

PA PQC

Pennsylvania Perinatal Quality Collaborative

**Maternal Substance Use and Substance Exposed Newborn
Virtual Meeting**
November 9, 2022

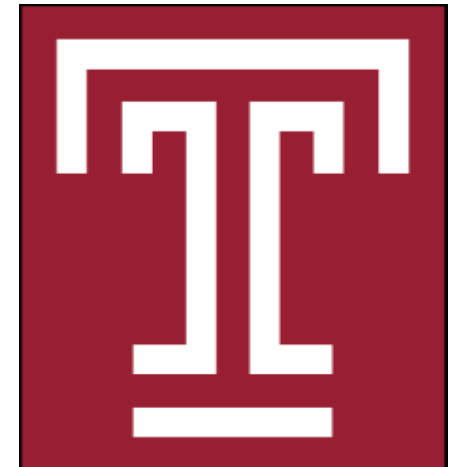
Agenda

1. **Introduction**— Sara Nelis, RN, PA PQC Project Manager, Jewish Healthcare Foundation
2. **PA PQC Healthcare Team Presentations** —
Roschanak Mossabeb, MD, Section Chief of Neonatology, Temple University Hospital
Kathy Ramiza, RN-MSN, CPNP, Inpatient Pediatric Hospitalist, Guthrie Robert Packer Hospital
Joanna Parga-Belinki MD, IBCLC, FAAP & Ashley Savage MHA, RNC-NIC, IBCLC, CSSYB, Hospital of the University of Pennsylvania
3. **Q&A**
4. **Wrap Up & Next Steps** — Sara Nelis, RN

PA PQC SUD/SEN Virtual Meeting



Roschanak Mossabeb, MD
Associate Clinical Professor of Pediatrics
Drexel College of Medicine
Temple University Hospital



Background

- Temple University is a urban safety-net Hospital
- ~2200-2400 deliveries per year
- ~ 10% of infants admitted to IICN for various reasons
- ~ 1/5 of NICU admissions for Neonatal Abstinence syndrome
- Well Baby Nursery and 24 bed Level III NICU

Limitations & Challenges

- No Pediatric Floor
- No Nesting rooms (post-partum)/no single patient rooms (in NICU)
- Majority of babies with NAS polysubstance exposed
- Many mothers with limited or no prenatal care
- March 2020: start of Covid pandemic
- Cuddler program was temporarily stopped (to present day)
- Limited number of visitors allowed (up until recently)

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- Change happens slowly



Disclosure



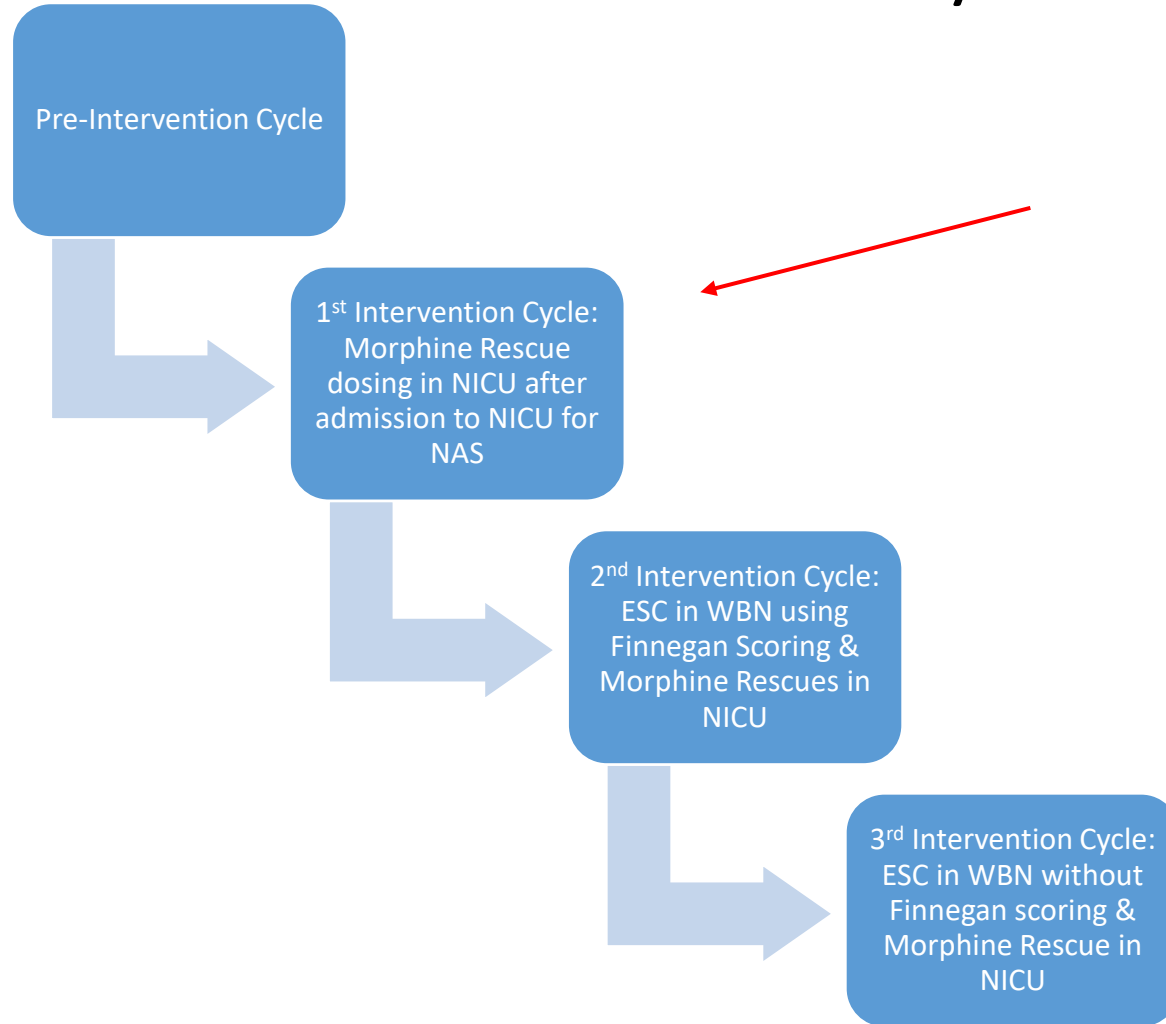
Goals

- Improvement in Mother-baby Dyad care
- Improvement in non-pharmacological approach
- Minimizing Pharmacotherapy for babies
- Improvement in parental educations about NAS pre/postnatally
- Education about benefits of breast feeding for mothers in established Medication Assisted Treatment (MAT) programs (without any contraindications to breastfeeding)
- Optimizing babies' nutrition by providing higher calorie formula/BM
- Educate medical and nursing staff about trauma informed care
- Embracing Mother-Baby Dyad with non-judgmental approach, love & compassion
- Discharging babies into safe environment with close follow up with pediatrician and early intervention services

Method

- Pre-intervention: Data collection from 12/2019-7/2020 Babies with NAS admitted to WBN/IICN, scored using modified Finnegan
- First intervention: 08/2020-02/2021 Babies who scored high on modified Finnegan in WBN would be admitted to IICN and receive 3 Morphine rescue doses prior to starting Morphine maintenance therapy, scored on Modified Finnegan
- Second intervention: 03/2021-12/2021 Babies with NAS would be scored with modified Finnegan while Eat Sleep Console (ESC) Method in WBN, once admitted to IICN after failed ESC would receive 3 Morphine rescue doses prior to starting Morphine maintenance therapy, scored on Modified Finnegan
- Third intervention: 01/2022-10/2022 Babies with NAS would be scored using Eat Sleep Console (ESC) Method in WBN, once admitted to IICN after failed ESC, babies would receive 3 Morphine rescue doses prior to starting Morphine maintenance therapy, scored on Modified Finnegan

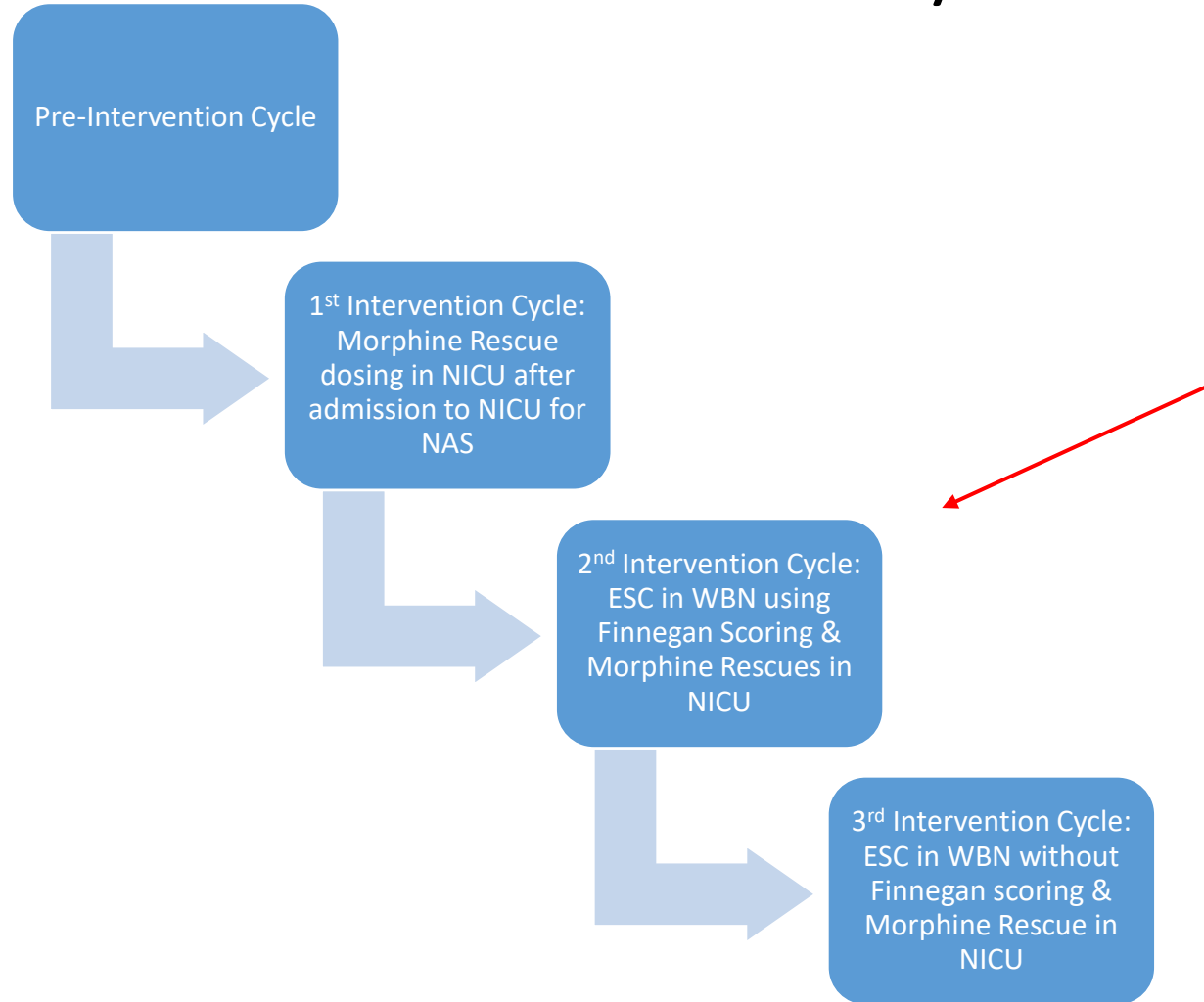
Intervention Cycles



NAS Data since Morphine rescue dose implementation (12/19-2/21)

	Pre-intervention	1 st Intervention Cycle
N of patients	30	29
Average Gestation	37.6	35.9
Female	14 (46.7%)	13 (44.8%)
Average BW	2928.3	2564.7
Days to regained BW	12.6	11.4
LOS	25.7	27.8
Polysubstance	19 (63.3%)	24 (82.7%)
N of Mothers in MAT	8 (26.7%)	4 (13.8%)
N of babies not treated	2 (6.7%)	2 (6.9%)
N of babies needed NG feeds	16 (53.3%)	18 (60.1%)
N of babies discharged to mother	14 (46.7%)	9 (31%)

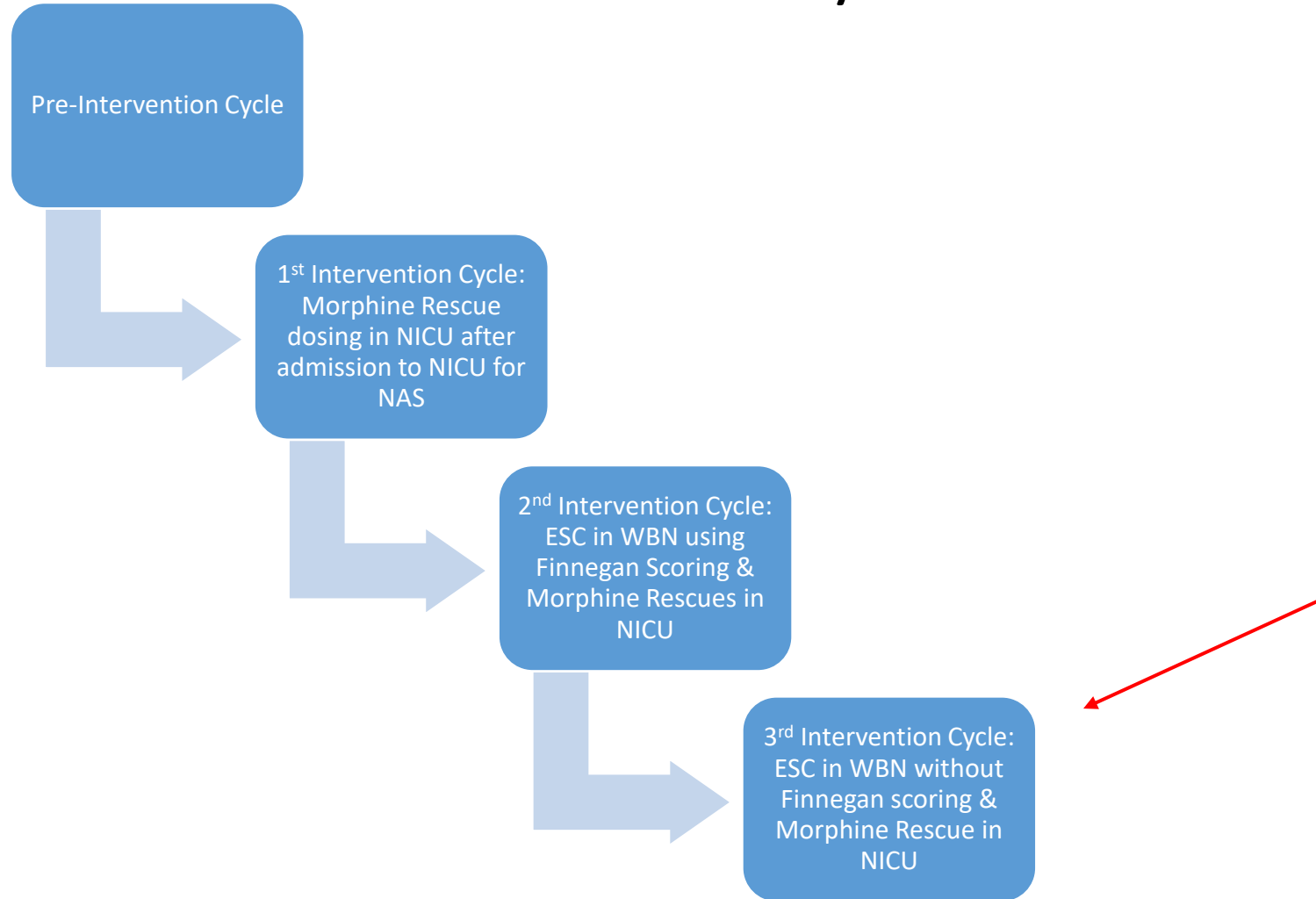
Intervention Cycles



Data analysis pre/post-intervention Morphine Rescue/Morphine rescue +ESC (March 2021)

	1 st Intervention Cycle	2 nd Intervention Cycle
N of patients	29	23
Average Gestation	35.9	37.3
Female	13	14
Average BW	2564.7	2836.7
Days to regained BW	11.4	13.1
LOS	27.8	27.4
Polysubstance	24 (82.7%)	15 (65.2%)
N of Mothers in MAT	5 (17.2%)	8 (34.8%)
N of babies not treated	2 (6.9%)	2 (8.7%)
N of babies needed NG feeds	18 (62%)	16 (69.6%)
N of babies discharged to mother	9 (31%)	10 (43.5%)

Intervention Cycles



Data Analysis Pre ESC in WBN/post ESC in WBN January 2022 to date

	2 nd Intervention Cycle	3 rd Intervention Cycle
N of patients	23	23
Average Gestational Age	37.3	37.7
Female	14	10 (43.4%)
Average Birthweight	2836.7	2857.0
Days to regained BW	13.1	11.5
Average Length of Stay	27.4	26.3
Polysubstance exposure	15 (65.2%)	14 (60.9%)
N of mothers in MAT	8 (34.8%)	9 (39.1%)
N of babies not treated	2 (8.7%)	3 (13%)
N of babies needed NG feeds	16 (69.5%)	12(52%)
N of babies discharged to mothers	10 (43.4%)	12 (52%)

Lessons Learned

- It takes a village
- *The early bird catches the worm...*The parental education about NAS should start prenatally with continued reinforcement of education during pregnancy and postpartum
- Early education of benefits of breast feeding in mothers who are free of any contraindication and enrolled in MAT programs
- Celebrating small incremental victories
- Concentrating on attainable goals
- Creating a welcoming, stigma-free, loving and non-judgmental environment for parents to visit their babies treated for NAS
- Reading encouragement program for parents or caregivers thanks to “Reading Ahead” fundraiser

With Gratitude to the NICU/WBN Team at Temple University Hospital

Any Questions????



Guthrie Robert Packer Hospital

KATHY RAMIZA, RN-MSN, CPNP

List of Talking Points when meeting Prenatally

1. Big warm welcome, thanks for choosing to have your baby with us.
2. Let me show you a room, then we can chat about your pregnancy.
3. Sit together and start with general pregnancy questions (nonclinical).
4. Methadone and Subutex/suboxone are a safe choice and great tool for pregnant women in recovery. Breast feeding is also safe when using these medications.
5. Your baby will stay about 5 days for observation.
6. Refer to handout and eat, sleep, console scoring.
7. State requires reporting and our goal is to start working now on safe discharge plan, so mom and baby are together.
8. Encourage them to disclose to supports the expected 5 day admission.
9. Encourage them to communicate to nursing if they need a break to sleep or leave.
10. Reiterate that we are on their team.
11. Later that day, I reach out through EMR to say it was nice meeting and I'm available if any questions come up.



Penn Medicine

PA-PQC VIRTUAL SESSION

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA COLLABORATION TO IMPROVE OUD/SEN PATIENT OUTCOMES

Joanna Parga-Belinkie, MD, IBCLC, FAAP
Ashley Savage, MHA, RNC-NIC, IBCLC, CSSYB
November 9, 2022

DEFINE THE PROBLEM

The Hospital of the University of Pennsylvania and surrounding community are impacted by the opioid crisis.

- With the PAPQC, Women's Health identified a gap in treating perinatal patients with Opioid Use Disorder (OUD).
- A task force developed a process for universal OUD screening.
- The validated *5P screening tool* was implemented.

This led to a need for resources to support patients with SUD and facilitate treatment if desired.

- Partnership Women's Health and Family Medicine led to *development of the PROUD Clinic*.

Family feedback highlighted preparation is essential when expecting a newborn who may be affected by a parent's OUD (termed Neonatal Opioid Withdrawal Syndrome or NOWS).

- Neonatology, OB, and Family Medicine collaborated to implement a *prenatal consultation program* to prepare families to take care of their newborn and ensure additional family supports.

DEFINE THE WHY

Among pregnancy-associated deaths in Philadelphia, significant rates of mental health issues and factors associated with lower social determinants have been identified:

- History of substance use (58%)
- Mental health diagnosis (45%)
- Child protective service involvement (63%)
- Intimate partner violence (21%)
- No prenatal care (21%)
- Medicaid insurance (75%)
- Black birth parents = 43% of births but 73% of pregnancy associated mortality

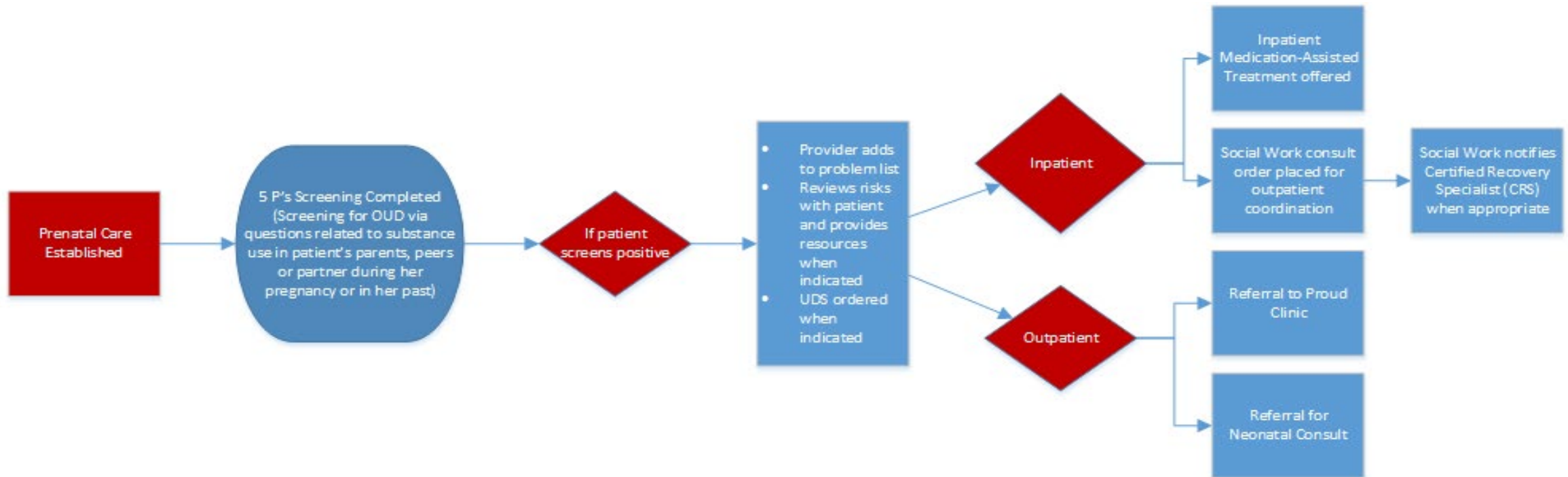
Pregnancy-associated deaths due to accidental drug overdose increased from 25% (2016) to 39% (2018).

66% of accidental drug overdose deaths occurred after the 6-week postpartum period.

Patients affected by OUD needed an *improved model of care* to support their specific healthcare needs.

DEFINE THE PROCESS

- No process to screen and identify patients with OUD led to external transfer of care/follow up
- In 2020, screening process was implemented (5P's)
- Pathways for parental and neonatal care and treatment within the health system were created with a multidisciplinary team: OB/GYN, Family Medicine, Neonatology (Pediatrics)



DESCRIBE INNOVATIVE AND COLLABORATIVE APPROACHES USED

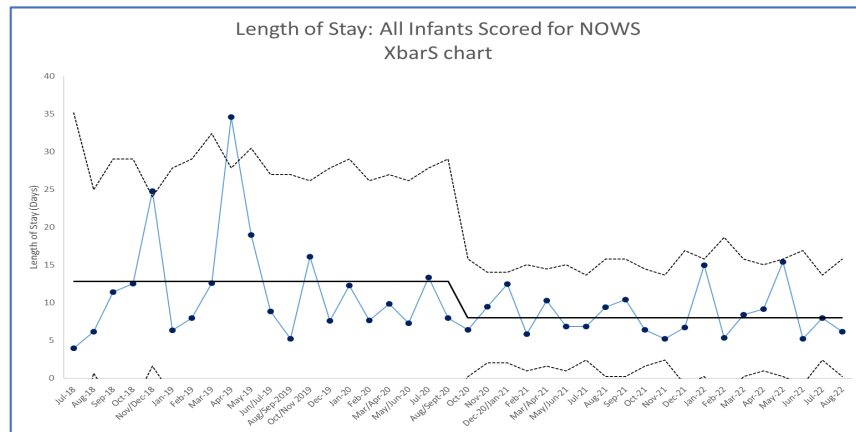
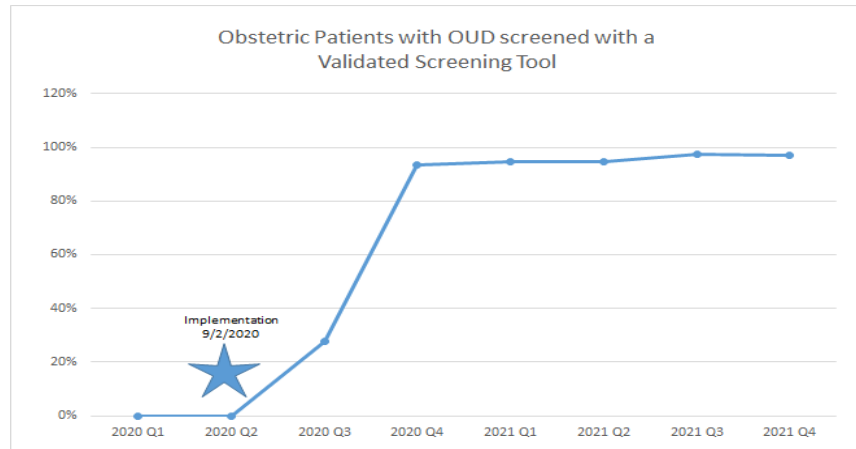
- A cross functional team was involved, consisting of Nurses, Physicians, Advanced Practice Providers and Social Workers across the OB/GYN, Family Medicine and Neonatology (Pediatric) Departments.
- The team implemented evidence-based screening procedures and best-practices for the treatment of pregnant individuals with OUD.
- Through participation in the Pennsylvania Perinatal Quality Collaborative the team was able to learn about other institutions processes and incorporate learnings into our approach.
- The Obstetric and Neonatology teams participated in the *Eat Sleep Console Research Study (2020-2022)* to determine best practices for post-natal care and have since adopted these practices into our **standard of care** based on study findings.

DEFINE THE OUTCOME

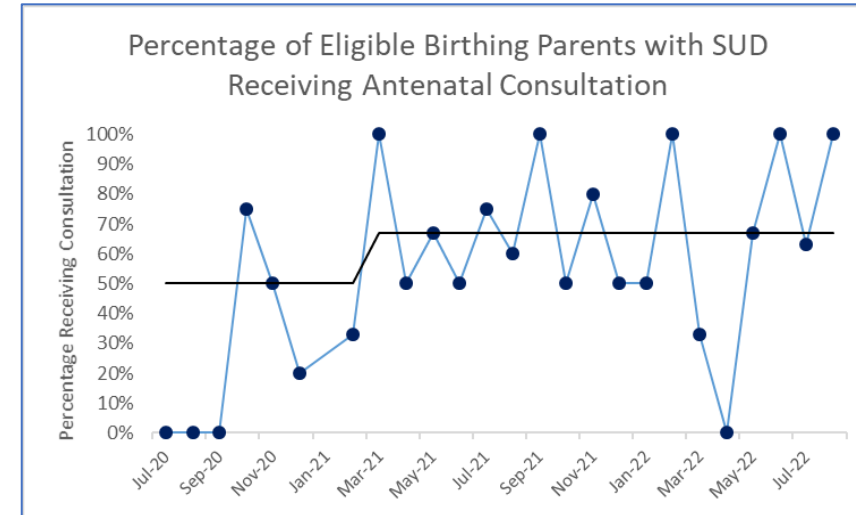
Since implementation of the 5 P's we **consistently screen over 90% of our pregnant patients in prenatal care** and on admission to Labor and Delivery.

- As a result of increased recognition we are now able to support and treat Obstetric patients with OUD.
 - This includes OUD specific prenatal care clinics within the health system (PROUD) and ability to initiate inpatient MAT treatment without the need to transfer.
 - Use of antenatal consultation for NOWS and ESC interventions postnatally has resulted in decreased length of stay for newborns and decreased admissions to the ICN for pharmacologic treatment.
- The goals and recommendations were communicated to all involved departments and results were trended in monthly quality meetings.
- Electronic Medical Record reports were used to assess compliance with prenatal OUD screening, Neonatal Consultation and compliance with ESC.
- The results continue to be monitored on a regular basis.

BASELINE/INTERVENTION DATA



Newborn Length of Stay: Better parent preparation before delivery can allow families to spend more time in the hospital caring for their infant with NOWS. Emphasis on non-pharmacologic measures to treat NOWS has improved newborn length of stay in the hospital. LOS has decreased from 12.8 days to 8 days on average. Median LOS is currently 5 days.



Antenatal Consultation: Family involvement in bedside care is critical in minimizing symptoms of NOWS. The more presence and involvement a family has, the shorter the length of stay for the newborn in the hospital, the less likely the newborn is to require medication, and the more prepared families feel to care for their newborn affected by NOWS

PROUD program has accepted over 50 referrals in FY21, and is poised to grow in FY22

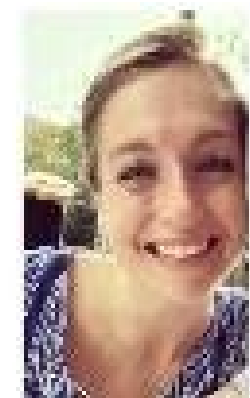
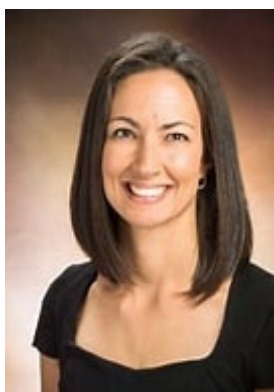
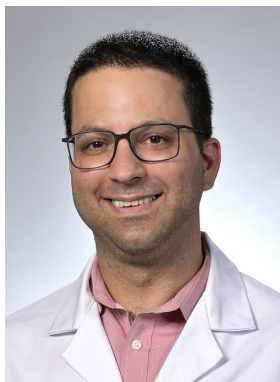
DEFINE THE SUSTAINMENT PLAN

- Universal screening using the 5Ps in prenatal care = standard of care, incorporated in EMR (prenatal navigator and checklists)
- Best Practice Advisory (BPA) to ensure screening is performed at the recommended time points.
 - Repeat screening on admission is part of required documentation in the EMR.
- As part of the BPA, triggers for antenatal consultation to PROUD and/or neonatology/pediatrics are in place
- The PROUD clinic has applied for and received grant funding to enhance and expand services over the next several years.
 - Regularly scheduled office sessions have been specifically designed for this population.
- We continue to participate in the PAPQC for data submission and sharing best practices and apply for quality awards to continue to fund efforts.
- All NAS/NOWS infants are referred to CHOP's Neonatal Follow-up Program- Resilience After Infant Substance Exposure (NFP-RISE) for increased developmental monitoring after discharge.
- Certified Recovery Specialists follow OB patients and their infants throughout the continuum of care (PROUD Clinic, Inpatient at HUP, and with NFP-RISE).

DESCRIBE THE ORGANIZATIONAL IMPACT

Our project aimed to improve quality of care for patients with OUD given the increasing prevalence of OUD in obstetrics with high association with maternal morbidity and mortality.

- We were previously unable to provide services for pregnant patients with OUD and had to transfer out these patients to other hospitals in Philadelphia and now have the tools and systems in place to provide high quality care here at HUP.
- We have decreased health care costs with decreased length of stay for newborns at risk for NAS/NOWS.
- Allowing mothers and babies to room in through Eat, Sleep, Console has improved patient satisfaction.
- This project has been a focus on the Women's Health Service Line, and our pathways are shared with other OB hospitals within the health system, allowing them too to implement 5 P's screening and have antenatal NOWS consults.
- We have worked to standardized ESC interventions across the organization.



Q&A

Wrap Up & Next Steps

Sara Nelis, RN, CCE

Project Manager

Jewish Healthcare Foundation

QI Awards Reminder

Milestone 1: Attend the quarterly PA PQC Learning Sessions **December 14, 2022**

Milestone 2: Submit a Quality Improvement (QI) Report Out, showing work related to implementing Key Intervention(s) **December 7, 2022**

Milestone 3: Complete a PA PQC quarterly survey for the initiative **January 31, 2023**

Milestone 4: Submit at least one quarter's worth of aggregated data for a PA PQC process or outcomes measure(s) through the PA PQC Life QI Data Portal **January 31, 2023**

Milestone 5: Communicate and celebrate your team's impact! **January 31, 2023**

<https://www.whamglobal.org/pa-pqc-initiatives/criteria-for-quality-improvement-awards>



Learning Sessions & SUD/SEN Virtual Meetings

Quarterly Learning Session

- December 14, 8:30 a.m. to 12:30 p.m.

<https://www.whamglobal.org/member-content/register-for-sessions>

