![Resident Doctors of Canada / Médecins résidents du Canada logo](#)

April 2021
National Resident Survey
Summary of Findings

INTRODUCTION

About Resident Doctors of Canada (RDoC)

RDoC represents over 10,000 resident doctors across Canada. RDoC is the national resident voice and the catalyst for solutions to create the best possible resident training experience.

RDoC works closely with the seven Provincial Housestaff Organizations (PHOs) in fulfilling its mandate:

- Maritime Resident Doctors (MarDocs)
- Professional Association of Resident Physicians of Alberta (PARA)
- Professional Association of Residents and Interns of Manitoba (PARIM)
- Professional Association of Residents of Newfoundland and Labrador (PARNL)
- Professional Association of Residents of Ontario (PARO)
- Resident Doctors of BC (RDBC)
- Resident Doctors of Saskatchewan (RDoS)

About the National Resident Survey (NRS)

The NRS has been in existence since 2012. Its current form is an online, bilingual, census-style survey of the RDoC membership. Members of RDoC include all residents completing postgraduate medical training at Canadian faculties of medicine located outside of the province of Quebec. Since residency training in Canada can last from two to seven years, depending on the specialty, the NRS is administered on a biennial basis, giving every resident the opportunity to participate at least once. Participation is voluntary and anonymous. Results are reported only in aggregate form.

The results of the NRS inform RDoC's advocacy efforts on behalf of its members on a range of issues important to post-graduate medical education.

The NRS Team

Change first sentence to: The RDoC 2021 NRS was developed and administered by the RDoC Survey Team, which was comprised of the following members:

- RDoC Team Lead: Dr. Ramona Neferu
- RDoC Team Board Liaison: Dr. Tehmina Ahmad
- Team Members: Dr. Michael Arget, Dr. Colin Boyd, Dr. Kat Butler, and Dr. Ishrat Gill
- RDoC Interim Executive Director: Dr. Robert Conn
- RDoC Support Staff: Beth Sneyd and Vincent Tremblay
- External Collaborators: Dr. Nawal Farhat (TruEffect Inc.) and Dr. James Crispo (TruEffect Inc.)

The Resident Doctors of Canada (RDoC) 2021 National Resident Survey (NRS) was approved by the University of Toronto Human Research Ethics Program (HREP). Dr. Arno Kumagai, Vice-Chair, Education, Department of Medicine, University of Toronto, served as the academic supervisor.

Design of the April 2021 NRS

Inspired by the ongoing introduction and implementation of Competency-Based Medical Education (CBME) within all Canadian postgraduate medical training programs, the 2021 NRS surveyed respondents on aspects related to CBME and training evaluation and assessment tools. Twenty-five (25) English survey questions on these topics were drafted and finalized with input from all members of the Survey Team. All survey questions were professionally translated from English to French; thereby allowing respondents the option to answer the survey in either of Canada's two official languages. Following translation, the online survey was developed using licensed software from *Hosted in Canada Surveys* (Nepean, ON, Canada).

Prior to launching the 2021 NRS, members of the Survey Team rigorously tested the survey's online functionality. All minor survey logic, language, and spelling issues identified during survey testing were corrected prior to the survey's official launch.

Data Collection

The 2021 NRS was officially launched on April 1, 2021 and was accessible via one of two web links: one for the English survey and one for the French survey. PHOs were responsible for distributing the survey to their membership via email. PARA distributed the survey to its members on April 1, 2021, while the remaining PHOs distributed the survey on April 6, 2021 following the Good Friday and Easter Monday holidays. Data collection continued through to end of day on May 6, 2021. Data collected by the survey was anonymous, thereby mitigating the possibility of identifying individual survey respondents.

Following the survey's launch, multiple survey reminders were sent to residents, including final week and day reminders. Information regarding the survey was also shared by RDoC on social media (Facebook and Twitter); however, web links to the survey were solely shared by email in order to limit respondents to members of participating PHOs.

Upon accessing the survey via the distributed web links, respondents were provided important information prior to deciding whether to participate in the survey. This included the survey deadline, the anonymous nature of data collection, information regarding participation incentives and ethics approval, and contact details for key survey contacts.

In an effort to increase the survey response rate, participants who completed the survey were offered the opportunity to enter a draw for one of 80 $25 Amazon gift cards. To maintain survey response anonymity, participants interested in entering in the prize draw were directed to a separate web survey that collected the minimum required information for RDoC to complete the prize draw.

Survey Response Rate

Based on the number of unique survey responses (n = 1,106) and the number of residents invited to partici-pate in the survey (N = 10,206), the 2021 NRS response rate was determined to be **10.8%**.

Respondents came from all training years and all 13 faculties of medicine. The training specialties with the largest number of participation were Family Medicine (24.6%), Internal Medicine and its subspecialties (18.6%), and Psychiatry and its subspecialties (9.6%).

Respondents were grouped into broad medical specialties for weighting purposes:

Family Medicine:	Family Medicine, Family Medicine & Enhanced Skills
Medicine:	Anesthesiology & Subspecialties, Dermatology, Diagnostic Radiology & Subspecialties & Nuclear Medicine, Emergency Medicine, Internal Medicine & Subspecialties, Medical Genetics & Genomics, Neurology (including Pediatric Neurology), Pediatrics & Subspecialties, Physical Medicine & Rehabilitation, Psychiatry & Subspecialties, Public Health and Preventive Medicine, Public Health and Preventive Medicine including Family Medicine, Radiation Oncology
Laboratory Medicine:	Pathology & Related Specialties, Medical Biochemistry, Medical Microbiology
Surgical:	Cardiac Surgery, General Surgery & Vascular Surgery, Neurosurgery, Obstetrics and Gynecology, Ophthalmology, Orthopedic Surgery, Otolaryngology - Head and Neck Surgery, Plastic Surgery, Urology

More than half of residents (55.8%) were training in Medicine, followed by 24.6% training in Family Medicine, and 17.1% training in Surgery. The remaining residents (2.4%) were in Laboratory Medicine.

All findings presented within this report are based upon information provided within the 1,106 survey re-sponses that satisfied the two analysis inclusion criteria.

Survey Weights

The use of survey weights in analyses of data from a sample population offers many benefits, such as re-duced bias from non-respondents and allowing survey findings to be reported in a manner that reflects the total target population. In the case of the 2021 NRS, use of weights in analyses of collected data means that, unless indicated otherwise, findings presented within this report are representative of the entire resident population surveyed (N = 10,206).

2021 NRS survey weights were derived for each of the 52 combinations of faculty of medicine (13) and broad training specialty (4) using resident enrolment by specialty data (as of April 1, 2021) from participating PHOs for each of the 13 faculties of medicine. The four broad training specialities include the main categories of medical specialization in Canada: Family Medicine, Medicine, Laboratory Medicine, and Surgery.

Survey weights were not derived using any other demographic variables. Therefore, caution should be exercised when comparing findings presented within this report to results of similar weighted and unweighted surveys.

SURVEY FINDINGS

Competency-Based Medical Education Across Canada

Competency-Based Medical Education refers to an approach to preparing physicians for practice that is fundamentally oriented to graduate outcome abilities and organized around competencies derived from an analysis of societal and patient needs. It deemphasizes time-based training and promises greater accountability, flexibility, and learner-centeredness.

CBME is being introduced to all post-graduate medical training programs in a staggered fashion through the Royal College's Competency by Design (CBD) initiative and the College of Family Physicians of Canada's Triple C initiative. Some residency programs are already implementing CBME, while other programs will be introduced to the model in future years.

Triple C is a competency-based curriculum for family medicine residency training based on the CanMEDS-FM framework and the Evaluation Objectives in Family Medicine. The three Cs are in reference to the following components:

- Comprehensive education and patient care
- Continuity of education and patient care
- Centred in family medicine

CBME includes CBD and Triple C. Triple C has been in effect for Family Medicine since 2010. The Royal College launched CBD in 2017. At least 87% of RDoC's members are now training in a CBME program.

The majority of resident respondents were in programs that had implemented CBME in the 2020-2021 academic year (67.4%). However, approximately one quarter of residents indicated that their program had implemented CBME but that CBME evaluations do not formally impact their progression through residency (e.g., a PGY4 resident when CBME was rolled out for PGY1 residents in their program. Of the residents in programs that had implemented CBME, the majority (74.2%) reported that they felt adequately informed about it, while 10.3% indicated that they did not know enough about CBME implementation.

The most common resources available for informing residents about CBME were *written or electronic papers* (70.2% of respondents) followed by *town halls and training sessions*. Forty-three respondents specified other CBME resources. Commonly reported other resources included: lectures, rounds, meetings, meetings with program director and advisor, orientation sessions, booklets, resident guides, posters, and videos.

When asked about which resources would help residents feel more adequately informed about CBME, the most common responses were *training sessions and written or electronic papers*, each reported by more than 30% of residents. *Other* resources that were specified by respondents included: clearer instructions, meetings with program directors, orientation sessions, sessions on effective feedback, training of staff, and feedback from preceptors and program directors.

## Figure 1: What are the best ways to help residents feel informed about CBME?*
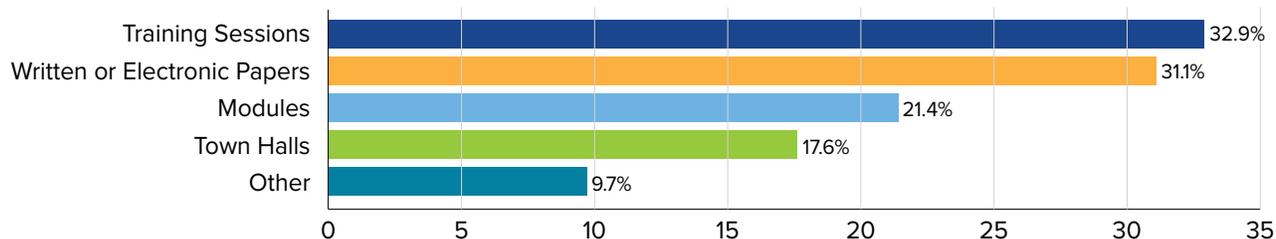
*Respondents were able to choose more than one response.

The most common CBME infrastructure reported by residents in programs where CBME had been implemented was the *use of electronic evaluation platforms* (85.1%), *electronic tracking software* (66.2%), and *competency committees with resident representation* (58.1%).

The two most commonly reported benefits of CBME were that it *formalizes and standardizes learning objectives* (reported by 35% of residents) and that *it improves the frequency or timeliness of feedback* (reported by 33% of residents). About 17% of residents indicated that they *do not perceive any benefits to CBME*. Respondents had the option to specify other benefits. Answers to this question included: better accountability, sets clear objectives, provides flexibility during training, helps residents determine whether they are on-track, and helps identify residents that need help in certain areas.

## Figure 2: What benefits do residents see in CBME?*
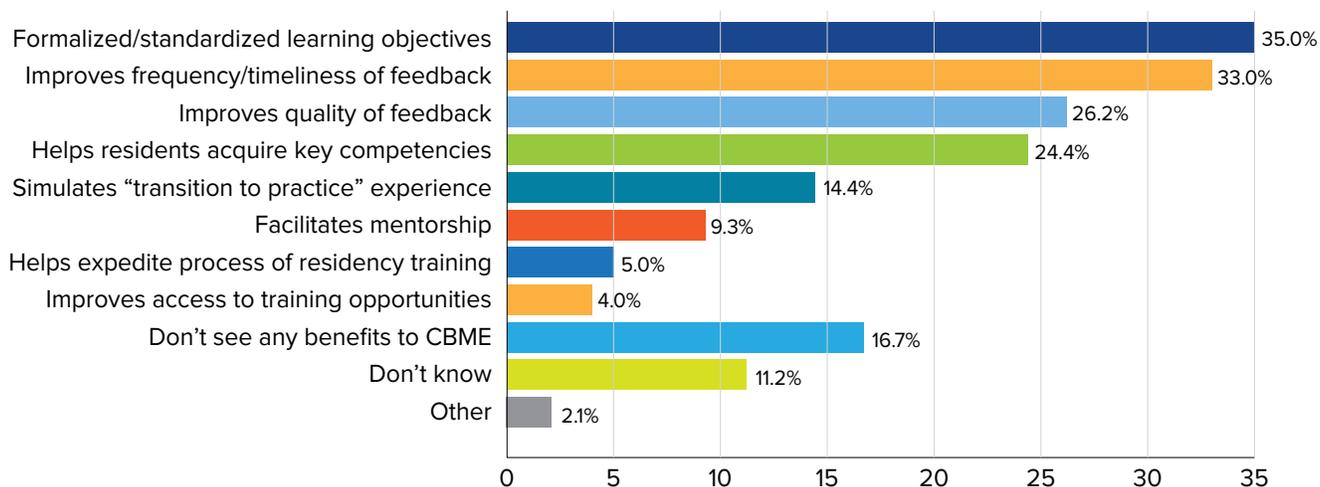
*Respondents were able to choose more than one response.

Respondents were asked to describe whether they have personally encountered benefits from CBME. Many respondents commented on the more frequent and timely feedback, more feedback from multiple sources, evidence of good performance, greater flexibility in training, opportunities to teach and provide feedback to junior residents, and the possibility to provide training opportunities where exposure is lacking.

Respondents were also asked about the challenges to CBME implementation. The most common challenge was *evaluation fatigue from increased frequency of program feedback*, reported by 66.9% of residents. Other challenges indicated by respondents included: poor online platform (complicated and difficult navigation process, suboptimal, incompatibility on smartphones), keeping track of all the entrustable professional activities (EPAs) needed, time consuming processes, more paperwork requirements, preference for in-person feedback, and anxiety and psychological burnout from constantly being evaluated.

Figure 3: What challenges do residents see in CBME implementation?*
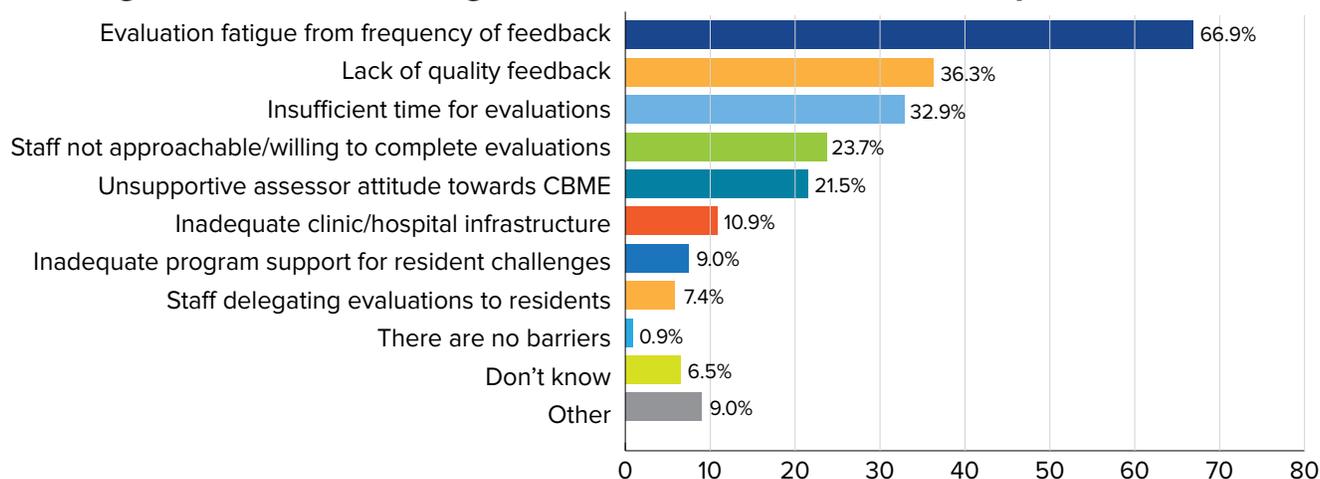
*What challenges do residents see in CBME implementation?

Respondents were asked if they had personally encountered challenges with CBME. Comments provided by 164 respondents (unweighted) suggest the following views:

- EPA platform is difficult to access and navigate, time consuming, and does not always work.
- Many residents and staff experience evaluation fatigue.
- EPAs are redundant, distract from learning, time consuming, and add to the administrative burden.
- EPAs are nonspecific, challenging to complete, poorly worded, and not user friendly.
- Staff do not complete EPAs in a timely manner despite multiple reminders.
- Staff are not familiar with the online system or how to evaluate and submit EPAs.
- Staff are not knowledgeable in CBME.
- There is no proper orientation, which leads to unclear expectations.
- Feedback sometimes is of low quality or vague.
- Difficulty in keeping track of EPAs requiring completion and respective deadlines.

- Feedback is usually provided after the fact.
- There are too many EPAs for specific milestones.
- Preference for verbal feedback.

The most common challenges to providing feedback among residents who had assessed junior residents in CBME included *evaluation fatigue and real or perceived pressure to 'pass' residents*, indicated by 25.5% and 21.6% of residents, respectively. *Other* challenges indicated by respondents included: poor online platform, technical difficulties with the App, inability to complete evaluations "in the moment", vague and poor design of EPAs, and difficulty in recalling details due to the ability to send evaluations after encounters.

Residents in programs that have implemented CBME were asked whether they were receiving support if they had been placed on an Individual Learning Program or if areas had been identified for improvement. Five percent reported that they were receiving support, while roughly 9% reported they were not (72% of residents indicated that the question was not applicable). Forms of support indicated by respondents included: additional coaching, meetings with their program director, encouragement, mentoring, inclusion in teaching sessions, additional resources, financial support for psychological counselling, and one-on-one feedback or instruction.

The majority of residents in programs that have implemented CBME (61.9%) reported that their programs welcome feedback, while 26.7% indicated that they did not know. Of those in programs that welcome feedback, about one quarter (24.9%) believed that their feedback has been used to shape the CBME experience.

Many respondents that believed their feedback has been used to improve CBME provided comments on their experience. Respondents feel that their programs are responsive to feedback, feedback is taken seriously, and has led to clearer program objectives and improved understanding of CBME. For example, in response to resident feedback, certain modules were adjusted or created, improvements were made to the electronic platform, changes were made to evaluations (some EPAs were removed), and reminders were regularly sent to staff about EPAs.

Nine percent of residents in programs that have implemented CBME indicated that their programs are not welcoming of feedback from residents. Many comments provided by these residents indicated that they had not observed any program changes after providing feedback. Other comments were regarding concerns with EPAs and the associated assessment platform.

Evaluation and Assessment Tools

More than half of residents (57.5%) reported that the level of observations by preceptors is sufficient, while 18.3% believed it is less than sufficient. Most residents (73.3%) reported that the feedback they received
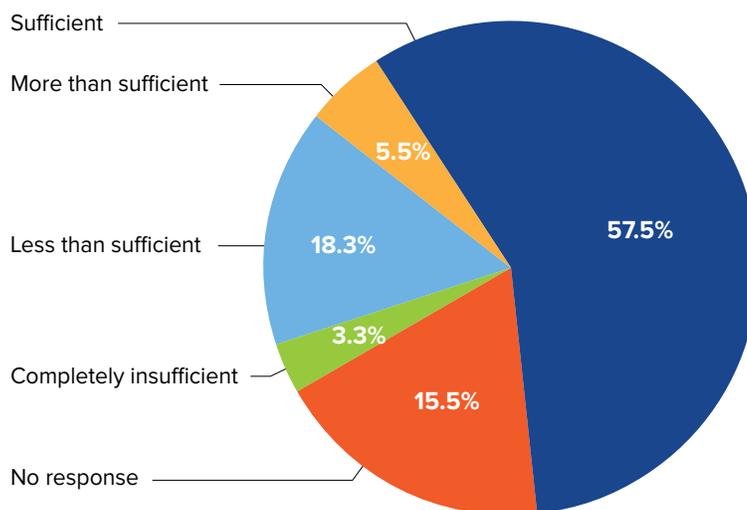
from staff is *almost always or sometimes* helpful. A total of 483 respondents (unweighted) answered the question about what makes feedback from staff helpful. Common answers suggest that residents find feedback helpful if: it focuses on actions, identifies areas for improvement, provides suggestions and actionable items, identifies strengths and weaknesses, is specific, is timely, is constructive, and is provided in-person. Ten percent of residents reported they find feedback is *almost never* helpful.

Respondents were asked about simulation used in their programs as educational aids. The most commonly reported simulation was the use of mannequins, task trainers, and roleplay, each reported by about 30% of residents. Other simulation exercises available to respondents included: cadaver labs, animal models, virtual reality, mock cases, mock interviews, patient volunteers, ultrasound simulators, and small group discussions. Several respondents indicated that, due to the COVID-19 pandemic, they have not had access to simulation, while others indicated that the pandemic resulted in increased virtual simulation. This experience seemed to vary across the country.
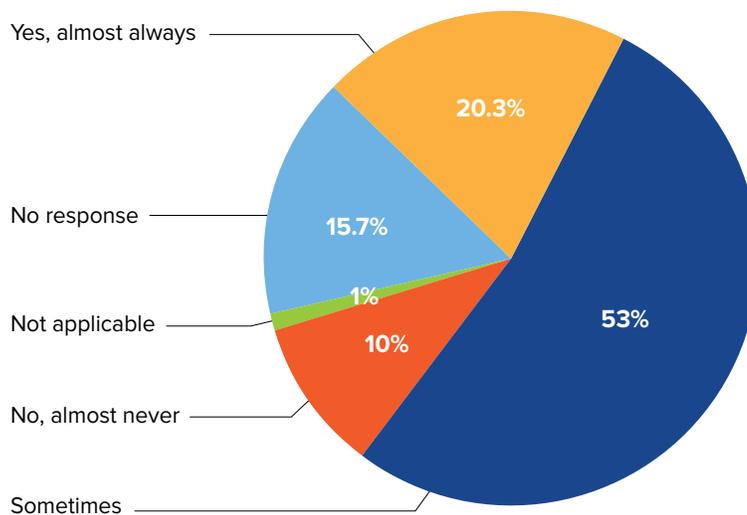
More than 60% of residents reported that simulation is an effective learning tool in their specialty. Comments provided by these residents emphasize their belief in the effectiveness and helpfulness of simulation, particularly for emergency and rare scenarios/cases, acute cases, surgical training, and for acquiring procedural and interview skills.

Eight percent of residents indicated that they do not believe simulation is an effective learning tool in their specialty. Reasons

How do residents rate the level of observation of their clinical work?

- Sufficient — 57.5%
- More than sufficient — 5.5%
- Less than sufficient — 18.3%
- Completely insufficient — 3.3%
- No response — 15.5%

Do residents find the feedback they receive to be helpful?

- Yes, almost always — 53%
- No response — 20.3%
- Not applicable — 15.7%
- No, almost never — 1%
- Sometimes — 10%

provided by these residents included the limited use of simulation in their specialty (laboratory medicine, psychiatry, pathology, and radiology) and the belief that real world patient interactions and experiences are not effectively replicated through simulation.

General Comments

The final 2021 NRS question invited additional, unrestricted comments from respondents. A total of 86 (7.8%) of the 1,106 unique 2021 NRS respondents (773 of 10,032 weighted responses; 7.7%) answered this question, with many respondents providing very detailed feedback on CBME, EPAs, and evaluations.

The majority of feedback provided suggested that the implementation of CBME and EPAs has been inconsistent across programs and has created a number of practical training and evaluation challenges. Some respondents described CBME and the completion of EPAs as: stressful, unhelpful, contributing factors to evaluation fatigue and general burnout, and as barriers to their medical training. A small number of residents provided favourable comments regarding CBME and EPAs and made recommendations on how CBME may be rendered more effective (such as creating a standardized mobile-friendly app for evaluations).

Overall, responses to this question should be interpreted with caution, as they likely represent a biased subpopulation of medical residents and not all residents as a whole. Nevertheless, responses to this question may serve to inform future resident surveys and/or focus groups aiming to better understand how CBME, EPAs, and evaluations may be improved. Future RDoC projects may include thematic analysis of the responses to this question in order to identify common themes expressed by respondents.

CONCLUSION

The April 2021 National Resident Survey provides clear, concise, and current data that will support RDoC's advocacy work on behalf of its members in the areas of competency-based medical education and assessment.

As CBME continues to roll out across Canada, and as evaluations and assessments evolve, it is important to continue to use tools such as the Survey to gather and share the perspectives of those whose training is directly affected, to ensure the best possible resident experience.

CONTACT

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