


**Educating Physicians: A Call for Reform of Medical School and Residency**

David M. Irby, PhD

IAMSE Webinar  
September 1, 2011

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**Reforming Medical Education**  
-1910- -2010-



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**Objectives**

- Describe the key findings and recommendations of the 1910 Flexner Report
- List the four key recommendations of the 2010 Carnegie Report

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### Precursor to 1910 Study

- Concern over variability in medical schools
- AMA /AAMC site visited schools in 1906
  - Validated concerns but unable to sanction their own
- Sought impartial third party
  - The newly created Carnegie Foundation for the Advancement of Teaching
    - Abraham Flexner, an educator, hired for study

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### 1910: Flexner's Observations



- Great variability
- Lax admissions standards
- Passive learning, anemic curricula, poor facilities
- Faculty of practitioners
- No accreditation, certification or residency training

Flexner. *Medical Education in the United States and Canada* (1910).

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### Flexner's Legacy



UC Medical Department 1910

- High standards for admission
  - College degree with science requirements
- Expanded science-based curriculum
  - Two years basic sciences with laboratory experience
  - Two years clinical experience
- University/teaching hospital

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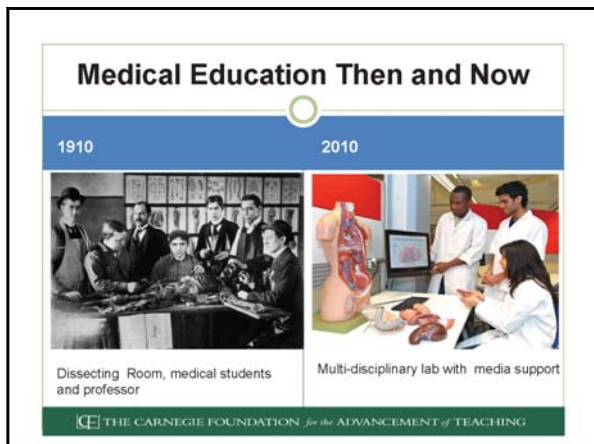
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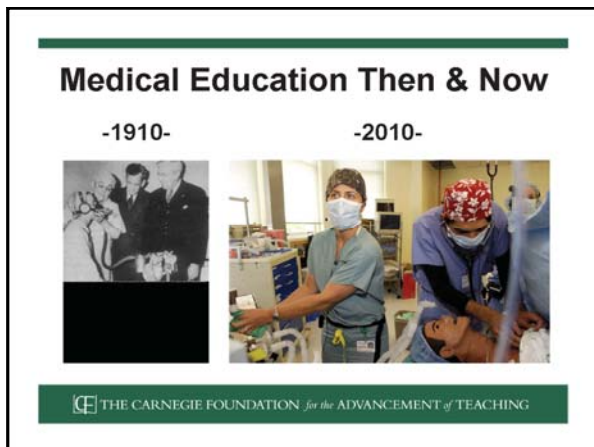
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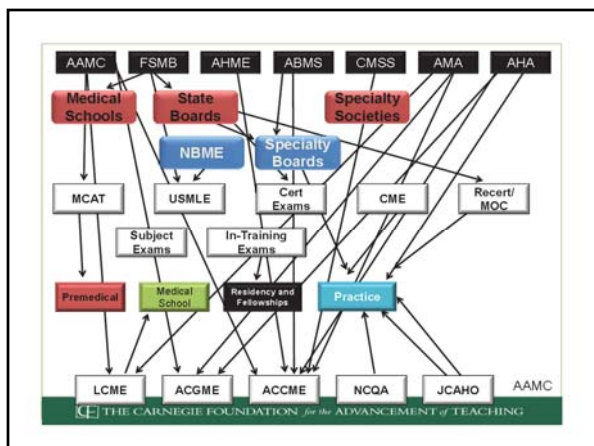
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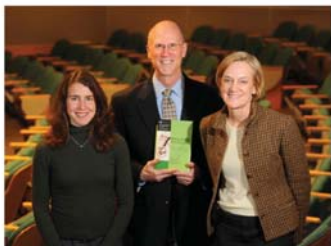
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### 2010 Carnegie Research Team



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### 2010 Carnegie Study



- Part of 5 profession study
  - Clergy, law, engineering, nursing, medicine
- Included 14 site visits
  - Interviews, focus groups, observations
- Based on research in the learning sciences and medical education

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### Recommendations for the Future

- **Standardization and individualization**
  - *Set outcomes and allow flexibility in learning*
- **Integration**
  - *Connect knowledge and experience*
- **Habits of inquiry and improvement**
  - *Focus on excellence*
- **Identity formation**
  - *Develop professional values and dispositions*

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## Standardize on Outcomes



- Standardize on learning and practice outcomes
- Develop competencies and milestones
- Use multiple forms of assessment

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## Competency Milestones -Patient Care

Task Domain	1st Year Milestones	2nd Year Milestones	3rd Year Milestones	4th Year Milestones	5th Year Milestones
History Taking	• Gather, synthesize, and organize back information from a patient or provider in order to establish a medical history and last history	• Gather, synthesize, and organize information from a patient or provider in order to establish a medical history, including information related to social history and information relevant to care of population	• Obtain a complete history in an organized fashion	• Obtain a complete history of a patient or provider in order to establish a medical history, including information related to social history and information relevant to care of population	• Obtain a complete and organized history
	• Apply appropriate history taking techniques to obtain a complete history	• Apply appropriate history taking techniques to obtain a complete history	• Obtain a complete history in an organized fashion	• Obtain a complete history of a patient or provider in order to establish a medical history, including information related to social history and information relevant to care of population	• Obtain a complete and organized history
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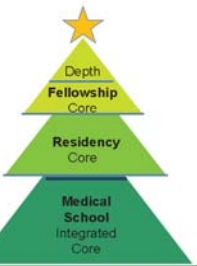
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## Individualization: Core & Depth




Practice

Subspecialty Training  
Core & Depth

Residency Training  
Core & Depth

Medical School  
Core & Depth

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## Integration



- Connect knowledge and experience
- Engage in multiple forms of reasoning
  - Analytical reasoning
  - Pattern recognition
  - Creative and adaptive reasoning

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## Examples of Integration



- Early clinical immersion
- Longitudinal integrated experience

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### Habits of Inquiry & Improvement



- Develop habits of learning and innovation
  - Develop routine and adaptive expertise
- Advance expertise through deliberate practice & feedback
  - Experts vs experienced non-experts
- Participate in communities of inquiry and practice

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### Everyday Inquiry/Improvement



- Engage in real projects, with training and support
- Document and assess project-based learning
- Learn methods of inquiry and discovery

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## Professional Identity Formation



- **Formation**
  - Process of taking on identity
  - Commitment to values, dispositions and aspirations
- **Learned through**
  - Participation in a community of practice
  - Observation of role models, interactions
  - Coaching, instruction, assessment and feedback

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## Strategies for Formation



- Courses, rituals, and codes of conduct
- Self-assessment, reflection, planning
- Appreciative inquiry
- Ratings of respect

### **Institutional Culture**

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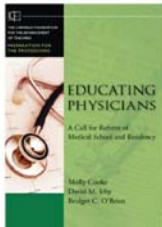
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## Summary



1. Individualize and standardize
2. Integrate
3. Inquire and improve
4. Identity formation

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