Problem Statement:

The opioid epidemic is a profound public health crisis. In 2014, 92 million, or 37.8% of adults in the United States reported the use of prescription opioids. This and the availability of illicit narcotics fuels the crisis. Escalations in opioid use have been particularly profound among women of reproductive age. A greater prevalence of comorbid psychiatric disorders, gender-based violence, physical and sexual abuse, and chronic pain disorders likely contribute to disproportionate rates of opioid use and misuse among women compared with men. Collectively, a myriad of issues contribute to the rising prevalence of opioid use disorder among women and such issues continue during and after pregnancy.

Between 1999 and 2014, the prevalence of opioid use disorder during pregnancy increased from 1.5 to 6.5 per 1,000 hospital births per year. In 2017, there were 1,953 overdose deaths—involving opioids in North Carolina—a rate of 19.8 deaths per 100,000 persons compared to the average national rate of 14.6 deaths per 100,000 persons.

Pregnancy-associated morbidity and mortality due to substance use is a major patient safety issue. Pregnancy is a unique opportunity to address the complex and often challenging health needs of women with opioid use disorder and provide interventions that can improve maternal and child health well beyond the perinatal period.

Each year, an estimated 15 percent of infants are affected by prenatal alcohol or illicit and prescription drug exposure. Prenatal exposure to alcohol, tobacco, and other drugs has the potential to cause a wide spectrum of physical and developmental challenges for these infants. There is also potential for ongoing challenges in the stability and well-being of infants who have been prenatally exposed, and their families if substance use disorders are not addressed with appropriate treatment and long-term recovery support.

Neonatal abstinence syndrome (NAS) or neonatal opioid withdrawal syndrome (NOWS) is a drug withdrawal syndrome in newborns following birth. The most recent data on the rate of babies born with NAS/NOWS in North Carolina is from 2014 hospital discharge data. From 2008 to 2014, the rate of NAS/NOWS increased from 1.8 cases per 1,000 hospital births to 8.2 cases per 1,000 hospital births.

The Perinatal Quality Collaborative of North Carolina will address this through an initiative that addresses issues relevant to the care of both moms and babies.
FOR MOMS
Mission:
Provide the facilitation, support, and education necessary to deliver optimal (or evidence-based care) care for pregnant women with opioid use disorder

Aim:
Working with perinatal quality improvement teams and participating centers of maternal care we will assure an equitable and evidence based universal verbal screening recommendations for opioid use disorder in pregnant women during the antepartum and intrapartum periods.

We will develop procedures for all appropriate health care team members to be skilled in delivering non-judgmental and supportive brief assessment, timely intervention and referral to treatment/continued treatment delivery for all pregnant women with OUD.

We will introduce education, training, and ongoing quality assurance recommendations to reduce stigma and bias associated with maternal disclosure of any substance use, as well as how these stigma and biases may continue to impair access to clinical care after disclosure.

Scope:
We will work with perinatal quality improvement teams in participating sites, both outpatient and inpatient, caring for mothers with opioid use disorder in the antepartum, peripartum and postpartum period.

Method:
Invite teams from antepartum, labor and delivery centers and postpartum care sites to participate in the collaborative. PQCNC will facilitate the collaborative structure to include learning sessions, web conferencing, coaching to support perinatal quality improvement teams (PQIT’s), education regarding quality improvement strategies and development of data systems to support most effective implementation of the cLOUDi action plan.
Perinatal Quality Collaborative of North Carolina

CLOUDi
Comprehensively Lessening Opioid Use Disorder Impact Charter

Measurement Strategy includes:

1. 100% of pregnant women screened at initial prenatal visit and on entry to the hospital for delivery
2. 100% of positive screens receive a brief intervention
3. 75% of women receptive to a referral for treatment are assessed and evaluated for treatment
4. 100% of women with positive screens receive prenatal education regarding the risk for and treatment of neonatal abstinence syndrome
5. 100% of women with positive screens receive Safe Sleep education
6. 100% of women with positive screens receive depression screening
7. 100% of women with positive screens receive or are prescribed Naloxone prior to discharge

FOR BABIES
Mission:
Provide the facilitation, support and education necessary to deliver optimal care for infants with neonatal abstinence syndrome (NAS) in the hospital and for the first six months of the newborn period.

Aim:

- Create a multidisciplinary hospital and community-based team focused on providing a standardized approach to the identification, evaluation, treatment, discharge and follow up of the NAS infant.
- Hospitals will standardize the non-pharmacologic and pharmacologic care of the NAS infant using practices based either on Eat Sleep and Console (ESC) or the modified Finnegan scoring system.
- Hospitals will increase partnership with families or guardians in the care of NAS infants. Every infant with NAS will have the opportunity to participate in a Safe Plan of Care. At discharge NAS infants will be referred directly by the hospital based medical team to a community based medical team that will be responsible for ongoing newborn acute and routine care, and support for families or guardians.

Scope:
Working with participating perinatal quality improvement teams that include hospital (nurses, addiction specialists, physicians, pharmacists, social workers and practitioners) in the care of infants, mothers and families dealing with NAS.

Method:
Invite teams from hospitals (NICU’s and mother baby units) to participate in this collaborative. The formal structure will include learning sessions, web conferencing and coaching to support perinatal quality improvement teams (PQIT’s) in using quality improvement strategies to implement elements of the action plan

**Measurement Strategy includes:**

1. Infants substance exposure (opioid, alcohol, tobacco, methamphetamine, cocaine, benzodiazepine)
2. Number of infants diagnosed as at risk for NAS
3. Number of infants diagnosed with NAS
4. % of infants diagnosed with NAS requiring pharmacologic treatment
5. % of infants diagnosed with NAS and non-pharm treated
6. % deviations from consistent use of a single primary designated medication in a facility
7. Length of stay for infants requiring pharmacologic treatment
8. For pharmacologic treated infants:
   a. If Finnegan scoring, % of infants receiving rescue dose of med
   b. If ESC, % of infants requiring scheduled med dosing
9. % of infants ever breastfed,
10. % of infants breastfeeding at DC
11. % of infants discharged home on withdrawal supporting medication
12. % of infants with follow up appointment arranged at discharge
13. % of infants with Plan of Safe Care offered at discharge
14. % of infants with Plan of Safe Care accepted at discharge
15. % of nurseries with guidelines for Safe Sleep practices
16. % of nurseries with demonstrated adherence to Safe Sleep practices