Letter of Intent

for a New MD Program

January 2022

Ryerson University

University renaming in process:
In August 2021, the university announced that it would begin a renaming process to address the legacy of Egerton Ryerson and build a more inclusive future. Let's write the next chapter together.
https://www.ryerson.ca/next-chapter

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Executive Summary

Healthcare systems around the world are undergoing major transformations to address challenges around access to care, integration, prevention and complex care needs. Transformations include innovations in how care is delivered — for instance, team-based interprofessional care and the use of technology to expand access to health services — as well as innovations in the approach to care, including personalized medicine and preventative care. Alongside these changes, empowered, technologically savvy patients are being engaged as partners in their care experiences. In Ontario, these innovations are exemplified by team-based models of care. For instance, the Ontario Health Teams are accelerating changes to the scope of physicians' practices and increasing care coordination and collaboration across disciplines and sectors.

In spite of these exciting directions, Ontario is facing a shortage of primary care physicians who are unevenly distributed across communities, contributing to growing unmet care needs. Systemic inequities within the healthcare system pose an even greater barrier, as evidenced by the COVID-19 pandemic. The problem is particularly acute in Ontario due to the province's large, growing and diverse population. There are also gaps in how physicians are presently trained. Many physicians report that they are not sufficiently prepared to meet the diverse health and social needs of communities, be members of interprofessional teams, advance population health, use data effectively to improve patient outcomes and integrate new technology into their practice appropriately.

The urgent need to train physicians with different skills, knowledge and experiences is heightened as the healthcare sector evolves to become a more integrated, coordinated system. As the role of physicians changes, so should the training required to develop future doctors. A new MD program designed to address these needs and purpose-built on the CanMEDS framework will have an opportunity to contribute to important transformations in the health care system, while creating the conditions for improved access to high quality, appropriate care.

There is, in fact, significant precedent across the globe that supports the idea that a new approach to medical education is urgently needed to face the healthcare challenges of the 21st century. Health systems in New Zealand, United Kingdom and Australia have opted to build new medical schools, as opposed to adding seats to existing programs, in order to establish modernized medical programs designed around current and future needs. The advantage of creating a completely new medical school in Ontario is that its curriculum can incorporate models from beyond our borders, especially those that aim to train doctors interprofessionally and to prioritize equity and inclusion as a means of improving care.

In the March 2021 Provincial Budget, the Government of Ontario announced its financial support to the University in the planning for a proposal for a new institute of medical education in Brampton.[1] The City of Brampton, through a unanimous Committee of Council vote, matched this support in July 2021.[2] This Letter of Intent describes the University's proposal to create a

[1] Government of Ontario. Ontario's Action Plan: Protecting People's Health and Our economy. Queen's Printer for Ontario. Published 2021. Accessed November 30, 2021. https://budget.ontario.ca/2021/pdf/2021-ontario-budget-en.pdf

[2] City of Brampton. Ryerson University receives funding from the City of Brampton for School of Medicine; $1 million in funding from the City will help fund Ryerson's School of Medicine proposal. City of Brampton Media Release. Published July, 2021. Accessed December 8, 2021. https://www.brampton.ca/EN/City-Hall/News/Pages/Media-Release.aspx/943

Doctor of Medicine (MD) program that will provide a new approach to medical education — one that is community-driven, that is intentionally inclusive and that trains future-ready doctors.

The MD program would be located in a new, purpose-built facility in the City of Brampton. Brampton is one of Canada's most culturally diverse and fastest-growing cities.[3] In spite of this dynamism, its residents experience significant challenges with access to appropriate, high-quality primary care, challenges which are reflected across similar communities in Ontario and Canada, more broadly. On January 22, 2020, three months before the COVID-19 pandemic, Brampton City Council unanimously passed a motion to declare a Health Care Emergency in Brampton. Mayor Patrick Brown requested "immediate action and response from all health care system providers to address our community's urgent needs."[4] The COVID-19 pandemic increased the urgency for change and exacerbated health inequities. Peel witnessed approximately 7,970 cases per 100,000 people, while the Ontario average was approximately 3,705 cases per 100,000, as of August 2, 2021.[5] COVID-19 disproportionately affected neighbourhoods with the most essential workers and lowest income levels.[6] Yet, the pandemic also demonstrated that intentional community-engaged and patient-centred approaches are essential to address barriers that diverse populations may face to accessing care. As a result of these approaches, by December 2021, Brampton had one of the highest vaccination rates in Ontario.[7]

Disrupting the status quo and addressing the growing gaps in primary care require more than a few tweaks to medical education. That is why the University is an ideal home for a new medical program. Its history of bold thinking and innovation provide the environment necessary to effectively depart from a traditional model of medical education. Moreover, the proposed MD program and School of Medicine will not only complement and strengthen the University's long-standing leadership in the field of health education and scholarly, research and creative (SRC) activities, but it will also provide exciting opportunities to expand multi-disciplinary collaboration.

The University's proposed MD program will be an agent of change both in the way it prepares physicians for the future and in how the institution impacts care delivery at the community level in Ontario and, more broadly, across Canada. The MD program will adopt a purpose-built approach from the start, committed to the following core principles:

- To focus on community-centred primary care and the social factors that determine health and wellbeing.
- To provide more culturally respectful and sensitive care to a broad range of communities.
- To use technology to identify and address health issues sooner and more effectively.

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[3] About Brampton. City of Brampton. Published 2021. Accessed December 9, 2021. https://www.brampton.ca/en/City-Hall/Pages/About-Brampton.aspx

[4] City of Brampton. Brampton City Council declares a health care emergency. City of Brampton Media Release. Published January, 2020. Accessed December 8, 2021. https://www.brampton.ca/EN/City-Hall/News/Pages/Media-Release.aspx/692

[5] COVID-19 in Peel: Dashboard and information about the status of COVID-19. Region of Peel. Published 2021. Accessed December 8, 2021. https://www.peelregion.ca/coronavirus/case-status/

[6] Chagla Z, Ma H, Sander B, Baral SD, Mishra S. Characterizing the disproportionate burden of SARS-CoV-2 variants of concern among essential workers in the Greater Toronto Area, Canada. *medRxiv*. 2021:1-9. doi: https://doi.org/10.1101/2021.03.22.21254127

[7] Raza A. How Brampton went from a COVID-19 hotspot to one of Canada's most vaccinated communities. *CBC*. Updated November 30, 2021. Accessed December 8, 2021. https://www.cbc.ca/news/canada/toronto/brampton-covid-high-vaccinations-success-1.6264820

- To equip future doctors to work in an array of healthcare settings and networks that promote better patient outcomes.
- To support our aging population as it grows.

The MD program will seek out learners who want to become primary care physicians with a desire to practice in underserved areas, using a holistic admissions process that intentionally incorporates equity, diversity and inclusion (EDI), and that supports equitable opportunities for students from equity-deserving groups.

The program will also respond to the opportunity to shift the Canadian medical landscape by:

- systematically deploying social accountability in all aspects of the program
- embedding EDI and Reconciliation throughout the medical education program
- preparing emerging physicians as leaders in health system transformation
- leveraging emerging technologies in education and practice
- advancing international medical graduates into clinical practice
- strengthening team-based learning and teaching

Through innovative curriculum and pedagogy, the MD program will develop future-ready and culturally respectful physicians who will lead health systems change at the citizen and population level. The curriculum will be purposefully developed, community-informed, and evidence-based. It will be rooted in principles of community-driven care, cultural humility and safety, and social accountability, with EDI, Reconciliation and health equity intentionally embedded across all aspects of the program. The curriculum will also be founded on the integration of clinical, biomedical and health systems sciences. This integration will enable students to apply the knowledge they gain through the program and enhance their skills through academic experiences, such as longitudinal integrated clerkships and early clinical exposure in the community. For example, students will have an opportunity to participate in an interprofessional community clinic associated with the School of Medicine.

The University's commitment to social accountability is reflected by the approach taken to develop this proposal not just *for* the community but *with* the community. The University has extensive experience co-creating with diverse communities to solve societal problems. When developing community-based programs, the experiences of individuals, families and communities need to be centred from the beginning. That is why ongoing consultation and engagement with stakeholders and partners have been a core component of the proposal planning and development process. Feedback from members of the Brampton and Peel community shows strong support for the proposed School of Medicine and its core principles, with one Fall 2021 survey respondent indicating: "My hopes are that this school will change the face of health care and truly make health care about what the patients and community needs."

Introduction

In March 2021, the Government of Ontario announced that the upcoming budget would support the planning for a proposal for a new institute of medical education in Brampton.[8] In July 2021, this support was matched by the City of Brampton through a unanimous Committee of Council vote.[9] As such, this Letter of Intent describes the University's proposal to create a Doctor of Medicine (MD) program that will provide a new approach to medical education — one that is community-driven, that is intentionally inclusive and that trains doctors whose medical skills include excellence in care that reflects cultural awareness and humility. The MD program will develop future-ready physicians who will lead health system change at the citizen and population level. It will build upon the University's collaborative and purpose-driven ethos, as well as its expertise in urban health and aging, and its proven experience innovating professional education. From the outset, the MD program and new School of Medicine will be inclusive and responsive to diverse communities and informed by leading practices in medical education.

Equity, diversity and inclusion (EDI), social accountability, and Reconciliation anchor the proposed MD program. As defined by the World Health Organization, social accountability is "the obligation of medical schools to direct their education, research, and science activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve."[10] The University's MD program will have a particular focus on the needs of diverse and underserved communities in Ontario and Canada. EDI and Reconciliation will be embedded throughout the program and across all facets of the School of Medicine to foster a culture of inclusion and engagement, and to advance social justice.

What a new approach to medical education would look like

To support the province in strengthening healthcare and addressing the needs of underserved populations, five pillars form the foundation of the MD program:

- Focusing on community-centred primary care and the social factors that determine health and wellbeing.
- Providing more culturally respectful and sensitive care to a broad range of communities.
- Leveraging technology to identify and address health issues sooner and more effectively.
- Providing future doctors with the skills to develop interprofessional networks of health care to achieve better patient outcomes.
- Focusing on aging populations as a growing portion of our society gets older.

To advance these five pillars, the University will take a community-engaged approach to medical education, which will be another distinguishing feature of the proposed MD program. The University is partnering with communities to co-create the School of Medicine to ensure that its

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[8] Government of Ontario. Ontario's action plan: Protecting people's health and our economy. Queen's Printer for Ontario. Published 2021. Accessed November 30, 2021. https://budget.ontario.ca/2021/pdf/2021-ontario-budget-en.pdf

[9] City of Brampton. Ryerson University receives funding from the City of Brampton for School of Medicine; $1 million in funding from the City will help fund Ryerson's School of Medicine proposal. City of Brampton Media Release. Published July, 2021. Accessed December 8, 2021. https://www.brampton.ca/EN/City-Hall/News/Pages/Media-Release.aspx/943

[10] Boelen C, Heck JE; World Health Organization. Defining and measuring the social accountability of medical schools. World Health Organization. 1995. No. WHO/HRH/95.7. Accessed December 8, 2021. https://apps.who.int/iris/bitstream/handle/10665/59441/WHO_HRH_95.7.pdf?sequence=1&isAllowed=y

educational programs, scholarly, research and creative (SRC) enterprise, and service activities address priority health concerns.

In designing a medical school around these five pillars, and a commitment to social accountability, EDI, Reconciliation and community-engagement, the University is committed to establishing a world-class medical school that will deliver a unique educational experience for the physicians of tomorrow and will advance health equity to improve individual and population health.

The University is known for challenging conventional approaches to education and for its willingness to be unapologetically bold. Bold approaches are needed to address the growing unmet healthcare needs of Ontario's diverse population, as doing more of the same will not yield different results. Instead, the province and country require a new physician workforce that can deliver health outcomes defined by societal needs. Building a bold new kind of medical school goes beyond preparing future physicians to treat individual patients. At its core, establishing a new medical school is about health system transformation and advancing population health.

Alignment with the University's Vision, Mission, and Academic Plan

The University's deep-rooted values underpin its vision to be unapologetically bold, intentionally-inclusive and strategically nimble.[11] With its innovative approach to community care and focus on inclusivity, the new MD program aligns with these values. Moreover, the University has a track record of delivering innovative solutions to address societal needs, which is at the core of its mission: "the advancement of knowledge and research to address societal need, and the provision of programs of study that provide a balance between theory and application that prepare students for careers in professional and quasi-professional fields." The University will, therefore, enable change with respect to how its MD program prepares physicians for the future and how the institution impacts care delivery at the community level in Ontario and across Canada.

The University is a leader in shaping a sustainable and equitable future through tackling real-world problems, forging strong partnerships and fostering innovation solutions. Grounding this strategic direction are the University's objectives outlined in the Ryerson University Act (1977):

1. The advancement of learning, and the intellectual, social, moral, cultural, spiritual and physical development of the University's students and employees, and the betterment of society.
2. The advancement of applied knowledge and SRC activities in response to existing and emerging societal needs and in support of the cultural, economic, social and technological development of Ontario.
3. The provision of programs of study that provide a balance between theory and application and that prepare students for careers in professional and quasi-professional fields.

By serving as a city builder and innovator, the University's academic priorities are focused on the student experience, SRC activity and graduate studies, advancing Indigenous initiatives, innovation through continuing to challenge the status quo, and community and urban

[11] Strategic vision. Ryerson University. Office of the President. Updated 2021. Accessed December 8, 2021. https://vision.ryerson.ca/#innovation

partnerships. Through these activities, the University is committed to making an impact and driving meaningful change within its community, nationally and globally.

In alignment with the above outlined priorities and the University's Vision 2030 and Academic Plan (2020-2025), the proposed MD program and School of Medicine will have:

- EDI principles and Truth and Reconciliation Calls to Action embedded across all facets of the School of Medicine, including admissions, faculty and staff recruitment, educational programming, the learning environment, curriculum, SRC enterprise, and patient, family, and community engagement.
- A focus on preparing future medical doctors to address the unmet health needs of Ontario's and Canada's populations.
- A commitment to supporting the advancement of International Medical Graduates (IMGs) into clinical practice in order to better address the underutilization of IMGs, augment physician supply and enhance the diversity of the physician workforce to reflect the cultural diversity of Ontario's populations.
- Technology incorporated to enhance training delivery, increase learners' digital and data literacy, and provide practical experience to best equip the future physician.
- An impact-driven, person- and community-centered approach to SRC activities that addresses real-world health challenges and translates research and innovation efforts into practical teaching experiences for learners.
- Interprofessional practice and team-based learning and teaching that is strategically embedded in the School of Medicine's program from the beginning by leveraging community and multi-disciplinary partnerships.
- A holistic approach based on best practices in teaching and learning that prepares learners and faculty to be at the forefront of health system transformation, where emotional intelligence, cultural sensitivity, health leadership, and advocacy are foundational to teaching, learning and practicing.

Through these approaches, the MD program and School of Medicine will further the University's vision and will strengthen the University's commitment to making an impact and driving meaningful change within its community, in Canada, and in a global context.

The University is well-positioned to deliver on this vision given its proven ability to foster new ways of thinking, learning and innovating. Through its highly regarded experiential learning programs and entrepreneurial ecosystem, it has a long track record of making and responding to change, a recent example of which is the establishment of the Lincoln Alexander School of Law. This commitment to innovation takes shape in the University's curricular offerings, its integration of practice into the learning experience, and its intentional inclusion of diverse experiences and perspectives when addressing societal needs at both the local and global levels.

The School of Medicine will not only complement and strengthen the University's long-standing leadership in the field of health education and SRC activities, but it will also provide exciting opportunities to expand multi-disciplinary collaboration. Through collaboration and collective ambition, the University has an active and diverse SRC enterprise geared to solving societal problems and making an impact. For example, within the Faculty of Community Services, the University provides training and education and conducts SRC activities across several community health and clinical domains, including Child and Youth Care, Disability Studies, Early Childhood Studies, Midwifery, Nursing, Nutrition, Occupational and Public Health, and Social Work. Schools and departments in other faculties also have strengths in the field of health, such as the department of Psychology within the Faculty of Arts; the School of Health Services

Management and Master of Health Administration (Community Care), housed within the Ted Rogers School of Management (TRSM); the department of Electrical, Computer and Biomedical Engineering within the Faculty of Engineering and Architectural Science; the departments of Chemistry and Biology, as well as Physics, within the Faculty of Science; and the Professional Communication program, which has an optional focus on health communication, through the Creative School. Building on these strengths, in the future, the intention will also be to offer combined MD/graduate programs to allow learners to obtain degrees in both medicine (MD) and research or other professional programs (Masters / PhD) to prepare them for a variety of careers, such as medical administrators, clinician-scientists, physician-scientists and medical scientists. Potential combined MD/graduate programs include a focus on Urban Health, Health Administration inCommunity Care, BioMedical Physics and Biomedical Engineering.

In addition to academic units, the University has established a number of institutes and partnerships that also provide leadership in health education and SRC activity:

- The National Institute on Aging advances social, economic and public health policy related to aging.
- In partnership with St. Michael's Hospital,the Institute for Biomedical, Engineering Science and Technology (iBEST) generates novel testable healthcare solutions.
- The newly established Urban Health and Well-being Nexus was developed to implement the University's 2020 Health Scholarly, Research and Creative Activities Strategy. It supports collaborative, cross-disciplinary SRC activity and discovery aimed at co-designing and co-delivering solutions and services to address real-world health challenges and needs, while contributing to the development of a data and research-ready health and well-being workforce.
- The Biomedical Zone health tech incubator supports early-stage hospital-based health technology companies.
- The Creative School's Healthcare User Experience Lab (HUE) is a creative research space that uses human-centred principles of innovation, design, and strategic communication to solve healthcare challenges and to improve the healthcare experience for both patients and practitioners.
- In partnership with Trillium Health Partners, the MedTech Talent Accelerator prepares graduate students for employment within the complex Medical Technology industry.

The MD program and School of Medicine build not only on the University's excellence in health and current health partnerships, but also on its relationship with the City of Brampton. Brampton and the University have a history of partnering successfully with projects like the Rogers Cybersecure Catalyst and the Venture Zone in Brampton, both of which provide a strong foundation for future collaboration.

The University will leverage this foundation of training, SRC and partnerships to develop a new approach to medical education. The proposed focus on community-based care is a natural starting point for a university that is embedded in its communities, committed to social accountability, and inclusive of students, faculty, and staff from diverse backgrounds. The growth reported in the University's not-for-profit research income, which experienced a monumental increase of 726 per cent from 2013-17, is evidence of the University's success in establishing productive partnerships and collaboration.

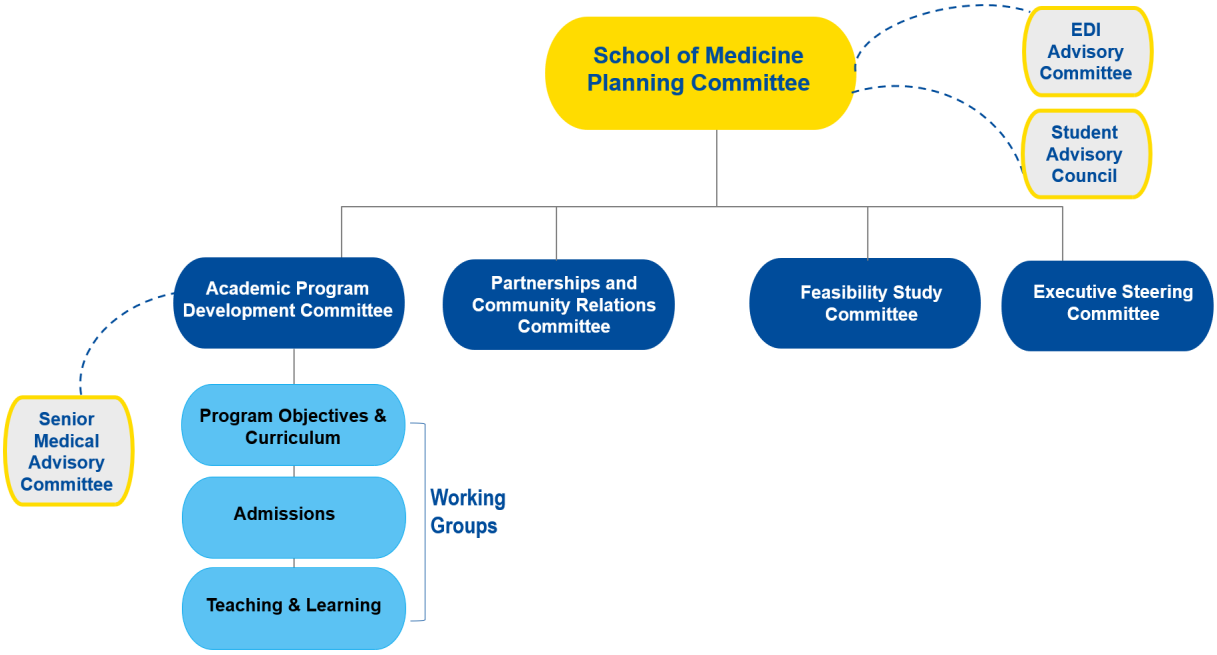
The University's experience in collaboration will ensure the new medical school is designed and delivered in an inclusionary way. This orientation towards collaboration will also ensure the MD program is focused on training workforce-ready graduates who are prepared to meet the

demands of today while keeping sight of emerging needs. To meet this goal, it is critical that learners are selected for and trained in a program built on both addressing societal needs and advancing the health system in a way that only a new MD program like the one being proposed can achieve.

School of Medicine Planning Committee Overview

The creation of a new School of Medicine impacts all aspects of the University; therefore, a School of Medicine Planning Committee (Figure 1) was established that comprises broad representation from across the institution. The School of Medicine Planning Committee has followed the Senate decision-making and approval processes including Senate Policy 112.

Figure 1: School of Medicine Planning Committee Overview



The Planning Committee has four dedicated sub-committees that have operated in parallel to complete the essential components of the LOI, including:

- **Academic Program Development Committee**, which led the drafting of the Letter of Intent.
- **Feasibility Study Committee**, which is responsible for completing a feasibility study that includes a review of the financial, space and resource requirements for a new School of Medicine.
- **Partnerships and Community Relations Committee** that oversees government relations and strengthens the University's community ties in Brampton as well as with potential partners.
- **Executive Steering Committee** that consists of the respective executive leads for the institution to share information and monitor progress.

The Planning Committee also has three advisory committees that provide unique knowledge and skills that augment the planning process, including:

- **Senior Medical Advisory Committee** to provide clinical expertise, support and guidance to the Academic Program Development Committee.
- **EDI Advisory Committee** to review the progress made towards the creation of an EDI strategy and action plan for the School of Medicine and to share their expertise and insight to guide the work.
- **Student Advisory Council** to contribute and provide the voices, experiences and insights of the University's students to the Planning Committee.

The complete Terms of Reference and membership lists for the School of Medicine Planning Committee, sub-Committees, and working and advisory groups can be found in Appendix A.

Per Senate Policy 112 and following the precedent set by the development of the Lincoln Alexander School of Law, the **Academic Program Development Committee** (APDC) serves as the "designated academic unit" and is responsible for developing and endorsing the Letter of Intent. The APDC includes representation from each Faculty, including the Yeates School of Graduate Studies, The Chang School of Continuing Education and the Library.

The APDC formed three working groups that each conducted a review of the recent scholarly literature in medical education related to teaching and learning, curriculum and admissions, with the goal of identifying emerging trends and best practices using the pillars of the School of Medicine as guiding principles. The working groups' findings, along with other reports, contributed to the "blueprint" of the program articulated in this proposal. On December 16, 2021, the APDC formally voted to endorse the Letter of Intent.

Dr. Steven N. Liss, Chair of the School of Medicine Planning Committee, served as the Dean of Record and endorsed the Letter of Intent before submitting it to the Vice-Provost Academic and Deputy Provost for review.

Program Governance Structure: Next Steps

We recommend that, upon approval from the provincial government to establish a School of Medicine and with the Provost's authorization to develop a full program proposal, the Provost and Vice-President Academic appoint an Interim Dean who has extensive experience and expertise in medical education and medical school administration. The Interim Dean's values and vision should align with those of the proposed School of Medicine, and the individual should have a demonstrated commitment to EDI and Reconciliation. We also recommend that the Interim Dean lead the full program proposal development through a collaborative process that builds on the committee structures used to create this Letter of Intent.

We propose that the MD program be housed in a newly created School of Medicine. The administrative and governance structure for the School of Medicine will be developed as part of the full program proposal. Like other medical schools in Canada, the School of Medicine would operate under the governance principles and policies of the parent University. Ultimately, the University Senate would be responsible for oversight of the MD program.

The intention is for the governance of the MD program to be overseen by a MD program Executive Committee which would be responsible for direction-setting and policy development for the program. The governance structure would include representation from the portfolio leads and would also be used to advance the values of the proposed school with dedicated leadership responsible for ensuring that equity, diversity and inclusion, Reconciliation and social accountability are embedded throughout all aspects of the school. The organizational and governance structure will also be designed to allow for meaningful community engagement and for student executive leads (class presidents) to be intentionally included. Each of the portfolios would be led by a Chair who is a faculty leader. Decision-making and activities of each portfolio would be coordinated by a committee which may have additional sub-committees where decision-making and work are further delegated.

New institutions across the globe are rethinking how they can meet accreditation requirements while leveraging governance models to better support the delivery of purpose-driven medical education. Newly established schools, including The University of Texas at Austin's Dell Medical School (United States), Hull York Medical School (United Kingdom) and Kaiser Permanente School of Medicine (United States), have adopted modern and innovative approaches to governance that are purposefully and thoughtfully aligned with the program's mission, vision, values and strategic objectives.[12] They have created structures to facilitate collaboration across traditionally siloed committees and ensure external community participation in curricular decisions.[13] The innovative approaches and thoughtful structures of these schools will serve as useful case studies as the MD program is designed. They also prove the value and potential impact of a new medical school.

While the details related to the administrative and governance structure for the School of Medicine will be developed as part of the full program proposal, the intention is that the School of Medicine and MD program will leverage a cross-functional governance model that fosters integration across disciplines, courses and years of the curriculum. This integrated governance approach will allow the proposed School to deliver on its mission and commitment to EDI and Reconciliation and create flexible, adaptive structures to ensure the curriculum can continuously and collaboratively evolve as societal needs change.

Resources will also be devoted in the operational model to support the array of programs, policies and practices needed to meaningfully integrate equity, diversity, and inclusion and Reconciliation into the School of Medicine and MD program. This requires institutional building blocks, such as the offices, committees, roles and responsibilities, and policies to ensure EDI and Reconciliation initiatives are appropriate, effective, aligned with one another, resourced and sustainable. Examples of this will include hiring key EDI and Indigenous Health leadership positions early on in the planning process and establishing offices to support this work.

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[12] Mission, vision & values. The University of Texas at Austin. Dell Medical School. Updated 2021. Accessed December 8, 2021. https://dellmed.utexas.edu/about/mission-and-vision;
Creating an inclusive, supportive community. The Office of Equity, Inclusion, and Diversity. Kaiser Permanente Bernard J. Tyson School of Medicine. Updated 2021. Accessed December 8, 2021. https://medschool.kp.org/about/equity-inclusion-and-diversity

[13] Code of practice on academic committees. Hull York Medical School. Updated 2021. Accessed December 8, 2021. https://hyms.ac.uk/assets/docs/codes-of-practice/code-of-practice-on-academic-committees.pdf

Societal Need

In Canada, access to healthcare is intended to be a right. Achieving this ideal, however, means overcoming a host of challenges. While a shortage of primary care physicians, and their uneven distribution across communities, contributes to growing unmet care needs, systemic inequities within the healthcare system pose an even greater barrier, as evidenced by the COVID-19 pandemic. The problem is particularly acute in Ontario due to the province's large, growing population.

In addition to physician shortages, there are gaps in how physicians are presently trained. Many practicing physicians report that they are not sufficiently prepared to meet the diverse health and social needs of communities, be members of interprofessional teams, advance population health, use data effectively to improve patient outcomes and integrate new technology into their practice appropriately.

Across the globe, numerous healthcare systems are evolving primary care through improved access, care delivery and attention to community needs. Concurrent with these global transformations, significant changes will be driven in Ontario through team-based models of care, particularly the emergence of Ontario Health Teams, which will accelerate changes to the scope of physicians' practices and increase care coordination and collaboration across disciplines and sectors. The urgent need to train physicians with different skills, knowledge and experiences is heightened as the healthcare sector evolves to become a more integrated, coordinated system. As the role of physicians changes, so should the training required to develop future doctors. A new MD program designed to address these needs will have an opportunity to contribute to important transformations in the healthcare system, while creating the conditions for improved access to high quality, appropriate care.

This section of the Letter of Intent will provide evidence of societal need for the proposed MD program by outlining the need for a new kind of physician who can address Ontario's complex, unmet healthcare needs, as well as the need for a different approach to medical education to train future physicians.

A new kind of physician is required to address Ontario's complex societal needs

Ontario, and Canada more generally, are committed to improving population health beyond individual-level care by reducing health inequities that are disproportionately experienced by certain groups as a result of social, economic and environmental factors. These commitments are grounded in the Ottawa Charter for Health Promotion, the international agreement organized by the World Health Organization, that identifies five key action areas for health promotion:

1. Building healthy public policy.
2. Creating supportive environments.
3. Strengthening community action.
4. Developing personal skills.
5. Reorienting health care services toward prevention of illness and promotion of health.[14]

[14] World Health Organization. Ottawa charter for health promotion, 1986. World Health Organization. Regional Office for Europe. Published1986. Accessed December 6, 2021. https://www.euro.who.int/__data/assets/pdf_file/0004/129532/Ottawa_Charter.pdf

The Public Health Agency of Canada defines the approach to population health as one that "aims to improve the health of the entire population and to reduce health inequities among population groups."[15] Both population health and primary care are well oriented to prevention work and grounded in community, and are foundational to the World Health Organization's primary healthcare model,[16] which encompasses:

> a whole-of-society approach to health that aims to maximize the level and distribution of health and well-being through three components: (a) primary care and essential public health functions as the core of integrated health services; (b) multisectoral policy and action; and (c) empowered people and communities.[17]

The relationship between public health and primary care is underutilized, and there are calls to improve the relationship between the two in order to better address the healthcare needs of populations and individuals by enhancing both sectors. A situational analysis recently done by the National Collaborating Centre for Determinants of Health determined that an improved relationship should not be equated with integration. Placing population health inside larger health care delivery structures can diminish its upstream focus. Instead, strategic partnerships between primary care and population health can address a wide range of overlapping services, shared populations and common interests.[18] A strong primary care system that focuses on population health is linked to better health outcomes, lower costs and fewer inequities.[19]

Ontario's advancement of the population health approach has been supported by the passing of the Patients First Act, as well as the development of Ontario Health Teams and other strategic initiatives, such as the focus on the Quadruple Aim.[20] The four objectives of the Quadruple Aim are:

1. Improving the patient and caregiver experience;
2. Improving the health of populations;
3. Reducing the per capita cost of health care; and,
4. Improving the work life of providers.[21]

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[15] What is the population health approach? Public Health Agency of Canada, Government of Canada. Updated 2012. Accessed December 5, 2021. https://www.canada.ca/en/public-health/services/health-promotion/population-health/population-health-approach.html

[16] Clement C, National Collaborating Centre for Determinants of Health. Establishing a new interface between public health and primary care: A curated list. *NCCDH*. St. Francis Xavier University. Published April, 2021. Accessed December 5, 2021. https://nccdh.ca/images/uploads/comments/Establishing-a-new-interface-between-public-health-and-primary-care-A-curated-list_EN.pdf

[17] World Health Organization, United Nations Children's Fund (UNICEF). A vision for primary health care in the 21st century: towards universal health coverage and the Sustainable Development Goals. Geneva (Switzerland). Published 2018. Accessed December 8, 2021. https://apps.who.int/iris/bitstream/handle/10665/328065/WHO-HIS-SDS-2018.15-eng.pdf?sequence=1&isAllowed=y

[18] Clement C, National Collaborating Centre for Determinants of Health. Reflections on the relationship between public health and primary care. Antigonish, NS: *NCCDH*, St. Francis Xavier University. Published 2021. Accessed December 5, 2021. https://nccdh.ca/images/uploads/comments/Reflections-on-the-relationship-between-public-health-and-primary-care_EN_2021.pdf

[19] Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q*. 2005;83(3):457-502. doi:10.1111/j.1468-0009.2005.00409.x

[20] Public Health Ontario. Strengthening a population health approach for health system planning. Public Health Units and LHINs Working Together for Population Health. Published May, 2018. Accessed December 5, 2021. https://www.publichealthontario.ca/-/media/documents/l/2018/lcdp-patients-first-final-report.pdf?sc_lang=en
Ontario Ministry of Health. A healthy Ontario: Building a sustainable healthcare system. Government of Ontario. Published June, 2019. Accessed December 5, 2021. https://files.ontario.ca/moh-healthy-ontario-building-sustainable-health-care-en-2019-06-25.pdf

[21] Ontario Ministry of Health. A healthy Ontario: Building a sustainable healthcare system. Government of Ontario. Published June, 2019. Accessed December 5, 2021. https://files.ontario.ca/moh-healthy-ontario-building-sustainable-health-care-en-2019-06-25.pdf

Although the benefits of a strong primary care system are well understood, Ontario continues to fall short of meeting the needs of its population given its challenges with delivering culturally respectful care to its diverse population and providing optimal access to physicians in underserved areas.

As the system copes with these growing challenges, the lack of access to care for some communities is creating the necessity for attention to equity. Additionally, the slow, uneven implementation of innovations and emerging technologies in healthcare is limiting the system's ability to proactively identify challenges and address patient needs at the population health level.[22] And as noted, the urgency for change is heightened by growing health inequities exacerbated by the COVID-19 pandemic. Brampton was one of the hardest hit cities by COVID-19.[23] Peel witnessed approximately 7,973 cases per 100,000 people, while the Ontario average was approximately 4,211 cases per 100,000, as of December 5, 2021.[24] Brampton made up 58.3% of all of Peel's cases.[25] COVID-19 disproportionately affected neighbourhoods with the most essential workers and lowest income levels.[26] While racialized individuals represent 63% of Peel's population, they composed 77% of Peel's COVID-19 cases.[27] South Asian, Latino and Black communities were disproportionately represented among COVID-19 cases compared to their respective share of the Peel population. For example, South Asians represent 32% of Peel's population but 45% of Peel's COVID-19 cases. Conversely, people who identify as white comprise 37% of Peel's population but only 23% of COVID-19 cases.[28] This disproportionate representation illustrates the ways existing health inequities impact communities.

The case for healthcare transformation, therefore, is clear. And, due to its complex societal needs, Ontario is poised to drive far-reaching and impactful change forward. To do this, Ontario requires a new kind of physician to support the Province in addressing its needs and obstacles.

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[22] Government of Canada. Advisory Panel on Healthcare Innovation. Unleashing innovation: Excellent Healthcare for Canada. Health Canada. Published July, 2015. Accessed December 7, 2021. https://www.canada.ca/content/dam/canada/health-canada/migration/healthy-canadians/publications/health-system-systeme-sante/report-healthcare-innovation-rapport-soins/alt/report-healthcare-innovation-rapport-soins-eng.pdf

[23] Fenn, K. 'The system failed the people of Brampton': How COVID-19 is taking a toll in hard-hit city. *CBC*. Published May, 2021. Accessed December 5, 2021. https://www.cbc.ca/radio/thecurrent/the-current-for-may-4-2021-1.6012904/the-system-failed-the-people-of-brampton-how-covid-19-is-taking-a-toll-in-hard-hit-city-1.6012995#:~:text=The%20Current-,'The%20system%20failed%20the%20people%20of%20Brampton'%3A%20How%20COVID,living%20in%20the%20Peel%20Region.

[24] COVID-19 in Peel - Dashboard and information about the status of COVID-19. Region of Peel. Updated 2021. Accessed December 5, 2021. https://www.peelregion.ca/coronavirus/case-status/;
All Ontario: Case numbers and spread. COVID-19; Government of Ontario. Updated 2021. Accessed December 5, 2021. https://covid-19.ontario.ca/data/case-numbers-and-spread

[25] COVID-19 in Peel - Dashboard and information about the status of COVID-19. Region of Peel. Updated 2021. Accessed December 5, 2021. https://www.peelregion.ca/coronavirus/case-status/

[26] Chagla Z, Ma H, Sander B, Baral SD, Mishra S. Characterizing the disproportionate burden of SARS-CoV-2 variants of concern among essential workers in the Greater Toronto Area, Canada. *medRxiv*. 2021:1-9. doi: https://doi.org/10.1101/2021.03.22.21254127

[27] Region of Peel. Novel coronavirus (COVID-19) Peel Health Surveillance. COVID-19 and the social determinants of health: Race and occupation. Region of Peel. Published August, 2020. Accessed December 5, 2021. https://www.peelregion.ca/coronavirus/_media/COVID-19-race-and-occupation.pdf

[28] Ibid.

The following section more specifically highlights the societal need for a new kind of physician given the following three challenges:

- Health needs of Ontario's growing and diverse population are going unmet.
- Ontarians face barriers to accessing primary care and physicians who understand and reflect the communities they serve.
- Physicians require new skills to be successful in evolving primary care models.

Ontario's Unmet Health Needs

The health needs of Ontario's growing and diverse population are going unmet. Primary care needs are increasing in volume and complexity,[29] and if current trends continue, there will be a shortage of primary care physicians.[30] Ontario's population is projected to increase by 35.8%, or almost 5.3 million, over the next 26 years, from an estimated 14.7 million on July 1, 2020, to over 20.0 million by July 1, 2046.[31] Net migration is projected to account for 86% of all population growth in the province over the 2020–2046 period, with natural increase accounting for the remaining 14%.[32] Ontario's population is not only growing, it is also aging. In 2016, 16.4% of Ontario's population was over 65; by 2041, this figure will rise to 25%.[33] Ontario's growing and aging population will increase the demand for, and complexity of, healthcare services, such as chronic care management.

Complicating these trends is the shortage of primary care physicians. Currently, 9% of Ontarians (1.3 million individuals) are not attached to a regular primary care provider, and as of 2019, two-thirds of Ontario primary care physicians are not accepting new patients.[34] Exacerbating this issue is the fact that Canada will face a wave of baby boomer physician retirements in the next decade. This change in physician demographics, coupled with expanding demand for care for an aging and growing population, will create a deficit of 31,500 primary care physicians across Canada within the next decade. Of these unfilled roles, approximately 12,200 will be in Ontario.[35] Even with technological advances to support increased efficiency, this will create an even larger gap in primary care provision.

While there is a need for more physicians, simply increasing physician supply is not enough to address access issues caused by the inequitable distribution of physicians across the province. Lack of access to a physician is a greater concern for people in rural and underserved areas. Approximately 14% of Ontario's population (1.8 million) live in rural areas, yet only 2.4% of medical specialists in Ontario practice in rural areas.[36] In Ontario alone, 140 communities have been identified as "medically underserviced," defined by difficulty attracting and retaining

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[29] Lee L, Heckman G. Meeting the challenge of managing seniors with multiple complex conditions: The central role of primary care. *CGS J.C*. 2012;2(2):23-27. Accessed December 7, 2021. http://canadiangeriatrics.ca/2012/09/volume-2-issue-2-meeting-the-challenge/

[30] Job prospects: Family physician in Canada. Job Bank, Government of Canada. Updated November, 2021. Accessed December 7, 2021. https://www.jobbank.gc.ca/marketreport/outlook-occupation/24431/ca

[31] Ontario population projections. Ministry of Finance, Government of Ontario. Updated August, 2021. Accessed December 7, 2021. https://www.ontario.ca/page/ontario-population-projections

[32] Ibid.

[33] Government of Ontario. Aging with confidence: Ontario's action plan for seniors. Queen's Printer for Ontario. Published 2017. Accessed December 7, 2021. https://files.ontario.ca/ontarios_seniors_strategy_2017.pdf

[34] Primary health care providers, 2019. Statistics Canada, Government of Canada. Published October 22, 2020. Accessed December 7, 2021. https://www150.statcan.gc.ca/n1/en/pub/82-625-x/2020001/article/00004-eng.pdf?st=eCO8v_3d

[35] Ibid.

[36] Sapru IS, Cassidy K, Sibbald SL. Perceived barriers to accessing specialized medical care in rural communities of Ontario: A pilot study. *Heal Nat Sci.* 2014;5:1-12. doi: https://doi.org/10.5206/wurjhns.2014-15.4

health care professionals.[37] But these challenges of physician and specialist distribution are also present in urban centers and suburban areas and disproportionately impact equity-deserving groups who are more likely to live in areas with fewer physicians.[38] One explanation for this challenge is physician preferences about where they work, which is often connected to exposure and preparedness during training.[39]

Comprehensive primary care needs among the province's diverse and underserved populations continue to go largely unmet due to systemic barriers. These barriers include challenges in accessing appropriate healthcare based on experiences of racism, language and migration status, ethnicity, age, income, sexual orientation/identity and geographical location, which ultimately perpetuate worse health status among the many members of Ontario's diverse communities. Contributing to these health inequities is a lack of physician preparedness to deliver culturally respectful care, along with a lack of primary care integration and coordination with non-physician healthcare services in the community to address non-medical factors that contribute to poor health outcomes.

Highlighted below are key unmet care needs experienced by different equity-deserving population groups that relate to limitations in physician's provision of care. While these categories are addressed separately below, individuals have multiple, intersecting identities that may exacerbate barriers to care and poor health outcomes.

Indigenous communities

Reconciliation and Indigenous health, in particular unmet care needs of Indigenous communities, require an understanding of Canada's history with Indigenous populations. Centuries of colonialism and the oppression of Indigenous populations have created systemic injustices leading to mental health challenges, substance abuse and chronic disease, and contribute to upstream structural and social causes of poor health.[40]

In addition to rural and remote access issues, access to care in urban centres also remains exclusionary and racist. Of Toronto's 23,000 Indigenous people, 28.5% have experienced discrimination by their provider.[41] Indigenous residents who have been exposed to discrimination are 3.1 times more likely to have unmet health needs compared to those who have not been discriminated against.[42]

Diverse Indigenous approaches to health are also not well understood or integrated into the healthcare system. This was a key Call to Action in the Truth and Reconciliation Report (TRC), which calls upon those who can effect change within the Canadian healthcare system to acknowledge the value of and increase the use of Indigenous healing practices in collaboration

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[37] Ibid.

[38] Bissonnette L, Wilson K, Bell S, Shah TI. Neighbourhoods and potential access to health care: The role of spatial and aspatial factors. *Health Place*. 2012;18(4):841-853. doi: https://doi.org/10.1016/j.healthplace.2012.03.007

[39] Szafran O, Myhre D, Torti J, Schipper S. Factors perceived to influence rural career choice of urban background family physicians: A qualitative analysis. *Can Med Educ J*. 2020;11(3):21-30. doi: https://doi.org/10.36834/cmej.56976

[40] Kim PJ. Social determinants of health inequities in Indigenous Canadians through a life course approach to colonialism and the residential school system. *Health Equity*. 2019;3(1):378-381. doi: https://doi.org/10.1089/heq.2019.0041

[41] Kitching GT, Firestone M, Schei B, et al. Unmet health needs and discrimination by healthcare providers among an Indigenous population in Toronto, Canada. *Can J Public Health*. 2020:40-49. doi: https://doi.org/10.17269/s41997-019-00242-z

[42] Ibid.

with healers and Elders when requested.[43] This requires meaningful commitment to cultural safety, something that has not yet been met.[44]

This lack of respect and understanding for cultural practices reflects the fact that healthcare has not adapted to serve the needs of Indigenous patients, families and communities, which is reflected in low utilization rates. Reasons for reluctance to access services include racism, "being treated as second class citizens," and importantly, a lack of Indigenous staff and use of appropriate cultural practices.[45]

While the many health injustices Indigenous communities in Canada have experienced must be recognized, these calls to action around Indigenous health are grounded in strengths-based approaches that highlight community resilience. Key to this strength are rich, diverse approaches to health that are based on a holistic understanding of health as a balance between the physical, mental, spiritual and emotional aspects of a person.[46] This understanding of health and well-being focuses on the importance of relationships, including social networks and a relationship to the environment.[47] When working with Indigenous patients and communities, physicians need to have the skills and knowledge to understand and apply a holistic framework.[48]

Black populations

Anti-Black racism is a key systemic barrier as both a determinant of health and in the context of healthcare access. Anti-Black racism has immediate and long-lasting impacts on Black communities' access to service, use of care and engagement with the health system. Black Canadians are the third-largest minority group in Canada; however, there is a notable lack of health data and research about this group.[49] Black women and girls report discriminatory experiences when engaging with their providers and concerns regarding a lack of anti-racism/anti-oppression skills and cultural humility of their providers.[50] Racism is a major cause of poor health and a barrier to access. Physicians are also not prepared to address the particular health experiences of people of African-ancestry. For instance, Ontario has the largest number of people in Canada with sickle cell disease, a genetic disease disproportionately affecting people of African descent, representing 57.1% of diagnosed cases. Nevertheless, family doctors do not have a robust understanding of the management of care for patients with the disease and have derogatory assumptions about its origins, which perpetuate damaging,

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[43] Truth, Reconciliation Commission of Canada. Canada's residential schools: The final report of the Truth and Reconciliation Commission of Canada. McGill-Queen's Press-MQUP; 2015.

[44] Turpel-Lafond ME, Johnson H. In plain sight: Addressing Indigenous-specific racism and discrimination in BC health care. *BC Studies*. 2021;209:1-236. doi: https://doi.org/10.14288/bcs.vi209.195283

[45] Tu D, Hadjipavlou G, Dehoney J, et al. Partnering with Indigenous Elders in primary care improves mental health outcomes of inner-city Indigenous patients: Prospective cohort study. *Can Fam Physician*. 2019;65(4):274-281. Accessed December 8, 2021. https://www.cfp.ca/content/cfp/65/4/274.full.pdf

[46] Waldram J. *Revenge of the Windigo: The construction of the mind and mental Health of North American Aboriginal Peoples*. University of Toronto Press; 2016.

[47] First Nations Information Governance Centre. Strengths-based approaches to Indigenous research and the development of well-being indicators. FNIGC Research Series. Published June, 2020. Accessed December 7, 2021. https://fnigc.ca/wp-content/uploads/2021/05/FNIGC-Research-Series-SBA_v04.pdf

[48] Ibid.

[49] Orridge C, Bernard C, Quaison G, Marshall LJ, Bailey P, Hinds R. Black experiences in health care symposium. Black Health Alliance. Published April, 2020. Accessed December 7, 2021. https://static1.squarespace.com/static/5a0d40298dd041f9a60bb3a7/t/5ea9a317983eca78fd95ee6d/1588175652047/Full+Report-+Black+Experiences+in+Health+Care+Symposium+2020.pdf

[50] Williams CC, Massaquoi N, Redmond M, et al. A report on accessing primary health care for Black women and women of colour in Ontario. Women's Health in Women's Hands Community Health Centre. Published 2011. Accessed December 7, 2021. https://www.whiwh.com/sites/default/files/everywomanmatters_April2011.pdf

race-based understandings of health.[51] This issue is compounded by the fact that a low proportion of physicians in Canada are Black. For instance, in Ontario, Black people comprise 2.3% of practicing physicians, yet 4.5% of Ontarians are Black.[52]

Immigrants and Refugees

Immigrants' barriers to accessing appropriate care include shortages of primary care physicians who can speak their preferred language, cultural differences in service expectations, systemic racism and information barriers with respect to health system navigation.[53] Access to basic care is extremely challenging for individuals with ambiguous migration status or who lack documents in Canada.[54] Refugees also have unique health needs and may encounter similar barriers to accessing care because of cultural differences, lack of social support, high costs of medication and provider biases.[55] South Asians are the largest immigrant population in Ontario and very internally diverse but tend to be grouped with other racialized groups as a collective, thereby limiting the extent to which their unique health needs and diversity in experiences are appropriately served.[56] Additionally, this population has a greater prevalence of diabetes, hypertension and mortality compared to other populations.[57]

Aging Populations

The Canadian population of those over 65 years of age is estimated to account for one in four Canadians.[58] Currently, 17% of the population comprises Canadians over 65 and represent almost 44% of all public-sector health care dollars spent by provinces and territories.[59] As the

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[51] Black Health Alliance. Supporting patients first: Ontario health equity and Black health strategy working in partnership to advance the health & well-being of the Black community: a proposal to strengthen patient-centred health care in Ontario. Published 2016. Accessed December 8, 2021. https://blackhealthalliance.ca/wp-content/uploads/Supporting-Patients-First_BHA-1.pdf

[52] Mpalirwa J, Lofters A, Nnorom O, Hanson MD. Patients, pride, and prejudice: Exploring Black Ontarian physicians' experiences of racism and discrimination. *Acad Med*. 2020;95(11):51-57. doi: 10.1097/ACM.0000000000003648

[53] Muggah E, Dahrouge S, Hogg W. Access to primary health care for immigrants: Results of a patient survey conducted in 137 primary care practices in Ontario, Canada. *BMC Fam Pract*. 2012;13:128. doi: 10.1186/1471-2296-13-128;
Pollock G, Newbold B, Lafrenière G, Edge S. Perceptions of discrimination in health services experienced by immigrant minorities in Ontario. Welcoming Communities Initiative. Published 2011. Accessed December 7, 2021. http://p2pcanada.ca/files/2015/09/Perceptions-of-Discrimination-in-Health-Services-Experienced-by-Immigrant-Minorities-in-Ontario.pdf

[54] Campbell RM, Klei AG, Hodges BD, Fisman D, Kitto S. A comparison of health access between permanent residents, undocumented immigrants and refugee claimants in Toronto, Canada. *J Immigr Minor Health*. 2014;16(1):165-176. doi: 10.1007/s10903-012-9740-1;
Magalhaes L, Carrasco C, Gastaldo D. Undocumented migrants in Canada: A scope literature review on health, access to services, and working conditions. *J Immigr Minor Health*. 2010;12(1):132-151. doi: 10.1007/s10903-009-9280-5

[55] Woodgate RL, Busolo DS, Crockett M, Dean RA, Amaladas MR, Plourde PJ. A qualitative study on African immigrant and refugee families' experiences of accessing primary health care services in Manitoba, Canada: it's not easy. *International journal for equity in health*. 2017;16(1):5-5. doi: 10.1186/s12939-016-0510-x

[56] Islam T, Selvaratnam I, Shan N. Building an effective South Asian health strategy in Ontario. Paper Presented at: Council of Agencies Serving South Asians 3rd Annual Health Equity Conference; November 5, 2013; Toronto, ON. Accessed December 8, 2021. https://pchs4u.com/documents/research-reports-and-resources/CASSAs-South-Asian-Strategy-Report.pdf

[57] Rana A, de Souza RJ, Kandasamy S, Lear SA, Anand SS. Cardiovascular risk among South Asians living in Canada: A systematic review and meta-analysis. *CMAJ Open*. 2014;2(3):183-191. doi: 10.9778/cmajo.20130064

[58] National Institute on Ageing. An evidence informed national seniors strategy for Canada. Published 2020. Accessed December 9, 2021. http://nationalseniorsstrategy.ca/wp-content/uploads/2020/09/NSS_2020_Third_Edition.pdf

[59] Canadian Institute of Health Information. National health expenditure trends, 1975 to 2019. Published 2019. Accessed December 9, 2021. https://www.cihi.ca/sites/default/files/document/nhex-trends-narrative-report-2019-en-web.pdf

population continues to age faster than before, there are opportunities and challenges to provide and improve healthcare for this group. The COVID-19 pandemic has exposed Canada's vulnerabilities in providing care to an aging population. For instance, 80% of all COVID-19 deaths in Canada occurred amongst older Canadians in nursing and retirement home settings.[60]

Canada's population is not only aging; Canadians are also living longer than ever before. Thus, the healthcare system needs to adapt to the changing needs of the population. For example, there is a need for a comprehensive health care system that includes physicians and hospital care but also emphasizes the provision of preventative care, pharmacare, and long-term care, which includes home, community and nursing home care.[61] There is a need to ensure that older Canadians have access to care providers who are trained to specifically provide the care they need. Emergency department (ED) use among older adults is a strong indicator of healthcare access and experience, given the likelihood of an individual using an ED is much higher if they lack access to a primary care provider. Of the 4,629,120 Ontarians over the age of 55, 40% have gone to the ED for a condition that could have been treated by a family doctor.[62] Currently, there is only one certified geriatrician for every 14,689 older Canadians,[63] with four provinces and territories reporting having either none or only one geriatrician to serve their entire population.[64] There is clearly a disconnect between the needs of the aging population, the greatest users of the health care system, and current training provisions.

There are a number of reasons why there is a shortage of geriatric specialists, including the fact that it has historically been a lower paid specialty, not been a prominent area of focus in medical school curricula and not had sufficient residency training programs.[65] While 11 out of 17 Canadian medical schools offer accredited geriatric residency programs,[66] there are no medical schools in Ontario that currently offer core training in geriatrics. Every Ontario medical school does, however, offer core training in pediatrics despite the fact that the majority of patients in the health system are likely to be older people.[67]

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[60] Canadian Institute for Health Information. Pandemic experience in the long-term care sector: How does Canada compare to other countries. Published 2020. Accessed December 9, 2021. https://www.cihi.ca/sites/default/files/document/covid-19-rapid-response-long-term-care-snapshot-en.pdf

[61] National Institute on Ageing. An evidence informed national seniors strategy for Canada. Published 2020. Accessed December 9, 2021. http://nationalseniorsstrategy.ca/wp-content/uploads/2020/09/NSS_2020_Third_Edition.pdf

[62] Census profile, 2016 Census. Statistics Canada. Updated June 18, 2019. Accessed December 9, 2021.https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E; Peckham A, Kriendler S, Church J, Chatwood S, Marchildon G. Primary care reforms in Ontario, Manitoba, Alberta, and the Northwest Territories: A rapid review prepared for the Canadian foundation for healthcare improvement. Published April 25, 2018. Accessed December 9, 2021. https://ihpme.utoronto.ca/wp-content/uploads/2018/09/NAO-Rapid-Review-2-_EN.pdf

[63] Population estimates on July 1st, by age and sex. Statistics Canada. Published September 29, 2021. Accessed December 9, 2021. https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501

[64] The Canadian Medical Association. Geriatric Medicine Profile. Updated December 2019. Accessed December 9, 2021. https://www.cma.ca/sites/default/files/2019-01/geriatric-e.pdf

[65] Meiboom AA, de Vries H, Hertogh CM, Scheele F. Why medical students do not choose a career in geriatrics: a systematic review. *BMC Med Educ*. 2015;15:101. doi: 10.1186/s12909-015-0384-4; Ensuring older Canadians have access to care providers that are trained to specifically provide the care they need. National Seniors Strategy. Updated 2021. Accessed December 10, 2021. http://nationalseniorsstrategy.ca/the-four-pillars/pillar-3/access-to-care-providers/

[66] CanERA – Canadian excellence in residency accreditation. Royal College of Physicians and Surgeons of Canada. Published 2019. Accessed December 9, 2021. https://www.royalcollege.ca/rcsite/accreditation-pgme-programs/accreditation-residency-programs-e

[67] Monette M, Hill A. Arm-twisting medical schools for core geriatric training. *CMAJ*. 2012;184(10):E515-E516. doi: 10.1503/cmaj.109-4195

Socioeconomic status

Individuals with higher socioeconomic status (SES) are 50% more likely to be offered a primary care appointment than individuals living on low-incomes.[68] This points to discrimination by physicians' offices based on SES, rather than the actual health needs of an individual, such as the presence of complex chronic conditions.[69] Clinician perceptions of a patient's SES impact clinical decision-making and, by extension, affect the quality of care received. Patients living in poverty also tend to have shorter consultation times than their more affluent counterparts and are less likely to be engaged in their treatment decisions.[70] This pattern of discrimination may explain why lower income groups tend to have higher rates of first contact for an illness at the ED rather than with a provider.

Gender and Sexual Minorities

2SLGBTQ+ communities in Canada experience worse health outcomes than their cisgender, heterosexual counterparts and are less likely to have a primary care provider.[71] Racism and other forms of discrimination in the health system are closely connected to delays in accessing care and to delays in diagnosis.[72] This is only one example of the many ways individuals from equity-deserving groups encounter discrimination and lack of preparedness in the health system. For instance, 2SLGBTQ+ health users, particularly people who identify as transgender, describe experiences of discrimination and health professionals' lack of training.[73] Medical practitioners are, in fact, inadequately prepared to address the needs of this population. Research has shown that they may have little to no training in the needs of 2SLGBTQ+ patients and are ill-prepared to provide care.[74] There is, furthermore, a lack of trans-specific education for medical trainees, which creates further discrimination and barriers for trans adults who are seeking primary care.[75] Additionally, it has been found that, even with limited data on this

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[68] Olah ME, Gaisano G, Hwang SW. The effect of socioeconomic status on access to primary care: An audit study. *CMAJ*. 2013;185(6):E263-E269. doi: 10.1503/cmaj.121383

[69] Ibid.

[70] Bloch G, Rozmovits L, Giambrone B. Barriers to primary care responsiveness to poverty as a risk factor for health. *BMC Fam Prac*. 2011;12:62, 1-6. Accessed December 10, 2021. https://bmcfampract.biomedcentral.com/articles/10.1186/1471-2296-12-62

[71] Sherbourne Health & Rainbow Health Ontario. Health equity impact assessment: LGBT2SQ populations supplement. Published 2018. Accessed December 9, 2021.https://www.health.gov.on.ca/en/pro/programs/heia/docs/heia_lgbt2sqpopulations_en.pdf

[72] Hoernke K. A socially just recovery from the COVID-19 pandemic: a call for action on the social determinants of urban health inequalities. *J R Soc Med*. 2020;113(12):482-484. doi: 10.1177/0141076820948817

[73] Gibson AW, Gobillot TA, Wang K, et al. A novel curriculum for medical student training in LGBTQ healthcare: a regional pathway experience. *J. med. Educ.* 2020;7:1-7. doi: https://doi.org/10.1177/2382120520965254;
Dudar KJ, Ghaderi G, Gallant J, Dickinson J, Abourbih J, Briggs M. Queering the medical curriculum: how to design, develop, deliver and assess learning outcomes relevant to LGBT health for health care professionals. *MedEdPublish.* 2018;7(1):1-10. doi: https://doi.org/10.15694/mep.2018.0000048.1;
O'Leary KB, Kunkel GH. Restructuring LGBTQ curriculum in medical schools. *Acad Psychiatry*. 2021;45(4):487-490. doi: 10.1007/s40596-021-01414-1;
Vermeir E, Jackson LA, Marshall EG. Barriers to primary and emergency healthcare for trans adults. *Cult Health Sex*. 2018;20(2):232-246. doi: 10.1080/13691058.2017.1338757

[74] Gibson AW, Gobillot TA, Wang K, et al. A novel curriculum for medical student training in LGBTQ healthcare: a regional pathway experience. *J. med. Educ.* 2020;7:1-7. doi: https://doi.org/10.1177/2382120520965254;
Dudar KJ, Ghaderi G, Gallant J, Dickinson J, Abourbih J, Briggs M. Queering the medical curriculum: how to design, develop, deliver and assess learning outcomes relevant to LGBT health for health care professionals. *MedEdPublish*. 2018;7(1):1-10. doi: https://doi.org/10.15694/mep.2018.0000048.1

[75] Vermeir E, Jackson LA, Marshall EG. Improving healthcare providers' interactions with trans patients: recommendations to promote cultural competence. *Healthc Policy*. 2018;14(1):11-18. doi: 10.12927/hcpol.2018.25552;
O'Leary KB, Kunkel GH. Restructuring LGBTQ curriculum in medical schools. *Acad Psychiatry*. 2021;45(4):487-490. doi: 10.1007/s40596-021-01414-1

population, 2SLGBTQ+ medical students are more likely to conceal their identity due to lack of supportive environments and fear of discrimination from both peers and faculty within the North American context.[76]

People with Disabilities

People with disabilities have worse health outcomes across a broad range of health indicators and social determinants of health. As an example, women who experience mobility limitations are less likely to be current in obtaining mammograms and Pap tests.[77] Challenges in accessing health care, as well as experiences with discrimination, can create a cycle that leads to additional chronic conditions, poorer health and increasing functional limitations.[78] In addition to experiencing barriers accessing high-quality care, people with disabilities also contend with a system based on ableist assumptions that can have profound implications for their health and well-being.[79]

Homelessness

Individuals who are precariously housed have unique health needs and encounter significant challenges to accessing care. For instance, they have higher rates of chronic disease, mental health challenges, substance use, injuries and malnourishment than the overall population.[80] Barriers to care include lack of a fixed address, frequent movement, lack of identity cards and limited access to non-ED medical services.[81] A primary barrier to accessing healthcare is not having access to a primary care provider. Fewer than 40% of those experiencing homelessness in a Toronto community sample reported having a primary care provider.[82] People experiencing homelessness tend to have multiple needs that require coordination of care between a number of health professionals; however, fragmented care often occurs due to challenges accessing patient records and documentation. There is a lack of a standardized pathway for care for people experiencing homelessness, with healthcare professionals focusing more often on crisis management and less often on preventative or long-term health.[83] While there is an interest in care and having a primary care provider, trust, stigma and care process issues have been reported as reasons for delaying care.[84] People who are precariously housed may feel stigmatized, making them feel not listened to or treated as individuals. They may also be given unrealistic, inappropriate or impractical advice, thus discouraging them from seeking care. As a

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[76] Mansh M, White W, Gee-Tong L, et al. Sexual and gender minority identity disclosure during undergraduate medical education: "in the closet" in medical school. *Acad Med*. 2015;90(5):634-644. doi: 10.1097/ACM.0000000000000657

[77] Krahn GL, Walker DK, Correa-De-Araujo R. Persons with disabilities as an unrecognized health disparity population. *Am J Public Health*. 2015;105 Suppl 2(Suppl 2):S198-S206. doi: 10.2105/AJPH.2014.302182

[78] Ibid.

[79] Kuper H, Heydt P. The missing billion: access to health services for 1 billion people with disabilities. London School of Hygiene & Tropical Medicine. July, 2019. Accessed December 8, 2021. https://www.lshtm.ac.uk/TheMissingBillion;
Andrews EE, Ayers KB, Brown KS, Dunn DS, Pilarski CR. No body is expendable: Medical rationing and disability justice during the COVID-19 pandemic. *Am Psychol*. 2021;76(3):451-461. doi: 10.1037/amp0000709

[80] Chronic illnesses/diseases and mortality. Canadian Observatory on Homelessness. Published 2019. Accessed December 9, 2021. https://www.homelesshub.ca/about-homelessness/health/chronic-illnessesdiseases-and-mortality

[81] Eavis C. The barriers to healthcare encountered by single homeless people. *Prim Health Care*. 2018;28(1):26. doi: 10.7748/phc.2018.e1335

[82] Hwang SW, Ueng JJ, Chiu S, et al. Universal health insurance and health care access for homeless persons. *Am J Public Health*. 2010;100(8):1454-1461. doi: 10.2105/AJPH.2009.182022

[83] Eavis C. The barriers to healthcare encountered by single homeless people. *Prim Health Care*. 2018;28(1):26. doi: 10.7748/phc.2018.e1335

[84] O'Toole TP, Johnson EE, Redihan S, Borgia M, Rose J. Needing primary care but not getting it: The role of trust, stigma and organizational obstacles reported by homeless veterans. *J Health Care Poor Underserved*. 2015;26(3):1019-1031. doi: 10.1353/hpu.2015.007

result, individuals experiencing homelessness may avoid accessing health services due to fear of being discriminated against.[85] This situation is compounded for individuals who are also experiencing health challenges related to addictions and mental health.

Factors contributing to these distinct unmet care needs

The unmet health needs of equity-deserving groups are grounded in social determinants of health like racism, income, and employment status, and they are exacerbated by the fact that healthcare providers feel unprepared to address the health needs of Canada's diverse populations. Practicing primary care physicians and medical students have identified providing care for patients from diverse cultures as a challenge and knowledge gap. For instance:

- 44% of Canadian primary care physicians have reported frequent difficulty communicating with patients whose first language is not English and difficulty accessing interpreters, which can lead to reduced quality of care.[86]
- Residents across specialties report feeling only somewhat prepared to care for patients from diverse cultures. Residents report feeling somewhat unprepared to somewhat prepared to treat patients whose beliefs are at odds with the Western health system, such as supporting cultural practices involved in treating Indigenous populations.[87]
- Within family medicine practice, residents receive very little or some instruction on determining how a patient wants to be interacted with, how to identify mistrust of the physician or system given previous negative experiences and how religious beliefs or cultural customs might affect care.[88]
- Only 33% of Ontario physicians feel well-prepared to manage palliative care needs, and only 35.8% feel well-prepared to care for patients with dementia.[89]
- One in four primary care physicians do not feel equipped to manage severe mental health conditions. This is a major concern, given that 80% of Canadians with mental health concerns use their primary care provider as a first point of contact and over 50% of primary care physicians often see patients with severe mental health problems.[90] Prior to the pandemic, one in five people in Canada experienced a mental health problem or illness. The pandemic has significantly impacted mental health of individuals with rises in addictions and mental health concerns.[91] Rates of opioid-related deaths have risen

[85] Health Quality Ontario. Interventions to improve access to primary care for people who are homeless: A systematic review. *Ont Health Technol Assess Ser*. 2016;16(9):1-50. Accessed December 9, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4832090/
[86] de Moissac D, Bowen S. Impact of language barriers on quality of care and patient safety for official language minority Francophones in Canada. *J Patient Exp*. 2019;6(1):24-32. doi:10.1177/2374373518769008
[87] Singh B, Banwell E, Groll D. Canadian residents' perceptions of cross-cultural care training in graduate medical school. *Can Med Educ J.* 2017;8(4):e16-e30. Accessed DEcember 8, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5766216/pdf/cmej-08-16.pdf
[88] Ibid.
[89] Canadian Institute for Health Information. How Canada compares: Results from the commonwealth fund's 2019 international health policy survey of primary care physicians. Published January 2020. Accessed December 9, 2021. https://www.cihi.ca/sites/default/files/document/cmwf-2019-accessible-report-en-web.pdf
[90] Canadian Institute for Health Information. Health system resources for mental health and addictions care in Canada. Published 2019. Accessed December 9, 2021. https://www.cihi.ca/sites/default/files/document/mental-health-chartbook-report-2019-en-web.pdf
[91] Ontario Medical Association. Prescription for Ontario: Doctors' 5-point plan for better health care. Published 2021. Accessed December 7, 2021. https://www.oma.org/uploadedfiles/oma/media/public/prescription-for-ontario-doctors-5-point-plan-for-better-health-care.pdf

throughout the province during the pandemic, with rates more than doubling in 15 of 34 Public Health Units and Peel Region seeing one of the largest increases.[92]

These gaps in physicians' and learners' current skill sets, capabilities and experiences must be addressed to meet the needs of Ontario's diverse population. As such, physicians need greater training to become:

- Highly skilled in caring for patients of diverse cultures, which will require extensive practical experience and training during medical education to develop skills in emotional and cultural intelligence. This will also require promoting Reconciliation and advancing of Indigenous-led partnerships and knowledge in primary and community care, beginning in medical education.[93]
- A health advocate that provides appropriate healthcare through more effective communication skills and a commitment to cultural safety.
- Comfortable with, and prepared to, attend to the needs of Ontario's aging population.
- Adept at managing mental health conditions from diagnosis through to treatment in a trauma-informed manner that is centred on patient engagement.

Brampton serves as an ideal location for a new medical school

To train a new kind of physician to address modern societal needs, the proposed MD program needs to be in a region where these needs converge. Ontario has a growing, multicultural population with a high prevalence of unmet care needs across various equity-seeking populations. Exposure to these population characteristics is critical to training the physician of the future. Moreover, challenges in accessing comprehensive primary care are experienced in diverse and underserved communities across Ontario. This is why Brampton serves as the ideal location for a new MD program and School of Medicine: Ontario's needs are reflected in the needs of Brampton.

Brampton is one of Canada's most culturally diverse and fastest-growing cities.[94] In spite of this dynamism, its residents experience significant challenges with access to appropriate, high-quality primary care — challenges which are reflected across similar communities in Ontario and Canada, more broadly. Brampton's demographic and health profile provides a microcosm of the societal need that the MD program intends to serve.

- 52.5% of Brampton's population are immigrants[95], among them 39,915 are newcomers who arrived in Canada between 2011 and 2016.[96] The city's population is expected to grow by 30.2% to ~890,000 by 2041, largely as a result of immigration.[97]

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[92] Gomes T, Murray R, Kolla G, Leece P, Bansal S, Besharah, et al. Changing circumstances surrounding opioid-related deaths in Ontario during the COVID-19 pandemic. Public Health Ontario. Published May 2021. Accessed December 9, 2021. https://www.publichealthontario.ca/-/media/documents/c/2021/changing-circumstances-surrounding-opioid-related-deaths.pdf?sc_lang=en

[93] Allen L, Hatala A, Ijaz S, Courchene ED, Bushie EB. Indigenous-led health care partnerships in Canada. *CMAJ*. 2020;192(9):E208-E216. doi: 10.1503/cmaj.190728

[94] About Brampton. City of Brampton. Updated 2021. Accessed December 9, 2021. https://www.brampton.ca/en/City-Hall/Pages/About-Brampton.aspx

[95] Immigration & ethnocultural diversity. City of Brampton. Updated 2021. Accessed December 9, 2021. https://geohub.brampton.ca/pages/profile-diversity

[96] Census profile, 2016 census Brampton, City [census subdivision], Ontario and Ontario [Province]. City of Brampton. Published November 29, 2017. Accessed December 9, 2021. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/Page.cfm?Lang=E&Geo1=CSD&Code1=3521010&Geo2=PR&Code2=35&Data=Count&SearchText=Toronto&SearchType=Begins&SearchPR=01&B1=All

[97] Population & dwelling. City of Brampton. Published 2018. Accessed December 9, 2021. https://geohub.brampton.ca/pages/profile-pop-dwelling

- Brampton's population has ties to 234 ethnocultural groups which encompass 89 different languages. The three most spoken languages other than English are Punjabi, Urdu, and Gujarati.[98] The three largest racialized groups are South Asian (261,705), Black (82,175) and Filipino (20,100).[99]
- As of 2016, 4,330 residents in Brampton identify as Indigenous (representing a 26.4% increase from 2011).[100]
- The combination of sociodemographic and socioeconomic factors drives current disparities in access to healthcare in Brampton. Individuals in the low-middle income group (78%) are less likely to report having a regular physician compared to the highest income group (95%).[101]
- Demands for primary care are anticipated to increase as Brampton's high rates of chronic disease continue to grow. Currently, 38% of Brampton residents aged 12 and older have at least one chronic disease.[102] The fastest growing chronic disease in Canada is diabetes mellitus.[103] When compared to all of the provinces in Canada, Ontario is projected to have the largest increase in diabetes cases over the next decade.[104] The projected cost of diabetes in Peel alone is estimated to be $689 million in 2024.[105]

These unique health needs were also a key takeaway from the University's community consultations with members of the Brampton and Peel communities that took place in Fall, 2021. The consultations were developed to inform community members about the proposed School of Medicine, address questions, and, most importantly, learn about the potential benefits of the proposed School, health challenges in the region and what community partnerships with a School of Medicine might look like. A total of 6,751 individuals took part: 254 in an online survey and 6,497 through Town Halls and similar events. An additional 167 organizations, along with 128 Brampton and Peel community members, took part in focussed consultations, and over 200,000 individuals were reached through television, radio and targeted Google advertisements.

According to participants in an online survey, the five greatest health challenges in Brampton and Peel are, in order of community members' own priorities:

- healthcare needs of aging populations
- inability to find a family doctor
- mental health and addictions
- non-medical factors that influence health (e.g., income, education, housing affordability)
- specific diseases or conditions (e.g., diabetes and cardiovascular disease)

Community members also shared the following in town halls and through the online survey:

- "Much of the population of Brampton comes from other cultures, and some healthcare

[98] Immigration & ethnocultural diversity. City of Brampton. Published 2021. Accessed December 9, 2021. https://geohub.brampton.ca/pages/profile-diversity
[99] Ibid.
[100] Ibid.
[101] Region of Peel – Public Health. The changing landscape of health in Peel. A comprehensive health status report. Published 2019. Accessed December 9, 2021. https://www.peelregion.ca/health/resources/pdf/CHSR-changing-landscape-health-peel-full-report.pdf
[102] Fair deal for healthcare. City of Brampton. 2021. Accessed December 7, 2021. https://www.brampton.ca/EN/City-Hall/Fair-Deal/Pages/Healthcare.aspx
[103] Ibid.
[104] Region of Peel – Public Health. The changing landscape of health in Peel. A comprehensive health status report. Published 2019. Accessed December 10, 2021. https://www.peelregion.ca/health/resources/pdf/CHSR-changing-landscape-health-peel-full-report.pdf
[105] Ibid.

practitioners are unable to adjust for that."
- "COVID-19 has ripped through our city and has hit the people who were the most marginalized while also destroying mental health, increasing levels of substance abuse and pushing more people into homelessness."
- "Considering that Peel has a significantly large South Asian population - the diseases that hit this population hardest need to be the target of prevention education and treatment in keeping with culturally competent care."
- "Lack of Brampton female doctors, lack of Brampton female psychiatrists, lack of Brampton female health specialists, lack of Black African-Caribbean female doctors in Brampton and Peel Region."
- "Healthcare, mainly primary health care, is not accessible in Brampton and needs to be available at longer hours with appropriate staffing to limit clogging up the hospital."
- "Non medical factors such as lower income and illegal/unethical lodgings (too many people in a single residence) also add to the problem as COVID-19 has shown."

While Brampton's health challenges are unique, they are also highly relevant to other regions. Cities in Ontario, such as Hamilton, Toronto (Scarborough), Barrie, Parry Sound and Orillia, as well as other major jurisdictions across Canada with similarly diverse populations (e.g., Winnipeg, Surrey) can benefit from physicians trained in Brampton. As one Brampton/Peel resident articulated in responding to the survey: "The teaching and research carried out by the School should equip the medical graduates to practice effectively in the specific community whilst at the same time meet[ing] and exceed[ing] standards for medical care across Canada, in other words, relevance coupled with the ability to universalize the training." Similarly, another community member shared: "The city is interesting in that it's reflective of some of the smaller demographics in Canada, so it would be a great way to use it as an opportunity to focus on these issues."

The proposed MD program's students will actively engage with the Brampton community, which means they will be well-positioned to address similar urban health needs experienced by Ontarians and Canadians more broadly. The MD program will not only build up the healthcare system in the City of Brampton, but it will also create space for a diverse pool of talent to thrive in interprofessional healthcare and affiliated sectors. An MD program that is built from the ground up to address societal needs, advance EDI and improve access to care can be looked at as a model for leading practices to be adopted beyond the Brampton region and Ontario.

The location of medical training also influences the kind of physician practicing in the workforce. [106] For example, an American study found that early exposure to medically underserved areas combined with medical training experiences in underserved settings had a positive effect on later practice site choice.[107] The MD program will provide learners with direct experience that can be applied in similar communities across the province and country. This also reflects the frequent hope among Brampton and Peel community members that doctors trained at the proposed School of Medicine will choose to stay in the region to practice. For instance, a theme that emerged from the survey was that respondents wanted "the doctors from the school [to] stay within Brampton and service the community."

[106] Kost A, Benedict J, Andrilla CH, Osborn J, Dobie SA. Primary care residency choice and participation in an extracurricular longitudinal medical school program to promote practice with medically underserved populations. *Acad Med.* 2014;89(1):162–168. doi: 10.1097/ACM.0000000000000075.
[107] Tavernier LA, Connor PD, Gates D, Wan JY. Does exposure to medically underserved areas during training influence eventual choice of practice location?. *Med Educ*. 2003;37(4):299-304. doi: 10.1046/j.1365-2923.2003.01472.x

In addition to addressing the city's health needs, a medical school in Brampton would bring substantial economic and social benefits to the region. According to a study by the Association of Faculties of Medicine of Canada, faculties of medicine lead to job creation, improved medical care, advanced research, new business development and education of medical professionals. The study found that Canada's faculties of medicine contribute 3.5% of the Canadian GDP and supports more than $13.9 billion in government revenue.[108]

Community leaders in Brampton have expressed their support for the proposed MD program and School of Medicine as evidenced by Brampton's Committee of Council voting unanimously in July 2021 in favour of a $1 million planning grant to help fund a future School of Medicine in the city. This support was echoed by participants in the Fall community consultation; for instance, one participant noted "I welcome [the University] and a School of Medicine in the community." Another participant shared: "My hopes are that this school will change the face of health care and truly make health care about what the patients and community needs."

In the community survey, 94% of respondents thought that the proposed School of Medicine would be beneficial to Brampton and Peel. The three areas where they hoped the School would have the greatest impact were improving health outcomes for residents, creating opportunities for students to study locally and attracting doctors to Brampton and Peel. Survey participants also shared their support for the five pillars of the proposed School of Medicine, with 89% stating that they are very aligned or moderately aligned with the healthcare needs of Brampton and Peel. For instance, respondents said "having these pillars would create students that address the problems Brampton currently faces" and "I feel these goals are very aligned and indicative of the future of healthcare."

The Fall 2021 Brampton community consultations were one way the University showed its commitment to developing a MD program and School of Medicine that are accountable to community members' hopes and needs. Consultation participants shared a strong vision for the impact they hope the MD Program will have on health outcomes, opportunities for residents of Brampton and Peel and attracting more doctors and economic growth. They also described the most pressing health challenges facing their communities, such as the health needs of aging populations, finding a family doctor, mental health and addictions, and the social determinants of health. Participants had a clear vision for the role of the proposed MD program and School of Medicine in their communities:

- "We need partners that want to impact positive change and really be meaningful to our community."
- "I think it is important to establish strong connections with community health services in an effort to align with the needs of Brampton while educating future practitioners. I would expect a commitment to joint initiatives where the University/Brampton/Peel work collaboratively to achieve enhancements in care and care delivery to the residents of Brampton and Peel"
- "Community engagement shouldn't end with shovels in the ground."

See Appendix B for additional information on the Fall consultations and survey.

The need to admit and train differently

The growing demand for primary care physicians over the coming decade will need to be addressed by both increasing supply and ensuring new physicians are distributed to underserved geographies. Although government policy is an important lever in alleviating these issues,

[108] Association of Faculties of Medicine of Canada. The economic impact of Canada's faculties of medicine and health sciences partners. Published August 2014. Accessed December 9, 2021. https://www.longwoods.com/articles/images/Economic_Impact_Study_Report_FINAL_EN.pdf

appropriately distributing physicians also requires them to have a desire to practice in underserved communities. Delivering this kind of physician begins with the medical school application process, which should be designed to select applicants based on the type of physician Ontario needs.

There is no doubt that the student demand for admission at Canadian medical schools is high, and the admissions process is competitive. Many applicants who meet all eligibility criteria, and are otherwise qualified, do not receive an offer due to the volume of applications. According to the Association of Faculties of Medicine of Canada (AFMC), over 14,000 people apply to medical school in Canada annually and 2,900 are accepted.[109] Ontario received 47% of country-wide applications and admitted 33.3% of the total Canadian medical student cohort.[110] The Canada-wide admission rate was 19.7%, indicating that 80.3% of applicants did not receive an offer.[111] Ontario's admission rate was lower than the country-wide average at 14.3%.[112]

The COVID-19 pandemic increased application rates. Schools in Canada saw an unprecedented surge in applications for the 2021/22 academic year, which for Ontario represented a 10.9% increase in applications compared to the 2020/21 year.[113] The surge has been attributed to several factors, including prospective students drawing inspiration from healthcare leaders who were on the front lines of the COVID-19 pandemic, more time to complete admission applications and the shift towards online application interviews.[114] Although the exact reasons may vary, the increase in applications illustrates the consistent and growing interest in medical education.

Medical schools have histories of systemic exclusion of students from equity-deserving groups. Successful applicants to Canadian medical schools are disproportionately white and from urban areas and affluent backgrounds.[115] Although all 17 accredited Canadian faculties of medicine that award a Doctor of Medicine (MD) degree have implemented admissions streams intended to increase the diversity of student cohorts, medical schools do not reflect the diversity of Canada's population, for instance with respect to socioeconomic status and ethnicity.

In 2018, 72.6% of surveyed undergraduate learners across 14 out of the 17 Canadian medical schools were white, while 3.5% were Indigenous and 1.7% were Black. Comparatively, 7.4% of the Canadian population aged 15 – 34 are Indigenous and 6.4% are Black, indicating underrepresentation of these groups in the student cohort (see Figure 2).[116] As well as clear underrepresentation of Black and Indigenous students, people with ancestry from the Philippines are among the most underrepresented ethnocultural groups in medical schools.[117]

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[109] Association of Faculties of Medicine of Canada. Canadian medical education statistics. Published 2019. Accessed December 9, 2021. https://www.afmc.ca/sites/default/files/pdf/CMES/CMES2019-Complete_EN.pdf
[110] Association of Faculties of Medicine of Canada. Canadian medical education statistics. Published 2019. Accessed December 9, 2021. https://www.afmc.ca/sites/default/files/pdf/CMES/CMES2019-Complete_EN.pdf
[111] Ibid.
[112] Ibid.
[113] Short D. Medical schools across North America seeing unprecedented number of applications amid COVID-19 pandemic. *Edmonton Journal.* Published February 22, 2021. Accessed December 9, 2021. https://edmontonjournal.com/news/postpandemic/postpandemic-covid-medical-schools-applications-canada-us
[114] Ibid.
[115] Khan R, Apramian T, Kang JH, Gustafson J, Sibbald S. Demographic and socioeconomic characteristics of Canadian medical students: a cross-sectional study. *BMC Med Educ*. 2020;20:1-8. doi: https://doi.org/10.1186/s12909-020-02056-x
[116] Ibid.
[117] Young ME, Razack S, Hanson MD, et al. Calling for a broader conceptualization of diversity: surface and deep diversity in four Canadian medical schools. *Academic Medicine*. 2012;87(11):1501-1510. doi: 10.1097/ACM.0b013e31826daf74

Figure 2: Self-identified Ethnic Background of Canadian Medical Students Aged 15 – 34 Compared to General Population (2018) [a] [118]

Self-identified ethnic background	No. (%) of students [b] (Total: 1388)	No. (%) of Canadians (Total: 8,808,300)
Aboriginal	49 (3.5)	653,055 (7.4)
Black	23 (1.7)	561,865 (6.4)
Chinese	156 (11.2)	541,475 (6.1)
South Asia	122 (8.8)	613,805 (7.0)
White	1008 (72.6)	7,762,260 (88.2)
Other visible minority	130 (9.4)	959,630 (10.9)

[a] Based on 2016 Canadian Census data. For the purposes of comparison, we have characterized *White* as the following responses: non-Aboriginal North America, Europe, and Oceania

[b] Respondents to both our survey and the census were able to select more than one self-identified ethnic background. The sum of all ethnic origin responses is greater than the total population of respondents due to the reporting of multiple self-identified ethnic backgrounds

Medical school admissions also favour students from high socioeconomic status (SES) households. A 2015 survey of medical students conducted by the Association of Faculties of Medicine of Canada found that 62.6% of respondents came from families with an annual income over $100,000.[119] In comparison, only 32% of households in Canada have incomes of $100,000 or over (see Figure 3).[120]

Figure 3: Income of Canadian Medical Students' Parental Households Compared to Canadian Households (2018) [a] [121]

Survey income bracket Canadian dollars	No. (%) of students' parental households [b]	No. (%) Canadian households
< 20,000	33 (2.4)	1,369,630 (9.7)
20,000-39,999	69 (5.1)	2,351,595 (16.7)
40,000-59,999	134 (9.9)	2,271,780 (16.2)
60,000-99,999	267 (19.7)	3,517,155 (25.0)
> 100,000	851 (62.9)	4,561,920 (32.4)

[a] Based on 2016 Canadian Census household income data [b] Thirty-four students did not respond to this question

[118] Khan R, Apramian T, Kang JH, Gustafson J, Sibbald S. Demographic and socioeconomic characteristics of Canadian medical students: a cross-sectional study. *BMC Med Educ*. 2020;20:1-8. doi: https://doi.org/10.1186/s12909-020-02056-x

[119] Moineau G. President's Blog. *Giving thanks.* Published October 13, 2017. Accessed December 9, 2021. https://www.afmc.ca/en/presidents-blog/october-13-2017

[120] Data tables, 2016 census: Household total income groups. Statistics Canada. Updated June, 2019. Accessed December 9, 2021. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/dt-td/Rp-eng.cfm?TABID=2&Lang=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=1235625&GK=0&GRP=1&PID=110185&PRID=10&PTYPE=109445&S=0&SHOWALL=0&SUB=0&Temporal=2016&THEME=119&VID=0&VNAMEE=&VNAMEF=&D1=0&D2=0&D3=0&D4=0&D5=0&D6=0

[121] Khan R, Apramian T, Kang JH, Gustafson J, Sibbald S. Demographic and socioeconomic characteristics of Canadian medical students: a cross-sectional study. *BMC Med Educ*. 2020;20:1-8. doi: https://doi.org/10.1186/s12909-020-02056-x

One reason for this clear disparity is that admissions criteria have generally favoured students who come from more affluent backgrounds. Students who come from lower SES households are disadvantaged when it comes to building out an ideal medical school resume. For example, students with lower SES may have to work while in school to support themselves and their families, which limits their ability to participate in extracurricular activities that would expand their resume. Students may also have limited access to necessary social capital to build their knowledge of medicine and medical school applications and to professional social networks that would allow them to cultivate relationships needed for strong medical school reference letters.[122] Historically, Canadian medical schools have also privileged experiences — like unpaid international work experience — associated with higher SES.[123]

Students who come from more affluent families are advantaged when it comes to Medical College Admissions Test (MCAT) test-taking and preparation. Applicants with the best scores typically take months to study and prepare for the test, which may include costly preparatory courses. Students who are unable to afford the cost of courses, time off work or the cost of the test itself may struggle to meet this application requirement.[124]

Two other groups that are underrepresented in Canadian medical schools are people with disabilities and gender and sexual minorities. In a 2012 survey, 94.6% of medical students identified as heterosexual and 99.8% identified with the gender on their birth certificate. When asked about disabilities, 96.5% reported that they did not have a disability.[125] Students describe considerable stigma around sharing their disability status or their gender and sexual identities in medical school, which may also contribute to underreporting.[126]

Addressing this exclusionary, inequitable pipeline to medical school and professional practice is also an opportunity to mitigate projected physician supply shortages and address population needs. A diverse physician base enhances the health care system by bringing individuals with different backgrounds and lived experiences to the profession. Having a first-hand understanding of barriers to care may make the physician a more effective patient advocate.[127] This is especially important since practicing primary-care physicians have expressed challenges in caring for specific population groups, and learners feel unprepared to provide culturally respectful care. Access to care may also be better supported by physicians from

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[122] Martin AJ, Beska BJ, Wood G, et al. Widening interest, widening participation: factors influencing school students' aspirations to study medicine. *BMC medical education.* 2018;18(1):11–13. doi: https://doi.org/10.1186/s12909-018-1221-3

[123] Freitas CD, Buckley R, Klimo R, Daniel J, Mountjoy M, Vanstone M. Admissions experiences of aspiring physicians from low-income backgrounds. *Med education.* 2021;55(7). doi: https://doi.org/10.1111/medu.14462

[124] Eskander A, Shandling M, Hanson MD. Should the MCAT exam be used for medical school admissions in Canada?. *Academic Medicine*. 2013;88(5):572-580. doi: 10.1097/ACM.0b013e31828b85af

[125] Young ME, Razack S, Hanson MD, et al. Calling for a broader conceptualization of diversity: surface and deep diversity in four Canadian medical schools. *Academic Medicine*. 2012;87(11):1501-1510. doi: 10.1097/ACM.0b013e31826daf74

[126] Gault MA, Raha SS, Newell C. Perception of disability as a barrier for Canadian medical students. *Can Fam Physician*. 2020;66(3):169-171. Accessed December 9, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8302347/

Haque OS, Stein MA, Marvit, A. Physician, heal thy double stigma — doctors with mental illness and structural barriers to disclosure. *N Engl J Med*. 2021;384(10), 888–891. doi: https://doi.org/10.1056/NEJMp2031013

Vogel L. Major gaps in supports for medical trainees with disabilities. *CMAJ.* 2018;190(20),632–633. doi: https://doi.org/10.1503/cmaj.109-5602

[127] Walji M. Diversity in medical education: Data drought and socioeconomic barriers. *CMAJ.* 2015;187(1):187. doi: https://doi.org/10.1503/cmaj.141502

underrepresented racialized groups since they are more likely to practice in medically underserved areas.[128]

International Medical Graduates (IMGs) could also play a significant role in augmenting physician labour supply. The COVID-19 pandemic showed that this group is highly skilled and eager to be engaged to support health in communities[129] Despite this potential, IMGs are underutilized. Ontario currently has an estimated 13,000 IMGs who are unable to work as physicians due to significant challenges securing residency positions and/or becoming licensed practitioners in Canada.[130] The demographics of immigrant IMGs would contribute to medical school and physician workforce diversity, and there is also evidence that IMGs are more likely to practice in primary care and in underserved areas.[131]

Given that current recruitment and selection processes do not place enough emphasis on selecting students who want to work in underserved communities, a new MD program provides an opportunity to intentionally administer an admissions process that assesses intrinsic mission-based values and favors applicants who are representative of the populations being served.[132]

Physicians require new skills to be successful in evolving primary care models

Primary care is critical to improving care delivery and supporting healthier communities. Globally, primary care systems are evolving with a focus on improved access, enhanced care delivery and addressing community needs.

In Ontario, team-based models of care and the Ontario Health Teams are accelerating changes in the primary care system. These changes are transforming the scope of physicians' practices and demand skills in interprofessional collaboration and in the coordination of care. As the sector evolves, so will the role of the primary care physician and the training required to develop the future physician.

Many physicians and learners either feel ill-equipped or lack sufficient knowledge and resources to be able to appropriately engage with the health and well-being needs of Ontario's populations, particularly the non-medical factors that impact health.[133] In addition, there is a lack of coordination and integration with primary and community care to date, as evidenced by:

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[128] Marrast LM, Zallman L, Woolhandler S, Zallman L, Bor DH, McCormick D. Minority physicians' role in the care of underserved patients: diversifying the physician workforce may be key in addressing health disparities. *JAMA Intern Med*. 2014;174(2):289-91. doi: 10.1001/jamainternmed.2013.12756

[129] Ontario Council of Agencies Serving Immigrants, Toronto Region Immigrant Employment Council, World Education Services. Mobilizing Ontario's Internationally Educated Health Professionals to maximize Ontario's COVID-19 response. *IEHP COVID mobilization proposal.* 2020. Accessed December 9, 2021. https://drive.google.com/file/d/1Inz_WbpyTSggHhlfVYlqDTHcNr4jISmF/view

[130] Ibid.

[131] Zaidi Z, Dewan M, Norcini J. International medical graduates: promoting equity and belonging. *Wolters Kluwer.* 2019;95(12):82-87. doi: 10.1097/ACM.0000000000003694;
Duvivier RJ, Wiley E, Boulet JR. Supply, distribution and characteristics of international medical graduates in family medicine in the United States: a cross-sectional study. *BMC fam prac.* 2019; 20(1):47–47. doi: https://doi.org/10.1186/s12875-019-0933-8

[132] Walker KO, Ryan G, Ramey R, et al. Recruiting and retaining primary care physicians in urban underserved communities: the importance of having a mission to serve. *Am J Public Health*. 2010;100(11):2168–2175. doi: 10.2105/AJPH.2009.181669

[133] Singh B, Banwell E, Groll DL. Canadian residents' perceptions of cross-cultural care training in graduate medical school. *Can Med Educ J.* 2017;8(4):16-30. Accessed December 9, 2021. Accessed December 8, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5766216/pdf/cmej-08-16.pdf

- Only two-thirds of primary care physicians “usually” or “often” probe for social determinants as a routine component of assessment.[134]
- Only 47% of Ontario physicians reported frequently coordinating care with social services or other community providers.[135]
- 39% of primary care physicians in Ontario report that their lack of awareness of social organizations and community-based resources creates challenges for referrals and supporting patients to obtain timely access.[136]
- 29% of primary care providers report that they or their staff routinely communicate with a patient’s community case manager or home care provider.[137]

Moving forward, physicians will need to work in teams and collaboratively across organizations to support patients, families and communities. The primary care physician of the future needs to be able to go beyond helping patients address multiple comorbidities and have the knowledge and skills to connect patients with social and community-based supports. However, practicing primary care physicians currently experience challenges referring patients to social organizations,[138] working in teams to manage mental health concerns,[139] providing palliative care,[140] offering personalized care and supporting patients from diverse backgrounds.

In addition to interprofessional collaboration, key trends shaping the future of primary care are access, care delivery and population health needs. Together, these trends have important implications for the future role of primary care physicians and, as a result, priorities for medical education.

Access

Patients are demanding more convenient access to primary care services and more variety in how they can connect with their primary care team, for instance through virtual appointments.[141] Patients are also looking for timely, improved access to specialist and diagnostic care, which can be achieved through better integration with secondary care and technology.[142] As these patient expectations evolve, primary care will have an increasingly important role in coordinating care for patients with complex needs.[143]

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[134] Canadian Institute for Health Information. How Canada compares: Results from the commonwealth Fund’s 2019 international health policy survey of primary care physicians. Published January, 2020. Accessed December 9, 2021. https://www.cihi.ca/sites/default/files/document/cmwf-2019-accessible-report-en-web.pdf
[135] Canadian Institute for Health Information. How Canada compares: Results from the commonwealth Fund’s 2019 international health policy survey of primary care physicians. Published January, 2020. Accessed December 9, 2021. https://www.cihi.ca/sites/default/files/document/cmwf-2019-accessible-report-en-web.pdf
[136] Ibid.
[137] Health Quality Ontario. Connecting patients with home care and community services among biggest challenges for Ontario family doctors. Published 2016. Accessed December 9, 2021. https://www.hqontario.ca/Portals/0/documents/system-performance/connecting-the-dots-media-release-en.pdf
[138] Canadian Institute for Health Information. How Canada compares: Results from the commonwealth fund’s 2019 international health policy survey of primary care physicians. Published January, 2020. Accessed December 9, 2021. https://www.cihi.ca/sites/default/files/document/cmwf-2019-accessible-report-en-web.pdf
[139] Moroz N, Moroz I, D’Angelo MS. Mental health services in Canada: Barriers and cost effective solutions to increase access. *Healthc Manage Forum.* 2020;33(6):282–287. doi: 10.1177/0840470420933911
[140] Canadian Institute for Health Information. Access to palliative care in Canada. Published 2018. Accessed December 9, 2021. https://secure.cihi.ca/free_products/access-palliative-care-2018-en-web.pdf
[141] Hogan TP, Luger TM, Volkman JE, et al. Patient centeredness in electronic communication: Evaluation of patient-to-health care team secure messaging. *J Med Internet Res*. 2018;20(3):82. doi: 10.2196/jmir.8801
[142] Edwards N, Smith J, Rosen R. The primary care paradox: new designs and models. Published 2014. Accessed December 9, 2021. https://assets.kpmg/content/dam/kpmg/pdf/2014/12/primary-care-paradox-v3.pdf
[143] Ibid.

To adapt and take advantage of these trends to improve access, the future physician will:

- Be trained with the expectation of flexibility around clinic times and to depend on teams to manage hours of operation in addition to patient care.[144]
- Possess skills to diagnose and manage diverse and complex clinical problems while aligning care patterns to the priority health needs of the populations they serve.[145]
- Be able to design and implement integrated care pathways.
- Be comfortable working with healthcare technologies. This includes using remote digital devices, protocols and algorithms when monitoring patients in the community, and knowing how to assess and manage risk remotely.[146]

Building the skills and capabilities to work in integrated teams will require learners to coordinate and collaborate with community providers as well as secondary care and clinical decision support teams. Physicians will also need to be ready to use an array of digital tools to manage more complex patient needs in the community.[147]

Care Delivery

Alongside the technological changes transforming access, care delivery itself is changing as a result of innovations in practice and technology. As team-based models evolve, the delivery of care will require continuous assessment of team roles, responsibilities and scopes of work. The future of care delivery will also have a strong emphasis on patient empowerment, where technology will enable health literacy and personal responsibility for health.[148] In parallel to patient empowerment is a trend in targeted, personalized care that will require healthcare providers to help patients navigate new data-driven diagnostics and therapeutics.[149] Technologies, such as wearables, will create an opportunity for continuous health monitoring, which can support diagnosis and determination of care pathways.[150]

In order to adapt and take advantage of these trends to improve care delivery the future physician will need to:

- Possess an excellent understanding of the role of other healthcare practitioners on multi-disciplinary teams. To build this skillset, there must be more opportunities for students to learn together in multidisciplinary teams, recognize their shared and complementary competencies, and challenge aspects of the hidden curriculum that perpetuate siloed cultures and medical hierarchies.[151]

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[144] Thibault GE. The future of health professions education: Emerging trends in the United States. *FASEB Bioadv*. 2020;2(12):685-694. 2020;2(12):685-694. doi: 10.1096/fba.2020-00061
[145] Edwards N, Smith J, Rosen R. The primary care paradox: new designs and models. Published 2014. Accessed December 9, 2021. https://assets.kpmg/content/dam/kpmg/pdf/2014/12/primary-care-paradox-v3.pdf
[146] KPMG. Connected Health: The new reality for healthcare. Published 2020. Accessed December 8, 2021. https://home.kpmg/xx/en/home/industries/healthcare/covid-19-and-healthcare/connected-health.html
[147] Ibid.
[148] Doshi P, Udayakumar K, Bhosai, SJ. Imagining the future of primary care - a global look at innovative healthcare delivery. *Journal of General Internal Medicine*. 2020;35(1):157-157. doi: 10.1056CAT.20.0481
[149] Radin J, Gordon RL, Elsner N, Mukherjee D. Rethinking the physician of the future: embracing new technologies, empathy, and new models of care. *Deloitte Insights*. Published 2020. Accessed December 8, 2021. https://www2.deloitte.com/content/dam/insights/us/articles/6466_Physician-of-the-future/DI_Physician-of-the-future.pdf
[150] KPMG. Connected Health: The new reality for healthcare. Published 2020. Accessed December 8, 2021. https://home.kpmg/xx/en/home/industries/healthcare/covid-19-and-healthcare/connected-health.html
[151] Thibault GE. The future of health professions education: Emerging trends in the United States. *FASEB Bioadv*. 2020;2(12):685-694. doi: 10.1096/fba.2020-00061

- Be able to lead change at a system level. Learners will have to be trained in leadership and management skills, including how to manage teams where each member is acknowledged, respected, valued and empowered to be accountable for shared responsibilities.[152]
- Be skilled in critically appraising and interpreting patients' personal health data. To effectively advise on wellness and manage illness, physicians must be able to integrate and apply robust evidence.[153]
- Be able to distinguish between personal and population health risks and have the ability to counsel patients about relative probabilities. Physicians require a solid understanding of data sets and addressing conflicting findings (e.g., conflicts between personalized medicine and population health management).[154]
- Have a strong understanding of the biases and ethical considerations of algorithms in technology, tools and health solutions, as well as the impacts of these considerations on the patient.[155]

Population Health Needs

Addressing Ontario's current and emerging population health needs will take a coordinated effort by both public health and primary-care. The COVID-19 pandemic has exposed the current underlying structural drivers of health inequities, such as unsafe and precarious working conditions and economic inequities, and how they intersect with other social factors, such as socioeconomic status, race, and gender, to compound existing inequities.[156] The pandemic has shown that health issues cannot be addressed in siloes, as the social determinants intersect to create these social vulnerabilities and result in poor health outcomes.[157] It has further demonstrated that when population health is not addressed, the impacts on primary care are enormous. As healthcare systems continue to transform to further address population health needs, they will require physicians who can work within these systems and who are committed to population health, including the proximal and distal social causes of disease, and to addressing health inequities.

To address these gaps, medical education will need to integrate foundational community, population and public health perspectives into health professional training and train physicians to be community engaged advocates. Physicians will also need to be able to work in multidisciplinary and comprehensive service delivery models that incorporate population health initiatives.[158] Physicians will need to be adept at coordinating health care services for

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[152] Radin J, Gordon RL, Elsner N, Mukherjee D. Rethinking the physician of the future: Embracing new technologies, empathy, and new models of care. *Deloitte Insights*. Published 2020. Accessed December 8, 2021. https://www2.deloitte.com/content/dam/insights/us/articles/6466_Physician-of-the-future/DI_Physician-of-the-future.pdf

[153] Rajaram A, Moore K, Mamdani M. Preparing family medicine trainees for the information revolution: Pearls, potential, promise, and pitfalls. *Can Fam Physician*. 2019;65(6):390-392. Accessed December 9, 2021. https://pubmed.ncbi.nlm.nih.gov/31189625/

[154] Ibid.

[155] Harish V, Bilimoria K, Mehta N, et al. Preparing medical students for the impact of artificial intelligence on healthcare introduction. *CFMS Technol. Innov*. Accessed DEcember 8, 2021. https://www.cfms.org/files/meetings/agm-2020/resolutions/ai_healthcare/PreparingMedStudentsForAI.pdf

[156] Paremoer L, Nandi S, Serag H, Baum F. Covid-19 pandemic and the social determinants of health. *BMJ*. 2021;372:n129. Published 2021 Jan 28. doi: 10.1136/bmj.n129

[157] Ibid.

[158] National Collaborating Centre for Determinants of Health; National Collaborating Centre for Infectious Diseases. Reflections on the relationship between public health and primary care. Published 2021. Accessed December 9, 2021. https://nccdh.ca/images/uploads/comments/Reflections-on-the-relationship-between-public-health-and-primary-care_EN_2021.pdf

individuals, applying a population perspective to clinical practice, identifying and addressing community health problems, strengthening health promotion and disease prevention, and collaborating around policy, training and research.[159]

Healthcare transformation that strives to address health inequities and population health needs will require comprehensive skills of practitioners that focus both on primary prevention and on advocating for action on the social determinants.[160] Physicians working within this transforming system must also be able to work in inter-professional teams of service providers that include social and public health services.[161] Physicians will also need skills in data management with calls for improved clinical and population telehealth and health data systems that support quality improvement efforts to better overall population health.[162]

As demands for primary care mount, care must be delivered at scale across teams and organizational boundaries. Primary care will increasingly coalesce in "centres" (e.g., multi-specialty providers in healthcare hubs) that work together as networks, for instance as part of the shift to Ontario Health Teams.[163] Supporting this shift to hubs is the Patient's Medical Home model, accelerated by work of The College of Family Physicians of Canada (CFPC), which aims to provide comprehensive, patient-centred and accessible family medicine that expands into community services.[164] As the demand for primary care grows, population health management will also become increasingly important. This shift from episodic care to preventive care requires new skills from healthcare providers in public and population health, particularly health promotion.[165]

Population health management will also require working across organizational boundaries in order to use resources in a way that optimally improves the physical, mental, and social health of the patients, families and communities they serve. Physicians who are leaders in population health will participate in regional decisions on the value of care, how best to allocate resources and strategies for reducing inequity. Regardless of position, physicians will need to practice with an unwavering commitment to equity, diversity and inclusion, and Reconciliation in order to meet the needs of increasingly diverse communities.[166]

In order to adapt and take advantage of these trends, and to address population health needs, future physicians will need to:

- Serve as community advocates who treat patients holistically with a population and community health perspective.[167]

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[159] Rechel B. How to enhance the integration of primary care and public health?: Approaches, facilitating factors and policy options. Copenhagen (Denmark): European Observatory on Health Systems and Policies; 2020. Accessed December 9, 2021. https://pubmed.ncbi.nlm.nih.gov/32073809/

[160] Millar J, Bruce T, Cheng SM, Masse R, McKeown D. Is public health ready to participate in the transformation of the healthcare system?. *Healthc Pap*. 2013;13(3):10-20. doi: 10.12927/hcpap.2014.23689

[161] Ibid.

[162] Ibid.

[163] Edwards N, Smith J, Rosen R. The primary care paradox: new designs and models. Published 2014. Accessed December 9, 2021. https://assets.kpmg/content/dam/kpmg/pdf/2014/12/primary-care-paradox-v3.pdf

[164] The College of Family Physicians of Canada. Best advice: team-based care in the patient's medical home. Published July 2017. Accessed December 9, 2021. https://patientsmedicalhome.ca/files/uploads/BAG_TeamBasedCare_ENG-1.pdf

[165] Edwards N, Smith J, Rosen R. The primary care paradox: new designs and models. Published 2014. Accessed December 9, 2021. https://assets.kpmg/content/dam/kpmg/pdf/2014/12/primary-care-paradox-v3.pdf

[166] Williams JS, Walker RJ, Egede LE. Achieving equity in an evolving healthcare system: opportunities and challenges. *Am J Med Sci*. 2016;351(1):33-43. doi: 10.1016/j.amjms.2015.10.012

[167] Rechel B. How to enhance the integration of primary care and public health?: Approaches, facilitating factors and policy options. Copenhagen (Denmark): European Observatory on Health Systems and Policies; 2020. Accessed December 9, 2021. https://pubmed.ncbi.nlm.nih.gov/32073809

- Be able to work in multidisciplinary and interdisciplinary, comprehensive service-delivery models that incorporate population health initiatives.[168]
- Have a much larger role in population health needs assessment, service design, and commissioning and evaluating services.[169]
- Have an understanding of how to use digital tools to segment and stratify their population.[170]
- Be able to provide holistic care, inclusive of the promotion of health and social accountability. To that end, learners need to develop a sense of community responsibility early on in their career in order to challenge inequities.[171]

There is a societal need for a new kind of physician in Ontario, given the following three challenges:

- Ontario's growing, diverse and aging population has unmet health needs.
- Ontarians face barriers to accessing primary care and physicians who understand and reflect the communities they serve.
- Physicians require new skills to be successful in evolving primary care models.

In order to address these societal needs, Ontario requires a new kind of physician who:

- Is committed to the principles of EDI and Reconciliation and is ready to meet the growing care needs of Ontario's diverse population.
- Has the knowledge and skills to address the needs of Ontario's population and health system.
- Reflects the types of communities they serve and is motivated to make an impact in the health system at both an individual (or patient) and population health level.
- Serves as a health system leader who is trained to work in interprofessional teams and to leverage technology to bring the best care and community-based services to the population being served.

The need for a different approach to medical education to train a new kind of physician

Healthcare is evolving to address challenges such as social and economic issues, rapidly advancing technologies, and cultural and demographic realities. Alongside these challenges and opportunities, a new generation of undergraduate Doctor of Medicine (MD) students and residents (post-graduate medical education) are bringing an increasingly socially conscious

[168] Clement, C; National Collaborating Centre for Determinants of Health. Reflections on the relationship between public health and primary care. Antigonish, NS: NCCDH, St. Francis Xavier University. 2021. Accessed December 5, 2021. https://nccdh.ca/images/uploads/comments/Reflections-on-the-relationship-between-public-health-and-primary-care_EN_2021.pdf;
Millar J, Bruce T, Cheng SM, Masse R, McKeown D. Is public health ready to participate in the transformation of the healthcare system?. *Healthc Pap*. 2013;13(3):10-20. doi: 10.12927/hcpap.2014.23689

[169] Fernandes L, FitzPatrick ME, Roycroft M. The role of the future physician: building on shifting sands [published online ahead of print, 2020 Apr 17]. *Clin Med (Lond)*. 2020;20(3):285-289. doi: 10.7861/clinmed.2020-0030

[170] Thibault GE. The future of health professions education: Emerging trends in the United States. *FASEB Bioadv.* 2020;2(12):685-694. doi: 10.1096/fba.2020-00061

[171] Murray RB, Larkins S, Russell H, Ewen S, Prideaux D. Medical schools as agents of change: socially accountable medical education. *Med J Aust*. 2012;196(10):653. doi: 10.5694/mja11.11473

perspective to healthcare. In response to these shifts, there are a number of key, emerging trends and innovations in medical education.

Curriculum models and clinical exposure

- Institutions are emphasizing the training of health professionals who are responsive to population health and community needs. Community-engaged education is a method to support learners in understanding and experiencing how to work with and within communities.[172]

- Learners may complete service-learning programs or Longitudinal Integrated Clerkships (LIC) to cultivate reflective practice.[173] LICs consist of longer rotations with a care team and patient panel in order to promote learning of care continuity.[174] Block rotations are being replaced by a year-long clinical experience with a set patient panel to support learners in navigating various aspects of the patient's care, and to emphasize comprehensive care and continuity.[175]

- Medical education has traditionally employed a time-based learning model. Today, institutions are transitioning to Competency-Based Medical Education (CBME) in undergraduate and post-graduate education to emphasize an outcomes-based approach to learning, which aligns learning outcomes to individualized needs.[176] This allows learners to learn at their own pace, focus on individual education needs, and receive more frequent and systematic feedback in comparison to time-based, standardized learning models. This shift to CBME supports the development and demonstration of competence in practice.[177] Canadian medical schools and residency programs have adopted the CanMEDS Framework to anchor the CBME approach.[178]

- Recognizing the value of early clinical work in education, medical schools are providing learners with exposure to patients as early as the first year of their studies.[179] Schools are also leveraging clinical cases to aid in teaching, an approach known as Case-Based Learning (CBL). CBL links theory to practice through the application of knowledge to cases through learning in small groups from the point of inquiry.[180] This process is advantageous

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[172] Strasser R, Hogenbirk J, Jacklin K, et al. Community engagement: A central feature of NOSM's socially accountable distributed medical education. *Can Med Educ J*. 2018;9(1):33-43.doi: https://doi.org/10.36834/cmej.42151

[173] Couper I, Worley PS, Strasser R. Rural longitudinal integrated clerkships: lessons from two programs on different continents. *Rural Remote Health*. 2011;11(2):1665. Accessed December 9, 2021. https://pubmed.ncbi.nlm.nih.gov/21449620/

[174] Witney M, Isaac V, Playford D, Walker L, Garne D, Walters L. Block versus longitudinal integrated clerkships: students' views of rural clinical supervision. *Medical education*. 2018;52(7):716-724. doi: 10.1111/medu.13573

[175] Gaufberg E, Hirsh D, Krupat E, et al. Into the future: patient-centredness endures in longitudinal integrated clerkship graduates. *Med Educ*. 2014;48(6):572-582. doi: 10.1111/medu.12413

[176] Competence by design: Canada's model for competency-based medical education. Royal College of Physicians and Surgeons of Canada. Published 2021. Accessed December 9, 2021. https://www.royalcollege.ca/rcsite/cbd/competence-by-design-cbd-e

[177] Ibid.

[178] Ibid.

[179]McOwen KS, Whelan AJ, Farmakidis AL. Medical Education in the United States and Canada, 2020. *Acad Med*. 2020;95(9S A Snapshot of Medical Student Education in the United States and Canada: Reports From 145 Schools):S2-S4. doi: 10.1097/ACM.0000000000003497

Tayade MC, Latti RG. Effectiveness of early clinical exposure in medical education: Settings and scientific theories - Review. *J Educ Health Promot*. 2021;10:117. Published 2021 Mar 31. doi: 10.4103/jehp.jehp_988_20

[180] Turk B, Ertl S, Wong G, et al. Does case-based blended-learning expedite the transfer of declarative knowledge to procedural knowledge in practice?. *BMC Med Educ*. 2019; 19:1-10. doi: https://doi.org/10.1186/s12909-019-1884-4

compared to self-learning and lecture activities because it requires practical application of knowledge and problem-solving skills.

Social and societal considerations

- There is a growing global push towards implementing social accountability efforts at medical schools in order to meet the health needs of the communities in which each institution serves.[181]

- Recent events have accelerated efforts by medical schools worldwide to be more socially and culturally inclusive, and to enhance diversity among students, faculty and staff.[182] To date, existing policies have not yielded equitable opportunities for learners to apply and be admitted to medical school, while faculty diversity also remains a challenge.[183]

- There is a growing emphasis on a new kind of physician leader who has a detailed understanding and ability to manage the social forces (i.e., social determinants) that influence health and is committed to reducing inequities.[184] Innovative programs are aligning health systems science curricula with emerging health system needs.[185] To date, curricula have fallen short of teaching about the structural and systemic issues that create inequities and about the health systems physicians work within.

- In response to a changing planet and global temperatures, and the resulting increasing burden of disease, there are growing calls to prepare healthcare systems to adapt to these changes, including mitigating healthcare's contribution to emissions.[186] There are national programs emerging aimed at creating resilient healthcare systems and reducing healthcare emissions to provide health and high quality care, now and for future generations.[187] The

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[181] Murray RB, Larkins S, Russell H, Ewen S, Prideaux D. Medical schools as agents of change: socially accountable medical education. *Med J Aust*. 2012;196(10):653. doi: 10.5694/mja11.11473

[182] Davis DLF, Tran-Taylor D, Imbert E, Wong JO, Chou CL. Start the way you want to finish: an intensive Diversity, Equity, Inclusion orientation curriculum in undergraduate medical education. *J Med Educ Curric Dev*. 2021;8. doi: 10.1177/23821205211000352;
Elliott TC. How do we move the needle?: building a framework for Diversity, Equity, and Inclusion Within Graduate Medical Education. *Fam Med*. 2021;53(7):556-558. doi: 10.22454/FamMed.2021.199007;
Office of Diversity, Equity & Inclusion. The University of Texas at Austin: Dell Medical School. Published 2021. Accessed December 9, 2021. https://dellmed.utexas.edu/about/mission-and-vision/health-equity-diversity-inclusion/office-of-diversity-equity-inclusion;
Creating an inclusive, supportive community. Kaiser Permanente School of Medicine. Published 2021. Accessed December 9, 2021. https://medschool.kp.org/about/equity-inclusion-and-diversity

[183] Guevara JP, Wade R, Aysola J. Racial and Ethnic Diversity at Medical Schools - Why Aren't We There Yet?. *N Engl J Med*. 2021;385(19):1732-1734. doi: 10.1056/NEJMp2105578

[184] Thibault GE. The future of health professions education: Emerging trends in the United States. FASEB BioAdvances. 2020;2(12):685-94. doi: 10.1096/fba.2020-00061

[185] An integrated curriculum, a cohesive framework. Kaiser Permanente School of Medicine. Published 2021. Accessed December 9, 2021. https://medschool.kp.org/education/curriculum

[186] National Health Service. Delivering a 'net zero' national health service. Published October 2020. Accessed December 9, 2021. https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf;
Romanello M, McGushin A, Di Napoli C, Drummond P, Hughes N, Jamart L, et al. The 2021 report of the lancet countdown on health and climate change: code red for a healthy future. *Lancet.* 2021:398(10311). doi: https://doi.org/10.1016/S0140-6736(21)01787-6;
COP26 Health Programme. World Health Organization. Published 2021. Accessed December 9, 2021. https://www.who.int/initiatives/cop26-health-programme

[187] National Health Service. Delivering a 'net zero' national health service. Published October 2020. Accessed December 9, 2021.

rising health impacts of climate change and health consequences of a delayed response have led to a global push for countries to commit to develop climate-resilient and low-carbon health systems and for health professionals to serve as advocates for positive action on climate change.[188] Medical students will need to be trained to adapt and work in these evolving systems and to address the resulting direct and indirect health impacts of climate change.

Technology

- Leading programs are also implementing curricula to prepare the 21st-century physician to analyze and interpret large sets of data, interact with patients via digital tools (i.e., remote consultation and monitoring) and understand the challenges associated with using digital tools (e.g., ethical biases related to AI and machine-learning algorithms used in diagnostics), as these will be key elements of day-to-day practice that programs have generally not incorporated into curricula.[189]

How the Proposed MD program Will Address Societal Need

The proposed MD program will help address provincial healthcare challenges by increasing representation of equity-deserving populations in the medical workforce and increasing the number of primary care physicians working in underserved areas. It will achieve this through a curriculum and approach that integrates future trends in medical education and is rooted in principles of community-driven care, cultural respect and social accountability.

Comparison to Other Programs

Canada has 17 accredited MD programs, six of which are in Ontario: the Michael G. DeGroote School of Medicine at McMaster University, the Northern Ontario School of Medicine (NOSM), Queen's University School of Medicine, University of Ottawa School of Medicine, University of Toronto Temerty Faculty of Medicine (U of T), and the Schulich School of Medicine and Dentistry at Western University. Information about these programs, and about medical schools elsewhere in Canada, included here is based on publicly-available sources such as university websites, reports by the Association of Faculties of Medicine of Canada (AFMC) and scholarly literature.

Existing Canadian medical schools have made important advances in education to meet patients' evolving needs, including recent commitments to training physicians who support strengthening the health system. Nevertheless, existing medical programs are encumbered by their established structures, cultures and processes, which would require significant change to redesign and expand. A new MD program and School of Medicine offers substantial advantages that existing schools do not have, as it allows for the cultivation of an entirely fresh approach to

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https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf

[188] Ontario Medical Association. Prescription for Ontario: Doctors' 5-point plan for better health care. Published October 26, 2021. Accessed December 8, 2021. https://www.oma.org/uploadedfiles/oma/media/public/prescription-for-ontario-doctors-5-point-plan-for-better-health-care.pdf;
COP26 Health Programme. World Health Organization. Published 2021. Accessed December 9, 2021. https://www.who.int/initiatives/cop26-health-programme

[189] Thibault GE. The future of health professions education: Emerging trends in the United States. *FASEB BioAdvances*. 2020;2(12):685-94. doi: 10.1096/fba.2020-00061;
Adding technology to medical education through collaboration. The University of Texas at Austin: Dell Medical School. 2019. Accessed December 8, 2021. https://dellmed.utexas.edu/blog/adding-technology-to-medical-education-through-collaboration

training the medical professionals who will tackle both current challenges and emerging priorities in health care. In fact, the proposed School of Medicine and MD program will be the first school in Canada founded and intentionally built upon the foundations of social accountability, EDI and Reconciliation, which are essential to prepare the next generations of physicians required to strengthen the health care system.

These innovations are not entirely without precedent for success; elsewhere in the world, new schools based on a modernized approach to medical care have been created to train physicians of the future. Health systems in the United States, United Kingdom, and Australia have opted to build new medical schools, as opposed to adding seats to existing programs, in order to shape their medical programs entirely around current priorities and future needs. Examples of new socially accountable medical schools include:

- Kaiser Permanente Bernard J. Tyson School of Medicine in the United States
- Hull York Medical School in the United Kingdom
- James Cook University College of Medicine and Dentistry in Australia

Designing a new MD program and School of Medicine allows societal needs, community input, provincial priorities and future trends to be the foundation of the school's design. These advantages stem from the inherent benefit of building a new medical school "from the ground up" to be purpose-built to drive health system transformation, be community-centric, focus on social determinants of health, and embed equity, diversity and inclusion and Reconciliation within its foundation. The University's proposed MD program offers a unique value proposition to design and deliver a new medical school that will address areas of current opportunities for Canadian medical education redesign and evolution.

There are six key areas where the University's proposed MD program will differentiate itself from existing programs to address societal need:

1. systematically deploying social accountability in all aspects of the MD program
2. embedding EDI and Reconciliation throughout the medical education program
3. preparing emerging physicians as leaders in health system transformation
4. leveraging emerging technologies in education and practice
5. advancing International Medical Graduates into clinical practice
6. strengthening team-based learning and teaching

Systematically Deploying Social Accountability in all aspects of the MD program

- *Admissions:* Admissions processes are not aligned with community needs and are failing to recruit equitably to reflect the diversity of Canada's population. Although schools are starting to offer special admissions processes for equity-deserving populations, the MD program will intentionally administer a holistic admissions process that assesses commitment to the values of community-engaged care, while striving to represent the diversity of the population being served.

- *Governance:* Only a few Ontario schools have clear governance structures driving social accountability efforts through admissions, curricular content and educational experiences. Based on publicly available information, the extent to which each Ontario school engages the community in social accountability appears variable. Most schools have pre-admission initiatives open to youth to foster an interest in a career in healthcare, in addition to outreach

and mentorship programs for young students from equity-deserving communities.[190] Three out of the six medical schools in Ontario report having a member of a priority population or other community members sit on admissions panels either to review applications or interview candidates.[191] Most schools offer some form of community engagement in the curriculum; however, the type of engagement varies, ranging from in-class interviews with community members to pre-clerkship service-learning placements with community agencies and quality improvement projects.[192] As referenced earlier, the University intends to establish a governance structure that embeds social accountability in a structured way.

- *In curriculum:* Although some Canadian medical schools offer social accountability as a program theme and leverage distributed learning, newly established medical schools are systemically deploying social accountability in all aspects of their curriculum.[193] The MD program will follow a similar approach to that taken by the Kaiser Permanente Bernard J. Tyson School of Medicine to integrate Clinical, Biomedical, and Health Systems Sciences and enable students to apply knowledge and gain skills through a variety of academic experiences including Longitudinal Integrated Clerkships (LICs), service-learning and special projects.[194]

The Fall 2021 Brampton community consultations were one way the University showed its commitment to developing a MD program and School of Medicine that are accountable to community members' hopes and needs. These consultations, as well as Spring consultations with the University community, have informed the approach to admissions, curriculum and considerations around governance. For instance, Brampton and Peel community members shared:

- "Create a community panel, share information, utilize local organizations whenever possible, engage with secondary schools boards."
- "[The proposed School of Medicine] should be integrated into the community. It should be recruiting and attracting students representative of the community. The school should focus on students who are truly committed to this model and not just searching for students with the highest grades. For healthcare in Brampton to advance, the school must have diverse voices and learn from various perspectives and points of view."
- "Cultural awareness and care to be at core value, increase research. Work collaboratively and creatively to draw health care talent and retain talent in [the] area."

[190] Beruar A, Boulos M, Mahmood F, et al. Equity, diversity and inclusivity in Canadian medical institutions. Canadian Federation of Medical Students. 2020. Accessed December 8, 2021. https://www.cfms.org/files/meetings/agm2020/resolutions/edi_medical_institutions/edi_positionpaper.pdf
[191] Strasser R, Hogenbirk J, Jacklin K, et al. Community engagement: A central feature of NOSM's socially accountable distributed medical education. *Can Med Educ J*. 2018;9, e33-43 (2018). doi: https://doi.org/10.36834/cmej.42151;
Interviewing. MD program: University of Toronto. Updated 2021. Accessed December 8, 2021. https://applymd.utoronto.ca/interviewing;
Interviews. Schulich Medicine & Dentistry. Updated 2021. Accessed December 8, 2021. https://www.schulich.uwo.ca/med_dent_admissions/medicine/interviews.html
[192] Koepke K, Walling E, Yeo L, Lachance E, Woollard R. Exploring social accountability in Canadian medical schools: broader perspectives. *MedEdPublish*. 2020;9. doi: https://doi.org/10.15694/mep.2020.000283.1
[193] Leading EDGE curriculum. The University of Texas at Austin: Dell Medical School. Updated 2021. Accessed December 8, 2021. https://dellmed.utexas.edu/education/academics/undergraduate-medical-education/leading-edge-curriculum
[194] An integrated curriculum, a cohesive framework. Kaiser Permanente School of Medicine. Updated 2021. Accessed December 8, 2021. https://medschool.kp.org/education/curriculum#integrated-sciences

Embedding Equity, Diversity, and Inclusion and Reconciliation throughout the MD program

- *Admissions:* All schools in Ontario either have, or are in the process of developing, dedicated pathway programs for equity-deserving groups, such as Indigenous, Black, rural and low SES students. The MD program will differentiate itself by taking a holistic approach to student recruitment and admissions that supports equitable opportunities for students from a variety of socioeconomic and demographic backgrounds; that intentionally incorporates equity, diversity, and inclusion (EDI) and Reconciliation at every step; and that aligns admissions to the mission, vision and pillars of the school to reduce entry barriers for applicants.

- *Curriculum:* EDI training tends to take the form of short, one-off lectures that lack opportunities for reflection and the application of new skills and knowledge in practice.[195] The MD program will enhance curriculum through more training on cultural safety and the social determinants of health. Meaningfully integrating content in the curriculum related to implicit bias and bystander training, microaggressions, cultural humility and Indigenous cultural safety, social determinants of health, Indigenous health and Reconciliation, social justice and advocacy, race-conscious approaches (such as Critical Race Theory) and intersectionality requires longitudinal approaches (rather than short, one-off teaching), pedagogical techniques that integrate reflexivity and small group learning, experiential learning, and engaging patients and communities in curriculum development and teaching.

  The curriculum and learning environment of the MD program will also address the "hidden curriculum"— the unspoken and unofficial assumptions and rules that shape the enculturation of medical students. The hidden curriculum and broader institutional climate are key areas for consideration and planning as students, particularly equity-deserving students, identify the hidden curriculum as having as much of an impact on their medical school experiences as the formal curriculum.[196] The hidden curriculum is defined as "the set of influences that function at the level of organizational structure and culture including, for example, implicit rules to survive the institution such as customs, rituals, and taken for granted aspects."[197] For instance, the hidden curriculum reinforces hierarchies within medicine, the adoption of a "ritualized" professional identity, a tolerance towards unprofessional behaviour, changes in ethical integrity and a loss of idealism and emotional neutralization, which has negative effects on student well-being.[198] Students also describe a climate of heterosexual masculinity and stereotyped gender identities as prevailing norms in both the medical school curriculum and the hidden curriculum, as well as discrimination of 2SLGBTQ+ people.[199] Tactics such as humiliation of students, racism and sexism reinforce the hidden curriculum of professional hierarchy, which is a perceived difference in power between students and teachers.[200] Efforts to address the hidden curriculum at the organization level include increasing overall

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[195] Doobay-Persaud A, Adler MD, Bartell TR, etal. Teaching the social determinants of health in undergraduate medical education: a scoping review. *Journal of general internal medicine*. 2019;34(5):720-30. doi: 10.1007/s11606-019-04876-0

[196] Brown ME, Coker O, Heybourne A, Finn GM. Exploring the hidden curriculum's impact on medical students: Professionalism, identity formation and the need for transparency. *Medical Science Educator.* 2020;30(3), 1107–1121. doi: https://doi.org/10.1007/s40670-020-01021-z

[197] Lempp H, Seale C. The hidden curriculum in undergraduate medical education: qualitative study of medical students' perceptions of teaching. *BMJ.* 2004;329(7469), 770–39. doi: https://doi.org/10.1136/bmj.329.7469.770

[198] Doja A, Bould MD, Clarkin C, Eady K, Sutherland S, Writer H. The hidden and informal curriculum across the continuum of training: A cross-sectional qualitative study. *Medical Teacher.* 2016;38(4), 410–418. doi: https://doi.org/10.3109/0142159X.2015.107324

[199] Cheng L-F, Yang H-C. Learning about gender on campus: an analysis of the hidden curriculum for medical students. *Medical Education.* 2015;49(3), 321–331. doi: https://doi.org/10.1111/medu.12628

[200] Gaede B. 'I know my place'-The hidden curriculum of professional hierarchy in a South African undergraduate medical program: A Qualitative Study. *Research Square*. 2021. doi: 10.21203/rs.3.rs-745000/v1

awareness about the potential harms of the hidden curriculum, creating policies and processes to address complaints and problems, and training faculty and staff.

A very clear message in both the Brampton and Peel community consultations was the desire to see EDI, as well as Truth and Reconciliation, meaningfully incorporated into the MD program. Participants described challenges around racism in care, structural barriers to health and well-being, and the kind of diverse students, faculty and staff they would like to see in the institution.

- "This [MD program] should not be another institution in Brampton which uses our resources but does not effectively represent or show representation in its ranks of the community, which is predominantly South Asian and Black."
- "To be more inclusive with the students accepted into this program, so they represent the community and understand the culture in order to be able to deliver more culturally sensitive, accessible care. Hopefully they will also do some local placements/ residencies as well."
- "We would also like to see more women of color at the medical leadership levels not only in Brampton but throughout Canada."
- "Teaching health professionals how to speak with people from a variety of backgrounds, without judgement, with RESPECT, without preconceived notions, better research and care for people from a variety of backgrounds."
- "I think a medical school in Brampton might also be a great opportunity to create a space for physicians and future researchers to focus on issues such as decreased access to care due to challenging socioeconomic conditions as well as medical bias."

Preparing emerging physicians as leaders in health system transformation

As healthcare and medicine evolve, it is important for future physicians to learn to be compassionate, skilled clinicians who work well in teams and lead health system transformation. Within Ontario, there is a need for a cultural and policy shift toward driving equitable outcomes for all populations. Therefore, as the role of the physician grows to include enhanced competencies in leadership and advocacy, learners must be prepared to look beyond their clinics to understand how health systems are responding to increasing demand for health services. Leadership in health systems transformation also entails expanding the scope of primary care to acknowledge and address upstream health determinants. The MD program will be designed to equip medical students to become health transformation leaders and advocates for a healthier, more equitable future.

- *Curriculum:* The MD program will allow for personal reflection and leadership training as students develop strong collaborative skills, understand their personal strengths and style, and learn to lead and manage change and people in difficult circumstances. These skills will allow graduates of the MD program to thrive in team-based care and an interprofessional environment. Health equity will also be added as a core component of the curriculum. Students will learn about the historical context of discrimination, how to identify structural and social determinants of health, recognize structures enabling oppression within medicine, identify personal biases and privileges, begin relationship-building with diverse groups, and engage in community-based partnerships. The MD program will focus on building the skill set of physician advocacy for inclusion and intervention where barriers, discrimination, biases and microaggressions are recognized and addressed.

- *Physicians as health advocates*: Despite a growing emphasis on advocacy due to health system pressures and the influence of social determinants on health, physician advocacy

remains poorly integrated into medical school curricula.[201] Although many undergraduate medical education programs involve a form of health advocacy training, they often lack experiential learning and strong physician mentorship. Few Canadian schools teach students how to effectively engage in advocacy work that could lead to policy change.[202] At present, students wishing to gain advocacy skills tend to develop them on their own on an ad hoc basis or through optional training experiences.[203]

Most approaches to teaching the social determinants of health emphasize awareness, rather than remediating conditions, and do not discuss changing the longstanding structural inequities that result in health disparities. Curriculum on the social determinants of health varies across institutions from single didactic sessions to service-learning opportunities.[204] For example, 50% of surveyed Canadian undergraduate medical students reported a lack of teaching on homelessness and precarious housing, and this has downstream impacts on physician preparedness to engage with community organizations that would support better treatment adherence within the population.[205] It is unclear to what extent community care coordination is highlighted in clinical and service-learning opportunities in preclerkship and clerkship years. Post-graduate needs assessment surveys on non-clinical core competencies have highlighted a deficiency in training, familiarity and skills acquisition related to advocacy.[206] The Advocate role is considered the least relevant of the CanMEDS competencies by both educators and learners.[207] A lack of value ascribed to the health advocate role among clinical mentors and role models creates a barrier to positive clinical experiences that instill the skills required to support diverse groups of patients. Importantly, the homogeneity of Canadian medical student cohorts has been identified as a barrier to advancing advocacy work in partnership with vulnerable populations.[208]

Health system knowledge: Learners have identified a lack of knowledge and understanding surrounding health and political systems as a barrier to engaging in future advocacy work.[209] Moreover, a survey of Ontario health profession learners (primarily medicine, nursing and pharmacy) revealed that 66% of participants were uncomfortable with their level of knowledge in at least one of several systems areas, including single-payer versus private funding, for-profit

[201] Bhate TD, Loh LC. Building a generation of physician advocates: The case for including mandatory training in advocacy in Canadian medical school curricula. *Acad Med*. 2015;90(12):1602-6. doi: 10.1097/ACM.0000000000000841
[202] Sharma M, Pinto AD, Kumagai AK. Teaching the social determinants of health: a path to equity or a road to nowhere?. *Acad Med*. 2018;93(1):25-30. doi: 10.1097/ACM.0000000000001689
[203] Bhate TD, Loh LC. Building a generation of physician advocates: The case for including mandatory training in advocacy in Canadian medical school curricula. *Acad Med*. 2015;90(12):1602-6. doi: 10.1097/ACM.0000000000000841
[204] Sharma M, Pinto AD, Kumagai AK. Teaching the social determinants of health: a path to equity or a road to nowhere?. *Acad Med*. 2018;93(1):25-30. doi: 10.1097/ACM.0000000000001689
[205] Cohen A, Falzone N, Feeney B, et al. Medical education coverage of homelessness within Canadian curricula. Canadian Federation of Medical Students. 2019. Accessed December 8, 2021. https://www.cfms.org/files/meetings/sgm-2019/resolutions/5.%20[CFMS%20TF%20Homelessness%20SGM%202019]%20Medical%20Education%20Coverage%20of%20Homelessness%20Within%20Canadian%20Curricula.docx
[206] Luft LM. The essential role of physician as advocate: how and why we pass it on. *Can Med Educ J*. 2017;8(3):e109. doi: https://doi.org/10.36834/cmej.36925
[207] Ibid.
[208] Bhate TD, Loh LC. Building a generation of physician advocates: The case for including mandatory training in advocacy in Canadian medical school curricula. *Acad Med*. 2015;90(12):1602-6. doi: 10.1097/ACM.0000000000000841
[209] Luft LM. The essential role of physician as advocate: how and why we pass it on. *Can Med Educ J*. 2017;8(3):e109. doi: https://doi.org/10.36834/cmej.36925

and not-for-profit delivery, the Canada Health Act, and federal versus provincial and municipal responsibilities.[210]

During the Fall consultations, Brampton and Peel community members expressed their desire to see the MD program to train compassionate, engaged physicians who were also healthcare and community leaders and advocates. Community members shared:

- "This new medical school has the very real potential to forge a new path of medical education, with its graduates not just getting medical training, but developing key leadership skills to be change makers in our health system across the country."
- "[the MD program and its graduates should] advocate for better access to healthcare within Peel. Have programs within the School that create quality improvement initiatives in the community."
- "Have students attend a community block party and talk to residents about their needs, volunteer at value village and learn about the population that shops there, work with immigration service agencies and learn from new immigrants what they are concerned about and engage in health promotion and public health initiatives to learn how to incorporate it into their work outside of a lecture hall."
- "Most people in Brampton will listen to doctors above anyone else. I'd like to see the Medical School standing up for residents by highlight[ing] poor workplace practices that lead to poor health conditions."

Leveraging Technology in Education and Practice

- *Technology to Augment Learning:* Although all six schools of medicine in Ontario integrate technology in their programs, the types of technology as well as the quality and quantity of application in the curriculum varies considerably, for instance from using high and medium fidelity mannequins and specialized health sciences platforms to 3D and augmented reality surgical simulations. There is an opportunity for the MD program to embed and integrate novel technologies into the foundation of the undergraduate curriculum. In particular, the MD program could focus on the seamless integration of the six most promising technologies outlined in the Horizon 2020 report: Adaptive Learning Technologies; AI/Machine Learning Education Applications; Analytics for Student Success; Elevation of Instructional Design, Learning Engineering, and UX Design in Pedagogy; Open Educational Resources; and XR (AR/VR/MR/Haptic) Technologies.[211]

- *Governance:* Few Canadian medical schools have designated e-health departments or consistent e-health educational policies, committees and/or faculty leads. As well, it is uncommon for specific e-health activities to receive dedicated funding. To embed digital health into the structure and functioning of the School of Medicine, the University will consider designating a lead role or committee focused on technology.

- *Artificial Intelligence (AI):* It is unclear how students at medical schools are taught and exposed to various technologies, such as AI, used in clinical settings. The MD program will better prepare learners to understand the foundations of AI, how AI will impact practice (e.g., diagnostics) and the inherent biases that exist within AI.

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[210] Alston J, Weidmeyer ML, Gu S, et al. Canadian health professional education lacking in teaching on Canada's health care system: Health professional student survey. *Univ of Toronto Med J*. 2011;88(3):195-8. Accessed December 8, 2021. https://www.utmj.org/index.php/UTMJ/article/view/442

[211] Brown M, McCormack M, Reeves J, Brook DC, et al. 2020 Educause Horizon Report Teaching and Learning Edition. Louisville, EDUCAUSE. Published March 2, 2021. Accessed December 8, 2021. https://library.educause.edu/resources/2020/3/2020-educause-horizon-report-teaching-and-learning-edition#materials

- *Informatics and Analytics*: Despite integration of e-health competencies into the CanMEDS Framework, there is a need to set a minimum level of competence within the curriculum. Patient empowerment, where technology will enable people's health literacy and personal responsibility for their health, is a major trend in the future of healthcare.[212] Another trend is targeted, personalized care that will require providers to help patients navigate new data driven diagnostics and therapeutics.[213] Technologies such as wearables will create an opportunity for continuous health monitoring which can support diagnosis and determination of care pathways.[214] The MD program will better prepare learners to ethically acquire, analyze and interpret data.

Brampton community members who took part in the consultation were enthusiastic about the potential of technology and innovations in medical practice to transform health outcomes. Technology was frequently connected to an emphasis on lessons from the COVID-19 pandemic and training future-ready physicians. For instance, participants indicated their desire for technology-driven care, for instance:

- "Bring state of the art technology and innovative healthcare solution to improve the quality of care in Brampton"
- "leverage new and emerging technology to support physicians in the care of their patients. The COVID-19 pandemic has only made this clearer. Virtual care has always been part of my own practice. We need to ensure students training at [MD program] develop competencies in in-person and virtual care, supported by innovative platforms that improve the patient/doctor relationship."
- "meet modern or changing needs of society especially where robots and technology are concerned."

Overall, there was a clear emphasis on excellence (e.g., that the MD program be "state of the art") and innovation. As one survey participant expressed: "To encourage research and innovation, the new campus should be the new hub of research, studies, development and innovation of all things healthcare."

Advancing International Medical Graduates into clinical practice

International Medical Graduates (IMGs) play a vital role in augmenting physician labour supply in Ontario by filling necessary gaps in underserved regions. The need for more foreign-trained doctors will continue to increase as the population grows and diversifies such that the IMG supplement of the physician workforce can support the delivery of appropriate care to Ontario's diverse populations.[215] The proposed MD program will support the advancement of IMGs into the physician workforce by:

- Establishing a fast-track MD program for IMGs requiring post-graduate training in order to support the acquisition of a Canadian degree and increase the likelihood of obtaining a residency position.

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[212] Doshi P, Udayakumar K, Bhosai SJ. Imagining the future of primary care-a global look at innovative healthcare delivery. *J Gen Intern Med*. 2020;35, S157. doi: 10.1056CAT.20.0481

[213] Radin J, Gordon RL, Elsner N, Mukherjee D. Rethinking the physician of the future : Embracing new technologies, empathy, and new models of care. Deloitte Insights. 2020. Accessed December 8, 2021. https://www2.deloitte.com/content/dam/insights/us/articles/6466_Physician-of-the-future/DI_Physician-of-the-future.pdf

[214] KPMG. Connected Health: The new reality for healthcare. Published 2020. Accessed December 8, 2021. https://home.kpmg/xx/en/home/industries/healthcare/covid-19-and-healthcare/connected-health.html

[215] Duvivier R J, Wiley E, Boulet JR. Supply, distribution and characteristics of international medical graduates in family medicine in the United States: a cross-sectional study. *BMC Family Practice.* 2019;20(1), 47–47. doi: https://doi.org/10.1186/s12875-019-0933-8

- Creating a robust clinical staff network prepared to support, mentor and supervise experienced IMGs wishing to obtain a provisional license.
- Expanding on existing assets to strengthen the professional integration of experienced IMGs into the workforce through equivalency exam study supports, mentorship, clinical experience opportunities and career development.

At all stages of the consultation process, one of the most frequently asked questions was about programs designed to support IMGs' transitions into practice, reflecting a strong interest from the community in supporting this group. For instance, one respondent indicated: "I feel this School of Medicine should also provide internationally trained doctors and nurses with courses required to upgrade their qualifications to Canadian standards so they may be able to practice in Canada and to provide us with the necessary help we need for increasing family practices, or specialized practices." A common perspective is that IMGs are an underutilized resource, particularly given the experiences of COVID-19. For instance, participants shared:

- "[The MD program] should include training to allow foreign trained doctors to become licensed in Ontario so their skills are not wasted and allow them [to] use their skills and help the community."
- "During COVID-19 we face shortage of healthcare workers throughout Canada, and hence in Brampton, so I am quite confident that in [the] future if such situations arise we need colleges and medical schools to prepare international healthcare workers on emergency bases to bring them in[to the] health force."

During the spring 2021 internal consultations with the University community, there was also a very strong desire to see fast-track programs designed to support newcomer IMGs.

Strengthening team-based approach to care

Interprofessional education (IPE) is a critical curricular component for future physicians. IPE depends on dialogue and collaboration among interdisciplinary health professionals, who can advance their own knowledge and skills by sharing learning and skills with each other. The MD program will allow students to apply fundamental IPE knowledge through acquiring skills in a simulated setting and by providing collaborative care.

Interprofessional education (IPE) curricula vary significantly across institutions. Early exposure to various disciplines, including mental health and social work (particularly in clinical settings), is required in order to develop high-functioning teams that address the needs of populations in practice. Several key findings offer an opportunity to advance the efficacy of interprofessional collaboration training to optimally prepare learners for practice.

A survey of 12 of 17 Canadian medical schools reveals that all programs include students and other participants from nursing, while 92% work with the fields of physiotherapy and occupational therapy. Other professional schools included pharmacy (75%), social work (58%) and dentistry (58%), as well as physician assistant (25%).[216] Fewer IPE initiatives included faculty from different programs and backgrounds. Interprofessional teaching in mental health or with social work and other fields associated with mental health were not part of the study. These findings, or lack thereof, on interprofessional training are particularly important given the lack of physician preparedness to engage with social supports in the community when treating diverse patient populations. The survey demonstrates that few schools optimally leverage interactive

[216] You P, Malik N, Scott G, Fung K. Current state of interprofessional education in Canadian medical schools: Findings from a national survey. *J Interprof Care*. 2017;31(5):670-2. doi: 10.1080/13561820.2017.1315060

learning opportunities in clinical settings within the IPE curriculum. IPE experiences are also delivered in very different ways across institutions. The primary component of the offerings was case-based discussions (100%), small group exercises (92%) and simulations/roleplaying (75%). Other modes included lectures (75%), simulation laboratories (58%), clinics (25%), hospital settings (25%) and online modules (8%).[217]

Despite an emphasis on high quality IPE for pre-clerkship medical learners, gaps in IPE knowledge and in students' ability to collaborate in teams effectively are a challenge. One Canadian school identified that 82% of surveyed learners reported a desire to learn more about other health professions and how to collaborate with them, while 76% felt that opportunities to work in tandem with other disciplines in the first year would assist in closing this gap.[218] Early experiential exposure to a variety of disciplines is associated with more effective personal collaboration skill sets.[219]

The degree to which IPE is assessed, and how it is assessed, at medical schools in Canada is unclear based on publicly available information. Formative assessment modalities that provide authentic feedback in clinical settings are more effective than knowledge-based testing.[220]

- *In curriculum:* While all schools offer interprofessional education (IPE) programming, the level of exposure students have to IPE throughout their undergraduate medical education appears to vary greatly. The MD program will develop core program competencies with direct reference to IPE and more common learning opportunities, ensuring undergraduate curriculum directly aligns with desired outcomes.

- *Clinical practice:* The MD program will enhance IPE education in learners' clerkship experiences by providing more exposure to other types of health professionals. The University's strengths in health care education in areas such as Nursing, Midwifery, Social Work, Occupational Health and Safety, Psychology, Biomedical Engineering and Medical Physics will provide learners in the MD program with distinctive opportunities for interprofessional training. Enhanced standardization of IPE programming in clerkship through workshops, cases and shadowing will provide increased practical exposure.

- *Evaluation:* The MD program will differentiate itself by having a formalized evaluation approach for IPE to report on program effectiveness and ensure students graduate with a well-defined skill set in interprofessional practice. An example of an interprofessional evaluation approach is cross-discipline assessments in clinical settings (i.e., in clerkships or clinical learning experiences, nurses provide an assessment of medical learners' performance).

Consultation participants were interested in greater integration of the MD program and future physicians with communities. For instance, one respondent emphasized that the MD program should be "training physicians who are knowledgeable about other professions' roles and how they are integrated in a system - not a silo." One participant advocated for training in team-based primary care models, stating: "Ideally, a physician could refer to a professional in their own practice hub who could assist residents in their education, treatment and monitoring of their health." Interprofessional practice was also connected by some participants to broader

[217] Ibid.
[218] Walmsley L, Fortune M, Brown A. Experiential interprofessional education for medical students at a regional medical campus. *Can Med Educ J*. 2018;9, e59-67. doi: https://doi.org/10.36834/cmej.42175
[219] Ibid.
[220] Apramian T, Reynen E, Berlin N. Interprofessional education in Canadian medical schools. Revised 2015. Accessed December 8, 2021. https://cfms.org/files/position-papers/2015%20CFMS%20Interprofessional%20Education.pdf

issues of professionalism and respect. For instance, “healthcare professionals must treat other healthcare professionals well. Patients can feel the negativity.”

Why a new MD program is required to address these opportunities
There are six key areas where the proposed MD program will differentiate itself from existing programs:

1. systematically deploying social accountability in all aspects of the program
2. embedding EDI and Reconciliation throughout the medical education program
3. preparing emerging physicians as leaders in health system transformation
4. leveraging emerging technologies in education and practice
5. advancing IMGs into clinical practice
6. strengthening team-based learning and teaching

There are several advantages to creating a new MD program including:

- Preparing physicians to function as agents of change for the diverse underserved communities that exist in Ontario from a population health perspective requires a dramatic shift in pedagogical philosophy. This shift can best be accomplished through the development of a new program with the unique objective of mitigating structural inequities.
- Focusing on population health outcomes with a primary care focus in mind will influence choices of medical specialty and location, which will far better address Ontario’s physician workforce needs.
- Co-creating with the community in which the school will be situated and engaging representatives from equity-deserving populations to design a medical school that addresses unmet care needs and enables health system transformation.
- Championing equity, diversity and inclusion to deliver physicians into underserved communities who are from those communities will dramatically increase the diversity and ethos of the physician community to one that is mission-focused.
- Beginning in Year 1, training technologically savvy physicians prepared to meet evolving service expectations while learning in teams will shift medical culture such that each discipline is respected, leveraged to the top of their scope and managed to optimize care in a patient-centric manner.

There are several global examples, including the US, UK and Australia, in which innovative new schools have been built to address the opportunities identified above, with a clear purpose and mission to meet the needs of the communities they serve by producing a different kind of physician workforce.

Given the opportunities to advance medical education and health care in Ontario and Canada, there is a compelling case for a new kind of MD program. Through the Fall 2021 consultations, Brampton and Peel community members indicated their enthusiastic support for the proposed MD program.

School of Medicine Vision, Mission and Values

The vision, mission and values of the proposed School of Medicine were developed in alignment with the School's foundational pillars, its distinctive features, and the University's vision, mission and values. The statements were refined through feedback from internal and external consultations, and they will frame the development of the MD program.

Our Vision: *A healthier society, together*

The School of Medicine aspires to eliminate health disparities and advance health as a human right by working with communities to achieve health equity.

Our Mission:

> *The School of Medicine is dedicated to improving the health and well-being of individuals, families and communities across Ontario and Canada, with a focus on the primary care needs of diverse and medically underserved populations, through community-engaged education, scholarship and service. We are committed to educating students to become compassionate, respectful and future-ready clinicians who provide outstanding holistic health care and who lead in health system transformation. We strive for equity in all that we do. We commit to Truth, Reconciliation, anti-racism and justice to achieve inclusion and optimal health for all.*

The mission statement reflects the School of Medicine's commitment to social accountability, Truth and Reconciliation, and equity, diversity, and inclusion. Intentionally and meaningfully incorporating equity, diversity and inclusion into all aspects of the MD program and supporting equity-deserving learners through appropriate programs, policies and practices requires an institutional framework to support, align and resource efforts. That is why the proposed mission for the School of Medicine articulates an organizational commitment to equity, diversity and inclusion, anti-racism, decolonization and reconciliation.

The mission statement anchors the School of Medicine and MD program in social accountability, reflecting the commitment to a community-engaged approach to medical education. The School of Medicine will develop reciprocal relationships with communities to meaningfully incorporate community knowledge and experience through a co-creation process. An example of this incorporation is through engagement activities aimed at integrating knowledge relevant to practice in educational, research and clinical settings.[221] The extensive community engagement approach taken to develop the Letter of Intent demonstrates our commitment to social accountability. Authentic engagement, collaborative relationships and connection to the local context will be foundational to the School of Medicine and MD program.

[221] Goez H, Lai H, Rodger J, Brett-MacLean P, Hillier T. The DISCuSS model: Creating connections between community and curriculum - a new lens for curricular development in support of social accountability. *Med Teach*. 2020;42(9):1058-1064. doi: 10.1080/0142159X.2020.1779919

Mission statements are powerful tools for organizational identity that are designed to communicate the direction of institutions and guide decisions about resource allocation.[222] Evidence shows a relationship between having a mission statement that includes a commitment to diversity and having a higher proportion of underrepresented groups among the graduating class.[223] Institutions with mission statements addressing diversity and including the social mission of the School also appear more likely to graduate medical doctors who are interested in working in underserved areas, or with underserved populations, and in primary care.[224]

Our Commitment to Truth and Reconciliation

The 2015 Truth and Reconciliation of Canada (TRC) final report provides clear direction on redressing the legacy of residential schools and advancing reconciliation in the context of health (see Figure 4).[225] It lays out seven Calls to Action related to health, grounded in the experiences of communities and substantial consultation, all of which must inform medical school development, programming and curricula, though items 22-24 invite specific action from health training institutions.

Figure 4: Truth and Reconciliation Calls to Action 18-24, Health

18. We call upon the federal, provincial, territorial, and Aboriginal governments to acknowledge that the current state of Aboriginal health in Canada is a direct result of previous Canadian government policies, including residential schools, and to recognize and implement the health-care rights of Aboriginal people as identified in international law, constitutional law, and under the Treaties.
19. We call upon the federal government, in consultation with Aboriginal peoples, to establish measurable goals to identify and close the gaps in health outcomes between Aboriginal and non-Aboriginal communities, and to publish annual progress reports and assess long-term trends. Such efforts would focus on indicators such as: infant mortality, maternal health, suicide, mental health, addictions, life expectancy, birth rates, infant and child health issues, chronic diseases, illness and injury incidence, and the availability of appropriate health services.
20. In order to address the jurisdictional disputes concerning Aboriginal people who do not reside on reserves, we call upon the federal government to recognize, respect, and address the distinct health needs of the Métis, Inuit, and off-reserve Aboriginal peoples.
21. We call upon the federal government to provide sustainable funding for existing and new Aboriginal healing centres to address the physical, mental, emotional, and spiritual harms caused by residential schools, and to ensure that the funding of healing centres in Nunavut and the Northwest Territories is a priority.
22. We call upon those who can effect change within the Canadian health-care system to recognize the value of Aboriginal healing practices and use them in the treatment of Aboriginal patients in collaboration with Aboriginal healers and Elders where requested by Aboriginal patients.

[222] Morley CP, Mader E, Smilnak T, et al. The social mission in medical school mission statements: associations with graduate outcomes. *Fam Med.* 2015;47(6), 427-34. Accessed December 8, 2021. https://fcm.ucsf.edu/sites/g/files/tkssra541/f/Morley_MedicalSchoolMissionStatements.pdf
[223] Campbell KM, Tumin D. Mission matters: Association between a medical school's mission and minority student representation. *PloS One.* 2021;16(2), e0247154–e0247154. doi: https://doi.org/10.1371/journal.pone.0247154
[224] Morley CP, Mader E, Smilnak T, et al. The social mission in medical school mission statements: associations with graduate outcomes. *Fam Med.* 2015;47(6), 427-34. Accessed December 8, 2021. https://fcm.ucsf.edu/sites/g/files/tkssra541/f/Morley_MedicalSchoolMissionStatements.pdf
[225] Truth, Reconciliation Commission of Canada. Canada's residential schools: The final report of the truth and reconciliation commission of Canada. McGill-Queen's Press-MQUP; 2015.

23. We call upon all levels of government to:
- Increase the number of Aboriginal professionals working in the health-care field.
- Ensure the retention of Aboriginal health-care providers in Aboriginal communities.
- Provide cultural competency training for all healthcare professionals.

24. We call upon medical and nursing schools in Canada to require all students to take a course dealing with Aboriginal health issues, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, and Indigenous teachings and practices. This will require skills-based training in intercultural competency, conflict resolution, human rights, and anti-racism.

In 2019, the Indigenous Health Network of the Associations of Faculty of Medicines of Canada (AFMC) developed a series of action items for institutional change to help medical schools respond to the TRC calls to action, referred to as the Joint Commitment to Action on Indigenous Health (JCAIH) (see Figure 5).[226] The 17 Deans of Canadian schools of medicine unanimously endorsed the report and committed to the ten action items. Early foci include: building relationships with Indigenous communities, increasing the number of Indigenous physicians, developing Indigenous curriculum and improving the learning environment for Indigenous people. Based on a 2020 AFMC survey, 12 medical schools had a dedicated Indigenous Health office (or other structure) and 12 had dedicated Indigenous health faculty leadership positions. These schools had spent a total of $11 million to respond to the TRC calls to action.[227]

Figure 5: AFMC Joint Commitment to Action on Indigenous Health Action Items (in order of priority from the committee tasked with developing them)

1. Medical schools respond to their social accountability with respect to Indigenous communities by jointly developing specific Indigenous health goals and reporting regularly on progress within the medical school and also to the Indigenous communities they serve.
2. Medical schools dedicate sufficient resources to enable full implementation of Indigenous health goals. This includes, for example, appropriate resourcing of Knowledge Keepers, meaningful community partnerships, library and librarian services, and physical space.
3. Medical schools commit to the development and implementation of a longitudinal Indigenous health course with anti-racism as the core pedagogical approach.
4. Medical schools invest in the development of a critical mass of Indigenous Faculty and Staff with the appropriate supportive infrastructure to lead all aspects of Indigenous medical education including admissions, student recruitment and retention, curriculum development and implementation, and with structured presence on key decision-making committees within the medical school.
5. Medical schools commit to developing a safe work and learning environment for Indigenous learners, faculty and staff by supporting leadership and faculty change through focused and strategic professional development activities based in anti-racism, cultural safety and decolonization. This will include a specific focus on clinical preceptors across all clinical learning sites.

[226] Association of Faculties of Medicine of Canada. Joint commitment to action on Indigenous health 2020 review. Published 2020. Accessed December 8, 2021. https://www.afmc.ca/sites/default/files/pdf/AFMC_JointCommitment_EN_FINAL.pdf
[227] Ibid.

6. Medical schools focus on the development of meaningful relationships with the Indigenous communities that they serve using rights-based approaches to the co-creation of the terms of the relationship. Indigenous communities are recognized as expert resources for the medical school and are provided with the opportunity and resources needed to participate in all aspects of the admissions process, teaching, hosting learners, research and scholarship, and faculty development.
7. Medical schools have robust policies and processes for identifying and addressing anti-Indigenous racism/ sentiment experienced by Indigenous learners, staff and faculty in classroom and clinical environments. This includes institutional measures of the effectiveness of the policy that are regularly reported on.
8. Medical schools commit to the development of Postgraduate Medical Education curriculum and associated tools in Indigenous health with a core focus on cultural safety and anti-racism. This builds on the undergraduate curriculum in Indigenous health and prepares physicians for anti-racist, culturally safe independent practice.
9. Medical schools will work towards admitting a minimum number of First Nations, Métis and Inuit students each year by employing distinctions based approaches and practicing holistic file reviews. Robust data collection with appropriate data stewardship agreements will allow for review of progress towards goals at the individual school, provincial and national level.
10. Medical schools will add a prerequisite for consideration of admission for all candidates in Indigenous studies, cultural safety, anti-racism or related discipline.

The recent 2020 AFMC survey of institutions shows ways each institution has implemented the 10 recommendations and also suggests implementation gaps.[228] Together, the recommendations represent a clear roadmap for medical schools and offer a starting point for advancing Indigenous health and supporting Indigenous students, faculty and staff.

Our Commitment to Developing Meaningful Relationships with Indigenous Communities

The Association of Faculties of Medicine of Canada Joint Commission to Action on Indigenous Health recommendations highlight the importance of accountability and of thoughtful, reciprocal relationships with Indigenous communities to advance Reconciliation and Indigenous health. The University is committed to developing meaningful relationships with Indigenous communities through a co-creation approach to define the terms of the relationship and ensuring accountability mechanisms are in place. Co-creation is a long-term process of relationship- and trust-building.

As the governance structure for the School of Medicine is developed as part of the full program proposal, the University is committed to creating leadership roles in Indigenous health and institutes dedicated to advancing Indigenous health research and learning. The University will also consult with Indigenous communities on how they would prefer to partner and be engaged in the School — such as through a Council of Elders or an Indigenous community advisory council. Foundational to this work is ensuring that there are appropriate supports in place for Indigenous faculty and staff.

[228]Association of Faculties of Medicine of Canada. Joint commitment to action on Indigenous health 2020 review. Published 2020. Accessed December 8, 2021. https://www.afmc.ca/sites/default/files/pdf/AFMC_JointCommitment_EN_FINAL.pdf

The University is also committed to intentionally recruiting Indigenous students — for instance, through facilitated admissions streams — and ensuring they are supported through well-resourced programs. Critical to support Indigenous learners, faculty, staff and communities is committing to an inclusive, equitable learning environment that aspires to be culturally safe. This means that the University will commit to providing appropriate cultural safety training to all members of the School of Medicine community and to using the recruiting process to ensure all students bring a commitment to the values of equity, diversity, inclusion and Reconciliation. Learners will also take part in a longitudinal Indigenous health course that is explicitly anti-racist and anti-colonial and co-developed in partnership with Indigenous communities.

The University respects Indigenous wisdom, knowledge, values, traditions and aspirations, and is committed to ensuring that the University's Research Ethics Board is aligned with Indigenous community values and data sovereignty, acknowledging and respecting the cultural values and diversity of Indigenous communities, committing to long-term partnerships and sharing credit.[229]

These commitments are only a starting point and require an in-depth and community-engaged co-creation process to better understand the context and priorities.

Our Commitment to Equity, Diversity, and Inclusion

Equity, diversity and inclusion have come to signal many different things to different groups of people. The meaning is also evolving, and we recognize that past and current usage may not always reflect the nuance and complexity of systemic barriers to equality and deeply rooted structures of exclusion and violence. We use these terms as follows.

- **Equity** acknowledges that, in order to have fair treatment, access and opportunity for all, we must strive to address the barriers that have prevented certain groups from full participation. As a result, equity is rooted in acknowledging and correcting current and historical injustices that are disproportionately experienced by certain groups. These **equity-deserving** groups, or groups that identify barriers to equal access, opportunities and resources because of discrimination and systemic barriers, are actively seeking equity and justice. Understanding equity requires attention to **intersectionality**, which refers to the ways different social categories interact to create overlapping systems of discrimination and inequity.
- **Diversity** acknowledges the many aspects of human differences including, but not limited to, Indigeneity, experiences of racism, ethnicity, language, nationality, sex, gender identity, sexual orientation, socioeconomic status, religion, geography, disability, health status and age.
- **Inclusion** means fostering environments where all individuals are respected, valued and heard and have an equal opportunity to contribute.

We reject deficit-based approaches to EDI. Instead, we locate the barriers to EDI in systems and structures of exclusion, rather than in individual deficits. This means that understanding the structural roots of inequality, such as the social determinants of health, is essential to advancing EDI and to approaching health challenges. It also means centering approaches like the social

[229]Gittelsohn J, Belcourt A, Magarati M, et al. Building capacity for productive Indigenous community-university partnerships. *Prev Sci*. 2020;21(Suppl 1):22-32. doi: 10.1007/s11121-018-0949-7;
Whitesell NR, Mousseau A, Parker M, Rasmus S, Allen J. Promising practices for promoting health equity through rigorous intervention science with Indigenous communities. *Prev Sci*. 2020;21(Suppl 1):5-12. doi: 10.1007/s11121-018-0954-x

model of disability, which highlights that people are disabled by barriers in their environments and in society, rather than by their difference.

Drawing on social justice and anti-oppressive practice, we work to acknowledge, understand and challenge systems of power that privilege some groups over others. For instance, biomedicine and healthcare systems have deep histories of hierarchical, exclusionary and discriminatory practices that continue to have harmful effects on health professionals, patients, families and communities.

We also take an explicitly anti-racist perspective, with particular sensitivity to the unique historical and ongoing contexts of anti-Black racism and anti-Indigenous racism. Part of this is a commitment to seeing “race” as a harmful social construction — with no roots in biology — and, therefore, focusing explicitly on the impact of racism rather than simply on race itself. As a result, we take a race-conscious approach that recognizes the way racism is perpetuated in the healthcare system and that encompasses perspectives like Critical Race Theory.

Advancing EDI is not possible in unhealthy environments. We see a close connection between supporting EDI and supporting an organizational culture that prioritizes community members’ mental health and well-being. This includes the integration of trauma and violence informed approaches. Part of a focus on well-being is acknowledging that biomedical approaches to health are not universal and may be at odds with community members' ways of understanding and experiencing their own health and well-being.

EDI work is subject to considerable criticism. Much of this is for good reason, as we are learning about barriers to EDI and the experiences of different equity-deserving groups and must approach this process with humility. Some criticism of EDI is based on perceived threats to the status-quo and unearned privilege. Ongoing learning and reflection about relative privilege is an essential component of EDI work.

It is also important to recognize the critical importance of meaningfully engaging and empowering historically marginalized communities and perspectives in order to effectively advance EDI and social accountability in the new proposed medical school. Co-creation with equity-deserving community members is essential to ensure new systems and structures are more inclusively designed from the outset.

To facilitate the integration of EDI into all aspects of the planning and program development process, a School of Medicine EDI Advisory Committee was established to create an EDI strategy and action plan. The EDI Strategy and Action Plan, which can be found in Appendix C, was endorsed by the Academic Program Development Committee at its December 16, 2021, meeting.

Our Values

Seven values will guide the attitudes and actions of the proposed School of Medicine's students, faculty and staff.

Health Equity

We advocate for and drive change to achieve health equity, eliminate health disparities and advance health as a human right. We take a holistic view of health and well-being that balances its spiritual, emotional, physical and mental aspects and addresses the social determinants of health.

Community Engagement

We build reciprocal relationships with the communities with which we work, learn, care, research and discover. We serve the community and co-create to design and prioritize initiatives to improve health and well-being. We promote healthcare in true partnership with patients, their families and the community at large as part of a team of healthcare providers.

Equity, Diversity, Inclusion and Mutual Respect

With humility, we value and respect all individuals for their unique perspectives, experiences and potential to contribute. We intentionally foster a culture of inclusion and engagement. We advance social justice by breaking down barriers that systematically exclude or disadvantage groups, in particular the negative impact of anti-Black racism and the systemic inequities and exclusions experienced by Indigenous peoples.

Reconciliation & Indigenous Health Value

This value, or set of values, will be co-created with Indigenous communities as part of the full program proposal process.

Integrity

We act with honesty and trustworthiness in all that we undertake — including learning, knowledge creation and service. Guided by professional ethics and accountability, we strive to ensure high quality, safe, and appropriate care for patients, families and communities.

Well-being

We cultivate an environment of learning and discovery that supports the health, well-being, and resilience of our students, faculty, staff and community and enables them to serve as exemplars for patients and the profession.

Leadership

We encourage our students, faculty and staff to challenge the status quo to create positive change. We embrace innovation and know that leading creative solutions requires courage.

MD Program

The MD program proposes a curriculum that responds to trends in medical education to build on the latest concepts in learning sciences with educational technologies. This curriculum will use an integrated approach, becoming an agent of change for healthcare system transformation led by a diverse and dedicated student body, faculty and staff.

Program Goals

The goals of the proposed MD program are:

1. Develop clinically competent and compassionate physicians who act with the highest standards of professionalism and ethical practice.
2. Train physicians to meet the healthcare needs of all with a particular focus on the unique needs of Indigenous, Black, and other equity-deserving and medically underserved populations.
3. Prepare emerging physicians to be at the forefront of health system transformation, to advocate for social justice, and to address the social determinants of health with an understanding of health systems and exclusionary systemic barriers at an individual, institutional and population level.
4. Train physicians in cultural safety, anti-racism, anti-oppression, trauma and violence-informed approaches, social justice, and rights-based approaches to health to better serve patients, families and communities as co-creators, allies and advocates.
5. Ensure physicians understand and reflect on the unique histories and current contexts for Indigenous health and demonstrate a commitment to Reconciliation through cultural humility and ongoing reflection in their practice, as well as through ongoing, reciprocal partnerships and a continuous process of co-creation with Indigeous communities.
6. Provide meaningful and integrated clinical training in interprofessional community settings to prepare physicians who work collaboratively with patients, families and communities, and who provide high-quality, safe and appropriate clinical care as a member of a team of healthcare providers.
7. Prepare physicians to apply leading technological practices in medicine ethically with a focus on improving quality of care and patient outcomes.
8. Foster critical thinking, inquiry and evidence-based decisions using the latest technology and data-driven reflective practices.
9. Provide meaningful and integrated teaching and learning experiences and research training in clinical, patient and community-centred settings that reflect community health needs and promote person-centred and community-based healthcare.
10. Prepare physicians with the knowledge and skills to improve the environmental

sustainability of health systems and to advocate for and address the interconnected impact of climate change on the health of patients, families, communities, health systems and the planet.
11. Prepare physicians to address the unique needs of an aging population to support aging with dignity in the community.
12. Prepare physicians to provide holistic care, to promote health and well-being, and to deliver mental health services at a primary care level.
13. Advance International Medical Graduates into clinical practice to augment physician supply and to enhance the diversity of the physician workforce.
14. Foster deep learning and support students' professional development through a competency-based, active and experiential learning medical education model with programmatic assessments.
15. Prepare physicians who are able to address the societal influences and administrative challenges that also affect patient care through a curriculum that longitudinally integrates health systems science with the basic and clinical sciences.
16. Promote a culture of inclusion, humility, engagement and mutual respect.
17. Foster an environment of collaborative learning and discovery, and support the health, wellbeing, and resilience of students and the individuals who teach, mentor and support them.
18. Encourage reflexivity, continuous growth and improvement at the personal, professional and institutional level.

Program-Level Student Learning Outcomes

The program-level student learning outcomes for the MD program will be developed to align with the CanMEDS Framework (and the CanMEDS Family Medicine, Undergraduate). The CanMEDs Framework, which was developed by the Royal College of Physicians and Surgeons of Canada and has been adopted by medical schools in Canada,[230] identifies and describes the key and enabling competencies physicians require to effectively meet the healthcare needs of the people they serve. These abilities are grouped thematically under seven roles, and the expectation is that a competent physician seamlessly integrates the competencies of all seven CanMEDS roles.The CanMEDS roles are:

- Medical Expert (the integrating role)
- Communicator
- Collaborator
- Leader
- Health Advocate
- Scholar
- Professional

[230]CanMEDS: Better standards, better physicians, better care. The Royal College of Physicians and Surgeons of Canada. Updated 2021. Accessed December 8, 2021. https://www.royalcollege.ca/rcsite/canmeds/canmeds-framework-e

The CanMEDs Framework is currently being updated and will include Indigenous health competencies that are not currently reflected in the seven CanMEDS roles. Given that, the student learning outcomes for the MD program will be developed as part of the full program development process, using the revised CanMEDs Framework. We will demonstrate in the full program proposal that the learning outcomes address the University's Degree Level Expectations.

The MD program's competency framework will align with the development of the Entrustable Professional Activities (EPAs) for the Transition from Medical School to Residency.[231] There are 12 EPAs approved by all 17 Canadian medical schools. These represent core outcomes that students should be ready to perform with distant supervision in a given health care context once sufficient competence has been demonstrated. EPAs will be built into the program's curriculum to measure competency and progress. A milestone is a defined, observable marker of an individual's ability along a developmental continuum, and an EPA is an essential task of a discipline that an individual can be trusted to perform without direct supervision in a given health care context once sufficient competence has been demonstrated. Milestones and EPAs will be built into the program's curriculum to measure competency and progress.

Admissions

Training the kind of physician Ontario needs begins with a medical school application and admissions process that is mission-based and purposefully reflective of community needs. The admissions process will serve as the foundation for the program and is essential to enabling the school to serve its mission and program goals.

Recognizing the importance of the admissions process in ensuring this mission is met, the MD program will use a distinctive holistic admissions process that intentionally incorporates equity, diversity, and inclusion (EDI) and Reconciliation through every step; that supports equitable opportunities for students from a variety of socioeconomic and demographic backgrounds; and that admits to the mission, vision and foundational pillars of the school.[232]

To achieve the school's mission, the admissions process will be designed to purposefully admit a high number of equity-deserving students and to identify and select applicants who are interested in primary care practice, particularly in medically underserved communities. The school will fulfill these goals by being intentional in its recruitment and admittance of students who demonstrate commitment to the mission and pillars of the school and to serving communities through reducing health disparities and improving health status outcomes.

Admission to the program will be based on academic performance, progress towards an undergraduate degree in any discipline, and academic, extracurricular and professional experience. The program is committed to challenging the status quo in how it will consider and weigh admissions criteria, with a strong emphasis on applicants' exemplified commitment to the five pillars of the school. This approach will emphasize honouring applicants' diverse lived experiences alongside consideration of unique previous experiences, such as community work and engagement. Demonstrated potential to serve a diverse population of patients, through attributes such as knowledge of a second language, will also serve to distinguish applicants. Recognizing the barriers the MCAT can pose and the best way to serve the mission of the

[231] EPAs and CanMEds milestones. Royal College of Physicians and Surgeons of Canada. Updated 2021. Accessed December 10, 2021. https://www.royalcollege.ca/rcsite/cbd/implementation/cbd-milestones-epas-e

[232] Guevara JP, Wade R, Aysola J. Racial and ethnic diversity at medical schools - why aren't we there yet?. *N Engl J Med*. 2021;385(19):1732-1734. doi: 10.1056/NEJMp2105578

school, the MCAT will be excluded from admissions criteria. The decision to omit the MCAT from admissions is in the interest of the school's commitment to EDI, Reconciliation and social accountability, and is based on an extensive review of the literature. Of the medical schools in Canada, six out of 17 schools do not include the MCAT. Two of these schools are in Ontario, and four are in Quebec.

Although the MCAT has been revised over the years, there are still a range of concerns regarding equity, predictive validity and the influence of commercial preparation services.[233] A number of studies have assessed the predictive relationship between the MCAT exam and various outcomes in medical school, suggesting that the MCAT is, at best, low to moderately predictive of medical school performance.[234] Another challenge with the MCAT exam is that, while it may be standardized, it may not necessarily be equal for all. The direct course and preparation costs are significant, and there are significant opportunity costs in lost income or professional experiences for applicants who focus on MCAT studies and may have to give up other responsibilities to do so. This advantages students from economically privileged backgrounds.[235] Equity-deserving groups also often face differences in access to testing centers and high-quality preparation services, resulting in inequities in test readiness and preparation and in lower average test scores that can underpredict aptitudes and skills.[236]

In order to truly approach admissions holistically and reach the admission goals of the school, there is a need to address structural barriers. The MCAT acts as a structural barrier. Moreover, it is not the only way to assess academic performance. Instead, the school will balance robust and inclusive non-academic screening and carefully crafted academic requirements to admit and recruit students whose values and aims are aligned with the mission, vision and values of the school.

Multiple Mini Interviews (MMI) will be used following initial screening, with appropriate design, planning, EDI and Reconciliation considerations in place. The MMI will be carefully designed to select students who reflect the vision, mission and values of the school. Considerations relative to equity, diversity and inclusion, as well as Reconciliation, will be built into the planning, format and questions of the interviews. Additionally, consideration must be given to ensure that the assessment and evaluation of interviews is carried out in a way that reflects the values of the school and addresses systemic biases.

In keeping with the school's commitment to the AFMC Joint Commitment to Action on Indigenous Health, the admissions committee will also design requirements to ensure knowledge of Indigenous studies, cultural safety, anti-racism or related disciplines in the consideration of admission. An Indigenous admissions stream will be established to address the under representation of Indigenous students in medical education. To support, guide and inform this process, an Indigenous Admissions Advisory Committee will be created.

Recognizing the barriers that other groups face in applying to and being admitted to medical school, the school will have other purposeful admissions streams and pathways. In alignment with the EDI goals of the school and in addition to the Indigenous stream, the program will

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[233] Eskander A, Shandling M, Hanson MD. Should the MCAT exam be used for medical school admissions in Canada?. *Acad Med.* 2013;88(5):572-580. doi: 10.1097/ACM.0b013e31828b85af

[234] Donnon T, Paolucci EO, Violato C. The predictive validity of the MCAT for medical school performance and medical board licensing examinations: a meta-analysis of the published research. *Acad Med*. 2007;82(1):100-106. doi: 10.1097/01.ACM.0000249878.25186.b7

[235] Eskander A, Shandling M, Hanson MD. Should the MCAT exam be used for medical school admissions in Canada?. *Acad Med*. 2013;88(5):572-580. doi: 10.1097/ACM.0b013e31828b85af

[236] Ibid.

develop admission streams for Black and low-socioeconomic status applicants, as well as a dedicated stream for those living in North-Western Greater Toronto Area. Pathways that recognize the value and skill set of internationally-trained health care professionals will also be explored.

The holistic admissions process will include strategies for purposeful recruitment and the development of pipeline programs to encourage young people from equity-deserving groups to imagine careers in health and to develop the social capital needed to navigate the admissions process. Consistent with its commitment to community engagement, the school will engage in partnerships with communities and community-based organizations to develop these programs and to ensure recruitment processes reflect this value. In addition, community members will be actively consulted throughout the further development of the admissions process and included as part of the admissions committee and interview processes with each admissions cycle.

The school will embed critical anti-racist, accessible and equitable holistic processes, such as interviewer and assessor anti-bias training, and increased diversity on admissions committees from the outset. Policies and procedures will have EDI and Reconciliation embedded and will ensure students who are admitted are not only set up to succeed in the program, but are also supported throughout the program's duration. Procedures will also be put in place to ensure that admissions processes are evaluated on an ongoing basis and that they are fulfilling intended goals.

Curriculum

The MD program will develop future-ready and culturally respectful physicians who will lead health system change at the citizen and population level through an innovative curriculum and pedagogical approaches. The curriculum for the MD program will be purposefully developed, community informed and evidence-based, and will align with the School of Medicine’s mission, values, program goals and student learning outcomes. The curriculum will be rooted in principles of community-driven care, cultural respect and safety and social accountability, with EDI, Reconciliation and health equity intentionally embedded across all aspects of the MD program. Part of this incorporation will be through a curriculum that is founded on the integration of Biomedical, Clinical and Health Systems Sciences, with opportunities to apply knowledge and gain skills through academic experiences such as Longitudinal Integrated Clerkships and early clinical exposure in the community, including through an Interprofessional Community Clinic associated with the School of Medicine.

Building on the need to prepare physicians to be leaders in health system transformation, learners will be trained in leadership and advocacy through experiential learning and mentorship. Learners will also be trained on the use of emerging technologies in practice and will have distinctive opportunities for interprofessional collaboration and practice. To ensure high-quality, learner-centred education based on best practices in curricular design and teaching and learning, the curriculum will be designed in collaboration with the University's Centre for Excellence in Teaching and Learning.

To achieve the program goals and program-level student learning outcomes, the following principles will guide the curriculum:

- Learner-centred education leading to patient/community-centred care at graduation.
- Excellence in teaching, faculty development and continuing education.
- Outcomes-based approaches using the framework of competency-based medical education (CBME).
- Integration of biomedical, clinical and health system sciences, as well as curricular themes and threads, across all years of the program with increasing complexity of curricular content.
- Progression from simple to more complex care using a body systems-based, integrated case-based/team-based learning model.
- Longitudinal clinical training in primary care settings with students working in an interdisciplinary environment over a sustained period of time to follow patients longitudinally and to enable continuity in patient care and in student learning.
- Programmatic assessments to foster ongoing deep learning with a focus on feedback and continual improvement.

The curriculum will be developed to meet the accreditation standards set out by the Committee on Accreditation of Canadian Medical Schools. In line with these standards, the MD program will include at least 130 weeks of instruction.[237]

Both three and four-year options for the program length are being explored.[238] The decision regarding the program length will be made by the Interim Dean during the next phase of program development. A three-year MD program model can reduce student debt and get physicians into communities more quickly, and the literature demonstrates that students' and graduates' performance in three-year programs is similar to that of their four-year MD peers. Yet, three-year medical programs may compress the content that can be delivered, require more student support systems, and provide students less time for rest, paid work, extracurricular involvement, career development and specialty selection. As the program develops further, the Interim Dean will decide how best to achieve the key learning outcomes, while considering the benefits and challenges of three and four-year programs (Appendix D).

The curriculum will go beyond the traditional two-pillar model of medical education, with the inclusion of health system sciences in addition to biomedical and clinical sciences, to better address the evolving healthcare landscape and Ontario's Quadruple Aim of healthcare. Biomedical Sciences include anatomy, physiology, biochemistry/pharmacology, pathology, microbiology, genetics, molecular sciences and more. Clinical Sciences include the ability to use knowledge to assess/diagnose conditions, interpret tests, and develop management and follow-up plans in various areas of medicine using evidence-informed data. Clinical sciences also include the mastery of communication skills and other professional behaviours. Health system sciences bridge the study of biomedical and clinical sciences to provide physicians with the knowledge of the social factors and administrative requirements that influence patient care.[239] Topics in health systems science include population health (social determinants of health and

[237] Committee on Accreditation of Canadian Medical Schools. CACMS standards and elements: Standards for accreditation of medical education programs leading to the M.D. degree. February, 2019. Accessed December 8, 2021. https://cacms-cafmc.ca/sites/default/files/documents/CACMS_Standards_and_Elements_AY_2020-2021.pdf
[238] Ibid.
[239] Samarasekera DD, Goh PS, Lee SS, Gwee MC. The clarion call for a third wave in medical education to optimise healthcare in the twenty-first century. Medical teacher. 2018;40(10):982-5. doi: https://doi.org/10.1080/0142159X.2018.1500973

healthcare equity), value-based care, health care policy and economics, interprofessional skills, informatics and health system improvement.[240] The integration of the biomedical, clinical and health system sciences will be done to ensure learners are building an understanding of their interplay and importance. The program will be distinctive in the way it integrates these three pillars from the beginning to best serve the mission of the School and the needs of the community.

Themes and Threads

The MD program curriculum will be built around unique key curricular themes and threads that are longitudinal and reflect the program's goals, student learning outcomes and community needs. Themes are cross-cutting, distinctive areas of importance for the School of Medicine that will be highlighted throughout the curriculum. The selected themes are core to the mission of the School and are important to the community that this program will serve. Students will have ongoing curricular activities, such as modules, at various key points within the curriculum to ensure that they develop the knowledge, skills and attitudes required to promote and demonstrate the objectives of the themes.

Threads are areas of importance that will be woven throughout the curriculum and the length of the program. While developing the various curricular learning experiences, the selected threads will be incorporated into materials, as appropriate, to encourage students to reflect on how they impact the patient, the community and the physician, as well as the interaction between these.

The themes and threads, as highlighted below, build on the trends in medical education and are distinctive in how they intentionally embed principles of social accountability, EDI and Reconciliation in the curriculum. They employ a trauma-informed approach to address the factors that contribute to the unmet health needs of equity-deserving populations and train learners to address these needs.

Themes

- **Health equity:** This theme addresses the fair distribution of resources needed for health, fair access to opportunities for wellness and fairness in the support offered to people when ill.[241] Through this theme, students will learn about the historical context of discrimination and the structures enabling oppression within medicine. They will also learn how to identify structural and social determinants of health, identify personal biases and privileges, build relationships with diverse groups, redress inequities faced by equity-deserving groups, and engage in community-based partnerships.
- **Indigenous health and decolonization:** In keeping with the Calls to Action of the Truth and Reconciliation Commission, this curricular theme will be co-created with Indigenous communities. It will be part of the full proposal development process, focusing on addressing issues that create inequity in Indigenous peoples' health, establishing how to respect values and unique approaches to care, and supporting and advocating for the dismantling of colonial structures/attitudes of care.

[240] Gonzalo JD, Dekhtyar M, Starr SR, et al. Health systems science curricula in undergraduate medical education: identifying and defining a potential curricular framework. *Academic Medicine*. 2017;92(1), 123-13. doi: 10.1097/ACM.0000000000001177

[241] Whitehead M, Dahlgren G. Concepts and principles for tackling social inequities in health: Levelling up Part 1. World Health Organization. 2006; 2:460-74.

- **Care for an aging population:** This theme addresses the importance of gerontological care through an understanding of aging and an ability to provide appropriate care and advocacy.
- **Leadership, advocacy and social justice:** This theme addresses the need for students to have additional training in how to appropriately use their societal role to elicit system changes not only for individuals but also for communities and populations to improve health and care.
- **Interprofessional collaborative practice:** This theme engages in the fact that health professionals require training and support to develop skills required to work in collaborative practice teams. This will be addressed through case-based and team-based interprofessional learning and in multidisciplinary clinical settings.
- **Mental health:** This theme will address the importance of increasingly prevalent mental health conditions as well as substance use and addiction. In addition to learning the principles of psychiatric diagnosis and care, this theme will highlight the intersectionality with other themes and threads, the underlying system-related causes of these conditions and the need for a collaborative and multidisciplinary approach to care.
- **Planetary health:** This theme addresses the ongoing ecological crises that are taking place worldwide, such as climate change, and their impact on health through events such as natural disasters causing injury and disease, thus affecting the social determinants of health.

Threads

- **Equity, diversity, and Inclusion:** This thread will address longitudinal training in EDI throughout the curriculum to ensure that students are prepared to care for patients from equity-deserving communities and with multiple intersections. There will be an emphasis on implicit bias and bystander training, microaggressions, anti-racism, cultural humility and skills to ensure cultural safety of all patients/communities. It will also address the healthcare needs of underserved populations.
- **Social determinants of health:** Defined as “conditions in which people are born, grow, live, work and age,”[242] the social determinants inform patients’ physical and mental health. This thread will address why marginalized populations have poorer health outcomes and how physicians can impact these outcomes through community service and advocacy.
- **Health promotion and illness prevention:** This thread addresses issues relating to health promotion/illness prevention in patients, families, communities and populations. It also addresses the overall health of medical students and healthcare providers, with an emphasis on wellness. The thread emphasizes the importance of public health as an avenue to improve the health of all not only in times of crisis but also in times of stability, for example through promoting healthy habits, preventative health and community health.
- **Digital health:** This thread addresses the importance of digital literacy in health care, including the inclusion of digital health and health informatics in clinical routine, using data analytics for quality improvement, artificial intelligence for clinical decision making and cybersecurity. Throughout the curriculum, ethical considerations, privacy legislation and data hygiene will be emphasized.

[242] Social determinants of health. World Health Organization. Updated 2021. Accessed December 8, 2021. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1

Curriculum Overview

In the early preclinical stages of the MD program, students will gain knowledge and skills in the biomedical sciences, the art and science of diagnosis and management, and essential competencies in health system sciences through case-based learning of both common and rare but important conditions in individuals throughout the age continuum. Career readiness will also be achieved by building students' clinical skills of communication related to patient interviews, cultural sensitivity and safety, trauma-informed approaches to care, interprofessional communication and collaboration, and basic physical exam skills through simulated and clinical experiences and other experiential learning opportunities. The EPA framework for workplace-based assessment will be present in the early phase of training where appropriate. Students will also engage in community-based experiences within interdisciplinary teams, where they will develop skills in advocacy and social justice through participation in a scholarly project.

Later on in the preclinical stage, students will be exposed to case-based learning of chronic and complex conditions of individuals and community health-related topics, further expanding their knowledge and skills in biomedical, clinical and health system sciences. Clinical skills will be expanded through simulated and clinical experiences with time in interprofessional and community care settings. This stage will include EPAs in preparation for the clinical stage. Students will also expand their community-based work with a further focus on a scholarly project.

The clinical stage of the program will feature a competency-based longitudinal clerkship with integration into primary care community practice and team-based care, with exposure to family medicine, internal medicine, pediatrics, obstetrics/gynecology, psychiatry and geriatrics. It will also include key specialty clinics and relevant rotations to ensure students have access to certain specialized care, such as emergency medicine, surgery, anesthesiology and ophthalmology. Students will participate in simulations of more complex clinical skills and procedures that will include difficult conversations around ethics and consent. This stage will also have students involved in interprofessional education opportunities, community-based clinical care and a data-based patient safety scholarly project.

The final stage of the program will see students complete their clerkship and clinical electives and, subsequently, complete their scholarly projects. Students will then participate in a pre-residency preparation module to ensure their transition into and success in their residency programs. Their final core EPAs will also be completed in clinical and simulated settings.

An important component of being a physician, regardless of the specialty one chooses for eventual practice, is that of research. Students must have an appreciation for how advances in medicine come about, have skills in literature review and be capable of assessing the quality of research that may impact the care of their patients. As per accreditation standards, students will be introduced to the principles of research and scholarship through a dedicated module or course. In addition to the traditional biomedical scientific approach, students will be exposed to different ontological and epistemological approaches, including Indigenous approaches to research. Community-based longitudinal experiences in scholarly activity will be encouraged starting in year one. The school will also provide students with access to paid scholarly placements during program breaks and elective periods. The University is well positioned to offer students a vast array of possible interprofessional experiences in such areas as community health, health systems and health services policy, digital systems and data, public and occupational health, and health care models.

Modes of Delivery

The program's innovative curriculum model will be supported by evidence-based modes of learning. The modes of delivery will include large and small group learning, online learning, laboratory experiences, self-directed learning, case-based and team-based learning, simulations and experiential learning (EL), scaffolded reflection, and clinical skills training in community and hospital settings. The curriculum will be delivered in ways that optimize the resources available at the university, while providing opportunities for students to participate in active learning settings within the community in the preclinical and clinical stages of the program. The distinctiveness of the learning environment will be demonstrated through students' early interactions with the community, interprofessional education and practice, and the thoughtful planning of the modes of delivery with the mission of the school and the community at the centre.

Delivery modes will emphasize accessibility and equity, and will support the students' learning experience with a variety of learning settings, preclinical content and clinical practice in order to prepare the future-ready physician. The school will address accessibility needs in the delivery of the curriculum through the use of inclusive design for learning to respond to a variety of learner needs.

An integrated approach will be used in delivering the curriculum that is driven by the community and that emphasizes interactions with interdisciplinary faculty. The approach will also be guided by the student experience, ensuring that the social aspects of learning are emphasized. For example, students will be brought together in small groups for case-based learning, which will support the application of clinical learning, enhance teamwork, foster relationship building and professionalization. The learning environment will also prioritize the purposeful use of students' time to ensure their experiences are optimized. Evidence-informed teaching methods that use active learning, interconnected experiences, thoughtful reflection, and discussion will be prioritized over lecture-based learning. Modes of delivery will also be quality assured, with evaluation built in to ensure students are achieving learning outcomes throughout the curriculum delivery.

The program will use thoughtful integration of teaching technologies while still emphasizing the human aspect of teaching and learning. Technology and innovation will be built into the mode of delivery by using tools that enable flexible and active modes of teaching and learning. The school will support student-driven learning with advanced technology through active learning with individualization, social interaction and resource accessibility. Tools that will be considered include learning analytics, personalized/individualized learning, student tracking, AI, technology-supported simulation and augmented reality/virtual reality.

The MD program will also address the "hidden curriculum" using role modelling as a positive way to develop humanistic skills and through the training of faculty and staff.[243] Reflexive learning practice and coaching, which gives students the tools to interrupt the negative effects of the hidden curriculum in a constructive and beneficial way, will be incorporated into the curriculum.[244]

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[243]Weissmann PF, Branch WT, Gracey CF, Haidet P, Frankel RM. Role modeling humanistic behavior: learning bedside manner from the experts. *Acad Med.* 2006;81(7):661-667. doi: 10.1097/01.ACM.0000232423.81299.fe

[244]Association of Faculties of Medicine of Canada. The future of medical education in Canada (FMEC): a collective vision for MD education.Published January 28, 2010. Accessed December 8, 2021. https://cou.ca/wp-content/uploads/2010/01/COU-Future-of-Medical-Education-in-Canada-A-Collective-Vision.pdf;

Experiential Learning

Experiential learning will be a distinct feature of the MD program, beginning in the first year and continuing throughout the program. A scaffolded experiential learning strategy will be employed to provide students with meaningful opportunities to explore early career interests, develop lasting mentor relationships, build foundational skills for clinical rotations, establish early and lasting trusting relationships with the community, and intentionally address equity in learning and training. The scaffolded approach will connect preclinical experiences with the clinical years. The program will provide students opportunities for reflection to foster ongoing, deep learning following their experiences.

The program will provide students with a variety of experiential learning opportunities. For example, simulation experiences, leveraging the University's teaching strengths in technology and the use of live actors, will be built into various aspects of learning and practice, providing the opportunity for immediate feedback and reflection.[245] Students will also be placed in a variety of settings within the community, beginning in first year, to ensure exposure to diverse populations and diverse needs. They will participate in service-learning and community-based participatory SRC activities to develop a community-based perspective, insights into patient experiences, research skills, and early physician-patient and physician-community relationships. Clinical skills training will also be provided in interprofessional community settings and hospitals.

To train students in interprofessional care and practice, the School of Medicine is exploring the creation of an Interprofessional Community Clinic in Brampton that would provide a community-based experiential learning environment for students. Longitudinal integrated clerkships would take place primarily in this interprofessional setting. The Interprofessional Community Clinic would be an integrated health service facility and would provide primary care in a collaborative family practice; it would involve an interdisciplinary health team that includes students from various disciplines across the University, such as Nursing, Midwifery, Nutrition, Social Work, Occupational and Public Health, and Psychology. It would provide a fundamental clinical learning environment to students and allow the school to educate future physicians in a new model of medical practice. Through this interdisciplinary model, the community clinic would optimize the learning experience, thereby supporting the development, skills and expertise of a variety of health care professionals. Students would be taught with the latest technological and e-health tools used in primary care today, which would, in turn, be used for the benefit of the community in the clinic. This clinic will also enable the University to make an early and distinct impact on the health of the community by contributing to innovative and responsive community care.

The features of the proposed clinic would include:

- Exemplary and comprehensive healthcare and clinical services for the population, communities, families and individuals.
- Care, teaching, learning and SRC activities delivered with cultural awareness and sensitivity to the precepts of equity, diversity and inclusion.
- Leveraging health technologies and innovations to improve care and health outcomes.

Brown ME, Coker O, Heybourne A, Finn GM. Exploring the hidden curriculum's impact on medical students: Professionalism, identity formation and the need for transparency. *Med Sci Educ*. 2020;30(3):1107-1121. doi: 10.1007/s40670-020-01021-z

[245]About LAS@R - live actor simulations. Ryerson University. Date unknown. Accessed December 8, 2021. https://www.ryerson.ca/live-actor-simulation/about/

- Providing experience, mentoring and teaching to students in medicine and health sciences in interprofessional collaborative clinical care.
- Creating pathways to support career development and opportunities for employment, residency training and certification of international medical graduates.

Programmatic Assessment

In keeping with the principles of CBME, the program will use an assessment process that encourages ongoing deep learning. The majority of the assessments will be formative with frequent and ongoing feedback. Each student will have an academic coach who does not participate in the assessment but rather supports the learner in establishing learning goals and ensuring that they are progressing as expected within the curriculum. Summative decisions of progress will be made with an accumulation of data on students, both quantitative and qualitative, that integrates the various assessment methods.

Types of Assessment

The program is considering a variety of assessment methods to support its curriculum.

- **Progress testing of knowledge and application of knowledge**: Knowledge will be tested based on the entirety of the curriculum at the level expected of a student ready to graduate from the proposed School of Medicine. This approach fosters ongoing learning with expected improvement throughout the years of training. The feedback provided from the results of the progress tests will help identify areas of strength and weakness for the learner to work on. This feedback will be given to all students multiple times a year with feedback data provided to students for them to understand their strengths and weaknesses.

- **Objective Structured Clinical Examinations and other simulations:** Simulated clinical scenarios that can assess physical exam skills, communication, collaboration, advocacy and procedural skills will be used. These will be designed as progress tests with ongoing feedback; they can also be designed to specifically assess different aspects of EPAs.

- **Multisource Feedback**: As interprofessional practice and leadership, cultural safety, and advocacy play central roles in the School's pillars and curricular themes and threads, students will receive feedback from various sources, including other healthcare professionals and patients. Multisource feedback will be a programmatic approach, rather than just using a survey tool, and will include quantitative and qualitative data, facilitated feedback and goal setting.

- **Entrustable professional activities (EPAs):** The ultimate goal of medical school is to graduate learners who are ready to take on the responsibilities of a postgraduate trainee in a residency program of their choice. The CanMEDS EPAs were designed as the core activities required. The assessment of these activities consists of incremental entrustment with a lessening level of supervision, such that the learner will be ready to do these with indirect supervision. Various tools will be used to assess entrustments, such as direct observation tools, entrustment-based discussions and simulations.

Resources

The high-level resource and financial estimates developed to determine the feasibility of the MD program were informed by publicly available information on Canadian medical schools and an analysis of comparative benchmarks, as well as a review of leading practices. This work was undertaken in a collaborative manner led by the School of Medicine Feasibility Study Committee and supported by two working groups. The Financial Modelling Working Group consisted of staff members from the University Planning Office, Financial Services and Office of the Vice-President Research and Innovation, who provided coordination support in the development of the model. The Space Planning Working Group worked in parallel with individuals from across the institution to define key space requirements and associated considerations.

Each Canadian medical school has taken a unique approach to ensuring that they meet the standards for accreditation as articulated by the Committee on Accreditation of Canadian Medical Schools (CACMS), which has resulted in significant variability in operational approaches and financial planning.

Through its *Standards and Elements Standards for Accreditation of Medical Education Programs Leading to the M.D. Degree,* CACMS requires that medical schools have a sufficient number of faculty in leadership roles and of senior administrative staff with the skills, time and administrative support necessary to achieve the goals of the medical education program and to ensure the functional integration of all programmatic components.[246] The standards also require a sufficient number of vice, associate and assistant deans, or positions of an equivalent nature; leaders of organizational units; and senior administrative staff who are able to commit the time necessary to accomplish the missions of the medical school.[247]

For accreditation, medical schools must also demonstrate that they have in place a sufficient cohort of faculty members with the qualifications and time required to deliver the medical curriculum and to meet the other needs and fulfill the other missions of the medical school.[248] In addition, an entire standard (Standard 5) is devoted to ensuring that medical schools have sufficient personnel, financial resources, physical facilities and equipment, as well as clinical, instructional, informational, technological, and other resources readily available and accessible across all locations to meet its needs and to achieve its goals.[249]

Current modeling indicates that a medical school, as it is modelled and planned by the University, will be financially viable. Investment from all levels of government will be required to support start-up and transition costs to design and deliver a new medical school tailored to the needs of the Ontario and Canadian health system, while meeting current accreditation requirements. Resources from existing programs will not be taken to support the School of Medicine. As part of the planning grant received from the Province of Ontario, the University will submit a full feasibility study to the Province to recommend their approval to move forward with establishing the new School of Medicine and MD program. Faculty and staffing numbers will be determined as part of the full program proposal once the curriculum and key programmatic parameters have been finalized. Discussions and Provincial approval are required to finalize key

[246] Committee on Accreditation of Canadian Medical Schools. CACMS standards and elements standards for accreditation of medical education programs leading to the M.D. degree. Published February, 2021. Accessed December 8, 2021.
https://cacms-cafmc.ca/sites/default/files/documents/CACMS_Standards_and_Elements_AY_2022-2023.pdf
[247] Ibid.
[248] Ibid.
[249] Ibid.

aspects of the financial modelling for the proposed School of Medicine, such as inaugural class size.

It is anticipated that the MD program and School of Medicine will be located in Brampton in a brand new, state-of-the-art facility designed with the needs of students, faculty and the Brampton community in mind to provide an optimal learning environment with an adequate number of classrooms, lecture halls, break out rooms, team-learning spaces, library and other related facilities. All teaching and learning spaces will be fully equipped with the latest technology — they will be smart teaching and learning spaces. In planning for this space, the School will go beyond the minimum AODA requirements and look for ways to ensure the space reflects the institution's commitment to EDI and Reconciliation.

Conclusion

Universal healthcare has long been a pillar of Canadian society, but there are worsening gaps in primary care delivery across the country that are particularly acute in Ontario. A new kind of MD program, one that addresses transformations in primary care delivery and is rooted in principles of community-driven care and cultural respect, is urgently needed to face the healthcare challenges of the 21st century. The proposed MD program will be the first medical school that will be purposely and intentionally founded on the CanMEDs Framework, established to meaningfully incorporate social accountability, EDI and Reconciliation throughout all aspects of its curriculum, with a governance structure that supports collaboration and community engagement. Given its track record of innovation, commitment to social accountability and successful partnerships with the City of Brampton, the University is ideally positioned to design a new approach to medical education that will help deliver primary care to underserved communities both locally and across Canada.