This presentation has been developed for your use:

• Share and/or incorporate these slides as needed, simply source the Royal College

• All text, images and logos contained herein are the property of Royal College of Physicians and Surgeons of Canada

• Questions? Email cbd@royalcollege.ca
Why Competence by Design (CBD)?
The Rationale
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

Are Med School Grads Prepared to Practice Medicine?
By PAULINE W. CHEN, M.D.  APRIL 24, 2014, 11:30 AM

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**
• Increased public concern and need to demonstrate continuing competence
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
• 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
Evidence suggests that where a physician trains determines the level of care that physician will provide throughout his/her career.
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

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 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 ($p = 0.51; P < 0.001$)
- Consistent across individual complications
- Adjusted for comorbidities and hospital characteristics

<table>
<thead>
<tr>
<th></th>
<th>Rate</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10.3%</td>
<td>10.1-10.5</td>
</tr>
<tr>
<td>2</td>
<td>11.3%</td>
<td>11.3-11.4</td>
</tr>
<tr>
<td>3</td>
<td>11.9%</td>
<td>11.9-12.0</td>
</tr>
<tr>
<td>4</td>
<td>12.4%</td>
<td>12.3-12.5</td>
</tr>
<tr>
<td>5</td>
<td>13.6%</td>
<td>13.1-14.0</td>
</tr>
</tbody>
</table>

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.
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
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).
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.
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.
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.
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
CBD\(^1,2\) Competence Continuum

1. Transition out of professional practice
2. Continuing professional development (maintenance of competence and advanced expertise)
3. Transition to practice
4. Core of discipline
5. Foundations of discipline
6. Transition to discipline (orientation and assessment)
7. Entry to residency

\(^1\) 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
Ultimately, a move to CBD is about a better way to train health professionals.
Visit us at [www.royalcollege.ca/cbd/resources/](http://www.royalcollege.ca/cbd/resources/)
Your Input Matters

Share your input with the Royal College via:

- [cbd@royalcollege.ca](mailto:cbd@royalcollege.ca)
- [www.facebook.com/TheRoyalCollege](http://www.facebook.com/TheRoyalCollege)
- [https://twitter.com/Royal_College](http://https://twitter.com/Royal_College)
- [www.linkedin.com](http://www.linkedin.com)

For more information, visit

- [www.royalcollege.ca/cbd](http://www.royalcollege.ca/cbd)
- [www.royalcollege.ca/cbd/resources](http://www.royalcollege.ca/cbd/resources)