Everybody has a Role in Rural Health Care Delivery

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Defining Rural

No single, universally preferred definition of “rural” serves all policy purposes. To date, more than 15 different definitions of “rural” are used by federal health programs.

Why is “rural” difficult to define?

• Definitions are scale dependent

• Rural is more than just an area, it is also certain cultural, socioeconomic, and healthcare characteristics that are often hard to quantify or not readily defined in existing datasets

• Rural designations can change through time to reflect underlying shifts in population and geographic boundaries
Rural Oklahoma, 2011

## Selected Socioeconomic & Demographic Comparison of Rural, Urban & Mixed Oklahoma

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
<th>Mixed</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>74%</td>
<td>68%</td>
<td>81%</td>
<td>72%</td>
</tr>
<tr>
<td>Black</td>
<td>3%</td>
<td>12%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>Native American</td>
<td>13%</td>
<td>5%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>All Other Races</td>
<td>10%</td>
<td>15%</td>
<td>9%</td>
<td>12%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6%</td>
<td>12%</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td>% of Population 65+ Years Old</td>
<td>15.5%</td>
<td>11.6%</td>
<td>12.6%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Average Median Age (years)</td>
<td>39.6</td>
<td>33.4</td>
<td>37.7</td>
<td>36.2</td>
</tr>
<tr>
<td>% of Population Living in Poverty</td>
<td>18.3%</td>
<td>15.5%</td>
<td>11.4%</td>
<td>16.4%</td>
</tr>
<tr>
<td>Average Median Household Income</td>
<td>$37,666</td>
<td>$45,304</td>
<td>$49,947</td>
<td>$41,861</td>
</tr>
<tr>
<td>% of Population &gt;25 years old without a High School Diploma or G.E.D.</td>
<td>17.7%</td>
<td>13%</td>
<td>13%</td>
<td>15.2%</td>
</tr>
</tbody>
</table>

Data Source: U.S. Census Bureau (2010 – SF1; 2005-2009 ACS)
Problems Facing Rural Healthcare Delivery

Persistent need for primary care providers and other healthcare professionals

Shortage of medical sub-specialties

Existing medical sub-specialties and emergency medical services must cover large geographic areas

Patient transportation and access to care

Large uninsured/underinsured population

Lower revenue base

Aging hospital facilities
Commonwealth Fund Commission

Aiming Higher:
Results from a State Scorecard on Health System Performance

- Oklahoma ranked 50th in terms of total health system performance (Mississippi ranked 51st)
  - Access: 47th
  - Prevention and Treatment: 43rd
  - Avoidable Hospital Use & Costs: 44th
  - Equity: 49th
  - Healthy Lives: 44th

- Vermont ranked #1 overall
  - Access: Massachusetts
  - Prevention and Treatment: Maine
  - Avoidable Hospital Use & Costs: Utah
  - Equity: Maine
  - Health Lives: Minnesota

United Health Foundation
America’s Health Rankings:
A Call to Action for People & Their Communities - 2010 Edition

- Oklahoma ranks 46th in overall health. Up from 49th 2009! (1st – Vermont; 50th – Mississippi)
- Over 25% of the state’s population smokes.
- In 2008, approximately 32.0% of the state’s population was considered obese.
- Oklahoman’s have limited access to primary care physicians: 80.3 primary care physicians per 100,000 population (49th in the nation)
- Oklahoma ranks 48th in the number of deaths attributable to cardiovascular disease (345.10 deaths per 100,000 population).
- A disproportionate number of Oklahomans die prematurely (9,789 years lost per 100,000 population).
- Approximately 16.1% of Oklahomans do not have health insurance.

OSU Center for Rural Health

2001: Created by the Oklahoma Legislature as the “Oklahoma Rural Health Policy and Research Center”

2005: Name changed to “OSU Center for Rural Health”

**Mission**

The Center for Rural Health's mission is to support the Oklahoma State University Center for Health Sciences and its College of Osteopathic Medicine by seeking to improve healthcare in rural Oklahoma through 1) Student education; 2) Residency training; 3) Research; 4) Program applications; 5) Advocacy; and 6) Alliances with others who share its goals.

**Vision**

The Center for Rural Health's vision is to uniquely impact healthcare professionals from the time they are youth through the time they are practicing in rural communities through recruitment, training, and support services, thereby strengthening the broader healthcare delivery systems in rural communities.
Patient Care Physicians by State & Degree Type, 2009 (All Specialties)

Patient Care Physicians in Oklahoma & Neighboring States Per 100,000 Population (All Specialties) 2009

- Colorado: 235
- Kansas: 207
- Missouri: 217
- New Mexico: 214
- Oklahoma: 162
- Texas: 193
- Arkansas: 187

U.S. = 240


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Active Physicians in Oklahoma (All Specialties) 2009

Active Physicians per 10,000 Population
- 23.0 to 39.7
- 17.6 to 22.9
- 10.6 to 15.5
- 5.8 to 9.8
- 1.7 to 5.7

Sources:
- Oklahoma Board of Osteopathic Examiners (2009)
- Oklahoma Board of Medical Licensure and Supervision (2009)
Patient Care Physicians by State & Degree Type, 2009 (Primary Care Specialties)


© 2011 Oklahoma State University
Patient Care Physicians in Oklahoma & Neighboring States Per 100,000 Population (Primary Care) 2009

- **Colorado**: 111
- **Kansas**: 98
- **Missouri**: 84
- **New Mexico**: 108
- **Arkansas**: 96
- **Texas**: 91
- **Oklahoma**: 78

**U.S. = 115**


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Active Primary Care Physicians in Oklahoma
2009

Active Primary Care Physicians per 10,000 Population
- 13.3 to 18.0
- 8.3 to 11.9
- 5.7 to 7.8
- 4.1 to 5.4
- 1.7 to 3.7

Sources
Oklahoma Board of Osteopathic Examiners (2009)
Oklahoma Board of Medical Licensure and Supervision (2009)
Why Focus on Primary Care?

“…a greater emphasis on primary care can be expected to lower the costs of care, improve health through access to more appropriate services, and reduce the inequities in the population’s health.” (pg. 458-459)


“Research studies in countries where patient-physician relationships focus on primary care consistently show that people live longer, populations are healthier, patients are more satisfied with their care and everyone pays less.”

Challenges: Declining Interest in Primary Care

- Urban: 1,701,889 (45.4%)
- Rural: 1,714,515 (45.7%)
- Mixed: 334,947 (8.9%)

Active Primary Care Physicians by Rural, Urban, or Mixed (2009)
- Urban: 2,335 (65%)
- Rural: 1,116 (31%)
- Mixed: 130 (4%)

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Challenges: Declining Interest in Primary Care

OSU College of Osteopathic Medicine Graduates Entering Primary Care Residencies
Graduating Classes 1977 to 2011

Percent of Class Entering a Primary Care Residency

Graduating Class (Year)

Source: Oklahoma State University College of Osteopathic Medicine (2011)
Challenges: Aging Primary Care Physicians

Population Pyramid of All Active Primary Care Physicians in Oklahoma, 2009

- **Urban**
  - Median Age: 48 years
  - 34%

- **Rural**
  - Median Age: 53 years
  - 54%

Source: Oklahoma Board of Osteopathic Examiners, 2009
Oklahoma Board of Medical Licensure & Supervision, 2009
Challenges: Location, Location, Location

Top Considerations of Final Year Residents
As they Evaluate Practice Opportunities

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<tbody>
<tr>
<td>Geographic Location</td>
<td>81%</td>
<td>19%</td>
<td>0%</td>
<td>57%</td>
<td>12%</td>
<td>31%</td>
</tr>
<tr>
<td>Adequate call/coverage/personal time</td>
<td>68%</td>
<td>31%</td>
<td>1%</td>
<td>28%</td>
<td>53%</td>
<td>19%</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>64%</td>
<td>34%</td>
<td>2%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Good financial package</td>
<td>56%</td>
<td>42%</td>
<td>2%</td>
<td>46%</td>
<td>41%</td>
<td>13%</td>
</tr>
<tr>
<td>Proximity to family</td>
<td>52%</td>
<td>35%</td>
<td>13%</td>
<td>30%</td>
<td>37%</td>
<td>33%</td>
</tr>
<tr>
<td>Good medical facilities equipment</td>
<td>44%</td>
<td>51%</td>
<td>5%</td>
<td>23%</td>
<td>43%</td>
<td>34%</td>
</tr>
<tr>
<td>Specialty support</td>
<td>31%</td>
<td>54%</td>
<td>15%</td>
<td>17%</td>
<td>51%</td>
<td>32%</td>
</tr>
<tr>
<td>Low malpractice area</td>
<td>16%</td>
<td>58%</td>
<td>26%</td>
<td>33%</td>
<td>31%</td>
<td>36%</td>
</tr>
<tr>
<td>Education loan forgiveness</td>
<td>12%</td>
<td>38%</td>
<td>50%</td>
<td>42%</td>
<td>24%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Data Source: Merritt Hawkins & Associates
## Challenges: Location, Location, Location

### Preferred Community Size (by population) of Final Year Residents

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<thead>
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</thead>
<tbody>
<tr>
<td>Over 1 million</td>
<td>28%</td>
<td>6%</td>
<td>7%</td>
<td>NA</td>
<td>6%</td>
</tr>
<tr>
<td>500,001 – 1 million</td>
<td>20%</td>
<td>15%</td>
<td>18%</td>
<td>NA</td>
<td>12%</td>
</tr>
<tr>
<td>250,001 – 500,000</td>
<td>21%</td>
<td>20%</td>
<td>26%</td>
<td>NA</td>
<td>25%</td>
</tr>
<tr>
<td>100,001 – 250,000</td>
<td>15%</td>
<td>23%</td>
<td>30%</td>
<td>NA</td>
<td>15%</td>
</tr>
<tr>
<td>50,001 – 100,000</td>
<td>10%</td>
<td>19%</td>
<td>15%</td>
<td>NA</td>
<td>21%</td>
</tr>
<tr>
<td>25,001 – 50,000</td>
<td>2%</td>
<td>13%</td>
<td>4%</td>
<td>NA</td>
<td>13%</td>
</tr>
<tr>
<td>10,001 – 25,000</td>
<td>4%</td>
<td>1%</td>
<td>&lt;1%</td>
<td>NA</td>
<td>8%</td>
</tr>
<tr>
<td>10,000 or less</td>
<td>&gt;1%</td>
<td>3%</td>
<td>0%</td>
<td>NA</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Data Source: Merritt Hawkins & Associates*
Challenges: Educational Debt

Debt Burden of U.S. Medical School Graduates, 2003 to 2011
(Includes all educational debt)

Source: Association of American Medical Colleges

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Challenges: Compensation

2009 Physician Compensation for Selected Specialties

- Orthopedic Surgery: Median $370, Starting $476
- Diagnostic Radiologist: Median $390, Starting $438
- Cardiology: Median $292, Starting $398
- Anesthesiology: Median $325, Starting $367
- Dermatology: Median $238, Starting $351
- Gynecology & Obstetrics: Median $200, Starting $302
- Hospitalist: Median $165, Starting $212
- Internal Medicine: Median $165, Starting $212
- Pediatrics & Adolescent: Median $134, Starting $203
- Family Medicine: Median $145, Starting $198

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What has Oklahoma Done About it?

- Increased medical school class sizes at OSU & OU
- Provided more residency training in rural settings
- Views physicians as an essential part of the rural economy
- Physician Manpower Training Commission (PMTC)
What is the OSU Center for Health Sciences Doing?

- **OSU Rural Health Primary Care Early Admissions Program**
  - 3+1 program with the [**OSU College of Agricultural Sciences**](#) & [**Natural Resources**](#) and the [**OSU College of Arts & Sciences**](#)

- **Student Osteopathic Rural Medical Club (StORM):** 4 years

- **Summer Rural Externship:** 1st year medical students

- **Rural Health Option:** 1st & 2nd year medical students
  - Spring Semester: Perspectives in Rural Health
  - Fall Semester: Rural Medical Care
  - Rural Core Rotation (Enid, Durant & Tahlequah)

- **Required 3rd & 4th year medical student rotations in rural settings**

- **Rural Medical Track** (coming soon)
Rural Clinical Rotation Sites

Legend
- Existing Residency Training Site
- Future Residency Training Site
- Community Hospital Rotation Site
- Emergency Medicine Rotation Site
- Community Clinic Rotation Site
- Rural Clinic Rotation Site

OKAHEC Regions
- Northeast OKAHEC
- Southeast OKAHEC
- Northwest OKAHEC
- Southwest OKAHEC

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Distance from the OSU Medical Center of Active Osteopathic Physicians Practicing in Oklahoma who Completed GME Training at the OSU Medical Center

Number and Cumulative Frequency by Distance Interval
- 0 miles to 12.4 miles = 262 (50%)
- 12.5 miles to 30 miles = 68 (63%)
- 30.1 miles to 39.3 miles = 13 (65%)
- 39.4 miles to 60 miles = 51 (75%)
- 60.1 miles to 120 miles = 92 (93%)
- 120.1 miles to 180 miles = 34 (99%)
- 180.1 miles to 240 miles = 2 (99%)
- 240.1 miles to 300 miles = 1 (99%)
- 300.1 miles to 360 miles = 1 (100%)

Average Distance from OSU Medical Center = 39.3 miles
Median Distance from OSU Medical Center = 12.4 miles

* Data is current as of January 2010, and does not account for individuals who were participants in an OMECO GME as of January 2010.

Data Sources: U.S. Census Bureau (2009); OSU Medical Center (2010); OOA (2009)
Encouraging Rural & Primary Care Practice
Osteopathic Residency and Internship Programs, 2011

Note:
All osteopathic graduate medical education (OGME) programs are part of an Osteopathic Postdoctoral Training Institution (OPTI). Each OPTI is a community-based training consortium comprised of at least one college of osteopathic medicine and one hospital and may include additional hospitals and ambulatory training facilities. The OSU-CHS OGME programs are members of the Osteopathic Medical Education Consortium of Oklahoma (OMECO) OPTI. Aside from those depicted on this map, OGME programs in Pine Bluff, Arkansas and Joplin, Missouri are also members of the OMECO OPTI.
Questions?
Thank You!
For Additional Information

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