**Division of Health Sciences Centre for Interprofessional Education**

# Interprofessional Education in the Health Sciences Division: A Concept Paper

**Final: 07 April 2017**

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# 1. Background

Interprofessional education (IPE) is now widely promulgated among the health professions for preparing practitioners to meet societal needs for high-quality, cost-effective and more sustainable health systems (World Health Organization, 2010a, 2010b; Frenk et al., 2010). There is steadily growing evidence that IPE creates positive interaction, supports collaborative and patient-centred practice, and improves client care (Barr, Koppel, Reeves, Hammick & Freeth, 2005; Pollard & Miers, 2008).

With such imperatives and evidence in mind, the Division of Health Sciences has a strategic vision of establishing the University of Otago as a national leader in interprofessional education (IPE) across the health professions. To this end, its goals by 2019 are to integrate IPE progressively into our curriculum; to build a sustainable ethos of staff and organisational collaboration; and to identify, develop and optimise IPE resources.

The overarching aim is for every health professional student to develop and be able to demonstrate core interprofessional competencies through at least three high-quality, intentional IPE programme components over the course of their degree. Formal learning is to be strengthened by multiple opportunities for serendipitous interprofessional learning, particularly in clinical settings.

Since late 2014, the efforts of the Divisional IPE Governance Group (DIPEGG) and its affiliated campus-based structures, the Divisional IPE Strategy 2016-19, and seed-funding through the IPE Support Innovation Fund, have fostered significant grass-roots IPE activity. This gathering momentum warranted the establishment of a Divisional IPE Centre in late 2016. Expanded resources and staffing are intended to mobilise a shift from small and inherently vulnerable IPE programme components, to a sustainable suite of IPE offerings at different levels of student learning, engaging the entire Division.

This advance is also a marker that further broad-based policy and planning frameworks are needed to consolidate IPE to scale – especially by means of curriculum development guidelines - while continuing to foster bottom-up enthusiasm.

This paper is intended as a point of departure for DIPEGG discussions, and for consulting across the Division (and more widely if needed), to develop such frameworks.

# 2. Process Model for Consolidating IPE in the Division

## Elements of an IPE Process Model

Key questions inform IPE consultation, decision-making and resourcing in the Division. These highlight the complex interplay of initiative, inclusiveness and mandate (governance and executive leadership) underpinning IPE delivery – see table 1.

**Table 1: Considerations informing IPE consultation, decision-making and resourcing**

| Questions | Aspects to consider |
|---|---|
| What are the Division's vision, goals and plans for IPE? | Ratified IPE strategic goals 2016-19, and Divisional Strategic Plan to 2020, and Health Sciences Precinct Concept<br>IPE strategic goals post-2019 to be articulated |
| How is inclusiveness in vision/goals/plans assured? | Policies/frameworks/concepts/models/plans/processes/evidence-bases: to be initiated by DIPEGG for discussion and agreement<br>Inclusive, fair and non-hierarchical consultation process to be developed with processes to openly resolve difference<br>Executive-level validation and support to be sought and secured<br>Inclusive IPE identity to be developed/implemented by DIPEGG/IPE Centre<br>IPE progress and outcomes to be regularly communicated/disseminated |
| What IPE policies, plans and frameworks are essential to support and sustain IPE in the Division? | Planned and sustained resourcing needs to be secured for IPE accomplishment through curriculum / programmes / stepped levels (including external funding to support complex immersion IPE in the South and North Islands)<br>Funding of staff time for IPE involvement<br>Staff development, with credit-for-learning system, needed to ensure quality of teaching<br>Division-wide monitoring and evaluation system for IPE progress and continuing improvement to be developed, consulted and agreed |
| How is quality of learning, and translation of learning into practice, undertaken and demonstrated? | IPE values and articulation through the curriculum: quality/safety, social accountability, etc<br>Formal assessment of student learning, with equivalence across different schools<br>Divisional framework for comparable assessment, credit, progression and records of students' IPE learning components to be developed, consulted and agreed |
| What aspects of Divisional structures and systems need to be aligned to support and sustain IPE? | Divisional structure and cohesion (medium- to long-term development, i.e. curriculum innovation, new qualifications, centres of excellence; professional development for academic staff)<br>Timetabling (short-term tactics, and medium-term systems support, i.e. Course and Programme Scheduling project/Syllabus Plus)<br>Clinical placements (medium-term systems, i.e. clinical placements management system)<br>Interdepartmental alignment of support services, systems and processes (e.g. HEDC, evaluation systems, ITS, eLearning systems and setup, Finance, dedicated cost centres for IPE grant funds)<br>Standardised but pragmatic processes to partner with other tertiary education institutions, and community partner organisations, including cost-sharing arrangements |

## Proposed IPE Process Model

A process model for IPE in the Health Sciences Division of the University of Otago is proposed (Figure 1).

This model is modified and customised from a policy cycle model (Althaus et al, 2013) and also draws on observations about supportive institutional process for IPE in the literature (see Appendix A).

The overall process of IPE policy and framework development within the Division needs to:

- Be clear, fair and workable for diverse constituencies.
- Be flexible – or loosely-coupled - enough to incorporate a "mixed" system of policy-driven, curriculum-shaping and/or curriculum-aligned, and initiative-driven (evidence-based) IPE activities.
- Enable equity and voice for all constituents.
- Support communication and conflict resolution.
- Support iterative – including multi-site – implementation.
- Be oriented to consolidation and continuous improvement.

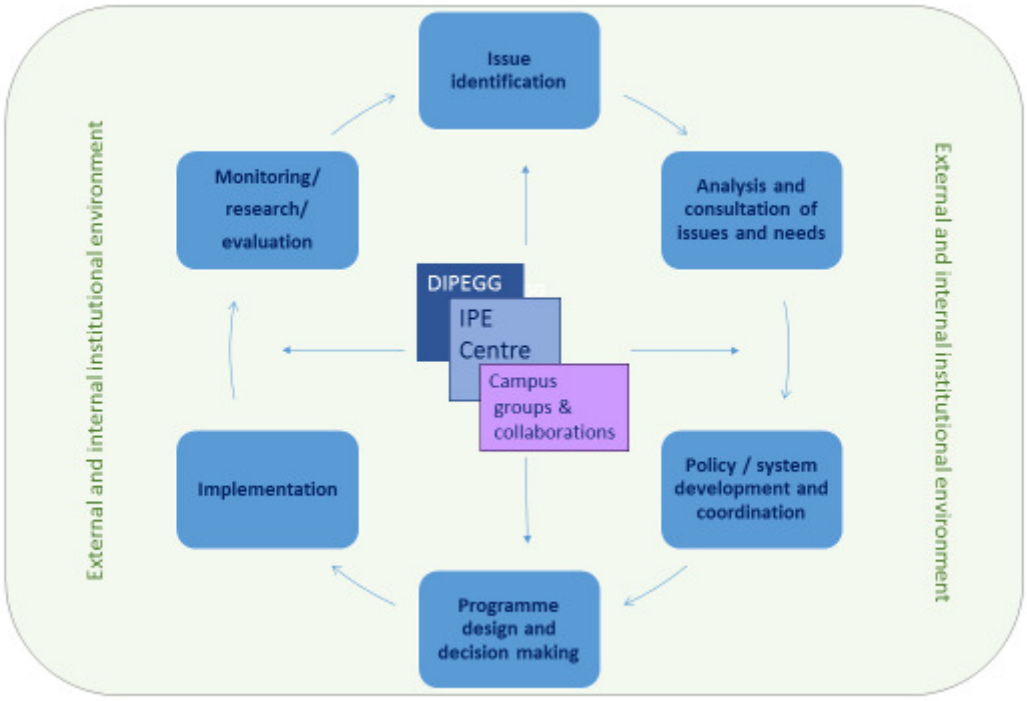


**Figure 1: Proposed Division of Health Sciences IPE process model**

The process model incorporates these core ideas:

- The development of policies, frameworks and guidelines can arise at different points (IPE governance structures, IPE Centre, IPE campus groups, existing and new IPE initiatives/activities/teaching teams/partnerships).
- Wherever they arise, these ideas feed into a clear process of logical steps that ultimately supports selection of specific policies, frameworks or models, and their implementation, monitoring, evaluation and review.
- This process flow allows the Divisional IPE Governance Group to exercise policy formulation and strategic oversight roles as mandated, including establishing linkages with Curriculum Committees and other key committees.
- The process flow facilitates initiative or innovation at other levels.
- The process flow facilitates formal evaluation/review of existing IPE activities where this may not have been undertaken to date.
- The process of successive steps does not preclude different weighting of the steps in different cases – e.g. some issues/needs may require extensive consultation, some may require less.

# 3. Conceptual Model for IPE in the Division

## Elements of an IPE Conceptual Model

A robust conceptual model for IPE in the Division of Health Sciences needs to concisely capture fundamental elements, positioning IPE in the Division's academic planning/curriculum development framework – see Table 2.

**Table 2: Elements to select for inclusion in IPE conceptual model**

| Questions | Exemplar elements to encapsulate in a conceptual model |
|---|---|
| What is IPE? | Broadly-accepted definition of IPE, c.f. IPE Strategy 2016-19<br>What is IPE for us? – in New Zealand, at University of Otago (UO) |
| Where is IPE situated? (context and linkages) | International context<br>The NZ context, Treaty of Waitangi<br>Multicultural society, increasing ethnic diversity<br>The rural and regional context of NZ<br>UO context: Health Sciences First Year (HSFY), professional programmes, clinical placements, linkages to: hauora Māori, Pacific Health, rural health, bioethics, simulation<br>Inter-institutional context and IPE partners: Other tertiary education institutions, District Health Boards, professional bodies, community-based organisations, iwi |
| Why do IPE? | Warrant/evidence-base for IPE: international, national, UO<br>Health system needs: patient-centred care, integrated care (vertical/horizontal), primary-care-led health system, quality and safety, sustainability and efficiency, interprofessional collaboration and teamwork<br>Professional competence in IP context: collaboration, communication, conflict resolution, and ethical practice |
| When to do IPE? | Pre-registration IPE: HSFY, Foundation years of pre-registration degrees, Advanced years of pre-registration degrees, in the classroom, in simulation clinics, on clinical rotation<br>Post-registration IPE |
| How to do IPE? | Stepped-levels approach ((pre)-exposure→engagement→immersion→mastery)<br>Mapped competencies<br>Alignment of IPE competencies with UO and Divisional graduate profiles |
| Who is IPE for? | Students, staff, patients, registered professionals |

## Proposed IPE conceptual model

A conceptual model for IPE in the Health Sciences Division of the University of Otago is proposed (Figure 2).

This draws on comparative conceptual models in the literature (see Appendix A), while aiming for relevance in our New Zealand context. Core concepts are gathered here for the first time in a single model, as a support to policy-making and guidelines, and to consultation and engagement with stakeholders, within and beyond the Division. It should be noted, however, that these concepts are not new: they are already actively disseminated and applied in the Division. For example, the Divisional IPE Strategy 2016-19 maps the global, national and University of Otago context for IPE; includes a concept for progression of IPE learning through defined, stepped-levels; and formulates IPE competencies which are mapped against University of Otago and Health Sciences Schools' graduate profiles. As another example, the Tairāwhiti Interprofessional Education programme (final year immersion) references many aspects of the model in its list of intended learning outcomes (and is included as an example for reference under Appendix A).

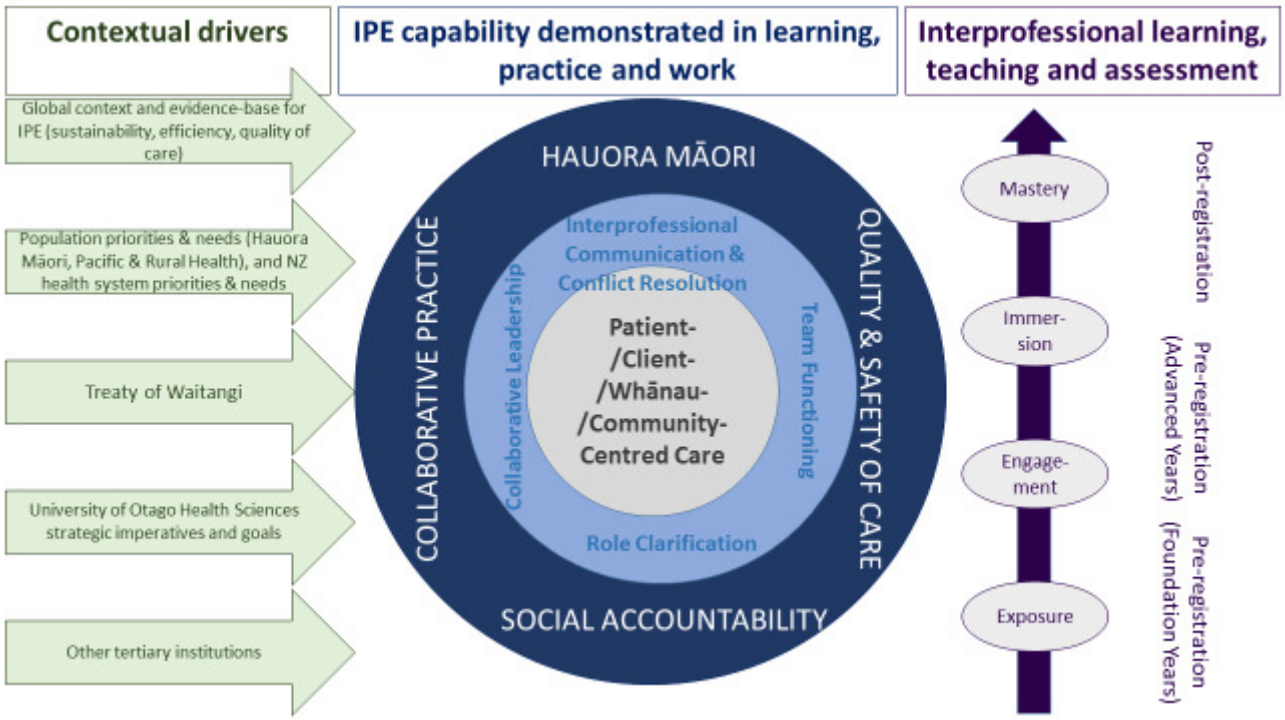


**Figure 2: Proposed Division of Health Sciences IPE conceptual model**

The conceptual model incorporates these core ideas:

- The contemporary global context for health care is driven by needs for sustainability, efficiency and high-quality care for patients/clients.
- The New Zealand historical and contemporary context for health care is driven by special obligations under the Treaty of Waitangi, and particular needs in terms of Māori, Pacific, rural and disadvantaged populations.
- Both health and education systems are centred on the needs of the patient/client/family/community.
- Health and education systems exist in a mutual context with shared drivers and respond through innovation to support changes in health delivery systems.
- Health and education systems are bridged by a capability framework for pre- and post-registration professionals.
- IPE competencies are acquired through stepped levels from pre-registration through graduate/early post-registration levels, as students and professionals progressively learn with, from and about each other.
- IPE competencies are acquired to support and integrate with the graduate profiles of the University of Otago and Schools/Faculties within the Division of Health Sciences (while acknowledging that IPE involves working with other disciplines, Divisions and tertiary institutions).
- Capabilities developed through IPE in professional programmes are applied in a collaborative context in clinical and workplace settings, both before and after registration.

# Appendix A: Selected IPE Models in the Literature

This overview selects and summarises some models in the literature, highlighting the attention they give to particular conceptual elements and, in some cases, process considerations for consolidating IPE as well.

## D'Amour & Oandasan (2005)

The authors develop the concept of interprofessionality, distinct from interdisciplinarity. They argue that interprofessionality involves processes and determinants influencing IPE initiatives and interprofessional collaboration, as well as analysis of linkages between these two spheres of activity proceeding from a common basis. Their framework proposes linkages between learners, teachers and professionals (micro-level), between teaching and health organisations (meso level) and among political, socio-economic and cultural systems (macro level). They emphasise the need for research to document these linkages and their results, and the importance of "requisite political will" (p.8).

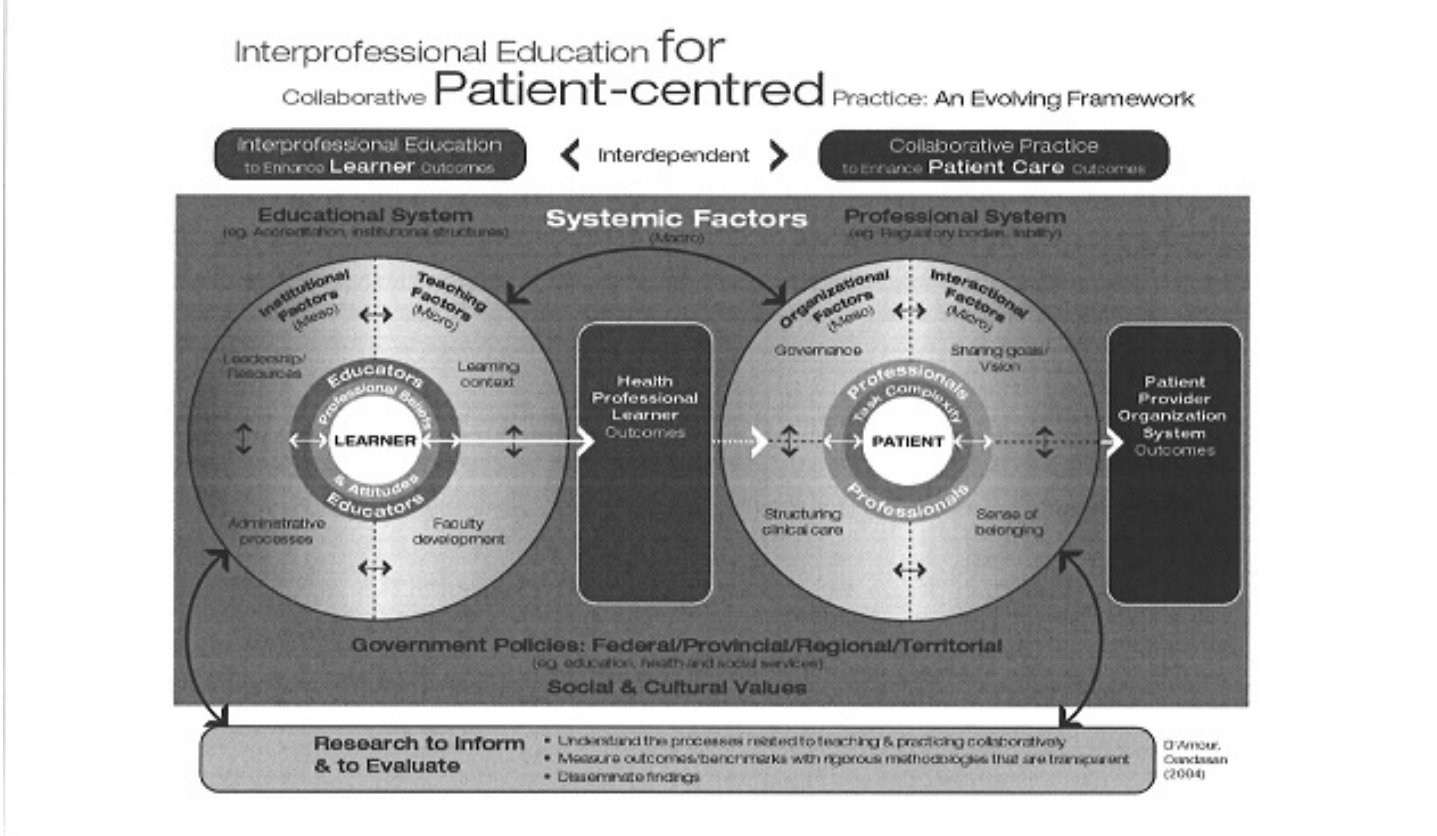


**Figure 3: Interprofessional education for collaborative patient-centred practice (D'Amour & Oandasan, 2005)**

## Barr, Freeth et al (2006)

Having analysed 107 evaluations of IPE in health/social care from ten countries, the authors concluded that a sound conceptual model for IPE is, amongst other things:

- Progressive, with each of its stages reinforcing and augmenting others (specifically, they envisage this as a set of cogs/levers);
- Integrated into culture and curricula throughout pre-registration programmes, and ultimately supporting a career-long continuum of integrated uniprofessional and interprofessional learning;
- Competency- or capability-based, so that it is designed to change behaviour, as well as attitudes and knowledge.

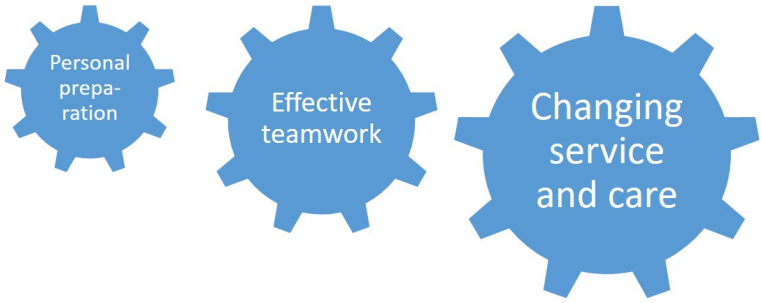


**Figure 4: Outcomes from interprofessional education (Barr, Freeth et al, 2006)**

## Wilhelmsson et al (2009)

The "Linköping IPE model" summarises the experiences over 20 years of the Faculty of Health Sciences at Linköping University in Sweden, to suggest an approach for successful performance in IPE. The model evolved from a recognition of changes in public health policy and services and the need for new working models in health and social care. It is based, first, on the premise that it is favourable for the development of students' own professional identity to meet other health and social professions in their undergraduate studies. Second, it views interprofessional learning as a process over time that requires several integrated stages to gain interprofessional competence, i.e. the skills to work collaboratively in practice. Third, this model's perspective is that IPE modules early in the curriculum are well combined with clinical placement ("student training ward placement") as the "final module"; and also strengthened by student-based learning and problem-based learning in small groups.

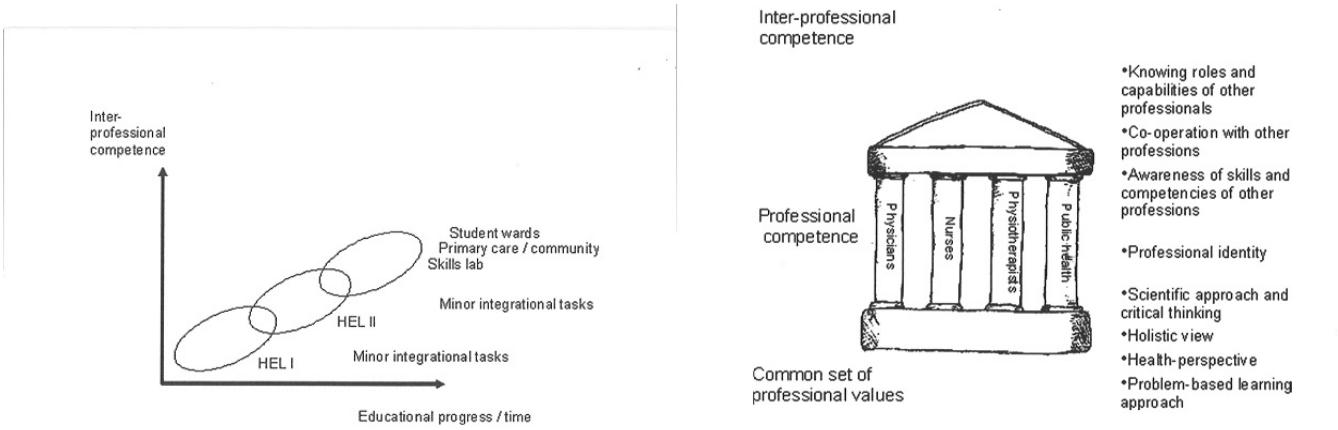


**Figure 5: Linköpping Model: A) Comprehensive IP learning; and B) Building interprofessional competence (Wilhelmsson et al, 2009)**

These authors emphasise that "all programs involved in IPE must have a sense of ownership based on true influence and a conviction that such education contributes to the formation of [health] professionals of today" (p.131). This requires constant evaluation, revision and discussion of IPE in the organisation; leadership interested and knowledgeable enough to legitimate IPE and reconcile diverse interests in organisation and delivery; skilled organisers and process leaders; support from, and close contact with, faculty leaders; involvement of students and students' unions in the process.

## Charles et al (2010)

The University of British Columbia model of IPE recommends optimal learning times for health and human services students (and practitioners). This timing depends on their stage of development as professionals (pre-registration and early post-registration) in their respective disciplines, and their readiness to learn and develop new perspectives

on professional interaction. The model conceives and organises IPE as a three-part overlapping set of processes, while acknowledging the importance of research to evaluate and fully assess the characteristics and competency domains of each level:

- Exposure – introductory, junior-level parallel learning experiences with peers from other professions; to lay the groundwork for transformational learning in the next two stages.
- Immersion – senior-level collaborative learning (structured and unstructured) with students from other professions; to offer students opportunities for the types of self-reflection needed to transform their current perspectives on themselves, their professions and others; and to allow them to acquire an interprofessional world view.
- Mastery – advanced-level learning experiences of the kind open to graduate students with significant experience and/or experienced practitioners; to provide opportunity for mastering interprofessional concepts in such a way that they are incorporated into daily professional practice.

## Canadian Interprofessional Health Collaborative (2010)

The Canadian National Interprofessional Competency Framework presented in this document provides an integrative approach to describing the competencies – knowledge, skills, attitudes and values - required for effective interprofessional collaboration. Two domains (interprofessional communication and patient/client/family/community-centred care) are seen as always supporting and influencing the other four (role clarification, team functioning, interprofessional conflict resolution and collaborative leadership). Three background considerations (contextual issues, quality improvement and degree of complexity) influence how the competency framework may be applied in different situations.

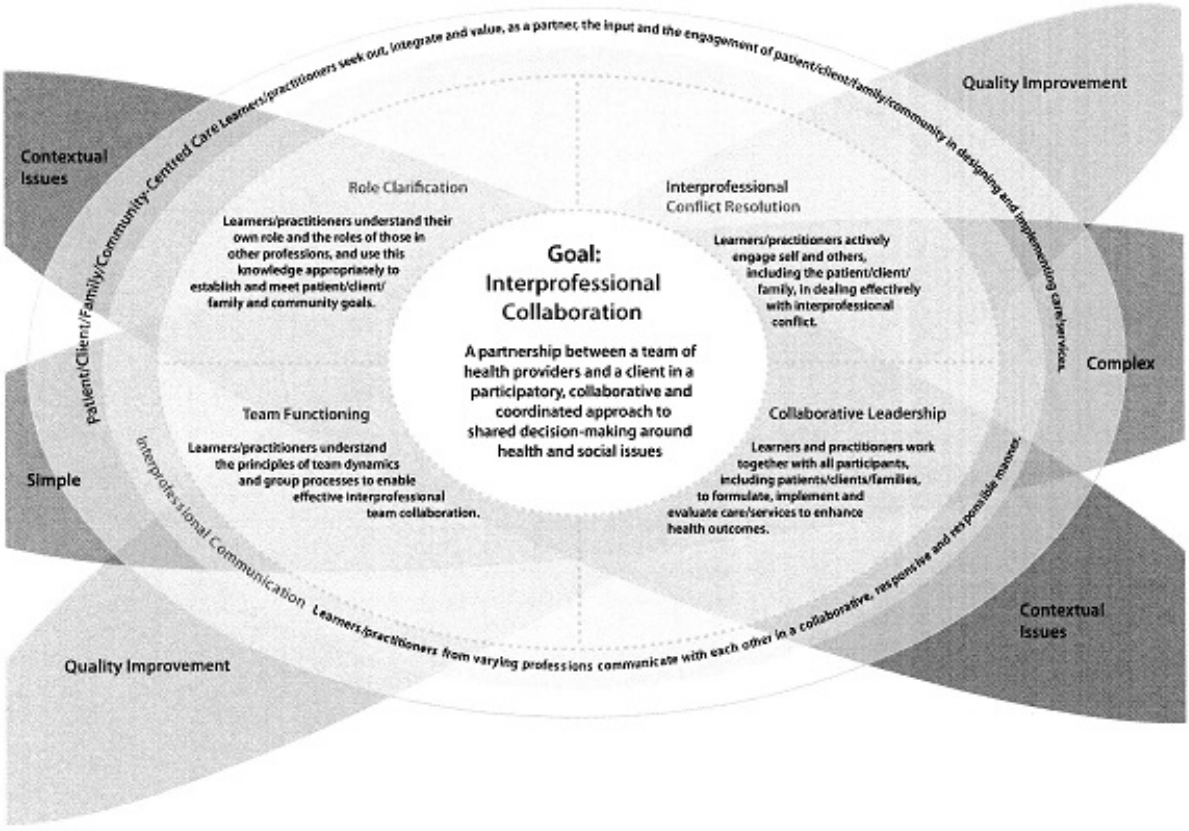


**Figure 6: National Interprofessional Competency Framework (CIHC, 2010)**

## World Health Organisation (2010)

This framework highlights the current status of interprofessional collaboration around the world; identifies mechanisms that shape successful collaborative teamwork; and outlines action items to be applied in local context. IPE is viewed as crucial to the preparation of a collaborative practice-ready workforce, and so to moving health systems from fragmentation to a position of strength. Mechanisms considered to shape how IPE is developed and delivered are:

- Educator mechanisms: academic staff training, institutional advocates/promoters and support, managerial commitment, learning outcomes;
- Curricular mechanisms: logistics and scheduling, programme content, compulsory attendance, shared objectives, adult learning principles, contextual learning, assessment;
- Local context: determines which of the accompanying actions would lead to stronger IPE, to fit with local challenges and needs. The following are suggested:
    - Agree to a common vision and purpose for IPE with key stakeholders
    - Develop IPE curricula according to principles of good educational practice
    - Provide organisational support and adequate financial and time allocations for the development and delivery of IPE, and for staff development
    - Introduce IPE into health professional education and training programmes
    - Ensure staff responsible for developing, delivering and evaluating IPE are competent and supported
    - Ensure commitment to IPE by leaders in education institutions and all associated practice and work settings.

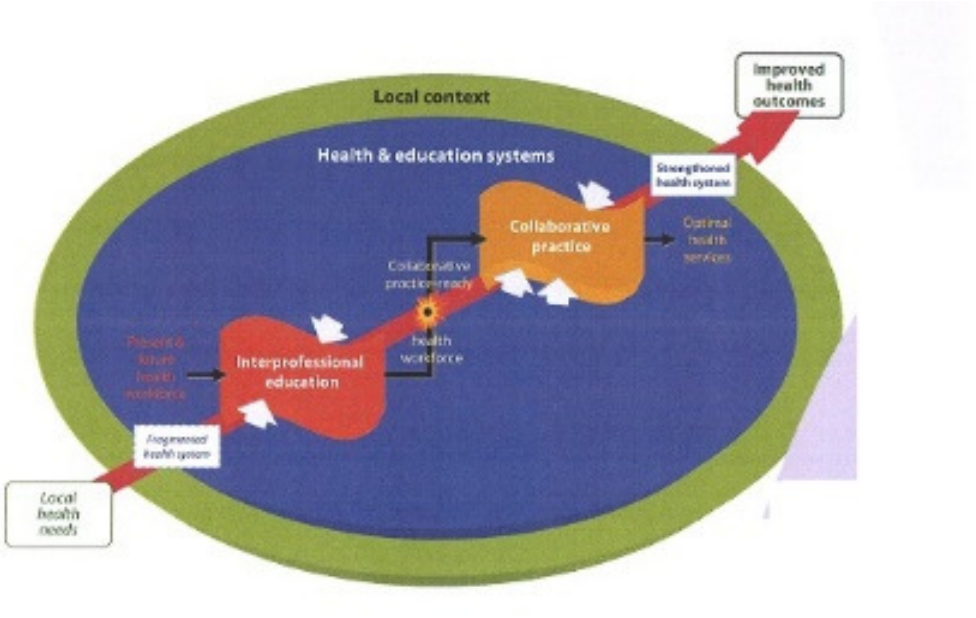


**Figure 7: Health and Education Systems conceptual model (WHO, 2010)**

## World Health Professions Alliance Statement on Collaborative Practice (2013)

The Alliance advocates interprofessional collaborative practice (ICP) and promotes educational, legislative, and health systems changes to bring about and strengthen interprofessional partnerships. In this context, it conceptualises IPE as including opportunities (especially accredited opportunities) for joint and person-centred, problem-oriented learning and professional socialisation, in both clinical and academic environments.

It argues that, as evidence for the efficacy of ICP for health outcomes continues to be built, monitoring of health outcomes, practice and research in diverse communities and settings is required and the best ways to educate interprofessionally need to be researched.

Its perspective on key competencies to be developed through IPE are suggested as follows:

- ICP supports person-centred practice. By placing the focus on the needs of individuals, their families and communities, and recognising they are part of the collaborative team, professional differences are minimised and shared decision-making is developed in partnership.
- ICP requires mutual respect, competence, trust and synergy among team members. Professionals, sharing a common purpose, recognise and respect each other's body of knowledge, role and team-agreed responsibilities. When the individual contributions of all professionals are recognised, there is more likely to be appropriate and timely referral and a good matching of competencies to a person's needs. Whenever there are overlapping scopes of practice, collaborative teams ensure that the professional with the best match of expertise to the needs of the individual is engaged at the appropriate time.
- ICP requires effective communication, enhanced by team members talking and actively listening to each other and to the individual concerned and his/her significant others (family, carers, advocates).

## Brewer and Jones (2013)

Drawing on extant interprofessional competency and capability models from the UK, US and Canada, Brewer and Jones (2013) developed, consulted and implemented a capability framework for Curtin University. This model places the client (patient) at its centre, within the interlinking contexts of safety and quality of services and interprofessional collaborative practice, and as informed by five interprofessional capabilities: reflection, communication, conflict resolution, team function and role clarification. The model assumes (but does not illustrate) a continuum of IP learning through levels of achievement. Brewer and Jones argue that "the design of such a framework is challenging but the greatest challenge lies in its implementation. To ensure the 'buy-in' of staff, the framework and the learning outcomes it contains must link not only to current good practice but also recognise the drivers for change" (Brewer & Jones 2013, e45).


**Figure 8: Curtin University's Interprofessional Capability Framework Model (Brewer & Jones, 2013)**

## Barr, Helme & D'Avray (2014)

This review of IPE in the UK (1997-2013) found, amongst other things, that realignment with and between professional courses to implant IPE was overdue. Synchronising interprofessional assessment and learning on placement were especially problematic. The role of the IPE coordinator was critical, working with difficulty between systems and dependent on backing from line managers. Institutional endorsement needed to be proactive in coordinating and revising systems to accommodate IPE, sustain commitment, develop staff and invest for the future – including in research for more evidence on IPE's effects. Recommendations were framed for various regulatory bodies, as well as tertiary institutions. For the latter, recommendations included: incorporate a critical appreciation of IPE in accredited courses for all new entrants to health/social care teaching; provide and require professional development in IPE for all existing teaching staff in health/social care; introduce consistent procedures and criteria

for the assessment of IPE across professions and courses; and forge partnerships to develop IPE in the practice environment.

## Māori models of health (c.f. Ministry of Health, Te Ara)

The symbol of the wharenui, captured in the foundational model of Māori health – the Te Whare Tapa Whā model, illustrates the four dimensions of Māori well-being:

- Taha tinana (physical health)
- Taha wairua (spiritual health)
- Taha whānau (family health)
- Taha hinengaro (mental health)

Should one of the four dimensions be missing or in some way damaged, a person, or a collective may become out-of -balance and subsequently unwell. For Māori, while our physical being supports our essence and shelters us from the external environment, it cannot be separated from the aspects of mind, spirit and family.

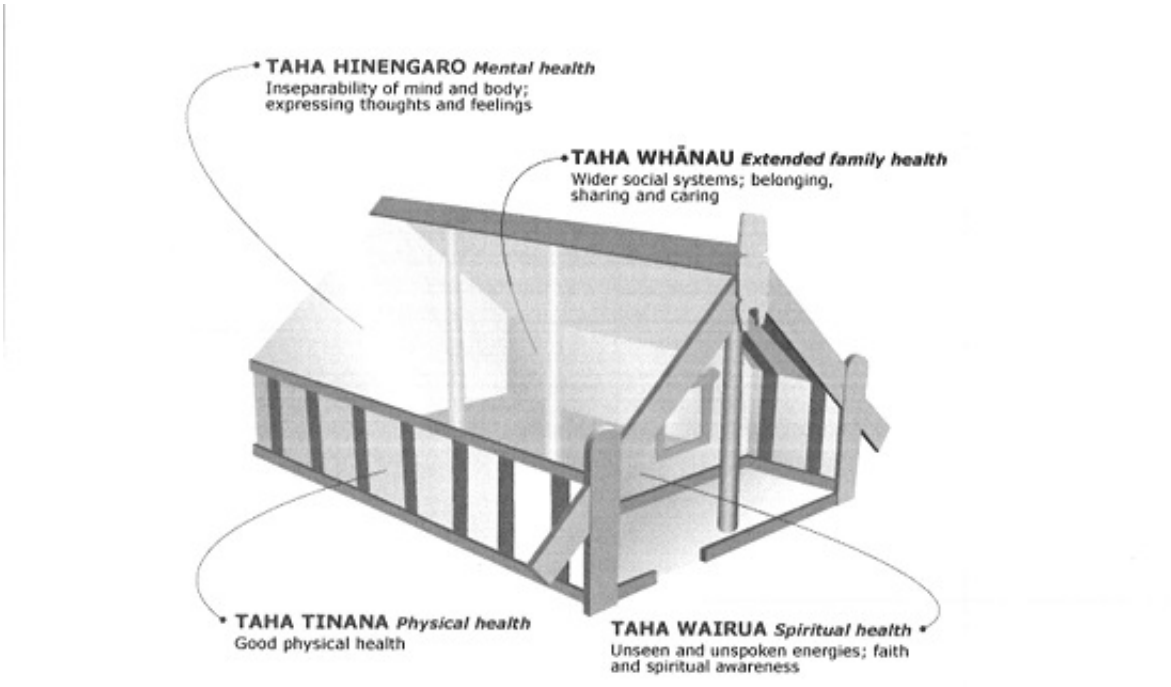


**Figure 9: Te Whare Tapa Whā**

## Pacific models of health (c.f. Pulotu-Endemann, 2011)

The Fonofale model incorporates the values and beliefs that many Samoans, Cook Islanders, Tongans, Niueans, Tokelauns and Fijians hold as the most important things for them. The concept of the Samoan fale or house is a way to incorporate and depict this. It incorporates the foundation (family), posts (spiritual, physical, mental and other aspects, e.g. gender, sexuality, socio-econonic status), and roof (culture) – all encapsulated in a circle to promote the philosophy of holism and continuity (environment, time and context). The Fonofale Model is a dynamic model in that all these components have an interactive relationship with each other.


**Figure 10: The Fonofale Model of Pacific Health**

## Health Quality and Safety Commission (2016)

**Table 3: Domains of the New Zealand quality and safety capability framework**

| | |
|---|---|
| 1. Partnerships with consumers/patients and their families/whānau | Empowering consumers/patients and their families/whānau to interact with health care providers to achieve their desired outcomes. |
| 2. Quality and safety culture | Contributing to and modelling a culture where quality and safety are top priorities, and communicating in a way that shows mutual trust and respect. |
| 3. Leadership for improvement and change | Doing what is right and setting an example for others to follow.<br>Knowing and using the principles of change management to support the implementation and sustainability of quality and safety improvements.<br>Those in leadership roles are also responsible for setting the direction for improving quality and safety consistent with organisational and national goals. |
| 4. Systems thinking | Appreciating the health and disability system as a dynamic, adaptive collection of interrelated and interdependent components, including people and processes, with a common purpose or aim.<br>Emphasising the whole with an awareness of the parts and their relationships to each other. |
| 5. Teamwork and communication | Working with others across professional, organisational and cultural boundaries to achieve shared quality and safety goals. |
| 6. Improvement and innovation | Using evidence and data to drive improvement and innovation. |
| 7. Quality improvement and patient safety knowledge and skills | Using appropriate tools, methods and techniques to improve the quality and safety of care. |

## University of Otago, Tairāwhiti IPE Programme: Intended Learning Outcomes

At the end of the programme, and within a clinical rural, hauora Māori context, the student will be able to exhibit the following learning outcomes:

**1. Communication**

Demonstrate effective communication in a culturally safe, empathetic, respectful and responsive manner with patient/clients/whānau/colleagues.

**2. Treaty of Waitangi**

Demonstrate an understanding of the special relationship between Māori and the Crown under the Treaty of Waitangi.

**3. Hauora Māori**

a. Demonstrate principles of cultural safety, competency and literacy within the health environment.
b. Demonstrate appropriate engagement and interaction with Māori patients, whānau and the community.
c. Identify and apply appropriate Hauora Māori models within clinical and public health environments.
d. Demonstrate knowledge and appreciation of the role of diverse health disciplines in Māori health and the capacity to work in an interdisciplinary team in Māori health.

**4. Collaboration**

a. Establish and maintain collaborative working relationships with student and clinician colleagues in other health disciplines and within your own discipline.
b. Establish and maintain collaborative working relationships with patients/clients and their families/whānau.

**5. Roles and Responsibilities**

a. Demonstrate the ability to clearly explain own health professional role and responsibilities, and level of knowledge and judgement to patients/clients and their families /whanau.
b. Demonstrate the ability to respect, value and explain the roles and responsibilities of the other health professionals you work with to patients/clients and their families /whanau.
c. Demonstrate an understanding of the concepts of professional and interprofessional accountability, and associated legal and ethical issues.

**6. Patient-/Client-/Family-/Whānau-centred approach**

Demonstrate the ability to seek input, share information and advocate for patients'/clients' participation in clinical decision making, in ways that maximise patients'/clients' safety, independence, cultural needs and quality of life and health.

**7. Team functioning**

Demonstrate the ability to contribute to effective team functioning (including appropriate leadership, delegation, documentation) to improve collaboration, in the interests of patient safety and quality of care.

**8. Negotiating decisions**

Demonstrate the ability to effectively negotiate and resolve conflict between providers, patients/clients/ family/whānau (including the ability to raise and/or challenge differences of opinion in the interests of patient safety and quality of care).

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