

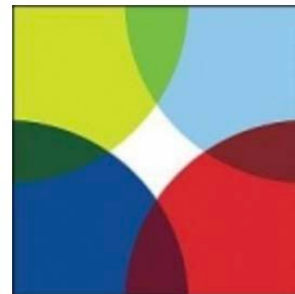
Training the next generation of clinicians: possible roles of the RCN

Joanne Alfieri – Radiation Oncology Program Director

James Tsui, PGY-3 Radiation Oncology

William Parker - Clinical chief, Department of Medical Physics

Eduardo Franco – Chair, Department of Oncology

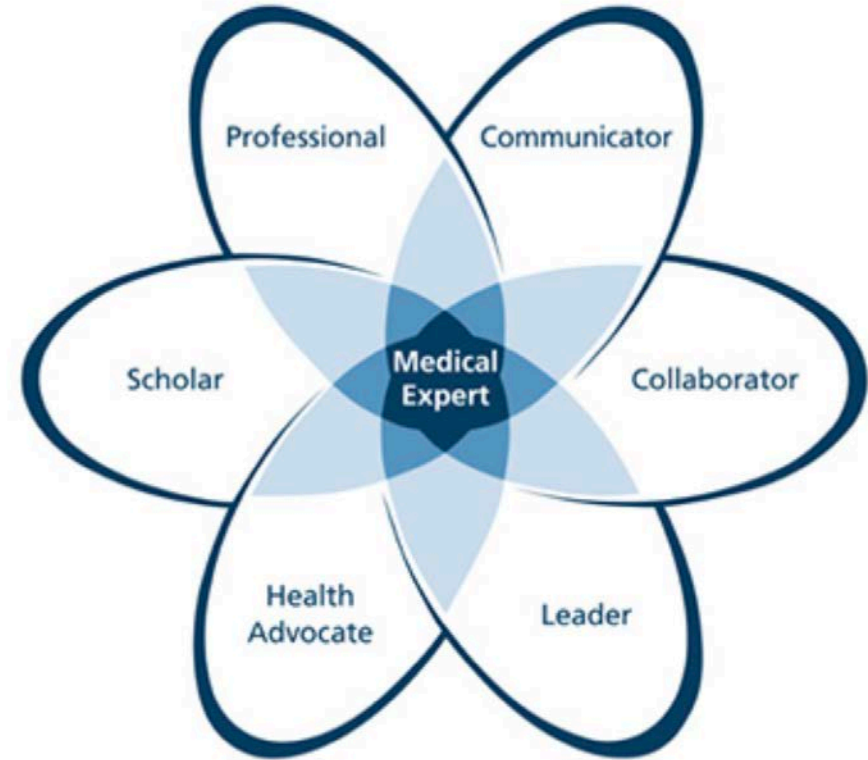


Agenda

- Quality Improvement (QI) curriculum for radiation oncology residents
 - ❖ Joanne Alfieri
- Leading a QI project – a resident's perspective
 - ❖ James Tsui
- Mentoring a resident through a QI project
 - ❖ William Parker
- Opportunities for advanced training in QI through the Graduate Program in Oncology
 - ❖ Eduardo Franco

CanMEDS 2015

Physician Competency Framework

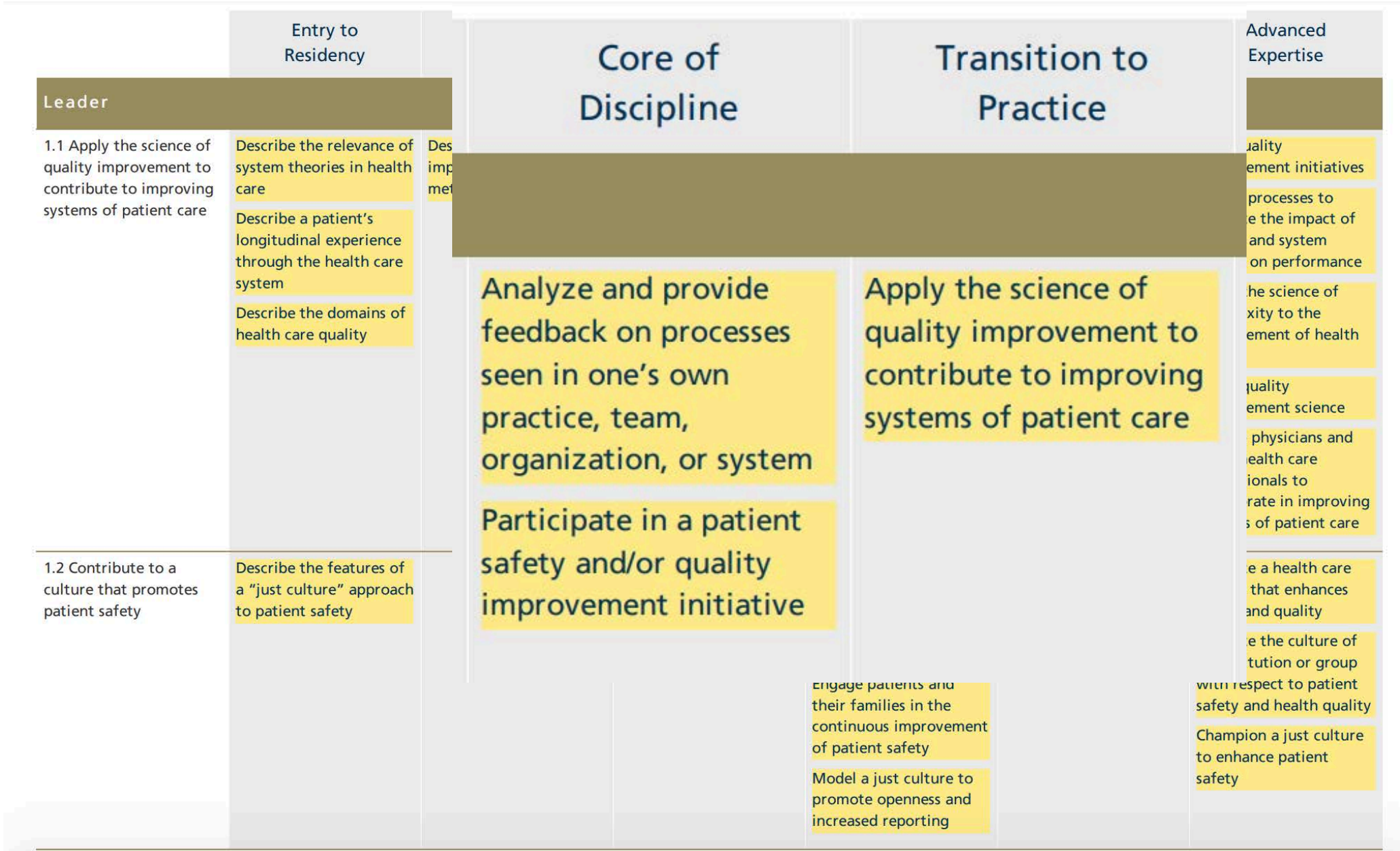


CANMEDS

Patient safety, Quality improvement & Resource stewardship

The CanMEDS 2015 Milestones Guide

	Entry to Residency	Transition to Discipline	Foundations of Discipline	Core of Discipline	Transition to Practice	Advanced Expertise
Medical Expert						
5.1 Recognize and respond to harm from health care delivery, including patient safety incidents	Describe the scope and burden of health-care-related harm	Recognize the occurrence of a patient safety incident	Prioritize the initial medical response to harmful patient safety incident to mitigate further injury	Report patient safety incidents to appropriate institutional representatives	Recognize and respond to harm from health care delivery, including patient safety incidents	Teach how to respond to harm from health care and improve bedside care
	Define the types of patient safety incidents	Differentiate outcomes of medical conditions and diseases from complications related to the inherent risks of treatments and from patient safety incidents	Incorporate, as appropriate, into a differential diagnoses, harm from health care delivery	Recognize near-misses in real time and respond to correct them, preventing them from reaching the patient		
				Participate in an analysis of patient safety incidents		
				Apply the principles of situational awareness to clinical practice	Adopt strategies that promote patient safety and address human and system factors	Evaluate the impact of system changes on the provision of patient care
5.2 Adopt strategies that promote patient safety and address human and system factors	Describe the individual factors that can affect human performance, including sleep deprivation and stress	Describe common types of cognitive and affective bias	Use cognitive aids such as procedural checklists, structured communication tools, or care paths, to enhance patient safety			Design safety initiatives, including those that incorporate needs and metrics identified by patients and their families
	Describe system factors that can affect patient safety, including resource availability and physical and environmental factors	Describe the principles of situational awareness and their implications for medical practice	Describe strategies to address human and system factors on clinical practice			



Quality Improvement Curriculum

- **Dr. Catherine Pembroke, Clinical Fellow**
- Drs. Tarek Hijal and Carolyn Freeman
- Alain Biron

McGill University Health Centre,
Department of Quality

McGill University, MedEd Class '77

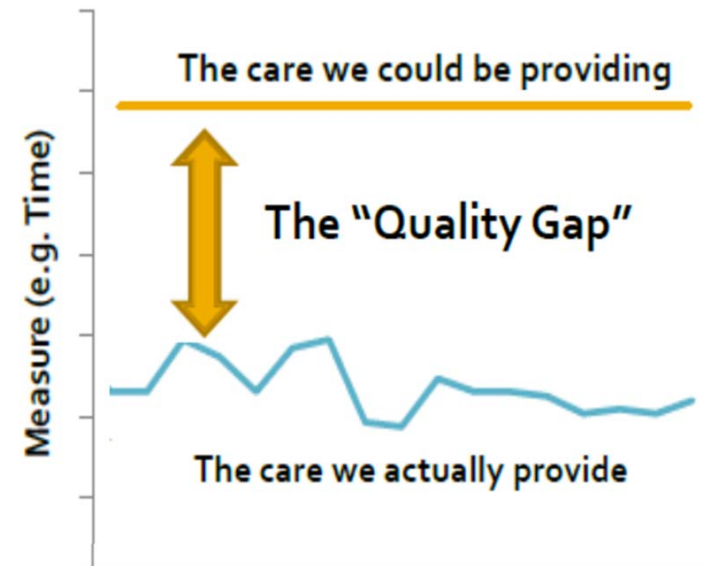
Velindre Cancer Centre

Moondance Foundation

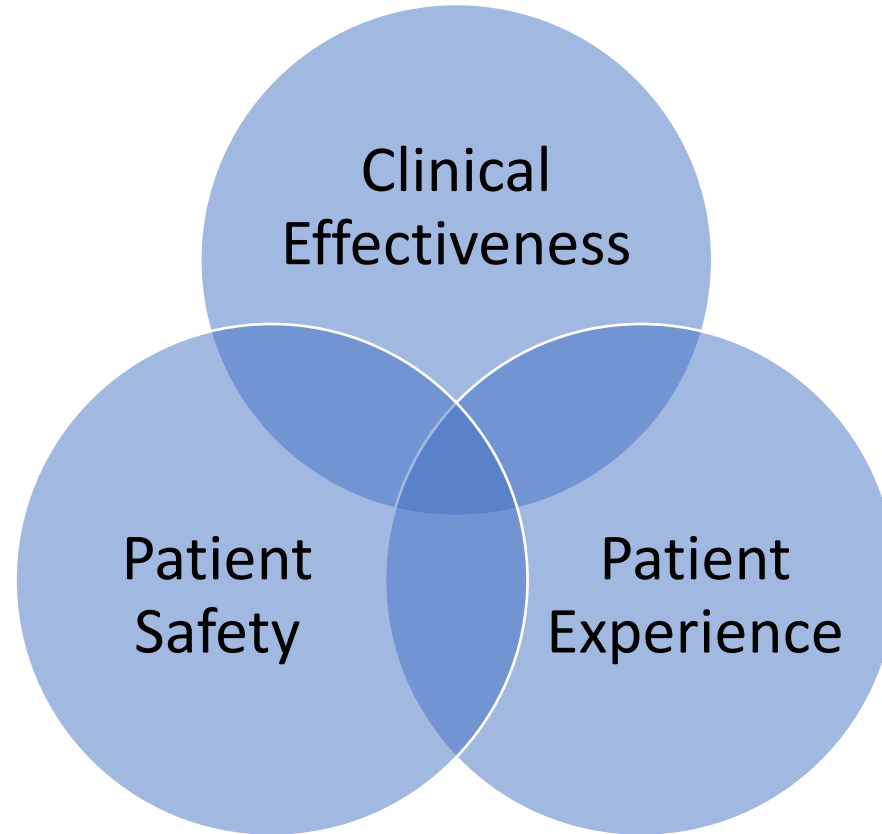


What is Quality Improvement?

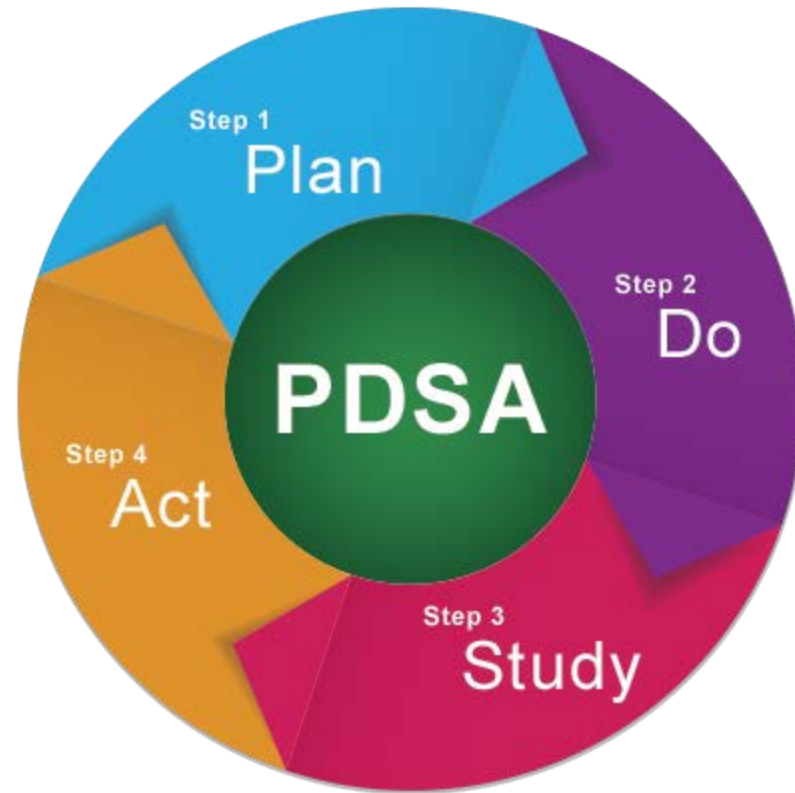
Quality improvement is a systematic approach that **uses specific techniques, methods, measures and strategies** to improve one or more dimensions of quality of health care



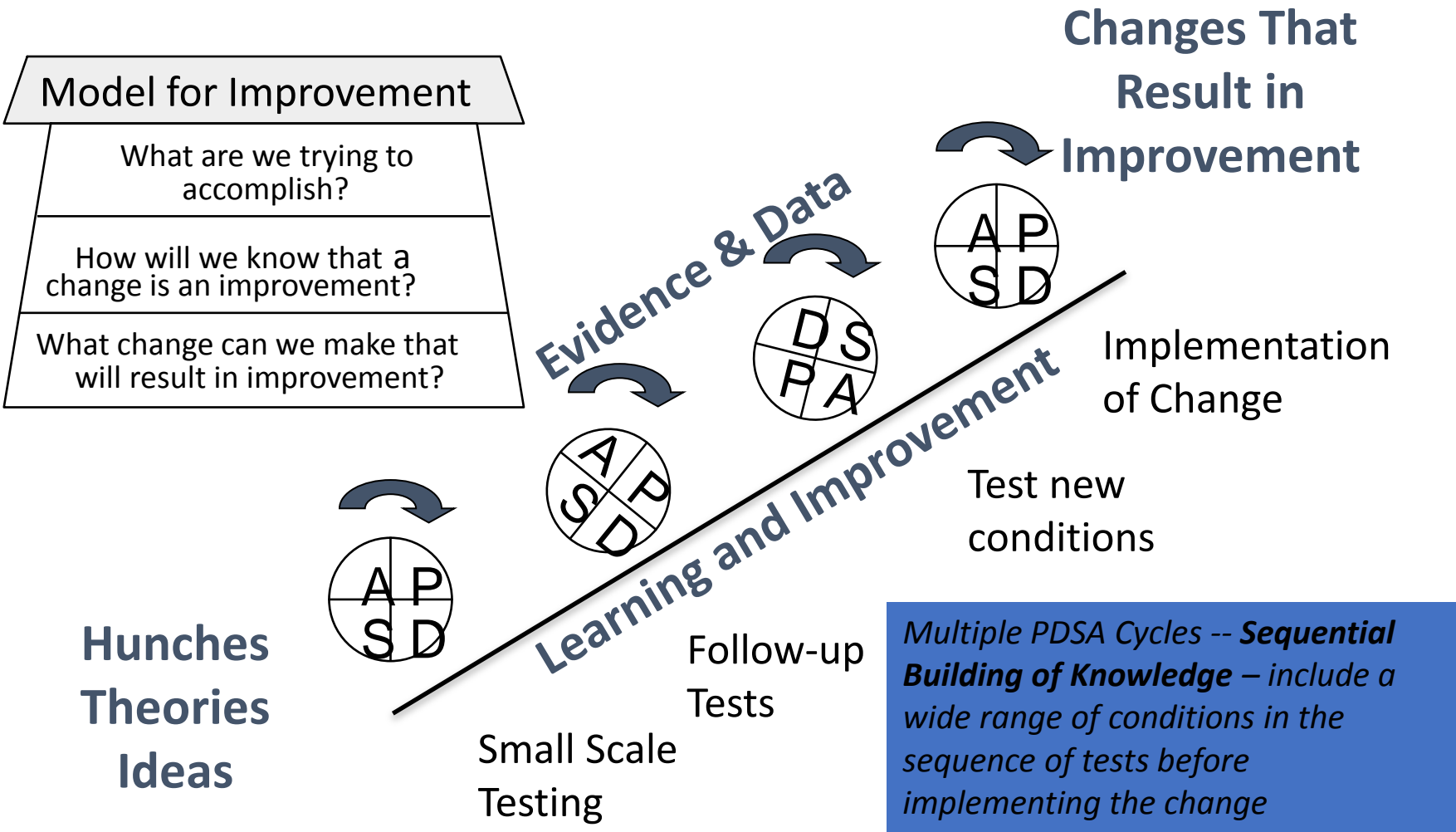
Quality Improvement in Healthcare



PDSA- Plan/Do/Study/Act



Repeated Use of the PDSA Cycle



Project Objectives



- Establishing key QI professional skills within the McGill Radiation Oncology Residency Training (PGY2-4).
- Improvements in clinical effectiveness, patient safety and experience within the department
- Program Evaluation and Improvement



QI Resident Curriculum Overview

QI Curriculum in Radiation Oncology

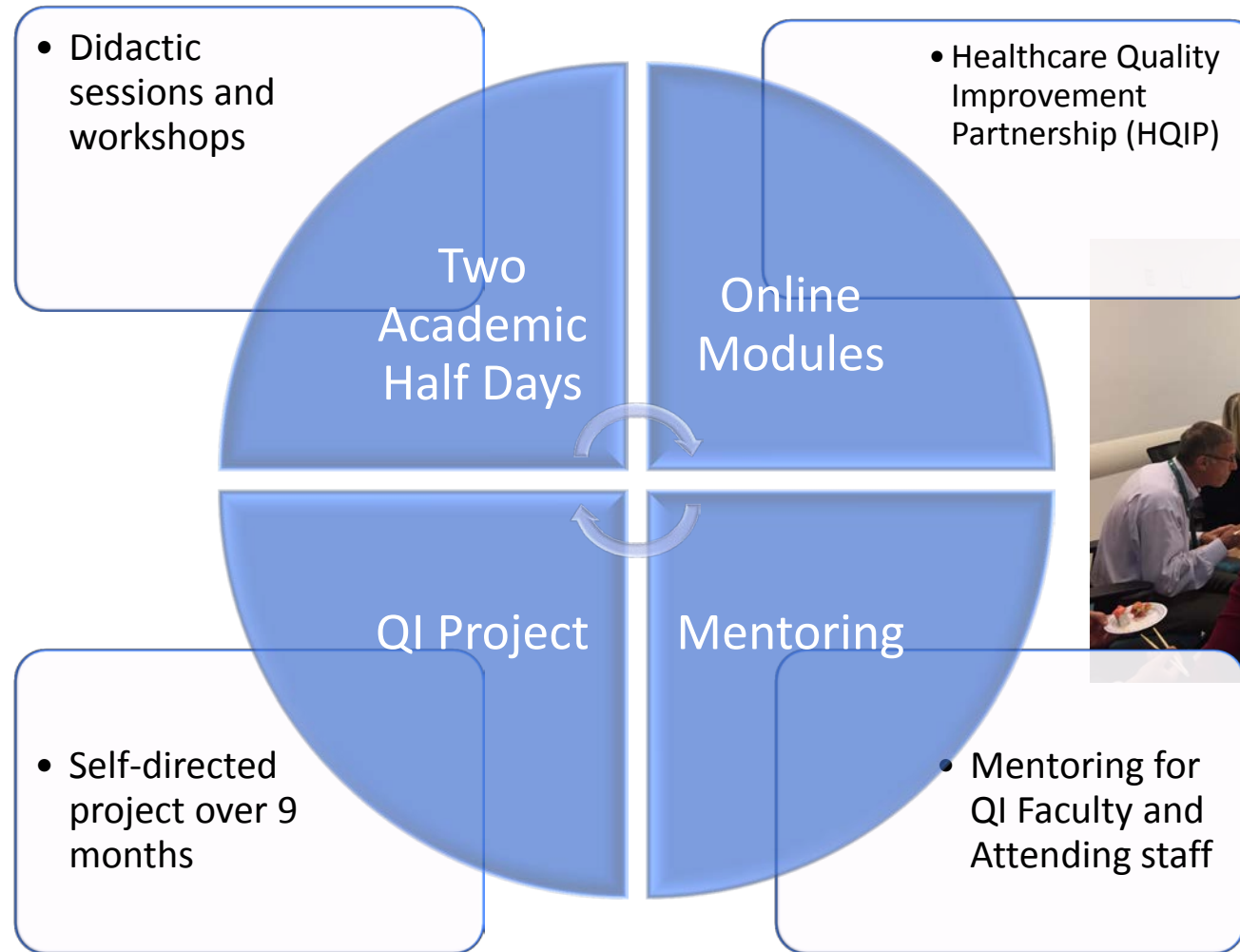
- **QI fundamental competencies (September to December) PGY2-3**
 - Didactic lectures and workshops held during two academic half days throughout year.
 - HQIP online modules (1-6)
- **QI Intermediary competencies (December until June) PGY2-3**

Each trainee will be expected to complete a QI project which includes

 - Define a title and audit standards
 - Create a *model for improvement* with a supervising senior.
 - Collect and interpret data and instigate an appropriate change
 - Re-collect data with same audit standards, has a change been of benefit?
 - Present project process and findings at QI day in June
- **QI Advanced competencies (future years) PGY4**
 - Supervise a QI project
 - Write abstracts and submit poster or publication.



QI Teaching Methods



Academic Half Days

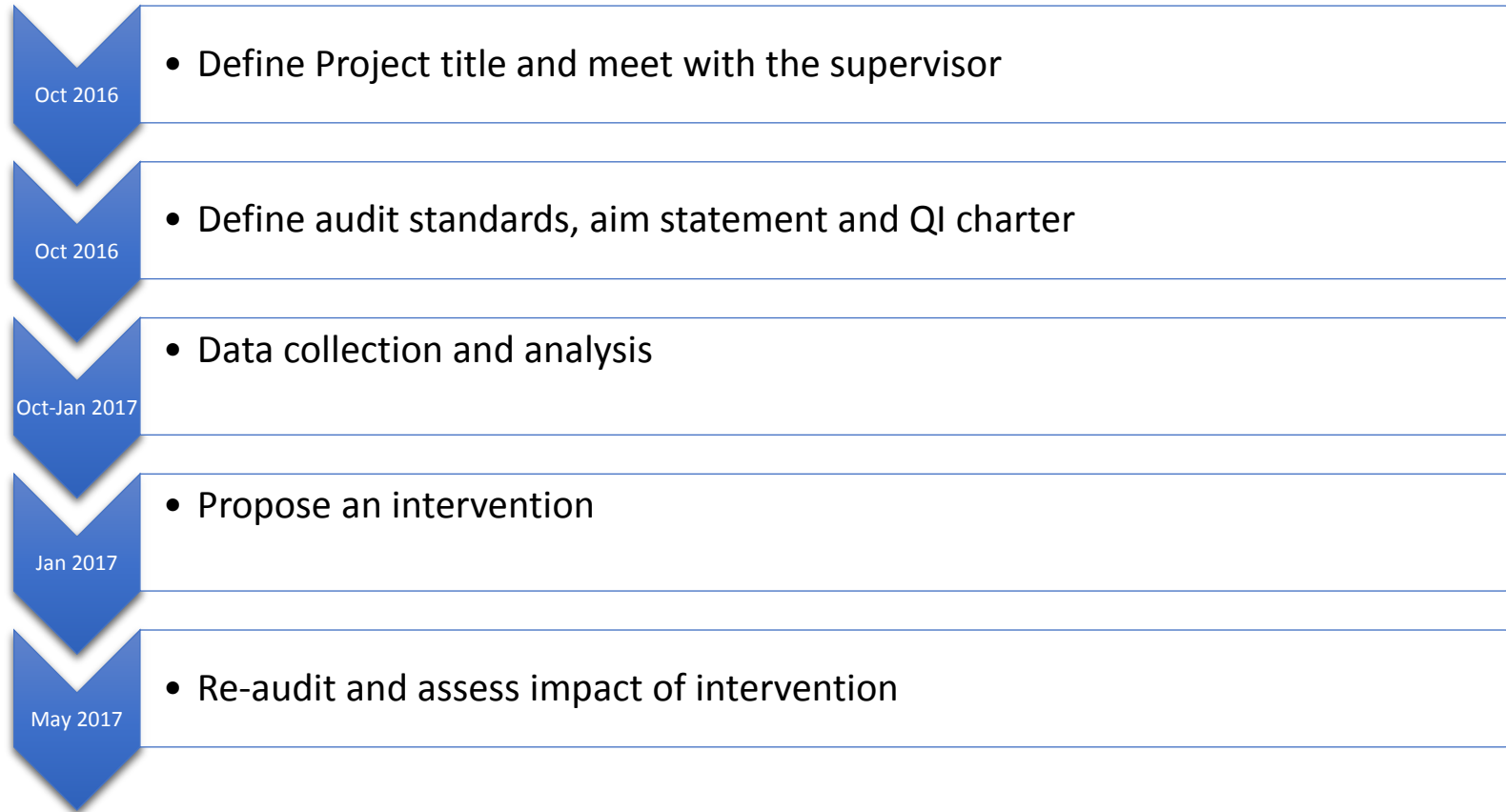
Mixed Didactic and Practical Workshops

- How to conduct a QI project
 - Aim statements
 - SMART criteria
 - Project charters
 - Process mapping
 - Runcharts and methods of analysing variations in practice
 - Root cause analysis: Fishbone analysis and 5 whys
 - Using decision matrices to brainstorm possible interventions



QI Project Timeline

Academic Year 2016-17



Residents Assessment

Nov 2016

- **Presentation 1**
- Present project plan
- Balanced score card 1

Jan 2017

- **Presentation 2**
- Project Findings, Proposed intervention and model for improvement
- Balanced score card 2

June 2017

- **Presentation 3 at QI day**
- **Project completion**
- Balanced score card 3





QI Program Evaluation

McGill Curriculum Evaluation Proposal



QUANTITATIVE- PRE/POST

- Self-assessment questionnaires
- Quality improvement knowledge assessment tool (QI-KAT)

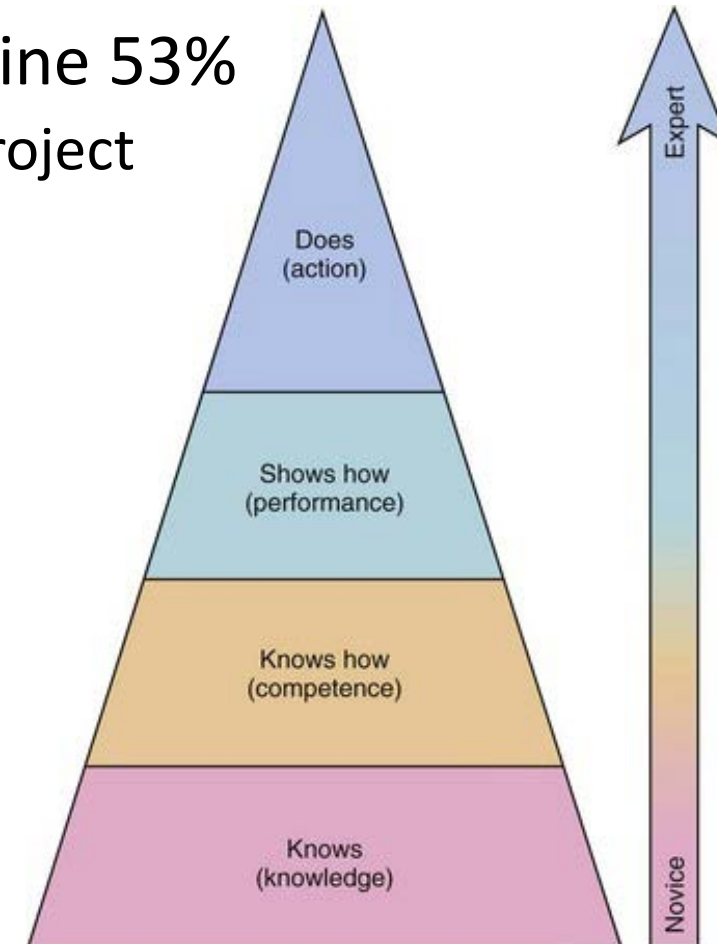
Before and after design/ 'theory building' concurrent evaluation designs

QUALITATIVE

- Questionnaires – residents attitudes and satisfaction
- Descriptive case design

Results

- Knowledge Pre-Post - Improvement in QI-KAT from 48% to 94%
- Self-assessment – mean satisfaction index (SI) baseline 53%
 - Increased to 66.5% in those who did not complete a QI project
 - Increased to 90% in those who did complete a QI project
- Learner attitudes - SI increased from 50% to 75%
 - Challenges identified
 - Competing clinical demands (83%)
 - Lack of institutional culture of QI and patient safety (57%)
- Performance on QI day – average score 82%



First Annual QI Day - 14th June 2017

RAISING YOUR IQ IN QI



- Residents presented their projects
- Annual QI award presented by expert judging panel
- Plenary lecture by an established QI expert - Dr. Todd Pawlicki
- Departmental QI practical workshop in order to raise knowledge and awareness



Conclusion



- A new QI program has been introduced amongst the radiation oncology residents at McGill
- Formal program evaluation reveals an improvement in attitudes and QI skills
- PDSA cycle will ensure appropriate adjustments to the curriculum and teaching methods are made

Thanks

- Dr. Pembroke
- Dr. Hijal
- Dr. Freeman
- Alain Biron
- William Parker
- Faculty supervisors
- Residents
- Patients



Réseau de
cancérologie
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Cancer
Network