Connecting Smiles

Improving Health through Oral Health Integration

Acknowledgements

This oral health integration training is an expansion of the ***Connecting Smiles*** Initiative, a collaborative project with the South Carolina Department of Health and Human Services.

The following partners have also been instrumental in this expansion:

- SC Chapter of the American Academy of Pediatrics
- SC Primary Health Care Association
- SC Oral Health Coalition.

This training was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS), Grant Number: H47MC29817

Introduction

- This Oral Health Integration Training will equip health care providers and their staff with the information needed to begin to address the oral health needs of their patients.
- In addition to the training, healthcare providers will have access to resources that support oral health education for parents and children.

This training was adapted from the American Academy of Pediatrics *A Pediatric Guide to Oral Health Flip Chart and Reference Guide,* 2011.

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

Learning Modules

- **Module 1:** Dental Decay and the Young Child
- **Module 2:** Assessing Risk for Decay
- **Module 3:** Oral Health Anticipatory Guidance for Parents and Caregivers
- **Module 4:** The Positive Impact of Fluoride and Fluoridated Water
- **Module 5:** Fluoride Varnish and Other Strategies for Integrating Oral Health

Module 1

Dental Decay and the Young Child

Overview of Module 1

At the conclusion of Module 1, the participant will be able to:

- Identify the most common childhood disease;
- Describe the burden of disease for children in South Carolina;
- Understand early childhood caries and the impact on early development; and
- Identify why addressing oral health in the medical setting can positively impact oral health behaviors.

What is the most common childhood disease?

Answer: **?**

5 times more common than asthma
7 times more common than hay fever

Burden of Disease in South Carolina

2012 SC Oral Health Needs Assessment found:

- Nearly **41 % K-5 and 3rd grade children** have experienced tooth decay

- **Disparitie**s in tooth decay
  - ✓ 23% higher rate of tooth decay among ***Medicaid enrolled children*** as compared to children not enrolled in Medicaid
  - ✓ 18% higher rates for ***children who are black*** as compared to children who are white
  - ✓ Higher rates for ***children residing in rural communities*** as compared to their urban counterparts

Early Childhood Caries (ECC)

- A transmissible infectious disease that affects children younger than 6 years of age.
- Results in severe decay and tooth destruction.
- Severe ECC (S-ECC) affects children younger than 4 years of age.
- Primary (baby) teeth decay at a faster rate and can result in severe dental disease and infection.
- ***Primary teeth need to be protected!***

The Impact…What PARENTS Need to Know

- Children with early childhood decay are at very high risk of getting more decay in permanent teeth

- It goes beyond **pain and infection**…it affects

  - ✓**SPEECH**
  - ✓**ABILITY TO EAT**
  - ✓**ABILITY TO LEARN**
  - ✓**SELF ESTEEM**

Oral Health in Primary Care….WHY?

- Children are seen regularly in early years.
- Natural advocates for health: Oral health is part of overall health!
- A focus on prevention and advocacy are a long-standing tradition
- Engaged in health promotion strategies.

Key Points from Module 1

- Early Childhood Caries is a severe chronic disease that is destructive, infectious, spreads rapidly and results in negative health impacts.
- South Carolina has made some improvements in oral health by prioritizing children aged 0-5 years, but the momentum needs to continue and prevention of disease must be a priority.
- Medical providers can play a role in oral health and preventing dental diseases.

Module 2

Accessing Risk for Decay

Learning Objectives for Module 2

At the conclusion of Module 2, participants will:

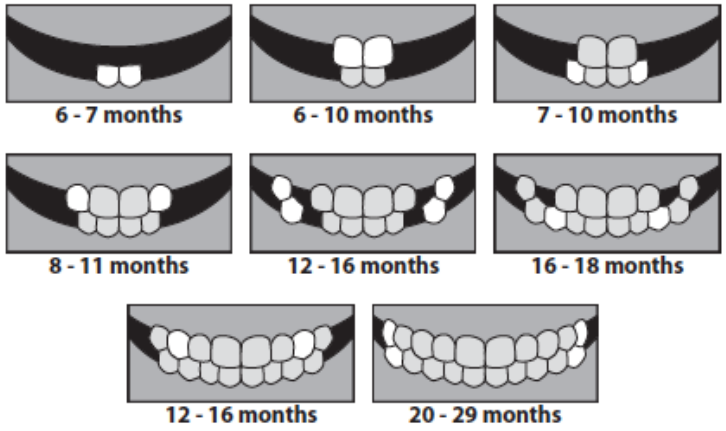
- understand basic information about primary teeth and the tooth eruption process;
- identify the difference between healthy and unhealthy teeth;
- explain the decay process and effect of frequent snacking;
- describe how cavity causing bacteria can be transmitted from caregiver to child;
- explain how to access risk and why it is important;
- list key factors that lead to a child's higher risk of decay.

Primary Teeth

- Often referred to as 'baby' teeth.
- Have thinner enamel, are smaller and appear whiter (translucent/- almost bluish) than permanent teeth.
- Decay progresses more quickly in primary teeth.
- Severe decay can result in infection that damages permanent teeth
- They hold the space for permanent teeth
- Early habits of care become lifelong habits!

Tooth Eruption

- Teeth typically begin to come in from 4 months to 15 months of age.
- Eruption is usually symmetrical with lower teeth usually before upper in the following order: central incisors, lateral incisors, first molars, canines, second molars.
- By age 3, all 20 primary teeth should be present
- Premature and low birth weight babies can have delayed primary tooth eruption
- Enamel defects increase risk for decay.
- If eruption of the first tooth has not occurred by 18 months, the child should be referred to a dentist for evaluation.



Discomfort with Teething

Degree of discomfort varies, but can include:

- tender and swollen gums
- diarrhea, rashes, and fever
  (not directly related to teething)

Advice to share with parents…

- Remove drool on the baby's face to prevent rashes
- Offer hard or cold items to chew on (teething rings placed in the refrigerator not in the freezer, pacifiers, spoons, clean wet washcloths, and frozen bagels or bananas)
- **Avoid anything that could be a choking hazard!**
- Regularly disinfect teething objects and wash hands
- Acetaminophen can be given if the baby seems irritable.
- Over the counter numbing medication is not recommended for mild symptoms.

Open Wide: What to Look For and How to Respond

Normal Healthy Teeth

- Teeth should be white with smooth surfaces.
- Spacing between teeth is desirable.
- Gingival mucosa (gum tissue) should be stippled, pink, firm, and immobile.

White Spot Lesions

- First appear as dull white bands, along the smooth surface of the tooth at the gum line,
- followed by yellow or brown discoloration.
- These are first signs of decay.

Important Points:

- Can be reversed with exposure to **fluoride varnish** and **plaque removal.**
- Patient is at **very high risk** of **future cavities (decay).**
- Make a **referral to a dental home** as soon as possible.

Brown Spots

- Soft brown or black spots appear on the tooth progressing toward the chewing surface of the tooth.
- The affected tooth is at risk for fracture.
- Signify advanced or severe decay.

Important Point:

- **Urgent dental need. Dental referral is crucial!**

Rampant Decay

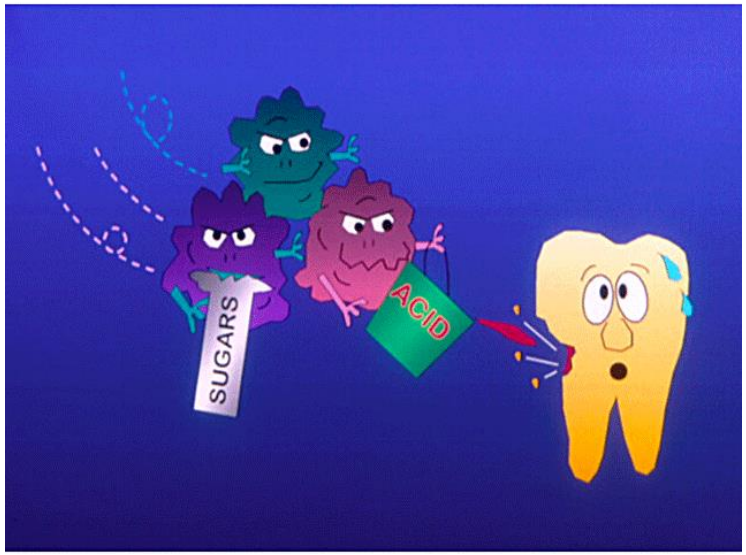
- Refers to the presence of multiple cavities in several teeth.
- May lead to early tooth loss, which affects a child's ability to chew food, speak properly and self-esteem.

Important Points:

- Places children at **high risk** for infection and cellulitis.
- Indicates **urgent need for referral to a dentist.**

Factors that influence the tooth decay process

- Susceptible Tooth
- Bacteria
- Food Source
- Time



What a child eats and drinks

AND

How often they eat and drink

are part of the tooth decay process

Can a child get cavities from a parent or caregiver?

YES!!

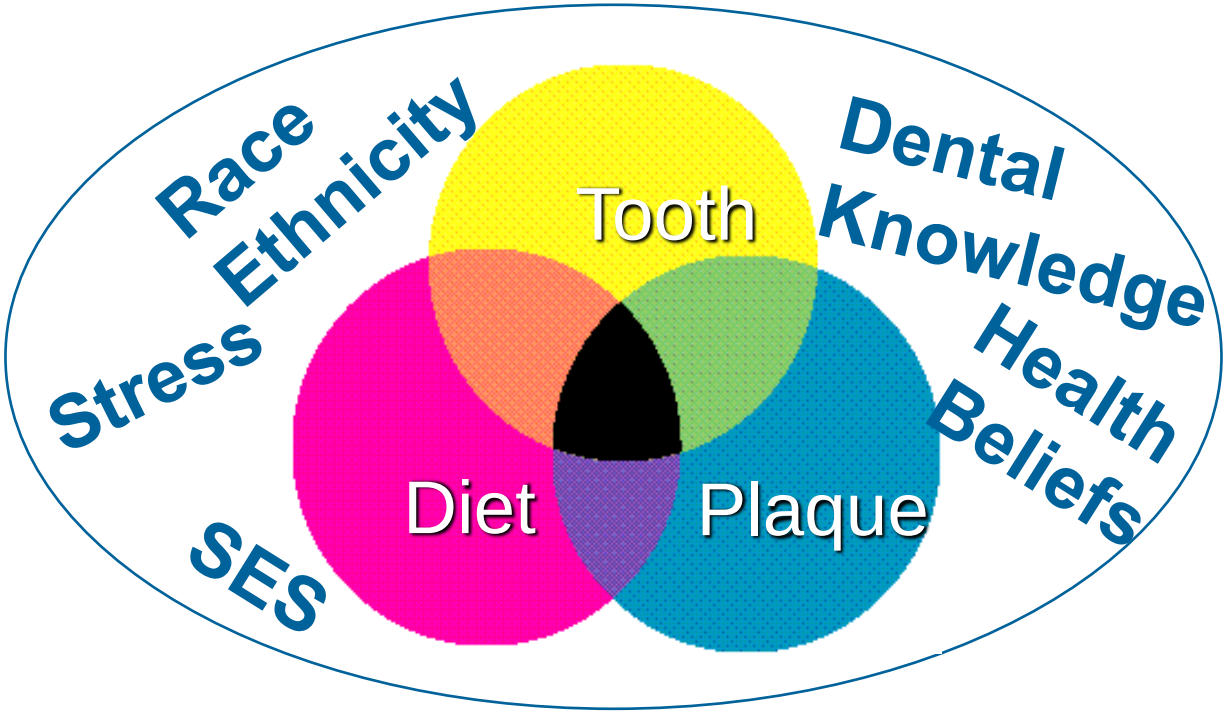
Germs that cause tooth decay are transferred through

- Mouth to mouth contact (kissing).
- Sharing eating utensils and drinking straws.
- Washing a pacifier by placing it in the parent/caregiver's mouth.

Potential Risk Factors for Tooth Decay

- special health care needs
- mother (primary caregiver), siblings have cavities
- dental decay, plaque, white spots
- sleeping with a bottle or breastfeeding throughout the night
- low socioeconomic status
- born prematurely or with low birth weight
- using a bottle after 15 months of age,
- using a sippy cup with juice or sweetened beverages
- eating sweet or starchy snacks more than 3 times a day
- low fluoride exposure

Tooth Decay



…Multifactorial Disease

Determine the Child's Risk for Tooth Decay

Children should receive an oral risk assessment based on specific criteria by 6 months of age from a medical or dental provider.

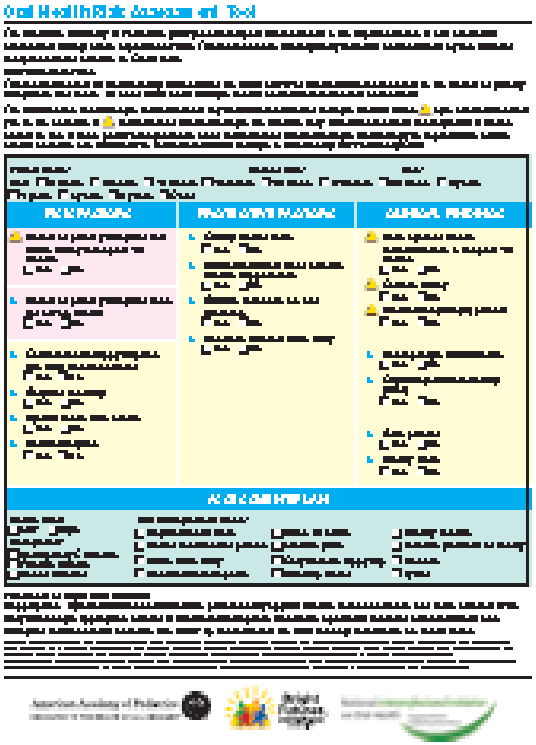
Determine risk

RISK LEVEL CRITERIA

CRITERIA	High Risk	Moderate Risk	Low Risk
Presence of active tooth decay (obvious cavities)	Yes		No
Presence of obvious white spots; or enamel defects	Yes		No
Presence of dental restorations (fillings, crowns, space maintainers, orthodontic appliances)	Yes		No
Inadequate Saliva (dry mouth) by observation or patient history of Radiation, Chemotherapy or systemic conditions (for ages 6+ only)	Yes		No
Exposed root surface (for ages 6+ only)		Yes	
Presence of obvious plaque and / or bleeding gums		Yes	No
Mother/ caregiver or immediate family has had tooth decay in the past 12 months or any other dental problems	Yes		No
Sugary foods and drinks and /or frequent snacking (more than 3 times between meals)		Yes	No
Eating disorders (including morning sickness for pregnant women)		Yes	No
Child goes to sleep with a bottle or Continual bottle/ Sippy cup use with sugary drinks/ milk (for ages 0-5 only)		Yes	No
Alcohol/ Drug Abuse or Tobacco use (age 6+ only)		Yes	
Patient lives/ work/ school in fluoridated community or receives fluoride supplements, or had fluoride varnish in the past 6 months		No	Yes
Brushes teeth 2x daily with fluoridated toothpaste		No	Yes
Patient has access to/ receives regular dental care.		No	Yes

Child's risk level for tooth decay/dental issues: High Moderate Low

AAP Oral Health Risk Assessment Tool



Why?

- Identifies when a child needs to be seen by the dentist.
- Appropriate use of fluoride…for example, are supplements needed?
- Extent of intervention needed with feeding and home care.

Key Points from Module 2

- Caring for primary teeth is important.
- A patient's level of risk of decay needs to be determined.
- It is important to distinguish between healthy and unhealthy primary teeth and refer to a dentist when needed.
- Teeth come in at different rates and teething discomfort is normal and can be soothed with some simple strategies.
- Snacking and drinking all day can lead to increased decay.
- Cavities can be transmitted from parent to child.
- There are key factors that lead to a child's higher risk of decay.

Module 3

Oral Health Anticipatory Guidance for Parents and Caregivers

Learning Objectives for Module 3

At the conclusion of Module 3, participants will be able to:

- explain the importance of the age 1 dental check;
- understand AAP recommendations for breastfeeding and bottle feeding as it relates to oral health;
- understand AAP recommendations for the consumption of fruit juice;
- list healthy food recommendations;
- identify early strategies to care for the mouth; and
- use informational sheets to engage parents.

South Carolina Department of Health and Environmental Control

Age 1 Dental Visit

- Parents/caregivers of children age 0-3 years will recognize the importance of establishing a dental home for a child by age 1.
- A lap to lap exam can be done

Resource to Share
Happy First Birthday Card
dual language

Breastfeeding/ Bottle Feeding

Impact on Oral Health

Breast Feeding:

- Discourage constant or on demand feeding (associated with a higher risk of dental decay).
- Encourage mothers who breastfeed at night to wipe their infant's mouth and teeth clean after feeding.

Bottle Feeding:

- Associated with a higher risk of dental decay.

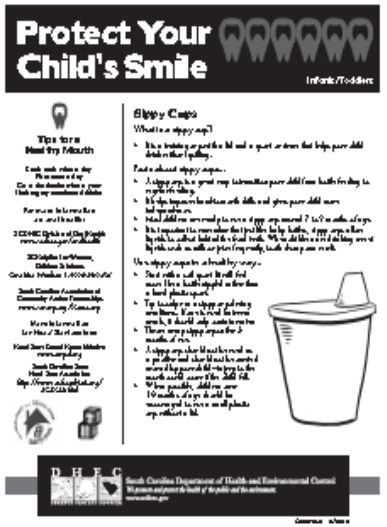
Recommendations for parents:

- Only breast milk, formula, or water should be placed in a bottle.
- Sugar sweetened drinks such as fruit juices and soft drinks should **never** be put in bottles, and at bedtime or naptime, bottles should only contain water.
- Babies should be held when bottle-fed, and parents should use a cloth to wipe the baby's mouth prior to laying the baby down.

Misuse of Sippy Cups

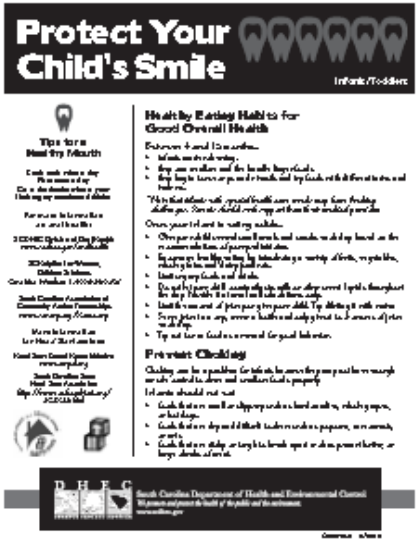
- Used continuously throughout the day.
- Filled with sugary beverages.
- Used a as “pacifier” to calm and appease.
- Not discarded every 6 months.

Dual Language Resource Sheet for Parents



Nutritional Recommendations from an Oral Health Perspective

Dual Language Resource Sheet for Parents


Protect Your Child's Smile

Infants/Toddlers

Tips for a Healthy Mouth

Healthy Eating Habits for Good Overall Health

Prevent Cavities

- Food guidance for oral health often mirrors food guidance for obesity prevention.
- Encourage: healthy foods such as fruits and vegetables or whole grain snacks.
- Discourage: sticky foods such as raisins, fruit leather, and hard candies.
- Discourage: grazing behavior where the child is eating and drinking very frequently throughout the day.

ALERT!!!

AAP Guidelines Say

Children Under One Year Old Should Not Be Given Fruit Juice

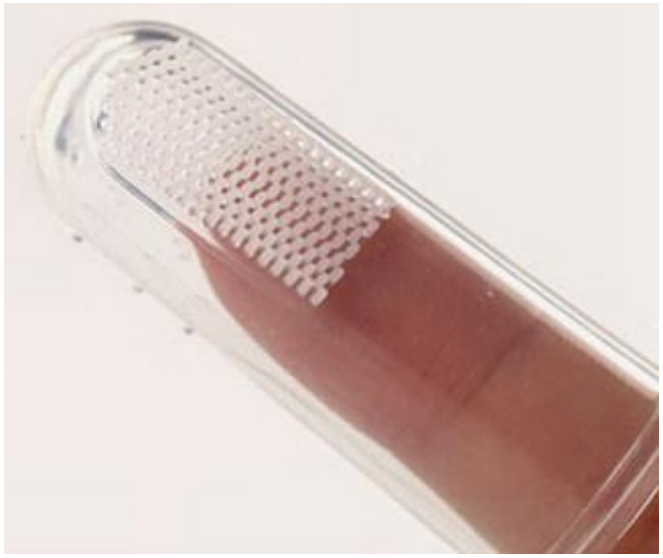
The AAP has "toughened its stance against juice, recommending that the drink be banned entirely from a baby's diet during the first year."

Meanwhile, "The new report, published online in...Pediatrics, also advised restricting fruit juice to **four ounces** daily for **1- to 3-year-olds**, and **six ounces** a day for **4- to 6-year-olds**."

Early Oral Hygiene

Begins with infants…

- After feeding, an infant's teeth and gums should be wiped with a moist cloth or gum cleaner to remove any remaining liquid that coats the teeth and gums



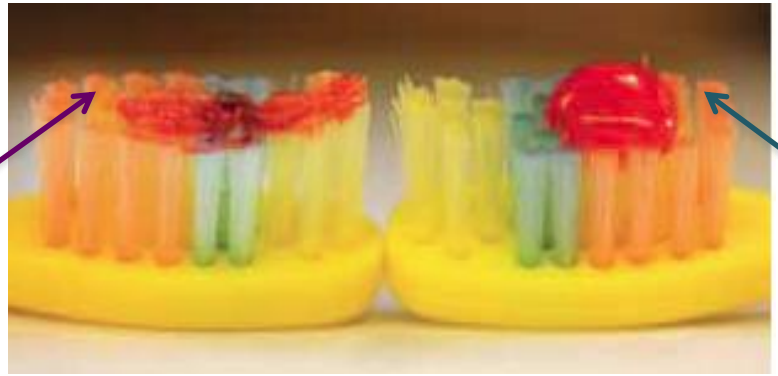
Toothbrushing

- Toothbrushes for infants and toddlers should be soft with a small head and large handle.
- Toothbrushing should be supervised until the child has proper coordination and can reliably rinse and spit out excess toothpaste which usually occurs at about 6-8 years of age.

Consider providing cloths, gum cleaners and infant toothbrushes to patients.

Toothbrushing and Toothpaste

As soon as teeth appear, parents & caregivers should begin brushing children's teeth with fluoride toothpaste **2** times a day.



Under 3 years of age, use *smear amount.*

Over 3 years, use *pea sized amount*

American Dental Association Council on Scientific Affairs (2014) Fluoride toothpaste use for young children. Journal of the American Dental Association. 145(2): 190-191.

Key Points from Module 3

- Parents need to understand how to protect their child's oral health whether they are breastfeeding, bottle feeding, or using a sippy cup.
- Eating habits such as all day snacking and drinking can negatively impact a child's oral health.
- Parents need to know how to care for the mouth before and after teeth erupt.
- A toothbrushing routine with parent supervision should begin early and continue throughout childhood.

Module 4

The Positive Impact of Fluoride and Fluoridated Water

Learning Objectives for Module 4

At the conclusion of Module 4, participants will be able to:

- understand the role fluoride plays in preventing decay;
- integrate a fluoride assessment as part of assessing the child's risk for tooth decay;
- apply the American Dental Association's recommendations for fluoride supplement for children at risk for tooth decay;
- apply fluoride varnish in medical setting.

Fluoride

Fluoride is a naturally occurring nutrient that is safe and effective in preventing tooth decay.

Fluoride benefits children in two ways

➢Systemic Effect:

- Before teeth even break through the gums, fluoride taken from water and food make tooth enamel stronger and more resistant to cavities.

➢Topical Effect:

- After teeth erupt, fluoride helps rebuild (remineralize) weakened tooth enamel and reverses early signs of tooth decay.
- Fluoride taken in from water and beverages continues to provide a topical benefit because it becomes part of saliva, which in turn bathes the teeth with fluoride.

The "value" of community water fluoridation…

- Studies show that community water fluoridation **prevents at least 25%** of tooth decay in children and adults.
- Average lifetime cost per person to fluoridate a water system is **less than the cost of 1 dental filling.**
- For most cities, **every $1 invested** in water fluoridation **saves $38** in dental treatment costs.

After the oral screening/evaluation, if a child at **high risk** for tooth decay **does not** have access to an adequate amount of **fluoride** in their drinking water for **decay prevention**, they may be prescribed…

Fluoride Supplements

Key Points from Module 4

- Fluoride strengthens the tooth surface and protects teeth from decay.

  "Community water fluoridation is proven to be the most effective way to prevent dental caries"

- Assessing a child's access to optimally fluoridated water is an important step in determining a child's risk for tooth decay.

- An office protocol is an important component of ensuring that a fluoride assessment is completed on children in medical and dental practices.

Module 5

Fluoride Varnish and Other Strategies for Integrating Oral Health in the Medical Setting

Learning Objectives for Module 5

At the conclusion of Module 5, participants will be able to:

- discuss the recent US Preventive Services Task Force Recommendations for prevention of dental caries in children and implications for pediatric primary care;
- describe the SC DHHS Medicaid Policy for reimbursement of fluoride varnish application;
- list key factors that make a young child a good candidate for fluoride varnish;
- comprehend the process for applying fluoride varnish;
- identify strategies to integrate oral health into the medical practice.

Fluoride Varnish

- An effective way to prevent and in some cases stop tooth decay
- Recent studies report fluoride varnish application in primary teeth resulted in a **37% reduction** in tooth decay
- Provides a thin coating of fluoride that stays on the tooth surface and releases fluoride over time
- Available in a choice of flavors, colors and varying package sizes

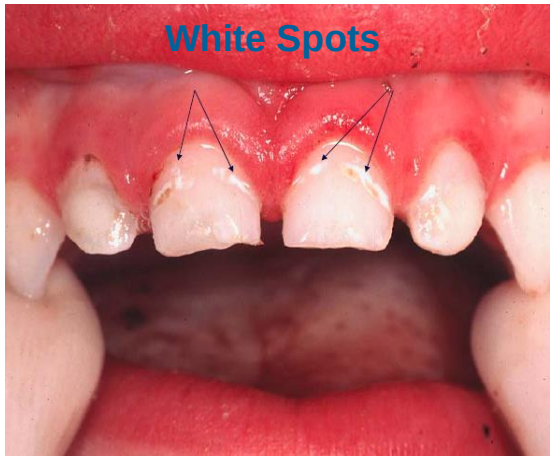
A Policy Solution: Physician Applied Fluoride Varnish

- Reaching children earlier through physicians
- Using evidence-based science to prevent dental caries with fluoride varnish (primary & secondary prevention)
- Referral to a dentist – children from 2-5 years who receive referral from physician to a dentist were 3 times more likely to attend the dental visit (Beil & Rozier 2010).
- 37% reduction in dental caries in primary teeth (Marinho et al., 2013)

- The initial colonization of the infant's oral cavity occurs through transmission of bacteria from mother/primary caregiver to the infant (Li & Caulfield 1995).
- Dietary counseling– dietary sugars important factor in disease (Tinnaoff et al., 2002)
- Opportunity to counsel parent/caregiver

How Fluoride Varnish works…

- Is applied with a small brush
- Forms a sticky layer, which hardens when it comes in contact with saliva
- Is released onto the enamel of the tooth from the hardened varnish.
- Increases remineralization of enamel



Fluoride Varnish and Medical Providers

- **Supports** and **strengthens** the dental health of patients.
- **Effective** in preventing tooth decay in children
- **Minimal training** is needed and no special equipment is required.
- Completion of this training permits physicians to **bill for fluoride varnish application**.

SC Department of Health and Human Services (DHHS) Policy

- Medical provider will continue to use the CPT code 99188 when providing topical fluoride varnish to eligible SC Medicaid children.

- Medicaid will reimburse for Fluoride Varnish applied in the medical setting at the eruption of first tooth through the month of the 21st birthday:
  - Children ages 0- 6 (up to the month of the 7th birthday) may receive up to four (4) applications per year.
  - Children ages 7-20 (though the month of the 21st birthday) may receive one (1) application per year.
  - Fluoride varnish can be applied during well or sick visits

- Application of fluoride varnish by a dental provider does not count towards the allowed number of applications per year that a child can receive in the medical setting.

- Children **at risk for tooth decay** may benefit from increased application frequency of **every 3 to 4 months**

WHO Benefits the Most from Fluoride Varnish?

Children and adults who...

- Have white spots along gum line
- Have low socioeconomic status
- Have siblings who had tooth decay before 6 years of age
- Have parents or caregivers with untreated cavities or recent fillings
- Were born prematurely
- Have special health care needs
- Use a bottle after 15 months or have sweet or starchy snacks more than 3 times a day
- Do NOT have a dental home

Tips for Providers…

- Have supplies ready.
- Open varnish packet and mix it well.
- Wipe child's teeth dry with a clean gauze.
- Paint child's teeth with varnish using disposable applicator.
- Share post varnish instructions with parents.

Child Positioning

...is based on the age and size of the child

Knee to Knee position:

- Place the child on the parent's lap with the child's head on the parent's knees and the child's legs around the parent's waist.

- The provider or assistant positions themselves knee-to-knee with the parent and treat the child from behind the head.

Video Clip of Fluoride Varnish Application

https://www.youtube.com/watch?v=aFZdytow-fg

Instructions for Parents…

- *Do not brush the child's teeth until the next day.*
- *The child's teeth may be slightly yellow until they are brushed.*
- *The child can eat and drink right away but should avoid hot liquids and sticky foods for 24 hours.*

Resources for Parents

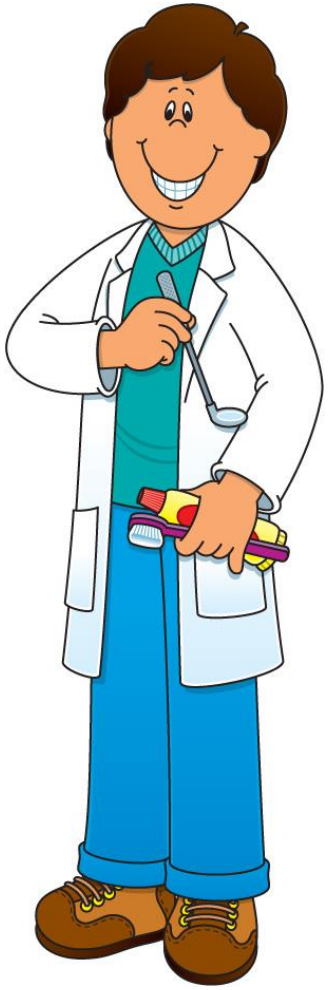
- *Dual language sheet for parents Fluoride Varnish: What Parents Need to Know*

Beyond Fluoride Varnish… Integrating Oral Health

- Make parents aware about early care of the mouth even before teeth arrive → Give parents gum cleaners at early well care visits and information sheet about taking care of baby teeth. Poster for office.
- Educate parents about good feeding habits(ie. breastfeeding, bottle feeding, and sippy cups) → Parent information sheets. DVD
- Support age 1 dental visits → First Birthday Card…resource list of dentists.
- Reinforce good nutritional habits for the body and the mouth → Parent information Sheets on nutrition.
- Determine a child's level of risk for tooth decay → Use the Connecting Smiles (AAP) Risk Assessment or the SCDHHS modified Risk Level Criteria

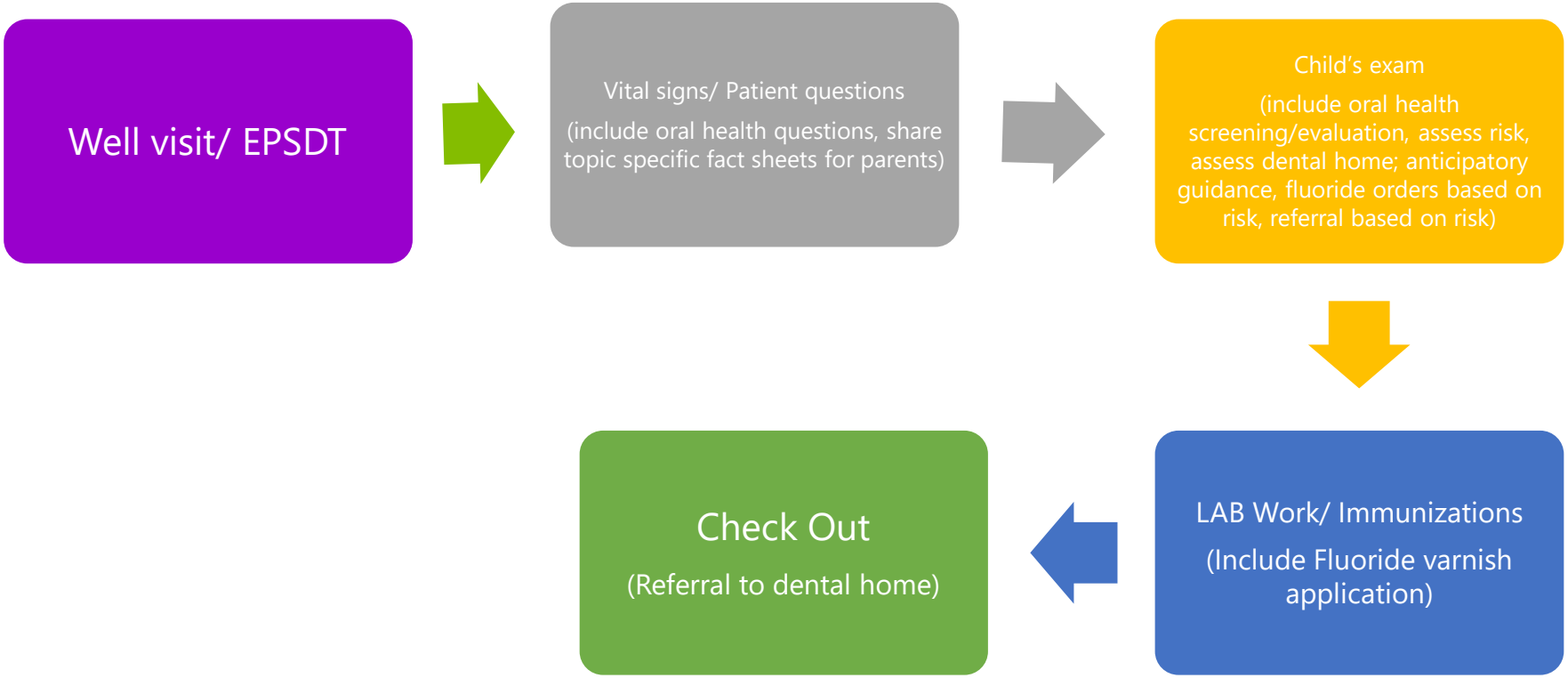
Make referral to a dentist

- develop a referral network with community dentists
- give parents or caregivers a **list of local dentists** who see young children and who participate with the Medicaid program



For children identified as high/moderate risk provide a direct referral to the dentist.

Sample Office Flow



Getting Set for Success!

- Determine a procedure that works for your office
- Consider a **team** approach
- If possible, identify a staff member who is an **oral health champion**!
- Decide **when** and **how** information will be delivered
- Use one-pagers, videos and posters for **"time-free"** education
- Incorporate Bright Futures Oral Health Anticipatory Guidance into practice
- Create a plan for **fluoride varnish application**
- Establish a formal **dental referral** process
- Develop method for **documenting** information in charts and EHR's

Key Points from Module 5

- Fluoride varnish is an effective way to reduce decay.
- Fluoride varnish application can be easily done in the medical setting and is a Medicaid billable service.
- By incorporating risk assessment tools or risk level criteria, parent education materials, posters and DVDs the medical setting can support good oral health as a part of total health and well-being.

After completing the training…

- Take this short quiz (add link to quiz)
- Print out training completion certificate to keep on file. This enables you to be reimbursed from Medicaid. (add link to certificate)

South Carolina Department of Health and Environmental Control

Connecting Smiles

Interested in learning more about integrating fluoride varnish applications and preventive oral health into your practice?

Contact: Mary K. Jones

kenyonm@dhec.sc.gov