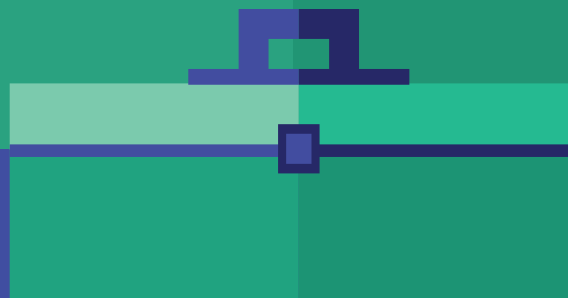# INTERPROFESSIONAL CARE COMPETENCY FRAMEWORK AND TEAM ASSESSMENT TOOLKIT

Toronto Academic Health Science Network Practice Committee

and

University of Toronto Centre for Interprofessional Education at the University Health Network

TAHSN

TORONTO ACADEMIC HEALTH SCIENCE NETWORK

UNIVERSITY OF TORONTO

Centre for **INTERPROFESSIONAL EDUCATION**

INTERPROFESSIONAL CARE COMPETENCY FRAMEWORK AND TEAM ASSESSMENT TOOLKIT

Background

As defined by the World Health Organization (2010), Interprofessional Care* (IPC) occurs when multiple health workers from different professional** backgrounds provide comprehensive health services by working with clients/patients, their families, carers and communities to deliver the highest quality of care across settings. Effective teamwork is a critical enabler of safe, high quality care.

The Toronto Academic Health Science Network (TAHSN) Practice Committee embraces a mandate to lead interprofessional practice transformation and advance academic practice within and across professions. In order to support this mandate, the Committee recommended the development of an IPC Competency Framework and Team Assessment Toolkit for integration across TAHSN organizations in collaboration with the University of Toronto Centre for Interprofessional Education. The hope is that a system-wide IPC Framework would be a road map for our clinicians, leaders, clients/patients, caregivers, and teams to advance our collective vision of IPC across the system.

Development Process

Two working groups of key practice and education leaders from TAHSN hospitals, co-chaired by a TAHSN and Centre for Interprofessional Education leader, met throughout 2016-17 to develop the Framework and Toolkit *(See Appendix A: Working Group Members)*. Key decisions were made as followed:

- After reviewing local and international Competency Frameworks *(See Appendix B: IPC Competency Frameworks Reviewed)*, TAHSN would adopt the 6 competency domains of the Canadian Interprofessional Health Collaborative National Interprofessional Framework*** within the IPC Framework given its prevalence, support and applicability within the TAHSN hospitals.

- The IPC Framework would include key descriptions that would clarify how individuals and teams would live these competencies in their practice, including behavior examples and language understandable to clients/patients and families.

- The Team Assessment Toolkit would not be inclusive of all individual and team IPC scales but would review in detail the most common tools currently in use with a focus on IPC across TAHSN.

- The Team Assessment Toolkit would be inclusive of both research-supported tools and tools in practice across the system, related to IPC competencies.

* Includes both clinical and non-clinical health-related work, such as diagnosis, treatment, surveillance, health communications, management and sanitation engineering. ** Professional is an all-encompassing term that includes individuals with the knowledge and/or skills to contribute to the physical, mental and social well-being of a community. *** Our thanks to the Canadian Interprofessional Health Collaborative for permission to use and adapt this Framework.

- Each of the Team Assessment Tool items would be best mapped to each competency, as described in the Competency Framework definitions, by the working group members.

- Organizational examples related to IPC competencies and team assessment tools would be collected and added to the document (*See Appendix C: Organizational Examples*).

Key Hopes and Expectations

The key hope is that the IPC Competency Framework and Team Assessment Toolkit will provide the basis for supporting, educating and coaching teams to evolve from multiprofessional to interprofessional practice. The key expectation is that each TAHSN hospital will engage the IPC Competency Framework relative to their stage of IPC integration and context in one of three ways:

- Adoption of the IPC Framework into interprofessional practice and culture for organizations that are considering but have not used IPC Frameworks.

- Integration of the IPC Framework behaviors and examples for organizations that have adopted an IPC Framework but have not applied these competencies in interprofessional practice and culture.

- Alignment of the IPC Framework for organizations that have already adopted and integrated IPC competencies in interprofessional practice and culture.

Both the Framework and Toolkit could also be integrated into organizational structures such as:

- Committee, Projects, Governance

- Leadership and Professional Development

- Orientation

- Integration into Technology

- Research and Program Evaluation

- Recruitment, Hiring and Performance Evaluation

- Roles and Models of Care Review

- Standards of Care

- Strategic Planning

- Team Assessment and Evaluation

- Team Educational Resources

These documents would not be prescriptive to organizations across TAHSN but a supportive resource for the range of organizations beginning their journey to IPC to those refining established models of care.

IPC COMPETENCY FRAMEWORK

Competency Domain - Patient/Client/Family/Community Centred Care	
Competency Definition: *The provider/team works collaboratively and partners with the client/patient/family/ community in all aspects of daily care, care planning, health promotion and wellness to ensure shared decision-making and engagement.*	
I/We:	**Behavior Examples:**
Actively engage the client, patient and family to participate as partners in all aspects of their care.	• Actively seek and clarify client/patient/family goals, values, needs and feedback in care planning to guide coordination of services as partners in care planning and quality improvement. • Encourage the client/patient to be as independent as possible, promoting health wellness, maintenance, management and disease/disability prevention. • Encourage the family and community to participate as appropriate in the emotional and physical care of the client/patient.
Role model treating people with dignity and respect in a caring environment.	• Always address the client/patient and their family members with their preferred name. • Create an environment of trust, dignity, confidentiality, privacy and mutual respect with all clients/patients and families. • Recognize and address individual, structural and systemic power differentials that impact the client/patient/family in care. • Integrate cultural beliefs, diversity and values that are important to the client/patient and their family members into care.
Ensure that appropriate information and education by providers is consistent across the team and understandable to client/patient/family members and others involved in care or service.	• Involve the client/patient/family in the sharing of information. • Review chart and confirms any relevant information with client/patient/family. • Provide explanations at the level of client/patient/family understanding. • Share information in a respectful manner that encourages discussion and enhances participation in decision making with an understanding of health care law and ethics. • Use bedside discussions and family meetings effectively to share information and contribute to care plan.
Maintain a balance between the client/ patient/ family and provider perspectives, listening respectfully to the expressed needs of all parties in shaping team goals and delivering care.	• Work with client/patient/family goals and priorities to negotiate provider goals and with awareness of the client/patient/family understanding of his/her evolving status. • Advocate for client/patient/family goals and choices to other members of the team to integrate in care planning. • Collaborate with the client/patient/family and team to identify and resolve situations in which client/patient/family goals do not fit with best practice to mediate the best solution to meet the patient needs. • Apply ethical reasoning and decision-making frameworks, collaborate with ethicists and leaders when client/patient/family and health provider opinions are misaligned. • Advance values including accountability, respect, confidentiality, trust, integrity, honesty and ethical behaviour, equity as an interprofessional team.

Competency Domain – Communication

Competency Definition: *The provider/team actively provides information to and seeks information from team members, including the client/patient and family, across roles and professions, to ensure shared understanding across the team.*

I/We:	Behavior Examples:
Consistently update the team with relevant knowledge that impacts care.	• Develop processes for exchanging information in a specific and timely manner within and across teams and care settings. • Contribute the expertise of the provider's perspective to team discussions. • Communicate and receives information about changes in client/patient condition in a timely manner to most responsible care provider and team and follows up regarding appropriate action.
Consistently follow professional and organizational standards for documentation.	• Document key information in paper/electronic records accurately and up to date in real time to allow team members accessing the client/patient record to have the most current information. • Participate in collaborative development and utilization of organizational communication tools, policies and information systems that enable team communication and collaboration across providers and teams. • Screen and review provider and team documentation as appropriate to deliver coordinated care. • When using alternate methods of communication, including communication technology (e.g. text, Skype, e-mail etc.), adjust language, etiquette and approach to both verbal and non-verbal communication as required.
Communicate in a responsive and responsible manner, giving as well as receiving information, that supports a team approach to care.	• Consistently use clear communication and communication strategies respectfully and clearly to other members of the healthcare team, to enhance care coordination, collaboration and common understanding of care. • Communicate using language that is common among roles and providers, avoiding and/or explaining jargon and acronyms while checking for understanding. • Listen and receive information attentively to other team members, using communication strategies such as repeat back, clarifying questions, summarizing to ensure understanding. • Provide timely communication related to transfer of care accountability across providers, teams and care settings.

Competency Domain – Role Clarity

Competency Definition: *The provider/team understand their own role and the roles of those of other providers and inter-sectoral teams, using this knowledge to establish and achieve quality care as well as advance the health of populations.*

I/We:	Behavior Examples
Understand own role and roles of those in other professions.	• Ensure up to date understanding and competence regarding one's own profession appropriate to scope of practice. • Articulate their own, as well as other's role and/or scope of practice to client/patient/family/team in care interactions. • Embrace the diversity of other health and social care roles to ensure coordinated client/patient/family centered care. • Develop, deliver and engage in opportunities for interprofessional education and professional development to enhance collaborative learning about roles and scopes of practice.
Explore the interdependencies between own role and roles of others to optimize each members' scope.	• Consider the roles of others and client/patient/family needs when determining own role when prioritizing and coordinating care. • Recognize one's own limitations and need for consultation with other members of the healthcare team based on knowledge, skills, roles and scopes. • Ensure explicit negotiation of each member's role in carrying out a coordinated treatment plan based on client/patient/family goals and needs. • Explore new models of care relating to coordinating and advancing roles to innovate care for clients/patients.
Facilitate access to understanding of roles and access to health and social services.	• Ensure role clarification and coordination is clear across transitions in care to ensure care that is safe, timely, efficient, effective and equitable. • Ensure appropriate consultation and referral of provider services as needed by client/patient. • Ensure inter-provider and inter-team relationships and models of care to plan care coordination with other teams within and outside of the health system.

Competency Domain - Conflict

Competency Definition: *The provider/team constructively engages conflict while pro-actively addressing individual, team elements that influence conflict to resolve disagreements and develop solutions for best client/patient care.*

I/We:	Behavior Examples
Consistently engage interprofessional conflict in a constructive and respectful manner.	• Recognize the potential for conflict to occur, potential positive nature of conflict and take constructive steps to engage it to seek the best solutions to complex problems. • Proactively and reactively discuss difficult team issues that may lead to conflict and arrives at mutually agreed upon solutions and processes in a non-blaming, non-shaming appreciative manner. • Listen open mindedly, values the ideas of and contribute to effective consensus building among interprofessional team members with differing views. • Use respectful language appropriate for a given difficult situation, crucial conversation, or conflict. • Utilize conflict management tools, ethical decision-making Frameworks, and guidelines to resolve issues within the interprofessional team, to achieve optimal outcomes for clients/patients/family.
Pro-actively address individual and team elements that influence conflict.	• Establish and maintain effective and healthy working relationships with learners/practitioners and clients/patients/families. • Pro-actively address and reflect on individual and team elements that can enable or damage physical and psychological safety such as power differentials, hierarchy, role overlap and informational deficiencies. • Recognize how one's uniqueness in provider role, experience level, expertise, culture within the health team contributes to conflict.

Competency Domain - Team Functioning

Competency Definition: *The provider/team demonstrate the principles of team work dynamics and group/team processes to enable effective interprofessional collaboration.*

I/We:	Behavior Examples
Integrate team norms* and psychological safety into team interactions and practice. **Team norms/ground rules are a set of rules/guidelines that a team establishes to shape the interaction of team members with each other and with employees external to the team.*	• Participate in the development of, and aligns behavior to, established team norms*, goals and values. • Support team psychological safety to establish a sense of confidence that the team will not embarrass, reject or punish someone for speaking up.. • Advocate against and avoid harmful behavior to a team i.e. gossip, destructive comments, rumours that impact team morale and development.
Give timely and meaningful feedback to team members.	• Give corrective feedback to peers as required; respectfully, privately and in the moment utilizing the concepts of emotional intelligence. • Relate feedback to team performance, organizational practices and expectations.
Learn collaboratively with the team	• Decide collaboratively on and seeks interprofessional education on team learning goals shared across roles and professions. • Endeavor to integrate evidence-based practice into team approach to care. • Identify and provide team members with guidance and educational tips from their own expertise to optimize care delivery.
Understand the pressures faced by the team and actively supports the team goals during challenges and change.	• Seek to understand and discuss individual and team pressures such as patient acuity, availability of resources, patient flow and change. • Encourage flexibility, adaptability and creativity to respond to pressures and change within a team and organization.
Engage in team assessment, evaluation and reflection.	• Support the dedication of time for ongoing team debrief, reflection and process review. • Effectively facilitate discussions and interactions among team members. • Encourage both formal and informal opportunities for interpersonal understanding, collaboration and socialization. • Develop processes and tools to support ongoing team reflection and evaluation. • Explicitly recognize and celebrate individual and team success and achievements. • Identify successes and gaps regarding the team's collaborative practice. • Regularly support team process improvement reflecting on team functioning, outcomes and performance. • Support individual/team ethical practice and collaboratively reflect on individual/team ethical dilemmas.

Competency Domain – Collaborative Leadership

Competency Definition: *The provider/team support a team culture that support shared decision making, equity and leadership throughout the team and beyond.*

I/We:	Behavior Examples
Contribute to the co-creation and support of a climate of shared decision-making, leadership and accountability within the healthcare team.	• Actively support coordination and collaboration of care planning and delivery, encouraging input from all appropriate team members, to achieve goals. • Contribute the expertise of each provider's perspective to interprofessional discussions. • Identify and designates accountability for all aspects of the work particularly where there is role overlap. • Defer to the most appropriate expertise, provider and role guided by client/patient/family needs with humility and responsibility • Facilitate team in the integration of competencies/roles seamlessly into models of service delivery.
Act as a formal and informal leader among the team as appropriate for best practice, quality and safety.	• Embrace curiosity, inquisitiveness, ideas that challenge the status quo and seek debate and support to generate new ideas for improvement. • Become an advocate/champion for safety initiatives with a focus on inclusiveness of necessary team members (e.g. mobility, falls, wounds, pain). • Discuss client/patient risk(s), and identify strategies to mitigate risks, both while in hospital and in preparing for discharge , with active involvement of the client/patient/family and community partners, within the scope of one's practice.
Collaboratively lead health system transformation and social accountable change across silos and care sectors .	• Collaboratively address areas of team influence on individual, population health and equity across the life span. • Individually and collectively advocate for socially accountable solutions for patients/clients/families/community. • Influence and lead other teams in collaborative leadership and care.

Reflection Questions for Individual, Team and/or Organizational Reflection

Reflection Questions	Responses for Individual, Team and/or Organizational Reflection
Consider examples of how the IPC competencies are demonstrated within your unit/program/organization: *Please review the Appendix C for Organizational Examples across TAHSN hospitals as you consider this.*	
Provide ideas of how the IPC competencies could be demonstrated within your unit/program/organization: *Please review the Appendix C for Organizational Examples across TAHSN hospitals as you consider this.*	

TEAM ASSESSMENT TOOLKIT: PART I

Tool*	Role Clarification	Interprofessional Communication	Interprofessional Conflict Resolution	Team Functioning	Patient/Client/Family/ Community-Centred Care	Collaborative Leadership	Additional Items Related to Reflection
CIHC Competency Mapping (List Question Items That Have the Most Relevance Per Competency)							
Assessment for Collaborative Environments (ACE-15)	5, 6, 9, 14	3, 9-10, 12	15	2, 4, 5, 8, 11, 13	12	1-3, 7-8, 10, 12	2-3,13
Assessment of Interprofessional Team Collaboration Scale (AITCS)	17, 26-27	4-5, 8-9, 11, 15, 19, 23, 33, 37	1, 16, 20, 34, 25	5, 10-12, 14-15, 20-30, 32, 34, 36	3, 4, 7, 17-19, 28. 33, 35, 37	6, 11-12, 14-17, 19-20, 29-33, 35-37	24
Attitudes Towards Health Care Teams (ATHCT)	12	12, 14	N/A	3, 5, 8, 12, 14	1, 8, 10-11, 13	2-3, 5	12
Bruyère Team Self Assessment on Interprofessional Practice	7, 4	2, 18, 19	13, 14	1, 5, 15, 16, 17, 23	6	6-12, 20-21	16, 23
Creating Collaborative Practice and Learning Environments (CP+LE)	12-13, 21, 25, 28-29	7-8, 10, 15, 18, 25	9, 10	7-11, 19, 21-27, 36-37	11-16	10, 17-19, 20, 26-27	32, 37
Collaborative Practice Assessment Tool (CPAT)	13-15, 18-19, 24, 26-30, 34	3-34, 36-41, 43, 54	40, 46-48, 50-51	9-16, 25, 36, 40, 44,-45	2-6, 8, 18, 21, 32-33, 36-38, 42-45, 52-56,	1-8, 17-24, 27, 29, 31, 33-39, 42, 49, 52, 55- 56	25
Clinical Teamwork Scale (CTS)	12-13	2-3, 5-6	N/A	1, 7-8	15	9-12, 14	N/A
Interprofessional Collaborator Assessment Rubric (ICAR): Numbered from first item to last of the full rubric	6, 12-18	1-7, 9-11, 19- 22, 28-30	28-31	23-27	11,19-21	8-11, 13-16, 19-22, 25	N/A
Individual Teamwork Observation and Feedback Tool (ITOFT) (B=Basic 1-11, A=Advanced 1-10)	B7	B3-5, B8, B10-11, A4, A6, A9	A10	B8-11, A4-6, A10	B2, 4-6, A2	B1-7, A1-3, A7-8	B11
Jefferson Team Observation Guide (JTOG)	3, 6, 10	4-5, 8-9	N/A	3, 7,13-14	N/A	1-2, 11-12	**
Registered Nurses' Association of Ontario (RNAO) Interprofessional Competency Framework Self-Assessment Tool	23-32	2, 11-12, 44-49, 51	50	5, 13-15, 26, 35, 37, 39, 41, 43	1-3, 5-7, 47-48	1, 4, 8-10, 12-14, 16-21,33-34,38,42	39, 43
Sunnybrook Interprofessional Team Collaboration Scale	5, 16-19	3-5, 7, 20, 25	6-8	3, 4, 12-15, 21, 24	22-25	9-11, 21	12-15
Team Climate Inventory (TCI)	35	14-18, 34, 37	35-37	1-11, 12-19, 20-35	37	19,26-27, 33-35	28

*Unless otherwise stated, items numbered from first item on tool to last item on tool
**3 short answer reflective open ended questions at end

TEAM ASSESSMENT TOOLKIT: PART II

Updated references and links available in Supplementary References and Links document

Tool	Main Purpose of Tool and Target Population	Quality of Measurement (Reliability, Validity) *N/A=not available at this time*	Accessibility*
Assessment for Collaborative Environments (ACE-15)	Rapid assessment of a clinical practice's teamwork qualities.... assessing interprofessional teamness in clinical training sites that are settings for learners, and, in addition may be useful for team development.	Internal consistency reliability Cronbach's alpha was high at 0.91. Subgroup analysis of 121 respondents grouped by their clinical teams (n = 16 teams) showed a wide range of intra-team agreement. Data from a subsequent sample of 54 clinicians who completed the ACE-15 and a measure of team cohesion indicated convergent validity, with a correlation of the tools at r = 0.81. Conclude that the ACE-15 has acceptable psychometric properties and promising utility for assessing interprofessional teamness in clinical training sites that are settings for learners, and, in addition may be useful for team development.	https://nexusipe.org/users/virginia-tilden
Assessment of Interprofessional Team Collaboration Scale (AITCS)	Designed to measure IP collaboration (how the team works and acts) among team members, This scale is designed to: • Assist health care teams in practice to determine how well they are collaborating in their teamwork. • Be used in conjunction with a change intervention within a healthcare setting to assist in determining the impact of the change on the working relationships of those who comprise the patient/client centred team.	Principal components and factor analysis of data resulted in 37 items loading onto 3 factors, explaining 61.02% of the variance. The internal consistency estimates for reliability of each sub-scale ranged from 0.80 to 0.97, with an overall reliability of 0.98. Article concludes AITCS is a reliable and valid instrument.	www.ipe.uwo.ca/Administration/aitcs.html

Tool	Main Purpose of Tool and Target Population	Quality of Measurement (Reliability, Validity) *N/A=not available at this time*	Accessibility*
Attitudes Towards Health Care Teams (ATHCT)	Developed as a pre- and post- measure or longitudinal monitor of attitudes toward health care teams among team members and/or trainees and their supervisors in clinically based team training programs. This version of the ATHCT Scale is a 14-item tool on a 5-point scale that can be used to determine effect of interprofessional education on quality of care and teamwork. The 2 sub-scales for this tool are quality of care/process and time constraints.	Internal consistency: Cronbach's α ranged from .75 to .83, test-retest correlation/reliability n ranged from .36 to .71 for sub-scales. Construct validity: PCA conducted and ANOVAs conducted and indicate significant differences among teams in expected manner. Criterion validity: concurrent validity evidence.	Link available. Contact: vcurran@mun.ca
Bruyere Team Self Assessment on Interprofessional Practice	ID strengths and areas for team improvement regarding IPC; set priorities for collaborative care re-design; evaluate pres/post changes in IPC. The scale is used to: • Help the team to identify their strengths and areas for improvement regarding IPC, • Help the team to set priorities for their work in collaborative care re-design, • Help evaluate pre/post changes in IPC awareness when conducting IPC interventions with clinical teams.	Validated scale, from Temkin-Greener et al, 2004, Interprofessional Team Performance Scale instrument was used to assess the construct validity of the Bruyère Team Self Assessment scale.	Available upon request.
Creating Collaborative Practice and Learning Environments (CP+LE)	• Used to highlight and clarify IP competencies in students and providers, IP structures and processes	N/A	Available upon request.

Tool	Main Purpose of Tool and Target Population	Quality of Measurement (Reliability, Validity) N/A=not available at this time	Accessibility*
Collaborative Practice Assessment Tool (CPAT)	This scale is designed to: • Assess perceptions of constructs of collaborative practice • Be used in a variety of settings involving a diversity of healthcare providers with the aim of helping teams to identify perceived levels of collaboration within the different domains so that professional development needs can be identified, leading to corresponding action plans.	Cronbach's alpha: • Mission, Meaningful purpose, • Goals = .88, • General relationships = .89, • Team leadership = .80m • General role responsibilities and autonomy; = .81, • Communication & information exchange = .84, • Community linkages & coordination of care = .76, • Decision-making & conflict management .67, • Patient involvement= .87.	Available upon request.
Clinical Teamwork Scale (CTS)	Objectively evaluate teamwork in the field during short clinical team simulations and everyday clinical care, Our goal was to develop a tool that could be used in the field to assist in debriefing team simulations and also by clinical teams to evaluate teamwork skills in routine and emergent clinical care.	There was substantial agreement (Kappa 0.78) and score concordance(Kendall coefficient 0.95) among raters, and excellent inter rater reliability (interclass-correlation coefficient 0.98). The highest percentage of variance in scores among raters was because of rater/item interaction.	http://obsafety.org/pdf/Clinical%20Teamwork%20Scale.pdf
Interprofessional Collaborator Assessment Rubric (ICAR): Numbered from First Item to Last of the Full Rubric	The Interprofessional Collaborator Assessment Rubric (ICAR) is intended for use in the assessment of interprofessional collaborator competencies. Developed for usage across different health professional education programs and in different learning contexts. Not intended to coincide with a specific year or level of a learner in his/her program of studies. May be used as a tool for formative and summative assessment of learners' competencies in interprofessional collaboration.	Missing data decreased from 13.1% using daily assessments to 8.8% utilizing an MSF process, p=.032. High internal consistency measures were demonstrated for overall ICAR scores (α=.981) and individual assessment domains within the ICAR (α=.881 to .963). There were no significant differences between scores of physician, nurse, and allied health raters on collaborator competencies ($F_{2,5}$=1.225, p=.297, $\eta2$=.016). Rater gender was the only significant factor influencing scores with female raters scoring residents significantly lower than male raters (6.12 v. 6.82; $F_{1,5}$=7.184, p=.008, $\eta 2$=.045).	Available upon request

Tool	Main Purpose of Tool and Target Population	Quality of Measurement (Reliability, Validity) _N/A=not available at this time_	Accessibility*
Individual Teamwork Observation and Feedback Tool (ITOFT)	Devised as a means of observing and giving feedback to individual learners undertaking an interprofessional teamwork task. Two versions: the Basic tool is for use with students who have little clinical teamwork experience and lists 11 observable behaviours under two headings: 'shared decision making' and 'working in a team'. The Advanced Tool is for senior students and junior health professionals and has 10 observable behaviours under four headings: 'shared decision making', 'working in a team', 'leadership', and 'patient safety'. Both versions include a comprehensive scale and item descriptors.	The prototype tool was called the iSTAT (the individual student teamwork assessment tool). The quantitative data underwent factor analysis and the 18 items were reduced to 15, the reliability of the 15 item iSTAT was 0.89. Further testing is required to focus on its validity and educational impact.	Available upon request.
Jefferson Team Observation Guide (JTOG)	Created for students early in their educational program to observe teams in action with a set of guidelines to help them focus their observation on behaviors indicative of good teamwork.	Internal consistency was run on this sample, and Cronbach's alpha was found to be 0.97. A second reliability study was conducted with 114 students in nursing who observed another rehabilitation team in action. Cronbach's alpha on this group of students was also 0.98, suggesting strong reliability. Predictive validity study was conducted using 142 students in medicine, nursing, occupational therapy, physical therapy, and pharmacy. Results of the t-tests show statistically significant differences between the two ratings, with the group observing the well-functioning interaction having a mean score 21.5 points higher than the group score of the dysfunctional interaction (p<0.000). In addition, the average score on each characteristic for the positive interaction was a 3.3 vs 1.76 for the negative interaction group.	https://nexusipe-resource-exchange.s3.amazonaws.com/JTOG%20-%20July%202014.doc.

Tool	Main Purpose of Tool and Target Population	Quality of Measurement (Reliability, Validity) N/A=not available at this time	Accessibility*
Registered Nurses' Association of Ontario (RNAO) Interprofessional Competency Framework Self-Assessment Tool	Self assessment survey allows individual to reflect on areas of strength in collaborative practice and areas to strengthen. Developed for nurses and teams.	N/A	Available upon request.
Sunnybrook Interprofessional Team Collaboration Scale	Measures how frequently health care team engages in interprofessional activities	N/A	Available upon request.
Team Climate Inventory (TCI)	The TCI has been used as an improvement tool for assessing team function to identify areas that could be improved. This tool can be used to measure proximal work group climate and team members' perceptions of climatic dimensions in organizational climate surveys, team building and development, selection of new members into groups, and group development over time.	Tested with 424 healthcare professionals; 355 nurses working in 22 nursing teams and 69 nurses and doctors working in 14 quality-improvement teams. The validity test revealed the TCI's five-factor structure and moderate data fit. The Cronbach alphas of the five scales showed acceptable reliabilities. The TCI discriminated between nursing teams and quality improvement teams. The mean scores of quality improvement teams were all significantly higher than those of the nursing teams.	Subscription needed.

TEAM ASSESSMENT TOOLKIT: PART III

TOOL	Level of Measure-ment	Type of Instrument	# of Items	Estimated Time to Complete	Completed by
Assessment for Collaborative Environments (ACE-15)	4 point scale: Strongly Disagree to Strongly Agree	Quantitative	15	5 mins	Self-Reported
Assessment of Interprofessional Team Collaboration Scale (AITCS)	5 point scale: Never to Always	Quantitative	37 across 3 sub scales: Partnership/Shared Decision Making (19 items); Cooperation (11 items); Coordination (7 items)	10 mins	Self-Reported
Attitudes Towards Health Care Teams (ATHCT)	5 point scale: Strongly Disagree to Strongly Agree	Quantitative	14-Item tool on the 5-point scale that can be used to determine the effect of interprofessional education on quality of care and teamwork. The 2 sub scales for this tool are quality of care/process and cost of team care.	5 mins	Self-Reported
Bruyere Team Self Assessment on Interprofessional Practice	5 point scale: Agree Very Little to Agree Strongly	Quantitative	Part 1 (questions 1 to 23) evaluates a clinical team's perception of key team characteristics known to enable interprofessional care (subjective evaluation) Part 2 (questions 24 to 32) evaluates the level of actual team practices associated with IPC (objective evaluation): Collaboration and Cohesion (7 domains); Decision-making and Leadership (6 domains); Communication and conflict resolution (6 domains); Accountability (4 domains); IP Models of Care Checklist (9 domains).	10 mins	Self-Reported

TOOL	Level of Measurement	Type of Instrument	# of Items	Estimated Time to Complete	Completed by
Creating Collaborative Practice and Learning Environments (CP+LE)	3 point scale measures both Frequency 0-3 and Quality 0-3	Quantitative	38: 1-6 about education; 7-29 about practice; 30-38 about organizational.	10 mins	Self-Reported
Collaborative Practice Assessment Tool (CPAT)	7 points ranging from Strongly Disagree to Strongly Agree	Quantitative and Qualitative	56 across 9 domains + qualitative. Constructs of collaborative practice include: Mission, Meaningful Purpose, Goals (8 items); General Relationships (8 items); Team Leadership (9 items); General Roles and Responsibilities, Autonomy (10 items); Communication and Information Exchange (6 items); Community Linkages and Coordination of Care (4 items); Decision-making and Conflict Management (6 items; Patient Involvement (5 items).	15 mins	Self-Reported
Clinical Teamwork Scale (CTS)	0-10 point scale with attached descriptors.	Quantitative	15 items in 5 clinical teamwork domains	5 mins	Observation
Interprofessional Collaborator Assessment Rubric (ICAR)	4-level scale Minimal to Master	Quantitative	Multiple across domains/categories, 31 items	10 mins	Self, Peer, or Faculty-Rated Rubric
Individual Teamwork Observation and Feedback Tool (ITOFT)	5-point scale	Quantitative	10	5 mins	Observation and Completed by Observer

TOOL	Level of Measurement	Type of Instrument	# of Items	Estimated Time to Complete	Completed by
Jefferson Team Observation Guide (JTOG)	4 point scale Strongly Disagree to Strong Agree + N/A	Quantitative and Qualitative	14, 3 qualitative questions , Competencies: V=Values and ethics R=Roles and responsibilities C=Communication T=Teamwork L=Leadership	5 mins	Observation and Completed by Observer
RNAO Interprofessional Competency Framework Self-Assessment Tool	5 point scale Never to Almost Always, + Does not Apply	Quantitative	51	15 mins	Self Reported
Sunnybrook Interprofessional Team Collaboration Scale	5 point scale Never to Very Often	Quantitative and Qualitative	24	10 mins	Self Reported
Team Climate Inventory (TCI)	10 point Likart: Global: Unacceptable to Perfect.	Quantitative	38-item tool using both a 5 and 7 point scale. The tool is used to measure team function. It has 4 sub scales: vision, participative safety, task orientation, and support for innovation.	5 mins	Self Reported

Appendix A: Working Group Membership

IPC Competency Framework Working Group

Dean Lising, Centre for Interprofessional Education, University of Toronto
(Co-Chair)

Lindsay Martinek, Michael Garron Hospital
(Co-Chair)

Ashley Skiffington, St. Michael's Hospital

Cheryl Hoare, Trillium Health Partners

Daina Kalnins, The Hospital for Sick Children

Deb Galet, Baycrest Health Sciences

Elizabeth McLaney, Sunnybrook Health Sciences Centre

John Kooy, Holland Bloorview Kids Rehabilitation Hospital

Kamini Kalia, Centre for Addiction and Mental Health

Olavo Fernandes, University Health Network, Faculty of Pharmacy, University of Toronto

Sandi Ellis, Sunnybrook Health Sciences Centre

Sandra Li-James, University Health Network

Theresa Kay, Women's College Hospital

Executive Sponsors

Irene Andress, Michael Garron Hospital

Jane Mosley/Jennifer Price, Women's College Hospital

Mandy Lowe, Centre for Interprofessional Education, University of Toronto

Maria Tassone, Centre for Interprofessional Education, University of Toronto

Marilyn Ballantyne, Holland Bloorview Hospital

Rani Srivastava, Centre for Addiction and Mental Health

Team Assessment Toolkit Working Group

Dean Lising, Centre for Interprofessional Education, University of Toronto
(Co-Chair)

Tracey DasGupta, Sunnybrook Health Sciences Centre
(Co-Chair)

Donna Romano, University Health Network

Elizabeth Hanna, University Health Network

Kamini Kalia, Centre for Addiction and Mental Health

Karen Gold, Women's College Hospital

Kimberley Bradley, St. Michael's Hospital

Kim Krog, Holland Bloorview Kids Rehabilitation Hospital

Lisa Sokoloff, Baycrest Health Sciences

Michele Durrant, The Hospital for Sick Children

Sarah Coppinger, Michael Garron Hospital

Sharyn Gibbins, Trillium Health Partners

Sophie Soklaridis, Centre for Addiction and Mental Health

Appendix B: IPC Competency Frameworks Reviewed

- A Framework for the Development of Interprofessional Education Values and Core Competencies, Health Professional Programs, **University of Toronto**

- A National Interprofessional Competency Framework, **Canadian Interprofessional Health Collaborative**

- Core Competencies for Interprofessional Collaborative Practice, **American Interprofessional Education Collaborative**, United States

- Interprofessional Capability Framework, **Faculty of Health Sciences, Curtin University**, Australia

- Combined Universities Interprofessional Learning Report, **Sheffield Hallam University and The University of Sheffield**, United Kingdom

- CanMEDS 2015 Physician Competency Framework. Ottawa: **Royal College of Physicians and Surgeons of Canada**

- Competency Framework for Interprofessional Practice, **Centre for Addiction and Mental Health**

- Interprofessional Practice Competency Based AFT, **Michael Garron Hospital**

- Interprofessional Collaboration Competency Framework, **St. Michaels Hospital, Canada**

- Core Competencies for Interprofessional Team Collaboration, **Sunnybrook Health Science Centre**

- Inter-professional Standards of Care, **The Hospital for Sick Children**

Appendix C: Organizational Examples

Advanced Roles and Models of Care

- **Centre for Addiction and Mental Health:** Rapid Rounds, a daily interprofessional clinical discussion that drives clinical decision making and planning for client care on inpatient units.

- **Holland Bloorview Kids Rehabilitation Hospital:** Advanced Practice Roles and Model of Care for Cardio Respiratory Clients; interprofessional model of care roadmap.

- **Trillium Health Partners**: Collaborative Care by Design/Models of Care.

- **Trillium Health Partners**: Daily/Just-in-time interprofessional quality huddles.

- **University Health Network:** Safety Huddles: Unit/department managers are holding unit safety huddles once a day with all members of the team (both clinical and non-clinical) to identify safety concerns by looking ahead/back 24 hours.

- **Sinai Health System:** Clinical Transformation and Model of Care Redesign (orthopaedics and palliative care).

- **Sinai Health System:** Interprofessional Patient-Centred Electronic Integrated Care Plan.

Frameworks and Standards of Care

- **North York General Hospital:** Professional Practice Framework: defining essential components of professional practice to support IPC for patient and family-centred care.

- **The Hospital for Sick Children:** Interprofessional Standards of Care were developed at the hospital, in 2011 and these standards of care for all health care providers were developed with interprofessional leaders and aligned with the hospital values, vision and shaped by professional principles.

- **St. Michael's Hospital:** IPC-C Framework: used as the guiding principle to design the new Interprofessional Strategic Plan for Professional Practice and it is highlighted explicitly in the strategic plan.

- **St. Michael's Hospital:** Alignment of all relevant corporate education with St. Michael's Hospital IPC-C Framework: The Framework is used in the development, design, delivery and evaluation of these education activities.

Governance

- **Baycrest Health Sciences:** Interprofessional Advisory Council: Program and organizational level specific to Baycrest Care Areas.

- **Centre for Addiction and Mental Health**: Collaborative Practice Advisory Council – an Interprofessional council advising on academic and practice initiatives.

- **Sunnybrook Health Sciences Centre**: Interprofessional Governance: Interprofessional Advisory Committee; Interprofessional Steering Committee; Executive Sponsor structure; working groups for IPE Committee, Models of Care and Embedding Interprofessional Principles, Interprofessional Quality Committee.

Orientation, Recruitment and Performance Evaluation

- **North York General Hospital**: Interprofessional Orientation: an IP approach to multiple organizational initiatives (codes, pain, wounds, falls, consent) for new hires.

- **Sunnybrook Health Sciences Centre:** Collaboration with Human Resources regarding role profiles, job postings, interview guides and performance appraisals reflecting interprofessional principles.

Strategy

- **St. Michael's Hospital:** Education Portfolio's Strategy on Collaborative Learning: To ensure alignment between education and practice, all Collaborative Learning is mapped onto SMH's IPC-C Framework. Evaluation data from Collaborative learning sessions is also used to understand where the organization is as a whole around Collaborative Learning.

Team Assessment/Interprofessional Measurements

- **Holland Bloorview Kids Rehabilitation Hospital:** Use of the IP-COMPASS tool (Interprofessional Collaborative Organization Map and Preparedness Assessment) for IP readiness.

- **North York General Hospital:** Malnutrition Screening Tool (MST): interprofessional approach to identification and management of malnutrition in admitted patients.

- **Baycrest Health Sciences:** Utilization of Attitudes towards Health Care Teams assessment used in evaluation of the Baycrest IPE/C Toolkit research project.

- **Holland Bloorview Kids Rehabilitation Hospital:** RNAO Interprofessional Competency Framework Self-Assessment Tool used as a measure of self-reflection.

- **St. Michael's Hospital:** Assessment of Interprofessional Team Collaboration Scale used to assess team simulation scenarios.

- **Sunnybrook Health Sciences Centre:** Utilization of Collaborative Practice Assessment Tool in evaluation of team functioning research study and Sunnybrook Interprofessional Team Collaboration Scale used across the organization to support team development

- **University Health Network:** Utilization of Collaborative Practice Assessment Tool to assess clinical teams on the Acute Care of Elderly unit and Assessment of Interprofessional Team Collaboration Scale to measure pre- and post-team competency elements following a team-based care program

Team Educational Activities/ Resources

- **Baycrest Health Sciences:** Centre for Learning Research and Innovation in Long-Term Care: Team essential learning modules with team members from their units and patient population is long term care residents. Evaluated rigorously with app in development.

- **Baycrest Health Sciences:** Toolkit for Interprofessional Education and Care. Team based, applicable to all patient populations/ settings were interprofessional models of care are used. Evaluated via pre/post using ATHCT.

- **Centre for Addiction and Mental Health:** Professional Practice Education Rounds – a monthly series of education offered to and by all clinicians or interprofessional teams on the integration of evidence into practice.

- **North York General Hospital:** iPed: Workshop for staff and physicians to build IPE capacity in our teachers and educators.

- **North York General Hospital:** IPE/C Rounds: highlighting IPC by clinical teams for enhanced patient outcomes.

- **North York General Hospital:** IPE for a collaborative approach to management of behavioural and psychological symptoms of dementia.

- **The Hospital for Sick Children:** Team resuscitation education program, involving Department of Emergency Medicine and the Learning Institute, with integration of TEAM team performance tool for constructive debrief in simulated and clinical settings.

- **Sinai Health System:** Interprofessional team Pair & Share event.

- **Sunnybrook Health Sciences Centre**: Desert Island IPC activity – interactive team game focused on shared decision making – run for students, conferences, staff, management program etc.

- **Trillium Health Partners:** Interprofessional Practice & Education Rounds.

- **University Health Network:** Interprofessional Lens: multiprofessional to interprofessional practice tool across 6 sites of UHN for staff/learners.

- **University Health Network:** Interprofessional Communication in Health Literacy Workshop for staff/learners.

- **University Health Network:** Interprofessional Facilitation Workshop.

Technology

- **Centre for Addiction and Mental Health**: The adoption and optimization of a fully integrated health record by which all clinical disciplines and departments (i.e. laboratory, pharmacy) can communicate and contribute to client care.

- **The Hospital for Sick Children:** Innovative Knowledge Exchange Forum: Launched to provide interprofessional staff with opportunities to learn about evidence-based practices, clinical topics presented by interprofessional experts from practice, education and research and available through an interactive webcast system supported by the SickKids Telehealth Program.