IHS ECC

EARLY CHILDHOOD CARIES INITIATIVE

Healthy Teeth Healthy Families

Promoting Awareness of Early Childhood Caries

Early Childhood Caries (ECC, early childhood tooth decay) is an infectious disease that can start as soon as an infant's teeth erupt. ECC can progress rapidly and may have a lasting detrimental impact on a child's health and well-being. **ECC is a serious health problem**.[1]

ECC is defined as the presence of **one or more** decayed (cavitated or non-cavitated) teeth, one or more missing teeth due to caries, or filled tooth surfaces in any primary tooth in a child 71 months or younger (under 6 years of age).[2] In other words, **any** caries experience in a child under 6 years of age constitutes Early Childhood Caries.

The 1999 Oral Health Survey of American Indian and Alaska Native Dental Patients found that 79% of children between the ages of 2-5 years had experienced dental caries, and 68% of this age group had untreated decay at the time of the dental examination.[3]

What is the IHS ECC Initiative?

The Indian Health Service (IHS) Early Childhood Caries (ECC) Initiative is a multi-faceted program designed to enhance knowledge about early childhood caries prevention and early intervention among not only dental providers, but also all healthcare providers and the community.

The Initiative provides the entire healthcare team with the tools to begin a successful ECC program, beginning with targeting 0-5 year-old children and their mothers through increased access to oral health care and proven preventive strategies such as fluoride varnish. Increasing access to oral health care and evidence-based prevention is a collaborative effort that must include the oral health care team, medical providers, Community Health Representatives (CHRs), Head Start staff, and Women, Infant, and Children (WIC) Program staff.

The Initiative also provides the framework to dental providers for ECC early intervention focusing on "caries stabilization" and use of ITRs (Interim Therapeutic Restorations) to provide affected children with dental therapy that is quick, effective, and less traumatic.

Best Practices

Pregnancy	Birth -Two Years	Three -Five Years
COLLABORATE! Collaborate with the medical, community health, Early Head Start, and dental providers to assure that all pregnant women visit the dental clinic during the early months of pregnancy. ***EDUCATE!*** Educate the mother about the transmissibility of dental caries and ways to prevent **ECC**. Provide education and support to promote breastfeeding. ***COUNSEL!*** Provide nutrition counseling to reinforce the importance of a healthy diet during the **perinatal** period. ***MAKE RECOMMENDATIONS!*** Recommend that pregnant women stop using tobacco. ***SET AN APPOINTMENT!*** The dental staff can provide an oral exam, periodontal disease screening, prophylaxis, recommendations for completing any needed dental treatment, caries control, and appropriate recall. The dental staff can assess the mother's caries risk and prescribe anti-bacterials like chlorhexidine or xylitol for high-risk mothers during the perinatal period.	***COLLABORATE!*** Collaborate with the medical, community health, and dental providers to assure that children receive the following oral health services. ***ASSESS!*** Provide an oral health assessment soon after the first tooth erupts or by 12 months of age. Consider caries stabilization with glass ionomer as appropriate. ***PREVENT!*** Provide topical fluoride varnish treatments 4 or more times during the period from 9-24 months of age. ***EDUCATE FAMILIES!*** Educate families about the importance of never putting baby in bed with a bottle, using a cup by 6 months, and weaning off the bottle at 12-14 months of age. Educate families about the protective qualities of fluoride. Ideally, every child should be drinking fluoridated water and have their teeth cleaned twice daily with a small smear of fluoride toothpaste. Teach families to lift the lip and look for chalky white or brown spots, and if they see any signs of dental decay, they should see the dentist. ***ENCOURAGE!*** Encourage healthy snacks and limited exposure to sweets, refined starches like chips and crackers, and sweetened drinks. Reinforce to families that pop does not belong in a preschooler's diet.	***COLLABORATE!*** Collaborate with the medical, community health, Head Start, and dental providers to assure that every child has a dental home. Consider caries stabilization with glass ionomer as appropriate. Consider dental sealants for the primary molars of any children who are at high risk for dental caries. ***PREVENT!*** Provide topical fluoride varnish treatments 3-4 times a year for children at high risk for dental caries. ***EDUCATE FAMILIES!*** Educate families about the protective qualities of fluoride. Ideally, every child should be drinking fluoridated water and have their teeth brushed twice daily with a pea-sized amount of fluoride toothpaste. Encourage healthy snacks and limited exposure to sweets, refined starches like chips and crackers, and sweetened drinks. Reinforce to families that pop does not belong in a preschooler's diet. ***HEAD START!*** Daily supervised brushing with a pea-sized amount of fluoride toothpaste. Through Head Start, consider implementing a fluoride varnish and xylitol program for 3-5 year olds.

Other preventive measures such as chlorhexidine, iodine, and calcium phosphate products may be viable chemotherapeutics along with fluoride varnish and the other strategies outlined in the ECC Initiative, but at this time, these measures have insufficient clinical evidence to be considered best practices. We are encouraging pilot-testing of these and other chemotherapeutics.

References

1. National Maternal and Child Oral Health Resource Center. Promoting Awareness, Preventing Pain: Facts on Early Childhood Caries (ECC). 2004. Available online at www.mchoralhealth.org.
2. American Academy of Pediatric Dentistry. 2008. Available online at www.aapd.org.
3. Indian Health Service, U.S. Department of Health and Human Services, 2000. The 1999 Oral Health Survey of American Indian and Alaska Native Dental Patients: Findings, Regional Differences and National Comparisons, Rockville, MD: Indian Health Service.

ECC Initiative Fact Sheet—Community Partners

Early Childhood Caries (ECC, also known as early childhood tooth decay) is the most common chronic disease of childhood, occurring at least five times more frequently than asthma, which is the second most common chronic disease of childhood.

American Indian and Alaska Native (AI/AN) children experience tooth decay at a higher rate than the general U.S. population. Over 50 percent of AI/AN children ages 2-5 years have ECC.

By two years of age, many AI/AN children already have ECC, supporting the fact that prevention and early intervention of this disease process needs to begin with pregnant women and infants. For children in Head Start, we want to prevent future decay in the erupting permanent teeth.

Dental caries (tooth decay) is an infectious, transmissible disease caused by cavity-causing bacteria (mutans streptococci, lactobacilli, and other acid-producing bacteria). The bacteria that cause tooth decay are fueled by sweet foods and drinks and other fermentable carbohydrates like crackers and chips. Over time, the enamel breaks down, resulting first in a chalky white spot that then progresses into a cavity. The picture above shows what happens when these white spot lesions continue to progress to rampant decay, a condition known as Severe Early Childhood Caries (S-ECC).

Tooth decay in young children is not a normal part of growing up. Any decay in children under the age of 6 years is considered Early Childhood Caries, even if it is only one tooth. Primary teeth are important for eating, holding space for permanent teeth, talking, and smiling.

Severe ECC (where six or more teeth are decayed) causes pain and infection. ECC can also result in poor self-esteem and a reluctance to smile. Treatment of Severe ECC can cost up to $10,000 per child, especially if the children need to be hospitalized and treated under general anesthesia. ECC places a huge financial burden on insurance, Medicaid, IHS, Tribal programs, and families least able to afford treatment.

Dental treatment alone does not remove the disease-causing bacteria. Even after treatment, the disease rages on for high-risk children. That's why the ECC Initiative was created—to help show dental teams and our medical and community partners how to prevent ECC and provide early intervention for the disease. The ECC Initiative is both comprehensive and collaborative, involving all of us working together to prevent ECC and improve the well-being of AI/AN children. ***Please join us in the ECC Initiative.***

Together, we CAN make a difference!

IHS ECC
EARLY CHILDHOOD CARIES INITIATIVE
Healthy Teeth Healthy Families

IHS Division of Oral Health, 2010

IHS ECC

Early Childhood Caries Initiative

Healthy Teeth • Healthy Families

Key Oral Health Messages

Pregnancy	Birth - Two Years	Three - Five Years
Make an appointment to have your teeth cleaned and checked and get any needed dental treatment completed. Ask your dentist what you can do to lower the bacteria that cause cavities in your own mouth. Brush twice daily with fluoride toothpaste. Eat a healthy diet and limit sweets and other refined carbohydrates.	Brush baby's teeth twice daily with a smear of fluoride tooth-paste beginning when the first tooth comes in. Make sure your baby receives 4 fluoride varnish treatments between the ages of 9-24 months. Never put baby in bed with a bottle and wean from the bottle around 12 months of age. Lift the lip and look for chalky white or brown spots. If you see any signs of cavities, go to the dental clinic. Limit the amount and frequency of sweet drinks and food like chips, crackers, and sticky candies like fruit roll-ups.	Brush your child's teeth twice daily with a pea-size amount of fluoride toothpaste. Make sure your child receives 3-4 fluoride varnish treatments a year. Limit the amount and frequency of sweet drinks and food like chips, crackers, and sticky candies like fruit roll-ups.

About Health Education…

Education alone is not a best practice. Effective health education includes motivational interviewing, demonstrations, goal setting, and reinforcement.

Setting Goals

Child's Name _____

Healthy Snacks

Less candy and junk food

No soda pop

Brush twice daily
with fluoride toothpaste

Drink tap water

Regular dental visits
for child

No bottle in bed

Wean off bottle

Fluoride Varnish
3-4 times/year

On a scale of 1-10, how confident are you that you can accomplish this goal?

1 2 3 4 5 6 7 8 9 10

Not likely Definitely

Date _____ Signature _____

Comments _____

Staff initials _____ Review Date _____

What can Head Start staff do to help?

1. Daily Brushing– Implement circle brushing in your classrooms to assure that all children receive supervised brushing daily with fluoride toothpaste.

2. Apply fluoride varnish— Head Start staff (directors, health coordinators, and teachers) can take the online course to be certified to apply fluoride varnish. Fluoride varnish should be applied 3-4 times each year.

3. Provide Positive Oral Health Messages—Take the time to talk to families about the following:

- Brush twice daily with fluoride toothpaste beginning when the first tooth erupts.
- Apply 3-4 fluoride varnish treatments a year.
- Limit the amount and frequency of sugary foods and drinks.

The **IHS Early Childhood Caries Initiative** is a collaborative project that includes dental staff, medical staff, Head Start, Community Health Representatives, WIC, and other key stakeholders in the oral health of children.

- To take the online course "How to Apply Fluoride Varnish," go to http://www.headstart.ihs.gov.
- For more information about the ECC Initiative, go to: http://www.doh.ihs.gov/ecc.

IHS Division of Oral Health, 2010

Head Start's Role in ECC Prevention & Early Intervention

Early Childhood Caries (ECC) is any tooth decay in a child under 6 years of age. While some children may only have one tooth that is decayed, and some may have multiple teeth that are decayed (as shown in the picture to the right) it is important to understand that **tooth decay in childhood is not normal and can be prevented**.

Early Childhood Caries is a devastating problem in young children. Not only can it cause pain and loss of teeth, but it also affects self esteem, speech development, nutrition, and school attendance. Preventing ECC is difficult because many things contribute to this disease process. There's where **you** can help by providing positive oral health messages to parents, applying fluoride varnish at Head Start, and referring children to the dentist.

The IHS has started a new initiative to draw attention to the problem of Early Childhood Caries, which afflicts more than half of Native American children. Below and on the back of this sheet is information on how you can help make a difference in our fight against ECC.

Best Practices for 0-5 year-olds

1. **Brushing twice daily** with fluoride toothpaste.
2. **Fluoride Varnish** applications 3-4 times a year.
3. **Offer healthy snacks** and avoid sweet drinks and foods.
4. **Early Access to Dental Care** may help keep children from having to be treated for severe decay in an operating room. Ask your dentist about caries stabilization.

IHS ECC

EARLY CHILDHOOD CARIES INITIATIVE

Healthy Teeth Healthy Families

Together, we can make a difference!

IHS Division of Oral Health, 2010