

12th Annual Fall Conference

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Professor and Director,
Community Based Education and Practice
University of California San Francisco



Improving general health through oral health
for all Oregonians

The Future of Dental Education and Practice: Vision 2030

A Relevant, Sustainable Construct

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Professor and Director,

Community Based Education and Practice

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November 17, 2017

Oregon Oral Health Coalition Symposium

I have no disclosures and I am not speaking for any organization



Future focus

- **“the future is here, it just isn’t evenly distributed”**
- **“If you are the same educator or oral health professional you were 10 years ago, then you have wasted 10 years”**



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MARCH 17-20 | ORLANDO

Vision 2030:

Sustainable, relevant ,dental education and practice

- This presentation will focus on the emerging changes in health care, health science education, society, and economics that will influence dental education and practice in 2030. Trends to discuss will include interprofessional education and collaborative practice models, emerging workforce models including dental therapy, integrating oral health systems into health systems, medically necessary dental care, and value based approaches to oral health care including value based payment, education, incentives and public expectation

Oral health today



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- Surgeon General's Report on Oral Health, 2000
 - 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?

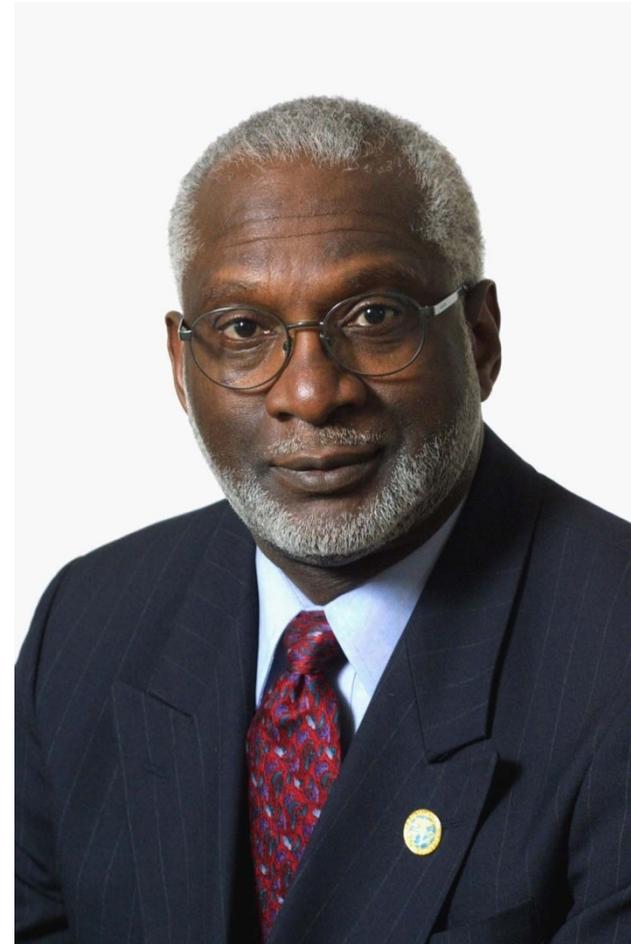
What is oral health?

- Oral health is the 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

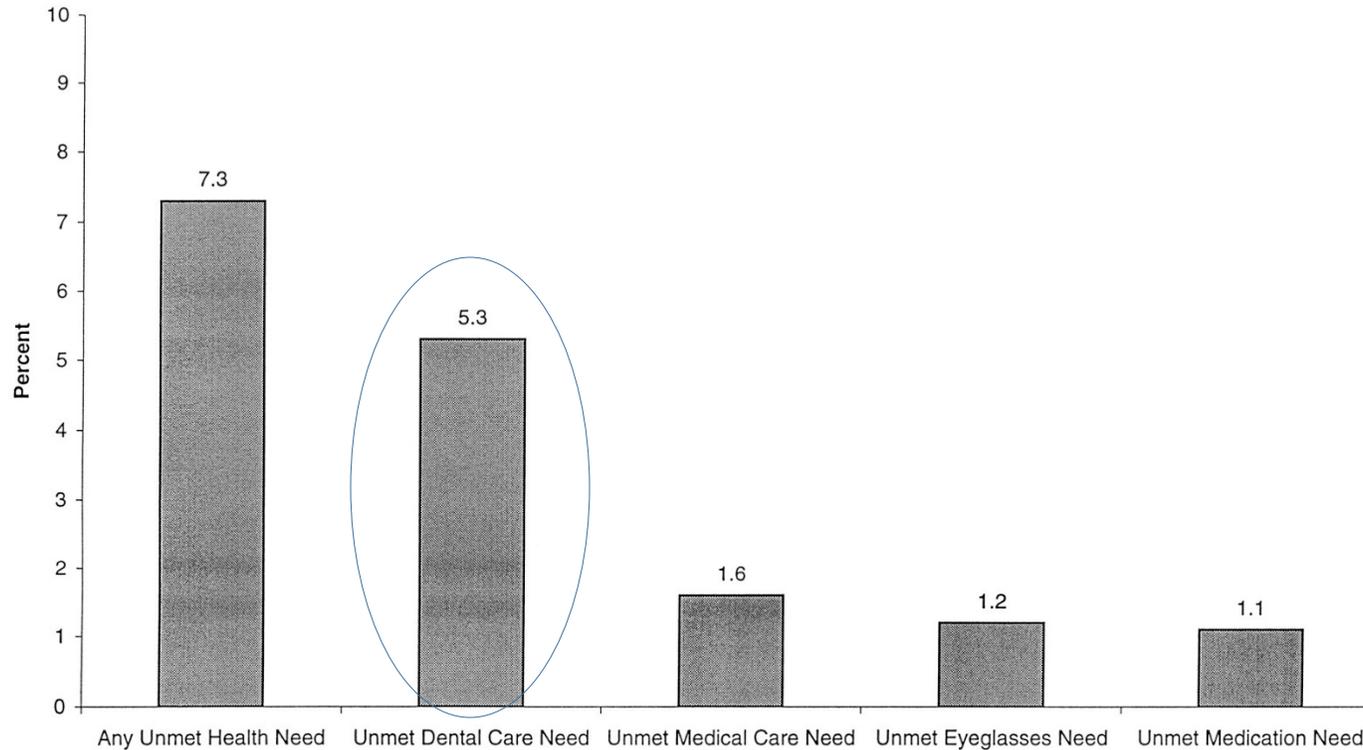
- a “silent epidemic” of dental and oral diseases is affecting some population groups. This burden of disease restricts activities in school, work, and home, and often significantly diminishes the quality of life. Those who suffer the worst oral health are found among the poor of all ages, with poor 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.



The real status of oral health today

- The hidden epidemic is no longer hidden
- Societal changes in body image and ability to tolerate destructive disease
- Health disparities heightening
- The oral systemic link is real
- Persistent disease and declining demand for oral health services
- The now visible burden of untreated oral diseases

Dental Health: The most frequent unmet health need in children



Newacheck, P. W. et al. Pediatrics 2000;105:989-997

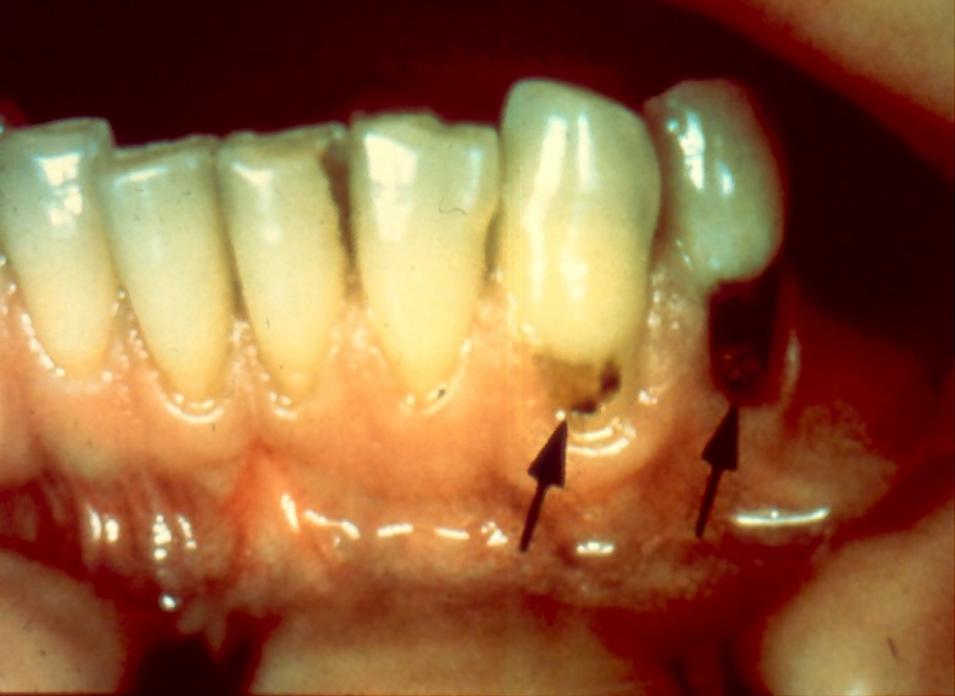
Caries: An infectious disease

- 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



Changing face of caries

- 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
 - Caries rates in dentate elderly now exceed that in commercially insured children



Provided by
Steve Shuman DDS

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



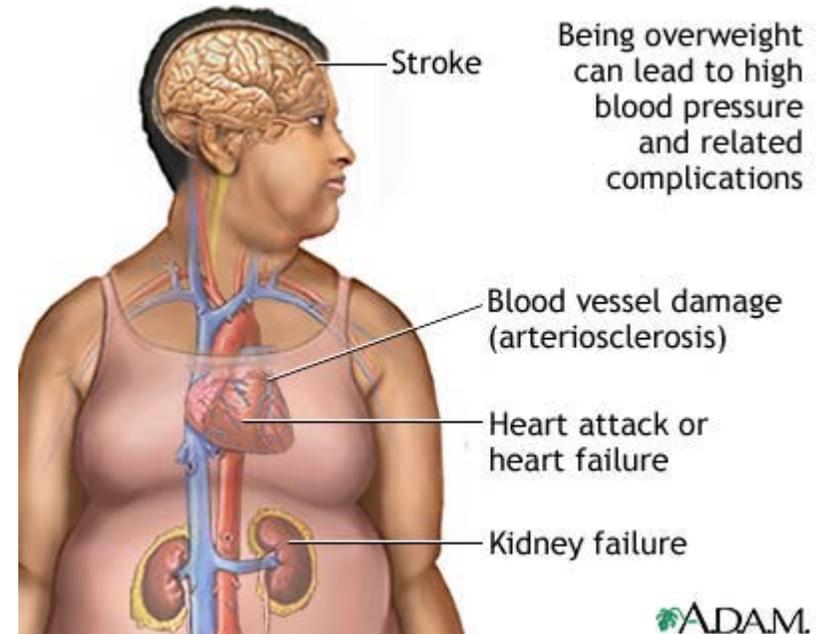
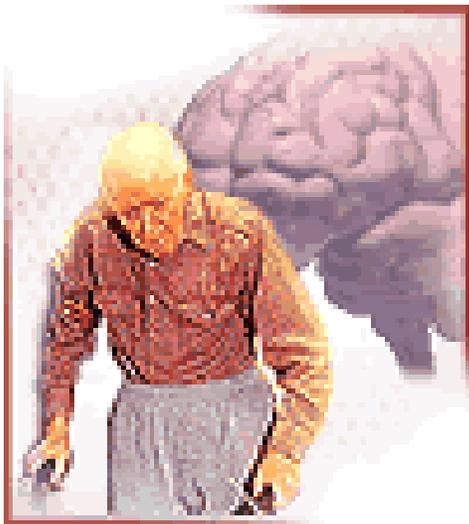
Caries and head and neck infection

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

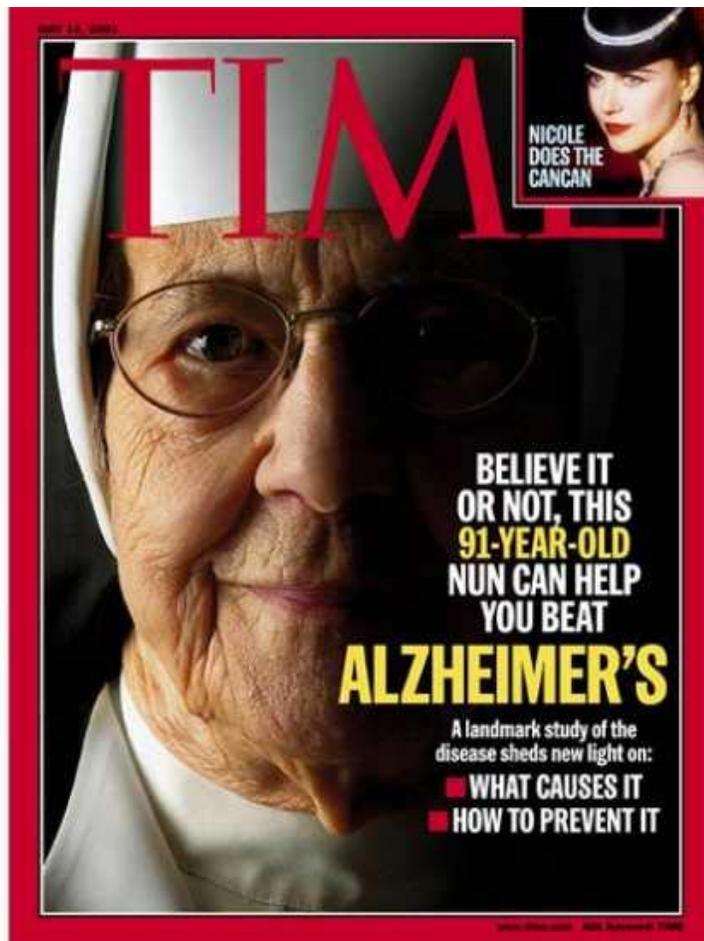


Oral health matters

- Premature low birth weight babies
- Myocardial Infarction
- Senile dementia
- Stroke
- Nutrition
- GERD



Stan Sachs: The Nun's Study



Findings:

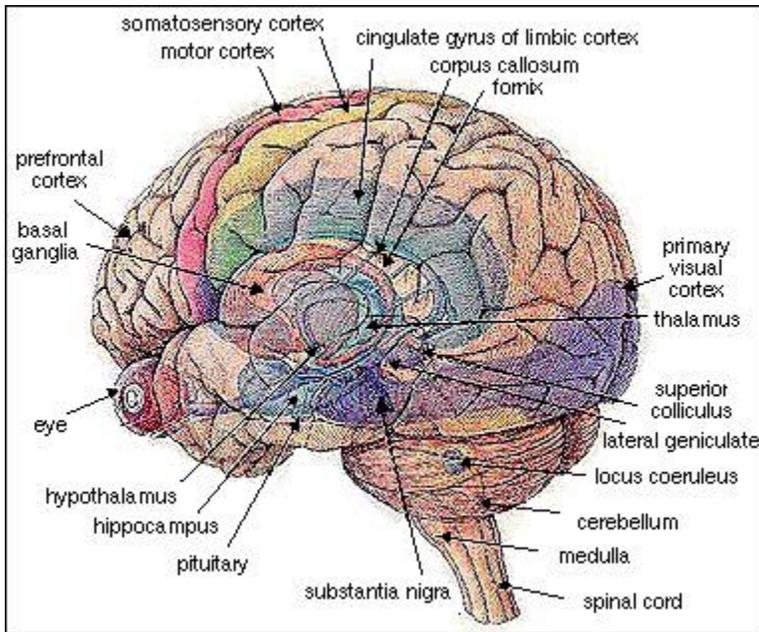
Dentate nuns with dental restorations (including amalgam fillings/silver/mercury) had the highest cognition.

Functional aspects of the oral cavity

- Gastrointestinal
 - Mastication, deglutition, digestion, swallowing
- Speech
- Airway/ventilation
 - Sleep, athletic performance
- Psychosocial/sexual/gender
 - Facial expression, appearance, visual communication
- Neurologic
 - Taste, somatosensory

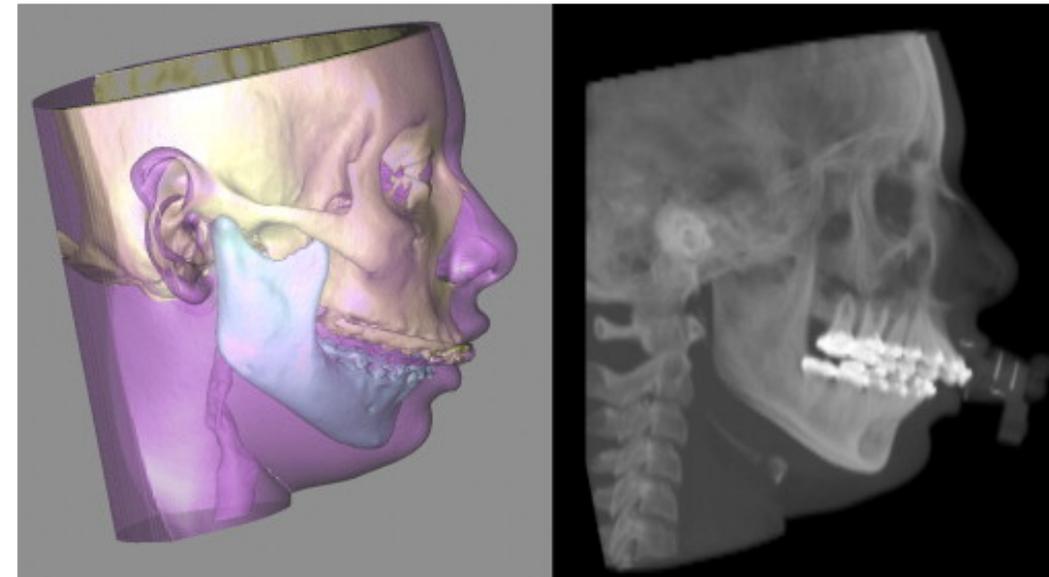
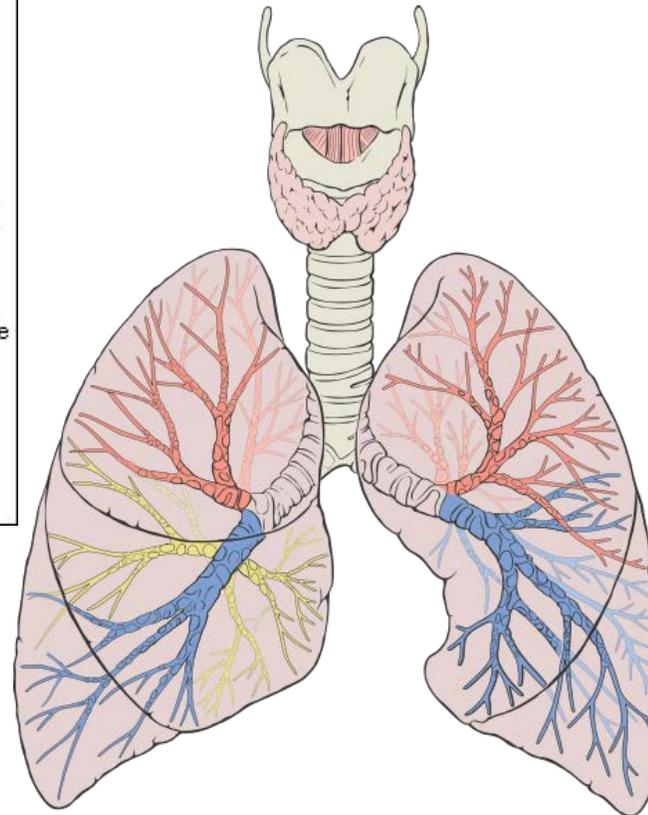
Sleep Apnea

- CNS mediated



- Airway Obstructive

Dental facial analysis



Some Famous deaths complicated by oral diseases

- Pharaoh Ramses 1: jaw abscess
- Sigmund Freud: Oral Cancer
- Jean Harlow: wisdom tooth infection
- US Grant: infected tumor

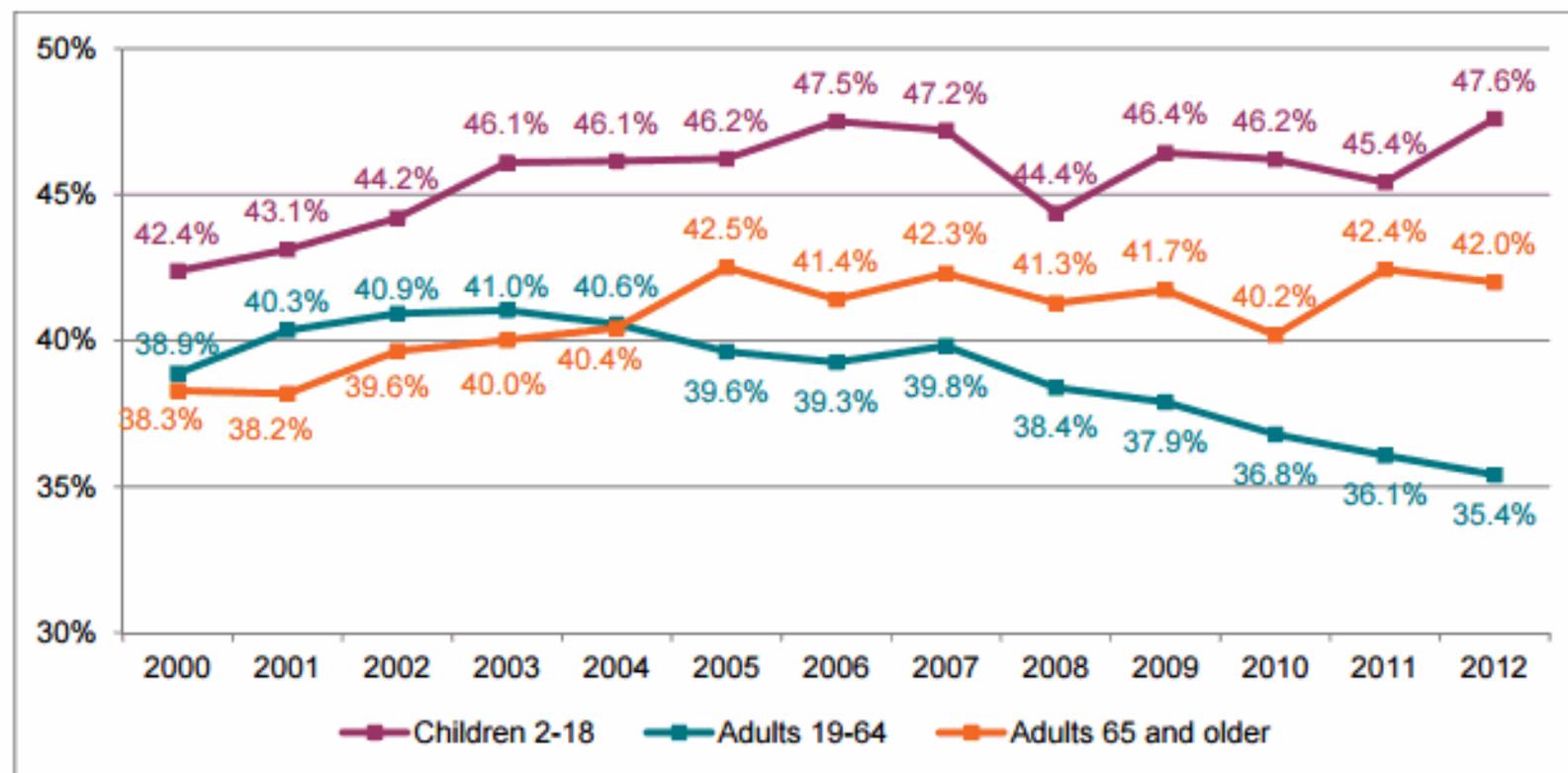


DENTAL PRACTICE TODAY



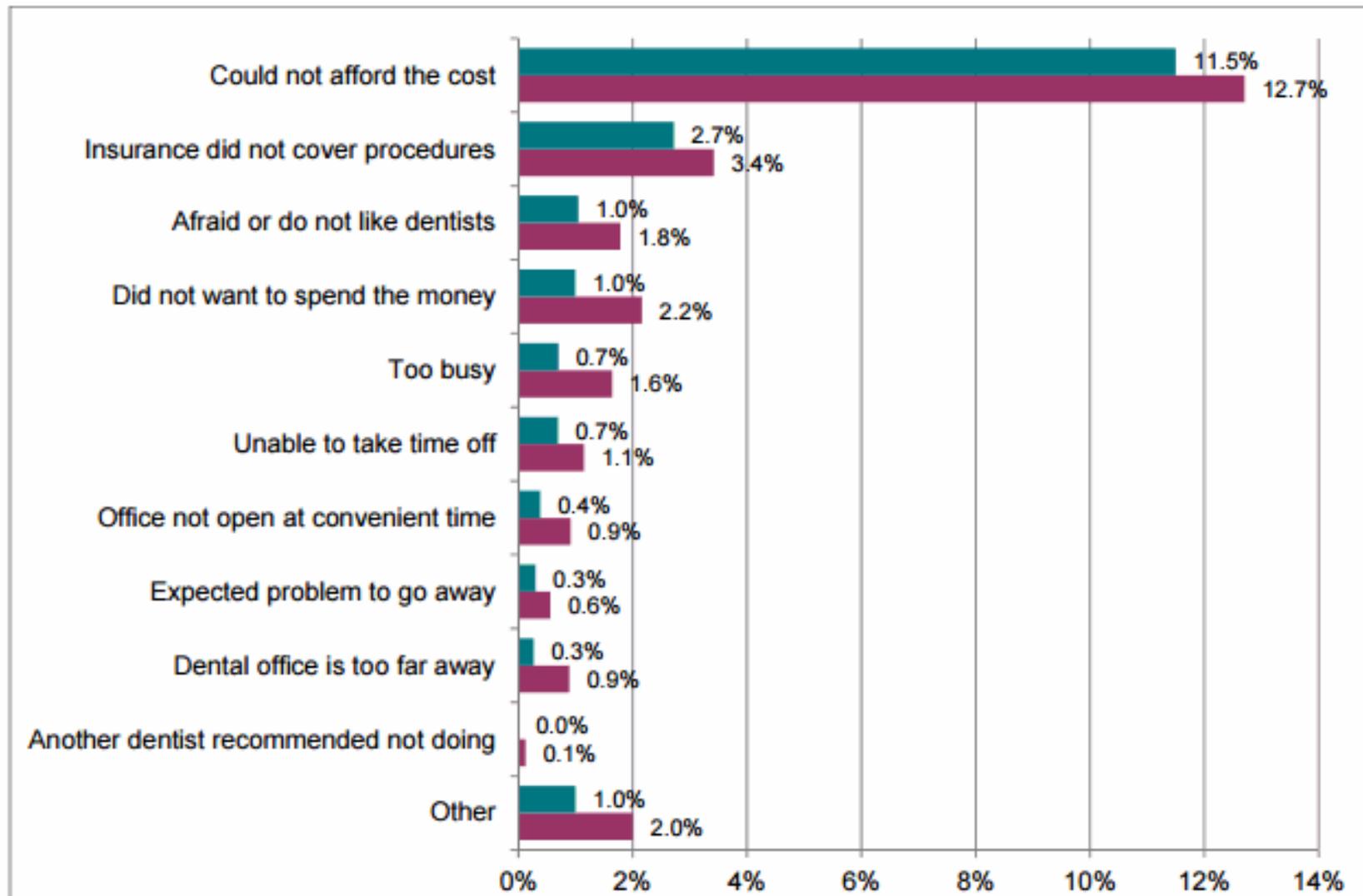
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Figure 1: Percentage of the Population with a Dental Visit in the Year, 2000-2012

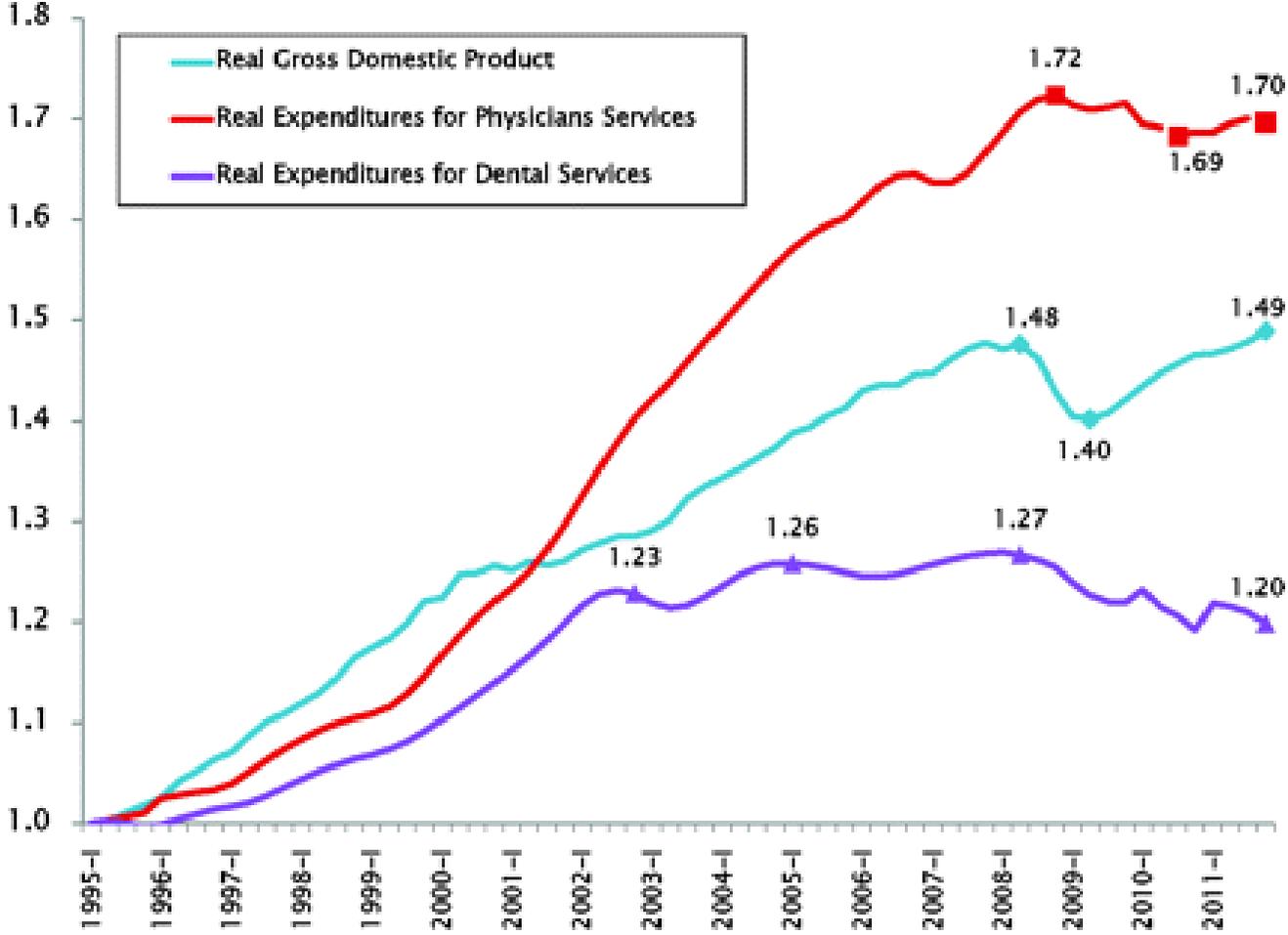


Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** For children ages 2-18, changes were statistically significant at the 1% level (2000-2012) and at the 10% level (2011-2012). Among adults ages 19-64, changes were statistically significant at the 1% level (2003-2011). For adults 65 and older, 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.

Figure 2: Reasons for Not Obtaining Needed Dental Care



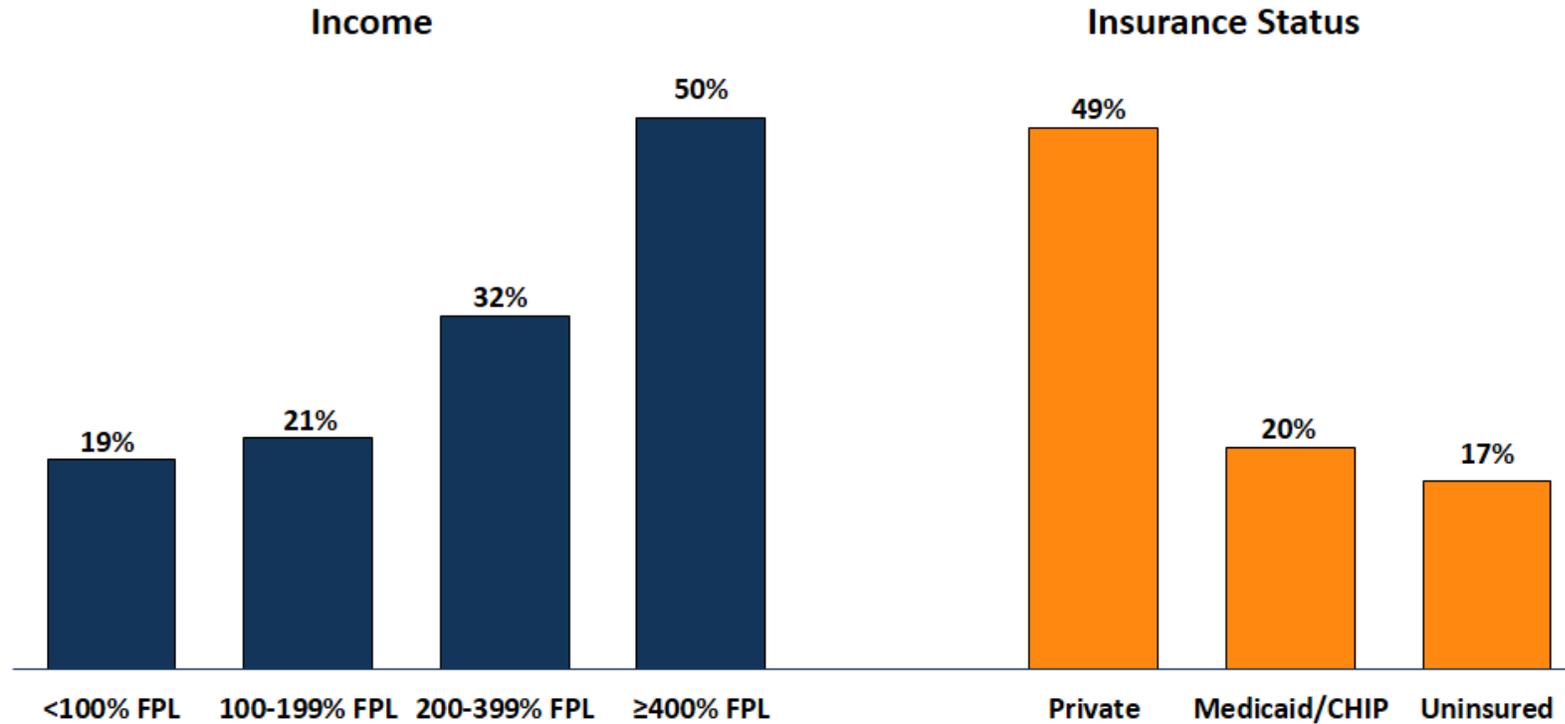
Dental spending is an outlier on the down side



Source: BEA, National Income and Product Accounts

Figure 3

Percentage of Nonelderly Adults with a Dental Visit in the Past Year, by Income and Insurance Status, 2013



NOTES: Adults age 19-64. "Private" includes those with private dental benefits. Some state Medicaid programs provide limited or no dental benefits for adults. "Uninsured" includes those without private dental benefits or Medicaid coverage. Uninsured also includes people who have only Medicare, which provides no dental benefits.

SOURCE: ADA Health Policy Institute analysis of Medical Expenditure Panel Survey. Nasseh and Vujicic, *Dental Care Utilization Rate Continues to Increase among Children, Holds Steady among Working-Age Adults and the Elderly*, HPI, October 2015.

DENTAL EDUCATION TODAY

VISION
2030

The logo for 'VISION 2030' features the word 'VISION' in a simple, purple, sans-serif font. Below it, the numbers '2030' are rendered in a large, bold, multi-colored font with a vibrant, abstract pattern of purple, blue, green, and yellow. A decorative purple swirl graphic is positioned behind the numbers, looping around the '0's.

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VISION 2030

The logo for 'VISION 2030' features the word 'VISION' in a simple, purple, sans-serif font at the top. Below it, the year '2030' is rendered in a large, bold, sans-serif font. The numbers '2030' are filled with a vibrant, multi-colored pattern of abstract shapes and lines in shades of purple, blue, green, and yellow. A decorative element of thin, purple, swirling lines loops around the top of the '2030' numbers, connecting them to the 'VISION' text above.

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Domains of Change

- Technology
- Pedagogy
- Society/ professional identity
- Economics/globalism
- Environment



The new pedagogy



eLearning Industry
The Augmented Future Of eLearning: Augmented Reality In eLearning ...
The Augmented Future Of eLearning: Augmented Reality In eLearning

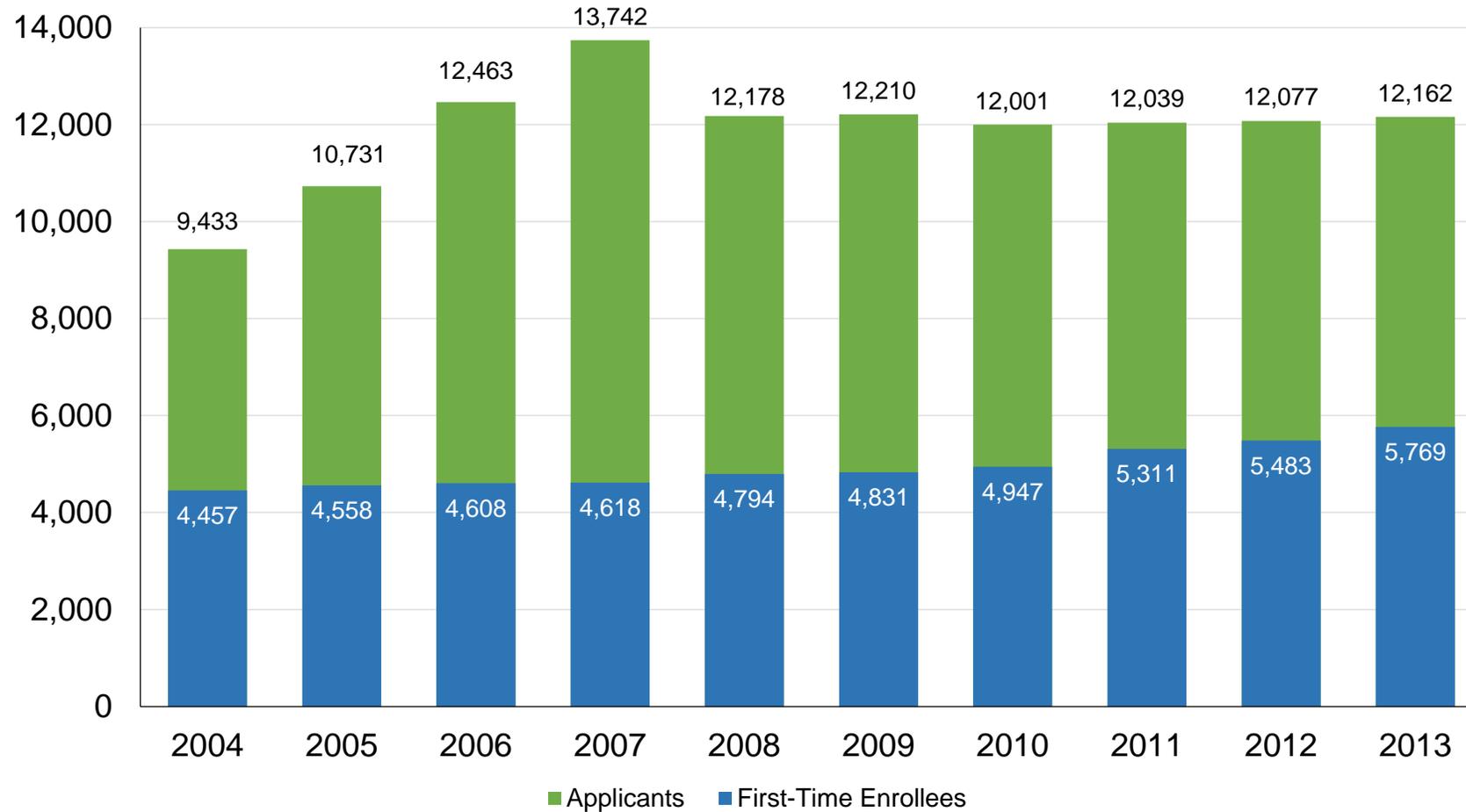


The World is flat

- Understanding the impact of globalization and the diminution of educational privilege

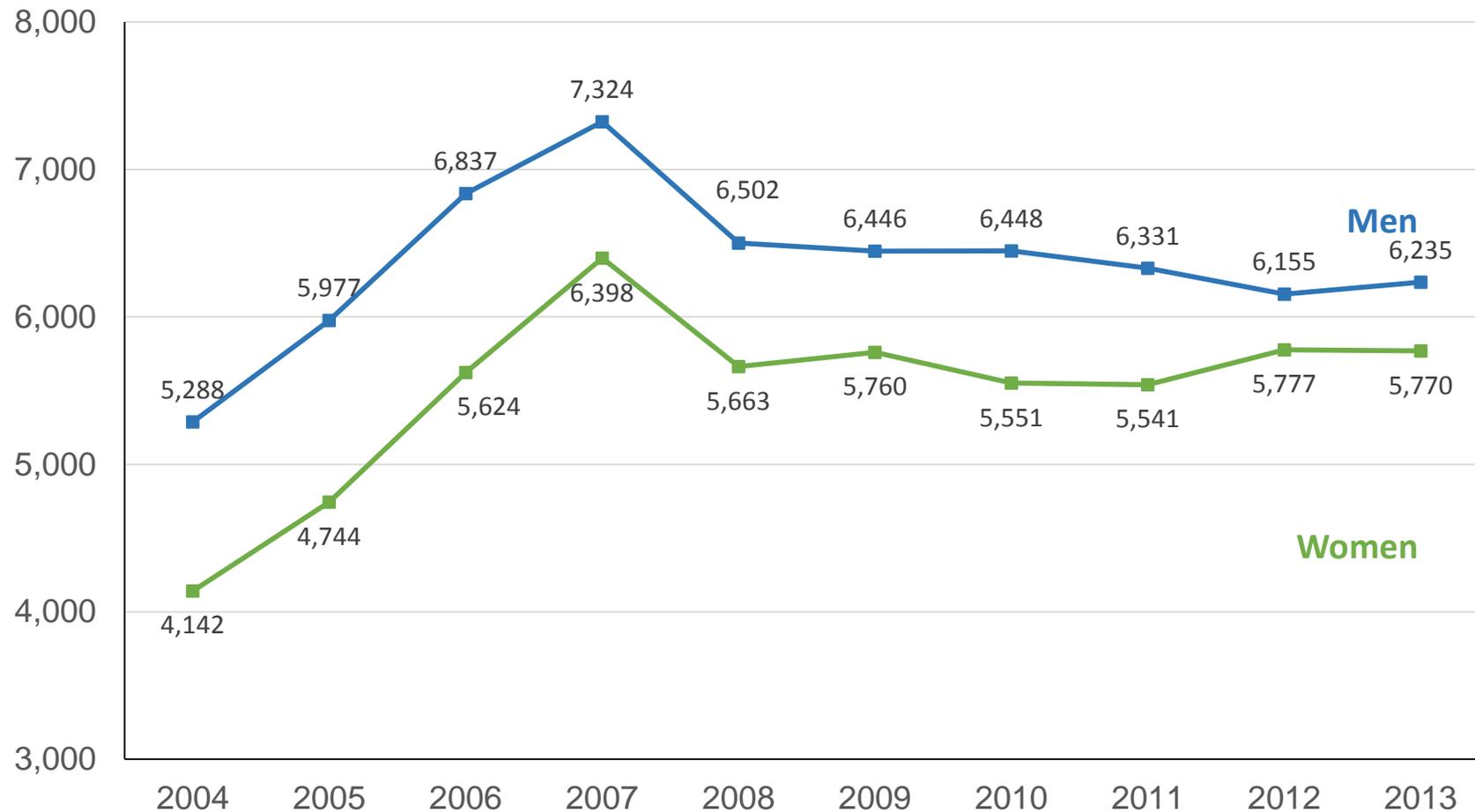


Dental School Applicants and First-Time Enrollees, 2004-2013



Source: American Dental Education Association, U.S. Dental School Applicants and Enrollees, 2004-2013

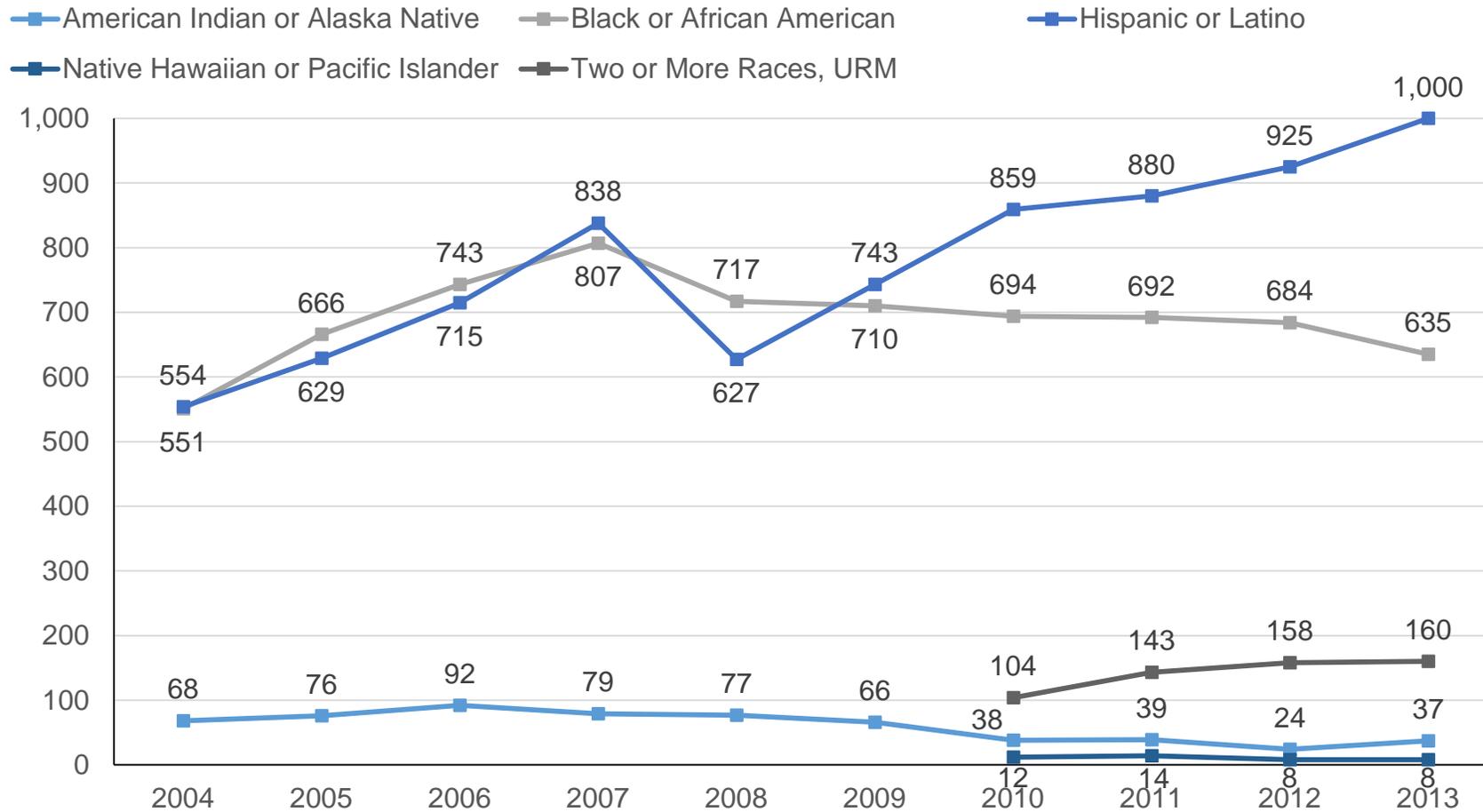
Dental School Applicants by Gender, 2004-2013



Source: American Dental Education Association, U.S. Dental School Applicants and Enrollees, 2004-2013

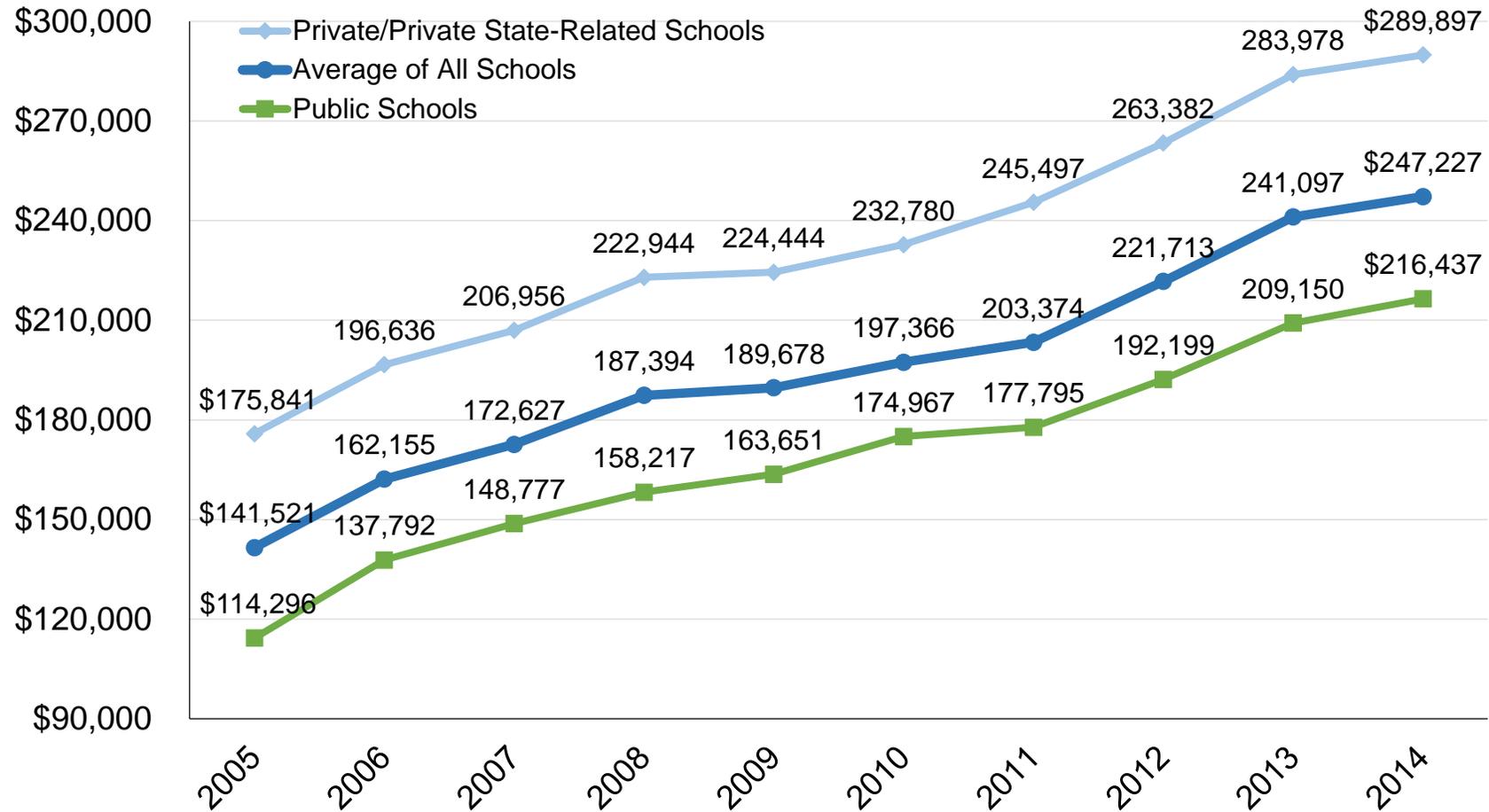
Note: For multiple years, gender is not reported for those who chose "Do not wish to report" and thus the combined total will be less than what is reported for total applicants and enrollees.

URM Applicants by Race and Ethnicity in U.S. Dental Schools, 2004-2013



Source: American Dental Education Association, U.S. Dental School Applicants and Enrollees, 2004-2013

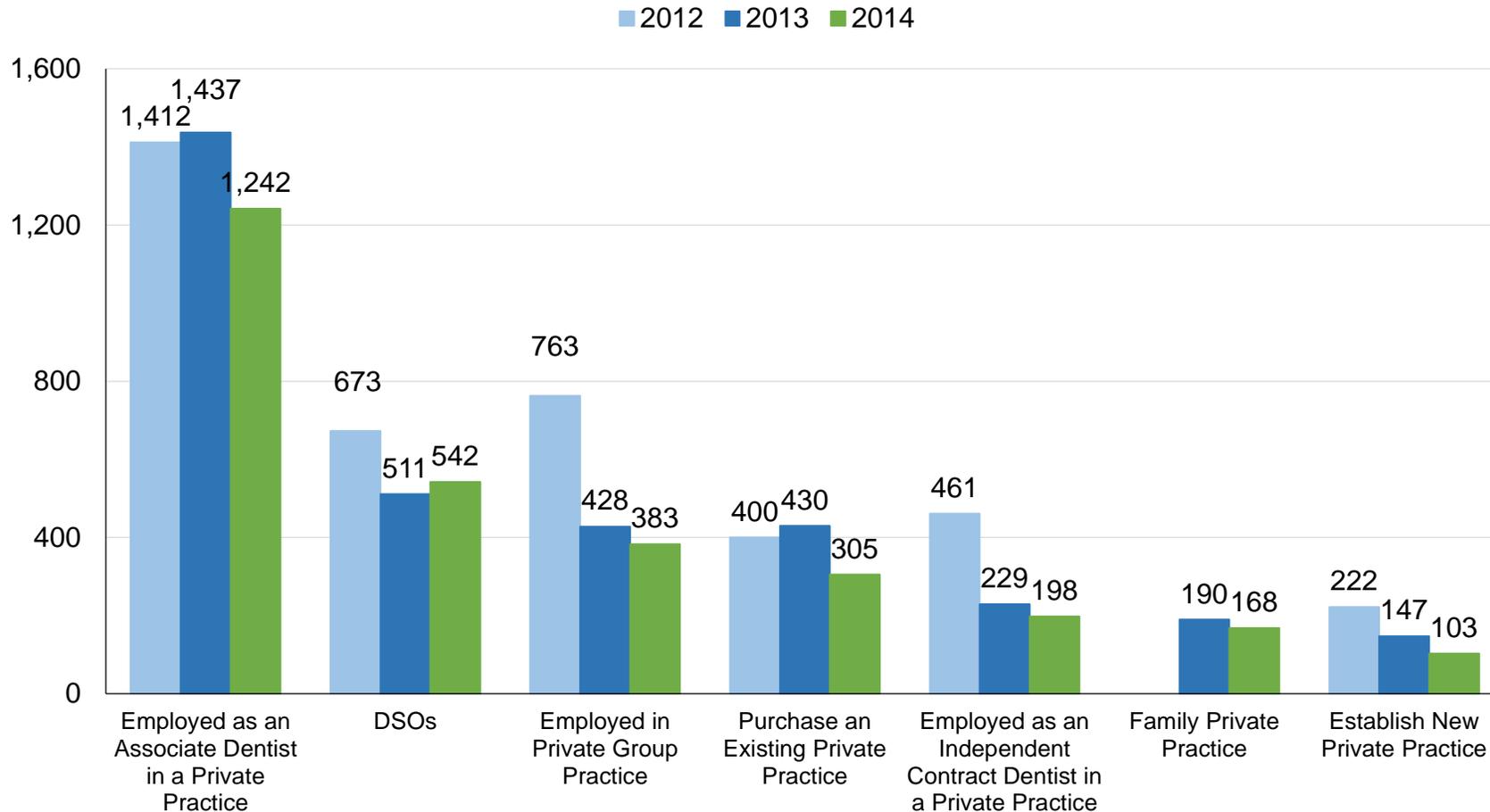
Average Educational Debt Among Graduating Students with Debt by Type of School, 2005-2014 (Current Dollars)



Source: American Dental Education Association, Survey of Dental School Seniors, 2013 Graduating Class

Note: Educational debt is the sum of undergraduate and dental school debt of only those respondents who have debt.

Dental School Seniors' Intended Type of Private Practice, 2012 through 2014

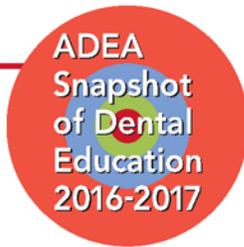


Source: American Dental Education Association, Survey of Dental School Seniors, 2014 Graduating Class

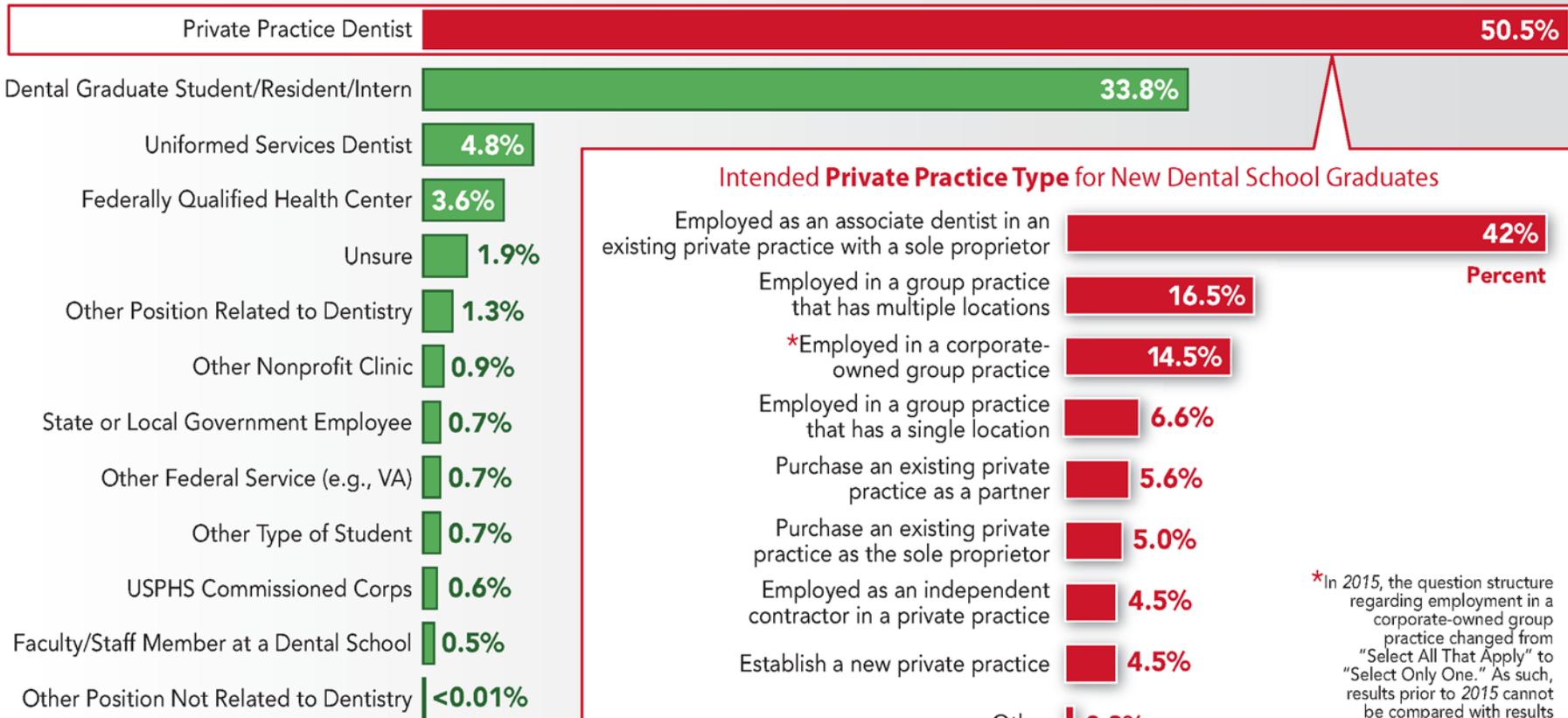
Note: Family Private Practice was not asked in 2012.

Where Do They Go From Here?

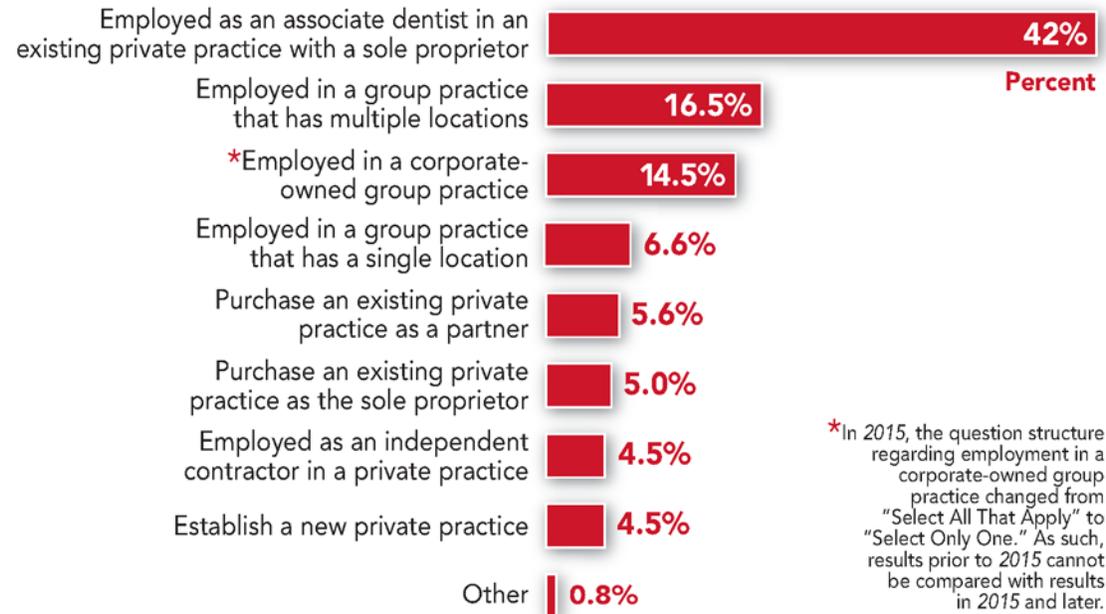
Intended professional activities and practice options, 2016 dental school graduating class



Intended **Primary Professional Activity** for New Dental School Graduates



Intended **Private Practice Type** for New Dental School Graduates

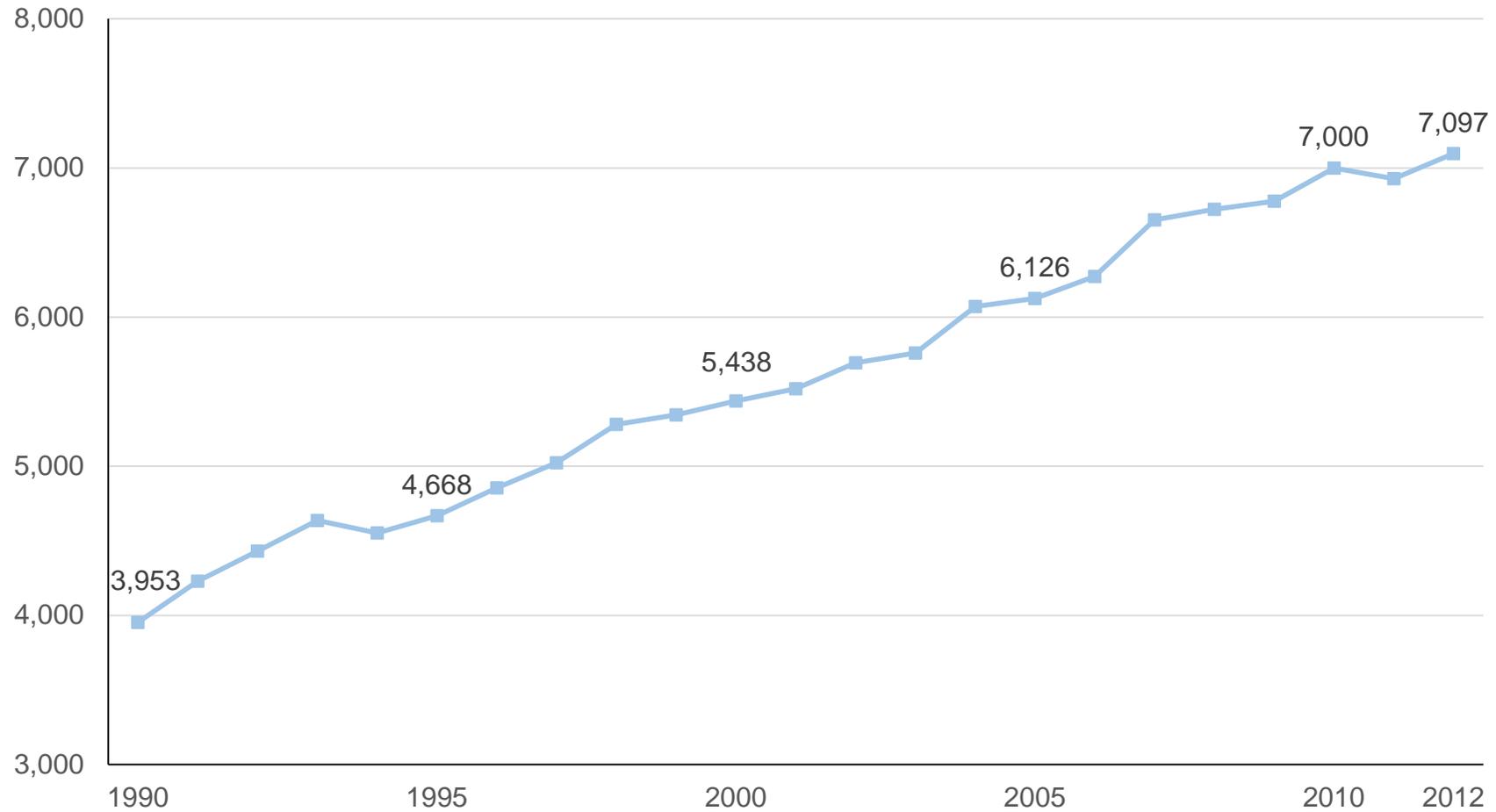


*In 2015, the question structure regarding employment in a corporate-owned group practice changed from "Select All That Apply" to "Select Only One." As such, results prior to 2015 cannot be compared with results in 2015 and later.

Note: Percentages may not add up to 100% due to rounding.

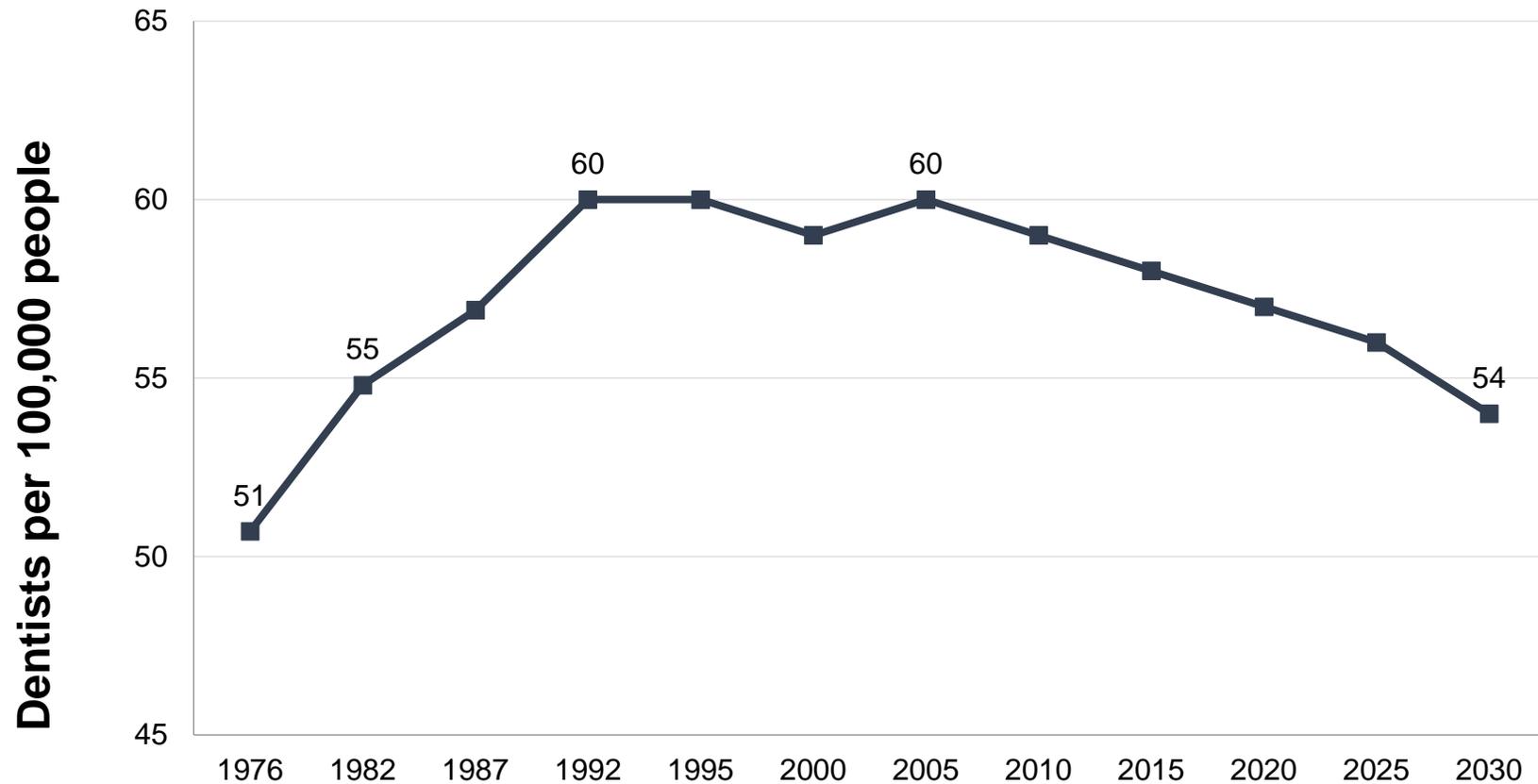
Source: American Dental Education Association, Survey of Dental School Seniors, 2016 Graduating Class

Dental Hygiene Graduates, 1990-2012



Source: American Dental Association, Health Policy Resources Center, Surveys of Dental Hygiene Education Programs.

Professionally Active Dentists per 100,000 U.S. Population, 1976–2030



Source: American Dental Association, Survey Center, Dental Workforce Model 2008–2030

Note: Numbers from 2010 to 2030 are projected.

Dental Education Today

- Dental students are not taught how to care for sick people. Dental students are not educated as part of health systems. This is unique in health science education.
- Biomedical education in dental schools is a diminishing component of education for dental students.
- Basic medical sciences once an average of 1600 hours of a 4000 hour curriculum is now about 600 hours on average
- Dental education is focused on performance of procedures sometimes at the expense of knowledge
- Exploration of new workforce models is occurring

The Future of Oral Health Care Delivery



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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



An oral health professional 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?

Will dental therapists improve the lives and practices of dentists?

Today's Minnesota DDS/DT Team in action: 67 DT's in practice

- Private practice
- Public health
- Rural/urban
- FQHC
- Hennepin County Medical Center
- Native American health center
- Elder care
- Pediatric dental services

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

Legislation Enacted 2009



- DTs are educated to the same standards as dentists for the procedures they are licensed for
- 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 and for ADT grade 3 mobile 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

Health Professional Shortage Areas
Low Income Dental HPSA Designations



Data Source:
Minnesota Department of Health
Office of Rural Health and Primary Care
State DD HPSA May 2014



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





Health Policy Division, Office of
Rural Health and Primary Care
PO Box 64882
St. Paul, MN 55164-0882
651-201-3838
www.health.state.mn.us



Minnesota Board of Dentistry
2829 University Avenue SE
Suite 450
Minneapolis, MN 55414-3246
612-617-2250
www.dentalboard.state.mn.us

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

Health Professional Shortage Areas Low Income Dental HPSA Designations



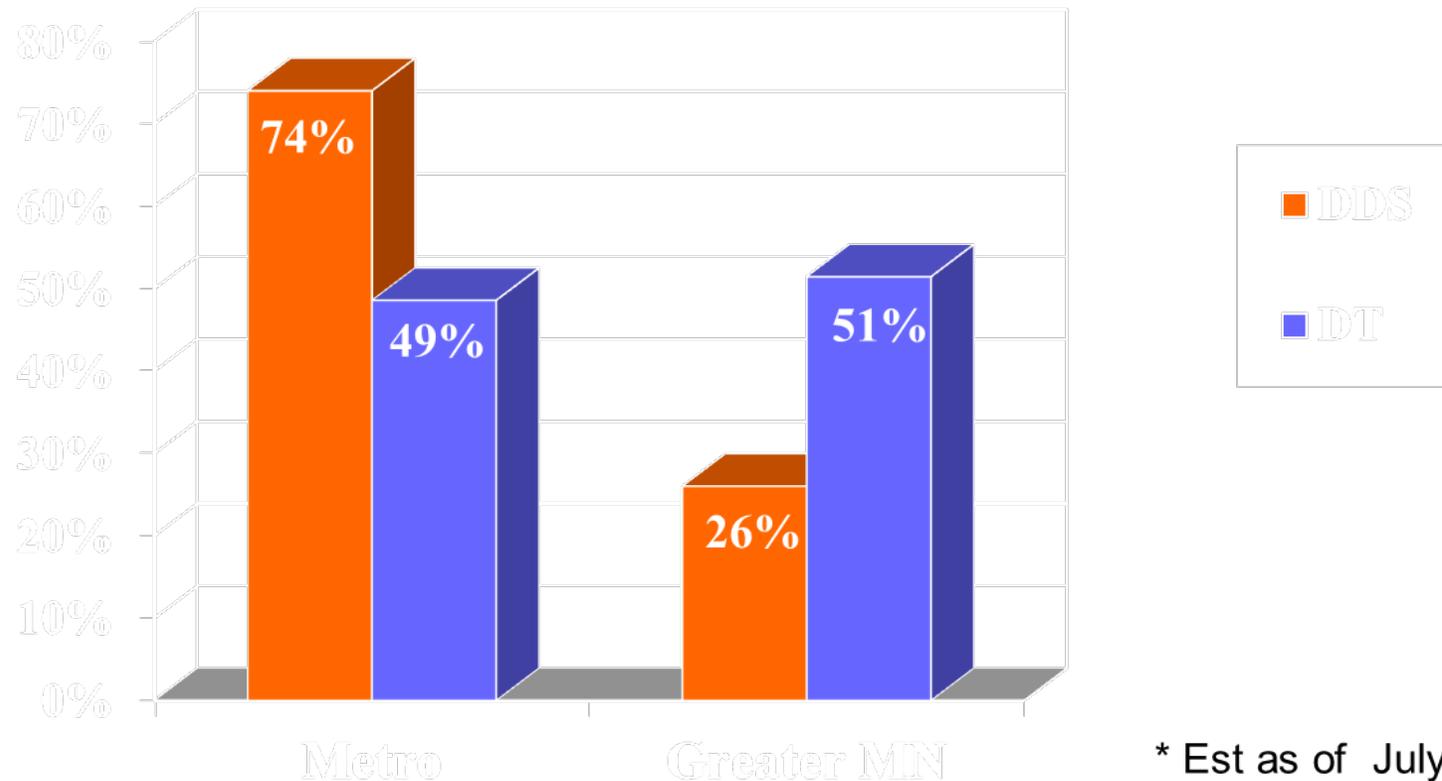
Dental Therapy Employment Sites by County

19 different
counties!

(July 2014)

Dental Therapists in Action

Current Practice Locations* (All DT Grads)



* Est as of July

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 7 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.
- **EVOLVING PROFESSIONAL IDENTITY OF THE DENTIST AS A LEADER IN HEALTH CARE AND THE HEAD OF THE ORAL HEALTH CARE TEAM**

University of Minnesota School of Dentistry

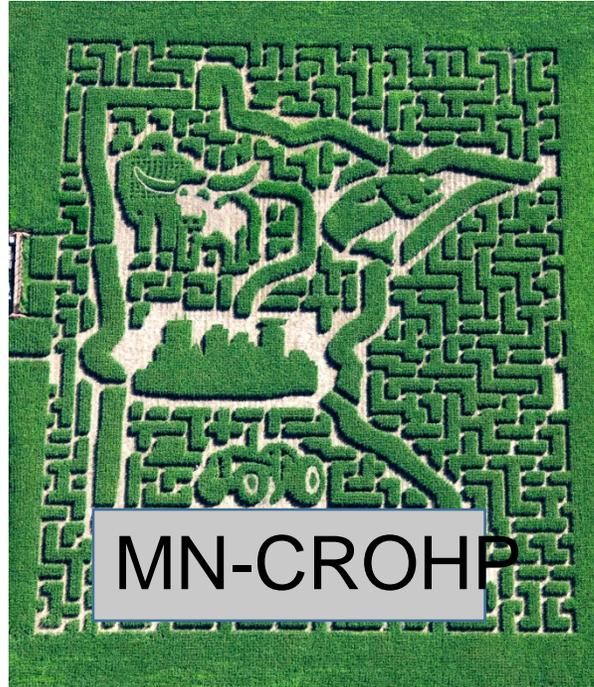
Dental Therapy

Class of 2016



WHITE COAT CEREMONY

September 2014



MN Collaborative Rural Oral Health Project

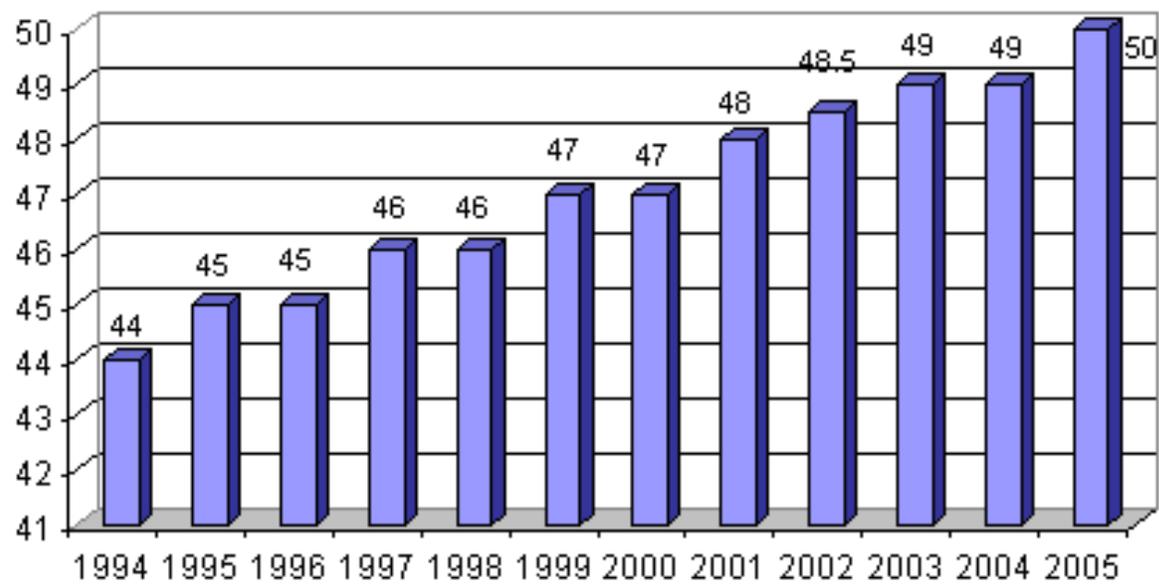
This project is supported by the Health Resources and
Services Administration (HRSA) of the U.S.
Department of Health (HHS) Grant no. D85HP28496

Oral health care delivery tomorrow



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Median age of active Minnesota dentists



Graph D
Median Age of Dentists by Rural-Urban
Communing Areas, Minnesota 2009-2010

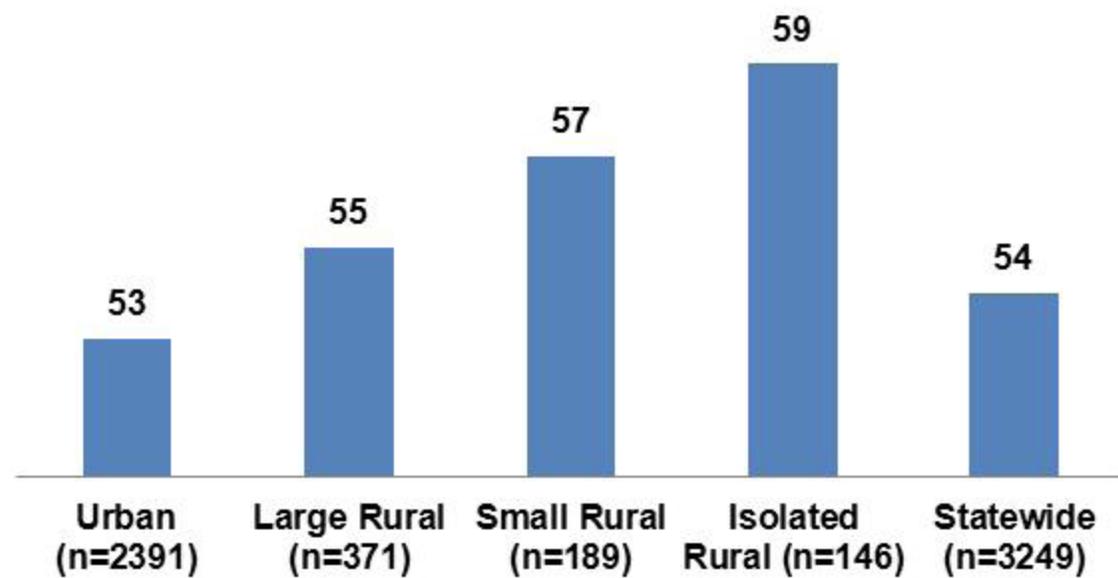
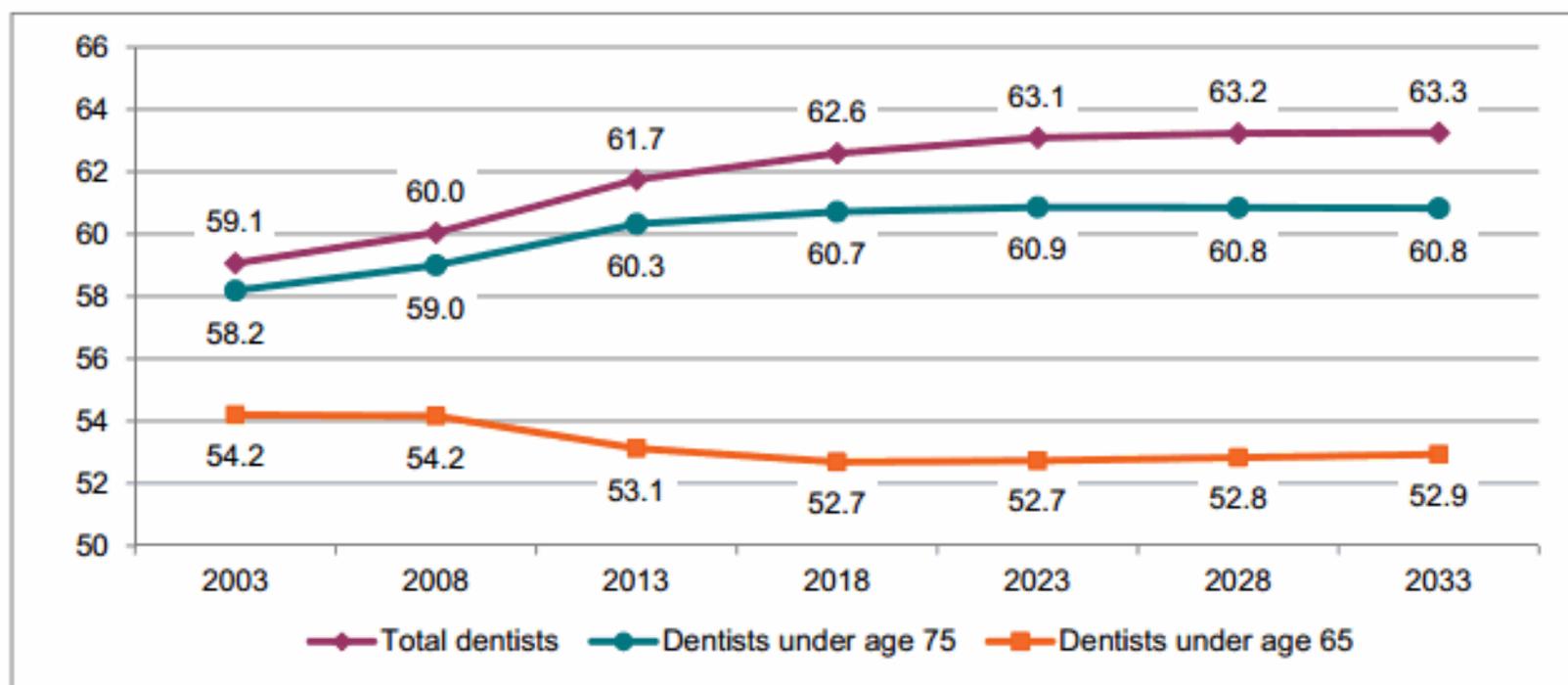


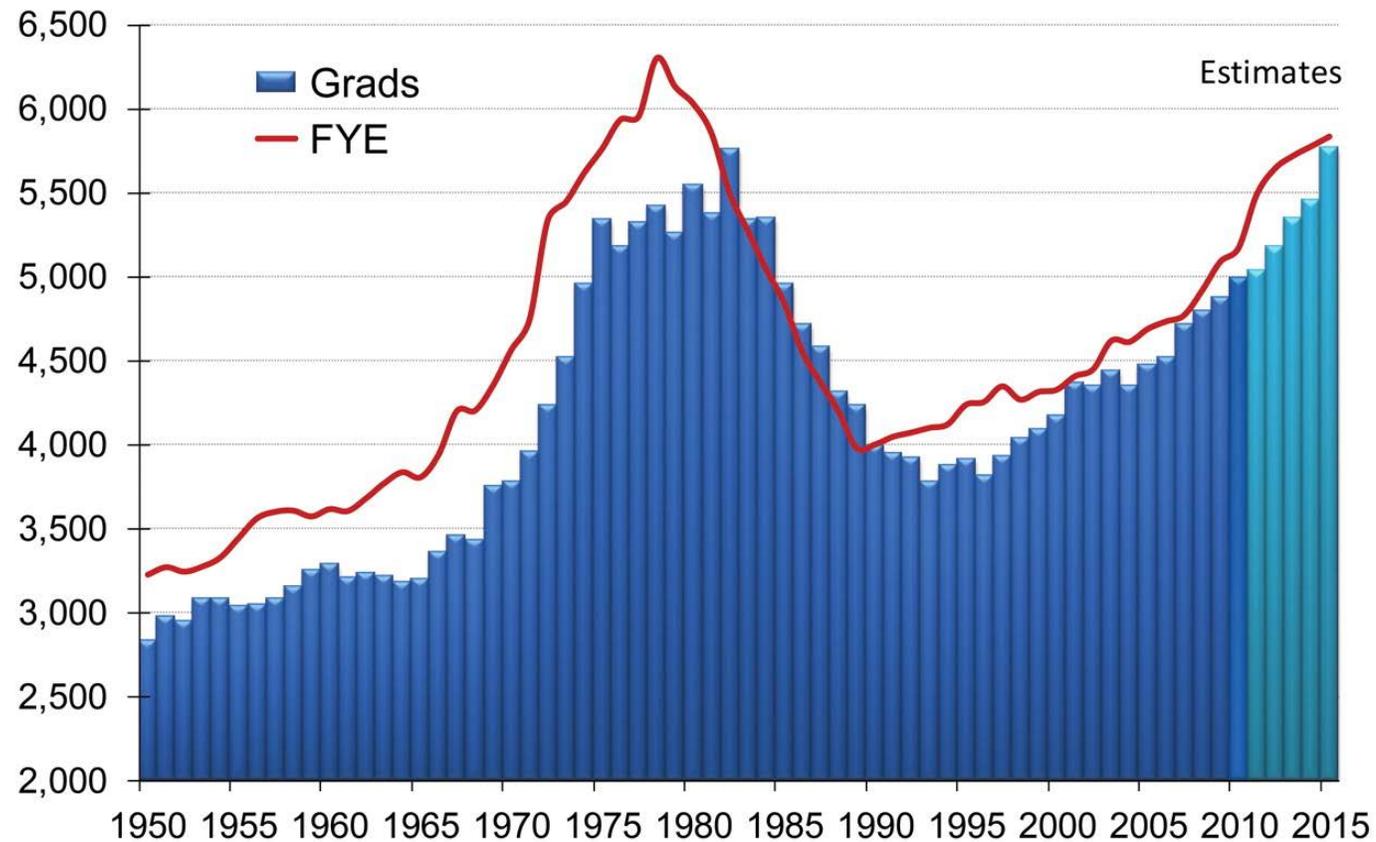
Figure 4: Historical and Projected U.S. Dentists per 100,000 Population, by Age Group, Baseline Scenario



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.

HRSA reports moderate to severe shortage of DDS in 2050

Dental First Year Enrollment and Graduates



Solomon, Dental Economics

- The U.S. Centers for Medicare and Medicaid Services predicts insurance as a source of dental expenditures will remain relatively stable at 51.0% up to 2023. They also estimate out-of pocket expenditures will decline to 35.1% and government sources will increase to 13.9% of all dental expenditures by 2023. This projection estimates government expenditures for dental services more than doubling by 2023 to \$26.7 billion. Historically, government expenditures for dental services have not increased at this rate.

What are the needs and opportunities to improve oral health?

- Access to care
 - Geographic and financial
- Integrated medical, dental health care delivery.
- Common education of health professionals
- Consumer directed health care
- Basic skill in primary medical/nursing/pharmacy care
 - Exam
 - Fluoride therapy
 - Nutrition and hygiene instruction

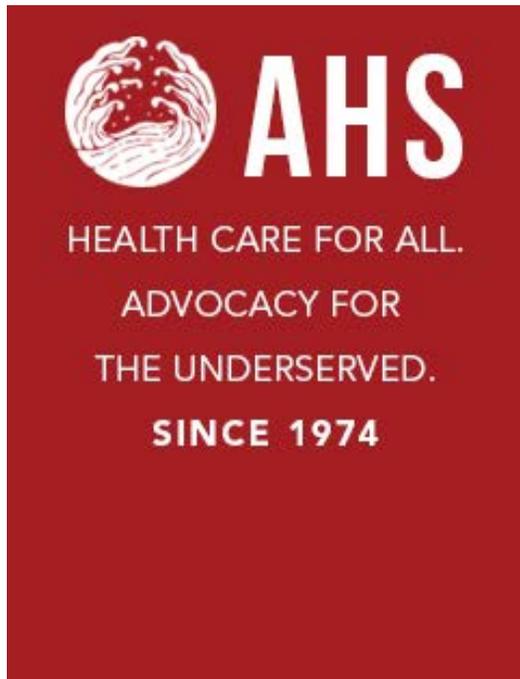


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Community Based Education at UCSF Asian Health Services among 14 sites



University of California
San Francisco



How change may occur in oral health



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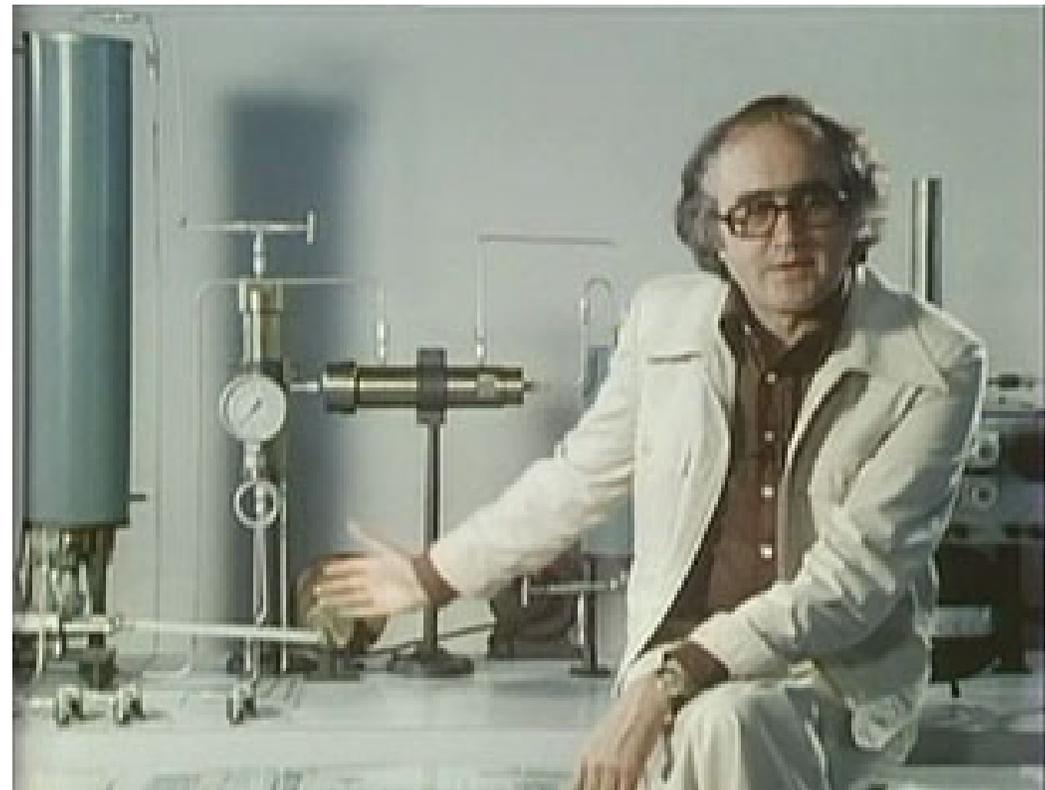
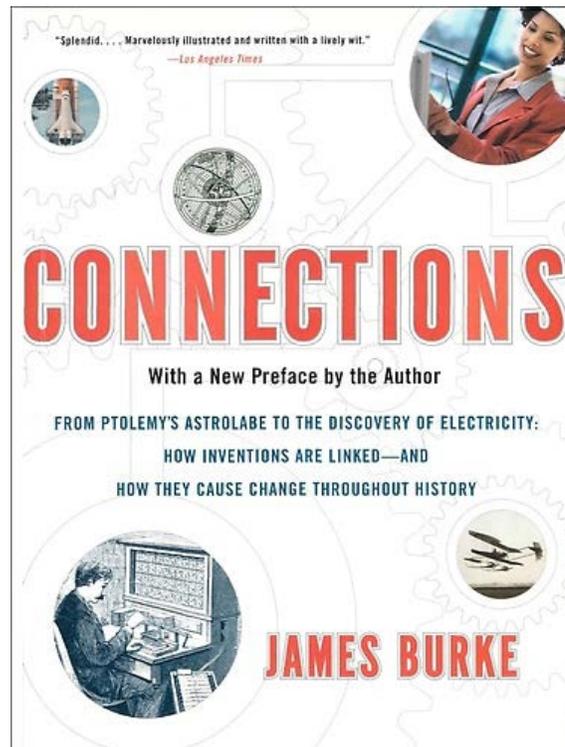
5 MEGATRENDS that will affect dentistry

- Societal Changes
- Governmental Change
- Technology
- Globalism
- Individual Leaders



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James Burke Connections



- Burke makes the very simple point that
Various seemingly minor inventions or historical events are connected and have a way of sending ripples outward, far beyond the narrow scope of the initial impact of the activity

Saturn booster ===Tang



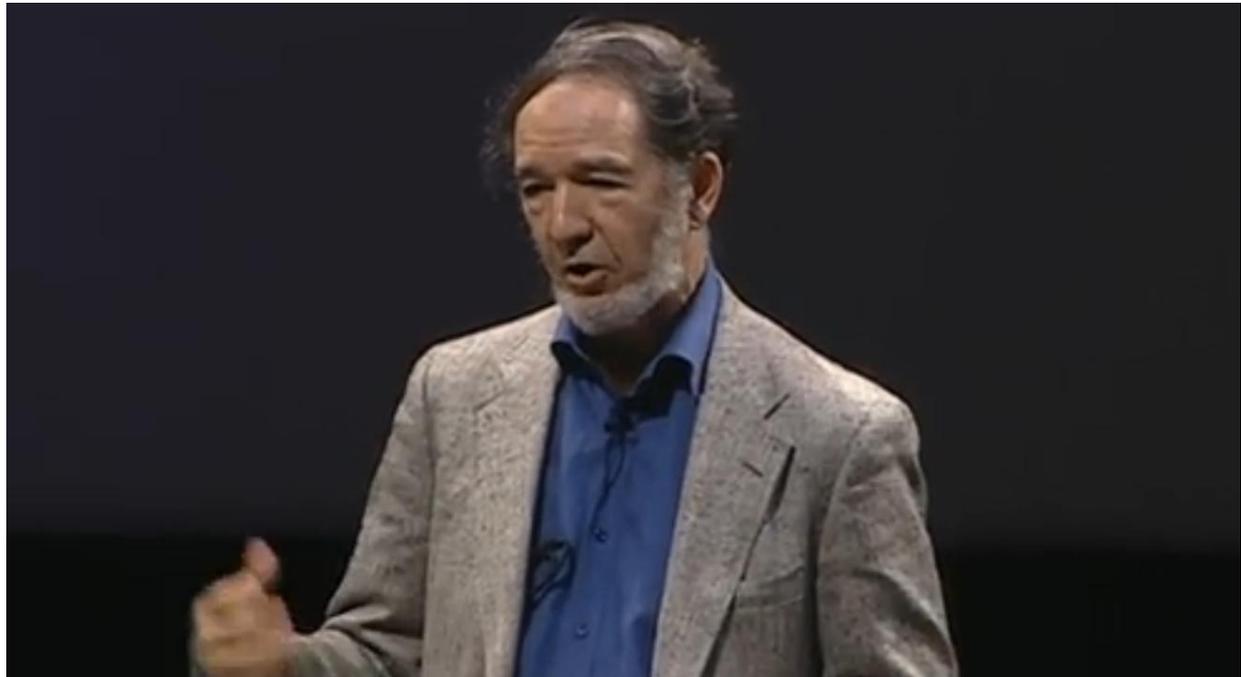
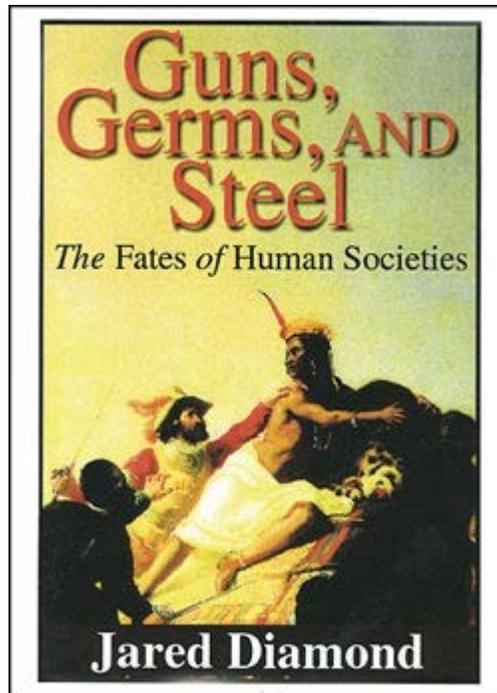
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Jared Diamond

Guns Germs and Steel

- Societies are successful when they are healthy
- Unchecked disease and decline in environment are the principle reasons societies decline and fall

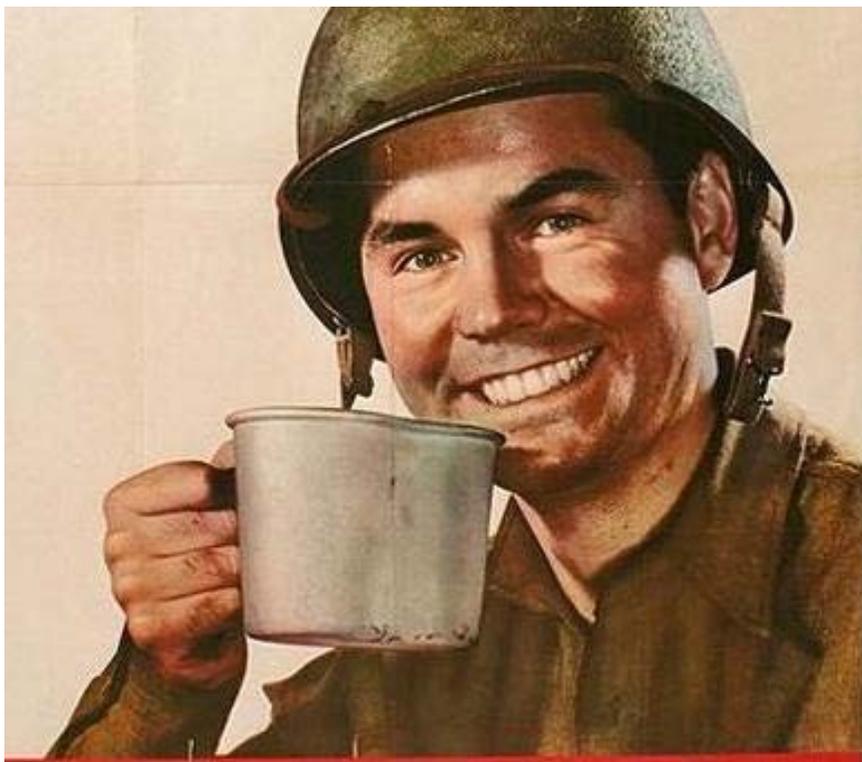


Historical comparisons

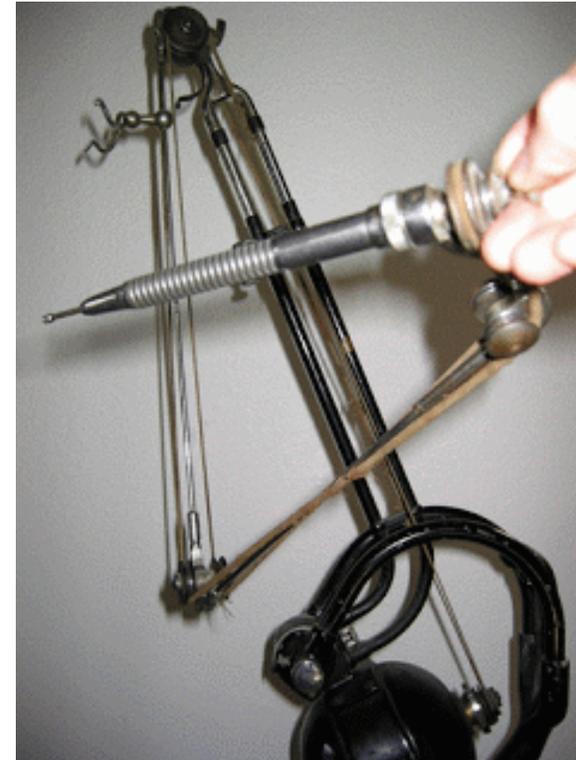
Trench mouth === War and dental health



US soldier ===healthy teeth



US Dental health not an accident:
a product of dental education and dental engine.



Surgery in Hard Times

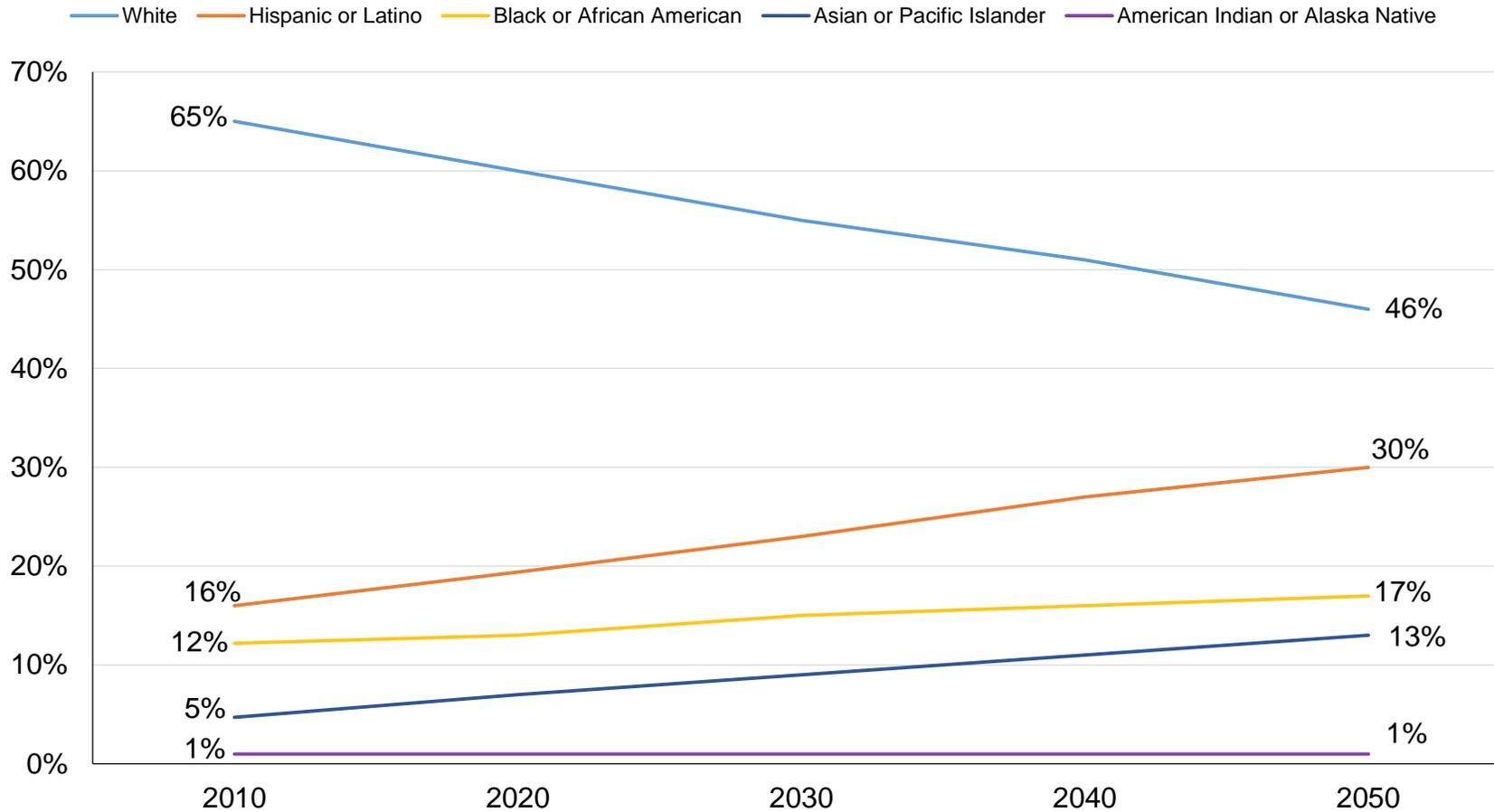
December 2008 JOMS



OMS did not exist, could not exist in the 1930's and 1940's.

The economic model of today's OMS is a sociologic phenomenon

Racial and Ethnic Composition of the Resident Population of the United States, 2010-50



Source: Population Division, U.S. Census Bureau, Table 4. Projections of the Population by Sex, Race, and Hispanic Origin for the United States: 2010 to 2050 (NP2008-T4)

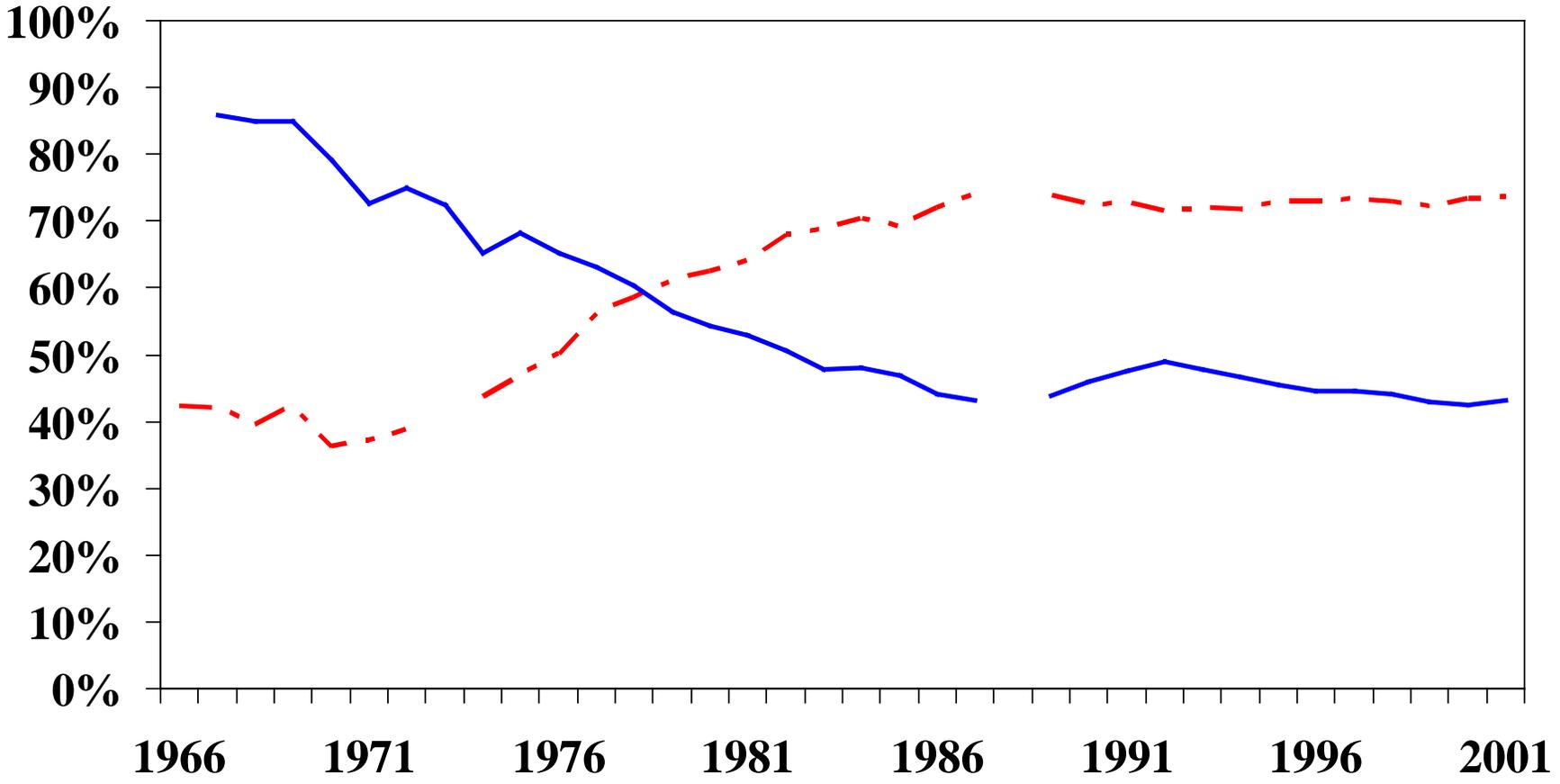
Awareness of inequality: Political, Economic, Social



Jonathan Rashad © 2011

Unemployment is 50%
Tahrir Square 2011

The social contract and altruism is threatened



Changes in Hospitals and Health Systems

- Move towards outpatient care continues to accelerate
- Volume credentialling
- OUTCOMES based payment systems
- The electronic health record e.g. Epic-Wisdom
- Loss of disproportionate share “DiSh” payments
- Fundamental changes in GME

UCSF Self Assessment 2017: “a Burning Platform”

- Rising costs
- Lower reimbursement
- Stronger competition
- Pay for performance
- Recruitment and retention challenges
- Patient safety, triple aim challenges
- Rising consumerism
- Staff and provider burnout
- Need to stay at the top or be subsumed



University of California
San Francisco

On the other hand:

The new generation of medical school leaders is focused on behavioral sciences, social consciousness, holistic patient goals and primary care medicine

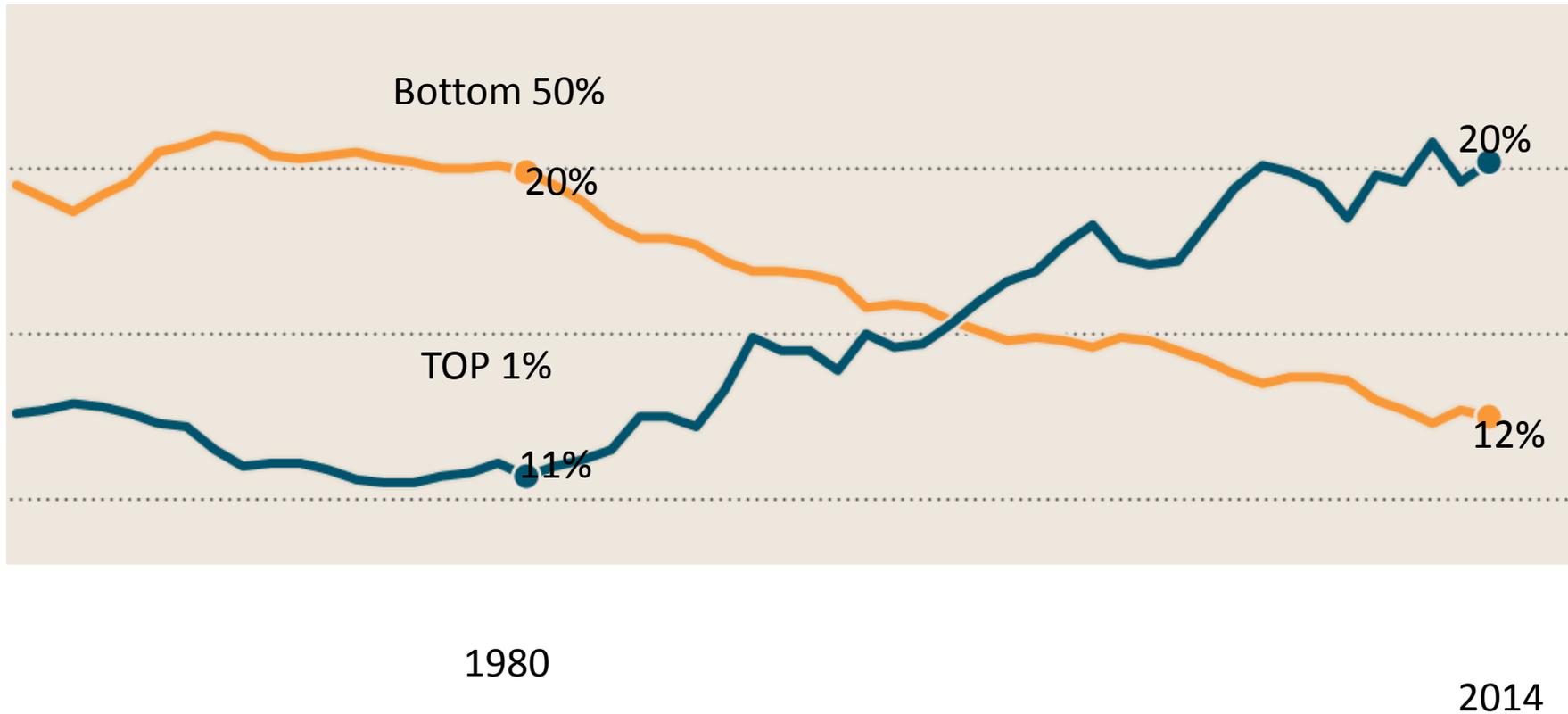
Health systems based practice and
value based payment systems:
a challenge and a project for dental education

Why change our relationship with health systems?

Why Change how oral health care is paid for?

- **There is a sharp continuous decline in the demand for dental services while untreated disease is increasing, ravaging an essential human organ system**
- **Our current oral health system model is not able to reach the quadruple aim: highest quality at lowest cost and with the best patient experience/outcomes, ... and with the greatest satisfaction of the oral health care team**

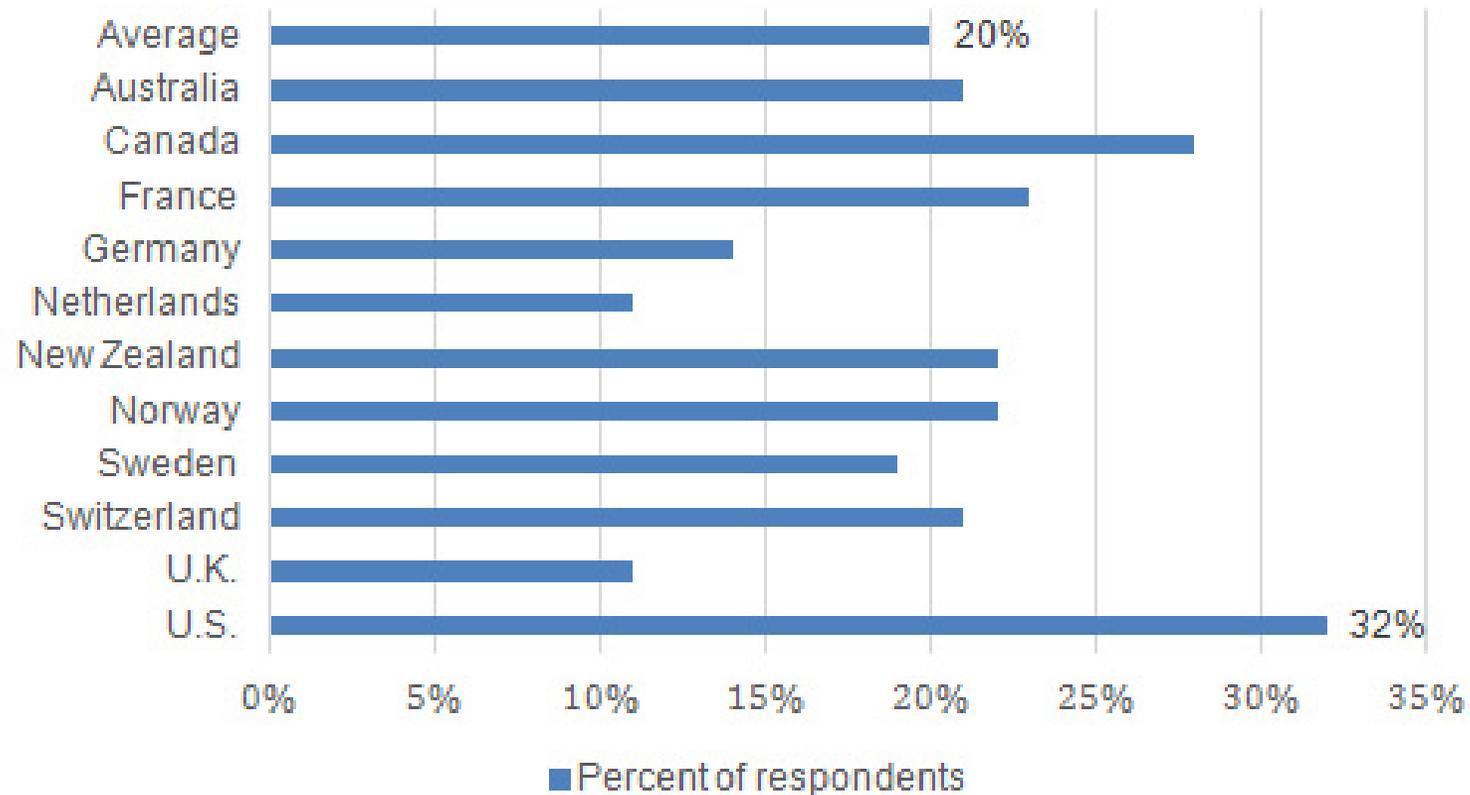
share of Pretax US National Income Bottom Half vs. To 1%



The Commonwealth Fund Survey

<http://www.commonwealthfund.org/interactives-and-data/surveys/2016/2016-international-survey>

Skipped a dental checkup or dental care because of cost in the past year



Dentistry has become a profession for the healthy and the wealthy



Some definitions

ACGME guidelines for graduate medical education

- ***Systems-Based Practice*** requires residents/fellows to **demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.**

Residents/fellows are expected to:

- **Work effectively in various health care delivery settings and systems relevant to their clinical specialty**
- **Coordinate patient care within the health care system relevant to their clinical specialty;**
- **incorporate considerations of cost awareness and risk benefit analysis in patient care;**
- **Advocate for quality patient care and optimal patient care systems;**
- **Work in inter-professional teams to enhance patient safety and improve patient care quality; and**
- **Participate in identifying system errors and in implementing potential systems solutions.**

Is value based oral health care definable?

- Capitated payment
- Non fee based care
- Per diem rates
- Prevention models
- Variable value based copays
- Outcome based payments
- Population health models

Emphasis on Value

“Providers should be required to measure...improvements in quality of life, functioning and longevity.

After a patient has a knee replaced, can she walk normally? When a child has asthma can he play school sports? Unfortunately, the measurements we use today leaves us unable to make many of these vital judgments about the quality of doctors, hospitals or health care organizations.”

David Lansky, CEO, Pacific Business Group on Health, speaking on behalf of Boeing, Target, Disney, Wal-Mart, Intel, GE, Wells Fargo and the California Public Employees Retirement System.

Needed partners

- **DENTAL and HEALTH SCIENCE EDUCATION**
- **Health systems**
- **Other health professions schools**
- **Insurance system**
- **Public policy leaders**
- **Dental boards and the licensing community**

POLICY PARTNERS

Guidelines for e.g.dental recall nursing home dental care
indications for 3rd molar removal

- CARE PATHWAYS

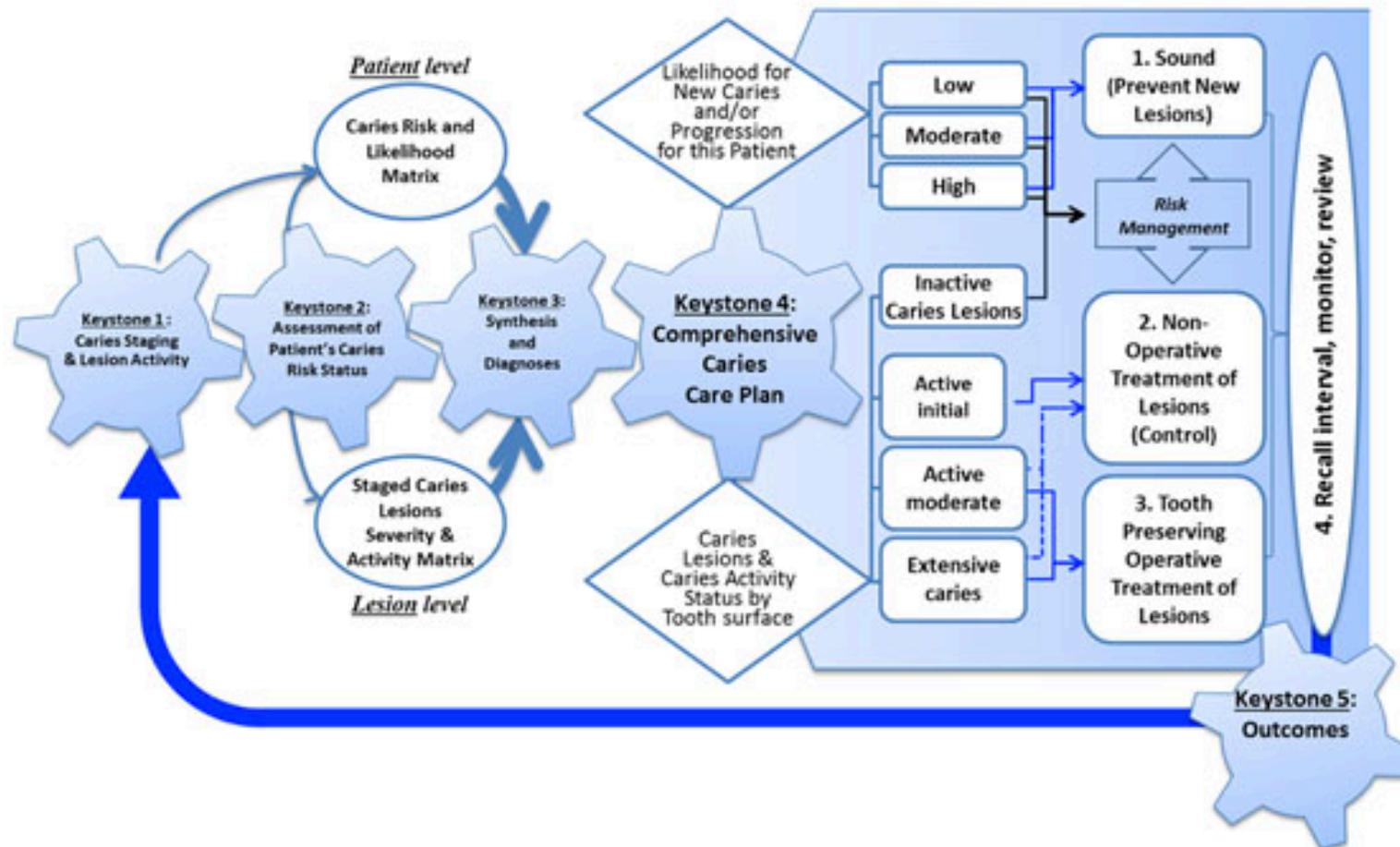


***National Institute for
Health and Clinical Excellence***

NHS
inform

Health information
you can trust

Ismail AI, Pitts NB, Tellez M. The International Caries Classification and Management System (ICCMS™) An Example of a Caries Management Pathway. *BMC Oral Health*. 2015;15(Suppl 1):S9. doi:10.1186/1472-6831-15-S1-S9.



Increased Care Coordination



ADA American Dental Association®
America's leading advocate for oral health

Health Policy Resources Center Research Brief

Accountable Care Organizations Present Key Opportunities for the Dental Profession

Author: Marko Vujcic, Ph.D.; Kamyar Nasseh, Ph.D.

The ADA Health Policy Resources Center (HPRC) is a thought leader and recognized authority on critical policy issues facing the dental profession. Through unbiased, innovative, empirical research, HPRC helps dentists and policy makers make informed decisions that affect dental practices, the public and the profession.

Who We Are
HPRC's interdisciplinary team of health economists, statisticians, and analysts has extensive expertise in policy research in dentistry and regularly collaborates with researchers in academia, the dental industry and consulting firms.

Contact Us
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Key Messages

- Dental care is not generally included as a core component within today's Accountable Care Organizations (ACOs). Where dental services are incorporated, it is mainly only at the level of facilitated referral or co-location.
- One key reason is that existing ACOs focus on Medicare populations and Medicare does not include dental benefits. There is also a perception that most dental providers and plans are accustomed to providing care according to frequency limits defined by dental insurance policies rather than a patient's dental risk profile.
- ACOs could help bridge the gap between oral and general health care, improve coordination of care, and help reduce overall health care costs. They also provide an opportunity to re-examine the role of oral care providers within the health care team. Since dental care for children is an essential health benefit under the Affordable Care Act, the most immediate opportunities are with the pediatric population.

Introduction

The health care system in the U.S. is on the verge of major reform. The Affordable Care Act (ACA) aims to improve the health of the population, enhance the patient experience of care (including quality, access, and reliability) and reduce, or at least control, the cost of care¹. A key aspect of the reforms is a sea change in how health care is delivered and financed. Today's system of loosely affiliated health care providers each paid primarily fee-for-service (FFS) is expected to give way to a much more coordinated delivery model that rewards providers for improvements in health outcomes and efficiency.

Accountable Care Organizations (ACOs) are designed to align provider incentives with

Elements of an oral health care delivery system that is value based

- **Linked to a health system**
- **Common electronic health record**
- **Common billing and payment system**
- **Oral Preventive care, primary care without co-pays and paid at capitated rate**
- **A hybrid system of fee for service procedural reimbursement for dental specialty care**
- **Outcomes based assessment models that use measures of overall health**

E mail from a friend

- California Dental Association creates DSO: 4 things to know
-
- This is an interesting twist.
-
- If you can't beat 'em, join 'em.
-

<https://www.beckersdental.com/dso-dpms/33573-california-dental-association-creates-dso-4-things-to-know.html>

Reply to e mail

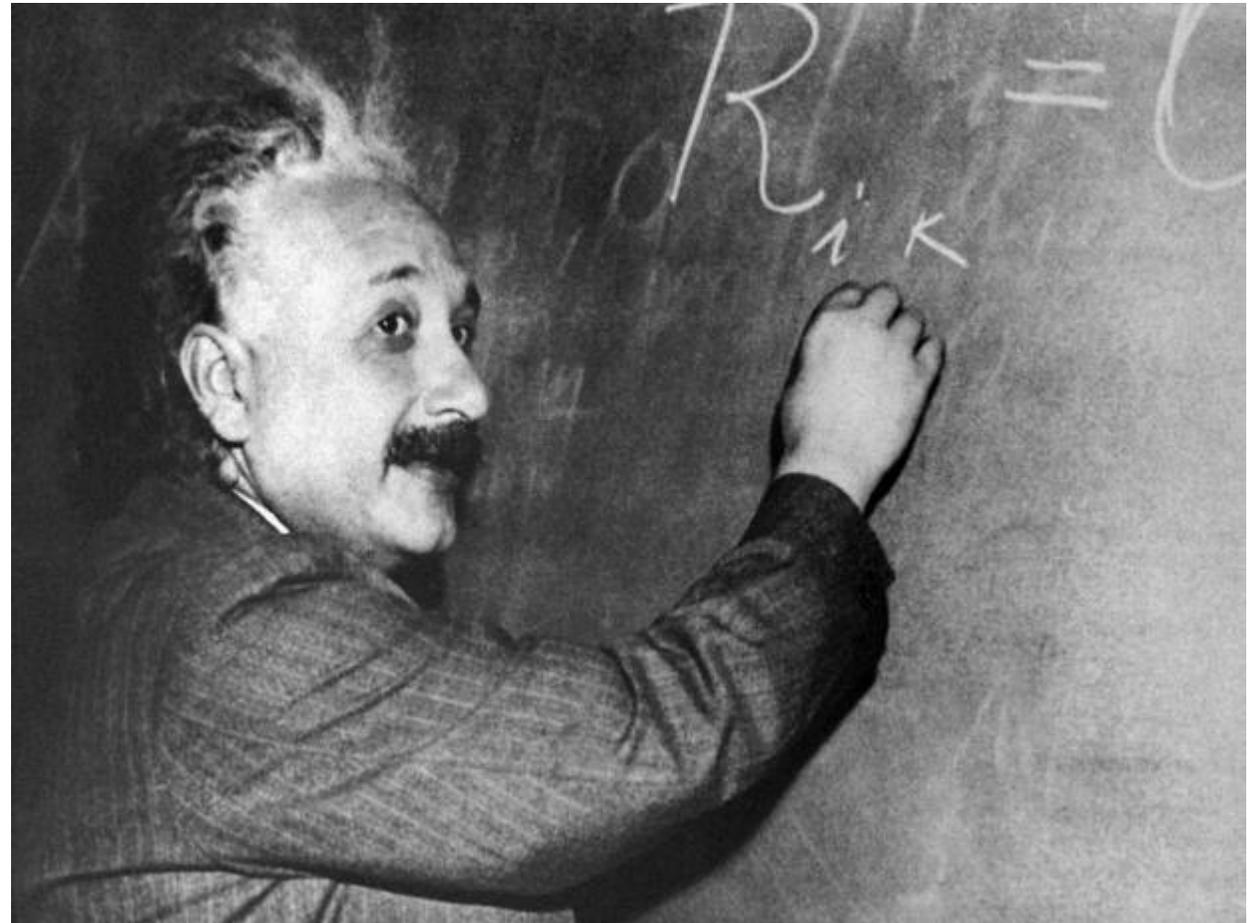
- Definitely a trend.
- Others are also interested in this model!
-
- AND
-
- Some DSO's are virtually providing their own dental service plan,
-
- It's like Einstein's unified field theory in which all of physics (dentistry) will eventually be reduced to a single equation (system)
-

Dentistry's "Unified Field Theory"

A single entity becomes the entire oral health system

- Confluence of the
 - Provider,
 - Payer,
 - Public policy maker
 - Manager,
 - Educator
 - Owner,
 - Regulator

- Who then is the conscience?



How will dental education respond?

What are the curriculum needs for system based practice?

- **Core biomedical science for DDS consistent with health team leaders**
- **More robust dental team members in DH, DT and DA educated in intraprofessional health system environment**
- **Dental team integrated into interprofessional team through IPE and collaborative practice models**
- **All clinical practicum carried out in operating health systems**

A model DDS day in a value based oral health care system

- **Dental Medicine:** Lead a team focused on improving health outcomes
- Intake, diagnosis, collaborative care with other health professionals, integration of oral health care into overall care
- **Dental Surgery:** advanced performance of cognitively complex procedures, leading the intraprofessional surgical team in performance of repetitive less cognitively complex procedures

A model dental hygienist's day in a value based system

- One hour visit under DDS general supervision: DH Direct patient contact of 20 minutes per patient with 1-2 other team members, dental hygiene assistant, case worker/motivational interviewer. Evidence based assessment of need with personalized medicine approach e.g. caries risk assessment, assessment of home care efficacy, diet, smoking, DM, pregnancy etc.
- Team approach to administration of procedures including periodontal, caries treatment, patient instruction

Dental caries management in a value based system



Comprehensive Caries Staging

- **Stage 1 Enamel caries**
 - 1A Surface demineralization
 - 1B Radiographic evidence, pit or catch
- **Stage 2: Dentine infection**
 - Single surface < 50% of dentinal span
 - Multiple surface or >50% dentinal span
- **Stage 3 Pulpal infection**
- **Stage 4: Infection beyond the tooth structure**
 - Osteolysis
 - Deep space infection
 - Systemic infection
 - Acute
 - Chronic

The key elements of change

- **Collaborative interprofessional practices**
- **Integrated payment system**
- **Value based payment system**
- **Reduce the unit cost of dental care with**
 - **Workforce development: team care intraprofessional education**
 - **Practice models**
 - **Technology**

Key elements of change II

- **Oral health integrated into primary care**
- **Evidence based integration into key health focus areas e.g.**
 - **Diabetes**
 - **Obesity**
 - **Atherosclerotic diseases**
 - **Oncology**
 - **Child development**
 - **Pregnancy**

Key elements of change III

- **Holistic admissions to dental school**
- **True commitment to diversity in dental education environment**
- **Community based education**
- **Clinical education of dental workforce entirely in health systems**
- **Collaboration with schools of health sciences and health systems**
- **Adoption of ACGME core competencies**
- **Presence of oral health in every AAAHC member**
- **Advance degrees in Health Systems**

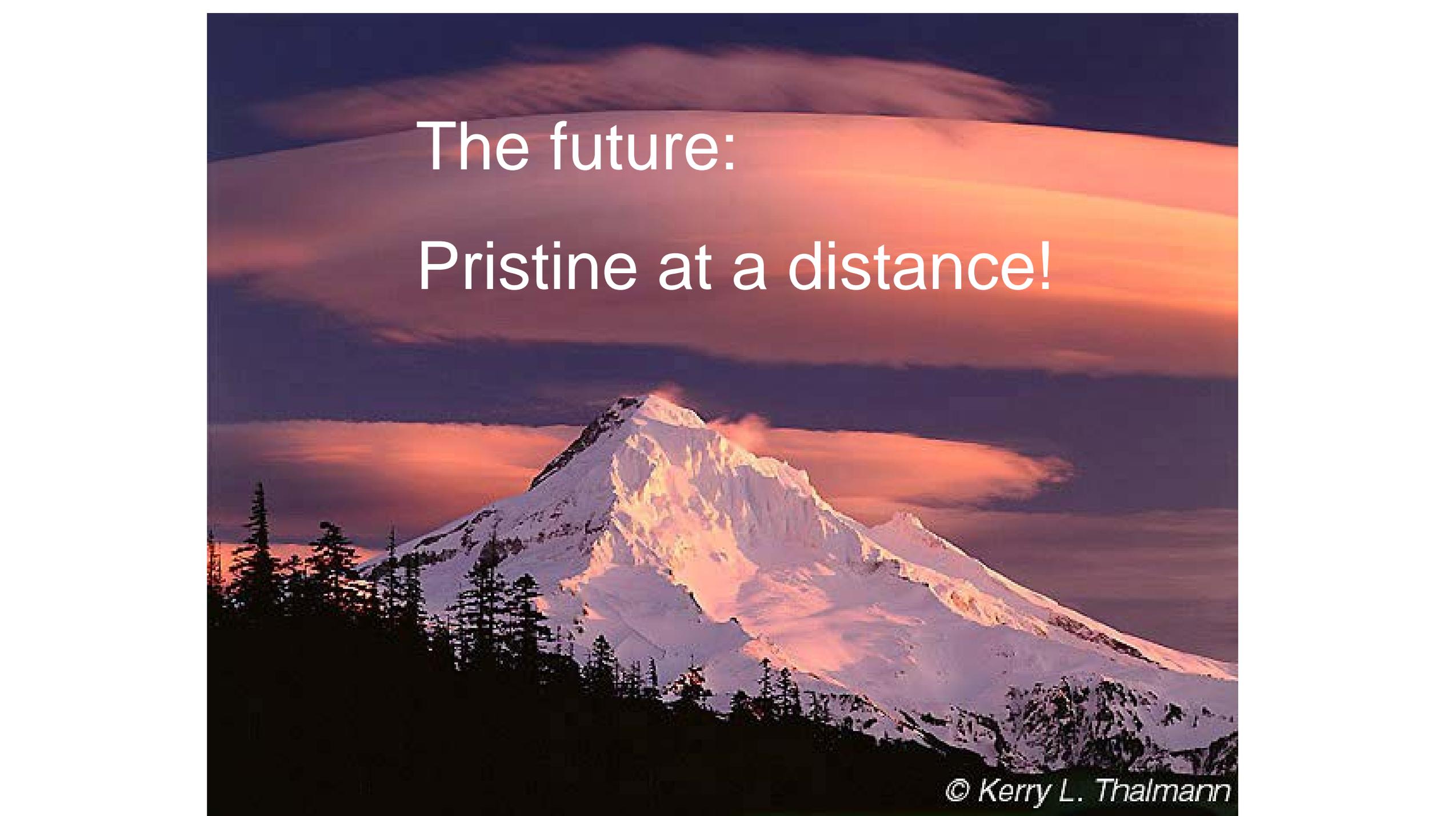
Implications of this construct on initial and continued licensure

- Assessing patient evaluation, diagnostic acumen, treatment decisions and treatment implementation
- Assessing functionality in the interprofessional health care environment and systems based practice
- Evidence based management of disease .e.g dental caries
- Pathway towards EARLY and CAREER LONG evaluation of continued competency
- Privileges and credentialing

A dental policy plan for the world of 2030

- Adjusting the role of initial licensure and continued competency
- Outcomes (not procedure) based payment system for dentistry
- Include dentistry in workforce projects in a meaningful way in the ACA
- Add dentistry to Medicare
- Support inter-professional education and collaborative practice initiatives with a single EHR
- Address oral health workforce issues to include building the oral health team with care that can achieve THE quadruple AIM
- The dentist must lead the MOST ROBUST oral health care delivery team
- Policies that encourage highest use of technology to improve care





The future:
Pristine at a distance!

© Kerry L. Thalmann

Overwhelming up close



Reasoned, considered, conversation about the future is most productive on a sunny day.

