Medical Education
Then and Now

Society of Directors of Research in Medical Education

June 28, 2010
Overview

- A “very brief history” of American medical education

- Medical education in the 21st century
  - New Reports
  - “Snapshots” 2010
  - School Responses

- Your assignment
The Flexner Report

Medical Education in the United States and Canada

1910
Flexner’s Ideal Medical School

The Medical School is Properly Equipped

- Modern laboratories in each subject
- Faculty teaching is a RIGHT not a privilege
- Medical schools need funds to purchase land, erect and maintain buildings, pay salaries

Only academically qualified students admitted

- Minimum of 2 years college training in physics, chemistry, biology
Impact of Flexner Report

• Focus was on assuring everyone who practiced medicine be thoroughly trained
• Transformed reform of medical education into a broad social movement
• Explained modern medical education to the public
• Showed that principles of progressive education applied to medical teaching
Impact of Flexner Report

- Advocated the most rigorous approach
- Did not permit heterogeneous system of medical education
- insisted all schools be university based schools
Impact of Flexner Report

Greatest impact on the course of medical education in the United States

Determined the form that medical school ultimately assumed
Advocating Change in Medical Education

- “The Rappleye” Report (AAMC, 1932)
- Future Directions for Medical Education (AMA, 1982)
- General Professional Education of the Physician (GPEP) (AAMC, 1983)
- The New Biology and Medical Education (Josiah Macy, Jr. Foundation, 1983)
- Adapting Clinical Medical Education to the Needs of Today and Tomorrow (Josiah Macy, Jr. Foundation, 1988)
- Assessing Change in Medical Education…the Road to Implementation (ACME-TRI) (AAMC, 1992)
- Tomorrow’s Doctors (General Medical Council, 1993, 2008)
- Medical School Objectives Report I (AAMC, 1999)
- Future of Medical Education In Canada (AFMC, 2009)
- Educating Physicians: A Call for Reform of Medical School and Residency (2010)
Abrahamson’s Diseases of the Curriculum (1978)

1. Curriculosclerosis
2. Carcinoma of the curriculum
3. Curriculoarthritis
4. Curriculum Diesthesia
5. Iatrogenic Curriculitis
6. Curriculum Hypertrophy
7. Idiopathic Curriculitis
8. Intercurrent Curriculitis
9. Curriculum Ossification
Why Change is Needed

We have been evolving from a situation where the medical school was primarily situated in a university, to one where, today it is primarily situated in the health care delivery system. I think that the changes going on in the health care delivery system today, with their attendant impact on medical schools and medical education, are of greater importance in magnitude than any change we have had since the Flexner era. (Kenneth Ludmerer, M.D.)
Educating Physicians: A Call for Reform of Medical School and Residency

• The New Carnegie Report
## Standardization & Individualization

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## Habits of inquiry and improvement

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# Identity formation

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<td>Create <strong>collaborative learning environments committed to excellence and continuous improvement</strong></td>
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The Future of Medical Education in Canada *

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 interprofessional & intraprofessional practice
9) Adopt a competency-based approach
10) Foster medical leadership

* The Future of Medical Education in Canada: A Collective Vision for MD Education Project (phase One) AFMC 2009
A Dual Imperative

- Defined Outcome Standards

- Pedagogy that is individualized

- Pedagogy to provide continuous learning, feedback and assessment
What are the outcomes we want from the medical school curriculum now?

A humanistic approach to medicine

A patient centered approach to medical care

An appreciation of the value of fundamental research for the advancement of medical science

A global perspective on contemporary health issues

An appreciation of the importance of the biological and population sciences for the advancement of medicine
Practitioners able to:

participate effectively in multidisciplinary and team approaches to patient care

contribute to eliminating medical errors and improving the quality of health care

balance individual and population health needs when making patient care decisions.
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Competencies

Are they the next big thing?

Wow, Brazil is big!

G.W. Bush
Defining the “competent” physician

“Tomorrow’s Doctors” – General Medical Council (UK)
Medical School Objectives Project (MSOP) Reports
ACGME Core Competencies
Good Medical Practice – USA
The Future of Medical Education in Canada
Competency development

Time based
- Competence as knowledge
- Competence as performance
- Competence as reflection

Outcomes based
- Rooted in psychometrics
- Incorporating ideas of efficiency and standardization

*Based on work from Brian Hodges, M.D., Ph.D. Academic Medicine 9 2010*
Changes to USMLE: Theme #1

At entry into graduate training, doctors must have minimum competency in basic clinical knowledge & those skills necessary to safely care for patients.

At time of licensure, higher level of these competencies, together with others acquired during GME, are necessary.

If these competencies can be measured in valid, reliable, & practical manner, they should be incorporated into the USMLE. -
Scientific Foundations for Future Physicians

www.aamc.org/scientificfoundations
Overarching Principles

• Medical and premedical learning should focus on competencies NOT on specific courses
• The practice of medicine requires grounding in scientific principles and knowledge
• Modern medicine requires the ability to synthesize information and collaborate across disciplines
• Scientific matters can and should be communicated clearly to patients and the public
Schools’ Outcomes/ Competencies

- 128 of 131 respondents provided competencies or a website
- ACGME “Core Competencies”
- MSOP
- CanMeds 2000
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Integration

Longitudinal themes (geriatrics, nutrition, palliative care)

Use of simulations

Application of information technology

Integration of clinical and basic sciences

Use of standardized patients

Clinical teaching in distributed sites/community settings

Teamwork; learning with other health professionals

Service learning

"The concept is interesting and well-formed, but in order to earn better than a 'C', the idea must be feasible."

-Yale University professor in response to Fred Smith's paper proposing an overnight delivery service (Smith founded Federal Express)
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Assumptions about learning for physicians in the 21st century

The development of a physician is a lifetime process

Approaching the formation of physicians from a learning paradigm, rather than the current teaching paradigm will better serve both learner and educator

People do what they see
Topics/Themes in Medical Student Education (2000 - 2010)

Biomedical Ethics
Communication Skills
Clinical Reasoning
Cultural Differences
Evidence Based Medicine
Geriatrics
  Health policy; Health economics
Human Genetics
Humanities
Patient-Centered Care
Patient safety; Quality improvement
Population Health
New Medical Schools - 1960 - 2008

40 New Medical Schools Established between 1960 and 1980

1 new school since 1980 (established in 2000)

7 schools with provisional accreditation

10+ “in the pipeline”
New Medical Schools Seeking LCME Accreditation and Those Under Discussion

- Northern Ontario University
- Hofstra University College of Medicine
- Commonwealth
- Cooper -Rowan
- Virginia Tech Carillion
- USC - Greenville
- University of Central Florida
- Florida Atlantic
- Florida International

- UC Riverside
- Texas Tech
- Florida State
- Oakland University and Beaumont Hospital

- Seeking Accreditation
- Preliminary Accreditation
- Under Discussion
U.S. Regional Medical Campuses
as of 4/21/2010
## Professional Identity formation

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Approaches to Identity Formation

• White coat ceremonies at 85% of schools
• Ethics as a longitudinal theme
• Ethics as a required course
• Student centered buildings
• Attention to roles of faculty – support for faculty as mentors; academies
• Assessing professionalism
“It’s Too Soon to Tell”

• Crucial to document the goals and educational impacts that are achieved

• How does this “data” fulfill the goals of the educational program for the school?

• The link between educational efforts and patient outcomes appears tenuous. (Norman, 2008)

• Balance decisions against the impacts sought (Eva 2005)
Financial Support for Medical Schools (as percent of Total)


Fed govt.
State/local govt
Non -govt.
Med scl/univ
Thank you

"I hope you leave here and walk out and say, 'What did he say?'"

--George W. Bush, Beaverton, Oregon, Aug. 13, 2004