The AAMC Workforce Studies Team

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Overview: State of the Physician Workforce

PHYSICIAN PROJECTIONS

UNDERLYING TRENDS

ACCESS TO CARE
PHYSICIAN PROJECTIONS

UNDERLYING TRENDS

ACCESS TO CARE
The long and winding road…
to physician workforce data

- High School (+4)
- College (+4)
- Medical School (+4)
- Residency (+3 to 5)
- Fellowship (+1 to 3)
- Practice
2016 Update

The Complexities of Physician Supply and Demand: Projections from 2014 to 2025

Final Report

Prepared for:
Association of American Medical Colleges

Supported by:

AAMC

April 2, 2016
What’s new?

• Updated data
• Primary care projections with and without hospitalists
• Extra growth in PA supply incorporated
• New entrants estimates improved (lower)
• First look at Health Care Utilization Equity
Key findings from the updated projections

• Physician demand continues to grow faster than supply

• Projected total physician shortfall of between 61,700 and 94,700 physicians by 2025

• Shortages in both primary and specialty care – with a particularly large shortage in surgical specialties

• Consistent with 2015 projections report
Demand exceeds supply across all scenarios

Total projected physician shortfall range, 2014-2025

Projected physician specialty group shortfall ranges, 2025

- **Primary Care Specialties**: 14,900 (Shortfall) to 35,600 (Surplus)
- **Medical Specialties**: 3,600 (Shortfall) to 10,200 (Shortfall)
- **Surgical Specialties**: 22,200 (Shortfall) to 33,200 (Surplus)
- **Other Specialties**: 22,200 (Shortfall) to 32,600 (Surplus)

Supply
• Pipeline
• Demographics
• Work patterns & workplace trends
Physician workforce has doubled since 1980 and is now 1/3 female.

Number of Physicians Who Worked in Prior Year

- 1980: 346,660
- 1990: 454,539
- 2000: 612,549
- 2010: 709,382

Source: United States Census Bureau
Note: Data for 2010 are a combination of 2009, 2010, 2011 American Community Surveys
U.S. MD enrollment expected to reach 30% increase around 2017

Source: AAMC 2015 Medical School Enrollment Survey Report
UME is growing rapidly

MD: +25% (+4,161)
DO: +130% (+3,969)

Source: AAMC Data Book; AACOMM Reports on Student Enrollment
Supply

- Pipeline
- Demographics
- Work patterns & workplace trends
Percentage of U.S. Medical School Graduates by Sex 1980-2015

Source: AAMC Data Warehouse: Student file, as of 1/7/2016.
Percentage of U.S. Medical School Black or African American Graduates by Sex, 1986-2015

Source: AAMC Data Warehouse: Student data and Applicant and Matriculant file, as of 7/11/2016.
U.S. Medical School Matriculants by Race and Ethnicity, 1980-2015

Source: AAMC Data Warehouse: Applicant and Matriculant file, as of 3/16/2016.
Note: Does not include non-U.S. matriculants, U.S. matriculants who designated “Other” race/ethnicity, U.S. matriculants who designated multiple race/ethnicity categories, or any matriculant for whom race data are not available.
U.S.-trained MD Physicians by Graduation Year, Race and Ethnicity, 1980-2004

Source: AAMC Data Warehouse: Minority Physician Database, AMA Masterfile, and other AAMC data sources, as of 1/22/2014.
Racial/Ethnic Diversity Varies across the Professions (1/2)

Racial/Ethnic Diversity Varies across the Professions (2/2)

Supply

• Pipeline
• Demographics
• Work patterns & workplace trends
Work hours have declined, albeit modestly

Source: United States Census Bureau
Notes: Data for 2010 are a combination of 2009, 2010, 2011 American Community Surveys; Data for 2013 are a combination of 2012, 2013, 2014 American Community Surveys
Retirement scenarios create the two most extreme physician supply projections:

Focus on physician burnout, resilience, and well-being

Well-being in Academic Medicine

“Our well-being, and the well-being of our teams, ultimately affects the health and well-being of our patients and communities.”

Physicians have the highest suicide rate of any profession. So why haven't you heard about it?

Nearly 400 doctors commit suicide each year

10:55 AM - July 16, 2014

To Your Health

Burnout increasing among U.S. doctors

How Being a Doctor Became the Most Miserable Profession

Nine of 10 doctors discourage others from joining the profession, and 300 physicians commit suicide every year. When did it get this bad?

Half Of U.S. Doctors 'Burned Out' As Obamacare Begins Third Year

The number of U.S. physicians who say they are suffering "burnout" has jumped to more than half of doctors as the practice of medicine becomes more complicated and millions more Americans gain health coverage under the Affordable Care Act.

An analysis from researchers at the Mayo Clinic and the American Medical Association say doctors' work-life balance is worsening, with the percentage of physicians who say they are suffering burnout rising to 54% in 2014 from 43% in 2011. The research, published in the December issue of Mayo Clinic Proceedings.
Physician Burnout

• 54.4% of physicians reported at least 1 symptom of burnout (2014), up from 45.5% (2011)

• 81% of physicians report being overextended or at full capacity (2016)

• Burnout especially prevalent among emergency department physicians, urologists, physical medicine & rehabilitation, radiologists, and family physicians

Practicing physicians less satisfied with career in 2016 than in 2011

- I would choose medicine as a career: 69% in 2011, 64% in 2016
- I would choose the same specialty: 61% in 2011, 45% in 2016
- I would choose the same practice setting: 50% in 2011, 25% in 2016

Physician satisfaction with work-life balance is dropping

49% (2011)

41% (2014)

47% of physicians planned to accelerate their retirement plans in response to how health care is changing.

Source: Physician’s Foundation 2014 Survey of America’s Physicians
Demand
• Population
• Practice
U.S. Population Growing & Aging

Source: U.S. Census Bureau, Population Division

Source: NCHS Data Brief No. 219, November 2015.
Note: Aged 20 and over (age-adjusted).
The racial and ethnic composition of the nation is changing.

U.S. population by race and ethnicity, actual and projected

- White: 85% in 1960, 67% in 2005, 47% in 2050
- Hispanic: 4% in 1960, 14% in 2005, 29% in 2050
- Black/African American: 11% in 1960, 13% in 2005, 13% in 2050
- Asian: 1% in 1960, 5% in 2005, 9% in 2050


White, Black and Asian are non-Hispanic; American Indian and Alaskan Native not shown.
Demand
• Population
• Practice
Too soon to tell for ACOs and telehealth

- ACOs tailor their solutions, target high risk patients, expand workers’ roles
- Little evidence that further adoption of telehealth will lead to a need for fewer physicians
Numbers of new PAs and NPs Growing Rapidly

Source: NCCPA; AACN.

NP Graduates
Newly Licensed PAs

Source: NCCPA; AACN.
Two examples

- Surgical specialists
- Primary care specialists
Projected Change in FTE Physician Supply by Specialty Category, 2014 to 2025

Active physicians per 100,000 pop 65+ years, by surgical specialty, US, 2004-2015

Source: AMA Physician Masterfile; US Census Bureau
Growing number of surgeons approaching retirement age

Actual and expected number of active surgeons turning age 65

In 2015, 20% of the surgical physician workforce was 65+ compared to 17% of the non-surgical physician workforce.

Source: AMA Physician Masterfile
Primary Care Shortfall: With & Without PC-Trained Hospitalists

Active physicians per 100,000 pop 65+ years, by primary care specialty, US, 2004-2015

Source: AMA Physician Masterfile; US Census Bureau
Number of primary care physicians approaching retirement age has leveled off

Actual and expected number of active primary care physicians turning age 65

In 2015, 16% of the primary care physician workforce was 65+ compared to 18% of the non-primary care physician workforce.

Source: AMA Physician Masterfile
Production of new physicians not keeping up with aging workforce and population

Source: ACGME, Census, AMA Physician Masterfile; US Census Bureau
Physician Scientists: Combined MD/PhD Program Graduates
Number of combined MD/PhD program graduates growing

Source: AAMC National Outcomes Survey
Note: All survey responders out of training
Women increasingly represented among combined MD/PhD program graduates

DATA REMOVED PENDING PUBLICATION.

Source: AAMC National Outcomes Survey
Note: All survey responders out of training
Minority representation among combined MD/PhD program graduates increasing

Source: AAMC National Outcomes Survey
Note: All survey responders out of training

DATA REMOVED PENDING PUBLICATION.
Current primary workplace of MD/PhD graduates

DATA REMOVED PENDING PUBLICATION.

Source: AAMC National Outcomes Survey
Note: All survey responders out of training
Access
• Utilization Equity
• Barriers
• Community level
Health Care Utilization Equity

• Many face access challenges
• What if barriers disappeared? How much more utilization?
  • People without medical insurance and people living in non-metropolitan areas => utilization patterns equivalent to their insured peers living in metropolitan areas
  • Everyone => utilization patterns equivalent to white insured populations residing in metropolitan areas
Estimated Additional Physicians Needed if U.S. Had Achieved Health Care Utilization Equity in 2014

Scenario 1: Insurance & Metro/Non-metro
40,100 Additional Physicians

Scenario 2: Insurance, Metro/Non-metro, & Race/Ethnicity
96,200 Additional Physicians

Access

- Utilization Equity
- Barriers
- Community level
AAMC collects data on health care access from consumers

Did not need care
- 57%

Needed care last 12 months-always able to get it...

Could not afford
- 4%

Could not get an appt. soon enough
- 1%

Could not find a provider
- 1%

Other
- 1%

Transportation problems
- <1%

Source: AAMC Consumer Survey of Health Care Access

7% of U.S. adults (>17 million people) could not always get care

December 2015
Difficulty Getting Care
(Respondent Race and Ethnicity)

Source: AAMC Consumer Survey of Healthcare Access, Jan-16 and Jun-16
Difficulty Getting Care
(Respondent Sexual Orientation)

Source: AAMC Consumer Survey of Healthcare Access, Jan-16 and Jun-16
Cost is a declining factor among access barriers

Reasons consumers could not get care when needed

Source: AAMC Analysis in Brief, 14(3), March 2016.
1 out of 7 who seek same day care report waiting longer

On your most recent medical care visit how long did you wait between the time you made the appointment and actually saw the provider, based on when you thought you needed to be seen.

<table>
<thead>
<tr>
<th></th>
<th>2011-2013</th>
<th>2014-2016</th>
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<tbody>
<tr>
<td>Seen same day</td>
<td>86%</td>
<td>84%</td>
</tr>
<tr>
<td>Seen 2-3 days</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>Waited &gt;3 days</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>Think need to be seen same day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Think need to be seen 2-3 days</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: AAMC Consumer Survey of Health Care Access
Access to mental and behavioral health is more limited than access to medical care

Among those who needed medication-assisted therapy for substance abuse problems, 3 out of 4 are having trouble finding a provider (2016)

Note: Survey only samples those who report needing medical or mental or behavioral health care in the last 12 months.
Access
- Utilization Equity
- Barriers
- Community level
Access to general surgeons depends on where you are

Total active general surgeons per 100,000 population, 2014

Source: AMA Physician Masterfile; US Census Bureau
This is where health care really happens
The problem is shortage and distribution

• Pervasive barriers, including limited capacity
• Minority groups face greater access and health challenges
• Workforce shortages exist across professions and specialties
• Maldistribution is a growing problem
Projections of local area physician supply reveal a need to look outside the box

Projected local area physician supply, Albuquerque, NM

Source: AAMC Local Area Modeling Project.
Summary

• Shortages projected across specialty groups
• Aging population & aging physician workforce key drivers
• Access to care remains a problem for certain groups
• Local variations reinforce national conclusions
• Need to tackle the social determinants of health care
AAMC Workforce Studies: What We Do

- PROJECTIONS
- RESEARCH
- DATA
- LEADERSHIP
- RESOURCES
- SUPPORT
Physician data reports

State and specialty rankings and data on:
- Physician Supply
- UME/GME
- In-State Retention
2017 Health Workforce Research Conference,
May 3-5, 2017
Arlington, VA