# Use of a Risk Assessment Tool in Primary Care

Can old dogs learn new tricks?

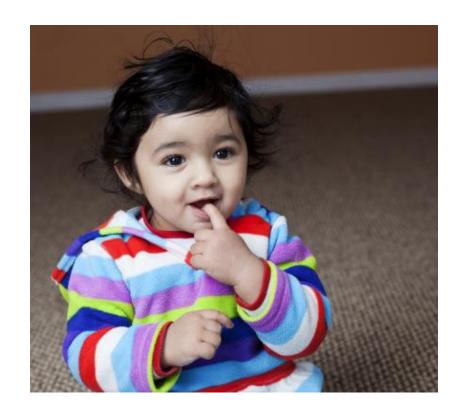
Suzanne Boulter, MD, FAAP Adjunct Professor of Pediatrics Dartmouth Medical School





### **Learning Points**

- Opportunities and challenges around oral health screening in primary care
- Discussion about AAP assessment tool
- Use of quality improvement (QI) concepts to promote pediatrician screening
- Presentation of QI data from AAP studies



# The Problem – Too Many Recommendations

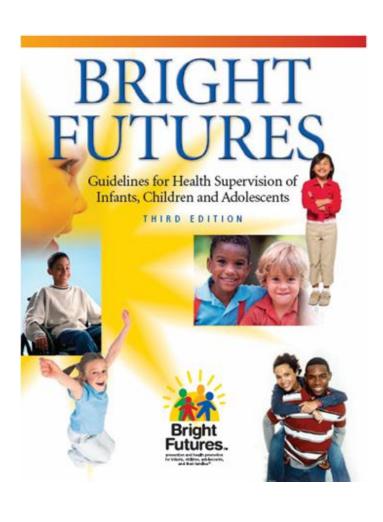
- •344 official policy statements from the American Academy of Pediatrics
- •57 policies contain 162 different verbal health advice directives that pediatricians should counsel their patients about
- •Well child visits last from 15-30 minutes allowing 5-10 seconds per topic!
  - Belamarich PF, Gandica R, Stein RE, Racine AD. Drowning in a Sea of Advice: Pediatricians and American Academy of Pediatrics Policy Statements. *Pediatrics* 2006;118;e964-978.

### AAP Oral Health Policy Statement - 6 Recommendations for Pediatricians

- Assess mother/caregivers oral health
- Assess oral health risk of infants and children
- Recognize signs and symptoms of caries
- Assess child's exposure to fluoride
- Provide anticipatory guidance and oral hygiene instructions (brush/ floss)
- Make timely referral to a dental home
  - Hale KJ, American Academy of Pediatrics Section on Pediatric Dentistry. Oral health risk assessment timing and establishment of the dental home. Pediatrics. 2003;111:1113-1116.

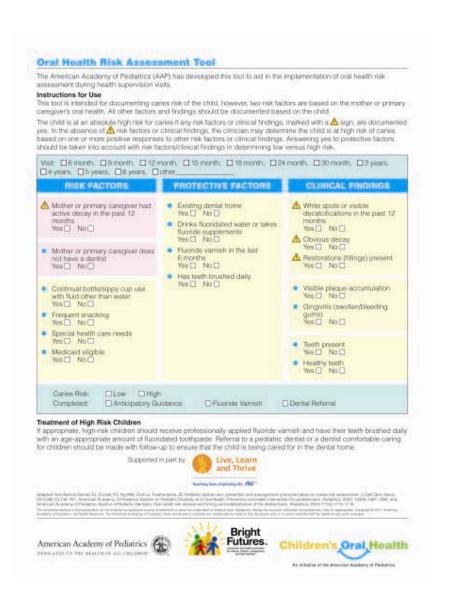


### Bright Futures 3<sup>rd</sup> Edition – 2008



- 13 well child visits recommended in first 3 years of life
- Oral Health chosen as one of 10 key issues for pediatricians to assess as part of well child care

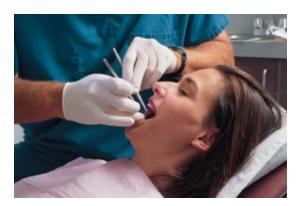
# Bright Futures/AAP Risk Assessment Tool and Tutorial



- Result of 2 QI projects
- Developed to assist pediatricians and others to implement oral health services in practice
- Available online at <u>http://www2.aap.org/oralhealth/</u> RiskAssessmentTool.html
- Web site includes downloadable tool, interactive tutorial, guidance, and results of QI projects
- Sent to 20,000 Pediatricians in August 2011

# 1) Assess Caretakers Risk Factors

- History of parental decay in prior year
- Screen for dental home of parent/caretaker



#### **RISK FACTORS**

Mother or primary caregiver had active decay in the past 12 months 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 □

# 2) Assess Child's Risk Factors

 Continual bottle/sippy cup use with any liquid other than water



- Frequent snacking (more than 4 times per day)
- Medicaid eligible/low health literacy level

Special health care needs





#### **RISK FACTORS**

Mother or primary caregiver had active decay in the past 12 months 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 □

# 3) Assess Child's Protective Factors – Fluoride and Access to Dental Home

- Systemic
  - Water fluoridation
  - Prescription supplements



- Topical
  - Toothpaste
  - Varnish
  - Rinse





#### PROTECTIVE FACTORS

- Existing dental home Yes L No L
- Drinks fluoridated water or takes fluoride supplements Yes □ No □
- Fluoride varnish in the last 6 months Yes □ No □
- Has teeth brushed daily
   Yes □ No □



### 4) Document Clinical Findings

- Assess for:
  - White spots
  - Decay
  - Restorations
  - Plaque
  - Gingivitis



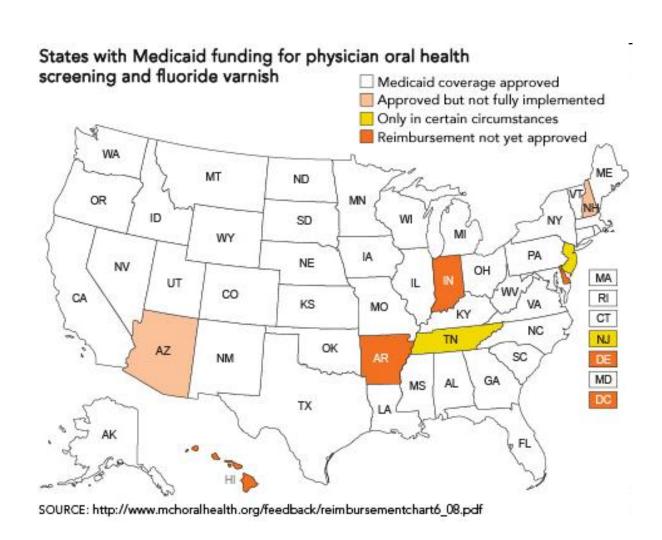
#### **CLINICAL FINDINGS** White spots or visible decalcifications in the past 12 months Yes ☐ No ☐ Obvious decay Yes No Restorations (fillings) present Yes No Visible plaque accumulation Yes ☐ No ☐ Gingivitis (swollen/bleeding) gums) Yes No Teeth present Yes ☐ No ☐ Healthy teeth Yes No

### 5) Refer to Dental Home



- First dental visit at 1 year; earlier if high risk
- Develop list of dentists who will accept patients this age
- Include office phone numbers and addresses
- Refer Medicaid patients to state web site or phone line if no access

# Medicaid Reimbursement for Primary Care Caries Prevention Services



## Medicaid Billing Codes and Reimbursement

- Fluoride varnish
   D 1206 \$12 \$53
- Oral evaluation new pt D 0145 \$29 \$56
- Oral evaluation est pt D 0120 \$20 \$27
- Age limit varies; ages 6 months to 5 years
- Number of varnish applications reimbursed annually
   2-4
- Training required varies; state specific
- Delegation of procedure (NP, RN, LPN, CMA) about
   2/3 of states allow

# Continued Challenges for PCP Oral Health Screening

- Medicaid cuts may affect some states current payment to PCPs
- Private medical and dental insurance payments to PCPs to provide caries prevention services is lacking
- Pediatricians and other primary care providers lack the time and training to provide OH services in the medical home but national and state wide initiatives are showing improvement over time



### **New Opportunities**



- Health care reform will drive more involvement of PCPs in oral health
- AAP is partnering with other primary care organizations and with

National Interprofessional Initiative on Oral Health angusting devictors are discussed as a control of the cont

to help standardize training and education efforts for all

- Increased collaboration between dentists and PCPs can improve patient oral health screening, anticipatory guidance, and referral to establish a dental home
- General dentists (not trained in pediatric dentistry) are becoming more willing to service infants and toddlers

# Quality Improvement and Oral Health

Using QI as the "carrot" to increase the uptake of oral health services in primary care

## Why Is Quality Important?



### Physician Competencies

- Patient care
- Medical knowledge
- Professionalism
- Systems-based practice
- Practice-based learning and improvement
- Interpersonal and communication skills

## American Board of Pediatrics Maintenance of Certification

Maintenance of Certification (MOC) standards now mandate:

- 1) Documentation of unrestricted license to practice q 5 years
- 2) Self learning and assessment activities q 5 years
- 3) Pass secure proctored exam q 10 years
- 4) Active involvement in measuring/improving quality care for patients q 5 years

## Pediatric Board Maintenance of Certification

Details of #4 quality improvement:

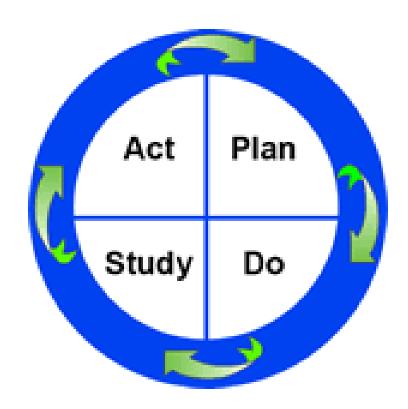
- Implementation and demonstration of a quality improvement project in practice
  - Knowledge of quality improvement methods
  - Efforts to identify system errors and implement solutions
  - Team work to enhance patient safety and improve quality care

## AAP Pediatric Quality Recommendations for MOC

- Important issues for children be addressed
- Issues are appropriate for children's health
- Topic has scientific validity
- Area is feasible
- Initiative addresses what can be improved
  - Principles for the Development and Use of Quality Measures.
     Pediatrics 2008;121:411-418.

### Opportunities for Microsystems Improvement

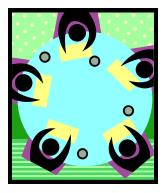
### THE PDSA CYCLE



### TEN STEPS TO QUALITY IMPROVEMENT

- 1. Pick a Topic
- 2. Define an Aim
- 3. Pick a Measurement
- 4. Map the Process
- 5. Brainstorm

- 6. Identify Process Measures
- 7. Plan the Process Change
- 8. Do the New Process
- 9. Study the Data
- 10. Act on the Data



### 1) Pick a Topic

### Caries reduction

Data support worsening
 of the incidence of caries
 over the past decade –
 28% of 2-4 year old
 children have dental
 caries

\*"Trends in Oral Health Status: United States, 1994-1998 and 1999-2004"



### 2) Define an Aim: Examples



- By Dec 1<sup>st</sup> 2012, using an oral health risk assessment tool, screen 100% of 9 & 12 month old patients at health supervision visits to identify those at high risk.
- By Dec 1<sup>st</sup> 2012, refer 75% of all patients to a dental home by 12 months
- By Dec 1<sup>st</sup> 2012, refer 100% of high risk patients to a dental home with tracking of compliance

### More Examples

- By Dec 1<sup>st</sup> 2012, provide anticipatory guidance on continual bottle/sippy cup use and frequent snacking to 100% of 9 & 12 month old patients at health supervision visits
- By Dec 1<sup>st</sup> 2012, perform fluoride varnish application on 75% of high risk children as identified by the oral health risk assessment.
- By Dec 1<sup>st</sup> 2012, test and document all well water fluoride levels in households without public water supply





### 3) Pick a Measurement



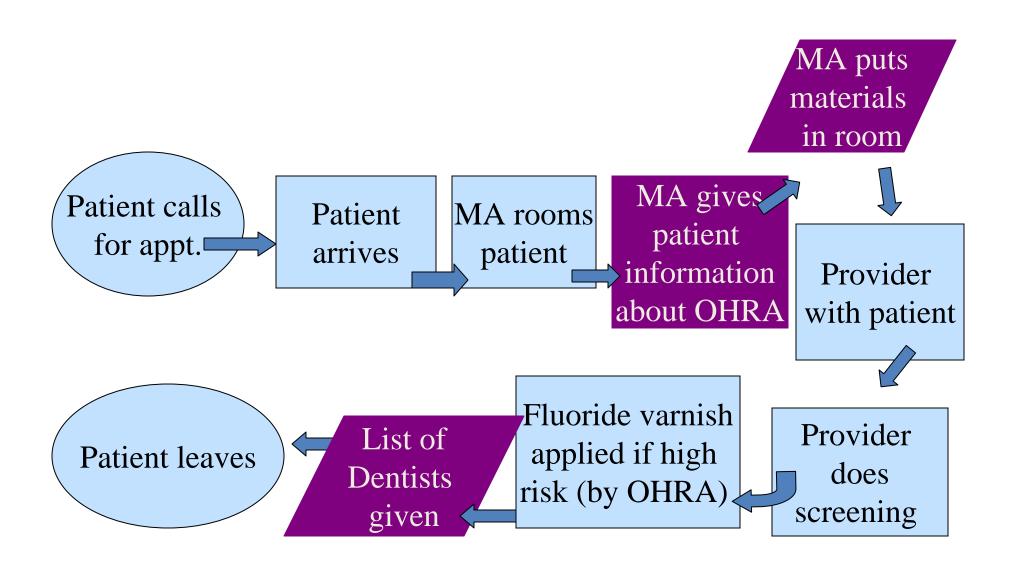
- Oral Health Risk Assessment screening done
- Anticipatory guidance given on oral hygiene and diet
- Fluoride varnish applied
- Referral to dental home
- Order and track well water fluoride test results

# 4 & 5) Brainstorm and Map the New Process

- How will your office
  - Use an Oral Health Risk Assessment
  - Discuss fluoride modalities
  - Refer to dental home



### **Example of Mapping Process**



# 6) Identify Process Measures - Examples



- Collect data on % of OHRA done
- Track completed referrals to a dental home
- Track % of diet and oral hygiene anticipatory guidance done
- Collate data on % of patients receiving fluoride varnish

# 7) Plan Process Change - Select Tools to Achieve Aim

- AAP Pediatric Oral Health Flipchart and Reference Guide
- AAP Protecting All Children's Teeth Online Curriculum and Teaching Materials (PACT) – www.aap.org/oralhealth/PACT.html
- Smiles for Life National Oral Health Curriculum – www.smilesforlifeoralhealth.org
- AAP Policy Statements on Oral Health/Dental Home
  - Pediatrics May 2003
  - Pediatrics December, 2008



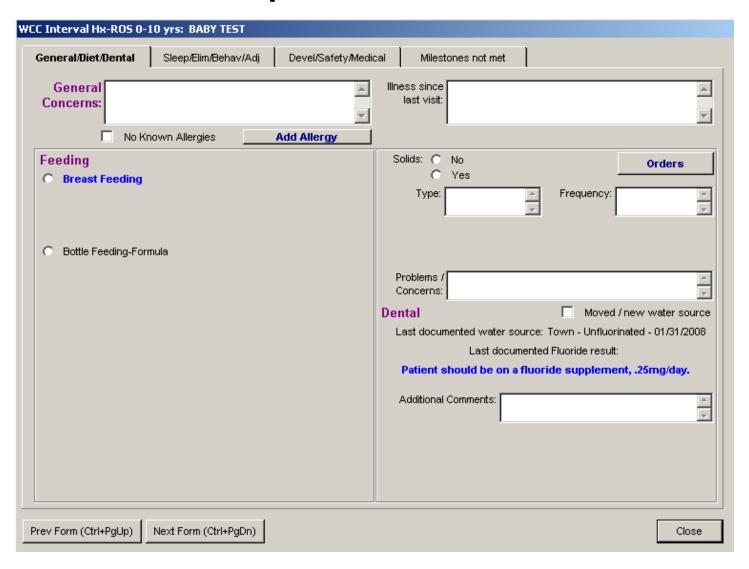




### **More Tools**

- AAP Children's Oral Health Web Site Practice Tools Page http://www2.aap.org/oralhealth/PracticeTools.html
- AAP/Bright Futures Oral Health Risk Assessment Tool and Tutorial -<a href="http://www2.aap.org/oralhealth/RiskAssessmentTool.html">http://www2.aap.org/oralhealth/RiskAssessmentTool.html</a>
- Smiles for Life National Oral Health Curriculum www.smilesforlifeoralhealth.org
- Links to successful programs
  - Into the Mouths of Babes (North Carolina) <a href="http://www.ncdhhs.gov/dph/oralhealth/partners/IMB.htm">http://www.ncdhhs.gov/dph/oralhealth/partners/IMB.htm</a>
  - Cavity Free by Three (Colorado) <a href="http://www.cavityfreeatthree.org/">http://www.cavityfreeatthree.org/</a>
  - Washington State ABCD Program <a href="http://abcd-dental.org/">http://abcd-dental.org/</a>
  - And more!
- Data collection
  - Paper
  - Electronic Health Record (EHR)

### **Example of EHR Tool**



### eQIPP Program

- Education and Quality Improvement in Pediatric Practice www.eqipp.org
- Launched by AAP in 2002; 7 topics available
- Bright Futures module with 10 topics including oral health released in 2010



### **Completion Requirements**

- Knowledge of QI basics
- Data collection using chart review
  - Baseline data
  - Follow up data
- Creation and tracking of improvement plan using aim statement



## eQIPP Oral Health in Primary Care Module – Coming Soon!



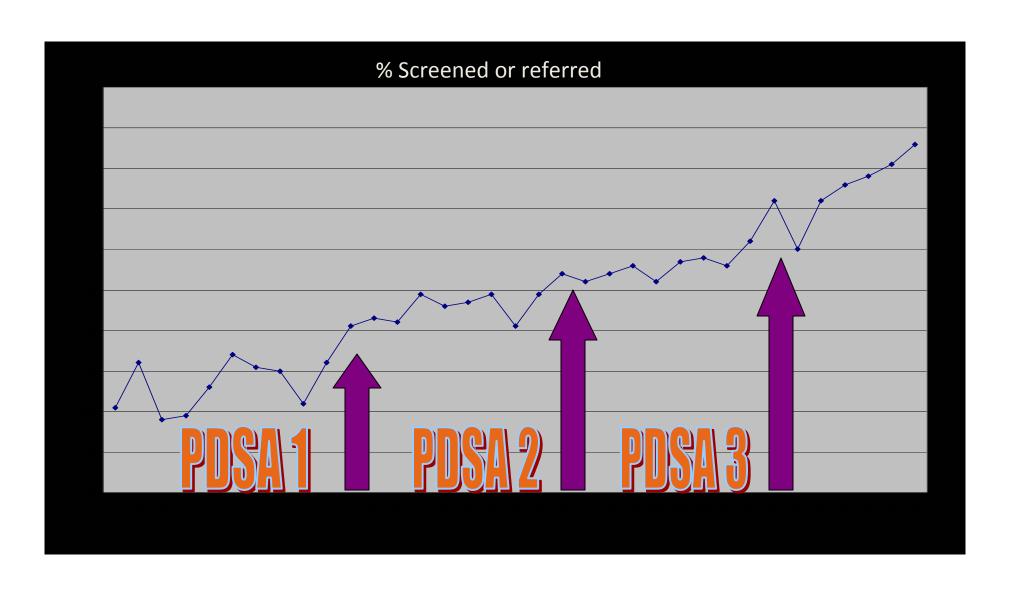
- Funded by Health Resources and Services Administration (HRSA)
- Multidisciplinary expert group including pediatricians, pediatric dentist, family physician, nurse practitioner and physician assistant
- Focuses on the implementation of oral health services in the medical home
- Available online fall of 2012!

# 8) Do the new process

Gather data using EHR or paper chart – number of well child visits that include:

- OHRA screening
- assessing patients for caries
- applying varnish
- discussing fluoride and determining tap water fluoride content
- recommending establishment of dental home and giving written local referral recommendations

# 9) Study the Data

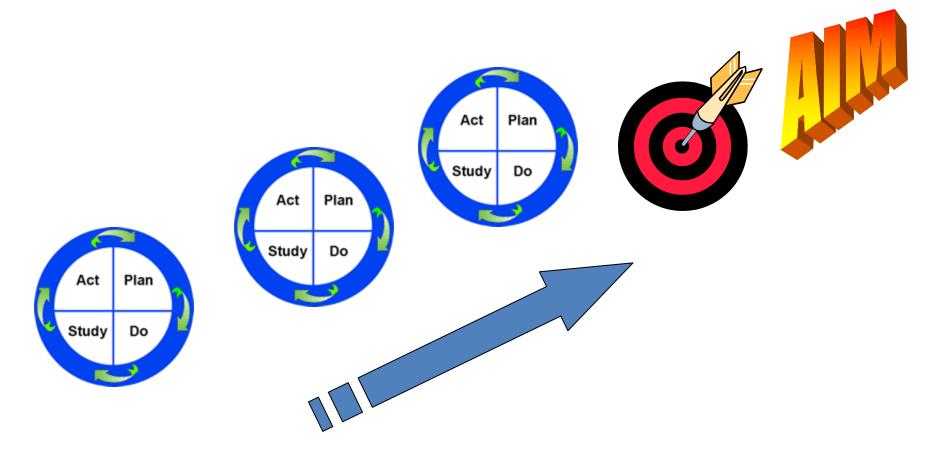


# **Identify Potential Systems Solutions**

- Train everyone in practice on OHRA
- Choose coordinator (oral health champion)
- Determine staff roles for screening, counseling, referral and varnish
- Have supplies in kit
- Store kit in central location
- Screen for needed services at every visit
  - Close K, Rozier G, Zeldin L, Gilbert A.Barriers to the adoption and implementation of preventive dental services in primary medical care. *Pediatrics* 2010;125:509-517

# 10) Act on the Data

 Quality improvement becomes continuous when PDSA cycles are repeated.



# How to Promote Change:

- Change becomes improvement through measurement.
- Improvement is done as a team.
- Improvement is the result of repeated PDSA cycles leading towards an aim.



# Quality Improvement Oral Health Project Examples

 Quality Improvement Innovation Network (QuIIN) Pilot Project



- Bright Futures Brightening Oral Health Implementation Project
- Bright Futures Preventive Services Improvement Project (PreSIP)



# **QullN Network**

- A network of practicing pediatricians and their teams who use QI methods to test tools, interventions, and strategies to improve healthcare outcomes for children and their families
- QullN pilot-tested the first version of the OHRA Tool
- 388 members in 46 states plus PR, MX, Pakistan



# Brightening Oral Health Tool Piloted

Brightening Oral Health Project

#### Oral Health Risk Assessment Tool

This is a: 9 month visit □

12 month visit □

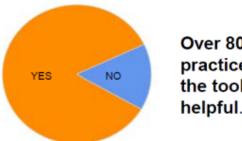
#			
	RISK FACTORS	PROTECTIVE FACTORS	DISEASE INDICATORS (CLINICAL EXAMINATION)
	Has mother or primary caregiver had active decay in the past 12 months? Yes  No    Does mother have a dentist? Yes  No   Other Risk Factors:  Yes  No   Continual bottle/sippy cup use with fluid other than water Frequent snacking Special health care needs Low SES/health literacy/Medicaid eligible	Yes No  Existing dental home  Drinks fluoridated water or takes F supplements F varnish in the last 6 months Child has teeth brushed daily with fluoridated toothpaste*	□ White spots or visible decalcifications □ Obvious decay □ Restorations present □ Visible plaque accumulation □ Gingivitis (swollen/bleeding gums) □ None □ No Teeth Present
		High	
	Completed: 🔲 Anticipatory Gui	dance 🗖 Fluoride Varnish	Referral to
	Goals:		

<sup>\*</sup>New recommendation.

# Results of QuINN Caries Risk Assessment Tool Pilot Project

#### **Testing Results**

Did You Find the Oral Health Risk Assessment Tool Helpful?

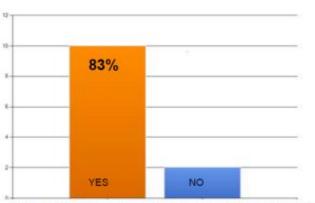


Over 80% of the practices found the tool to be helpful.

"It makes health care practitioners think about risk factors for caries"

-- Testing QuIIN Pediatrician

#### Was the Tool Helpful to Identify High Risk Patients for Dental Caries?



"Prompted discussion about dental care/caries risk with patients and families

-- Testing QuIIN Pediatrician

# Bright Futures Brightening Oral Health Implementation Project

- 10 sites chosen to test OHRA tool as part of Brightening Oral Health project
- Pre test survey and data collection from practices
- Post project data collection completed





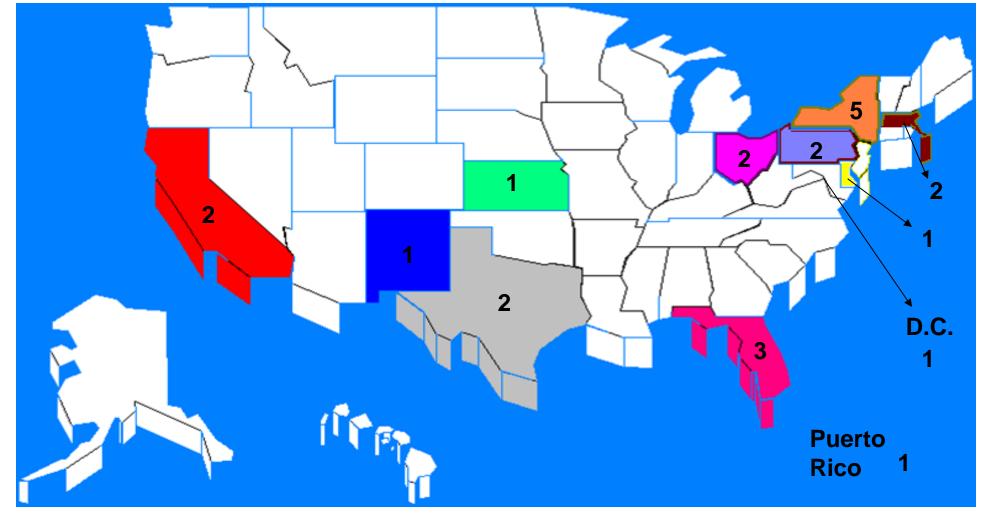


#### **Brightening Oral Health Practice Teams by State**

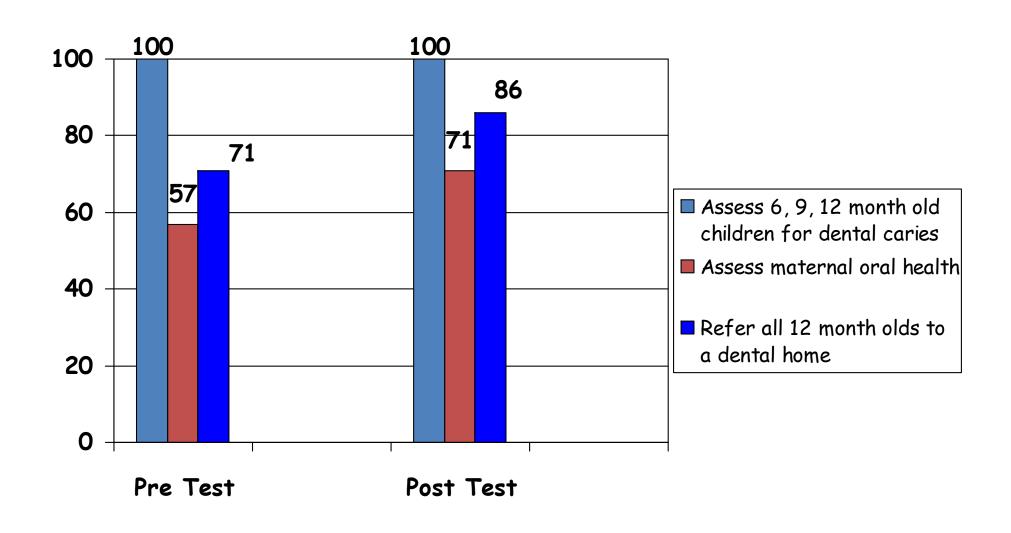






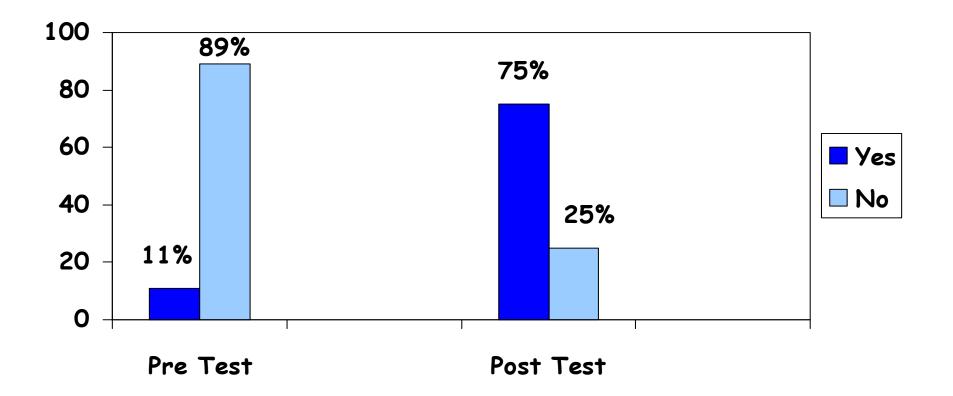


### Clinician Agreement on Oral Health



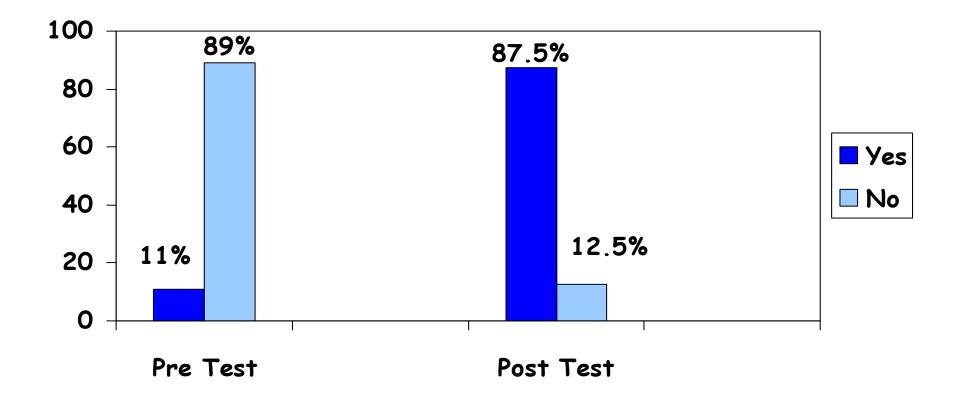
#### Practice Has a System to Document OHRA

 Our practice has a system in place to document oral health risk assessment.



# Practice Has a System and Can Identify High Risk Patients

My practice has a system to identify high risk patients for an oral health referral



# System to Apply Fluoride Varnish

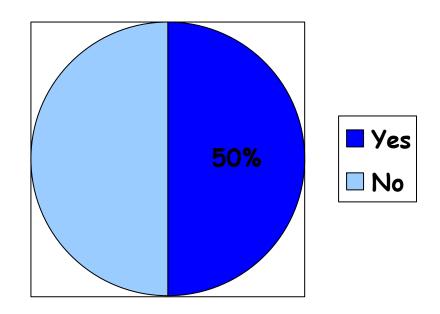
Pre Test Data

33%

Yes

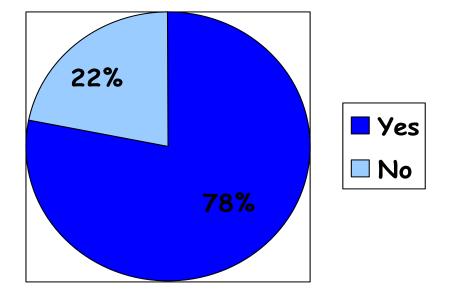
No

Post Test Data

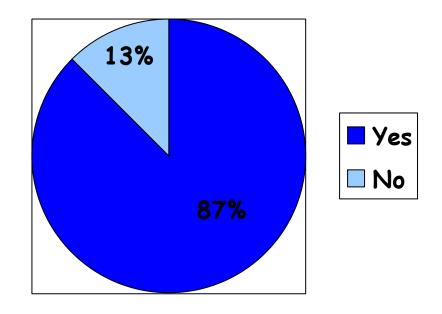


#### Easily Accessible Dental Referral List in my Office

Pre Test Data



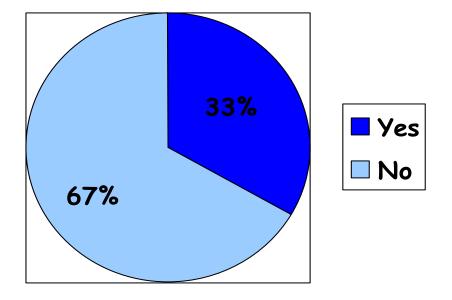
Post Test Data



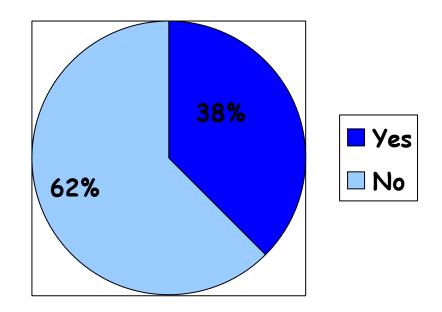
### Responsible for Regularly Updating

Someone responsible for regularly updating practice's oral health list

Pre Test Data



Post Test Data



### Brightening Oral Health Study Conclusions

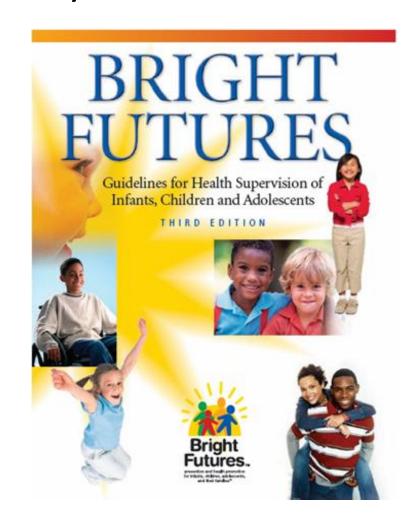
- Practice teams
   employing a system to
   document oral health
   risk assessments
   increased significantly
- Practice teams utilizing

   a system to identify
   high risk patients for an oral health referral increased significantly



# Preventive Services Improvement Project (PreSIP)

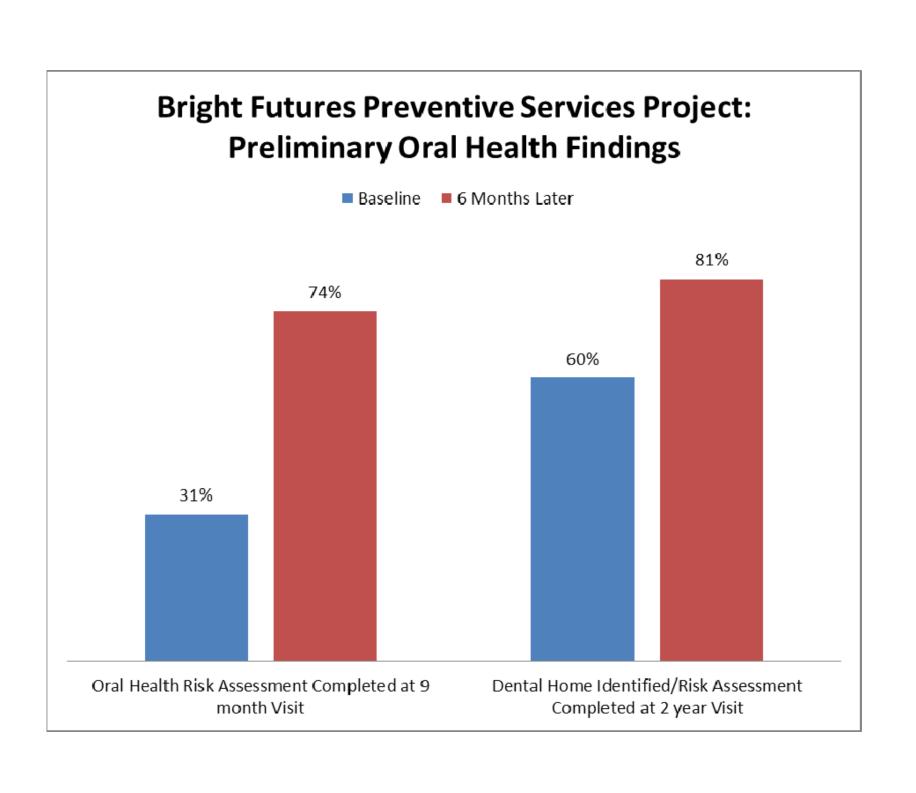
- Designed to answer the question:
   Can Bright Futures be easily implemented, birth to 3, in a busy clinical setting?
- 12 preventive screening areas assessed based on the recommendations of the *Bright* Futures Guidelines, 3rd Edition
  - Funded by HRSA/MCHB



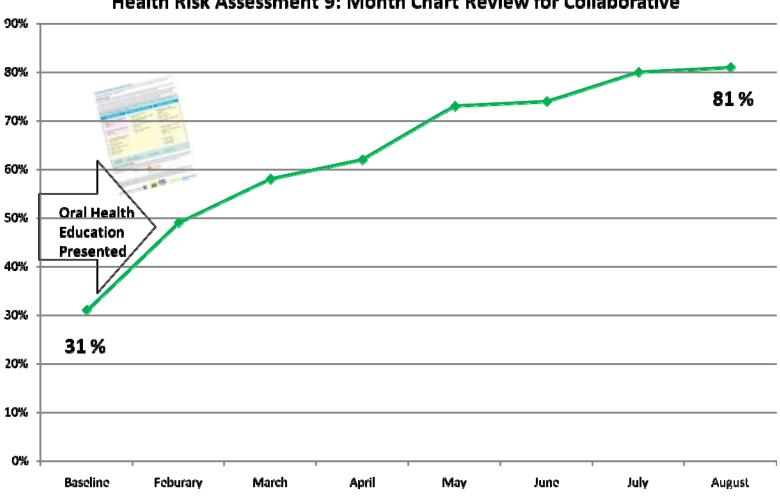
# Bright Futures: Preventive Services Improvement Project (PreSIP)



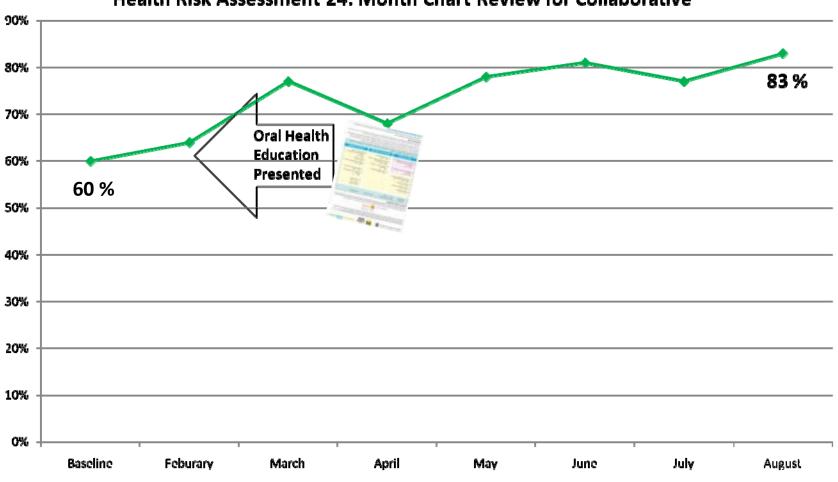
Diversity in Practice Size and Patient Population

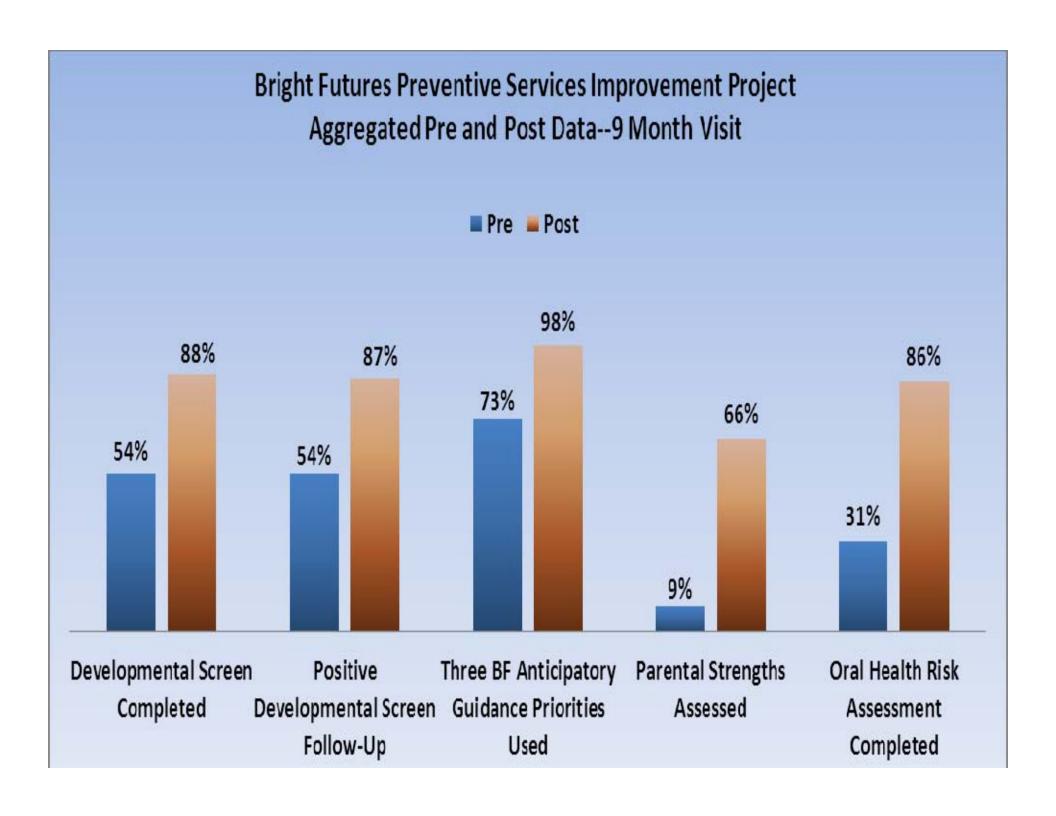


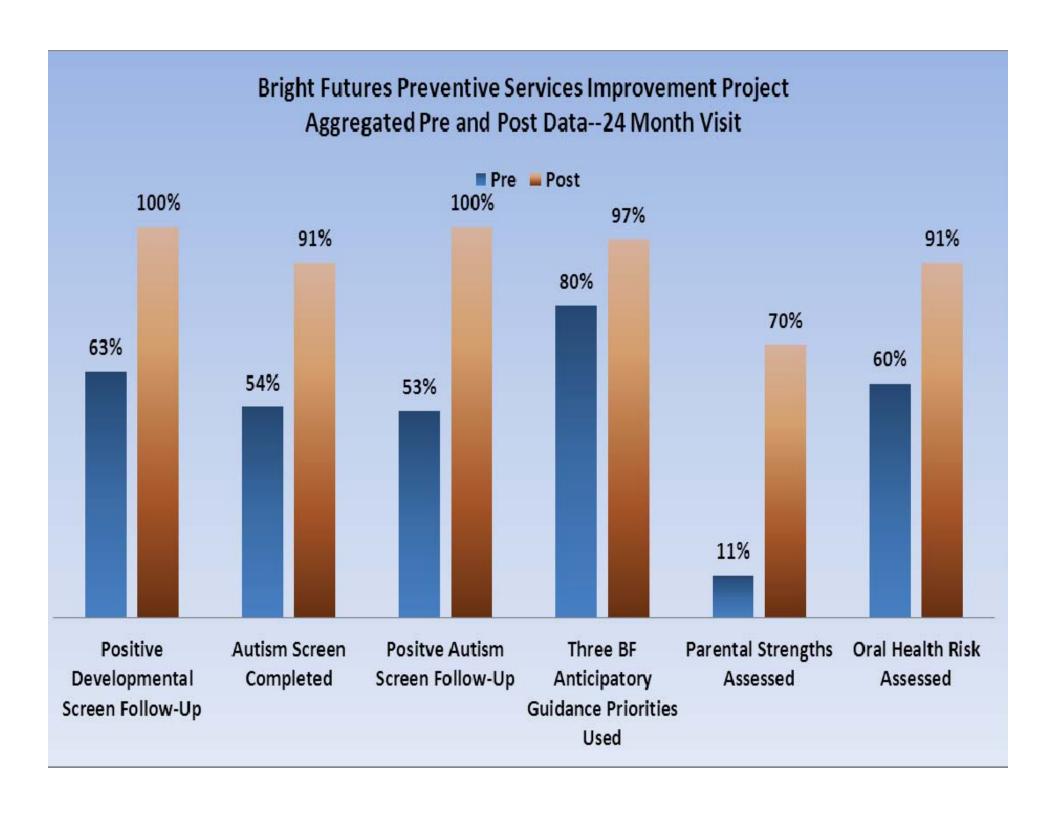
# Bright Futures Preventive Services Improvement Project (PreSIP): Oral Health Risk Assessment 9: Month Chart Review for Collaborative



## Bright Futures Preventive Services Improvement Project (PreSIP): Oral Health Risk Assessment 24: Month Chart Review for Collaborative







# **Learning Points**

- Opportunities and challenges around oral health screening in primary care
- Discussion about AAP assessment tool
- Use of quality improvement (QI) concepts to promote pediatrician screening
- Presentation of QI data from AAP studies



#### **Contact Information**

- For more information about AAP and its Oral Health Initiatives please contact:
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  - Suzanne Boulter, MD, FAAP at <u>drsboulter@yahoo.com</u>



