

## Creating change: Kotter’s Change Management Model in action Créer le changement : application pratique du modèle de gestion du changement de Kotter

Lisa Graves,<sup>1,2</sup> Nancy Dalgarno,<sup>3</sup> Rob Van Hoorn,<sup>2</sup> Amber Hastings-Truelove,<sup>3</sup> Jeanne Mulder,<sup>3</sup> Klodiana Kolomitro,<sup>3</sup> Fran Kirby,<sup>2</sup> Richard van Wylick<sup>3</sup>

<sup>1</sup>Western Michigan University Homer Stryker M.D. School of Medicine, Michigan, USA; <sup>2</sup>Association of Faculties of Medicine of Canada, Ontario, Canada;

<sup>3</sup>Office of Professional Development and Educational Scholarship, Queen’s University, Ontario, Canada

Correspondence to: Lisa Graves, 1000 Oakland Drive, Kalamazoo MI 49008-8017; email: [lisa.graves@med.wmich.edu](mailto:lisa.graves@med.wmich.edu)

Published ahead of issue: Apr 3, 2023 CMEJ 2023 Available at <https://doi.org/10.36834/cmej.76680>

© 2023 Graves, Dalgarno, Van Hoorn, Hastings-Truelove, Mulder, Kolomitro, Kirby, van Wylick; licensee Synergies Partners. This is an Open Journal Systems article distributed under the terms of the Creative Commons Attribution License. (<https://creativecommons.org/licenses/by-nc-nd/4.0>) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is cited.

### Introduction

Large-scale innovations aimed at creating systems-level changes are complex and require buy-in and collaboration from diverse stakeholder groups. In this paper, we explore how we used the Kotter’s Change Management Model (KCMM)<sup>1,2</sup> to guide our curriculum development journey for a national online pain management and substance use disorder curriculum.

One in four Canadians currently experiences chronic pain,<sup>3</sup> and over prescription has contributed to an increase in addictions and overdoses.<sup>4-6</sup> Yet, medical schools lack a comprehensive pain management curriculum.<sup>6,7</sup> We addressed this gap by developing an online Canadian pain management and substance use disorder curriculum for undergraduate medical students.

### Conceptual framework

We framed this work through KCMM<sup>8-11</sup> by weaving the eight essential steps throughout our curriculum development initiative (Figure 1).<sup>1</sup> We developed the curriculum based on the eight KCMM change accelerators.<sup>1,2,12</sup>

#### 1. Creating a sense of urgency

The opioid crisis in Canada created an urgency for curricular redesign in Canadian undergraduate medical education (UGME) programs. To communicate this sense of urgency, the Association of Faculties of Medicine of Canada (AFMC), a national organization of all 17 Canadian Faculties of Medicine, invited key invested partners to

town hall meetings (i.e., Royal College of Physicians and Surgeons of Canada, College of Family Physicians of Canada, the Canadian Society of Palliative Care Physicians, Canadian Federation of Medical Students) where relevant issues and results from our initial needs assessment were discussed.

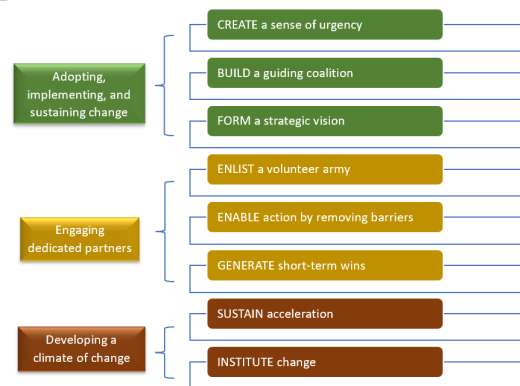


Figure 1. Kotter’s Change Management Model (adapted from Kotter, 1995; Kotter, 2012; Parston, McQueen, Patel et al., 2015)

#### 2. Build a guiding coalition

Each Canadian medical school is responsible for their curriculum, and building an evidence-based, flexible, bilingual national curriculum supported their efforts. We conducted a survey and two environmental scans to identify existing pain management curricula in medical school. Through the town halls, survey, and environmental scans, we began building a guiding coalition. National healthcare partners were recruited to participate in our curriculum design process. With the support of our

invested partners, Oversight and Curriculum Committees were created to guide our work. The Curriculum Committee included representation from all Canadian medical schools. It developed an outline for the content of the planned curriculum including topics and competency-based learning objectives.<sup>13</sup>

### 3. Forming a strategic vision and initiatives

Based on the environmental scans and survey, and in collaboration with both Committees, we created a strategic vision and initiatives to guide the development of a comprehensive curriculum. See Appendix A for the curriculum goals.

The Committees developed a structure of the curriculum which was informed by our previous initiatives. Identifying pain management and substance-use disorder related content which was presently available in UGME curricula allowed us to address both the identified gaps and best practices for teaching and learning, leading to our strategic vision and initiatives for this project.

### 4. Enlisting a volunteer army

Subject matter experts (SMEs) were recruited to develop 10 modules for the six topic areas defined by the Curriculum Committee. Once drafted, modules were reviewed by additional SMEs including Indigenous Peoples, Francophones, and interprofessional groups to ensure accuracy of content and identify issues of stigma surrounding this topic, and by medical students and residents to provide end-user perspectives. Additional reviewers ensured overall cohesion of the curriculum. Figure 2 identifies the ‘army of volunteers’ involved in this project.

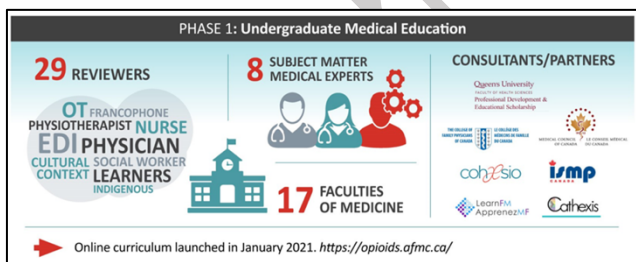


Figure 2. The army of volunteers in numbers

### 5. Enabling action by removing barriers

Moving the curriculum forward from concept to reality required removing barriers. Educational developers, instructional designers, instructional design assistants, graphic designers, and videographers oversaw the transformation of static content into interactive online modules and beta tested products. Our key goals were to

deliver a curriculum to a bilingual audience, to tailor it to meet the needs of each medical school’s context, and to allow easy integration into existing curricula. This allowed the curriculum to be implemented fully online or in a blended format. To ensure content update and continuous removal of barriers, we embedded a yearly quality improvement process.

### 6. Generating short-term wins

We made available the results of the needs assessment to all invested partners. The competencies were shared with all medical schools and were mapped to the relevant assessments. A mid-project summit of key partners and SMEs confirmed that we were meeting the project goals. During the pilot evaluation, students from each medical school met with institutional curriculum leads to provide feedback on the new curriculum. The pilot evaluation results identified significant increases in knowledge on all 72 learning objectives<sup>14</sup> and we shared these findings with all committees and undergraduate Deans. It is the communication and celebration of these short-term wins that demonstrated value for the work, and continued momentum.

### 7. Sustaining acceleration

A Transition Committee provided consultation to the feasibility of the competencies expected for medical students transitioning to residency. This Committee advised on the implementation process by identifying strategies to integrate and sustaining the new curriculum into the existing academic program of each medical school. Additionally, we consulted with the Medical Council of Canada to ensure that curriculum content was included in required licensing examinations to help sustain acceleration of the curriculum.

### 8. Instituting change

The January 2021 launch of the UGME curriculum was the final step to institute change. We provided a faculty development tool to support instructors in integrating the curriculum. Embedded into the curriculum was an outcomes-based evaluation that provided a process for determining if the curriculum was meeting its intended outcomes and the needs of learners with regards to the diagnosis, treatment, and management of pain and substance use disorders.

## Conclusions

The curriculum is one tool to address the opioid epidemic and help ensure that medical students are provided with a comprehensive foundation in pain management and opioid use disorder. The curriculum is now available to all Canadian medical students and is being evaluated. The KCMM model for developing this national curriculum is well suited as a model for other large-scale curriculum initiatives.

**Conflicts of Interest:** The authors have no conflicts of interest to disclose.

**Funding:** This project was funded by Health Canada, Substance Use and Addiction Program (SUAP).

**Acknowledgements:** The authors are grateful to Dr Sarita Verma for her contributions to the development of the curriculum process, and to all invested partners for their contributions to this successful project.

## References

1. Kotter JP. *Accelerate!* Harvard business review. 2012;90(11):44-52,54.
2. Kotter JP. *Leading change*. Harvard business review. 1995;2(1):1-10.
3. Schopflocher D, Taenzer P, Jovey R. The prevalence of chronic pain in Canada. *Pain Res Manag*. 2011;16(6):445-450. <https://doi.org/10.1155/2011/876306>
4. Belzak L, Halverson J. Evidence synthesis-The opioid crisis in Canada: a national perspective. Health promotion and chronic disease prevention in Canada: research, policy and practice. 2018;38(6):224. <https://doi.org/10.24095/hpcdp.38.6.02>
5. Florence C, Luo F, Xu L, Zhou C. The economic burden of prescription opioid overdose, abuse and dependence in the United States, 2013. *Medical care*. 2016;54(10):901. <https://doi.org/10.1097/MLR.0000000000000625>
6. Mezei L, Murinson BB, Team JHPCD. Pain education in North American medical schools. *J Pain*. 2011;12(12):1199-1208. <https://doi.org/10.1016/j.jpain.2011.06.006>
7. Verma S. FINAL Report on the AFMC response to the Canadian opioid crisis: The Association of Faculties of Medicine of Canada; 2017.
8. Auguste J. Applying Kotter's 8-step process for leading change to the digital transformation of an orthopedic surgical practice group in Toronto, Canada. *J Health Med Informat*. 2013;4(3):129. <http://dx.doi.org/10.4172/2157-7420.1000129>
9. Weiss PG, Li S-TT. Leading change to address the needs and well-being of trainees during the COVID-19 pandemic. *Acad pediatrics*. 2020;20(6):735-741. <https://doi.org/10.1016/j.acap.2020.06.001>
10. Kotter JP. *8 steps to accelerate change in your organization*, eBook2022.
11. Haas MR, Munzer BW, Santen SA, et al. # DidacticsRevolution: Applying Kotter's 8-Step Change Management Model to Residency Didactics. *West J Ed Med* 2020;21(1):65. doi: [10.5811/westjem.2019.11.44510](https://doi.org/10.5811/westjem.2019.11.44510)
12. Parston G, McQueen J, Patel H, et al. The science and art of delivery: accelerating the diffusion of health care innovation. *Health Affairs*. 2015;34(12):2160-2166. <https://doi.org/10.1377/hlthaff.2015.0406>
13. Kolomiro K, Graves L, Kirby F, et al. developing a curriculum for addressing the opioid crisis: a national collaborative process. *J med educ curricu develop*. 2022;9:23821205221082913. <https://doi.org/10.1177/23821205221082913>
14. Graves L, Turnnidge J, Hastings-Truelove A, Dalgarno N, Kirby F, van Wylick R. Piloting a national pain management and substance use curriculum for undergraduate medical education. *Can Med Ed J*. 2022;13(2):1. <https://doi.org/10.36834/cmej.75002>

## Appendix A. Curricular goals

1. To enhance pain and addictions management and treatment competencies in all medical school graduates.
2. To increase learner interest in choosing Pain and/or Addiction Medicine as their specialization; to foster faculty development in teaching and assessing pain management and addiction competencies across all specialties.
3. To develop a network of pain health educators and a resource repository of educational materials applicable to all disciplines.
4. To enhance relationship-building consistency and collaboration across all 17 Faculties of Medicine in Canada and their partners.

Published ahead of issue