



REPORT ON THE INTEGRATION OF  
**THE SAFETY  
COMPETENCIES  
FRAMEWORK**  
INTO HEALTH  
PROFESSIONS EDUCATION  
PROGRAMS IN CANADA


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Canadian Patient Safety Institute  
Institut canadien pour la sécurité des patients

*Safe care...accepting no less*

*Soins sécuritaires...n'acceptons rien de moins*



“Education  
is the most  
powerful  
weapon  
which you  
can use to  
change  
the world.”

*Nelson Mandela*



Canadian Patient Safety Institute  
Suite 1400, 10025 - 102A Avenue NW  
Edmonton, AB, T5J 2Z2 Canada  
Toll Free: 1-866-421-6933  
Phone: 780-409-8090  
Fax: 780-409-8098

Institut canadien pour la sécurité des patients  
Bureau 410, 1150 chemin Cyrville  
Ottawa, (Ontario) K1J 7S9 Canada  
Téléphone: 613-730-7322  
Télécopieur: 613-730-7323

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# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>6</b>
<b>FOREWORD FROM PATIENTS FOR PATIENT SAFETY CANADA</b>	<b>8</b>
<b>SAFETY COMPETENCIES FRAMEWORK</b>	<b>9</b>
BACKGROUND AND RATIONALE FOR THE DEVELOPMENT OF THE SAFETY COMPETENCIES FRAMEWORK	9
RAISING AWARENESS OF THE SAFETY COMPETENCIES FRAMEWORK	12
MAPPING TO INTEGRATE PATIENT SAFETY CONTENT IN TRAINING PROGRAMS	14
SUCCESSSES AND CHALLENGES IN THE UPTAKE OF THE SAFETY COMPETENCIES FRAMEWORK?	19
<b>CONCLUDING REMARKS – A PROVOCATIVE CALL TO ACTION FOR EDUCATORS</b>	<b>22</b>
<b>APPENDICES</b>	<b>24</b>
APPENDIX A – CPSI e-Mapping Process and Tool	25
APPENDIX B – Histogram of Outreach	29
APPENDIX C – Resources and Links	32
APPENDIX D – Selected Articles	36
APPENDIX E – Bibliography	53
APPENDIX F – The Safety Competencies: Enhancing Patient Safety Across the Health Professions - 2008 (1st edition, revised in 2009)	55

# ACKNOWLEDGEMENTS

The Canadian Patient Safety Institute (CPSI) wishes to acknowledge the significant contribution of the educators, faculties, schools and national health organizations that stepped up and supported the *Safety Competencies Framework* since its launch in 2008. Chief among these contributors are Dr. Susan Brien, co-editor of the *Safety Competencies Framework*, who spearheaded the project initially at CPSI and Dr. Jason Frank, co-editor of the *Safety Competencies Framework*, Director of Specialty Education, Policy and Standards at the Royal College of Physicians and Surgeons of Canada, for his unwavering support of the framework and the integration of patient safety content in CanMEDS 2015. As well, CPSI wishes to acknowledge the contribution of Nancy Winslade, who conceived, designed and implemented the e-mapping tool on behalf of CPSI. In addition, sincere thanks to all who gave of their time to provide helpful comments and suggestions in the completion of this report. The valuable feedback received allows CPSI to better understand the importance of the *Safety Competencies* to healthcare professionals' commitment to patient safety, and provides the means to improve on those competencies going forward.

# EXECUTIVE SUMMARY

In 2003, Health Canada created the Canadian Patient Safety Institute (CPSI) to improve the safety and quality of healthcare in response to recommendations of a National Steering Committee on Patient Safety established to consider the requirements for the provision of safer care in Canada.

In 2005, CPSI directed its Education and Professional Development Advisory Committee to conduct an environmental scan of several health curricula to understand where the gaps in patient safety content were in the education of healthcare professionals. The scan confirmed that education focusing on patient safety was nearly absent, or misunderstood, within the sampled faculties and schools of medicine, nursing and pharmacy. The scan confirmed that such education was not only sporadic and inconsistent, but also lacked the tie-in to teamwork and collaboration, an essential element to the provision of patient-centred care. In short, there was no well-established body of knowledge in Canada dedicated to patient safety content with an interprofessional perspective, though many health disciplines had related topics in their curricula.

The Advisory Committee decided to create a Steering Committee to direct the development of a patient safety competency framework. This was based on the belief that faculties and schools were in the best position to develop curriculum based on a set of nationally accepted competencies focussing on patient safety. To address this need for more patient safety education, CPSI collaborated with the Royal College of Physicians and Surgeons of Canada to develop a competency framework, given the College's experience in competency design with the successful CanMEDS framework.

After consulting with over 500 representatives from various healthcare organizations from all the major health disciplines, the first complete draft of a patient safety competency framework, comprised of six core domains, was reviewed at a consensus conference in which the domains were subsequently confirmed and validated. The final framework was approved in June 2008 by the CPSI Board and launched in September of 2008 as *"The Safety Competencies: Enhancing Patient Safety across the Health Professions."*

In order to raise the profile of the *Safety Competencies Framework* (SCF), the first two years post launch were dedicated to raising awareness of the existence of the competencies. Raising awareness was important in order for the *Safety Competencies* to gain traction among those who would naturally make use of the knowledge, skills and attitudes contained within the framework. During this time, several multi-pronged communication strategies and stakeholder engagement approaches were implemented to create momentum to "push" the framework out to stakeholders, all assisted by a suite of promotional products and tools. In addition, thanks largely to considerable uptake from the field, several abstracts were submitted and presentations given by stakeholders who championed the SCF, and who were eager to bring evidence to the attention of program directors that patient safety content in education programs mattered to the safe delivery of care.

In time, another strategy for the uptake and use of the SCF was needed to ensure the competencies were actually integrated into what was taught at the undergraduate and postgraduate levels so that future generations of health professionals would have a solid foundation in patient safety science at the start of their careers, and in clinical settings as professional development. Thus, a strategy of "mapping" educational programs to the *Safety Competencies* was designed and adopted, inspired by senior leaders in faculties and schools who were willing to demonstrate their support of the SCF by agreeing to complete an analysis of their undergraduate and clinical education programs.

By agreeing to map their programs, or curricula, faculties and schools realized that this was an important first step in integrating safety content into healthcare education. Focusing on integration of the competencies allowed educators to identify the desired knowledge, skills, and behaviours in patient safety education at a more granular and explicit level. That being said, the goal of the SCF has never been about imposing patient safety content into an already crowded curriculum but about ensuring that the *Safety Competencies* were incorporated in the most appropriate and useful manner across all relevant learning objectives.

An “e-mapping tool” was designed to ensure greater ease of use and speed of application to map in a timely manner. Using Microsoft® Access, the tool included a database application capable of creating a customized, personalized report of educational curricula or program offerings that outlined which existing course objectives were already in alignment with the SCF and what gaps between the competencies and the curriculum or program still needed to be addressed.

From 2012-2014, 13 faculties and schools completed their mappings: five pharmacy programs, four nursing programs, and four medical programs; and one specialty program in pediatrics. Six standardized reports were prepared for each faculty and school including, for each of the CPSI *Safety Competencies* and the CIHC *Interprofessional Care Competencies*, a summary of coverage and a detailed report identifying which course objectives were mapped to each enabling competency / descriptor at a glance. Results from the detailed analysis of the “Enabling Competencies” that were mapped to course objectives for each program identified a number of such competencies that were infrequently addressed in course objectives. Mapping allowed for program strengths to be identified, as well as to highlight training gaps related to patient safety.

During the course of the e-mapping project, several national organizations, important levers for influence and change in the education of health professionals as accrediting, certifying or regulatory bodies also took up the challenge to map their national standards or educational requirements to the SCF. The purpose of mapping the SCF to national levers in accreditation, certification and regulation was to influence the degree and efficiency of uptake at the local level in the faculties and schools of medicine, nursing and pharmacy across Canada.

Ultimately, supported by the vision and leadership shown by collaborating faculties and schools, and national health organizations in embracing the SCF, the mapping strategy netted positive insights into academic and practice settings by highlighting how patient safety and quality education can be integrated into the education of all healthcare professionals, and how making the content more explicit for patient safety education promotes the delivery of safer care. The process provided an important snapshot of the current state of patient safety education in academic settings that could serve as a rudimentary baseline for future comparisons.

In January 2015, interviews were completed with a select group of stakeholders familiar with the SCF and the mapping project provided a better understanding of the value of the competencies in academia, for national health organizations and professional bodies. The interviews also provided insights into the benefits of the e-mapping process and suggestions for future editions of the SCF.

In light of the sustained interest shown for the SCF in the patient safety community, CPSI is investing in a modest revision of the framework, including: reviewing the framework’s existing content; and soliciting feedback from the patient safety education community on the successes and challenges of integrating patient safety content into curricula and practice settings, and from members of *Patients for Patient Safety Canada*.

# FOREWORD FROM PATIENTS FOR PATIENT SAFETY CANADA

In 2008, Patients for Patient Safety Canada formed as a group of patients and family members committed to bringing their voice to healthcare improvements that would see “every patient safe”. The group identified four goals to help bring this about. One of those goals was to see a patient safety curriculum included in healthcare providers’ education, and to bring the patient and family voice into that curriculum. Education is a powerful way to change the status quo; to change the healthcare world from one where harm is not talked about, to one where safety is paramount and lessons are learned from patient safety incidents that are acknowledged and discussed.

There has been tremendous growth and awareness in Canada of the importance of including the patient and family voice in healthcare improvement. This was evident at the Patient Safety Education Roundtable in 2015 when a representative of Patients for Patient Safety Canada was invited to attend and participate in the important discussions of developing a national patient safety education strategy. Patients and families have the most to lose when things don’t go as expected, and have irreplaceable insights to share for improvements. Our presence in these conversations reminds providers and educators what is at stake and our voice is the gentle irritant from which, like the grain of sand in an oyster, pearls of wisdom are born. We can help and we want to help; bringing our experiences that connect stats and facts and figures to real people, real harm, and real loss. Educating aspiring providers in patient safety will change the world for everyone – patients, families and providers.

None of us can change what has happened; we cannot get back what has been lost; we cannot undo what has been done, but we can work together to make sure the system is as safe as it can be for others. After my 19-year old son died as a result of care meant to help him not harm him, a physician I worked with told me, “Donna, you can let this make you bitter, or you can let it make you better.” That is what patients and families strive to do with their experiences – make it better.

Our experiences and stories are vital in working together with the healthcare system and educational institutions to advance the patient safety agenda. It keeps everyone focused on the issue - the safety of patient care and the harm that can occur when we take our eyes and attention off patient safety.

Brian M. Wong, in his essay in the *Healthcare Quarterly*, Special Issue, v17, 2014<sup>1</sup> says that achieving a culture that emphasizes the importance of providing safe, high quality care will depend on a coordinated effort between health profession schools and healthcare institutions.

There is more to be done. It can be better, it MUST be better, but it is up to each and every one of us.

The concerted efforts of educators and organizations invested in the education of health professionals will have monumental influence in changing the world of patient safety. Let’s dare to transform the status quo to see patient safety education go further than it has before.

Lives depend on it!

**Donna Davis**

*Past Co-chair, Patients for Patient Safety Canada*

<sup>1</sup> <http://www.longwoods.com/content/23953>



# SAFETY COMPETENCIES FRAMEWORK

“In order to provide safe care, we must first understand patient safety concepts and how they are integrated into our daily work of providing healthcare.”

*Chris Power, CEO, Canadian Patient Safety Institute*

## BACKGROUND AND RATIONALE FOR THE DEVELOPMENT OF THE SAFETY COMPETENCIES FRAMEWORK

Worldwide, the patient safety movement is now recognized as an established priority in the delivery of quality and safe healthcare. In the United States, the movement first came to light with the release of seminal documents from the Institute of Medicine's (IOM) publications, *To Err Is Human: Building a Safer Health System* (National Research Council, 2000)<sup>2</sup> and *Crossing the Quality Chasm: A New Health System for the 21st Century* (National Research Council, 2001)<sup>3</sup>.

In 2003, Health Canada created the Canadian Patient Safety Institute (CPSI) to improve the safety and quality of healthcare in response to recommendations of a National Steering Committee on Patient Safety established to consider the requirements for the provision of safer care delivery in Canada.

**CPSI's mission is “to inspire extraordinary improvement in patient safety and quality.”<sup>4</sup>**

To accomplish this mission, CPSI develops evidence-informed products and programs, provides stewardship of resources, ensures clear and open communication, celebrates the successes of partners, nurtures successful partnerships, and is passionate about safe healthcare for all Canadians. Tools and resources developed by CPSI are made possible through collaborations and consultations with national, provincial, and territorial professional health organizations and governments invested in patient safety improvement. Building through partnerships is a major strength of CPSI, evident since its inception.

In 2005, CPSI directed its Education and Professional Development Advisory Committee to conduct an environmental scan of several health curricula to better understand where the gaps in patient safety content emerge in the education of healthcare professionals. The scan confirmed that education focusing on patient safety was nearly absent, or misunderstood, within the sampled faculties and schools of medicine, nursing and pharmacy. The scan confirmed that such education was not only sporadic and inconsistent, but also lacked the tie-in to teamwork and collaboration, an essential element to the provision of patient-centered care. In short, there was no well-established body of knowledge in Canada dedicated to patient safety content with an interprofessional perspective, though many health disciplines had related topics in their curricula.

<sup>2</sup> <http://www.nationalacademies.org/hmd/-/media/Files/Report%20Files/1999/To-Err-is-Human/To%20Err%20is%20Human%201999%20report%20brief.pdf>  
<http://www.nap.edu/read/9728/chapter/1>

<sup>3</sup> <https://www.nationalacademies.org/hmd/-/media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20report%20brief.pdf>

<sup>4</sup> <http://www.patientsafetyinstitute.ca/English/About/Pages/default.aspx>

From the findings in the environmental scan, the Education and Professional Development Advisory Committee decided to prioritize its first patient safety initiative in education and professional development to the creation of an educational framework containing a set of patient safety competencies.

The Education and Professional Development Advisory Committee was inspired by the following two key recommendations from the National Steering Committee on Patient Safety in 2002:

1. “Establish Educational and Professional Development Programs – The specific knowledge and skills to improve patient safety are currently not part of the education, training, and/or professional development programs for most healthcare personnel. Recommendations will be made for a coordinated and multidisciplinary educational approach that will help to build a critical mass of expertise.” (From *Building a Safer System - A National Integrated Strategy for Improving Patient Safety in Canadian Health Care*, 2002, p.12)<sup>5</sup>
2. “Create a core curriculum applicable to all areas of expertise with applicable accreditation bodies in the health disciplines incorporating the standards for education into their accreditation programs.”<sup>6</sup>

This line of reasoning was also in sync with the IOM Committee on Health Professions Education (IOM, 2003) that issued a report stating as its overarching vision for health professionals that “all health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics.” It also recommended that there should be shared competencies that focused on patient-centered care across all healthcare professions.

Early on, the decision was taken by the Safety Competencies Steering Committee, appointed to direct the development of a patient safety education framework, that a competency framework would be the ideal approach contrary to a national patient safety curriculum. This was based on the belief that faculties and schools were in the best position to develop their own curriculum based on a set of nationally accepted competencies focussing on patient safety.

In total, over 80 volunteer content experts from a broad spectrum of health disciplines participated as members of a multidisciplinary Steering Committee and working groups dedicated to the development of an educational framework for patient safety education. Given the complexity of the Canadian health system and the diversity of the healthcare workforce, the framework was designed to provide an interprofessional, practical and useful framework that identifies the knowledge, skills, and attitudes required of all healthcare professionals.

After consulting with over 500 representatives from different healthcare organizations from all the major health disciplines, the Steering Committee identified six competency domains. The first complete draft was reviewed at a consensus conference in which the domains were subsequently confirmed and validated. The final framework was approved in June 2008 by the CPSI Board and launched in September of 2008 as “*The Safety Competencies: Enhancing Patient Safety across the Health Professions.*”

<sup>5</sup> [http://www.royalcollege.ca/portal/page/portal/rc/common/documents/advocacy/building\\_a\\_safer\\_system\\_e.pdf](http://www.royalcollege.ca/portal/page/portal/rc/common/documents/advocacy/building_a_safer_system_e.pdf)

<sup>6</sup> Ibid, p. 20

“To be truly effective for Canadians, patient safety needs to be incorporated into the education of health professionals across the spectrum of healthcare. Ideally, undergraduate, postgraduate, and continuing professional education across the country will build on the new Safety Competencies framework. This competency-based approach allows for the definition and deployment of the key aspects of practice that are fundamentally different in a healthcare environment that is oriented to patient safety. It is our hope that The Safety Competencies Framework will accelerate this necessary educational transformation.”

From the Safety Competencies, 2008, p. 1

The six core domains addressed in the *Safety Competencies Framework* (SCF) include:

**Domain 1:** Contribute to a Culture of Patient Safety  
*A commitment to applying core patient safety knowledge, skills, and attitudes to everyday work.*

**Domain 2:** Work in Teams for Patient Safety  
*Working within interprofessional teams to optimize both patient safety and quality of care.*

**Domain 3:** Communicate Effectively for Patient Safety  
*Promoting patient safety through effective healthcare communication.*

**Domain 4:** Manage Safety Risks  
*Anticipating, recognizing, and managing situations that place patients at risk.*

**Domain 5:** Optimize Human and Environmental Factors  
*Managing the relationship between individual and environmental characteristics in order to optimize patient safety.*

**Domain 6:** Recognize, Respond to, and Disclose Adverse Events  
*Recognizing the occurrence of an adverse event or close call and responding effectively to mitigate harm to the patient, ensure disclosure, and prevent recurrence.*



Within the six domains are 20 key competencies, 140 enabling competencies, 37 knowledge elements, 34 practical skills, and 23 essential attitudes designed to set the stage for safer patient care in healthcare delivery systems using a structured approach in patient safety education.

The framework established a starting point for educators in academia and practice settings to align curricula and clinical education programs across all health disciplines by placing an explicit spotlight on patient safety.

## RAISING AWARENESS OF THE SAFETY COMPETENCIES FRAMEWORK

A primary focus of CPSI is on advancing patient-centered, systems-based care by developing educational programs for practicing healthcare professionals. This has included supporting the integration of the SCF into a range of healthcare education programs in academic and clinical programs using a number of strategies.

In order to raise the profile of the SCF, the first two years post launch were dedicated to raising awareness of the existence of the competencies (2008-2010). Raising awareness was important in order for the *Safety Competencies* to gain traction among those who would naturally make use of the knowledge, skills and attitudes contained within the framework. During this time, several multi-pronged communication strategies and stakeholder engagement approaches were implemented to create momentum and “push” the framework out to stakeholders, all assisted by a suite of promotional products and tools, a template presentation, a Speaker’s kit with definitions and key messages, and a display stand. In addition, thanks largely to considerable uptake from the field, several abstracts were submitted and presentations given by stakeholders who championed the SCF, and were eager to bring evidence to the attention of program directors that patient safety content in education programs mattered to safe delivery of care. In addition, research projects were conducted by educators to look into the factors that influence patient safety content in programs, and the assessment of health professionals at entry to practice, as well as research on self-reported patient safety competencies among new graduates in medicine, nursing and pharmacy. Several organizations also agreed to endorse the framework, such as the Canadian Nurses Association, the Royal College of Physicians and Surgeons of Canada, Manitoba Institute for Patient Safety, College of Licensed Practical Nurses of Alberta, Canadian Physiotherapy Association, Canadian Association of Nursing Students, etc. In addition to endorsing the SCF, the Royal College, as part of revisions to its own educational framework - CanMEDS (*Canadian Medical Education Directions for Specialists*), have included key concepts of patient safety in each of the seven roles that form part of the new CanMEDS 2015.<sup>7</sup>

“I think the idea behind the competency document was that we would all come to the clinical experiences with the same sort of understanding of what patient safety is and be able to then work as a team more safely for the betterment of the patient.”

*Consultation interview comment*

**Medical Expert Role** - Principles of patient safety and avoiding adverse events

**Communicator Role** - Disclosure of error or adverse event

**Collaborator Role** - Recognizing one’s own roles and limits

**Leader Role** - Quality improvement

**Health Advisor Role** - Development of partnerships with patients, their families and support networks

**Scholar Role** - Patient safety

**Professional Role** - Commitment to patient safety and quality improvement

CanMEDS has also been adopted by the College of Family Physicians of Canada under *CanMEDS for Family Physicians*. Thus, the CanMEDS 2015 Framework will be embedded into the accreditation of all residency programs delivered in Canada for medical and surgical specialties and family medicine, as well as in the training of undergraduate medical students as part of the accreditation standards set by the Association of Faculties of Medicine of Canada.

<sup>7</sup> <http://canmeds.royalcollege.ca/guide>

## SAFETY COMPETENCIES FRAMEWORK STRATEGY



“I found that it was really great to have people who were experts in the competencies there. Because trying to be an expert at both the competencies and your courses was a little much. You really needed an expert at the competency and the expert in the courses working side by side.”

*Consultation interview comment*

However, in order to influence change in a complex, disjointed healthcare arena with multiple professional bodies focused on different elements of the system, embedding the SCF early into the training of healthcare professionals meant working directly with educational and training programs. Therefore, another strategy for the uptake and use of the SCF was needed to ensure the competencies were actually integrated into what was taught at the undergraduate and postgraduate levels so that future generations of health professionals would have a solid foundation in patient safety science at the start of their careers, and in clinical settings as professional development. Thus, a strategy of “mapping” educational programs to the *Safety Competencies* was designed and adopted. This having been inspired by senior leaders in faculties and schools who were willing to demonstrate their support of the SCF by agreeing to complete an analysis of their undergraduate and clinical education programs. The primary purpose of the mapping strategy was to determine:

1. How the existing patient safety content in their curricula could be anchored and linked to the SCF, and specifically where and how they were incorporated;
2. If there were significant gaps in coverage of the SCF in the program; and
3. What specific needs for faculty development existed to teach patient safety.

In addition, a number of national accreditation, certification and regulatory bodies across Canada, representing a range of health professions, specifically in medicine, nursing and pharmacy, expressed an interest in reviewing their entry-to-practice standards, learning outcomes, etc. for patient safety content in order to influence the integration of the SCF into curricula and ensure appropriate emphasis on the teaching and learning of patient safety.

By agreeing to map their programs, standards or curricula, organizations, faculties and schools realized that this was an important first step in integrating safety content in healthcare education. Focusing on integration of the competencies allowed organizations to identify the desired knowledge, skills, and behaviours in patient safety education at a more granular and explicit level. That being said, the goal of the SCF has never been about imposing patient safety content into an already crowded curriculum but to ensure the *Safety Competencies* were incorporated in the most appropriate and useful manner across all relevant learning objectives.

**“Qualities of the competencies need to be mirrored across professions.”**

*Consultation interview comment*

## MAPPING TO INTEGRATE PATIENT SAFETY CONTENT INTO TRAINING PROGRAMS

From 2011-2014, several national organizations expressed an interest in having their learning objectives or entry-to-practice standards mapped to the SCF. Also, a number of faculties and schools of medicine, nursing, and pharmacy were interested in submitting their curriculum to the process of mapping their programs to the SCF. Before this, most health professionals and national standard setting health organizations had previously assumed that patient safety had always been a part of the curricula in the training of healthcare professionals. What was different and uncommon was attaching these assumptions to a set of specific and explicit competencies.

Phase one of the mapping strategy supported by CPSI involved a manual process of organizing an enormous number of fields at one time to build the many links that aligned standards or program objectives found in curricula to the SCF. In time, it became obvious that doing so was very tedious and time-consuming for anyone interested in adding patient safety content to curricula, and was proving to be a disincentive to the mapping strategy itself. The mapping process needed a better way to facilitate the identification of curricula content to the appropriate domain of the SCF. The decision was taken that a software application would be needed to facilitate linkages and the production of automated and standardized reports that could offer national and comparative reports for each faculty and school. An “e-mapping tool” was designed to ensure greater ease of use and speed of application to map in a timely manner. Using Microsoft® Access, the tool included a database application capable of creating a customized, personalized report of educational curricula or program offerings that outlined which existing course objectives were already in alignment with the SCF and what gaps between the competencies and the curriculum or program still needed to be addressed.

The e-mapping tool was also designed to be flexible enough to chart a range of healthcare curricular content, educational outcomes and learning objectives found in curricula, entry-to-practice standards and educational programs not only aligned to the SCF, but also to the *Interprofessional Care Competencies* developed by the Canadian Interprofessional Health Collaborative (CIHC). Incorporation of the latter was facilitated by the substantial overlap between the two sets of competencies and illustrates one of the many advantages to using an e-mapping tool. The tool fully automated the mapping of both the CPSI and the CIHC competencies currently and

**“The mapping process helped establish a dialogue between us professionally.”**

*Consultation interview comment*

seamlessly and generated standardized reports of the relevant matches. See [Appendix A](#) for screen shots of the e-mapping tool and examples of reports generated by the mapping process. Faculties and schools worked directly with CPSI to complete the standardized mappings, which allowed for efficient, consistent results and reports that could be readily compared within and across the healthcare professions.

From 2012-2014, 13 faculties and schools completed their mappings: five pharmacy programs, four nursing programs, and four medical programs; and one specialty program in pediatrics. Six standardized reports were prepared for each faculty and school including, for each of the CPSI *Safety Competencies* and the CIHC *Interprofessional Care Competencies*, a summary of coverage, a detailed report identifying which course objectives were mapped to each enabling competency/descriptor at a glance. In addition, for the *Safety Competencies*, a detailed analysis was completed along with the preparation of graphical representations showing:

- The percentage of all of the 134 CPSI *Safety Competencies* that were addressed in each program, clustered first by domain and then by key competency (e.g. answering the question: was each of the *Safety Competencies* mapped to at least one objective in the curriculum?);
- The relative emphasis placed on each of the CPSI *Safety Competencies* domains and then key competencies in the program's curriculum (e.g. answering the question: of all of the mappings to the *Safety Competencies*, what percentage was to each domain or each key competency);
- The relative emphasis placed on each of the six domains of the *Safety Competencies* in each year of the curriculum.

### Main Findings

Each faculty or school was provided with their own results and then, after organizing the results to ensure anonymity, the results of all consenting faculties and schools were provided for comparison. Although averages were reported in specific situations to allow easier, initial comparison and determination by the faculty or school if they were profoundly different from the other faculties and schools, no statistical analysis was completed comparing results. The small numbers of faculties and schools would have limited the likelihood of determining significant differences. More importantly, however, results of this project were meant to be qualitative by providing a snapshot of a faculty or school's results with additional faculties and schools reported only as a guide for reflection on teaching of patient safety within their curriculum.

Results from the detailed analysis of the Enabling Competencies that were mapped to course objectives for each program identified a number of Enabling Competencies that were infrequently addressed in course objectives.

The most notable, consistent finding was the low number of mappings to the domain of *Recognizing, Responding to and Disclosing Adverse Events*. There are 25 distinct Enabling Competencies within this domain, divided into five Key Competencies, thereby providing detailed descriptions of the competencies required to manage adverse events. Although a number of programs, in particular pharmacy programs, addressed both the need to participate in adverse event analysis and reporting, and included selected topics on the process of managing adverse events, course objectives for this domain in all three professions were written at a higher level and did not include the very detailed information included in the Enabling Competencies.

**“[The e-mapping session] forged a really good bond with other professional colleagues in order to form best practices... This process allowed us to establish common ground. It established a dialogue between us interprofessionally.”**

*Consultation interview comment*



Within the programs, the least emphasis was consistently placed on the domains of *Recognizing, Responding to and Disclosing Adverse Events* and *Optimizing Human and Environmental Factors*. Pharmacy programs had relatively even emphasis on *Working in Teams for Patient Safety*, *Communicating Effectively for Patient Safety and Managing Safety Risks*, with two faculties prioritizing the first, one faculty the second and two faculties the third. Nursing programs, however, consistently placed highest emphasis on *Working in Teams for Patient Safety* while medicine programs tended to emphasize *Communicating Effectively for Patient Safety*. Nursing programs also had greater emphasis on *Contributing to a Culture of Patient Safety*, with two program's weightings placing this as the second most frequently mapped of the domains.

The sample of pharmacy, nursing and medicine undergraduate programs varied in the percentage of the Enabling Competencies that were mapped to the course objectives, ranging from a low of 49 per cent to a high of 79 per cent. Caution must be taken in making simple comparisons due to the variability of the number, nature and completeness of objectives provided by each faculty/school.

A consistent finding was the low number of objectives mapped to the domain of *Recognizing, Responding to and Disclosing Adverse Events*. However, it is noted that curricular objectives are, by definition, broad and of a higher level in nature. This is as opposed to the very detailed Enabling Competencies listed in this domain of the competencies. It could, and may well be, that faculties do address a number of these detailed steps in managing adverse events but that they are too granular to appropriately and reasonably be included as separate objectives in course outlines. Support for this is found in the six of 13 faculties/schools who did include objectives mapped to the more global domain of *Contributing to a Culture of Patient Safety* - "1.6. Participate actively in event and close call reporting, event analyses and process improvement initiatives." This same caveat applies to the more detailed Enabling Competencies related to, for example, conflict management.

A second, consistent finding was the lack of thorough inclusion of clustered objectives that mapped to the core theories and terminologies of patient safety. The majority of mappings to these Enabling Competencies were isolated and included examples of theories/terminology as opposed to discussion of the core theories themselves. Only one objective was found that addressed specific theories of patient safety (i.e. define patient safety; describe the "Swiss Cheese Model"; recognize the link between reporting one incident and implementing system-wide change that affects multiple patients). Course objectives were not found that clearly and comprehensively addressed the core theories, terminologies and practices of patient safety in an explicit manner or grouped them as a whole, or in the context of a focus on patient safety. Although embedding the teaching of the SCF throughout the curriculum offers value in making these safety topics relevant, discussion is needed to determine whether, without cohesive emphasis on core patient safety terminology and theories, students will be able to acquire an appropriate understanding or emphasis on patient safety.

Finally, a number of the Enabling Competencies that were infrequently mapped to curricular objectives were either unclear or potentially beyond the reasonable expectation for inclusion in an undergraduate program. For faculty to be able to make decisions about future curricular revisions to incorporate outstanding Enabling Competencies, it would be useful to have a more robust evaluation of which Enabling Competencies are appropriate for undergraduates relative to those more appropriate for graduate work, or practicing healthcare professionals.

In addition to the automated linking to the *Interprofessional Care Competencies*, early users provided feedback that incorporation of the ability to map their curricula to their profession-specific accreditation standards/educational outcomes/national competencies would offer substantial value. Therefore, the application was modified to enable this feature. For medicine, the application incorporated the capacity (meaning the tool is technically ready) for programs to separately map curricular content to the CanMEDS competencies developed by the Royal College of Physicians and Surgeons of Canada. For pharmacy, similar functionality enabled separate mapping to the Association of Faculties of Pharmacy of Canada's *Educational Outcomes for Entry-to-Practice Pharmacy*. For nursing, since no national uniform competencies or educational outcomes are available, the application enables separate mappings to provincial colleges of nursing, such as the Ontario College of Nurse's *Competencies for Entry-level Registered Nurse Practice*.



Ultimately, supported by the vision and leadership shown by collaborating faculties and schools in embracing the SCF, the mapping strategy netted positive insights into academic and practice settings by highlighting how patient safety and quality education can be integrated into the education of all healthcare professionals, and how making the content more explicit for patient safety education promotes the delivery of safer care. The process provided an important snapshot of the current state of patient safety education in academic settings that could serve as a rudimentary baseline for future comparisons.

Results of the mapping project achieved the purpose of determining the extent to which the *Safety Competencies* were already incorporated in a sample of undergraduate health professions programs and in identifying gaps in content. Overall results indicated that these sample programs included curricular objectives that addressed a substantial number of the *Safety Competencies*.

During the course of the mapping project, several national organizations, important levers for influence and change in the education of health professionals as accrediting, certifying or regulatory bodies also took up the challenge to map their national standards or educational requirements to the SCF: the Medical Council of Canada, the Canadian Association of Schools of Nursing, and the Association of Faculties of Pharmacy of Canada. The mapping process has allowed each of these organizations to determine the extent to which the *Safety Competencies* are already incorporated into their instruments for the assessment of students, and to identify gaps in content in order to address the shortcomings. These collaborations further supported the integration of safety content into academic programs by influencing the requirements governing certification or entry into professional practice. As an early adopter, the Canadian Medical Protective Association also mapped its *Good Practices Guide* to the SCF.

The purpose of mapping the SCF to national levers in accreditation, certification and regulation was to influence the degree and efficiency of uptake at the local level in the faculties and schools of medicine, nursing and pharmacy across Canada. Some organic uptake occurred, but expecting students to be examined, and programs to be accredited based on the SCF, contributes to faster and more comprehensive integration of patient safety into curricula. In addition, as previously mentioned, the mapping tool also included the competencies of the Canadian Interprofessional Health Collaborative, which brought added value, given that eight different health professions have mandated interprofessional education to be included in their programs as a condition for future accreditation in their disciplines.

In addition, the Paediatric Chairs of Canada developed a comprehensive teaching tool called *Curriculum-on-the-go* for faculty in pediatric programs who wish to draw upon lessons plans, videos and other teaching materials on the various domains of the *Safety Competencies*.<sup>8</sup>

In a similar vein, the Canadian Association of Paediatric Health Centres invited several directors of quality and safety in pediatric hospitals and centres to participate in a Safety Competencies Challenge. The challenge consisted of mapping their hospital's educational program to the SCF to help determine the framework's relevance to clinical education programs in workplace settings, and provide guidance on future educational programming based on the domains of the SCF.<sup>9</sup>

**“[The mapping was] good for collaboration and allowed others to see what resources we had.”**

*Consultation interview comment*

**“The need for collaboration during the mapping process within the training environment resembled the collaboration required in the practice situation.”**

*Consultation interview comment*

<sup>8</sup> The tool is located on the Knowledge Exchange Network at <http://ken.caphc.org/xwiki/bin/view/SafetyCompetencies-CurriculumontheGo/>.

<sup>9</sup> Results of the challenge are located at <http://ken.caphc.org/xwiki/bin/view/SafetyCompetenciesChallenge/>.

The Northern Alberta Institute of Technology's School of Health Sciences has used the SCF to develop its Interprofessional Education (IPE) curriculum for Diagnostic Medical Sonography through the mapping process. The new program was launched in 2014.

In many ways, the mapping of the *Safety Competencies* has been a “communications and stakeholder relations” strategy that supported integrating competencies into training programs. Mapping allowed for program strengths to be identified as well as highlight training gaps related to patient safety. E-mapping improved the mapping process by reducing the time required to complete the task. As well, the e-mapping tool allowed for an array of useful reports and a shareable database that could provide organizations with a common and explicit view of their offerings. A positive outcome was the forging of bonds with other professionals to establish common best practices at the local level.

At times, the dialogue on the results of the mapping initiative allowed for difficult conversations to take place concerning patient safety. For some, the e-mapping process / tool allowed for a structured and systematic approach for the varied professionals to reach a common ground. As gaps were identified, educators could quickly address those missing elements for the coming year.

**“I think it can be a really daunting task to map your curriculum but it gave us a really clear indication about what our strengths were and what are gaps were. It empowers the various healthcare practitioners from different faculties to have the difficult conversations around patient safety and how to do that in a structured and systematic way.”**

*Consultation interview comment*

## SUCCESSSES AND CHALLENGES IN THE UPTAKE OF THE SAFETY COMPETENCIES FRAMEWORK

Until 2008, at least in Canada, there was no unified understanding of what patient safety meant in terms of competencies required of those in practice or those in training programs. The *Safety Competencies Framework* defines concrete skills, behaviours and attitudes required of healthcare professionals to provide safe patient care. Despite substantial uptake by the field, many healthcare professionals, as well as professional bodies, remain unaware that the SCF even exists.

Interviews with a select group of stakeholders familiar with the SCF and the e-mapping project were completed in January 2015. The interviews provided better understanding of the value of the competencies to organizations and professional bodies. Interviews also provided insight into the benefits of the e-mapping process and suggestions for future editions of the SCF.

One interviewee mentioned that the difficulty with fully integrating the SCF and educational accreditation standards was that a competency based education was conceptually difficult to understand.

Another issue identified by many of those interviewed was that the SCF is not as relevant to the practicing healthcare professional on a daily basis. One interviewee felt the terminology used in the framework may be an impediment since the language was not relatable to practitioners. Others felt the issue of relevance extended to the lack of understanding of how the connection between competencies and practice was helpful to caring for patients in the professional setting, whether at the bedside or in an office visit. This disparity pointed to the challenges in health education as a whole. Professionals were taught best practices, standards of care, and the desired way of managing the patient's care. Actual practice is rarely standard and, at times, calls for quick, decisive action that might be suboptimal in ideal circumstances. One comment was made that the gap between what is taught and what is practiced is often part of what some have called the "hidden curriculum", which continues to be a significant challenge in many healthcare educational programs and settings.

While some interviewees commented that the competencies lacked the patient's voice, others felt the voice of the patient was represented as best as it could be. The difficulty in including the perspectives of patients and caregivers was the complexity inherent in the provision of care – especially with the recognition that no two patients are alike. It's extremely challenging to include the perspectives of patients and caregivers since there are a myriad of valid viewpoints.

Another challenge facing the implementation, or integration of competencies, was the need for champions and/or regulatory bodies to push for the inclusion of the competencies into practice situations and training opportunities. For instance, using the levers of accreditation and certification will be extremely helpful in integrating safety competencies into curricula by bringing in the full force of CanMEDS 2015 and the trickle-down effect this will create across the continuum of undergraduate, postgraduate and continuing professional development in medical education.

The Canadian Association of Schools of Nursing (CASN) has adopted new accreditation standards for nursing education in Canada that strengthen patient safety, and incorporated 19 key elements drawn from the *Safety Competencies*. CASN's

**"The hidden curriculum needs to be addressed."**

**"My one thought about this is that we only involve the patient once something bad has happened. I would post that we involve the patient from the very beginning."**

**"I think the e-mapping tool has the potential to be really valuable; I'm just not sure [how] best to implement it."**

*Consultation interview comment*

accreditation standards are statements of excellence that define what schools are expected to achieve. The new standards set expectations for schools to provide opportunities for learners to develop knowledge, skills and attitudes to provide safe, ethical and person-centred care as a member of the interprofessional team.

All healthcare professionals need practical and focused continuing education to support the provision of safe care to patients. A number of organizations have taken steps to address this need and incorporate elements from the SCF. For example, CPSI and the Royal College of Physicians and Surgeons of Canada developed the *Advancing Safety for Patients in Residency Education (ASPIRE)* program, a national faculty development certificate program for physicians on teaching patient safety and quality improvement. The intense four-day workshop is focused on enhancing the capacity of Canadian medical schools to provide patient safety training. The content of the program includes a comprehensive selection of patient safety topics.

Clearly, having a single set of competencies that is meaningful for all training programs is difficult to achieve since each profession owns a different part of the patient care experience. However, professionals do not work in isolation from each other. This issue will remain a challenge as CPSI looks to renew the *Safety Competencies Framework* to address some of the feedback received in interviews. Nevertheless, the greatest success and relevancy of the SCF has been its focus on interprofessional collaboration. This continued focus on where and how professions intersect during the care process will remain valuable for future versions since there are meaningful similarities between professions when it comes to patient safety.

**“If you look at them as a whole, the [competencies are] quite comprehensive. It’s just the applicability to everyday practice that I think might need some tweaking to make it more easily applied to everyday practice.... It needs to be more relevant to day-to-day practice. It’s too academic.”**

*Consultation interview comment*



## WHAT'S IN STORE FOR THE *SAFETY COMPETENCIES FRAMEWORK*?

Although several education programs and national accrediting, certifying and regulatory bodies are aware of the SCF, and have made use of the framework, either through mapping or by other means, many programs and entry-to-practice standards have yet to have their content matched to the SCF. In recent years, CPSI has received considerable support for the framework (see [Appendix B – Histogram of Outreach](#)), as well as feedback from educators and national health organizations on future editions of the SCF. In light of the sustained interest shown for the SCF in the patient safety community, CPSI decided that it would invest in a modest revision of the framework. A working group is being considered to provide advice to CPSI on developing the second edition by reviewing the framework's existing content, soliciting feedback from the patient safety education community on the successes and challenges of integrating patient safety content into curricula and practice settings, and from members of *Patients for Patient Safety Canada*.

The purpose of revisions to the SCF would be to update the framework to ensure it remains relevant for educators and organizations invested in the education of health professionals by:

- i. Reviewing the existing domains to update them based on the field's evolving understanding of patient safety and quality improvement since 2008;
- ii. Consulting with stakeholders to obtain feedback on how the existing domains can be updated;
- iii. Updating the patient safety language to reflect contemporary patient safety and quality improvement terminologies, e.g. changing “adverse events” to “patient safety incidents”;
- iv. Incorporating missing elements to the six domains, e.g. adding the patient and family voice (partnering with patients), leadership, etc.;
- v. Reframing Domain 4 (Managing Safety Risks) as continuous quality improvement;
- vi. Collapsing the Enabling Competencies within the existing domains; and
- vii. Developing milestones (applied levels from entry to practice to advanced expertise).

In consultation with stakeholders, it will be important to determine how a second edition of the framework can continue to support the work of educators invested in increasing patient safety content in their settings for future generations of learners. Sharing success stories of how patient safety content can be integrated into programs and standards will encourage the establishment of a culture of patient safety and quality healthcare in academia and practice settings.

To this day, the *Safety Competencies Framework* remains a unifying agenda built by a group of interprofessional health educators to guide in the ultimate understanding of why and how practicing safe care affects the well-being of Canadians.

**“There’s a lot of cutting edge literature on patient safety. I think that in preparation for updating the competencies, we will need to review the literature available in that time gap. We need to look at what some of the best practices are for the competencies that need to be addressed and what could be taken out.”**

*Consultation interview comment*

## CONCLUDING REMARKS – A PROVOCATIVE CALL TO ACTION FOR EDUCATORS

Deborah Tregunno, RN, PhD and Brian Wong, MD, FRCPC

It is widely recognized that creating a culture of patient safety depends on a collaborative and integrated approach between schools that prepare health professions and the healthcare institutions where they train and will one day practice. The introduction by CPSI of the *Safety Competencies Framework* in 2008 was a critical contribution to advance these efforts. Created in partnership with the Royal College of Physicians and Surgeons of Canada, the framework drew attention to the pressing need to improve patient safety. More importantly, it highlighted that all graduates of health professions training programs must be able to demonstrate a set of basic proficiencies in patient safety.

The good news is the influence the SCF has had on patient safety educators and researchers since its release. A number of health professions schools have used the SCF as a roadmap for curriculum development in patient safety, and it has anchored the design of faculty development and professional development programs, including CPSI's *Patient Safety Education Program – Canada*. Researchers have used the SCF to develop assessment tools such as the Health Professionals Education in Patient Safety Survey (H-PEPSS).<sup>10</sup> The *Safety Competencies* also served as the foundation for patient safety Objective Structured Clinical Examination (OSCE) scenarios, or simulation scenarios, which determine whether learners can actually demonstrate key patient safety competencies such as disclosing a patient incident or enacting graded assertiveness in unsafe situations.

And yet, much work still needs to be done. We have a long way to go to incorporate safety competencies into all undergraduate health professionals' programs. And, the sobering reality is that the majority of health professional students still graduate ill prepared to work effectively with others to uphold the standards of patient safety. A paradox looms: we expect our newly graduated health professionals to understand the science of patient safety, and to competently put the safety of patients and family first. At the same time, we often fail to ensure that the learning environments where students train include faculty who consistently role-model behaviours that promote patient safety, which can quickly unravel any formal training in patient safety students may receive. Our students witness the chasm between the classroom and practice setting, and they encounter firsthand the effects on the hidden curriculum on patient safety. We heard students on more than one occasion talk about their experience in the practice setting and patient safety: "please – just let me do this procedure the way I was taught *at least one time* before I start cutting corners."

The challenges of embedding safety content in curricula can at times feel monumental, despite the passion and commitment of academics and clinical educators who are trying to move the patient safety education agenda forward within their institutions. When confronting this reality, several important questions arise. There is no shortage of effective patient safety curricula – why is it so hard to influence curricular changes? Do few have enough faculty with the necessary abilities to properly train the next generation of clinicians? Do our learning environments support and reinforce what is taught in the classroom about just culture, interprofessional teamwork, disclosure, transparency and system learning? Sadly, the answer to these questions, broadly speaking, is... not yet. Not consistently. Not sufficiently.

In essence, we have a major challenge with respect to implementation on our hands. How do we move forward to ensure that the SCF becomes more than words on a page, and start to more broadly influence how health professions training evolves to meet the 21st century needs of our patients, health providers, and populations? The future, we contend, does not rest in building new curricula, or refining the language of existing patient safety educational frameworks. That will lead to incremental change at best. Worse, these polished documents could continue to sit on the shelves.

<sup>10</sup> The H-PEPSS: an instrument to measure health professionals' perceptions of patient safety competence at entry into practice <http://qualitysafety.bmj.com/content/21/8/676.abstract?sid=abab5f39-8d59-4b7a-ac4f-49f2355a9d4d>.

Further, policy, legislative, regulatory and accrediting bodies should look to the work of the Royal College of Physicians and Surgeons in Canada, the Quality and Safety Education Initiative for Nurses, and from Canadian pharmacy organizations, as exemplars of the levers of change.

Perhaps the most visible influence of the SCF is its integration into the Royal College of Physicians and Surgeons of Canada CanMEDS 2015 revised Physician Competency Framework. Why is this important? For the first time in Canada, the domains of the SCF no longer reside in a stand-alone document that lacks the regulatory influence to shift training requirements. Instead, we can now anticipate that the emphasis on patient safety and quality improvement in the CanMEDS 2015 Framework will drive numerous policy changes, including new requirements for training and assessment, support for faculty development, and even changes to training programs, accreditation and certification examinations for the Royal College, College of Family Physicians of Canada, as well as undergraduate medical education administered by the Association of Faculties of Medicine of Canada and the Medical Council of Canada.

Over 10 years ago, leaders from schools of nursing in the United States joined forces to create the *Quality and Safety Education for Nurses* (QSEN) initiative. QSEN led the way for regulatory changes that mandated the inclusion of quality and safety curriculum in all nursing education programs in the United States. Since its inception, nurse educators have collaborated to develop and share curriculum and to conduct faculty development to help ensure that all nursing students have access to high quality education. In the absence of a national movement like QSEN, Canadian nursing schools independently determine the extent to which curriculum addresses patient safety, and much of the work to integrate patient safety depends on the interests of individual faculty members who design training programs and on organizations responsible for accreditation and certification. It is time to ask the question: How can we accelerate the integration of patient safety competencies into undergraduate nursing curriculum? It's time to learn from QSEN.

In pharmacy, great strides have also been taken to integrate patient safety competencies into curricula. The Association of Faculties of Pharmacy of Canada has mapped their educational outcomes to the SCF, and the National Association of Pharmacy Regulatory Authorities of Canada has included the domains of the SCF into their professional competencies for Canadian pharmacists and pharmacy technicians at entry to practice.

An even more complex example of regulatory change is exemplified by the recent work in the United States by the Accreditation Council for Graduate Medical Education. Their *Clinical Learning Environment Review Program* assesses the learning environments and training culture with the goal of improving how clinical sites engage resident and fellow physicians in learning to provide safe, high quality patient care. While still in its nascent stages, we can learn from this high-level commitment to system level policy change about what will be needed to re-imagine how regulators can work together to ensure that future providers are prepared to meet patient and health-system needs. Also, as we further develop the new CPSI Patient Safety Education Network, we can help guide the “what and how” of high quality, patient safety education for the next generation of healthcare providers.

Our patients and families provide us the ‘why’. The *Safety Competencies Framework* defines the ‘what’. Now, we must turn our attention to the ‘how’.

**“What we need to do is to take what is known about implementation science, pair this with policy change and health system leadership, such that there is a widespread, coordinated effort made to ensure that every health professional who enters practice with the ability to work in teams and provide safe, high quality care; and be nurtured in a work environment compatible with patient safety principles.”**

*Consultation interview comment*



# APPENDICES

A CPSI e-Mapping Process and Tool

B Histogram of Outreach

C Selected Articles

D Resources and Links

E Bibliography

F The Safety Competencies: Enhancing Patient Safety Across the Health Professions (2008, 1<sup>st</sup> edition, revised 2009)



# APPENDIX A

## CPSI e-Mapping Process and Tool



# CPSI e-Mapping Process and Tool

In developing the *Safety Competencies Framework*, CPSI’s key assumption was that patient safety had always been a part of the curricula in the training of healthcare professionals, but attaching it to a set of specific competencies was uncommon. Thus, CPSI made the strategic decision to use “mapping” to analyze the gaps in the various curricula. Using an “e-mapping” tool, designed for CPSI to lessen the burden of processing countless pieces of information, health educators in faculties and schools were able to evaluate the patient safety content in their programs by identifying the competencies, knowledge elements, practical skills, and essential attitudes at a more granular level.

What follows are examples of screen shots that were generated by the e-mapping tool following data input of course objectives and the matching of the latter to the domains, Key and Enabling Competencies of the SCF:

## COVERAGE OF CPSI SAFETY COMPETENCIES

CPSI Domain	Key	Enabling Competencies	Addressed
Contribute to a Culture of Patient Safety	1. Commit to patient and provider safety through safe, competent, high-quality daily practice	1.1 "Are able to articulate their role as individuals, as professionals, and as health care system employees in providing safe patient care"	Yes
		1.2 Act as role models and champion patient-safety behaviours	
		1.3 Recognize personal limitations and ask for assistance when required	Yes
		1.4 Demonstrate knowledge of policies and procedures as they relate to patient and provider safety, including disclosure	Yes
		1.5 Report unsafe processes within the health care system	
		1.6 Participate actively in event and close call reporting, event analyses and process improvement initiatives	Yes
		1.7 Exchange feedback with colleagues on safety issues on an ongoing basis in an open manner	Yes

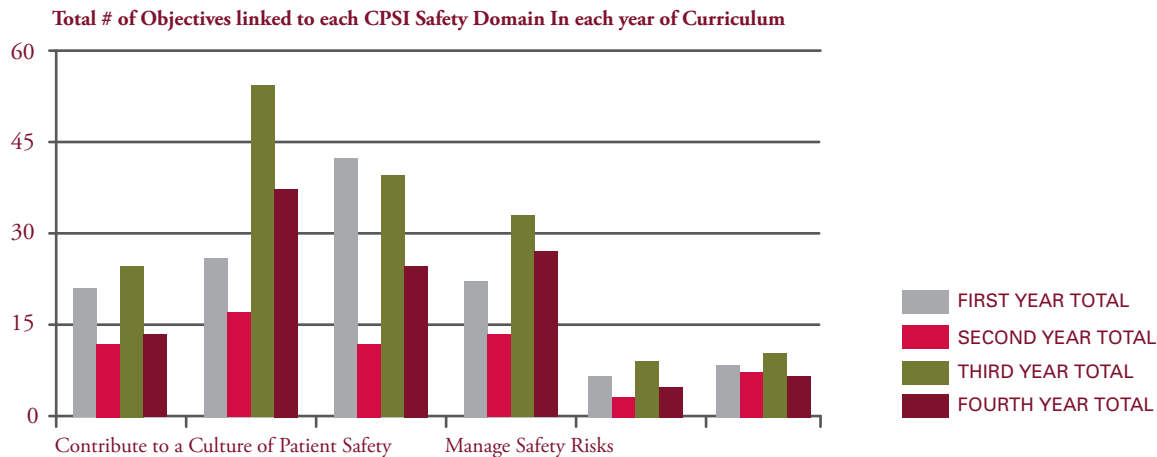
**Figure 1.** Coverage of CPSI *Safety Competencies* report - The e-mapping tool created detailed matches for each of the key enabling competencies, etc. and validated if each was addressed. Not all enabling competencies can be addressed depending on the appropriateness in the course level.

## DETAILED CPSI COVERAGE

CPSI Domain	Key	Enabling Competencies	Course Name	Year	Objectives
Contribute to a Culture of Patient Safety	1. Commit to patient and provider safety through safe, competent, high-quality daily practice	1.1 "Are able to articulate their role as individuals, as professionals, and as health care system employees in providing safe patient care"	Seminars in Pharmacy 5		491-16 To discuss the role of the modern health professional in public health policy.
			Seminars in Pharmacy 5		491-18 To predict your role in the health care system as a pharmacist.
			Professional Practice 4		428-4 Understand and demonstrate the emerging roles for the profession of pharmacy.
		1.2 Act as role models and champion patient-safety behaviours	Introduction to the Profession of Pharmacy		120-7 Demonstrate professionalism, ethical behaviour, diversity competency and commitment to patient safety in the classroom and the community.
		1.3 Recognize personal limitations and ask for assistance when required			
		1.4 Demonstrate knowledge of policies and procedures as they relate to patient and provider safety, including disclosure			
		1.5 Report unsafe processes within the health care system	Patient Safety for Pharmacists		4-2 Describe any patient safety events that would influence your pharmacy practice
		1.6 Participate actively in event and close call reporting, event analyses and process improvement initiatives	Professional Practice 1 Laboratory		131-15 Document actual and near-miss medication incident reports, including the system, human and environmental causes as to how and why the event occurred.
			Professional Practice Laboratory 3		329-15 Document and report errors, problems, resolutions and implement prevention measures.
		1.7 Exchange feedback with colleagues on safety issues on an ongoing basis in an open manner			
	1.8 Integrate safety practices into daily activities (e.g., hand hygiene)	Patient Safety for Pharmacists		4-3 Formulate recommendations for the purpose of enhancing patient safety in the workplace	
	1.9 Recognize clinical situations that may be unsafe and support the empowerment	Patient Safety for Pharmacists		4-2 Describe any patient safety events that would influence your pharmacy	

**Figure 2.** A detailed mapping report (of *Safety Competencies* and *CIHC Competencies*) included the CPSI domains, the key descriptions, and enabling competencies with the corresponding curriculum course name, the year level, and the specific course objectives.

## CURRICULUM OVERVIEW BY YEAR



**Figure 3.** Curriculum total overview – offers an overview of the total number of objectives linked to each CPSI domain over the entire curriculum.

The software was user specific by profession, meaning that once the data is inputted into the tool for each of the national requirements, if a user from pharmacy logs on, the software can open to allow the option to map to the Association of Faculties of Pharmacy of Canada educational outcomes; if the user is from medicine, the option would be to map to CanMEDS; if from nursing, the option would be to map to the standards of the provincial colleges.

CanMEDS Domain	Communicator	▼	Show Selected
CanMEDS Key	2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues and other professionals:		▼
ID_ENA	Enabling_Details	Selected	
2021	2.1 Gather information about a disease, but also about a patient's beliefs, concerns, expectations and illness experience	<input checked="" type="checkbox"/>	
2022	2.2 Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers and other professionals	<input type="checkbox"/>	

**Figure 4.** CanMEDS entry screen - From an added feature in the software, a physician educator, for example, could also remap the data to generate a report on coverage of the CanMEDS® Framework, or to provincial nursing entry-to-practice competencies, to the *Safety Competencies Framework*.

The information from the e-mapping tool can then be exported to Microsoft Excel® to be sorted according to the needs of the user.

# APPENDIX B

## Histogram of Outreach



# Histogram of Outreach

**2003** Canadian Patient Safety Institute established

**2006** Environmental scan (commissioned by the CPSI Education and Professional Development Advisory Committee)

**2008** Launch of the *Safety Competencies Framework* (SCF)

**2009**

- Canadian Medical Protective Association - Mapping of *Safety Competencies* to the *Good Practices Guide*
- Task Force on Adverse Events recommendation to utilize CPSI Safety Competencies Framework in the development of new curriculum at Eastern Health, NL.
- SafetyNET II - curriculum modules that enable program participants to acquire knowledge, skills, and judgment related to the six domains of the SCF (St. Michael's Hospital, Toronto)
- Paediatric Chairs of Canada (development of *Curriculum on the Go*)
- Canadian Forces Health Services Group - development of a national patient safety plan based on the SCF to identify practical patient safety educational tools

**2010**

- Red Deer College of Nursing - curriculum re-development with the SCF
- Canadian Patient Safety Officer Course - curriculum framed using the SCF

**2011**

- Manitoba Institute for Patient Safety - development of simulation scenarios based on the SCF
- Patient Safety Education Program (PSEP Canada) - incorporation of content and modules mapped to the SCF
- Association of Faculties of Pharmacy of Canada educational outcomes mapped to the SCF
- College of Nurses of Ontario - Entry-to-Practice Standards mapped to the SCF
- Physiotherapy Alberta - SCF embedded within the Standards of Practice for Alberta Physiotherapists
- Emergency Medical Services Chiefs of Canada - recommendation that the SCF be integrated into the National Occupational Competency Profile for paramedics through the Paramedic Association of Canada
- Norquest College, AB - *Safety Competencies* mapped to Alberta entry-to-practice competencies for Licensed Practical Nurses as part of curriculum review
- PEI Department of Health - Risk Managers adopted principles of the SCF
- Assembly of First Nations - introduction of the SCF to health managers across Canada
- Canadian College of Health Service Executives (now the Canadian College of Health Leaders) - integrating the SCF into the course content and examination for the CHE designation
- Medical Council of Canada - mapping of the SCF to national learning objectives for certification of undergraduate medical education
- Memorial University - mapping of SCF to the undergraduate medical curriculum

**2012**

- Assessment of the Factors that Influence *Patient Safety Competencies Among Health Professionals at Entry to Practice* (CPSI funded research project)
- Canadian Association of Schools of Nursing - mapping of their standards to SCF
- Queen University's Masters Program - mapping of the course objectives to SCF

- Canadian Healthcare Association (now HealthCareCAN) - revising its risk management course curricula to align with the SCF
- Capital District Health Authority (Halifax) - mapped its Patient Safety Plan to the SCF
- Canadian Council of Registered Nurse Regulators - embedded portions of the domains of the SCF into the current nursing entry-to-practice standards
- University of Montréal, Faculty of Medicine, medical simulation center targeting 1,000 medical students - integration of the SCF into course elements
- National Association of Pharmacy Regulatory Authorities - integration of the SCF into national requirements for education and licensure of pharmacists and pharmacy assistants

## 2013-2014

- *Self-reported patient safety competence among new graduates in medicine, nursing and pharmacy, Quality and Safety in Health Care* (research project)
- Royal College of Physicians and Surgeons of Canada - embedding the SCF into the ASPIRE Program for physician educators
- Canadian Association of Pediatric Health Centres - *Safety Competencies Challenge*
- Medical Council of Canada - integration of the SCF into their Exam Blueprint
- NAIT School of Health Sciences, AB - developed its interprofessional education curriculum for Diagnostic Medical Sonography using the CPSI mapping process
- College of Medicine, SK - mapping of SCF to curriculum
- University of Ottawa Faculty of Medicine - mapping of SCF to curriculum
- McGill University medical curriculum - mapping of SCF to curriculum
- Dalhousie University Faculty of Medicine - mapping of SCF to curriculum
- Queens University School of Nursing - mapping of SCF to curriculum
- Dalhousie University School of Nursing - mapping of SCF to curriculum
- University of Saskatchewan School of Nursing - mapping of SCF to curriculum
- SIAST School of Nursing - mapping of SCF to curriculum
- Waterloo University School of Pharmacy - mapping of SCF to curriculum
- Memorial University School of Pharmacy - mapping of SCF to curriculum
- University of Manitoba School of Pharmacy - mapping of SCF to curriculum
- Université de Montréal School of Pharmacy - mapping of SCF to curriculum
- University of Toronto School of Pharmacy - mapping of SCF to curriculum
- Health Quality Council of Alberta (HQCA) - mapping the objectives of the patient safety education framework (Blueprint Project) to SCF using CPSI's e-mapping tool to demonstrate that the learning objectives of the HQCA project comprehensively address the *Safety Competencies*
- Alberta Health Services - Integration of the *Safety Competencies* into the Quality and Patient Safety Integrated Curriculum
- College of Licensed Practical Nurses of Alberta - adding relevant *Safety Competencies* to the Competency Profile
- University of British Columbia Faculty of Medicine - re-mapping of medical undergraduate program Exit Competencies to SCF
- CanMEDS roles 2015 - Integrating the SCF in the revised roles of CanMEDS

# APPENDIX C

## Resources and Links





## Resources and Links

The *Safety Competencies Framework* was launched in September 2008. Since its launch, the framework has drawn a lot of interest from health educators and organizations responsible for curriculum development, accreditation, certification and regulation. In addition, several health organizations have used the framework to inform the continuing professional development of practitioners eager to learn more about the competencies required for safe patient care in practice settings. Below, are examples from organizations that have embedded the *Safety Competencies*, in whole or in part, within their frameworks, standards, training requirements, etc.

### **Capital District Health Authority (Halifax) – Patient Safety Plan**

The Capital District Health Authority (Capital Health / CDHA) Patient Safety Plan supports and links with the CDHA Integrated Quality Framework (IQF) and Integrated Risk Management Plan (IRMP) to form the Performance Excellence Framework for Capital Health. The guiding principles and philosophy of patient safety at Capital Health are organized following the six domains of the *Safety Competencies*.

<http://www.cdha.nshealth.ca/system/files/sites/343/documents/patient-safety-plan.pdf>

### **St. Michael's Hospital – SafetyNet Toolkit**

This is an interprofessional competency-based patient safety learning approach with implementation and evaluation toolkit. The purpose of this toolkit is to provide a blueprint and repertoire of tools that other organizations can use and adapt in their efforts to enhance effective teamwork, communication and, ultimately, patient safety.

*St. Michael's Hospital SafetyNet Toolkit – Parts 1, 2, and 3*

[http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Resources/St-Michaels-SafetyNetToolKit\(1-3\).pdf](http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Resources/St-Michaels-SafetyNetToolKit(1-3).pdf)

[http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Resources/St-Michaels-SafetyNetToolKit\(4\).pdf](http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Resources/St-Michaels-SafetyNetToolKit(4).pdf)

[http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Resources/St-Michaels-SafetyNetToolKit\(5\).pdf](http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Resources/St-Michaels-SafetyNetToolKit(5).pdf)

### **The Ottawa Hospital – Patient Safety Corporate Education Program**

The Ottawa Hospital Patient Safety Corporate Education Program is a self-directed enterprise learning management system that introduces the learner to the basics of patient safety and how these concepts are integrated into everyday activities to contribute to safe patient care. The program is based on the *Safety Competencies Framework*.

*The Ottawa Hospital Education Program – Parts 1, 2, 3*

<http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Resources/Ottawa-Hospital-PS-Education%20Program%20introduction.pdf>

<http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Resources/Ottawa-Hospital-PS%20Education%20Program.pdf>

<http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Resources/Ottawa-Hospital-PS-Education%20poster.pdf>

### **University of Calgary – Framework to Incorporate Patient Safety into the Undergraduate Medical Education Curriculum**

This was a project to identify curriculum changes necessary to ensure that clinical clerks at the University of Calgary can demonstrate mastery of the CPSI *Safety Competencies* to a level in keeping with their expected knowledge, skills and abilities.

<http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Resources/U-Calgary-Review%20of%20Patient%20Safety%20Competencies-generic.pdf>

**Alberta Health Services** – *Quality and Patient Safety Integrated Curriculum*

<http://www.albertahealthservices.ca/assets/info/hp/edu/if-hp-edu-qps-integrated-curriculum.pdf>

**Canadian Association of Paediatric Health Centres** – *Safety Competencies Challenge*

<http://ken.caphc.org/xwiki/bin/view/SafetyCompetenciesChallenge/WebHome>

**Canadian Association of Schools of Nursing** – *Accreditation Standards*

<http://casn.ca/wp-content/uploads/2014/12/20133FINALAccredprogramstandardsFINAL-1.pdf>

**Canadian Interprofessional Health Collaborative** – *A National Interprofessional Competency Framework*

[http://www.cihc.ca/files/CIHC\\_IPCompetencies\\_Feb1210.pdf](http://www.cihc.ca/files/CIHC_IPCompetencies_Feb1210.pdf)

**Canadian Medical Protective Association** – *Good Practices Guide*

[https://www.cmpa-acpm.ca/cmpapd04/docs/ela/goodpracticesguide/pages/patient\\_safety/patient\\_safety-e.html](https://www.cmpa-acpm.ca/cmpapd04/docs/ela/goodpracticesguide/pages/patient_safety/patient_safety-e.html)

**Canadian Patient Safety Institute** – *Patient Safety in Emergency Medical Services*

<http://www.patientsafetyinstitute.ca/English/research/commissionedResearch/patientSafetyinEMS/Documents/Patient%20Safety%20in%20EMS%20Full%20Report.pdf>

**Manitoba Institute for Patient Safety** – *Learn to be Safe* – a Simulation Learning Experience

<http://mbips.ca/contact-us.html>

**Medical Council of Canada** – *Qualifying Examinations Blueprint*

<http://mcc.ca/wp-content/uploads/Blueprint-Report.pdf>

**National Association of Pharmacy Regulatory Authorities of Canada** –

*Model Standards of Practice for Canadian Pharmacists*

[http://napra.ca/Content\\_Files/Files/Model\\_Standards\\_of\\_Prac\\_for\\_Cdn\\_Pharm\\_March09\\_Final\\_b.pdf](http://napra.ca/Content_Files/Files/Model_Standards_of_Prac_for_Cdn_Pharm_March09_Final_b.pdf)

**Model Standards of Practice for Canadian Pharmacy Technicians**

[http://napra.ca/Content\\_Files/Files/Model\\_Standards\\_of\\_Prac\\_for\\_Cdn\\_PharmTechs\\_Nov11.pdf](http://napra.ca/Content_Files/Files/Model_Standards_of_Prac_for_Cdn_PharmTechs_Nov11.pdf)

**Pediatric Chairs of Canada** – *Patient Safety Competencies Curriculum Development on the Go*

<http://ken.caphc.org/xwiki/bin/view/SafetyCompetencies-CurriculumontheGo/>

**Physiotherapy Alberta** – *Standards of Practice for Alberta Physiotherapists*

[http://www.physiotherapyalberta.ca/files/practice\\_standard\\_safety.pdf](http://www.physiotherapyalberta.ca/files/practice_standard_safety.pdf)

**Queen's University** – *Timely Open Communication for Patient Safety*

<http://www.collaborativecurriculum.ca/en/modules/TOC-communication/>

**Royal College of Physicians and Surgeons of Canada** –

*Advancing Patient Safety in Residency Education (ASPIRE)*

<http://www.royalcollege.ca/portal/page/portal/rc/events/aspire>

*CanMEDS 2015*

[http://www.royalcollege.ca/portal/page/portal/rc/common/documents/canmeds/framework/canmeds2015\\_framework\\_series\\_III\\_e.pdf](http://www.royalcollege.ca/portal/page/portal/rc/common/documents/canmeds/framework/canmeds2015_framework_series_III_e.pdf)

**Royal College of Surgeons of Ireland and Royal College of Physicians of Ireland** – *Development of a Patient Safety e-learning programme (based on the SCF)*

<http://www.dillonproductions.com/wp-content/uploads/2012/07/peer-review-4-RCSI.pdf>

# Research Articles

## **BMJ Quality and Safety articles highlighting the Safety Competencies Framework**

*Assessing the patient safety competencies of healthcare professionals*

<http://qualitysafety.bmj.com/content/20/11/991>

*Self-reported patient safety competence among new graduates in medicine, nursing and pharmacy*

<http://qualitysafety.bmj.com/content/22/2/147.full?sid=f10e0162-c64c-4ccf-9724-5e07e659a537>

*Integrating patient safety into health professionals' curricula: a qualitative study of medical, nursing and pharmacy faculty perspectives*

<http://qualitysafety.bmj.com/content/23/3/257.abstract?sid=abab5f39-8d59-4b7a-ac4f-49f2355a9d4d>

*The H-PEPSS: an instrument to measure health professionals' perceptions of patient safety competence at entry into practice*

<http://qualitysafety.bmj.com/content/21/8/676.abstract?sid=abab5f39-8d59-4b7a-ac4f-49f2355a9d4d>

*Development and testing of an objective structured clinical exam (OSCE) to assess socio-cultural dimensions of patient safety competency*

<http://qualitysafety.bmj.com/content/24/3/188.abstract?sid=abab5f39-8d59-4b7a-ac4f-49f2355a9d4d>

*Self-reported patient safety competence among Canadian medical students and postgraduate trainees: a cross-sectional survey*

<http://qualitysafety.bmj.com/content/24/2/135.full?sid=abab5f39-8d59-4b7a-ac4f-49f2355a9d4d>

## **Longwoods Healthcare Papers**

*How health professions education can advance patient safety and quality improvement*

<http://www.longwoods.com/content/23953>

# APPENDIX D

## Selected Articles



## Articles (testimonials 2012-2015)

- i. New standards for nursing education programs promote patient safety competencies
- ii. Renfrew Victoria Hospital's frontline approach to improving the culture of patient safety
- iii. The Ottawa Hospital patient safety education program helps move the bar toward a safety culture
- iv. Canadian Medical Protective Association: Good Practices Guide to advance patient safety
- v. The Capital District Health Authority promotes patients first
- vi. Ottawa Hospital uses core competencies education to create patient safety culture
- vii. Patient Safety Education Program – Canada delivers to Alberta healthcare educators
- viii. Improving patient safety through professional development
- ix. Curriculum review helps to understand strengths and identify gaps in Safety Competencies
- x. Dalhousie University to launch new nursing curriculum:  
Safety Competencies mapped to student learning outcomes
- xi. University of Ottawa revisits Safety Competencies mapping

## **i. New standards for nursing education programs promote patient safety competencies<sup>10</sup>**

The Canadian Association of Schools of Nursing (CASN) has adopted new accreditation standards for nursing education in Canada that strengthen patient safety, and incorporate key elements drawn from the Canadian Patient Safety Institute's *Safety Competencies*.

CASN's accreditation standards are statements of excellence that define what schools are expected to strive toward. The new standards set expectations for schools to provide opportunities for learners to develop knowledge, skills and attitudes to provide safe, ethical and person-centred care as a member of the interprofessional team.

"Patient safety must be considered in everything that nurses do," says Joni Boyd, Manager of Accreditation (CASN). "The new standards elevate patient safety and put more onus on preparing graduates for a system that works for everyone through communication, teamwork, interprofessional collaboration, and through a more objective approach to patient safety issues."

To be accredited, the nursing program must include these key elements:

1. The program provides opportunities for learners to develop practice patterns that contribute to a culture of patient safety.
2. The program develops learners' abilities to anticipate, recognize, and manage situations that place patients at risk.
3. The program develops learners' understanding of and ability to recognize, respond to, and disclose adverse events and to adopt practices that constitute continuing improvement of competence.
4. The program provides opportunities for learners that foster self-regulation, the development of accountability and responsibility for one's practice, and ensures their ability to deliver safe, ethical nursing care.
5. The program provides opportunities for learners to develop an understanding of requirements for practice reflecting relevant nursing practice standards within their licensing jurisdiction.
6. The program provides learners with opportunities to understand and apply existing codes of nursing ethics, guidelines and standards for nursing practice in clinical situations.
7. The program provides opportunities for learners to develop functional working relationships, including intra/interprofessional, and intersectoral collaboration.
8. The program provides opportunities for learners to develop theoretical and practical knowledge of relational practice, cultural safety, and social and political advocacy.

CASN is the national voice for nursing education, research, and scholarship and represents baccalaureate and graduate nursing programs in Canada.

<sup>10</sup> <http://goo.gl/TCxbWC> (February 2014)

## ii. Renfrew Victoria Hospital's frontline approach to improving the culture of patient safety<sup>11</sup>

The Renfrew Victoria Hospital (RVH) in Ottawa (Renfrew), Ontario has adopted a nurse-led initiative to improve the culture of patient safety that implements and disseminates tools related to the domains of the Canadian Patient Safety Institute's *Safety Competencies Framework*.

The initiative focuses on three of the six domains: Contribute to a Culture of Patient Safety – apply core patient safety knowledge, skills, and attitudes to everyday work; Work in Teams for Patient Safety – work within professional teams to optimize patient safety and quality of care; and Communicate Effectively for Patient Safety – promote patient safety through effective healthcare communications.

The RVH received \$40,000 in funding from the Ontario Ministry of Health and Long-Term Care to develop the initiative, implement tools and generate awareness related to hospital-wide policies focusing on patient safety.

“In preparing for accreditation, we took a look at the patient safety culture tool and these three domains stood out as logical areas to focus on to make a difference and improve the culture of safety throughout the organization,” says Chris Ferguson, Vice-President of Patient Services at RVH. “Although the funding was targeted to nursing, the nurses involved provided education to all hospital departments providing patient care and all levels of the organization, including senior management.”

Charlene Hanniman and Cindy Walker, two experienced RVH nurses completed the Patient Safety Education Program – Canada (PSEP – Canada) training and act as Project Leads for the initiative. They have organized and developed content and curriculum for education, and implemented and facilitated the education based on the three key domains. Almost 100 staff attended an introductory session related to patient safety and a total of 162 staff participated in targeted educational sessions on the three domains, held between February and March 2013.

To evaluate their program, rather than doing another survey, RVH used the patient safety culture tool to determine if the training had helped move the bar. Key improvements pre- and post the education program went from 61.3 percent to 75.2 percent in response to: “I’m rewarded for taking quick action to identify a serious mistake.” An increase from 41.0 percent to 52.3 per cent was noted in response to: “I have enough time to complete patient care tasks safely.” And, the rates increased from 84.6 per cent to 87.7 per cent in response to: “On this unit when an incident occurs we analyze thoroughly.”

“This was a way to establish best practice champions for safety,” says Chris Ferguson. “In implementing the program the Project Leads had a good education base to draw from in providing the peer-to-peer education program. By applying first-hand knowledge they can provide good examples of real life changes that can be made to improve safety.”

Chris Ferguson also acknowledged the support and guidance received from The Ottawa Hospital in developing the program: “The Ottawa Hospital freely shared their work and expertise to help us design a program unique to RVH.”

Quality and safety are embedded in the Strategic Plan for the RVH. Patient safety is one of the six key values adopted by the hospital. Values-based conversations were recently introduced as a component of performance reviews where individual employees select two values that they emulate and provide examples of how they apply them in their day-to-day work. Each issue of a quarterly newsletter also focuses on two of the values and profiles how they are being applied on the frontline.

The RVH is now looking at opportunities to access funding that will help to expand their work and to develop education programs on the other three safety domains.

<sup>11</sup> <http://goo.gl/1nl4Bf> (January 2014)

### iii. The Ottawa Hospital patient safety education program helps move the bar toward a safety culture<sup>12</sup>

When giving introductory talks at both The Ottawa Hospital and the University of Ottawa, Dr. Sherissa Microys is often amazed at how her students will think that patient safety is just about preventing harm. “They have a narrow scope and don’t know that patient safety is much larger, incorporating a number of things like human factors, how we communicate, body language and disclosure,” says Dr. Microys. She uses the six puzzle piece image that make up the *Safety Competencies Framework* so that her students can see what plays a part in patient safety and where it all fits in the bigger plan.

Dr. Microys says that the Canadian Patient Safety Institute *Safety Competencies Framework* has been a tremendous help in advancing patient safety education. “The framework provides a consistent language, a consistent way to teach and to refer to,” says Dr. Microys.

The Ottawa Hospital is using the *Safety Competencies* as the platform for their patient safety program that includes modules focusing on each of the six domains. A multi-disciplinary working group that included physicians, nurses, pharmacists and administrators developed education modules around the skills, attitudes and knowledge described by the *Safety Competencies*. The patient safety training program is available as an online self-learning tool within the organization’s Enterprise Learning Management system. The patient safety training program is available as an online learning tool within the system. There are four streams available, targeted to job roles – clinical staff, non-clinical staff, administrative leaders, and clinical leaders.

A mass auto-enrollment was rolled out hospital-wide in May 2013, asking staff to complete the six modules within six months. To date, approximately 4,600 have completed their training, representing about 40 per cent of those enrolled. Follow-up is now underway with those individuals who have not yet completed all modules. This comprehensive program will continue to be used for new employee orientation and an optional refresher program is being developed for all staff. An evaluation of the patient safety education program will also be done next year.

A second component was added to the patient safety training program on how to use the Hospital’s online incident reporting system. The incident reporting system was underused and with this exposure, increased use of the reporting system has been an added benefit.

“The patient safety education program reinforces that everyone has a part in patient safety,” says Elena Pascuet, Patient Safety Coordinator. “We have moved the bar on our patient safety culture. With education, awareness and engagement we can all contribute to safer care.”

The Ottawa Hospital has implemented a number of platforms to focus on patient safety. An email address has been set up where staff can ask patient safety questions. Elena Pascuet says that staff are really getting engaged and stepping forward in terms of being aware of their surroundings and being able to identify risks. A monthly patient safety newsletter is dedicated to what is new and upcoming in patient safety and highlighting initiatives, and sent to all leaders and physicians for them to circulate to their teams. And, they continue to work on the patient safety education program. Pascuet says there is a lot more to come.

Focusing on patient safety education, Dr. Microys has at least 20 individual projects on the go all of the time, specific to all levels – medical students, residents, staff physicians, inter-professional groups, and unit-based and profession-based teaching. “We are looking at a lot of different strategies to find out what really works and trying to help sectors that are really struggling with this,” says Dr. Microys. “We need to try things out and have those lessons learned that we can share with one another.”

Dr. Microys is also on the faculty of the Advancing Safety for Patients in Residency Education (ASPIRE) program to accelerate patient safety teaching at a post-Graduate level and an advisor on the CanMEDS 2015 Framework to incorporate the *Safety Competencies* into the milestones expected of students and trained physicians in Canada. “I get energized when I get together with like-minded people to advance

<sup>12</sup> <http://goo.gl/hKKJHD> (December 2013)



patient safety,” says Dr. Microys. “We have a long road ahead and we need to encourage each other that this is valuable work and not to give up.”

Dr. Microys describes a safety culture as "the way you do things around here" that is naturally engrained. She says that they are starting to see that happening now, but there is still a long way to go to eliminate errors from happening. However, people are more attuned to patient safety and talking about it much more.

It has been said that you cannot change culture by one person alone; culture change takes a generation. “The next generation coming through is the one that will have received the education that will catapult healthcare into a safety zone,” says Dr. Microys.

#### iv. Canadian Medical Protective Association: Good Practices Guide to advance patient safety<sup>13</sup>

The Canadian Patient Safety Institute (CPSI) and the Canadian Medical Protective Association (CMPA) value the importance of collaboration to improve patient safety. The partnership between the two organizations began in 2006, with the development of the Canadian Disclosure Guidelines. The relationship has evolved over the years and the CMPA has provided valuable input on the Canadian Patient Safety Institute's *Safety Competencies*, the Canadian Patient Safety Officer Course, the Patient Safety Education Program – Canada, the Advancing Safety for Patients in Residency Education (ASPIRE) program, among other initiatives.

“What I like about CPSI is the extensive consultation process they undertake in the development of their tools, resources, and programs,” says the CMPA's Managing Director – Safe Medical Care, Dr. Gordon Wallace. “We all have perspectives and can learn from each other. The CMPA is extremely passionate about our joint effort to advance a just patient safety culture, and values the relationships we have fostered through our work with the Canadian Patient Safety Institute.”

One of the more significant endeavors Dr. Wallace has been involved in is the *Safety Competencies*. This highly relevant, clear, and practical framework was designed for all healthcare professionals. The CMPA has adopted the CPSI's *Safety Competencies Framework* and mapped it to the Royal College's CanMEDS Physician Competencies framework in creating the CMPA *Good Practices Guide*.

The CMPA *Good Practices Guide* (GPG) is available online as a self-study tool to assist medical trainees in preparing for their medical exams, while helping them understand the medico-legal implications of medical practice. Good practices are ways of thinking and acting that the CMPA believes will help physicians provide safer care to patients and reduce medico-legal risk. The GPG also contains a section for faculty, and features a number of modules that can be completed for continuing medical education (CME) credits.

The GPG is organized around the six domains of the *Safety Competencies*:

- Contribute to a culture of patient safety
- Work in teams for patient safety
- Communicate effectively for patient safety
- Manage safety risks
- Organize human and environmental factors
- Recognize, respond to and disclose adverse events

An additional domain was added pertaining to professionalism.

The interactive GPG features 124 case studies drawn from the CMPA's research and analysis of cases. It includes over 40 downloadable videos and animations, quizzes, and 150 good practices. Over 115 concepts are also included to help illustrate key processes leading to good practices.

“Much of medicine is taught at the bedside,” says Dr. Wallace. “The real teaching is the one-on-one interaction with patients; therefore every patient encounter provides the potential for a patient safety discussion. This is the concept we want incorporated into medical training programs so it becomes part of the healthcare professional's thinking and daily practice.”

As a mutual medical defence organization, the CMPA researches and analyzes the underlying causes of medico-legal actions and College complaints to help prevent the issues from reoccurring. This evidence-based information is used to develop case studies, prepare articles and special publications, and forms the content of the Association's educational programs. The CMPA has learned the strength and promise of patient safety science is not all about the individual, but about structuring processes around individuals to minimize the potential for patient harm. This evolution of thinking does not make healthcare

<sup>13</sup> <http://goo.gl/jk5LBX> (November 2013)

providers less accountable for the quality of their work; it means building better structures and supporting leadership to understand the need for process change to advance safer care.

“There are leaders and champions and we have a general sense of patient safety issues, however these must be concrete for healthcare providers at the unit level,” says Dr. Wallace. “To be successful, the focus should be on unit solutions to improve processes of care. We are just starting to understand the importance of the patient perspective in how you create better structures and processes. This reinforces the need to take collaboration and partnerships one step further, by including patients, families, and frontline providers.”

## v. The Capital District Health Authority promotes patients first<sup>14</sup>

### *An integrated plan to Learn-Act-Communicate-Improve*

The Capital District Health Authority (CDHA) has developed a Patient Safety Plan, “Patients First – Learn-Act-Communicate-Improve”, to promote a patient safety and quality improvement culture within the health authority in Nova Scotia.

“With a strong commitment of the board and the Quality and Patient Safety Committee of the board, the Patient Safety Plan was developed with a focus on what the patient’s voice brings to quality and patient safety,” says Catherine Gaulton, Vice-President Performance Excellence and General Counsel. “Our commitment to quality and patient safety is the cornerstone of all strategies and priorities developed for patients and others that we serve, including families and the community.”

About 18-months ago, the Quality and Patient Safety Committee of the CDHA Board led a strategic initiative to look at what constituted good governance in terms of quality and patient safety, using the Canadian Patient Safety Institute Effective Governance for Quality and Patient Safety Toolkit as their guide. The board’s commitment to quality and patient safety was formalized with a list of recommendations and a “to do” list to ensure all obligations would be met. The committee now provides diligent oversight and the board dedicates at least 25 per cent of their monthly agenda to quality and patient safety, regardless if an issue is present at the time.

The guiding principles and philosophy of patient safety at CDHA are first organized following the six domains of the Canadian Patient Safety Institute *Safety Competencies Framework*. The competencies are then overlaid on each of the Accreditation Canada Required Organizational Practices (ROPs) and both are further mapped to the Canadian Medical Protective Association Good Practices Guide to create a Practices Map.

“Our board is committed to fulfilling its mission, vision and values in a strategic, goal-oriented and measurable way,” says Dr. Daniel O’Brien, CDHA Board Chair. “Improvement in quality and patient safety are at the forefront of our work and, in our view, are simply non-negotiable. The Patient Safety Plan incorporates and aligns the Canadian Patient Safety Institute’s *Safety Competencies*, Accreditation Canada’s required and respected parameters and our own strategies complete with their evaluation and accountability mechanisms. This plan overwhelmingly supports our work as governors and our full commitment to improving quality and patient safety.”

Gail Blackmore, Director, Performance Excellence Program at CDHA and her team, Beth Kiley and Kitty Grant (Risk Management and Patient Safety Leaders in Performance Excellence) are responsible for linking education, accreditation and physician engagement into the performance excellence framework. Mapping these levers together shows how each drives quality improvement and patient safety practices for better, more effective planning and without duplication of effort.

“The Patient Safety Plan links expectations, resources and education,” says Gail Blackmore. “It is a live document that we update regularly and use to continually track our progress. This truly is a team effort and the integrated approach reinforces that patient safety is a shared responsibility that requires a commitment from everyone in the organization.”

The CDHA has established quality and patient safety teams that meet regularly and report back to a district Quality and Patient Safety Council and a Physician District Advisory Quality Committee. Much work is underway to engage with patients in patient safety and bring the patient’s voice to the table. Using a three-prong approach to foster meaningful engagement of patients and families, the CDHA is providing education sessions for quality leaders on how to engage patients, developing recruitment strategies for meaningful participation, and providing education and support for patients and families participating as Healthcare Experience Advisors.

<sup>14</sup> <http://goo.gl/s9RAkl> (November 2012)

The CDHA Patient Safety Plan supports patient safety and reduces risk to patients by creating and sustaining a safe environment that ensures the recognition and acknowledgement of risks to patient safety; initiation of actions to reduce these patient safety issues and risk; internal reporting of patient safety issues and corrective actions taken; a focus on processes and systems; organizational learning about patient safety; and supporting and sharing knowledge about patient safety within CDHA and other healthcare organizations.

## vi. Ottawa Hospital uses core competencies education to create patient safety culture<sup>15</sup>

The Ottawa Hospital is a large academic centre with two tertiary care campuses, the General and the Civic, each with about 500 beds. Four units across the continuum of care (including intensive care, main operating room, geriatric assessment unit and surgical ward) were selected to participate in a pilot project to use the CPSI *Safety Competencies* to create a culture of patient safety. A modular training program was later developed, in part using the Patient Safety Education Program (PSEP – Canada), centered on two of the *Safety Competencies*: Creating a Culture of Patient Safety, and Communications and Teamwork. About 80 staff were trained and participants completed a patient safety cultural assessment prior to and at the end of the training program.

“We looked for the statistical difference in where they thought they were in terms of core patient safety knowledge and concepts before and again after the sessions,” says Linda Hunter, Director, Quality and Patient Safety, The Ottawa Hospital. “At the same time we monitored patient safety indicators particular to their domain of work over the entire year of the project. What we are trying to validate in our hypothesis is that education, coupled with mentoring, training, real life practicality and doing an initiative for quality and patient safety will over time ingrain measurable change in the patient safety culture at the unit level. Results from the initial patient culture assessment will be compared to confirm if there is a change and if it is sustained.”

An eight-hour patient safety training program was developed, which includes six modules, each varying from 30 to 90 minutes. The sessions include a general introduction to patient safety, and what are patient safety, patient safety competencies, and an introduction to quality improvement measures, teamwork, and communications. All presentations, with the keynote address and video vignettes, have been posted to the hospital’s InfoNet for staff to access.

Hunter completed a literature review and also used the PSEP-Canada material to develop the learning modules: “Organizations are very well-intentioned, but have limited time for preparation for just-in-time education. PSEP – Canada is excellent to use as a basis for education materials as the pre-work is already completed. The role-playing and modelling games, vignettes and CDs, information on PowerPoint rather than PDF so that one can pull what is pertinent is extremely valuable.”

“It is very important to align a program to how the organization looks at quality and patient safety,” adds Hunter. “Our program supports our quality framework, our definition of quality, and other initiatives we are doing so that staff see the practicality. We had created a plan for patient safety education prior to incorporating the PSEP – Canada into our program and it was interesting to see how the work aligned. We had the idea, we had the plan, but we did not have the resources to implement. PSEP – Canada provided the ability to develop internal capacity and get more staff trained to understand that patient safety is a science and with sound understanding behind that we can create a culture of patient safety.”

Hunter has completed both the Patient Safety Officer Course and the Patient Safety Education Program. “The PSEP – Canada program is very strong in facilitating and understanding the instructional techniques of being a train-the-trainer, however there are basic concepts that you need to learn first. The Patient Safety Officer Course teaches core competencies and it is important to have staff in your organization who understand the concepts of patient safety. If you don’t have anyone in your organization trained to be a Patient Safety Officer, have them take that course first,” advises Hunter.

<sup>15</sup> <http://goo.gl/dRFRJd> (December 2011)

## vii. Patient Safety Education Program – Canada delivers to Alberta healthcare educators<sup>16</sup>

### *Interprofessional education in patient safety*

In partnership with the Northern Alberta Institute of Technology (NAIT), the Patient Safety Education Program – Canada (PSEP – Canada) held a session in Edmonton, Alberta in May 2012. The group included 46 healthcare educators and representatives from Alberta Health Services, to expand their patient safety skills and advance patient safety education within their respective organizations. The two and a half day educational event certifies members of interprofessional teams as patient safety trainers.

Dr. Cheryl Pollard is an assistant professor in the Bachelor of Science Nursing Program at Grant MacEwan University. Dr. Pollard has an interest in patient safety in both her clinical and academic work and is always looking for ways to more tightly align patient safety issues within the curriculum. Since being certified as a patient safety trainer, she has incorporated patient safety learning into the classes that she teaches, including: mental health (where they look at the incidence of medication errors within a mental health context and ways to analyze the system components that contributed to those errors); a nursing leadership class (sessions specifically related to incident analysis); systems thinking; support for patients that have experience an error and implications for staff that make those errors; and a fundamentals of nursing research class where they look at issues from a general context such as repeating patterns and engaging students to look at research through a patient safety lens.

“This PSEP – Canada program combines a pedagogical component and a content component and most courses are not facilitated in that manner,” says Dr. Pollard. “Being able to link some of those ideas is very useful.”

Martie Grant is an instructor in the Diagnostic Medical Sonography Program at NAIT’s School of Health Sciences and is developing curriculum that integrates interprofessional education (IPE) where students from different program areas learn with, from and about one another to provide collaborative patient-centered care. Martie is developing a 45-hour course to be delivered over 15 weeks to medical, dental, and animal health students. Through curriculum mapping she has combined the Canadian Patient Safety Institute *Safety Competencies* and the Canadian Interprofessional Health Collaborative (CIHC) competencies to create NAIT outcomes that demonstrate safe patient care. The new program will be launched for the medical faculty in 2014, starting with Diagnostic Medical Sonography, Medical Laboratory Technology, Medical Radiologic Technology and Dental Technology. The following year the program will be rolled out to respiratory therapy and paramedic students. NAIT is also developing an online version of the course for combined laboratory XRAY and magnetic resonance imaging students.

“When you are developing curriculum, you want a solid background and best practices behind the information,” says Martie Grant. “The PSEP – Canada program provides valuable educational tools such as techniques to communicate and different ways of working together that can be easily incorporated into our courses.”

Both Dr. Pollard and Martie Grant say that the toolkit provided to attendees at the end of the PSEP – Canada program provides an on-going wealth of information that can be tailored to deliver a message that fits your audience. Dr. Pollard is using components of the toolkit to augment her teachings and Martie Grant is drawing on the information and incorporating it into the courses she is developing.

The Patient Safety Education Program – Canada, developed for interprofessional teams, focuses on applying human factors in the workplace, scientific methods for improving safety, organizational culture and dealing with change, understanding teamwork, moving beyond blame to systems thinking and how to teach and implement patient safety. To learn more about or to bring a PSEP – Canada program to your area, visit [www.patientsafetyinstitute.ca/education](http://www.patientsafetyinstitute.ca/education).

<sup>16</sup> <http://goo.gl/TCxbWC> (December 2012)

### viii. Improving patient safety through professional development<sup>17</sup>

“Your schooling may be over, but remember that your education still continues.” This quote from an unknown author can often be heard during graduations and commencement ceremonies. It serves as a reminder to those wearing the caps and gowns and who are collecting their degrees and diplomas that the pursuit of knowledge is one that lasts a lifetime. We should never lose that sense of wonder and curiosity about the world around us or feel content that we’ve heard or seen it all.

Just about any profession you could name requires a person to continue building their skill sets and improving upon what they’ve already learned and mastered, even if they’re years removed from their days as a full-time student. This is especially important in the medical profession where continuing education can be the difference between a successful outcome for a patient and one that results in harm, and in some cases, death.

That being said, we all know how quickly the healthcare system moves and how easy it can be to put other things ahead of our professional development – something that should never happen when a person’s health is in your hands.

- Healthcare providers need continuing education solutions that were developed and are delivered by healthcare providers.
- Healthcare organizations need practical and focused solutions to continuing education that ensure their providers are on top of their game.

This is where the Advancing Safety for Patients in Residency Education (ASPIRE) program comes in. Developed by the Royal College of Physicians and Surgeons of Canada and the Canadian Patient Safety Institute, the ASPIRE program is a national faculty development certificate program on patient safety for physicians. ASPIRE is an intense, focused, four-day educational event dedicated to enhancing the capacity of healthcare organizations to provide patient safety training.

The ASPIRE course includes comprehensive patient safety content mapped to *The Safety Competencies Framework*, and will utilize established delivery mechanisms to form the basis for a customized train-the-trainer program focusing on medical educators in specialty and family medicine, and practicing physicians. The ASPIRE faculty is made up of physician educators and the content of the program includes a comprehensive selection of patient safety topics relevant to helping residents acquire entry to practice abilities.

Participants return to their organizations with an educational plan tailored to their institution and its needs. They also return as trained faculty resource champions who are able to disseminate what they’ve learned among their colleagues.

If we’re to provide high-quality and safe care, professional development and continuing education are vital to our healthcare system and programs such as ASPIRE can go a long way towards ensuring those we entrust with our well-being in our time of need are able to deliver the best care possible.

<sup>17</sup> <http://hospitalnews.com/improving-patient-safety-through-professional-development/> (January 2013)



## ix. Curriculum review helps to understand strengths and identify gaps in safety competencies<sup>18</sup>

The University of Toronto was moving from an entry to practice BScPhm program to a Doctor of Pharmacy program that would expand their reach from a historic eight to 12 PharmD students to 240 students. Dr. Olavo Fernandes was appointed the Patient Safety Team Coordinator to help lead the mapping project for the Pharmacy faculty at the University of Toronto. About three years ago, he took on the arduous task of aligning the six domains of the *Safety Competencies* for the pharmacy curriculum within individual years (year one, year two, year three and year four), as well as across those years to ensure optimal communication and alignment of the various people involved in teaching the courses and how they deliver the *Safety Competencies* across a number of teaching mediums, such as lectures, experiential education and professional practice labs.

Dr. Fernandes began the mapping project by first meeting with individual course coordinators (there were about 10 course coordinators for each year) to educate them on the *Safety Competencies* and look at their course outlines to determine where some of the Enabling Competencies that were already embedded or could be incorporated into their courses in the future.

“This was a great opportunity to look at the entire curriculum to see how patient safety learning occurred and how we were aligned with the *Safety Competencies*,” says Dr. Fernandes, Clinical Director of Pharmacy, University Health Network and Assistant Professor (Status), University of Toronto Leslie Dan Faculty of Pharmacy. “By mapping our curricula to the *Safety Competencies* we were able to really understand and look at our strengths, but more importantly understand what our gaps were so that we could address those deficiencies and learn from other faculties across the country.”

By participating in the mapping pilot, Dr. Fernandes says that an added benefit has been learning about innovative ways of teaching and learning from other’s experiences. It has also created an enhanced dialogue and connections between the schools nationally to facilitate a network of champions who can talk about and share best practices.

As a result of what was learned during the mapping pilot, collectively all of the faculties (pharmacy, medicine and nursing) had gaps in Domain 6: Recognizing, Responding to, and Disclosing Adverse Events. To this end, the University of Toronto has incorporated a session on disclosing adverse events and best practices during one of their second-year lectures. Also, an interprofessional medication safety half-day elective session has been developed where nursing, medical and pharmacy students can attend together to learn about disclosing adverse events.

“There are many different things you are trying to do with your curriculum and so much information that you try to get into your program,” says Dr. Fernandes. “In the future, by proactively incorporating select core patient safety competencies into mandatory accreditation reviews, it will increase the chances of being incorporated and sustained. With the mapping exercise faculties that go through an accreditation process now have a facilitated means to report their own analysis on how they measure up and demonstrate that they are authentically delivering *Safety Competencies* to learners and practitioners.”

The mapping software not only maps to the *Safety Competencies*, it also incorporates the ability to map curricula to profession-specific accreditation standards, education outcomes and national competencies. For pharmacy, the software enables separate mapping to the Association of Faculties of Pharmacy of Canada’s Education Outcomes for Entry-to-Practice Pharmacy Programs.

“CPSI’s mapping software was a brilliant tool in the sense that we could now do this in a much more systematic way,” says Dr. Fernandes. “It makes it easy to do multiple pieces, like mapping courses for both interprofessional competencies and *Safety Competencies*.”

“Mapping allows for a meaningful self-analysis to understand the gaps and strengths in the delivery of skills, knowledge and to some degree fostering attitudes around patient safety along with a structured

<sup>18</sup> <http://goo.gl/9cJZlq> (April 2015)

approach to understand what you need to do to improve,” says Dr. Fernandes.

As a next step, Dr. Fernandes would like to know what competencies are being incorporated and applied into practice. He says by prioritizing which of the domains are core and essential to be taught in the faculties, it forces us to think about what you are doing in real life, versus what is theoretical.

## **x. Dalhousie University to launch new nursing curriculum: Safety Competencies mapped to student learning outcomes<sup>19</sup>**

A major revision of the baccalaureate nursing curriculum is under development at Dalhousie University in Nova Scotia. Dalhousie embarked on a three-year curriculum review and revision, informed by best educational practices, a Provincial Nursing Education Review Report, and a desire for change, which resulted in the development of an integrated, innovative 21st century eight-semester program, spanning a three-year period. Three Nova Scotia universities that offer a Bachelor's degree in nursing, Cape Breton, Dalhousie and St. Francis Xavier, have collaborated on many curriculum related issues, to avoid duplication, share resources and increase accessibility and transferability for students. The modified curriculum is expected to begin Fall 2016.

An examination of the nursing curriculum was launched about three-years ago at Dalhousie. Using innovative curriculum mapping software created by a Dalhousie computer science professor, Dr. Christian Blouin, program and course outcomes, as well as provincial and jurisdictional competencies were mapped. With a complete spreadsheet of student learning outcomes (SLOs) in hand, the Dalhousie School of Nursing was one of four healthcare faculties across Canada to participate in a pilot of the Canadian Patient Safety Institute *Safety Competencies* mapping project.

“I cannot say enough about how much internal mapping and the *Safety Competencies* mapping project have informed a very creative, innovative and integrated nursing curriculum,” says Dr. Shelley Cobbett, Adjunct Assistant Professor, and Dalhousie University School of Nursing. “After the provincial nursing review, formal collaboration began between the three universities in Nova Scotia to ensure that nursing education is not only based upon a culture of safety, quality indicators and competencies but also to make it accessible and transferable within the province.”

Dr. Cobbett says that during the *Safety Competencies* mapping, at first glance, it appeared that the curriculum was not addressing adverse outcomes, which was a major red flag. Going into more detail, they found that they were teaching about adverse outcomes, adverse reporting, and the importance of patient's rights, but these were not reflected in the SLOs. The safety competency mapping verified what they were doing very well, but also identified areas they needed to be very cognizant of as they moved forward in the development of the new curriculum. The mapping pilot also provided a comparative view to other Canadian nursing schools in relation to the *Safety Competencies*.

“By mapping student learning outcomes, we were able to identify where we had potential gaps in our provincial jurisprudence competencies and the national registered nurse competencies,” says Dr. Cobbett. “We also looked at the Canadian Registered Nurse exam (CRNE) blueprint and the more recent national licensure exam alteration, the NCLEX-RN test plan. Dalhousie wanted to create a curriculum that was not content heavy or content saturated, and this mapping enabled careful consideration of the concepts and abilities students need to learn as well as confirming what is expected of a beginning registered nurse, all within a culture of safety.”

<sup>19</sup> <http://goo.gl/uGfHPX> (April 2015)

## **xi. University of Ottawa revisits Safety Competencies mapping<sup>20</sup>**

In 2014, the Faculty of Medicine at the University of Ottawa participated in mapping of the *Safety Competencies* to their undergraduate curriculum. Dr. Amy Nakajima, a clinician-teacher and Zoe Lazaris-Brunner, a medical student at the Faculty of Medicine, revisited the mapping in a different way, from the perspective of the recipient of the intended curriculum, the medical student.

The idea to undertake this second mapping project originated from feedback received from third year medical students attending a patient lecture given by Dr. Nakajima; the students indicated that they felt that patient safety teaching is important and their curriculum should include more patient safety content. Furthermore, the students' feedback inspired the submission of a proposal for a pre-clerkship and a clerkship in patient safety and quality improvement electives, which were then established in January 2015 and are now available to medical students. These flexible electives allow students to further develop their interests in a chosen clinical area.

This year's re-mapping exercise will compare the stated objectives of the undergraduate medical curriculum at the University of Ottawa, through the lens of patient safety, to the students' perceptions of the teaching they received.

"In particular, we are looking at components of the formal curriculum that are mandatory and lectures that students must attend," says Dr. Amy Nakajima. "At the end of this re-mapping exercise, we will generate some suggestions on how we can incorporate additional patient safety and quality improvement content into our undergraduate curricula."

# APPENDIX E

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# APPENDIX F



## The *Safety Competencies*: Enhancing Patient Safety Across the Health Professions 2008 (1st edition, revised 2009)

<http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Safety%20Competencies.pdf>




# The Safety Competencies

First Edition  
Revised August 2009

Enhancing Patient Safety Across the Health Professions



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# The Safety Competencies

Enhancing Patient Safety Across the Health Professions



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Patient safety is a critical aspect of high quality health care.



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- Domain 2**  
*Work in Teams of Patient Safety*
- Domain 3**  
*Communicate Effectively for Patient Safety*
- Domain 4**  
*Manage Safety Risks*
- Domain 5**  
*Optimize Human and Environmental Factors*
- Domain 6**  
*Recognize, Respond to and Disclose Adverse Events*

[www.patientsafetyinstitute.ca](http://www.patientsafetyinstitute.ca)  
[safetycomp@cpsi-icsp.ca](mailto:safetycomp@cpsi-icsp.ca)

*The Safety Competencies - produced in collaboration with The Royal College of Physicians and Surgeons of Canada - September 2008*





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**Canadian Patient Safety Institute**

[www.patientsafetyinstitute.ca](http://www.patientsafetyinstitute.ca)

**Edmonton Office**

Suite 1400, 10025 - 102 A Avenue NW, Edmonton, AB T5J 2Z2

Phone: 780-409-8090 Fax: 780-409-8098 Toll Free: 1-866-421-6933

**Ottawa Office**

Suite 410, 1150 Cyrville Road, Ottawa, ON K1J 7S9

Phone: 613-730-7322 Fax: 613-730-7323