The Future of Medical Education in Canada
Undergraduate and Postgraduate Projects

A Health Canada Funded Project
The Future of Medical Education in Canada (FMEC):
A Collective Vision for MD Education

Leadership
Community Needs
Competency-Based Approach
Inter-and Intra-Professional Practice
Generalism
Learning Contexts
Hidden Curriculum
Prevention and Public Health
Scientific Basis of Medicine
Admissions Processes

MD Education

Educating tomorrow's doctors to meet the needs of Canada

An AFMC project

AFMC
The Association of Faculties of Medicine of Canada
• AFMC led
• 10 recommendations & 5 enabling recommendations
• Examples of implementation activities
• Consortium: AFMC, CFPC, CMQ, RCPSC
• 10 recommendations
• Specific action items, including transformative actions
MD Education Recommendations

1. Address Individual and Community Needs
2. Enhance Admissions Processes
3. Build on the Scientific Basis of Medicine
4. Promote Prevention and Public Health
5. Address the Hidden Curriculum
6. Diversify Learning Contexts
7. Value Generalism
8. Advance Inter- and Intra-Professional Practice
9. Adopt a Competency-Based and Flexible Approach
10. Foster Medical Leadership
MD Education Enabling Recommendations

A. Realign Accreditation Standards
B. Build Capacity for Change
C. Increase National Collaboration
D. Improve the Use of Technology
E. Enhance Faculty Development
FMEC PG Recommendations

1. Ensure the Right Mix, Distribution, and Number of Physicians to Meet Societal Needs

2. Cultivate Social Accountability through Experience in Diverse Learning and Work Environments

3. Create Positive and Supportive Learning and Work Environments

4. Integrate Competency-Based Curricula in Postgraduate Programs

5. Ensure Effective Integration and Transitions along the Educational Continuum
FMEC PG Recommendations

6: Implement Effective Assessment Systems
7: Develop, Support, and Recognize Clinical Teachers
8: Foster Leadership Development
9: Establish Effective Collaborative Governance in PGME
10: Align Accreditation Standards
Diverse learning and work environments

FMEC MD: Diversify Learning Contexts
Canadian physicians practise in a wide range of institutional and community settings while providing the continuum of medical care. In order to prepare physicians for these realities, Faculties of Medicine must provide learning experiences throughout MD education for all students in a variety of settings, ranging from small rural communities to complex tertiary health care centres.

FMEC PG: Cultivate Social Accountability through Experience in Diverse Learning and Work Environments
Responding to the diverse and developing healthcare needs of Canadians requires both individual and collective commitment to social accountability. PGME programs should provide learning and work experience in diverse environments to cultivate social accountability in residents and guide their choice of future practice.
First Year MD Program Enrolment, 1990 to 2011

MD Program DME Offerings

Types of DME Offered, as Self-reported by Medical Students, Canada, 2008-09

- Community clerkship rotations: 90%
- Rural experiences: 88%
- Integrated community clerkships: 30%
- Fully-distributed community clerkships: 28%
- Fully-distributed medical education: 28%
- Don't know: 5%

Source: Canadian Federation of Medical Students.
Medical Student Participation in DME

Level of DME Participation, as Self-reported by Medical Students, Canada, 2008-09

- Single community clerkship rotation: 23%
- Rural week or rural month: 46%
- Multiple community clerkship rotations: 16%
- Fully-distributed medical education: 10%
- Fully-integrated community clerkship: 5%

Source: Canadian Federation of Medical Students.
Over 873 clinical teaching facilities
(conservative estimate)

Distance between clinical teaching facilities and & main campuses varies:
• Mean = 187 km; Median = 98 km
• Most are about 100km away; some much further.
Develop, Support, and Recognize Clinical Teachers

**FMEC MD: Enhance Faculty Development**
Recognizing that teaching, research, and leadership are core roles for physicians, priority must be given to faculty development, support, and recognition in order to enable teachers and learners to respond effectively to the recommendations in this report.

**FMEC PG: Develop, Support, and Recognize Clinical Teachers**
Support clinical teachers through faculty development and continuing professional development (CPD), and recognize the value of their work.
Full-time and Part-time Faculty Growth

Faculty of Medicine Faculty Counts, Canada, 2004-05 to 2009-10

Source: AFMC ORIS, 2012
Note: Full-time faculty include professors, associate and assistant professors, instructors and other faculty. Part-time faculty includes paid and volunteer faculty members.
In total, 8,605 additional part-time faculty. Family medicine accounts for 41% of growth. NOSM ramped up during this time period.
Health Researchers Average Weekly Work Hours, by Age Group and Scientist Type, Canada, 2010

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Source: AFMC-CIHR-ACAHO, Research Careers Data Development Initiative, 2010
Health Researcher Scholarly Activities, Canada, 2010

- Number books, book chapters, other monographs (3 yrs)
  - Clinician Scientist: 2.59
  - Scientist: 2.17

- Number peer-reviewed publications (3 yrs)
  - Clinician Scientist: 12.90
  - Scientist: 12.54

- Number of PhDs Supervising
  - Clinician Scientist: 0.76
  - Scientist: 1.82

- Number of Masters Supervising
  - Clinician Scientist: 0.90
  - Scientist: 1.59

Source: AFMC-CIHR-ACAHO, Research Careers Data Development Initiative, 2010
The Right Number, Mix and Distribution of Physicians

FMEC PG: Ensure the right mix, distribution and number of physicians to meet societal needs.

In the context of an evolving healthcare system, the PGME system must continuously adjust its training programs to produce the right mix, distribution, and number of generalist and specialist physicians - including clinician scientists, educators, and leaders - to serve and be accountable to the Canadian population. Working in partnership with all healthcare providers and stakeholders, physicians must address the diverse health and wellness needs of individuals and communities throughout Canada.
The Right Number
Physician to Population Ratio – Canada Vs. OECD Average

Density Per 1000 Population

[Graph showing the physician to population ratio for Canada and OECD average over time from 1994 to 2010.]
The Right Number
Population and First Year Medical Students, Canada, 1991-2011 Actual and 2012-2012 Estimates

Doctor unemployment? Really?

First-year medical school enrollment has almost doubled since the mid-1990s and now many young doctors say they are unemployed—or under-employed.


Dr. Dawn Ng, 31, who will soon complete her medical oncology residency, says she has been searching but has no job prospects.
The Right Mix
Indexed Change in PGY1 PGME Enrolment, by Broad Specialty, Canada, 1994/95 to 2010-11

Source: CAPER, 2011. Note: Canadian citizens / Permanent residents only.
The Right Mix

Estimated Population Distribution, Canada, 2001, 2010 and 2036

Source: Statistics Canada.
The Right Mix

PGME Enrolment in Paediatrics, Care of the Elderly and Geriatric Medicine, Canada, 2001-2010

Source: CAPER, 2011. Note: Canadian citizens / Permanent residents only.
The Right Distribution
Provinces to Which MD Program Applicants Submitted Applications in 2008, by Province/Region of Applicants Permanent Residence

The Right Distribution

Distribution of 2007 Practice Entry Cohort Across Large Urban Centres, Small Cities & Towns and Rural Places in 2009, by Faculty of Medicine Where Post-MD Training Was Completed

University Where Post-MD Training was Completed

- **Large Urban Centres**
- **Small Cities & Towns**
- **Rural Places**
