



Oklahoma's Efforts to Address Preterm Birth Rates

*A Case Study Developed from NICHQ's Exploring State-Level Strategies
to Improve Maternal Health and Birth Outcomes Initiative*

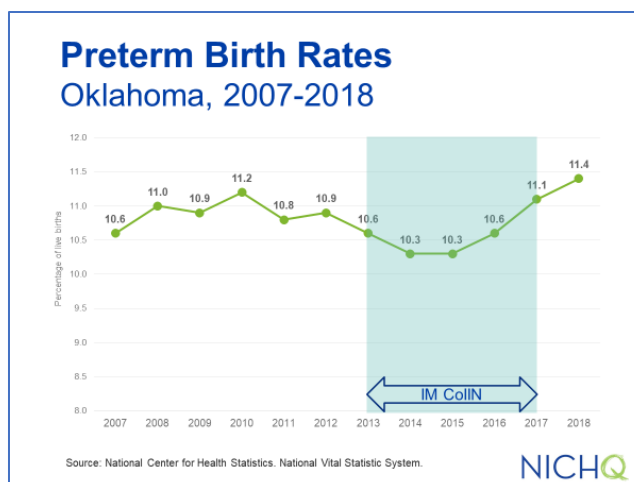
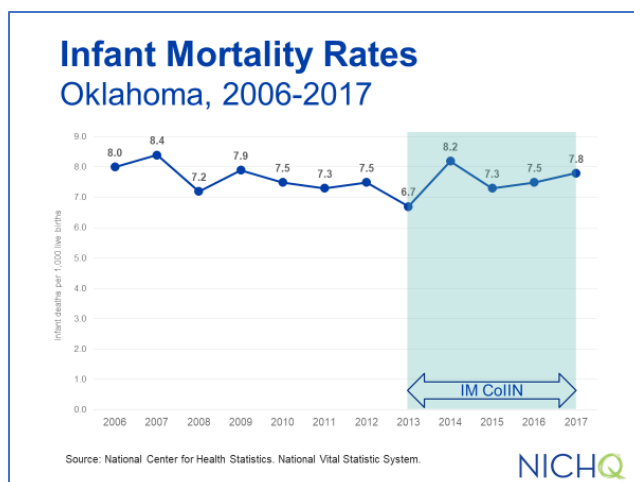
Introduction to Oklahoma

With the introduction of the Infant Mortality Collaborative Improvement and Innovation Network (IM CoIIN) in 2013, Oklahoma launched a series of collaborative and coordinated initiatives to address infant mortality in 2014, including focused work on reducing preterm (less than 37 weeks gestation) and early term birth (37-38 weeks gestation) and leveraging existing partnership and statewide stakeholders. Oklahoma was highly engaged in both program activities and data submission during IM CoIIN and focused their preterm birth reduction activities on increasing access to interventions such as progesterone and smoking cessation.

Case Study Background

Since 2007, Oklahoma has seen a decline in infant mortality from 8.4 per 1,000 live births to 7.8 in 2017. However, similar to a majority of other states, preterm birth rates have been increasing. 2018 saw the highest rates of preterm birth in Oklahoma in more than a decade — 11.4 percent.¹ This is higher than the 2018 U.S. national rate of 10%.

In addition, racial disparities in infant mortality remain persistently high. Black mothers in Oklahoma experienced a more than two-fold higher risk of infant mortality compared to white mothers and Asian/Pacific Island mothers. Black mothers are 38% more likely to have a preterm birth compared to all other women.¹ American Indian/Alaska Native mothers in Oklahoma experience a higher risk of infant mortality than white or Hispanic mothers at a rate of 11% of live births.



Population Characteristics

With nearly 4 million residents across 69,899 square miles, Oklahoma is a relatively rural state, with population clusters centered in two major cities, Oklahoma City and Tulsa. Economically, Oklahoma relies on a base of telecommunications, aviation, biotechnology, and energy sectors — the state is a major producer of natural gas, oil, and agricultural products.² Oklahoma City and Tulsa anchor Oklahoma's primary economies, with 58% of Oklahomans living within these two metropolitan statistical areas. Oklahoma's largest cities in 2010 were Oklahoma City (579,999), Tulsa (391,906), and Norman (110,925).

Racial/Ethnic and Socioeconomic Factors

According to the 2010 Census, the population of Oklahoma is 65.3% White, 10.9% Hispanic or Latino, 9.3% American Indian/Alaska Native, and 7.8% Black. More than 6% of the population identified themselves as two or more races, which is larger than the Asian population, comprising 2.3% of Oklahoma's total.

Oklahoma had the second-largest Native American population in 2010 after California, with the highest density in the Tulsa-Broken Arrow Metropolitan area. The state ranked fourth behind Alaska, New Mexico, and South Dakota for Native Americans as a percentage of population, at 8.5%, largely a result of the Trail of Tears.² Oklahoma's Black population is somewhat clustered in southeast Lawton, northeast Oklahoma City, northwest Tulsa, and portions of Muskogee. It's significant to note the historical context of the Tulsa race massacre and the historic Black community of Greenwood as it relates to present-day racial disparities.²

Oklahoma's rank of annual household income is below the national average, and the state's poverty rate is in excess of 15%, with higher percentages in rural areas.²



Health Care Access



In Oklahoma, 14.2% of the population was uninsured in 2019, with rates varying greatly for women, and in particular, women of childbearing age. Oklahoma ranked 49 among 50 states and the District of Columbia in uninsured women, with more than 1 in 5 women aged 19-44 without insurance (21.7 percent). After the passage of the Affordable Care Act, Oklahoma has not expanded Medicaid to help with coverage of the relatively high proportion of uninsured, although that may change after a referendum passed in July 2020. In addition to a lack of insurance, more than 240,000 Oklahoman mothers live in a maternity care desert each year, defined as counties where access to maternity health care services is limited or absent.¹

Maternal Risk Factors for Infant Prematurity

Women in Oklahoma have higher incidence of risk factors for preterm birth and infant mortality than women nationally.

- **Smoking:** Oklahomans have a high prevalence of smoking compared to residents of other states. Although smoking among women of childbearing age decreased from 2015-2016 (22.6% to 20.1%), 2017 saw it increase again back to 22.6%, a wide margin over the national rate of 15.5% that year. Despite a recent drop to 18.4% in 2018, rates of smoking among women of childbearing age in Oklahoma show no clear trend but were still higher than U.S. average rates (16.7%).
- **Obesity:** In 2018, among women of childbearing age (18-44 years), more than 1 in 3 (37.9%) were obese (a Body Mass Index of 30 or greater), up from 29.1% in 2011. This is an increase of more than 30% over nine years and considerably higher than the U.S. average rate of 30.5% in 2018.

“While it’s not an easy conversation to have, it’s important to look at foundational structural racism and the role it plays in the multifactorial causes of preterm birth.” —Focus group participant



Targeted Programs and Interventions to Reduce Preterm Birth

Oklahoma has a vibrant network of committed health care providers, community center leaders, and public health practitioners who are using a community-based approach to target high-risk populations around the state. During IM CoIN, Oklahoma worked to address preterm births in the following ways.

1. The Oklahoma Perinatal Quality Improvement Collaborative (OPQIC)

Launched in 2014, the Oklahoma Perinatal Quality Improvement Collaborative (OPQIC) works with more than 40 partners across the state. The mission of the OPQIC is to improve the health outcomes of mothers and infants in Oklahoma using evidence-based practice guidelines and quality improvement processes. With funding from an Oklahoma State Department of Health (OSDH) Maternal and Child Health (MCH) Title V Block Grant, and initial support from the March of Dimes, the Collaborative utilizes a [Collective Impact](#) approach to improving maternal and child health. Health care providers, the target audience, focus on a variety of current challenges such as payment, policies, and clinical practices. The OPQIC has led a number of initiatives to improve the health of moms and babies, ranging from Every Mother Counts Collaborative, Preparing for a Lifetime, and more recently, the Alliance for Innovation on Maternal Health (AIM). Through strong partnerships, these initiatives are committed to collaborative resource development, increasing community engagement, and improving data collection.

2. Focus on Native American Women and Infants

Among pregnant women in Oklahoma, nearly 11% of live births are to Native American women (10.7%), compared to less than 1% nationwide, making services and access to care for Native Americans critically important in Oklahoma. Three tribally-funded hospitals — Choctaw Nation, Cherokee Nation, and Chickasaw Nation — are important partners in Oklahoma. Barriers do exist, such as with data sharing, and can limit participation in the OPQIC initiatives.

3. Establishing the Preparing for a Lifetime Statewide Initiative

Oklahoma's Preparing for a Lifetime is a statewide initiative that focuses on the health and well-being of all mothers and infants. This initiative brings together multiple partners across the sector that widen the reach to disparate populations. Partners include providers, Oklahoma State Department of Health, Oklahoma Hospital Association, Oklahoma Perinatal Quality Improvement Collaborative, Medicaid, the March of Dimes, federally qualified health centers (FQHCs), and the state's Healthy Start programs. The initiative targets the following areas:

- Preconception/Interconception Health
- Tobacco and Pregnancy
- Premature Birth
- Breastfeeding
- Postpartum Depression/Maternal Mood Disorders
- Safe Sleep for Infants
- Injury Prevention for Infants

"Oklahoma Perinatal Quality Improvement Collaborative has been instrumental and central to the state-level strategies to reduce preterm birth. The people at the table really feel like they have a say." — Focus group participant

4. Addressing Early Elective Deliveries

One state-level initiative that was spurred from the Preparing for a Lifetime initiative was Oklahoma's Every Week Counts (EWC) Collaborative (2011-2014). Supported by the Oklahoma State Department of Health, the March of Dimes, the Office of Perinatal Quality Improvement, and the Oklahoma Hospital Association, the initiative worked with hospitals to implement a "hard stop" policy effort, prohibiting providers from delivering non-medically indicated early elective deliveries (NMI EED) – that is, EEDs without a trial of labor at 37 or 38 weeks – if the mother does not have a medical condition prior to or during pregnancy. The initiative was highly successful in decreasing early elective deliveries by 96% over the course of the project. Although this initiative has ended, Oklahoma hospitals continue to report rates of early elective deliveries to the Centers for Medicare and Medicaid Services (CMS) and six years later have managed to sustain low rates across the state.

Stakeholders identified strong **partnerships between the members of OPQIC and the use of data to drive improvement** as the major facilitators to the success in reducing early elective deliveries and sustaining those successes.

5. Increase Availability of Progesterone Statewide

Partnering with the Oklahoma Perinatal Quality Improvement Collaborative, Oklahoma launched the Oklahoma Progesterone Project, which worked at several critical levels to increase use of 17 alpha-hydroxyprogesterone caproate (also called 17P). At a policy level, the project was successful in developing and publishing Progesterone Guidelines for its Medicaid program (Sooner Care). These guidelines expanded coverage of progesterone by increasing the window of initiation from 16-20 weeks, included initiation of treatment in women up to 26 weeks gestation, increasing use among eligible women who may enter care later than the 20th week of gestation.

As with many states, Oklahoma is considering its work to increase progesterone access and use after conflicting trial results (see sidebar). While the Society of Maternal-Fetal Medicine released new guidelines suggesting that doctors assess the patient's level of risk before recommending hydroxyprogesterone shots, the American College of Obstetricians and Gynecologists (ACOG) said it had reviewed the results and wasn't changing its guidance.⁷ Until the FDA resolves the efficacy of 17P in reducing preterm deliveries, Oklahoma has put promoting 17P on hold.

In October 2019 amid conflicting new study results, the FDA Advisory Board recommended withdrawal of approval for 17P, with seven of the committee's members voting to leave the product under accelerated approval and to require a new confirmatory trial. Although both the 2003 and 2019 trials had the same eligibility criteria, women in the original government-sponsored trial had more risk factors for preterm birth, including smoking, being unmarried, being Black, and having multiple previous preterm deliveries. Some panel members who voted to order a new trial said 17P helps a subset of women that has yet to be defined.⁷

Other Program Efforts

Building on the success of the Early Elective Delivery Initiative and the creation of the OPQIC, the state launched several other programs that have addressed the reduction of preterm births. These include:

- **High-Risk Obstetrics Program:** This program works in collaboration with the Oklahoma Healthcare Authority to provide case management for high-risk women in 10 counties. The Authority administers SoonerCare, Oklahoma's Medicaid program and Insure Oklahoma.
- **Focus Forward Oklahoma:** An interconception (between pregnancies) care program working to increase access to contraceptives in the state, particularly long active reversible contraceptives (LARC). The program includes patient education, provider training (including clinical support staff), and inventory management. This program also targets small practices in rural areas of the state to help address lack of access.

Demonstrating a reduction in PTB based on LARC usage could take several years due to the purpose to delay pregnancy. Because of this complexity, Oklahoma-specific efforts have not yet been linked directly to reductions in preterm births. Still, these interventions address important opportunities to positively impact rates of prematurity and other negative health outcomes among women and infants.



Policy Efforts

Successes and barriers to policy-level solutions in Oklahoma are important to understand. Even with a lack of bipartisan cooperation, stakeholders across the state have found success in supporting grassroots efforts to address systems-level changes. While Oklahoma did not expand Medicaid after the passage of the Affordable Care Act, the Oklahoma Health Care Authority, which oversees the Medicaid program, has been a responsive partner in addressing policy needs.

Department of Health Initiatives & Expansions

The Soon-to-be-Sooners program, which was started in 2008, has seen many changes over the past decade, particularly during the IM CollN years (2013-2017). The program was originally started to support undocumented individuals without health care coverage and has since expanded Medicaid eligibility to adults ages 19-64 whose income is 138% (133% with a 5% disregard) of the federal poverty level or lower. This equates to an estimated annual income of \$16,970 for an individual or \$34,846 for a family of four.³ Expanding the policy guidelines of the Soon-to-be-Sooners programs has changed the landscape of maternity care in Oklahoma, reducing the number of undocumented women without coverage. In addition, the program has expanded services to cover many additional services that can have a positive impact on outcomes among moms and babies:

- Second trimester ultrasound
- Expanded high risk obstetric care (additional ultrasounds, non-stress test, biophysical profiles)

- Additional care management services, including licensed clinical social workers (LCSW), Breastfeeding support with International Board-Certified Lactation Consultants (IBCLC)
- Genetic Counseling Services
- SoonerRide Non-Emergency Transportation Services
- Outpatient Observation Services

Despite the progress, there are still several barriers to comprehensive health care coverage for women in Oklahoma and under the Soon-to-be-Sooner program. In the most basic terms, the Soon-to-be-Sooner program ends at the time of delivery or when the pregnancy ends, creating limited coverage of postpartum care for mothers, a critical time to ensure the health and safety of the mother and infant — as well as the health of subsequent pregnancies.

Notes on Navigating the Policy Landscape

It is often a challenge for stakeholders interested in addressing infant mortality and prematurity to navigate the political landscape. Issues of particular significance to maternal health are often not mandated in Oklahoma, such as health education in schools. Successful methods to nurture specific policy issues, such as Medicaid expansion, are most successfully approached with a provider-based strategy that begins with provider discussions and garners bipartisan engagement early in the process. According to the Oklahoma Policy Institute (OPI), the state's ranking of 34th in maternal mortality and 37th in infant mortality in 2018, combined with its high uninsured rate, indicates the critical need for collaborative policy.

IM CoIIN focus group participants described their policy strategies in Oklahoma as focusing on issues and prioritizing them based on potential for the biggest impact. Lack of funding for implementation was identified as one of the greatest of those barriers to enacting policies. With the ending of IM CoIIN, Oklahoma has seen a shift away from infant mortality and prematurity reduction activities to initiatives focused on substance/opioid use and maternal mortality reduction. While addressing these issues could positively impact infant mortality and prematurity, there is currently no focused effort to address prematurity. For example, the Oklahoma Legislature passed SB 419 in 2019, requiring all health care providers, including obstetricians and pediatricians, to invite mothers to complete a depression screening while pregnant and before the baby's first birthday. The OPI points out that without Medicaid expansion, there's no way to ensure that Oklahoma women with postpartum mental health disorders can access health care coverage for treatment.³ Expansion of Medicaid would ensure more mothers are healthier before, during, and after pregnancy — and facilitate additional evidence-based practices to address prematurity.



Future Policy Priorities

In Oklahoma, stakeholders identified several policy priorities to address the needs of women that could help to decrease the rising preterm birth rates in the state.

- **Medicaid Expansion:** Passage of reimbursement for postpartum depression and anxiety screening in a pediatric setting, as well as coverage to 12 months postpartum.
- **Strengthening Midwifery:** Instituting a certified nurse midwife program to address the lack of a strong midwifery program in Oklahoma.
- **Reimbursement for Doula Care:** There is increasing evidence as to the importance of doulas to improved maternal health outcomes, particularly in addressing issues of equity and access to quality care. The Health Care Authority in Oklahoma offers reimbursement for other “non-traditional” forms of care, including group prenatal care, motivating advocates to gain coverage for doula care.

Spotlight On: Health Women, Healthy Futures Oklahoma

In Oklahoma, a major cause of neonatal and fetal death was poor maternal health prior to pregnancy. As a response, the Healthy Women, Healthy Futures Oklahoma (HWHF) program was created and piloted in areas in Tulsa County with the highest rates of infant mortality and preterm birth. Through a team of nurse educators and social workers, HWHF can assess women’s risk factors, educate on a variety of pre-pregnancy health topics, connect to community resources through referrals and linkages, and build partnerships through the community. With private funding from The George Kaiser Family Foundation, the program has grown to seven locations throughout Tulsa County.

HWHF serves a diverse population of women of childbearing age. The program offers classes in both English and Spanish and has seen positive outcomes through evaluation efforts. The curriculum currently includes 11 topics and, following evidence-based guidance, is written at an accessible, fifth-grade literacy level. With an expanding Burmese population in Tulsa, the program

recently added classes in Burmese and in locations closer to where women live — meeting participants where they are. These successes earned HWHF Oklahoma the status of “Promising Practice” by the Association of Maternal and Child Health Programs (AMCHP) through their Innovation Station sharing of best practices.

HWHF subcontracts with the Healthy Start program in Tulsa to provide an interconception care coordinator through home visiting and a behavioral care coordinator, who works with the mother at any time during the pregnancy through the first 18 months of the baby’s life.

“Healthy Women Healthy Futures Oklahoma highlights the importance of communities coming together and working to get back to relevant issues affecting moms and babies in Oklahoma.”
— Focus group participant

Spotlight On: Take Control Initiative, Tulsa

The work to improve access to LARC — and particularly, the work done in Tulsa — highlights a commitment to health equity. The Take Control Initiative (TCI) in Tulsa focuses on providing access to contraception for women through a partnership with the George Kaiser Family Foundation. According to their website,⁴ the TCI works to “improve access to contraception by providing education and outreach for all methods and free clinical services for long acting reversible contraception (LARC).” TCI has expanded clinical services to include all contraception, ensuring women and families have sustained, equitable access to the method that is best for them. The choice of when and if to have children is associated with securing better women’s health and pregnancy outcomes. TCI drives this change by breaking down social, economic, and clinical barriers to access with a goal of promoting health equity.

Since 2010, TCI has provided more than 18,000 LARCs, saving the state \$5.85 for every dollar spent on an intrauterine device (IUD) or contraceptive implant. As with many other programs and initiatives in Oklahoma, TCI relies heavily on the strengths of their partnerships and attributes much of their success to the community partnerships. In order to help women overcome barriers to contraception, TCI works to provide solutions. For example, to support women without transportation to appointments, TCI has secured free rides from a local car service.



The initiative began in 2010, continued throughout the IM CoIIN years, and is still active today. TCI has been successful in lowering teen pregnancy rates and abortions in Tulsa between baseline (2009) and 2017.

Spotlight On: The Oklahoma Family Network

With more than 1 in 10 babies born preterm in Oklahoma, supporting families after the early birth of an infant is a priority for Oklahoma. The Oklahoma Family Network, located in five regions throughout the state, informs and connects individuals with special health care needs and disabilities, their families, and professionals to services and supports in their communities. The Network services are designed for any child who had to spend time in the NICU or was born preterm, has physical disabilities or medical concerns, or has mental or behavioral health concerns. The program is focused on providing services in three areas:

- Emotional Support
- Information and Training
- Advocacy and Leadership

Through their advocacy work specific to programs and policies in Oklahoma, the Oklahoma Family Network has been instrumental to integrate family voices with policy strategies and to educate policymakers on the impact and unintended consequences of proposed policies and legislation. In addition, they work directly with the Title V agency and all child-serving agencies within the Oklahoma State Department of Health, through The Health Care Authority Advisory Committee and Title V policy work.

Families offer a unique perspective when they participate in the policy development process. Members of the Oklahoma Family Network include moms, dads, and grandparents, as well as representatives from urban, rural, and frontier counties. As valued stakeholders and partners, family representatives are often provided a stipend for their time to participate in meetings.

“Oklahoma Family Network reminds professionals of why they do what they do, integrating the voices of families affected by prematurity or maternal crisis.” –Focus group participant

“In Oklahoma, we have a lot of challenges and a lot of barriers. But we also have seen a lot of success, especially when we can pull together, bringing others along with us.” —Focus group participant

Emerging Issues in Oklahoma

Oklahoma has identified five issues of focus to address maternal and infant health across the state, as they continue to work toward reductions in preterm birth and infant mortality.

1. **Focus on Disparities and Addressing Social Determinants of Health:** In Oklahoma, preterm birth rates are higher among Native American and Black women, and preterm birth rates are increasing among Hispanic women, a growing population across the state.
2. **Increase Preconception and Interconception Care:** Chronic and pre-existing conditions, such as hypertension, are on the rise rising in Oklahoma, underscoring the importance of preconception and interconception care, as well as an overall focus on the health and wellness of all women.
3. **Build Systemic Trust:** Stakeholders highlighted the lack of trust in the health care system and the need to address that mistrust, including the importance of implicit bias training for health care providers.
4. **Address Provider Shortages, Especially Maternal-Fetal Medicine Specialists:** Creative and innovative solutions, including telehealth and expansion of certified nurse midwives, are possible ways to address these provider shortages and help provide a more comprehensive and continuous source of care for women across the state.
5. **Stabilize Program Funding:** Lack of funding for programs is a constant challenge. The support of private foundations, particularly local foundations with an interest in improving the health of Oklahomans, are the key ways many programs across the state will continue to exist — especially programs identified as successful.

“When we talk about the real issues facing our programs and our funding resources, we never talk about the way that our economy works and how it’s built to generate inequality. In order to move the needle forward, we need to talk about how we make the programs work within the way our economy works — and across the political spectrum.”
— Focus group participant



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