Rurality Not the Determinant of Access to Primary Health Care in Mississippi

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Mississippi Center for Health Workforce
Social Science Research Center
Mississippi State University
Three ways to measure health care workforce

1. Supply
2. Demand
3. Access
Supply

Simple: Physician-to-population ratio

Complex: Health Professional Shortage Areas (HPSAs)
(ratio of physicians-to-population) and other factors such as:
1) Poverty rate (all categories)
2) Travel distance/time (all categories)
3) Infant mortality/low birth weight (primary care)
3) Fluoridated water (dental)
3) Pop under 18, over 65, alcohol or substance abuse (mental health)

Note: This “assumes” total access to care for patients.
Demand

Via the National Health Interview Survey.
“Were you unable to obtain health care in the last 12 months?”

Note: The question is relative, does not ask the reasons, and is not available below the state level.
Access

1. Physician Reimbursement Records (who accepted what kind of patient)
   Note: This is a retrospective measure.

2. Telephone survey of Primary Care offices (by type of health care insurance)
Assumption/Hypothesis:

Health insurance *equates to* access to primary care.

and....access is worse in rural places
Methodology

Telephone each primary care physician practice office using G-mail voice-over-internet-protocol (VOIP) to mask calling identity and location.
Poise as a new patient to the area asking for a visit to establish a relationship with the physician
Volunteer health insurance status:
1. Blue Cross & Blue Shield (the 800-lb gorilla)
2. Medicare (automatic insurance for the elderly)
3. Medicaid (means-based insurance)
Descriptives

- There were 5,098 “licensed” physicians in the state of Mississippi
- There are 2,138 active “primary care” physicians in the state
- There are 678 primary care facilities that were used in our study
  - Local government clinics, hospitals and E.R.s were excluded
  - 88 facilities were excluded because they were walk-in facilities
  - 580 offices were successfully contacted
- “Core” Primary Care is comprised of: general practitioner, family practice, and internal medicine. The other two categories are pediatrics and OB/GYN. (Note: HPSA definition of primary care)
FINDINGS:

Private (Blue Cross and Blue Shield of Mississippi)
<table>
<thead>
<tr>
<th>Type of Insurance/Specialty</th>
<th>Accept</th>
<th>Decline</th>
<th>Other*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Primary Care**</td>
<td>75%</td>
<td>8%</td>
<td>17%</td>
</tr>
<tr>
<td>OB/GYN</td>
<td>91%</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>83%</td>
<td>5%</td>
<td>12%</td>
</tr>
<tr>
<td>Total***</td>
<td>78%</td>
<td>7%</td>
<td>16%</td>
</tr>
</tbody>
</table>

* Did not resolve an appointment, required call-back, additional information, valid insurance number

** General practitioner, family practice, internal medicine

*** May not add to 100% due to rounding

Note the “Other” category. We may be significantly understating the denial rate.
Medicare (elderly)
### Types of Insurance/Specialty

**Medicare (elderly)**

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Accept</th>
<th>Decline</th>
<th>Other*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Primary Care**</td>
<td>63%</td>
<td>16%</td>
<td>21%</td>
</tr>
<tr>
<td>OB/GYN</td>
<td>76%</td>
<td>8%</td>
<td>16%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>64%</td>
<td>15%</td>
<td>21%</td>
</tr>
</tbody>
</table>

* Did not resolve an appointment, required call-back, additional information, valid insurance number

** General practitioner, family practice, internal medicine
Medicaid (means-based)
<table>
<thead>
<tr>
<th>Type of Insurance/Specialty</th>
<th>Accept</th>
<th>Decline</th>
<th>Other*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Primary Care**</td>
<td>47%</td>
<td>43%</td>
<td>10%</td>
</tr>
<tr>
<td>OB/GYN</td>
<td>59%</td>
<td>28%</td>
<td>13%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>61%</td>
<td>21%</td>
<td>17%</td>
</tr>
<tr>
<td>Total</td>
<td>50%</td>
<td>38%</td>
<td>12%</td>
</tr>
</tbody>
</table>

* Did not resolve an appointment, required call-back, additional information, valid insurance number

** General practitioner, family practice, internal medicine

Decline may range from 43% to 50%
Number of Residents that Practices Serve in Selected* Cities

*Randomly selected cities
Beale Code Frequencies in MS

B1: Metro 1 million +
B2: Metro area 250k-1 million
B3: Metro area fewer than 250k
B4: Nonmetro urban 20k+ adjacent to a metro
B5: Nonmetro urban 20k+ not adjacent to a metro
B6: Nonmetro urban 2,000-19,999 adjacent to a metro
B7: Nonmetro urban 2,500-19,999 not adjacent to a metro
B8: Nonmetro rural or less than 2,500 adjacent to a metro
B9: Nonmetro rural or less than 2,500 not adjacent to a metro
Primary Care and Counties by Beale Code

% of primary care offices per Beale code
% of counties per Beale code
Percent Not Currently Accepting New Patients

Decline Rate by County Population and Type Insurance

- BC & BS
- Medicare
- Medicaid
The 2 counties in white (DeSoto & Lowndes) are not HPSA physician shortage areas in Mississippi.
Primary care offices in only 1 county (Copiah) did not accept private (BC&BS) insurance. More than three quarters of MS counties (primary care offices) (77%) had zero decline rates of BCBS.
In one county (Copiah) there was zero acceptance of new Medicare patients.
There are 5 counties that were not currently accepting new Medicaid patients. They are (NE to SW) Itawamba, Tallahatchie, Attala, Copiah and Lincoln.
Additional Finding:

Our results may underestimate the percentage of declines. When the unresolved calls are factored in, decline of service could be as high as 57%.
Implications of the findings

Health insurance does NOT equate to access to primary care
Implication #1

A Medicaid expansion will not necessarily provide access to primary care to all. Thus, the impact of expansion will be less. Thus, the non-critical emergency room load will not drop as expected.
Implication #2

Since physician offices are a business, a substantial portion have chosen not to accept certain kinds of insurance. Thus, we need to revisit the payment/reimbursement system.
Using physicians ratios treats all physicians as independent. However, if there are five physicians in a county and they all practice together, a decline of service from one is a decline from all 5 health care providers.
Thank you for your attention

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