Opportunities To Improve Maternal and Infant Health In Rural Areas

2023 Arizona State Office of Rural Health Webinar for National Rural Health Day

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National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)
Centers for Disease Control and Prevention (CDC)
Disclosures

I, Dr. Ada Dieke, have no relationships with any commercial interests that would represent a conflict of interest with the presentation that follows.

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Where you live, can determine your health.
Outline

• Disparities In Rural Health Outcomes
• Access to Care Challenges
• DRH Opportunities to Improve Rural Health Outcomes – Data
• DRH Opportunities to Improve Rural Health Outcomes – Programs
• CDC Workforce Development Opportunities
# Federal Definition Variation for Rural

<table>
<thead>
<tr>
<th>Federal Agency</th>
<th>Rural Definition</th>
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<tr>
<td><strong>U.S. Census Bureau</strong></td>
<td>• Any area that is not urban</td>
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| **Human Resources Services Agency (HRSA)**          | • All non-metro counties  
• All Metro census tracts with Rural-Urban Commuting Area Codes (RUCA) 4-10  
• Large area Metro Census Tracts of at least 400 sq. miles or population density of <35 per sq. mile with RUCA code 2-3  
• Outlying Metro Counties without an Urbanized Area |
| **U.S. Department of Agriculture’s (USDA)**         | • RUCA Codes 4 –6 Micropolitan, 7-9 Small Town, 10-Rural  
• Created using U.S. Census tract data                                                               |
| **Office of Management and Budget (OMB)**           | • Micro area (Urban core of 10,000-49,999 people)  
• Counties outside of Metro or Micro Areas                                                            |

**Sources:**  
Compared with Urban Areas, Those in Rural Areas:

- Have More Space
- Fewer people
- Scenic Landscapes
- People have Common Sense of Community or sense of solidarity

Sources: 1. CDC Office of Rural Health webpage  2. https://newsinhealth.nih.gov/2022/03/health-rural-america
Race and Ethnicity of Rural Residents across America

Source: https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=99538
15% of all Americans live in rural areas.

Rural Americans are at greater risk of death from 5 leading causes than urban Americans:
- Heart Disease
- Cancer
- Unintentional Injury
- Chronic Lower Respiratory Disease
- Stroke
Infant mortality rates, by urbanization level: United States, 2014

Pregnancy-Related Deaths: The Numbers

CDC’s Division of Reproductive Health (DRH) is committed to fully understanding and addressing the tragedy of pregnancy-related deaths.

84%
About 84% of pregnancy-related deaths were determined by Maternal Mortality Review Committees in 36 states, to be preventable.**

2-4X
Considerable racial-ethnic disparities exist, with non-Hispanic Native Hawaiian and Pacific Islander, Black, and American Indian & Alaskan Native populations in the U.S. 2-4 times more likely to die from pregnancy-related complications than non-Hispanic White women.*

About 84% of pregnancy-related deaths were determined by Maternal Mortality Review Committees in 36 states, to be preventable.**

* https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/data-mmrc.html
** https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/data-mmrc.html
Pregnancy-Related Mortality Disparities With Increasing Rurality

Pregnancy-Related Mortality Ratios by Urban-Rural Classifications: 2017-2019

- Large central metro: 15.9
- Large fringe metro: 14
- Medium metro: 17
- Small metro: 18.6
- Micropolitan: 21.8
- Noncore: 26.1

Source: Pregnancy Mortality Surveillance System | Maternal and Infant Health | CDC
Access To Care Challenges

Transportation
Access To Care Challenges- Continued

Geographic Access

American Indian or Alaska Native and White, Non-Hispanic women had limited access to critical care obstetrics

Access To Care Challenges - Continued

Closure of Rural Hospitals with Obstetric Care

2004

2018

# Rural Hospitals with Obstetrics Declined in Rural Counties with majority Black residents

Physician Shortages

Hospital Closures Source: Maternal Health: Availability of Hospital-Based Obstetric Care in Rural Areas | U.S. GAO
OPPORTUNITIES TO IMPROVE RURAL HEALTH-DATA
Pregnancy Risk Assessment Monitoring System (PRAMS)

- Established in 1987, population-based surveillance system
- Self-reported maternal behaviors and experiences around time of pregnancy
- Supplements birth certificate information
- Jurisdiction-specific and near-national estimates

Source: https://www.cdc.gov/prams
PRAMS Surveillance: Current Funding Cycle, 2021-2025

- 50 jurisdictions
  - 46 states
  - 4 cities/territories
    - District of Columbia
    - New York City
    - Puerto Rico
    - Commonwealth of Northern Mariana Islands

Current PRAMS site
Not currently PRAMS site
New Indicators in Phase 9 CORE Questionnaire

- Maternal disability
- Maternal warning signs
- Blood pressure monitoring
- Anxiety
- E-cigarette use
- Stressors
- Vaccinations (e.g., COVID-19)
- SDOH (specific indicators discussed later in presentation)
SDOH Indicators in Phase 9

- New SDOH Indicators added to **Core**
  - Racism and Discrimination
  - Access to Transportation
  - Food Security
  - Housing Stability
  - Incarceration
  - Employment

- New SDOH Indicators added to **Standard**
  - Health Care Access and Quality
  - Health Literacy
  - Food Security
  - Housing Stability
  - Poverty
  - Social Support
  - Adverse / Positive Childhood Experiences
  - Racism and Discrimination
What Else is CDC Doing to get better data?
Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) Program

- Supports jurisdictions to coordinate and manage Maternal Mortality Review Committees (MMRCs)

MMRCs are multidisciplinary committees

- Convenes clinical and non-clinical experts at the state or local level to review deaths that occur within a year of the end of pregnancy

MMRCs help inform prevention

- Facilitates an understanding of the medical and non-medical drivers of maternal mortality to inform prioritization of interventions that effectively reduce pregnancy-related deaths and the associated disparities

Source: https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/index.html
Maternal Mortality Review Information Application (MMRIA)

- Data system designed to facilitate MMRC functions through a common data language
- CDC, in partnership with users from the committees and other subject matter experts, developed the system for MMRC use

Supports MMRCs to look at the social and community factors that put a woman’s life and her death into context by looking at community levels of:

- Housing instability
- Discrimination
- Violence
- Unemployment
- Availability of transportation
- Availability of care providers and services
- Segregation

Source: https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/index.html#maternal-mortality-review
MATERNAL AND CHILD HEALTH (MCH) EPIDEMIOLOGY PROGRAM

- Develops MCH Epidemiology Leaders
- Assigns Epidemiologists and Fellows at state, local, and/or tribal levels
- Embedded in health department to support Epidemiologic Research and Scientific Information for MCH

Source: https://www.cdc.gov/reproductivehealth/mchepi/index.htm
OPPORTUNITIES TO IMPROVE RURAL HEALTH-PROGRAM
Perinatal Quality Collaboratives (PQCs)

State or multi-state networks of multidisciplinary teams working to improve population-level maternal and infant health care and outcomes statewide

- Advance evidence-based clinical practices and processes using quality improvement (QI) principles
- Convene and collaborate with diverse representatives (clinical teams, experts, partners, patients, families) to address gaps and reduce variation in care and outcomes

Source: State Perinatal Quality Collaboratives | Perinatal | Reproductive Health | CDC
• **Colorado Perinatal Care Quality Collaborative (CPCQC)**
  • Connects rural and frontier hospitals to community and statewide resources
    • Supported the virtual "Rural Maternal Behavioral Health Open House“
    • Connected hospitals with state-funded Peer Recovery Navigators and the Regional Health Connectors
CDC LOCATe®

- Created based on need identified by states working in risk-appropriate care, in partnership with ACOG/SMFM and AAP
- Completed on web-based platforms
- Produces standardized maternal and neonatal level of care assessments for birth facilities
- Aligns with guidelines\(^1,2,3\) published by ACOG/SMFM and AAP

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3 AAP Committee on Fetus and Newborn and ACOG Committee on Obstetric Practice (2017). *Guidelines for Perinatal Care, 8th Ed.*
Bringing the Pieces Together…
Hear Her: A National Communication Campaign to Address Maternal Mortality

NAME
CDC Division of Reproductive Health
The Hear Her campaign seeks to:

- raise awareness of **urgent maternal warning signs** during and within the year after pregnancy, and
- encourage support systems and healthcare professionals of pregnant and postpartum people to **really listen** when they express concerns.

The Hear Her campaign’s **priority audiences** are:

- Pregnant and postpartum people
- The people who support them
- Healthcare professionals
Campaign Resources

- Website in English and Spanish
- Microsites and content syndication
- Video testimonials
- Printable resources (some in more than 25 languages)
  - Conversation guides/palm cards
  - Urgent maternal warning signs poster
- Quiz on Urgent Maternal Warning Signs
- Digital graphics/media ads
- Social media toolkit
- Hear Her Facebook Page
- Public Service Announcements
- Matte Articles

For questions about the campaign, email HearHer@cdc.gov
Local Implementation Examples
Here are our respectful care commitments to every patient

We commit to...

1. Treating you with dignity and respect throughout your hospital stay
2. Introducing ourselves and our role on your care team to you and your support persons upon entering the room
3. Learning your goals for delivery and postpartum: What is important to you for labor and birth? What are your concerns regarding your birth experience? How can we best support you?
4. Working to understand you, your background, your home life and your health history so we can make sure you receive the care you need during your birth and recovery
5. Communicating effectively across your health care team to ensure the best care for you
6. Partnering with you for all decisions so that you can make choices that are right for you
7. Practicing “active listening”—to ensure that you, and your support persons are heard
8. Valuing personal boundaries and respecting your dignity and modesty at all times, including asking your permission before entering a room or touching you
9. Recognizing your prior experiences with healthcare may affect how you feel during your birth, we will strive at all times to provide safe, equitable and respectful care
10. Making sure you are discharged after delivery with an understanding of postpartum warning signs, where to call with concerns, and with postpartum follow-up care visits arranged
11. Ensuring you are discharged with the skills, support and resources to care for yourself and your baby
12. Protecting your privacy and keeping your medical information confidential
13. Being ready to hear any concerns or ways that we can improve your care

What does it mean to give and receive respectful care during labor and delivery?

Maternal care teams throughout Illinois are coming together to address inequalities in healthcare, and to improve birth experiences for all patients.

We are committed to providing you safe and respectful care. Respectful care ensures that patients receive patient-centered care, feel respected and listened to, and the individual needs and preferences of all birthing people are valued and met.

We believe that respectful care is an essential component of what it takes for all patients to thrive.

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Supporting respectful care for all patients:

The Illinois Perinatal Quality Collaborative (ILPQC) works with patients, physicians, midwives, nurses, hospitals, and community groups to reduce maternal and infant disparities and promote birth equity by ensuring all patients receive safe, high-quality compassionate, and respectful care.

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Illinois PQC uses Hear Her in Birth Equity Initiative
More than 700 women die each year in the U.S. from pregnancy-related complications up to one year after giving birth. In Texas, approximately 4 out of 5 of these deaths are preventable.

CDC WORKFORCE DEVELOPMENT OPPORTUNITIES
Fellowships at CDC
Public Health Associate Program (PHAP)

- PHAP is a competitive, two-year, CDC-funded training program where associates are assigned to state, tribal, local, and territorial public health agencies and nongovernmental organizations to support public health work.

- Webinar for potential rural host sites on the Public Health Associate Program (PHAP), 2:00 – 3:00 pm (ET), Friday, November 17, 2023.

- PHAP host site supervisors and associates from rural settings to share their experiences and answer questions.

CDC Office of Rural Health and the Public Health Associate Program
ruralhealth@cdc.gov
phap@cdc.gov
Epidemic Intelligence Service (EIS)
EIS trains the next generation of disease detectives.

- Hands-on training in applied epidemiology
- Responding to outbreaks around the world
- Protecting America and the world from health threats

www.cdc.gov/EIS
Epidemiology Elective Program (EEP)
Through short-term student rotations, EEP prepares the next generation of public health clinicians.

- Applied epidemiology training on-the-ground at CDC
- Mentorship by CDC subject matter experts
- Develop leadership skills through experiential service learning

www.cdc.gov/EEP
Preventive Medicine Residency and Fellowship (PMR/F)
PMR/F trains the next generation of preventive medicine leaders.

- Develop leadership and management skills in disease prevention and health promotion
- Bridge medicine and public health to comprehensively address population health
- Work at CDC or local health departments to address priority public health projects and initiatives

www.cdc.gov/prevmed
Other CDC Fellowships and Internships

- Public Health Informatics Fellowship Program
  - Application Information | Public Health Informatics Fellowship Program | CDC

- Prevention Effectiveness Fellowship
  - Application Information | Prevention Effectiveness Fellowship Program | CDC

- Lewis Ferguson Internships and Fellowships
  - Lewis/Ferguson Internships and Fellowships | Minority Health | CDC

- CDC Evaluation Fellowship
  - Applying to CDC Evaluation Fellowship | CDC

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Pathways for Students and Graduates

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- Public Health Training Opportunities
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- Federal Work Study Program
- Student Worksite Experience Program - Volunteer Service
- Thurgood Marshall College Foundation/CDC Student Ambassador Program and Internship
- Service Fellowship for U.S. Citizens and Non-Citizens
- Volunteer
- Persons With Disabilities

Source: https://jobs.cdc.gov/working-at-cdc/student-intern-jobs/pathways.html
Improving Maternal Health
THANK YOU
QUESTIONS
EXTRA SLIDES
Literature using PRAMS assessing Rural Populations


- Publication Details: Rural/Urban Differences in Rates and Predictors of Intimate Partner Violence and Abuse Screening Among Pregnant and Postpartum United States Residents - Rural Health Research Gateway

- Publication Details: Rural and Urban Differences in Insurance Coverage at Prepregnancy, Birth, and Postpartum - Rural Health Research Gateway
RURAL POPULATIONS: WHAT WE NEED TO KNOW

- What are the factors that contribute to deaths in rural settings?
- What are the important interventions to prevent deaths?
- What tools are needed to inform prevention efforts?
- What are the measures needed to monitor our progress?
Connecticut Department of Public Health
(Conversation Guide)
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- **Step 1**: Visit [https://www.cdc.gov/fellowships/index.html](https://www.cdc.gov/fellowships/index.html)
- **Step 2**: Look for this area of the webpage
- **Step 3**: Enter your email addresses and follow the prompts.
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