TRAINING IN OCCUPATIONAL MEDICINE: ALWAYS A CHALLENGE!

Objectives:

1. Explain the teaching issues related to the development of a training program in Occupational medicine
2. Describe the structure of teaching in Occupational Medicine at the pre and post graduate level at University of Montreal
3. Describe the challenges related to the implementation of a new training program

Conclusion
Teaching issues: Historical context

Historical evolution of Occupational Health in Quebec

- Industrial time
- Social agreement
- Occupational and safety health services development

Stage 1: High levels of accidents, Workers manifestation
Stage 2: State Intervention to protect life and health of workers
Stage 3: No fault Compensation system, Management of consequences
Stage 4: Law revision, Risk oriented intervention
Stage 5: Comprehensive developing

1850 1912 1931 1979 2010
HISTORICAL WORKER’S MANIFESTATION

1843: Irish workers working on the construction of Lachine canal, St-Laurence river

The first known strike in Quebec

1912: Bread and Roses Strike, Lawrence Mass.
A physician, wrote in 1912:

« Thirty-six out of every 100 of all the men and women who work in the mill die before or by the time they are twenty-five years of age. »

1949: Asbestos strike, Quebec

SITUATION BEFORE AND AFTER THE LAW REVISION

Law revision 1979-1985

Management of health’s outcomes
- Compensation oriented approach
- Few preventive interventions
- Practice in Occupational Medicine: mostly industrial based

Public health oriented approach
- Risk oriented
- Development of industrial hygiene
- Risk management
- Provincial network with multidisciplinary teams
- Practice in occupational medicine
  - Public health
  - Industries
  - Treating physician

Lack of well-trained physicians
ISSUES RELATED TO LAW REVISION

Law revision
1979-1985

Lack of well trained
Physicians, Nurses and Hygienists

Development training programs
- **Master** in Occupational Health, Hygiene, Ergonomic, Toxicology
- **Bachelor** in Occupational Health

Quebec: Occupational medicine has been included into Community Medicine
Canada: Occupational Medicine became a Specialty

IMPACTS OF THE NEW ACT ON OCCUPATIONAL MEDICINE PRACTICE

Glorious years 1980-2000
Physicians working in multidisciplinary teams with nurses, hygienists etc.

Teaching
Training programmes were available

Practice
Progressive break between clinical and public health interventions

Questioning years starting in 1995
Observation
- Progressive reduction of physicians working in Occupational Health
- Scarce well trained physicians and clinics in Occupational Medicine
- How to improve the situation?
DEVELOPMENT OF OCCUPATIONAL HEALTH TRAINING ACTIVITIES

**Goals:** Facilitate the integration of different aspects of the practice
- Clinical services to attending physicians
- Public health interventions: surveillance, prevention and health promotion

Comprehensive approach
*Clinical and preventive actions*

DEVELOPMENT OF A TRAINING PROGRAM IN OCCUPATIONAL MEDICINE

**Which direction should be taken by the University?**

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The Université de Montréal survey

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ISSUES RELATED TO THE PRACTICE IN OCCUPATIONAL MEDICINE

– Gaps in specific skills, both for family medicine and specialty medicine
– Lack of knowledge of the actual health impact of the workplace and of the environment
– Gaps in clinical evaluation, occupational history
– Ignorance of the laws and of the responsibility of the physician

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TEACHING ISSUES IN OCCUPATIONAL AND ENVIRONMENTAL MEDICINE

- The teaching at the pre-graduate and post graduate levels is insufficient
- Occupational Medicine is badly perceived by the students and the physicians
- Shortage of well trained physicians
- Recruitment is difficult and the specialty is not very attractive in order to ensure the changing

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Structure of teaching in Occupational Medicine at the pre graduate and the post graduate level

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OCCUPATIONAL MEDICINE TRAINING MODEL

Pre graduate
- Pre clinical
- Clinical rotations
  - Community medicine rotation
  - Family medicine rotation
  - Other clinical rotations

Post graduate (residencies)
- Family medicine
- Public health and preventive medicine
- Internal medicine
- Other specialty programs
- Occupational Medicine
OBJECTIVES OF PRE GRADUATE TRAINING

• For all future physicians who evaluate workers
  – Occupational history taking
    • Workplace exposures /preventive measures
    • Common occupational diseases
    • Evaluation of work-relatedness
  – Basics in workers’ comprehensive care
    • Fitness to work
    • Compensation and the physician’s responsibilities
  – Prevention and population aspects
    • How are public preventive services organised
    • Focus on the role of first line clinicians

METHODS USED

• Challenge:
  A lot of issues and little time for teaching
• Methods that complement each other
  – Compulsory reading (50p)
  – Interactive teaching with clinical case studies (6 hours)
  – On-line quiz (50 multiple answer questions with correct answer and explanations)
  – Field activities (9 proposed, 2 students each) followed by plenary session (3h)

STUDENTS EVALUATION AND ASSESSMENT OF PROGRAM (2010-2011)

• Raised interest in occupational issues
  – Sherlock Holmes / Dr. House medicine

• Better understanding of the:
  – importance of asking questions about work situations (98%)
  – comprehensive care of workers (94%)
  – occupational history taking (88%)

• Change in attitudes about workers’ and workplaces

LIMITS OF THIS PREGRADUATE TRAINING

• Not a clinical rotation
  – No practice in occupational history taking
  – No practice in completing the CSST papers

• Late in the pre graduate training
CHALLENGES AND DEVELOPMENT

• Earlier in training introduce:
  • What is a workplace and the importance of work
  • Basics in occupational history taking

• OM is a longitudinal specialty, in clinical rotations:
  • Occupational history taking /recognising occupational disease
  • Management and Compensation issues
  • Preventive measures and public health aspects in PH

• Influence the MCC objectives for the qualifying exam (MCCQE)

Post-graduate level

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**EVOLUTION OF THE SPECIALTY IN OCCUPATIONAL MEDICINE**

1986

- Royal College of Canada adopted residencies in Occupational medicine
  - 5 years training program

University of Alberta
University of Toronto

2006

- Occupational Medicine became a subspecialty of Internal Medicine
  - 2 years training program

2009

- Public health and Preventive Medicine became the second route of entry in occupational Medicine

2011

- University of Montreal got an accreditation in Occupational Medicine

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**CURRENT CONTEXT OF PRACTICE IN OCCUPATIONAL MEDICINE**

- **1980**
  - Expansion of practice
  - Industrial in plant clinics

- **2013**
  - Hospital-based clinics
  - Community occupational medicine clinics
  - Private and government consulting.

- Emphasis is on preventive interventions and policies.
GOALS OF THE POST GRADUATE TRAINING

• Making the candidate ready to act as a qualified physician in the various fields of practice in Occupational medicine
  – Clinical practice: Private and hospital based clinics, Community and Public health services
  – Industrial based practice
  – Governmental organizations or Agencies
  – Medical advisors
    • Workers’ Compensation Board (WBC)
    • Lawyers and courts of law
    • Private companies
  – Administration and occupational health management

THE UNIVERSITÉ DE MONTRÉAL APPROACH !

Application of a new paradigm

Teaching

Learning

CanMed Frame work
Program description: routes of entry

COMPONENTS OF THE TRAINING PROGRAM

- **Knowledge (learning modules)**: Occupational Hygiene, Ergonomics, Epidemiology/Biostatistics, Toxicology, Legislation, Ethics, Occupational Health Management, Environmental Health

- **Clinical skills (clinical rotations)** (worker and population level): work-related diseases, Occupational Medicine practice, government agencies, public health

- **Communication and management skills**

- **Health promotion**
Challenges related to the implementation of a new training program

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CHALLENGES IN DEVELOPING OCCUPATIONAL MEDICINE TRAINING

- Occupational medicine has a low attractive power
- Occupational medicine is perceived unfavourably by practitioners and students: it is not only compensation...
- Occupational medicine is not well known by the 2 primary specialties
- Training program through PHPM is too long
- Adapting the program for a few residents at a time
- Increasing collaboration links between universities who have training programs in occupational medicine
Conclusion

Based on the fact that the discipline is always modulated by the societal needs and the industrial changes, our discipline should constantly innovate to cope with this reality.

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Thank you for your attention