

Implementation of a Health Literacy Assessment Tool Among Caregivers of Children with Persistent Asthma

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Rationale

- Low health literacy contributes to poor asthma outcomes, including more frequent exacerbations.
- Despite its recognized benefit, formal health literacy assessment in outpatients may not often be performed due to various challenges.
- Prior to April 1, 2019, health literacy was not formally measured in our complex asthma clinic.

Methods

Figure 1. Key driver diagram. Quality Improvement (QI) methodology was used to identify an aim statement and design interventions.

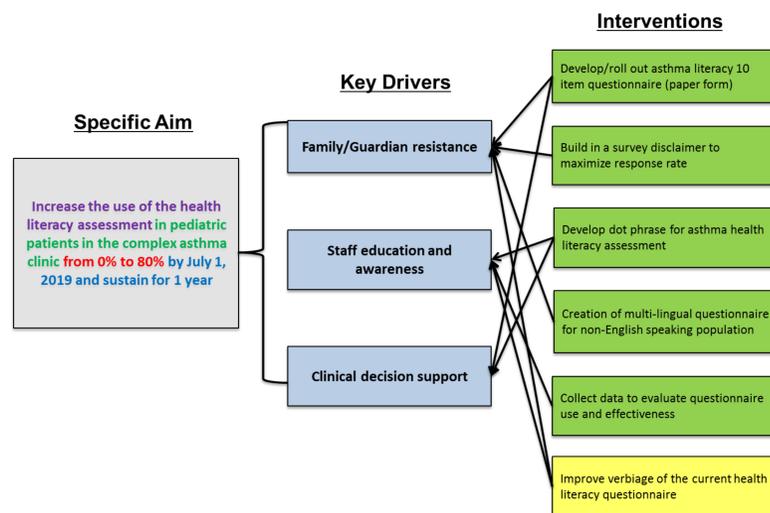


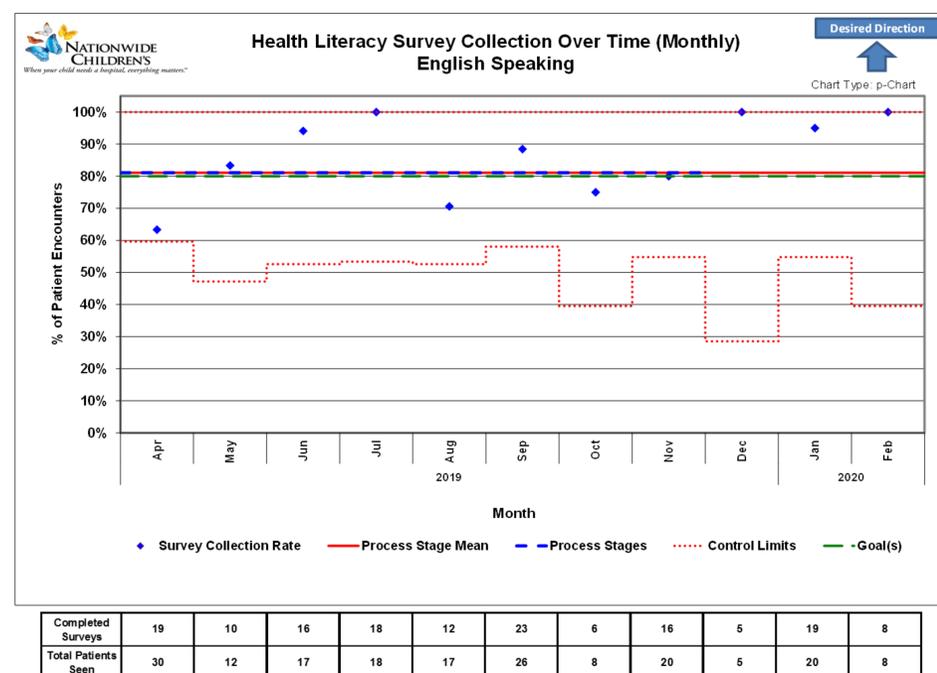
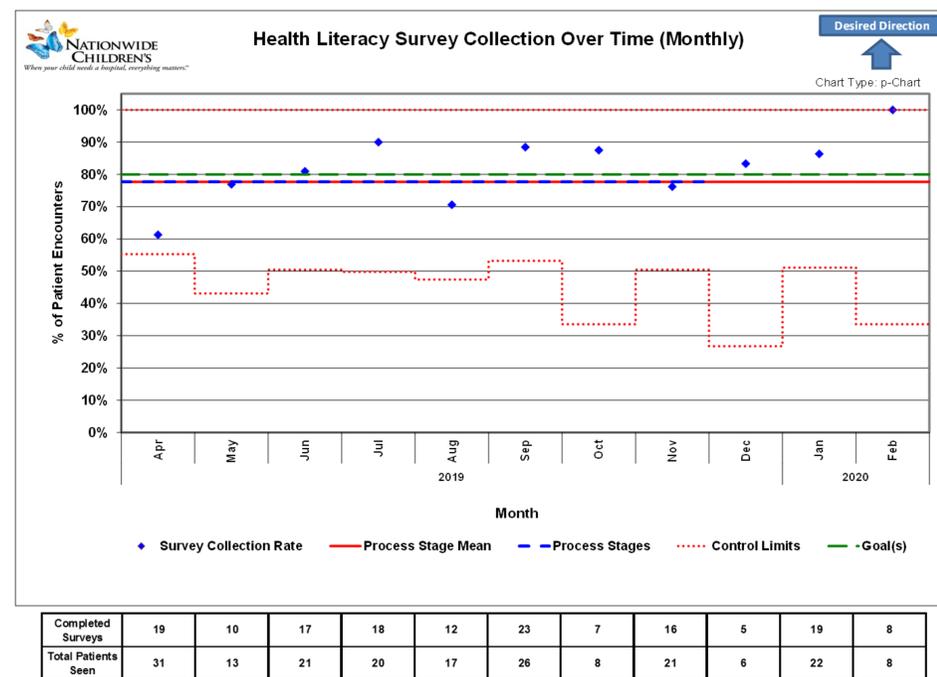
Figure 2. The validated “Asthma Health Literacy” survey was chosen for the assessment¹. This survey is scored on a 0-100 scale based on replies to 10 true-or-false questions.

This survey is intended to gather information about our complex asthma population for research purposes only. Your responses will not be shared. For each of the following questions, please select True or False to the best of your knowledge.

Question	True	False
1. Inhaler use can lead to dependence or addiction.	True	False
2. Inhalers can have an effect on the heart, or damage it.	True	False
3. It is not good for children to use the inhaler for too long.	True	False
4. After a child's asthma attack, once the coughing is over, use of the inhaler and other asthma medications should stop.	True	False
5. Children with asthma should use asthma medications only when they have symptoms (coughing, congestion, or wheezing).	True	False
6. It is better to use inhalers directly, without a holding chamber, so the medication can go directly to the lungs.	True	False
7. The main cause of asthma is airway inflammation.	True	False
8. Parents should ask a doctor to tell the school that an asthmatic child shouldn't exercise or participate in physical education classes.	True	False
9. Children who have asthma shouldn't participate in sports that make them run too much.	True	False
10. When a child has an asthma attack, it's best to go to the emergency department even if symptoms are mild.	True	False

Results

Figure 3a and 3b. Survey collection was tracked for all caregivers of patients seen in the complex asthma clinic (*top*) and for the subset of English-speaking caregivers (*bottom*) over a 9 month period.



- Over 9 months, 150 surveys were collected from 188 complex asthma clinic patients.
- Total collection rate = 79.8%, which is just below the goal of 80%.
- Survey collection rates improved over the first 4 months (April 61% → June 76% → July 90%) before plateauing.
- For English speaking families, survey collection has met or exceeded the goal in 6 of the past 8 months.
- Survey collection in non-English speaking patients improved with the introduction of translated surveys in month 7.
- Plan Do Study Act (PDSA) cycles were employed to test changes and outcomes tracked following each change.

Conclusions

- QI methodology was implemented in a pediatric asthma clinic to improve outpatient assessment of caregiver health literacy.
- Several barriers to routine health literacy assessment were encountered, chiefly staff workflow disruption and the language barrier presented by non-English speaking patient families.

References

1. Franken MMA et al. The presentation of a short adapted questionnaire to measure asthma knowledge of parents. *BMC Pediatrics*. 2018; 18:14.