Oral Health: A component of the Patient-Centered Medical home

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Oral Health is a Fit for PCMH

- Patient-centered
- Comprehensive care
- Coordinated care
- Accessibility
- Systems-based approach to quality and safety
Patient-Centered

• **Whole person**
  • puts the mouth back into the body

• **Self-management and prevention**
  • Diet and oral hygiene are under the patient’s control.
Comprehensive Care

• Brings a formerly “silooed” aspect of health into the medical home
Coordinated care

• Oral health is well-suited to medical teamwork:
  – Physicians
  – PA’s
  – APN’s
  – MA’s
  – counselors

• Collaboration with oral health professionals.
Accessibility

• Brings oral health services into the medical home:
  
  • Education
  
  • Screening for oral disease and correlation with systemic health
  
  • Fluoride
Systems-based approach to quality and safety

• Oral health has a strong evidence basis

• Outcomes and be identified and quantified:
  • Caries rates
  • Periodontal disease rates
  • Correlation of oral health with chronic diseases like diabetes.
Why Oral Health in Primary Care?

“Quality health care means doing the right thing, at the right time, in the right way, for the right person, and having the best results possible”

Your Guide to Choosing Quality Health Care
Agency for Healthcare Research and Quality (AHRQ), 2003c
The Oral Health Opportunity

- **The right thing:** risk assessment, diet and hygiene counseling
- **Right time:** at wellness visits for adults, children and prenatal
- **Right way:** From primary care team who knows them
- **Right Person:** 30% do not access dental delivery system. Those still without dental disease or do not know that it is preventable
- **Results:** Positive behavior change and self-responsibility
Challenges

• **Education about importance**

• **Skills:**
  • Oral exam of children and adults
  • Fluoride varnish application

• **Recognition of normal and abnormal oral findings**

• **Time and resource allocation**

• **Payment**

• **Consultation and referral relationships**
Oral Health Literacy

• Very low in the general public

  “They’re just baby teeth”

  “Bring him in when he’s 4 years old and can sit still”

  “My 3-year old brushes his own teeth”

  “Fluoride is dangerous”

  “You lose a tooth for each pregnancy”

• Most medical providers get essentially no oral health education
Solutions & Best Practices

• **Education:**
  - Smiles for Life national oral health curriculum
  - [http://www.smilesforlifeoralhealth.org](http://www.smilesforlifeoralhealth.org)

• **Implementation and Technical Assistance:**
  - Cavity-Free-at-Three (Colorado)
  - ABCD (Washington State)

• **Operating programs in Four Community Health Centers:**
Smiles for Life is the nation's only comprehensive oral health curriculum. Developed by the Society of Teachers of Family Medicine Group on Oral Health and now in its third edition, this curriculum is designed to enhance the role of primary care clinicians in the promotion of oral health for all age groups through the development and dissemination of high-quality educational resources.

For Individual Clinicians

We've made it easy for individual physicians, physician assistants, nurse practitioners, students, and other clinicians to access the curriculum and learn on their own time and at their own pace. Each of the courses is available online. Free CME credit is available.

For Educators

The curriculum is available in a presentation format easily implemented in an academic setting. Included is a comprehensive set of educational objectives based on the Accreditation Council for Graduate Medical Education (ACGME) competencies, test questions, resources for further learning, oral health web links, an implementation guide, and detailed outlines of the modules.
Qualis Report Vision +

• Young children receive oral health preventive services as a part of routine well child care.

• Pregnant women have dental treatment needs addressed prior to delivery.

• Patients with oral disease resulting from, influenced or exacerbated by chronic diseases receive dental treatment as part of their comprehensive care plan.

+ Primary care team consults with and refers to dentists appropriately while retaining responsibility for oral health promotion and prevention.
Practical Experience ...

• The importance of oral health is an easy sell to primary care providers: the science is convincing

• Implementation fits easily into primary care practice
  • The skills are a natural extension of existing routines
  • Health behavior change counseling is readily adaptable to oral health
  • Team members make it work

• Medicaid payment justifies the time spent – a model for oral health in accountable care

• Patients appreciate the effort
Oral health is like the rest of what we do:

- Everybody starts out life with ____ and needs it/them to function throughout life.

- Disease/dysfunction of ____ is common, yet preventable by individual behavior.

- Much ____ disease is infectious.

- Some ____ disease is vertically transmitted.

- Prevention of ____ disease is less expensive than treatment.

- Teamwork and consultation are helpful in maximizing ____ care.
Oral health is like the rest of what we do:

• Everybody starts out life with teeth and needs them to function throughout life.

• Disease/dysfunction of the oral cavity is common, yet preventable by individual behavior.

• Much oral disease is infectious.

• Some oral disease is vertically transmitted.

• Prevention of oral disease is less expensive than treatment.

• Teamwork and consultation are helpful in maximizing oral health care.
Oral Health of Children

Early childhood caries: ECC

• The most common chronic disease of children
  • 5 times more common than asthma

• 44% of children have cavities by age 5

• 45% of child dental claims are for baby teeth

• ECC is a public health crisis!
Science: Early Childhood Caries

- Caries is a disease, causing cavities and tooth loss
- Vertically transmitted, epidemic
- Preventable

Sequelae:
- Pain
- Impaired chewing and nutrition
- Infection
- Increased caries in permanent dentition
- School/work absences
- Extensive and expensive dental work
Early Childhood Caries

Photos: Donald Greiner DDS MS, Joanna Douglass BDS DDS
ECC treatment

- **Cost of extensive restoration:** $10,000+ per case
ECC Etiology Triad

Oral bacteria *(mutans strep)* break down dietary sugars into acids which break down the tooth.
**ECC Transmission**

- *S. mutans* is vertically transmitted from the primary caregiver, often the mother
- Caregivers with high bacteria levels usually have:
  - A high frequency of sugar intake
  - Poor oral hygiene
  - High levels of decay
- Caregivers pass bacteria, dietary habits and oral care habits to the child
Child Oral Health Opportunity

• Most children have access to primary care

• 89% of poor children have a usual source of medical care

• Primary Care Providers have regular, consistent contact with children for checkups and immunizations
## Well-Child Visit Frequency

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<th>Vaccine</th>
<th>Age ▼</th>
<th>1 month</th>
<th>2 months</th>
<th>4 months</th>
<th>6 months</th>
<th>12 months</th>
<th>15 months</th>
<th>18 months</th>
<th>19–23 months</th>
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<td>PPSV</td>
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<td>Influenza (Yearly)</td>
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Training: the Knee-to-Knee
Fluoride Varnish

• Easy to apply
• Inhibits demineralization
• Promotes remineralization
• Has anti-bacterial activity

Photo: ICHOP
Primary Care Providers Can

• Assess risk for oral disease as we do for other conditions in the Medical Home

• Provide prevention through anticipatory guidance and health behavior change counseling:
  • Diet
  • Oral hygiene – brush when teeth erupt and help till age 6

• ARREST and REVERSE early disease with fluoride varnish

• Screen for disease that requires referral

• Encourage the age 1 dental visit
Oral Health of Adults

• **The opportunity:**

  • Adults with many chronic diseases see medical providers frequently

  • Principles of risk assessment, screening and behavior change counseling are fundamental to primary care clinicians
Oral – Systemic Connection

• **Good evidence for oral/systemic link**
  • Infective endocarditis (8% of cases)
  • Prosthetic device infection
  • Diabetes
  • Oral cancer
  • Medications we prescribe cause dry mouth

• **Emerging evidence for oral/systemic link**
  • Obesity
  • Coronary artery disease
  • Lower respiratory disease
  • Adverse pregnancy outcome (PTL, LBW, preeclampsia)
Periodontal Disease

- **Chronic plaque at gumline**
  - Bacterial infection
  - Inflammation
- **Present in 50% of adults**
- **Can start in teen years**
- **Smoking a major risk**
- **Prevention:**
  - good oral hygiene
  - brushing and flossing
  - avoid tobacco
Inflammation & Host Response

- Anaerobic bacteria in plaque
- Toxins
- Neutrophils
- Macrophages

Circulating inflammatory mediators
- IL-1
- TNFα
Diabetes

• Poor glycemic control is associated with a threefold increased risk of having periodontitis in diabetics Vs controls

• Diabetics with good glycemic control have no significant increased risk of periodontal disease

• Chronic infection (like periodontal disease) complicates glucose control
Obesity

- Fat tissue releases TNFα and IL6 which potentiate inflammation, including periodontal disease

- TNFα also causes insulin resistance

- The relationship between obesity and oral disease is therefore complex and includes diabetes
Iatrogenic: xerostomia

• Decreased saliva promotes periodontal disease

• Many medications reduce salivary flow
  • steroids
  • antihistamines
  • diuretics
  • antihypertensives
  • anticholinergics
  • antidepressants
Oral Cancer Identification: focus on cancer prone areas
Primary Care Providers Can ... 

• **Assess risk**

• **Avoid iatrogenic oral disease**

• **Provide prevention through anticipatory guidance and health behavior change counseling:**
  
  • Diet 
  • Oral hygiene 
  • Tobacco cessation

• **TREAT early disease with chlorhexidine rinse**

• **Screen for gum disease and oral cancer**

• **Refer when indicated**
Medical-Dental Collaboration

• **Oral health training for medical providers will increase referral to dentists**

• **Expanded medical knowledge for dental providers will increase referral to medical providers**

• **Challenges:**
  • Can we speak the same language?
  • What information needs to be shared?
  • Medical providers have difficulty identifying dentists taking referrals
  • General dentists may be reluctant to see young children
  • Reluctance to treat pregnant women
Self-assessment Questions:

- At what age do children start to get teeth?
- What causes dental cavities?
- Till what age do kids need help brushing their teeth?
- Name one cancer-prone area of the mouth.
- What very common medication side-effect adversely affects oral health?
- What is the periodontal ligament?
- What oral condition can worsen a diabetic’s sugar control?
- Should dental treatment be avoided during pregnancy?
“I dare you to brush my teeth”
Initiative activities are made possible as a result of funding from the DentaQuest Foundation, the Washington Dental Service Foundation, and the Connecticut Health Foundation