Financial Disclosures

- None
Objectives

At the conclusion of the presentation, the audience should be able to:

- Discuss the **magnitude, origins, and consequences** of Georgia’s rural obstetric care crisis.

- List **strategies for improving** provision of obstetric care in underserved rural areas, including the “four Rs”: recruitment, retention, referral, and reform.

- Describe the **Georgia Maternal and Infant Health Research Group**’s novel and cost-efficient methodology for conducting research, disseminating findings, and motivating change.
Overview

- Georgia’s Obstetric Care Crisis
  - Magnitude
  - Origins
  - Consequences

- Strategies for Improvement
  - Recruitment / Retention / Referral / Reform

- GMIHRG
  - Novel and cost-efficient methodology
  - Translating research into advocacy
Georgia’s Obstetric Care Crisis
Ob Care in Georgia - 2011

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%)

* Primary Care Service Area: collection of counties in which >30% of those county residents receive their primary care.
Status of Obstetric Services in Georgia (by PCSA)

Dec. 2011
Georgia L&D Units

L&D Closures

- Hutcheson Medical Center OB Unit Closed 8/2015
- Chestatee Regional Hosp. OB Unit Closed 4/2013
- Barrow Regional Med. Cen. OB Unit Closed 7/2015
- Burke Medical Center OB Unit Closed 12/2012
- Emanuel Med. Cen. OB Unit Closed 6/2015
- Appling HealthCare System OB Unit Closed 10/2014
- Smith Northview Hospital OB Unit Closed 11/2014
- Cook Medical Center OB Unit Closed 7/2013
45 of the 82 Georgia PCSAs* outside of the Atlanta MSA (55%) have either an overburdening or a complete absence of obstetric providers

- No obstetricians: 36 (44%)
- No delivering family practitioners: 75 (91%)
- No certified nurse midwives: 62 (76%)

* Primary Care Service Area: collection of counties in which >30% of those county residents receive their primary care
Status of Obstetric Services in Georgia
(by PCSA)
Aug. 2016
Georgia’s Ob Care Crisis

2011

2016

[Map showing changes in Ob Care Crisis from 2011 to 2016]
Georgia’s Ob Care Crisis

2011

2016
Georgia’s Ob Care Crisis

2011

2016
Georgia’s Crisis - Origins
Origins of Ob Care Crisis

- Provider Trainees
- Obstetricians
- Birthing Facilities
- Legal Environment
- Financial Realities
Provider Trainee Survey

Ob/Gyn Residents (N=95)
84.2% Response Rate (n=80)

CNM Students (N=28)
100% Response Rate (n=28)
Ob/Gyn Residents

High School
- 63% Georgia
- 37% Elsewhere

Medical School
- 58% Georgia
- 42% Elsewhere

Female: 91%
Male: 9%
CNM Students

High School
- Georgia: 25%
- Elsewhere: 75%

Nursing School
- Georgia: 18%
- Elsewhere: 82%

Female: 96%
Male: 4%
Staying in Georgia

Will you stay in Georgia upon completion of your training?

Ob/Gyn Residents

- Yes: 28%
- No: 28%
- Unsure: 44%

CNM Students

- Yes: 32%
- No: 36%
- Unsure: 32%
How likely are you to practice in one of Georgia’s rural/shortage areas?

**Ob/Gyn Residents**
- Extremely Likely: 3%
- Likely: 22%
- Unlikely: 46%
- Extremely Unlikely: 29%

**CNM Students**
- Extremely Likely: 18%
- Likely: 36%
- Unlikely: 46%
- Extremely Unlikely: 0%
How likely are you to practice in one of Georgia’s rural/shortage areas?

Ob/Gyn Residents

- Likely: Ob > Gyn, Ob < Gyn, No Preference
- Unlikely: p = 0.01

CNM Students

- Likely: Ob > Gyn, Ob < Gyn, No Preference
- Unlikely: p = 0.06
Georgia Ties

How likely are you to practice in one of Georgia’s rural/shortage areas?

Ob/Gyn Residents

- Likely: Georgia Tie(s) - 10, No Georgia Tie(s) - 5
- Unlikely: Georgia Tie(s) - 30, No Georgia Tie(s) - 15

p = 0.13

CNM Students

- Likely: Georgia Tie(s) - 15, No Georgia Tie(s) - 5
- Unlikely: Georgia Tie(s) - 0, No Georgia Tie(s) - 10

p = 0.15
Debt Burden

Ob/Gyn Residents

- ≤$99,999: 25%
- $100,000-199,000: 25%
- ≥$200,000: 50%

CNM Students

- ≤$99,999: 71%
- $100,000-199,000: 25%
- ≥$200,000: 4%
Debt Trends: Residents

Financial Incentives

How likely are you to practice in one of Georgia’s rural/shortage areas?

Financial incentives include loan repayment, tax credits, guaranteed salary, differential pay, support to open own practice, and higher Medicaid reimbursement rates.

Ob/Gyn Residents

CNM Students

p < 0.001
How does fetal pain legislation influence your likelihood of staying in Georgia upon completion of training?

**Ob/Gyn Residents**
- More Likely to Stay: 2%
- Less Likely to Stay: 46%
- No Influence: 53%

**CNM Students**
- More Likely to Stay: 11%
- Less Likely to Stay: 32%
- No Influence: 57%

p = 0.09

p = 0.04
Origins of Ob Care Crisis

- Provider Trainees
- Obstetricians
- Birthing Facilities
- Legal Environment
- Financial Realities
Obstetricians

- Emphasis on quality of life
  - Concerns about call schedules

- Early retirement
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.”
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.”
On average, men stop practicing obstetrics at age 52, and women at age 44.*

* Rayburn WF and ACOG. The Ob/Gyn Workforce in the United States, 2011.
Birthing Facility Closures

- Rural Hospitals
- Labor & Delivery Units
Waycross

“In OB, you don’t want to be too far from where you need to be.”
Origins of Ob Care Crisis

- Provider Trainees
- Obstetricians
- Birthing Facilities
- Legal Environment
- Financial Realities
Legal Environment

- Malpractice suit compensation
  - Quash of cap

- Restrictive political climate
  - E.g. CNM scope of practice
  - E.g. abortion legislation
Financial Realities

- Malpractice insurance rates
  - Retirement of obstetricians
  - Family practitioners avoiding maternity care

- Medicaid reimbursement
La Grange
“The paperwork kept getting more and more complicated [but] the malpractice insurance rate increase was the clincher. We stopped OB.”
“In rural Georgia, 70-80% of patients are Medicaid, and with today’s reimbursement rates, no matter how smart you run your business, it’s hard to get by.”
Georgia’s Crisis
- Consequences
Infant mortality: 9th

Maternal mortality: 2nd

March of Dimes, Premature Birth: 1

Population Institute, Reproductive Health: 2

Perinatal Periods of Risk

PPOR helps communities move from data to action

- Maternal Health & Prematurity
- Maternal Care
- Newborn Care
- Infant Health
- Chronic disease
- Health Behaviors
- Perinatal Care etc.
- Prenatal Care
- High Risk Referral
- Obstetric Care etc.
- Perinatal Management
- Neonatal Care Pediatric Surgery etc.
- Sleep-related deaths
- Injuries
- Infections etc.

Rural pregnant women are at increased risk of:

- Late initiation of prenatal care\(^1\)
- Hospitalization for pregnancy complications\(^1\)
- Home birth\(^1\)
- Low birth weight\(^2\)
- Neonatal mortality\(^2\)

“[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.”
Preterm Delivery in Georgia
1999-2009
## Driving Time and Preterm Delivery: Non-Metropolitan Georgia, 1999-2009

<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.
24% of pregnant women drove >45 minutes to access ob services

Women that drove >45 minutes were 1.5x more likely to deliver preterm than women that drove <15 minutes

Average drive times
- Woman that delivered preterm: 40 minutes
- Woman that delivered at term: 32 minutes
Strategies for Improvement
“The Four Rs”

- Recruitment
- Retention
- Referral
- Reform
Recruitment

**Recent Successes**
- Financial incentive programs
- New residency training program
- Full funding for existing residencies

**Ongoing Challenges**
- Provider trainee applicant selection
- Additional CNM training program
Financial Incentives

- **Rural Physician Tax Credit**
  - Georgia Department of Revenue
  - Tax credit: $5,000 annually for max. 5 years

- **Physicians for Rural Areas Assistance Program**
  - Georgia Board for Physician Workforce
  - Loan repayment: $25,000 annually, for max. 4 years or $100,000

1. Georgia Dept. of Revenue. 560-7-8-.20: Rural Physician Credit, 2012.
Physicians for Rural Areas Assistance Program (PRAAP)
HB 998 permits Georgia Board for Physician Workforce to adapt qualification criteria for PRAAP

Program can now include counties that have populations >35,000 but are still in need of obstetric providers

Passed March 2014

Signed into law April 2014
Residency Training

- Opening of new program
  - Marietta, GA
  - First intern class began July 2016

- FULL funding for all programs (2019)
  - $828,042 for 54 ob/gyn residency slots

Recruitment

Recent Successes
- Financial incentive programs
- New residency training program
- Full funding for existing residencies

Ongoing Challenges
- Provider trainee applicant selection
- Additional CNM training program
South Georgia CNM Program

Emory partners with Valdosta State to train nurse-midwives in rural Georgia

By Sylvia Wrobel | Emory Nursing | May 26, 2016
“The Four Rs”

- Recruitment
- Retention
- Referral
- Reform
Retention

**Recent Successes**
- Ob/gyn reentry program
- Increased Medicaid reimbursement

**Ongoing Challenges**
- Malpractice insurance rate negotiations
- Medical liability reform
- Abortion legislation
Ob/Gyn Reentry Program
Medicaid Reimbursement (2015)

- First increase for obstetricians in 14 years
- Targeted prenatal and peripartum care

<table>
<thead>
<tr>
<th>Procedure Code</th>
<th>Fee Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>59400 – Obstetric Care</td>
<td>$330</td>
</tr>
<tr>
<td>59425 – Antepartum Care Only</td>
<td>$180</td>
</tr>
<tr>
<td>59426 – Antepartum Care Only</td>
<td>$350</td>
</tr>
<tr>
<td>59510 – Cesarean Delivery</td>
<td>$220</td>
</tr>
<tr>
<td>59610 – VBAC Delivery</td>
<td>$360</td>
</tr>
<tr>
<td>59618 – Attempted VBAC Delivery</td>
<td>$260</td>
</tr>
</tbody>
</table>

Patterson A. GOGS Newsletter, April 2015.
Medicaid Reimbursement (2016)

- Increase for both obstetricians and PCPs

- Primary care and “sick visit” E&M codes
  - Codes included: 99212, 99213, 99214, 99215
  - Reimbursed at 65% → 100% of Medicare rates

- Rural deliveries
  - Stipend of $250 if county population <35,000
Medicaid Reimbursement (2017)

<table>
<thead>
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<th>Procedure Code</th>
<th>Additional Fee Increase</th>
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<tbody>
<tr>
<td>59400 – Obstetric Care</td>
<td>$532</td>
</tr>
<tr>
<td>59510 – Cesarean Delivery</td>
<td>$765</td>
</tr>
<tr>
<td>59610 – VBAC Delivery</td>
<td>$593</td>
</tr>
<tr>
<td>59618 – Attempted VBAC Delivery</td>
<td>$569</td>
</tr>
</tbody>
</table>

- Rural deliveries
  - Stipend of $500 if county population <35,000

Toledo A. GOGS Newsletter, April 2017.
Retention

Recent Successes
- Ob/gyn reentry program
- Increased Medicaid reimbursement

Ongoing Challenges
- Malpractice insurance rate negotiations
- Medical liability reform
- Abortion legislation
Fetal Pain Legislation (2012)

- **House Bill 954**
  - Bans pregnancy terminations after 20 weeks “embryonic age” (sic)
  - Georgia Ob/Gyn Society advocated at the Capitol
  - Medically futile pregnancy amendment nearly stalled the bill

- Passed April 2012 (final congressional hour)
- Enjoined December 2012
- Enforced October 2015 (without notification)
Fetal Heartbeat Bill (2019)

- **House Bill 481**
  - Bans pregnancy terminations after fetal “heartbeat” detected

- Passed April 2019
- Enjoined October 2019
- Stay tuned …
“The Four Rs”

- Recruitment
- Retention
- Referral
- Reform
Referral

**Recent Successes**
- Perinatal Regions and Centers
- Levels of Care
- Maternal Mortality Review Committee

**Ongoing Challenges**
- Maternal morbidity and mortality
- Telemedicine
Georgia Perinatal Regions and Centers

Perinatal Regionalization

- **House Bill 909** (2018)
- Levels of maternal / neonatal care
  - Assessment and designation of all Georgia birthing facilities
- Risk-appropriate care and appropriate referral
- Preservation of geographically critical L&D units

There were 64 maternal deaths for every 100,000 live births. Of the 250 maternal deaths reviewed, 101 were determined to be pregnancy-related deaths. 60% of the pregnancy-related deaths were preventable. There were 26 pregnancy-related deaths for every 100,000 births.
Referral

Recent Successes
- Perinatal Regions and Centers
- Levels of Care
- Maternal Mortality Review Committee

Ongoing Challenges
- Maternal morbidity and mortality
- Telemedicine
“The Four Rs”

- Recruitment
- Retention
- Referral

**Reform**: major systems overhaul?
Georgia Maternal & Infant Health Research Group

- Novel and cost-efficient methodology
- Translation of research into advocacy
Georgia Maternal and Infant Health Research Group (GMIHRG): Mobilizing Allied Health Students and Community Partners to Put Data into Action

Adrienne D. Zertuche1,2,3 · Bridget Spelke2 · Zoë Julian2,3 · Meredith Pinto3 · Roger Rochat3

April 2016
GMIHRG members—with diverse expertise and a common commitment to improving maternal and infant health in Georgia—endeavor to:

(a) Illustrate the volume and distribution of obstetric care providers in Georgia,
(b) Understand the reasons for and consequences of Georgia’s hypothesized provider maldistribution, and
(c) Create data-driven reports that motivate statewide support, guide stakeholder decision-making, and outline potential policy and programming solutions to the state’s challenges.

All GMIHRG work is conducted in accordance with prevailing ethical principles and, when appropriate, reviewed by an Institutional Review Board.
Mentorship

A. Dott, MD, MPH

Pat Cota, RN, MS

Roger Rochat, MD
Since 2010, GMIHRG has attracted 41 research assistants from Emory University’s graduate allied health programs; recruitment occurred mainly via school-sponsored activity fairs, reproductive-health-related student interest group meetings, emailed flyers, and word-of-mouth. GMIHRG’s student members are passionate about maternal and infant health issues in Georgia and work on a self-motivated basis. Some receive stipends or use GMIHRG’s projects to satisfy degree requirements; however, many have participated without remuneration or academic recognition, simply to gain practical experience in applied public health research and data-driven advocacy efforts.

21 Master of Public Health (MPH) Candidates
6 Doctor of Medicine (MD) Candidates
3 Bachelor of Science in Nursing (BSN) Candidates
2 Certified Nurse Midwife (CNM) Candidates
7 MD/MPH Dual-Degree Candidates
2 Master of Science in Nursing (MSN)/MPH Dual-Degree Candidates
Partnership
Adrienne DeMarais Zertuche '07C 12MD/MPH knew with a strong conviction that she wanted to be an obstetrician and gynecologist. She liked the opportunity of having lifelong relationships with her patients and caring for them during the special time of pregnancy and birth. Now, as a medical resident at Emory, she can fully experience the varied work in her specialty. But before she graduated last spring, she learned an early lesson in how politics can affect how she practices medicine.

When DeMarais Zertuche was on her way to earning
Conclusions

- Georgia’s rural obstetric care crisis is severe and worsening

- Provision of obstetric services in underserved areas may be improved via the “four Rs”: recruitment, retention, referral, and reform

- GMIHRG has used its findings to inform state organizations, motivate programming initiatives, and champion policy change

- For states with large rural and/or underserved areas, there may be value in exploring Georgia’s cost-efficient translation of research into advocacy
There is always an easy solution to every human problem – neat, plausible, and wrong.

H.L. Mencken
I have not failed 10,000 times. 
I have not failed once. 
I have succeeded in proving that 
those 10,000 ways will not work. 

When I have eliminated 
the ways that will not work, 
I will find the way that will work. 

Thomas Edison
Comments or Questions?

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