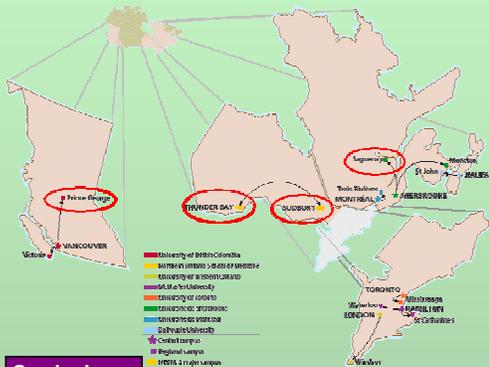


# Medical school expansion in Canada: regional campuses offer an innovative approach to the development of rural and northern medical workforce

## Abstract

Medical schools in Canada have expanded undergraduate enrolment to address **physician shortages**. A new model of medical school expansion is the development of fully distributed medical education (FDME), with regional campuses training students for all 4 years of their education. **Four** new regional campuses in northern settings across Canada are intended to address longstanding shortages of physicians in northern Canada. These regional campuses have adjusted admissions processes, curricula, clinical education settings, and have utilized new technology infrastructures. The first students are graduating in 2008. **Early results** suggest comparability of educational outcomes, increased selection of primary care and generalist specialties, selection of rural postgraduate training and early positive impacts on the host communities. **The establishment of northern regional campuses has implications for other jurisdictions struggling with physician maldistribution.**

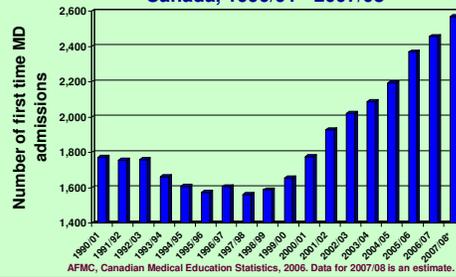
## Faculties of Medicine with FDME in regional campuses



## Curriculum

- The **NMP** uses the UBC curriculum distributed to all sites of instruction using an extensive videoconference infrastructure. Clinical education uses new smaller sites for year long integrated clinical training.
- NOSM** uses Distributed Community Engaged Learning: An instructional model that allows widely distributed human and instructional resources to be utilized independent of time and place in community partner locations across the North.
- The **Saguenay** medical education campus of Université de Sherbrooke uses the PBL Sherbrooke curriculum with specifically trained local resources and interactive videoconferencing for large group activities. Clerkship is offered in regional sites.

## First Time Admissions to MD Programs Canada, 1990/91 - 2007/08

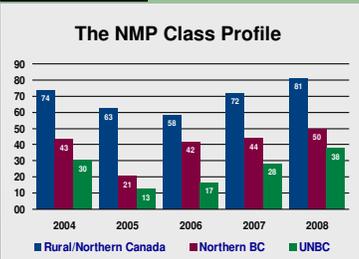


## Medical school expansion in Canada

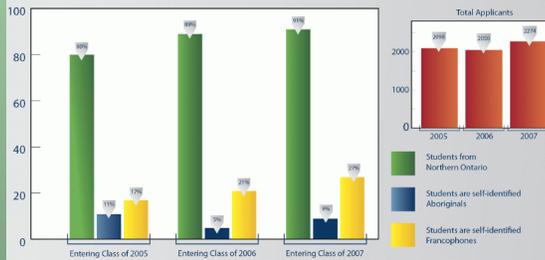
- The number of schools of medicine has expanded from 16-17. First time admissions have **increased by 60% over 10 years**. **10 new regional campuses** have been created by 7 medical schools. **4 regional campuses are in northern underserved areas of Canada**:
- The Northern Medical Program (NMP) of **University of British Columbia** at **University of Northern BC** in Prince George, BC (24 students per year 2004-7, 32 students per year since 2007);
- The Northern Ontario School of Medicine (NOSM) with campuses at **Lakehead** (Thunder Bay) and **Laurentian** (Sudbury) **Universities in northern Ontario** (24 and 32 students respectively/year since 2005);
- The **programme de formation médicale à Saguenay (PFMS)** of the **Université de Sherbrooke** in northern **Quebec** (24 students/year since 2006);
- These regional campuses admit and train students for all 4 years of their undergraduate medical education.



## Admissions



## The NOSM Class Profile

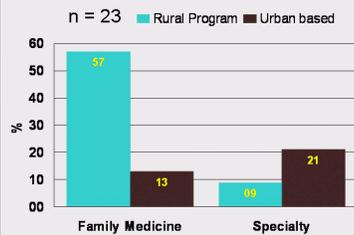


The **NMP** uses an evaluation instrument (Rural and remote suitability score) to identify and select candidates most likely to fit the culture of the educational setting; students express a site preference. **NOSM** selects class mix to mirror northern communities: background living in northern urban, rural and/or remote communities. This admissions process eliminates many barriers for northern student. The **Saguenay** campus uses the **Sherbrooke** M.D. program standard admission processes; students express a site preference.

## Early Results

- Positive accreditation decisions
- Comparability of educational outcomes,
- Increased selection of primary care, generalist specialties, and rural postgraduate training by graduating students;
- Early positive impacts on the host communities not limited to medical education and health; **pervasive reports of broader community impacts**

## Postgraduate training choice of NMP students



## Next Steps

- Building on positive early results, the regional campuses will continue to refine their education programs, focus on local learning experiences, highlight career opportunities for medical graduates in northern and rural settings, and study their outcomes.
- Short term outcomes:**
  - Exam performance on national licensing exams
  - Choice of primary care or generalist discipline
  - Choice of rural content in postgraduate training
- Long-term outcomes:**
  - Location of practice
  - Length of time in rural practice location
  - Involvement in medical teaching in rural areas

## Challenges

- Community choice and engagement
- Physician engagement and support
- Fulfilling Accreditation standards (Canada & USA), particularly selecting students, assuring student learning, and supporting student life in community settings.
- Governance, responsibility, authority, start-up and resources
- Program evaluation and comparability among sites (similarity versus context and innovation)
- Confidence and recognition of communities/community-based medical education by Academic Health Centres
- Rigorous measurement of outcomes

Université de Sherbrooke  
Northern Campus Students  
(2006 cohort)



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