



Northern Ontario
School of Medicine

École de médecine
du Nord de l'Ontario

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NORTHERN ONTARIO SCHOOL OF MEDICINE

Innovative Education and Research for a Healthier North

Achievement Summary September 2013

Introduction: The Northern Ontario School of Medicine (NOSM) has come a long way in a relatively short time. Since its official opening in 2005, NOSM has: developed and delivered Distributed Community Engaged Learning as its distinctive model of medical education and health research; achieved full accreditation for its MD program, multiple residency programs, Continuing Education Professional Development (CEPD), and the Northern Ontario Dietetic Internship (NODIP) program; focused research attention on the health issues in Northern Ontario through eight annual Northern Health Research Conferences and the Partnership Opportunities in Research Gathering; graduated emergency physicians, family physicians, a public health physician and dietitians from its programs; and seen our MD graduates move on to residencies in a range of specialties, predominantly rural family medicine, with a growing number now practising physicians in Northern Ontario, some of whom have become NOSM faculty members.

Innovative Model of Medical Education: Consistent with its social accountability mandate, NOSM seeks to reflect the population distribution of Northern Ontario in each class. Between 2005 and 2013, NOSM received 17,662 applications for 538 places. The selection and admissions process resulted in 92% of all students from Northern Ontario with the remaining 8% coming from rural and remote parts of the rest of Canada, and substantial inclusion of Aboriginal (8%) and Francophone (22%) students. This has been achieved without sacrificing academic excellence; the mean grade point average (GPA) each year has been around 3.7 (out of 4) comparable with that of other Canadian medical schools.

Uniquely developed through a community consultative process, the holistic cohesive curriculum for the MD program is grounded in Northern Ontario, organized around 5 themes and relies heavily on electronic communications to support Distributed Community Engaged Learning (DCEL). In the classroom and in clinical settings, students explore cases from the perspective of physicians in Northern Ontario. Clinical education takes place in over 70 communities and many different health service settings, so that the students experience the diversity of communities and cultures in Northern Ontario. Third year is a community based longitudinal integrated clerkship, the Comprehensive Community Clerkship. NOSM was the first medical school in the world in which all students undertake a longitudinal integrated clerkship.

Since 2009, there have been 276 MD graduates of whom 171 (62%) have chosen family medicine (predominantly rural) training. Almost all the other MD graduates are training in general specialties such as general internal medicine, general surgery and pediatrics, with a small number training in subspecialties like dermatology, plastic surgery and radiation oncology. 37% of NOSM graduates are training in Northern Ontario and many of the others have indicated their intention to return to Northern Ontario in the future. In the Medical Council of Canada (MCC) Part I examination, NOSM students have performed consistently above the national average, with very high scores in the section on clinical decision making.

NOSM offers residency training in family medicine through the Family Medicine Residents of the Canadian Shield (FM RoCS) program plus enhanced skills third year postgraduate positions, and residency programs in 8 other major general specialties. In 2008 and 2010, NOSM residents' total scores in the MCC Part II examination placed NOSM number one of 17 medical schools. 65% of NOSM residents stay in Northern Ontario after completing their training.

The fully accredited NOSM Continuing Education Professional Development (CEPD) program includes: hundreds of health professional continuing education offerings, many by video and/or webcast; interprofessional education; and faculty development for NOSM faculty members.

Health Sciences: Approximately 85% of the 78 graduates from the Northern Ontario Dietetic Internship Program (NODIP) since 2008 are practising in Northern Ontario and they report having been well prepared for the breadth of clinical and community services required in rural settings. NOSM joined the University of

Toronto, Faculty of Medicine and the Michener Institute for Applied Health Sciences in the Consortium for Physician Assistant (PA) Education. In addition, NOSM partners with McMaster University for the Northern Study Stream in physiotherapy and occupational therapy.

Interprofessional Education: The Northern Interprofessional Collaborative for Health Education (NICHE) involves 6 colleges, 3 universities and NOSM, plus two regional hospitals and the two Northern LHINs in a network committed to team based care and interprofessional learning. Specific initiatives include: FLIC (Facilitating Leadership in Interprofessional Care); SPICE (Students Partnering in Interprofessional Care and Education); ERIC (Experiencing Rural Interprofessional Collaboration); and Health Care Team Challenge.

Health Research: Since 2006, NOSM has hosted 8 annual Northern Health Research Conferences. In 2008, NOSM hosted a three day Partnership Opportunities in Health Research Gathering that developed a framework for research collaboration between Aboriginal people and researchers. In 2013, NOSM appointed Dr Sheldon Tobe to the Heart and Stroke Foundation NOSM Research Chair in Aboriginal and Rural Health.

Community Collaboration: NOSM's success is very much a result of partnerships and collaborations with individuals, communities and organizations including Aboriginal and Francophone, hospitals and health services, physicians and other health professionals, universities and colleges, information communication technology organizations, and other medical schools. In addition to collaboration/affiliation agreements with hospitals, health services and other organizations in Northern Ontario, NOSM has established interdependent partnerships through Local NOSM Groups (LNGs) with the 14 communities which host third year MD students, as well as in Sudbury and Thunder Bay. The LNGs provide the mechanism by which NOSM is a part of the community and the community is a part of NOSM.

National and International Leadership: Within Canada, NOSM is an acknowledged leader in implementing the Association of Faculties of Medicine of Canada's Future of Medical Education in Canada Collective Visions for MD Education and for Postgraduate Education.

NOSM initiated the Consortium for Longitudinal Integrated Curricula (CLIC) which has facilitated the introduction of longitudinal integrated clerkships in over 50 medical schools in worldwide. In addition, NOSM was the only North American school amongst the founding members of the global Training for Health Equity network (THEnet) group of medical schools with a social accountability mandate.

Hosted by NOSM, Rendez-Vous 2012 brought the world of innovation in health professional education to Northern Ontario in October 2012. This was five world conferences in one involving over 850 participants from 50 countries in a full program focused on Community Participation in Education, Research and Service.

NOSM has received many awards including: three Global Best Awards for building learning communities, including the Overall Global Winner in recognition of the success of its partnership with Aboriginal communities; the IPAC Deloitte Public Sector Leadership Gold Award in education for 2010; and the international AMEE Aspire Award recognizing excellence in socially accountable medical education in 2013.

Impact of NOSM: NOSM is effective in enhancing the supply of generalist physicians who are responsive to diverse community needs and are collaborative members of health teams. A study of the Socio-Economic Impact of NOSM has shown that NOSM is contributing \$67 - \$82 million per year of new economic activity. The most impressive social impact finding was a sense of community empowerment summed up in the phrase "if we can do a successful medical school in Northern Ontario, we can do anything".

Conclusion: In just eight years, NOSM has become a world leader in Community Engaged Medical Education, while staying true to its social accountability mandate of contributing to improving the health of the people and communities of Northern Ontario.

Dr Roger Strasser, Dean and CEO

For further information, please consult: www.nosm.ca