Medical and Dental Working Together

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No conflicts of interest
My story: How did a pediatrician get into oral health work?
Objectives

At the end of this session, you will be able to:

- Promote oral health in the medical setting
- Describe various models of medical dental integration
- Develop medical-dental models of care delivery to best serve your population
- Access medical-dental integration resources
Oral Health Across the Lifespan
Dental Disease Across the Lifespan

- Early childhood caries
- Adolescent unique risks
- Pregnancy
- Adult risks
- Elderly
Dental Disease Across the Lifespan

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Dental Disease Across the Lifespan

- Early childhood caries
- Adolescent unique risks
- Pregnancy
- Adult risks
- Elderly
Disease Consequences

- Pain/progressive infection
- Worse oral-health quality of life
- Impaired chewing and nutrition
- School/work absenteeism
- Poor self-esteem
- Increased risk for lifetime of disease
- Hospital care: $859 million (2000-2008) on hospitalizations
- Expensive: $111 billion (2013) US expenditures
Dental Prevention Gap

- **ACA:** 10 essential health benefits
- **Medicaid:** limited benefit
- **Medicare:** no dental benefit
- **40% of Americans lack dental insurance**
- **Dentist shortage areas**
- **Americans much more likely to see a medical provider than a dental provider**
Figure 3: Percentage of Children Ages 2-18 with a Dental Visit in the Year for Selected Income Groups, 2000-2012

Being poor is associated with not going to a dental provider.

This hasn’t changed much in the past 15 years.

Source: Medical Expenditure Panel Survey, AHRQ. Notes: Changes were significant at the 1% level for FPL<100% and FPL 100-200% (2000-2012) and at the 5% level for FPL 400+ (2000-2012). Changes from 2011 to 2012 were not statistically significant.
Figure 1: Percentage of the Population with a Dental Visit in the Year, 2000-2012

Source: Medical Expenditure Panel Survey, AHRQ. Notes: For children ages 2-18, changes were statistically significant at the 1% level (2000-2012) and at the 10% level (2011-2012). Among adults ages 19-64, changes were statistically significant at the 1% level (2003-2011). For adults 65 and older, changes were significant at the 5% level (2000-2012). Changes from 2011 to 2012 among adults 19-64 and the elderly 65 and above were not statistically significant.
No Oral Health Coverage

- 130 million Americans
  - 1 out of 5 children
  - 2 out of 5 adults
  - 7 out of 10 seniors
I wish we lived in a world where everyone had access to dentists and dental care, but we don’t.
Leverage the Medical Visit
Promoting Oral Health in Medical

- Oral health is essential for overall health
- Ultimate goal in all models is to facilitate establishment of dental home with dentist
- Prevent disease
- Get treatment for existing disease
- No one size fits all
Stepped Care Framework

- **VERY HIGH RISK**: PCP promotes oral health with integrated dental hygiene care and referral to dentist.
- **HIGH RISK**: PCP promotes oral health with integrated dental hygiene care and referral to dentist.
- **MODERATE RISK**: PCP promotes oral health and is supported by brief care by integrated dental hygienist.
- **LOW RISK**: PCP promotes oral health and provides basic preventive care with referral.
- **VERY LOW RISK**: Primary Care Provider (PCP) promotes oral health and coordinates dental referrals.
Common Approach

- Risk assessment
- Oral health evaluation
- Preventive intervention
- Oral health education and anticipatory guidance
- Interprofessional collaborative practice
- *Building trusting, collaborative relationships with dental colleagues to improve health of patients*
- Medical providers are great for your business model
HRSA Oral Health Strategic Framework

Oral Health Clinical Competencies

1) Integrate Oral Health and Primary Health Care
2) Prevent Disease and Promote Oral Health
3) Increase Access to Oral Health and Eliminate Disparities
4) Increase Dissemination of Oral Health Information and
5) Advance Oral Health in Public Policy and Research
### Recommendations for Preventive Pediatric Health Care

**Bright Futures/American Academy of Pediatrics**

These guidelines represent a consensus by the American Academy of Pediatrics (AAP) and Bright Futures. The AAP continues to emphasize the great importance of continuity of care in comprehensive health supervision and the need to assist fragmentation of care.

Refer to the specific guidelines by age as listed in Bright Futures guidelines (Eisen F, Shaw J, Duncan PM, eds. Bright Futures Guidelines for Health Supervision of Infants, Children and Adolescents. 2nd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2006).

The recommendations in this statement do not indicate an exclusive course of treatment or statement of medical care. Variations, taking into account individual circumstances, may be appropriate. 

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### Table: Recommendations for Preventive Pediatric Health Care

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Recommended Screenings</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Anticipatory Guidance</em></td>
<td></td>
</tr>
<tr>
<td><em>0-24 Months</em></td>
<td></td>
</tr>
<tr>
<td>Infant</td>
<td></td>
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<tr>
<td>Early Childhood</td>
<td></td>
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<tr>
<td>Middle Childhood</td>
<td></td>
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<tr>
<td>Adolescence</td>
<td></td>
</tr>
</tbody>
</table>

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1. A child comes under care for the first time as a newborn on the schedule, or if any items are not accomplished at the suggested age, the schedule should be brought up to date at the first visit. The problem should be recorded in the medical record for future reference.

2. The oral health component includes two visits at the first birthday and every 6 months thereafter. The first visit should be before the child’s first birthday.

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**Note:**

- The table above provides a comprehensive guide to preventive health care recommendations for children from birth to adolescence. Each age group includes specific screenings and interventions recommended by the American Academy of Pediatrics and Bright Futures. 
- The recommendations are designed to promote health and prevent disease, focusing on various aspects such as growth and development, physical examination, and anticipatory guidance. 
- Further details and specific guidelines can be found in the referenced sources provided in the table. 
- Regular follow-up and adherence to these guidelines are crucial for ensuring comprehensive health supervision and care for children throughout their developmental stages.
Smiles for Life: A National Oral Health Curriculum

Smiles for Life produces educational resources to ensure the integration of oral health and primary care.

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 Continuing Education credit is available.

For Educators

This curriculum format can be 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 module outlines.

Answering the Call: Joining the Fight for Oral Health

Watch this informative and inspiring video which outlines both the challenge and progress in improving oral health as a vital component of effective care. Click the following options to watch videos:
Continuum of Oral Health in the Medical Home

Coordinated  Co-Located  Integrated

ASK  LOOK  DECIDE  ACT  DOCUMENT
Coordinated Care

- Core team of medical providers and support staff
- Oral health instruction +/- fluoride varnish
- Coordinated referral to outside dental provider
- Coordinated Referral (informal to formal)
Co-Located Care

- Core medical team
- Co-located core dental team
- Oral health instruction +/- fluoride varnish
- Coordinated referral to co-located dentist
- Coordinated referral to outside dentist
Denver Health/Cavity Free at Three

Setting

Approach

- Coaching
- Metrics

University of Colorado Anschutz Medical Campus
<table>
<thead>
<tr>
<th>Cohort</th>
<th>Zero-Inflated Negative Binomial Model&lt;sup&gt;a,b&lt;/sup&gt;</th>
<th>Zero-Truncated Negative Binomial Model&lt;sup&gt;a,c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ECC Prevalence Difference (95% CI)</td>
<td>Overall Mean Difference (95% CI)</td>
</tr>
<tr>
<td>Cohort year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011 vs 2009</td>
<td>7.2 (-0.9, 15.0)</td>
<td>0.14 (-2.1, 2.2)</td>
</tr>
<tr>
<td>2015 vs 2009</td>
<td>-15.9 (-24.3, -5.2)</td>
<td>-2.8 (-5.2, -0.8)</td>
</tr>
<tr>
<td>2015 vs 2011</td>
<td>-23.1 (-30.6, -13.0)</td>
<td>-3.0 (-4.7, -1.2)</td>
</tr>
<tr>
<td>2015 vs 2009, 2011</td>
<td><strong>-20.7 (-27.8, -11.3)</strong></td>
<td><strong>-2.9 (-4.5, -1.3)</strong></td>
</tr>
<tr>
<td>Cohort year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011 vs 2009</td>
<td>5.3 (-3.6, 13.2)</td>
<td>-0.6 (-1.9, 0.4)</td>
</tr>
<tr>
<td>2015 vs 2009</td>
<td>-28.3 (-34.9, -18.5)</td>
<td>-2.5 (-3.7, -1.7)</td>
</tr>
<tr>
<td>2015 vs 2011</td>
<td>-33.6 (-38.5, -24.0)</td>
<td>-1.9 (-2.6, -1.3)</td>
</tr>
<tr>
<td>2015 vs 2009, 2011</td>
<td><strong>-31.9 (-36.1, -23.2)</strong></td>
<td><strong>-2.1 (-2.7, -1.6)</strong></td>
</tr>
</tbody>
</table>
Lessons Learned

- Changing provider takes time
- Systems are needed to support care
- Need collaborative dental partnership
- Medical providers are busy
- FV dose is important
Could innovative dental hygiene practice models increase access to care and improve outcomes for high-risk populations?
Colorado Medical Dental Integration Project

- Medical providers are busy
- Difficulty finding dentists to see kids with Medicaid
- Trying to fit one more thing into a visit
- Team-Based Care
- Patient-Centered Medical Home
Medical-Dental Integration

- Core medical team
- Extended team includes dental hygienist
- One-stop shop
- Integrated systems
  - Scheduling, billing, treatment planning
- Case-coordination for restorative services
Co-located 5 Dental Hygienists
Dental Hygienist Co-Location 1.0

- 2008 – 2011
- Demonstrated feasibility in a medical setting
- Sustained in 4 out of 5 practices
Findings

- Medical providers liked the idea
- Higher investment in model if dental hygienists employed by practice vs. independent business
- Full-time dental hygiene better
- Families liked the idea
- Dental hygienists liked the idea
Colorado Medical-Dental Integration

- CO MDI
- Five-Year Initiative
- Launched in 2014
- Integrates dental hygienists in medical practices to provide preventive services
What makes CO MDI different?

- Full-scope dental hygiene care
- Integrated, team-based care
- Extension of medical team and dental home
Integrated Care Workflows

Team-based care
- Extension of core team
- Huddles and team times

Dental hygiene visits in the medical space
- Scrubbing medical schedule and identifying patients
- Warm hand offs from medical
- Scheduled dental hygiene new visits and recall visits.

Follow-Up
- Treatment planning with medical team
- Risk-based follow up/recall
- Coordinated referral to dentist
- Development of built space with dental hygiene equipment
- Hiring of “right” dental hygienist
- Credentialing of dental hygienist
- Relationship with dentist
- IT support
- Billing support

Start up—lots of technical assistance
Practice coaching for success

- Support clinics in reaching goals
- Coach to build integrated models
- Clinic-level metrics used in coaching
- Financial metrics used to achieve sustainability
Practice Transformation

Prototype/Feasibility Testing

CO MDI MODEL

DDCOF

BOD

Steering Committee

Ongoing Technical Assistance

2-year timeline

Group calls

Learning Session

Learning Session

Learning Session

Learning Session

Monthly

Support

Maintenance

Group calls

PDCA

Metric Coaching

PDCA

Metric Coaching

PDCA

Metric Coaching

PDCA

Metric Coaching

DDCOF

BOD

Steering Committee
Ongoing Technical Assistance

- Anything needed to achieve fidelity to model
- Workflow development
- Equipment questions
- Billing issues
- Overcoming unanticipated obstacles
Dental Hygiene Group Calls

- Risk assessment
- Self-management goal setting
- Managing referrals
- OSHA regulations
- Equipment
- Workflows
- Work environment
- Sharing ideas
- Challenges/solutions
Dental Hygiene Group Calls
- Risk assessment
- Self-management goal setting
- Managing referrals
- OSHA regulations
- Equipment
- Workflows
- Work environment
- Sharing ideas
- Challenges/solutions

Administrative Group Calls
- Hiring
- Onboarding/Credentialing
- IT challenges
- Workflows
- Provider Buy-in
- Billing
- Challenges/solutions
Full day with preceding dinner
Launch: Inspirational speaker
Always team work time
Story boards
Table top activities
PDSA | A3 | Workflows
Fun
Recognition
Feedback/evaluation
Metric Coaching
15 clinics reaching the underserved in their own way.
Total Visits-to-Date: 31,592
Medicaid: 11,356
CHP+: 483
Private: 344
None: 2,077
Other: 1,905

Medicaid 70%

Insurance status
Cumulative Patient Visits
31,592

- 0-5 years: 8,034
- 6-18 years: 10,176
- > 19 years: 13,382
Referrals: 14,723
X-rays: 8,309
Sealants: 1st Molar: 1,481
Sealants: 2nd Molar: 584
Fluoride Varnish: 17,978
Risk Assessment: 21,627
% No dental visit in past 12 months:

- Q2.16: 52%
- Q3.16: 52%
- Q4.16: 53%
- Q1.17: 40%
40% Patient visits with untreated decay
14,723 Referrals
9,620 Attended

66%
Clinics are on track to be financially sustainable and are considering expansion.
Wave II
Oral Health Education in Captive Settings 2016-17
An Expandable Prototype
“OHECS”
The OHECS Model

Person/Family
+ Dental Navigator
+ Private Space
+ “Down Time”
= OPPORTUNITY for learning

- No dental equipment
- Billing possibilities:
  - 99188 (FV), 96152, 96154 (OHI)
- Any medical office
- Coordinates warm handoff to dentist
OHECS Experience

- Revenue from billing exceeds costs
- Specialists to provided education to staff and families
- Increased completed referrals to dentists 60% to 66%
- Increased fluoride varnish applications: 34%
- Patients and staff are satisfied with model
Stepped Care Framework

- VERY HIGH
- HIGH RISK
- MODERATE RISK
- LOW RISK
- VERY LOW RISK
Thank You

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