

 **Corewell Health™**
Helen DeVos
Children's Hospital

108 bed Level IV NICU
Regional referral center
1600 admissions annually
300 transports in annually



Improving Time To First Skin To Skin (STS) In Very Low Birth Weight Infants

Aim to improve first STS hold within first 72 hours to
80% by 12/31/2024

Team Acknowledgement

Multi-disciplinary team:

Neonatologists-Krista Haines and Jeannette Prentice

Physical Therapist-Jason Powell

Clinical Nurse Specialist-Tracy James

Respiratory Therapists-Amy Cantu, Caitlin Miller,
Chloe Symon, Mariah Claremont

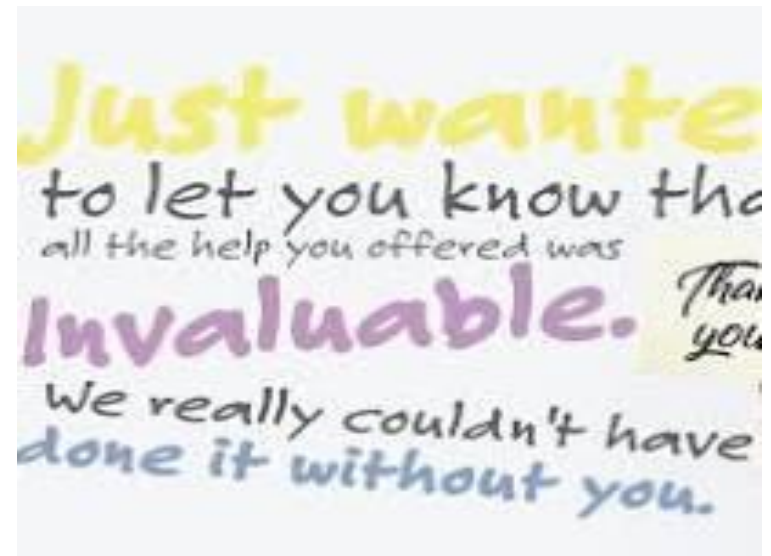
Registered Nurses-Dea Schafer, Katie Wahl, Lindsay
Gandy, Paige McKee, Sherri Breuker, Shelbi
Vadentop, Karrie Kline

Resident-Geraldyn Moody

Family Partner-Amy Nyberg

Child Life Specialist-Theresa Hart

Senior QI Leader-Adam Nicholson



Team Acknowledgement: The VON POD Homeroom



Thank you all for the support, encouragement and feedback received during the on-site visit!

Some things you might not know about us: Our Unit is 50!

We are celebrating 50 years of NICU care at Helen DeVos Children's Hospital!

The unit opened in 1974 as one of the first neonatal units in Michigan and the Midwest.



Founding Neonatologists:

Dr. Leonard Radecki

Dr. Alan Jones

Dr. Jean Khawam



Some things you might not know about us: Grand Rapids and Michigan

- Once known as “America’s Furniture Capital,” more recently named “Beer City USA” with >80 breweries
- **Michigan Fun Facts**
 - ❖ You are never more than 6 miles away from a body of water
 - ❖ You are never more than 85 miles from a Great Lake
 - ❖ More total shoreline than any state except Alaska



Rationale: All Care is Brain Care

- Nightingale Data Review: low mortality, avoiding most intracranial bleeding and periventricular leukomalacia



Focus beyond in-hospital mortality or morbidity

- Neuroprotective Practice Gap Assessment: STS as priority for first project, avoiding painful experiences as second
 - Time to first skin to skin
 - Frequency of skin to skin throughout early hospital stay
 - Continuing skin to skin through beyond 32 weeks gestation
- Organizational Priority: commitment to Health Equity

Rationale from Families: Parent Survey

- Too much variation in individual RN comfort to offer/help/encourage STS
- Parents want more consistent information early on about STS...specifically about the benefits
 - From providers
 - From parent-to-parent volunteers that round on the unit
 - Consistent messaging from bedside RNs
 - Want written information (handouts) highlighting benefits
- Dads may need special encouragement to do STS (fear)
- Moms need encouragement and help to get over the “Mom guilt” that they caused the baby to be in the NICU

Driver Diagram

Aim

Collaborative Goal

Make Skin-to-Skin (STS) holding the preferred locus of care in the NICU

HDVCH Aim

For VLBW infants, improve first STS hold within first 72 hours from 55% (by 25%) to 80% by December 31, 2024

Sub Aim

For GA <27 weeks, improve from 19% to 44%

Primary Neuro-Drivers

Parental Presence, Confidence & Comfort

Team Shared Mental Model

PBPs

STS as early as possible

Daily STS, minimum of 1 hour

STS as part of early lactation support

Extend STS time throughout hospitalization

Change Ideas

Support STS contact as early as possible after birth

Utilize STS simulation training for parents

Utilize STS simulation training for NICU team

Staff education regarding benefits and policy/procedure

Parent education regarding benefits and procedure

Utilize a multidisciplinary team to ensure safe transfers

Ensure EHR documentation fields support STS documentation needs

Ensure STS supplies are sufficient for every patient/family

Measures

% patients with first STS hold within first 72 hours

Subdivide measures for infants GA <27 wks (SBU)

Balancing measure: unplanned extubation rate

Hierarchy of Aims

Collaborative Goal: Make Skin-to-Skin (STS) holding the preferred locus of care in the NICU

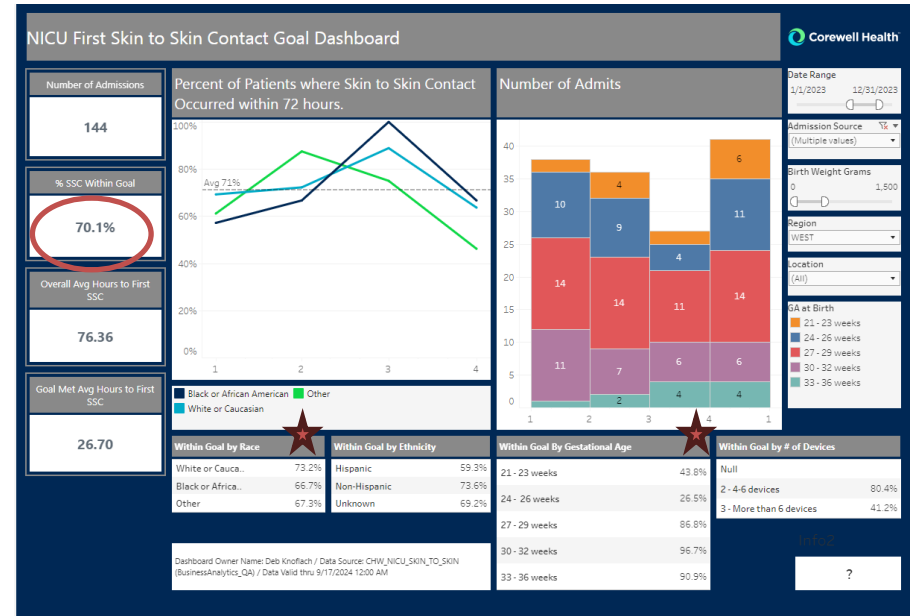
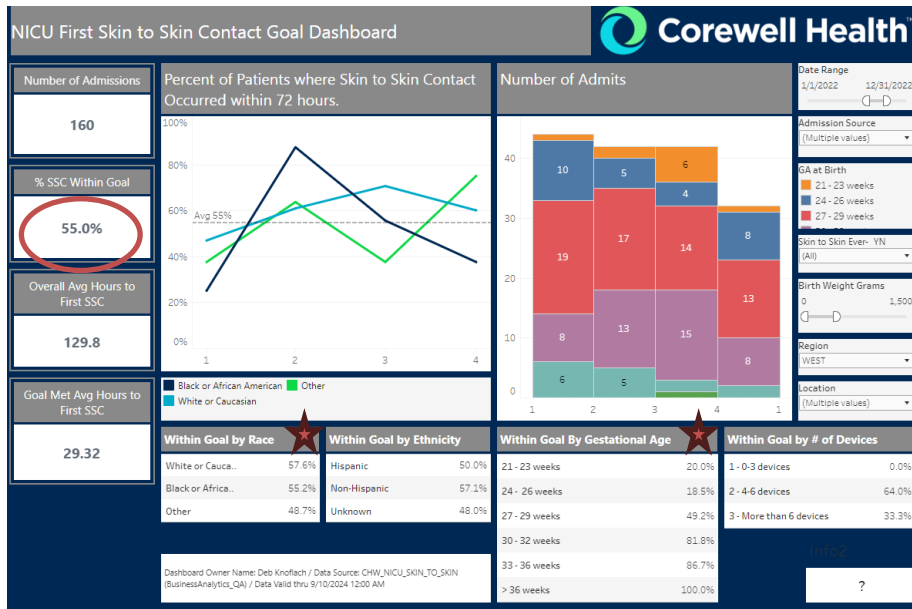
Improvement project aim:

For VLBW infants, improve first STS hold within first 72 hours by 25% from 55% to 80% by 12/31/2024

Sub Aim:

For GA <27 weeks, improve by 25% from 19% to 44%

Assessment of Current State (2022 and 2023)



Tests of Change: PDSA Cycles

PDSA Cycle 1: Staff Education via Kangaroo-a-Thon (Nov 22)

PDSA Cycle 2: Standard Work for STS with RN and RT roles

PDSA Cycle 3: Modification of Standard Work due to RT shortage (Jan 23)

PDSA Cycle 4: Nursing Skills Fair (Apr/May 23)

PDSA Cycle 5: Parent Education STS Board (May 23)

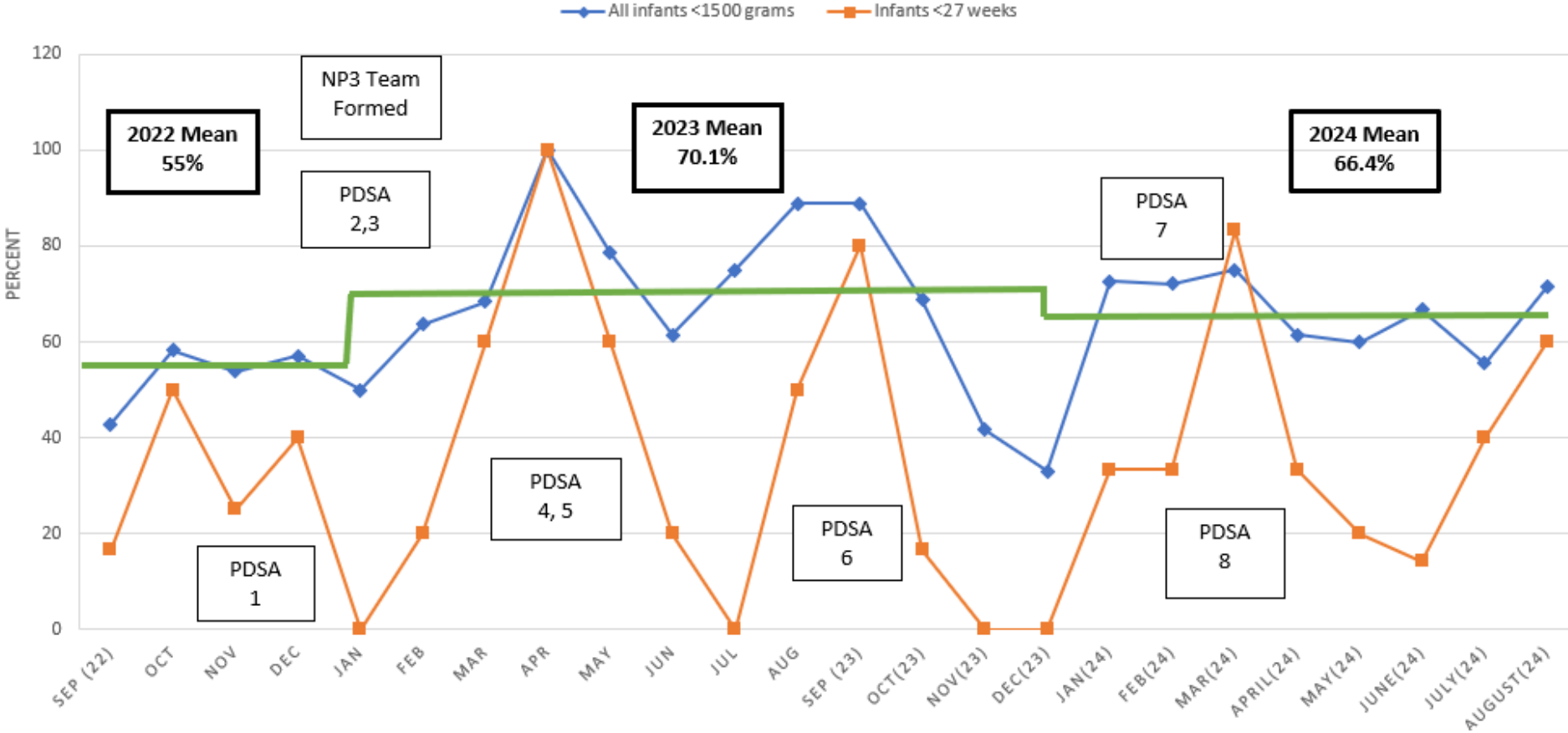
PDSA Cycle 6: Kangaroo-a-thon (Sept 23)

PDSA Cycle 7: High Frequency Simulation with New Nurses (Jan 24)

PDSA Cycle 8: Joey Band, Thermoregulation (Feb/Mar 24)

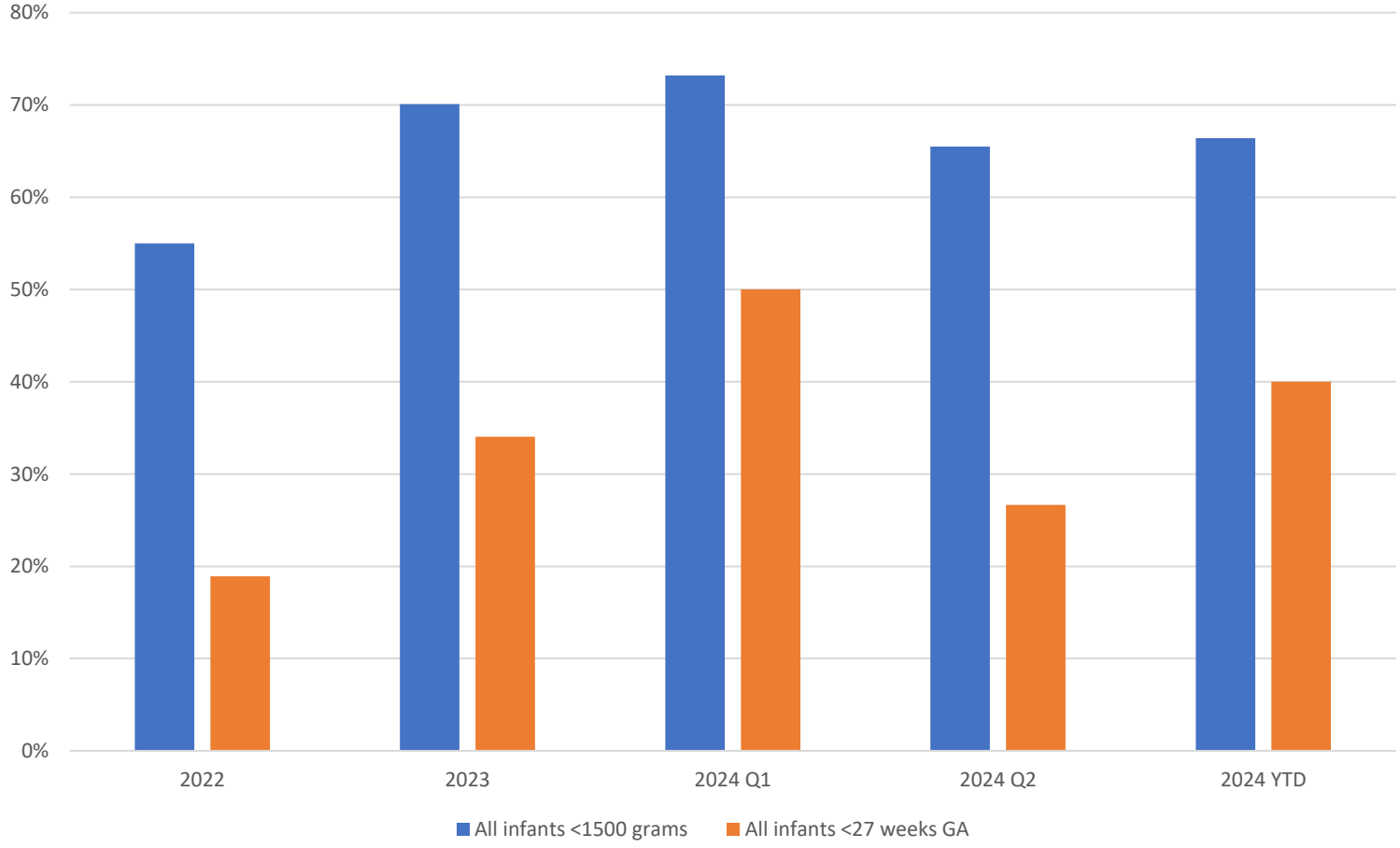
Run Chart

PERCENT OF PATIENTS WITH FIRST SKIN TO SKIN IN FIRST 72 HOURS (SEP 2022 - CURRENT)



Tracking our AIM

Percent of Patient with First Skin to Skin in First 72 Hours



Tests of Change in Progress

Kangaroo-a-thon in September 2024

- Includes staff education the week prior

Parent Engagement Activity

- Developing a creative way for parents to track when skin-to-skin is done and post at bedside
- Hoping this will help with sustainability

Key Lessons Learned

1. When working on improving early skin-to-skin with infants <27 weeks, we inadvertently had a few infants develop hypothermia
 - A key detail was overlooked in a reference promoting thermoregulation when doing early skin-to-skin.
 - Skin-to-Skin Committee able to address and modify process when holding infants who are in humidity.
2. Sustainability is difficult – we have not arrived yet!
 - 2023 Aim not met, so continued for 2024.
 - Average of 2024 higher than baseline 2022 data but slightly less than 2023
 - Data has several peaks and valleys, not always clear reasons.

Key Lessons Learned

Which tests had the most effect on your outcomes? Providing hands on simulation opportunities for RT and RN education-transferring intubated infants.

What is your data telling you? We still have work to do!

What are staff saying? Issues such as not enough HFJV tables, skin to skin chairs and other equipment still a limiting factors as well as not always having enough Respiratory staff to assist with the transfer of intubated infants.

What are parents saying? Report not wanting to bother nurses. Appreciate when nurses discuss it with them or offer it instead of them having to ask.

Surprises and Challenges

Difficulty of maintaining improvement.

- Significant increase in STS after 2023 Nursing Skills Fair skin to skin simulation.
 - Did not include simulation at 2024 Skills fair.
 - Will add it back to the 2025 skills fair
 - Will continue to create hands on opportunities for RN and RT staff (Nurse orientation class, Kangaroo-A-thon, Skills Fair)
- Decline in number of infants with early skin-to-skin goal being met towards end of 2023.
- Overall, 2024 numbers are higher than baseline 2022 data, but not as high as 2023.
- Use of the Joey bands for comfort and support for intubated patients has not been fully adopted by staff.

We are most proud of

Removing barriers to skin to skin!

All gestational age eligible with provider/nurse/RT collaboration

Very few medical equipment exceptions (ECMO, body cooling)

Skin-to-Skin Dashboard

Improved data collection-automated, no chart reviews required

Standard of Work

Clearly defined roles and responsibilities

- parent, provider, RN, RT

Dedicated Unit Group (Skin to Skin Meeting)

A monthly meeting to ensure skin to skin remains a priority

We Would Appreciate Your Help With

Finding meaningful ways of sustainability

- What practices have your NICU incorporated that maintain a higher rate of skin-to-skin outside of specific events that happen throughout the year?

Addressing race and ethnicity differences in skin-to-skin holding

- How do you track rates of holding for different races and ethnicities?
- What interventions have your unit implemented to help improve equity of skin-to-skin with all patients?