Georgia’s General Assembly
House Study Committee on Medical Education

Georgia’s Obstetric Care Shortage

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Georgia Maternal & Infant Health Research Group (GMIHRG)

October 15th, 2014
Outline

• Georgia’s obstetric provider shortage

• Patient impact

• Areas for interventions
  o Obstetrician training, recruitment, and retention
  o CNMs and Obstetric PAs

• Conclusions
Obstetric Care in Georgia

• **Providers:** Ob/Gyns\(^1\)
  - U.S.: 5.42 per 10,000 women aged 15-45 years
  - Georgia: 5.46 per 10,000 women aged 15-45 years

• **Patients:** Women\(^1\)
  - By 2030: U.S. ♀ population will increase by 18%
  - Georgia ♀ population will increase by 25%

• **Rural areas:** Disproportionately affected\(^2\)

• **Ob situation:** Especially grave\(^3-6\)
  - Many Ob/Gyns discontinuing Ob services

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1. ACOG. Georgia Workforce Fact Sheet, 2014.
2. GBPW. *Physician Workforce Core Specialties*, 2008.
Why do Georgia Ob/Gyns discontinue Ob care?

- **Demanding call schedules**
  - Departure of other local obstetricians

- **Unfavorable legal environment**
  - Quash of the malpractice compensation cap
  - Restrictive political climate

- **Low reimbursement rates**
  - 50-60% of Georgia births are Medicaid-funded
  - 37% decline in rates from 2001 to 2011 (when adjusted for inflation)
  - Medicaid now pays ~$1,300 for pre- and perinatal care
    - 50-60% the private reimbursement rate
Ob Care in Rural Georgia

- 43 of the 82 Georgia PCSAs* outside of the Atlanta MSA (52%) have either an overburdening or a complete absence of obstetric providers

* Primary Care Service Area: collection of counties in which >30% of those county residents receive their primary care
Ob Care in Rural Georgia

- 43 of the 82 Georgia PCSAs outside of the Atlanta MSA (52%) have either an overburdening or a complete absence of obstetric providers
  - No obstetricians: 31 (38%)
  - No delivering family practitioners: 73 (89%)
  - No certified nurse midwives: 57 (70%)
Ob Care in Rural Georgia

- 43 of the 82 Georgia PCSAs outside of the Atlanta MSA (52%) have either an overburdening or a complete absence of obstetric providers

  - By 2020, 75% will lack adequate services
Based on national averages, men stop practicing obstetrics at age 52, and women at age 44.
Status of Obstetric Services in Georgia (by PCSA)

Dec. 2011
Preterm Birth in Georgia
1999-2009

Legend
- GA Hospitals
- Georgia Metropolitan Areas
Percent of Preterm Births mean
0.0% - 6.5%
6.6% - 10.4%
10.5% - 12.3%
12.4% - 14.7%
14.8%+

Data Sources:
Census Tracts 2000
GA Core Based Statistical Area 2003
Atlanta Regional Commission 2011
Map Produced April 2013
Are They Related?
### Driving Time and Prematurity

<table>
<thead>
<tr>
<th>Driving Time</th>
<th>Odds Ratio for Preterm Delivery (&lt; 37 weeks), with 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 15 minutes</td>
<td>1.00</td>
</tr>
<tr>
<td>16 – 30 minutes</td>
<td>1.06 (1.01, 1.11)</td>
</tr>
<tr>
<td>31 – 45 minutes</td>
<td>1.09 (1.03, 1.14)</td>
</tr>
<tr>
<td>&gt; 45 minutes</td>
<td>1.53 (1.46, 1.60)</td>
</tr>
</tbody>
</table>

Controlled for maternal age, race/ethnicity, marital status, maternal education, government-assisted payment, maternal residence, birth order, prior poor infant health outcome, and transfer status.

There is a spatial mismatch between a pregnant woman’s risk and her access to services.
Status of Obstetric Services in Georgia (by PCSA)

Dec. 2011
“[From] Preston, it's 30 miles to Americus. If [patients] have cars, they don’t have much gas, and there’s no public transportation. **They don’t come to prenatal care.**”
Moultrie
“We are the only obstetrical practice in town. With one OB and a midwife, we did 550 deliveries last year. Sometimes we see 60 women in a day. 75 to 80 percent of our patients are Medicaid. It’s difficult to recruit physicians of any kind to this area.”
La Grange
“The paperwork kept getting more and more complicated [but] the malpractice insurance rate increase was the clincher. *We stopped OB.*”
Waycross
“There were only 2 OBs in Waycross when I [left] the state. They need 4 to adequately take care of all the women in the community.”
**Georgia Obstetric Provider Workforce Estimates, by County**

**2011 Estimates**

**2020 Projections**

**Obstetric provider workforce estimates are based on average annual deliveries per provider (AADP). 2020 projections assume no provider recruitment.**

- **Adequate**  
  AADP < 144
- **At-Risk**  
  144 ≤ AADP ≤ 166
- **Deficit**  
  AADP > 166
- **No OB Services**
- **Atlanta MSA/No Data**

SOURCES: Georgia Maternal and Infant Health Research Group, phone survey (2011); Georgia Office of Health Indicators for Planning (2011); U.S. Census Bureau, Geography Division (2011); Georgia Board of Physician Workforce (2010).
OB Unit Closures, 2011-2014

- Washington Medical Center OB Unit Closed 4/2014
- Burke Medical Center OB Unit Closed 12/2012
- Appling Health-Care System OB Unit Closed 10/2014
- Cook Medical Center OB Unit Closed 10/2014
Where Do Ob Providers Begin?

- Medical Students
- Ob/Gyn Residents
- Non-MD Providers
Can Medical Education Help?

What is the role of medical education in supplying primary care physicians (PCPs) to shortage areas?
Supplying PCPs for Shortages

• Area of significant research

• Features of programs with a high number selecting a career in *rural primary care*:
  - Many *rural students* in the program
  - Specialized *tracks* for primary care
  - *Longitudinal* primary care experience
  - Required clerkship in *family medicine*
Where Do Ob Providers Begin?

- Medical Students
- Ob/Gyn Residents
- Non-MD Providers
Georgia Ob/Gyn Residents

95 residents: 84.2% response rate (n=80)

- High School: 63% Georgia, 37% Elsewhere
- Medical School: 58% Georgia, 42% Elsewhere
- Female: 91%
- Male: 9%
Residents’ Future Careers

Do you think you will stay in Georgia after residency?

- Yes: 28%
- No: 28%
- Unsure: 44%
Residents’ Future Careers

How likely are you to accept a job in rural Georgia?

<table>
<thead>
<tr>
<th>Option</th>
<th>Number of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely likely</td>
<td>3%</td>
</tr>
<tr>
<td>Likely</td>
<td>22%</td>
</tr>
<tr>
<td>Unlikely</td>
<td>46%</td>
</tr>
<tr>
<td>Extremely unlikely</td>
<td>29%</td>
</tr>
</tbody>
</table>
Strength of Ties

How likely are you to accept a job in rural Georgia?

Number of Residents

- Extremely likely
- Likely
- Unlikely
- Extremely unlikely

Georgia Tie(s)
No Georgia Ties
Changing Minds

How likely are you to accept a job in rural Georgia if a financial incentive is offered?
Financial Incentive Programs

• **Rural Physician Tax Credit**
  o Georgia Department of Revenue
  o $5,000 annually for max. 5 years

• **Physicians for Rural Areas Assistance Program**
  o Georgia Board for Physician Workforce
  o Loan repayment: $25,000 annually, for max. 4 years or $100,000
  o Qualification: County population ≤35,000
  o Major challenge: L&D unit closures
  o Solution: House Bill 998 (Passed during 2013-2014 Legislative Session)
Labor & Delivery Unit Closures
Importance of Intangibles

Residents listing factor as one of three most important (%)

- Lifestyle (call schedule, vacation, free time, etc)
- Proximity to friends/family
- Personal interest in field/subject matter
- Salary
- Proximity to a good job for significant other
- Location
- Benefits of joining an existing group practice
- Responsibility to serve the underserved
- Loan forgiveness
- Personal interest in patient population(s)
- Dedication to scientific inquiry
- Collaboration with other medical professionals
- Malpractice insurance rates
- Religious/moral beliefs
Where Do Ob Providers Begin?

- Medical Students
- Ob/Gyn Residents
- Non-MD Providers
Georgia CNM Students

28 Students: 100% response rate (n=28)

High School
- 75% Georgia
- 25% Elsewhere

Nursing School
- 82% Elsewhere
- 18% Georgia

Female: 96%
Male: 4%
Do you plan to stay in Georgia upon completion of training?

- Yes: 32%
- No: 36%
- Unsure: 32%
CNM Students’ Future Careers

How likely are you to accept a job in a shortage area?

- Extremely likely: 18%
- Likely: 36%
- Unlikely: 46%
- Extremely unlikely: 0%
Strength of Georgia Ties

How likely are you to accept a job in a shortage area?

Number of CNM Students

- Extremely likely
- Likely
- Unlikely
- Extremely unlikely

Georgia Tie(s)

No Georgia Ties
Conclusions

• Georgia has the *highest* maternal mortality and 8\textsuperscript{th} highest infant mortality rate in the United States. We also carry a “C” grade for our prematurity rate.

• Outside of Atlanta, the obstetric provider shortage is *severe and getting worse*; this poor access to care is associated with premature births and may contribute to our poor maternal outcomes.
Recommendations

• Provide funding for medical education and strengthen scholarship programs for Georgia’s pre-medical students
  o Students from rural communities that pursue a medical education are more likely to practice in a rural area after graduation.

• Increase exposure to rural practice during physician training
  o Rural training sites may familiarize medical students and residents with rural practice.
  o Moving clinical rotations and new residencies to underserved areas of Georgia may serve to draw and retain providers in areas of need.
Recommendations

- Increase residency slots for Ob/Gyns. Physicians trained in Georgia are more likely to stay in Georgia and may be more likely to practice in rural areas.
- Many medical students from Georgia leave the state for residency due to a lack of available slots.
- At a minimum, Georgia needs a 6th Ob/Gyn residency program to replace the one lost at Atlanta Medical Center.
Recommendations

• Create and strengthen financial incentives to retain obstetric providers trained in Georgia. Given the debt burden of Ob/Gyn residents, joining a rural practice that serves a predominantly Medicaid population is not economically feasible.

  o Financial incentive programs show significant promise in retaining residents trained in our state.
  o Provide existing programs with continued funding and establish new market stimuli aimed at securing Georgia’s obstetric workforce.
  o Support initiatives such as those passed last year:
    • HB 998 allowed placement of loan repayment scholars in areas of need
    • SB 391 provided a tax incentive for community faculty physicians
Recommendations

- **Continue to support legislation that advances women’s health in Georgia**
  - SB 273 – Established Georgia Maternal Mortality Review Committee

- **Consider the needs of rural communities when developing physician recruitment and retention strategies**
  - Strong financial incentive programs and training local community members are two possible approaches that may attract providers to rural areas.
Recommendations

• Support the development of a new midwifery training program in south Georgia
  
  o Certified nurse midwives may be more likely than other obstetric providers to practice in rural GA.

  o CNMs provide a cost-effective solution to our growing shortage, and consideration should be given towards their role in innovative models of care and reimbursement schemes.
Final Thoughts

• Georgia ranks 50th for maternal deaths in the United States.

• Outside of Atlanta, Georgia has a demonstrated shortage of obstetric providers.

• This shortage is rapidly worsening, as rural hospitals close their Labor & Delivery Units and physicians move their practices to metropolitan areas.

• Increasing the number of ob/gyn residency slots in Georgia will recruit future obstetricians to our state, and may serve to retain Georgia medical graduates most likely to practice in our areas of need.
Acknowledgements

• Partners
  – March of Dimes, Georgia Chapter
  – Georgia Ob/Gyn Society
  – Georgia Department of Public Health
  – Georgia Board for Physician Workforce
  – Emory University

• Advisors
  – Pat Cota, RN, MS (Executive Director of GOGS)
  – Andrew Dott, MD, MPH (Community Ob/Gyn and GOGS Board Member)
  – Roger Rochat, MD (Rollins Global Health Professor)

• Current Researchers
  o Ali Anderson (MPH 2013)
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• Past Researchers
  o Brittany Argotsinger (MPH 2012)
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  o Sylvie Hua (MPH 2012)
  o Ansley Howe (MSN/MPH 2013)
  o Kayla Lavilla (MPH 2012)
  o Hilary Moshman (MPH 2011)
  o Dena Vander Tuig (MD/MPH 2012)
  o Audra Williams (MD/MPH 2013)
  o Abby Yandell (MD/MPH 2013)

• Student Leaders
  o Zoe Julian (MD/MPH Candidate 2015)
  o Meredith Pinto (MPH Candidate 2014)
  o Bridget Spelke (MD Candidate 2015)
  o Adrienne Zertuche, MD, MPH
References

• Caldwell, Collette. Personal Communication to Zoe I Julian. Received on May 31, 2013. E-mail.
• Dott A. Personal communication. September and November, 2011.
• Georgia Board for Physician Workforce. Primary Care Service Area Template Map. Received from Colette Caldwell January 13, 2012.
• Hatchett T. “Georgia Ob/Gyn Society: Georgia Ob/Gyn Workforce.” Pamphlet published May 12, 2010 and received from Pat Cota June, 2010.
References

- Parish, Tiffany. Telephone Interview. 18 JUN 2013.
- Rayburn WF and American Congress of Obstetricians and Gynecologists. **The Obstetrician-Gynecologist Workforce in the United States: Facts, Figures, and Implications, 2011**. Received from Pat Cota.
- U.S. Census Bureau, Geography Division. **2010 TIGER/Line® Shapefiles: Counties (and equivalent), Georgia**. Accessed online January 16, 2012 at www.census.gov.
Thank you!

Questions?