

Developmental Screening Quality Improvement Initiative: A Learning Collaborative of the New Hampshire Pediatric Improvement Partnership

Samantha House, DO, MPH; Molly O'Neil, BS; Josephine Porter, MPH; Alison Holmes, MD, MPH; Ardis Olson, MD; Holly Tutko, MS

Background

- An estimated 14% of US children have a developmental delay.
- 20-30% of these children will not be diagnosed until after the start of kindergarten.
- Identifying developmental delay early is crucial to early childhood development.
- The American Academy of Pediatrics endorses developmental screening at the 9, 18, and 30 month well child checks.
- Parent and provider surveys indicate that developmental screening practices in New Hampshire are suboptimal.

Aims

- To increase the proportion of children <3 screened for developmental delay with a standardized screening tool (Ages and Stages Questionnaire (ASQ)) to **80%** at 3 different time points (<1, <2, <3)
- To increase the proportion of children with failed developmental screen who have documented referral for additional services to **80%**

Design

Four participating practices:

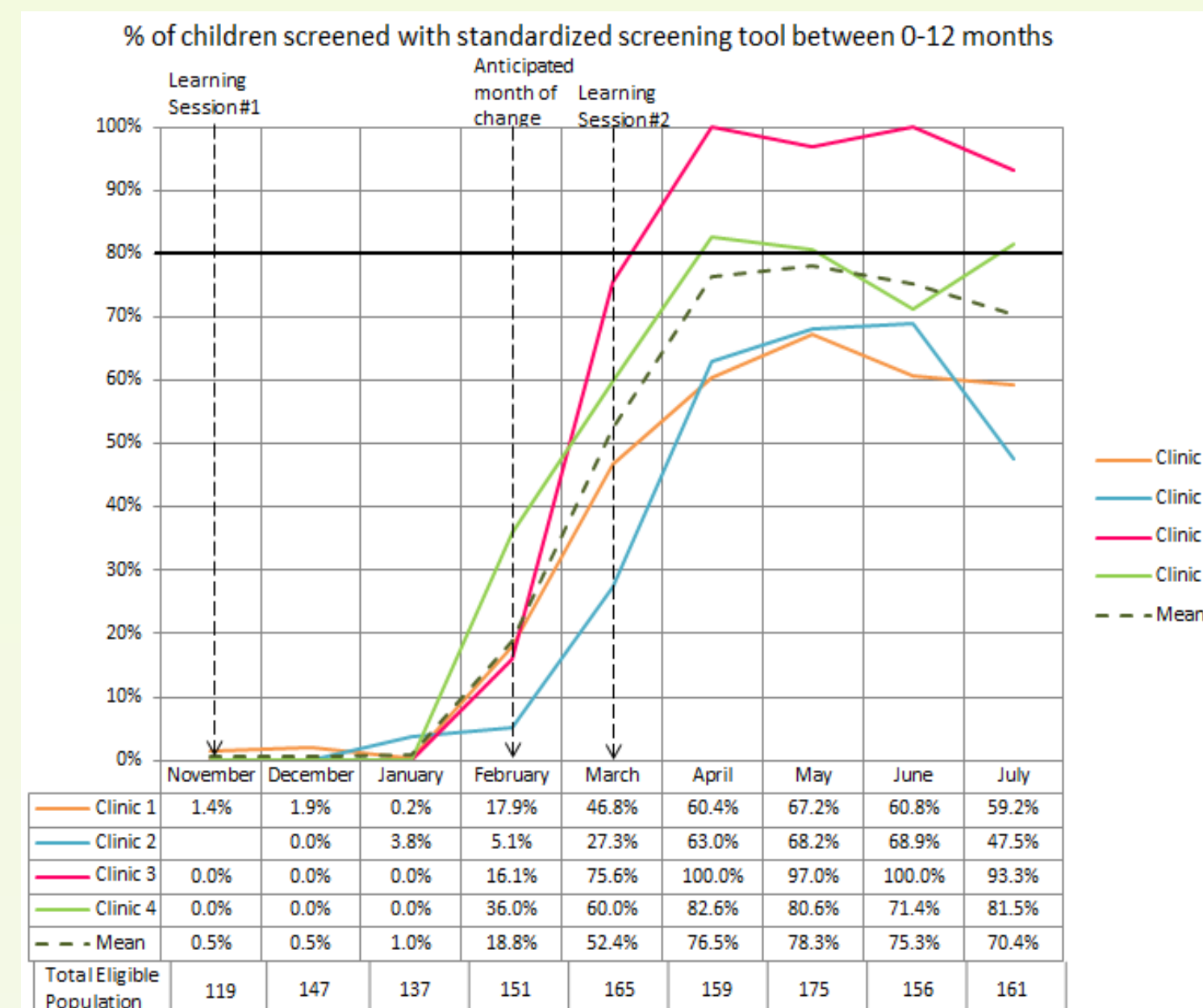
- Dover Pediatrics
- Dartmouth Hitchcock Keene
- Monadnock Regional Pediatrics
- Core Physicians

Two Phases:

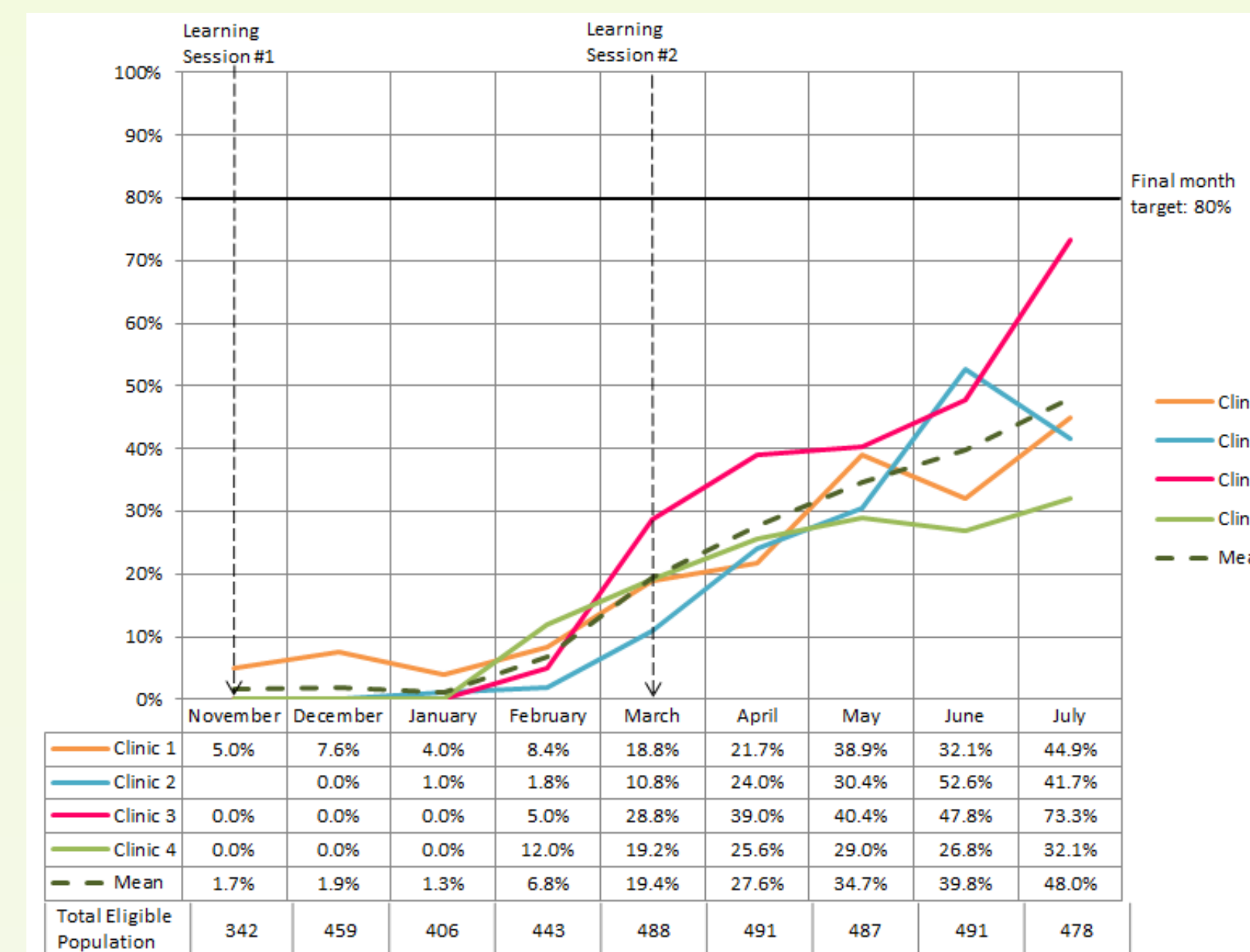
- Pre-Work (3 months)**
 - Review importance of developmental screening/quality improvement models
 - Explain project design/expectations
 - Meet with quality improvement coach
- Implementation (9 months)**
 - Monthly conferences calls and team meetings
 - Up to 5 coaching visits per practice
 - Two in-person learning sessions
 - One webinar

Results

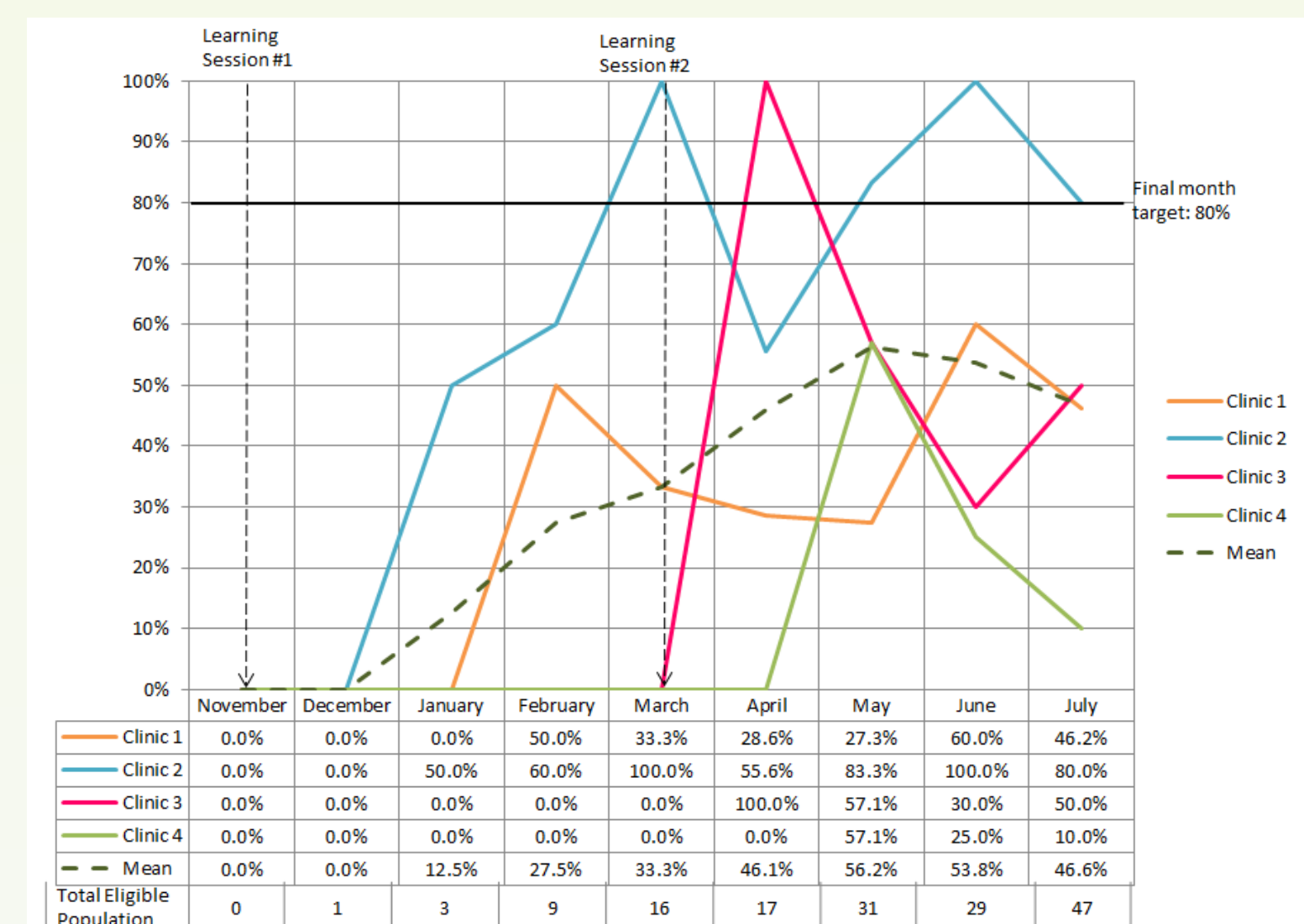
Aim: Increase to 80% the proportion of children who turned 1 year old in the past month who has a documented screening.



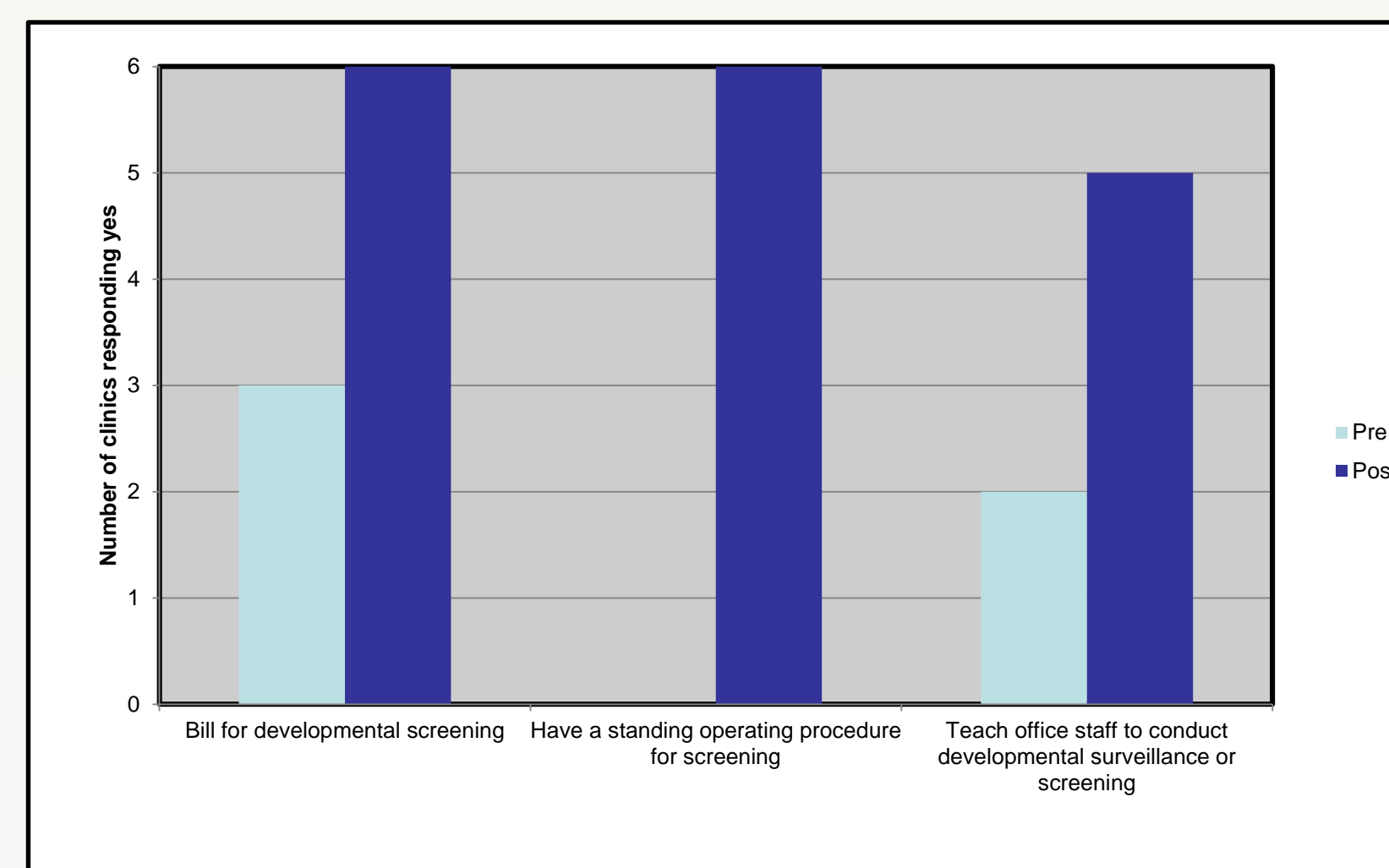
Aim: Increase to 80% the proportion of children who turned 1, 2, or 3 years old in the past month who has a documented screening.



Aim: Increase to 80% the proportion of children less than three years of age with a failed score on a standardized developmental screening instrument who have a documented clinician referral for additional services



Pre and post-intervention survey data



Barrier	Pre-Survey Mean	Post-survey Mean
How long and difficult the ASQ is to implement and score	4.3	2.3*
Don't have a standard operating procedure for screening implementation	3.7	2.3
Cost to acquire the tool	3	1.8
Unclear about billing/reimbursement for screening	3.2	2
Lack of training on how to implement screening tool	3.8	2.7
Screening interrupts patient flow	3.8	2.8
Amount of time/labor needed to monitor referrals (e.g. appt. made, family went)	2.7	1.7

*Statistically Significant

Quote from one Clinic Team Leader:

"We're finally meeting the standard of care for developmental screening in our practice and in a sustainable manner".

Evaluation

- Chart review for baseline data
- Monthly review of electronic health records to assess progress toward aims
- Bimonthly clinic progress reports
- Systems of care survey before and after collaborative
 - Assess changes in clinic systems/attitudes
- Evaluations of training, tools, and technical assistance
 - Assess participant satisfaction with collaborative

Conclusions & Discussion

- Learning collaborative did not meet the 80% target, though positive change was seen in each measure.
- Measurement Challenges
 - Lag time between screen completion & "counting" it in performance metric
 - Sequential implementation of screens at WCV limits ability to see performance change for 9 mo. project
 - Referral data was hard to capture in some EHRs
- Referral patterns proved difficult to impact as some providers opted to see patients back in clinic prior to referral.
- Introducing screening did not lengthen visits.
- Significant decrease in provider perception about difficulty of using ASQ
- All clinics are still screening and have made changes to continue to improve/sustain their rates.
 - Standard operating procedures, staff training, billing, and enhanced systems to track children at risk
 - Continuing to track performance. One clinic added screening to its internal quality "dashboard"
- Clinicians involved were invested in outcomes, but less invested in quality improvement principles/strategies

Acknowledgements

We would like to acknowledge the work of Dr. Nina Sand-Loud, content expert, and Sue Butts-Dion, quality improvement coach, as well as the clinical site teams, Developmental Screening Advisory Committee members, the UNH Research Computing Center and NH Dept. of Health and Human Services.