Problem Statement:
Maternal sepsis can be defined as, “as organ dysfunction resulting from infection during pregnancy, childbirth, post-abortion, or postpartum period (up to 42 days).” Maternal sepsis is a leading cause of maternal morbidity and mortality in the United States and in North Carolina. A 2021 report from the NC Maternal Mortality Review Committee identified infection as the third leading cause of pregnancy-related deaths in North Carolina from 2014 to 2016, with 11.7% of pregnancy-related deaths being attributed to infection. Maternal sepsis can also lead to serious long-term health conditions for the mother-baby dyad.

While maternal infections can lead to serious complications and death when undetected or poorly managed, identifying potential infections early and escalating care in an appropriate, timely manner has the potential to significantly improve health outcomes for mothers and babies and save lives. Research has shown that maternal deaths caused by sepsis are largely due to three key delays: delay in recognition, delay in treatment, and delay in escalation of care.

The Perinatal Quality Collaborative of North Carolina will address this through an initiative that supports the implementation of evidence-based measures to prevent infection, improve recognition and treatment of maternal infections, and implement systems to appropriately escalate care for patients experiencing maternal infection or sepsis.

Mission:
Provide the facilitation, support, and education necessary to implement evidence-based measures to prevent infection, recognize and treat infection early to prevent progression to sepsis, and implement systems to appropriately escalate care for patients experiencing maternal infection or sepsis.

Aim:
To improve identification and prompt treatment to improve sepsis care and outcomes.

- Implement a screening tool and patient education for pregnant and postpartum patients
- Administer appropriate antibiotics within 1 hour
- Implement escalation of care protocol
- Review of all sepsis cases to improve care and reduce bias

1 World Health Organization
Sepsis in Obstetric Care Charter

Scope:
We will work with perinatal quality improvement teams in participating sites, both outpatient and inpatient, caring for mothers 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 Sepsis in Obstetric Care action plan.

Measurement Strategy includes:
1. 100% of patients screened for sepsis
2. 100% of patients who screen high-risk receive appropriate and timely follow-up
3. 100% of patients receive education about Urgent Postpartum Warning Signs.
4. 100% of maternal sepsis cases receive multi-disciplinary case review
5. 100% of maternal sepsis cases are followed by a Patient Event Debrief with the patient