The Future of Osteopathic Medical Education:
Physician Workforce Projections and the Response of U.S. Colleges of Osteopathic Medicine

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President and CEO, AACOM

Presentation to the Maryland Association of Osteopathic Physicians
Ocean City, MD
June 20, 2008
Objectives—To Understand:

- The current projections of U.S. physician workforce supply.
- The factors influencing the need/demand for physician services.
- The factors influencing physician workforce supply.
- The developments in osteopathic medical education related to the physician workforce in the U.S.
Overview of Presentation

- Background:
  - AACOM
  - Forces for Change
- Physician Workforce Issues
- Response of Medical Education
- Undergraduate OME Growth/Issues
- Graduate Medical Education
- Issues and Challenges
- Questions/Comments
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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.
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
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
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)
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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
- Politico-economic changes in US healthcare environment
US Population Growth 2000-2050

- By 2025 a 20% increase in US population and a 75% increased in those > 65
- Total population 2000 – 282,125,000
- Total population 2050 – 419,854,000
  - Hispanic/Latino will grow from 12.6% to 24.4%
  - African-American will grow from 12.7% to 14.6%
  - Asian/PI will grow from 3.8% to 8.0%
  - Other non-White racial groups will grow from 2.5% to 5.3%
In an environment....

- Without a US Health Care System
- Growing numbers of uninsured
- Lacking diversity in health care professions
- Maldistribution of healthcare resources
- Evidence and predictions of health workforce shortages
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Physician Workforce

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

Projected Demand

Approx 2020-2025

Last shortage

1929

1980

2000

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

Active Physicians per 100,000 of Population

GDP per Capita

Projected Demand

Projected Supply

Source: Richard Cooper, MD
And the “Effective Supply” will even be less.

Source: Richard Cooper, MD
We are in the early stages of a period of deepening physician shortages.

Active Physicians per 100,000 of Population vs. GDP per Capita

Approx 2020-2025
Deficit = ~200,000 physicians (~20%)

We are Here

Source: Richard Cooper, MD
Active Physicians in the United States

Male-Female:
- Male (537,340, 73%)
- Female (195,373, 27%)

Age:
- 54 or Younger (488,836, 66%)
- 55 or Older (244,451, 33%)

In-State GME Retention:
- Practicing in the State of Graduate Medical Education
- Not Practicing in the State of Graduate Medical Education (405,742, 55%)

Medical School Type:
- US MD (514,815, 70%)
- IMG (172,675, 24%)

Source: AMA Physician Masterfile, January 2006.
* Excludes 574 physicians whose sex is unknown.
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.

Active physicians includes residents and fellows. 1985 data excludes 24,000 DOs.
Half of the Primary Care Workforce 50 Years or Older

2007 AMA Physician Masterfile
Cleese Erikson, AAMC
Recent Reports of Physician Shortages: Specialty Studies

- Allergy & Immunology (2000)
- Anesthesia (2003)
- Cardiology (2004)
- Child Psychiatry (2006)
- Critical Care Workforce (2006)
- Dermatology (2004)
- Endocrinology (2003)
- Family Medicine (2006)

- General Surgery (2008)
- Geriatric Medicine (2007)
- Medical Genetics (2004)
- Neurosurgery (2005)
- Oncology (2007)
- Pediatric Subspecialty (2008)
- Psychiatry (2003)
- Public Health (2007)
- Rheumatology (2007)
Recent Reports of Physician Shortages: State Reports

- Alaska (2006)
- Arizona (2005)
- California (2004)
- Florida (2005)
- Georgia (2006)
- Hawaii (2008)
- Idaho (2007)
- Iowa (2008)
- Kentucky (2005)
- Maryland (2008)
- Massachusetts (2007)
- Michigan (2008)
- Mississippi (2003)
- Nevada (2006)
- North Carolina (2007)
- Oregon (2004)
- Texas (2002)
- Utah (2006)
- Virginia (2007)
Physician Workforce

- AAMC Policy:
  - 30% increase in medical school enrollment
  - Elimination of the GME Cap

- Richard “Buzz” Cooper, MD:
  - Predicts 200,000+ physician shortage by 2020
  - Advocates 60 new medical schools
  - Advocates 10,000 new residency slots

- Skeptics: David Goodman, MD, Dartmouth
Physician Workforce

- Projections continue to show shortage
  - Absent GME growth FTE physicians drop after 2017 & 123,000 shortage 2025 (E. Salsberg, 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
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In the last 25 years, osteopathic medical school numbers have grown from 14 to 25 colleges, with 3 branch campuses.

The number of osteopathic college graduates have more than doubled to over 3000.

With existing schools’ planned growth the number of DO graduates will grow to over 5000 by 2015.
Osteopathic Medical Students

Class size -- first year and all students

<table>
<thead>
<tr>
<th>Year</th>
<th>First year students</th>
<th>All students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-93</td>
<td>2035</td>
<td>7375</td>
</tr>
<tr>
<td>1993-94</td>
<td>2162</td>
<td>7822</td>
</tr>
<tr>
<td>1994-95</td>
<td>2164</td>
<td>7865</td>
</tr>
<tr>
<td>1995-96</td>
<td>2274</td>
<td>8475</td>
</tr>
<tr>
<td>1996-97</td>
<td>2260</td>
<td>8961</td>
</tr>
<tr>
<td>1997-98</td>
<td>2692</td>
<td>9434</td>
</tr>
<tr>
<td>1998-99</td>
<td>2745</td>
<td>9882</td>
</tr>
<tr>
<td>1999-2000</td>
<td>2848</td>
<td>10388</td>
</tr>
<tr>
<td>2000-01</td>
<td>2927</td>
<td>10817</td>
</tr>
<tr>
<td>2001-02</td>
<td>3043</td>
<td>11101</td>
</tr>
<tr>
<td>2002-03</td>
<td>3079</td>
<td>11432</td>
</tr>
<tr>
<td>2003-04</td>
<td>3308</td>
<td>11857</td>
</tr>
<tr>
<td>2004-05</td>
<td>3721</td>
<td>12525</td>
</tr>
<tr>
<td>2005-06</td>
<td>3743</td>
<td>13406</td>
</tr>
<tr>
<td>2006-07</td>
<td>3868</td>
<td>--------------</td>
</tr>
</tbody>
</table>

Source: Annual Report on Osteopathic Medical Education and AACOMAS data.
Allopathic Medical Students and Colleges

- Allopathic Medical Students (all)
- Allopathic Medical Colleges

Number of students
- Allopathic Medical Students and Colleges

Number of colleges
- Allopathic Medical Students (all)
- Allopathic Medical Colleges

1968 to 2005

- Allopathic Medical Students (all)
- Allopathic Medical Colleges
First-Year Enrollment in Osteopathic Medical Schools
Expected to Surpass 5,000 by 2012

Source: 2007 AACOM Enrollment Survey:
Preliminary Findings
First-Year Enrollment in Osteopathic Medical Schools, Private vs Public (2007-2013)

Source: AACOM 2007 Growth Survey, Tom Levitan, M.Ed.
<table>
<thead>
<tr>
<th>Year</th>
<th>Public colleges</th>
<th>Private colleges</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>881</td>
<td>3409</td>
<td>4290</td>
</tr>
<tr>
<td>2008-09</td>
<td>920</td>
<td>3803</td>
<td>4723</td>
</tr>
<tr>
<td>2009-10</td>
<td>1058</td>
<td>4038</td>
<td>5096</td>
</tr>
<tr>
<td>2010-11</td>
<td>1090</td>
<td>4122</td>
<td>5212</td>
</tr>
<tr>
<td>2011-12</td>
<td>1105</td>
<td>4122</td>
<td>5227</td>
</tr>
<tr>
<td>2012-13</td>
<td>1105</td>
<td>4122</td>
<td>5227</td>
</tr>
</tbody>
</table>

Source: AACOM 2007 Growth Survey, Tom Levitan, M.Ed.
Osteopathic Medical Schools: New Since 2000 or In Active Planning

Source: AACOM, AOA
Number of New Medical Schools Seeking LCME Accreditation and Under Discussion Increased Significantly in the Past Year

Seeking Accreditation

Under Discussion

Source: LCME and Media Reports
Edward Salsberg, AAMC
# 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
2007 AACOM Enrollment Survey: Preliminary Findings
**US Medical School 1st Year Enrollment**

- **2006**
  - Osteopathic: 4055
  - Allopathic: 17361
  - % Osteopathic: 18.93%

- **2007**
  - Osteopathic: 4408
  - Allopathic: 17759
  - % Osteopathic: 19.89%

- **Projected 2012**
  - Osteopathic: 5227
  - Allopathic: 19747
  - % Osteopathic: 20.93%
Osteopathic Students as a Percent of All U.S. Medical Students

Osteopathic medical students
Percentage of all medical students

Osteopathic medical students

% of all medical students
Osteopathic Medical Students

US Medical Students history and projections

- **Total US medical school enrollment**
  - **Osteopathic medical students**
  - **Allopathic medical students**

Yearly enrollments from 1992-93 to 2015-16 are shown, with projections for future years.
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Medical School Applications

Medical School Applications

Total applications (not applicants) to individual colleges.

- Osteopathic
- Allopathic
Medical School Applications

Applications to Osteopathic Medical Schools 1996-2007

Number of applicants

% change from prior year
COM Matriculant Mean MCAT Scores

Source: AACOM, Annual Osteopathic Medical School Questionnaires
COM Matriculant Mean GPAs

Source: AACOM, Annual Osteopathic Medical School Questionnaires
Number of Medical School Applications for each available first year seat

2008 Osteopathic projection is based on an increase of 7% in the application pool. Allopathic data for 2007 and projections for 2008 have not been published by AAMC as of 09/26/2007.
Graduation projections based on 96% of class entering four years prior.
Distribution of Osteopathic Physicians and Schools
Data Source: AOA
Osteopathic Physicians

- Number of DOs has increased 67% since 1990 to ~60,000.
- ~65% of DOs practice in primary care specialties.
  - family practice, internal medicine, obstetrics/gynecology and pediatrics.
- DOs represent nearly 6% of the total U.S. physicians.
  - ~15% of all military physicians.
- ~ 100 million patient visits annually are made to DOs.
## Active DOs by Specialty Category

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine</td>
<td>18,765</td>
<td>47.3</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>3,278</td>
<td>8.3</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>1,663</td>
<td>4.2</td>
</tr>
<tr>
<td>OB/GYN</td>
<td>1,526</td>
<td>3.8</td>
</tr>
<tr>
<td>OMT/OMM</td>
<td>448</td>
<td>1.1</td>
</tr>
<tr>
<td>Non-primary Care</td>
<td>14,028</td>
<td>35.3</td>
</tr>
<tr>
<td>Unknown</td>
<td>359</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>40,067</td>
<td>100.0</td>
</tr>
</tbody>
</table>
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- **Graduate Medical Education**
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GME and Osteopathic Medical School Graduates

Several Tracks to Specialty:

1. PGY 1 Osteopathic Internship, then:
   ■ Osteopathic Residency, or
   ■ ACGME Residency

2. ACGME Residency
24,012 Entered MD and DO Training in 2004

* Total IMGs = 6,013; Distribution among US and Non-US IMGs is estimated.
+ Includes Canadian Graduates (72)
Source: AAMC GMETrack and AOA Master File
The Number of IMGs Entering GME Has Increased More Than 25% Over the Past Decade

<table>
<thead>
<tr>
<th>Year</th>
<th>IMGs Entering GME*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996-1997</td>
<td>5,379</td>
</tr>
<tr>
<td>1997-1998</td>
<td>5,414</td>
</tr>
<tr>
<td>1998-1999</td>
<td>5,371</td>
</tr>
<tr>
<td>1999-2000</td>
<td>5,905</td>
</tr>
<tr>
<td>2000-2001</td>
<td>6,097</td>
</tr>
<tr>
<td>2001-2002</td>
<td>6,170</td>
</tr>
<tr>
<td>2002-2003</td>
<td>6,208</td>
</tr>
<tr>
<td>2003-2004</td>
<td>5,985</td>
</tr>
<tr>
<td>2004-2005</td>
<td>6,338</td>
</tr>
<tr>
<td>2005-2006</td>
<td>6,570</td>
</tr>
<tr>
<td>2006-2007</td>
<td>6,802</td>
</tr>
<tr>
<td>Change 1996 – 2006</td>
<td>+1423 (+26%)</td>
</tr>
</tbody>
</table>

Sources: 1995/96 to 2002/03 data based on Form 246 filings as of Aug. 2004. 2003/04 to 2006/07 data are from AAMC GME Track.

Note: IMG numbers include Fifth Pathway.
**India and Pakistan Continue to be the Largest Sources of IMGs, but the Caribbean Islands Continue to Increase**

<table>
<thead>
<tr>
<th>Country</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>1,442</td>
<td>1,578</td>
<td>1,627</td>
<td>1,621</td>
</tr>
<tr>
<td>Pakistan</td>
<td>475</td>
<td>440</td>
<td>476</td>
<td>392</td>
</tr>
<tr>
<td>Grenada (St. Georges)</td>
<td>348</td>
<td>348</td>
<td>361</td>
<td>375</td>
</tr>
<tr>
<td>Dominica (Ross)</td>
<td>312</td>
<td>323</td>
<td>377</td>
<td>360</td>
</tr>
<tr>
<td>Netherland Antilles</td>
<td>177</td>
<td>227</td>
<td>255</td>
<td>333</td>
</tr>
<tr>
<td>Philippines</td>
<td>245</td>
<td>268</td>
<td>237</td>
<td>275</td>
</tr>
<tr>
<td>China</td>
<td>156</td>
<td>198</td>
<td>209</td>
<td>259</td>
</tr>
<tr>
<td>Nigeria</td>
<td>138</td>
<td>162</td>
<td>144</td>
<td>151</td>
</tr>
<tr>
<td>Iran</td>
<td>92</td>
<td>123</td>
<td>143</td>
<td>140</td>
</tr>
<tr>
<td>Colombia</td>
<td>95</td>
<td>133</td>
<td>129</td>
<td>115</td>
</tr>
<tr>
<td>Mexico</td>
<td>132</td>
<td>159</td>
<td>144</td>
<td>114</td>
</tr>
</tbody>
</table>

Note: IMG numbers do not include Fifth Pathway

Source: AAMC GME Track.
New US IMG Applicants for ECFMG Certification are Approaching 3,000 Per Year

*2007 numbers are projections through 12/31/07 based on applicants as of 10/22/07
Source: ECFMG
US IMGs Certified by ECFMG May Reach 2,000 This Year

Total US IMGs

US Caribbean Graduates

2007 numbers are projections through 12/31/07 based on certifications as of 10/22/07

Source: ECFMG
Caribbean Schools are a Growing Path to American Medicine for Non-US Citizens

Total Applicants from Caribbean

US Applicants from Caribbean

*2007 numbers are projections through 12/31/07 based on applicants as of 10/22/07
Source: ECFMG
- Less than half of DO grads 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>Family Medicine</th>
<th>Matched: 244</th>
<th>44%</th>
</tr>
</thead>
<tbody>
<tr>
<td>All AOA (funded) Positions</td>
<td>Matched: 1353</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>Positions: 2312</td>
<td></td>
</tr>
</tbody>
</table>
Percentage of DO Graduates Participating in and Matching in Osteopathic GME (including scramble)

- 1997: 70.0%
- 1998: 70.0%
- 1999: 68.0%
- 2000: 65.0%
- 2001: 60.0%
- 2002: 59.0%
- 2003: 58.0%
- 2004: 57.0%
- 2005: 56.0%
- 2006: 55.0%
- 2007: 54.0%
- 2008: 53.0%

Two-Thirds 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>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>
<td>(7.1%)</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>512</td>
<td>(10.7%)</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>364</td>
<td>(8.6%)</td>
</tr>
<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

US MD Grads: 68,578 (66.5%)
IMGs: 27,636 (26.8%)
DOs: 6,474 (6.3%)
Canadian: 386 (0.4%)

JAMA, Sep 6, 2006
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 US 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.

Source: Richard Cooper, MD
...and the gap will continue for decades.

Source: Richard Cooper, MD
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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
Determinants of Specialty Choice?

Veysman, B. BMJ 2005;331:1529
Primary Care Practice Plans & Educational Debt

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

Percentage of students planning primary care practice over time.

- Self-reported debt in $1000s.


Data from AAMC and ACEP.
Medical Student Debt Level (2006)

- **DO Graduates**: $154,000 average debt
  - $134,000 Public Schools
  - $160,000 Private Schools

- **MD Graduates**: $113,000 average debt
  - 2/3’s attending public institutions
  - $160,000 Private Schools

Source: AACOM and AAMC 2006 Graduate Survey
Physician income and 1st year tuition -- primary care only
Adjusted to account for inflation

Physician Income & Educational Debt

1995 1999 2003

$0 $20,000 $40,000 $60,000 $80,000 $100,000 $120,000 $140,000 $160,000

$160,000 $140,000 $120,000 $100,000 $80,000 $60,000 $40,000 $20,000

$0

1995 1999 2003

AMERICAN ASSOCIATION OF COLLEGES OF OSTEOPATHIC MEDICINE
1st year tuition as % of primary care physician income
constant $s adjusted for inflation

Physician Income & Educational Debt
Physician income and 1st year tuition -- all physicians
Adjusted to account for inflation

- $180,000
- $160,000
- $140,000
- $120,000
- $100,000
- $80,000
- $60,000
- $40,000
- $20,000

1995
1999
2003

$0

All patient care physician income
1st year tuition & fees -- private osteopathic medical school
Primary Care — Will It Survive?
Thomas Bodenheimer, M.D.
Family Medicine Residency Positions and Number Filled by U.S. Medical School Graduates (Bodenheimer, NEJM: 355, 861-864)
Primary Care Income Far Less than most Other Specialties
(Median Salary by Specialty, in Thousands of Dollars)

- Anesthesiology
- Urology
- Radiology & Diagnostic Radiology
- Orthopedic Surgery
- Otolaryngology
- Pathology
- Dermatology
- Ophthalmology
- General Surgery
- OB/GYN
- Emergency Medicine
- Psychiatry
- General Internal Medicine
- General Pediatrics
- Family Medicine/General Practice

MGMA Physician Compensation Survey 2006
...and Differences Between Primary Care and Other Specialties Is Growing (Median Salary by Specialty in Thousands of Dollars)
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%.

Issues for Osteopathic Medical Education

- Growth: Need and capacity
- Clinical training (volunteer faculty system)
- Development of a research culture
- Study/Validation of OP & P/OMM
- Shifting specialty interest of students
- Will primary care focus survive?
- OMM Specialization
- Resources
- Recognition
Issues for Medical Education

- Educating students for a changing world
- Chronic disease epidemic
- Demographic shifts
- Health care system changes
Issues for Medical Education

- Preserving patient-physician relationship
- Improved quality of care
- Prevention
- Team-based practice
Issues for Medical Education

- Technological advances
- Growing the research and evidence-based culture
- Professionalism
- For-profit medical education
Issues for Medical Education

- Workforce issues:
  - Physician shortages
  - Under represented minorities
  - Geographic distribution
  - Appropriate specialty mix
  - Changing role of other health professions
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