The Challenges and Opportunities for Osteopathic Medical Education

UMDNJ-SOM Strategic Planning Session
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AACOM President/CEO

Photo courtesy of Pikeville College School of Osteopathic Medicine
The Challenges and Opportunities for Osteopathic Medical Education

- Background
- Challenges and Opportunities
- Where Do We Go from Here?
- Discussion
The Challenges and Opportunities for Osteopathic Medical Education

- **Background**
- Challenges and Opportunities
- Where Do We Go from Here?
- Discussion
The Challenges and Opportunities for Osteopathic Medical Education

Background:

- **Forces for Change**
  - Growth in Osteopathic Medical Education
  - Osteopathic Medicine in Transition
  - Osteopathic Graduate Medical Education
Forces for Change

- Aging population
- Chronic disease epidemic
- Rising expectations for evidence-based education/practice and quality
- Acceleration of technological change
  - Molecular biology
  - Nanotechnology
  - Imaging
  - Robotics
  - Information technology
Forces for Change

- Globalization
- Public-private innovation (medical home/minute clinics)
- Predictive health (targeting prevention)
- Shifting diversity of US population
- Political/Economic changes in US healthcare environment
In an environment….

- With a Changing U.S. Health Care System (?)
- Growing numbers of uninsured (?)
- Lacking diversity in health care professions
- Maldistribution of health care resources
- Evidence and predictions of health workforce shortages
Political/Economic Environment

- Cost
  - $2.5 trillion
  - 17% of GDP

- Access
  - 45 million uninsured
  - 55-60 million uninsured within last year
  - Millions inadequately insured

- Quality
Political/Economic Environment

Health Expenditures as a Percentage of GDP by Country, 2005 (NCHS, 2008)
International Comparison of Spending on Health, 1980–2006

Total expenditures on health as percent of GDP

Average spending on health per capita (US PPP)

Data: OECD Health Data 2008 (June 2008)
Healthcare Expenditures

Source: Center for Medicare and Medicaid Services, 2009
Health Care Expenditures (NCHS, 2008)

- Household: 31.1%
- Federal government: 22.9%
- State government: 17.3%
- Private business: 25.3%
- Other: 3.5%
Mortality Amenable to Health Care

Deaths per 100,000 population*

* Countries’ age-standardized death rates before age 75; including ischemic heart disease, diabetes, stroke, and bacterial infections.

Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2008
A New Culture for Health Care

Hierarchical → Collaborative
Autonomous → Team-based
Competitive → Service-based
Individualistic → Mutually accountable
Expert-centered → Patient-centered

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Defining the Medical Home

Superb Access to Care
- Patients can easily make appointments and select the day and time.
- Waiting times are short.
- eMail and telephone consultations are offered.
- Off-hour service is available.

Patient Engagement in Care
- Patients have the option of being informed and engaged partners in their care.
- Practices provide information on treatment plans, preventative and follow-up care reminders, access to medical records, assistance with self-care, and counseling.
- These systems support high-quality care, practice-based learning, and quality improvement.
- Practices maintain patient registries; monitor adherence to treatment; have easy access to lab and test results; and receive reminders, decision support, and information on recommended treatments.

Clinical Information Systems

Care Coordination
- Specialist care is coordinated, and systems are in place to prevent errors that occur when multiple physicians are involved.
- Follow-up and support is provided.

Team Care
- Integrated and coordinated team care depends on a free flow of communication among physicians, nurses, case managers and other health professionals.
- Duplication of tests and procedures is avoided.

Patient Feedback
- Patients routinely provide feedback to doctors; practices take advantage of low-cost, internet-based patient surveys to learn from patients and inform treatment plans.

Publically available information
- Patients have accurate, standardized information on physicians to help them choose a practice that will meet their needs.

Source: Health2 Resources 9.30.08
<table>
<thead>
<tr>
<th><strong>TODAY’S CARE</strong></th>
<th><strong>MEDICAL HOME CARE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>My patients are those who make appointments to see me</td>
<td>Our patients are those who are registered in our medical home</td>
</tr>
<tr>
<td>Patients’ chief complaints or reasons for visit determines care</td>
<td>We systematically assess all our patients’ health needs to plan care</td>
</tr>
<tr>
<td>Care is determined by today’s problem and time available today</td>
<td>Care is determined by a proactive plan to meet patient needs without visits</td>
</tr>
<tr>
<td>Care varies by scheduled time and memory or skill of the doctor</td>
<td>Care is standardized according to evidence-based guidelines</td>
</tr>
<tr>
<td>Patients are responsible for coordinating their own care</td>
<td>A prepared team of professionals coordinates all patients’ care</td>
</tr>
<tr>
<td>I know I deliver high quality care because I’m well trained</td>
<td>We measure our quality and make rapid changes to improve it</td>
</tr>
<tr>
<td>Acute care is delivered in the next available appointment and walk-ins</td>
<td>Acute care is delivered by open access and non-visit contacts</td>
</tr>
<tr>
<td>It’s up to the patient to tell us what happened to them</td>
<td>We track tests &amp; consultations, and follow-up after ED &amp; hospital</td>
</tr>
<tr>
<td>Clinic operations center on meeting the doctor’s needs</td>
<td>A multidisciplinary team works at the top of our licenses to serve patients</td>
</tr>
</tbody>
</table>
Most Plausible Scenario of U.S. Physician Shortage

Most plausible demand -159,300

Most plausible supply

Adapted from AAMC Workforce Projections 2008.
Physician Workforce

- Projections continue to show shortage
  - Absent GME growth FTE physicians flattens after 2017 & 160,000 shortage by 2025 (AAMC)
- Older physicians likely to retire earlier
- Younger physicians (especially females) likely to perform less clinical care
- MD schools likely to grow near 20% over next 10-15 years
- IMGs continuing to increase (driven by U.S. IMGs)
- GME expansion not sufficient to handle DO/MD growth
- Number of PAs/NPs growing rapidly
The Challenges and Opportunities for Osteopathic Medical Education

- **Background:**
  - Forces for Change
  - **Growth in Osteopathic Medical Education**
  - Osteopathic Medicine in Transition
  - Osteopathic Graduate Medical Education
Growth of Osteopathic Medical Colleges
(1968 – 2008)

Total Enrollment and Number of Colleges

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Enrollment</th>
<th>Number of Colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>1879</td>
<td>5</td>
</tr>
<tr>
<td>1973</td>
<td>2780</td>
<td>7</td>
</tr>
<tr>
<td>1978</td>
<td>4221</td>
<td>14</td>
</tr>
<tr>
<td>1983</td>
<td>6212</td>
<td>15</td>
</tr>
<tr>
<td>1988</td>
<td>6614</td>
<td>15</td>
</tr>
<tr>
<td>1993</td>
<td>7822</td>
<td>16</td>
</tr>
<tr>
<td>1998</td>
<td>9882</td>
<td>19</td>
</tr>
<tr>
<td>2003</td>
<td>11857</td>
<td>20</td>
</tr>
<tr>
<td>2004</td>
<td>12525</td>
<td>20</td>
</tr>
<tr>
<td>2005</td>
<td>13406</td>
<td>20</td>
</tr>
<tr>
<td>2006</td>
<td>14409</td>
<td>23</td>
</tr>
<tr>
<td>2007</td>
<td>15586</td>
<td>25</td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Osteopathic Medical Schools

Private (20) Colleges of Osteopathic Medicine

- A.T. Still University School of Osteopathic Medicine – Arizona (ATSU/SOMA)
- A.T. Still University of Health Sciences/Kirksville College of Osteopathic Medicine (ATSU/KCOM), Missouri
- Arizona College of Osteopathic Medicine of Midwestern University (AZCOM)
- Chicago College of Osteopathic Medicine of Midwestern University (CCOM), Illinois
- Des Moines University – College of Osteopathic Medicine (DMU-COM), Iowa
- Kansas City University of Medicine and Biosciences – College of Osteopathic Medicine (KCUMB-COM), MO
- Lake Erie College of Osteopathic Medicine (LECOM), Pennsylvania
  - LECOM–Bradenton, FL
- Lincoln Memorial University Debusk College of Osteopathic Medicine (LMU-DCOM), TN
- New York College of Osteopathic Medicine of New York Institute of Technology (NYCOM/NYIT)
- Nova Southeastern University – College of Osteopathic Medicine (NSU-COM), Florida
Osteopathic Medical Schools

Private (20) Colleges of Osteopathic Medicine

- Pacific Northwest University College of Osteopathic Medicine, Washington (PNWUCOM)
- Philadelphia College of Osteopathic Medicine (PCOM), Pennsylvania
  - Georgia Campus–PCOM
- Pikeville College School of Osteopathic Medicine (PCSOM), Kentucky
- Rocky Vista University College of Osteopathic Medicine, Colorado (RVUCOM)
- Touro College of Osteopathic Medicine – NY (TOUROCOM)
- Touro University College of Osteopathic Medicine (TUCOM-CA), California
  - TUCOM–Nevada Campus
- University of New England College of Osteopathic Medicine (UNECOM), Maine
- Edward Via Virginia College of Osteopathic Medicine (VCOM)
- Western University College of Osteopathic Medicine of the Pacific (Western U/COMP), California
- William Carey University College of Osteopathic Medicine, Mississippi
Osteopathic Medical Schools

Public (6) Colleges of Osteopathic Medicine

- Michigan State University College of Osteopathic Medicine (MSUCOM)
- Ohio University College of Osteopathic Medicine (OUCOM)
- Oklahoma State University Center for Health Sciences – College of Osteopathic Medicine (OSU-COM)
- University of Medicine and Dentistry of New Jersey – School of Osteopathic Medicine (UMDNJ-SOM)
- University of North Texas Health Science Center at Fort Worth/Texas College of Osteopathic Medicine at Fort Worth (UNTHSC/TCOM)
- West Virginia School of Osteopathic Medicine (WVSOM)
COM Deans Growth Survey Results (2009)

Osteopathic Colleges
First-year New Matriculant Seats -- Projected

- Public COMs
- Private COMs
- Total

<table>
<thead>
<tr>
<th>Year</th>
<th>Public COMs</th>
<th>Private COMs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>5104</td>
<td>1040</td>
<td>6144</td>
</tr>
<tr>
<td>2010-11</td>
<td>5264</td>
<td>1099</td>
<td>6363</td>
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<tr>
<td>2011-12</td>
<td>5642</td>
<td>1140</td>
<td>6782</td>
</tr>
<tr>
<td>2012-13</td>
<td>5975</td>
<td>1212</td>
<td>7187</td>
</tr>
<tr>
<td>2013-14</td>
<td>6122</td>
<td>1217</td>
<td>7339</td>
</tr>
<tr>
<td>2014-15</td>
<td>6271</td>
<td>1217</td>
<td>7488</td>
</tr>
<tr>
<td>2015-16</td>
<td>6297</td>
<td>1217</td>
<td>7514</td>
</tr>
</tbody>
</table>

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But it Appears That the Recession is Slowing MD Enrollment Growth

2009 Projections Below 2008 Projections

30% Target = 21,434

Data includes the 131/130 accredited schools plus LCME applicant and candidate schools

Source: AAMC Deans Medical School Enrollment Survey 2009: Preliminary Data
Nevertheless, 1st Year MD and DO Enrollment in 2014 Will be Far Higher than in 2002

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2014</th>
<th># and % Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD</td>
<td>16,488</td>
<td>19,893</td>
<td>3,405 21%</td>
</tr>
<tr>
<td>DO</td>
<td>3,079</td>
<td>6,260</td>
<td>3181 103%</td>
</tr>
<tr>
<td>Combined</td>
<td>19,567</td>
<td>26,153</td>
<td>6,586 34%</td>
</tr>
</tbody>
</table>

Sources: AAMC Dean’s Enrollment Survey: 2009 Preliminary Findings
AAMC 2008 Survey on Osteopathic Medical School Growth Plans Preliminary Data
New COM Campuses/Additional Locations: in Development or Planned  (Source: COCA)

- Edward Via Virginia College of Osteopathic Medicine—branch campus in Spartanburg, SC (approved for 2012)
- Heartland University of Health Sciences—new COM in Kansas City, MO (no longer in planning)
- Western University COM—additional location in Corvallis, OR (approved for 2012)
New COM Campuses/Additional Locations: in Development or Planned  (Source: COCA)

- Alabama Medical Education Consortium—new COM (in planning)
- KCUMB—additional location in Joplin, MO (in planning)
- New COMs (in discussion)
  - Wisconsin
  - Indiana
Total Applicants to AACOMAS

- 2002: 6,324
- 2003: 6,814
- 2004: 7,240
- 2005: 8,258
- 2006: 9,476
- 2007: 11,231
- 2008: 11,742
- 2009: 12,791

1 Based on total applicants received by AACOMAS – 2009 data as of 03/20/2009

Source: AACOMAS, American Association of Colleges of Osteopathic Medicine Application Services
Matriculant Grade Point Averages

Source: Until 2006 - AACOM, Annual Osteopathic Medical School Questionnaire
From 2007 – Applicant data on AACOMAS application

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Mean GPA Scores: Applicants vs. Matriculants

Source: Applicant data on AACOMAS application
Mean MCAT Scores of Matriculants

Source: Until 2006 - AACOM, Annual Osteopathic Medical School Questionnaires
From 2007 – Applicant data on AACOMAS application

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Mean MCAT Scores: Applicants vs. Matriculants

![Bar chart showing mean MCAT scores for Verbal, Biological Science, and Physical Science for 2008 Applicants and 2008 Matriculants.]

Source: Applicant data on AACOMAS application

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### 2008 Entering Osteopathic Medical Students

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Total MCAT</td>
<td>26.12</td>
</tr>
<tr>
<td>Mean Overall GPA</td>
<td>3.46</td>
</tr>
<tr>
<td>Matriculants</td>
<td>4,732</td>
</tr>
<tr>
<td>Percent Women</td>
<td>48%</td>
</tr>
<tr>
<td>Age: 21-25</td>
<td>75%</td>
</tr>
<tr>
<td>Age: 26-30</td>
<td>20%</td>
</tr>
<tr>
<td>Age: &gt; 30</td>
<td>5%</td>
</tr>
</tbody>
</table>

(AAMC 2009 Applicants: MCAT 29, Overall GPA 3.51)
The Challenges and Opportunities for Osteopathic Medical Education

- Background:
  - Forces for Change
  - Growth in Osteopathic Medical Education
  - Osteopathic Medicine in Transition
  - Osteopathic Graduate Medical Education
Osteopathic Profession 30 Years Ago

Osteopathic Medicine was largely a separate profession, regionally-based:

- Separate schools (15 – of which 9 were recent)
- Separate hospitals
- Separate GME (primary care)
- Separate licensing exams
- Separate licensing boards
- Separate specialty boards
- Separate specialty practices (solo or small group)
Osteopathic physicians in 1980:
- 1,059 DO graduates (7% of U.S. MD + DO grads)
- 17,620 practicing DOs (3.8% of active physicians)
- ~5% of DOs Female
- 2/3’s primary care practices

Osteopathic physicians in 2008:
- 3500 DO graduates (21% of U.S. MD + DO grads)
- 55,000 practicing DOs (7% of active physicians)
- 30% of DOs Female
- ~60% primary care practice
Osteopathic Medicine: A Profession in Transition

- Regional to National
- Separate hospital system gone
- Separate GME system changing
- Separate health care system to integrated systems and practices
- Primary care under challenge
- OMM specialization
- Private to public
- Implementing a research mission and culture
The Challenges and Opportunities for Osteopathic Medical Education

Background:
- Forces for Change
- Growth in Osteopathic Medical Education
- Osteopathic Medicine in Transition
- Osteopathic Graduate Medical Education
Unless GME Positions Grow, Some Will Be Squeezed Out

Projected Growth in MD and DO Entrants into GME

- **IMG GME**: 26,000 Currently Available Residency
- **DO GME Entrants**
- **MD GME Entrants**

Preliminary Data Prepared by: AAMC Center for Workforce Studies (SAS), 7/09
Sources: 2008: AAMC Dean’s Enrollment Survey; 2008: AACOM Enrollment Analysis

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Approximately 7,000 IMGs also entered first-year GME in 2009.
Projects 1% annual growth in number of first-year GME positions.
Data compiled by AAMC Center for Workforce Studies, 7/2009 from 2008 AACOM and AAMC sources.
| Graduation year | DO GME entrants | DO change from prior year | DO MD Combined entrants | MD GME entrants | MD change from prior year | MD GME Combined GME entrants | Combined change from prior year | Combined projected GME slots - new slots - new slots - new estimated available GME slots - new slots - new slots - new Gap - number of available slots |
|-----------------|-----------------|--------------------------|-------------------------|-----------------|--------------------------|-----------------------------|--------------------------------|--------------------------------|--------------------------------|
| 2009            | 3601            | 136                      | 16244                   | 19845           | 486                      | 26000                        | 5929                           | 26260                          | 5384                           |
| 2010            | 3737            | 188                      | 17231                   | 21592           | 582                      | 27056                        | 4882                           | 27326                          | 3788                           |
| 2011            | 4173            | 188                      | 18966                   | 21139           | 808                      | 26788                        | 5196                           | 26523                          | 3526                           |
| 2012            | 4361            | 188                      | 17231                   | 21592           | 582                      | 27056                        | 4882                           | 27326                          | 3788                           |
| 2013            | 4602            | 241                      | 17572                   | 22174           | 582                      | 27056                        | 4882                           | 27326                          | 3788                           |
| 2014            | 5086            | 484                      | 18150                   | 23236           | 1062                     | 27876                        | 3526                           | 27600                          | 3788                           |
| 2015            | 5348            | 262                      | 18464                   | 23812           | 576                      | 27600                        | 3788                           | 27600                          | 3788                           |
| 2016            | 5482            | 134                      | 18868                   | 24350           | 538                      | 27876                        | 3526                           | 27876                          | 3526                           |
| 2017            | 5547            | 65                       | 19055                   | 24602           | 252                      | 28154                        | 3552                           | 28436                          | 3231                           |
| 2018            | 5768            | 221                      | 19437                   | 25205           | 603                      | 28436                        | 3231                           | 28436                          | 3231                           |
| 2019            | 5999            | 231                      | 19825                   | 25824           | 619                      | 28720                        | 2896                           | 28720                          | 2896                           |
| 2020            | 6239            | 240                      | 20222                   | 26461           | 637                      | 29007                        | 2546                           | 29007                          | 2546                           |
| 2021            | 6489            | 250                      | 20626                   | 27115           | 654                      | 29297                        | 2182                           | 29297                          | 2182                           |

Approximately 7,000 IMGs also entered first-year GME in 2009.
Projects 1% annual growth in number of first-year GME positions.
Data compiled by AAMC Center for Workforce Studies, 7/2009 from 2008 AACOM and AAMC sources.
DO Graduates (% OGME)

Percentage of DO Graduates Participating in and Matching in Osteopathic GME (including scramble)

### 2009 Graduating Senior Match Results:

<table>
<thead>
<tr>
<th>Category</th>
<th>Matched</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matched</td>
<td>1,399</td>
<td>(38%)</td>
</tr>
<tr>
<td>Unmatched</td>
<td>307</td>
<td>(8%)</td>
</tr>
<tr>
<td>Military</td>
<td>202</td>
<td>(5%)</td>
</tr>
<tr>
<td>Non-participants</td>
<td>1,816</td>
<td>(49%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,822</strong></td>
<td></td>
</tr>
</tbody>
</table>

### AOA Family Medicine:

<table>
<thead>
<tr>
<th>Category</th>
<th>Matched</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matched</td>
<td>319</td>
<td>(51%)</td>
</tr>
<tr>
<td>Positions</td>
<td>629</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>948</strong></td>
<td></td>
</tr>
</tbody>
</table>

### All AOA (funded) Positions:

<table>
<thead>
<tr>
<th>Category</th>
<th>Matched</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matched</td>
<td>1,433</td>
<td>(59%)</td>
</tr>
<tr>
<td>Positions</td>
<td>2,435</td>
<td></td>
</tr>
</tbody>
</table>
## DOs in ACGME Programs (2008-2009)

ACGME Total Residents: 108,176

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. MD Grads</td>
<td>71,119</td>
<td>65.7%</td>
</tr>
<tr>
<td>IMGs</td>
<td>29,488</td>
<td>27.3%</td>
</tr>
<tr>
<td>DOs</td>
<td>7,237</td>
<td>6.7%</td>
</tr>
<tr>
<td>Canadian</td>
<td>326</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

Source: JAMA, Sep 23/30, 2009
75% of DOs in ACGME Programs are in:

<table>
<thead>
<tr>
<th>Program</th>
<th># DO</th>
<th>(% DO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine</td>
<td>1,374</td>
<td>(14.7%)</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>1,296</td>
<td>(5.9%)</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>463</td>
<td>(8.9%)</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>656</td>
<td>(8.1%)</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>504</td>
<td>(10.1%)</td>
</tr>
<tr>
<td>Obstetrics/Gynecology</td>
<td>388</td>
<td>(8.1%)</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>377</td>
<td>(7.9%)</td>
</tr>
<tr>
<td>Physical Medicine &amp; Rehabilitation</td>
<td>301</td>
<td>(25.0%)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>5,359</td>
<td></td>
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</tbody>
</table>
The Challenges and Opportunities for Osteopathic Medical Education

- Background
- **Challenges and Opportunities**
- Where Do We Go From Here?
- Discussion
The Challenges and Opportunities for Osteopathic Medical Education

- Challenges/Opportunities
  - GME
  - Tuition and Student Debt
  - Primary Care
  - Growth, Applications and Quality
  - Clinical Training
  - Diversity
  - Allopathic Medical Education
  - Competency, Curriculum, Health Care Reform and Interprofessional Education
Squeeze in GME is Happening Already as Applicants Have Grown More Rapidly Than Slots

Results from NRMP 2002 - 2009

Unfilled PGY-1 Positions

2,155

U.S. Seniors Unmatched to PGY-1 Positions

883

1,087

1,071
Number of IMGs Entering GME Appears to be Stabilizing and Likely to Decrease

Source: Center for Workforce Studies, November 2009
However, US IMGs Continue to Rise Due to Increases in Caribbean Applicants

Number of US IMGs Certified by ECFMG

- Total US IMGs Certified
- US IMGs Certified from Caribbean Schools

*2009 numbers are projections through 12/31/09 based on applicants as of 10/23/09

Source: ECFMG

*aacom™
AMERICAN ASSOCIATION OF COLLEGES OF OSTEOPATHIC MEDICINE
Non-US Citizen Applicants from the Caribbean Have Also Been Increasing

Non-US IMG Applicants to the ECFMG from the Caribbean

- 375 in 1997
- 723 in 1999
- 1,384* in 2009

*2009 numbers are projections through 12/31/09 based on applicants as of 10/23/09

Source: ECFMG
New Initiatives
- GME in Health Reform Bills
- Teaching Health Centers
- Start New Programs
- OPTIs
Osteopathic Graduate Medical Education

- OGME Growth
  - Schools starting programs
  - Dual programs

- Issues:
  - Cap
  - Faculty
  - Start-up funding
  - Specialty interests
The Challenges and Opportunities for Osteopathic Medical Education

- Challenges/Opportunities
  - GME
  - Tuition and Student Debt
  - Primary Care
  - Growth, Applications and Quality
  - Clinical Training
  - Diversity
  - Allopathic Medical Education
  - Competency, Curriculum, Health Care Reform and Interprofessional Education
The Challenges: Tuition/Student Debt

• Between 2003 and 2009:
  • Tuition up 28-39%
  • CPI up 17%

• Between 2003 and 2008:
  • Average student debt rose from $134,000 to $180,000
  • Student debt levels rose 34%

• Similar increases over next 5-6 years:
  • Tuition around $47,000
  • Debt around $245,000
Increases in Tuition/Student Debt

Tuition and Fees Rates of Increase 2004-05 through 2009-10

Mean Education Debt - Osteopathic Medical School Graduates

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Tuition, Fees and CPI: Rates of Change

Rates of Change from Prior Year — Tuition and Fees and CPI as of July 1

- Private state resident
- Public state resident
- CPI, 7/1

<table>
<thead>
<tr>
<th>Years</th>
<th>Private State Resident</th>
<th>Public State Resident</th>
<th>CPI, 7/1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>5.1%</td>
<td>5.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>2005-06</td>
<td>5.4%</td>
<td>4.8%</td>
<td>4.8%</td>
</tr>
<tr>
<td>2006-07</td>
<td>6.0%</td>
<td>5.4%</td>
<td>4.1%</td>
</tr>
<tr>
<td>2007-08</td>
<td>2.4%</td>
<td>10.5%</td>
<td>2.4%</td>
</tr>
<tr>
<td>2008-09</td>
<td>3.2%</td>
<td>3.0%</td>
<td>5.6%</td>
</tr>
<tr>
<td>2009-10</td>
<td>5.2%</td>
<td>2.4%</td>
<td>-2.1%</td>
</tr>
</tbody>
</table>

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Projected Increases in Tuition/Student Debt

Tuition and Fees Rates of Increase Projected through 2014-15 over 2003-04 base year

- Private COM state resident tuition and fees: 61.4%
- Private COM non-resident tuition and fees: 58.0%
- Public COM state resident tuition and fees: 83.7%
- Public COM non-resident tuition and fees: 77.3%
- CPI: 33.7%

Mean Education Debt Osteopathic Medical School Graduates

- Rate of increase from prior year:
  - 2005: 5.3%
  - 2006: 5.9%
  - 2007: 2.6%
  - 2008: 7.0%
  - 2009: 6.0%
  - 2010: 6.0%
  - 2011: 6.0%
  - 2012: 6.0%
  - 2013: 6.0%

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Primary Care Career Plans and Educational Debt

Data Source: AACOM Survey of Graduating Seniors

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The Challenges and Opportunities for Osteopathic Medical Education

- Challenges/Opportunities
  - GME
  - Tuition and Student Debt
  - Primary Care
  - Growth, Applications and Quality
  - Clinical Training
  - Diversity
  - Allopathic Medical Education
  - Competency, Curriculum, Health Care Reform and Interprofessional Education
The Number of Active Physicians Approaching Retirement Age Will Nearly Double in a Decade

Number of Physicians Reaching Age 65

Source: AMA Physician Masterfile (December 31, 2008)
Adult PC Physicians Retiring Are Likely to Exceed # Entering Within Next Few Years

Estimated new Adult PC Physicians 2007

Number of Adult PC Physicians Reaching Age 65

Note: Primary care numbers include hospitalists. Adult primary care includes family medicine and internal medicine. Includes both MDs and DOs.

Sources: AMA Physician Masterfile (December 31, 2008)
AAMC/AMA National GME Census

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Change in Intent to Pursue Primary Care

Plan to Specialize in Primary Care as First Year Students and as Graduates

(matched cohorts)

Data Source: AACOM Survey of First Year Students and Graduating Seniors
Primary Care Income Far Less than Most Other Specialties
(Median Salary by Specialty, in Thousands of Dollars)

MGMA Physician Compensation Survey 2006

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...and Differences Between Primary Care and Other Specialties Is Growing (Median Salary by Specialty in Thousands of Dollars)

MGMA Physician Compensation Survey 2001-2006

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Change the delivery system by:

- Focus on prevention
- Global payments for full comprehensive care
- Innovation and testing models of care
- Remove barriers to NP/PA practicing as primary care providers
- All primary care in systems accountable for quality, costs and health of individuals and populations
Change the education system by:

- Place primary care education in PCMH/ACO
- Interprofessional Education
- Expand scholarship/loan forgiveness
- Develop clinician leaders for new practice models
- Revise admission standards/separate tracks
- Redirect GME to outpatient/community-based programs
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Challenges/Opportunities

- GME
- Tuition and Student Debt
- Primary Care
- Growth, Applications and Quality
- Clinical Training

Diversity

- Allopathic Medical Education
- Competency, Curriculum, Health Care Reform and Interprofessional Education
U.S. Population: 2050

- **Non-Hispanic White**: 46.3%
- **Hispanic**: 30.3%
- **Asian**: 8%
- **Black**: 13%
- **Native Hawaiian/Pacific Islander**: 1.5%
- **Other**: 1.1%

U.S. Census Bureau Percent of the Projected Population by Race and Hispanic Origin for the U.S.: 2008 to 2050
### Race and Ethnicity: 2008

<table>
<thead>
<tr>
<th>Category</th>
<th>Applicants</th>
<th>Matriculants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic/Latino</td>
<td>9.3%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Native American/Alaska Native</td>
<td>1.2%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Asian American</td>
<td>23.5%</td>
<td>21.0%</td>
</tr>
<tr>
<td>African American/Black</td>
<td>6.6%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>0.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td>White</td>
<td>68.9%</td>
<td>75.6%</td>
</tr>
</tbody>
</table>

Note: Applicants/Matriculants may respond by checking all that apply or none. Thus, totals will not equal 100%.
For the years 2005-06 – 2008-09 faculty could be listed in more than one racial ethnic group.
Paid Faculty by Race/Ethnicity

For the years 2005-06 – 2008-09 faculty could be listed in more than one racial ethnic group.

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The Challenges and Opportunities for Osteopathic Medical Education

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  - Growth, Applications and Quality
  - Clinical Training
  - Diversity
  - **Allopathic Medical Education**
  - Competency, Curriculum, Health Care Reform and Interprofessional Education
U.S. M.D. Colleges

- MR 5: 5th Comprehensive Review of MCAT
- Accreditation Standard Changes: Competencies
- Admission Changes
- USMLE Changes
- Growth and Competition
- Innovation Zones and Health Care Reform
The Challenges and Opportunities for Osteopathic Medical Education

- Challenges/Opportunities
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  - Diversity
  - Allopathic Medical Education
  - **Competency, Curriculum, Health Care Reform and Interprofessional Education**
May 2010 Release of:
Educating Physicians: A Call for Reform from The Carnegie Foundation for the Advancement of Teaching, by David Irby, PhD, Bridget O’Brien, PhD, and Molly Cooke, MD
Upcoming Carnegie Report

Recommendations:
1. Integration:
   Connect knowledge and Experience
2. Habits of inquiry and improvement:
   Focus on Excellence
3. Standardization & individualization:
   Set outcomes, allow flexibility in learning
4. Identity formation:
   Develop professional values and commitments
Examples of Integration:

- **Curriculum**
  - Early clinical immersion and integrated courses
  - Longitudinal integrated clerkships with focus on out-of-hospital settings

- **Pedagogy**
  - PBL and TBL, blended learning, simulations, standardized patients

- **Assessment**
  - Comprehensive/competency-based
Excellence Through Policy

1. Revise admissions requirements

2. Coordinate standards across levels in coherent framework across levels
   a. Common competencies
   b. Consistent standards
   c. Single oversight agency (licensure/accreditation)
   d. Two licensure exams (3rd year → supervised practice and specialty board → full practice)

3. Align patient care and clinical education
Excellence Through Policy (cont’d)

4. Support the teaching mission

5. Fund in a transparent and fair manner, e.g., GME funding to educators and sites of education as opposed to hospitals

6. Support infrastructure/innovation/educational research

7. Develop a medical workforce policy for U.S.
Summary

1. Integrating knowledge and experience
2. Developing habits of inquiry and improvement
3. Standardizing learning outcomes with individualizing learning process
4. Focusing on professional identity formation and the highest values of profession
1. While US MD schools had strength in conveying knowledge and skills, there were gaps that effect quality:

- Patient advocacy
- Loss of altruism
- Ability to communicate with patients
- Patient-centeredness
2. Some proposed solutions:
   - Apportion more weight in admissions decisions to characteristics of applicants that predict success in the interpersonal domains of medicine
   - Increased faculty and institutional focus on teaching and education
   - Service and community orientation throughout medical education experience, starting with admissions
   - Early community-based patient experiences
Medical schools should …give greater priority to the teaching mission of faculty.

Medical school leadership should improve institutional culture to prioritize social needs.

Medical school missions should be aligned with the health needs of the society

- Renew focus on Primary Care
- Medical school admissions should broaden the definition of merit and downgrade the importance of standardize tests and GPAs.
- Medical schools have an obligation to substantially reduce the level of student debt.
- The AAMC and AACOM should accelerate their efforts to reassess and update the MCAT examination and the pre-medical requirements for admission to medical school.
Today’s Issues for OME

Growth: Need and capacity
  Clinical training (systems, IT, volunteer faculty system)
  Faculty and academic resources
  GME/OGME

Engage in practice model change

New curriculum models
  Competency-based, Interprofessional, Team-based
  Clinical training changes for new practice models

Shifting specialty interest of students
  Will primary care focus survive?

Resources/Student Debt

Development of a research/evidence-based culture
  Study/Validation of OP & P/OMM

Recognition and place in health care system
The American Association of Colleges of Osteopathic Medicine promotes excellence in osteopathic medical education, in research and in service, and fosters innovation and quality among osteopathic colleges to improve the health of the American public. – AACOM Mission Statement