agency partnership agreements, funding arrangements (e.g. rent), Medicare and other billing mechanisms.

**Integration with a Medicare local, GP super clinic or extended GP 24 hour clinic:** The CAHP clinic model is a primary health care service and could be integrated with public or private sector primary care organisations (e.g. community health, GP super clinic or auspiced by a Medicare local).

*Issues for consideration:* Student placement agreements with universities and public health systems, inter-agency partnership agreements, funding arrangements (e.g. rent), Medicare and other billing mechanisms.

**Integration with a Local Health and Hospital Network (LHHN):** The CAHP clinic could plausibly sit within the community as an outpatient service of a rural and remote secondary level LHHN. The

clinic could operate as a secondary care service for clients between community based services and GP type primary care services.

*Issues for consideration:* There are some specific challenges for LHHNs in terms of additional IT requirements that have not characteristically existed in primary care settings. This includes IT systems with the ability to track client outcomes longitudinally and across hospital, outpatient and primary care settings. These issues are currently being considered under a number of reforms to e-health and client record mechanisms nationally.

Across all these possibilities a common issue for consideration is how best to monitor and evaluate this emerging educational and service delivery form.

An evaluation framework has been developed for the CAHP clinic and it provides advice about the collection of longitudinal data for service monitoring and evaluation purposes. This framework can be accessed from the ClinEdQ website (<http://www.health.qld.gov.au/clinedq/>).



## Part 3: Implementing an interprofessional student-assisted clinic

### 3.1 The CAHP clinic

Key to the CAHP clinic is the coordination of allied health clinical placements to produce a student workforce that delivers clinical services to the community. Pre-entry (third year, fourth year and graduate entry masters) allied health students work in an interprofessional environment where they deliver chronic disease ambulatory services under the supervision of experienced clinical staff.

The CAHP clinic commenced hosting student placements in February 2010. Between February and December 2010, 73 students from six disciplines (Exercise Physiology, Nutrition and Dietetics, Occupational Therapy, Pharmacy, Podiatry and Social Work) and eight universities (James Cook University, Central Queensland University, Queensland University of Technology, The University of Queensland, Griffith University, Southern Cross University, Newcastle University and Latrobe University) attended clinical placements. Placements ranged from four day observational experiences to ten week placement blocks. With the exception of three students, all students came from universities outside of the Central Queensland region.

The CAHP allied health students work in an interprofessional, collaborative clinical environment where they are embedded in the service delivery model. Students not only provide individual clinical consultations within the scope of their own profession, but work within an interprofessional environment to increase their understanding of other health disciplines and enhance their clinical and referral skills. Approximately 70% of student's time is spent delivering individual consultations or group-work that is discipline specific (i.e. practicing clinical skills within the scope of

their discipline). The remaining 30% is spent working in an interprofessional team which includes completing intake screening clinics, participating in case conferences and completing professional communication responsibilities. Each profession has a discipline specific supervisor who is responsible for supervising and supporting students from their profession. All CAHP team members provide feedback to the student's primary supervisor, particularly on their ability to work in a team environment, their professional behaviour and communication skills.

The clinic consists of eight consultation rooms and a cardiopulmonary rehabilitation gym on a separate site. The clinic also has a large open-plan room for students to work on clinical documentation and other non-direct client activity. This set-up allows for peer learning and encourages students to communicate, which assists with the breakdown of professional socialisation, leading to interprofessional team work. The CAHP clinic has the capacity to host up to four students, per profession; however, this is limited by the number of staff available for supervision.

Provision was made for a maximum of 4 students per profession per week, with a preference for providing placements for 4 students per profession in a first affiliation or 3rd year practicum and a maximum of 2 students per profession in a final affiliation or 4th year practicum (see Table 3). This stipulation was to guarantee a depth of discipline specific activity and maximise the student's discipline specific skill development. Anecdotally this arrangement suited both the students and supervisors and ensured the student received a quality placement. During the period of 1<sup>st</sup> February 2010 to 1<sup>st</sup> February 2011 students in CAHP number ranged from 2 – 15 students at any one time with the exception of 6 weeks across the Christmas New Year period where there were no

student placements provided. Clinical activity, however, continued in the absence of students and this was provided by the clinical supervisory team.

**Table 3. CAHP planned student placement capacity**

Profession	Block 1	Block 2
Nutrition and Dietetics	4 students	2 students
Occupational Therapy	4 students 3 <sup>rd</sup> year (affiliation 1 & 2)	2 students 4 <sup>th</sup> year (affiliation 3)
Exercise Physiology	4 students 4 <sup>th</sup> year	
Podiatry	2 students 4 <sup>th</sup> year	
Social Work	2 students 4 <sup>th</sup> year	
Pharmacy	2 students 4 <sup>th</sup> year	

Because of the block nature of the clinical placements, students attend the clinic on a full time basis. Where there are full time supervisors, the clinic drives the number of students to meet their requirements (due to their self-sufficiency). Where there are part time supervisors, the clinical placements are structured in a shared arrangement with other locations such as Community Health or the local hospital. The CAHP clinic respects the fact that other health services are not structured to support the same number of students and are therefore guided by their capacity. CAHP also supported Pharmacy intern rotations where PGY Pharmacists maintain a clinical caseload under the supervision of the Pharmacy Clinical Educator.

Data on the characteristics of students who attended placements between February, 2010 and January, 2011 is provided below <sup>1</sup>:

1. Average age 23.3 (± 4.7 years)
2. 73% female, 27% male

3. 23% third year students, 77% fourth year students
4. 48% metropolitan university, 52% regional university<sup>2</sup>
5. Average length of placement 5.6 weeks (± 2 weeks)
6. 22% Occupational Therapy, 26% Dietetics, 19% Exercise Physiology, 18% Podiatry, 14% Pharmacy, 1% Social Work

<sup>1</sup> Please note this excludes ten pharmacy students and one social work student who completed placements less than nine days concurrently with other placements.

<sup>2</sup> Universities were divided into metropolitan and regional categories based on the location of their main campus. Metropolitan universities include (Queensland University of Technology, University of Queensland and Latrobe University) and regional universities include (James Cook, Charles Sturt & Newcastle Universities).

## Part 4: Monitoring and evaluating an interprofessional student-assisted clinic

To gain an objective understanding of the success of a particular project, it is essential that a systematic evaluation takes place (Bulick, 1993). One approach to evaluating the success of a project or program of effort is to design and implement an outcome based evaluation framework using a program logic approach to evaluation. This can be done in two ways: 1) Employ project staff internally who have an interest and/or expertise in evaluation; or 2) Hire external evaluators to design an evaluation framework. Please note that approximately 5% of the overall budget should be allocated for monitoring and evaluation.

The following sections outline the process for designing and implementing an evaluation framework for an interprofessional student-assisted clinic. They also provide specific advice on what data collection methods and tools may be appropriate for evaluating clinic outcomes at a number of levels (e.g. client, student, supervisor, service delivery etc). Please note these sections draw on information from the CAHP monitoring and evaluation framework which is available on the ClinEdQ website (<http://www.health.qld.gov.au/clinedq/>), and may assist organisations/teams in designing evaluations for similar interprofessional student-assisted clinics using a student workforce.

### 4.1 Program logic

The *program logic* approach (Kellogg Foundation, 2004) to evaluation focuses on producing a detailed understanding of the inputs, processes and outputs of a program, not only the outcomes. Drafting a *program logic model* is an important first step in designing the CAHP evaluation because it provides a detailed

description of what will be evaluated.

A program logic model can be seen as a road map of how programs achieve their objectives. It spells out the underlying assumptions about how a program will achieve its intended outcomes (or its intermediate outcomes in the short term). The model links outcomes with program activities (or processes) and the theoretical assumptions (or principles) about the intervention. In other words, a program logic model is a systematic and visual way to present and share understanding about the relationships among the resources available to operate a program, the planned activities and processes, and the changes or results it hopes to achieve. Program logic models can be read as:

1. with these *inputs*, these *activities* will be implemented
2. if these *activities* are implemented, these *outputs* (products or services) will be created or delivered
3. if these *activities* are implemented and *outputs* are created, these *short-term outcomes* (e.g. changes to the service system, increases in knowledge, changes to client experience) will be achieved
4. if these *short-term outcomes* are achieved, then these *mid-term outcomes* will be achieved, etc.

### 4.2 Outcome matrices

Outcome matrices offer a systematic way of determining the explicit indicators (success criteria or performance indicators) on which expected outcomes of a program can be evaluated, and enable the identification of relevant data sources. For each intended outcome, a matrix is developed to guide the evaluation process. These include:

1. the evaluation object (ie what is being evaluated)
2. key research questions
3. performance indicators and
4. data sources

Programs do not exist in a political, cultural or social vacuum. They are embedded in their context, and these contexts affect how the program works and how individuals and groups react to them. Program logic models alone do not take contextual factors into account. They should therefore be complemented by *outcome matrices*, which help evaluators identify why programs may have succeeded, recognise what internal factors may have affected the program's success, and monitor external influences outside the boundaries of the program.

Understanding the context of the intervention is as important as understanding the intervention itself. Identifying non-program factors and considering and monitoring these in order to analyse the context allows evaluators in applied health services evaluation to reflect more validly on attribution and contribution of non-program (or contextual) factors where randomised controlled trials or even quasi-experimental designs are impracticable or inappropriate. Reflecting on the attribution and contribution of program and non-program factors also deepens understandings and analysis of lessons learned.

### 4.3 Non-program factors and program factors that may affect the success of the project

An important aspect of evaluation is the identification of enablers and barriers to the program's implementation and sustainability. During the development of the program, logic model and outcome matrices will be investigated, and continuing on throughout the evaluation, enablers and barriers to the success and sustainability of the CAHP clinic will be examined.

Attention to program and non-program factors early in the life of a program of effort and its evaluation provides useful information that can assist in later interpretation of why something hasn't gone as expected or results are

not at the level expected. For example, recruitment problems, host system or organisational dynamics at the start up phase can delay or diminish the foundation on which a project is built. Failure to understand these issues can lead to the wrong conclusions being drawn about a potentially successful method or intervention. One can conclude that the idea was not a good one, rather than it was a good idea but poorly resourced or supported.

This information provides advice to the evaluators about the factors that could plausibly contribute to, or impede, the timely production of outputs and subsequent achievement of outcomes for the program.

For an example of program logic models, outcome matrices and non-program and program factors, please refer to the full CAHP evaluation framework available on the ClinEdQ website, <http://qheps.health.qld.gov.au/clinedq/home.htm>

### 4.4 Data strategy

When trying to evaluate the success of any program of effort, it is important to consider using a combination of quantitative and qualitative data. Qualitative data will be collected to assist with the interpretation of quantitative data and provide richness and depth to the analysis in order to inform future effort. In order to reduce the burden of data collection on the project team/project manager/clinic staff it is also important to use routinely collected data (such as monthly data activity reports) and data collected through existing tools and/or processes. In some cases, new data collection tools and/or processes may have to be developed to cater to the evaluation needs of the clinic. For further advice on the specific outcomes and key performance indicators for which this data is being used please refer to the full CAHP evaluation framework available on the ClinEdQ website (<http://www.health.qld.gov.au/clinedq/>).

## Part 5: Summary of Outcomes and Conclusion

### Client Characteristics and Services

Between February 2010 when it opened and November 2010, the CAHP Clinic has provided healthcare services to a total of 378 clients (see Box 1). The average client was 56 years old, female and probably employed. Further details are provided in Box 2 below. Summaries of client health status, reasons for referral, types of intervention required and services provided are set out below in Tables 4 to 6.

#### Box 1. CAHP Clinic Activity

- Received 749 referrals (72.9% per cent from GPs, 13.5% from cardiac rehabilitation outpatient program, 8.8 per cent from Rockhampton hospital and 4.8% per cent other).
- Received 378 new clients
- Delivered approximately 3231 occasions of service – including 80 group education sessions
- Supported 73 student placements from six discipline groups.

The clinic has the capacity to:

- Deliver 148 group education sessions to clients (annually)
- Provide 120 (with current staffing) clinic placement opportunities to pre-entry allied health students (annually)
- Deliver services 52 weeks per year

#### Box 2. Client characteristics

- Average age 56.4 years
- 56% female, 44% male
- 6.8% indigenous
- Employment status: 31.4% retired, 21% disability support pension, 32.2% employed (full time, part time or casual), 8.5% unemployed, 6.9% other

**Table 4. Health status indicators of CAHP Clinic clients**

Physical Measurement	Mean ± SD, Range
Body Mass Index	35.31 ± 9.17 kg/m <sup>2</sup> , (15.82 – 71.71)
Percentage of clients with BMI >30kg/m <sup>2</sup>	68%
Number of Prescribed Medications	5.67 ± 3.74, (0 – 23)
Percentage of clients prescribed ≥ 10 medication	13.9%
Hospitalised in previous 12 months	43.4%
Current or Previous Smokers	48.9%
Number of self-reported Co-morbidities	4.93
Clients diagnosed with Depression	36%

**Table 5. Reasons for referral of CAHP clients**

Reason for Referral	Number (%)
Diabetes	40.9%
Obesity, Dietary management, Weight loss for surgery	24.3%
Osteoarthritis	18.7%
Back Pain	12.6%
Hypertension	7.8%
Cardiac Conditions (Other)	18.4%

**Table 6. Types of intervention provided to CAHP Clinic clients**

Client intervention	Number (%)
Dietetics	74%
Diabetes education	25%
Occupational therapy	40%
Podiatry	50%
Exercise Physiology	71%
Pharmacy	27%
Psychology / Social Work	15%

### Evaluation of student placements

Formal evaluation of the CAHP clinic, including clinical outcomes and its effectiveness with regard to student learning needs and satisfaction is underway and will be reported when sufficient data has been collected. However, preliminary analysis suggests that the Clinic is making an innovative and important contribution to improving health service delivery in Central Queensland. Additionally, feedback from students indicates that the CAHP Clinic is a positive learning experience which increases confidence in being ready for practice on graduation as well as meeting the stated learning objectives of the placement.

### Conclusion

Student-assisted clinics are growing in popularity around the world due to the opportunities they provide for students and the services they provide to their communities. The benefits to students in terms of interprofessional socialisation are apparent, and increased access to safe and quality services can be achieved for previously underserved communities and complex patients.

Results of evaluations of student-assisted clinics elsewhere suggest that they can provide increased convenience and access to multidisciplinary team care which in turn has been demonstrated to improve patient outcomes in a range of health settings and across a wide range of complex conditions. As

with all innovative models of care a continued commitment to monitoring and evaluation and quality improvement is essential.

The planning, development and implementation of an interprofessional student-assisted chronic disease clinic, such as the CAHP Clinic is a complex, multi-faceted, and time-intensive procedure. However, the potential for this type of innovative model of care to improve health outcomes of the target population is far-reaching, both with respect to immediate service delivery and to the quality and expertise of the future clinical workforce. It is hoped that the experience described in this document and the following Toolkit will encourage and facilitate the development of other student-assisted clinics throughout Queensland.



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