CURRENT STATE OF AFFAIRS IN MEDICAL AND DENTAL INTEGRATION

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Today’s presentation

- Environmental scan
- Focus on diabetes
- Opportunities for medical and dental providers
- Current activities
- Future directions
Objective:
To identify best practices for medical and dental integration in public health activities and to identify opportunities to include oral health in the ongoing climate of health care reform.

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Healthy People 2020

OH-14 Increase proportion of adults who receive chronic disease preventive interventions in dental offices

14.3 Testing/referrals for glycemic control

► 2011-2012 Baseline: 5.7%
► 2020 Target: 7.3%

D-8 Increase proportion of persons with diagnosed diabetes who have at least an annual dental exam

► 2008 Baseline: 55.6%
► 2020 Target: 61.2%
Medical-Dental Integration: Diabetes

- “Patients with undiagnosed or poorly-controlled diabetes may be particularly susceptible to periodontal disease.” (1)
- Questionable improvement in metabolic control in people with diabetes after periodontal therapy (2)(3)
- Some evidence that periodontal therapy can lead to overall health care cost savings

Over one-third of US adults with diabetes are undiagnosed.

From the 2011-2012 NHANES:
- 12% of US adults have diabetes
  - Over one-third undiagnosed
  - Substantial disparities: nearly half of Asian and Hispanic Americans with diabetes are undiagnosed
- 38% of US adults have prediabetes

Current standards of medical care for diabetes

- Periodontal disease is more severe, possibly more prevalent
- Initial care management includes referral to dentist
- Recognition of screening in dental practices with referral to primary care
  - Need for further research
Primary Dental Care

- Screen
- Dental exam & treatment
- Education
- Maintenance

Primary Medical Care

- Diagnose
- Care Management*
- Maintenance

*Refer to medical
*Refer to dental
*Refer & consult prn
*Refer to medical & consult prn

*Lifestyle management
*Pharmacologic therapy
*Obesity management
*Dental hygienist

University of Iowa
Oral Health Environmental Scan

1. Primary data collection
   - Survey state oral health programs, chronic disease programs, and local health programs

2. Literature review
   - Peer-reviewed research
   - State oral health plans
   - Grey literature

3. Key informant interviews
Surveys on Oral Health & Chronic Disease Integration, March 2017

- State & Territorial Oral Health Programs
  - With ASTDD (N=26)
- State & Territorial Chronic Disease Programs
  - With NACDD (N=19)
- Local oral health organizations
  - With AACDP (N=30)
    - 7 Local health departments
    - 7 Local non-profits
    - 11 CHCs
Survey of State Oral Health Programs

N=26

Which of the following activities, performed by dental providers does your state oral health program support?
Survey of Local Oral Health Activities

N=30

Which of the following activities, performed by dental providers does your organization perform?

![Bar chart](chart.png)
Review of State Oral Health Plans

5 of 18 current state plans directly address the topic of diabetes

“Incorporate oral health education, prevention and referral with Diabetes Self-Management Education programs and other chronic disease programs.”

*Idaho Oral Health Action Plan 2015-2010*

“Promote use of risk assessment (periodontal disease, diabetes, tobacco use, etc.) among medical and dental providers.”

*Minnesota Oral Health Plan 2013-2018*

“Reimburse dental professionals for chronic disease prevention activities, including diabetes screening...”

*Strategic Plan for Oral Health in Oregon 2014-2020*
High levels of acceptability of diabetes screenings in dental settings among medical and dental providers

- Majority of dentists (76%) agreed it is important for dentists to perform chairside screening for diabetes\(^{(1)}\)
- Majority of dentists (56-84%) willing to perform finger-stick testing\(^{(1)(2)}\)
- Majority of hygienists (79%) think it is important for dental providers to perform chairside screening for diabetes\(^{(3)}\)
- Majority of physicians (71%) think it is valuable for dentists to screen for diabetes \(^{(4)}\)

High levels of patient acceptability

- Majority of patients (90%) agree that the dental visit is a good place to have blood glucose testing done\(^1\)
- Blood glucose testing in the dental office is\(^2\)
  - A good idea (83%)
  - Easy (86%)
  - Useful (79%)

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Patient health outcomes

- **Lifestyle changes**
  - *49% with at least 1 positive change by 6 months*(1)

- **Reduction in A1C**
  - *In diabetics: reduced 1.5% from baseline*(1)

- **Follow-ups with primary care physician**
  - *55% within 3 months*(2)

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Among integrated activities identified by our literature review, 18 target diabetes. Many also target additional risk factors or chronic diseases.
CDC Domain of Chronic Disease Prevention

- Epidemiology & Surveillance: Track chronic diseases and risk factors, Coordination among data systems
- Environmental Approaches: Promote health and support healthy behaviors, Change social and physical environments, Make healthy choices easier
- Health Care System Interventions: Increase use and quality of clinical and preventive services, Reduce population health disparities
- Community-Clinical Links: Ensure access to resources to prevent and manage chronic diseases, Link existing public health services (e.g., tobacco quitlines) to health care systems
Intervention Settings

- Public health agency: 3
- Community-based organization: 2
- Academic organization: 6
- Medical care system: 13
- Other: 1
Intervention Components

- Campaign: 6
- Public health or medical care system intervention: 10
- Clinical: 13
- Legislation or regulation: 3
- Environmental intervention: 2
- Provider/workforce trainings: 2
- Provision of information: 14
Outcome Measures

- Health effect: 2
- Intermediate outcome: 9
- Provider behavior: 7
- Patient behavior: 14
ElderSmile

*AHRQ Health Care Innovations Exchange*

- Intervention: dental school faculty, staff and school provide dental screenings, along with screenings for hypertension and diabetes.
  - *Referrals to PCPs and dental clinic as indicated*
- Target population: Seniors at community centers
- Implemented: 2010
- Evidence Rating: Suggestive
  - *Post-implementation data on proportion of participants identified as at-risk, proportion of referrals who attended a follow-up appointment*
Diabetes Health Outcomes Program

- Hamilton Health Center, Pennsylvania
- Intervention: coordinated and supportive services
- Target population: uninsured diabetics (N=189)
- Implementation: 2007-2009
- Primary outcome measure: A1c \( \leq 7.0\% \)
Medical-Dental Co-Location

- Diabetes Healthy Outcomes Program
- Marshfield Clinic
  - WI
- Neighborcare Health
  - Seattle, WA
- Kaiser Permanente Northwest – Cedar Hills Dental & Medical Office
  - Beaverton, OR
Economic Costs of Diabetes

- $245 billion in 2012
- 1 in 5 health care dollars
- Accounts for 59% of health care expenditures for population aged 65+

![Annual per capita health care expenditures attributed to diabetes](chart)

Some evidence that dental care reduces overall healthcare costs in high risk populations

- Periodontal treatment reduced net healthcare costs in newly diagnosed diabetics\(^{(1)}\)
- Screening for chronic conditions in dental settings results in cost savings of $14-21 per person within one year\(^{(2)}\)
- Adding periodontal treatment benefit to Medicare could save $64 billion over a 10-year period\(^{(3)}\)

\(^{(1)}\) Nasseh K, et al. Health Econ. 2016. DOI:10.1002/hec.3316
Cigna Oral Health Integration Program

C. MEDICAL INFORMATION AND ELIGIBLE PROCEDURES

By checking the box(es) below, I confirm that based on the terms of my plan, I have one or more of the conditions listed and am eligible for this additional dental coverage. I understand that filling out and mailing this form does not guarantee payment and that plan maximums may apply.

- [ ] Cardiovascular
- [ ] Cerebrovascular (Stroke)
- [ ] Diabetes
- [ ] Chronic Kidney Disease
- [ ] Organ Transplants
- [ ] Head and Neck Cancer Radiation
- [ ] Maternity (please list due date):

ELIGIBLE PROCEDURES

**Cardiovascular, Cerebrovascular (Stroke) and Diabetes:**
- D4341 - Periodontal Scaling and Root Planing - 4 or more teeth per quadrant
- D4342 - Periodontal Scaling and Root Planing - 1-3 teeth per quadrant
- D4910 - Periodontal Maintenance*

**Chronic Kidney Disease, Organ Transplants and Head and Neck Cancer Radiation:**
- D1206 - Topical Application of Fluoride Varnish***
- D1208 - Topical Application of Fluoride - Excluding Varnish
- D1351 - Sealant - One Tooth***
- D1353 - Sealant Repair - per tooth**
- D4341 - Periodontal Scaling and Root Planing - 4 or more teeth per quadrant
- D4342 - Periodontal Scaling and Root Planing - 1-3 teeth per quadrant
- D4910 - Periodontal Maintenance*

**Maternity:**
- D0120 - Periodic Oral Evaluation**
- D0140 - Limited Oral Evaluation**
- D0150 - Comprehensive Oral Evaluation**
- D0180 - Periodontal Evaluation
- D1110 - Prophylaxis - Adult (Cleaning)**
- D4910 - Periodontal Maintenance*
- D4341 - Periodontal Scaling and Root Planing - 4 or more teeth per quadrant
- D4342 - Periodontal Scaling and Root Planing - 1-3 teeth per quadrant
- D9110 - Palliative Treatment
Aetna’s Medical-Dental Integration Program

- Targets members with diabetes, CVD, or pregnancy
- Enhanced dental benefits
- Medical costs lowered by 17%
- Diabetes control improved by 45%
- Fewer hospital admissions
- Reduced pre-term deliveries
Challenges

- Time during medical and dental visits
- Education
- Need for evidence-based and professional guidelines
- Payment structure
  - *CDT 2018 will include a code for diabetes screening*
CDC Domains of Chronic Disease Prevention

- **Epidemiology & Surveillance**
  - Track chronic diseases and risk factors
  - Coordination among data systems

- **Environmental Approaches**
  - Promote health and support healthy behaviors
  - Change social and physical environments
  - Make healthy choices easier

- **Health Care System Interventions**
  - Increase use and quality of clinical and preventive services
  - Reduce population health disparities

- **Community-Clinical Links**
  - Ensure access to resources to prevent and manage chronic diseases
  - Link existing public health services (e.g., tobacco quitlines) to health care systems