Maternal and Child Health and the U.S. Drug Crisis:

Data and Resources from the Rural Health Research Gateway

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Today's Presentation

- All data presented today come from the work of the Rural Health Research Centers, funded by the Federal Office of Rural Health Policy
- These data come from more than two dozen different policy briefs
- Outline:
  - Recent rural data and trends around opioid use/misuse
  - Recent rural data and trends around women’s healthcare utilization and health status
  - Rural data on rural maternal health and access
Rural Opioid Use and Treatment Availability

• Rates of OUDs continue to rise in rural (non-metropolitan) and urban (metropolitan) communities alike

• 2008-13, 4.7% of U.S. residents ages 12 and older reported using non-medical opioids in the past year. Mean age at first use was 23
  • This did not vary between rural and urban communities

• Important to identify groups within rural communities at greater risk of OUD for program development, prevention, and intervention

Rural Opioid Use

• 42.5% of rural opioid users had ever been arrested compared to 36.1% of urban

• 10.6% of rural opioid users had ever been on probation compared to 8.2% of urban

Among those who had used opioids, rural were more likely than urban to be:

• Uninsured
• Low-income
• In poor health
• Between ages 12-19
Rural Opioid Use

Among rural residents, those who had used opioids in the past year were more likely than rural residents who had not used opioids in the last year to:

- Be under the age of 19
- Hold less than a high school education
- Be unmarried
- Lower-income (less than $20,000)
- Be Uninsured
Rural OUD Treatment

- 26.2% of urban counties were without a waivered provider in 2016 compared to 60.1% of rural counties
- A majority of waivered providers (91.2%) are located in urban counties
- Of the 1,124 rural physicians with DEA DATA waivers who were surveyed in 2016, only 60% were current prescribers accepting new patients
Rural Women’s Healthcare

• A significantly smaller proportion of rural women reported receiving a cholesterol check (68%) compared to urban women (72%)
• Rural women ages 40-74 had significantly lower odds of receiving a mammogram in the past year compared to urban women in that age group
• Compared to urban women, rural women had significantly lower odds of ever being vaccinated against HPV

Rural Women’s Healthcare

• A significantly greater proportion of rural women were defined as obese (41%) compared to urban (32%%)
• A smaller proportion of rural women reported their health status as “Excellent/Very Good” (51%) compared to urban women (61%)
• Rural women ages 40-74 had significantly lower odds of receiving a mammogram in the past year
• Compared to urban women, rural women had significantly lower odds of ever being vaccinated against HPV
• Greater proportions of rural women use tobacco than urban
Maternal Substance Use

- 2008 through 2013, rural mothers were significantly more likely to smoke than urban
  - 26% indicated past-month daily smoking compared to 12% of urban mothers
- 7% of rural pregnant women reported non-medical opioid use compared to 5% of urban
- Having a high school education or less increased the odds of opioid use among rural pregnant women
- Other substance use and diagnosis of anxiety or depression increased the odds of opioid use for urban and rural pregnant women

![Figure 2: Prevalence of Maternal OUD and Infant NAS among Rural Women by Hospital Type](image-url)
Rural Obstetric Services

Between 2004 and 2014, 179 rural counties lost hospital-based obstetric (OB) services. By 2014:

- 54% of rural counties lacked hospital-based OB services (up from 45% in 2004)
- Only 30% of rural noncore counties had in-county, hospital-based OB care compared to 78% of micropolitan counties
- More than half of rural counties had no hospital-based OB services
- The most rural areas (noncore counties) had fewer hospitals providing OB care and experienced the greatest reduction in services

Rural Obstetric Services: State Variability

78% of rural counties in Florida (78%) reported no in-county hospital OB services compared to only 9% of rural counties in Vermont (2014).

Exhibit 3 Hospital obstetric services in US counties, 2004–14

https://doi.org/10.1377/hlthaff.2017.0338
No Hospital-Based OB Services

Counties with greater odds of having no hospital-based OB services in 2014 were those with:

- Fewer OBs per women of reproductive age
- Fewer family physicians (FP) per capita
- Lower birthrates
- A higher percentage of non-Hispanic Black women of reproductive age
- Lower median household incomes
- More restrictive Medicaid income eligibility thresholds

Rural OB Unit Closures

Factors associated with a rural OB unit closure included:

- Limited supply of OBs and/or FPs
- Private hospital ownership
- Located in a lower income community
- Smaller hospital size

Rural OB unit closures were not related to:

- System affiliation
- Distance to nearest hospital providing OB services
- Proportion of women reporting Medicaid as primary payer
Rural OB Workforce

- OB and family physician (FP) workforce shortages
- Smaller rural hospitals rely more heavily on FPs to provide OB care

2013-2014 survey of rural hospitals providing OB services in 9 states found:

- 77% had obstetricians attending deliveries
- 55.3% reported FPs doing deliveries
- 23.4% relied on general surgeons to perform cesarean deliveries
- 31.6% had certified nurse midwives (CNMs) attend deliveries

Figure 2. Percentage of Rural Hospitals by Type(s) of Clinicians Attending Deliveries, 2013-14

OB: Obstetrician
CNM: Certified Nurse Midwife
FP: Family Physician
GS: General Surgeon
Impact of Limited OB Services

Compared to rural counties with continual OB services, loss of services in rural counties not adjacent to urban areas was associated with significant increases in:

- Out of hospital births
- Births in a hospital without an OB unit
- Preterm births

Loss of hospital-based OB services among rural counties that were adjacent to urban areas was associated with low prenatal care use and an increase in births in hospitals without OB services although this gap declined over time.

Rural Health Research Gateway Recaps

- Opioid Use and Treatment Availability
- State of Rural Women’s Healthcare Utilization and Health Indicators
- Rural Obstetric Services: Access, Workforce, and Impact

https://www.ruralhealthresearch.org/recaps
Opioid Use and Treatment Availability

3. WWAMI Rural Health Research Center (2017). Changes in the supply of physicians with a DEA DATA waiver to prescribe buprenorphine for opioid use disorder, ruralhealthresearch.org/publications/1113.

Rural Obstetric Services: Access, Workforce, and Impact

7. MN RHRC (2014). The obstetric care workforce in critical access hospitals (CAHs) and rural non-CAHs, ruralhealthresearch.org/publications/944.
State of Rural Women’s Healthcare Utilization and Health Indicators

Maternal health

Research Findings
View publications, including policy briefs, working papers, and journal publications, on this topic:
- Research Products: (10)
- Journal Articles: (24)

Projects on this Topic
Learn more about the research questions guiding each study, the lead researcher for each, and when the Research Center anticipates releasing completed product(s) under each project.

The Centers have 3 research projects currently underway to explore this issue. In the past, 13 research projects have been completed on this topic.

Substance use and treatment

Research Findings
View publications, including policy briefs, working papers, and journal publications, on this topic:
- Research Products: (10)
- Journal Articles: (12)

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The Centers have 3 research projects currently underway to explore this issue. In the past, 13 research projects have been completed on this topic.
For more than 30 years, the Rural Health Research Centers have been conducting policy-relevant research on healthcare in rural areas and providing a voice for rural communities in the policy process.

The Rural Health Research Gateway ensures this research lands in the hands of our rural leaders.

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