Report Period: January 1, 2019 through December 31, 2019 **Project**: Perinatal Quality Collaborative for Maine

Project Staff:

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Organization Updates:

Effective January 1, 2019, Maine Quality Counts, Inc. merged with The Connecticut Peer Review Organization, Inc. dba Qualidigm, a national, 501(c)3 non-profit healthcare consulting and quality improvement organization headquartered in Wethersfield, CT. With over 50 years of combined experience, the unified organization collectively increases the capacity to lead and deliver a wide set of comprehensive healthcare improvement services spanning the care continuum and New England. With corporate headquarters in Wethersfield, CT and additional offices in Manchester, ME, Dover, NH, Barre, VT, and Providence, RI, Qualidigm supports its mission of transforming quality, safety and value of healthcare by leading, collaborating and aligning improvement efforts. During the course of this grant period, Dr. Amy Belisle transitioned into a new role as Chief Child Health Office for the State of Maine. Her email address listed above is updated to reflect her new contact information.

Project Goal:

The goal of this project was to draw on best practices learned and tools developed through the Northern New England Perinatal Quality Collaborative's (NNEPQIN) *Eat, Sleep, and Console* initiative at Dartmouth, Yale, and Boston Medical Center, and disseminate this information across the state. The project focused on strengthening maternal/family involvement and use of nurturing as the first line of treatment for newborn opiate withdrawal, known as neonatal abstinence syndrome (NAS). Eat, Sleep, Console has been demonstrated to reduce the percentage of infants treated with morphine for opiate withdrawal, therefore decreasing the number hospital days for infants with NAS while fostering optimal parental caregiving behaviors. The project also incorporated recommendations of the newly updated "Snuggle ME" guidelines to improve medical care and outcomes for mothers, infants and families affected by substance use during pregnancy.

Key Activities/Deliverables:

All of the below deliverables were achieved in collaboration with the State of Maine Perinatal Nurse Outreach Educator: Kelley Bowden- RN, Neonatologist Dr. Alan Picarillo, Director of Operations for NNEPQIN: Victoria Flanagan- RN, and Project Manager for the New Hampshire ESC Implementation: Farrah Deselle-MSN, RN along with dedicated project staff. Qualidigm was able to achieve the deliverables below due to the strong commitment and collaboration amongst our project partners.

Deliverable	Status	Activity Summary
In Person Training on ESC	Completed	On June 4 th , Qualidigm hosted a day-long ESC
		Training which brought together 21 Maine hospital
		teams to receive education and engage in simulation
		exercises on the implementation of Eat, Sleep,



		Console. The training received positive feedback from attendees and teams left the training with actionable steps to work towards the implementation of ESC at their hospitals.
Birthing Hospitals committing to the implementation of ESC	Ongoing	Qualidigm had the hospital teams that attended the ESC training complete a follow-up data gathering survey six weeks after attending the ESC training. Eight of the hospital teams indicated that they were actively working towards the implementation of ESC with leadership and four of those eight teams had set an implementation date to go live.
Connecting Birthing Hospitals to NNEPQIN	Ongoing	As of 11/2019, 20 out of 24 of the Maine birthing hospitals are now connected into NNEPQIN. Outreach is in process to encourage the remaining four birthing hospitals to join NNEPQIN.
ESC Quarterly Coaching Calls	Completed	Qualidigm, in collaboration with our previously mentioned project partners, has developed and hosted quarterly video conference coaching sessions with the final session scheduled for 12/12/2019. These virtual sessions were structured to share and address common ESC implementation barriers as well as have hospital teams report out on updates for their individual programs. The NNEPQIN ESC implementation data is reviewed on each call to highlight progress and identify trends as well as potential areas for additional support.
Support for two PQC4ME Meetings	Completed	Funding from this grant was used to support the hosting of two 2-hour in-person Perinatal Quality Collaborative for Maine Steering Committee meetings with the goal of gaining stakeholder buy-in to improving the system of care for mothers and infants in Maine.
Stipends to hospitals for data collection through NNEPQIN	Completed	To help offset the staff time it takes to report ESC data on substance exposed infants into NNEPQIN, the project team worked with hospitals (signed up to participate in NNEPQIN) to issue a small stipend for their efforts.
One staff member to attend NNEPQIN Annual Meeting	Completed	To continue to build an effective community of practice with NNEPQIN and within Maine, attendance at the NNEPQIN meeting will occur.

The project deliverables included one in-person training on ESC in Central Maine, getting commitments from birth hospitals to implement ESC, connecting birth hospitals to NNEPQIN and attending monthly case-base conferencing on the care of substance exposed infants, providing quarterly coaching calls with Maine groups around implementation of ESC with local experts and technical assistance around quality improvement and data collection, supporting two Perinatal Quality Collaborative for Maine meetings to discuss the project and share learning, providing a small payment to 12 hospitals to help offset the cost



of data collection, and supporting the attendance of one staff member to attend the NNEPQIN annual meeting.

As Qualidigm works to build the infrastructure for the PQC4ME, a small portion of the funding also went to support four community hospitals to join a second quality improvement project with the Vermont Oxford Network on transitions of care for newborns between different settings (newborn nursery, NICU, community hospitals, etc.). This funding has allowed Qualidigm to further develop the Perinatal Quality Collaborative in Maine within its Child Health Division while assisting Maine birthing Hospitals to implement best practices for substance exposed infants and their families.

Data Results of ESC Implementation:

This project has demonstrated a reduction in the percentage of opioid-exposed newborns who are treated with medications (such as morphine) for their withdrawal by using a novel care assessment approach and documentation tool which empowers families to care for their infants. By decreasing the number of infants who require treatment with morphine, the duration of hospitalization has decreased from approximately 21 days to 7 days, leading to decreased healthcare costs.

At the onset of this project, only 2/26 nurseries in Maine had implemented ESC and, by the end of this month, >80% of Maine nurseries have implemented use of the ESC Care Tool with the remaining hospitals in the process of protocol development, staff education with roll out anticipated by the end of the year. Facility staff and families have expressed satisfaction about how care is delivered and the experience of caring for substance-exposed infants. One hospital noted that:

"In the past year we have had 7 infants born substance exposed and none of those infants were transferred to Maine Medical Center. All 7 infants were assessed using the ESC Care Tool and symptoms were managed accordingly without needing pharmacologic intervention. This allowed the infants to remain in the community they were delivered in with family support at the hospital. At this time last year 50% of our infants that were born substance exposed were transferred to Maine Medical Center."

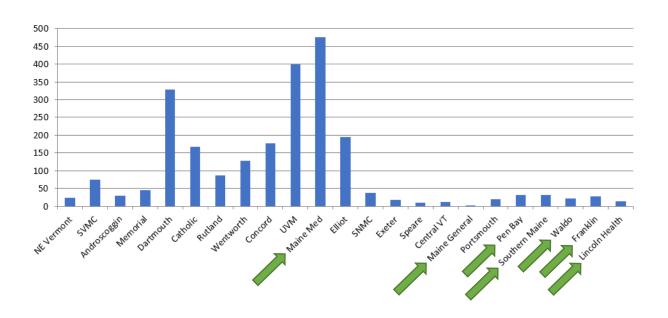
While some infants born substance exposed will still need pharmacologic intervention and/or may need to be transferred to a higher level NICU, others are able to remain within their community hospital with management of their symptoms leading to a reduction in utilization of the Neonatal Emergency Transport system in Maine for those infants that are not critically ill.

Through the PQC4ME, this project brought together caregivers from across the state to work to improve the care (in this case) of opioid-exposed newborns. This community of practice enabled providers from across the state to share best-practices and their challenges to improve the care of newborns and families affected by the opioid epidemic in Maine. The following graphs provide a visualization of the reduction in the percentage of substance exposed infants requiring pharmacologic treatment for NAS as well as the reduced length in stay and is based on data collected from participating Maine hospitals.

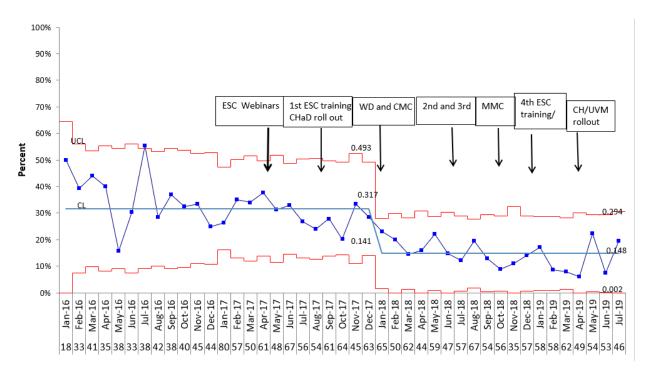


Maine Hospitals Submitting Data on ESC

*MidCost Hospital, Stephen's Memorial Hospital, and Eastern Maine Medical have also started to report data, but are not listed below due to recent implementation

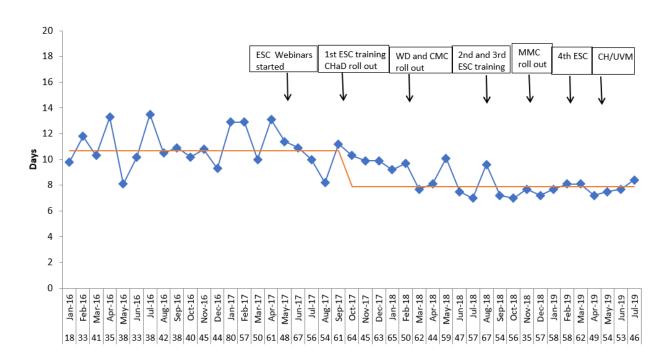


Percent SEN Requiring Pharmacologic Treatment >35 Weeks





Length of Stay, all exposed infants >35 weeks



Recommendations:

Qualidigm is looking to secure funding to continue the important work of this initiative in an effort to accomplish the following recommendations which were develop based on the work completed and lessons learned during this project:

- 1. Continue efforts to build a community of care through the perinatal collaborative in order to increase the statewide commitment to shared quality improvement projects that 1) allow use of consistent data sets across multiple practice settings, 2) benefit participants through networking, shared problem solving efforts, and hearing other's successes, and 3) act to improve, and document, consistent use of evidence-based practice while providing evaluation of their effects on the population served. The interdisciplinary focus provides an opportunity for champions across disciplines to bring their expertise to other QI projects, whether they are local or state-wide, and identify potential benefits or unintended effects. For example, delayed cord clamping is recommended for all births, and the timing of cord separation during cesarean can affect both mother and neonate. An interdisciplinary approach can use current evidence on timing of cord separation to provide optimal care to both mother and baby;
- 2. Work to build a Parent Family Advisory Council (PFAC) to inform future PQC4ME projects as recommended by the PQC4ME Needs Assessment. The Council would act to guide project development to ensure projects are developed to be relevant to family needs as well as being responsive to evidence-based best practices. Specifically, the council will be asked to 1)



represent the family perspective during project development, 2) review project tools to ensure they are appropriate for use across different families, and 3) represent minority or marginalized populations to mitigate any systemic or implicit bias as the project moves forward. This family involvement is critical to ensuring families remain central to care and are empowered to participate in shared decision-making within projects;

- 3. Provide continued support and monitoring of ESC data as it expands to more birthing hospitals. As of December 2019, 9 hospitals in Maine are using ECS, with 3 additional hospitals planning to implement ESC, and 10 needing outreach to explore the barriers to ESC education, training and implementation. The data will be collected in conjunction with NNEPQIN and on-going feedback provided to project participants to demonstrate the effectiveness of the ESC approach and foster a cohesive community of learning across the state. This lends itself to consistency of care across organizations and improves quality of care especially when transfer of care is required;
- 4. Continue with an interdisciplinary MCH focus when developing future projects. The focus on the intersection of disciplines is a way to improve care by fostering effective MCH care teams, and improving communication between health care providers, and with community-based services such as Medication Assisted Treatment (MAT) programs. An example of one such project is increasing the percentage of postpartum clients on MAT that are provided appropriate adjustments of their treatment dose during hospitalization for birth, and a prescription for Narcan and relapse prevention resources to foster a seamless transition of care when resuming MAT postpartum. Other projects recommended by the Needs Assessment include 1) increasing the percentage of pregnant and postpartum clients who receive recommended screenings and associated treatment (for mood disorders, substance use, intimate partner violence, food insecurity, etc.), or 2) increasing the percentage of clients who receive early postpartum follow-up consistent with ACOG recommendations, both as means to reduce preventable maternal morbidity and mortality.

Please do not hesitate to contact me (Kayla Cole) if you should have any questions about this report. Thank you for the opportunity to work with Hannaford.

Submitted by: Kayla Cole, Consulting Services Manager

Date: 12/31/2019710

