The Quadruple Aim; Making the Case for Oral Health Literacy

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What is the Quadruple Aim?
Lower Costs

Dental sealants
keep children healthy & ready to learn.

Sealants decrease dental caries & can yield up to an 88% return on investment.

Every $1 spent on dental sealants, saves $6.89 in fillings.

About 23.4% of Florida third graders have untreated tooth decay.

$34 million+

Dental sealants effectively reduce tooth decay in children.

There were 27,413 caries-related emergency department visits costing more than $34 million in 2010.

Tooth Decay: The Problem

Tooth decay is the single most common chronic childhood disease. Florida has the highest rate of tooth decay in children aged 6 to 11 years, with more than 43% of children having untreated tooth decay.

Untreated tooth decay is more likely to lead to infection, severe pain, and even loss of teeth. Children with untreated tooth decay are more likely to miss school due to oral health problems. Pain and discomfort from cavities, toothaches, and abscesses can also affect children's ability to focus in school.

Caries-related Emergency Department (ED) visits for Florida kids totaled 27,413 for children ages 6 to 11 during 2010. The charges associated with these visits totaled $34,066,072.

Dental Sealants: The Solution

Dental sealants are thin plastic coatings applied to the grooves on the chewing surfaces of the back teeth. This protection against tooth decay reduces caries incidence over time. 86.1% (age one), 33.6% (age two), and 15.5% (age three).

Prevention vs. Treatment: The Cost

The Florida Department of Health’s Public Health Dental Program supports statewide preventive dental services through the Florida Health Department Dental Program. Dental sealants performed by these locations during 2010 were analyzed for cost effectiveness by comparing the national cost estimate of existing caries-related emergency department visits for the state. The cost savings over three years for 33.6% children avoiding one dental visit is $13,099,000 or an estimated $217,000 for an untreated tooth. The cost savings over three years for 15.5% children avoiding one dental visit is more than $4.5 million.

Learn more: FloridaHealth.gov/Dental
Health literacy is dependent on knowledge of patients and providers of health topics. Providers who do not keep current with evidence-based practice cannot provide accurate knowledge, information and/or services for their patient.

For example, is it ok to place a dental sealant over a non-cavitated carious lesion?
Sealant Use

Disparities are decreasing over time
The number of low-income children with sealants increased by about 70% from 1999-2004 to 2011-2014, and the number of higher-income children with sealants increased by 23%. The increase in sealants among low-income children prevented almost 1 million cavities.*

Cavities

Disparities still exist
Low-income children without sealants have about 60% more cavities in their 1st permanent molars than higher-income children.

What we know, from Dr. Horowitz’s research in Maryland

- Many dentists and dental hygienists do not have a good understanding about how to prevent tooth decay
- Many dentists and dental hygienists do not provide dental sealants
- Most patients do not understand how to prevent dental caries
- Most patients do not know what dental sealants, fluoride are or what they are used for
Strategy

- Determine what our providers do/do not know and practice regarding caries prevention, early detection, and treatment.
- Continuously educate members of our care team...keep them current!

“Changes in the management of dental caries will require health organizations and dental schools to educate students, practitioners, and patients in evidence- and risk-based care.”

Dr. Norman Tinanoff
professor and chair, Department of Pediatric Dentistry, University of Maryland Dental School, Baltimore, MD
Do you feel dental providers (Dentists and DH's) have the same professional opinion when it comes to treatment planning dental sealants?
Do you feel that all dentists in your HC have the same professional opinion when it comes to antibiotic and opioid prescribing?

- Yes: 42
- No: 60
- Not sure: 10

Go to www.menti.com and use the code 43 83 89
Improved Patient Experience
Communication techniques of providers are often limited and insufficient

National Data
• How often did health providers listen carefully to you? [56%]
• How often did health providers explain things in a way you could understand? [58%]
• How often did health providers show respect for what you had to say? [58%]
• How often did health providers spend enough time with you? [45%]
Why aren’t “they” getting the message?!

“I had a Spanish father (who refused to bring his child with severe ECC to the operating room) tell me that in his village, he himself and his family ran around with rotten teeth and no one died. His son had strong Spanish blood and nothing will happen.”

Sofia Holland,

Maryland health center pediatric oral surgery coordinator, interpreter
Strategy

• providers need to listen carefully to what the patient has to say and should use “teach-back” to confirm that the patient has heard what they have said.

• providers should slow down, use short sentences, plain (non-dental and medical) language and use visual aids.

• Provide communication skills for your care team such as motivational interviewing
Many health centers are not truly health literate organizations

- Is your facility truly a patient-centered health home?
- What educational messages are provided to prevent dental disease? Or that speak to the importance of good oral health in assuring overall wellness? When should baby see the dentist?

Pretty waiting room but lost opportunity??
LIFT THE LIP

KEEP YOUR BABY CAVITY FREE

CLEAN BABY’S MOUTH
- Begin cleaning baby's gums and tongue the day after baby comes home from the hospital. Use a clean, damp washcloth.
- When baby is about one year, clean teeth with a soft toothbrush and a smear of fluoride toothpaste.

LIFT BABY’S LIP ONCE A MONTH
- Look for early cavities – white lines near the gum line.
More Strategies...

- Integrate oral health into primary care settings.
- Standardize/share credible health information in your office(s) (i.e., posters, brochures), utilize televisions for health education programming.
- Train and use culturally appropriate lay health workers to share the message (e.g., Promotoras) outside of the health center.
Dental-Medical Integration is a great idea but...

- Our medical providers don't have enough time to incorporate OH during well check visits. 27
- Our medical providers are uncomfortable trying outside their scope of practice and addressing OH. Perhaps after more training. 25
- The families I care for will not be interested. 0
- We need to do even more of it at our health center. 62
What we are striving for
How do we measure the Quadruple Aim?
Metrics

- Patient Satisfaction Surveys
- Rounding for Outcomes
- Cost per Visit
- Staff Turnover/Retention Rates
- Dental Sealant Utilization (UDS metric)
- New Carious Lesion at Re-care Visit
- Self Management Goals....
SUCCESS

WHAT PEOPLE THINK IT LOOKS LIKE

SUCCESS

WHAT IT REALLY LOOKS LIKE
Be a Health Literacy Hero!