



THE FUTURE WILL SEE YOU NOW



In the spirit of *Truth and Reconciliation*, NOSM University respectfully acknowledges that our pan-Northern campus is on the homelands of First Nations and Métis Peoples.

The university buildings we occupy in Greater Sudbury and Thunder Bay are located on the territory of the Anishinabek Nation, specifically Atikameksheng and Wahnapiatae First Nations and Fort William First Nation.

Beyond a land acknowledgement, we understand that reconciliation is a practice.

We gratefully acknowledge the Elders and Knowledge Keepers who share their gifts and teachings with us so that we may better understand and honour their wisdom, and that of all of the traditional keepers of this land.

NOSM University will continue to practice reconciliation by listening, learning and fostering a culture of mutual respect and trust.

Introduction

*“When you make a choice,
you change the future.”*

Deepak Chopra

Life is all about choices.

Choices are starting points: they represent the exact moment when a vision vaults forward toward a goal. Choices are exciting and full of fresh momentum. Staying the course can be safe but often unanticipated events like a pandemic or an insolvency can change momentum. Adjusting course during a storm, may be the only option. Being strategic and doing the work is the only way to reach a goal—and thereby change the future.

We are now midway through our **Strategic Plan, The NOSM University Challenge**, and it is, in effect, a set of choices we made for the direction and future of NOSM University—and ultimately the people of Northern Ontario. In some cases, we have had to shift gears and in doing so, have made bold choices that are leading in all measures.

This report is meant to give you an update on our Strategic Directions. You’ll learn about our goals and aspirations, but more importantly, about the work we’ve been doing to get there.

The choices we’ve made—our five directions—are determining our impact in the North. We are working strategically toward a future in which everyone has equitable access to health-care practitioners who are culturally competent, understand the realities of living in the rural and remote North, and lead with compassion and integrity.



We are having impact and we are seeing results. So far, 769 residents have completed training in NOSM University's residency programs and we have graduated 838 MDs and 178 registered dietitians, as well as Physician Assistants, and other health professionals. It's estimated that our alumni have helped more than 340,000 Northerners.

We've become Canada's first independent medical university, and we've secured an incredible Board of Governors and inaugural Chancellor. We are well on our way to raising the first \$50 million toward our burgeoning Student Endowment Fund.

We are making history. But there's so much more to be done.

Thank you for choosing to invest your time to help NOSM University thrive. Together—with smart, bold, courageous, future-facing choices—we will change the future of health care in Northern Ontario for good.

The future will see you now.

Miigwetch, thank you, marsi, merci,

Dr. Sarita Verma

President, Vice Chancellor, Dean and CEO
NOSM University

For an update on the President's Engagement Report, click here:

President's Engagement Report

Special Edition

July 2019 to November 2022

Social media and blog analytics cover July, 2019 to present—demonstrating the increase in activity since Dr. Sarita Verma joined the organization.



Increased Twitter followers to 2,667
@ddsv3

Northern Routes Blog

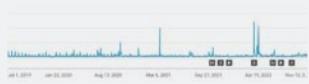
75
blogs

▲69%
5,654
Subscribers

Open Rate
37%
vs. 23.4% Industry Average

42.4% average Open Rate from January to November 2022

YouTube



▲35%

41k

Views

▲70%

2k

Watch Time (Hours)

▲881%

422K

Impressions

@thenosm followers

Twitter ▲93%

4,099

Facebook ▲76%

8,460

LinkedIn ▲259%

3,816

Instagram ▲118%

2,655

YouTube ▲168%

359 subscribers

September 15, 2022 — Present

Notable Meetings and Presentations: 21

- Human Health Resources crisis meeting with Ministry officials
- Orthopaedic Program Meeting
- Physician Assistant Program Meeting
- Council of Ontario Faculties of Medicine (COFM) Meetings x 4
- Royal College Awards Virtual event
- AMS Healthcare Meeting
- TBRHSC x 2
- ICES x 1
- National Day of Truth and Reconciliation event
- University College of the North Meeting
- St George University Meeting
- Indigenous Reference Group Meeting (IRG)
- Finding Your True North Event
- Sudbury Chamber of Commerce event
- International Conference on Residency Education Conference (ICRE)
- The Association of Faculties of Medicine (AFMC) Meeting
- Family Medicine Forum Conference

Donations Raised to Date

Fiscal Year	Amount
2022/23	*\$11,460,611
2021/22	\$2,624,977
2020/21	\$3,112,750
2019/20	\$732,512

* as of October 31, 2022

Notable Gifts

- Métis Nation of Ontario gift for \$500,000
- John Carl McIssac Foundation gift of \$100,000

Meetings

- FDC Foundation toured NOSM University in Sudbury and had an opportunity to meet learners
- Temerty Foundation meeting

Alumni Initiatives:

- FMF Alumni reception, Toronto
- ICRE Reception, Montréal

NOSM University

4

Contents

Introduction	2
Strategic Direction 1: Transform Health Human Resource Planning	6
Strategic Direction 2: Advance Social Accountability	8
Strategic Direction 3: Innovate Health Professions Education	10
Strategic Direction 4: Strengthen Research Capacity in Northern Ontario	12
Strategic Direction 5: Becoming a University	14
Awards and Recognition	16
From Informative to Transformative: The NOSM University of Tomorrow	17
Foreword	18
What’s Our Mandate? Northern Ontario School of Medicine University Act, 2021	19
How Did We Get Here?	20
Medical Education Today: The Informative Model	21
Rejuvenating Health Professions Education: The Transformative Model	22
What is an “Ecological University?”	24
Becoming Truly Pan-Northern	25
The ‘F-Word:’ Funding	26
The Future of NOSM University: Four Big Ideas	27

Editorial Team

Dr. Sarita Verma, **President, Vice Chancellor, Dean and CEO**
Joanne Musico, **Director, Communications and External Relations**
Danielle Barbeau-Rodrigue, **Director, Francophone Affairs**
Kimberley Larkin, **Manager, Communications**
Jason Lind, **Digital Media Specialist**
Tara Hawkes, **Graphic Designer**
Alexandra Poling, **Marketing Communications Officer**
Jessica Pope, **Public Affairs Specialist**

STRATEGIC DIRECTION 1:

Transform Health Human Resource Planning

GOAL

To link health human resources (HHR) to Northern Ontario's needs (Francophone, Indigenous, rural, and urban) with a focus on specialist and subspecialist physician training.

ASPIRATION

NOSM University's transformative approach to the planning and delivery of workforce supply eliminates the gaps in Northern Ontario health human resources.

This strategic direction is one of which every portfolio in the NOSM University owns a piece. Transforming the way that learners are recruited, trained, and retained to meet the health-care needs of Northern Ontario is complex, and one of the University's core mandates.

Dr. Sarah Newbery is the Associate Dean of the **Physician Workforce Strategy** and the only physician in this kind of job in Canada. In this multifaceted role, she works with faculty, communities and other partner organizations to support strategic initiatives to bolster the physician workforce in Northern Ontario.

Since the launch of the Strategic Plan, Dr. Newbery points to a wide array of accomplishments, not the least of which is the development of the **Rural Generalist Pathway**. The goal of this university-wide initiative is to educate and support rurally-interested learners in order to build a robust rural generalist workforce, and thereby help to fill gaps in health-care services across the North.

Dr. Newbery also underscores the importance of collecting increasingly clear data around the needs of Northern communities, and working alongside the Ministry of Health to collaboratively solve how to address those needs. As of June 2022, we know that in Northern Ontario, communities are actively recruiting more than 350 physicians, more than 150 of whom are specialists, and more than 200 of whom are family doctors. These numbers do not reflect anticipated retirements. To help address these gaps, NOSM University has worked with communities and Health Force Ontario to develop community profiles, and has hosted two virtual job fairs and community exploration conferences to help learners see a future for themselves in Northern Ontario.



Other key areas of focus for the Office of Physician Workforce Strategy moving forward include helping to make sure that MD students have a rewarding and positive experience during rural electives and other placements and working to help new physicians transition comfortably and successfully into practice.

Also critical to NOSM University's ongoing success in transforming health human resource planning is the recruitment, appointment and retention of faculty. There are about 1,800 faculty working with NOSM University across the region, the vast majority of whom are practising physicians.

NOSM University's Office of Faculty Affairs acknowledges that burnout is an issue, and supporting the health and wellbeing of faculty—as well as folding them into the NOSM University community—is a top priority, including a recently implemented Faculty Wellness Program. Other work that has been accomplished toward these ends are the automation of some processes to make them more faculty-oriented, a new faculty newsletter, and the recruitment of about 125 more stipendiary faculty.

The Associate Dean of Faculty Affairs, Division Head of Clinical Sciences and Section Chairs continue developing systems to support clinical faculty. Their efforts include building relationships with the Local Education Groups (LEGs), increasing Academic Funding Plan (AFP) support, teaching hospitals, and tangibly supporting faculty to develop or enhance their research, academic and leadership careers.

We are eliminating the gaps in Northern Ontario health human resources in order to achieve equitable and sustainable access to quality health care.

- **Transforming health education**
- **Practise in the North makes perfect**
- **Marathon transformation**
- **NOSM alumnus helps to end Atikokan's doctor shortage**
- **Alleviating critical health-care shortages during the pandemic: Case study in Hearst**



STRATEGIC DIRECTION 2:

Advance Social Accountability

GOAL

To embed social accountability throughout NOSM University with a focus on measurable, transformative, and sustainable change in health-care systems for Northern Ontario.

ASPIRATION

Social accountability defines NOSM University. Through the value of social accountability, NOSM University graduates, faculty, learners and staff lead health-system transformation in Northern Ontario.

The social accountability movement is a catalyst in transforming health professions education, which is defined by the idea that education, research, and service activities should be directed towards addressing the priority health concerns of the communities they serve, both locally and globally. In response to the global health equity crisis, socially accountable health professions education provides an upstream policy strategy that is shifting the conversation about the value of programs that advance the health and wellbeing of the people and communities they serve.

NOSM University was built with a mandate to advance social accountability in every aspect of what we do. The University was the recipient of the Charles Boelen International Social Accountability Award from the Association of Faculties of Medicine of Canada in 2019 and has also received the prestigious ASPIRE award, which recognizes international excellence in social accountability and medical education.

Importantly, NOSM University is graduating physicians and allied health professionals who are leaders in transforming health-care systems and improving population health outcomes. Many alumni are now teaching and researching at NOSM University. They continue to lead advocacy and community engagement that is grounded in the community and renew community relationships and outreach.

A significant advancement under this strategic direction is the establishment of NOSM University's Centre for Social Accountability (CFSA), launched in June 2021. It is a first-of-its-kind, multidisciplinary centre dedicated to the improvement of health and wellness in Northern Ontario. The Centre was built upon four pillars—

community impact; education and capacity-building; research and innovation; and, policy, leadership and advocacy—to ensure an integrated, sustainable approach to addressing priority health needs and population health outcomes both inside and outside of the medical system.

NOSM University appointed the inaugural CFSA Director, Dr. Erin Cameron, and helped to assemble an experienced leadership team to manage the start-up phase of the Centre. Their work included identifying strategic priorities, developing key partnerships, and establishing the Centre's structure and governance.

The CFSA has also become home to a new international steering committee, the **International Social Accountability and Accreditation Steering Committee** (ISAASC). The committee will promote the integration of social accountability into medical school accreditation standards on a global scale.

Dr. Joseph LeBlanc is NOSM University's Associate Dean, Equity and Inclusion, a portfolio with clearly embedded social accountability intersections.

For Dr. LeBlanc, the development and board approval of a formal equity strategy is a major accomplishment. The strategy “directs the President, Vice Chancellor, Dean and CEO to embed, act and report back on specific anti-racism and anti-discrimination actions that reflect the values of equity, diversity and inclusiveness to create an inclusive environment, particularly for First Nations, Métis and Inuit people, but also for Black and other People of Color, and for those who face other forms of discrimination and marginalization, such as Francophones, LGBTQS2+ and persons with disabilities, amongst others.”

The equity strategy offers concrete directions for the University to adopt at the recruitment and admissions stage, changes and updates to the MD curriculum, and updates to the recruitment, development, advancement and wellness of faculty and staff.

As a medical university founded with a social accountability mandate, we challenge ourselves to make a difference and lead the transformation of our health-system in Northern Ontario.

- **NOSM University's response to the TRC Calls to Action**
- **Embodying health justice**
- **Opening doors for BIPOC women in medicine**
- **Intentionally addressing equity, diversity and inclusion**
- **Delivering social accountability where it's needed most**

STRATEGIC DIRECTION 3:

Innovate Health Professions Education

GOAL

To be recognized across Northern Ontario for developing innovative models of education in Northern, Indigenous, Francophone, rural and remote medicine that lead to well-trained health-care practitioners who stay in the communities of the North.

ASPIRATION

Innovation drives the education of NOSM University's next generation of physicians, registered dietitians, physician assistants, medical physicists, other health professionals and scientists.

This strategic direction is interwoven with NOSM University's mandate to advance social accountability. Dr. Lee Toner, Associate Dean of Undergraduate Medical Education, notes that NOSM University is recognized as a leader in developing an innovative education model that is imbued with instruction on equity, anti-racism, diversity and social accountability, all of which has been highlighted in a recent accreditation report. Dr. Toner also notes that a big piece of this education is the effort to which the University goes to expose learners to a variety of health-care settings, including rural and remote settings.

One innovative way that NOSM University is sorting for students who are most likely to understand and adopt these principles is requiring Active Offer certification upon admission to the University. Active Offer is the overt offer of health services in French as required by Ontario's *French Language Services Act*. These and other efforts are absolutely essential to training health-care practitioners who stay to practise in the North, as they must have a clear and compassionate understanding of the realities of living in the region.

This year, the Government of Ontario announced that **NOSM University will see an added 30 MD and 41 residency spots** over the next five years. Dr. Toner says that aside from the major boost to health human resource planning for Northern Ontario, this expansion is an excellent opportunity to look even deeper at how NOSM University delivers health education, to make sure that we are not only in line with current best practices, but to make sure that true innovation is our driving force. He also says that with this expansion, there is an opportunity for NOSM University to move to a more layered learning model in which UME students are integrated with PGME students; effectively, this innovative team-based style of teaching would see medical residents teaching and mentoring less experienced learners.



Dr. Robert Anderson is Associate Dean, Postgraduate Medical Education and Health Sciences with NOSM University. He says he views innovation as a piece of the institutional resiliency puzzle, and echoes Dr. Toner in reflecting on the unique skill set necessary to be an effective health-care provider in Northern Ontario. Dr. Anderson says the NOSM University's curriculum must not simply be leading edge in a content or technology sense: it must be customized for Northern Ontario, and adapted to parameters including geography and available resources. He posits questions including how to train people with certain medical skills in places where doctors aren't available, and discusses the idea of enhanced skill training for Physician Assistants.

With the aforementioned expansion of NOSM University, Dr. Anderson says there can be transformative change to the curriculum, starting this year. For example, NOSM University has just launched two new enhanced skills medical residency programs in Addiction Medicine and Sport and Exercise Medicine. Resident doctors who have completed a two-year family medicine program can now apply to a third year of family medicine training in the Addiction Medicine and Sport and Exercise Medicine programs. Available to resident doctors from across Canada, the

programs will help improve equitable access to health care for Northerners.

Innovation drives NOSM University's next generation of physicians, registered dietitians, physician assistants, medical physicists, other health professionals and scientists.

- **We're like nothing else in the world**
- **Tapping into the power of real-life superheroes**
- **A breakthrough year for physician assistants in Northern Ontario**
- **Innovation in times of crisis**
- **Food insecurity impacts health of Northerners**



STRATEGIC DIRECTION 4:

Strengthen Research Capacity in Northern Ontario

GOAL

To strengthen research capacity in Northern Ontario by aligning with health-research partners to improve performance and measurable outcomes in health services, quality health care, health and biomedical research and knowledge translation.

ASPIRATION

NOSM University is the connective tissue between research entities, Northern Ontario Health Teams (OHTs), research institutes and hospitals.

Promoting and supporting faculty research is critical to keeping NOSM University's curriculum up-to-date, and to gathering the data we need to inform decision making more broadly. Leveraging and strengthening existing research networks and improved collaboration with partner institution researchers ensures that ongoing research asks questions that are relevant to Northern communities.

Creating opportunities for learners and faculty to learn how to conduct research will enable it to become part of their professional lives.

Dr. David Marsh is the Vice Dean, Research, Innovation and International Relations. He says a considerable area of focus under this strategic direction has been coming to better understand and describe the research that's being done in Northern Ontario.

He says before becoming an independent University, NOSM University did not have a system in place to keep track of what researchers across the region were working on, or how they were funded. However, now that NOSM University is standalone, it has ethical liability, regulatory compliance and government reporting to consider. Dr. Marsh says a new system called the ROMEQ Research Portal has been rolled out to address those needs. It is an online database for the management and reporting of research funding at NOSM University.



Because research is typically not funded by a university, Dr. Marsh says an important step has been to facilitate access to research funding, which includes the creation of a research newsletter with a list of grant opportunities, including eligibility criteria and deadlines.

Another important part of the work involves actively seeking out research collaborations across multiple educational institutions. Dr. Marsh characterizes medical research as a 'team sport,' and says collaborative work is more likely to be funded.

To that end, Dr. Marsh says NOSM University has also negotiated agreements with Lakehead University and is negotiating with Laurentian University to ensure that ongoing collaborative research projects continue.

Strategic partnerships are key to changing population health outcomes in Northern Ontario. NOSM University collaborates with research entities, institutes, hospitals and Northern Ontario Health Teams to improve health in our region.

- **NOSM University research: a nexus in understanding**
- **Behind every superhero is a great researcher**
- **The mental health crisis in Northern Ontario**
- **Northern Ontario data to shape uniquely Northern primary care research**
- **Trauma research unique to the North**



STRATEGIC DIRECTION 5: **Becoming a University**

GOAL

To ensure a seamless transition by optimizing our resources to engage and build our capacity and infrastructure as we transition from the Northern Ontario School of Medicine to NOSM University, Canada's first independent medical University.

ASPIRATION

The proclamation on April 1, 2022, was another historic moment for health education in Northern Ontario and will have impacts nationwide. A recognized trailblazer, NOSM University will shape what it means to be an independent medical university in Canada.

Our medical school was making progress with the 2021-2025 strategic plan. Then, on April 1, 2022 the province made NOSM University Canada's first independent medical university. Just eleven days later, we were told that NOSM University will expand to add 30 medical degree seats and 41 residency spots over the next five years.

Thriving in this changing world requires innovative thinking, and new ways to use knowledge and ideas. In this regard, health care and health research and education have never been more important. We are responding to emerging challenges and taking full advantage of new opportunities. That's especially true given the nature of what we do and where we live and work. We all know how complex and fragile the health-care system is across Northern Ontario. We all know the consequences of chronic health-care gaps for people. We are trying to transform the system for the North so that we can reach into underserved communities like never before.

With this new strategic direction, we will tackle the seemingly impossible: deliver true and sustainable health equity to the 800,000 people who call this region home. At NOSM University we will provide the tools, knowledge, and insights into the human condition required to ensure the well-being of Canadians and of societies around the world.

With these two historic announcements, NOSM University, now some-20 years in the making, has renewed momentum—and we're using it.

We're going to define what it means to be an independent medical university in Canada – leading the way in fiscal accountability and transparency.

We're going to advance the national conversation around effective, affordable rural and Northern health care: what it looks like and how to provide it.

We're going to strengthen our existing partnerships and grow new ones, and we're going to reaffirm and deepen our commitment to the North.

We're going to educate more physicians and other health-care providers for the North and help them develop as leaders in their communities. We will expand our education and training programs to meet societal need.

We're going to keep advocating for equity, diversity, and inclusion. And we will keep fighting racism, and seek truth and reconciliation.

We're going to make scientific discovery a priority and lead collaborative research in the North and look for new partnerships for cutting-edge opportunities in primary care, educational technology and population health.

We're going to ensure that NOSM University's next generation of physicians, registered dietitians, physician assistants, medical physicists, and others have access to the finest high quality fully accredited educational programs.

We're going to raise funds to support our learners to provide financial aid through bursaries and scholarships.

As NOSM University, Canada's first independent medical university, we are going to do all that and more.

NOSM University—fully accredited and standing shoulder-to-shoulder with our peer institutions—shapes what it means to be an independent medical university in Canada. We know that our cost effective, innovative, community-based learning model, our trusted partnerships, and our purpose-built mission to bring health equity to Northern Ontarians is working. We are advancing the national conversation about what health justice in the rural and remote North really looks like—and who can deliver it.

- **Canada's first independent medical university proclaimed: NOSM University**
- **NOSM University expansion to aid with Northern Ontario physician shortage**
- **NOSM University. Rooted in the North.**
- **Board of Governors moves forward with NOSM University priorities**
- **FDC Foundation makes historic \$10 million gift to support NOSM University students**

Awards and Recognition

(September 1 - November 16, 2022)

There are many outstanding faculty, learners and staff at NOSM University who make a difference in their community. Miigwetch, merci and thank you for your ongoing work and commitment.

- **Lobna Abdel-Dayem**, medical student, received NOSM University's Northern Health Research Conference (NHRC) Student Oral Presentation Award for Investigating the role of Retinol Saturase in ferroptosis. (Supervisor Dr. Alex Moise)
- **Imran Bagha**, medical student, received a NHRC Student Poster Presentation Award for CPRAT: A Novel Method for Enhancing CPR. (Supervisor: Dr. Samuel Peters)
- **Dr. Whitney Faiella**, alumna, received the Trainee Excellence in Education Award from the Canadian Cardiovascular Society.
- **Dr. Ken Foster**, Assistant Professor, received the G. William N. Fitzgerald Award for excellence in rural surgery from the Canadian Association of General Surgeons at the Canadian Surgical Forum.
- **Dr. Sarah Habinski**, resident, received the Association of Chairs of Psychiatry in Canada (ACPC) Resident Research Award.
- **Joclyn Hron**, medical student, has been selected as the 2022 recipient of the Medical Student of the Year Award by the Ontario College of Family Physicians (OCFP).
- **Dr. Pawan Kumar**, Associate Professor, has been awarded a Golden Heart Award from the North Bay Hospital Foundation through the impact he has had on a patient and the patient's family experience.
- **Dr. Adam Moir**, Associate Professor, has been selected as the 2022 recipient of the OCFP Community Educator of the Year Award.
- **Dr. Kara Nadeau**, resident, received a NHRC Student Oral Presentation Award for Perceptions on Prehabilitation in Northern Ontario General Surgery Patients. (Supervisor: Dr. Grace Ma)
- **Dr. Anjali Oberai**, Associate Professor, was named the Ontario recipient of the College of Family Physicians of Canada (CFPC) Reg L. Perkin Family Physician of the Year Award and the OCFP Regional Family Physician of the Year Award for Region 1 – North East and North West.
- **Mathieu Rheault-Henry**, medical student, received a NHRC Student Poster Presentation Award for Transcatheter Aortic Valve Implantation Versus Sutureless Aortic Valve Replacement: Overview of the Recent Advancements in Cardiac Surgery. (Supervisor: Dr. Rony Atoui)
- **Dr. Sujeenthar Tharmalingam**, Assistant Professor, received the René Guilbeault Research Award from NOSM University for his project entitled Rewiring DNA methylation signatures for the treatment of radiation resistant breast cancer.
- **Dr. Natstasha Wasilewski**, resident, received the G. William N. Fitzgerald Award for excellence in rural surgery from the Canadian Association of General Surgeons at the Canadian Surgical Forum.

If you would like to include an award recipient in our next report, please email communications@nosm.ca.



FROM INFORMATIVE TO TRANSFORMATIVE
THE NOSM UNIVERSITY OF TOMORROW



FOREWORD

“Without change there is no innovation, creativity, or incentive for improvement. Those who initiate change will have a better opportunity to manage the change that is inevitable.” — William Pollard

As we look forward with hope to the post-pandemic era, NOSM University has a window of extraordinary opportunity in which to fundamentally and strategically transform itself to meet the health research, education and health care demands of tomorrow. The turbulence caused by the global COVID-19 crisis touched—and forever changed—every element of work in which we were engaged during this historic time. The crisis revealed that the prevailing medical education paradigm, a legacy of past centuries, is outmoded, and too brittle to bend and adapt to the realities of the day. It also demonstrated the need for research and scientific discovery to respond quickly to the issues of the day, and for evidence-based clinical practice to inform public policy.

As Canada’s first completely autonomous medical university, NOSM University is now in a singular position to “throw out the old playbook,” and instead, innovate for the future—and undertake what our legislative Act calls our “special mission.” This treatise intends to provide a vision for that future. NOSM University must transform to become an

“ecological university,” one that is deeply and ethically aware of—and networked with—the society around us. Like the fingers of two hands lacing together, we must work to deliver our pan-Northern and internationally-renowned programs to learners across Northern Ontario, each twinned with a broad range of germane and mutually interdependent partnerships that will generate local solutions and be directly linked to societal needs. With vision and planning, this transformative pan-Northern model—supported by remarkable collaborations with the Northwestern Ontario Municipal Association (NOMA) the Federation of Northern Ontario Municipalities (FONOM), Indigenous and Francophone, remote, rural communities and allied health partners, along with scientists and clinicians in practice—will emerge as the eco-system within which our learners will flourish. Universities of the future, including NOSM University, will have to undertake dramatic changes to the standard curricula. Accelerating technology has already made learning and consequent health-care available in real-time, from anywhere. But just as we adopt new platforms for teaching, we must adopt new ways of thinking about what we teach, how we

teach, where we deliver it and over what duration. The NOSM University of the future will rapidly look to move toward a mix of degrees, certificates, pathways and shorter course cycles. To remain competitive in the broader education landscape, and to certify professionals to their fields more efficiently, we will tailor education and customize it for learners, with packages containing exactly what they want to achieve now (“just-in-time” education) rather than offering general, blanket, one-size-fits-all learning (“just-in-case” education).

Further, in an effort to become ever less reliant on government funding and tuition income, we will develop unique micro-credential and skills upgrading programs designed to top-up people’s existing skill sets, or to help them change industries altogether. With continuing education, learning becomes lifelong.

The mutual advantage is that these on-demand, flexible learning experiences will not only become a significant revenue stream, but will again be tailored to the learning preferences of students, whether fully online, in a hybrid context or on a campus. More importantly, this new wave of thinking and our revolution in health education and research will lead NOSM University to become the destination of choice for innovation and social accountability.

To leap to the fore of medical education in Canada, and stay there, we must set a plan in motion, and then stay a course of learning, unlearning and refining iterations of these and other emergent ideas—in perpetuity.

In short, we must anticipate and fully embrace the future.

WHAT’S OUR MANDATE?

Northern Ontario School of Medicine University Act, 2021

OBJECTS

1. The objects of the University are,
 - (a) to provide undergraduate and postgraduate medical health education and other programs and, in doing so, advance the highest quality of learning, teaching, research and professionalism.
 - (b) to shape the medical profession and allied health services in a way that improves their responsiveness to the distinct needs of rural, remote, Indigenous and Francophone communities; And
 - (c) to contribute to the advancement of healthcare in northern Ontario by facilitating student appreciation of the opportunities for quality educational and professional careers in northern Ontario.

SPECIAL MISSION

2. It is the special mission of the University to provide programs that are innovative and responsive to the needs of individual students and to the unique healthcare needs of the people of northern Ontario and other northern regions of Canada, which includes people living in rural, remote, Indigenous and Francophone communities.

HOW DID WE GET HERE?

“Never let a serious crisis go to waste... it’s an opportunity to do things you thought you could not do before.” — Rahm Emanuel

The Northern Ontario School of Medicine (NOSM) was founded in 2005, and is an award-winning, socially accountable medical university renowned for its innovative model of distributed, community-engaged education and research. With a focus on diversity, inclusion, and advocacy for health equity, NOSM University relies on the commitment and expertise of the peoples and communities of Northern Ontario to educate health-care professionals to practise in Indigenous, Francophone, rural, remote and underserved communities.

NOSM was originally established as a government strategy to address the health needs of the region, improve access to quality care, and contribute to the economic development of Northern Ontario. It was born of a grassroots movement, from communities across Northern Ontario advocating for a solution to regional health inequalities. Becoming a university converts that vision into a future reality. NOSM University will always be a critical tool and a fundamental strategy of the government, the public and other stakeholders in addressing our needs for health care, in the North and for the North.

After some-20 years in existence, the destiny of NOSM University unveiled itself as part of a remarkable series of unanticipated and astounding events. The path to becoming a free-standing degree granting university arose out of the insolvency of Laurentian University, which caused major instability to the accreditation of the MD degree. The NOSM University Act was proclaimed into force on April 1, 2022, and with that, the trajectory from NOSM to NOSM University was realized. The unprecedented opportunity for growth (with a massive expansion of the medical programs also announced in 2022) and a new Board of Governors, plus an inaugural Chancellor, has given momentum to the novel, values-driven and socially responsible upstart now in the higher-education landscape. NOSM University offers an unparalleled future for the education and research community in Northern Ontario, and indeed Canada and the world. There is no other institution like it, and it is now the place to be, the place to learn and the place for scientific discovery for people hungry for transformation in health care.

MEDICAL EDUCATION TODAY: THE INFORMATIVE MODEL

“The great aim of education is not knowledge but action.”

— Herbert Spencer

Canada’s very first medical school opened its doors in 1824 at the Montreal Medical Institution (later the McGill Faculty of Medicine), before Canada was even a self-governing Dominion. Nearly two hundred years later, much has been added to the country’s mainly standard medical school curricula, but far less has been thoughtfully edited or omitted.

“By the late 1950s and early 1960s, Canadian medical faculties were staggering under the stresses of a rapidly expanding body of knowledge that could not be adequately conveyed in the curriculum then in use. Medical students became increasingly frustrated and vocal about the volume of information they had to learn, the relevance of which was not always apparent.”¹

Today, medical education in Canada remains in large part “informative.” Students still attend lectures in which they are expected to absorb vast quantities of accumulated knowledge across a broad spectrum of topics. This is the outmoded “just-in-case” model of teaching that ignores the tools and technological advantages of the day. “Teaching mostly through pedagogy-based lectures... should be put on the backburner,”

write Naithani and Vasudevan from another Commonwealth perspective: India. “Medical technology has far outgrown its potential and medical education needs catching up... Skills that need to be developed include communication, empathy, history taking with reasoning, accurate examination, good procedural expertise, management based on evidence-based medicine, emergency care, data keeping, documentation, teamwork, multidisciplinary approach[es], professionalism, and above all, ethics.”²

Further, given the doctor shortages Canada’s rural and Northern communities face, it also stands to reason that the roughly seven years spent in the medical education “pipeline” is often too long. By the time these graduates go into practice, what they have learned may have been overtaken by new technology and inventions. Society, after all, moves at a much quicker pace than education. We cannot afford to slow the process of graduating skilled health professionals to their fields by unnecessarily overloading students with years’ worth of granular, textbook information that might be better learned on an as-need basis (“just-in-time” learning), or perhaps not at all.

¹The Canadian Encyclopedia, s.v. “Medical Education,” by Douglas Waugh, and Patricia G. Bailey, *Medical Education* | *The Canadian Encyclopedia*

²Naithani, N., & Vasudevan, B. (2021). Paradigm shift in medical education: The future beckons. *Medical journal, Armed Forces India*, 77(Suppl 1), S1–S3 <https://doi.org/10.1016/j.mjafi.2021.01.021>

REJUVENATING HEALTH PROFESSIONS EDUCATION: THE TRANSFORMATIVE MODEL

“Education is not the filling of a pail, but the lighting of a fire.”

— William Butler Yeats

Otherwise stated, “Transformational education,” writes Julia Phillipi, “like other types of education, seeks to transmit new knowledge, skills, and ways of thinking, but beyond transmission of instrumental knowledge, it serves to awaken the learner to a new manner of viewing and examining the world.”³

The practical advantages of a transformative style of education are enormous in the field of medical education. When facilitated correctly among learners, it can yield:

- Deeper self-awareness (reflection);
- More open perspectives (empathy);
- A deep shift in worldview (ethics).

Picking up on the 2010 work of the Lancet Commission—a thoughtful work on health professionals for the 21st century—the opportunities now presented in the post-pandemic world underscore all the more what the Commission finds:

that the future is collaborative, transdisciplinary and defined by disruptive learning and evaluation that does not rely on the “bums in seats” model and high-stakes single examinations.

“The professionals’ most important contribution is often finely-tuned judgment and decision-making skills rather than knowledge gradients. Thus, advanced information technology is important not only for more efficient education of health professionals; its existence also demands a change in expected competencies. Put simply, the education of health professionals in the 21st century must focus less on memorizing and transmitting facts and more on promotion of the reasoning and communication skills that will enable the professional to be an effective partner, facilitator, adviser, and advocate.”⁴

The transformative model asks learners to adjust their thinking—and even themselves—based on new and changing information. This in turn makes way for

³ Phillipi, Julia. “Transformational Learning in Health Care.” PAACE Journal of Lifelong Learning, Vol. 19, 2010, 39-54. Transformational Learning in Healthcare

⁴ Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, Fineberg H, Garcia P, Ke Y, Kelley P, Kistnasamy B, Meleis A, Naylor D, Pablos-Mendez A, Reddy S, Scrimshaw S, Sepulveda J, Serwadda D, Zurayk H. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet. 2010 Dec 4;376(9756):1923-58. doi: 10.1016/S0140-6736(10)61854-5. Epub 2010 Nov 26. PMID: 21112623. https://chinamedicalboard.org/sites/default/files/the_lancet_commissions.pdf



many desirable outcomes, particularly in a university like ours, dedicated to social accountability and health justice. Those include leadership development, “critical reflexivity, a more discriminating mindset... competencies which empower individuals and increase their capacities as agents of change in society.”⁵

NOSM University’s transformative model is already being implemented. More than half of our MD graduates choose family medicine as their career.

That is compared to less than 30 per cent across Canada. And what do we need most right now? Family doctors—and NOSM University is providing that solution. Evolution requires, indeed demands, that instead of being a “factory” of health professionals, a transformational medical University will meet the societal need. That is a key facet of NOSM University’s dedication to social accountability.

“Put simply, the education of health professionals in the 21st century must focus less on memorizing and transmitting facts and more on promotion of the reasoning and communication skills that will enable the professional to be an effective partner, facilitator, adviser, and advocate.”

— Lancet Commission, 2010

⁵ Boelen, Charles, Heck, Jeffery E & World Health Organization. Division of Development of Human Resources for Health. (1995). Defining and measuring the social accountability of medical schools / Charles Boelen and Jeffery E. Heck. World Health Organization. <https://apps.who.int/iris/handle/10665/59441>

WHAT IS AN “ECOLOGICAL UNIVERSITY?”

No credible, worthwhile university is an island. In order to flourish and make the contributions to society that are promised by their very existence, universities of today must adopt the culture and practices of an “ecological university.”

Ronald Barnett discusses: “The ecological situation in which the university finds itself is precisely one of structures—in the form of ecosystems—in which and with which the university is entangled. Certainly, the ecosystems in question here—of social institutions, persons, culture, learning, knowledge, the economy, the natural environment and the polity—are each hazy and are yet dynamic formations.”

He continues: “This would be a concept that turns around the relationship between the university and the world. Instead of understanding the university as an institution exerting force and control over the world, the university would be seen as an institution that listens to and has concerns for the total world, in all its ecological [psychological, and social] diversity [and set against an “ethical horizon”].”⁶

In essence, NOSM University recognizes and embraces its role within the wider “ecosystem” of Northern Ontario (and beyond), is listening intently and is taking its cues from that ecosystem as identified by Barnett.

1. We are leading in relevant health knowledge creation and dissemination to directly better peoples’ lives;
2. We are learning, growing and connecting through partnerships with health and educational institutions;
3. We are living and learning in cultural communities;
4. We are informed by the people we serve, and our actions are framed by their determinants of health;
5. We are contributing to the economy;
6. We are structurally determined by our massive geography;
7. We are dependent upon the climate and environment.

Robert Stratford puts it this way: “The ecological university is a direct challenge to educational policy that sees predominantly narrow forms of economic value in higher education and a significant challenge to education practice that is satisfied with liberal and rational knowledge silos, decontextualized from caring about the wellbeing of others.”⁷ NOSM University aspires to become an ecological University, practising our values through our commitment to the planet, and to the people and cultures of Northern Ontario.

⁶ Barnett, R. (2020). Realizing the World-Class University: An Ecological Approach. In: Rider, S., Peters, M.A., Hyvönen, M., Besley, T. (eds) World Class Universities. Evaluating Education: Normative Systems and Institutional Practices. Springer, Singapore. [Realizing the World-Class University: An Ecological Approach | SpringerLink](#)

⁷ Stratford, Robert. “What is the ecological university and why is it a significant challenge for higher education policy and practice?” *Educational Philosophy and Theory*. 2015.

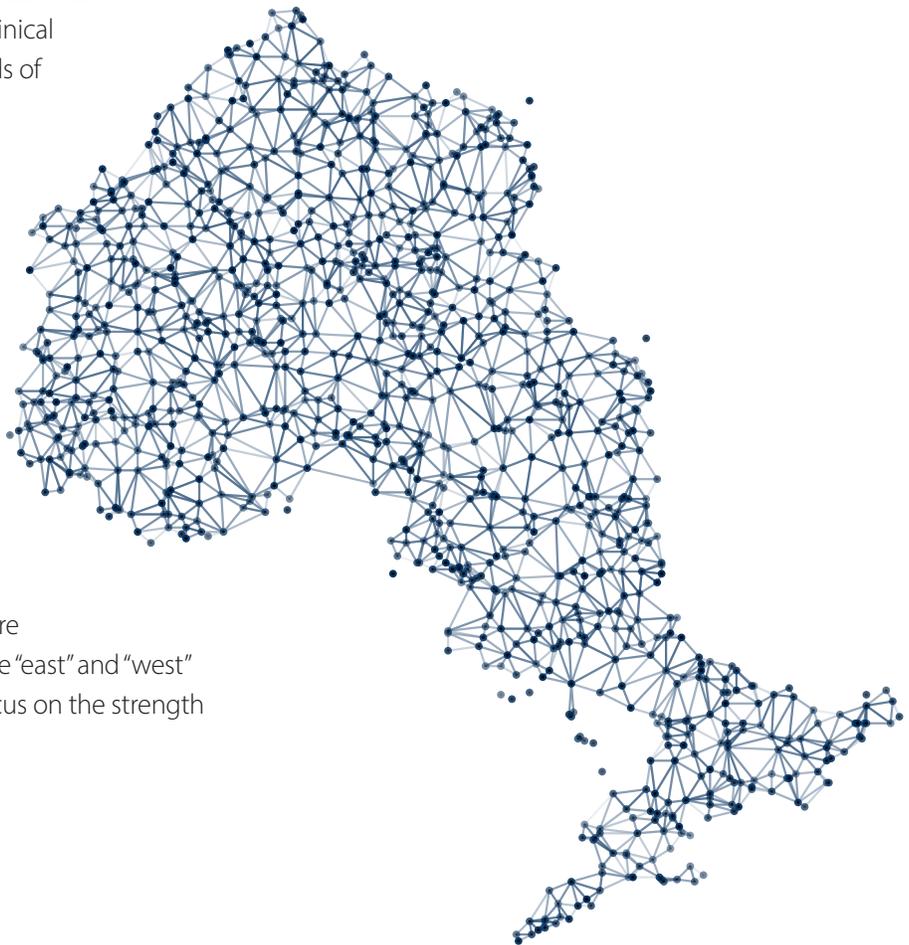
BECOMING TRULY PAN-NORTHERN

From its inception, NOSM has relied upon its internationally renowned distributed model of learning across Northern Ontario. However, we've yet to truly undertake regionalization. Looking into the future, that evolved concept will be fundamental to several priority areas for NOSM University.

Foremost, establishing a dedicated university presence in strategic communities outside of Sudbury and Thunder Bay will allow us to truly partner locally and foster the kind of community engagement needed to continue building trust and credibility. Second, these proposed flexible, interconnected and regionally distributed "campuses" (not necessarily new builds and certainly leveraging partner resources) would be integral to gathering critical local research data while establishing clinical services directly linked to the needs of the immediate community. The regional focus also will lead to improved recruitment and retention of health-care professionals into areas of greatest need: rural, remote and small communities, and First Nations and Francophone communities where the shortages are acute. Finally, and perhaps most importantly, the true regionalization of this university will usher in a much-needed culture shift in which there will be no more "east" and "west" thinking, and instead, exclusive focus on the strength

of the entire network. The relationships with clinical faculty, collective agreements, the Northern Ontario Academic Medical Association (NOAMA), hospitals, sister Universities and Colleges, donors, government and community leaders are all pivotal to this success.

This proposed pan-Northern approach wisely taps into the already available resources of interdependent partners, including health service providers, colleges and universities in the health services supply chain, as well as research and clinical services. After all, if they've already built what we need to learn and grow, why shouldn't we share the wealth in the common service of Northern Ontario?



THE 'F-WORD:' FUNDING

"Carpe per diem: seize the check." — Robin Williams

A heavy reliance on government funding and tuition revenue has proven to be financially disastrous for the universities of today. Some larger more influential universities have succeeded in attracting large endowments, international student enrolment and private donations to sustain their financial future.

NOSM University has a choice to make: either generate revenue through new business models or continue to suffer deficits, uncertainty and a suppression of innovation or growth.

Traditional fundraising is not the whole answer, though it has a place in developing an aspirational Student Endowment Fund. NOSM University has launched a plan to raise \$50 million for student aid, (including recouping the endowments held for NOSM University students at Laurentian and Lakehead Universities). In addition, we must focus on becoming a precinct for innovation and a place for investment, where NOSM University and industry collaborate on projects that solve real-world problems. We will be a crucible for important conversations across all boundaries and jurisdictions in rural, remote, Indigenous, Métis, and Francophone communities, and pressing for the best business case to support them regardless of federal, provincial, municipal or other funding mechanisms.

Other revenue streams must include of-the-moment value propositions: pay-to-play, distance-ready micro-credentials and skills upgrading programs that can top-up people's existing skill sets, or help them to change industries altogether. This concept is not new. However, NOSM University has an opportunity

to develop a suite of scalable modules that put our university's unique specializations and brand at the fore. Design-thinking and new programming will be our forte.

The beauty of this is that with continuing education, learning never stops. The mutual advantage is that these on-demand, flexible learning experiences will not only become a significant revenue stream, but will again be tailored to the learning preferences of students, whether fully online, in a hybrid context or on a campus. Research opportunities and new partnerships across Canada are already being nurtured. International opportunities are under exploration. These roots will all bear fruit in due course.

There are some risks to diversifying our revenue streams, but none that cannot be thoughtfully mitigated, or that outweigh the existential threat of insolvency. The lessons learned from the Laurentian University experience in the CCAA protection proceedings, and emerging evidence that many other universities are in similar peril, make it clear that NOSM University must adjust to a new paradigm: from an expensive model entirely reliant upon government funding to one that is fiscally responsible, financially efficient and guided by continuous quality improvement. NOSM University is leading a movement defined by the ecological university that relies heavily on outputs and measuring the impact on the community it serves. Ultimately, publicly funded institutions such as NOSM University must be accountable for taxpayers' dollars, and our graduates must have degrees that are useful and lead to employment in areas of need.

THE FUTURE OF NOSM UNIVERSITY: FOUR BIG IDEAS

“If one does not know to which port one is sailing, no wind is favorable.”

— Lucius Annaeus Seneca

Radical change is needed for NOSM University to become truly extraordinary. We can—and should—make massive reforms to health education, research and systems design, but only those reforms that will also keep intact the best of what we do, which is producing physicians for Northern Ontario.

Based upon deliberations of our Transition Board of Governors, we propose four big ideas to become an ecological university:

1. NOSM University will no longer be just a medical school; we will embrace new degrees, certificates and educational and research opportunities that will make us a true university, and in doing so, we will meet the expectations of the Council of Ontario Universities.
2. NOSM University will stay focussed in our large AHSC-linked campuses in Thunder Bay and Sudbury, but we will work to eventually extend our reach across all of Northern Ontario, becoming truly regionalized and pan-Northern.
3. NOSM University will explore and deliver new opportunities in research and education with innovation in flexible learning experiences tailored to exactly what students want to achieve. A bespoke, “just-in-time” approach to each learner will allow them to study what they want in multiple modes, from in-person, to online to anything in-between using state-of-the-art technology. One of our most unique value propositions, our unique academic initiatives, will continue to allow students to study Rural Medicine, Indigenous Health and Francophone Health, with the added advantage of flexible pathways to success.
4. NOSM University will develop models of funding that reduce our reliance on traditional sources of revenue and will find efficiencies to become more fiscally accountable to the people of Northern Ontario.

NOSM University will not just survive—it will thrive.

NOSM University will become truly extraordinary.

