AMA’s Accelerating Change in Medical Education Initiative: Current themes of innovative UME curricular change

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OBJECTIVES

❖ Provide a brief history on the development and the launch of the AMA’s Accelerating Change in Medical Education Initiative
❖ Highlight the role of the AMA’s Accelerating Change in Medical Education Consortium in innovation dissemination and assessment
❖ Share the emerging thematic areas of curricular work
❖ Introduce Health Systems Science as the third pillar of medical education
❖ Engage audience in regard to current common curricular issues
10 – 15 years of papers, calls for action, and feedback from health system leaders raised concerns that our graduates are not ready to function in our evolving health care systems.
INITIATIVE OVERVIEW

A request for grant proposals in January 2013 outlined goals for schools’ projects.

AMA sought schools that were:

• Implementing competency-based programming with flexible, individualized learning plans
• Focusing on ‘system’ competencies and developing exemplary methods to achieve patient safety, performance improvement, and patient-centered team care
• Developing educational methods to ensure that their students understand health care systems and health care financing
• Optimizing their learning environment through better preparation of their faculty or through innovative uses of technology
INITIATIVE OVERVIEW

AMA has invested $13.5 million in grants to the medical schools.

• 11 schools (Cohort 1) out of 119 responding to the 2013 RFP received 5-year, $1 million grants

• An educational consortium was formed, providing a venue for collaboration, innovation, and scholarship to jumpstart and speed the dissemination of ideas

• An additional request for applications added 21 schools (Cohort 2) in 2016, from among 108 applicants, to receive 3-year, $75,000 grants to support the dissemination of Cohort 1 projects or add unique innovations

• Cohort 1 and 2 schools include 19,000 students and ~ 33 million patient visits each year
INITIATIVE OVERVIEW

Consortium is broadly representative of the UME community:

• New and established schools
• Public and private schools
• Leading schools in Osteopathic education
• Schools focusing on a diverse workforce
• Broad geographic distribution
Although each school project is unique, their innovative work falls into 7 thematic categories:

1. **Integration** of medical education and health care systems
   - Led to the emergence of Health Systems Science as the “Third Pillar”
2. **Technology** in support of learning and assessment
3. **Competency-based** programming
4. **Workforce solutions** to improve population-based care
5. **Metrics** to support CQI of educational programs
6. **Faculty development** in coaching and quality improvement
7. Conceptual model envisioning the **learner of the future**
Several projects involve integration of medical education and health care systems, including:

- Engagement of health systems leaders in developing curricula and serving as student mentors
- Early integration of students in meaningful learning activities in health systems, which led to:
  - The emergence of Health Systems Science (HSS) as the “third pillar” in medical education
  - The introduction of value-added roles for medical students (and faculty) in improving system performance and patient outcomes

Health Systems Science (HSS) — “the principles, methods, and practice of improving quality, outcomes, and costs of health care delivery for patients and populations within systems of medical care”
INTEGRATION OF HEALTH SYSTEMS SCIENCE

HSS is integrated into, and exists in parallel to, instruction in basic and clinical sciences

Integrated into basic science:
- Population management
- Social determinants of health
- Health equity
- Clinical informatics
- Health care financing
- Epidemiology of errors
- Improvement science

Integrated into clinical science:
- Leadership/change agency
- Root cause analysis
- Teamwork
- Care coordination
- Care transitions
- Error disclosure
- Use of HIT, EHR ...
HEALTH SYSTEMS SCIENCE AND VALUE-ADDED ROLES

While students are integrated into health care systems to acquire the knowledge, skills, and attitudes of health systems science, they serve in value-added roles to improve system performance and enhance patient care.

– J. Gonzalo, 2016

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<tr>
<th>VALUE-ADDED ROLES</th>
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<tr>
<td>Patient Navigators</td>
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<td>Care Transitions Facilitators</td>
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<td>Safety and Patient-Care Analysts</td>
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<td>Patient-Care Technicians</td>
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Several of the Cohort 2 school projects build on the systems integration theme, by focusing on:

– Immersing student learners in PCMHs, ACOs, FQHCs, and other community-based sites
– Learning about chronic disease, population health, health equity, and social determinants
– Measuring health care outcomes that may improve through value-added student roles
Health Systems Science: The Third Pillar

The AMA and Consortium schools are providing national leadership in defining HSS through scholarly publications, issuing the first comprehensive textbook covering the domains of HSS, and collaborating with the NBME in developing the first standardized assessment of the HSS knowledge base.
TECHNOLOGY

teachingEMR — developed by the Indiana University School of Medicine in conjunction with the Regenstrief Institute
  • A Virtual EMR including 10,000 misidentified patients and health care providers
  • Technology used to teach and assess documentation, patient management, clinical reasoning, and population management

Health Care by the Numbers — developed by New York University School of Medicine
  • Educational platform that includes large in-patient and ambulatory databases
  • Technology used by faculty and students to learn about quality and cost of care outcomes at the population level
Electronic portfolios provide faculty an interactive tool to facilitate working with students to develop their lifelong learning skills and document achievement of core competencies.

**TECHNOLOGY**

**REDEI System**
Oregon Health & Science University School of Medicine

**Vstar ePortfolio**
Vanderbilt University School of Medicine
COMPETENCY-BASED PROGRAMMING

Several schools are implementing competency-based, time-independent programming or focusing on targeting development of core “system” competencies

Competency-based programming

Time independent progression through medical school facilitated by:

• Badging (certificates) indicating achievement of specific competencies
• Early differentiation into practice relevant pathways

Focus on ‘systems’ competencies

• Quality improvement
• Patient safety
• High-value, cost-conscious care
• Interprofessional education and teamwork
• Telemedicine-based Interprofessional education
• Leadership & change agency
• Patient advocacy
Several schools have missions and goals that aim to ensure a diverse workforce to improve population-based care . . .

Some schools are focusing on accelerated training in primary care

- Brown
  - Accelerated training in primary care that includes a masters degree in leadership and population management
- Ohio University Heritage SOM
  - Affiliated with Cleveland Clinic to create de-novo competency-based Family Medicine training program
- UC Davis
  - Partnership with Kaiser system to support accelerated training in primary care, linked to graduate education in Kaiser residency programs
USE OF METRICS

Using metrics to support CQI of educational programs

- The University of Washington, comprised of 6 training sites across 5 states and 3 time zones, helps the consortium in developing common curricula and consistent implementation across sites.

- The University of Utah project focuses on value-added medical education, leading in the development of metrics to define the value equation for medical education innovation.

- Consortium schools have collaborated with the AMA in developing a national evaluation plan that has resulted in a national infrastructure for providing feedback to medical schools.
  - This infrastructure includes the new NBME subject exam, ACGME milestones outcomes, and mechanisms for obtaining feedback from health care systems and GME programs.
Faculty Development: Coaching

Several schools are focusing on training coaches to facilitate student learning and assessment and helping students develop life-long learning competences.

- OHSU has led in the development of a position description for coaches
- Several schools are using ePortfolios to support coach-student interaction and relationship development
- Consortium schools are collaborating in development of a Coaching Manual

Faculty Development: Quality and Safety

A few schools are focusing on faculty development in quality improvement.

The Teachers of Quality Academy at Brody SOM at East Carolina University is an exemplar program, training faculty in quality and safety and related pedagogical methods. Faculty develop quality projects for their health care system and teach students and residents about quality improvement and safety.
Led by faculty from Vanderbilt and NYU, schools in the consortium are envisioning the learner of the future.

➢ Conceptualizing the Master Adaptive Learner
The self-regulated learner of the future who can monitor her learning or practice environment, identify gaps or opportunities for improvement, identify the most appropriate educational method or approach, and determine whether that approach was effective in meeting her needs.

Interest groups in the Consortium are focusing on the impact of the learning environment on the Master Adaptive Learner, distinguishing between routine versus adaptive learning, and how to measure outcomes of adaptive learning.
The AMA and Consortium schools are considering **how transitions along the medical education continuum can be improved** to best support the learner of the future:

- One area of focus is the how the transition from UME to GME can be optimized to support a smooth and continuous learning trajectory and better match learners to programs.

- Some schools that are engaged in the integration of medical education within health systems, community-based settings, and authentic interprofessional learning teams, are reconsidering whether current student selection processes identify the ideal students for 21st century practice.
Consortium schools are working to ensure **learner well-being** through a variety of approaches.

The Mayo Well-Being Index® allows learners to measure their stress, anxiety, depression, and burnout levels through a validated survey. If needed, learners can then access a range of confidential human and technologic services.
QUESTIONS????
Mark your calendars! Next fall join the American Medical Association at CHANCEMEDED™ | 2017, a national conference bringing together leaders from across the education continuum as well as from innovative educational institutions to continue changing the way future physicians are trained.