



Patient-Centred Interprofessional Team Experiences

Final Report to Health Canada

March 31, 2008



KEY MESSAGES

- Shifting a culture of health science professional education to a more collaborative, team philosophy requires time, champions, successful demonstration projects and learner satisfaction.
- Patient-Centred Interprofessional Team Experiences (P-CITE) built awareness and support for interprofessional education by funding projects that were widely disseminated throughout institutions and communities across Saskatchewan.
- Institutional commitment and champions are required for successful implementation of interprofessional education projects.
- Embedding interprofessional educational experiences in the curricula is necessary to make meaningful, sustained changes in the learning.
- Student satisfaction and commitment to interprofessional collaborative practice are enhanced if they have opportunities to experience effective, team-based practice in clinical settings.
- Students have to be actively engaged in the learning environment, addressing a common client, issue or problem, to facilitate learning from and about one another.
- Partnerships between educational and professional settings are essential for quality learning experiences.

EXECUTIVE SUMMARY

The Patient-Centred Interprofessional Team Experiences (P-CITE) project was launched in June 2005 with the goal of improving the health of communities, families and individuals across the province of Saskatchewan through services delivered by effective interprofessional health care teams. Our long-term goal was to effect a systemic, structural change in health service delivery and health professional education through collaborative practice, patient-centred care and interprofessional education. To achieve this goal, several strategies were employed. Tools and resources were developed to prepare faculty throughout Saskatchewan to efficiently participate in IPE initiatives. Research designs and methods which supported the investigation of best practices were implemented through individual projects and the P-CITE program. Valid IPE evaluation tools were identified, developed, utilized and are in the process of being validated for individual projects, faculty development initiatives and the overarching P-CITE project.

P-CITE focused on the interprofessional education of health science students prior to qualification (pre-entry to practice). Since June 2005, P-CITE has supported the delivery of 4145 classroom, 1421 Problem-Based Learning and 569 clinical innovative interprofessional education experiences for students in Saskatchewan. Each of the experiences was linked to one or more of the following themes: Child and Youth Mental Health, Chronic Disease in Middle-Aged Adults, Elders in Transition from Acute to Community Care and Health in Aboriginal Communities.

Through various elements of our program evaluation, we have learned that the P-CITE program has been the main catalyst in Saskatchewan for interprofessional education, especially for students and faculty. It has strengthened the linkages between educational institutions and health regions, creating opportunities for increased clinical education experiences. This has resulted in increased leadership and support for interprofessional education from health regions, community-based organizations, professions and education institutions. There is a sense of an

emerging cultural shift towards interprofessional education. Students, educators, practitioners, health care providers and external stakeholders have indicated that they have an increased awareness of the benefits of using interprofessional teams. There have been numerous presentations, workshops and conferences, both in and beyond Saskatchewan, regarding interprofessional education projects occurring in the province. Over three hundred educators, practitioners and community partners have been involved in workshops designed to increase awareness and understanding related to collaborative practice as well as develop skills around interprofessional education.

Development and delivery of interprofessional education experiences for health science and human services students in Saskatchewan has been facilitated through funding provided by the IECPCP initiative, along with the growing support for IPE. The funding was used to support the development of educational modules, tools, and instruments which can be, and are being, integrated into programs with minimal additional costs and shared amongst educators across programs and institutions. As well, many faculty and health professionals benefitted from conferences and workshops addressing aspects of design, implementation and evaluation of interprofessional educational experiences.

P-CITE has built awareness and support for interprofessional education in Saskatchewan by funding projects in institutions and communities across the province. By partnering with community-based organizations, P-CITE was able to provide unique experiential and community-service learning experiences for many students. By collaborating across programs, other P-CITE projects were able to bring large multi-disciplinary groups of students together for common classroom and problem-based learning experiences. P-CITE funded projects actively engaged interprofessional groups and teams of students in addressing common clients, issues or problems to facilitate learning from and about one another. Opportunities to experience effective,

team-based practice enhance student satisfaction and commitment to interprofessional collaborative practice.

As the P-CITE funding comes to an end, the champions and leaders of interprofessional education in Saskatchewan will continue to encourage the use of the knowledge and resources gained during the P-CITE project. Faculty and institutions will be encouraged to incorporate interprofessional education in their curricula, strategic and integrated planning efforts, while national organizations and accrediting bodies will be encouraged to make interprofessional education a key feature in their curricula and accreditation standards for all health professions and human services programs. On-going government support, endorsement and partnerships will be sought and funding structures and mechanisms will be identified.

P-CITE has been remarkably successful in achieving its goals. The deliverables for interprofessional experiences in the classroom and with problem-based learning were surpassed, while the deliverable for interprofessional clinical experiences was more than doubled. Through P-CITE faculty and health professionals attended workshops and conferences about interprofessional education; strengthening skills, gaining knowledge, sharing successes and learning from challenges. Educational modules and resources have been developed, tested and refined and many will be implemented into existing curricula.

1.0 Context

The Patient-Centred Interprofessional Team Experiences (P-CITE) project was launched in June 2005 with the goal of improving the health of communities, families and individuals across the province of Saskatchewan through services delivered by effective interprofessional health care teams. Our long-term goal was to effect a systemic, structural change in health service delivery and health professional education through collaborative practice, patient-centred care and interprofessional education. To achieve this goal, several strategies were employed. Tools, such as a workshop aimed at those interested in becoming Problem-based learning (PBL) facilitators and resources (i.e. a video of a PBL exercise) were developed to prepare faculty throughout Saskatchewan to efficiently participate in IPE initiatives. Research designs and methods which supported the investigation of best practices were implemented through individual projects and the P-CITE program. Valid IPE evaluation tools were identified, developed and utilized for individual projects, faculty development initiatives and the overarching P-CITE project.

P-CITE focused on the interprofessional education of health science students prior to qualification (pre-entry to practice). The desire was to develop, implement and evaluate innovative interprofessional education (IPE) opportunities for health professional students within four themes:

- Child and Youth Mental Health
- Chronic Disease in Middle-Aged Adults
- Elders in transition from acute to community care
- Health in Aboriginal communities

Classroom teaching, problem-based learning and clinical experiences were linked to four themes and patient-client populations.

P-CITE's deliverables were:

- engage 2500 students in interprofessional classroom experiences
- involve 1200 students in interprofessional problem-based learning exercises, and
- involve 250 students in interprofessional clinical experiences.

Collaboration with colleagues involved in Interprofessional Education for Collaborative Patient-Centred Practice (IECPCP) initiatives across the country was an important component of the P-CITE project. Throughout our project we shared, learned and worked with others in order to:

- contribute to a better understanding of best practices around IPE
- build capacity to support collaborative practice, research and IPE
- identify effective local and national processes that could effectively integrate IPE into health professional programs and
- explore issues related to IPE as a determinant of patient/client outcomes.

We have consulted extensively with In-BC, especially in regards to project evaluation, hosted workshops by other IECPCP project leads and participated in two meetings of the Western Canadian IECPCP projects.

In the seven years preceding P-CITE, leaders in education and the health sectors laid the groundwork to support interprofessional patient-centred training of health providers. Across the province, numerous innovative projects were conducted and a strong province-wide collaborative network was built. An inventory created in 2004/2005 listed thirty existing interprofessional education experiences in health sciences in the province. Three examples which demonstrate the range of these projects are the International Interdisciplinary Community-University Student Partnership, the Parkridge Interdisciplinary Practicum Program and the Medicine/Physical Therapy joint Problem-Based Learning classroom sessions.

It has been noted that without the P-CITE project that champions of interprofessional education would have continued to operate these smaller scale projects and change would have happened slowly. P-CITE has served as the catalyst for interprofessional education in Saskatchewan. The funding supported new resources which facilitated existing activities and resulted in significant positive outcomes. The accountability and reporting requirements associated with the funding resulted in evaluation of the individual projects and the overarching P-CITE project. The evaluation results laid the groundwork for the scholarship and dissemination activities which in turn have raised awareness and understanding in other academic settings as well as our own. In short, P-CITE has caused an infusion of energy and created some sustainability for IPE in Saskatchewan.

2.0 Approach

2.1 Committees

P-CITE was coordinated and implemented through a provincial collaboration involving a wide range of community and academic partners involved in the education of health professionals. The P-CITE organizational structure included an Advisory Committee, a Steering Committee, Management Committee, Faculty Development Working Group, Evaluation Working Group and a Proposal Review Working Group (Appendix 1 and 2).

The Advisory Committee met at the beginning of the project and provided overall direction to the Steering Committee by providing guidelines for the identification, development, implementation and evaluation of the funded projects. This committee was chaired by a representative of the Saskatchewan Academic Health Sciences Network (SAHSN).

The purpose of the Steering Committee was to determine strategies and provide direction for developing and delivering interprofessional interaction and learning among health

professional students, faculty, health professionals and communities. Members of the steering committee represented government, health regions, educational institutions and community partners from across Saskatchewan (further information available in Appendix 1).

The Management Committee consisted of the two Co-Chairs (one from the University of Saskatchewan and one from the Saskatoon Health Region), the Chair of the Advisory Committee and the P-CITE Coordinator. The management committee was responsible for the day-to-day administration of the project.

The Evaluation Working Group consisted of representatives from the University of Saskatchewan, the Health Quality Council and two independent consultants experienced in evaluation of health science projects. This committee developed an evaluation strategy for the overarching P-CITE project and, through workshops and resources, facilitated the development of new knowledge related to evaluation. In addition this committee worked with individual projects to develop capacity for evaluation and supported evaluation design, measurement and indicators.

The Faculty Development Working Group has members from the University of Saskatchewan, University of Regina and the Saskatchewan Institute of Applied Science and Technology who represented Medicine, Nursing, Pharmacy, Dental Hygiene and Physical Therapy. This group identified interprofessional competencies required of faculty and health professionals, directed and supported the development of IPE resources for academic and clinical faculty members and increased the number of IPE trained faculty members in the province by hosting numerous workshops.

The Proposal Review Working Group evaluated the submitted proposals and made funding recommendations regarding the interprofessional projects that met the goals of the P-CITE program. This working group was comprised of volunteers from the community and the

university. The quality of each proposal was independently reviewed by at least one community representative and one academic representative. The final decision on award of P-CITE funding was made by the P-CITE Management Committee based on the peer-review results, alignment with P-CITE goals, budget and available funding.

2.2 Distribution of Funding

Calls for proposals were announced to a broad range of individuals throughout the province via email, the website and the InterLINK newsletter (sample in Appendix 11). Proposals were screened by the P-CITE Coordinator and grouped by theme, deliverables and budget requirements. The Management Committee reviewed the projects for eligibility, and alignment with P-CITE deliverables and assigned reviewers to proposals. In keeping with peer review processes issues related to confidentiality, conflict of interest, and ethical review were addressed. Approval of project funding was conditional on ethics review if required. For example many projects underwent review by Behavioural Ethics Committee of the University of Saskatchewan, or the Research Ethics Boards at the University of Regina or Saskatchewan Institute of Applied Science and Technology. A list of funded projects can be found in Appendix 3.

2.3 Evaluation

Using the IECPCP logic model and domains as described by Health Canada, templates for progress reports and final reports for evaluation purposes were designed (Appendix 4). Project leads submitted the progress reports at the mid-point of the funding round and final reports at the conclusion of their respective projects.

These evaluation reports served as the main data source for P-CITE. Aggregate data were reported to Health Canada on a quarterly basis and internal reporting to our stakeholders in Saskatchewan. The results are shown in Section 3 and in Appendix 6 of this report.

Project leads were queried on a regular basis for information not described in their project reports. For example, project leads were asked to identify and describe their evaluation instruments for the Canadian Interprofessional Health Collaborative (CIHC) evaluation subcommittee.

Interviews were conducted with 41 key informants, who were either associated with P-CITE through a project or committee or are senior administrators in educational institutions or government, in May/June 2007 to identify actions or directions that will enhance sustainability of interprofessional education for health science students in Saskatchewan and to identify strategies to disseminate P-CITE results with provincial stakeholders. Further information on these interviews is provided in Section 2.5 below.

2.4 Communication

Along with regular reporting to Health Canada, the progress and achievements of P-CITE were chronicled in a quarterly newsletter called InterLINK, a website (www.pcite.ca) and regular reports to the Steering Committee. Towards the end of the funding period, P-CITE engaged a consultant to draft a dissemination plan for the end of the project (Appendix 8) and a final dissemination document (Appendix 12).

The individual projects funded by P-CITE were encouraged to engage in dissemination and knowledge translation activities. The summary of their activities is further described in Section 3.2.3 and Appendix 5.

P-CITE also supported conference travel for P-CITE project leads and committee members presenting their work at national and international conferences including the 19th IUHPE World Conference on Health Promotion and Health Education (Vancouver, Canada), 2007 Canadian Psychological Association (Ottawa, Canada), 2nd International Conference on

Interdisciplinary Social Sciences (Granada, Spain) , Collaborating Across Borders (Minneapolis, U.S.A) and All Together Better Health III (London, England).

2.5 Working Towards Sustainability

In the final year of P-CITE funding, an external consultant conducted interviews with key informants, as previously mentioned in Section 2.3, regarding the sustainability of P-CITE as a whole or in part. The stakeholders indicated that there was increased optimism that interprofessional education was doable, there was increased awareness of and opportunities for interprofessional education and there was an emerging paradigm or cultural shift towards interprofessional education. Further it was clear that despite significant movement in interprofessional education and collaborative practice that it is still early and the change is not uniformly widespread. These interviews informed a P-CITE sustainability framework consisting of local project, program and planning and decision-making conditions outlined in Table 1. Further information is described in the sustainability strategy in Appendix 7.

The University of Saskatchewan Interprofessional Health Sciences Office (IPHSO) and the Saskatchewan Academic Health Sciences Network (SAHSN) have been working with a consultant to develop a business plan for the continuation of interprofessional activities that have been associated with the P-CITE project. The IPHSO will be the future home of the www.pcite.ca website and will host an inventory of Saskatchewan IPE activities and events. SAHSN may be in a position to provide assistance and funding for continued administrative activities and to assist in the development of a provincial network or collaborative. As well, the South Saskatchewan IPE Committee is committed to continuing the activities initiated out of the University of Regina. All of the groups have expressed an interest in continuing to engage with the CIHC western collaborative. As well, a RefWorks database of literature related to

interprofessional education, collaborative practice and patient-centred care was created (Appendix 9).

Table 1: P-CITE SUSTAINABILITY FRAMEWORK

IPE IN SASKATCHEWAN KEY SUSTAINABILITY CONDITIONS	Respondents perceived as:		
	Action Taken	Action in progress	Potential Action
1. LOCAL PROJECT CONDITIONS			
1.1. Community and Patient Relevance of IPE - Ensure that project issues and actions in IPE are relevant to the needs and concerns of the particular community/patients.	√	√	
1.2. Awareness of and Commitment to IPE - Create more buy-in for IPE, especially at the service delivery level in health care institutions and organizations.			√
1.3. Leadership and Support for IPE - Continue to develop collaborative leadership and support for IPE from health regions, community-based organizations and professions.	√	√	
1.4. Collaborative IPE Partnerships - Continue to build partnerships, linkages and collaboration around IPE initiatives between different professions/ faculties, health regions and community-based organizations. - Provide in-service in IPE and work with already trained professionals in the field who will be mentoring new health science graduates.	√	√	√
1.5. IPE and IP Teams - Move IPE forward by linking with health systems issues to secure funding within the existing health service delivery system (i.e. Quality Improvement and Patient Safety). - Increase the focus on IPE and IP teams; start with small, well-defined projects or initiatives in working as an IP team. - Link with primary health care team facilitators in each regional health authority to support IPE initiatives throughout SK.		√	√ √
1.6. Key Champions for IPE - Nurture and cultivate active, visible leaders/champions in IPE in post secondary institutions, health regions and community-based organizations.	√		
2. PROGRAM CONDITIONS			
2.1. IPE Resources / Skills - Develop and share tools, templates and resources to perpetuate IPE. Invest in training for IPE skills to sustain IPE.		√	
2.2. Celebrate Success / Disseminate P-CITE Findings and Products - Document, promote and celebrate P-CITE successes before it ends to increase community and academic engagement and increase the likelihood that some of the IPE initiatives will live on in some form. Share P-CITE 'products' and IPE key learnings broadly to	√		√

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students, faculty, health care regions and health care administrators in SK. Develop a website with a structured, interpreted inventory or database. Create a video; develop and widely disseminate print materials.		√	
2.3. Evaluation Feedback and Outcomes - Provide key IPE evaluation findings from P-CITE as an evidence-base to stimulate increased IPE activity and next steps in IPE.		√	
2.4. Characteristics of Successful IPE Projects - Identify the characteristics of IPE projects that are most likely to succeed in a future environment and implementation.			√
2.5. IPE Challenges - Work on the challenges around IPE time related to time and recognition (credit and time release), workload, scheduling, and evidenced-based approaches in order to increase faculty involvement.			√
2.6. Best Practices in IPE - Figure out and identify best practices / lessons learned in IPE and how to sustain high quality projects and programs. Sort out what works best with a collaborative, interdisciplinary or IPE approach and what areas works best with a discipline-specific approach.			√ √
2.7. Link with the Canadian Interprofessional Health Collaborative - Collaborate and develop strong linkages with the CIHC to sustain the IPE work done by P-CITE projects after project funding ends. Share P-CITE findings and lessons learned within the broader CIHC framework.	√		√
3. PLANNING and DECISION-MAKING CONDITIONS			
3.1. Embed IPE in Policy and Structural Changes - Continue work to embed IPE in accreditation standards, integrated plans and curricula of all health and human service programs.	√	√	√
3.2. Government Support for IPE - Continue and increase support, endorsement and partnerships for IPE at the government level.	√		
3.3. Funding Structures for IPE - Identify funding structures and mechanisms for long-term maintenance to facilitate IPE and IP practice.			√
3.4. Logistics of IPE - Tackle the logistics of doing IPE because it is the single most important barrier to interprofessional education in terms of curriculum, scheduling and space to facilitate interprofessional education opportunities.	√	√	√
3.5. IPE Clinical Practicum Experiences Take on the complex and difficult challenge of arranging and increasing interprofessional clinical and practicum experiences in clinical settings throughout Saskatchewan.			√
3.6. Support Networks/Mechanisms for IPE			

<p>Create a provincial organization or network to support IPE education across the province, for example, similar to the emerging South Saskatchewan Interprofessional Education Committee.</p> <p>Support the Interprofessional Health Sciences Office at the University of Saskatchewan to take preliminary action on the issue of sustainability.</p> <p>Build linkages with the Saskatchewan Academic Health Sciences Network to provide support and a forum to keep a province-wide focus on IPE.</p>		<p>√</p> <p>√</p> <p>√</p>	
<p>3.7. Centralized Administration, Coordination and Support for IPE</p> <p>Explore the potential of a shared position, collaborative effort or infra-structure between the Interprofessional Health Science Office and the Saskatchewan Academic Health Sciences Network (SAHSN) to provide centralized administration, support and coordination for IPE on a provincial level.</p>		<p>√</p>	

3.0 Key Findings

3.1 P-CITE Deliverables

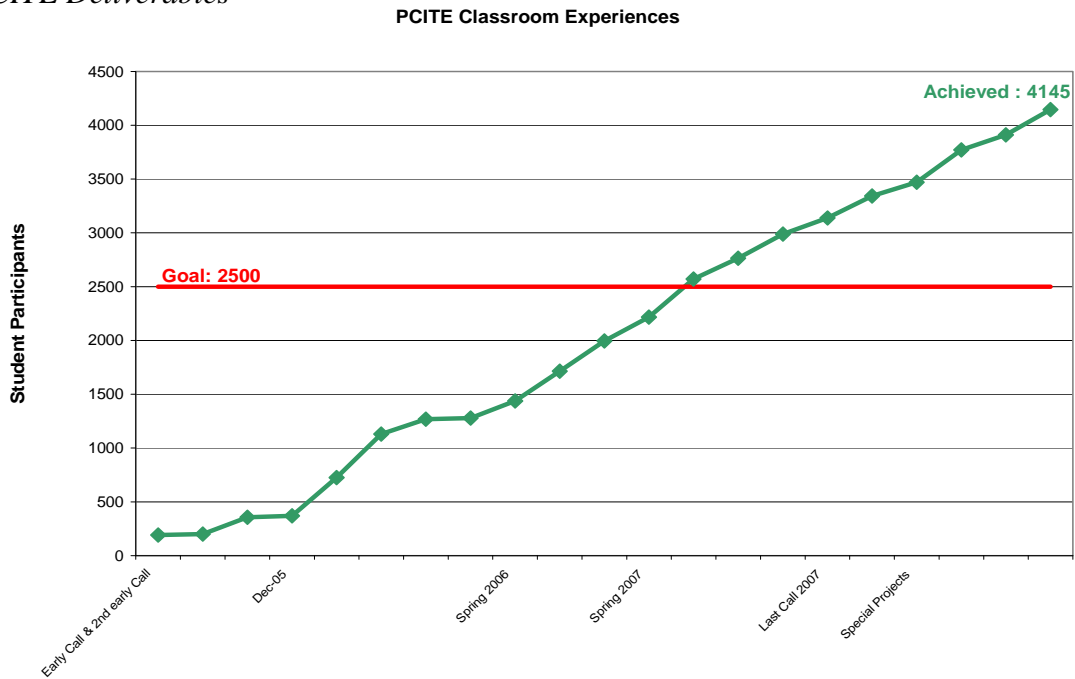


Figure 1: P-CITE offered 4145 interprofessional classroom experiences to students, surpassing the goal of 2500.

Patient-Centred Interprofessional Team Experiences (P-CITE)

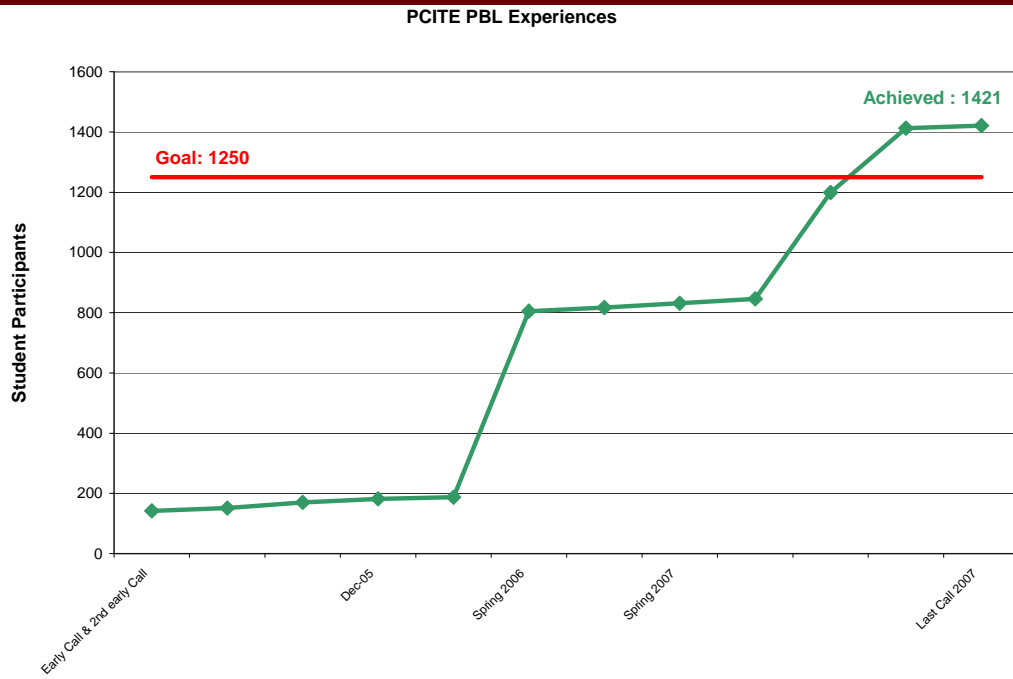


Figure 2: The deliverable of 1250 interprofessional PBL experiences was achieved.

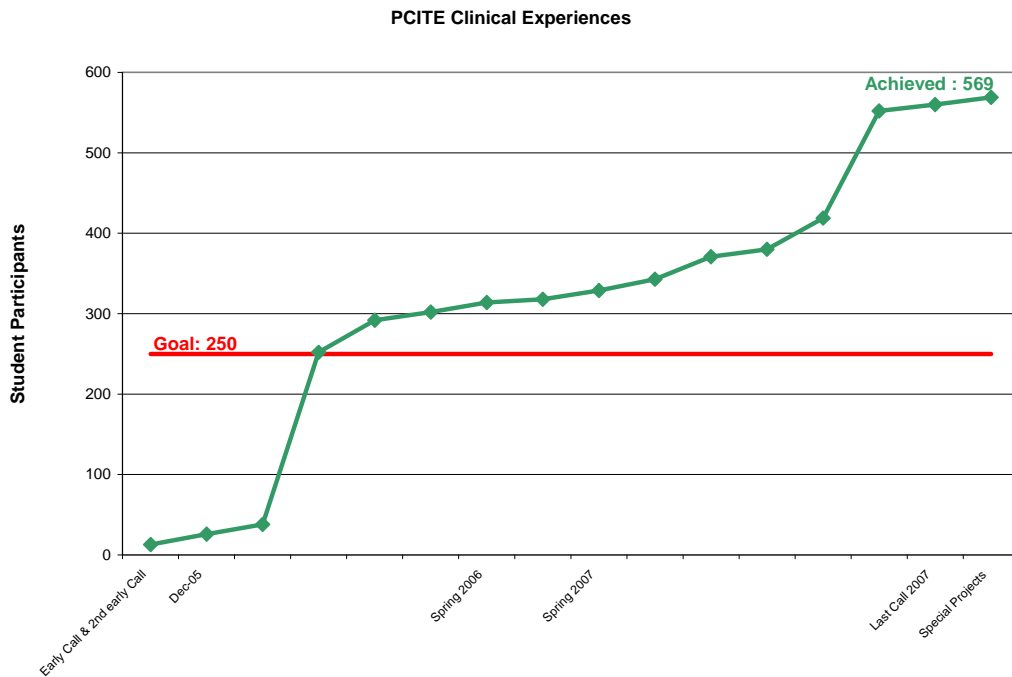


Figure 3: P-CITE delivered 569 interprofessional clinical experiences, more than double the goal of 250.

In all cases, the goals were surpassed. P-CITE student participants were drawn from 29 programs at 4 different educational institutions: First Nations University of Canada, Saskatchewan Institute of Applied Science and Technology (SIAST), University of Regina and the University of Saskatchewan. Project leads were from: Saskatchewan Rivers School Division, Saskatoon Catholic School Division, Student Wellness Initiative Toward Community Health (SWITCH), International Interdisciplinary Community-University Student Partnership (IICUSP), Regina Qu’Appelle Health Region and various educational programs at the University of Saskatchewan, University of Regina and SIAST.

3.2 Performance Measures

In addition to our own deliverables, P-CITE evaluated a number of performance measures identified by Health Canada using data collected through evaluation of the individual P-CITE projects and key informant interviews. Our success on those measures is described in the following sections.

3.2.1 Interprofessional Tools, Modules and Models Developed during P-CITE

A total of 42 new interprofessional educational modules and 39 new interprofessional tools were developed or are in the process of being developed at the end of the funding period (March 2008). As well, 27 interprofessional “best practices” have been or are in the process of being identified or developed.

Table 2: New Interprofessional Modules and Tools Developed and Best Practices Identified

n=47	In Progress	Completed	Total
Number of new interprofessional educational modules developed	15	27	42
Number of new interprofessional tools developed	15	24	39
Number of interprofessional “best practices” identified/developed	12	15	27
Total Number Developed	42	66	108

3.2.2 Alternatives and Cost Effectiveness

There has been no overlap identified between P-CITE and any other federal, provincial/territorial and regional/local programs and initiatives.

In-Kind Contributions

The total in-kind contributions made to P-CITE over the funding period totalled \$588, 034. The distribution of the contributions is indicated below.

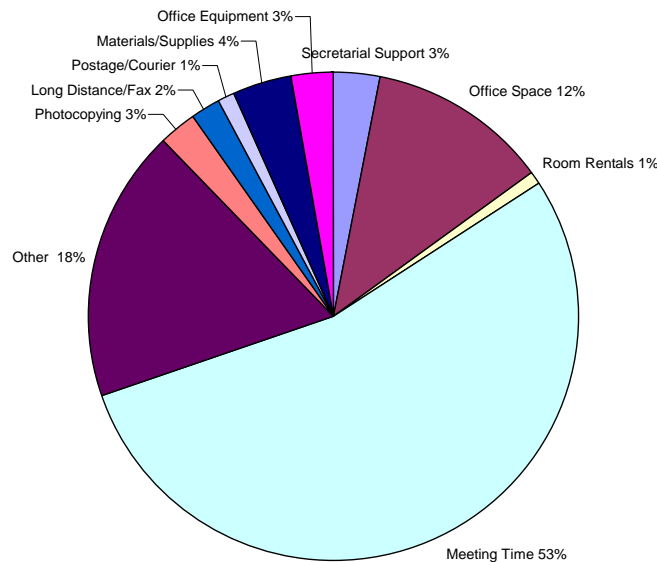


Figure 4: Distribution of In-Kind Contributions Made to P-CITE

3.2.3 Awareness of the Benefits of Using IP Teams

Projects used a scale with a range of one to ten to estimate the level of awareness of the benefits of using interprofessional teams and the understanding of best practices in interprofessional education and/or collaborative practice. During the course of P-CITE funded projects, various groups associated with the project (students, educators, health care providers, external stakeholders, and patients) were assessed. 40 projects reported on the level of awareness at the start of their projects and 34 projects reported on the level of awareness at the

end of their project as some data analysis is currently being completed. For each group in each project, the level of awareness and understanding increased over the course of the project.

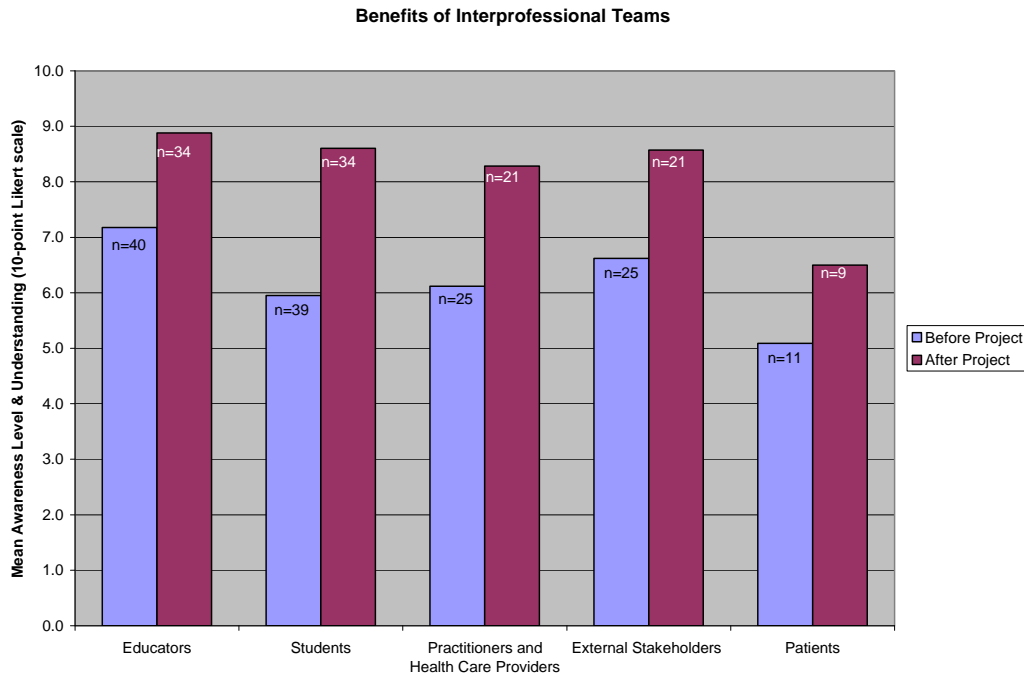


Figure 5: The Level of Awareness of the Benefits of Using Interprofessional Teams
Best Practices in IPE and/or CP

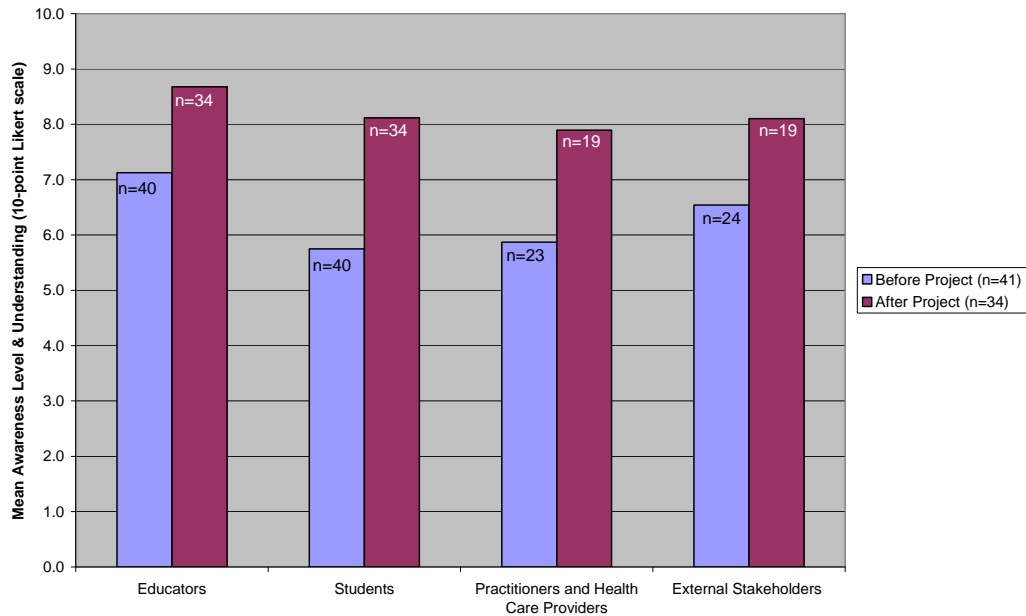


Figure 6: The level of awareness and understanding of best practices in interprofessional education and collaborative practice.

Key messages from stakeholder interviews regarding awareness and support

P-CITE was a main catalyst in the province for interprofessional education, resulting in:

- Key government departments supporting interprofessional education.
- Increased leadership and support for interprofessional education from health regions, community-based organizations and professions.
- Marked increase in awareness of interprofessional education for health science students among faculty and students.
- Increased opportunities for and implementation of interprofessional education activities for health science students and faculty, as well as increased clinical and community opportunities.
- Increased partnerships, linkages, collaboration and buy-in around interprofessional education initiatives, moving toward non-traditional partnering and interprofessional activities.
- Increased faculty experience, capacity and research in interprofessional education generating new knowledge; identification of challenges around interprofessional education related to time and recognition, workload, scheduling, and evidence-based approaches.
- Increased inclusiveness and strengthening of connections between different professions/faculties, health regions and community-based organizations working in interprofessional education, especially increased community inclusion and involvement.
- New groups emerging and ways of working collaboratively together, for example the South Saskatchewan Interprofessional Education Committee.

- Addressing the underlying threads of skepticism that interprofessional education is ‘just another fad’ or that it ‘was not new’, it has taken 30 years to build to where it is today.
- **Emerging paradigm or cultural shift toward interprofessional education.**

Dissemination Activities

P-CITE promoted the benefits of interprofessional teams through a number of dissemination activities as indicated in the chart and examples in Appendix 5. These activities were initiated by both P-CITE committees and projects.

3.2.4 Capacity and Adoption

P-CITE undertook a number of activities designed to increase the number of health professionals and educators prepared to teach and precept interprofessional teams. The Faculty Development Working Group held eighteen workshops and training events on topics such as introduction to interprofessional education, problem-based learning tutor training, quality improvement training and clinical assessment, especially in interprofessional settings, that involved a total of 311 participants. They have also compiled a list of resources on interprofessional education. Additional information on work done by the Faculty Development Working Group can be found in Appendix 10.

A total of 706 educators, 731 health care providers and 271 external stakeholders participated in clinical, problem-based learning, classroom and orientation experiences associated with interprofessional education projects funded by P-CITE.

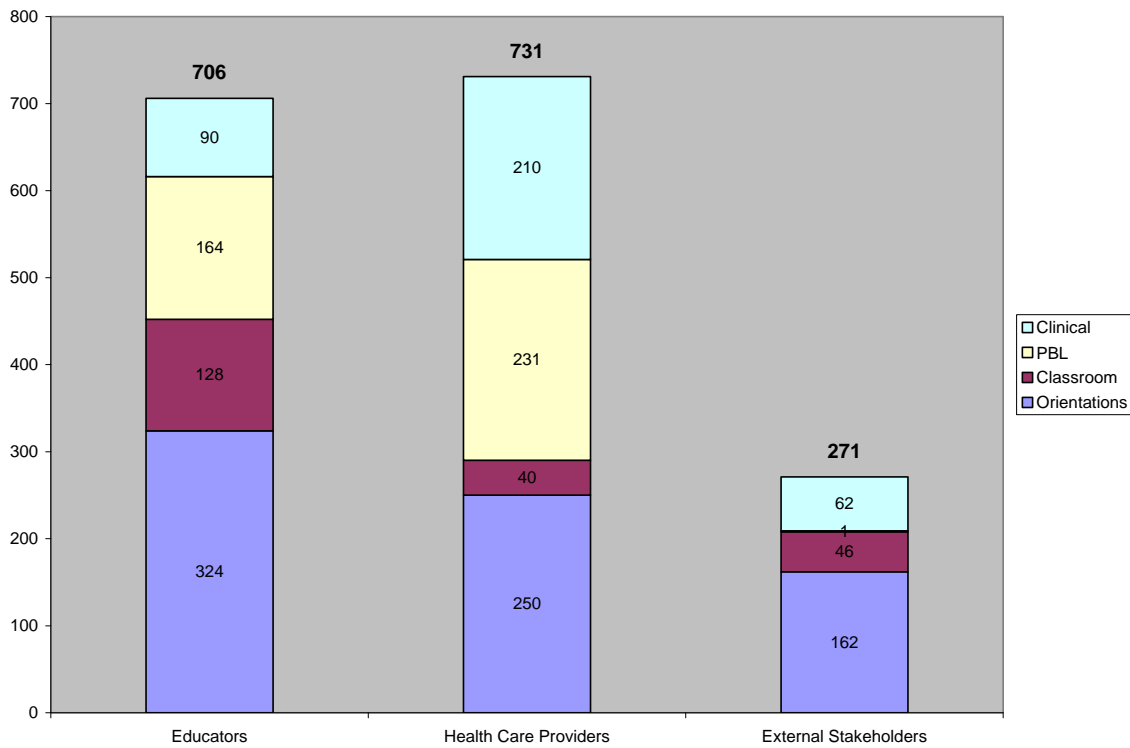


Figure 7: Distribution of educators, health care providers and external stakeholders in clinical, problem-based learning, classroom and orientation experiences associated with P-CITE funded interprofessional education projects.

3.2.5 Achievement of P-CITE Overarching Aims

P-CITE funded projects estimated the degree to which their project addressed/achieved P-CITE overarching aims related to (i) interprofessional education (ii) collaborative practice (iii) patient centered care. These domains were established at the onset of P-CITE to facilitate the program evaluation. Over 84% of projects identified partial or full achievement of the aims related to interprofessional education, over 78% of projects partially or fully achieved the aims related to collaborative practice and over 70% of projects reported partial or full achievement of the aims related to patient-centred care (Appendix 6).

3.3 Facilitating Factors

P-CITE's facilitating factors can be summarized as commitment, knowledge and multi-disciplinary teams. P-CITE has benefited from champions in educational institutions, health

regions, community and government. The multi-disciplinary steering committee brought together stakeholders from different knowledge bases and experiences to create clear, definable goals and guidance for the project. Faculty at the four educational institutions had a pre-existing knowledge base around interprofessional education, were open to new ideas and were interested in interdisciplinary, community-based learning. Community-based organizations were already active in programs that address the social determinants of health in Saskatoon's core neighbourhoods and dedicated and highly committed individuals from those organizations, who believe in experiential learning, have donated time and energy to share their knowledge, experiences and approaches with university students. Students have taken an active and lively interest in interdisciplinary service learning and community engagement. Students, faculty and community-based organizations have demonstrated commitment and other intrinsic, interpersonal qualities such as patience, appropriate assertiveness, flexibility, respectfulness, humour, warmth and caring which have been critical for P-CITE's success.

3.4 Examples of P-CITE Funded Projects

Student Wellness Initiative Toward Community Health

SWITCH is a student-managed inter-professional wellness centre that provides after-hours primary health care, traditional Aboriginal healing and promotional health programs to residents of Saskatoon's core neighbourhoods. SWITCH currently operates two four-hour shifts per week (Wednesdays, 5-9pm and Saturdays, 10:30am-2:30pm) year-round to provide clinical, social and programming services to fill some of the gaps and lower some of the access barriers to health care for adults and children of Saskatoon's west side, a significant number of whom are First Nations or Métis people. Services are offered from the Westside Clinic (WSC) and other locations as needed.

Students from medicine, nursing, clinical psychology, social work, physical therapy, kinesiology, pharmacy, nutrition, public health, dentistry and arts and sciences from three Saskatchewan universities volunteer alongside a professional staff of faculty and other professionals as well as other advisors to provide interprofessional health care. Clients gain from being able to access several different health disciplines in one location; students gain from a creative yet practical experience they can gain no where else and professionals gain knowledge about how to provide better interprofessional service and knowledge to their existing clients, students and agencies. Students, professionals and clients all gain from working alongside each other to effect the best health care possible for our clients.

Understanding the Early Years

The goal of this project was to improve health, well-being and competence outcomes of young children and their families by using a more collaborative approach that targeted interprofessional learning, practice and ongoing professional development. Using a social determinant of health perspective, the project team (which brought together practitioners, managers, preceptors, community-based organizations, government line departments, University faculty and front-line personnel) developed a range of acute care and community placements that enabled students to experience the Social Safety Net that exists in Prince Albert. This, ultimately, would enable the students to develop a multi-faceted understanding of clients' strengths, challenges, needs, resources and opportunities. The project brought together students in medicine, nursing and pharmacy for common experiences, such as an Addictions mini-course, ridealongs with the Prince Albert Police Service and Parkland Ambulance and a joint field trip to agencies of the Social Services network. Students also participated in focused experiences related to their professions. For example, Pharmacy students experienced a community placement with an emphasis on Developmental Trajectories and Addictions in which they were placed in a high

school, with the Prince Albert Police Foot Patrol, the Methadone Program, several correctional centres and the youth inpatient mental health unit.

Using a Quality Improvement Framework

Through a partnership with the province's Health Quality Council, this project developed and evaluated curriculum content designed to foster interprofessional skills through the use of a quality improvement (QI) framework. Students from nursing, nutrition, pharmacy, and physical therapy received a unidisciplinary introduction to QI theory and methods and then came together to work in interprofessional QI teams. Students were provided with the anonymized data of a provincial Patient Experiences in Acute Care survey and were tasked with understanding the root causes of less than optimal discharge experiences for their patients. As a team they analyzed the data, chose priorities for improvement, and developed a strategy to initiate and monitor their improvement project, including their first small test of change. The project built a strong relationship between the province's learning institutions and the Health Quality Council and initiated a faculty development program aimed at increasing knowledge and skills with QI methodology.

Ranch Ehrlo

Over the course of a semester, practicum students from Nursing, Justice Studies, Education, Kinesiology & Health Studies and Social Work were mentored by professionals from Ranch Ehrlo who work with a common group of children & youth. The goals of the project were to broaden the students' exposure to other professions, develop interprofessional skills necessary to function in an interprofessional context, develop the skills necessary for problem-solving and decision-making in groups and identify best practices that serve to overcome barriers and create sustainable interprofessional partnerships. Weekly seminars with a faculty member encouraged the students to discuss their experiences, identify challenges and learn from approaches of

various disciplines and to design and implement appropriate intervention strategies. Four half-day workshops, facilitated by academic staff and field supervisors, challenged students to investigate the complexities of interprofessional practices related to underlying clinical issues, program and service delivery issues, interprofessional issues, and systemic issues. Through their engagement in real-life problem-based intervention practice, students discussed the implications for their own practice.

3.5 Methods of Evaluation

P-CITE's Evaluation Working Group developed a questionnaire for projects that addressed various aspects of project implementation and outcomes. It included in-kind contributions, dissemination activities, participation by students, educators, health care providers and stakeholders, ability to address P-CITE's overarching goals among other items. The template can be found in Appendix 4.

Individual projects evaluated their outcomes separately such as quality determination of care plans, RIPL, student satisfaction, other examples,

P-CITE hired an external consultant to conduct key stakeholder interviews of individuals either involved with a P-CITE committee or project or in a leadership position in the education or government. The interviews provided data on awareness levels and sustainability strategies around P-CITE and interprofessional education. The work performed by the consultant directly informed the sustainability and dissemination of final results strategies found in Appendix 7 and 8 respectively.

3.6 Examples of Lessons Learned

Accountability through an Appropriate P-CITE Structure

- Joint Co-chairs representing education and community/practice provided a united front to promote IPE.
 - Engaged both practice and academic leaders
- Strong Administration: hiring full time coordinator provided smooth day to day operations of project and having dedicated coordinators to support faculty development and evaluation aspects of the overall project were critical to achieving outcomes
 - Infrastructure in place to support a complex project.
- Committed committees (steering, management, faculty development and evaluation): individuals from many sectors – health, government, education, community.
- Engaged government representatives who have an excellent understanding of P-CITE.
- Funding for the development of IPE projects, in conjunction with a growing movement to IPE, was critical
- Faculty development was a key initiative intended to affect cultural change
- Expertise of members of committees and projects:
 - Enhanced credibility, generated high quality work, contributed to increased knowledge in IPE.

Call for proposals

- 2 reviewers for each proposal assisted in aligning projects within academic and community priorities in IPE
- Fair and transparent structure encouraging collaboration and development of high quality practical projects
- Ethics submissions were required for the respectful implementation of projects and the facilitation of scholarship related to projects.

- IPE research can involve more complex processes due to the multiple stakeholders and requires time for development and review.
- Continued work to develop appropriate ethic review processes for these types of projects
- Done over the life of the project so spread out deliverables, finances and workload. Also allowed individual projects to build upon previous work.
- Large number of projects to manage and evaluate but tremendous output for short period of time

Provincial Nature of Project

- Provincial approach to IPE: included both academic institutions and the health regions.
 - Must be aware that different environments are at different stages of readiness so must be prepared to take opportunities as they arise.
 - Practice environments supporting IPE are limited in numbers. Need to establish appropriate environments and resources to support IPE in practice settings.
 - Need buy in by high level decision makers. Must engage policy makers and decision makers early on.
 - Having the support of the Saskatchewan Academic Health Sciences Network (SAHSN) from the beginning and requests from the Board for regular updates showed the commitment and the interest in IPE by important policy makers in the province.
 - Direct government involvement at early stages of development and implementation of project was extremely helpful to show interest in IPE of policy makers.

- Sensitivity to being located within one academic institution while projects occur across the province within several institutions
- Large number of varying and diverse projects to manage

Linking with IECPCP projects

- Built evaluation tools on work completed by IN-BC
- Several IECPCP colleagues assisted with P-CITE workshops
- Active involvement with CIHC committees and Western Regional collaborative. Many P-CITE committee members are represented on CIHC committees building collaborative partnerships. There is the potential to build regional sustainability strategies.
- Allowed P-CITE to build upon national momentum

Communication/Dissemination

- INTERlink newsletter distributed quarterly highlighted current and upcoming activities
- P-CITE website initiated early in project
- Champions within our committees and the community to facilitate province wide involvement and communication
- P-CITE workshops provided a venue for showcasing of IPE work occurring across the province.
 - Provided early evidence that showed the benefits of IP. Supported the momentum of the project.

Sustainability

- Communities are interested in activities that will continue to build on momentum and ensure that IPE is embedded in health education programs and that practice settings provide environments that support collaborative practice

- There may be structures such as the Saskatchewan Academic Health Science Network that can take on future role related to facilitating IPE and collaborative practice in the province.
- As P-CITE concludes there is interest in developing a two pronged sustainable provincial structure: one umbrella organization able to seek sponsorship and have a voice at the decision making tables of provincial academic institutions and health regions. The second would be a grassroots membership network for individuals interested in sharing ideas and working on IPE projects.

4.0 Conclusions and Recommendations

1. Financial resources are necessary for the implementation of quality learning experiences
2. Proximity among health science professional students facilitates learning experiences
3. Support for team-based collaborative practice in health care settings is necessary to change the culture of the workplace – support at all levels of government and institutions for the philosophy and practice of interprofessional collaboration
4. Development of understanding and skills related to IPE by faculty, care providers and administrators are necessary to support the integration of interprofessional collaboration in health care.
5. Continued development of the evidence-base that supports an understanding of how and to what degree interprofessional collaboration impacts quality of care and outcomes is necessary and should inform the development of tools used in evaluation of these initiatives.