Vuong Hoang, BS
Elizabeth Urbanski-Farrell, MBA, MS
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POLICY Brief

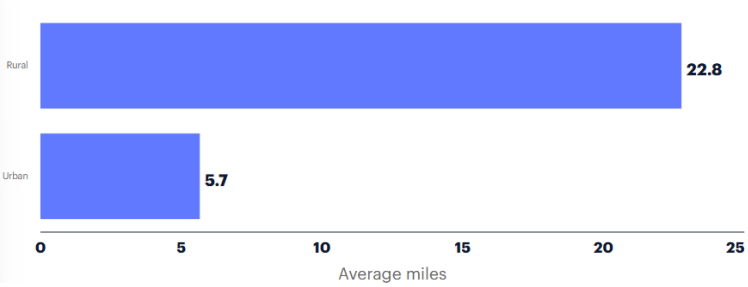
NOWHERE TO GO: PERINATAL HEALTH IN RURAL NEW YORK

Introduction

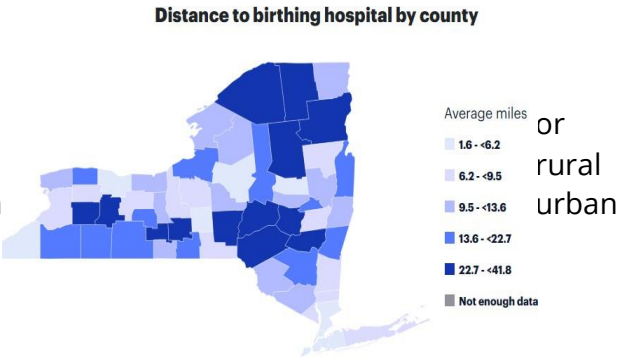
In 2022, the United States had the highest perinatal mortality rate in the developed world (McGregor et al., 2022). Despite all this, counties across the country are steadily losing perinatal services: 10% of all obstetric (OB) units in the country closed between 2003 and 2013 (McGregor et al., 2022). As of 2018, 56% of rural counties do not have access to OB care (Waldman & Zimmerman, 2024). Between 2010 and 2024, over 171 rural hospitals closed or no longer provide inpatient services, with 420 more vulnerable to closure (Waldman & Zimmerman, 2024). The United States, especially rural America, is experiencing a perinatal health shortage, and rural New York is no exception.

Access to Perinatal Health in Rural New York

The average distance to the nearest birthing hospital in rural New York is 22.8 miles, more than 17 miles further than the 5.7-mile average in urban New York (March of Dimes, 2022).



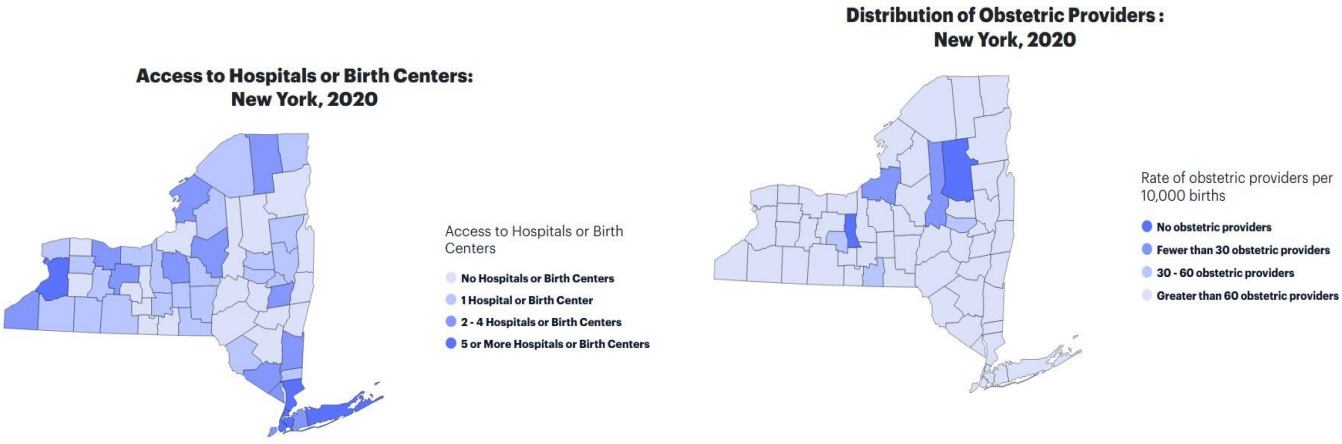
These data point to a clear and increasing disparity between urban and rural New York counties in terms of distance to nearest hospital birthing centers. In 2020, the average distance in counties was 13.6 miles, compared to 9.5 miles in urban areas (March of Dimes, 2020).



Thirty-five of 44 rural counties have one or fewer hospitals or birthing centers: these counties rely on alternative, non-hospital OB providers such as family physicians, certified nurse midwives, and doulas (March of Dimes, 2020). The perinatal health infrastructure of rural New York depends heavily on non-hospital providers including but not limited to certified and licensed nurse midwives, midwives, family physicians and doulas.

Doulas, by the Department of Health's definition, are non-medical persons "who provide physical, emotional, and informational support to pregnant people before, during and after delivery" and receive training from national or local organizations. There are no universally accepted standards for doula certification and doulas are not licensed (NYS Department of Health, 2024).

A Certified Nurse Midwife is an advanced practice registered nurse with comprehensive training, including but not limited to care during labor, delivery and postpartum care (Nursing License Map, 2021). A Certified Midwife on the other hand is not a registered nurse, and graduated from a midwifery program (Nursing License Map, 2021).

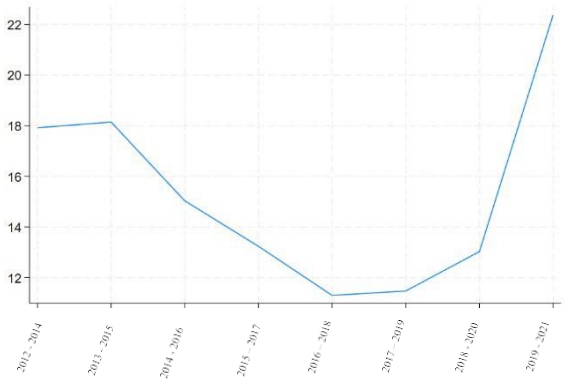


Of the 37 hospitals that provide services in rural counties in New York, only 3 are classified as Level 2 Perinatal Care centers, meaning they are qualified to provide care to women and newborns at moderate risks, and only 2 are classified as Level 3 Perinatal Care centers, which are providers of care for women and newborns at high risks (Department of Health, 2024).

There are two observations we can make from these data. The first is that there is a severe gap in perinatal health in rural areas. Some of the reasons for this could be medical malpractice insurance rates, high cost of care, decreasing population of people of childbearing age in rural areas. The second is that this gap in perinatal health is partially addressed by a patchwork network of nonhospital OB-GYN providers.

Effects on Perinatal Health

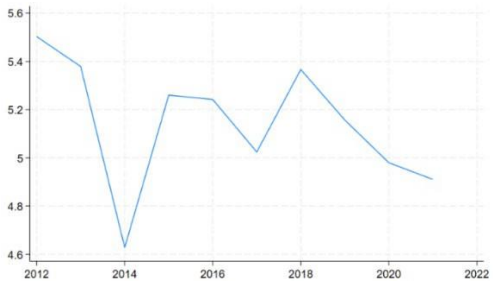
Perinatal health has been on a steep decline. All the data below is CDC WONDER data with nonrural counties filtered out in STATA. The data points out that perinatal mortality in rural New York has skyrocketed since COVID, reaching around 22 perinatal mortalities per 10,000 live births in 2021 (2019-21 data, CDC WONDER, 2024).



Average Maternal Mortalities per 10,000 Live Births

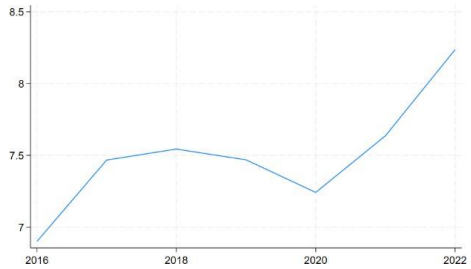
Infant mortality, however, is on the decline. Rural New York's infant mortality rate averaged at just below 5 per 10,000 live births (most recent data, CDC WONDER, 2024). That said, the infant mortality rate is still not at the CDC target rate of 4 per 1,000 live births.

Average Maternal Mortalities per 1,000 Live Births



Despite lower infant mortality, CDC data show an increase in number of births with low birth weight in rural New York, where the infant is born weighing less than 2.5 kilograms, per 10,000 live births (most recent data, CDC WONDER, 2024).

Average births with < 2.5 kilograms per 10,000 Live Births



Low birth weight is correlated with increased risks of diseases including but not limited to obesity, breast cancer, osteoporosis, adult asthma, depression, and schizophrenia (Negrato & Gomes, 2013).

Regression Results

I ran a linear regression with the outcome variable being perinatal mortality with the treatment variable being a county's rurality (rural = 1 if the county is classified as rural, rural = 0 if the country is not). There is an additional control variable, which is birth rate, to control for counties with low populations and birth rates. The results are as follows:

VARIABLES	Results
rural	-4.902
	(4.696)
birth rate	1.119
	(0.996)
Constant	8.920
	(12.07)
Observations	420
Number of county real	60

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Here we see that rurality had no statistically significant effect on perinatal mortality. One reason for this finding could be a lack of other relevant control variables in the regression. Another could be that women with high-risk pregnancies that are likely to result in perinatal mortalities are likely to be transferred to the few NICU capable hospitals around, but access is limited. Rural women with preterm births and multiple gestation pregnancies were less likely to give birth in a hospital with NICU capacity if no local hospital had this capacity (Kozhimannil et al., 2016). Additionally, the fact that among high-risk rural pregnant women without local NICU access, younger, low-income, and black women had lower odds of using NICU hospitals correlates with racial and socioeconomic disparities in the distribution of high-risk births, which diffuse the treatment effect of rurality; these factors need to be controlled (Kozhimannil et al., 2016). Further analysis of these data is an area for future research and analysis.

Policy Recommendations

Loss of a hospital's OB/GYN department led to increases in out-of-hospital births, preterm births, and births in hospitals with no OB/GYN (Kozhimannil et al., 2018).

At the core of this issue are a declining and unevenly distributed obstetric workforce. By 2030, the number of obstetricians is expected to decrease by 7% whereas demand is projected to increase by 4%: some estimates reveal a shortfall of up to 48,000 primary care physicians by 2034 (White House, 2024). Additionally, the workforce is aging quickly: 80% are over 40- years old (White House, 2024).

The White House Blueprint for Addressing the Maternal Health Crisis proposes the following action steps:

1. Train more family medicine and OB/GYN providers in under-served settings:

   + Increase number of perinatal health-focused physicians trained at community-based health settings and health centers.
   + Increase number of primary care physicians providing high-quality obstetric care in rural or underserved areas through the Primary Care Training and Enhancement – Community Prevention and Maternal Health Program.
   + Increase support for family medicine rural residency programs

2. Expand and diversify the number of nurses and midwives in under-served areas with loan repayment and scholarships through the HRSA's Nurse Corps program.
3. Expand access to freestanding birth centers, licensed midwives and doulas through further education and by offering expanded training through the US Department of Health and Human Services.

Additionally, increasing expansion of insurance coverage to include doula services and more funding to expand training and reimbursement rates for these services is helpful in addressing the current shortage in maternity healthcare providers in rural areas. The enacted New York State Budget (June 2024) allocates $250,000 for doula training and certification statewide, which is helpful. More is needed. As of March 1, 2024, New York State Medicaid began a new policy of paying for doula services for pregnant, birthing, and postpartum people. To support access to services, the Department maintains a directory of doulas enrolled to provide covered services to Medicaid members. In addition, the Doula Expansion Grant Program allocates $250,000 for community-based organizations to recruit, train, certify, support, and mentor community-based doulas. (https://health.ny.gov/press/releases/2024/2024-06-10_doula.htm)

In the state Legislature, a community doula expansion grant program such as one recently proposed in New York Senate Bill S7779A would establish an ongoing Doula Expansion Grant program. The grant program as proposed in the bill would further support access to prenatal and birthing care for people living in rural communities by proposing coverage of start-up costs associated with community doula organizations offering individual doulas assistance with Medicaid program enrollment, Medicaid and managed care organization (MCO) claims submission, and claims denial resolution. Claim denial is a barrier to doula service financial viability; this bill proposes to address that barrier. The bill passed the Senate but stalled in the Assembly in the state legislative session ended in June 2024.

On the federal level, CMS should cover and enhance coverage of doula services by Medicare and private insurances (Chen, 2024).

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