

# Training the Physicians of the Future

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The Leadership Institute Roundtable

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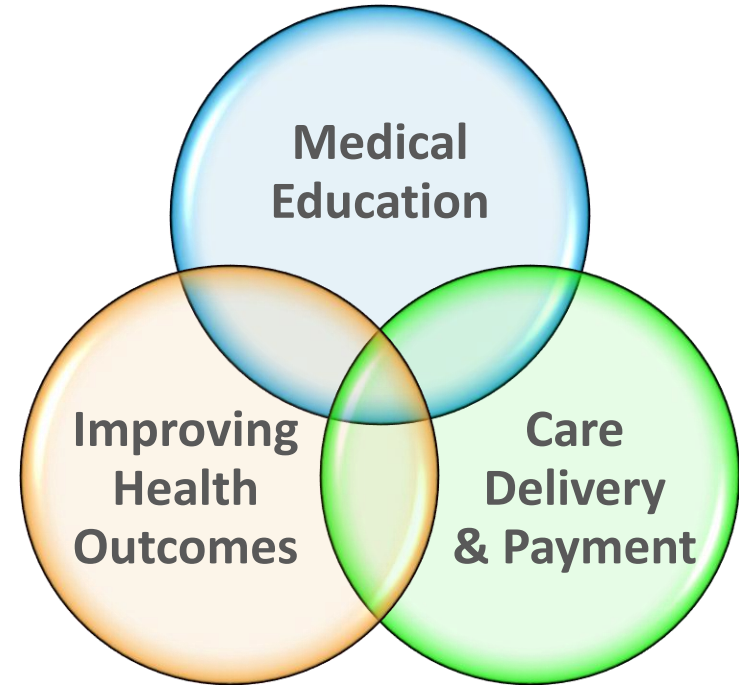
# Evolving Medical Education for New Models of Care



# AMA Strategic Focus Areas: 2013

**“To promote the art and science of medicine and the betterment of public health”**

Advance results focused initiatives the improve public health, medical education, practice sustainability and professional satisfaction



# Accelerating Change in Medical Education Initiative

- \$13.5 million in grants to medical schools
  - 11 schools in 2013
  - 21 schools in 2016
- Consortium formed to jumpstart and speed dissemination of ideas
  - Venue for collaboration, innovation and scholarship
  - More than 100 peer reviewed articles; 3 textbooks

# AMA ACE Innovation 2013-2018: 32 Stories of Change



A.T. STILL UNIVERSITY  
SCHOOL OF OSTEOPATHIC MEDICINE IN ARIZONA

ATSU

Heritage College  
of Osteopathic Medicine

The City College  
of New York  
CUNY School of Medicine

MOREHOUSE  
SCHOOL OF MEDICINE

The University of Texas at Austin  
Dell Medical School

MICHIGAN STATE  
UNIVERSITY  
College of  
Osteopathic Medicine

UConn  
SCHOOL OF MEDICINE

UNIVERSITY OF UTAH  
SCHOOL OF MEDICINE

RUTGERS  
Robert Wood Johnson  
Medical School

School of  
MEDICINE  
OHIO STATE UNIVERSITY

ECU  
SCHOOL OF MEDICINE

UTRGV  
School of Medicine

MORE THAN  
**\$12.5 MILLION**  
TO  
**32 MEDICAL SCHOOLS**

TODAY, THESE FUNDS SUPPORT  
**19,000**  
MEDICAL STUDENTS

WHO WILL ONE  
DAY PROVIDE CARE  
FOR MORE THAN  
**33 MILLION**  
PATIENTS ANNUALLY

**18%** OF ALL  
OSTEOPATHIC  
& ALLOPATHIC  
STUDENTS ATTEND  
CONSORTIUM SCHOOLS

University of Nebraska  
Medical Center

INDIANA UNIVERSITY  
SCHOOL OF MEDICINE

FIU  
Herbert Wertheim  
College of Medicine  
FLORIDA INTERNATIONAL UNIVERSITY

UNC  
SCHOOL OF MEDICINE

SCHOOL OF MEDICINE  
& HEALTH SCIENCES  
UNIVERSITY OF NORTH DAKOTA

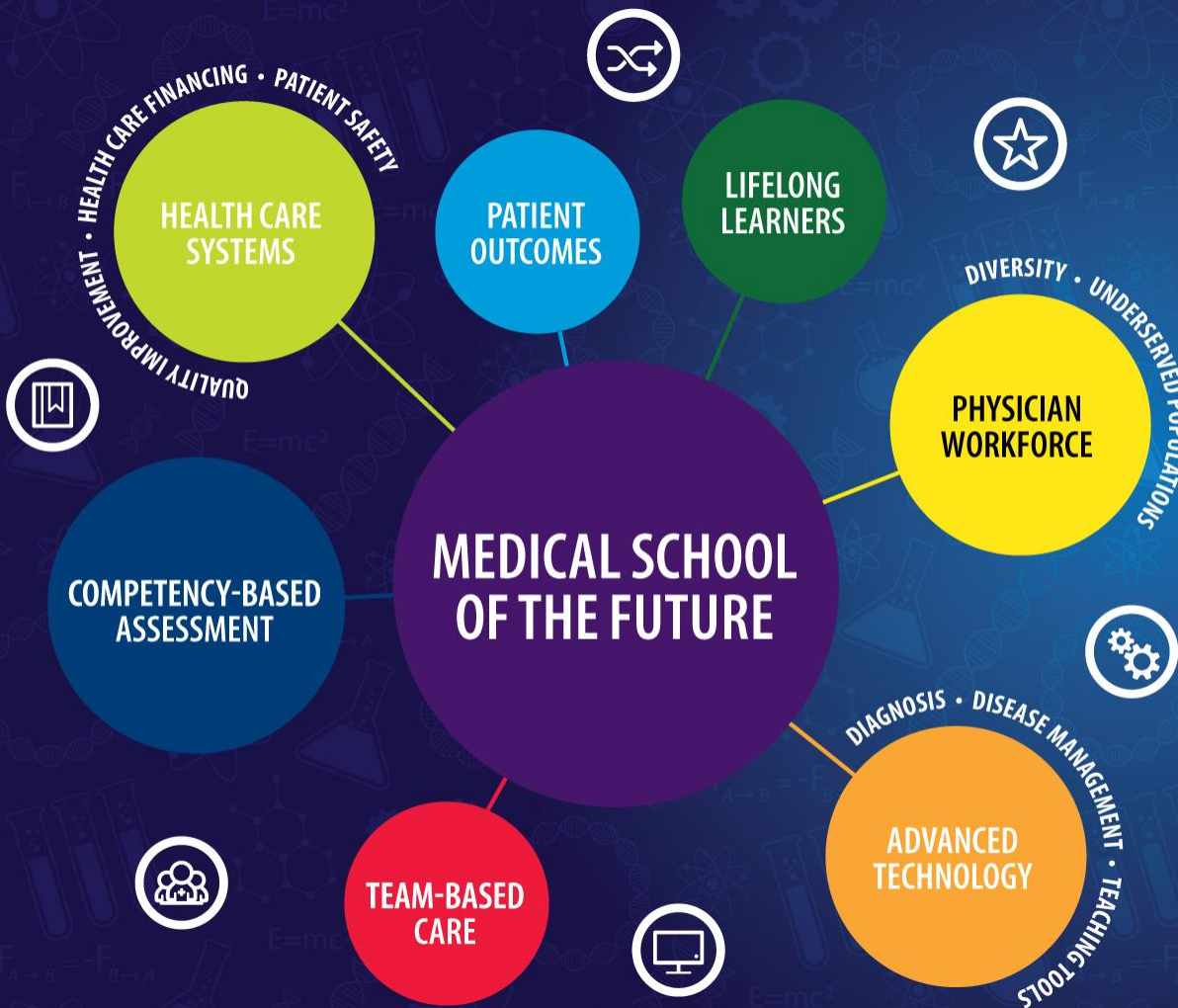
SCHOOL OF MEDICINE  
CASE WESTERN RESERVE  
UNIVERSITY

Sidney Kimmel  
Medical College  
at Thomas Jefferson University

EMORY  
UNIVERSITY  
SCHOOL OF  
MEDICINE

THE UNIVERSITY OF  
CHICAGO  
PRETZER SCHOOL  
OF MEDICINE





# Creating the Medical Schools of the Future: Together, we have....

- Created flexible, individualized learning pathways in medical school
- Integrated medical education within health care systems to bring value
- Developed a new, third pillar for medical education: Health System Science
- Supported learning and assessment through application of technology and a positive learning environment



# Flexible, individualized learning pathways

- Exemplar schools:
  - OHSU, UCSF, Vanderbilt
  - NYU, UC-Davis w/ shortened tracks
- Innovations
  - Portfolios and dashboards
  - Coaching roles for faculty
  - Badges for deep learning



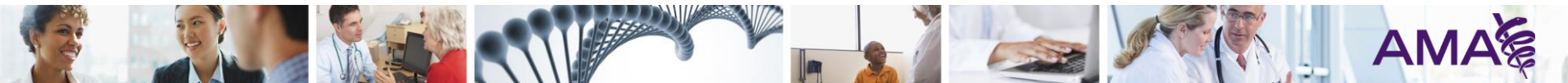
# Working with health systems in new ways

- Exemplar schools:

- ECU/Brody
- Penn State
- UC-Davis

- Innovations

- Patient navigation role for students
- Longitudinal integration in care system
- Faculty development
- Teaching academy for quality



# REACH

Safety

Quality

Teams

Redesigning Education to Accelerate  
Change in Healthcare



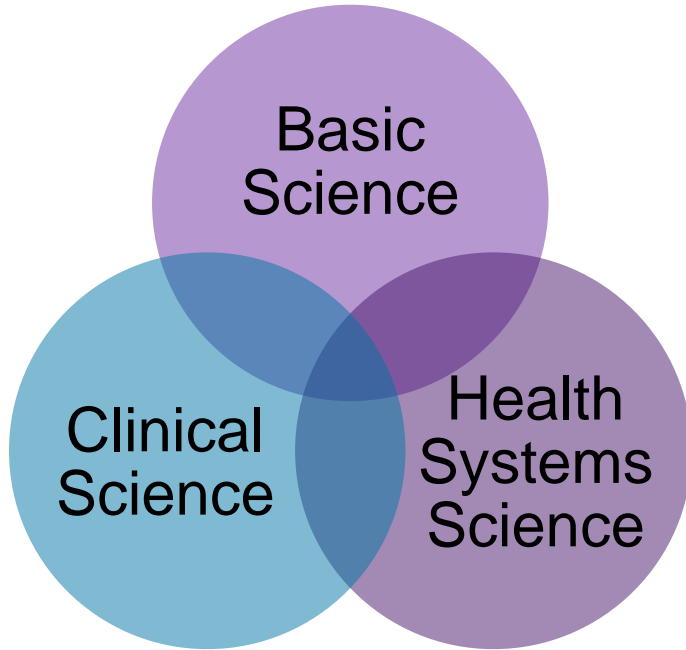
Began with Faculty Development for 35 clinical faculty  
Teaching for Quality Academy  
QI projects using IHI modules  
Health Care system now funds academy

# Providing exemplary learning in new areas

- Exemplar schools:
  - Brown
  - Mayo
  - Penn State
  - Michigan
- Innovations
  - 25-30% new curriculum
  - “Third Science”: Health System Science
  - Population health degree program



# Health System Science: 3<sup>rd</sup> Pillar in HP education



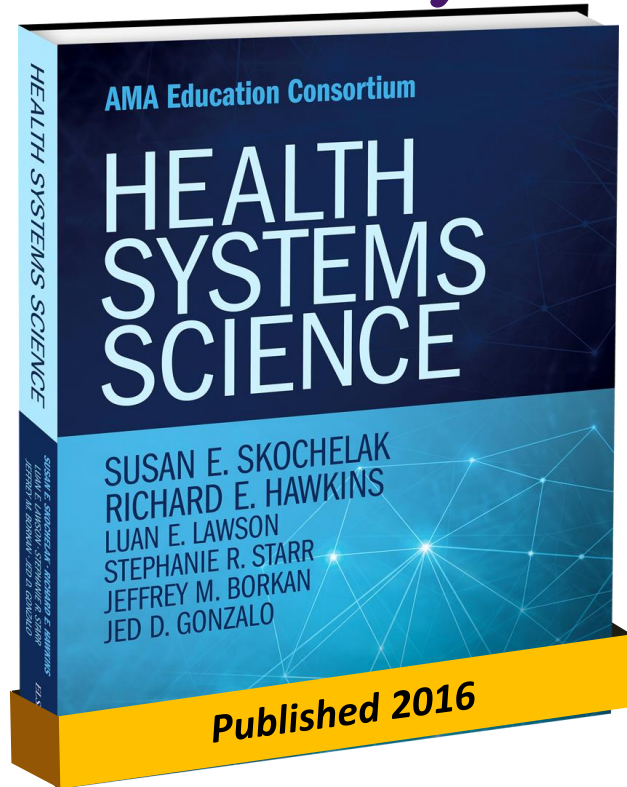
- Patient population management
- Health care disparities
- Informatics
- Quality and Safety
- Health care financing
- Leadership
- Clinical informatics
- Working in teams







Consortium achievement

# Health systems science



 **NBME**<sup>®</sup> 

**American Medical Association**  
In Collaboration with the National Board of Medical Examiners

**Examinee Performance Profile**  
Health Systems Science  
000000 - Generic Medical School

ID: 0000      Test Date(s): mm/dd/yyyy  
Name: Student A      Total Percent Correct Score: ###

The score you received on this examination is shown above. This Performance Profile is provided to aid in self-assessment. The profile provides information regarding your performance compared to the performance of a comparison group of examinees on the major content areas of the examination. The comparison group includes first-time takers from LCME-accredited and COCA-accredited medical schools who took this examination under standard testing conditions. The mean performance of the comparison group is represented by the vertical line.

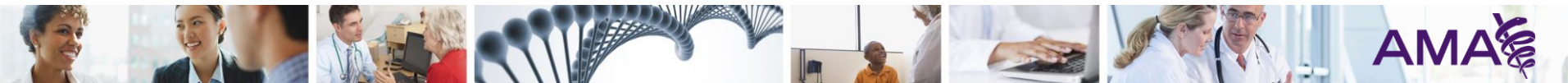
Performance bands indicate areas of relative strength and weakness. Some bands are wider than others. The width of a performance band reflects the precision of measurement: narrower bands indicate greater precision. A <img alt="left arrow"/> or <img alt="right arrow"/> symbol indicates that your performance band extends beyond the displayed portion of the scale. Because many of the content areas are based on a relatively small number of items, small differences in the location of bands should not be over-interpreted. If two bands overlap, performance in the associated areas should be interpreted as similar. Please note that many items may contribute to more than one content area. Use caution when interpreting differences in performance across content areas.

	Lower Performance	Average Performance	Higher Performance
<b>Health Systems Science Content Area</b>			
Evidence-based Medicine			
Patient Safety			
Quality Improvement			
Teamwork			

**Subject exam created with the  
National Board of Medical Examiners**

# Enhancing the learning environment

- Exemplar schools:
  - NYU
  - Indiana
  - Vanderbilt
- Innovations
  - Teaching EMR clinical learning platform
  - “Health Care by the Numbers” course on use of big data
  - Electronic learning portfolios



# NYU School of Medicine

## *Health Care by the Numbers*

This project is funded by the [AMA Accelerating Change in Medical Education Program](#).

The NYU 'Healthcare by the Numbers: Populations, Systems, and Clinically Integrated Data' curriculum leverages an integrated partnership of our [School of Medicine](#) and [NYU Langone Medical Center](#) to transform our medical school curriculum. By creating a three-year long program of education for our students that is based on the real clinical data of our practices, we are accelerating changes in what we are teaching so as to be aligned with the future demands of practice.

“Our hope is that this robust curriculum will prepare our graduates to meet the future needs of the ever evolving healthcare delivery system by giving them the tools and skills necessary to care for not just an individual patient, but for an entire population of patients,”

— Marc Triola, MD, associate dean for educational informatics, principal investigator

### NYU Project Team:

- Ruth M. Crowe, MD, PhD
- Greta Elysee
- Lindsay Jubelt, MD, MSHP
- Armine Lulejian, MPH, EdD
- Martin Pusic, MD, PhD
- Mark Schwartz, MD
- Marc Triola, MD

### Quick links to Resources:

#### [Healthcare by the Numbers Curriculum](#)

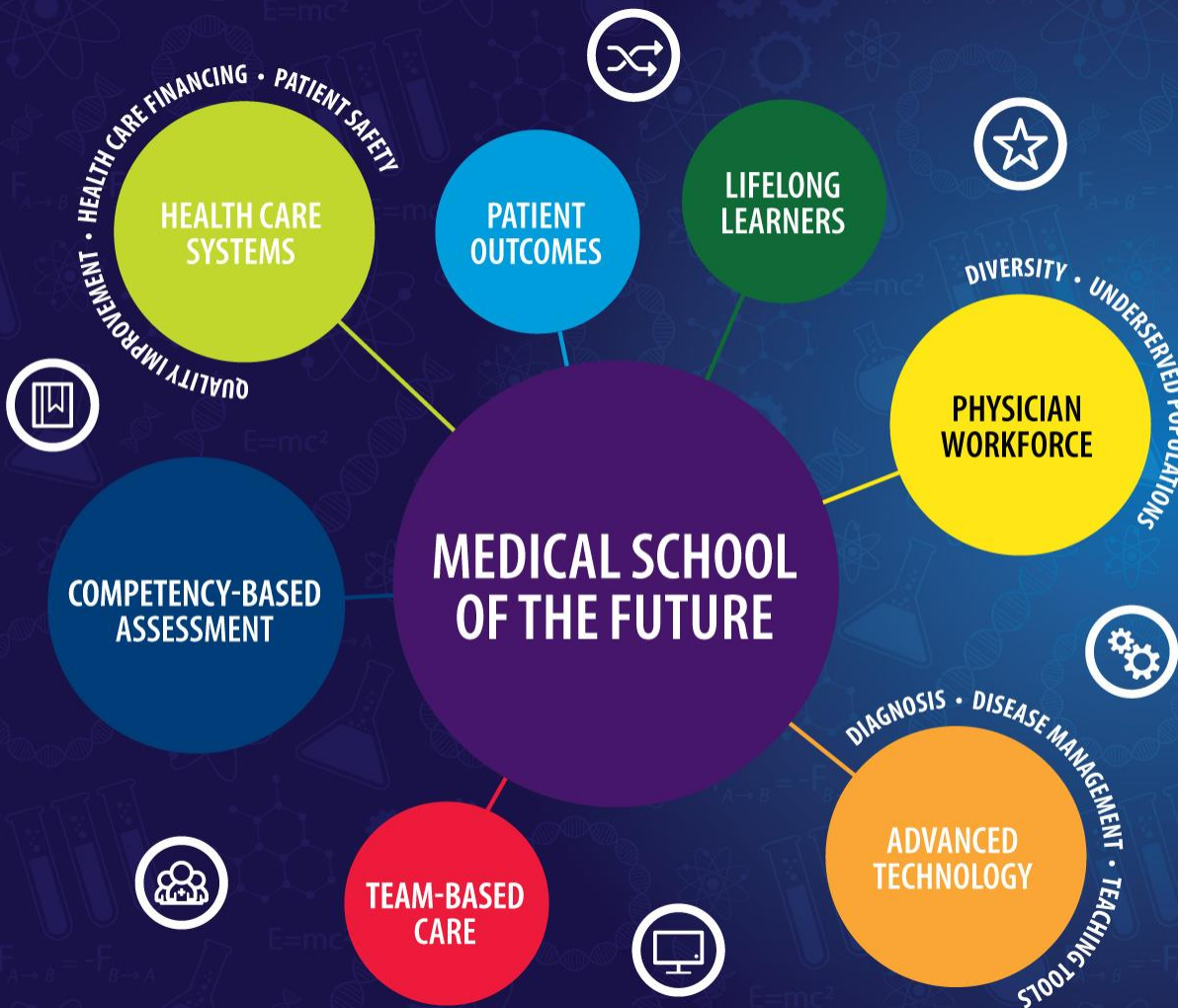
Lecture materials, slides, small group session handouts, and links to projects.

#### [Clinical Data Student Project using SPARCS](#)

Student project using over 5 million patient records from NY State hospitals.

#### [Virtual Outpatient Practice Student Exercise](#)

Fictitious outpatient practice created from de-identified NYU, CDC, and NY state health data





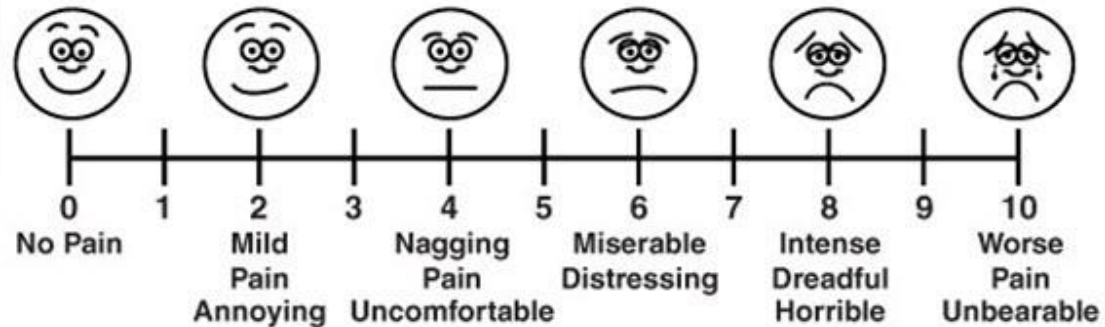
# Transition from UME to GME: New opportunities for innovation





# Pain points along the UME - GME Continuum

- Inflexible policies for entry into residency
- Service needs remain focused on inpatient
- Lack of understanding of health systems practice
- “July Effect”
- Incomplete readiness for practice entry



# Designing solutions for the UME-GME Continuum

- Interviews with GME leaders, residents, PIs
- Meetings with health systems leaders
- New AMA GME National Advisory Panel:  
ACGME, NRMP, AAMC, AHA, AIAMC, OPDA,  
NBME, ABMS, AACOM, DIOs, CMOs,  
Program Directors, Resident, Student

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# New Opportunity for AMA Leadership in GME Education

Building on the ACE work, AMA will establish a new five-year initiative to address challenges associated with the transition from UME to GME

And will develop physicians' skills in health system science during residency training to address workforce needs across the continuum of physician training





# REIMAGINING RESIDENCY

CREATING THE RESIDENCY PROGRAMS OF THE FUTURE

## Accelerating Change in Medical Education Reimagining Residency Initiative

### Funding opportunity description

The American Medical Association's "Accelerating Change in Medical Education" initiative is designed to enhance physician training, preparing the medical profession to meet the challenges of today's practice environment. Across the continuum of physician education, the gap between how physicians are trained and the future needs of our health care system continues to be a challenge. The American Medical Association (AMA) is working to close this gap by stimulating collaboration to promote innovative change that better aligns education outcomes with the

[www.ChangeMedEd.org](http://www.ChangeMedEd.org)  
[www.ChangeRedEd.org](http://www.ChangeRedEd.org)

