

A QI Project to Decrease Suboptimal Patient Transfers from the NICU to the Special Care Nursery (SCN)



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BACKGROUND

- Suboptimal transfers lead to errors or near misses, interrupt continuity of care, and decrease patient safety.
- We developed a multi-disciplinary team to address noticed several problems identified in the NICU to Special Care Nursery (SCN) transfer process.

PROJECT AIM

To decrease the number of suboptimal transfers from the NICU to the Special Care Nursery by 50% in 9 months

*Suboptimal transfer - discharge within 72 hours of transfer or return to the NICU within 5 days of transfer.

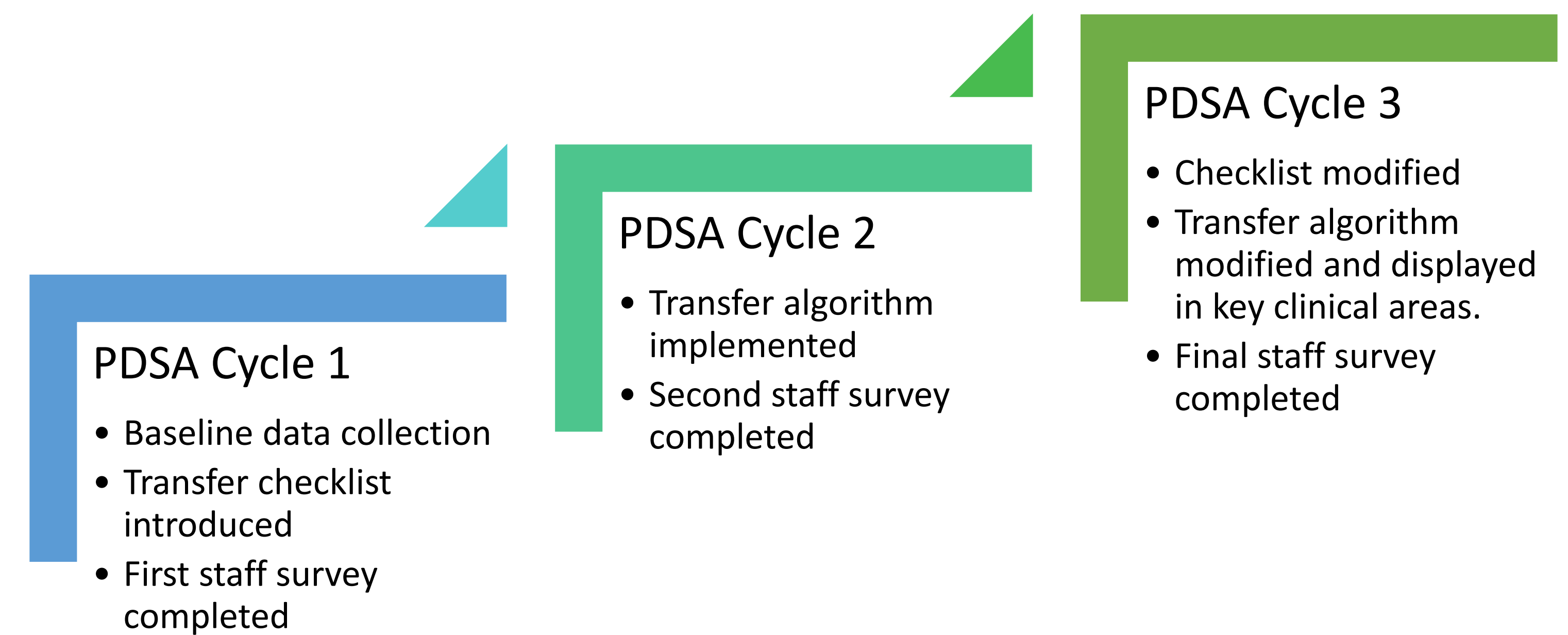
PROJECT DESIGN/STRATEGY

- Baseline data collected
- Transfer checklist designed
- Transfer algorithm designed
- 3 staff surveys completed – at the start, midway through and at the end of the improvement period.

Measures

- **Outcome measures:**
 - The percentage of suboptimal transfers monthly.
 - The percentage of parents notified before transfer (goal 95%).
- **Process measures:**
 - The percentage of patients with a completed transfer checklist
 - The percentage of staff that report satisfaction with the transfer process (goal 30%).
- **Balancing measures:**
 - The percentage of providers who report increase in the burden of the transfer process (goal ≤ 50%).

CHANGES MADE (PDSA CYCLES)



LESSONS LEARNED

- The use of checklists and algorithms allowed for standardization of transfer process
- Multidisciplinary team collaboration is essential in carrying out the interventions
- Displaying key information in strategic places helps to increase awareness
- Incorporating changes into the EMR will make for lasting success

RESULTS

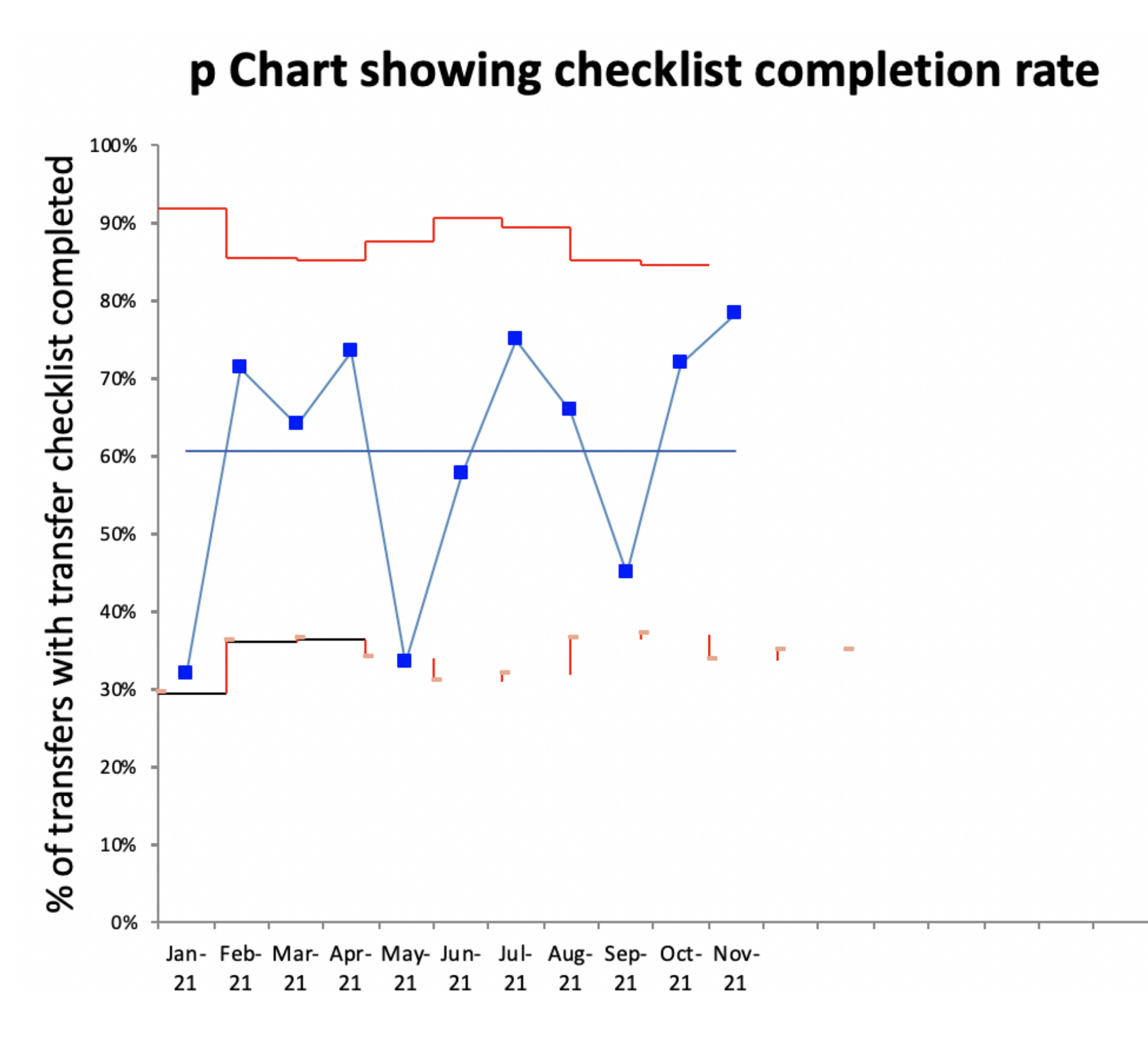
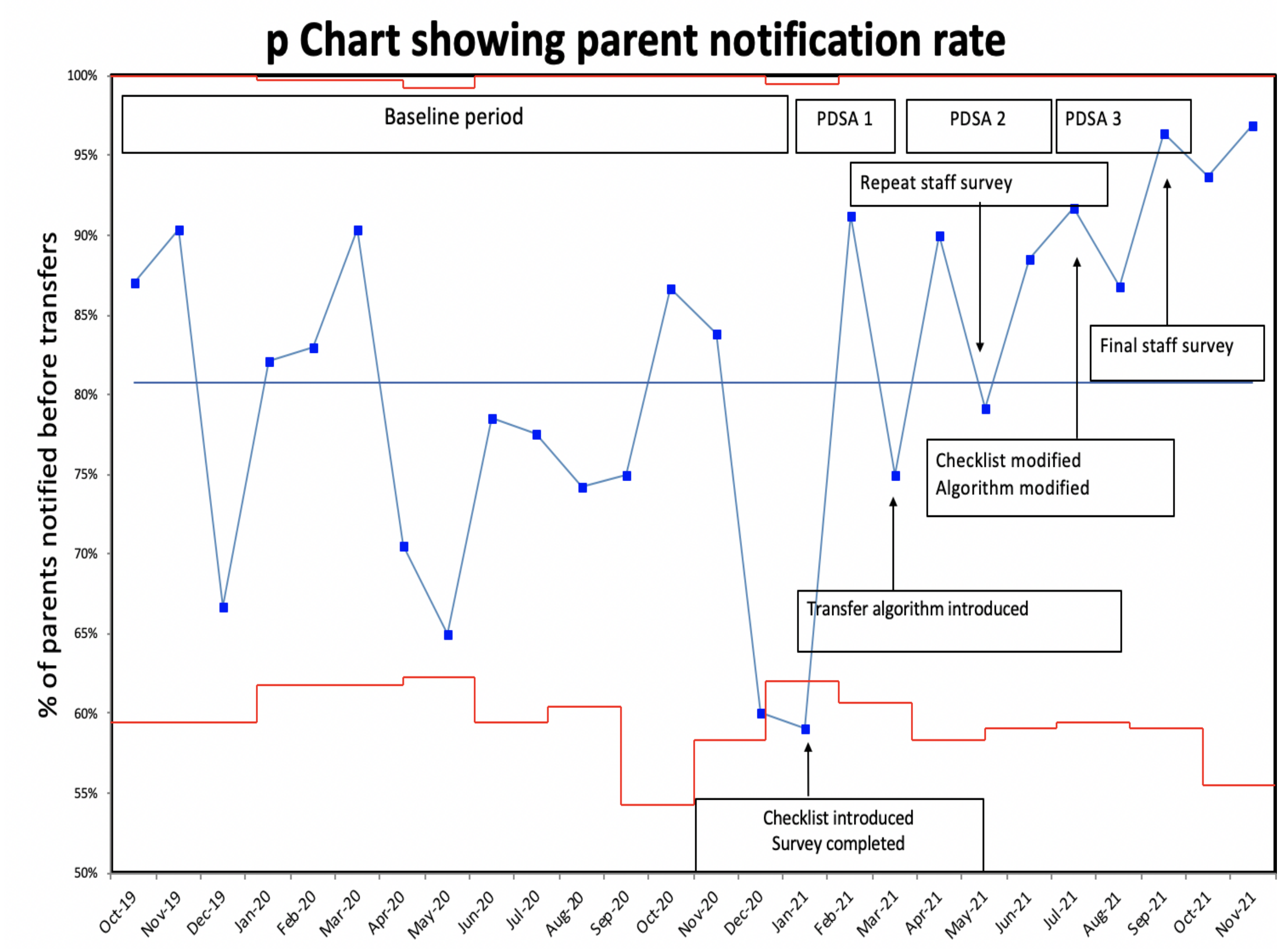
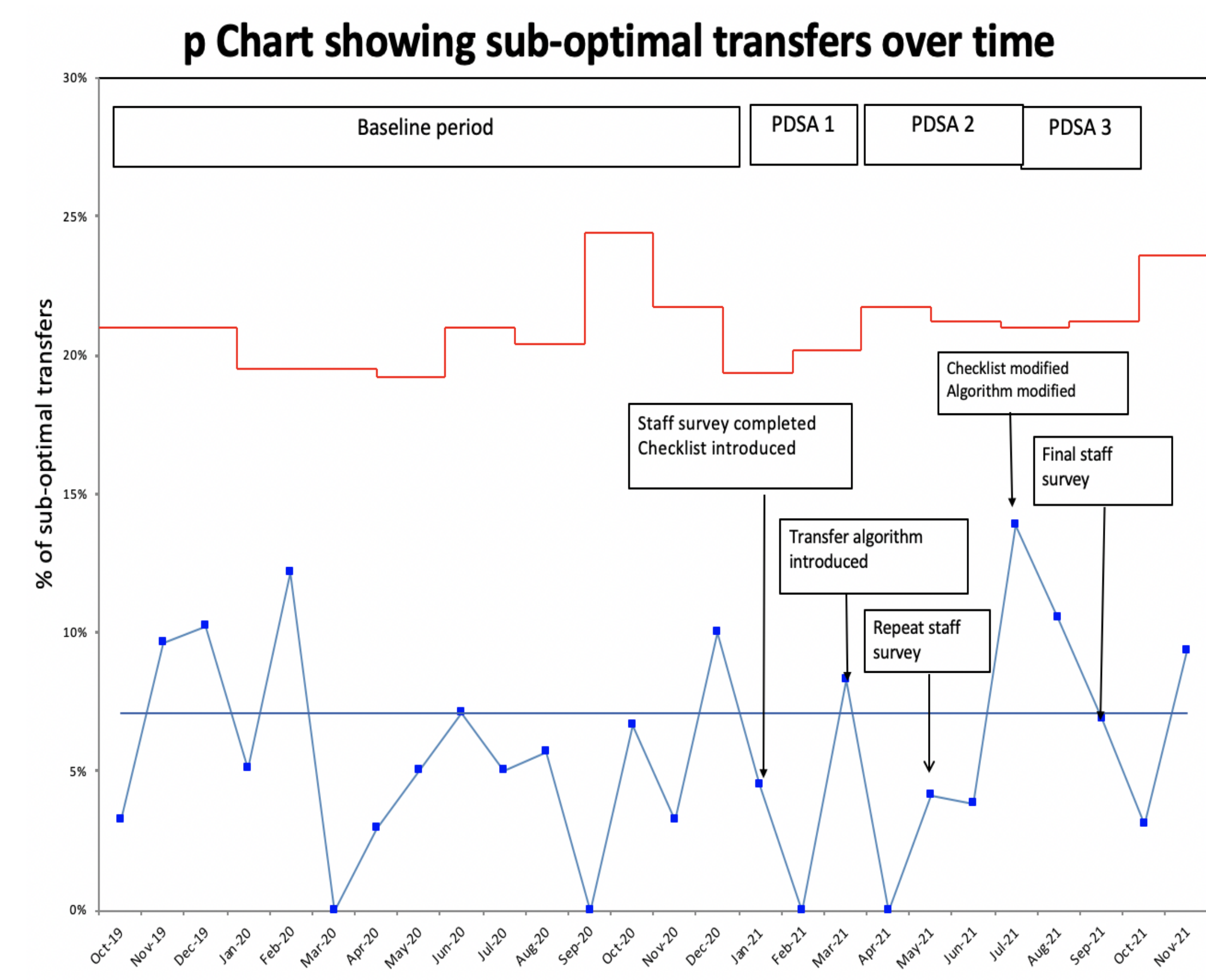


Table 1. Patient characteristics in baseline and intervention periods.

Variable	Baseline period (N=488)	Intervention period (N=280)	P-value
	N (%) or median (IQR)	N (%) or median (IQR)	
Gestational age (weeks)	32 (30, 34)	33 (30, 34)	0.761
Birth weight (grams)	1742 (1266, 2221)	1768 (1283, 2259)	0.755
SCN length of stay (days) ^a	15 (8, 26)	12 (8, 25)	0.103
Reason for transfer ^b			
Supplemental heat	N/A	147 (53%)	
Bradycardia monitoring	N/A	18 (6%)	
Learning to feed by mouth	N/A	224 (80%)	

^a Data missing for 26 cases in intervention period.

^b Data not collected in baseline period.

N/A, not available; SCN, special care nursery

Table 2. Survey responses by timepoint.

Survey question/response	Initial survey (N=54)	Midway survey (N=41)	Final survey (N=46)	P-value	
	N (%)	N (%)	N (%)	Midway vs. initial	Final vs. initial
Clearly defined process? ^a				0.421	0.002
Yes	25 (46%)	24 (60%)	35 (76%)		
No or not sure ^b	29 (53%)	16 (40%)	11 (24%)		
Clear person responsible for transfer decisions?	24 (44%)	22 (54%)	29 (63%)	0.373	0.063
Parents are always notified prior to SCN transfer ^a	13 (24%)	23 (58%)	33 (72%)	0.001	<0.001
Burdensome transfer process?				0.287	0.550
Not at all	27 (50%)	27 (66%)	28 (61%)		
Somewhat	23 (43%)	13 (32%)	16 (35%)		
Very	4 (7%)	1 (2%)	2 (4%)		
Satisfied with transfer process				0.204	0.003
Not at all	3 (6%)	3 (7%)	1 (2%)		
Somewhat satisfied	43 (80%)	26 (63%)	25 (54%)		
Very satisfied	8 (15%)	12 (29%)	20 (43%)		

^a Data missing for 1 case in midway survey.

^b "Not sure" response option not included on final survey.

NICU, neonatal intensive care unit; SCN, special care nursery

NEXT STEPS

- Next steps for this QI project include monitoring for sustainability over a 6-month period.

ACKNOWLEDGEMENTS

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