

Problem Statement



EPSDT and the AAP recommendation



No formalized assessment of oral health in children age six months to six years in the primary care pediatrics clinic



Assessment of oral health and caries risk is providerdependent and is not standardized



The existing referral system for sending patients to dentists is outmoded and needs revamping

High-Risk Findings

RISK FACTORS	PROTECTIVE FACTORS	CLINICAL FINDINGS
Mother or primary caregiver had active decay in the past 12 months ☐ Yes No	 Existing dental home	 ⚠ White spots or visible decalcifications in the past 12 months Yes No ⚠ Obvious decay Yes No ⚠ Restorations (fillings) present Yes No
 Mother or primary caregiver does not have a dentist ☐ Yes ☐ No 		
 Continual bottle/sippy cup use with fluid other than water ☐ Yes ☐ No Frequent snacking ☐ Yes ☐ No Special health care needs ☐ Yes ☐ No Medicaid eligible ☐ Yes ☐ No 		 Visible plaque accumulation Yes No Gingivitis (swollen/bleeding gums) Yes No Teeth present Yes No Healthy teeth Yes No



High-Risk Findings

Clinical Findings



White Spots/Decalcifications This child is high risk.

White spot decalcifications present—immediately place the child in the high-risk category.



Obvious Decay This child is high risk.

Obvious decay present—immediately place the child in the high-risk category.



Restorations (Fillings) Present This child is high risk.

Restorations (Fillings) present—immediately place the child in the high-risk category.

Other Risk Factors



Visible Plaque Accumulation

Plaque is the soft and sticky substance that accumulates on the teeth from food debris and bacteria. Primary care clinicians can teach parents how to remove plaque from the child's teeth by brushing and flossing.



Gingivitis

Gingivitis is the inflamation of the gums. Primary care clinicians can teach parents good oral hygiene skills to reduce the inflammation.



Healthy Teeth

Children with healthy teeth have no signs of early childhood caries and no other clinical findings. They are also experiencing normal tooth and mouth development and spacing.

For more information about the AAP's oral health activities email oralhealth@aap.org or visit www.aap.org/oralhealth.

Specific Aims

- Introduce caries risk assessment screening and referral process to residents and clinical staff in the general pediatrics clinic
- Improve the utilization rate of the caries risk assessment screening tool to at least 80% of well visits for patients aged six months to six years
- Improve referral rate of patients with positive CRA scores to at least 80%
- Achieve the above goals by February 29, 2020



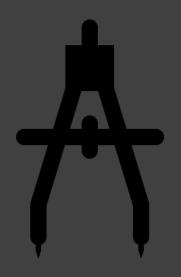
Vision

- Patients
 - Without a dental home
 - With high-risk CRA
 - With serious problems such as severe decay or abscess
- Receive referral to a local dentist, urgently if high-risk or serious problem
- Facilitates measuring of how many patients completed the visit with the dentist
- A mechanism for closed-loop communication whereby the dentist will communicate
 the results of their evaluation and treatment plan with the primary care clinician
- Easy process for parents, residents, and dentists to navigate





Metrics



Process Measures

- What percentage of residents received education regarding screening and referral workflows?
- What percentage of patients age 6m-6y have the screening completed at time of well visit?
- What percentage of patients with NO dental home receive a screening?
- What percentage of patients with no dental home scored as NOT low-risk on the CRA?
- Of patients with NO dental home who were NOT low risk, what percentage received an Rx for oral health?

Outcome Measure

- What percentage of patients without a dental home received a referral to a dentist after having received a high-risk score on the CRA?
- What percentage of patients with a positive CRA score labeled as high risk received an urgent referral to a dentist?

Balancing Measures

Did residents find the screening process to:

Be easy to use?

Pose an extra documentation burden? Make visit time unnecessarily long?

PDSA Cycle #1



Evaluate current practice



Rationale:

Screening for early childhood dental caries risk and referral to dentist is recommended by the AAP





Twenty randomly selected charts per month from patients aged 12m-6y were evaluated from early November through January 20.



Result:

No dental home: 67% of charts

Documentation of a caries risk

assessment: 0% of charts

Documentation of dental list handout given: 4% of charts

Urgent referral to dentist: 0% of

charts

ACT

Create the CRA screening tool in EPIC and a workflow for referral, and a smart phrase for documentation that screening was done and of referral outcome in visit note.

PDSA Cycle #2



Goal:

Educate the team about the screening and referral workflows and documentation method



Rationale:

Everyone needs to know how to navigate the screening and referral process



Date:

A presentation was delivered to residents on January 20, 2020 describing the screening, referral, and documentation workflows



Result:

About 70% of residents were present for the presentation, and the powerpoint was emailed to all residents to close the gap

Location of Peds Caries Risk

Now to

Assessment in EPIC

screen:

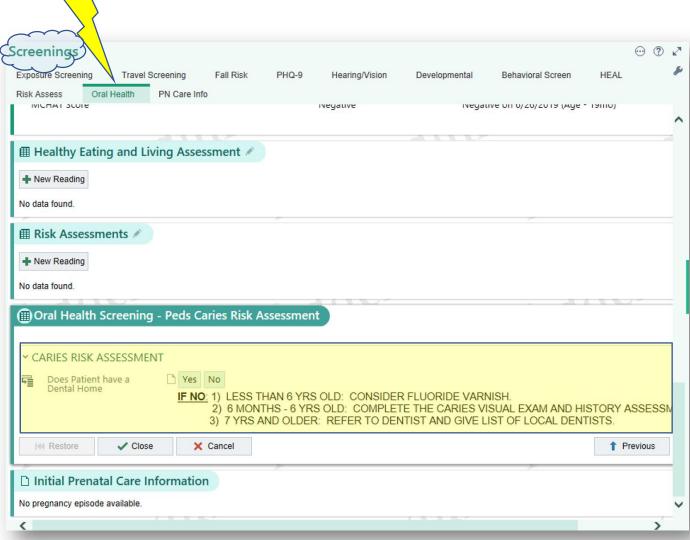
 In clinic context, click on "Screenings"

2. Then, click on "Oral Health"

3. Scroll down to "Oral Health Screening- Peds Caries Risk Assessment"

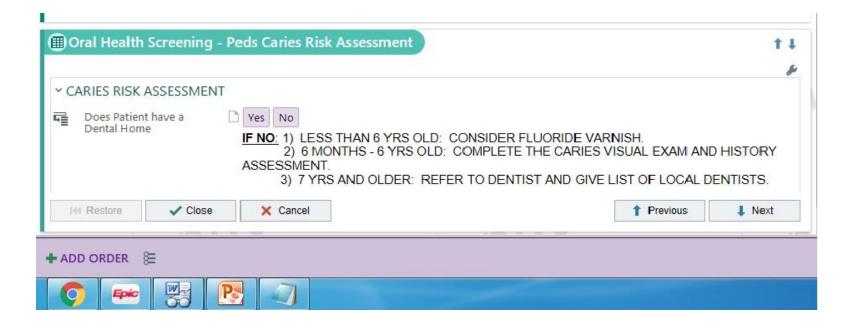
 Clicking "Yes" or "No" buttons will advance to the next question

5. The screening will give you a score at the end

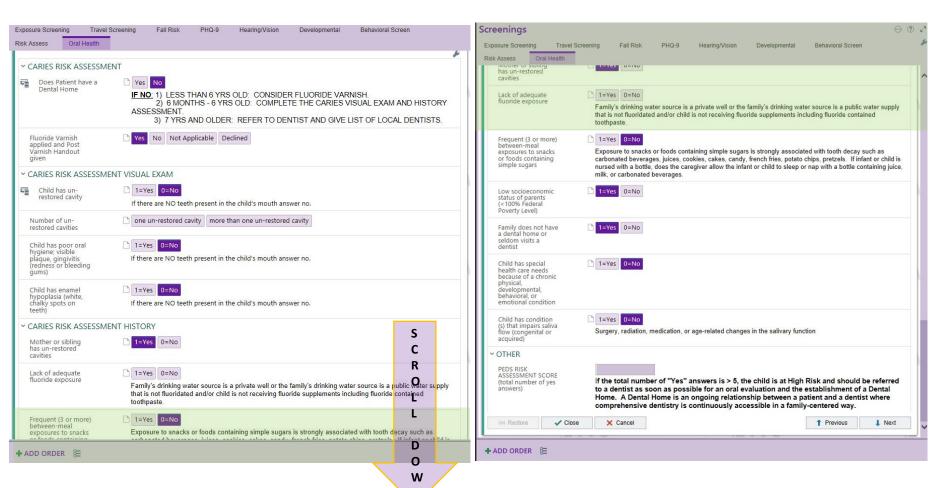


First Question

- Answer the first question: "Does Patient have a Dental Home"?
- Yes or No

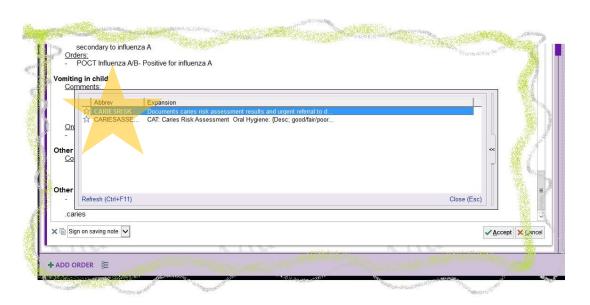


Answer some more questions...



Most of the questions can be answered from regular history and physical items. Only three additional questions!

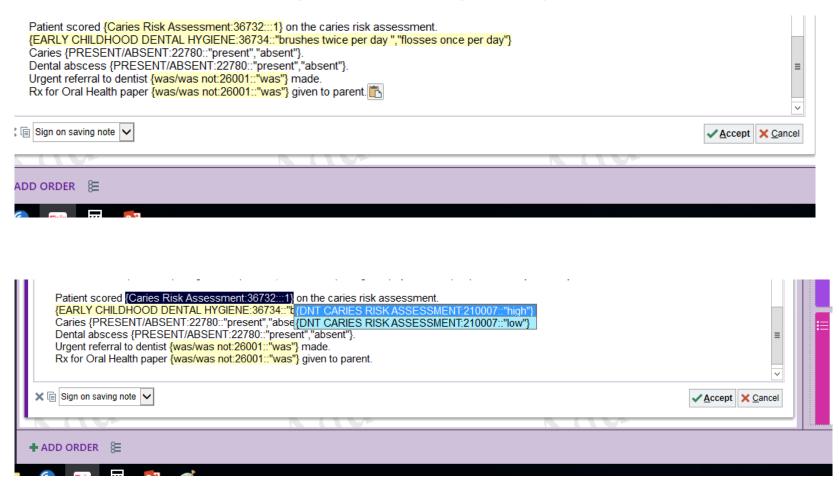
Documentation of Screening and Urgent Referral



- Use the smartphrase, ".CARIESRISK"
- The phrase will let you make selections
- Text documenting screening and referral will pop up

How to use the Smartphrase

You can make selections by using the F2 button or right clicking



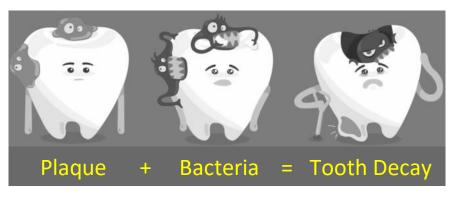
PRESCRIPTION Healthy Teeth



Child's	
name	

Needs to establish a dental home
High Risk Caries Risk Assessment- needs
dental appointment within 3 months
dental caries present needs appt ASAF
dental abscess present; Antibiotic Rx
given
\square other

Doctor's signature



Dentist List

Art of Dentistry (all ages)
Dr. Arturo López
5913 Main Street, Suite 101
Ooltewah, TN 37363
(423)362-7962

Aspire Family Dentistry Ages 2 and up 1625 McCallie Ave Chattanooga, TN 37411 (423) 622-4869

Chattanooga Dental Center All ages 3475 Brainerd Rd. Chattanooga, TN 37411 (423) 698-3828

Dental Partners- Red Bank Infants and up 625 Morrison Springs Rd. Chattanooga, TN 37415 (423) 305-6400

Dodson Avenue Community Health Center Dental Clinic Ages 6 and up 1200 Dodson Ave. Chattanooga, TN 37406 (423) 778-2800 Hamilton County Health Department Dental Clinic ages 4-20 921 E. 3rd St. Chattanooga, TN 37403 (423) 209-8100

Hixson Pediatric Dentistry new patients 0-5 years old 5470 Hixson Pike Hixson, TN 37343 (423) 842-0165

Dr. Popp
new patients 1 month-18 years old
4211 Hixson Pike
Chattanooga, TN 37415
AND
1616 Gunbarrel Road Suite 101
Chattanooga, TN 37421

Dr. Richard Prichard new patients 0-6 years old 10480 Walden Street Soddy Daisy, TN 37379 (423) 332-5544

Sidney T. Cox Associates in Pediatric and Adolescent Dentistry 6988 E. Brainerd Rd. Chattanooga, TN 37421 (423) 894-6614

RECETA

para Bienestar de los Dientes



Nombre del hijo/hija

Necesita establecer un hogar dental
Evaluación de alto riesgo de caries- necesita un
cita con un dentista antes de tres meses
 Tiene caries dentales necesita una cita lo mas
pronto possible
Tiene una infección dental; Se le dio una
receta para antibióticos:
otro

Firma de médico



Algunos Dentistas

Art of Dentistry (todas las edades) Dr. Artuo López (Se habla español) 5913 Main Street, Suite 101 Ooltewah, TN 37363 (423)362-7962

Aspire Family Dentistry De 2 años en adelante 1625 McCallie Ave Chattanooga, TN 37411 (423) 622-4869

Chattanooga Dental Center Todas las edades 3475 Brainerd Rd. Chattanooga, TN 37411 (423) 698-3828

Dental Partners- Red Bank De bebés en adelante 625 Morrison Springs Rd. Chattanooga, TN 37415 (423) 305-6400

Dodson Avenue Community Health Center Dental Clinic De 6 años en adelante 1200 Dodson Ave. Chattanooga, TN 37406 (423) 778-2800

Centro de Salud del Condado de Hamilton-Clínica Dental Desde 4 años hasta 20 años 921 E. 3rd St. Chattanooga, TN 37403 (423) 209-8100

Hixson Pediatric Dentistry Acepta pacientes nuevos desde 0 años hasta 5 años 5470 Hixson Pike Hixson, TN 37343 (423) 842-0165

Dr. Popp Acepta pacientes nuevos desde un mes hasta 18 años 4211 Hixson Pike Chattanooga, TN 37415 AND 1616 Gunbarrel Road Suite 101 Chattanooga, TN 37421

Dr. Richard Prichard Acepta pacientes nuevos desde 0 años hasta 6 años 10480 Walden Street Soddy Daisy, TN 37379 (423) 332-5544

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PDSA Cycle #3



Goals:

Implement the use of the CRA for all well visits age 6m-6y

Make Rx for oral health available for all residents in clinic drawers to give to families when making referral

Use .cariesrisk to document screening & referral process in visit note



Rationale:

The screening and referral process needs to have iterative steps that are user-friendly for both residents and parents



Date:

On January 20, 2020 and thereafter, CRA and Rx for oral health were considered to be standardized workflows in the clinic



Results:

No dental home: 64% of charts

Of those with NO dental home, 25% had documentation of a CRA screening

Documentation of Rx for oral health given: 20%

Urgent referral to dentist: 4% of charts

Percentage of NO dental home marked as non-low risk: 81%

Percentage of NO dental home who had a CRA done marked as non-low Risk: 8%

Percentage of NO dental home marked as non-low risk who received an Rx for oral health: 15%

PDSA Cycle #4



Goal:

Improve documentation of the caries risk assessment into the assessment and plan section of the visit note so that it is a hard stop during documentation process for each well visit with patients age 6m-6y.



Rationale:

A hard stop would make remembering to complete a CRA and document the score and referral outcome would make the workflow more standardized and less provider-dependent



Date:

Late February, 2020 is when the new visit note format became available



Results:

No dental home: 52% of charts

Of those with NO dental home, 100% had documentation of a CRA screening

Documentation of Rx for oral health given: 70%

Urgent referral to dentist: 0% of charts

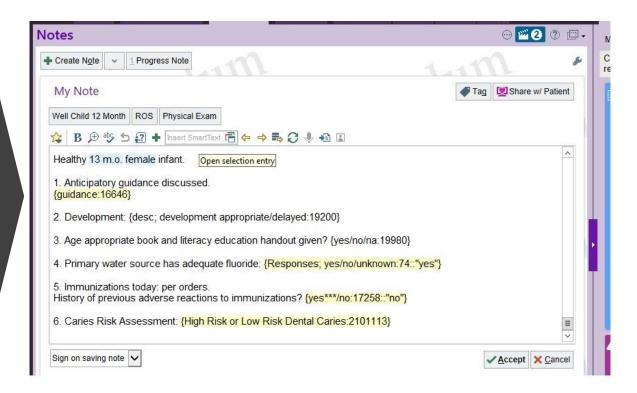
Percentage of NO dental home marked

as non-low risk: 100%

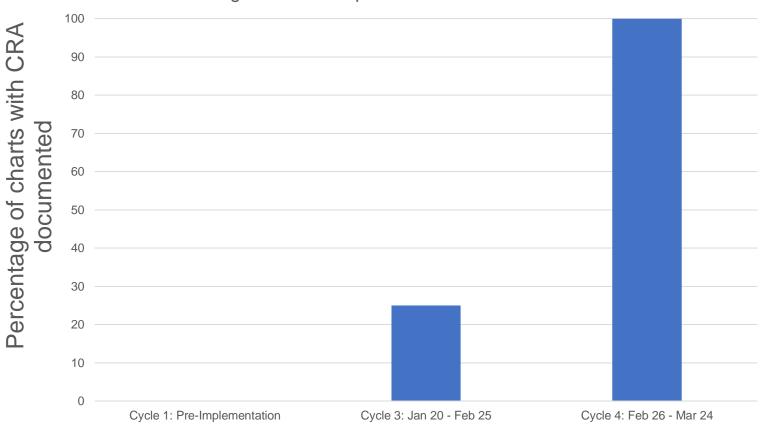
Percentage of NO dental home who had had a CRA done marked as non-low risk: 100%

Percentage of NO dental home marked as non-low risk who received an Rx for oral health: 92%

Visit note with integrated CRA
Documentation

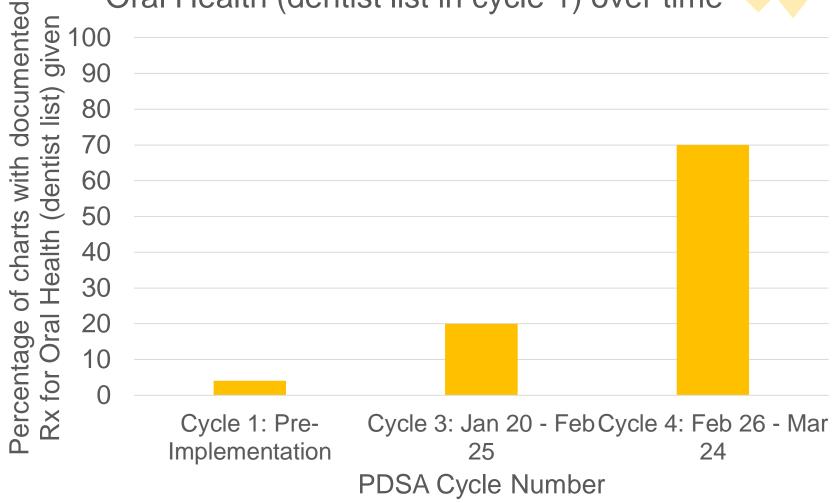


Percentage of patients with documentation of caries risk assessment screening over time for patients with NO dental home

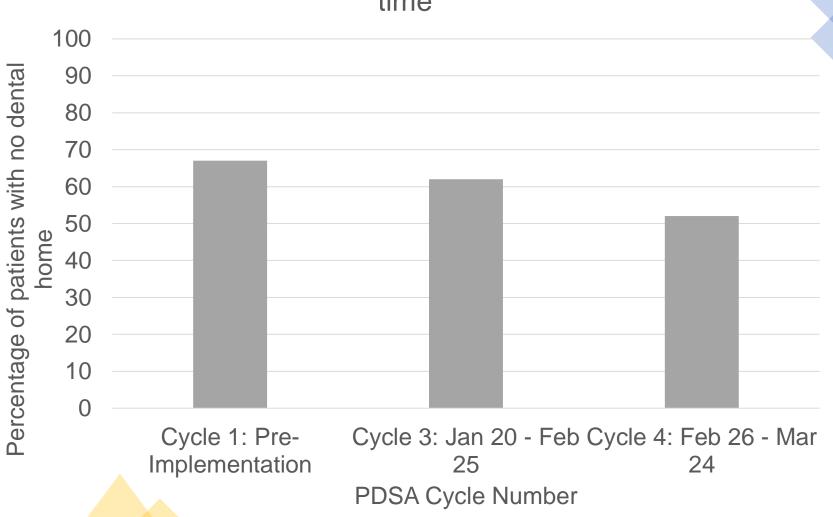


PDSA Cycle Number

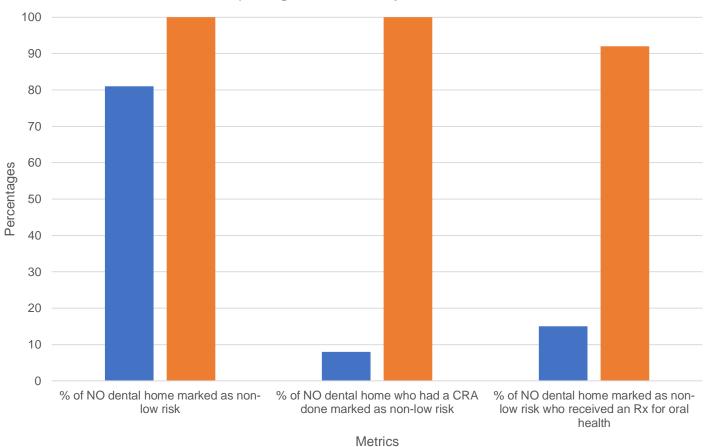
Percentage of patients who received Rx for Oral Health (dentist list in cycle 1) over time



Percentage of patients with no dental home over time



Comparing Metrics in Cycles 3 and 4

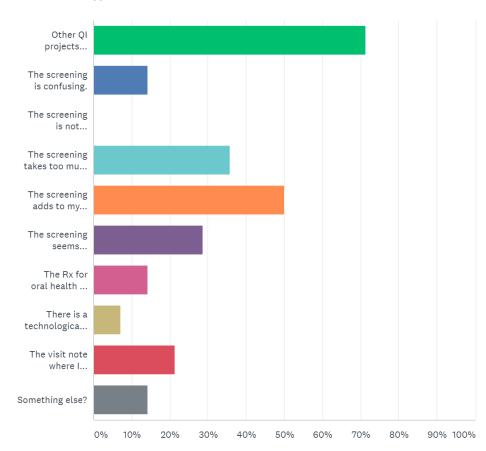


■ Cycle 3: Jan 20 - Feb 25 ■ Cycle 4: Feb 26 - Mar 24

Feedback From 15 of 25 Pediatrics Residents

What are some barriers to completing the caries risk assessment and documenting its score in the visit note for your patients age 6 months through 6 years?

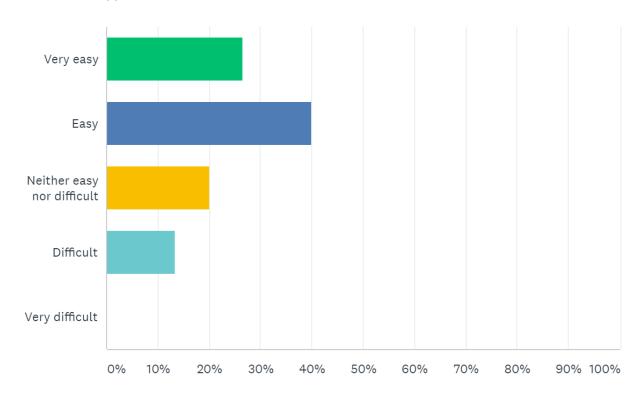




Feedback From 15 of 25 Pediatrics Residents

How difficult has it been to complete the Caries Risk Assessment in clinic for your patients age 6 months through 6 years?

Answered: 15 Skipped: 0



Summary and Discussion

Cycle 1:

- Prior to implementation, a random sample of patients age 12 months-6 years demonstrates that:
- None of the charts reviewed had any documentation of a caries risk assessment done
- •67% of these patients having no established dental home.
- •Only 4% had documentation of a dental list given to the family.

Cycle 2:

•The most successful aspect of cycle 2 was the implementation of discussion time made available for residents to discuss the screening at continuity clinic huddle time to review and allow for questions.

Cycle 3:

- Improvement in screening of those with no dental home to
- 25% as compared with 0% in the pre-implementation phase
- Process not being implemented optimally(Rx's given to those with dentists, for ex.)
- There was evidence that documentation was still lacking, so a hard stop was integrated into the visit note for CRA

Cycle 4:

- The results demonstrate further improvement compared to the previous cycle. Of all charts reviewed,
- 100% of patients with no dental home had documentation of a CRA screening.
- There was also further improvement in the Rx for oral health handouts given to 70%, which is an improvement compared to 20% in cycle #3.
- Percentage of NO dental home who had a CRA done marked as low-risk increased from 8% in cycle 3 to 100% in cycle 4, indicating that categorization was correct
- Percentage of NO dental home marked as non-low risk who received Rx increased from 15% to 92%- those who needed the referral most were mostly receiving it.

Limitations of Project

- In the medical field, it is often said that if it is not documented, it didn't happen.
- But, is the corollary true? If it is documented, does that mean that it did happen?
- CRA being completed for patients with dental homes
- Rx for oral health given to patients with dental homes- not harmful but not necessary either
- Urgent referral did not show improvement- a future direction!
- Statistical analyses were not robust- just simple math

Future Directions

Address an additional outcome measure:

percentage of patients who completed a visit with a dentist after having received a referral within 1 month of referral

Process improvement ideas:

Add category in visit note for "has dental home, low risk, no Rx for oral health given

Create workflow for closed-loop communication between dentist and primary care clinician

Create an algorithm to help us decide which patients should be referred urgently and educate team regarding this new workflow