

**Leveraging the IHI
Model for Improvement
to Positively Disrupt
the Status Quo of Skin
to Skin in the NICU**

Lean Management System

1 What are we trying to accomplish?

NICU will re-design STS care to improve initiation time to less than 24 hours for 80% of eligible infants.

2 How will we know the change is an improvement?

We will...

INCREASE

the initiation of skin to skin holding within the first 24 hours of life

(outcome metric)

From our baseline of:

43

%

Mins

Hours

Days

(circle one)

To our goal of:

<24

%

Mins

Hours

Days

(circle one)

By the date of:

2/28/2025

This strategically aligns to:

BETTER CARE

Improving Patient & Caregiver Experience OR Expanding, Modifying, or Creating Services

Skin To Skin Likert Scale Survey

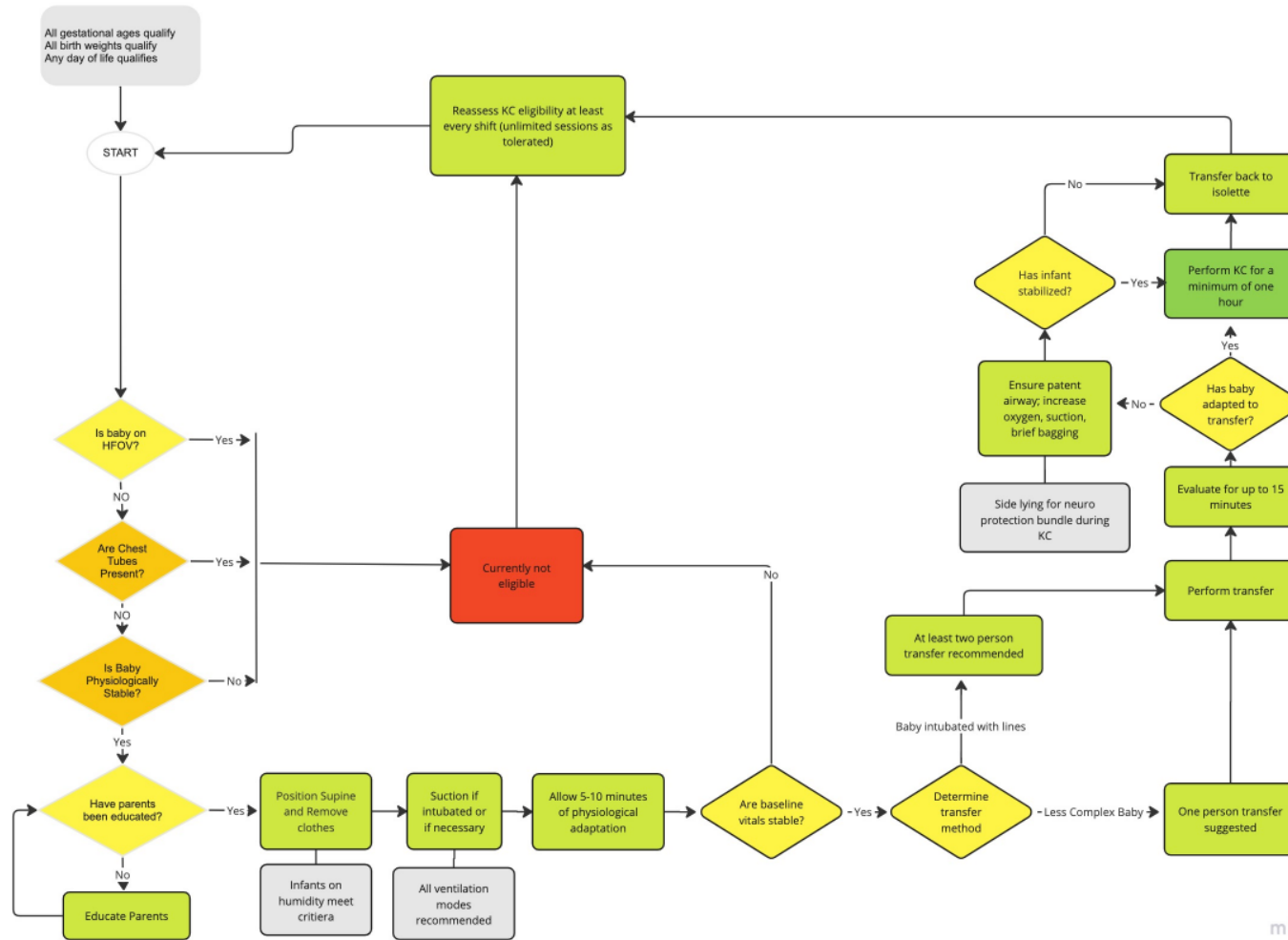
1. How important of a practice do you think skin to skin is for our patients and families?
2. How comfortable are you placing a baby skin to skin?
3. What is your comfort level placing baby skin to skin without any respiratory support?
4. What is your comfort level placing baby skin to skin with a vapotherm or nasal cannula?
5. What is your comfort level placing baby skin to skin on CPAP?
6. What is your comfort level placing baby skin to skin on conventional mechanical ventilator?
7. What is your comfort level placing baby skin to skin with a UVC?
8. What is your comfort level placing baby skin to skin with an arterial line?
9. What is your comfort level placing baby skin to skin in whole body cooling?
10. What is your comfort level placing baby skin to skin on a high frequency oscillating ventilator?

- Completely comfortable
- Neutral
- Somewhat uncomfortable
- Completely uncomfortable

BARRIER IDENTIFICATION - HOW WE SURFACE OBSTACLES THAT PREVENT STANDARD WORK FROM BEING FOLLOWED

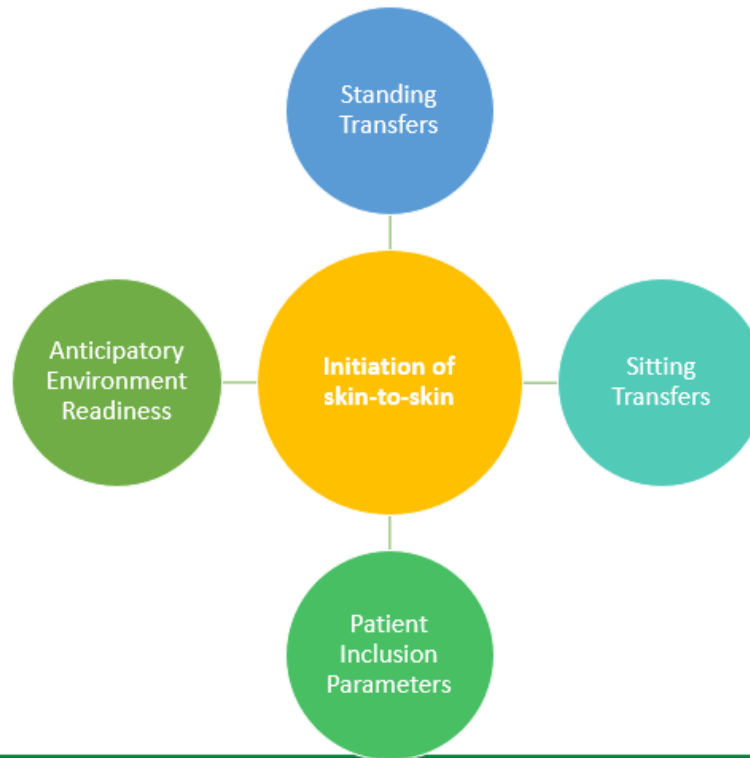
Barrier #	Date Barrier Identified	Barrier	Date Barrier Resolved
1	10/30/2023	Absence of SOW for initiation of STS	3/25/2024
2	10/30/2023	Misperceptions of inclusion criteria for STS	6/24/2024
3	11/30/2023	Parental Fear	8/15/2024
4	12/26/2023	Staff Engagement	6/24/2024
5	12/26/2023	Manually tracking accountability measure	2/21/2024
6	2/26/2024	VAD policy needs updating to reflect EBP	3/21/2024
7	3/9/2024	Thermoregulation policy conflicts with algorithm	3/21/2024
8	7/15/2024	Multiple places in Epic to document STS, difficult to track	7/2/2024
9	8/15/2024	Prenatal planning for STS with parents in L&D	10/1/2024
10	2-Jan	Reports inaccurately being pulled from Epic	
11	10/30/2024	Handoff miscommunication regarding infant's age and 1st hold	1/5/2025
12			
13			
14			
15			
16			
17			
18			

STS Exclusion Criteria



Lean Management System

3 What change will we make that will be an improvement? We will redesign...



Isolette

Vent-
Respiratory
equipment

IV
pole

Recliner



Standing Transfer

- Parent stands at the side of isolette/warmer – bends forward and gathers baby from under the blanket
- Disconnect lines and tubing as appropriate
- Parent gently lifts infant to chest with head resting on their sternum
- Midline infants should be held in side-lying position with their shoulder resting on sternum
- Parent assisted into chair
- Connect and secure lines and tubing as appropriate
- Close parents shirt and place blankets over infant
- Assure parent is comfortable with the call bell and their water within reach

Midline Positioning for Intubated Patient



Baby is positioned sideways.
Head is kept in midline.
Head and body are aligned.

Standing Transfer: Skin to Skin

Who	Parents that are able to stand up and sit down on their own
When	Within the first 24 hours of birth
How	Patients under IVH precautions should be transferred while side-lying with their shoulder resting on the parents' sternum
Why	Safe and easy method to allow parents more normalcy and control in an environment where they typically do not have much control

Preparing the Family to Hold	Preparing the Patient	Standing Transfer	Returning to Bed
<ul style="list-style-type: none"> <input type="checkbox"/> Educate on importance of skin to skin. <input type="checkbox"/> Instruct them on the goal duration of at least 60 minutes. <input type="checkbox"/> Wash hands, no overpowering perfume/smells. <input type="checkbox"/> Use restroom prior to holding. <input type="checkbox"/> Parent to put a gown on backwards or have on a front opening shirt. <input type="checkbox"/> Explain the procedure. <input type="checkbox"/> Talk them through the steps. 	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare IV pumps, IV lines, respiratory support. <input type="checkbox"/> Assess patient. <input type="checkbox"/> Remove nest and place folded blanket under patient. <input type="checkbox"/> Place infant supine or side-lying. <input type="checkbox"/> Request additional help as needed. <input type="checkbox"/> Drain excess water from respiratory tubing. <input type="checkbox"/> Pop the top. 	<ul style="list-style-type: none"> <input type="checkbox"/> Parent to stand at side or foot of bed. <input type="checkbox"/> Parent leans forward and places hands under the blanket, one under baby's head and one under bottom. <input type="checkbox"/> Parent lifts baby a couple inches off the bed to their chest. <input type="checkbox"/> Disconnect tubing/lines as needed. <input type="checkbox"/> Parents stand and assisted to sit in recliner. <input type="checkbox"/> Connect/secure tubing and lines. <input type="checkbox"/> Wrap gown/shirt/blanket around infant. <input type="checkbox"/> Ensure parent is comfortable with call bell in reach. 	<ul style="list-style-type: none"> <input type="checkbox"/> Assist parent to front of chair with feet flat on floor. <input type="checkbox"/> Disconnect tubing/lines. <input type="checkbox"/> Assist parent to standing position. <input type="checkbox"/> Parent to lean forward and place baby back on bed. <input type="checkbox"/> Reconnect tubing/lines. <input type="checkbox"/> Assess patient. <input type="checkbox"/> Reset bed to patient control.

SKILL LEVEL OF EMPLOYEE					
0	1	2	3	4	
Cannot Perform Standard Work	Exposed	Can Do With Assistance	Can Do Alone	Can Train Others	
Has not been trained to standard work	Has been trained to standard work but has not yet demonstrated the standard work	Performed standard work with assistance/coaching during process confirmation	Performed standard work without assistance/coaching during process confirmation	Employee has demonstrated that they can train others to the standard work	
Our target for training is 90% of staff by 6/30/24					
Date last updated:		# of Staff Trained to 3-Can Do Alone	Total # of Staff	=	% of Staff Trained
6/24/2024		61	65	=	93.85%
Employee Name, Role		Skill Level of Employee	Date of Last Process Confirm		
RN 1		4	3/11/2024		
RN 2		4	3/11/2024		
RN 3		4	3/11/2024		
RN 4		4	3/11/2024		
RN 5		4	3/11/2024		
RN 6		3	6/24/2024		
RN 7		3	5/13/2024		
RN 8					

J I B S

Important Steps / By WHAT / WHO	Key Points HOW	Reasons WHY
<i>A logical segment of the operation when something happens to advance the work.</i>	<i>Anything in a step that might – 1. Make or break the job 2. Make the work easier to do, i.e. “trick”, special timing, bit of special information</i>	<i>Reasons for key points</i>
Bedside RN to notify needed members of NICU team of time to initiate STS within 24 hours of delivery	Utilize secure chat to notify needed staff members	Closed loop communication Efficiency Promote early infant/parent bonding
RN to prepare parent for holding	Bathroom break, appropriate clothing, water Describe process for transfer Prepare kangaroo chair	Parental knowledge and promote comfort
RN to prepare infant for transfer	Bring tubings & cables to side of warmer/isolette/crib where kangaroo chair is located Assess resp equipment (securement) and suction if needed Infant dressed only in diaper and a hat	Patient safety Prevent cord entanglement Prevent venous/arterial access dislodgement Promotes maximum skin-to-skin contact Thermoregulation
Parent transfers infant from isolette/warmer to their chest and then moves into the chair	Parent leans forward to bed and gathers baby- placing him/her on chest RT- if vented, disconnect vent tubing -if noninvasive resp, support resp equipment	Safe transfer of infant Prevents extubation/respiratory compromise
RT manages respiratory equipment	Parent- step back and sit into chair, holding infant at head & buttocks	Maintain respiratory support
RN manages IV's & monitor cables	RT- Connect/reposition resp tubing RN- secure IV lines and cables, position infant in “sniffing position” on parent, close shirt and place blanket over infant, assure parent’s comfort (raise feet)	Prevent accidental dislodgment of IV access, promotes thermoregulation
RN to assess tolerance of infant	Allow 15 min for infant to settle Monitor temperature q30min	To ensure physiologic stability of infant
RN to dim room lights and give parent access to call bell	To minimize stimulation To give parent access to assistance if needed	Improves the therapeutic response of skin-to-skin

Visual Management in Epic

Best Practice Advisory

If the infant is between 12 and 24 hours old and skin to skin has not been documented in any other the flowsheets listed above, a BPA will fire when opening the chart. It will only fire for RNs.

! Infant is less than 24 hours old and skin to skin has not been documented.

Acknowledge Reason _____

Will document skin to skin

Parent not at bedside

Medical contraindication

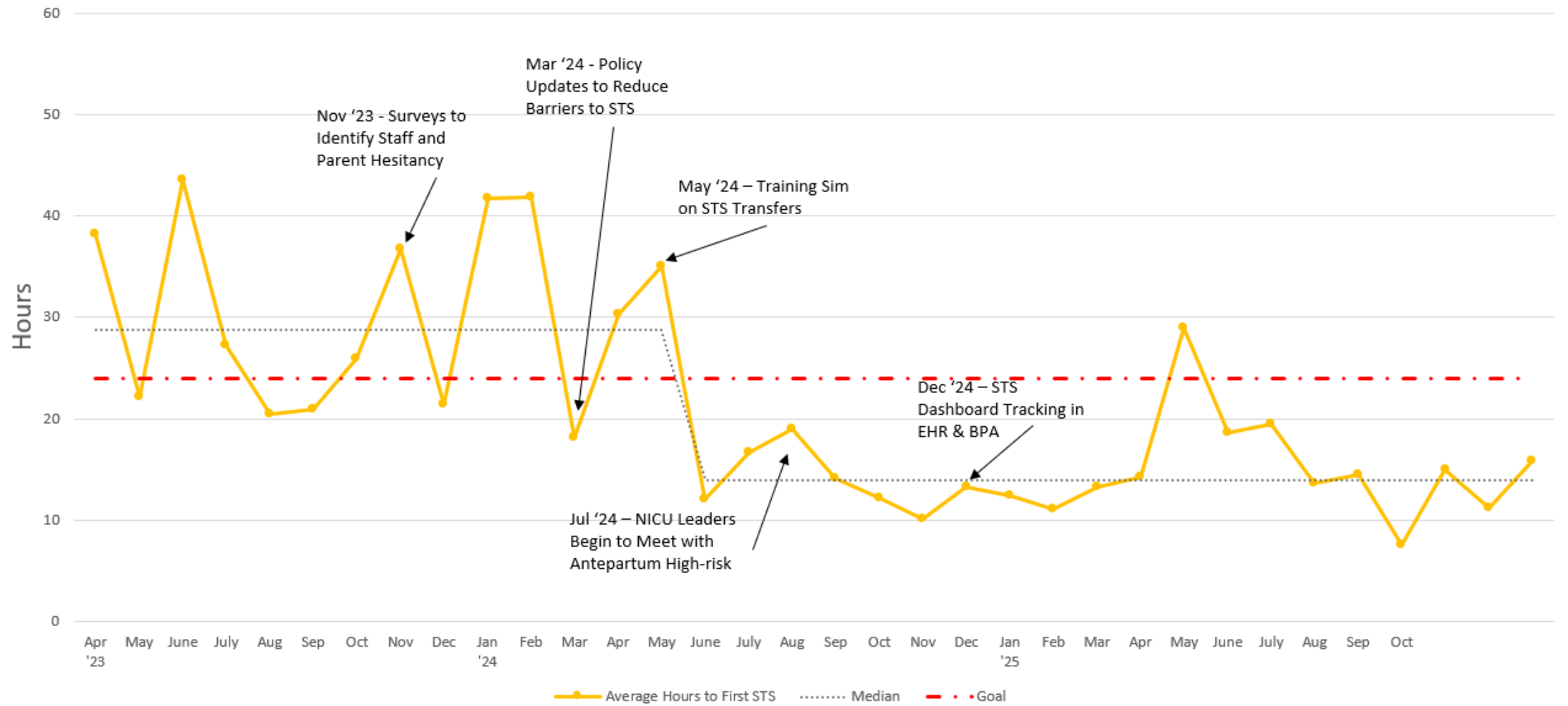
Defer

- If parent not at bedside is selected, the BPA will not fire again for 3 hours
- If medical contraindication is selected, the BPA will not fire again for 3 hours
- BPA will stop firing for everyone once the baby is 24 hours old

Electronic Unit Manager

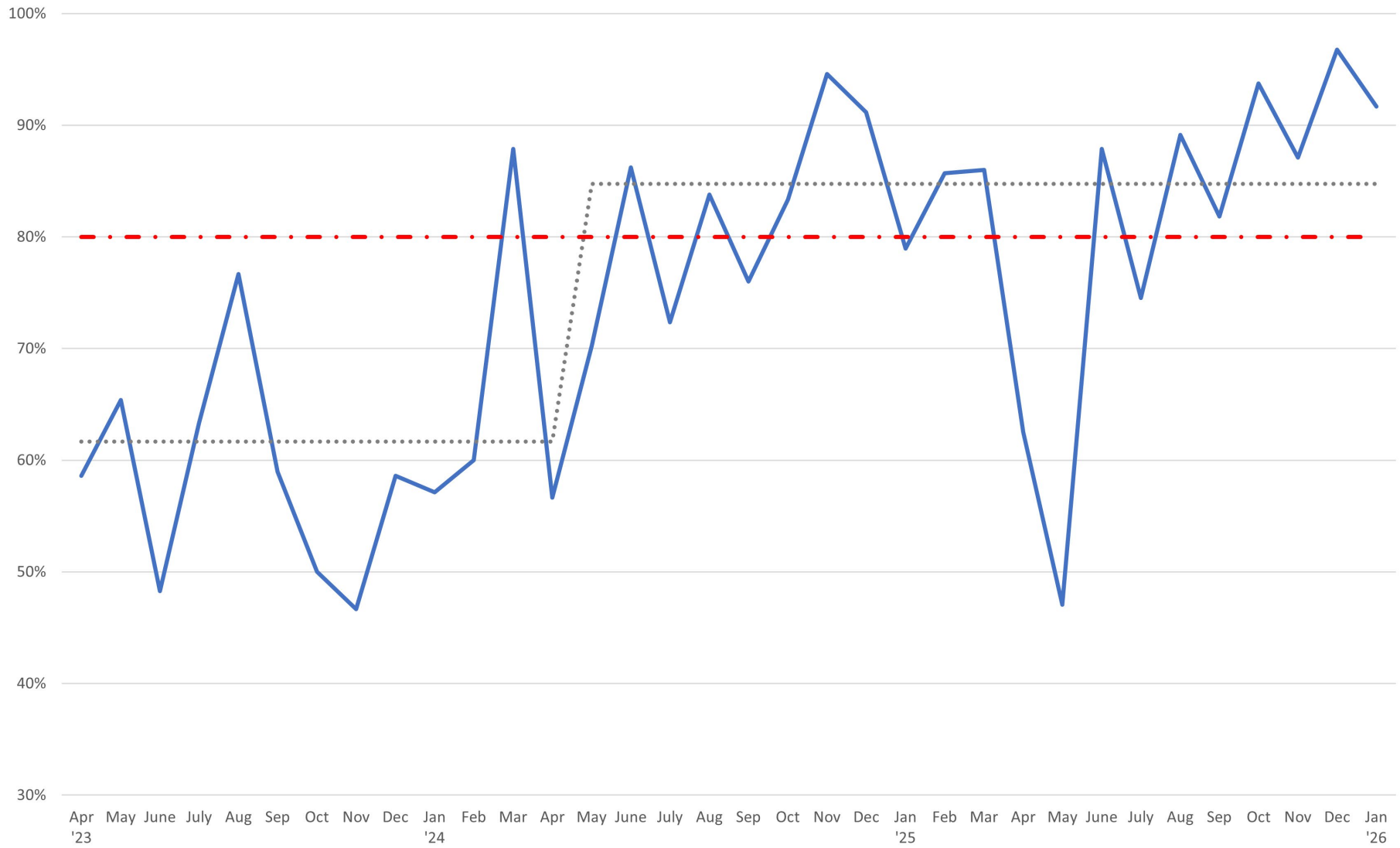
Bed	Patient	Iso	RN	Attending	Advanced Practiti	Tech/Aide	Dx	Accom Cod	CCHD	Car Sea	CPR	Hep B	Circ	Hearing	NBS	RSV	STS
NICU	Febtwentythree, Boy Stork (19mos M)	—	—	PANE, M	—	—	—	NICU2	●	⊘	—	—	—	—	4	⊘	✓
NIC04-A	Not, Again (6mos F)	—	—	PANE, M	—	—	TTN (transient tachyp...	Pediatric	—	—	—	—	♀	—	2	—	—
NIC05-A	Bedside, Girl Questionnaire (3wks F)	—	—	HUNTER, L	—	—	—	NICU1	●	⊘	—	—	♀	●	—	—	✓
NIC02-A	Augtwentythree, Boy Stork (3wks M)	—	—	PANE, M	—	—	TTN (transient tachyp...	NICU2	●	⊘	●	●	●	●	—	●	✓
NIC01-A	Stork, Boy Regression. (3wks M)	—	—	PANE, M	—	—	—	NURSERY	●	⊘	—	—	●	●	—	—	✓
NIC06-A	Gestation, Girl Carrie (3wks F)	—	—	PANE, M	—	—	—	NICU2	●	⊘	—	—	♀	●	4	⊘	✓

Time to First Documented Skin to Skin for NICU Admissions



↓ Lower is Better

Percent Within 24 Hours Time to First Documented Skin to Skin for NICU Admissions



— % Within Goal

..... Median %

- . - . Goal

 Higher is Better