

NORTHERN ONTARIO SCHOOL OF MEDICINE

Transformation

DEAN'S REPORT & STRATEGIC PLAN STATUS

FALL 2021

THE PANDEMIC
PUSHED BOUNDARIES,
TRANSFORMING
MEDICAL EDUCATION

NEW TOOL HELPS
ADVANCE **SOCIAL**
ACCOUNTABILITY

MENTAL HEALTH
CRISIS IN NORTHERN
ONTARIO



Northern Ontario
School of Medicine
École de médecine
du Nord de l'Ontario
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A year of transformation

The Spring 2021 report focussed on **Community**. With the pandemic pushing boundaries and transforming medical education, **Transformation** is the theme of this Fall 2021 report.

By definition, to transform is to dramatically change in form and to move from one given state to another. This year, through incredible innovative efforts, a massive transformation has happened at the Northern Ontario School of Medicine (NOSM). This has been demonstrated by our collective ability to make decisions, lead with empathy, fight racism and achieve reconciliation while navigating through several crises.

I want to express my gratitude and admiration for the strong, resilient team of faculty, staff and learners at NOSM and our amazing Board of Directors. Also, let me thank you, the people of Northern Ontario. You formed the anchor that allowed our medical school to transcend at a pivotal moment in time. Change is not easy and yet, at every opportunity you stood up, rose to the challenge and remained focussed on our mandate to improve access to quality health care for Northern Ontarians.

Whether you were part of the Emergency Response Team, an Operation Remote Immunity volunteer, faculty who engineered new curriculum, an essential worker on the frontline or doing your part from home to keep our important work continuing, thank you. Miigwetch. Merci. Marsi. NOSM has led innovation in transforming the way we teach, learn and deliver health care.

Our learners are exceptional. Through many volunteer initiatives they found ways to improve our society. They challenge themselves to improve lives, find solutions to longstanding issues, and address and advocate for inequities.

Thank you to our stakeholders, including communities, health-care centres and hospitals, who truly make this a real team effort. We can all be proud of the many accomplishments and improvements we have implemented over the last year which benefit our learners, learning environment, faculty and our programs.



The Northern Ontario School of Medicine respectfully acknowledges that the entirety of the School's wider campus of Northern Ontario is on the homelands of First Nations and Métis Peoples. The medical school buildings at Laurentian University and Lakehead University are located on the territory of the Anishinabek Nation, specifically Atikameksheng and Wahnapiatae First Nations and Fort William First Nation.

We do not need to wait until the pandemic crisis is over to celebrate the wins made through adaptable transformation. Indeed, calm decisiveness and dignity through the pandemic and our journey to becoming the first free-standing medical university in Canada can be seen across all NOSM stakeholders. Change has happened while we have transformed ourselves.

Although these changes have been swift, other transformations are taking place to address continuous improvements in our curriculum, in securing financial aid for our learners and in supporting personal wellness for our people.

NOSM is creating a climate where the NOSM community can expect the highest standards of respect, kindness and professional collegiality and civility. The Respect the Difference™ movement developed by the School continues to bring awareness to a culture of kindness and respect in the learning and work environment. NOSM partners, health-care centres, hospitals, patients, and medical schools across the country have also taken notice of NOSM's **pronoun pin project** created by **two NOSM students** to increase the understanding and recognition of gender identities and assist in delivering inclusive, patient-centered health care.

The preparation for the transition to NOSM University is underway. We are awaiting Proclamation in Force for this Act, which is reliant on the Minister of Colleges and Universities and several legal and political processes. In the meantime, the partnerships with Laurentian University and Lakehead University are highly valued. A fulsome consultation and engagement process which includes a public survey, meetings,

focus groups, interviews and town halls is already underway. You can complete the survey and contribute your input at **bit.ly/NOSMUSurvey**.

As you read through this report, I invite you to learn how the pandemic helped NOSM transform through the outstanding leadership of many across Northern Ontario. In many ways, there is no looking back. Find out why NOSM has the most diverse incoming MD class in its history. Discover how the School's Summer Studentship Program made the crucial difference in Hearst. Be amazed by the reinvention of CampMed. Read about how NOSM is moving social accountability forward on a global scale.

James MacGregor Burns first identified the idea of 'transformative leadership' in his book in 1978 (Leadership, NY, Harper and Row) and this has become the defining characteristic of successful leaders especially women in international politics including Angela Merkel, Jacinda Ardern and Kamala Harris. Such leaders help organisations evolve in unique ways by altering the status quo and leveraging strengths to propel them forward—way ahead of their peers. NOSM is doing just that. The transformation to NOSM University, during a pandemic and under a partner's insolvency, has become an inspiration.

I hope you enjoy this edition of the Dean's Report, which highlights achievements in our transformation, provides updates on my performance goals and addresses the progress of the NOSM Strategic Plan.

Sincerely,
Dr. Sarita Verma,
Dean, President, CEO
Northern Ontario School of Medicine

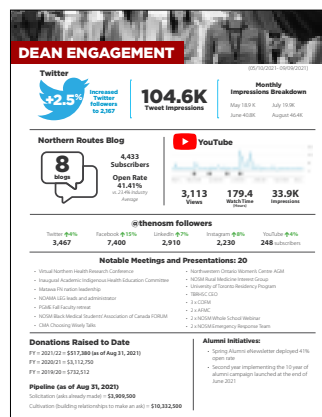
The performance goals^{*} for the Dean, President and CEO are:

- Implementing the new Strategic Plan with evidence of progress through key performance indicators and data to support outcomes from the UME and PGME accreditations and IQAP process.
- Increasing advancement activity, building our brand and reputation and new revenue generating projects such as medical school expansion in order to ensure financial sustainability.
- Making strides with NOSM stakeholders in developing social accountability, equity and inclusion especially in creating education, research and clinical networks across Northern Ontario communities including the AHSCs.
- Leading innovation in new models of education and curricula, in the context of the continuum of education from recruitment/ admissions through UME and PGME into CEPD and Faculty Development for clinical faculty including an emphasis on pathways in rural generalism, Indigenous practitioners and francophone health.
- Giving evidence of the development and implementation research strategies that promote our social accountability mandate with an emphasis on community engaged research across Northern Ontario.

** Approved by the Board of Directors September 30, 2020*

With this report and the KPIs, I am pleased to say that ALL of the above performance goals have been met or been exceeded this year. Despite the ongoing issues with the insolvency of Laurentian University and the difficulties with traversing the impact of Bill 276 Schedule 16—namely the NOSM University Act—I continue to be optimistic and hopeful for NOSM's future. Why? Because we have award- winning programs and amazing students, staff and faculty.

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





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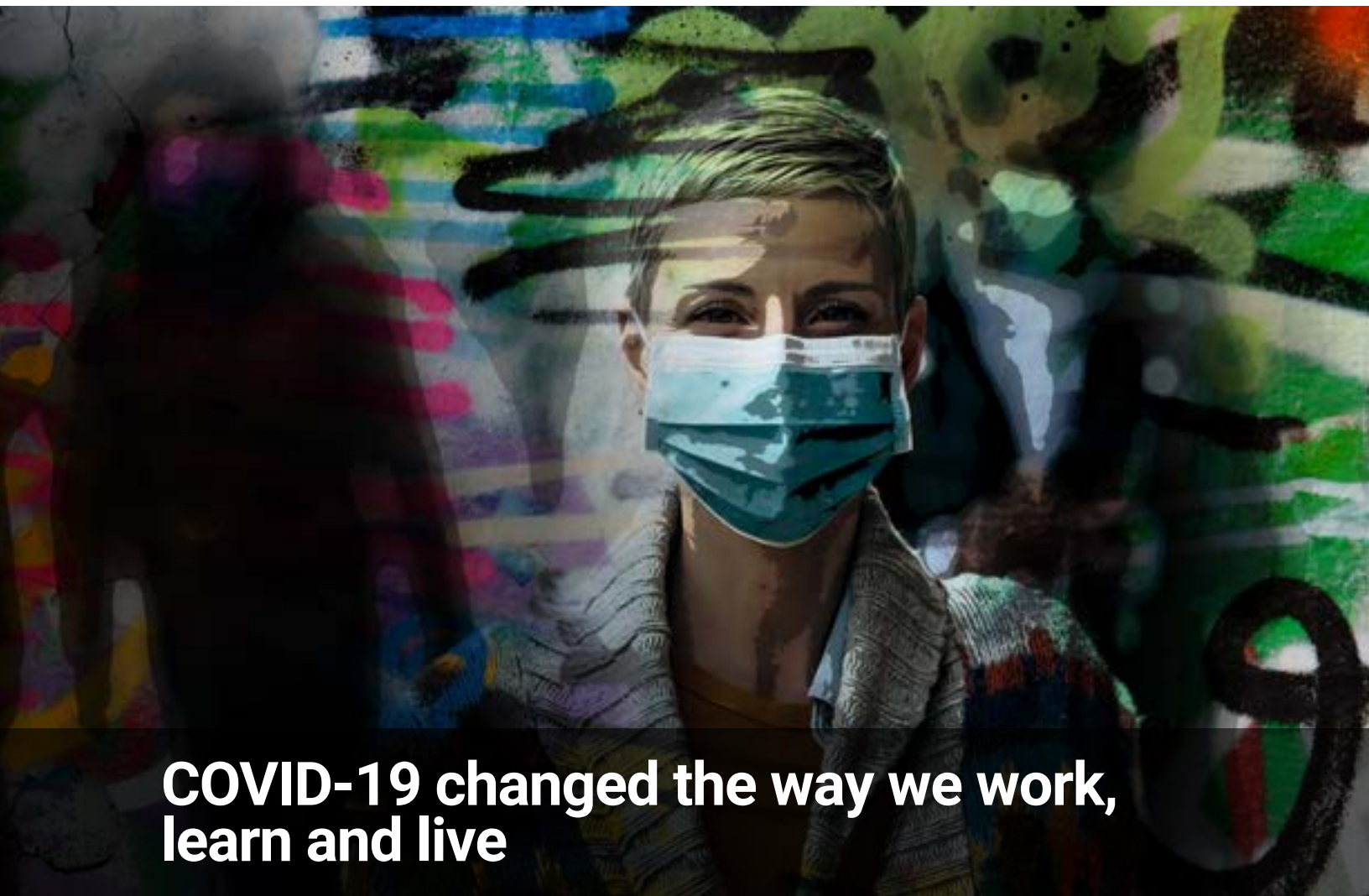
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NOSM is a 2021 recipient of a Vega Digital Award and The Communicator Award.





COVID-19 changed the way we work, learn and live

When the COVID-19 pandemic first impacted Northern Ontario, NOSM's response was swift. Advance preparation and planning was well underway, as teams had been monitoring the threat since it was identified in December 2019 and as the world watched the virus spread in real time.

The prevalence of the pandemic in Ontario triggered NOSM's internal Emergency Response Team (ERT) into action. When public health recommendations and guidelines began to change, and in-person activities were deemed high-risk, NOSM transitioned almost entirely online using its pre-existing virtual platforms. Enormous efforts by the entire NOSM community ensured the move to virtual was as seamless as possible.

There was a significant shift in our mindset. During COVID-19 we experienced a collective willingness and acceptance to find solutions and implement them at a rapid pace. Three areas of change were most significant: NOSM's successful transition to working virtually; the interdependence of NOSM's partnerships and collaborations; and, our ability to forge many 'firsts' in such a short period of time.

NOSM's successful transition to working virtually

NOSM's distributed learning model and flexible alternative ways of working and learning, proved to be essential as we moved beyond any outdated assumptions that technology is a barrier to health care education and patient care. We experienced firsthand how crises creates innovation, and innovation can be expedited out of necessity.

More than 93% of the NOSM community began working remotely during the height of the pandemic. Three extra days of vacation were granted to all staff in recognition of working under these challenging conditions. Staff received significant support for home-based technical equipment needed to optimise their work conditions.

NOSM's partnerships and collaborations

As an important part of the health-care system in Northern Ontario, and certainly as a medical school with a social accountability mandate, we have an interdependency with our partners in health care. Leaders from public health, clinical sites across Northern Ontario, as well as Thunder Bay Regional Health Sciences Centre (TBHRSC), Health Sciences North (HSN) and NOSM, came together to help determine required actions, timelines and navigate ongoing, continuous changes. We were able to align our vision and synchronize our approach to implement the changes that were necessary.

NOSM faculty, staff and learners were continuously engaged in finding methods to help. An impressive 303 members of the NOSM community volunteered in **Operation Remote Immunity**, and others volunteered to participate in their community vaccination effort.

Many NOSM "firsts"

The rapid move to online and virtual also marked notable milestones, including:

- the first virtual UME accreditation ever in Canada;
- the first virtual admission interviews; and,
- the first online Medical Council of Canada Qualifying Examination (MCCQE).

Pioneers of change at NOSM include the Undergraduate Medical Education program, staff, faculty and students who quickly adapted curriculum to online formats, and all contributors of Continuing Education and Professional Development (CEPD) who implemented the School's first COVID-19 Pan-Northern Virtual Clinical Rounds. These pan-Northern virtual rounds were delivered over 14 weeks with 1,100 attendees who engaged with over 40 NOSM faculty presenters, allied health partners and moderators.

Expedient changes certainly didn't slow the School down. In 2020, 59 medical students graduated and 61 residents completed their programs, with another 66 and 71, respectively, in 2021. Over the past two years, 24 students—two classes of dietetic students—graduated.

New initiatives and innovations also grew, for example the virtual 2021 Dean's Lecture Series with a focus on **Racism in Medicine**, was held with nationally recognised physician leaders and more than 100 attendees. Speakers were Dr. Alika Lafontaine, the first Indigenous President-Elect of the Canadian Medical Association (CMA); Dr. Doris Mitchell, an Indigenous physician scholar, NOSM Alumna and NOSM Assistant Professor;



Dr. Gigi Osler an ENT Surgeon and former CMA President; Dr. Amy Tan, a Palliative Care Physician; and, Dr. Kona Williams, Canada's first Indigenous Forensic Pathologist and NOSM Assistant Professor.

Youth interest in health professions has also increased across Northern Ontario with the new virtual CampMed improving access. CampMed experienced record-high participation attracting 235 students in 2021.

Throughout the course of the pandemic, NOSM medical students continue to exhibit strength and resilience. This year, NOSM experienced a 100 per cent match rate in the first round of CaRMS (Canadian Resident Matching Service), and a

97 per cent pass rate on the MCCQE, which is higher than the national average. In 2021, NOSM's Master of Medical Studies program experienced an increase in enrolment as well.

One indication of success in meeting our social accountability mandate is our dynamic incoming MD class this September. Seventeen per cent of the Class of 2025 self-identify as Indigenous and 23% as Francophone. This is the highest percentage of Indigenous students admitted in NOSM's history and the highest percentage of any medical school in Canada.

Milestone Firsts

Virtual UME accreditation ever in Canada;

Virtual admission interviews; and,

Online Medical Council of Canada Qualifying Examination (MCCQE).

Diverse Class of 2025

17%

Indigenous

23%

Francophone

7%

undeclared gender

28%

from rural Northern Ontario

8%

from rural and remote areas of Southern On and Canada

Student and Learner Successes

100% CaRMS Match

(best in country)

97 % pass rate

on the MCCQE

Operations

36

Emergency Response Team meetings

9

COVID-19 related whole school webinars

93%-95%

of workforce worked remotely during the height of the pandemic

31

HR Communiques in 15 months for whole school communications and transparency

Developed and delivered a mandatory COVID-19 Return to Campus Training Course and screening questionnaire

Graduates

Class of **2020**:

59 medical students,
61 residents completed

Class of **2021**:

66 medical students,
71 residents completed

Dietetic Graduates

in **2020** and **2021**:
24 students

Volunteers

303

Respondents willing to volunteer for Operation Remote Immunity

22

NOSM Teams deployed

60

NOSM volunteers participated

New CEPD initiatives

COVID-19 Virtual Pan-Northern Clinical Rounds:

14 weeks

1,100 attendees

40 NOSM faculty presenters

A remarkable innovation has been the daily accounting of COVID-19 case status reports.

Record-High Virtual Participation

Dean's Lecture Series:

100

attendees in 2021

CampMed:

235 participants in 2021



Alleviating critical health-care shortages during the pandemic: Case study in Hearst

Across the world, the ongoing pandemic is stretching health-care and front-line workers very thin, leaving rural hospitals with difficult decisions to make. The NOSM Summer Studentship Program helped alleviate a critical shortage in Hearst, where it was an ‘all hands on deck’ approach as COVID-19 cases escalated in the Porcupine Health Unit district.

“This spring we were in a nursing shortage crisis, and it’s a good thing we had the students to help or we would’ve had to close some departments,” says Marylène Comeau, Recruitment Coordinator at Hôpital Notre-Dame in Hearst. The hospital in Hearst hired five applicants, four full-time nursing students and one full-time lab technician student. The program is a collaborative approach to recruiting health professionals and ensuring home-grown health human resources where they’re needed most.

“This strategic program provides the opportunity for students pursuing careers in health care to train at home and encouraged them to come back. It strengthens our qualified health resources and helps alleviate the critical health-care shortage in our region,” Marylène explains. “It also gives students strong skills, expanded experience and a good idea for what it’s like to work here at home.”

Hôpital Notre-Dame has hosted students for more than six years. The NOSM Summer Studentship Program, which was established by the Ministry of Health and Long-Term Care, enables regulated health-care students an opportunity to gain relevant work experience in their field of study. The program provides funding to Northern agencies to hire students who were born and/or raised in Northern Ontario. Eligible health-care professions include medicine, nursing, rehabilitation, and pharmacy.

Marylène hopes that in future, communities with the largest health human-resource demand will be at the top of the list for support.

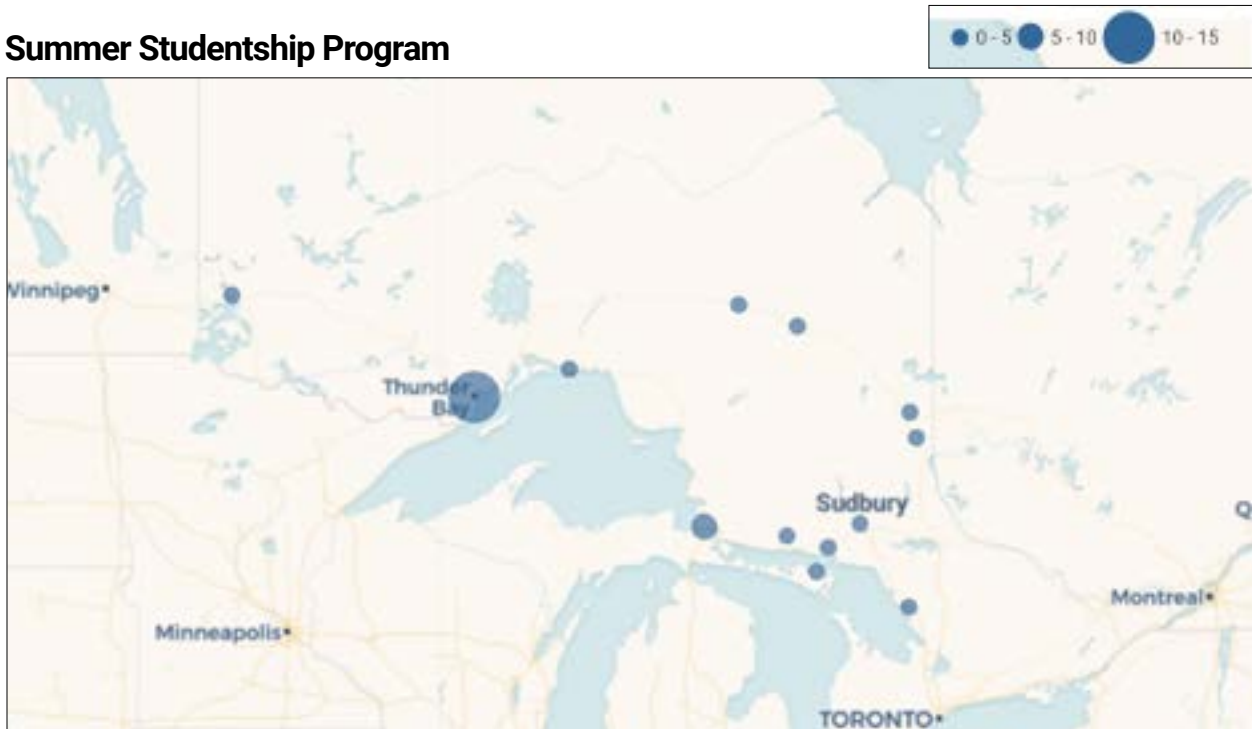
“Rural and remote communities that don’t have the resources to hire summer students should receive priority because they are most in need, with the fewest resources. Evidence shows that our best method for recruitment and retention in small communities is to have our people return and practise here.”

In the past few years, Hôpital Notre-Dame has resorted to hiring English-speaking nurses and physicians, however those hired through the NOSM Summer Studentship Program have been bilingual, improving access to care for the large Francophone population in the area.

Clinical sites in Northern Ontario are encouraged to apply for funding through NOSM’s **Summer Studentship Program** to help recruit and retain future health professionals. In 2021, there were 96 applicants to the program and 92 were approved to go to placements. There were 64 placements funded through NOSM with approximately 61 students will be placed in positions across the region.

Learn more at nosm.ca/summerstudentship.

Summer Studentship Program





Pushing learning boundaries: Novel adaptations in medical education

In 2020, NOSM faced an incredible challenge when the pandemic reached Northern Ontario. It was a time of swift transformation and lasting changes, charting the renewal of medical education.

“The biggest transformation was the comfort and confidence gained by making and delivering changes quickly,” says Dr. Lee Toner, Interim Associate Dean of Undergraduate Medical Education and Associate Professor at NOSM.

“We had to make adjustments to our curriculum. Since NOSM has a successful distributed learning model, we were very well positioned to expand our virtual education which made the transition much smoother,” says Dr. Toner.

Modules in the curriculum were moved around quickly, which Dr. Toner says would’ve taken years to implement prior to the pandemic, and faculty

were quick to step up and help. As a result, student feedback was positive and they really appreciated the effort put forward in creating virtual graduation ceremonies to celebrate their milestone despite the pandemic. Limitations in physical presence and in large groups accelerated the development of asynchronous distance education and student assessment. As well the prolonged pandemic has had a serious impact on medical student well-being and academic career choices.

Some changes are here to stay. “In some cases, faculty have decided that the virtual format is the best way to deliver their curriculum. With

interprofessional teams across Northern Ontario, working together virtually is a better delivery model,” says Dr. Toner.

Dr. Peter Istvan is NOSM’s Director of Phase 2, where students spend their third year in a mid-sized community. He says the School was well prepared for the virtual transition. “Two major transformations were remote delivery and monitoring of the Quarterly Progressive Assessments, and Virtual third-year orientation and OSCEs.” It was the first time that The Objective Structured Clinical Examination (OSCEs) were delivered virtually. “We’d never even thought of doing virtual exams but now we can and are considering it, and as a formative experience, it’s particularly helpful for anyone who has accessibility issues,” adds Dr. Toner.

Dr. Istvan says NOSM’s ability to deliver its third-year curriculum in community during 2021-2022 is a huge success thanks to the tireless effort of the Site Administrative Coordinators, Site Liaison Clinicians, and community partners in each of the Comprehensive Community Clerkship sites. Also, the herculean work of NOSM’s IT staff in quickly dealing with early challenges with audio, video, downloading and streaming errors, login problems and intermittent internet availability in many northern sites as well as resolving security issues made this transformation possible.

The new advocacy curriculum added to the fourth-year program is an example of an impactful and swift, faculty-led adaptation—one that empowered students to pursue their passions. Dr. Toner says that students were able to pivot very quickly on big initiatives and deliver some really impressive projects to address the immediate health-care system and community needs. “That is critically important because that’s what physicians do—we become patient and health system advocates.”

NOSM’s virtual accreditation—the first of its kind at a medical school in Canada—was another transformation. Rather than one central site with satellite sites joining in from across the region, for the first time with the new virtual format everyone was on equal footing and able to be heard.

Upcoming changes include the gradual return to small group learning and clinical experiences. “It was tough for the first-year students and the second-year students in particular who missed out on in-person experiences. They provided feedback and that’s why we’re really striving to get as much in-person experience back to them as possible,” says Dr. Toner.

The possibilities are leading to new ideas around delivering more of the curriculum in smaller communities and minimizing displacement for students. Family connections and commitments are considerations that factor into the decision of whether or not they apply to medical school.

“Examining possibilities with the small incremental changes that we experienced during COVID-19—and we continue to experience—are useful ways to renew the curriculum even further,” says Dr. Toner.

Though a source of disruption, COVID-19 may be a catalyst for the transformation of medical education that had been brewing for the past decade including the appropriate emphasis on electives. Electives will no longer be like auditions for residency, but about acquisition of necessary skills for pursuing a residency program in any area. By moving the CaRMS process to virtual interviews, we will also lower the carbon foot print of students in the matching process.



Advancing our social accountability: A transformative tool on the global stage

NOSM helped develop and pilot a new international certification tool developed by **Toward Unity for Health (TUFH)** to advance socially accountable undergraduate medical education.

NOSM is one of only 10 socially accountable medical schools worldwide to be identified as a global leader in the application of social accountability principles to education and research, with the aim of increasing health equity and improve health service delivery in ways that are relevant to population health needs.

The new tool, called Institutional Self-Assessment Social Accountability Tool (ISAT), was developed by a team of internationally renowned social accountability leaders, educators and experts including Dr. Sarita Verma, NOSM Dean, President and CEO, in the spring and summer of 2021.

TUFH is an international organisation and a partnership between the Pan American Health Organisation (PAHO), World Health Organisation (PAHO-WHO), Beyond Flexner Alliance, THEnet, Global Consensus for Social Accountability, to promote and advance equitable community-oriented health services, education and research to improve health locally and globally.

Leading NOSM's submission was Dr. David Marsh and Dr. Erin Cameron with support from Dr. Sophia Myles and Chandelle Mensour, third-year NOSM medical student. They worked with a NOSM Steering Committee and the School piloted the tool.

The world is now watching as NOSM helps drive the global movement to respond to the priority health needs of people, societies and communities.

Read more:

- **Medical Education for Social Accountability: The Training for Health Equity Network (THEnet) Graduate Outcomes Study**
- **\$300k financial contribution from McConnell Foundation supports NOSM's Centre for Social Accountability**
- **NOSM appoints Academic Director for its new Centre for Social Accountability**
- **NOSM receives unprecedented \$1.2 million donation to invest in social accountability**

The Northern Ontario School of Medicine is a proud recipient of the 2019 Charles Boelen International Social Accountability Award, presented by the Association of Faculties of Medicine of Canada. In 2013, NOSM received the prestigious ASPIRE award, which recognizes international excellence in social accountability and medical education.



Record-high participation at virtual CampMed

Virtual access is improving accessibility to mentorship for youth and encouraging a health-care career.

Initiated as a way to keep youth engaged with CampMed during the pandemic, the virtual edition of the event debuted in 2020 and saw another increase in participants this year. The numbers speak for themselves: 235 registrants from 64 communities across Northern Ontario, 21 live and 4 pre-recorded workshops delivered by 45 volunteers and 15 guest speakers.

Despite being online, CampMed students were still able to gain a feel for the hands-on experiences they can expect if they choose a

career in health care. They learned to suture, to diagnose and to analyse a crime scene, but also about cultural programming. This program is all part of the camp's mandate to provide Northern Ontario and remote students with the opportunity to explore Indigenous and Francophone culture, health and traditions.

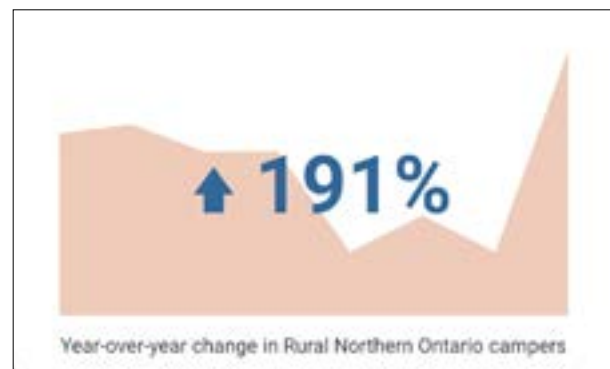
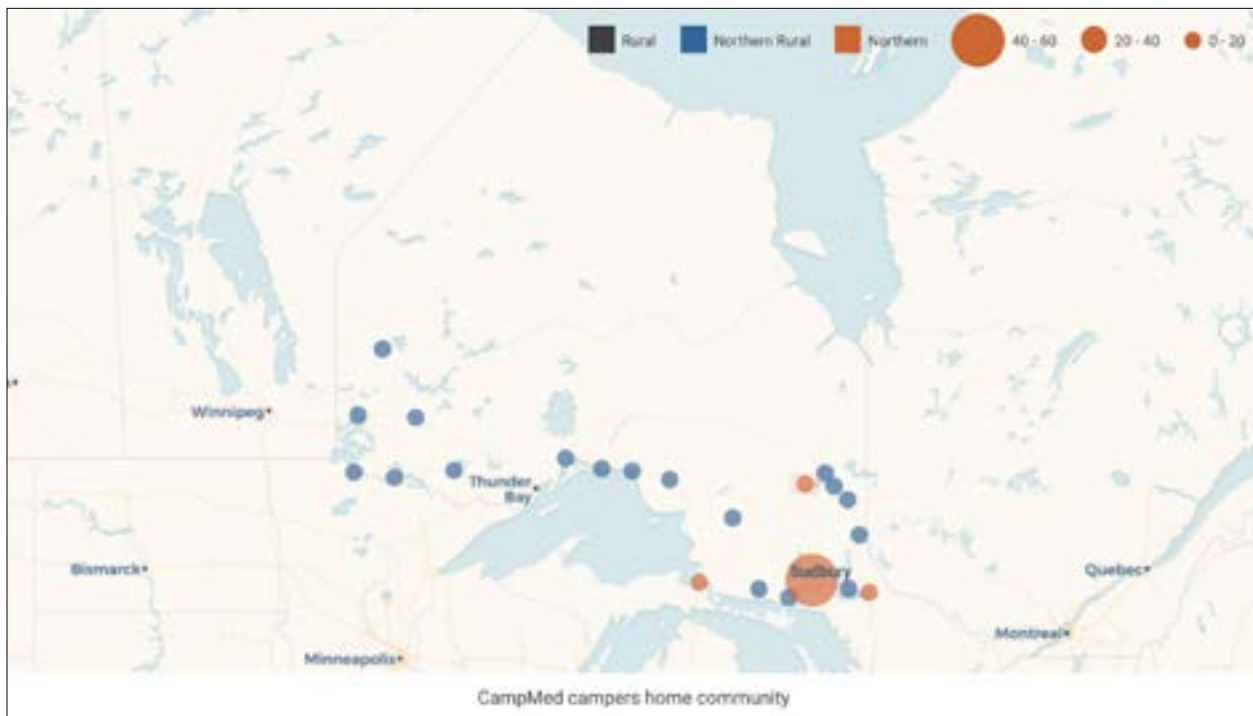
For the first time since the camp's inception, Northern Ontario high-school students of all ages were offered the opportunity to participate rather than just those in Grades 10 and 11. Among the


participants from 64 Northern communities, a significant portion came from Fort William First Nation, Iroquois Falls, Manitouwadge and Mindemoya.

Several students said the highlight was learning and connecting with professionals in the field and being able to attend virtual workshops while remaining at home in their communities.

This year, CampMed was held from July 12-23. For more information, contact NOSM's Office of Admissions and Learner Recruitment toll-free at 1-800-461-8777 or by email to campmed@nosm.ca.

CampMed Campers from Rural Northern Ontario





A breakthrough year for Physician Assistants in Northern Ontario

Currently across Northern Ontario there is a shortage of 313 full-time equivalent physicians. Of this group it is estimated that 126 family physicians are needed, and of that number 86 are needed in rural communities. NOSM programs supporting health professions are helping bridge the gap and sustain care.

In April 2021, the Ontario Minister of Health, Christine Elliott introduced legislation proposing the regulation of Ontario Physician Assistants (PAs) under the **College of Physicians and Surgeons of Ontario** (CPSO). The Minister highlighted that the “regulation of PAs in Ontario is an important step in health modernisation.”

“PAs will become a regulated health profession soon which will be a huge step towards better funding and access to care. NOSM is proud to be a partner in the delivery of the Physician Assistant program,” says Dr. Catherin Cervin, Vice Dean Academic at NOSM.

The Bachelor of Science Physician Assistant degree (BScPA) is based in the Department of Family and Community Medicine at the Temerty Faculty of Medicine at the University of Toronto. Having welcomed its first class in 2010, the PA program is delivered in collaboration with NOSM and The Michener Institute of Education at UHN. The three institutions have formed the Consortium of PA Education to collaborate in the development, administration and delivery of the University of Toronto degree.

The success of this program has resulted in graduates working in Cochrane, Little Current, Marathon, Parry Sound, Sturgeon Falls, Sudbury

and Thunder Bay. During the pandemic, PAs played a critical role in areas of need across the North and throughout the province, highlighted by the Canadian Association of Physician Assistants (CAPA).

"We heard stories from PAs in Emergency Departments, working to develop redeployment and on-boarding procedures, in preparation for potential staffing shortages. We heard from PAs in Family Medicine, rapidly adapting to create a seamless pathway for their patients to access high-quality virtual care," report Sahand Ensafi and Maitry Patel, both B.H.Sc, CCPAs, co-authors of The Physician Assistant Response to the COVID-19 Pandemic in Ontario published in the Journal of Canada's Physician Assistants.

"We heard from PAs in long-term-care facilities working to create policies that would protect the most vulnerable individuals in our population. PAs in other specialties also shared their stories of redeployment, taking on additional responsibilities and stepping up to fill gaps in care during the pandemic."

The regulation of Physician Assistants in the province "will help solidify the important role that PAs are playing in hospitals, emergency departments and in primary care settings... PAs will improve patient care, encourage more team-based care and allow PAs to work to their full scope of practice," reports CAPA.

Read more:

- **The Physician Assistant Response to the COVID-19 Pandemic in Ontario**
- **Regulation of PAs in Ontario important step in health modernization**

The total number of University of Toronto graduates from the PA Consortium from 2011-2020 is **233**.

Approx. **8%** of the PA grads are **working in Northern Ontario**:

A young emerging health profession: PAs in Canada

1984: The Canadian Armed Forces adopts Physician Assistant Role for senior medics

1999: The Canadian Association of Physician Assistants (CAPA) is officially established; Manitoba enacts legislation recognising PAs as regulated health professionals

2003: CAPA joins the Canadian Medical Association Accreditation Services and is granted its first accreditation status

2006: Ontario announces the inclusion of PAs in the health-care system

2010: The Consortium of PA education, a partnership between the University of Toronto, NOSM and the Michener Institute of Applied Sciences at UHN forms the fourth PA program in Canada.

Source: Physician Assistant History Society

18 PA graduates

from 2011-2020 are currently working in Northern Ontario.

Cochrane	1
Little Current	1
Marathon	1
Parry Sound	1
Sturgeon Falls	1
Sudbury	6
Thunder Bay	7



Donations alleviate student debt

NOSM has the highest student debt in comparison to other medical schools across Canada. A transformation of support is on the horizon.

The average debt of a fourth-year NOSM medical student is \$190k according to the Graduate Questionnaire 2020 reported by the Association of Faculties of Medicine of Canada (AFMC). Other medical schools across Canada have average student debts of \$100k per student.

There is significant disparity for NOSM students due in part to being a socially accountable medical school. NOSM students reflect the diversity of Northern Ontario and differ in socioeconomic status from other Schools.

The majority of NOSM students are recruited from smaller Northern, rural and remote communities, all of whom are vastly underrepresented at other medical schools across Canada. Students coming from varying socioeconomic backgrounds to NOSM accrue more debt.

“There is no comparison to other medical schools,” says Dr. Sarita Verma, Dean, President and CEO of NOSM. “Our medical students come from communities who are in critical need of

doctors—that is one way we uphold our social accountability mandate. And our School is the youngest. We don’t have the same level of long-term growing investments like, for example, at the University of Toronto Temerty Faculty of Medicine where they’ve had a maturing endowment fund for decades that has grown to over \$2 billion.”

“Ultimately, any time a donation is made to NOSM it has a huge impact on medical students in Northern Ontario,” she says.

According to the numbers, a medical student at NOSM receives around \$5.6k per year in scholarship and bursary support. Students at medical schools across Canada receive on average \$10k per year, per student.

It’s a challenge that has been flagged by NOSM’s accreditation as an area of financial health that requires improvement.

“I have seen the efforts of so many add up to better opportunities for our students. We have

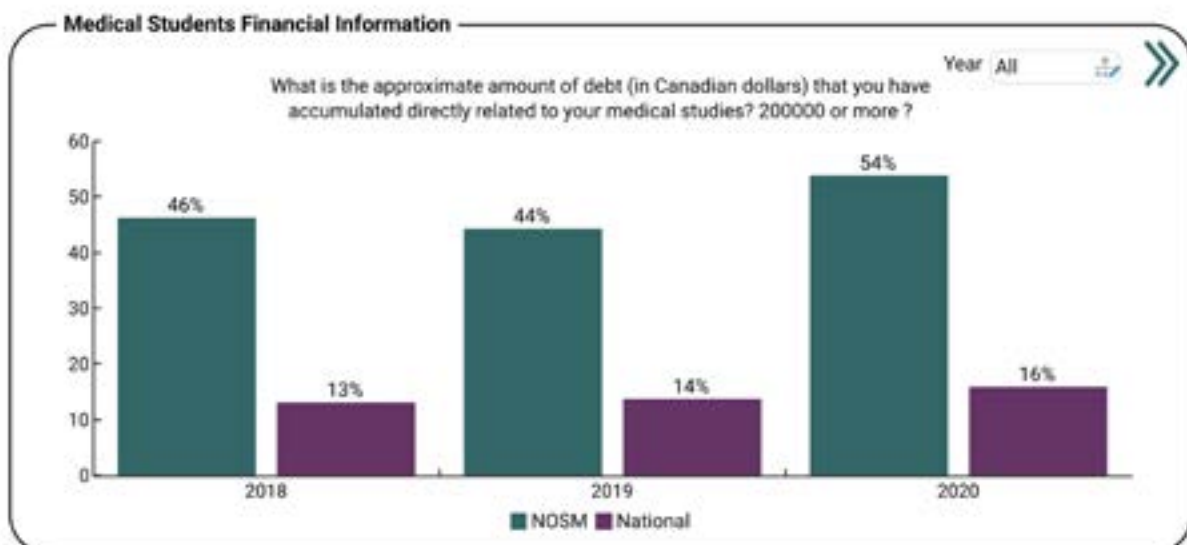
donors from within Northern communities, across Ontario and Canada,” says Terry Oja, Financial Aid Officer at NOSM. “What we know is that NOSM has more medical students in need of financial aid compared to other medical schools in Canada. Receiving access to endowments, bursaries, scholarships and emergency funds make all the difference—compared to the Canadian averages, these are the financial supports that students at NOSM need,” says Terry.

To put it further into perspective, the University of Toronto spends approximately \$5.5 million per year on scholarships and bursaries that are accessible to their medical students annually, not all of whom apply for financial support.

At NOSM, \$1 million a year is divided between 64 students over four years. Ninety per cent of NOSM medical students apply annually for scholarships and bursaries. NOSM simply has more students applying for financial aid and less funding to divide amongst all of them. It’s an area that the School is focussed on improving.

“Donors have an immediate and very direct impact in the lives of NOSM medical students,” says Rahim Dharamsi, Chief Advancement Officer at NOSM. “There is a disparity of support for medical students in Northern Ontario and this needs to change if we want to retain and sustain future physicians in the North. We need to support them.”

NOSM students and graduates are making a difference every day in the health of communities across Northern Ontario. Your support makes that happen. You can make an impact. **Learn about ways to give.**



The Epidemic within the Pandemic: The Mental Health Crisis in Northern Ontario



The pandemic continues to amplify the critical shortage in mental health providers in Northern Ontario. Currently there is an estimated shortage of 40 psychiatrists in Northern Ontario. As the number of mental health patients surges during the pandemic, NOSM looks to innovative practice models and approaches to meet their needs.

Well before the pandemic, the Canadian Mental Health Association reported that Northern Ontarians self-report higher rates of depression. Northern Ontarians face multiple health disparities which are increasingly acute with regards to mental health and are avoidable, yet related to systemic social inequalities and part of a legacy of a shortage of health services and health practitioners.

Also prior to the pandemic, the youth suicide rate among Indigenous populations was estimated to be six times higher than non-Indigenous populations, according to Statistics Canada—estimates that are expected to increase. An already fragile mental health picture has only worsened due to the challenges of the pandemic. Canada was already in the midst of a mental health crisis prior to COVID-19. The pandemic has both magnified and added to this crisis and highlighted how crucial mental health promotion and care are to our overall well-being.

Delivering timely, and critical mental health care with extremely limited resources requires a creative, transformative approach. St. Joseph's Care

Group (SJCG) in Thunder Bay sees an opportunity to strengthen its Collaborative Care model of practice—a “model of mental health care designed to improve access and reduce wait times for specialist mental health services. The model, which places clients at the center of their care, was developed in partnership with family physicians and local family health teams,” SJCG reports.

Dr. Jack Haggarty, Section Chair of Psychiatry at NOSM, practises in Thunder Bay and is Senior Medical Director (Chief) of Psychiatry at St. Joseph's Care Group. He and Drs. Katalin Gyomory, Katie Anderson, and Paul Mulzer are consulting psychiatrists providing collaborative care at sites including Fort William Clinic, Anishnawbe Mushkiki and Norwest Clinic and several others, serving over 30 family physicians and nurse practitioners and 40,000 patients.

This Collaborative Care model in Thunder Bay and District continues to contribute to research. Past findings show that patients in Collaborative Care show significant, sustained improvement in mental

and physical functioning; increased access to care and decreased demand on existing mental health services as well as reduced wait times.

According to SJCG, Collaborative Care improves access to psychiatry beginning with consultation with family physicians to ease the load on the mental health-care system while improving the ability of primary care staff to provide mental health services to their patients. Primary-care providers benefit by having timely access to consultations, direct and indirect service and education from a psychiatrist and mental health nurses. With a psychiatrist and mental health nurse working directly with family physicians, several direct pathways improve access to mental health services, including external referrals.

Early in the pandemic, SJCG was invited by the Sioux Lookout First Nations Authority to enhance its access to psychiatry through the use of OTN video links.

It's a model that dovetails well with the pandemic response highlighted in the **Northern Ontario mental health and addiction COVID-19 innovations** reported by the Centre for Addiction and Mental Health (CAMH): "Northern mental health and addiction service providers built new pathways, created new service options, worked through barriers alongside community partners and found ways to maintain and build connection with clients/patients." The increased use of virtual care paired with coordinated collaborative approaches are helping.

Dr. Zoe Michano-Furlotte, NOSM alumna (MD 2016), who is entering her final year of psychiatry residency in Thunder Bay, points out that the need for the province to ramp up increased funding and psychiatric care. There is also room to grow out-patient services and outreach to patients in rural, remote communities.

People are more isolated than ever and access to mental health services has been hindered due to lockdowns, cancelled programming, closed public buildings and staff burnout. Limited access to therapy and treatment centres has led to cases of substance withdrawal syndrome in some communities under lockdown and an increase in the number and severity of violent incidents in others.

We are dealing with a dual pandemic, with the opioid crisis on top of COVID-19. Mental wellness teams and (addictions) treatment centres have already shifted services to virtual platforms, but the shift is hampered by poor connectivity and accessibility to technology as well as limitations in workforce capacity related to both reliable and culturally relevant services. Investments in connectivity, infrastructure, technology, sustained access to virtual care and human resources must happen more immediately. NOSM is advocating for remedies for these inequities.

Dr. Verma spoke about the rise of mental health issues during the pandemic. More support is needed in Northern Ontario. Listen to the full news item and panel discussion at **CP24 News**.

Read more

- **Helping close the gap on psychiatry shortages**
- **Everything Is Not OK: 74% of Ontarians experiencing increased mental health and substance use challenges during the pandemic**
- **Rural and Northern Community Issues in Mental Health**
- **Kids in crisis: Inside Ontario's overloaded mental-health system**



Transformative virtual health care

Delivering safe care during the pandemic resulted in a quick, burgeoning shift to virtual care. For the first time, primary care was able to offer expanded online access, allowing many patients to remain at home, avoiding lengthy travel and wait times.

Appointments by phone, telehealth, and virtual platforms meant care could continue without lengthy disruptions, while lessening the risk of in-person COVID-19 transmission. It has also led to more on-demand care options and a revival of creative delivery solutions for outreach care.

“Among all residents of Ontario (population 14.6 million), virtual care increased from 1.6% of total ambulatory visits in the second quarter of 2019 to 70.6% in the second quarter of 2020. The proportion of physicians who provided 1 or more virtual visits per year increased from 7.0% in the second quarter of 2019 to 85.9% in the second quarter of 2020. The proportion of Ontarians who had a virtual visit increased from 1.3% in 2019 to 29.2% in 2020,” according to **Virtual care use before and during the COVID-19 pandemic: a repeated cross-sectional study**.

Emerging app-based primary health-care services

The TELUS Health MyCare app is for Canadians who do not have access to a family physician or are in need of care outside of clinic hours. The app is marketed as a health service that “lets you see a doctor, mental health counsellor or dietitian from your phone, where and when it’s convenient for you.”

In the United States, Amazon Care is another app that is gaining traction and is designed for families who want access to care and dedicated clinicians, with messaging about how to “build an ongoing relationship with your Care Team.” It is marketed as offering “access to a clinician seven days a week, 365 days a year. No more waiting rooms, no more travel time,” and includes on-demand visits, scheduled appointments, messaging for follow-up care and management of several chronic

conditions including: asthma, anxiety, depression, hypertension, coronary artery disease, diabetes and other services.

Amazon Care is also starting to include preventative care services: immunizations, screening, lifestyle and wellness advice, referrals and resources. For children and youth it offers well child exams, STI testing, birth control and other family planning, mental health supports and sport physicals.

Innovative mobile outreach health care

For those without access to technology, innovative ideas are resurfacing in the form of mobile health units—health-care delivery buses, vans, coaches, and travel teams.

The Mobile York South Simcoe (MOBYSS) was introduced as Ontario's first mobile mental health clinic. MOBYSS was created through collaboration with the Canadian Mental Health Association (CMHA) and Markham Stouffville Hospital.

MOBYSS helps provide adolescents with access to mental health and more preventive care services and was created “following community consultations regarding the region's lack of mental health services for youth. The retrofitted MOBYSS RV brings services to young people, specifically targeting those aged 12 to 25. The 39-foot RV contains a private exam room, a curtained off space for one-on-one counselling and an open lounge. The bus travels to local high schools and community centres.”

MOBYSS was inspired by The Alex model in Calgary, Alberta, another “doctor's office on wheels” established as a non-profit combining health and social services with “integrated and accessible supports and thoughtful, comprehensive care...with a full complement of

health, housing, and community programs, the Alex is a hub of supports and outreach services for people who are experiencing poverty, trauma, social isolation, or health challenges including addiction.”

In Northern Ontario there is an opportunity to expand the delivery of mobile preventative care which has proven effective based on the established model of mobile cancer Screen for Life Coach. The program continues to deliver accessible screening including breast imaging, cervical screening, colorectal kits, and resources about chronic health conditions to patients and families in remote, rural communities.

Partnering with community and family outreach and support programs, including mobile nursing and social service teams or social housing programs, for example: Firefly, the Mobile Health Services Team at Norwest Community Health Centres in Thunder Bay, Canadian Mental Health Association mobile crisis teams, the Northwestern Health Unit Outreach Van, may also offer collaborative opportunities to deliver improved access to care where and when it's needed most.

The pandemic has transformed virtual health care and accelerated digital innovations. NOSM will leverage this emerging technology and further innovate 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.



Big data is key to identifying strategic opportunities for health care in Northern Ontario

Big Data is a tool increasingly used to link structured, partially structured and unstructured information collected by a diverse group of units to assist with measuring success, developing metrics of performance and predictive modeling for analytic policymaking. The goal of the new Office of Institutional Intelligence (OII) is a transformative innovation designed to lead NOSM in this realm.

Our world is moving rapidly and NOSM University will be poised to use big data to interpret and drive transformation in the complex systems of health education, health services and research in Northern Ontario. For example, there is huge variability in our data about the needs for physicians and other health professionals. Ensuring the reliability of data, managing the volume of data and the velocity of change is a challenge NOSM has undertaken through the OII.

NOSM is taking a dynamic next step to house its own big-data sets. Until now, the School has worked closely with the Centre for Rural and Northern Health Research (CRaNHR), formerly

known as the Northern Health Human Resource Research Unit, founded in 1992 by Lakehead University and Laurentian University. CRaNHR was developed to examine health human resource issues in the North.

“It’s not simply data for NOSM’s internal reference. This information will have a system-wide impact on upcoming and future policy-level decisions happening at the provincial level,” says Dr. Sarita Verma, Dean, President and CEO of NOSM.

Until now, some NOSM data has been housed internally by administration to chart the School’s progress. Fast forward to 2021 amidst the global

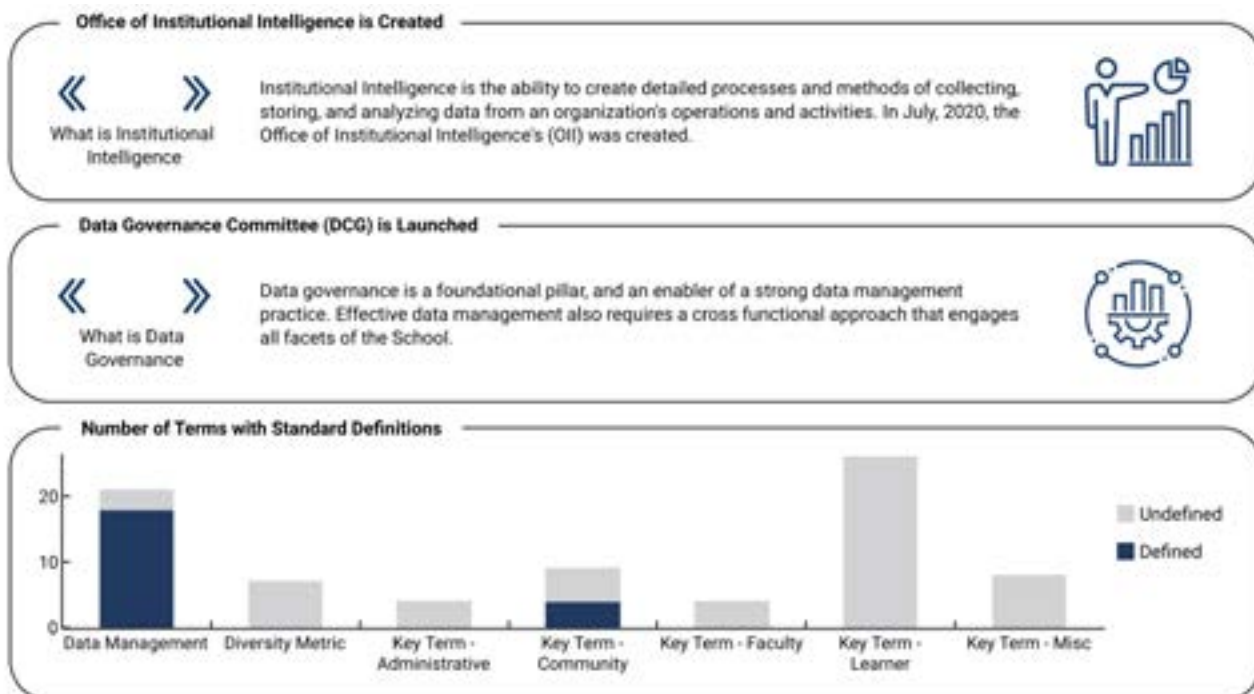
pandemic and housing big-data sets are critical to monitor the effectiveness of system-wide health care policy and health human resources across Northern Ontario. It is also the next step toward maturity as a socially accountable medical school.

"Increasing data transparency and more effectively communicating through the use of data will help NOSM showcase its strengths, identify opportunities and make improvements that will add value to Northern communities," says Mathieu Litalien, Director of NOSM's OII.

Data governance includes setting standards, facilitating access and use of data through discussion and collaboration, establishing data ownership and authority, according to the School's Data Governance Committee, first established in 2020.

The Committee is in its third quarter of development—currently assessing the results of environmental surveys and semi-structured interviews that were conducted to better understand NOSM's current data culture. The OII will then lead the school's data strategy, communicate and share the leading data that will shape improvements and identify any gaps in the system.

By internally housing the tools and initiatives necessary, NOSM is also well positioned as a seamless, reliable, non-partisan data source for Northern Ontario, elevating the School's role and furthering its social accountability mandate.



This report's theme of TRANSFORMATION emphasises the part of the word— TRANSFORM. As a result of COVID-19 and the rapid evolution of health care and medical education, we will continue to adapt and transform at individual, systemic, governmental and societal levels.

As we continue our journey to becoming Canada's first stand-alone medical university, the new normal is transforming us on a daily basis. We deal with intense sudden surges in unanticipated crises such as emerging infectious diseases, new technology, varieties in work and life environments.

The speed at which all this is happening is exciting, yet also frightening. The pandemic has emerged as a transformation catalyst which is accelerating the implementation of NOSM's strategic directions. We continue to be up to the **NOSM Challenge 2025**. Join us as we Transform the North.

