

## Problem


- Premature and ill babies cared for in the neonatal intensive care setting are at risk for language and cognitive delays.
- Fostering parent-infant bonding and meaningful participation in care in this setting is challenging.
- What is known:** Shared reading in neonatal intensive care units is associated with increased vocalization by infants, improved language and cognitive development at 18-21 months of age, and decreased parental stress.



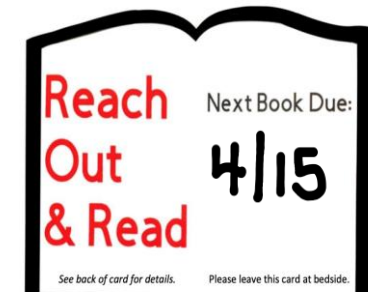
## Interventions, continued

- Newborn Critical Care Center (NCCC) ROR program designed and implemented by a multidisciplinary team.
- Books are gifted at admission, monthly, and at discharge.
- All babies are eligible. The goal is 90% enrollment among all patients admitted to the NCCC (Fig 2, Fig 3).
  - Several PDSAs geared toward ensuring books gifted at agreed-upon times.
- Parents receive anticipatory guidance about shared reading beginning at birth and are encouraged to read whenever they visit.
- Process reminders and visual cues created and refined:
 

Bedside  
Reminder  
Cards:



Generic card →

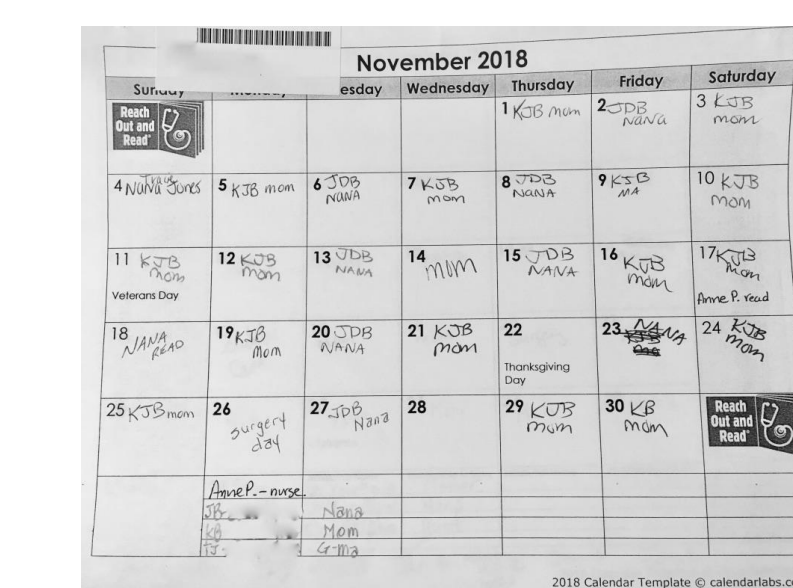


dry erase, updatable →

Signs no longer needed after implementation of a monthly "Book Day" (all patients receive books at this time)
- Tracking mechanisms for reading activity by parents and others:
  - Bedside paper calendars abandoned; EPIC flowsheet option developed.



Bedside Calendar:



(Few completed, many not returned)

## Parent responses:

"It's a fun bonding experience."

"We have a whole bookshelf for him at home but never thought to read to him here."

## Balancing Measures:

"I don't like reading in front of other people, maybe have set times for reading, draw curtains closed."



## Lessons Learned

- Be bold -- abandon processes that do not work.
- Keep interventions simple.
  - For example, monthly "Book Day" in place of the individual book gifting schedule.
- Incorporate new processes into existing processes.
- Rewards and recognition can build enthusiasm.
- Reading activity is difficult to accurately track.



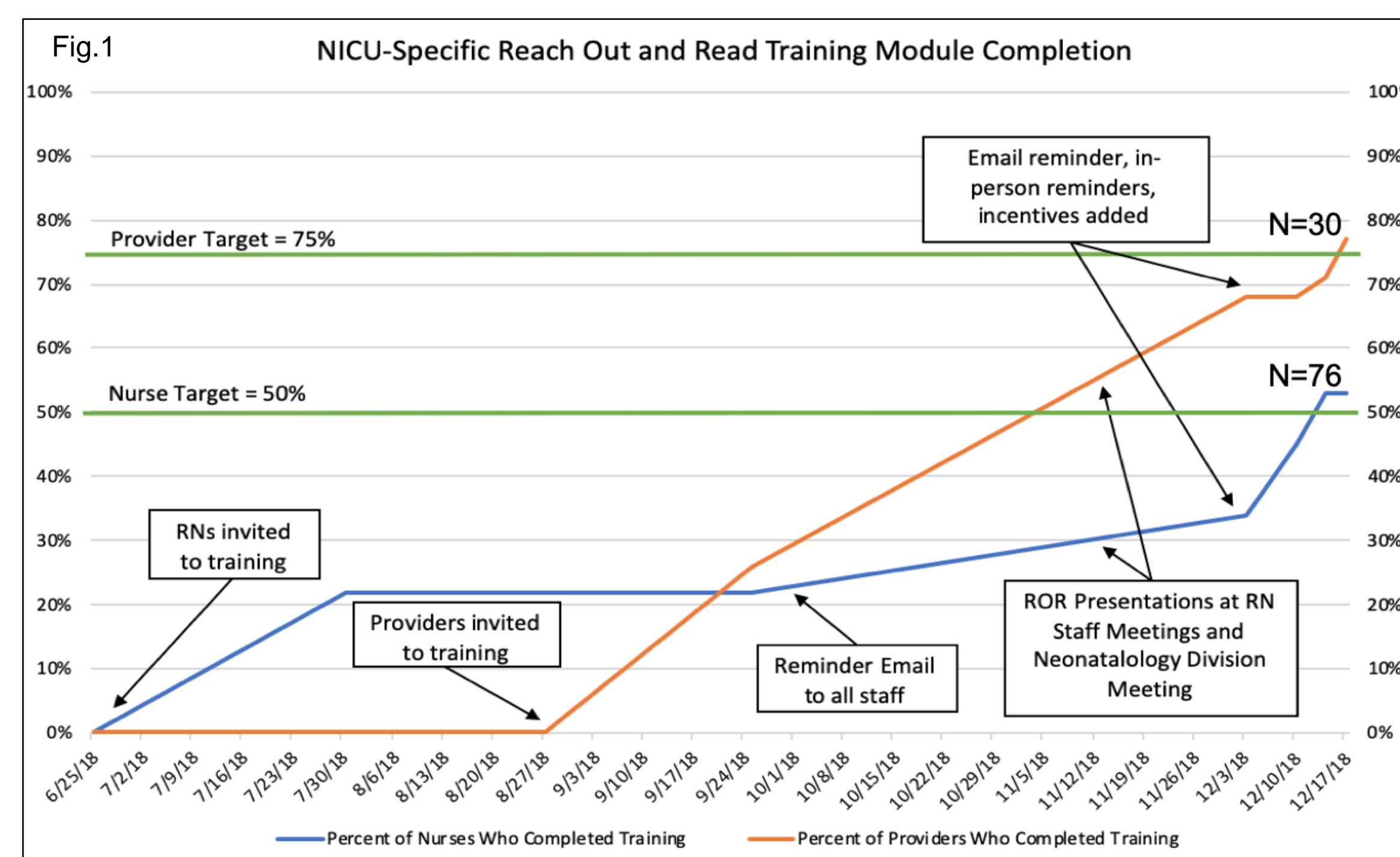
## Aims



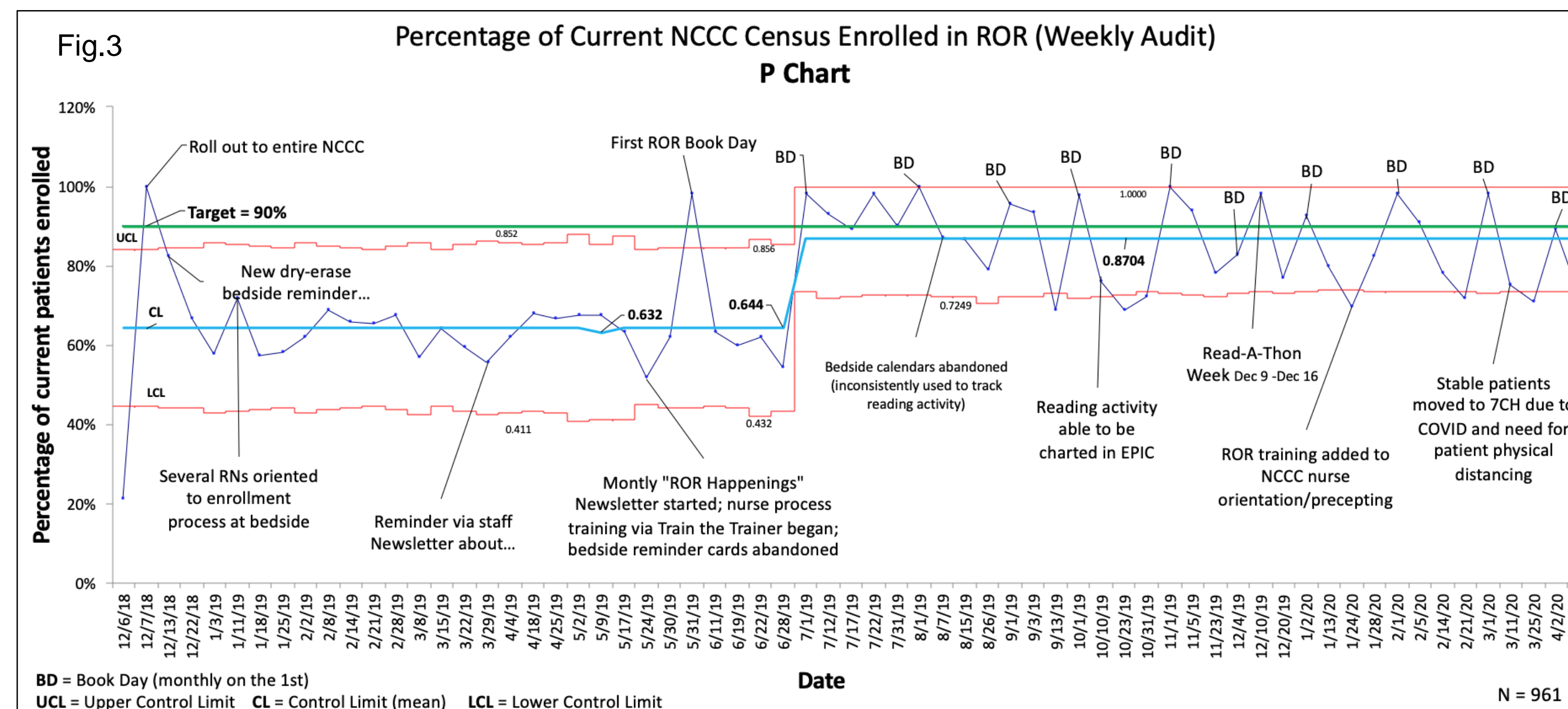
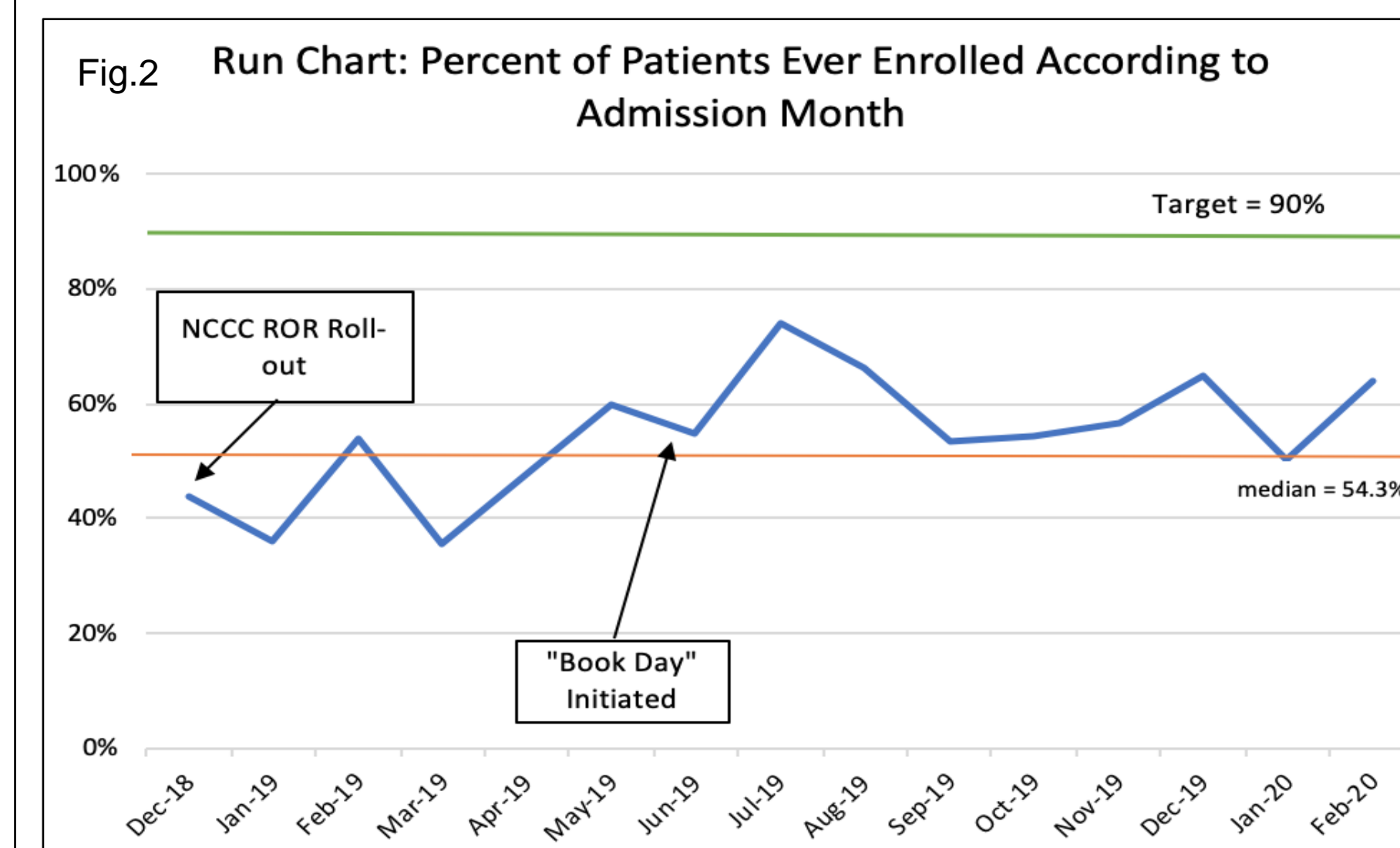
1.) Increase the percentage of days that babies are read to by a parent or caregiver to 75% of days that a parent or caregiver is physically at the bedside within 12 months.

2.) Increase the percentage of Newborn Critical Care Center (NCCC) inpatient days an infant is read to by anyone to 75% of inpatient days within 12 months.

## Results



728 babies enrolled; 1671 books gifted  
(as of April 2020)



## Reading Activity Tracking

### Calendar data

- Calendars collected for 137 unique patients
- Additional 9 calendars were missing patient labels
- 93 calendars had at least one reading occurrence recorded (67.8%)
- Calendars missing for 175 babies

### EPIC Flowsheet Data

- (Oct 2019 forward)
- Reading occurrences charted for 76 of 384 patients (20%)

## Interventions

- Partnered with Reach Out and Read of the Carolinas (ROR-C)
- Online training modules developed with ROR-C
- Modules completed by NCCC providers and nursing staff (goal: 75% and 50%, respectively: Fig.1).



## Acknowledgements

We would like to thank:

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