



The Patient Safety  
Education Program™  
CANADA

Plenary 4: Advancing Patient Safety:  
How to Teach & Implement Practice

Emanuel LL, Taylor L, Hain A, Combes JR, Hatlie MJ, Karsh B, Lau DT, Shalowitz J, Shaw T, Walton M, eds. *The Patient Safety Education Program – Canada (PSEP – Canada) Curriculum*. © PSEP – Canada, 2011.

The PSEP – Canada curriculum received editorial contributions from Phil Hassen, International Society for Quality Assurance in Health Care, John Wade, Winnipeg Regional Health Authority, Paula Beard, Canadian Patient Safety Institute, Marie Owen, Canadian Patient Safety Institute, Julie Barré, Canadian Patient Safety Institute, Gordon Wallace, Canadian Medical Protectorate Society, Carolyn Hoffman, Alberta Health Services, Deborah Danoff, Canadian Medical Protectorate Society, Linda Hunter, The Ottawa Hospital, Jane Mann, Fraser Health, Wayne Millar, Eastern Health, Sherissa Microys, The Ottawa Hospital, Donna Davis, Patients for Patient Safety Canada, Elinor Caplan, Patients for Patient Safety Canada, Hugh MacLeod, Canadian Patient Safety Institute, Redouane Bouali, The Ottawa Hospital, Alan Baxter, The Ottawa Hospital, Lisa Calder, The Ottawa Hospital, Craig Bosenburg, Vancouver Island Health Authority, Susan MacKnak, Regina Qu'apelle Regional Health Authority, Annamarie Fuchs, Consultant, Anne Bialachowski, Community and Hospital Infection Control Association-Canada, Joanne Habib, Community and Hospital Infection Control Association-Canada, Deborah Simmons, University of Texas Health Science Center at Houston, and Lisa Little, Consultant.

Acknowledgements to Sandi Kossey, Canadian Patient Safety Institute, Erin Pollock, Canadian Patient Safety Institute, Ioana Popescu, Canadian Patient Safety Institute, and Morgan Truax, Canadian Patient Safety Institute for their work on the appendices, glossary, and Canadian reference list; to Hina Laeeque, Canadian Patient Safety Institute, for her contribution to the Canadian editing process; to Denise Sorel and Anne MacLaurin for their review and insight of content pertaining to the *Safer Healthcare Now!* program; to Julie Langlois, Accreditation Canada, for her work mapping the Required Organizational Practices and Standards.

Permission to reproduce PSEP – Canada *Core Curriculum* materials is granted for non-commercial educational purposes only, provided that the above attribution statement and copyright are displayed. Commercial groups hosting not-for-profit programs must avoid use of products, images or logos from the commercial entity with PSEP – Canada materials.

PSEP – Canada is a partnership between the Canadian Patient Safety Institute (CPSI) and the Patient Safety Education Program, which is housed at the Buehler Center on Aging, Health & Society at Northwestern University, Chicago, USA. The PSEP – Canada Curriculum is an adaptation of the PSEP Core Curriculum. PSEP has received support from the Jewish Healthcare Foundation, the Pittsburgh Regional Health Initiative, the Zell Center for Risk Research, California Healthcare Foundation, The Commonwealth Fund, and the Health Research and Education Trust in the form of the 2008 Edwin L. Crosby Fellowship that was awarded to Dr. Emanuel. PSEP is a not-for-profit educational program. It began as a collaboration among Linda Emanuel, Martin Hatlie, John Combes, and Joel Shalowitz.

Those who have become certified PSEP – Canada Trainers by taking a 'Become a PSEP – Canada Trainer' course that was provided by PSEP – Canada may use the title of PSEP – Canada Trainer, as well as template materials, such as fliers, that are provided by PSEP – Canada and also use the appropriate designated marks to hold educational seminars using the PSEP – Canada *Core Curriculum*. The Patient Safety Education Program in the US reserves the sole right to designate Master Facilitators who teach at 'Become a PSEP – Canada Trainer' conferences.

Visit [www.patientsafetyinstitute.ca](http://www.patientsafetyinstitute.ca) for further information.

Contact PSEP – Canada by e-mail at [PSEPCanada@cpsi-icsp.ca](mailto:PSEPCanada@cpsi-icsp.ca)

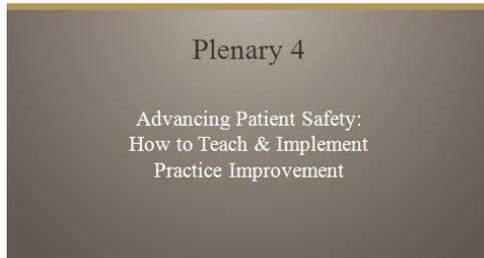
[Revised 2017]

<b>PSEP – Canada Objectives</b>	<b>Related CPSI Safety Competencies</b>
<p>The knowledge elements include an understanding of:</p> <ul style="list-style-type: none"> <li>• The stages of education impact and change</li> </ul> <p>The performance elements include engaging in exercises to:</p> <ul style="list-style-type: none"> <li>• Integrate passive and active teaching styles into an educational program</li> <li>• Design an educational program that addresses the needs of adult learners</li> <li>• Utilize toolkits are implemented for performance change by end users</li> </ul>	<p><b>Domain: Contribute to a culture of patient safety</b></p> <p><i>3. Health care professionals who maintain and enhance patient safety practices through ongoing learning:</i></p> <p>3.4. Participate in patient and health care professional safety education</p>



# Abstract

Slide 1



---

---

---

---

---

---

---

This plenary provides Patient Safety Education Program – Canada (PSEP – Canada) Trainers with a basic understanding of adult education theory and how it can be applied to the development of an effective patient safety educational program. The stages of education impact and change can be divided into two categories: preparation and performance. PSEP – Canada Trainers will prepare learners by establishing the relevance of patient safety and applying it to practical problems from their personal experience. The interactive classroom learning environment will be supplemented by toolkits that can be utilized by end users for effecting meaningful and lasting changes in performance within their organization.

## Keywords

Adult education, active teaching/learning, passive teaching/learning, knowledge, attitudes, skills, norms, behaviour, precontemplation, contemplation, preparation, performance, maintenance, action, simulation, role play, short-term memory, intermediate memory, long-term memory, educational session design, toolkits, mentoring

## Teaching method

Didactic

# Objectives

Slide 2

## Knowledge requirements



---

---

---

---

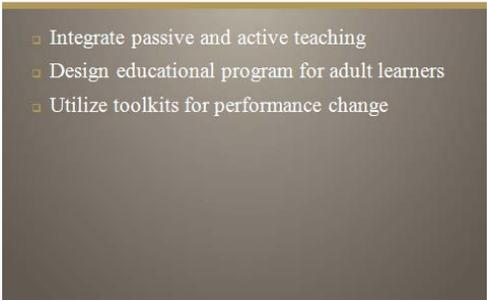
---

---

---

Slide 3

## Performance requirements



---

---

---

---

---

---

---

## Knowledge elements

The knowledge elements include an understanding of:

the stages of education impact and change Performance elements.

## Performance elements

The performance elements include engaging in exercises to:

- integrate passive and active teaching styles into an educational program;
- design an educational program that addresses the needs of adult learners; and
- utilize toolkits are implemented for performance change by end users.

# Introduction

Slide 4

## Introduction

- This plenary highlights:
  - how people learn
  - presentation and teaching styles
  - how to implement changes
  - how to maintain changes

---

---

---

---

---

---

---

This section focuses on the ways people learn and change, and what makes the process more enjoyable, effective, and efficient. Some of us have had little training to be effective teachers and change agents. However, as PSEP – Canada Trainers, an understanding of these processes is key to maximizing the impact you will have on your participants’ understanding of and ability to use patient safety practices. Integral to this process is an understanding of the way healthcare professionals learn most effectively, skillful presentation techniques, interactive teaching styles to engage your audiences during the experience, follow through implementation activities, and methods to maintain practice change. This plenary is divided into acquisition of attitudes, knowledge and skills necessary for improved patient safety, and implementation and maintenance of patient safety practices; in short: understanding and practice.

# Using stages of education impact and change

Slide 5

## Stages of education impact and change

- Attitudes/precontemplation
- Knowledge/contemplation
- Skills/preparation
- Behavior/action
- Patient experience/outcome of action
- Societal norms/maintenance

---

---

---

---

---

---

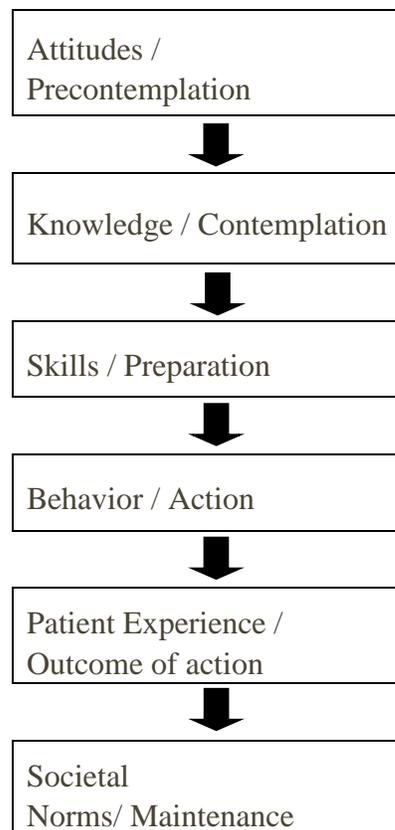
---

It is naïve to think that knowledge alone changes behavior. If it is our goal to change the patient and family experience of healthcare, we need to adopt a more precise way of understanding education. Davis and Dixon have both described a cascade of steps for evaluation of education.

We have adapted this to assist our understanding of the components or steps of education (Figure 1). Knowledge and attitudes precede the learning of new skills. Those skills must be translated into behavior if desired outcomes are to be seen. When enough people are experiencing the desired outcomes, there will be community-wide improvement reflected in norms of practice.

Interestingly, these stages of change are readily compared with stages of change that are often identified in the management literature and are increasingly used to promote changes in health related behaviors among patients. These stages are: *precontemplation* in which the person or group has a disposition or attitude toward the potential change that is not receptive; *contemplation*, in which the person or group is ready to think about the potential change or issues related to it; *preparation*, in which the person or group is acquiring what it will take to accomplish the change; *action*, in which the person or group is engaging in activities that reflect the change; and *maintenance*, in which norms are set up that will reinforce and maintain the change. We have mapped them onto the educational stages of impact in Figure 1.

**Figure 1: Framework for education-driven performance change**



If we apply this framework to understand the necessary steps of education and change in medication safety, for example, we would say that the attitude that ‘medication errors are preventable’ and the knowledge of how to control them come first. Then the skills of assessing sources of adverse events, seeing how to change adverse event-prone systems

and teaching colleagues, patients and families how to use them must be learned. Then, the patient safety practitioner must change his or her system and implement the changes on a permanent basis in order to achieve the desired outcome. When all patients with medications receive them without adverse event, we will have achieved a social good.

The Patient Safety Education Program – Canada (PSEP – Canada) focuses on the understanding and performance skills of clinicians and healthcare administrators. Although skills are described, the Core Safety Curriculum alone will not assure the development of those skills. Translation of patient safety into practice is the responsibility of PSEP – Canada Trainers, End-learners (those taught by PSEP – Canada Trainers) and all colleagues in the healthcare delivery system. There are several programs working to change core delivery systems so that understanding and performance skills will translate into appropriate behaviors and measure the outcomes of those behaviors. The Canadian Patient Safety Institute (CPSI) works to develop, demonstrate and disseminate patient safety and quality improvement strategies. The CPSI patient safety competencies provide a valuable framework for curriculum development for healthcare professionals. (<http://www.patientsafetyinstitute.ca>). Accreditation Canada provides national and international healthcare organizations with an external peer review process to assess and improve the services they provide to their patients and clients based on standards of excellence (<http://www.accreditation.ca>).

However, the development of skills is a key component. Real skill requires practice and mentoring. For most health professions, and certainly for physicians, that means at the bedside and in the clinic. Using the example of pain management and medication error, physicians can know all of the details about pain management and the appropriate use of morphine. They can have the attitude that it is important. But if they haven't had the experience of actually writing the prescription and seeing where the sources of error are and how these can be preempted and mitigated, they won't implement the appropriate behavior.

## How people learn

Slide 6

**How people learn**

- Interactive learning strategies
  - mentors
  - narratives
  - simulation
  - role play
  - peer feedback

---

---

---

---

---

---

---

Humans, like other mammals, appear to derive pleasure from learning, and appear to engage enormous energy in the process from our earliest days. Young people learn most rapidly and naturally from emulation and from play. Apparently we are ‘hard wired’ to gather contextual learning most effectively through these two forms of engagement.

Patient safety is a highly contextual matter. Therefore, in becoming a PSEP – Canada Trainer, it is important to put adult education methods into perspective and to ensure that the most effective methods for learning how to behave are used. In much of medical education until the most recent times, much emphasis has been placed on methods that are known to be ineffective for producing change, such as didactic lectures.

In PSEP – Canada, we have chosen to use educational vehicles that include mentors, narratives, simulation, role play, and peer feedback as much as possible in order to provide the natural and effective channels to behavioral learning that we humans work well with.

As a PSEP – Canada Trainer, and as an opinion leader in patient safety, you will want to use methods that are as interactive as possible and that involve as much enactment as possible.

Consider your training in two stages: preparation for performance and performance.

## Training stage I: preparation for performance

### Attitudes/pre-contemplation

Slide 7

**Attitudes/pre-contemplation**

- Provide context for learning
  - trigger tapes
  - personal experiences
- Internal factors can affect learning
- Establish the value and relevance of material

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

In the phase of preparation for performance there will be a heavier reliance on classroom learning. However, attitudes and precontemplation stages often depend on personal experience, culture, and emulation of mentors. The construction of the Become a PSEP – Canada Trainer Conference for teams is in part in recognition of the need for a socially supportive context for change before effective training can happen. Use of trigger tapes and data from the institution in question and personal experiences can all help to bring the practitioners into a state of contemplation when knowledge acquisition is likely to be more effective.

## Factors within learners that influence their ability to learn

Regardless of whether educational events are presented using passive or active learning styles, there are few guarantees that the learning that is expected will be the learning that occurs. In reality, learning may not occur at all. In other instances, learning may occur in spite of the teaching provided. We have already explored some of the reasons why certain teaching styles are problematic. One or more of the following factors may be operative within each participant. The learner may:

- feel he or she is at least as competent in the subject matter as the teacher;
- resent authority figures (e.g., teachers);
- be anxious that her or she will be seen as inferior or will be embarrassed during the session;
- have had a bad training experience in the past which he or she has generalized to all learning experiences;
- have come to the session with other problems on his or her mind and be unable to focus;
- have been forced to come to the session and resents being present;
- be interested in the material but be constrained by time pressures and focused on other priorities;
- have personal barriers to learning the topic (e.g., a fear of death; culturally based inhibition to discussing the topic); and
- “pick on” an irritating or annoying mannerism of the teacher.

Although a teacher should try to meet as many needs of the participants as possible, it is unrealistic to be everything for everyone. If possible, the teacher should attempt to assess the participant’s needs and issues. While some issues may be beyond the scope of the teacher’s responsibilities, some of the factors operating within learners may be dealt with by establishing the value and relevance of the material to all participants.

## Knowledge/contemplation

Slide 8

### Knowledge/contemplation...

- Adults retain three major facts per hour
- Passive teaching style
  - teacher decides content
  - teaching is unidirectional
  - no role for learner’s own experience
  - learner = empty vessel
  - teacher = full vessel

---

---

---

---

---

---

---

**... Knowledge/contemplation**

- Active teaching style
  - teacher and learner decide content
  - education based on give and take
  - values learners' past experiences
  - teacher and learner share information
- Use passive and active learning
  - apply knowledge to practical problems

---

---

---

---

---

---

## How adults create memory and retain information

When an adult learns something new, the new fact first goes to short-term memory. Short-term memory must be converted into intermediate and then long-term memory if the new information is to be permanently retained. This process takes time. It also has a limited capacity. Overall, an adult can put three major facts per hour into long-term memory.

In order for new information to be taken in, the person must be alert and paying attention. Attention waxes and wanes. One rule of thumb is to plan that a person will be able to attend to new information for ten minutes. Then, the person will need two minutes of mental rest to process it before the person is able to move to a new piece of information. Overall attention declines after forty-five minutes unless there is a significant change to reengage the learner.

## Teaching styles

The two most common teaching styles are referred to as “passive” and “active.”

### Passive teaching style

Most participants have had the majority of their learning experience grounded in a passive teaching style. This characterizes much of what current practitioners received in grade school and much of the educational style then prevalent at undergraduate and graduate school levels. Consequently, when they provide education to others, they are inclined to use this same style. This style can be characterized by:

- teacher decides what the learners should learn;
- the teacher teaches the learner in a unidirectional fashion;
- no role for the learner’s own experiences; and
- the learner conceived as an empty vessel; the teacher is a full vessel.

## Active teaching style

People, however, usually learn better when more active and interactive educational experiences are provided in order to gain the maximum benefit from the experience. Furthermore, most adult learners need to be able to see the usefulness of new information immediately, so that they can incorporate it into their long-term memory. Active teaching style is characterized by:

- the teacher and learner negotiate what is to be learned;
- education that is based on give and take;
- valuing the learner's past experiences; and
- information that is shared between the teacher and the learner.

Hank Slotnick has expanded on these observations, particularly as they relate to how physicians learn. He has suggested that there are three basic principles to optimize physician education:

1. **practical** – make sure what you teach relates to a problem the learner already has;
2. **participation** – Involve the learner in the material to be learned; and
3. **multiple demands** – acknowledge that the learner has other priorities besides the educational (ruthlessly exclude the extraneous; respect time).

Careful attention to these principles in the construction of any session can result in effective educational events.

## Passive versus active learning

Educational sessions can be characterized as passive versus active. It is important to understand this difference in order to understand when each is most useful and effective.

**Passive learning** is when the participant does not have to take an active role in the process. Examples are reading, watching, listening to a lecture, or observing an interaction between the teacher and another student. This type of learning can lead to information transfer, reflection, evaluation, assessment, and analysis. One major advantage of passive learning is that a large amount of information can be presented. A major disadvantage is that recall of the material is generally limited (about 10% of the information). Passive learning correlates with memorization and simple fact recall. The learner may know the facts, but not be able to apply the information to solve practical problems. This is why it is important to link passive learning to active learning.

**Active learning** is accomplished when the information provided is analyzed, discussed, debated, processed, linked to relevant activities, or incorporated into current decision-making processes. Participants may be challenged with a problem or activity that involves debate and resolution. Small groups may be convened to negotiate a solution or identify how the issue being discussed is relevant to their current situation.

A good framework to keep in mind is the Active Training Credo:

- what I **hear**, I *forget*;
- what I hear and **see**, I *remember a little*;
- what I hear, see, and **ask questions about** or **discuss** with someone else, I begin to *understand*;
- what I hear, see, discuss, and **do**, I *acquire* knowledge and skill; and
- what I **teach** to another, I *master*.

Involving the participant actively in the learning process is important because adult learners process and recall information better (about 20-35% of the information) if they can:

- do something with the information;
- discuss it with others;
- ask questions about it;
- compare and contrast it to other things in their experience;
- reflect on it; and
- try using the information and evaluate the results.

Adults have a variety of preferred learning styles (e.g., visual, auditory, kinesthetic), and an active learning process that involves listening, demonstrations, interaction, and understanding is more likely to reach all participants.

## Educational session design

Slide 10

### Education session design ...

- Ask what learners want to learn
- Negotiate learning goals and objectives
- Use examples
- Learners identify solutions to their own problems
- Learners analyze, critique, and assess information

---

---

---

---

---

---

---

**... Education session design**

- Use various teaching styles  
small group, lecture, activities, etc.
- Be flexible and stay on time
- Relate new information to learners' previous knowledge
- Reinforce key points

---

---

---

---

---

---

The Core Safety Curriculum is designed for adult learners. In planning to teach administrators, physicians, nurses and others using the Core Safety Curriculum materials, plan to incorporate an understanding of how adults learn, the elements of education, and the adult-adult teaching style in the following ways:

- involve the learner in the learning process by asking what they want to learn;
- negotiate what the learning goals and objectives are at the beginning of the session;
- demonstrate the relevance of the subject matter to the learner with examples;
- structure activities so that learners identify solutions to problems they have;
- Engage learners to analyze, critique, and assess the information;
- utilize various teaching modalities such as small group process, lecture, and experiential activities to maintain interest and attention;
- be flexible and meet the learner's needs within the confines of the allotted time;
- provide information that relates to information that the learner already knows; and
- reiterate/reinforce/repeat key points throughout the session.

Most well-designed educational programs mix both passive and active learning styles. There usually needs to be some information transferred that is best presented using a passive presentation style. On the other hand, information that is only shared in a passive learning format is likely to become boring or irrelevant to the participant. The key to learning for adults is to provide new information that is relevant and usable within a relatively short time.

As a PSEP – Canada Trainer, your goal is not only to present information participants need, but also to facilitate experiences that will assist them in gaining the knowledge and skills they will need to change their behavior. We increase our chances of information retention and altered action if participants are actively involved in the training experience.

**The need for varied teaching styles**

For trainers who are more comfortable with the lecture-only teaching style and for participants who are more comfortable with passive learning, group involvement and

active participation may be viewed as problems. Trainers may feel they lose control of the group when turning the session over to exercises. Participants may feel they could be learning more (e.g., quantity) if they could get the information through lecture or reading. As trainers we must remember that participants are capable of cognitively understanding a great deal of information, but they can only retain so much information per unit time, and they will likely change their behavior for even less of it. We will have the greatest potential to increase knowledge retention that leads to changed behavior if we combine multiple training styles (lecture, experiential activities, small and large group activities, etc.) and repeating key points throughout the training.

## Skills/preparation

Slide 12

**Skills/preparation**

- Not a well developed in patient safety
- Simulation
  - surgical and manual skills
  - standardized patients
  - role play

---

---

---

---

---

---

---

---

Patient safety skills are often not, in of themselves, difficult. It is often their implementation in the real world setting that is challenging. However, skills preparation in patient safety is also not yet well developed.

Simulation is one major area in which skills preparation is done. This tends to be best developed in simulation of complex, cognitively active skills, especially surgical and other specialized manual skills such as patient physical examinations. Relational skills, especially those involved in teamwork and communication can also be found in some simulation exercises, including those that use standardized patients (actors who play the role of the patient, and after interacting with the clinician-learner in a purpose-designed exercise, provide feedback) and role-play (see also PSEP – Canada Action Module 1: Teaching Skills: Practising Key methods).

Medical student skills development in patient safety have made use of simulated root cause analysis, and one-month electives in which a quality improvement project is identified and designed.

Management and leadership skills tend to be taught in ways that involve cognitive and interactive methods more than simulation, although potential for more simulation-based teaching exists. Less complex, habitual skills such as patient identification, medication justification, hand washing could be programmed into games-type simulation instruments to assist habituation, but this area is still undeveloped.

In view of the chasm between education and performance, and in view of the essential place of performance in patient safety, closing the chasm with development of further simulation-based methods for skills development is necessary. PSEP – Canada Trainers and Executives are encouraged to support and become leaders in the development of such devices.

## Training stage II: performance

Slide 13

**Performance**

- Toolkits implement improvements in specific areas of patient safety
  - skills
  - performance
    - improvement requires validated measures
- norms
  - improved practices for all performers
  - regular monitoring
  - documented performance standards

---

---

---

---

---

---

---

---

### Toolkits for skills, behaviors & norms

Patient safety advocates have created large numbers of toolkits for implementing specific areas of improvement in patient safety performance. Toolkits have been selected as matching components for each module in this Core Safety Curriculum. They are not exhaustive either of the performance areas noted in the Curriculum or that need to be addressed. They are only examples of the type of toolkit that PSEP – Canada Trainers and Executives may wish to use. Many others also exist and PSEP – Canada Trainers and Executives are encouraged to explore additional toolkits, or if they have the institutional capacity and personal skills, to develop new toolkits.

PSEP also partners with other advanced learning and certification programs such as The Institute for Healthcare Improvement, The Perfecting Patient Care University, the Canadian Patient Safety Institute, and the Health Research and Education Trust so that PSEP – Canada Trainers can readily use their toolkits and educational offerings, whether to make use of them in their Core Safety Curriculum training, to engage their entire facility or a subset of it in a quality improvement effort in partnership with such an institution, or simply to advance their own accomplishments.

More material on how to select and implement a toolkit for improving safety practices can be found in PSEP – Canada Action Module 2: Practice Improvement: Using Clinical Practice Improvement Skills.

## Skills

Use of good toolkits and other safety improvement efforts will not start until the people involved have been trained in the requisite skills. Simulation programs or other skills preparation exercises may be used; but the step of on-site skills development should not be skipped. An important precept in patient safety is that practitioners are not put on the front line of practice unprepared.

As noted in PSEP – Canada Plenary 3: What is Patient Safety?: A Conceptual Framework, every person involved in the delivery of healthcare needs to be a safety practitioner. Skills involved include understanding the system and anticipating the system, vigilance for things that do not seem right, and teamwork across disciplines. Experience also counts for a great deal in that it provides for pattern recognition and enhanced discrimination between what seems right and what seems awry.

Monitoring and / or mentoring for skills acquisition, development and consolidation should continue in the work place even when classroom skills training is complete. The mentor should use teaching skills presented in problem based learning to provide effective feedback and other aspects of on-site mentoring. The type and duration of monitoring and mentoring during on-site skills acquisition depends on the nature of the project, and can be expected to vary from minimal for short periods to extensive for many years. Much of the necessary monitoring and mentoring can be built into existing organizational roles and relationships.

## Performance

Performance comes with practice. Many aspects of healthcare practice are now recognized to require many years of experience before they are optimally refined and integrated. Practice improvement projects benefit from having people involved with multiple levels of experience. Consider who in your practice improvement area and in your institution you can involve to provide these levels of expertise for role-modeling and expert consultation.

Specific areas of patient safety are generally best implemented using practice-improvement efforts. Methods for practice improvement are set out in PSEP – Canada Module 9: Methods for Improving Patient Safety. The steps involved in practice improvement include:

- project building (identifying the goal, building the teams, creating an aims statement and selecting measures);
- diagnosis (identifying the main barriers to the goal and the solution to be implemented);
- intervention (multiple, small, short cycles of applying the intervention, getting feedback, adjusting the application, and so on until it is optimized);
- implementation (applying the intervention throughout the system); and

- institutionalization (ensuring that the intervention continues to be used).

## Norms

A patient safety improvement project is not complete until it has changed norms of practice. Toolkits should include this step; if the one being used does not, then the PSEP – Canada Trainer or Executive should construct such a step. It is the 5<sup>th</sup> step noted above in practice improvement methods as set out in PSEP – Canada Module 9: Methods for Improving Patient Safety. For practical purposes, this usually means three outcomes are of particular relevance:

1. the practices in question should be improved in all relevant performers;
2. the monitoring of practices should be included in the institution’s routine quality improvement cycles so that performance improvement will continue and not fade away; and
3. the performance standards are written into institutionally adopted policies and standards.

Additional materials on how to teach practice-improvement skills are provided in the PSEP – Canada Professional Development Workshop Syllabus.

## Summary

Slide 14

### Summary

- Design program to engage audience
  - understand their limitations
  - provide attitudes, knowledge, skills
- Provide toolkits for implementing changes

---

---

---

---

---

---

---

Patient safety trainers are charged with preparing healthcare professionals to enact changes within their organization to improve patient care and reduce adverse events. Accomplishing this mission requires an understanding of the limitations of their audience and how to effectively engage them in an interactive learning environment. Designing an educational program that provides new attitudes, knowledge, and skills forms the basis of this preparation. In addition to preparing end users, Patient Safety trainers must supply them with toolkits for implementing changes in order to ensure they are long-lasting and effective.

## Potential pitfalls

Slide 15

### Potential pitfall

- Try not to emphasize more than 5-7 key points in each presentation
- Avoid the use of prolonged lectures

---

---

---

---

---

---

---

1. Try not to emphasize more than five to seven key points in each presentation.
2. Avoid the use of prolonged lectures.

## Pearls

Slide 16

### Pearls

- Combine passive and active teaching styles to engage learners
- Relate new information to learners' previous knowledge
- Reiterate key points throughout your presentation

---

---

---

---

---

---

---

1. Combine passive and active teaching styles to engage learners. This includes tailoring your presentation to address topics that are important to your audience.
2. Relate new information to learners' previous knowledge. This can be accomplished through practical examples and by asking learners' if they have encountered similar situations in their work environment.
3. Reiterate key points throughout your presentation.

## Toolkits & outcome measures

- **The CanMEDS Physician Competency Framework:** The CanMEDS framework is organized around seven Roles: Medical Expert (central Role), Communicator, Collaborator, Health Advocate, Manager, Scholar and Professional. The CanMEDS competencies have been integrated into the Royal College's accreditation standards, objectives of training, final in-training evaluations, exam blueprints, and the Maintenance of Certification program. <http://rcpsc.medical.org/canmeds/index.php> 
- **CanMEDS-Family Medicine:** The College of Family Physicians of Canada (CFPC) has developed the CanMEDS-Family Medicine framework which defines the competencies which are appropriate for comprehensive family physicians, and which all residents will be working towards throughout their training. <http://www.cfpc.ca/English/cfpc/education/CanMEDS> 
- The Collège des médecins du Québec has also adopted the CanMEDS competencies frameworks  <http://www.cmq.org/fr/>
- **The Society of Obstetricians and Gynaecologists of Canada (SOGC) MORE<sup>OB</sup>:** A patient safety program is a working example of a program that has a measurable, positive impact on the health of mothers and babies. [http://www.sogc.org/more/index\\_e.asp](http://www.sogc.org/more/index_e.asp) 
- **The Safety Competencies:** The Safety Competencies were produced in collaboration with The Royal College of Physicians and Surgeons of Canada (CanMEDS Office). This important work was spearheaded by the Canadian Patient Safety Institute's Education and Professional Development Advisory Committee and was guided and crafted by an interprofessional team of educators (Steering Committee). Each domain was further developed by theme-based working groups.  
<http://www.patientsafetyinstitute.ca/English/education/safetyCompetencies/Pages/default.aspx>   
<http://www.patientsafetyinstitute.ca/french/education/safetycompetencies/pages/default.aspx> 
- **Safety Competencies - Curriculum on the Go:** This curriculum was developed through the collaboration of the Canadian Patient Safety Institute (CPSI), the Paediatric Chairs of Canada and the National Program Directors and is based on the CPSI document "The Safety Competencies: Enhancing Patient Safety Across the Health Professions". <http://ken.caphc.org/xwiki/bin/view/SafetyCompetencies-CurriculumontheGo/> 
- **IHI Open School:** The IHI Open School for Health Professions is an interprofessional educational community that gives students the skills to become change agents in health care improvement. <http://ihi.org/IHI/Programs/IHIOpenSchool/IHIOpenSchoolforHealthProfessions.htm?TabId=1>

- **Modules on ‘how to’ make improvements:** Healthcare Improvement Skills Center — University of Missouri and Case Western Reserve University <http://www.improvementskills.org/courseinfo/references.cfm?CFID=1209736&CFTOKEN=81218911>
- **Patient Healthcare Matrix:** Bingham J Quinn D Richardson M Miles P Gabbe S Using a Healthcare matrix to assess patient care in terms of aims for improvement in core competencies Journal on Quality and Patient Safety 2005;31(2) 98-105 <http://www.ihl.org/IHI/Topics/HealthProfessionsEducation/EducationGeneral/EmergingContent/PatientHealthCareMatrix.htm>
- **Learning to improve complex systems of care:** Headrick LA. Learning to improve complex systems of care. In: Collaborative Education to Ensure Patient Safety. Washington, DC:HRSA/Bureau of Health Professions. 2000;75-88 <http://www.ihl.org/NR/rdonlyres/33BABBF3-6591-4416-9159-78A80BC9F2DE/1143/Toolbox.pdf>
- **Medical Team Training Programs in Health Care:** David P. Baker, Sigrid Gustafson, J. Mathew Beaubien, Eduardo Salas, Paul Barach <http://www.ahrq.gov/downloads/pub/advances/vol4/Baker.pdf>
- **Simulator-Based Training and Patient Safety:** Ashish K. Jha, M.D. University of California, San Francisco School of Medicine Bradford W. Duncan, M.D. Stanford University School of Medicine David W. Bates, M.D., M.Sc. Harvard Medical School Making Health Care Safer: A Critical Analysis of Patient Safety Practices. Evidence Report/Technology Assessment: Number 43. AHRQ Publication No. 01-E058, July 2001. <http://www.ahrq.gov/clinic/ptsafety/chap45.htm>
- **Best Practices in Patient Safety Education – Module Handbook:** University of Washington, Center for Health Sciences Interprofessional Education. 2004 [http://www.interprofessional.washington.edu/ptsafety/files/Handbook\\_Jan\\_05.pdf](http://www.interprofessional.washington.edu/ptsafety/files/Handbook_Jan_05.pdf)

## Resources

- **The Canadian Patient Safety Competency Framework (Canada):** The Safety Competencies provide a framework of six core domains of relevant knowledge, skills and attitudes for all health care professionals. This is one component of extensive educational materials developed by the CPSI. <http://www.patientsafetyinstitute.ca/English/education/safetyCompetencies/Pages>
- **The Canadian Council on Health Services Accreditation document on Patient Safety Strategy provides an overview with a focus on accreditation** [http://www.accreditation.ca/uploadedFiles/PS\\_Strategy\\_Phase\\_2\\_EN.pdf](http://www.accreditation.ca/uploadedFiles/PS_Strategy_Phase_2_EN.pdf)
- A systematic review of faculty development initiative designed to improve teaching effectiveness in medical education: BEME Guide No. 8 [Steinert](#)

[Y, Mann K, Centeno A, Dolmans D, Spencer J, Gelula M, Prideaux D. Med Teach. 2006 Sep;28\(6\):497-526.](#)

- **The National Patient Safety Education Framework (Australia):** Framework that identifies the knowledge, skills, behaviours, attitudes and performance required by all health care workers in relation to patient safety. The Framework is accompanied by an extensive Bibliography which contains a summary of the literature used in the development of the Framework. Both documents were funded the Australian Council for Safety and Quality in Health [http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/C06811AD746228E9CA2571C600835DBB/\\$File/framework0705.pdf](http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/C06811AD746228E9CA2571C600835DBB/$File/framework0705.pdf)
- **Teaching Quality Improvement (Presentation):** Linda Headrick, MD, Senior Associate Dean, Education and Faculty Development, University of Missouri School of Medicine (Columbia, Missouri, USA), to the Council of Academic Societies of the Association of American Medical Colleges in March 2004. <http://www.ihl.org/NR/rdonlyres/60C85294-F1F9-49D9-8D89-F3DFBD2376A5/1150/TeachingQualityImprovementPresentation.pdf>
- **Developing Health Professionals Capable of Continually Improving Health Care Quality, Safety and Value: The Health Professional Educator's Work:** Paul B. Batalden, Center for the Evaluative Clinical Sciences, Dartmouth Medical School, Hanover, New Hampshire, USA. January 2005. <http://www.ihl.org/IHI/Topics/HealthProfessionsEducation/EducationGeneral/ImprovementStories/DevelopingHealthProfessionalsCapableofContinuallyImprovingHealthCareQuality.htm>

## References

Berwick D, Finkelstein JA. Preparing medical students for the continual improvement of health and health care: Abraham Flexner and the new "Public Interest". *Academic Medicine*. 2010;85(9):S56-S65.

Cobb SC. Internet continuing education for health care professionals: an integrative review. *J Contin Educ Health Prof*. 2004;24(3):171-80. 

D'Eon MF, AuYeung D. Follow-up in Train-the-Trainer Continuing Medical Education Events. *J Contin Educ Health Prof*. 2001;21(1):33-9. 

Davis D, Davis N. Selecting educational interventions for knowledge translation. *CMAJ*. 2010;182(2):E89-93. 

Dixon J. Evaluation Criteria in Studies of Continuing Education in the Health Professions: A Critical Review and a Suggested Strategy. *Evaluation and the Health Professions*. 1978;1(2):47-65.

Draper JA, Carere J. Selected Chronology of Adult Education in Canada. *Canadian Journal for the Study of Adult Education*. 1998;12(2):30-76. 

- Duffy, B. First, protect the patient from harm: Applying adult learning principles to patient safety. *Patient Safety & Quality Healthcare*. 2010;7(4): 32-36.
- Emes C, Cleveland-Innes M. A Journey toward Learner-Centered Curriculum. *Canadian Journal of Higher Education*. 2003;33(3):47-69. 
- Griscti O, Jacono J. Effectiveness of continuing education programmes in nursing: literature review. *Journal of Advanced Nursing*. 2006;55(4):449-56. 
- Igarashi M, Subeges L, Moss G. A Comparison of Two Methods of Needs Assessment: Implications for Continuing Professional Education. *Canadian Journal of University Continuing Education*. 2002;28(1):57-76. 
- Ho K, Jarvis-Selinger S, Borduas F, et al. Making interprofessional education work: the strategic roles of the academy. *Academic Medicine*. 2008;83(10):934-40. 
- Ogrinc G, Headrick LA, Morrison LJ, Foster T. Teaching and Assessing Resident Competence in Practice-based Learning and Improvement. *J Gen Internal Med*. 2004 May;19(5 Pt 2):496–500.
- Pierre Corbeil. Learning from the Children: Practical and Theoretical Reflections on Playing and Learning. *Simulation Gaming*. 1999;30;163.
- Slotnick HB. How doctors learn: the role of clinical problems across the medical school-to-practice continuum. *Academic Medicine*. 1996; 71(1):28-34.
- Staker LV. Teaching performance improvement: an opportunity for continuing medical education. *Journal of Continuing Education in the Health Professions*. 2003;23(Suppl 1): S34-52. 
- Steinert Y, Mann K, Centeno A, et al. A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. *Medical Teacher*. 2006;28(6):497-526. 
- Vigeant D, Lefebvre H, Reidy M. The use of video as a pedagogic tool for the training of perioperative nurses: a literature review. *Canadian Operating Room Nursing Journal*. 2008;26(1):8-9, 14-5, 17-20. 
- Wheatley, Walter J. Enhancing the Effectiveness and Excitement of Management Education: A Collection of Experiential Exercises Derived from Children's Games. *Simulation Gaming*. 1999;30:181.
- Wutoh R, Boren SA, Balas EA. eLearning: a review of Internet-based continuing medical education. *Journal of Continuing Education in the Health Professions*. 2004;24(1):20-30. 

## Plenary 4 Trainer's Notes

### Principal message

The single most important message your audience should come away with is that *learning to be an effective teacher will maximize your impact on trainees and their ability to use patient safety practices.*

### Plenary overview

This plenary offers practical knowledge about interactive teaching techniques and advice about overcoming barriers to adult learning. After completing this plenary, participants will have a more thorough knowledge of education and improved skills as facilitators and teachers. The stages of education impact and change are divided into two categories: preparation and performance. PSEP – Canada trainers will prepare learners by establishing the relevance of patient safety and applying it to practical problems from their personal experience. The interactive classroom learning environment will be supplemented by toolkits that can be utilized by end users for effecting meaningful and lasting changes in performance within their organization.

### Preparing for a presentation

#### 1. Assess the needs of your audience

Choose from the material provided in the syllabus according to the needs of your expected participants. It is better for participants to come away with a few new pieces of information, well learned, than to come away with a deluge of information from which they can remember little or nothing.

#### 2. Presentation timing

Allow sufficient time to collect participants' demographic data and complete the pre-test.

The suggested timing for each part of this module is:

Introduction	2-3 minutes
Presentation	40 minutes
Summary	2-3 minutes
<u>Post-test &amp; Evaluation</u>	<u>5 minutes</u>
Total	49-51 minutes

### 3. Number of slides: 16

### 4. Preparing your presentation

The text in the syllabus was not designed to be used as a prepared speech. Instead, the text provides material you may want to use. The slides have been designed to trigger your presentation. Although the slides closely follow the text of the syllabus, they do not contain all of the content. Their use presumes that you have mastered the content.

You may want to make notes on the slide summary pages to help you prepare your talk in more detail and provide you with notes to follow during your presentation.

Remember that you can adjust the slides to suit your presentation content, your style, and to make it feel fully familiar and your own.

Practice your presentation using the slides you have chosen, and speaking to yourself in the kind of language you expect to use, until it is smooth and interesting and takes the right amount of time. The most accomplished presenters and teachers still practice prior to a presentation; don't miss this step.

### 5. Preparing a handout for participants

The syllabus text and slides in the **Participant's Handbook** were designed to be reproduced and provided to participants as a handout. Take the portion you need; they can be used in their entirety, module by module, or for just one specific topic. Please include the following in each set of handouts:

- **PSEP – Canada Front Cover Page;**
- **PSEP – Canada Acknowledgment Pages** (to acknowledge the source of the material);
- syllabus and slides for **your topic**; and
- appendix material as relevant.

### 6. Equipment needs

- Projector and screen
- Flipchart and markers for recording discussion points

Test your equipment beforehand to ensure that it works.

Have a back-up plan so that if there is any equipment failure you can move without panic to your back-up plan. For instance, have in mind that:

- if the slides cannot be shown, you can refer to the hand out slides, and
- if the markers do not work, you can have participants list items on their hand outs that you would have written up for all to see.

## **Making the presentation**

### **1. Introduce yourself**

If you have not already done so, introduce yourself. Include your name, title, and the organization(s) you work for. Briefly describe your professional experience related to the information you will be presenting.

### **2. Introduce the topic**

Show the title slide for the module. To establish the context for the session, make a few broad statements about the importance of topic as a patient safety matter. Tell participants the format and time you will take to present the session. Identify the teaching styles that you intend to use.

### **3. Review the session objectives**

Show the slide with the session objectives listed. Read each objective and indicate those that you are planning to emphasize.

### **4. Present the material**

#### **Recommended style: didactic lecture**

This module was designed to be presented as a lecture without much audience interaction. Use the slides to trigger the subject. Prepare ahead and practice so that it is smooth and interesting. The use of your voice, body language, and gestures can all add to your presentation and the clarity of the message you are delivering.

#### **Alternative style: interactive lecture**

An interactive lecture will permit you to engage your audience, yet cover your chosen material within the time. To foster discussion, ask participants about their experiences with teaching or training others. Ideally, the examples could be linked to one of the major teaching points.

### **5. Key take-home points**

1. Combine passive and active teaching styles to engage learners. Tailor your presentation to address topics that are important to your audience.
2. Relate new information to learners' previous knowledge. This can be accomplished through practical examples and by asking learners' if they have encountered similar situations in their work environment.
3. Reiterate key points throughout your presentation.
4. Try not to emphasize more than 5-7 key points in each presentation.
5. Avoid the use of prolonged lectures.

## **6. Summarize the discussion**

Briefly, review each part of the presentation. Recap two or three of the most important points that were discussed.

## **7. Post-test/evaluation**

Ask the participants to complete the post-test questions for this plenary and to evaluate the session in the provided brief questionnaire.