WHERE YOU LIVE MATTERS: MATERNITY CARE IN PUERTO RICO

INTRODUCTION

With over 3.5 million births in the United States annually, and rising rates of maternal mortality and morbidity, there is ample opportunity to improve maternal outcomes across the country.¹ More than 2 million women of childbearing age live in maternity care deserts, areas without access to birthing facilities or maternity care providers. Access to maternity care is essential for preventing poor health outcomes and eliminating health disparities. This report expands on the 2022 Nowhere to Go: Maternity Care Deserts Across the U.S. report² by taking a deeper dive into state level data and examining additional barriers that impact access to care. This data can be used to inform policies and practice recommendations in each state.

This report presents data on several important factors: levels of maternity care access and maternity care deserts by municipality; distance to birthing hospitals; availability of family planning services; community level factors associated with prenatal care usage as well as the burden and consequences of chronic health conditions across the territory. While not an exhaustive list, each of these topics contribute to the complexity of maternity care access in each state. Working to improve access to maternity care by bringing awareness to maternity care deserts and other factors that limit access is one way in which March of Dimes strives to reduce preventable maternal mortality and morbidity for all pregnant people.

KEY FINDINGS

- In Puerto Rico, 20 percent of municipalities are defined as maternity care deserts compared to 32.6 percent in the U.S.
- 9.8 percent of women had no birthing hospital within 30 minutes compared to 9.7 percent in the U.S.
- On average, people living in maternity care deserts travel 1.9 times farther to reach their nearest Title X clinic compared to people living in full access municipalities.
- 10.5 percent of birthing people received no or inadequate prenatal care, less than the U.S. rate of 14.8 percent.
- Women with chronic health conditions have a 37 percent increased likelihood of preterm birth compared to women with none.

ACCESS TO MATERNITY CARE IN PUERTO RICO

Access to care during pregnancy and around the time of birth is not consistently available across Puerto Rico. Environmental disasters have exacerbated stress on the healthcare system causing hospital closures and lower wages with higher caseloads for healthcare professionals. These factors have resulted in many healthcare specialists relocating to the U.S. mainland in recent years.³ The level of maternity care access within each municipality is classified across Puerto Rico by the availability of birthing facilities, maternity care providers, and the percent of uninsured women (see table). The map shows that in Puerto Rico, 20 percent of municipalities are defined as maternity care deserts compared to 32.6 percent of counties in the U.S. overall.

FINDINGS

- In Puerto Rico, there was a 11.1% decrease in the number of birthing hospitals between 2020 and 2019.
- 19.9% of Hispanic babies in Puerto Rico were born in a maternity care desert.
- In Puerto Rico, there were 3,851 babies born in maternity care deserts, 20% of all births.
- 0.3% of babies were born to women who live in rural municipalities, 0.2% of maternity care providers practice in rural municipalities in Puerto Rico.

Maternity care desert

Limited access

Full access Hospital locations

DEFINITIONS OF MATERNITY CARE DESERT AND LEVEL OF MATERNITY CARE ACCESS

Definitions	Maternity care deserts	Limited access	Full access*
Hospitals and birth centers offering obstetric care	zero	0-1	≥2
Obstetric providers (obstetrician, family physician [†] , CNM/CM per 10,000 births)	zero	<60	≥60

Sources: U.S. Health Resources and Services Administration (HRSA), Area Health Resources Files, 2022; American Board of Family Medicine, 2017-2020; Puerto Rico Department of Health, 2019-2021 final natality data.

Note: CNM/CM = certified nurse midwives/certified midwives.

*A municipality is full access if they meet 1 or more of the criteria.

†Includes family physicians who provide obstetric care.

DISTANCE TO MATERNITY CARE

The farther a woman travels to receive maternity care, the greater the risk of maternal morbidity and adverse infant outcomes, such as stillbirth and NICU admission.^{4,5} Furthermore, longer travel distances to care can cause financial strain on families and increased prenatal stress and anxiety.⁶ The distance a woman must travel to access care becomes a critical factor during pregnancy, at the time of birth and in the case of emergencies.

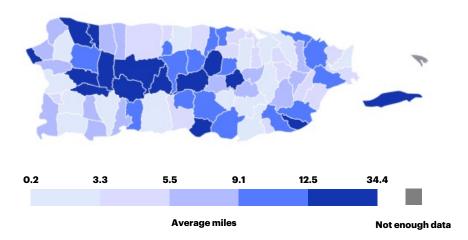
In recent years, Puerto Rico has experienced major disasters including Hurricanes Maria and Irma, tropical storm Isaias, and a series of earthquakes that have caused enormous financial strain on the healthcare systems³ and the island's infrastructure. In addition to hospital closures, specialty care is not distributed across the territory but concentrated in metro areas. Traveling throughout the island to receive maternity care can be dangerous during times of flooding, heavy rains, or storms when mudslides and landslides are common. Vieques and Culebra, islands off the eastern coast, are particularly unique in that birthing people must travel by ferry to the main island to receive maternity care and during inclement weather the port to leave the islands may close. Women living in areas with limited access may choose to stay in San Juan prior to birth in order to receive timely care.

Mapping software was utilized to calculate distance, in miles and minutes, under normal traffic conditions and using real-world travel routes. The map indicates the average distance to the closest birthing hospital throughout Puerto Rico. Commonly used thresholds of 30- and 60-minute driving times were applied to measure the percent of birthing people with timely access to care.⁴ This information can help identify areas where resources are needed to improve access to care. Overall, in the U.S. women travel 9.7 miles to their nearest birthing hospital.

FINDINGS

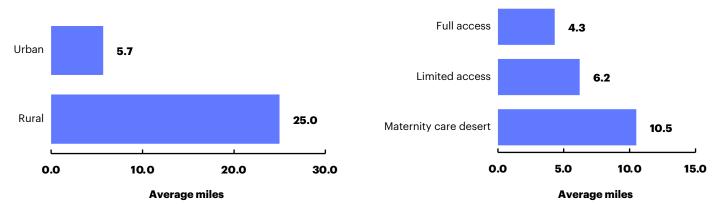
- In Puerto Rico, women travel 5.7 miles and 15.0 minutes, on average, to their nearest birthing hospital.
- Women living in municipalities with the highest travel times (top 20 percent) could travel up to 34.4 miles and 164.4 minutes, on average, to reach their nearest birthing hospital in Puerto Rico.
- Under normal traffic conditions, 0.4% of women live over 60 minutes from a birthing hospital compared to 1.0% in the U.S.
- 9.8% of women in Puerto Rico had no birthing hospital within 30 minutes
- In rural areas across Puerto Rico, 100% of women live over 30 minutes from a birthing hospital compared to 9.5% of women living in urban areas.
- Women living in maternity care deserts traveled 2.5 times farther than women living in areas with full access to maternity care in Puerto Rico.

DISTANCE TO BIRTHING HOSPITAL BY MUNICIPALITY



DISTANCE TO CARE BY RURALITY

DISTANCE TO CARE BY MATERNITY CARE ACCESS



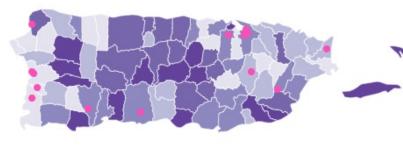
Sources: United States Census Bureau. "S1301: Fertility." American Community Survey. 2017-2021. Web. 1 Nov 2022; American Hospital Association, 2021; American Board of Family Medicine, 2017-2020; U.S. Health Resources and Services Administration (HRSA), Area Health Resources Files, 2022.



AVAILABILITY OF FAMILY PLANNING SERVICES

Access to family planning services allows for people to achieve their goals around having children, including the timing of and spacing between pregnancies.7 An unexpected pregnancy or too little time between pregnancies can lead to serious health consequences, including preterm birth, depression and anxiety.8,9 Unintended pregnancies are particularly burdensome for teens and their children who are more likely to experience long term social and economic impacts.¹⁰ Providing access to affordable contraceptives is a strategy to help people attain their family planning goals.11 Title X clinics are federally funded healthcare sites that provide low-cost reproductive healthcare services including contraceptives, wellness exams and breast and cervical cancer screenings.¹² The map displays Title X locations and teen birth rates by municipality. In 2021, the Puerto Rico teen birth rate was 13.2 births per 1,000 females aged 15-19 compared to the U.S. rate of 13.9.

TEEN BIRTH RATE BY MUNICIPALITY AND TITLE X LOCATIONS



0 12.9 14.3 17.8 20.5 39.0 Teen birth rate

Title X locations

FINDINGS

- There are 1.7 Title X clinics per 100,000 women in Puerto Rico compared to 5.3 per 100,000 in the U.S. overall.
- On average, people living in Puerto Rico travel 10.9 miles to reach their nearest Title X clinic, compared to the U.S. average of 9.4 miles.
- On average, people living in maternity care deserts in Puerto Rico, travel 1.9 times farther to reach their nearest Title X clinic compared to people living in full access municipalities.

Sources: Office of Population Affairs. Title X Family Planning Directory (November 2022); Puerto Rico Department of State, 2019-2021 final natality data National Center for Health Statistics, 2021 final natality data. United States Census Bureau. "S1301: Fertility." American Community Survey. 2017–2021. Web. 1 Nov 2022.

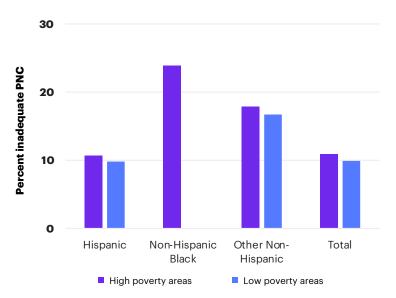
DISPARITIES IN PRENATAL CARE

Early and regular prenatal care (PNC) is an important strategy for reducing the risk of pregnancy complications and adverse birth outcomes. ¹³ Historically, BIPOC have lower rates of adequate PNC and may be less likely to receive services such as important health screenings and appropriate monitoring of baby's growth. ^{14,15} Community level factors, such as poverty, create barriers to accessing care that can worsen the disparity in PNC usage among Black, Indigenous, and people of color (BIPOC). ¹⁶ The impact of poverty on PNC usage was assessed by examining the percent of women receiving inadequate PNC in areas of high and low poverty. In Puerto Rico, 10.5 percent of women received inadequate PNC compared to 14.8 percent in the U.S.

FINDINGS

- In Puerto Rico, non-Hispanic women were 1.9 times less likely to receive inadequate prenatal care compared to Hispanic women.
- 10.4% of Hispanic women in Puerto Rico had inadequate PNC compared to 18.7% of Hispanic women in the U.S. mainland.
- Women living in areas of high poverty were 10% less likely to receive inadequate prenatal care compared to those living in low poverty areas. It is possible that municipality level poverty is masking the impact of individual level poverty.

INADEQUATE PRENATAL CARE BY RACE/ETHNICITY AND POVERTY



Sources: Puerto Rico Department of State, 2019-2021 final natality data; United States Census Bureau. "S1701." American Community Survey. 2016-2020. Web. April 2023.

Note: Inadequate PNC is defined as no prenatal care or care that began during or after the fifth month of pregnancy or that included less than half of the appropriate number of visits for the infant's gestational age. Missing groups are suppressed.



CHRONIC HEALTH CONDITIONS AND PRETERM BIRTH

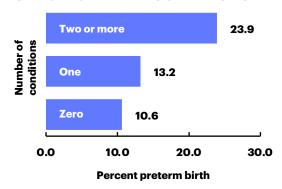
Having a chronic health condition before pregnancy increases the risk of pregnancy and postpartum complications. Preterm birth (PTB), a delivery before 37 weeks gestation, is one example of a complication that can lead to serious health impacts. The burden of chronic health conditions among birthing people is increasing across the U.S. ^{17,18} Access to healthcare before, during and after pregnancy is important for appropriate management of chronic health conditions. At the time of birth, women with chronic conditions and their babies may need access to higher-level care, such as specialized providers, hospitals with the ability to perform a Cesarean birth or hospitals with NICUs. Examining the chronic health burden (CHB) across Puerto Rico and its relationship to adverse outcomes provides information needed to make important changes that can result in targeted resource allocation, prevention and appropriate disease management.

The percent of birthing people with one or more chronic conditions was calculated for each municipality in Puerto Rico and overall. The following conditions were included due to their availability in birth record data and established association with PTB: pre-pregnancy hypertension and diabetes, smoking and being underweight or obese before pregnancy. The map describes the municipality level CHB in relation to the PTB rate. Areas shaded in purple have both a high CHB, greater than the overall state percent, and a high rate of PTB, defined as greater than the Healthy People 2030 target of 9.4 percent. In Puerto Rico, the PTB rate was 12.0 percent, compared to 10.5 percent in the U.S. overall in 2021.

FINDINGS

- In Puerto Rico, 35.2% of women had one or more chronic health conditions compared to 37.8% in the U.S. overall.
- Women with one or more chronic health conditions have a 37% increased likelihood of having a preterm birth compared to those without any chronic health conditions.
- 53.3% of municipalities in Puerto Rico have a high burden of chronic health conditions and a high rate of preterm birth.

PRETERM BIRTH BY NUMBER OF CHRONIC HEALTH CONDITIONS



Source: Puerto Rico Department of Health, 2019-2021 final natality data.

CHRONIC HEALTH BURDEN (CHB) AND PRETERM BIRTH (PTB) BY MUNICIPALITY





Note: The burden of chronic health conditions is the percent of birthing people in each municipality with one or more chronic conditions. Data for counties with less than 10 preterm births or women with chronic health conditions are excluded from map.

Source: Puerto Rico Department of Health, 2019-2021 final natality data.

SUMMARY

All women deserve healthcare which is safe, effective, timely, efficient and equitable. Consistent and equitable access to maternity care helps women maintain optimal health as well as reduce the risk of experiencing complications during pregnancy and the postpartum period. Several factors influence maternity care access for women across the U.S. By assessing distance to care and the availability of maternity care providers, hospitals and family planning services, this report provides insight into several physical components that affect a person's ability to receive care. In addition, examining community level factors associated with access to care and identifying vulnerable populations provides greater context around barriers to receiving appropriate care. Together this information can lead decision makers, public health professionals, clinicians and researchers to advocate for policies and resources that increase maternity care access across each state.

By addressing these factors, states may move closer to eliminating pregnancy-related deaths and complications. Telehealth, through various platforms, equips maternal health providers with the tools to better facilitate care before, during and after pregnancy and has been shown to not only increase access but also improves patient engagement and treatment.²⁰ March of Dimes fully supports Congress, governmental regulating agencies and states to act and make telehealth provisions balanced and permanent. Evidence-based telehealth services and other innovative solutions are explored in greater depth on page 5.



POLICY SOLUTIONS AND ACTIONS

March of Dimes has long supported policies that improve access to maternity care, including Medicaid expansion and extension, improved integration of the midwifery model of care, reimbursement for doula care, and increasing the availability of telehealth services across a range of healthcare specialties. Telehealth is healthcare delivered using technology to replace or enhance in-person care and can save lives by providing high-quality care for pregnant and postpartum people.²¹ Women who are underserved, vulnerable to poor health outcomes, and have limited access to high-risk care can greatly benefit from telehealth.21

To address the limited access to maternity care in the U.S., states must adopt and support telehealth and other innovative practices to expand access and provide more options for healthcare delivery. The current state of telehealth policies and innovative solutions in Puerto Rico aimed at improving maternal health outcomes is explored in this report. By highlighting innovative solutions implemented across states, policymakers and healthcare professionals can identify policies and programs that can improve health for pregnant people in Puerto Rico and ensure they receive the support and care needed before, during, and after pregnancy.



TELEHEALTH LAW

Due to the COVID-19 Public Health Emergency (PHE), states expanded access to telehealth services. While many of the policies increased access to telehealth for maternity care services temporarily, many states permanently expanded telehealth services. This policy measure identifies whether Puerto Rico has passed laws to permanently provide Medicaid telehealth coverage for maternity care services.3







TELEHEALTH COVERAGE

Medicaid telehealth policies vary by state. States may cover all forms of telehealth services or restrict certain forms of telehealth services.²² This policy measure identifies whether Puerto Rico provides Medicaid reimbursement of the following telehealth

X Live video X Remote patient monitoring X Audio-only²²





Needs improvement

POLICY AND PROGRAM INNOVATION

The effects of natural disasters have exacerbated the stress on Puerto Rico's health care infrastructure including public health care financing, Medicaid eligibility and enrollment, program benefits, provider access and delivery systems. In an effort to address limited community supports, Familias Saludables Puerto Rico implements the Healthy Families Puerto Rico home visiting model. Updated on posted PR template. Services provided to participants include culturally respectful in home and community case management, needs assessments, economic selfsufficiency strategies, positive parenting practices, child development and school readiness skills as well as, customized support based on specific circumstances.3, 23

Progressing toward recommendations



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