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Transforming Medical Education: Lessons from the U.S.

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Centuries of Relationships

James B. Angell , President,
University of Michigan (1871-1909)
U.S. Minister to China (1880-81)

Mary Stone, Barbour Scholar
University of Michigan Medical
School graduate, 1896

University of Michigan
Health System

UMHS-PUHSC JOINT INSTITUTE

北京大学医学部 PEKING UNIVERSITY HEALTH SCIENCE CENTER 1912

What have been the major drivers of education transformation in the U.S.?

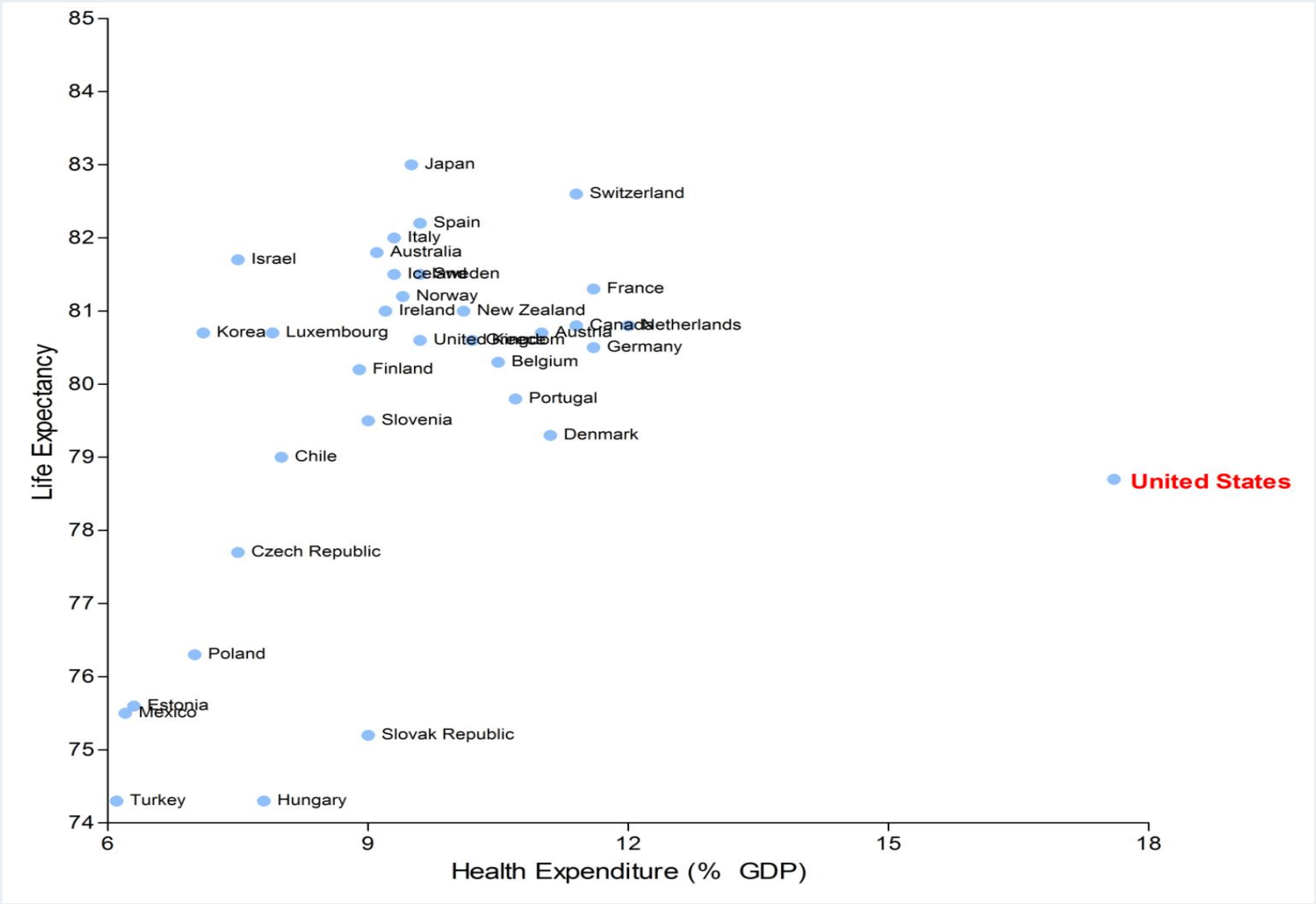
1. Accountability
2. Evidence-Based Education
3. The Health and Well-Being of Care Givers

What have been the major drivers of education transformation in the U.S.?

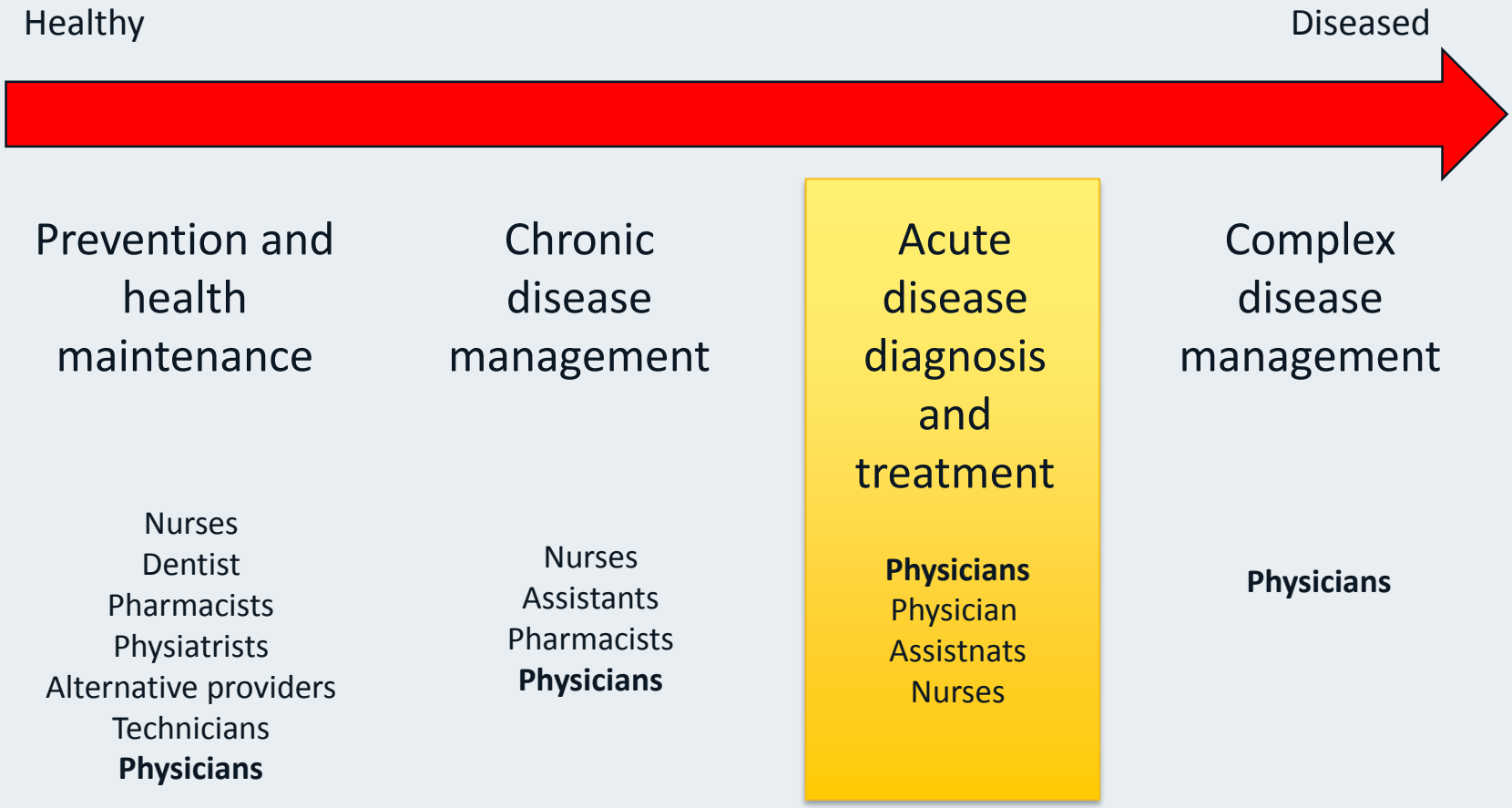
1. Accountability

- ***are we training smart people who are making discoveries?***
- ***are doctors consistently trained to provide the care that is required?***
- ***are the right kind of doctors in the right places to care for the population?***

Life Expectancy & Health Expenditures



U.S. needs a new system
Education needs a new system



基于胜任力的教育模式

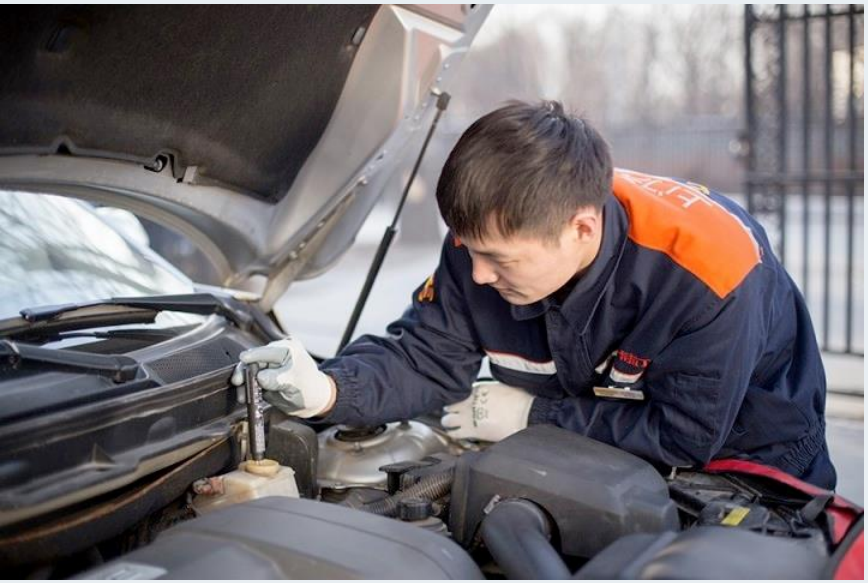
- ***What* is it?**
- ***Why* is it important?**
- ***How* to implement this approach medical education?**

Competence

"…a determination of an individual's capability to perform up to defined expectations."

***Joint Commission Accreditation of Hospital Organizations. (*JCAHO) 2000**

What is the difference between someone who repairs cars and someone who repairs people?

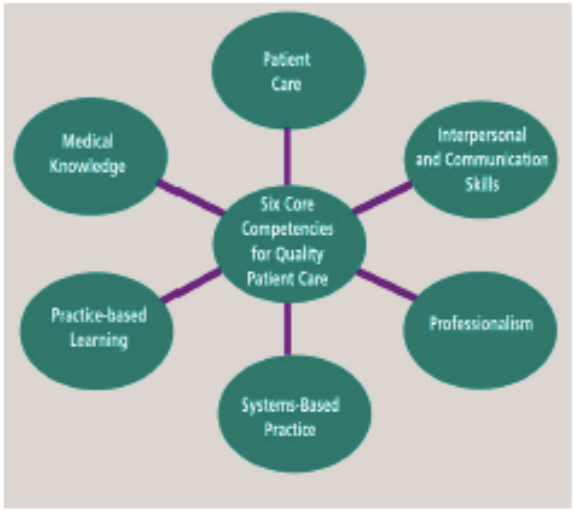


Core Competency Framework in the U.S.

(ACGME = Accreditation Council on Graduate Medical Education)

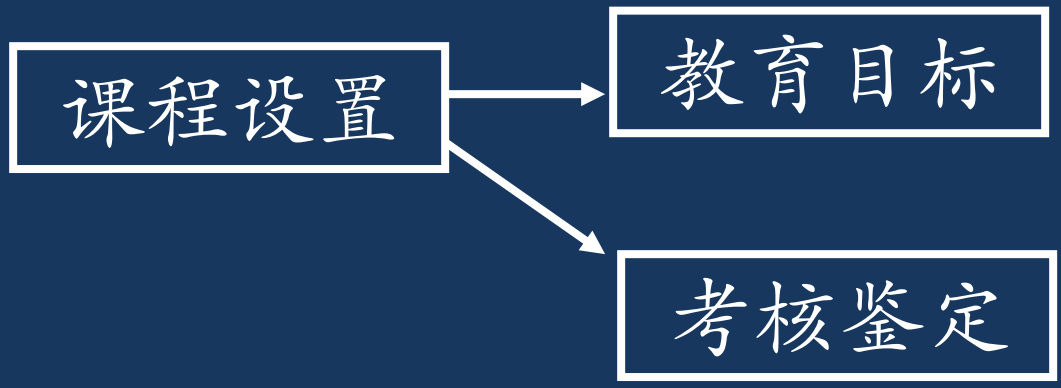
making yourself a <u>better</u> doctor

- 患者照护 (Patient care)
- 医学知识 (Medical knowledge)
- 基于实践的学习 (Practice based learning)
- 沟通 (Communication)
- 职业素养 (Professionalism)
- 基于体系的实践 (System based practice)



making the system work <u>better</u> for your patients

传统教育模式



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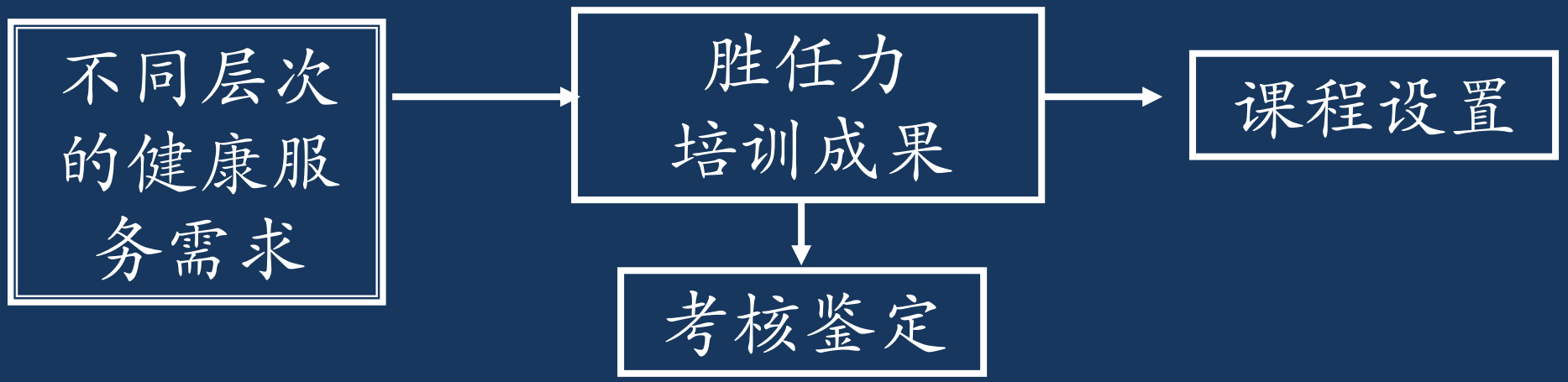


Value Equation in Healthcare

Value = Appropriateness X (Outcomes/Costs)

Strategic Pillars of Medical Education

Basic Science **Clinical Science**

Strategic Pillars of Medical Education

Basic Science

Clinical Science

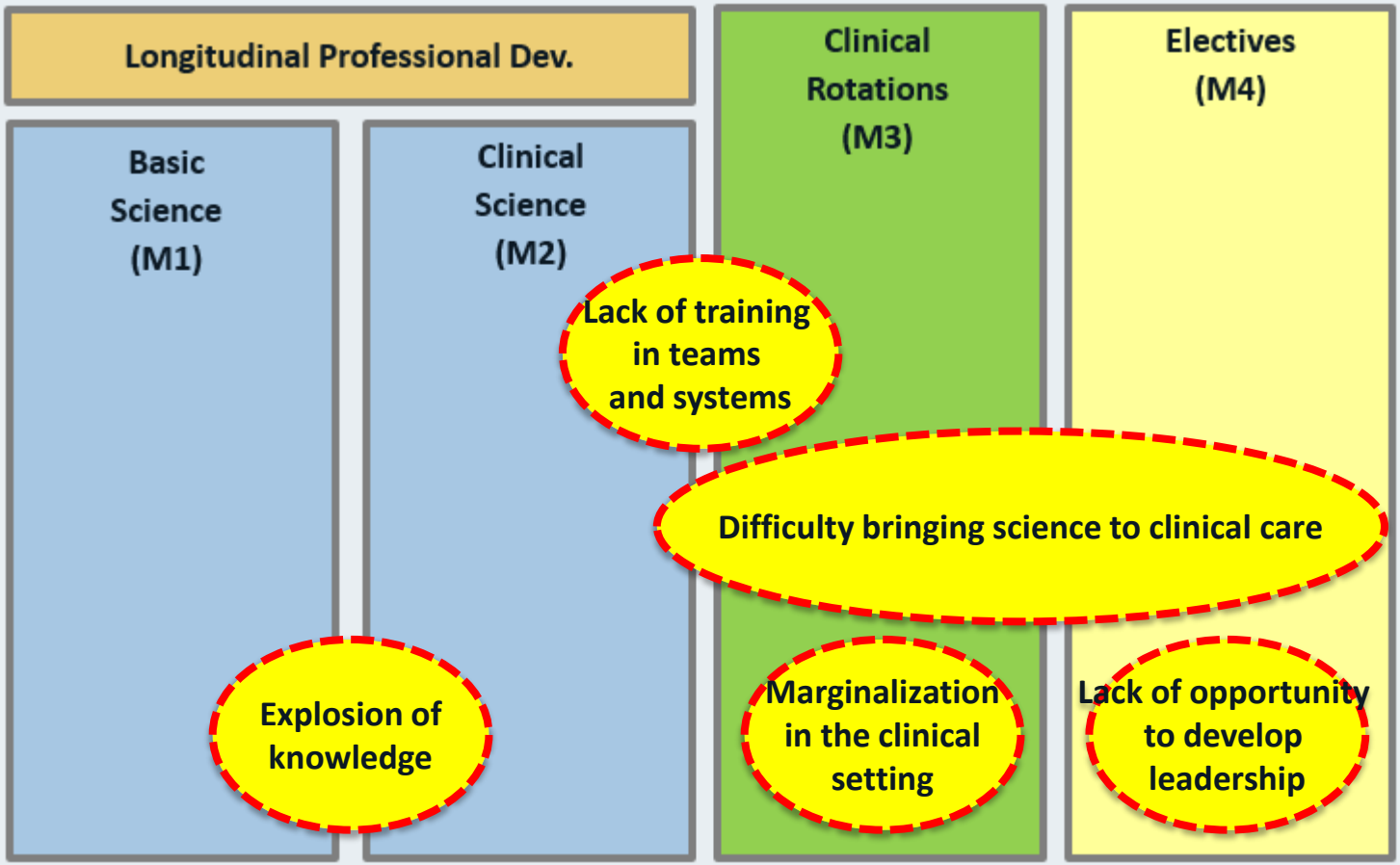
Health-Systems Science

What have been the major drivers of education transformation in the U.S.?

1. Accountability
2. **Evidence-Based Education**

- ❑ *should education and teaching largely rely on tradition?*
- ❑ *is there 'science' to teaching and learning?*
- ❑ *can better education systems be linked to better health outcomes?*

Silos in Medical Education



University of Michigan Medical School New Curriculum

VISION

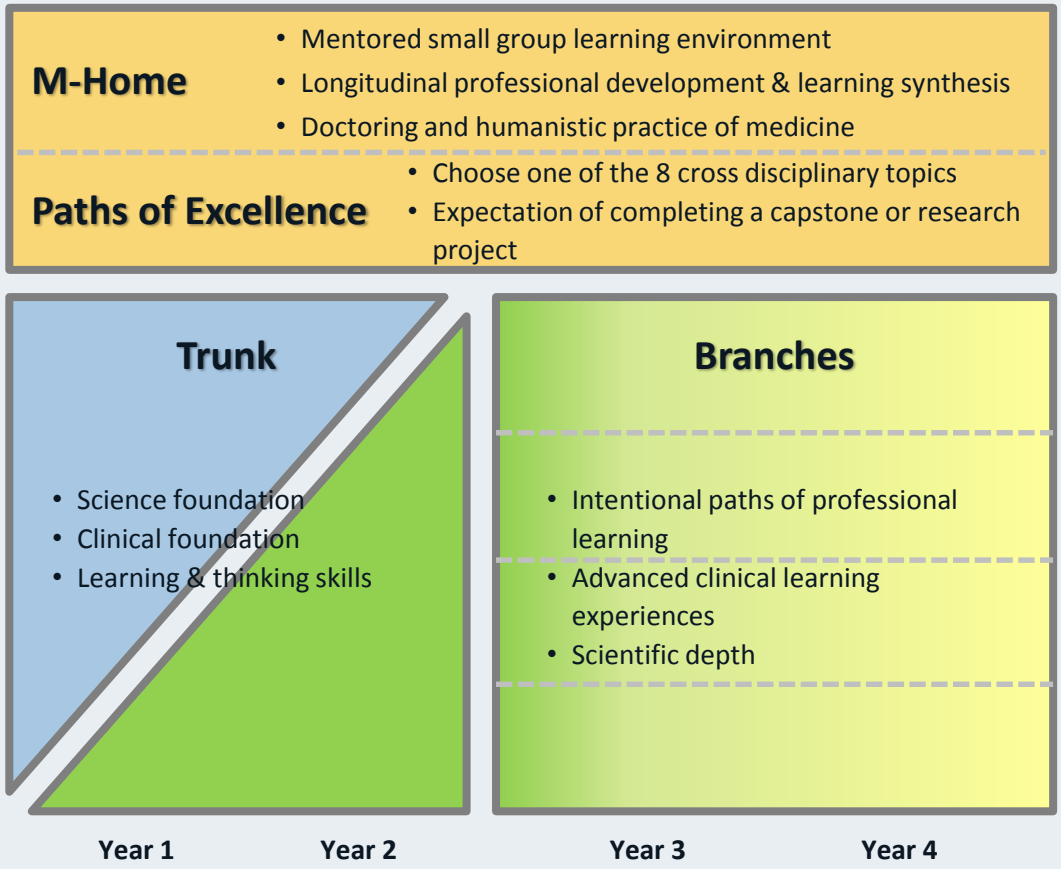
Physicians must lead efforts to solve the complex healthcare challenges of society.

MISSION

Graduate collaborative physician LEADERS who will drive change in patient care, healthcare delivery, and discovery.

Change agents

New Curricular Model
A liberating new architecture



- A deeper foundation – becoming a **master thinker and learner**
- **Flexibility** for the student to understand strengths and weaknesses and choose wisely
- **Exploration** in depth
- **Leadership** and becoming a Change Agent
- **Assessment throughout** and across all domains (connected with the vision), that promotes the longitudinal development of the learner.

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UMMS Curricular Model

Key Branch Components: Years 3 - ?

Patients & Populations

Systems Focused and Hospital-Based Practice

Procedures-Based Care

Diagnostic and Therapeutic Technologies

More Clinical Training and Exploration

- Core clinical rotations (e.g. Emergency Medicine)
- Early clinical experiences (e.g. sub-internships)
- Capstone clinical experiences (e.g. bootcamps, apprenticeships)
- Clinical electives across branches

Opportunities to Pursue Professional Interests

- Branch-specific and non-branch-specific clinical electives
- Paths of Excellence electives (e.g. global health, quality & safety, policy)
- Time for self-directed projects (incl. research)
- Coursework at other schools and programs

Science Learning Integrated with Clinical Practice

- General and Branch-specific scientific curricula
- Science in the clinics - joint rotations
- Medical Therapeutics and online modules- Just in Time
- Opportunities for scientific research

Developing a Professional Intention with a Plan

- Development of an individualized learning plan
- M-Home and Branch mentoring
- Leadership development through the lens of Branch
- Ability to change Branches, customize focus, determine time in curriculum

Competency-Based Assessments

- Assessment aligned with GME competency milestones
- **M3 Milestone Assessment**
- **M4 Milestone Assessment (X2)**
- Flexibility to conduct remediation as needed
- Graduation from Branches competency-based

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TRANSFORMING. CREATING. LEADING.

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Impact Where? Paths of Excellence

- Global Health and Disparities
- Bio-Ethics
- Health Economics & Policy
- Scientific Discovery
- Scholarship of Learning and Teaching
- Medical Humanities
- Patient Safety, Quality and Complex Systems
- Innovation & Entrepreneur-ship

Leadership

New Curriculum

Leading Change in Health, Healthcare and Healthcare Science

Professional & Leadership Identity

Communicating & Influencing

Working in Teams

Understanding Systems

Solving Problems

Examples

- Alda Communication Training
- AAMC Student Leadership
- PoE issue advocacy
- ICE Longitudinal Experience
- Mentoring M1/M2s
- 360 Evaluation Debriefing
- Healthy Policy MOOC
- PoE Capstone project
- Student Clinic Leadership
- Lean QI Project
- Facilitating Learning Cases
- MQS Training in Problem Solving Methods

Continuous Implementation

What have been the major drivers of education transformation in the U.S.?

1. Accountability
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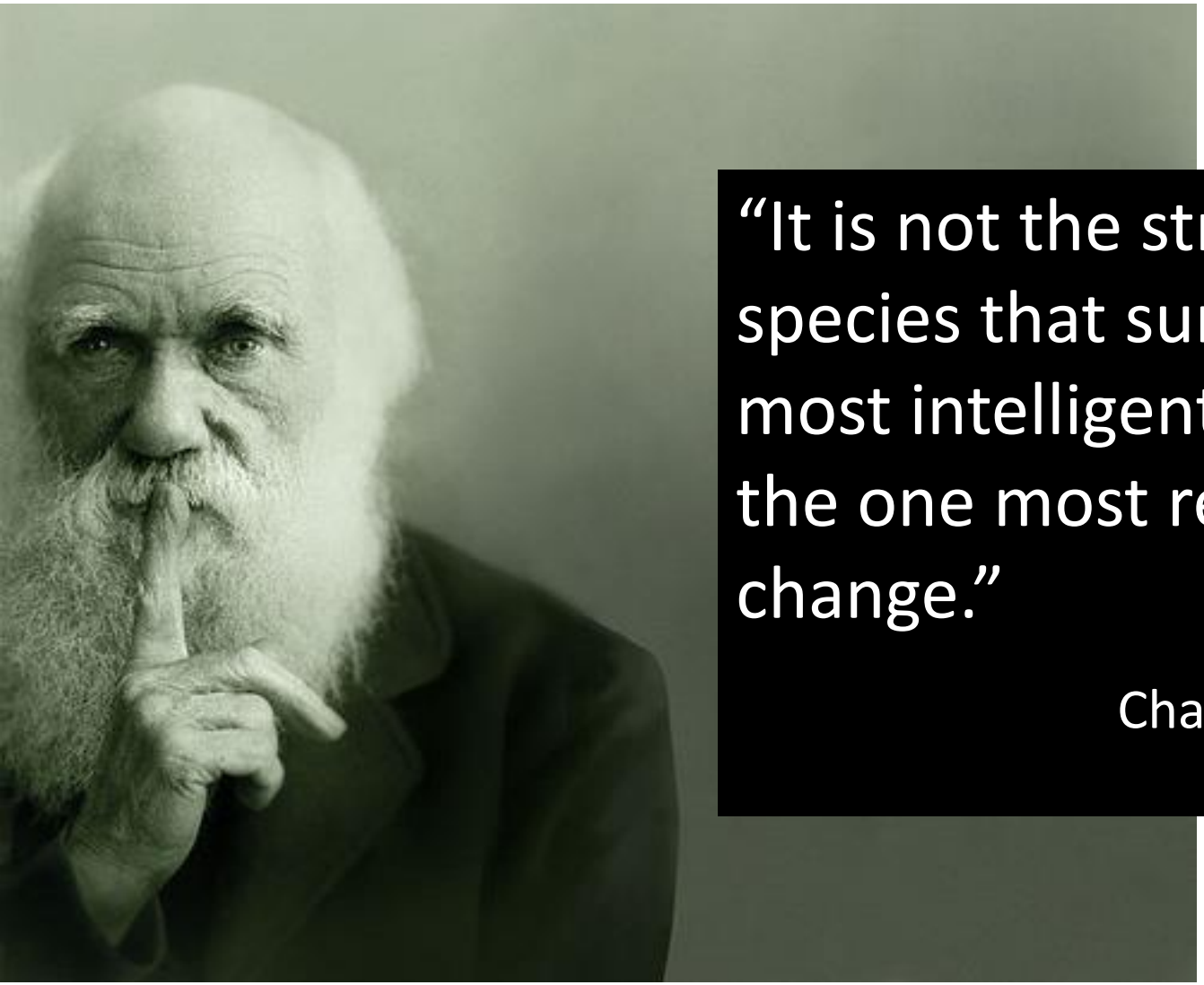
3. **The Health and Well-Being of Care Givers**

- ❑ *training and practice in our health system is stressful!*
- ❑ *we're burning-out our human capital*
- ❑ *technology has unintended consequences*
- ❑ *patients and society are complaining!*

Transforming Medical Education: Lessons from the U.S.

- Begin with the end in mind
- Make it scholarly – design experiments and generate the evidence for improved outcomes
- Confront legacy
- Focus explicitly on change management and leadership



"It is not the strongest of the species that survives, nor the most intelligent, but rather the one most responsive to change."

Charles Darwin

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