Members in ACTION

CASE STUDY

NORTHERN NEW ENGLAND PERINATAL QUALITY IMPROVEMENT NETWORK

Dartmouth-Hitchcock Medical Center | Lebanon, N.H.

Overview

Sixteen years ago, Victoria Flanagan, R.N., M.S., and Michele Lauria, M.D., M.S., became increasingly alarmed as provider after provider closed vaginal-birth-after-a-caesarean (VBAC) programs across northern New England. In their clinical work, Flanagan and Lauria witnessed the burden such closures placed on women. Thus, what began as a collaborative project to investigate the VBAC issue for their master's degree program evolved into what is now known as the Northern New England Perinatal Quality Improvement Network (NNEPQIN).

Today, NNEPQIN consists of 43 organizations throughout New Hampshire, Vermont, and Maine involved in perinatal care, including hospitals, state health departments, professional midwifery organizations, and the March of Dimes. The mission of NNEPQIN, a voluntary consortium that fosters interdisciplinary collaboration, is to:

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- **Develop best practice guidelines and help its members adapt them for local implementation.** Currently, these multidisciplinary guidelines range from "Labor Induction: Elective and Indicated" and "Postpartum Hemorrhage" to "Care of the Newborn at Risk for Neonatal Abstinence Syndrome."
- **Facilitate benchmarking for excellence in care.** In 2012, the state of New Hampshire delegated to NNEPQIN the functions of collecting, analyzing, and disseminating causes of pregnancy-related and pregnancy-associated maternal deaths. Based on these findings, NNEPQIN helps advocate for public health programs and initiatives to address these causes.
- **Develop consistent quality improvement parameters for use throughout the region.** NNEPQIN is working with the state health departments in New Hampshire, Vermont, and Maine to develop a regularly updated hospital-level report of aggregate measures drawn from birth certificate and hospital discharge datasets. Sharing a common data set will enable NNEPQIN to track outcomes over time for quality improvement projects.
- **Provide independent and confidential case review of unanticipated perinatal outcomes with structured feedback for participating organizations.** NNEPQIN launched an initiative in 2010 that became known as the Confidential Review and Improvement Board (CRIB). CRIB performs multidisciplinary case reviews of unanticipated adverse outcomes under the protection of the Quality Assurance statutes in New Hampshire and Vermont. NNEPQIN uses lessons learned from these reviews to identify topics for regional education and guideline development.
- **Offer state-of-the-science continuing education conferences.** NNEPQIN offers 3,500 continuing education credits each year through three annual conferences, two of which are provided free of charge to NNEPQIN members.

"Most of our member organizations practice in small units that serve small communities. We view our role as a translator of national guidance so that our members can operationalize various guidelines and make them applicable to the settings in which they practice," says Timothy Fisher, M.D., M.H.C.D.S., medical director of NNEPQIN. "Part of the value we bring to our members is that we are 'honest brokers' providing a neutral space for people who share common work to come together."

NNEPQIN's uniqueness can be attributed, in part, to the depth, breadth, and commitment of its membership, which makes decisions about regional guidelines through consensus.

"Before NNEPQIN, sharing best practices, protocols, guidelines, and local policies was done informally, often in a 'one-off' manner without a regional or even local reach," says Karen Boedtker, R.N., risk manager at Dartmouth-Hitchcock Medical Center. "Having regional standard-of-care guidelines for providers, nurses, and institutions who often share patients allows for consistent best practices for women and newborns in our area. Without question, this, in my opinion, promotes safety and reduces risk and liability. The importance of being able to share lessons learned and improvement ideas from every member at so many varied levels – such as home birth, critical access, community hospitals, and academic medical centers/health systems – cannot be overstated."

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Impact

A member of NNEPQIN for more than 12 years, Exeter (N.H.) Hospital is a 100-bed, tax-exempt, community-based hospital that reintroduced VBAC to its patients under the consortium's guidance. Since joining, Exeter Hospital reduced its early-elective delivery rate from 30 percent to zero using NNEPQIN's VBAC resources. Further, Exeter Hospital representatives participated in NNEPQIN work groups to help embed the maternal safety bundles of post-partum hemorrhage and hypertension that are state-based on national standards and best practices.

"With the spotlight shining on maternal mortality lately, I have been fielding many inquiries about the Family Center's metrics and best practice standards," says Michelle Savoie, director, Family Center, at Exeter Hospital. "I was able to confidently tell senior administration that New Hampshire is very progressive regarding perinatal safety because of the work we do through NNEPQIN. Initiatives are easier to implement when they come through NNEPQIN because the tool kits work for smaller community hospitals."

NNEPQIN offers a toolkit and checklist for the perinatal care of women with opioid use disorders. Eight sites piloted these resources in 2016 through 2017. After assessing the toolkit's use, NNEPQIN found significant changes in naloxone prescribing as well as marijuana and tobacco use during pregnancy, as well as positive trends in Hepatitis C testing and third-trimester drug use.

In addition, NNEPQIN has created a pathway for communication that has informed state policy, such as "Safe Plans of Care" for infants with perinatal substance exposure.

"NNEPQIN is the 'eyes and ears' for New Hampshire's Department of Health and Human Services (NH DHHS) with regard to emerging public health issues in the community," says Patricia Tilley, M.S., Ed.D., deputy director, New Hampshire Division of Public Health Services, DHHS. "NNEPQIN was among the first to sound the alarm about the

increasing rates of neonatal abstinence syndrome in the earliest days of the opioid crisis. The partnership with the NH DHHS has created opportunities for more timely and better quality population health data collection that will improve clinical and supportive services for women and their infants. Without this partnership, the NH DHHS would not have the capacity to fully study and address issues of both maternal mortality and maternal morbidity."

Lessons Learned

Without any formal funding mechanism, NNEPQIN is completely volunteer-driven. Although member organizations pay a yearly fee of $500, that money is put directly into developing and hosting three annual educational conferences. The lack of money to officially reimburse people for their work limits the scope of what NNEPQIN *can* do compared with what it *might* be able to do.

"We could restructure those membership dues, and that could perhaps take us to another level," says Victoria Flanagan, R.N., M.S., NNEPQIN's director of operations. "But the fundamental spirit of NNEPQIN lies in our nonhierarchical, flat organizational structure. Everyone has an equal place at the table, which is something we don't want to jeopardize. Right now, the spirit of cooperation and belief in collaboration is very strong. We hope we can sustain that."

Despite the lack of funding, the independent nature of NNEPQIN has been a significant factor in the organization's ability to accomplish so much. In many other states, perinatal quality improvement groups typically reside at a state government level, perhaps in the department of health.

"For those groups, priorities in any given year depend on what the state's legislative agenda might be," says Fisher. "Those groups are given mandates and, using the carrot-and-the-stick analogy, sticks with which to bring hospitals and clinicians in line with those mandates. But NNEPQIN only has carrots because we are not beholden to anyone else's agenda. If we pitch an idea that people are not enthusiastic about, it doesn't go anywhere. We believe that the results of mandated work might not be as robust as those that are derived from a collective interest and passion."

Because NNEPQIN does not own a formal information technology infrastructure, data collection and analysis can be challenging. For smaller projects, NNEPQIN's team will collect patient-level data; however, that is a labor-intensive and unfunded endeavor. Thus, NNEPQIN often relies on the states' vital statistics departments.

"We are fortunate to have strong collaborative relationships with Maternal-Child Health epidemiologists from New Hampshire, Vermont, and Maine," says Fisher. "When we are trying to interpret news at the national level and how it is applicable to our work here, our epidemiologist contacts have been gracious in giving us a sense at a high level of what trends we may or may not see."

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Future Goals

NNEPQIN is currently working toward joining the Alliance for Innovation on Maternal Health (AIM) Program. Led by The American College of Obstetricians and Gynecologists under the auspices of the Council for Patient Safety in Women's Health Care, AIM's goal is to improve a culture of maternal safety through proven implementation of consistent maternity care practices. NNEPQIN also will continue

to address the challenging obstetrical and neonatal issues facing multidisciplinary provider teams. Specifically, the consortium will increase its focus on understanding the underlying causal factors of the closure of perinatal units in the region and playing an even larger role in advising policy makers in the region.

Looking into the future, Fisher believes that NNEPQIN will maintain its ongoing commitment to doing what the consortium knows it does best: bringing a diverse group of stakeholders together virtually and physically for collaboration to meet the needs of their constituents.

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