

## HEALTH FAQ

### Nitrous oxide for labor pain: A new option for patients at UNCHSE

UNC Health Southeastern will offer nitrous oxide as an additional option for pain management during labor starting Monday. The health system has invested in women's service with the state-of-the-art unit which opened Nov. 2024. This additional pain management option, which is not offered elsewhere in our region, is an expansion of that commitment and continued investment in the care of mothers and infants in our community. We are also currently recruiting for more obstetrics coverage, to offer an obstetrics hospitalist service, which will house these providers in the hospital, showing our continued commitment to excellent outcomes.



**Constance Mulroy**  
UNC Health Southeastern

#### What is nitrous oxide?

Labor is a physically intense and often painful process, and many patients feel anxious about the delivery experience. While epidurals and IV pain medications are effective, they are not the right choice for everyone. Nitrous oxide provides patients with a flexible, self-administered option to help manage pain and stress during labor. This addition

builds on the hospital's ongoing commitment to women's health services, following the opening of our women's center just one year ago. It also gives patients in our community access to safe, modern maternity care with more options for managing pain and how they experience childbirth.

Nitrous oxide, commonly known as "laughing gas," is a tasteless, odorless gas that has been used for labor and postpartum laceration repair analgesia for decades. It is a blend of nitrous oxide and oxygen that is inhaled through a mouthpiece or facemask. It reduces anxiety and increases a feeling of well-being so that pain is easier to deal with. It takes effect within seconds and wears off quickly and can be a useful tool if patients want relief and prefer not to receive an epidural.

#### Is nitrous oxide safe?

Yes. Nitrous oxide is safe for both you and your baby. It has been used worldwide for decades and does not slow labor or affect the baby's breathing or Apgar scores. Some patients may feel dizzy, nauseated or drowsy while using it, but these effects usually pass within a few minutes.

#### How long does nitrous oxide last?

Nitrous oxide does not build up in the body, and its effects fade within minutes. Patients stay awake, alert and fully able to participate in labor. Although it passes through the placenta, it is quickly eliminated by the baby.

#### Does it affect bonding or breastfeeding?

No. Its effects wear off quickly, allowing patients to stay alert and fully present after birth, supporting early bonding and breastfeeding.

#### Who should not use nitrous oxide?

Nitrous oxide is not recommended for patients who:

- Cannot hold their own mask
- Have impaired consciousness
- Recently used illicit drugs, narcotics, or alcohol
- Received opioid medication within the last 30 minutes
- Have a vitamin B12 deficiency
- Have low blood pressure

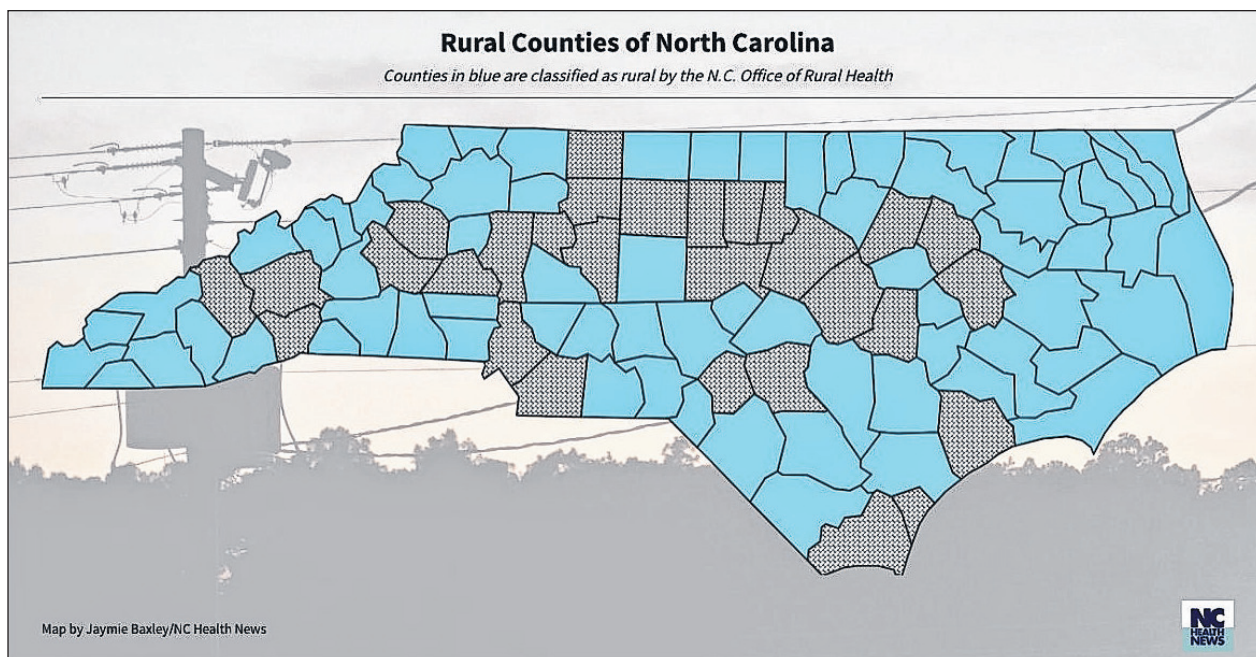
#### Can nitrous oxide be combined with other pain-relief methods?

Yes. Patients may use nitrous oxide alone or with other pain-relief options. It can be stopped at any time and does not interfere with later IV medications or an epidural. However, nitrous oxide cannot be used after an epidural is in place, and opioid pain medications should not be taken while using nitrous oxide.

#### How can patients learn more?

Patients expecting to give birth are encouraged to talk with their obstetric providers to see if nitrous oxide is a suitable option for their needs and medical situation.

OB/GYN Constance Mulroy, M.D., is the inpatient medical director of obstetrics and gynecology services for UNC Health Southeastern and practices with UNC Women's Health at Southeastern Health Park. To schedule an appointment, call 910-735-8040. To learn more, visit [unchealthsoutheastern.org/care-treatment/womens-healthcare/](https://unchealthsoutheastern.org/care-treatment/womens-healthcare/).



## NC pitches \$1 billion plan to overhaul rural health system

**Jaymie Baxley**  
NC Health News

RALEIGH — North Carolina is seeking \$1 billion from the federal government for a wide-ranging plan that could reshape rural health care across the state.

The N.C. Department of Health and Human Services hopes to secure the funding through the Rural Health Transformation Program, an initiative created under the One Big Beautiful Bill Act signed by President Donald Trump in July. The program allows states to compete for a share of a \$50 billion pool aimed at improving health outcomes in rural communities.

Devdutta Sangvai, secretary of NC DHHS, submitted the state's 61-page proposal to the federal Centers for Medicare and Medicaid Services on Nov. 3, ahead of a Nov. 6 deadline. Developed with input from more than 400 stakeholders, the state's plan lays out a broad framework for overhauling rural health delivery through six regional hubs that would coordinate services across North Carolina's 85 rural counties.

It also calls for major investments in the state's rural health workforce and introduces payment models designed to stabilize financially distressed hospitals and clinics. Other elements focus on nonmedical factors like food access and transportation — priorities that were central to the state's promising but now defunct Healthy Opportunities Pilot.

"Our plan reflects North Carolina's commitment to ensuring that every North Carolinian, no matter where they live, has access to high-quality health care," Gov. Josh Stein said in a statement. "North Carolina is on the cutting edge of technology and innovation, and our application for the Rural Health Transformation Program shows that we're ready to continue our leadership in rural health care."

If CMS approves the application, the state could begin receiving funds as early as this month. The \$1 billion would be distributed in annual payments of \$200 million over five years.

Debra Farrington, the department's deputy secretary of health, said she is optimistic about the outcome.

"I think North Carolina, being where we are with having the second-largest rural population in the country and way more facilities than some other states, and also having the infrastructure and innovation in place, we

feel like we're deserving of a higher percentage of the dollars compared to some other states," she said.

#### New model for coordinating care

The plan's centerpiece is the creation of six so-called ROOTS hubs. Short for Regional Organizing and Operational Transformation Support, these locally governed networks would be intended to coordinate the major components of the state's rural health strategy.

Each hub would unite hospitals, primary care practices, behavioral health providers, EMS agencies, local health departments and other partners under a shared regional structure. The goal is to replace the fragmented patchwork of services that rural residents often navigate with a system better able to respond to local needs.

Under the proposal, the hubs would oversee care coordination, data sharing, prevention programs, crisis response and workforce recruitment. They would also help communities secure grant funding, deploy mobile services and build stronger referral pathways between medical providers and social supports like transportation, housing and food assistance.

State officials say the hubs would give rural regions the infrastructure needed to tackle long-standing challenges like provider shortages and high percentages of uninsured residents — and ensure that improvements made with federal dollars endure after the program's five-year funding window closes.

"We're hoping that the funding will complement existing funding sources, which is important because this is a time-limited program for only five years," Farrington said. "We wanted to be careful not to set up something that was not sustainable. These dollars can complement and pay for initiative activities that are not currently covered in existing programs but allow us to expand the capacity of those programs, and that's certainly our intent."

The six hub regions will be selected through a competitive process open to partnerships that have demonstrated experience in getting many service providers to collaborate. DHHS will weigh regional health needs, existing service gaps and applicants' ability to maintain the work after federal funding ends. The agency expects to finalize the hub regions after conducting readiness assessments in early 2026.

Farrington said some of

the hubs could begin operating as early as January.

"One of the reasons that that's possible is because we want to leverage existing entities that already are in place to be able to start the ROOTS hubs," she said. "That would allow us to start fast while we implement a procurement process that is more competitive and would allow us to include more representatives from the community. But we have existing entities that could start right away, and we want to begin there as a way to show early wins and get some early successes."

#### Building on a promising program

Once established, the hubs would anchor another core element of the plan: the distribution of food and other supports that address non-medical health needs.

Each hub would work with local food banks, farmers and community groups to provide boxes of groceries and fresh produce to patients with conditions such as diabetes or heart disease. Farrington said the goal is to reduce hospitalizations and improve chronic disease outcomes in rural communities where healthy food can be difficult to access.

"Nutrition and access to healthy foods are drivers of certain health conditions and health outcomes," she said. "You can make some improvements after conditions have been diagnosed and people are getting treatment or in the hospital, but we feel like we have an opportunity to have better outcomes and long-term sustainable improvements by addressing some of the root causes of poor health."

"Food is a critical component."

The approach echoes the Healthy Opportunities Pilot, a first-in-the-nation program launched in 2022 that used Medicaid dollars to provide food deliveries, transportation to appointments and other nonmedical services to rural residents facing significant barriers to health.

An independent evaluation found the program lowered participants' health care costs by up to \$1,020 a year after just the initial 18-month period. But lawmakers declined to continue funding Healthy Opportunities, which forced the program to shutter in July.

With the Rural Health Transformation Program, Farrington said the state hopes to continue that work without needing authorization or funding from the legislature.

"We were very intentional at wanting to have food-as-

medicine type programs that were core to what we had designed with the Opportunities program," she said.

Other highlights from the plan include initiatives that would:

— Expand rural behavioral health services through new crisis centers, additional mobile units for treating opioid use disorder and school-based mental health programs.

— Improve access to maternal health services with expanded prenatal and postpartum care, enhanced obstetric training in rural hospitals, and tools like postpartum warning-sign bracelets and AI-assisted ultrasound technology.

— Increase the size and stability of the rural health workforce by developing new training pipelines and offering incentives to retain providers in rural areas.

— Support financially vulnerable hospitals and clinics through technical assistance and value-based payment models intended to reduce preventable hospitalizations and stabilize rural facilities.

— Strengthen digital and data infrastructure by increasing broadband support for providers and expanding their telehealth capabilities.

"I think we did a fabulous job in developing this proposal," said Farrington, adding that the plan incorporated a "tremendous amount of feedback" from rural providers and other stakeholders over only four months.

"I have high confidence that it will be approved," she said.

Her comments were echoed by Sangvai, the NC DHHS secretary, who praised the plan in a news release announcing its submission to CMS.

"Rural health care providers are the backbone of their communities, working tirelessly to ensure people have access to care when and where they need it," he said. "North Carolina is a leader in prioritizing rural health and remains committed to investing in rural health care and the rural health workforce. The North Carolina Rural Health Transformation Plan is one part of our efforts to support the more than 3 million people in North Carolina who live in a rural community."

Jaymie Baxley is an award-winning reporter covering rural health and Medicaid for NC Health News. A lifelong North Carolinian, he previously worked at The Robesonian, The Pilot in Moore County and The Daily Courier in Rutherford County. Reach him at [jbaxley@northcarolinahealthnews.org](mailto:jbaxley@northcarolinahealthnews.org).

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