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Why Competence by Design (CBD)? The Rationale

ROYAL COLLEGE
OF PHYSICIANS AND SURGEONS OF CANADA
COLLÈGE ROYAL
DES MÉDECINS ET CHIRURGIENS DU CANADA

Competence by Design
EXCELLENCE ACROSS THE CONTINUUM

Why Change?

While Canada's medical education system is exceptional overall, there are **gaps** and **challenges** within the current model that need to be addressed.

Drivers for Change

- Potential for students to graduate with gaps in readiness-to-practice

DOCTOR AND PATIENT

Are Med School Grads Prepared to Practice Medicine?

By PAULINE W. CHEN, M.D. APRIL 24, 2014, 11:30 AM

Kevin Wolf/Associated Press

Third-year Georgetown medical students getting ready to meet with a patient/actor.

Via: http://well.blogs.nytimes.com

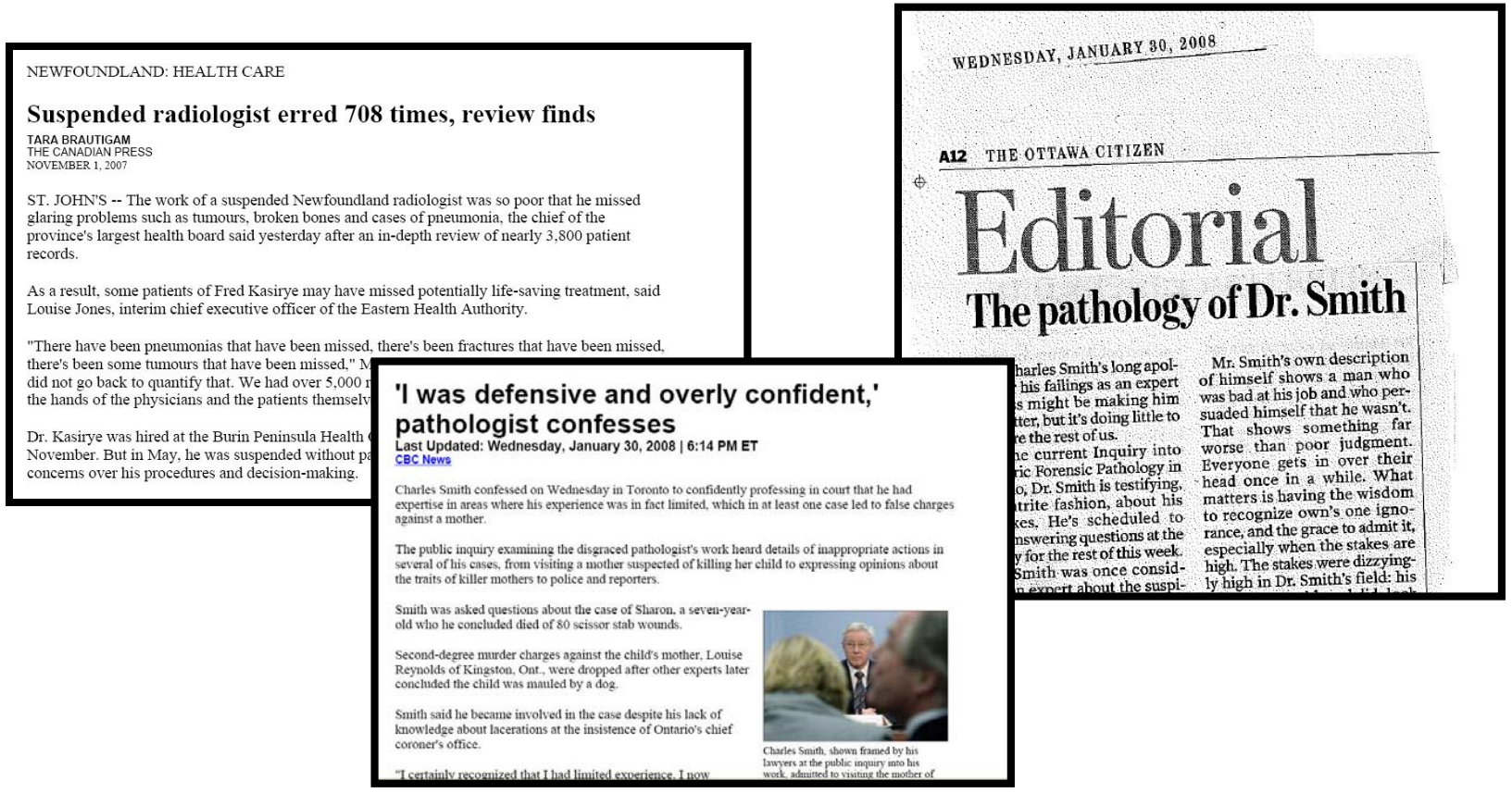
Issues within Current System

- New age of **accountability**

Image: www.rischiocalcolato.it

Drivers for Change

- Increased public concern and need to demonstrate continuing competence



NEWFOUNDLAND: HEALTH CARE

Suspended radiologist erred 708 times, review finds

TARA BRAUTIGAM
THE CANADIAN PRESS
NOVEMBER 1, 2007

ST. JOHN'S -- The work of a suspended Newfoundland radiologist was so poor that he missed glaring problems such as tumours, broken bones and cases of pneumonia, the chief of the province's largest health board said yesterday after an in-depth review of nearly 3,800 patient records.

As a result, some patients of Fred Kasirye may have missed potentially life-saving treatment, said Louise Jones, interim chief executive officer of the Eastern Health Authority.

"There have been pneumonias that have been missed, there's been fractures that have been missed, there's been some tumours that have been missed," M
did not go back to quantify that. We had over 5,000 r
the hands of the physicians and the patients themselv

Dr. Kasirye was hired at the Burin Peninsula Health
November. But in May, he was suspended without pa
concerns over his procedures and decision-making.

'I was defensive and overly confident,' pathologist confesses

Last Updated: Wednesday, January 30, 2008 | 6:14 PM ET
CBC News

Charles Smith confessed on Wednesday in Toronto to confidently professing in court that he had expertise in areas where his experience was in fact limited, which in at least one case led to false charges against a mother.

The public inquiry examining the disgraced pathologist's work heard details of inappropriate actions in several of his cases, from visiting a mother suspected of killing her child to expressing opinions about the traits of killer mothers to police and reporters.

Smith was asked questions about the case of Sharon, a seven-year-old who he concluded died of 80 scissor stab wounds.

Second-degree murder charges against the child's mother, Louise Reynolds of Kingston, Ont., were dropped after other experts later concluded the child was mauled by a dog.

Smith said he became involved in the case despite his lack of knowledge about lacerations at the insistence of Ontario's chief coroner's office.

"I certainly recognized that I had limited experience. I now

Charles Smith, shown framed by his lawyers at the public inquiry into his work, admitted to visiting the mother of

WEDNESDAY, JANUARY 30, 2008

A12 THE OTTAWA CITIZEN

Editorial

The pathology of Dr. Smith

harles Smith's long apol-
his failings as an expert
s might be making him
tter, but it's doing little to
e the rest of us.
he current Inquiry into
ic Forensic Pathology in
o, Dr. Smith is testifying,
trite fashion, about his
kes. He's scheduled to
nswering questions at the
y for the rest of this week.
Smith was once consid-
n expert about the suspi-

Mr. Smith's own description of himself shows a man who was bad at his job and who persuaded himself that he wasn't. That shows something far worse than poor judgment. Everyone gets in over their head once in a while. What matters is having the wisdom to recognize own's one ignorance, and the grace to admit it, especially when the stakes are high. The stakes were dizzyingly high in Dr. Smith's field: his

Drivers for Change

- Prevalence of failure-to-fail culture

Image: http://www.lolntroll.com

Drivers for Change

- Criticism around the **ad-hoc** nature of medical education

Drivers for Change

- Process heavy nature of accreditation

Image: www.tallerdeprocesos.com

Drivers for Change

- Increased focus on “clock-watching” rather than true learning

Image: www.bing.com/images

Drivers for Change

- Concerns about the "**tea-bag**" model of education which credentials physicians based on the time spent in training, not based on their achievement of necessary abilities.

Image: www.dreamstime.com

Assessment Tensions in Current World

- Residents can be disempowered
- Great burden placed on faculty
- Teacher-Learner exchange is corrupted
- Failure to fail
- Dichotomous judgements
- Little direct observation
- High stakes national exams

System Challenges in Current World

- Learning judged by time spent, not ability
- Trainees unprepared at stages
- Variable workplace assessment/failure to fail
- Concerns about patient harm
- Missing content
- Faculty overload & educational inefficiency
- Resource imperatives
- Lack of support for lifelong learning
- Need for assessment *for* learning

MedEd Matters

Evidence suggests that where a physician trains determines the level of care that physician will provide throughout his/her career.

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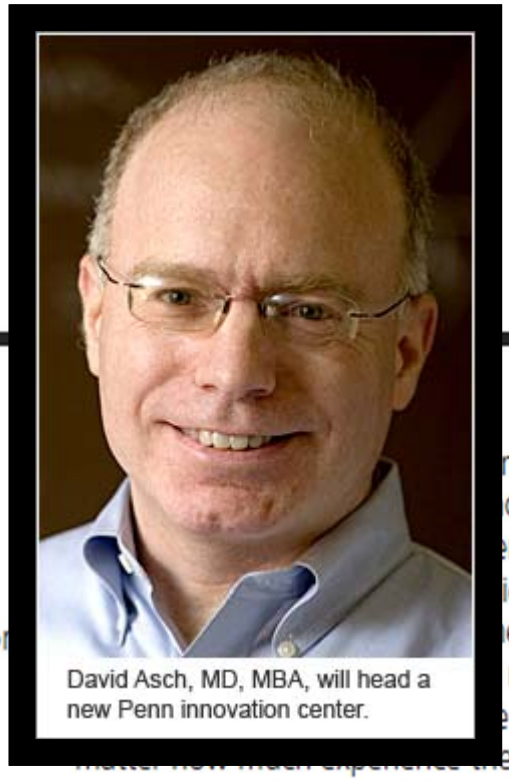
How Do You Deliver a Good Obstetrician? Outcome-Based Evaluation of Medical Education

David A. Asch, MD, Sean Nicholson, PhD, Sindhu K. Srinivas, MD, MSCE, Jeph Herrin, PhD, and Andrew J. Epstein, PhD, MPP



David Asch, MD, MBA, will head a new Penn innovation center.

Abstract

The goal of medical education is the production of a workforce capable of improving the health and health care of patients and populations, but it is hard to use a goal that lofty, that broad, and that distant as a standard against which to judge the success of schools or training programs or particular elements within them. For that reason, the evaluation of medical education often focuses on elements of its structure and process, or on the assessment of competencies that could be considered intermediate outcomes. These measures are more practical because they are easier to collect, and they are valuable when they reflect activities in important positions along the pathway to clinical outcomes. But they are all substitutes for measuring whether educational efforts produce doctors who take good care of patients.

The authors argue that the evaluation of medical education can become more closely tethered to the clinical outcomes medical education aims to achieve. They focus on a specific clinical

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ey have?

Does it matter how good they were to start? Each of these questions reflects a component of the production of a good obstetrician and, most important, defines a good obstetrician as one whose patients in the end do well.

Editor's Note: A commentary on this article by T.J. Nasca, K.B. Weiss, J.P. Bagian, and T.P. Brigham

programs by actual patient outcomes is not only more patient-centered, it better

Does It Matter Where the Obstetrician Trained?

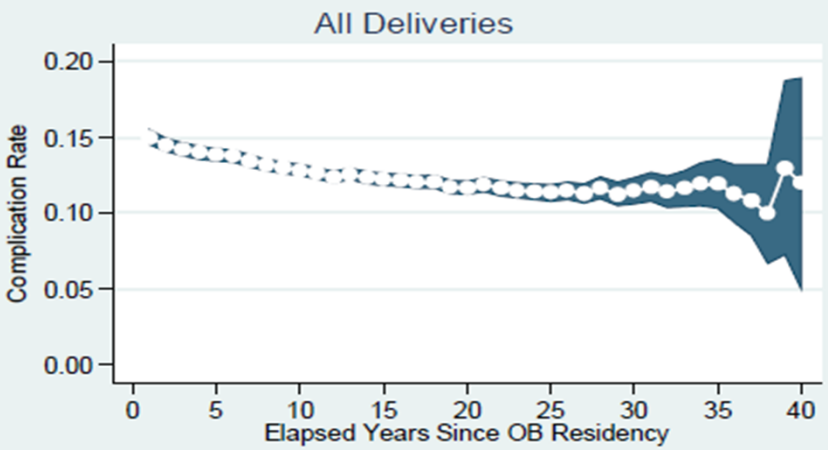
Maternal complication rates

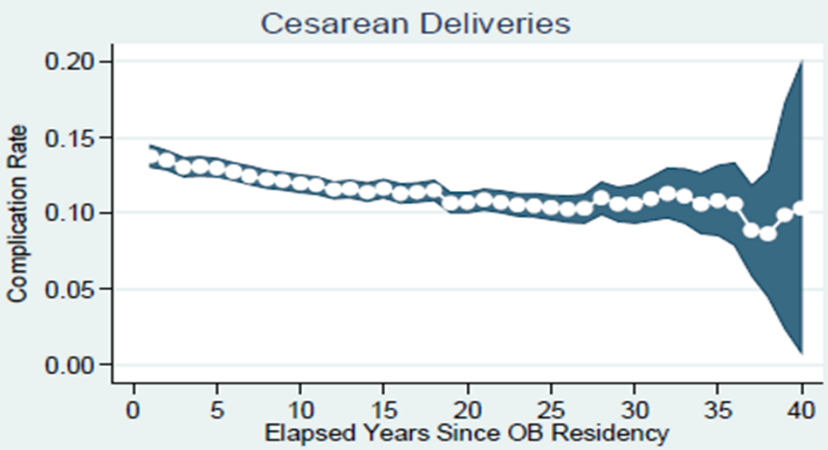
- Substantial and stable differences in complication rates across programs
- Consistent across vaginal, cesarean, and total deliveries ($\rho = 0.51$; $P < 0.001$)
- Consistent across individual complications
- Adjusted for comorbidities and hospital characteristics

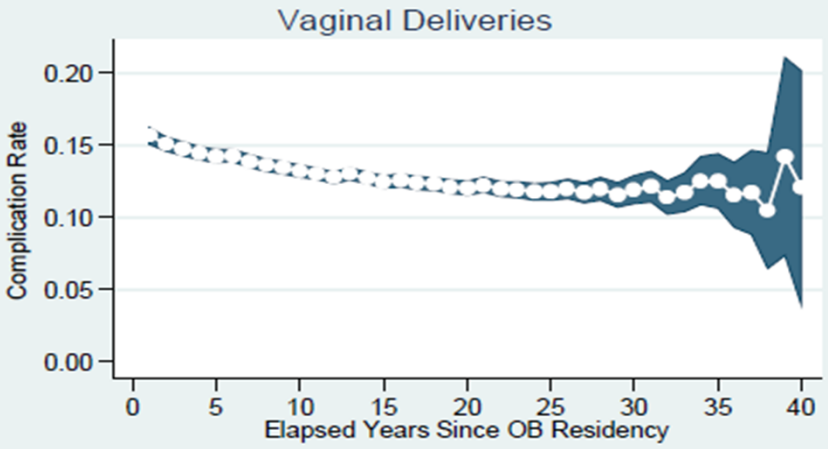
	Rate	95% CI
1	10.3%	10.1-10.5
2	11.3%	11.3-11.4
3	11.9%	11.9-12.0
4	12.4%	12.3-12.5
5	13.6%	13.1-14.0

Asch, et al. JAMA. 2009; 302: 1277.

We Get Better With Time…but…



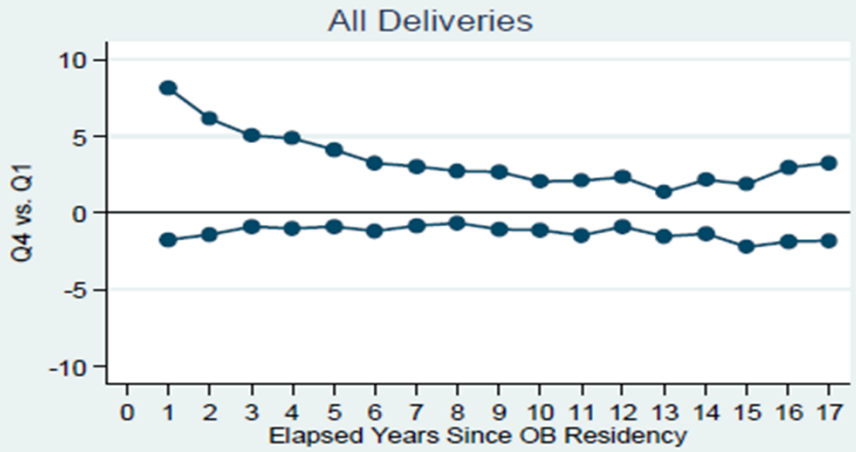


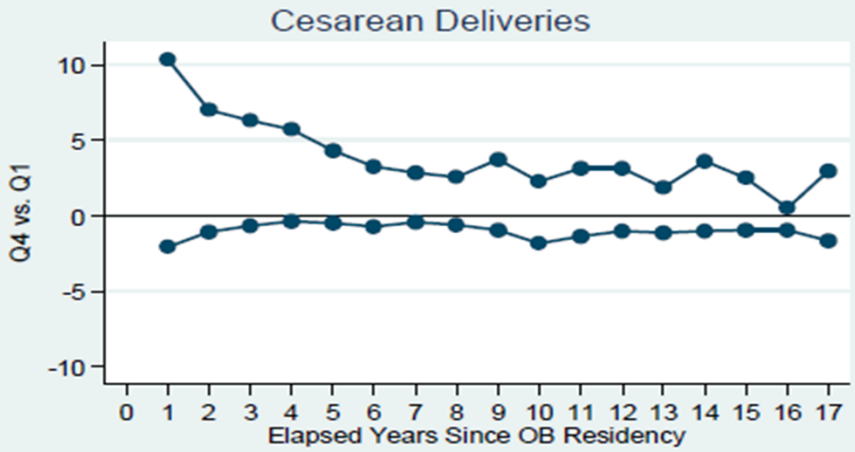


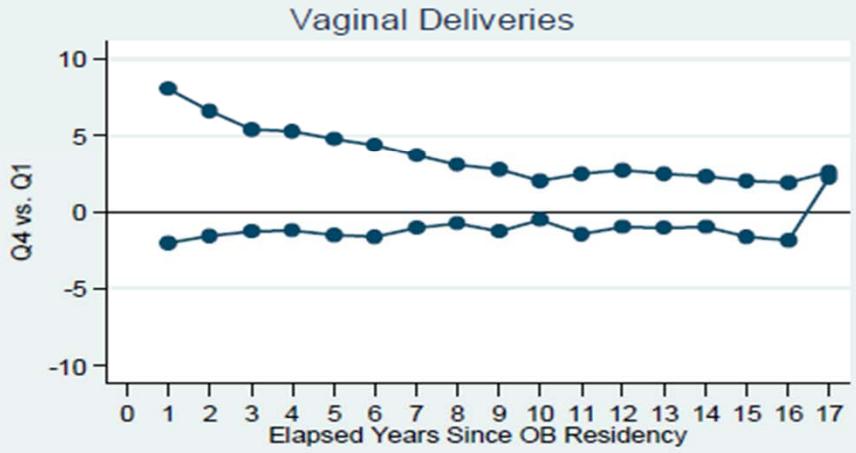
Maternal complication rates decline with experience:

- Persistent declines in maternal complication rates through 30 years of experience
- No change when adjusting for survivor bias

…Rates Are Predicted at Certification







Initial complication rates predict later complication rates:

- Over time, the best and worst quartiles approach the mean.
- They do so gradually.
- They never get there, meaning that differences persist

Need for an Improved System

We need a system that:

- Addresses changes to patient and societal needs;
- Assesses competence, but teaches for excellence;
- Ensures competencies in all domains evolve across the continuum of medical education (residency to retirement); and
- Enables flexibility; allows physicians to identify when and how changes apply to practice.

Change is Underway…

CBD

New World:
Competence by Design (CBD)

Competence is about performance – the right thing, for the context, at the right time

New World: Competence by Design (CBD)

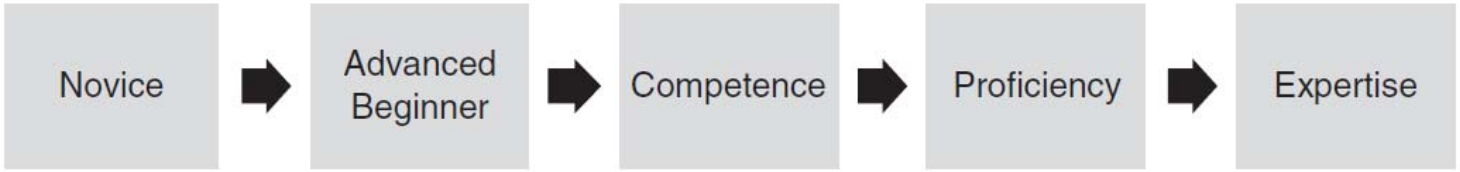


Figure 2. Spectrum of skills acquisition (Dreyfus & Dreyfus 1980).

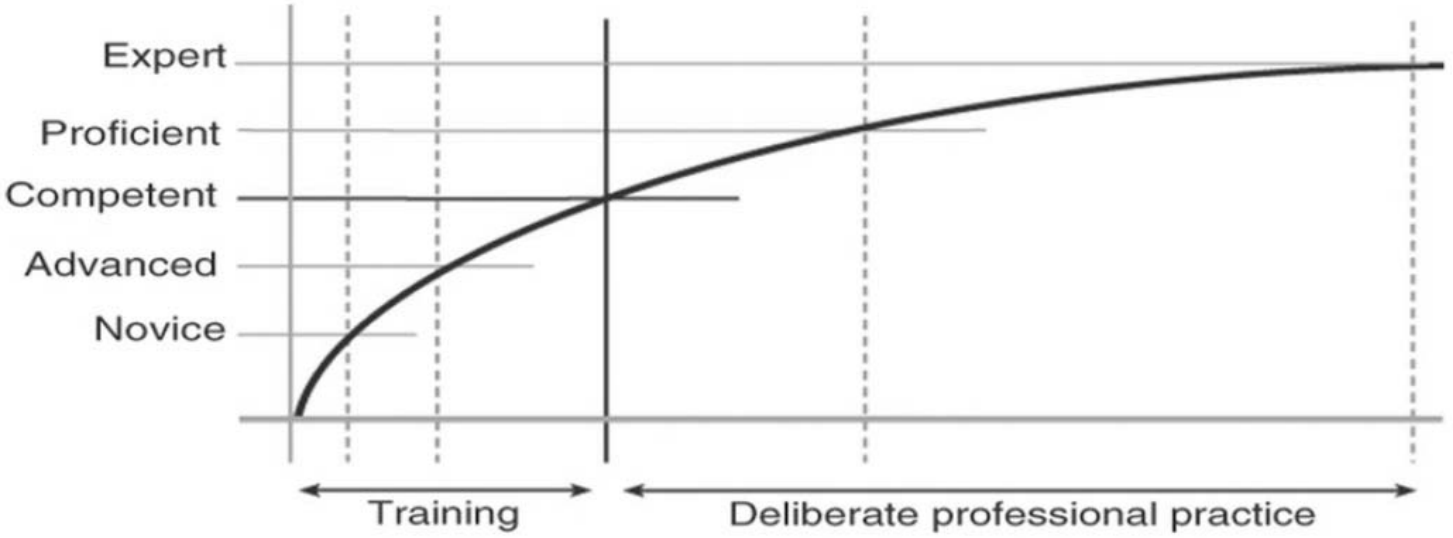


Figure 3. General curve of skills acquisition reproduced from ten Cate (2010).

Conceptual framework for performance assessment. Khan and Ramachandran, Medical Teacher 2012; 34: 920-928

Purpose of CBD

To **improve** the health and
health care of Canadians
by ensuring specialists are **consistently prepared** to continuously meet **evolving patient needs**.

What is CBD?

- Multi-year, transformational change initiative in specialty medical education;
- Focused on the learning continuum from the start of residency to retirement;
- Based on a competency model of education and assessment; and
- Designed to address societal health need and patient outcomes.

Why CBD? Why Now?

The CBD program will:

- Support the development, implementation, and evaluation of competency-based, learner-focused education
- Reflect, and respond to, the world-wide movement towards competency-based medical education.
- Align with Future of Medical Education in Canada - Postgraduate (**FMEC-PG**) and the Future of Medical Education in Canada – Continuing Professional Development (**FMEC-CPD**)projects.

Why CBD? Why Now? con't

By focusing on learning rather than time, CBD will enable our MedEd system to

- Ensure competence, but teach for excellence;
- Support physicians' skills and abilities to evolve throughout practice—enhancing care;
- Respond to changing patient and societal needs;
- Address gaps in the current system, like the "failure to fail" culture of resident education;
- Reduce burden on faculties, promoting smoother credentialing and accreditation; and
- Increase accountability and promote transparency in training.

Hybrid Model of CBME

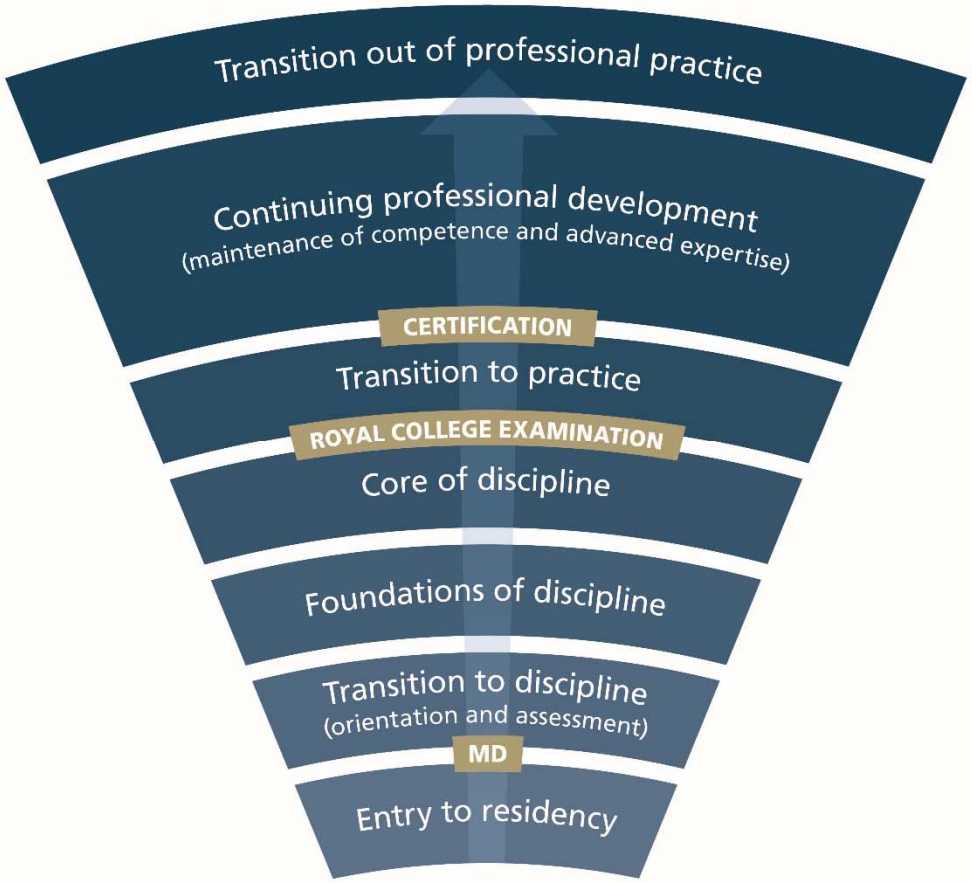
CBD will introduce a hybrid-model of competency-based medical education (CBME) to specialist education in Canada.

- Time will be a resource, not a restriction.
- Number of years needed to complete a residency program is **not expected** to change for the majority of residents.

Image: www.bing.com/images

Competence Continuum

CBD[1,2] Competence Continuum



[1] Competence by Design (CBD)
[2] Milestones at each stage describe terminal competencies

What New Value will CBD Bring?

- Milestones and Entrustable Professional Activities (EPAs) for improved teaching, learning and evaluation;
- Increased support and faculty development tools and templates;
- National curriculum framework;
- Updated CanMEDS Framework focusing on key issues like patient safety; and
- Integrated education across the continuum.

What will CBD Eliminate?

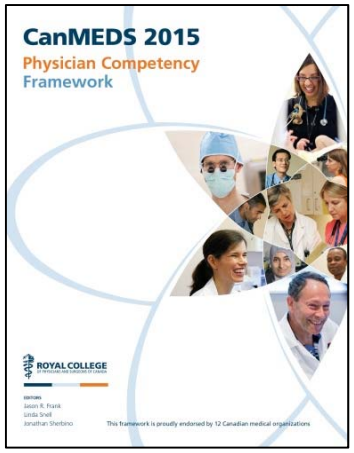
- FITERs completed prior to the end of training
- Inefficient assessment (like ITERs)
- Awkward feedback
- Assessing everything all the time
- Teaching everything all the time

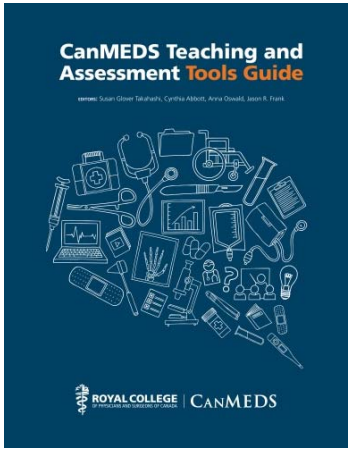
CBD: Improving the Resident's Journey

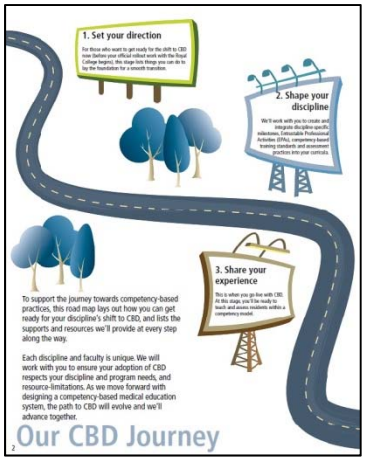
Ultimately, a move to CBD is about **a better way to train health professionals.**

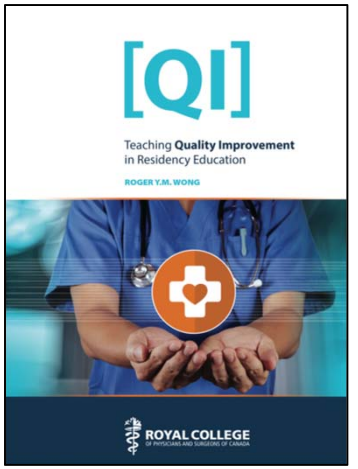
CanMEDS and CBD Resources

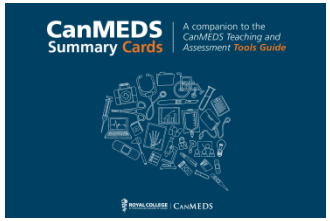
Visit us at www.royalcollege.ca/cbd/resources/











CanMEDS: Introduction for **Clinical Teachers** – Video Series

Your Input Matters

Share your input with the Royal College via:

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