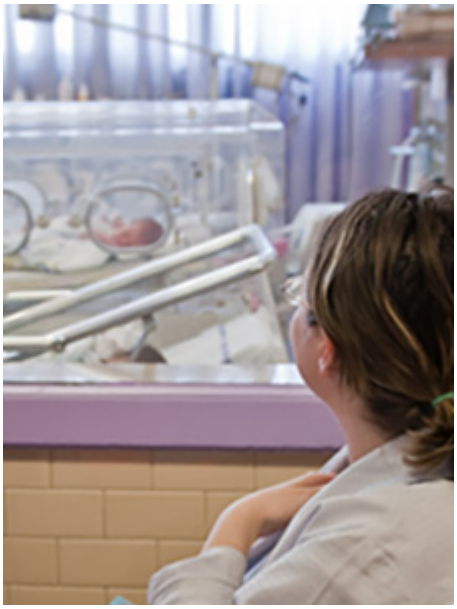
NICHQ National Institute for Children's Health Quality

Insights

Preventing Preterm Labor in At-Risk Moms in Underserved Populations



Pre- and early-term births can lead to medical issues for newborns.

Carrying to full term helps safeguard against some of the greatest threats to infant health. Affecting about 1 in 10 babies born in the United States, preterm birth (i.e., birth before 37 weeks gestation) is a leading cause of infant mortality and a major contributor to long-term disability. Meanwhile, early-term infants (those born at 37 to 38 weeks) are more likely to struggle with low blood sugar, difficulty breathing and other health issues requiring admission to the neonatal intensive care unit (NICU).

With prevention of preterm and early-term births serving as one of the six focus areas of the Collaborative Improvement and Innovation Network to Reduce Infant Mortality (IM CoIIN), teams in Iowa and Mississippi are targeting two strategies with vast potential to improve birth outcomes in Medicaid populations—a group in which one in every eight babies is born premature.

Increasing Progesterone Access

For women who have previously given birth prematurely, risk of preterm labor is especially high. But research shows that treatment with a form of the hormone progesterone may reduce that risk in women with singleton pregnancies (i.e., pregnancies where just one fetus develops).

Known as 17 alpha-hydroxyprogesterone caproate (or 17P), this type of progesterone is administered through a weekly injection beginning as early as 16 weeks into pregnancy and continuing through the 37-week mark.

In Iowa, where about 40 percent of births are Medicaid-covered, the state's IM CoIIN team is working to support low-income women in successfully completing the 20-week course of progesterone treatment. (See related issue brief.)

"This is a difficult therapy for anyone to adhere to, regardless of income level," says Stephanie Trusty, nurse clinician for the Iowa Department of Public Health. "But when someone doesn't have money and maybe doesn't have a car, she's going to need a lot of help getting that shot each week."

Because Medicaid-funded home visits pose several prohibitive challenges (including a 10-visit limit per pregnancy), Iowa's IM CoIIN team has begun exploring alternatives to weekly trips to the doctor's office. For example, the team recently partnered with Iowa's Medicaid program to make 17P shots available at a variety of clinic sites.

"It's meant to present another option to make things more convenient for low-income women," Trusty explains. "So if they have a WIC visit scheduled that week, or an appointment with a Title V maternal health nurse, they could get their shot then instead of making a separate trip to the doctor."

In addition, the team is joining forces with Iowa's Title V maternal health agencies to provide patients with transportation to medical appointments. They're also looking into the possibility of enlisting Title V maternal health nurses to teach patients to self-administer 17P at home.

"We're still working out the logistics," says Trusty. "But it would remove some of the difficulty if we could use an initial home visit to deliver the 17P and show moms how to self-administer the shot. Then, later on, we could schedule further visits to monitor how they're doing with the treatment."

In the meantime, the Iowa IM CoIIN team is raising awareness of the importance of 17P treatment for women with a history of preterm birth. That includes distributing educational materials to the state's Title V maternal health agencies, as well as calling on hospital-based nurses to hand out flyers about 17P upon discharging preterm infants from NICUs.

"It's generally hard to track down the people who might be candidates for 17P, but this way we're able to get the message out and educate a key audience," Trusty says.

Reducing Early Elective Deliveries

Preterm birth rates are at an all-time low in Mississippi, where more than 60 percent of births are Medicaid-covered. The Mississippi State Department of Health attributes that decline in part to a statewide push to reduce early elective deliveries, which are births scheduled prior to the 39th week of pregnancy for nonmedical reasons (such as discomfort or fear of vaginal birth).

Like all early-term infants, babies born from elective deliveries performed before the 39-week

mark face an increased risk of breathing, hearing and vision problems with potentially long-lasting effects. And because the final weeks of gestation are crucial for brain development—with the brain growing by one third between weeks 35 to 39—early-term birth is also closely linked to a host of learning and behavior disorders.

“Most women probably have no idea they’re putting their baby in jeopardy with an early elective delivery,” says Dina Ray, executive director of the Mississippi chapter of the March of Dimes. “But if the doctor’s miscalculated the due date by a couple weeks, and the delivery is scheduled for what’s supposed to be 37 weeks, that baby is a preterm baby.”

Thanks to an effort involving the Mississippi-based IM CoIIN team, more than 80 percent of the state’s hospitals have signed a pledge to eliminate elective deliveries before 39 weeks of pregnancy. In exchange for sharing data demonstrating that they’ve decreased early elective delivery rates to 5 percent or lower, those hospitals are awarded a banner from the March of Dimes.

The success of the program prompted Mississippi Medicaid (along with Blue Cross & Blue Shield of Mississippi) to implement policy changes that include no longer paying for elective, medically unnecessary deliveries before 39 weeks of gestation.

“The issue of early elective deliveries crossed all demographics for the state, so we needed a widespread strategy that would reach all populations,” says Ray. “But because there’s such a large percentage of Medicaid births here—and because Medicaid’s been so compliant—there’s really a direct connection to those underserved communities.”

Although Mississippi’s infant mortality rate has dropped by 28 percent over the last decade, it’s still the highest in the nation. With a goal of further reducing preterm labor rates and boosting birth outcomes, the IM CoIIN team is focused on keeping hospitals engaged in the effort to eliminate early elective deliveries.

“In a state where we have so many problems with our birth outcomes, why add to the list something that’s completely avoidable?” asks Ray. “We need to keep our finger on the pulse and keep checking in with the data, and make sure those numbers don’t come creeping back up over time.”