



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

# Ready for Launch? Checking off Readiness Factors for CBD Implementation

CBD Program Evaluation Operations Team  
Fall 2019



# Table of Contents

<b>Executive Summary</b>	<b>4</b>
<hr/>	
Introduction.....	4
Key Findings.....	4
Key Takeaways and Recommendations .....	5
<b>CBD Readiness to Implement Checklist</b>	<b>6</b>
<hr/>	
Background .....	6
CBD Program Evaluation.....	6
Focus .....	7
Methods.....	8
Participants.....	8
Online Survey .....	8
Results .....	9
General Capacity and Motivation .....	9
Innovation Specific Capacity .....	11
Discussion and Recommendations .....	16
Limitations .....	17
Next steps.....	17

References.....	19
Appendix A .....	20
Appendix B .....	22
CBD Readiness to Implement Checklist.....	22
Appendix C .....	28
Recommendations and Advice .....	28
Appendix D.....	29
CBD Program Evaluation Operations Team .....	29

---

# Executive Summary

---

## Introduction

This report outlines the findings of a study conducted by the Royal College to understand readiness factors as they related to Competence by Design. This study uses the R = MC<sup>2</sup> framework (motivation, general capacity, innovation specific capacity). Understanding readiness to implement is important because it aids in the identification of factors that promote or inhibit a successful implementation of CBD. Implementation has a downstream effect on outcomes; by understanding what factors lead to a successful implementation, we can ensure that CBD is being implemented as intended and will lead to intended outcomes, and can help to explain any unintended outcomes.

Through a readiness survey, this study measured programs' motivation to implement CBD, general capacity for change, and if they had completed key readiness tasks in their preparation for CBD. This study focused on the 2019 launch disciplines just prior to launch, and had a 42% response rate.

## Key Findings

### General Capacity

The survey asked respondents a series of general capacity questions. Results showed that respondents were typically supportive of and receptive to change, but may not have prior experience with large changes, and may face challenges with having adequate support staff for change.

### Motivation

The survey asked respondents a series of motivation questions. Results showed that respondents felt CBD implementation is a priority, but may question if it is the right move for residency education, and if implementation of CBD is a manageable task.

### Innovation Specific Capacity

A checklist comprised of key readiness tasks formed the basis of the survey; results showed that programs had completed an average of 72% of the key readiness tasks. Tasks programs were most likely to have completed involved curriculum mapping, Competence Committees, and assessment.

In general, programs appear to have completed more administrative activities (i.e., preparing documents, choosing Competence Committee members) than on the ground implementation activities (i.e., creating processes and procedures, changes to workflow). Many programs had not yet prepared their off-service rotations for CBD.

## Key Takeaways and Recommendations

On average, programs had completed 72% of readiness activities, showing they are gearing up for CBD implementation. However, there were some areas of implementation that may require additional support and monitoring.

Programs typically completed more administrative tasks than on the ground implementation tasks, such as creating processes and procedures documents and changes to workflow.

- **Recommendation:** Examine engagement in on the ground implementation activities once programs have officially launched CBD, and determine if completion of these tasks/actions pre- versus post-launch impacts successful implementation.

Programs appear to be struggling with engaging and preparing off-service disciplines; less than half of programs had completed these tasks.

- **Recommendation:** Encourage and support programs in their engagement of off-service disciplines, and encourage PGME offices to support programs by engaging future CBD cohorts.

Some programs indicated they did not have adequate administrative support, or had not prepared their administrative staff for their role in CBD. Programs without adequate administrative support may face challenges in their implementation.

- **Recommendation:** Explore the correlation between administrative support and successful implementation, and encourage and support programs in engaging and training their administrative staff in CBD preparation and implementation. The Royal College should continue to provide support at the national level, and encourage post-graduate offices to monitor programs' administrative needs.

Results from this study will be examined in tandem with post-implementation studies, such as the Pulse Check, to examine which readiness elements are associated with successful implementation.

# CBD Readiness to Implement Checklist

---

## Background

Competence by Design (CBD) is the Royal College of Physicians and Surgeons of Canada's major change initiative to reform the training of medical specialists in Canada. It is based on a global movement known as Competency Based Medical Education (CBME). The objective of CBD is to ensure physicians graduate with the competencies required to meet local health needs, thereby enhancing patient care by improving learning and assessment in residency.

In CBD, progression of competence occurs within a structured but flexible curriculum consisting of five core components (Appendix A). More specifically, in a competency-based approach, competencies required for practice form a **framework** and are accordingly organized into a **progressive sequence**. Promoting resident progression forms the basis for the design of all curricular elements: **learning experiences that are tailored** to the acquisition of competencies, **instruction that is competency-focused** and **assessment that is programmatic** in approach (Van Melle et al., 2019). For more information on CBD, please refer to the [Royal College website](#).

CBD is being implemented across the system of specialty medicine<sup>1</sup> in stages, with a new cohort of disciplines launching each year on July 1<sup>st</sup>. This study was conducted just prior to July 1<sup>st</sup>, 2019, and focused on the twelve disciplines in the 2019 cohort.

## CBD Program Evaluation

The purpose of this study was to measure readiness for implementation for the twelve 2019 CBD launch disciplines. This study will contribute to the longitudinal program evaluation of CBD, which involves many projects over the course of the evaluation.

---

<sup>1</sup> In Canada, Family Medicine programs use a different variant of competency based medical education called Triple C. CBD is a different model and extends to the rest of the specialty disciplines.

As CBD implementation moves forward, it is important that program evaluation contributes to identifying and removing barriers to implementation, and helps to define patterns and supporting conditions that add value and make a positive difference in CBD implementation. Program evaluation is also used to ensure CBD is being implemented as intended, and is having the desired impact.

The CBD program evaluation has three goals, each of which is addressed by a pillar of the evaluation (Van Melle, Frank, Brzezina, & Gorman, 2017).

1. To foster successful implementation of CBD.
  - a. This will be addressed by the readiness to implement pillar.
2. To understand the influence of local contexts, adaptations, and innovations.
  - a. This will be addressed by the fidelity and integrity of implementation pillar.
3. To build an evidence base of the impact of Competence by Design-Residency Education (CBD-RE) overtime.
  - a. This will be addressed by the outcomes pillar.

For more information on the CBD program evaluation, please contact [educationstrategy@royalcollege.ca](mailto:educationstrategy@royalcollege.ca).

## Focus

This study focused specifically on the readiness to implement pillar. Using a Readiness to Implement Checklist, we measured a program's readiness to implement CBD by asking about their motivation and capacity for changes, as well as key readiness tasks completed as part of implementation.

Understanding a program's readiness to implement CBD aids in the identification of factors that promote or inhibit a successful implementation of CBD. This is in line with the CBD change process; program evaluation helps to identify conditions that add value and make a positive difference in CBD implementation. This understanding can then be used to help future programs in their respective preparation for CBD. Furthermore, implementation, and whether or not it is successful, affects downstream outcomes (Durlak & DuPre, 2008); understanding what factors lead to a successful implementation can help ensure that CBD is being implemented as intended and will lead to intended outcomes, and can help to explain any unintended outcomes.

This readiness to implement study is built on the  $R = MC^2$  framework (Scaccia, 2016). This framework states that there are three components of readiness:

- **Motivation.** This component relates to the organization’s motivation to implement CBD, and involves beliefs about CBD and support for CBD.
- **General capacity.** This component relates to an organization’s ability to implement innovation and includes the program’s context, culture, current infrastructure, leadership, resources, and organizational process that may help support or hinder any change.
- **Innovation-Specific Capacity.** This component focuses on the capacities that are important for successfully implementing CBD, such as knowledge, skills, behaviours, and habits.

These components are interactive (Scaccia, 2016), and together provide an overall picture of a program’s readiness to implement CBD.

To understand how these readiness factors affect implementation, this pre-launch readiness checklist will later be examined in tandem with post-launch studies, including the CBD Pulse Check.

## Methods

### Participants

The participants of this study were program directors or program CBME leads of the 2019 CBD launch disciplines. The survey response rate was 42% (n=79) (see Table 1).

### Online Survey

Participants were contacted by email in June 2019, shortly before their implementation date of July 1<sup>st</sup>, 2019, and asked to complete a brief online survey (Appendix B). The survey was open for 5 weeks, and participants received two reminder emails, the first at two weeks and the second at four weeks. The survey was conducted through Survey Gizmo.

Discipline	Survey response rate
Critical Care Medicine	69% (n = 9)
Gastroenterology	57% (n = 8)
General Internal Medicine	38% (n = 6)
Rheumatology	47% (n = 7)
Internal Medicine	41% (n = 7)
Geriatric Medicine	55% (n = 6)
Radiation Oncology	31% (n = 4)
Cardiac Surgery	33% (n = 4)
Neurosurgery	71% (n = 10)
Obstetrics and Gynecology	44% (n = 7)
Anatomical Pathology	60% (n = 9)
General Pathology	33% (n = 2)

Table 1. Survey response rate.

The survey design followed the R=MC<sup>2</sup> framework (Scaccia, 2016). It began by asking participants about their motivation to implement CBD and general capacity to implement changes. Participants were presented with statements and asked to rate them on a five-point Likert scale, from strongly disagree to strongly agree. Respondents were then asked if 33 key readiness tasks had been completed. Possible responses were yes, no, and not sure; not sure was coded as a no for the purpose of analysis. (Appendix B). These key readiness tasks were sampled from various faculty development resources created over the past two years that were designed to help programs and universities prepare for CBD. The decision to include a task/action in the survey was made through expert consensus by the CBD Program Evaluation Operations team (Appendix D), with the aim of ensuring that essential elements of CBD preparation were represented.

## Results

### General Capacity and Motivation

#### Key findings

- When measuring general capacity, results showed respondents were typically supportive of and receptive to change, but may not have experience with change and face challenges with adequate support staff.
- When measuring motivation, results showed respondents felt CBD implementation was a priority, but may question if it is the right move and if implementation is manageable.

Mean scores for general capacity and motivation are presented in Table 2. Bivariate correlations were conducted to examine if there is a relationship between motivation, general capacity, and innovation specific capacity. A positive correlation was found between all three (motivation and general capacity,  $r = .726, p < .001$ ; motivation and innovation specific capacity,  $r = .515, p < .001$ ; general capacity and innovation specific capacity,  $r = .468, p < .001$ ). It's possible that having higher motivation and general capacity facilitates completion of key readiness tasks to implement CBD.

Question	Mean
<b>General Capacity</b>	
Leaders within my department/division are engaged in, and supportive of, the residency training program.	4.34 ( $SD = .64$ )

Overall, people are receptive to change in my department/division.	3.81 ( <i>SD</i> = .95)
My department/division has recent experience implementing effective change.	3.66 ( <i>SD</i> = .76)
There is adequate support staff to implement change in my residency program.	3.43 ( <i>SD</i> = .98)
<b>Motivation</b>	
There is a general feeling in my department/division that CBD is a move in the right direction for residency training.	3.53 ( <i>SD</i> = .90)
People in my department/division see CBD implementation as a manageable task.	3.38 ( <i>SD</i> = .91)
Ensuring a successful CBD launch is a priority for my department/division.	3.89 ( <i>SD</i> = .70)

Table 2. Mean scores for Motivation and General Capacity.

### GENERAL CAPACITY

Over 85% of respondents agreed or strongly agreed that their leaders were supportive of change, and that people were receptive to change. Between 50-60% of respondents agreed or strongly agreed that they had previous experience with change and adequate support staff.

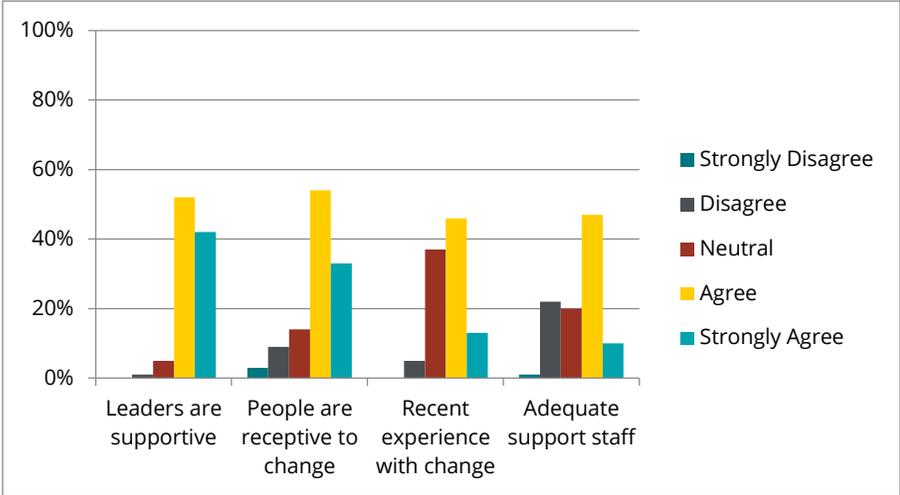


Figure 1. General Capacity to change.

This suggests that while most programs report having support from their leadership and being receptive to change, programs may not have experience implementing large scale change and may face challenges with regard to adequate support staff.

### MOTIVATION

74% of respondents agreed or strongly agreed that the successful launch of CBD was a priority for their program. Between 50-60% of respondents agreed or strongly

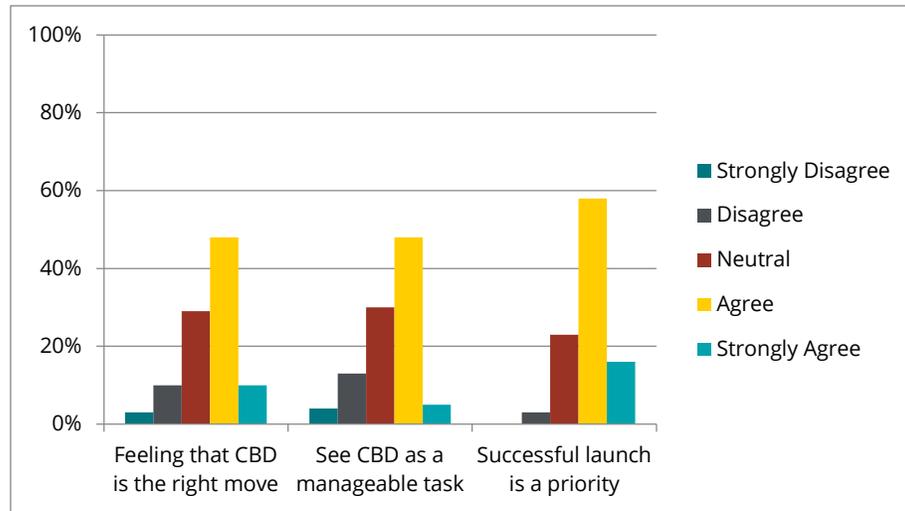


Figure 2. Motivation to change.

agreed that CBD was a move in the right direction for residency training, and that CBD implementation is a manageable task. This suggests that while programs perceive CBD implementation as a priority, some still question whether it is a change in the right direction and have concerns about manageability of implementation.

## Innovation Specific Capacity

### Key findings

- On average, programs had completed 72% of the key CBD implementation activities.
- Programs have completed many activities in the categories of curriculum mapping, Competence Committees, and assessment. In particular many programs have completed administrative activities such as preparing documents and learning activities, and choosing Competence Committee members.
- Programs were less likely to have completed on the ground implementation activities, such as processes and procedures and changes to workflow.
- Activities involving off-service rotations scored the lowest.

The percentage of respondents who had completed each key step in their CBD implementation is shown in the tables below. Overall, programs completed an average of 72% of activities. Most activities were completed by at least 50% of programs. Programs had completed a range of 3% to 100% of the activities.

Overall readiness mean scores (calculated by finding the sum of items checked yes and dividing by total number of items) were compared between disciplines, and no significant difference was found between any disciplines,  $F(11) = 1.66$ ,  $p = .101$ . This suggests that readiness score was not dependent on the discipline in this particular launching cohort.

The checklist was organized into key categories of CBD implementation activities; these categories are reviewed below.

## CURRICULUM PLAN

The majority of respondents have created a CBD curriculum map, identified gaps in learning experiences and key opportunities for direct observation, considered how simulation may facilitate learning experiences, and developed a process to support development of individualized learning plans. However, less than half of respondents had jointly reviewed the process of obtaining EPA observations during off-service rotations. This is consistent with post-implementation data, which demonstrates that programs are facing challenges engaging off-service faculty to complete EPA observations.

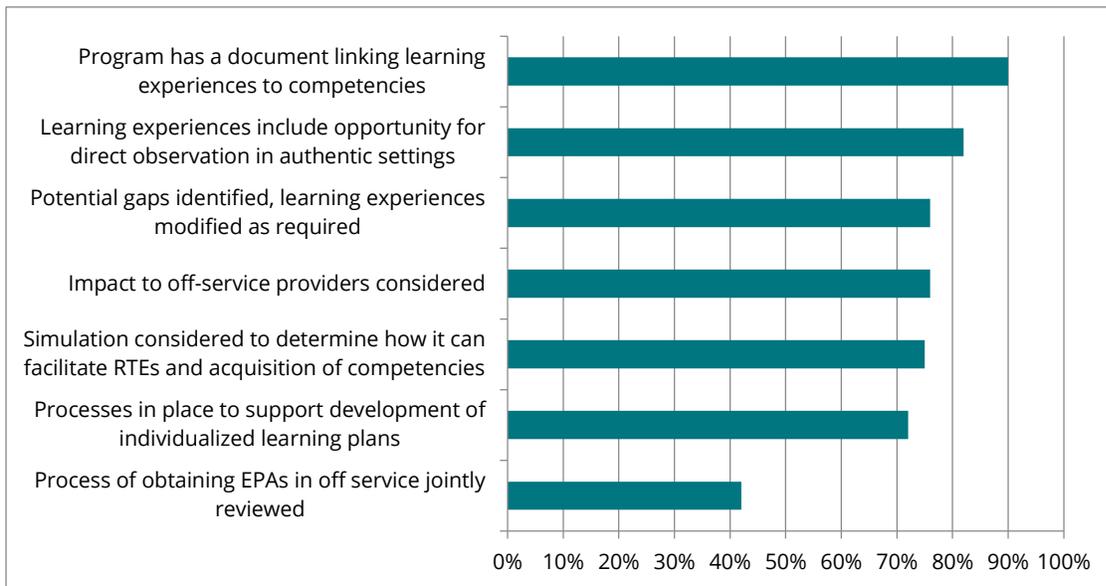


Figure 2. Percentage completed for curriculum plan activities.

## ASSESSMENT

The majority of respondents had completed assessment activities, and were prepared to record assessments in electronic portfolios (see Figure 3). However,

only 53% of programs had updated their program policies; this may be an area where some programs are struggling, or it may not be a top priority.

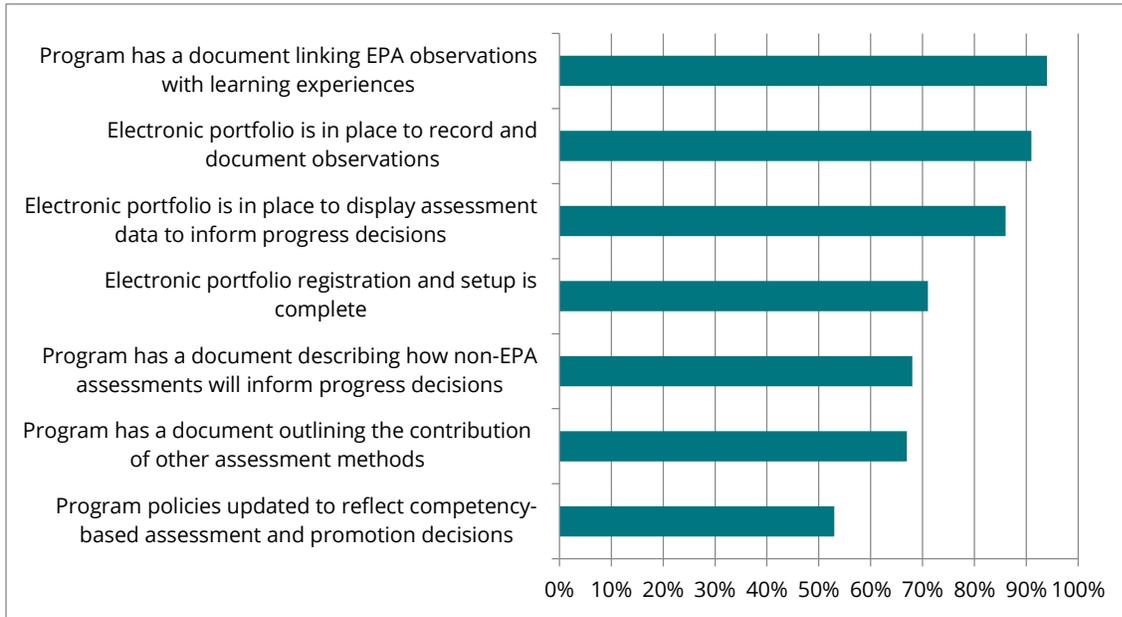


Figure 3. Percentage completed for assessment activities.

## COMPETENCE COMMITTEES

The majority of respondents had completed activities to prepare for the implementation of Competence Committees. Greater than 80% of respondents had completed the administrative tasks required for Competence Committees (identifying members, creating terms of reference and schedules). Less than 70% of respondents had completed tasks relating to the on the ground work of the Competence Committee (training, reporting templates, processes and procedures). The first CBD Competence Committee meeting for a program may not happen until several weeks post-implementation. It is possible that programs have decided to dedicate time between launch and the first Competence Committee meeting to complete these activities.

Future program evaluation should examine whether those programs that have trialled their Competence Committee pre-implementation face less challenges post-implementation.

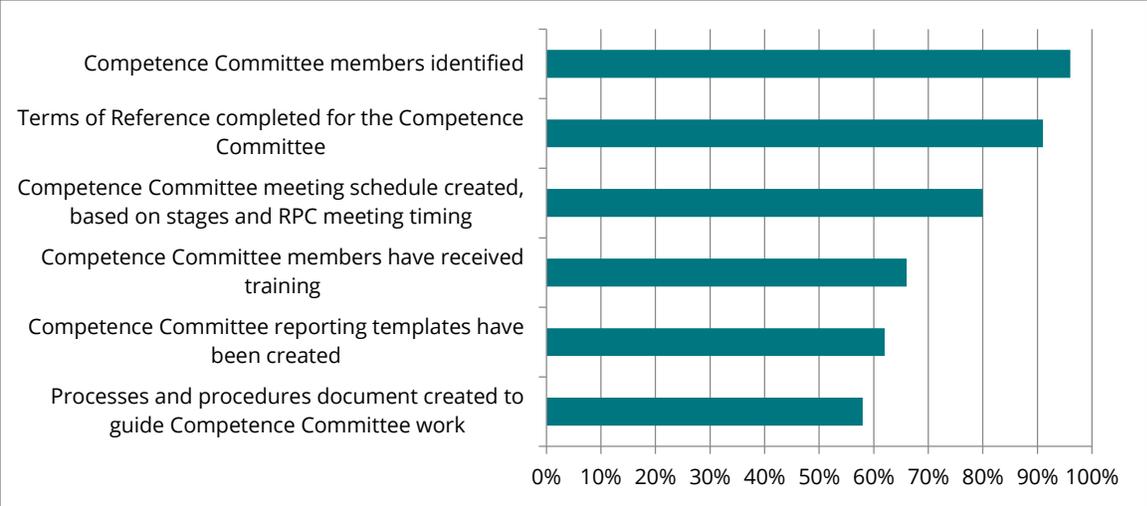


Figure 4. Percentage completed for competence committee activities.

**PERSONNEL  
ADMINISTRATIVE**

61% of programs had administrative support in place and trained on key features of CBD. This is in line with the results from the motivation and general capacity section, where 57% of respondents reported having adequate support staff.

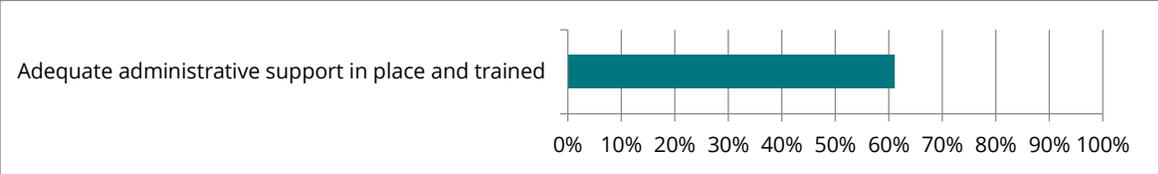


Figure 5. Percentage completed for administrative activities.

**FACULTY**

Overall, the majority of programs had trained their faculty on aspects of CBD. The activities that incorporate larger changes, such as acting as coaches and incorporating direct observation into their workflow, were completed by fewer programs (63% to 67% of programs).

Less than 50% of programs had prepared faculty from other disciplines to complete EPAs and coach residents during off-service rotations. This is consistent with the previous finding that less than 50% of respondents had reviewed the process of obtaining EPA observations when their residents are off-service.

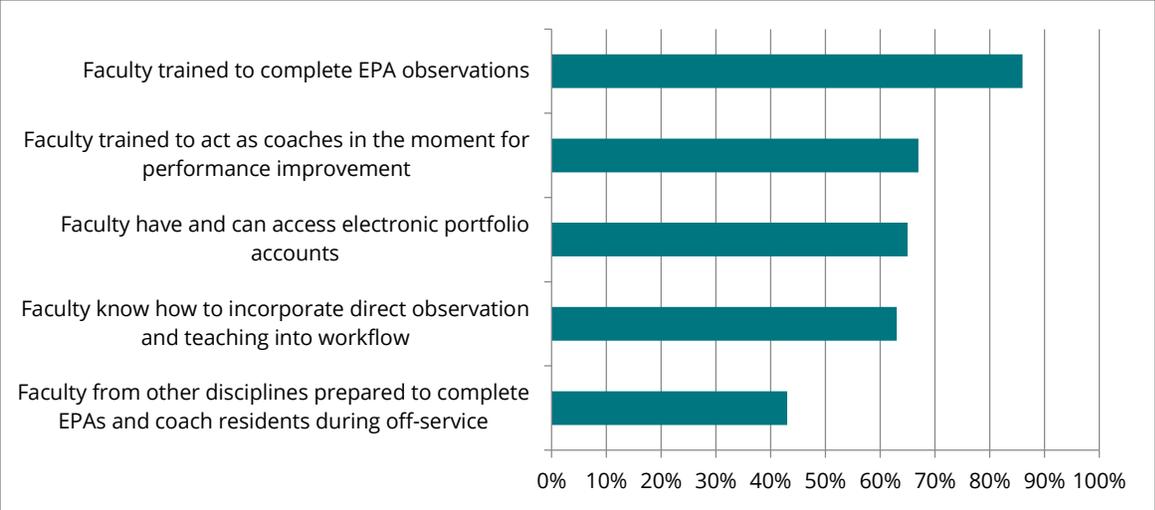


Figure 6. Percentage completed for faculty activities.

**RESIDENT**

Between 60-80% of programs had oriented their residents to various elements of CBD, which is similar to faculty levels of orientation.

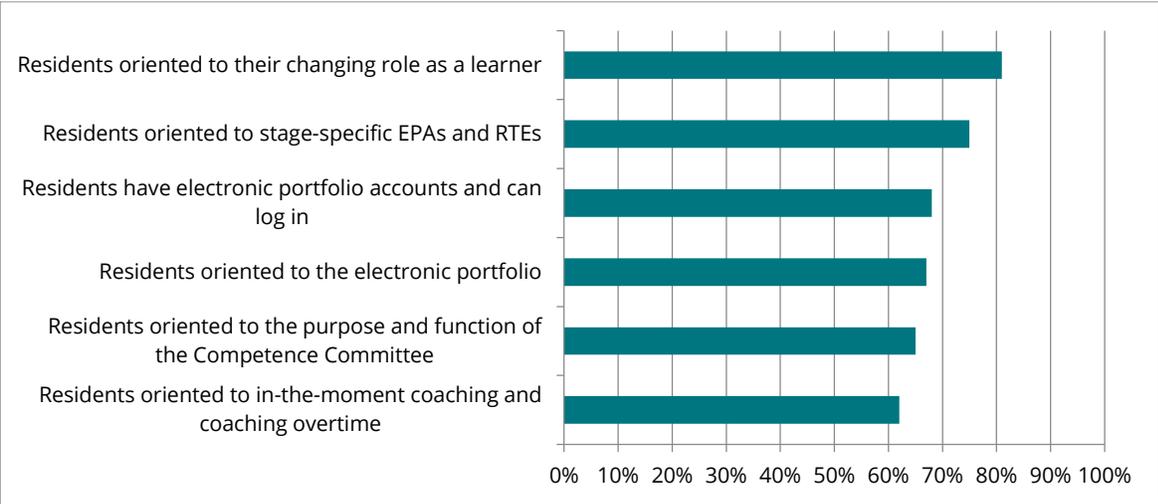


Figure 7. Percentage completed for resident activities.

**PROGRAM MONITORING**

66% of programs had an approach for the ongoing monitoring and adaption of their CBD program. It is possible that programs are focusing time and energy on effective implementation and that monitoring and refining will occur post-implementation.

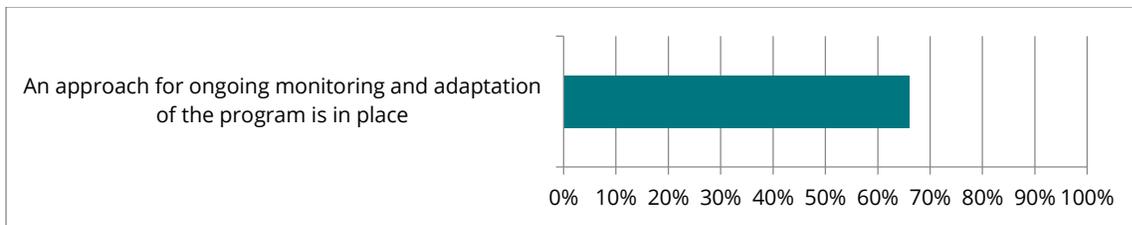


Figure 8. Percentage completed for program monitoring activities.

## Discussion and Recommendations

Survey results demonstrate that programs had completed an average of 72% of readiness tasks. While it is encouraging to see that programs are gearing up for their CBD launch, we have identified several areas that require additional support, and made associated recommendations. Further information on the recommendations and associated actions for relevant groups can be found in Appendix C.

**Examine engagement in on the ground implementation activities once programs have officially launched CBD, and determine if completion of these tasks/actions pre- versus post-launch impacts successful implementation.**

Activities involving on-the-ground implementation, such as changing workflow, forming processes and procedures, and other similar activities, appeared to score slightly lower than activities that were more administrative in nature (i.e., forming the Competence Committee, creating a curriculum map).

This study was conducted prior to implementation, and programs may not have had the opportunity to engage in on the ground implementation activities at the time of the study. However, this may impact a successful implementation. These are areas that will be monitored post-implementation.

If future studies determine that this impacts a successful implementation, it is recommended that resources and faculty development initiatives be developed to help programs with on the ground implementation activities, and those initiatives be monitored to determine if they lead to improvement in task completion.

**Encourage and support programs in their engagement of off-service disciplines.**

One area that many programs appear to be struggling with is engaging and preparing off-service disciplines. Less than half the programs that responded had jointly reviewed their process for obtaining EPAs with off-service rotations, and

faculty from other disciplines were not prepared to complete EPAs and coach residents.

The 2019 cohort is only the third cohort to launch CBD, which brings the total number of CBD disciplines to 20. Many of these off-service disciplines have not yet launched CBD, which may make it difficult to engage faculty and residents. This may improve as more disciplines launch CBD; however, it is important to support early cohorts in their implementation, and identify effective strategies to engage off-service disciplines who have not yet launched CBD.

**Explore the correlation between administrative support and successful implementation, and encourage and support the engagement and training of administrative staff in CBD preparation and implementation.**

Some programs indicated that they did not have adequate administrative support, or had not prepared their administrative staff for their role in CBD. In post-implementation studies (i.e., Pulse Check), administrative support was seen as an important factor in a successful implementation of CBD. It is possible that programs that do not currently have adequate administrative support may face challenges in their implementation. Post-implementation studies should monitor the correlation between administrative support and successful implementation, and the involvement of administrative staff should be encouraged.

## **Limitations**

This study has limitations. We do not know if those programs that did not answer the survey have similar patterns of readiness for implementation as those who did respond. Self-selection and social desirability bias are also common with survey methodology and may impact the results.

Additionally, this survey was a simple checklist, and did not allow for narrative comments. This did not allow us to explore the barriers and enablers to readiness. However, the CBD Program Evaluation Operations team is currently engaging in multiple studies that apply qualitative methods, which will enable a deeper understanding of the challenges and factors influencing CBD implementation.

## **Next steps**

Results from this readiness checklist will be examined in tandem with post-launch studies, such as the CBD Pulse Check, to examine which readiness elements are

associated with successful implementation. This will add to the overall program evaluation initiative, and help inform the implementation of future CBD cohorts.

This study was conducted just prior to programs' CBD launch. In the future, this readiness checklist may be deployed at different time points in a program's CBD preparation, to track preparation for implementation over time.

## References

- Council, M.R. *Developing and Evaluating Complex Interventions: New Guidance*. 2008.
- Durlak, J.A. and E.P. DuPre, *Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation*. *American Journal of Community Psychology*, 2008. **41**: p. 327-350.
- Scaccia J.P., Cook B.S., Lamont A., Wandersman A., Castellow J., Katz J., Beldas R.S. *A practical implementation science heuristic for organizational readiness: R = MC<sup>2</sup>*. *Journal of Community Psychology*, 2015. **43**(4): p 484-501.
- Van Melle E, Frank J, Brzezina S and Gorman L. 2017. *Competency by Design-Residency Education: A framework for program evaluation*. Ottawa, ON: Royal College of Physicians and Surgeons of Canada.
- Van Melle E., Frank J.R., Holmboe E.S., Dagnone D., Stockley D., Sherbino J., International Competency Based Medical Education Collaborators. *A Core Components Framework for Evaluating Implementation of Competency-Based Medical Education Programs*. *Academic Medicine*. 2019. 94(7) pp. 1002-09.

## Appendix A

CBME Core Component	CBD-RE Program Model – Main Features
<p>COMPETENCY FRAMEWORK</p> <p>Competencies required for practice are clearly articulated</p>	<ul style="list-style-type: none"> <li>• Competencies and outcomes are aligned with societal needs and are <b>socially accountable</b></li> <li>• <b>CanMEDS 2015</b> and discipline-specific competencies form the framework for aligning specialty training with competencies required for practice</li> </ul>
<p>SEQUENCED PROGRESSION</p> <p>Competencies and their developmental markers are sequenced progressively</p>	<ul style="list-style-type: none"> <li>• Discipline specific <b>Entrustable Professional Activities (EPAs)</b> and associated milestones provide discrete markers of competence</li> <li>• Discipline specific EPAs are organized into the <b>CBD Competence Continuum</b> to reflect how distinct, yet integrated stages of training are employed to support increasing progression towards readiness for practice</li> </ul>
<p>TAILORED EXPERIENCES</p> <p>Learning experiences facilitate the developmental acquisition of competencies</p>	<ul style="list-style-type: none"> <li>• <b>Learning experiences are based in authentic, work-based environments</b> that match the settings of future practice</li> <li>• <b>Learning experiences are organized</b> to acquire competencies and demonstrate EPAs</li> <li>• <b>A hybrid model</b> is used to organize learning experiences where time is still used as an organizing framework but there is flexibility in learner progression and acquisition of competencies</li> <li>• <b>Learners are motivated</b> to use competencies to guide and enhance their learning experience</li> </ul>
<p>COMPETENCY-FOCUSED INSTRUCTION</p> <p>Teaching practices facilitate the developmental acquisition of competencies</p>	<ul style="list-style-type: none"> <li>• Learning is guided by <b>real-time, high quality feedback</b> from multiple observations</li> <li>• <b>EPAs are used to structure learning and focus instruction</b></li> <li>• <b>Teachers act as coaches</b> for the purpose of improvement, with repeated focused observation and feedback</li> </ul>
<p>PROGRAMMATIC ASSESSMENT</p> <p>Assessment practices support and document facilitate the developmental acquisition of competencies</p>	<ul style="list-style-type: none"> <li>• <b>Assessment is used for learning</b> through competency-based assessment focused on observations of EPAs in the workplace</li> <li>• <b>Assessment is used for progression</b> by linking promotion decisions and certification with successful completion of EPAs and progression through stages of training</li> <li>• <b>A Competence Committee is responsible for regular review</b> of learner progress using highly integrative data from multiple EPA and milestone observations and feedback in clinical practice</li> <li>• Changes to the <b>certification examination</b> to ensure entry to the Royal College examinations is <b>aligned with promotion decisions</b> entrusted to the Competence Committees Examinations will be maintained, but the timing and emphasis of such examinations will shift to occur earlier in training to promote a smoother</li> </ul>

---

transition to practice

- An **electronic portfolio** is used to demonstrate and record developments in competence and independence
-

## Appendix B

### CBD Readiness to Implement Checklist

#### Part 1 - Demographics

Please select your specialty/subspecialty:

- Critical Care Medicine
- Gastroenterology
- General Internal Medicine
- Rheumatology
- Internal Medicine
- Geriatric Medicine
- Radiation Oncology
- Cardiac Surgery
- Neurosurgery
- Obstetrics and Gynecology
- Anatomical Pathology
- General Pathology

Please select your institution

- University of British Columbia
- University of Alberta
- University of Calgary
- University of Manitoba
- University of Saskatchewan
- Western University
- McMaster University
- University of Toronto
- Queen's University
- University of Ottawa
- Northern Ontario School of Medicine
- McGill University
- Université de Sherbrooke
- Université de Montréal

- Université Laval
- Dalhousie University
- Memorial University of Newfoundland

What year is your discipline anticipated to launch?

- Dropdown list of years

What is your role? (Please note that only a single respondent for each program is asked to complete this survey)

- Program Director
- Associate Program Director
- Program CBD Lead
- Other (please specify):

## Part 2 – General Capacity and Motivation

Based on your program, please indicate the extent to which you agree or disagree with the following statements.

General Capacity					
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Leaders within my department/division are engaged in, and supportive of, the residency training program.					
Overall, people are receptive to change in my department/division.					
My department/division has recent experience implementing effective change.					

There is adequate support staff to implement change in my residency program.					
--	--	--	--	--	--

Motivation					
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
There is a general feeling in my department/division that CBD is a move in the right direction for residency training.					
People in my department/division see CBD implementation as a manageable task.					
Ensuring a successful CBD launch is a priority for my department/division.					

### Part 3 – Innovation Specific Capacity

Please choose your response to the following questions based on whether or not the activity is currently present in your program.

Innovation Specific Capacity	Yes/No/Not Sure
<b>Curriculum Plan</b>	
You have a document (curriculum map) that links the various learning experiences (rotations, academic sessions, etc.) to competencies of your discipline.	
Potential gaps have been identified and learning experiences modified as required.	
Simulation has been considered to determine how it can be used to facilitate required training experiences and acquisition of specific competencies based on EPAs and stages.	
Learning experiences include ample opportunity for direct observation in authentic settings.	
The impact of any changes to other service providers (e.g., off-service rotations) has been considered.	
The process of obtaining EPA observations during off-service rotations has been jointly reviewed.	
Processes are in place to support the development of individualized resident learning plans.	
<b>Assessment</b>	
<p>You have a document that:</p> <ul style="list-style-type: none"> <li>a) Links opportunities for specific EPA observations with learning experiences (e.g. which EPAs are best observed during a specific rotation or learning activity)</li> <li>b) Outlines how other assessment methods (e.g. simulation, OSCE) will be used to contribute to EPA observation data</li> <li>c) Describes how non-EPA assessments (e.g. in-training exams, ITERs) will be used to inform progress and promotion decisions</li> </ul>	
An electronic portfolio is in place to:	

a) Record and document observations	
b) Display assessment data to inform decisions about resident progression and promotions	
The electronic portfolio registration and setup has been completed (i.e. potential assessors/observers are registered, EPAs are uploaded, etc.)	
Program policies (e.g., remediation policy) have been updated to reflect competency-based assessment and promotion decisions	
<b>Competence Committee</b>	
A terms of reference document has been created describing the role of the Competence Committee.	
A processes and procedures document has been created to guide the work of the Competence Committee.	
Competence Committee members have been identified.	
Competence Committee members have received training. This includes training on: <ul style="list-style-type: none"> <li>• The electronic platform;</li> <li>• Terms of reference and process and procedures</li> <li>• Best practices in Competence Committee function</li> </ul>	
A Competence Committee meeting schedule has been created based on the anticipated duration of stages and timing of RPC meetings	
Competence Committee reporting templates (e.g., agenda, minutes, resident report) have been created	
<b>Personnel</b>	
<b>Administrative Support</b>	
Adequate administrative support is in place and have been trained on: <ul style="list-style-type: none"> <li>• Curriculum planning (e.g. rotations, schedules)</li> <li>• Electronic portfolio management</li> <li>• Competence Committee functioning</li> </ul>	

<b>Faculty</b>	
Faculty have, and can readily access, their electronic portfolio accounts	
Faculty have received training to complete EPA observations	
Faculty have received training to serve as coaches in the moment for the purposes of performance improvement	
Faculty know how to incorporate direct observation and teaching into their workflow.	
Faculty from other disciplines are prepared to complete EPA observations and coach residents during their off-service rotations.	
<b>Residents</b>	
Residents have been oriented to <ul style="list-style-type: none"> <li>a) Their changing role as a learner in CBD</li> <li>b) Stage specific EPAs and required training experiences</li> <li>c) The electronic portfolio system</li> <li>d) The model of in-the-moment coaching and coaching over time</li> <li>e) The purpose and function of the Competence Committee</li> </ul>	
Residents have electronic portfolio accounts and are able to log in.	
<b>Program Monitoring</b>	
An approach for ongoing monitoring and adaptation of the competency-based training program is in place	

## Appendix C

### Recommendations and Advice

Recommendation	Action		
	Royal College	Postgraduate Office	Program
Examine engagement in on the ground implementation activities once programs have officially launched CBD, and determine if completion of these tasks/actions pre-versus post-launch impacts successful implementation.	<p>Follow up with post-implementation studies to determine if engagement in on the ground implementation activities pre or post-launch impacts a successful implementation of CBD.</p> <p>If it does impact a successful implementation, encourage and help programs to engage in on the ground implementation activities prior to CBD implementation. For example, develop resources and faculty development initiatives that target helping programs with on the ground implementation activities.</p>		
Encourage and support programs in their engagement of off-service disciplines.	<p>Encourage programs to engage off-service disciplines early.</p> <p>Develop and tailor resources that programs can use to engage off-service disciplines.</p>	Support programs by engaging future CBD cohorts.	Reach out to off-service disciplines early to give ample time to engage.
Explore the correlation between administrative support and successful implementation, and encourage and support the engagement and training of administrative staff in CBD preparation and implementation.	<p>Follow up with post-implementation studies to examine the correlation between administrative support and successful implementation.</p> <p>Continue to provide support to institutions and programs at a national level.</p>	Provide support to programs, and monitor administrative needs. Adequate administrative support is an accreditation requirement, and it is important that programs have support.	<p>Engage and prepare administrative staff for CBD implementation.</p> <p>Communicate administrative needs to post-graduate offices.</p>

## Appendix D

### **CBD Program Evaluation Operations Team**

**Andrew K. Hall MD, FRCPC, MMed**

Associate Professor and Program CBME Lead, Department of Emergency Medicine, Queen's University, Clinician Educator, RCPSC  
Chair, CBD Program Evaluation Operations Team

**Jason Frank MD, MA(Ed), FRCPC**

Director, Specialty Education, Royal College of Physicians and Surgeons of Canada, Associate Professor and Director of Educational Research & Development, Department of Emergency Medicine, University of Ottawa

**Elaine Van Melle PhD**

Education Scientist, Royal College of Physicians and Surgeons of Canada, Education Research & Evaluation Specialist, Department of Family Medicine, Queen's University

**Warren J. Cheung MD, MMed, FRCPC**

Assistant Professor and Director of Assessment, Department of Emergency Medicine, University of Ottawa, Clinician Educator, RCPSC

**Anna Oswald, MD, MMed, FRCPC**

Professor, Division of Rheumatology, Department of Medicine, Director CBME, PGME, University of Alberta  
Clinician Educator, RCPSC

**Lara J. Cooke, MD, MSc (MedEd), FRCPC**

Associate Professor, Neurology, Dept. of Clinical Neurosciences, Cumming School of Medicine, University of Calgary, Clinician Educator, RCPSC

**Timothy Dalseg, MD, FRCPC**

Lecturer, Emergency Medicine, Medicine, University of Toronto, Clinician Educator, RCPSC

**Alexandra Skutovich, MA, BA (Hon)**

Research Coordinator, Educational Strategy, Innovations and Development Unit, Office of Specialty Education, RCPSC

**Stacey Brzezina, MA, BA (Hon)**

Research Coordinator, Educational Strategy, Innovations and Development Unit, Office of Specialty Education, RCPSC

**Lisa Gorman, MA, BA (Hon)**

Manager, Educational Strategy, Innovations and Development Unit, Office of Specialty Education, RCPSC

**Sarah Taber, MHA, BA (Hon)**

Associate Director, Education Strategy and Accreditation, Office of Specialty Education, RCPSC