

### Overview

Dartmouth–Hitchcock Medical Center (DHMC) is New Hampshire’s only academic medical center and is headquartered on a 225-acre campus in the heart of the Upper Connecticut River Valley, in Lebanon, N.H. DHMC is New Hampshire’s only Level I trauma center, one of only three in northern New England, and it includes New Hampshire’s only air ambulance service.

The number of infants born with neonatal abstinence syndrome (NAS) has increased as opioid use skyrocketed in the region, with heroin-related Emergency Department visits tripling in New Hampshire alone since 2013. By 2016, eight to 10 percent of newborns in the state’s Upper Connecticut Valley region had been exposed to opioids in utero and many had NAS, moderate to severe symptoms of physical dependence at the time of delivery.

Keeping mothers and babies safe in the midst of the opioid crisis in northern New England is the goal of a new online toolkit being tested in eight regional hospitals. The new collaborative program also encourages smoking cessation among this patient population in year two of a three-year, \$127,000 grant that Dartmouth-Hitchcock’s Perinatal Addiction Treatment Program received from the March of Dimes in 2016.

While the number of addicted mothers and affected babies has increased, knowledge about how to treat them also has improved significantly, according to project coordinator Daisy Goodman, APRN, an advance practice nurse with a specialty in midwifery who works closely with the women in the Perinatal Addiction Treatment Program.

The new toolkit is a direct result of clinical evidence gathered over the past several years that showed a clear need for coordinated, compassionate care. The toolkit includes provider-, patient- and system-level resources for promoting implementation of best-practices.

“In addition to NAS, untreated substance use disorders are associated with poor maternal and neonatal outcomes, including prematurity and infectious disease,” Goodman said. “Although evidence-based guidelines for the care of substance affected pregnancies are available, regional variation persists in the quality of care that is delivered and inconsistent coordination between maternity providers and addiction treatment providers continues to be a challenge.”

**“Providers were saying, ‘I feel like my patients have two different health care teams – they have their addiction treatment provider and they have their perinatal health care team and the two don’t talk to each other. This is not a safe situation.’”**

**Daisy Goodman, APRN, project coordinator,**  
*Perinatal Addiction Treatment Program, Dartmouth–Hitchcock Medical Center*

A survey of medical providers conducted last year by the Northern New England Perinatal Quality Improvement Network, a partner in the project, found that providers want consistent guidelines and a systematic approach to care, according to Goodman. “For example, they lacked a consent form that would help them coordinate care among providers,” said Goodman. “Providers were saying, ‘I feel like my patients have two different health care teams – they

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have their addiction treatment provider and they have their perinatal health care team and the two don't talk to each other. This is not a safe situation."

The Dartmouth-Hitchcock program includes close collaboration and partnerships between psychiatry and OB/GYN providers, crossing traditional boundaries between specialties of treatment.

The toolkit also contains forms that enable a patient's health care team to share information and collaborate better, as well as information about what the patient can expect when they go to the hospital to deliver their baby. "Many pregnant women with opioid use disorders don't know that they and their babies will be drug-tested when they arrive at the hospital, for example," said Goodman. "Information like this is essential in terms of the patient experience and the ability to generate trust. If they come in unprepared, it leads to anger and stress on all sides."

## Impact

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While national work in this health care area has focused on "identifying and summarizing best practice through the work of expert consensus panels," said Goodman, the northern New England initiative is taking a slightly different approach by focusing on getting those best practice recommendations into practice. "To my knowledge, we are the first to actively explore barriers and facilitators to implementing these guidelines into clinical practice across a variety of contexts," she said. "For that reason, we hope this work will be helpful even outside of our New England region."

## Lessons Learned

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Over the past year, Goodman worked with a regional advisory group of pediatric, maternity care and addiction treatment providers to create the toolkit. "The goal is to get providers and patients the information

they need, for example, that it's okay to breastfeed if you're on methadone," said Goodman, who noted that regional breastfeeding numbers vary widely due to lack of consistent patient information. "The toolkit will also remind clinicians about essential elements of good care, such as screening for Hepatitis C, which is not consistently done for this patient population even though a positive Hepatitis C test influences the management of labor and delivery and has significant downstream consequences for mom and potentially for baby."

As communities across the country struggle with the impact of opioid use disorders, Goodman said she's seen a change over the last three years in the way people in maternal child health are talking about opioid use in pregnancy. "I think we have a better understanding of the science of addiction and a better appreciation of medication assisted treatment as an evidence based approach during pregnancy," Goodman said. "We've certainly grown in our understanding of the comparative efficacy of buprenorphine and methadone for treatment."

## Future Goals


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During the second year of this March of Dimes-funded project, program leaders will implement a toolkit that includes guidelines for best practice and the tools to incorporate them into Dartmouth-Hitchcock practices across the region.

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