DENTAL THERAPY
AND THE ECONOMIC, SOCIAL AND POLITICAL TRENDS IN ORAL HEALTH PRACTICE

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EVEN MOTHER NATURE LOVES THE MAROON AND GOLD!
Dental Health: The most frequent unmet health need in children

Any Unmet Health Need: 7.3%
Unmet Dental Care Need: 5.3%
Unmet Medical Care Need: 1.6%
Unmet Eyeglasses Need: 1.2%
Unmet Medication Need: 1.1%
Figure 4: Historical and Projected U.S. Dentists per 100,000 Population, by Age Group, Baseline Scenario

Source: ADA Health Policy Institute analysis of ADA masterfile; U.S. Census Bureau, Intercensal Estimates and National Population Projections. Notes: Data for 2003, 2008, and 2013 are based on the ADA masterfile. Results after 2013 are projected. Assumes (a.) U.S. total annual dental school graduates will increase linearly to 2018 and then remain flat (b.) future outflow rates are same as 2008-2013 historical percentages.
Figure 2: Reasons for Not Obtaining Needed Dental Care

- Could not afford the cost: 11.5% (12.7%)
- Insurance did not cover procedures: 2.7% (3.4%)
- Afraid or do not like dentists: 1.0% (1.8%)
- Did not want to spend the money: 1.0% (2.2%)
- Too busy: 0.7% (1.6%)
- Unable to take time off: 0.7% (1.1%)
- Office not open at convenient time: 0.4% (0.9%)
- Expected problem to go away: 0.3% (0.6%)
- Dental office is too far away: 0.3% (0.9%)
- Another dentist recommended not doing: 0.0% (0.1%)
- Other: 1.0% (2.0%)
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.
Graph A
Dentists Practicing in Minnesota by Age Group & Gender 2009-2010

- Female:
  - under 35 years: 50%
  - 35 to 44: 41%
  - 45 to 54: 29%
  - 55 to 64: 9%
  - 65 and older: 2%

- Male:
  - under 35 years: 50%
  - 35 to 44: 59%
  - 45 to 54: 71%
  - 55 to 64: 91%
  - 65 and older: 98%
Median age of active Minnesota dentists
UP TILL NOW!
THE FUTURE
DENTAL SPENDING WILL EXCEED ECONOMIC GROWTH 2015-2025!

Figure 1: Annual Growth Rates for Gross Domestic Product, National Health Expenditures, and Dental Expenditures, 2000-2023

Source: Centers for Medicare & Medicaid Services. Note: Numbers for 2013-23 are projections.
AND, WHATEVER THE ADA TELLS YOU, THE WORKFORCE CAN’T COVER IT, HRSA REPORTS MODERATE TO SEVERE SHORTAGE OF DDS IN 2050

Dental First Year Enrollment and Graduates

Source: American Dental Association, Survey of Dental Education, projection by E Solomon
Graph E
Practicing Dentists by Primary Work Setting
Minnesota, 2009-2010

- Large Group Practice
  5+ dentists
- Small Group Practice
  2-4 dentists
- Solo Private Practice
- Higher Education
- School or Community Clinic
- Other

44%
37%
9%
4%
4%
2%
Graph D
Median Age of Dentists by Rural-Urban Commuting Areas, Minnesota 2009-2010

- Urban (n=2391): 53
- Large Rural (n=371): 55
- Small Rural (n=189): 57
- Isolated Rural (n=146): 59
- Statewide (n=3249): 54
DENTAL EXPENSES AS % GDP
REAL PER CAPITA DENTAL EXPENDITURES
PERIODONTAL DISEASE ASSOCIATED WITH SYSTEMIC DISEASES

- Premature low birth weight babies
- Myocardial Infarction
- Senile dementia
- Stroke
COMPLICATIONS OF PRE-TERM BIRTH

- Complex cluster of problems, including death
  - Acute respiratory, gastrointestinal, immunologic, central nervous system, hearing and vision problems
  - Motor, cognitive, visual, hearing, behavioral, social-emotional, health and growth problems

- Societal costs: $26.5 billion/year; $51,600/child
  - Medical care, maternal delivery costs, early intervention services (emotional, physical, developmental, speech/language)
Findings:

Dentate nuns with dental restorations (including amalgam fillings/silver/mercury) had the highest cognition.
DENTAL VISITS BY POVERTY LEVEL

- < 100% FPL: 46.1% (1997), 43.7% (2000), 47.0% (2003), 65.8% (2007), 79.2% (2010)
- 100-199% FPL: 50.1% (1997), 38.7% (2000), 44.2% (2003), 60.7% (2007), 77.0% (2010)
- 200-399% FPL: 50.1% (1997), 47.0% (2000), 60.2% (2003), 60.2% (2007), 77.8% (2010)
- 400%+ FPL: 79.2% (1997), 77.0% (2000), 77.8% (2003), 77.8% (2007), 77.8% (2010)
ROOT CARIES INCIDENCE IN 65+

- Findings of a systematic review of 9 studies on root caries in older adults:
  - Overall root caries incidence = 23.7% per year
  - Overall root caries increment = 0.47 surfaces/year
  - Root + coronal increment = 1.31 surfaces/year
  - Overall caries rates comparable to children!

(Source: Griffin et. al., JDR 2004;83:634-38)
CATHERINE SAINT LOUIS, NEW YORK TIMES

- author of “In Nursing Homes, an Epidemic of Poor Dental Hygiene,” cites studies in several states that show the enormity of the problem.

- In Wisconsin, 31 percent of residents of 24 facilities had teeth broken down to the gums, with visible roots.
  • What is oral health?
  • What is the status of oral health in America?
  • What is the relationship between oral health and general health and well being?
  • How is oral health promoted and maintained and how are oral diseases prevented?
  • What are the needs and opportunities to improve oral health?
WHAT IS ORAL HEALTH?

• Optimal contribution of the structure and function of the oral cavity to the well being of the patient
WHAT IS THE STATUS OF ORAL HEALTH IN AMERICA? DAVID SATCHER MD

- a “silent epidemic” of dental and oral diseases is affecting some population groups. This burden of disease restricts activities in school, work, and home, and often significantly diminishes the quality of life. Those who suffer the worst oral health are found among the poor of all ages, with poor children and poor older Americans particularly vulnerable. Members of racial and ethnic minority groups also experience a disproportionate level of oral health problems. Individuals who are medically compromised or who have disabilities are at greater risk for oral diseases, and, in turn, oral diseases further jeopardize their health.
WHAT IS THE RELATIONSHIP BETWEEN ORAL HEALTH AND GENERAL HEALTH AND WELL BEING?

• Functional Aspects of the oral cavity
  • Gastrointestinal
    • Mastication, Deglutition, Digestion, Swallowing
  • Speech
  • Psychosocial/Sexual/Gender
    • Facial expression, appearance, visual communication
  • Airway/ventilation
    • Sleep medicine, athletic performance
  • Neurologic
    • Taste, somatosensory
SOME EVIDENCE REGARDING ORAL HEALTH AND GENERAL HEALTH

- Poor oral health is evident in (and empirically/mechanistically linked to)
  - Premature low birth weight babies in pregnant women with poor oral health
  - Myocardial infarction
  - Movement disorders in elderly
  - Stroke
  - GERD
  - Nutritional deficiencies in children and elderly
CARIES, AN INFECTIOUS DISEASE

• 70-90% of children by the second grade
• Over 1 million lost school days each year due to odontalgia
• Developing pain behavior/subsequent drug use?
• The MOST common unmet health need
Caries and head and neck infection

- Catastrophic potential
  - Airway obstruction
  - Sepsis
  - Necrotizing fasciitis
  - Cavernous sinus thrombosis
DENTAL THERAPY

- A new more robust dental team member
- A cost effective means to treat dental diseases
- Addresses needs of children, elderly, special needs, and economically disadvantaged
DENTAL THERAPIST

A mid-level dental practitioner who works under the supervision of a licensed dentist. A member of the oral health care team who is educated to provide evaluative, preventive, restorative, and minor surgical dental care within their scope of practice.
CAN/WILL DENTAL THERAPY MAKE A HEALTHIER SOCIETY AT LOWER COST AND WITH A BETTER PATIENT EXPERIENCE?
TODAYS MINNESOTA DDS/DT TEAM IN ACTION

- Private practice
- Public health
- Rural/urban
- FQHC
- Hennepin County Medical Center
- Native American health center
- Elder care
- Pediatric dental services
NEED FOR DENTAL THERAPY
DT – MN LEGISLATION

- In May 2009, MN became first state in the country to authorize the practice of DT
- DTs work under the supervision of a MN licensed dentist
- DTs are limited in where they can practice
• DTs are complementary to Dentists

• DTs provide care under a Dentists supervision

• DTs work under a written collaborative management agreement with a MN licensed dentist
SCOPE OF PRACTICE

- Basic preventive services
- Palliative procedures
- Limited restorative procedures
- Extractions of primary teeth
PRACTICE SETTINGS

• Minnesota dental therapists are limited to primarily practicing in:
  • settings that serve low-income, uninsured, and underserved patients;
  or
  • a dental health professional shortage area
U OF M MASTER OF DENTAL THERAPY PROGRAM (MDT)

- U of M program graduates are eligible for Dental Therapy licensure and certification in Advanced Dental Therapy

* ADT certification eligibility begins in 2015
LEARNING TOGETHER → TO WORK TOGETHER

Pre-clinical education
Early Impacts of Dental Therapists in Minnesota

Minnesota Department of Health
Minnesota Board of Dentistry
Report to the Minnesota Legislature 2014

February 2014
DENTAL THERAPISTS IN ACTION

- Current employer types* include:
  - Non-Profit Community Clinics (12)
  - Private Practices (10)
  - Federally Qualified Healthcare Centers (8)
  - Others (Large Groups/Educational) (5)
  - Hospital Owned Clinics (2)

*Est as of July 2014
Dental Therapy Employment Sites by County

19 different counties!

(July 2014)
DENTAL THERAPISTS IN ACTION

Current Practice Locations*
(All DT Grads)

- Metro: 74% (DDS), 49% (DT)
- Greater MN: 51% (DT), 26% (DDS)
HENNEPIN COUNTY MEDICAL CENTER

- Metro area; Level one adult and pediatric hospital
- DT primarily sees kids and pregnant women. (2 DTs)

"At [HCMC], the dental therapist has a chair in the Obstetrics department and treats pregnant women who would have been sent to the emergency room for care."
CHILDREN’S DENTAL SERVICES

- Non-profit; Employs 5 DT/ADTs
- Fixed & school-based services
- “The best aspect of working with dental therapists is that we have an additional, highly skilled provider to care for patients at a reduced overall expense.” – Sarah Wovcha, ED
ORGANIZED DENTISTRY’S OPPOSITION TO DENTAL THERAPY

• Is dental therapy good for dentists? YES!
  • Higher job satisfaction
  • Higher income
  • Total retention of DT in practices that have dental therapists.
MN Collaborative Rural Oral Health Project

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Factors and Issues that Led to Formation of Taskforce

- Many new grads/new dentists end up practicing in different state/region than their dental school.
DENTAL THERAPY IN MINNESOTA RESOURCES

- **Dental Therapy Employer Guide:**
  

- **Minnesota Board of Dentistry:**
  

- **University of Minnesota School of Dentistry:**
  

- **Metropolitan State University:**
  
ONE DEAN’S RECOMMENDATIONS FOR FEDERAL LEGISLATION

• Outcomes (not procedure) based payment system for dentistry
• Include dentistry in workforce projects in a meaningful way in the ACA
  • INCLUDING DENTAL THERAPY
• Add dentistry to Medicare
• Support inter-professional education and collaborative practice initiatives
  • INCLUDING DENTAL THERAPY
• Address oral health workforce issues to include building the oral health team with care that can achieve THE TRIPLE AIM
  • Highest quality at the lowest cost and with the best patient experience
  • INCLUDING DENTAL THERAPY
• The dentist must lead the MOST ROBUST oral health care delivery team
  • INCLUDING DENTAL THERAPY