Overview of Presentation

- Background:
  - AACOM
  - Colleges of Osteopathic Medicine
  - Physician Workforce Issues
- Recent Trends in Primary Care
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- What Can Be Done
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What is AACOM?

- Founded in 1898 to lend support and assistance to osteopathic medical schools
- Association of all of the nation’s accredited COMs
- Governed by the Board of Deans (all colleges represented on the Board)
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.
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Osteopathic Medical Schools

Private (19) 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), Missouri
- Lake Erie College of Osteopathic Medicine (LECOM), Pennsylvania
  - LECOM–Bradenton Campus
- Lincoln Memorial University Debusk College of Osteopathic Medicine (LMU-DCOM), Harrogate, Tennessee
- New York College of Osteopathic Medicine of New York Institute of Technology (NYCOM/NYIT)
- Nova Southeastern University – College of Osteopathic Medicine (NSU-COM), Florida

[Logo: aacom]

[Text: AMERICAN ASSOCIATION OF COLLEGES OF OSTEOPATHIC MEDICINE]
Osteopathic Medical Schools

Private (19) 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 (RCUCOM)
- Touro College of Osteopathic Medicine – New York (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
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)
Osteopathic Medicine’s Growth

- In the last 25 years the number of osteopathic medical schools has grown from 14 to 25 colleges, with 3 branch campuses.
- The number of osteopathic college graduates has more than doubled to over 3,000.
- With existing schools’ planned growth, the number of DO graduates will grow to more than 5,000 by 2015.
First-Year Enrollment in Osteopathic Medical Schools Expected to Surpass 5,000 by 2012

Source: 2007 AACOM Enrollment Survey: Preliminary Findings
First-Year MD and DO Enrollment in 2013 Likely to Be 5,400 (27.%) Higher than in 2002

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2013</th>
<th># and % Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD</td>
<td>16,488</td>
<td>19,747</td>
<td>3,259   19.8%</td>
</tr>
<tr>
<td>DO</td>
<td>3,079</td>
<td>5,227+</td>
<td>2,148   69.8%</td>
</tr>
<tr>
<td>Combined</td>
<td>19,567</td>
<td>24,974</td>
<td>5,407   27.6%</td>
</tr>
</tbody>
</table>

Source: 2007 AAMC Dean’s Enrollment Survey: Preliminary Findings
Source: 2007 AACOM Enrollment Survey: Preliminary Findings
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Physician Workforce

Physician Workforce

Adapted from a chart prepared by AAMC with data from AMA.
Active physicians includes residents and fellows.
1985 data excludes 24,000 DOs.

Number of physicians by age:
- Under 35
- 35-44
- 45-54
- 55-64
- 65 and over

1985 vs 2005 data comparison.
Underlying Trends

The demand for physicians results from economic and population growth

Active Physicians per 100,000 of Population

GDP per Capita (1996 dollars)

Source: Richard Cooper, MD
But supply will not keep up with demand.

Source: Richard Cooper, MD
And the “**Effective Supply**” will even be less.
We are in the early stages of a period of deepening physician shortages.

Active Physicians per 100,000 of Population

We are Here

Source:
Richard Cooper, MD
Genesis of the Problem:
Failure to Sustain Growth in GME

Source: Richard Cooper, MD
Had residency programs continued to expand after 1997 at 500/year, the U.S. would not now be facing severe shortages.
But increasing residency positions by 500 per year starting in 2010 will not close the gap.

Source: Richard Cooper, MD
Nor even will increasing residency positions by 10,000 over ten years starting in 2010.
...and the gap will continue for decades.

Source: Richard Cooper, MD
Physician Workforce

- Projections continue to show shortage
- 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
Physician Workforce

Proportion of Active Physicians Aged 55 or Older by Specialty

Sources: AMA Masterfile, January 2006

Average: 33.3%

Primary Care Specialties

Physician Workforce
Physician Workforce

Figure 6.
Proportion of Active DO Physicians Aged 55 or Older by Specialty, 2006

Anatomic/Clinical Pathology
Radiology & Diagnostic Radiology
Preventive Medicine
Thoracic Surgery
Plastic Surgery
Psychiatry
Urology
Family Medicine/General Practice
Hematology and Oncology
Orthopedic Surgery
Ophthalmology
Allergy & Immunology
Otolaryngology
Dermatology
Radiation Oncology
Neurological Surgery
General Surgery
Child & Adolescent Psychiatry
Cardiovascular Disease
Pulmonary Disease and Critical Care Medicine
Neurology
Obstetrics & Gynecology
Gastroenterology
Neonatal/Perinatal Medicine
Emergency Medicine
Anesthesiology
Vascular Surgery
Rheumatology
Pediatrics
Internal Medicine
Nephrology
Physical Medicine & Rehabilitation
Geriatric Medicine
Endocrinology, Diabetes & Metabolism
Infectious Diseases
Internal Medicine Pediatrics (Combined)

Primary Care Specialties
Average = 24.0%

Source: AMA Masterfile, January 2006
* See Introduction for notes on specialty classification and the definition of “Active Physicians”.

AACOM
AMERICAN ASSOCIATION OF COLLEGES OF OSTEOPATHIC MEDICINE
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Primary Care — Will It Survive?
Thomas Bodenheimer, M.D.
Third-Year IM Residents Choosing Career as Generalists, Subspecialists and Hospitalists (Bodenheimer, NEJM: 355, 861-864)
Clinically Active PAs Have Nearly Tripled in the last 15 Years (in thousands)

Source: American Academy of Physician Assistants and AAMC
Over Last 15 Years, Percentage of PAs Going into Generalist Specialties Decreased While Sub-specialists Increased

Source: American Academy of Physician Assistants and AAMC
The Number of Licensed NPs Increased by 80 Percent Between 1999 and 2006

Note: Represents sum of all NPs licensed in all states; it is estimated that an unduplicated count would reduce these numbers by 10%.

Half of the Primary Care Workforce 50 Years or Older

2007 AMA Physician Masterfile
Cleese Erikson, AAMC
Primary Care Physicians per 100,000

Number per 100,000 Population

State Median = 87.6
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Number and Source of Physicians Entering GME Training in 2004

24,012 Entered MD and DO Training in 2004

**IMGs**
- 6,013 (25%)
  - US IMGs
    - 1,300 (5%)
  - Non-US IMGs
    - 4,713 (20%)

**Allopathic Graduates**
- 15,099 (64%)

**Osteopathic Graduates**
- 2,756 (11%)
  - Osteopathic Graduates in DO Programs
    - 1,285 (5%)
  - Osteopathic Graduates in MD Programs
    - 1,471 (6%)

**Other+**
- 144 (0.6%)

*Total IMGs = 6,013; Distribution among US and Non-US IMGs is estimated.*
+ Includes Canadian Graduates (72)

Source: AAMC GMETrack and AOA Master File
Family Medicine Residency Positions and Number Filled by U.S. Medical School Graduates (Bodenheimer, NEJM: 355, 861-864)
Less than half of DO graduates entering osteopathic match

Declining percentage of DOs entering osteopathic primary care programs

Declining number of DOs choosing primary care programs, ACGME or AOA
<table>
<thead>
<tr>
<th>Category</th>
<th>Matches</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine</td>
<td>244</td>
<td>44%</td>
</tr>
<tr>
<td>All AOA Positions</td>
<td>1353</td>
<td>59%</td>
</tr>
</tbody>
</table>
Two-Thirds of DOs in ACGME Programs are in:

<table>
<thead>
<tr>
<th>Program</th>
<th>#</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine</td>
<td>1341</td>
<td>(14.3%)</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>1173</td>
<td>(5.4%)</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>565</td>
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</tr>
<tr>
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<tr>
<td>Obstetrics/Gynecology</td>
<td>358</td>
<td>(7.6%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4671</td>
<td></td>
</tr>
</tbody>
</table>

JAMA, Sep 6, 2006
### DOs in ACGME Programs
#### 2005-2006

ACGME Total Residents: 103,106

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
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<tr>
<td>U.S. MD Grads</td>
<td>68,578</td>
<td>(66.5%)</td>
</tr>
<tr>
<td>IMGs</td>
<td>27,636</td>
<td>(26.8%)</td>
</tr>
<tr>
<td>DOs</td>
<td>6,474</td>
<td>(6.3%)</td>
</tr>
<tr>
<td>Canadian</td>
<td>386</td>
<td>(0.4%)</td>
</tr>
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JAMA, Sep 6, 2006

**Note:**
- DOs in ACGME Programs refer to osteopathic physicians.
- U.S. MD Grads: United States Medical Doctors graduates.
- IMGs: International Medical Graduates.
- DOs: Doctor of Osteopathic Medicine.
- Canadian: Canadian-trained physicians.
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## DO Practice Specialties (Source AOA)

### Self-Identified D.O. Practice Specialties, 1984-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Family and general practice</th>
<th>General internal medicine</th>
<th>General pediatrics and adolescent medicine</th>
<th>Obstetrics</th>
<th>Pediatric specialties</th>
<th>Osteopathic manipulative medicine (OMM) or osteopathic manipulative treatment (OMT) specialties</th>
<th>Other specialty</th>
</tr>
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<tbody>
<tr>
<td>2007</td>
<td>18,976</td>
<td>4,037</td>
<td>1,791</td>
<td>1,637</td>
<td>392</td>
<td>602</td>
<td>14,665</td>
</tr>
<tr>
<td>2006</td>
<td>18,610</td>
<td>3,468</td>
<td>1,325</td>
<td>1,543</td>
<td>365</td>
<td>498</td>
<td>14,020</td>
</tr>
<tr>
<td>2005</td>
<td>17,800</td>
<td>3,107</td>
<td>1,176</td>
<td>1,465</td>
<td>348</td>
<td>464</td>
<td>13,431</td>
</tr>
<tr>
<td>2004</td>
<td>16,752</td>
<td>2,994</td>
<td>1,127</td>
<td>1,416</td>
<td>347</td>
<td>448</td>
<td>13,050</td>
</tr>
<tr>
<td>1994</td>
<td>10,136</td>
<td>1,487</td>
<td>560</td>
<td>754</td>
<td>194</td>
<td>753</td>
<td>8,048</td>
</tr>
<tr>
<td>1984</td>
<td>7,224</td>
<td>598</td>
<td>236</td>
<td>361</td>
<td>13</td>
<td>62</td>
<td>3,033</td>
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Primary Care Practice Plans and Educational Debt

- **Plan to practice in primary care field**
- **Self-reported loan principal debt**

<table>
<thead>
<tr>
<th>Year</th>
<th>% Planning Primary Care Practice</th>
<th>Self-reported Debt in $1000s</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993-94</td>
<td>40%</td>
<td>$0.0</td>
</tr>
<tr>
<td>1994-95</td>
<td>40%</td>
<td>$20.0</td>
</tr>
<tr>
<td>1995-96</td>
<td>50%</td>
<td>$40.0</td>
</tr>
<tr>
<td>1996-97</td>
<td>40%</td>
<td>$60.0</td>
</tr>
<tr>
<td>1997-98</td>
<td>40%</td>
<td>$80.0</td>
</tr>
<tr>
<td>1998-99</td>
<td>50%</td>
<td>$100.0</td>
</tr>
<tr>
<td>1999-00</td>
<td>40%</td>
<td>$120.0</td>
</tr>
<tr>
<td>2000-01</td>
<td>30%</td>
<td>$140.0</td>
</tr>
<tr>
<td>2001-02</td>
<td>20%</td>
<td>$160.0</td>
</tr>
<tr>
<td>2002-03</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>2003-04</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>
Physician income and 1st year tuition -- all physicians

Adjusted to account for inflation
Physician income and 1st year tuition -- primary care only
Adjusted to account for inflation

Physician Income & Educational Debt
Physician Income & Educational Debt

1st year tuition as % of primary care physician income
constant $s adjusted for inflation

- 1995: 0.00%
- 1999: 10.00%
- 2003: 25.00%
Primary Care Income Far Less than most Other Specialties
(Median Salary by Specialty, in Thousands of Dollars)

MGMA Physician Compensation Survey 2006
...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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- Personal Thoughts
- Questions/Comments
What Can Be Done -- Macro Level

- Family Medicine for the 21st Century
- Policy Changes
- Reimbursement must Change
- Interdisciplinary Education
- Chronic Disease Epidemic & Prevention
What Can Be Done – Micro Level

- Redefining OGME Family Medicine
- Partnering with COMs
- Demonstrate Quality & Publicize Results
- Recruiting participation
- Mentoring
- Targeted Training
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Questions/Comments

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– AACOM Mission Statement