

The future of the CanMEDS physician competency framework L'avenir du cadre de compétences canMEDS pour les médecins

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The CanMEDS Physician Competency Framework was designed to align physician competencies with societal needs.¹ It originated in the 1990s as an adaptation of the Educating Future Physicians for Ontario (EFPO) project.^{2,3} EFPO was a collaborative effort launched by the Ontario medical schools in the wake of an unsuccessful 1987 physician strike, to address competencies that were not well-addressed by historical medical education.² Based on extensive public consultations, EFPO defined eight roles of a physician: medical expert, communicator, collaborator, health advocate, learner, manager, scholar, and person.² This framework was adapted into CanMEDS by the Royal College of Physicians and Surgeons of Canada in 1996.⁴

In the 25 years since then, the CanMEDS Framework has become increasingly integrated into health professions education. Internationally, it has been used or adapted by a dozen professions in more than 50 jurisdictions.⁵ Within Canada, 13 major medical education organizations endorsed the Framework in 2015 and formed a Consortium to steward the Framework in 2017.⁶ Most recently, CanMEDS provided the foundational structure for Canada's competency-based residency education initiative known as Competence By Design.⁷

Societal needs and expectations evolve at an increasingly rapid rate. To stay relevant, CanMEDS was revised in 2005⁸ and again in 2015,⁹ both times with input from patients. Recent drivers of change including the COVID-19 pandemic,¹⁰⁻¹² a growing understanding of oppression,¹³⁻¹⁵ the accelerating climate crisis,¹⁶ and unprecedented technological innovation¹⁷⁻¹⁹ have altered the competencies that physicians need to provide optimal care

to patients and communities. Recognizing this, the Association of Faculties of Medicine of Canada, Collège des Médecins du Québec, College of Family Physicians of Canada, and Royal College of Physicians and Surgeons have committed to collaboratively revising CanMEDS for 2025. They are undertaking this update using transparent, inclusive, anti-racist, and anti-oppressive structures and processes. This special issue of the Canadian Medical Education Journal was compiled to set the stage for this important work.

A critical and foundational step in the CanMEDS 2025 revision process included a review of the medical education literature. Building upon the methodology described by Van Melle in 2015,²⁰ stakeholders from each of the collaborating institutions conducted a review and analysis of the medical education literature with the goal of identifying emerging concepts.⁵ Small groups of experts were nominated to write brief primers that provide a perspective on how CanMEDS could best embody what we now know about adaptive expertise;¹¹ anti-racism;¹⁴ the clinical learning environment;¹⁵ clinical reasoning;¹⁹ complex adaptive systems;¹⁷ data-informed medicine;¹⁸ equity, diversity, inclusion, and social justice;¹³ physician humanism;¹⁰ planetary health;¹⁶ and virtual care.¹² Many of these concepts are visualized in this issue's cover image depicting "The physician of the future."²¹

While Indigenous health did not emerge as a theme of the literature review, it was a significant theme of an environmental scan that was undertaken in parallel to further inform the update. Plans for how best to address Indigenous health in CanMEDS 2025 will build on

previously published Indigenous health supplements^{22,23} and engage Indigenous Working Group members in an Indigenous Learning Circle.

Coinciding with the drafting of these manuscripts, the CMEJ put out an open call for literature related to CanMEDS in January of 2022. Twenty-two manuscripts were submitted and 11 were accepted for publication in this special issue. These articles:

- describe how virtual visiting electives²⁴ and community-based service learning projects²⁵ can be used to teach CanMEDS competencies.
- demonstrate how benchmarking can improve the delivery of scholar competencies within training programs,²⁶ and CanMEDS-based criterion can structure an initiative to improve learner feedback²⁷
- map competencies within global health²⁸ and Area of Focused Competence²⁹ programs to the CanMEDS Framework.
- explore how health advocate competencies,³⁰ physician humanity,³¹ faculty development,³² and role modeling³³ can be better integrated into CanMEDS.
- analyze how patients are referenced within the competencies of each CanMEDS role.³⁴

We anticipate that many of these articles will influence the revision and implementation of CanMEDS. The next phase of the CanMEDS 2025 process will engage thirteen expert working groups (one for each CanMEDS Role and six focused on cross cutting themes) to create a first draft of the revised Framework. The expert working groups and associated ePanels were populated through an open call supplemented by targeted recruitment that was designed to ensure diversity in the participants' backgrounds, expertise, and ideas. The manuscripts published in this issue have been provided to these expert working groups to inspire the refined and synergized update of CanMEDS. Their work will culminate with the publication of a version of CanMEDS that will be open for public commentary in 2024 and refined further before its formal publication in 2025.

Updating CanMEDS is a major undertaking that comes with huge opportunities and responsibilities. The 2025 revision builds upon the best elements of the methodology used in the previous iterations with a focus on increasing transparency and embracing the perspectives and influence of diverse participants. The publication of the

manuscripts in this special issue is an important step in identifying significant changes to come.

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References

1. Frank JR, Danoff D. The CanMEDS initiative: implementing an outcomes-based framework of physician competencies. *Med Teach*. 2007 Jan 1;29(7):642–7. <https://doi.org/10.1080/01421590701746983>
2. Neufeld VR, Maudsley RF, Pickering RJ, et al. Educating future physicians for Ontario. *Acad Med*. 1998 Nov 1;73(11):1133–48. <https://doi.org/10.1097/00001888-199811000-00010>
3. Maudsley RF, Wilson DR, Neufeld VR, et al. educating future physicians for Ontario: phase ii. *Acad Med*. 2000 Feb;75(2):113. <https://doi.org/10.1097/00001888-200002000-00005>
4. Frank J. *The CanMEDS Project: The Royal College of Physicians and Surgeons of Canada moves medical education into the 21st Century*. In: Royal College Outlook. Ottawa, ON: Royal College of Physicians and Surgeons of Canada; 2014 p. 27–9. Available from: https://www.researchgate.net/profile/Jason-Frank-2/publication/271702100_A_history_of_CanMEDS_-_chapter_from_Royal_College_of_Physicians_of_Canada_75th_Anniversary_history/links/54cf8d440cf298d6566400b3/A-history-of-CanMEDS-chapter-from-Royal-College-of-Physicians-of-Canada-75th-Anniversary-history.pdf [Accessed on Feb 21, 2023].
5. Thoma B, Karwowska A, Samson L, et al. Emerging concepts in the CanMEDS physician competency framework. *Can Med Educ J*. 2023 <https://doi.org/10.36834/cmej.75591>
6. Royal College of Physicians and Surgeons of Canada. *About CanMEDS*. Available from: <https://www.royalcollege.ca/rcsite/canmeds/about-canmeds-e> [Accessed on Feb 21, 2023].
7. Karpinski J, Frank JR. The role of EPAs in creating a national system of time-variable competency-based medical education. *Acad Med*. 2021 Jul 1;96(7S):S36–41. <https://doi.org/10.1097/ACM.0000000000004087>
8. Frank J, editor. *The CanMEDS 2005 Physician Competency Framework*. Royal College of Physicians and Surgeons of Canada; 2005. Available from:

- http://www.ub.edu/medicina_unitatededucaciomedica/documentos/CanMeds.pdf [Accessed on Feb 1, 2022].
9. Frank JR, Snell L, Sherbino J, editors. *CanMEDs 2015 physician competency framework*. Royal College of Physicians and Surgeons of Canada; 2015. Available from: <http://www.royalcollege.ca/portal/page/portal/rc/canmeds/re-sources/publications>
 10. Waters HM, Oswald A, Constantin E, Thoma B, Dagnone JD. Physician humanism in CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75536>
 11. Cupido N, Fowler N, Sonnenberg LK, et al. Adaptive Expertise in CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75445>
 12. Stovel RG, Dubois D, Chan TM, Thoma B, Ho K. Virtual care in CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75439>
 13. Barnabe C, Osei-Tutu K, Maniate JM, et al. Equity, diversity, inclusion, and social justice in CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75844>
 14. Osei-Tutu K, Duchesne N, Barnabe C, et al. Anti-racism in CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75844>
 15. Hall J, Atkinson A, Chan MK, Tourian L, Thoma B, Pattani R. The clinical learning environment in CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75537>
 16. Green S, Labine N, Luo OD, et al. Planetary Health in CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75438>
 17. Van Aerde J, Gomes MM, Giuliani M, Thoma B, Lief S. Complex adaptive systems in CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75538>
 18. Thoma B, Paprica PA, Kaul P, Cheung WJ, Hall AK, Affleck E. Data-Informed Medicine in CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75440>
 19. Young M, Szulewski A, Anderson R, Gomez-Garibello C, Thoma B, Monteiro S. Clinical Reasoning in CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75843>
 20. Van Melle E. New and Emerging Concepts as Related to the CanMEDS Roles. Royal College of Physicians and Surgeons of Canada; 2015 Available from: <https://www.royalcollege.ca/rcsite/documents/canmeds/emerging-concepts-e.pdf> [Accessed Feb 1, 2022].
 21. Thoma B. The physician of the future. *Can Med Ed J*. 2023. <https://doi.org/10.36834/cmej.77154>
 22. Kitty D, Funnell S, editors. *CanMEDS-family medicine Indigenous health supplement*. The College of Family Physicians of Canada; 2020. Available from: <https://www.cfpc.ca/CFPC/media/PDF/CanMEDS-IndigenousHS-ENG-web.pdf> [Accessed on Feb 21, 2023].
 23. Anderson M, Barnabe C, Bourassa C, et al. *Indigenous Health Primer*. Royal College of Physicians and Surgeons of Canada; 2019. Available from: <https://www.royalcollege.ca/rcsite/documents/health-policy/indigenous-health-primer-e.pdf>
 24. Saravanabavan S, Sivanand A, Hildebrand KJ. Achieving CanMEDs competencies through virtual visiting electives. *Can Med Ed J*. 2023. <https://doi.org/10.36834/cmej.75268>
 25. Truong J, Sandhu P, Sheng V, et al. Advocacy in community-based service learning: perspectives of community partner organizations. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.74887>
 26. Barbour-Tuck E, Mutter T, O'Brien JM, Girling L, Choo E, Gamble J. Benchmarking a Canadian anesthesiology resident research program against national norms using a logic model framework: a quality improvement study. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75306>
 27. Desjardins C, Pitre L, Adjo D, et al. Evaluation of a tool to improve the quality of preceptor written feedback for family medicine residents: training and use of a CanMEDS-MF competency-based criterion guide. *Can Med Ed J*. 2023. <https://doi.org/10.36834/cmej.75256>
 28. Pritchard J, Alavian S, Soogoor A, Bartels S, Hall A. Global health competencies in postgraduate medical education: a scoping review and mapping to the CanMEDS physician competency framework. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75275>
 29. Agarwal T, Muller MJC, Atkinson A, Bismilla Z. Qualitative evaluation of the contribution of CanMEDS roles in the development of area of focused competence diplomas. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75278>
 30. LaDonna KA, Kahlke R, Scott I, van der Goes T, Hubinette M. Grappling with key questions about assessment of the Health Advocate role. *Can Med Ed J*. 2023. <https://doi.org/10.36834/cmej.73878>
 31. Dagnone J, Glover-Takahashi S, Spadafora S, Whitehead C. Time's up for prioritizing Physician Humanism into CanMEDS. *Can Med Ed J*. 2023. <https://doi.org/10.36834/cmej.75106>
 32. Lang M, Hazelton L, Chan TM, Chen R, Leslie K. Intrinsically important: rebranding faculty development as a unifying key concept for CanMEDS 2025. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75261>
 33. Kim I, Saint-Georges Z, Cléophat LG. The importance of emphasizing role-modelling in the CanMEDS framework to enhance medical education. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.75273>
 34. Adam HL, Eady K, Moreau KA. Patient references in the 2005 and 2015 CanMEDS frameworks. *Can Med Educ J*. 2023. <https://doi.org/10.36834/cmej.74993>