Canadian Interprofessional Health Collaborative
Consortium pancanadien pour l'interprofessionnalisme en santé

learning to work together, working to learn together

Canadian Interprofessional Health Collaborative: Evaluation Sub-Committee

MARCH 2008

INTERIM REPORT

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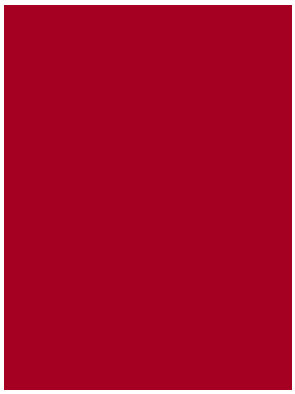

Acknowledgements

The authors would like to thank Judith McFetridge-Durdle, Ruby Grymonpre and the Members of the Evaluation Sub-Committee for their support, collaboration and cooperation on this project. We want to express our appreciation to Brenda Sawatzky-Girling and John Gilbert from the Canadian Interprofessional Health Collaborative and Larry Chambers from Élisabeth Bruyère Research Institute for organizing the CIHC Research Workshop on interprofessional education for collaborative patient-centred practice (IECPCP) in November 2006, where this project initiated. Finally, the members of the Evaluation Sub-Committee would like to thank the Principal Investigators and all the members of the 20 Health Canada projects for allowing us to review their proposals as well as Health Canada for their support of this project.

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Executive Summary

As part of its mandate, the CIHC Evaluation Sub-Committee commissioned a review of the 20 IECPCP project proposals to ascertain their evaluation practices with the intent of informing future evaluations of interprofessional education for collaborative patient-centred practice.

Step 1: A comprehensive review of the 20 Health Canada funded IECPCP project proposals' evaluation plans

This review of the 20 IECPCP proposals was based on a previous review in 2006 in which 18 of the 20 projects participated in a survey regarding the design and proposed instruments for their evaluation strategies. The current review (January 2007) augmented the 2006 data and provided comparative summaries of the various evaluation elements in the proposals.

Five tables were created to portray the data from the proposed evaluation strategies:

TABLE 1 – SUMMARY OF PROJECTS AND PROPOSED EVALUATION INSTRUMENTS — summarizes the project titles, project locations, and the evaluation instruments proposed for use in each project.

TABLE 2 – SUMMARY OF PROPOSED EVALUATION INSTRUMENTS — summarizes the evaluation instruments proposed for use in the projects and highlights whether the same instrument was being proposed in multiple projects.

TABLE 3 – EVALUATION INSTRUMENT REFERENCES — provides references for instruments that were in existence prior to the project and/or had been previously published.

TABLE 4 – SUMMARY OF IECPCP PROJECTS — summarizes the purpose of the projects and highlights common words or phrases used in the statement of purpose for each project.

TABLE 5 – SUMMARY OF EVALUATION FRAMEWORKS — summarizes the evaluation frameworks used in the 20 projects.

Step 2: Creating an Interactive D'Amour and Oandasan (2005) framework

This step entailed expanding the information in the D'Amour and Oandasan framework by defining each of the variables in the diagram and creating an interactive online model - by mousing over each of the 22 variables in the model, the definition pops up. A table with the definitions is included in this report. Where possible, the definitions were based on descriptions found in the D'Amour and Oandasan article (2005).

Step 3: Synthesis and Analysis of Comprehensive Review

Most of the 20 projects indicated a mixed methods approach using both qualitative and quantitative research methods. Many planned a pre-post test design. The Kirkpatrick model (or a derivative) of educational evaluation was to be followed by eight of the 20 projects. Others planned to follow a results-based logic model (7), the D'Amour & Oandasan framework (2), utilization focused evaluation (1), responsive evaluation (1), theory-driven evaluation (1), staged innovation design (1), Stufflebeam's model (1), and Solomon's model (1).

Conclusions and Next Steps

The analysis of the proposals for this report underscores the projects' requirements for a variety of evaluation tools and outcome measures that capture the range of experiences, contexts, audiences, and sensitivity to cultural and local situations.

A follow-up study is planned to identify the actual (as opposed to proposed) evaluation instruments used in the projects. It would be of further interest to see if they align with variables within their evaluation frameworks and if comparisons can be made across projects using common evaluation instruments.

"If we carry on thinking we know how to do it, we will keep getting exactly what we have now"

(participant in the breakout session at the inaugural meeting)

Purpose

The mandate of the CIHC Evaluation Sub-Committee is to provide leadership in the development and implementation of an overall strategy to support and promote collaboration and knowledge exchange concerning evaluation across the Health Canada funded Interprofessional Education for Collaborative Patient-Centred Practice (IECPCP) projects. This report presents the findings of the following three steps carried out towards reaching this mandate.

Step 1: A comprehensive review of the 20 Health Canada funded IECPCP project proposals' evaluation plans

A comprehensive review of the 20 Health Canada funded IECPCP project proposals was conducted to extend the findings from the *Working Together for Research Workshop Research Measures Template*. These templates contained substantive information about the evaluation designs and instruments for the projects. The purpose of the review was to:

- Produce a report that can be used as a mechanism for discussion to share information across the IECPCP projects;
- Produce a comprehensive review of the proposed evaluation activities across the IECPCP projects; and
- Identify and organize evaluation topics, evaluation designs, and evaluation instruments utilized in each project to facilitate communication and collaboration.

Step 2: Creating an Interactive D'Amour and Oandasan (2005) framework

An interactive version of the work entitled, Interprofessional Education for Collaborative Patient-Centred Practice: An Evolving Framework (D'Amour and Oandasan (2005)) was developed by linking the variables contained in this framework to variable definitions.

Step 3: Synthesis and Analysis of Comprehensive Review

"Good" evaluation practices utilized in the projects were identified and discussed in order to inform future evaluation of IECPCP.

Step 1: A comprehensive review of the 20 Health Canada funded IECPCP project proposals' evaluation plans

PROCESS: ANALYSIS OF PROPOSALS' EVALUATION PLANS

Building Upon the Research Measures Template Findings

In November 2006, 18 of the 20 Health Canada IECPCP project *Working Together for Research Workshop Research Measures Templates* were analyzed. These templates contained substantive information about the evaluation design and instruments proposed in the projects. A series of tables were developed to display this information and identify common elements between the projects.

In January 2007, when the proposals for all 20 Health Canada funded IECPCP projects were made available on the CIHC website, a comprehensive review of the 20 project proposals was conducted. The purpose of this review was to build on the findings from the *Research Measures Template*, fill in any gaps in the existing tables, and provide comparative summaries of the various evaluation elements in the proposals. Specifically, the review was designed to identify and organize evaluation topics, designs, frameworks, as well as instruments utilized in each project.

FINDINGS: ANALYSIS OF PROPOSALS' EVALUATION PLANS

The review of the project proposals provided additional information about the evaluation strategies proposed in the projects and allowed the initial tables to be updated. As a result of reviewing the proposals, 15 new instruments were added. Five tables were developed.

TABLE 1 – SUMMARY OF PROJECTS AND PROPOSED EVALUATION INSTRUMENTS — summarizes the project titles, project locations, and the evaluation instruments proposed for use in each project. The table highlights the number of different evaluation instruments proposed for use in each project. Each instrument was assigned an identification number, which is included in parentheses following the name of the instrument.

TABLE 2 – SUMMARY OF PROPOSED EVALUATION INSTRUMENTS — summarizes the evaluation instruments proposed for use in the projects and highlights whether the same instrument was being proposed in multiple projects. The purpose of the instrument was noted (when available), as well as the project location and whether the instruments were designed to collect quantitative or qualitative data or a combination of both. In some cases, the type of data the instrument was designed to collect was inferred from the description if it was not clearly stated in the template. A total of 64 instruments were identified: 49 from the templates and an additional 15 from the review of the proposals. Although considered to be a type of instrument, focus groups, structured interviews, participant observation etc. were each counted as a single instrument even though the content of these instruments might be different across projects. Conversely, each questionnaire was counted as a separate instrument, even though they may be considered the same type of instrument.

TABLE 3 – EVALUATION INSTRUMENT REFERENCES —provides references for instruments that were in existence prior to the project and/or had been previously published. Some of the proposals indicate the instruments will be used in their original form while others will be adapted to meet the specific needs of the project.

TABLE 4 – SUMMARY OF IECPCP PROJECTS — summarizes the purpose of the projects and highlights common words or phrases used in the statement of purpose for each project. This table allows common themes to be identified in terms of audience, content, and/or content being evaluated.

TABLE 5 – SUMMARY OF EVALUATION FRAMEWORKS — summarizes the evaluation frameworks used in the 20 projects. Seven of the evaluation frameworks were based on one of Kirkpatrick's models. Another 7 of the projects proposed a generic evaluation process following a results-based logic model combining input, activity, output, short-term outcomes, and long-term outcomes. Thirteen different models and evaluation processes were identified. The number of projects sharing the same model or reference is identified in parentheses. The models include:

1. Kirkpatrick's (1998) model (2)
2. Utilization focused evaluation (Patton, 1997) (1)
3. Responsive evaluation (Stake, 2004) (1)
4. Theory-driven evaluation (Donaldson, 2003) (1)
5. Results-based logic models (7)
6. Kirkpatrick's (1967) model, as modified by Freeth, Hammick, Koppel, Reeves and Barr (2002) (3)
7. Evaluation model consistent with D'Amour and Oandasan (2004) (2)
8. Kirkpatrick's (1994) model (1)
9. Staged Innovation Design (Wagner, 1984) (1)
10. Stufflebeam's (1983) CIPP model (1)
11. Solomon et al (2003) (1)
12. Kirkpatrick's (1969) model (1)
13. Guskey's (2001) model (1)

TABLE 1. SUMMARY OF PROJECTS AND PROPOSED EVALUATION INSTRUMENTS

Project Title	Location	Proposed Instrument (Instrument Number – Table 2)
1. Creating an Interprofessional Learning Environment through Communities of Practice: An Alternative to Traditional Preceptorship	Esther Suter Calgary Health Region	▪ Focus group (25) ▪ Individual interviews (26) ▪ Interim Interprofessional Questionnaire (IIQ) (18) ▪ Relational Coordination Evaluation tool (19) ▪ Document Review (24) ▪ Team Anomie Scale (58) ▪ Communities of Practice tool (59) ▪ TOSCE (60) ▪ *Human Systems Dynamics* (the following) (49): – Same/Different – Maturity Model of Change (adapted for the project) – CDE Model – Decision Map – Landscape Diagram
2. Structuring Communication Relationship for Interprofessional Teamwork (SCRIPT)	Ivy Oandasan University of Toronto	▪ Readmission and Length of Stay (6) ▪ Collaboration Survey (7) ▪ Patient Satisfaction (8) ▪ Quality of Communication (9)
3. Queen's University Inter-Professional Patient-centered Education Direction (QUIPPED)	Jennifer Medves Queen's University	▪ Interdisciplinary Education Perception Scale (IEPS) (5) ▪ Readiness for Interprofessional Learning Scale (RIPLS) (14) ▪ Web-based Survey (61) ▪ E-Delphi (email surveys)(62)

Project Title	Location	Proposed Instrument (Instrument Number – Table 2)
4. Collaborating for Education and Practice: An Interprofessional Education Strategy for Newfoundland and Labrador	Dennis Sharpe Vernon Curran Memorial University of Newfoundland	▪ Interprofessional education learning block (1) ▪ Attitudes towards interprofessional health care teams (2) ▪ Attitudes towards interprofessional learning in the academic setting (3) ▪ Attitudes toward interprofessional education (RIPLS) (4) ▪ Focus Groups (25)
5. Interprofessional Education for Geriatric Care (IEGC)	Ruby Grymonpre University of Manitoba, Faculty of Pharmacy	▪ Team Observation Scale (23) ▪ Client Interview Questions (26) ▪ Clinical Team Focus Group Questions (25) ▪ Clinical Team Evaluation Post Experiential Block (32) ▪ Clinical Team Evaluation Post IEGC Program (33) ▪ IEGC Diary Sheet (28) ▪ Faculty Evaluation Post IEGC Program (34) ▪ Faculty Reflective Exercise Post IEGC Program (35) ▪ GITT Entry and Exit Questionnaires (2) ▪ Key Informant Interview Questions (36) ▪ IEGC Knowledge Questionnaire (37) ▪ Personnel Audit (38) ▪ Steering Committee Standardized Questions (39) ▪ Student Evaluation Post IEGC Experiential Block (40) ▪ Student Focus Group Questions (25) ▪ Student Journal Exercise (28) ▪ Student Reflective Exercise IEGC Project 6 month Follow-Up (41)
6. Patient-Centered Interprofessional Team Experiences P-CITE	Liz Harrison University of Saskatchewan	▪ Progress/Final Evaluation Template (20)

Project Title	Location	Proposed Instrument (Instrument Number – Table 2)
7. Patient-Centered Care: Better Training for Better Collaboration, Laval University	Andre Bilodeau Laval University	▪ Multiprofessional Shared Learning (42) ▪ Questionnaire on skill acquisition (43) ▪ Interviews (26)
8. The McGill Educational Initiative on Interprofessional Collaboration: Partnerships for Patient and Family-Centered Practice	Margaret Purden David Fleiszer McGill University	▪ IPRQ: Interprofessional Reciprocity Pre-Questionnaire (5) ▪ St-Knowledge Questionnaire (12) ▪ Interprofessional Group Work Questionnaire (13) ▪ Semi-structured interviews (26) ▪ Observation (27) ▪ Journal (28)
9. Building Capacity and Fostering System Change, Interprofessional Network of BC (In-BC: Assess)	Grant Charles Lesley Bainbridge Grace Mickelson College of Health Disciplines, UBC	▪ Key Features Case Study (44) ▪ Questionnaires (54) ▪ Focus Groups (25) ▪ Structured Interviews (26) ▪ Video Observation (55) ▪ Self Report (28) ▪ Discourse Analysis (56) ▪ Story telling (57)
10. Institute of Interprofessional Health Sciences Education, Council of Ontario Universities	Patty Solomon Council of Ontario Universities	▪ Student feedback form (30) ▪ Focus Groups (25) ▪ Interdisciplinary Education Perception Scale (IEPS) (5) ▪ Attitudes Towards Healthcare Teams (2) ▪ Collaboration and Satisfaction about Care Decisions (21) ▪ Project Evaluation form (31) ▪ Performance Role Conflict Questionnaire (22) ▪ Structured Interviews (26)

Project Title	Location	Proposed Instrument (Instrument Number – Table 2)
11. Seamless Care: An Interprofessional Education Project for Innovative Team Based Transition Care	Judith McFetridge-Durdle Dalhousie University	▪ Focus Groups (25) ▪ Semi- structured interviews (26) ▪ Non-participant observation (27) ▪ Online discussions (WebCT) (45) ▪ Readiness for Interprofessional Learning Scale (RIPLS) (14) ▪ Self Efficacy for Interprofessional Practice Competencies for Faculty/Preceptors/Students (15) ▪ Attitudes Towards Health Care Teams Scale (2) ▪ Group Reflective Exercise (25) ▪ Self Efficacy For Managing Chronic Disease Scale (16)
12. Cultivating Communities of Practice for Collaborative Care	Anne Murray Cancer Care Nova Scotia	▪ Attitudes toward interprofessional learning scale (3) ▪ Attainment and use of competencies for facilitating IPE scale (46) ▪ Focus groups (25) ▪ Intended and reported changes to interprofessional practice questionnaire (47)
13. An Innovative National Distance Education Initiative for Interprofessional Practice in Psychosocial Oncology	Deborah McLeod Capital Health District Authority	▪ Focus Groups (25) ▪ Key Informant interviews (26) ▪ Pre-post tests of IECPCP (64)
14. Projet ECIP: Éducation à la Collaboration Interprofessionnelle centrée sur le Patient	Hassan Soubhi Robert Thivierge Université de Montréal	▪ EPIC communities of practice questionnaire (48)
15. A Process Oriented Approach to Enhancing Interprofessional Education and Collaborative Relationship Centred Care (PIER)	Susan Baptiste McMaster University, Faculty of Health Sciences	▪ IEPS – Interdisciplinary Education Perception Scale (5) ▪ Practice Genogram (10) ▪ Regenstrief Survey of Organizational Characteristics (11) ▪ Interviews (26) ▪ Discourse Analysis (Field notes) (56) ▪ Focus Groups (25)

Project Title	Location	Proposed Instrument (Instrument Number – Table 2)
16. Teaching Interprofessional Collaborative Patient-Centered Practice Through the Humanities: Partnership between SCO Health Service, the University of Ottawa and Saint Paul University	Pippa Hall Susan Brajtman Sisters of Charity Organization (SCO) Health Service	▪ Attitudes Towards Healthcare Teams (2) ▪ Pre- and Post-knowledge questionnaire (52) ▪ Post process questionnaires (53) ▪ Focus groups (25) ▪ Interviews (26)
17. A University of Manitoba Initiative: Interprofessional Education for Collaborative Patient-Centred Practice	Judy Anderson University of Manitoba	▪ Pre- and Post-knowledge questionnaire (52) ▪ Focus groups (25) ▪ Video Observation (55) ▪ Team Skill Assessments (63)
18. Interprofessional Education using Simulations of Patient Centred Chronic Disease	Keith De'Bell University of New Brunswick	▪ Pre- and Post-surveys for participants' perspectives regarding the impact of the training (50) ▪ Student feedback form (30) ▪ Problem solving test situations (51)
19. Interprofessional Disaster/Emergency Action Studies (IDEAS)	Renee Kenny Centennial College	▪ Interviews (26) ▪ Journals (28) ▪ Discourse Review (24) ▪ Video Observation (55) ▪ Questionnaires (52) ▪ RIPLS (14)
20. Consortium for Interprofessional Health Education & Research (CIPHER)	Evelyn Vingilis Cheryl Forchuk University of Western Ontario	▪ Interprofessional Education Perception Scale (IEPS) (5) ▪ Interprofessional Team Performance Scale (17)

TABLE 2. SUMMARY OF PROPOSED EVALUATION INSTRUMENTS

Instrument #	Instrument	Research Method	Instrument Purpose and Keywords	Studies Proposing to Use Instrument
1	Interprofessional education learning block	Mixed	Measures satisfaction with IP activity, perception of interprofessional small group activity, opinions of interprofessional teamwork	Memorial University
2	Attitudes towards interprofessional health care teams (incl. GITT Entry and Exit Questionnaires)	Quantitative	Attitudes towards interprofessional health care teams and interprofessional collaboration Measures bias against or in favor of health care teams	Memorial University SCO Health Service, Ottawa Council of Ontario Universities University of Manitoba Dalhousie University
3	Attitudes towards interprofessional learning in the academic setting	Mixed	Measures attitudes toward interprofessional learning prior to the clinical setting	Memorial University Cancer Care Nova Scotia
4	Attitudes toward interprofessional education	Mixed	Measures relevance of interprofessional education to students' development as health care professionals	Memorial University
5	IPRQ: Interprofessional reciprocity questionnaire (pre-) (Combination of: AHPQ, IEPS, ELIQ)	Mixed	Measures how the participants perceive their own and other professional roles; (2) how their role is perceived by other health care professionals; (3) the perception of the way health care professionals relate to each other when they interact Specifically, the factors it considers are: professional competency and autonomy, perceived needs for professional cooperation, and perception of actual cooperation and resource sharing within and across professional/professions	McGill University McMaster University University of Western Ontario Queen's University Council of Ontario Universities

Instrument #	Instrument	Research Method	Instrument Purpose and Keywords	Studies Proposing to Use Instrument
6	Readmission and Length of Stay	Mixed	Readmission and Length of Stay: standardized and widely used, nationally or provincially	University of Toronto
7	Collaboration Survey	Mixed	Measures staff members' perceptions of interprofessional collaboration	University of Toronto
8	Patient Satisfaction	Mixed	Data examine patients' perceptions of their hospital experience with a focus on overall impressions, communication, consideration and responsiveness	University of Toronto
9	Quality of Communication	Mixed	N/A	University of Toronto
10	Practice Genogram	N/A	Visual representation of the strengths, vulnerabilities, behaviours and relationships within organizations	McMaster University
11	Regenstrief Survey of Organizational Characteristics	N/A	Evaluates health care professionals' perceptions of where their respective organization is and where it should be.	McMaster University
12	St-Knowledge Questionnaire	N/A	N/A	McGill University
13	Interprofessional Group Work Questionnaire	N/A	N/A	McGill University
14	Readiness for Interprofessional Learning Scale (RIPLS)	Quantitative	Measures readiness of health care students to undertake shared learning activities Measures readiness of health care faculty/preceptors to facilitate interprofessional learning. Its three subscales explore: (a) attitudes and values regarding interprofessional practice; (b) knowledge of theory of interprofessional education; and (c) perceptions of the benefits of the interprofessional learning	Dalhousie University Queen's University Centennial College

Instrument #	Instrument	Research Method	Instrument Purpose and Keywords	Studies Proposing to Use Instrument
15	Self Efficacy for Interprofessional Practice Competencies for Faculty/Preceptors/Students	Quantitative	Measures an individual's confidence in his/her ability to facilitate interprofessional learning Measures student confidence in ability to perform in the role of interprofessional learner	Dalhousie University
16	Self Efficacy For Managing Chronic Disease Scale	Quantitative	Measures patients' confidence in ability to manage their chronic disease	Dalhousie University
17	Interprofessional Team Performance Scale	Quantitative	Measures interdisciplinary team processes and perceived effectiveness	University of Western Ontario
18	Interim Interprofessional Questionnaire (IIQ)	Quantitative	Measures the attitudes, knowledge, skills and beliefs of health care professionals' and students' in four main components of interprofessional practice and education: communication and teamwork, interprofessional learning, interprofessional interaction and relationships	Calgary Health Region
19	Relational Coordination Evaluation tool	Quantitative	Investigates the communications and relationships among professionals that contribute to effective coordination. Relational Coordination covers seven dimensions, four in communication (frequent, timely, accurate and problem-solving communication), and three in relationship (shared goals, shared knowledge and mutual respect)	Calgary Health Region
20	Progress/Final Evaluation Template	Mixed	The evaluation template qualitatively and quantitatively measures "signs of success" including student record, task achievement, achievement of project goals and facilitating and challenging factors or conditions	University of Saskatchewan
21	Collaboration and Satisfaction about Care Decisions Scale	Quantitative	N/A	Council of Ontario Universities
22	Performance Role Conflict Questionnaire	Quantitative	N/A	Council of Ontario Universities

Instrument #	Instrument	Research Method	Instrument Purpose and Keywords	Studies Proposing to Use Instrument
23	Team Observation Scale	Quantitative	Used as an observation tool with which to assess changes in teaming behaviour over time	University of Manitoba
24	Document Review	Qualitative	The document review will monitor how the Interprofessional Communities of Practice were implemented, including the successes and challenges therein. It will include readiness for interprofessional collaborative study.	Calgary Health Region Centennial College
25	Focus Groups Group Reflective Exercise	Qualitative Quantitative	To capture faculty, clinicians and students' reactions and perceptions of the learning experience To assess group functioning, effectiveness of interprofessional learning, and team patient-centeredness	Memorial University Dalhousie University Calgary Health Region Council of Ontario Universities University of Manitoba Cancer Care Nova Scotia Capital Health District Authority SCO McMaster University Dalhousie University

Instrument #	Instrument	Research Method	Instrument Purpose and Keywords	Studies Proposing to Use Instrument
26	Semi-structured/structured personal interviews	Qualitative	To gauge students' reactions to the intervention and the educational experience Measures the patient's satisfaction and learn about the patient self-care management abilities	McGill University Dalhousie University Calgary Health Region Council of Ontario Universities University of Manitoba Capital Health District Authority Laval University SCO McMaster University Centennial College
27	Non-participant Observation	Qualitative	Observe team functioning during student team meetings. Identify areas of concern	McGill University Dalhousie University
28	Journal (Diary Sheet) Self-report (Critical Reflection)	Qualitative	The Diary Sheet is intended to be used as an ongoing measure of individual behaviour change, as well as changes in organizational practice	McGill University University of Manitoba UBC Centennial College
29	E-Delphi (email surveys)	Qualitative	N/A	Queen's University
30	Student feedback form	N/A	N/A	Council of Ontario Universities University of New Brunswick
31	Project Evaluation form	N/A	N/A	Council of Ontario Universities
32	Clinical Team Evaluation Post Experiential Block	Mixed	To assess the clinical team participants' reaction to their IEGC experiential block experience and teaming skills, in general	University of Manitoba
33	Clinical Team Evaluation Post IEGC Program	Mixed	To assess the clinical team participants' reaction to their overall IEGC experience and teaming skills, in general	University of Manitoba

Instrument #	Instrument	Research Method	Instrument Purpose and Keywords	Studies Proposing to Use Instrument
34	Faculty Evaluation Post IEGC Program	Mixed	To assess the faculty participants' reaction to their IEGC experience and teaming skills, in general	University of Manitoba
35	Faculty Reflective Exercise Post IEGC Program	Qualitative	To assess the faculty participants' reactions, feelings, and perceived behaviours surrounding interprofessional teaming and their IEGC experience	University of Manitoba
36	Key Informant Interview Questions	Qualitative	To collect feedback from key informants (older individuals or their informal care givers) regarding the proposed educational module and study procedures	University of Manitoba
37	IEGC Knowledge Questionnaire	Quantitative	To assess if participants' knowledge regarding the seven identified core competencies changes as a result of the IEGC educational interventions	University of Manitoba
38	Personnel Audit	Qualitative	Used as an ongoing measure of clinical team personnel changes within and across each of the participating day hospital sites	University of Manitoba
39	Steering Committee Standardized Questions	Qualitative	To assess students', senior administrators' and government attitudes, perceived behaviours and reactions to the IEGC program and teaming in general	University of Manitoba
40	Student Evaluation Post IEGC Experiential Block	Mixed	To assess the student participants' reaction to their IEGC experience and teaming skills, in general	University of Manitoba
41	Student Reflective Exercise IEGC Project 6 month Follow-Up	Qualitative	To assess the student participants' reactions, feelings, and perceived behaviours surrounding interprofessional teaming and their IEGC experience	University of Manitoba

Instrument #	Instrument	Research Method	Instrument Purpose and Keywords	Studies Proposing to Use Instrument
42	Multiprofessional Shared Learning	Mixed	▪ Skill acquisition ▪ Change of attitude towards interprofessional patient-centred collaboration. ▪ Benefits from: sound interprofessional practice; patients' participation in collaborative interprofessional health care; interprofessional education/training.	Laval University
43	Questionnaire on skill acquisition	Mixed	▪ Skill acquisition ▪ Change of attitude towards interprofessional patient-centred collaboration. ▪ Benefits from: sound interprofessional practice; patients' participation in collaborative interprofessional health care; interprofessional education/training.	Laval University
44	Case Study		Measures changes in knowledge	UBC
45	Online Discussions	Qualitative	To identify areas of concern and provide an online mode of communication between students/preceptors	Dalhousie University
46	Attainment and use of competencies for facilitating IPE scale	Mixed	To determine whether the facilitators acquire, value and use the IFD competencies	Cancer Care Nova Scotia
47	Intended and reported changes to interprofessional practice questionnaire	Mixed	To determine whether the ICC workshops were effective in helping health professional to change their IP practice	Cancer Care Nova Scotia
48	EPIC communities of practice questionnaire	Quantitative	The overall purpose of the instrument will be to assess the development of interdisciplinary collaboration within the communities of practice (CoPs) that will be developed in two clinical sites.	University of Montreal
49	Human Systems Dynamics	Mixed	N/A	Calgary Health Region

Instrument #	Instrument	Research Method	Instrument Purpose and Keywords	Studies Proposing to Use Instrument
50	Pre- and Post-training surveys	Mixed	To evaluate participants' perspectives regarding the impact of the training and curriculum development sessions on enhancing their readiness to implement the proposed interprofessional educational program.	University of New Brunswick
51	Problem solving test situations	Qualitative	Incorporate scenarios relating to interprofessional health team efforts and delivery of patient-centred health care	University of New Brunswick
52	Pre- and Post-knowledge questionnaires	Mixed	N/A	SCO Centennial College
53	Post process questionnaires	Mixed	What worked, what did not work, and what should be changed?	SCO
54	Post process questionnaires	Mixed	What worked, what did not work, and what should be changed?	UBC
55	Video Observation	Qualitative	N/A	UBC Centennial College
56	Discourse Analysis	Qualitative	N/A	UBC McMaster University
57	Story telling	Qualitative	N/A	UBC
58	Team Anomie Scale	Qualitative	Measures the degree of team functioning	Calgary Health Region
59	Communities of Practice tool	Qualitative	Measures group functioning	Calgary Health Region
60	TOSCE	Qualitative	Modified from a tool measuring clinical competency	Calgary Health Region
61	Web-based Survey	Qualitative	Learners and Clinicians baseline, 6, 12, 24 months to gauge extent to which new knowledge was acquired and understood	Queens University

Instrument #	Instrument	Research Method	Instrument Purpose and Keywords	Studies Proposing to Use Instrument
62	E-Delphi methodology	Mixed	Elicits information and judgments from participants to facilitate problem-solving, planning, and decision-making.	Queens University
63	Team Skill Assessments	Qualitative	N/A	University of Manitoba - Medicine
64	Pre-post tests of IECPCP	Mixed	Measures new knowledge, theory, models	Capital District Health Authority

TABLE 3. EVALUATION INSTRUMENT REFERENCES

ID	Instrument	References
1	Interprofessional education learning block (questionnaire)	Satisfaction scale: Developed by Centre for Collaborative Health Professional Education Perception scale: Adapted from: 1972, The Small Group Tutorial, McMaster University Educ. Monograph 3. Jacques, D. (2000). Learning in Groups (3rd ed.) (p. 246). London, UK: Kogan Page Ltd. Opinions: Adapted from Clark, P. G. (1994). Learning on interdisciplinary gerontological teams: Instructional concepts and methods. *Educational Gerontology, 20,* 349-364.
2	Attitudes towards interprofessional health care teams (incl. GITT Entry and Exit Questionnaires)	Heinemann, G. D., Schmitt, M. H. and Farrell, M. P. Attitudes toward health care teams. In Heinemann, G. D., and Zeiss, A. M. (Eds.) *Team performance in health care: Assessment and development.* (pp. 155-159). New York: Kluwer Academic/Plenum Publishers, 2002 Heinemann, G. D., Schmitt, M. H., Farrell, M. P., & Brallier, S. A. (1999). Development of an attitudes towards health care teams scale. *Evaluation & the Health Professions, 22(1),* 123-142 Hyer, K., Flaherty, E., Fairchild, S., Bottrell, M., Mezey, M., Fulmer, T., et al. (Eds). (2003). *Geriatric Interdisciplinary Team Training: The GITT Kit, 2nd Edition.* New York: John A. Hartford Foundation, Inc.
3	Attitudes towards interprofessional learning in the academic setting	Adapted from an instrument developed by Dr. S. Gardner, Pharm.D., Ed.D., Department of Pharmacy Practice, University of Arkansas for Medical Sciences
4	Attitudes toward interprofessional education (RIPLS)	Parsell, G., and Bligh, J. (1999). The development of a questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS). *Medical Education 33*(2), 95-100. McFadyen, A. K., Webster, V., Strachan, K., Figgins, E., Brown, H. & Mckechnie, J. The readiness for Interprofessional Learning Scale: A possible more stable sub scale model for the original version of RIPLS. *Journal of Interprofessional Care*, December 2005; 19(6): 595-603.

ID	Instrument	References
5	IPRQ: Interprofessional reciprocity questionnaire (pre-) (Includes: AHPQ, IEPS, ELIQ)	Luecht, R. M., Madsen, MK., Taugher, M. P., Petterson, B. J. (1990) Assessing professional perceptions: design and validation of an interdisciplinary education perception scale. *Journal of Allied Health,* (19), 181-91
6	Readmission and Length of Stay	CIHI Discharge Abstract Database
7	Collaboration Survey	*Collaboration with Medical Staff Scale*. Known as the *CMSS* of the *Nurses' Opinion Questionnaire*, Adams, Bond, and Arber, 1995. Adaptations for SCRIPT-GIM use and preferences. *Source*: Administered by SCRIPT-GIM
8	Patient Satisfaction	Hospital sites and Ontario's Hospital Report Research Collaborative See http://www.hospitalreport.ca
9	Quality of Communication	GIM fieldworkers, observation
10	Practice Genogram	McIlvain , H., Crabtree, B., Medder, J., Stange, K. C., & Miller, W. L. (1998)
15	Self Efficacy for Interprofessional Practice Competencies for Faculty/Preceptors	Self report scale
16	Self Efficacy For Managing Chronic Disease Scale	Lorig, K. R., Sobel, D. S., Ritter, P. L., Laurent, D., & Hobbs, M. Effect of a self – management program for patients with Chronic disease. Effective Clinical Practice, 42001, pp 256-262.
17	Interprofessional Team Performance Scale	Temkin-Greener et.al. (2004). Measuring Interdisciplinary Team Performance in a Long-Term Care Setting. *Medical Care.* 42(5), 472-481. Adapted from original validation study : Shortell, S. M., Rousseau, D. M., Gillies, R. R., Devers, K., & Simons, T. L. (1991).Organizational assessment in intensive care units: construct development, reliability, and validity of the ICU nurse-physician questionnaire. *Medical Care.* 29, 709-727.
18	Interim Interprofessional Questionnaire (IIQ)	Pollard, K. C., Miers, M., E., & Gilchrist, M. (2005). Second year skepticism: Pre-qualifying health and social care students' midpoint self-assessment, attitudes and perceptions concerning interprofessional learning and working. *Journal of Interprofessional Care, 19*(3), 251-268.
19	Relational Coordination Evaluation tool	Gittell, J. H., & Weiss, L. (2004). Coordination networks within and across organizations: A multi-level framework. *Journal of Management Studies, 41*(1), 127-153

ID	Instrument	References
20	Progress/Final Evaluation Template	Interprofessional Network of British Columbia (In-BC): Evaluation Framework. March 14, 2006. Prepared by Treena A. Chomik. PhD. Evaluation Framework Interprofessional Education for Collaborative Patient-Centred Practice (IECPCP). June 1, 2006. Prepared by Office of Nursing Policy. Health Canada.
21	Collaboration and Satisfaction about Care Decisions Scale	Baggs, J. G. (1994). Development of an instrument to measure collaboration and satisfaction about care decisions. Journal of Advanced Nursing, 20, 176-182.
22	Performance Role Conflict Questionnaire	House, R. J., Schuler, R. S. & Levanoni, E. (1983). Role conflict and ambiguity scales: Reality or artifacts? Journal of Applied Psychology, 68, 334-337.
23	Team Observation Scale	Cole, K. D., Waite, M. S., & Nichols, L. O. (2003). Organizational structure, team process and future direction of Interprofessional health care teams. *Gerontology & Geriatrics Education 24(2)*, 35-49
42	Multiprofessional Shared Learning	Horsburgh, M., Lamdin, R., & Williamson, E. (2001). Multiprofessional learning: The attitudes of medical, nursing and pharmacy students to shared learning. *Medical Education*, 35, 876-883
43	Questionnaire on skill acquisition	Leipzig, R. M. et all,. (2002). Attitude Toward Working on Interdisciplinary Healthcare Teams: A Comparison by discipline. *J Am Geriatr Soc*, 50, 1148-1148.
48	EPIC communities of practice questionnaire	Sicotte, C., D'Amour, D., & Moreault, M. P. (2002). Interdisciplinary collaboration within Quebec community health care centres. *Social Science & Medicine,* 55, 991-1003. Temkin-Greener, H., et al. (2004). Measuring Interdisciplinary Team Performance in a Long-Term Care Setting. *Medical Care 42* 472-81. Gittell, J. H., et al. (2000). Impact of Relational Coordination on Quality of Care, Postoperative Pain and Functioning, and Length of Stay: A Nine-Hospital Study of Surgical Patients." *Medical Care 38*(8), 807-19.

ID	Instrument	References
49	Human Systems Dynamics: Same/Different Maturity Model of Change (adapted for the project) CDE Model Decision Map Landscape Diagram	Eoyang, G. H. (1997). *Coping with chaos: Seven simple tools*. Circle Pines: Lagumo

TABLE 4. SUMMARY OF IECPCP PROJECTS

Project Lead(s) /Organization	Project Title*	Project Purpose Description	Keywords
Esther Suter Calgary Health Region	*Creating an Interprofessional Learning Environment through Communities of Practice: An Alternative to Traditional Preceptorship*	Project focuses on lateral mentoring within an interprofessional environment that includes developing, implementing and evaluating interprofessional "communities of practice" designed to foster interprofessional education and collaborative patient-centred care.	mentoring communities of practice collaborative patient-centred education and practice settings
Ivy Oandasan University of Toronto	*Structuring Communication Relationship for Interprofessional Teamwork (SCRIPT)*	Project targets changes at the organizational level to create a cultural shift in the way health professionals learn to collaborate by creating a professional development program to aid in the implementation and adaptation of SCRIPT communication tools.	collaborate professional development program promote cultural change education settings
Jennifer Medves Queen's University	*The Queen's University Inter-Professional Patient-centred Education Direction (QUIPPED)*	Project creates an inter-professional educational environment, or academy of interprofessionalism, that enhances the ability of learners and faculty to provide patient-centred care, while recognizing the contribution of the health care team within a respectful and collaborative framework.	inter-professional educational environment patient-centred care collaborative education settings teams
Dennis Sharpe Vernon Curran Memorial University of Newfoundland	*Collaborating for Education and Practice: An Interprofessional Education Strategy for Newfoundland and Labrador*	Project aims to expand and promote interprofessional collaboration and teamwork in education and practice settings.	interprofessional collaboration teams education and practice settings

* Project titles highlighted in blue and underscored are linked to the project's website

Project Lead(s) /Organization	Project Title*	Project Purpose Description	Keywords
Ruby Grymonpre University of Manitoba, Faculty of Pharmacy	*Interprofessional Education for Geriatric Care*	Project works with current and future health care professionals in community-based geriatric settings to develop collaborative patient-centred practices with students during clinical blocks, day hospital clinical team members, and faculty.	community-based geriatric settings collaborative patient-centred practice settings teams
Liz Harrison University of Saskatchewan	*Patient-Centred Interprofessional Team Experiences*	*(P-CITE*) project promotes and enhances innovative interprofessional education programs; contributes to the knowledge base of best practice approaches; and supports the goals of enhancing patient care and improved quality of life through health professionals working in effective teams. The project is focusing on mental health and development in children and youth, chronic illness in middle age, transition from hospital to community for elders, and health in Aboriginal communities.	interprofessional education knowledge base of best practice effective teams. children and youth middle age elders Aboriginal communities education settings teams
Andre Bilodeau Laval University	*Patient-Centred Care: Better Training for Better Collaboration*	Project develops a collaborative patient-centred practice by establishing, conducting and assessing an integrated interprofessional education program, from University courses up to and including on-the-job skills training.	collaborative patient-centred integrated interprofessional education education and practice settings
Margaret Purden David Fleiszer McGill University	*The McGill Educational Initiative on Interprofessional Collaboration: Partnerships for Patient-Family Centred Practice*	Project enhances interprofessional collaborative patient- and family-centred practice by bringing together clinicians, educators, and students from four professional groups in a program delivered in academic and clinical environments.	collaborative patient- and family-centred education and practice settings
Grant Charles Lesley Bainbridge Grace Mickelson College of Health Disciplines, UBC	*The Interprofessional Network of British Columbia (In-BC)*	Project connects health and education partners around BC and networks many projects that provide interprofessional education opportunities for students and practitioners in health care fields in diverse rural and urban clinical settings.	connects health and education partners networks many projects rural and urban clinical settings education settings

Project Lead(s) /Organization	Project Title*	Project Purpose Description	Keywords
Patty Solomon Council of Ontario Universities	*The Institute of Interprofessional Health Sciences Education*	Project uses Web- and team-based learning activities to facilitate interprofessional collaboration in educational and practice settings and build a network of expertise to develop knowledge, skills, and attitudes and promote cultural change in health sciences students and clinicians.	interprofessional collaboration promote cultural change education and practice settings
Judith McFetridge-Durdle Dalhousie University	*Seamless Care (Interprofessional Education Project for Innovative Team Based Transition Care)*	Project brings together student teams from medicine, nursing, pharmacy, and dentistry and dental hygiene to help patients to develop skills and knowledge necessary to manage their illness and work with their health care team and within the health care system.	teams help patients to develop skills and knowledge necessary to manage their illness practice settings
Anne Murray Cancer Care Nova Scotia	*Cultivating Communities of Practice for Collaborative Care*	Project cultivates a community of practice of health professionals in Nova Scotia and Prince Edward Island to facilitate the education of community-based practitioners; and to improve collaborative patient centered practice in those who provide care to oncology patients and their families, including health professionals from First Nations Communities.	community of practice collaborative patient centered oncology patients First Nations Communities education and practice settings
Deborah McLeod Capital Health District Authority	*An Innovative National Distance Education Initiative for Interprofessional Practice in Psychosocial Oncology*	Project addresses gaps in formal education in interprofessional psychosocial oncology by a distance course using blended learning strategies for graduate students that will also be adapted and provided as a web-based professional development course for practicing professionals; and establishing a Canadian network of psychosocial oncology educators and researchers committed to enhancing the health of Canadians affected by cancer through collaborative and interprofessional initiatives.	interprofessional psychosocial oncology collaborative and interprofessional initiatives education settings
Hassan Soubhi Robert Thivierge Université de Montréal	*Projet ECIP: Éducation à la Collaboration Interprofessionnelle centrée sur le Patient*	Creates model environments for training and practice in collaborative patient-centred care for patients affected by chronic diseases. The main focus is on developing communities of practice with groups of people having common interests in engaging in collaborative learning opportunities for interprofessional practice.	collaborative patient-centred care chronic diseases communities of practice education and practice settings

Project Lead(s) /Organization	Project Title*	Project Purpose Description	Keywords
Susan Baptiste McMaster University, Faculty of Health Sciences	*A Process Oriented Approach to Enhancing Interprofessional Education and Collaborative Relationship Centred Care*	Project enhances interprofessional team function and education from pre-licensure curricula to collaborative practice settings by making foundational process-oriented changes including transformation in the organization's expectations and attitudes, in daily conversations and discourses, and ultimately in personal identity.	promote cultural change collaborative practice education and practice settings teams
Pippa Hall Susan Brajtman Sisters of Charity Organization (SCO) Health Service	*Teaching Interprofessional Collaborative Patient-Centred Practice through the Humanities*	Project provides health professional learners with planned interactions with an interprofessional team during their clinical rotations. As learners work with a chosen patient and family, they use a framework of the Humanities (human experience, historical perspectives, law and ethics, and professionalism) to reflect on the health care system, the impact of illness on the patient and family through the lens of interprofessional collaborative team practice.	interprofessional collaborative team practice practice settings teams
Judy Anderson University of Manitoba	*A University of Manitoba Initiative: Interprofessional Education for Collaborative Patient-Centred Practice*	Project establishes interprofessional groups of faculty and students who value, understand, practice and promote collaborative patient-centred practices. The focus is on practice sites in northern and remote communities, particularly those with Inuit and Aboriginal populations as well as under-served populations in Winnipeg.	collaborative patient-centred practices northern and remote communities Inuit and Aboriginal populations practice settings teams
Keith De'Bell University of New Brunswick	*Interprofessional Education using Simulations of Patient Centred Chronic Disease*	Project uses simulated care experiences in chronic disease to develop a model of health care education that will equip students to work in interprofessional, patient-centred teams.	simulated care experiences chronic disease interprofessional, patient-centred teams education settings teams

Project Lead(s) /Organization	Project Title*	Project Purpose Description	Keywords
Renee Kenny Centennial College	*Interprofessional Disaster/Emergency Action Studies (IDEAS)*	Project improves interprofessional team performance in patient-centred practice, and increases the perceived efficiency of health care systems in a disaster/emergency or pandemic situation.	practice settings patient-centred practice efficiency of health care systems teams
Evelyn Vingilis Cheryl Forchuk University of Western Ontario	*Creating Interprofessional Collaborative Teams for Comprehensive Mental Health Services*	Project facilitates interprofessional collaborative mental health care in both education and practice settings, while augmenting the work toward provincial priorities such as mental health care reform, care of the homeless, and development of Local Health Integration Networks.	collaborative education and practice settings mental health care

TABLE 5. SUMMARY OF EVALUATION FRAMEWORKS

Project Organization	Project Title	Evaluation Framework
Calgary Health Region	Creating an Interprofessional Learning Environment through Communities of Practice: An Alternative to Traditional Preceptorship	The evaluation is built on the approach outlined by Health Canada (2000) and the W.K. Kellogg Foundation (1998). Both approaches focus on a participatory approach. The evaluation framework designed for this project focuses on both *processes* and *outcomes* to ensure a comprehensive understanding of the project. Both qualitative and quantitative methods will be used. Outcome evaluation based on **Kirkpatrick (1998) model**.
University of Toronto	Structuring Communication Relationship for Interprofessional Teamwork (SCRIPT)	Proposing to design and evaluate an intervention to improve the communication among professions in the delivery of healthcare in General Internal Medicine units. Evaluation framework is very general, and does not specify an evaluation model. It does indicate both formative and evaluation techniques.
Queen's University	Queen's University Inter-Professional Patient-centred Education Direction (QUIPPED)	**QUIPPED** will conduct a pre- and post-test study design that employs multiple methods and engages multiple stakeholders. This is consistent with **utilization focused evaluation (Patton, 1997), responsive evaluation (Stake, 2004) and theory-driven evaluation (Donaldson, 2003).** The evaluation uses a participatory action research approach. Evaluation approach is based on a **'working logic model' (no reference).** Critical action research. (Allows the researchers and the participants to work in an interactive partnership to explore change in a reflective cycle and to modify steps throughout the process. Framework to monitor the changes in knowledge, attitude, behaviour and beliefs, through pre and post tests of workshops of faculty, instructors, learners, and patients.
Memorial University of Newfoundland	Collaborating for Education and Practice: An Interprofessional Education Strategy for Newfoundland and Labrador	The model for assessing educational outcomes **is Kirkpatrick's model (1967),** as modified by **Freeth, Hammick, Koppel, Reeves and Barr (2002)** in their meta-analysis of the IPE literature. The model succinctly presents four levels of educational outcome, with two levels sub-divided for clearer visualization of outcomes for evaluation purposes. The **Staged Innovation Design (Wagner, 1984)** will be used as a study design for the evaluation of the curriculum framework program components.

Project Organization	Project Title	Evaluation Framework
University of Manitoba, Faculty of Pharmacy	Interprofessional Education for Geriatric Care	Consistent with the conceptual framework for IECPCP developed by **D'Amour, Oandasan in 2004**, our evaluation will identify and characterize various factors within the learning institution (University of Manitoba) and the clinical practice sites (Geriatric Day Hospitals) which influence the development and implementation of a successful and sustainable IEGC experience. The outcomes of the IEGC experience on learners and educators will also be assessed. Evaluation will address the following research areas: ▪ Administrative structure/process and outcomes ▪ Student learning ▪ Faculty/preceptor learning
University of Saskatchewan	The Patient-Centred Interprofessional Team Experiences	This project links a program logic model to the four-level **Kirkpatrick (1994) model** for assessing training effectiveness. These four levels of training are reactions, learning, behaviour, and results. Each builds on the previous level. To map these to a program logic model, reactions and learning are process or activity measures, behaviour is an output measure, and results are an outcome measure. Formative evaluation will be a key component of the evaluation design.
Laval University	Patient-Centred Care: Better Training for Better Collaboration	Le plan d'évaluation proposé englobe les quatre axes ainsi que les objectifs généraux et spécifiques définis dans cette proposition. L'évaluation sera mixte, c'est-à-dire autant qualitative (à l'aide de rencontres individuelles et de groupes, etc.) que quantitative (à l'aide d'outils tels des questionnaires, grilles d'observation, échelles d'attitude etc.), afin de mieux documenter les prises de décisions subséquentes. Les personnes visées sont celles qui participent activement à la mise en oeuvre de cette innovation mais également, certaines personnes plus éloignées du processus mais qui auront l'occasion d'en voir les effets ou retombées sur leurs activités. Ainsi, certains outils d'évaluation, certaines approches et procédures de collecte des données s'appliqueront à plus d'un axe de la FIPCCP.

Project Organization	Project Title	Evaluation Framework
McGill University	The McGill Educational Initiative on Interprofessional Collaboration: Partnerships for Patient-Family Centred Practice	The **Stufflebeam (1983) CIPP model** (context, input, process, product) will be used to guide the evaluation component of this project. This evaluation model is aimed at promoting development and to help leadership, partners and staff to systematically collect useful feedback to better meet stakeholders' needs given the available resources. Through the process of defining, collecting, and providing valuable information for use in judging decision alternatives, the CIPP model facilitates the decision making of program managers and administrators, and provides a useful framework for collecting relevant information.
College of Health Disciplines, UBC	The Interprofessional Network of British Columbia (In-BC)	Results-based logic model leveraging the work-to-date on Primary Health Care by the Centre for Health Services and Policy Research (CHSPR) and the Interprofessional Rural Program of BC. Evaluation will be driven by theories of learning from which can be developed clear and measurable objectives, both quantitative and qualitative.
Council of Ontario Universities (COU)	The Institute of Interprofessional Health Sciences Education	Evaluation framework designed to evaluate educational processes and outcomes. A comprehensive evaluation using quantitative and qualitative measures will be integrated throughout the project. **(Solomon et al, 2003)**. Includes student evaluations, practice site evaluations, Advisory Committee performance review, post-experience survey of Faculty members.
Dalhousie University	Seamless Care (Interprofessional Education Project for Innovative Team Based Transition Care)	The **Kirkpatrick (1969) model** of interprofessional development forms the basis of the evaluation framework for student, faculty, patient, and clinical sites. The overall evaluation will be well-integrated in the faculty development phase of the project, throughout the eight-week teaching intervention itself and in the follow-up with patients, primary and clinical care providers/ staff, faculty and student learners.
Cancer Care Nova Scotia	Cultivating Communities of Practice for Collaborative Care	The evaluation framework includes two overarching components: evaluation of educational *outcomes,* and evaluation of program development and dissemination *processes*. The model for assessing educational outcomes is **Kirkpatrick's model (1967),** as modified by **Freeth, Hammick, Koppel, Reeves and Barr (2002)** in their meta-analysis of the IPE literature. The model succinctly presents four levels of educational outcome, with two levels sub-divided for clearer visualization of outcomes for evaluation purposes.

Project Organization	Project Title	Evaluation Framework
Capital Health District Authority	An Innovative National Distance Education Initiative for Interprofessional Practice in Psychosocial Oncology	A **results-based logic model** will be used to guide the implementation of the program and subsequently inform the evaluation plan. The formative evaluation plan will be developed as part of a participatory evaluation approach informed by stakeholders in the project. This approach has been shown to be successful when various stakeholder groups are involved in the development of an initiative and is an essential element in the uptake of innovation and implementation of change. A formative evaluation will allow the program to be refined as it is being developed and will provide the data to inform program change. The formative evaluation design will incorporate the use of mixed methods (quantitative and qualitative) and multiple data sources.
Université de Montréal	Projet ECIP: Éducation à la Collaboration Interprofessionnelle centrée sur le Patient	Du fait de sa complexité, l'intervention proposée dans ce projet doit être évaluée de manière méthodique et rigoureuse pour pouvoir la développer, la documenter, la reproduire, et l'appliquer dans la pratique clinique. L'évaluation du projet ECIP poursuit ainsi deux buts: 1. un but formatif, qui vise à favoriser le développement et 'implantation dans des milieux cliniques de communautés de pratique (CdeP) dédiées à l'apprentissage et au développement de pratiques collaboratives interprofessionnelles. Cette composante formative permettra notamment a) d'identifier les mécanismes et les stratégies par lesquels les membres des CdeP font des apprentissages sur la collaboration centrée sur le patient atteint de maladies chroniques, et b) identifier les dynamiques et les outils relationnels permettant la collaboration interprofessionnelle dans les CdeP ; 2. un second but, à plus long terme, vise à poursuivre l'évaluation du modèle de CdeP qui sera implanté dans d'autres milieux cliniques à la phase II. Cette evaluation suivra les différentes phases du modèle d'évaluation des interventions complexes.

Project Organization	Project Title	Evaluation Framework
McMaster University, Faculty of Health Sciences	A Process Oriented Approach to Enhancing Interprofessional Education and Collaborative Relationship Centred Care	**No specific model reference found**. This project does not separate process from evaluation in the evaluation framework, and the tools proposed all serve a dual purpose: to encourage reflection and therefore contribute to learning, and also to assess how people's views have changed, thereby evaluating the process. Evaluation will take place through two processes: ▪ Ongoing and experiential evaluation and inquiry e.g. team meeting notes, self reflections of project participants, interviews ▪ Formal, defined applications of evaluation tools e.g. IEPS, Practice Genogram, Regenstrief The success of the project will be determined through the outcome of the multi-faceted evaluation.
Sisters of Charity Organization (SCO) Health Service	Teaching Interprofessional Collaborative Patient-Centred Practice through the Humanities	The **Guskey (2001) model** for evaluating professional development efforts will be used for process and impact evaluation. The model expands on the familiar **Kirkpatrick model (1996)** of education evaluation, by adding a section that examines the organization in which the education participant works. Five themes to be evaluated: ▪ Participant's reaction ▪ Participant's learning ▪ Organizational support and change ▪ Participant's use of knowledge and skills ▪ Learner's outcomes**

Project Organization	Project Title	Evaluation Framework
University of Manitoba (Medicine)	A University of Manitoba Initiative: Interprofessional Education for Collaborative Patient-Centred Practice	The concept of an imitative envisioned on 3 platforms (education, practice, and research) was based on the **D'Amour and Oandasan model**. Principles in the Evaluation of the Initiative are as follows: 1. A protocol outlining the data collection (demographics, experiences, progressive learning, and changes in attitudes, values, skills, knowledge, communications and new practices) will be submitted to the Human Research Ethics Review Board. Pre and post measures of interprofessional and patient-centered behaviour (actions as evidence of values) will be conducted. An assessment survey will be developed to measure the actual behavioural changes. A checklist will be used to identify such behaviours at the outset and end of the Initiative, anticipating the number will increase. 2. A 'matrix' encompassing individual, interactional, and group levels, on each platform of education, practice and research, will be used to grade evaluation.
University of New Brunswick	Interprofessional Education using Simulations of Patient Centred Chronic Disease	**No specific model reference found**. The outcomes of the proposed data-gathering activities will assist in refining the design and evaluation framework for the IPECPCP sponsored by Health Canada. This aspect of the endeavour involves the completion of five key components: a *Literature Scan, Key Expert Interviews, Formulation of Promising Practice Statements, Creation of a Project Logic Model and Elaboration of the Evaluation Framework, and Development of Evaluation Instruments.* Evaluation will be conducted in four phases: ▪ Literature survey ▪ Faculty development evaluation ▪ Process evaluation ▪ Outcome evaluation
Centennial College	Interprofessional Disaster/Emergency Action Studies (IDEAS)	Two evaluation initiatives, reflective of two primary evaluation paradigms will assess the effectiveness of the 'IDEAS' curriculum; a process evaluation and an outcome evaluation. The process evaluation is similar in structure to an organizational readiness survey while the outcomes evaluation model is based on **Kirkpatrick's model** modified for IPE by **Freeth et al. (2002).**

Project Organization	Project Title	Evaluation Framework
University of Western Ontario	Creating Interprofessional Collaborative Teams for Comprehensive Mental Health Services (CIPHER)	**No specific model reference found**. Formative evaluation will include assessment of program processes, using quantitative and qualitative measures. Summative evaluation of program outcomes will not be possible in the nineteen month duration of this proposal, as only one cycle of student teams will go through the program in that time. Whenever possible, data collection for the project evaluation will be integrated with assessment of learning by participants in the various project activities. In this very short time frame for program development and implementation, only shorter term outcomes and impacts can be reasonably expected.

Step 2: Creating an interactive D'Amour and Oandasan (2005) framework

PROCESS: EXTENDING THE EMERGING FRAMEWORK

As a first step to linking the IECPCP evaluation tools to the work entitled, *Interprofessional Education for Collaborative Patient-Centred Practice: An Evolving Framework* (D'Amour and Oandasan's (2005)), the framework was extended by (1) succinctly defining each of the variables in the diagram of the framework based on descriptions of the terms in the article; and (2) creating an interactive online version of the framework that linked the variables in the graphic to the newly defined terms.

The IECPCP graphic (D'Amour & Oandasan, 2005) was reviewed to identifying the key variables. The key variables were numbered 1-22 and compiled in one document. A search was conducted for each of these variables in the text of D'Amour and Oandasan's (2005) article using the Microsoft Office 'search' feature. The text and graphic were reviewed simultaneously and comparisons were continuously made between the two. Each time a variable was found in the article the text was highlighted using superscript numbers to indicate the sequence of the variables (e.g., Variable number 1, Factors of Educational System). When a variable was found in the text, its definition, description, and/or explanation was tagged using the Microsoft office 'comment' function. The page number and explanation of the variable were noted in the document. When a variable was mentioned in the article but did not use the exact wording as in the graphic, the comment "appears as …" was made in the document along with the alternative title.

In the document an attempt was made to define each variable according to the explanation found in the text of the article. Some definitions were clearly provided in the article (i.e., Government Policies and Leadership/Resources) and so were directly extrapolated into the document. In other instances clear definitions were not found, however, descriptions and examples of the variable were provided (i.e., Social & Cultural Values, Professional Beliefs & Attitudes, and Patient/provider Outcomes). In these instances, the text was summarized from the article to clearly define the variable. For other variables, descriptions were less clear and left room for interpretation (i.e., Educator, Learner, and Patient). In this case descriptions of the variables were developed based on interpretation.

Mouseover functions were created for each variable allowing the descriptions of the variables to be revealed. A "findings" button was created to allow a new window containing the related findings from the analysis of the 20 proposal evaluation plans to be displayed when clicked. Mouseover and mouseclicks were created for all variables in order to facilitate a user friendly web navigation that is functional, quick loading, and with high resolution. The interactive model was then posted on a server and can be viewed at: http://www.ennovativesolution.com/IECPCP

Creating the interactive web-based extension of D'Amour and Oandasan's model allowed for a user friendly sophisticated display of the definitions of variables contained in the framework. Next steps might include a linking of the evaluation tools used by the 20 IECPCP projects with the variables in the interactive, web-based framework.

TABLE 6. DEFINITIONS OF THE VARIABLES IN INTERPROFESSIONAL EDUCATION FOR COLLABORATIVE PATIENT-CENTRED PRACTICE: AN EVOLVING FRAMEWORK (D'AMOUR AND OANDASAN, 2005)

Definitions in D'Amour & Oandasan Framework	
Educational System (*page 13, 14*)	[Original Text as Definition] ***Educational System*** refers to an accredited institution where health professionals work or are trained. Educational systems can be a powerful force for advancing interprofessionality. The impact of educational systems is greatest when monitored for collaborative practice and the implementation of structured interprofessional educational activities.
Professional System (page 14)	[Original Text for Definition] ***Professional System*** represents the influence the health professional regulatory bodies have on affecting change. These bodies are responsible for defining scope of practice and dealing with issues of liability. Professional systems can positively influence interprofessionality through policy implementation that affects how professionals choose to practice in clinical settings.
Government Policies: Federal/Provincial/Regional/Territorial (*page 14*)	[Original Text as Definition] ***Government Policies*** are developed by various levels of government and impact interprofessional education for collaborative patient-centred practice. Structural and financial policies for secondary health professional training programs have led to the current climate of segregation between professions.
Social & Cultural Values -- appears in the article as "Socio-cultural Beliefs" and "Professional cultural values" (*page 15*)	[Formulated Definition] ***Social and Cultural Values:*** Creating an understanding of, and respect for, other health professionals' roles and responsibilities is a prerequisite for collaborative patient-centred practice. This process entails breaking down stereotypes and misconceptions and overcoming public and media-created perceptions and/or historically inherited cultural values.
Institutional Factors -- no specific definition in the article (*Page 8*)	[Synthesised Definition] ***Institutional Factors*** include leadership, resources, and administrative processes that influence professional beliefs, attitudes, and collaborative capacity building and, ultimately, the delivery of interprofessional learning experiences.
Teaching/Learning Factors– no specific definition in the article (*Page 8*)	[Synthesised Definition] ***Teaching/Learning Factors*** include the learning context and faculty development that influence the professional beliefs, attitudes, and collaborative capacity building that affect the delivery of interprofessional learning experiences.
Leadership/Resources (*Page 9*)	[Original Text as Definition] ***Leadership*** refers to administrators who have the power to move the agenda forward by providing ***resources*** and supporting 'champions' to drive the vision and build learning capacity for the organization.
Learning Context (*Page 9*)	[Original Text for Definition] The ***Learning Context*** for both pre- and post-licensure educational strategies addresses questions relating to the "who, what, where, when, and how" of interprofessional education.
Administrative Processes (*Page 9*)	[Original Text for Definition] ***Administrative Processes*** involve strategies and approaches for implementing initiatives, including logistical decisions and financial incentives (e.g., scheduling, accommodating large class sizes, voluntary versus mandatory, grading, and remediation).

Definitions in D'Amour & Oandasan Framework	
Faculty Development (*Page 9*)	[Original Text as Definition] ***Faculty Development:*** Faculty members are supported as they learn to effectively facilitate interprofessional education. Faculty members' professional beliefs and attitudes toward collaboration are recognized as factors that can influence learners.
Organizational Factors (*Page 13*)	[Original Text as Definition] ***Organizational Factors*** such as governance (leadership) and formalization (rules) can significantly influence collaboration at several levels: within a team, within the context of an organization, and between organizations.
Interactional Factors – appears in the article as "Interactional process" , no specific definition in the article (*Page 12*)	[Synthesised Definition] ***Interactional Factors*** influence the relationships between and among healthcare professionals. These factors concern the extent to which individuals share a common vision and goals and the degree to which they feel a sense of belonging.
Governance (*Page 7, 8, 13,*)	[Original Text with Synthesis] ***Governance*** refers to the leadership functions that support collaboration. Governance provides direction and support to professionals as they implement innovative actions related to interprofessional collaborative patient-centred practice.
Sharing Goals/Vision – appears in the article as "Shared common goals and common visions" (*Page 12*)	[Original Text as Definition] ***Sharing Goals/Vision*** refers to the existence of common goals and the endorsement of these goals by the healthcare team. Shared patient-oriented goals emerge when the team is focused on the patient/client while recognizing the diverse interests and asymmetry of power of the various partners in care and the resulting negotiations.
Structuring Clinical Care – also appears in the article as "Formalization" (*Page 13*)	[Original Text as with Synthesis] The ***Structuring of Clinical Care*** entails the development of documented procedures that provide a means for clarifying the expectations and responsibilities of the different partners and for (re)negotiating responsibilities. Various formalized tools can be used, such us protocols, procedures, information systems, and agreements.
Sense of Belonging – (Page 13, 14)	[Original Text as Definition] A ***Sense of Belonging*** reflects an awareness of interdependencies between healthcare team members. It is developed through the mutual contribution and provision of knowledge, values, and skills. Through this process, bonds and trusting relationships develop among team members, which in turn affect their willingness to work together and the respect they have for one another.
Health Professional Learner Outcomes – appears in the article as "Interprofessional Education Outcomes" (Page 9, 10)	[Formulated Definition] ***Health Professional Learner Outcomes*** refer to the competencies learners need in order to work collaboratively. These competencies describe specific knowledge, skills, and attitudes that have been empirically identified as determinants of collaboration. The competencies affect the efficiency with which interprofessional education is delivered and, ultimately, the amount of interprofessional collaboration in clinical settings.
Patient/Provider Outcomes – appears in the article as "Outcomes of collaboration" (*Page 14*)	[Formulated Definition] ***Patient/Provider Outcomes*** refer to the positive outcomes that result from healthcare teams working collaboratively, such as successful patient/family care or changes in practice that result in more efficient and effective practice at the organization/system level.
Learner – no specific definition in the article	[Synthesised from the Article] ***Learners*** include pre- and post-licensure individuals involved in structured learning activities in undergraduate, post-graduate, or continuing education within their profession.

Definitions in D'Amour & Oandasan Framework	
Patient/Client– no specific definition in the article	[Synthesised from the Article] ***Patients/Clients*** are central to collaborative patient-centred practice. Patients and their families become part of the healthcare community and are encouraged to work with the healthcare team to optimize care. The term "client" may be preferred as it acknowledges the autonomy of individuals who are consumers of healthcare services. The terms "patient" and "client" are used interchangeably within the 2004 Health Canada Report and this framework.
Educators – no specific definition in the article	[Synthesised from the Article] ***Educators*** include individuals who carry out interprofessional education duties, are responsible for the delivery of education in an interprofessional context, and/or educate health professionals.
Professionals - no specific definition in the article	[Synthesised from the Article] ***Professional*** refers to all caregivers who are educated or trained to provide care including regulated and unregulated healthcare providers.
Professional Beliefs and Attitudes (*Page 8*)	[Formulated Definition] ***Professional Beliefs and Attitudes*** are influenced by the identity and stereotypes of healthcare professionals and may be fostered by social influences such as media and public perceptions. Educators' professional beliefs and attitudes directly impact learners' opportunities to develop collaborative competencies.
Task Complexity – associated with "Needs of the patient/client" in the article (*page 11*)	[Formulated Definition] ***Task Complexity*** refers to the patients' health issues. Task complexity defines the type of care and interactions required between health professionals within the team. Interactions between patients, healthcare providers, and organizations are dynamic in the collaborative patient-centred care approach.

NOTE: In this document, 'interprofessionality' is the process by which professionals reflect on and develop ways of practicing that provide an integrated and cohesive answer to the needs of the client/family/population. Interprofessionality emerges from the desire of professionals to reconcile their different and opposing views. The process involves continuous interaction and knowledge sharing among professionals to solve or explore a variety of education and care issues while seeking to optimize the clients' involvement.

Step 3: Synthesis and Analysis of Summary

The findings in the tables represent the proposed evaluation plans, frameworks, instruments, and strategies of the 20 Health Canada funded IECPCP projects. Several projects provided evaluation frameworks. Others did not outline a specific evaluation framework, but had detailed plans outlining specific instruments that they planned to use to evaluate the outcomes of their projects and who the instruments would be administered to. A couple of proposals provided lists of instruments that were appropriate and available for use in their project but specified that the evaluation team would be responsible for determining exactly which instruments would be used. Most projects proposed a mixed methods approach using both qualitative and quantitative research methods.

The analysis of the 20 Health Canada-funded IECPCP project proposals' evaluation plans suggested that many studies planned a pre-post test design. Examples of these projects are listed in Table 2, instruments numbers 50, 52, 53, 54, and 64. In one project the researchers planned to conduct "The Staged Innovation Design" (Wagner, 1984). This approach makes use of experimental and control-replication groups and allows the post-tests for experimental groups to be compared with both the pre- and post-test scores of control-replications. This design controls for several threats to internal validity and is useful for situations in which all subjects must be exposed to a treatment, but not necessarily simultaneously. Implementation of such rigorous evaluation designs may help provide conclusive evidence to demonstrate and promote benefits of interprofessional education on patient-centred care.

It is important to note that the evaluation instruments summarised in this report are the evaluation instruments *proposed* for use in the projects. The instruments actually used in the projects may be different. Consideration was given to reviewing the ethics applications to track the development of the evaluation plans since the proposals were written. However, given the iterative nature of program evaluation, several projects had multiple amendments to their ethics submissions making an ethics review a time consuming exercise. It was therefore decided to email the findings tables to each of the projects teams for verification and clarification to up date the findings. This process provided the projects with the opportunity to update the tables to align with changes that have taken place since the proposal writing and ethics application stages of their research. The follow-up survey also provided the opportunity for the evaluation subcommittee to solicit further information from projects to allow for a more sophisticated analysis and synthesis of evaluation tools used across projects and to map an even greater amount of information onto the interactive D'Amour framework.

In many instances projects reported that they would be designing new or adapting existing evaluation instruments. It would be interesting to follow-up with these researchers to determine whey they felt it was necessary to design new or adapt old instruments when some already exist.

Conclusions and Next Steps

Evaluation is critical for program improvement and long-term success (Rovai & Barnum, 2003). It is important to further our understanding of how we can continue to improve IECPCP by developing new assessment tools that align with new pedagogical solutions. Olsen, Aisner, and McGinnis (2007) suggested, "An essential component of the learning healthcare system is the capacity to continually improve approaches to gathering and evaluating evidence, taking advantage of new tools and methods" (p. 2-1).

The analysis of the proposals for this report underscores the projects' requirements for a variety of evaluation tools and outcome measures that capture the range of experiences, contexts, audiences, and sensitivity to cultural and local situations. Common tools that allow comparisons to be made across projects would also be useful. The analysis revealed strong connections between the proposals and D'Amour and Oandasan's (2005) Emerging Framework. This framework provides an excellent mechanism for facilitating the evaluation sub-committee's mandate of promoting collaboration and knowledge exchange concerning evaluation across the Health Canada funded IECPCP projects. A follow-up project could further format the framework by adding 'drop down' menus to each variable on the graphic to display the related findings of the 20 projects. The interactive framework drop down menus could present the evaluation tools, references, target audiences, and outcomes of the projects. Presenting the findings in this way would allow for gaps in the research to be identified. For example, a user may mouseover 'organizational factors' and find that no or few projects were evaluating this component of the framework.

Although beyond the scope of this project, a follow-up study could also present the evaluation instruments used in the projects so that they aligned with variables they evaluate within the framework. This re-organization would require a review of each instrument and how it is currently being used in the 20 projects and possibly making updates, revisions, and extensions to the model itself. Extending the D'Amour and Oandasan (2005) framework to create support for evaluating IECPCP is an essential component of an educational system whose capacity is to continually improve by gathering and evaluating evidence and synthesizing and implementing this knowledge at the point of care (Olsen et al., 2007).

References

CHSRF. (2004). *KEYS: Knowledge Exchange Yields Success*. Retrieved November 3, 2004 from www.chsrf.ca/keys/glossary_e.php?mode+print&

D'Amour, D., & Oandasan I. (2005). Interprofessionality as the field of interprofessional practice and interprofessional education: An emerging concept. *Journal of Interprofessional Care*, Supplement 1, 8-20.

Gardner, S. F., Chamberlin, G. D., Heestand, D. E., & Stowe, C. D. (2002). Interdisciplinary didactic instruction at academic health centers in the United States: Attitudes and barriers. *Advances in Health Sciences Education*, 7, 179-190.

Gerace, R. (2007). A compelling case for greater action. *MD Dialogue*, 3(2), 7-8.

Graham, I. D., & Logan, J. (2004). Innovations in knowledge transfer and continuity of care. *Canadian Journal of Nursing Research*, 36(2), 89-103

Graham, I. D., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., & Robinson, N. (2006). Lost in knowledge translation: Time for a map? *Journal of Continuing Education in the Health Professions*, 26, 13–24.

Guskey, T. R. (2000). *Evaluating Professional Development*. Thousand Oaks:Corwin Press Inc.

Heinemann, G. D., Schmitt, M. H., Farrell, M. P., & Brallier, S. A. (1999). Development of an Attitudes Toward Health Care Teams Scale. *Evaluation and the Health Professions*, 22, 123-42.

Heinemann, G. D., Schmitt, M. H., Farrell, M. P. (2002). Attitudes toward health care teams. In Heinemann, G.D. , Zeiss, A.M. (eds). *Team performance in health care: Assessment and Development*. New York: Kluwer Academic/ Plenum Publishers, 2002:155-59.

Hepburn, Tsukuda, & Fasser (1996). Team Skills Scale. Developed for the John A Hartford Foundation GITT Initiative. Source: National GITT Resource Center, NYU. In Siegler, E.L., Hyer, K., Fulmer, T., & Mezey, M. (1998). *Geriatric interdisciplinary team training*. New York: Springer.

Knowledge Translation Program, University of Toronto, Faculty of Medicine. Retrieved April 14, 2007 from http://www.ktp.utoronto.ca/whatisktp/definition/

Koppel, I., Barr, H., Reeves, S., Freeth, D., & Hammick, M. (2001). Establishing a systematic approach to evaluating the effectives of interprofessional education. *Issues in Interdisciplinary care*, 3(1), 41-49.

Kirkpatrick, D. L. (1967). In Craig, R. & Bittel, L. (Eds). *Training and Development Handbook*. New York: McGraw-Hill.

Kirkpatrick, D. L. (1996). Great ideas revisited. Techniques for evaluating training programs. Revisiting Kirkpatrick's four-level model. *Training and Development Journal*, 50(1), 54-59.

Olson, L., Aisner, D., & McGinnis, J. M. (2007). The learning healthcare system: Workshop summary. Retrieved April 13, 2007 at http://books.nap.edu/execsumm_pdf/11903.pdf

Parsell, G. & Bligh, J. (1999). The development of a questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS). *Medical Education*, 33, 95-100.

Rovai, A. P., & Barnum K. T.(2003). On-line course effectiveness: An analysis of student interactions and perceptions of learning. *Journal of Distance Education*, 18(1), 57-73.

Stufflebeam, D. L. (1983). The CIPP model for program evaluation. In G. F. Madaus, M. S. Scriven, & D. L. Stufflebeam (Eds.), *Evaluation models: Viewpoints on educational and human services evaluation* (pp.117-141). Boston: Kluwer-Nijhoff Publishing

Wagner, N. (1984). Instructional product evaluation using the Staged Innovation Design. *Journal of Instructional Development*, 7 (2), 24-27.