State Actions to Improve Oral Health: Virtual Dental Homes and Value-based Incentives

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The US Health Care System is Undergoing Profound Change
Drivers of the Quality Movement in the U.S. Health Care System

1. the skyrocketing cost of health care unrelated to improvement in health outcomes,

2. increasing understanding of the harm and unwarranted variability our fragmented health care system produces,

3. evidence of the profound health disparities that still exist in the population in spite of scientific advances in care, and

4. increasing awareness of these problems in the age of consumer empowerment.
Health Care Spending 1980-2011

Public Health Care Spending vs Debt

WAKE UP FOLKS, IT’S THE HEALTH CARE!

Health Care Spending

Social Security

Discretionary Spending (Defense and Non-Defense)

Other Mandatory Programs

Sources: Congressional Budget Office’s Alternative Fiscal Scenario (January 2012), additionally assuming that troops overseas decline to 45,000 by 2015; Bipartisan Policy Center extrapolations

WWW.BIPARTISANPOLICY.ORG

Paul Glassman - Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
U.S. National Dental Expenditures 2000 - 2023 ($ Billions)

Source: CMS National Health Expenditure NHE Historical and projections,
Payers of Oral Health Expenses

Source of Payment for National Dental Expenses 2000 - 2023
as % of Total National Dental Expenditures

Source: CMS National Health Expenditure NHE Historical and projections,
Health Spending by Condition

Medical Expenditure Panel Survey - Top 25, 2012

-General Health: MEPS: Expenditures by Medical Condition 2012, Table 3

-Dental Health: MEPS: Expenditures per Person by Health Care Service 2012, Table 3
Oral Health Expenses

Consumer Price Index (CPI) and CPI for Dental Services (% of 1990 dollars)

Source: Bureau of Labor Statistics: Consumer Price Index
http://www.bls.gov/cpi/cpi_dr.htm
Out-of-Pocket Health Expenses

Consumer out-of-pocket health care expenditures in 2008

- Prescription drugs (31.0%)
- Medical supplies (7.6%)
- In-patient care (8.8%)
- Outpatient/emergency room care (6.4%)
- Physicians’ services (15.9%)
- Dental services $30.7 billion (22.2.0%)
- Other professional services (8.1%)
- Out-of-pocket health care total $138.5 billion

Mean US Household Income

Mean Household Income Received by Each Fifth and Top 5 Percent in 2013 Dollars as % of 2000 Level

Source: U.S. Census: Historical Income Tables: Household Income
http://www.census.gov/hhes/www/income/data/historical/household/2013/h03AR.xls
Figure 1: Percentage of the Population Who Needed But Did Not Obtain Select Health Services during the Previous 12 Months Due to Cost as a Barrier

Source: National Health Interview Survey, National Center of Health Statistics. Notes: Changes from 2000 to 2010 for Prescription Drugs, Dental Care, Mental Health Services and Eyeglasses are statistically significant at the 1 percent level. Changes from 2010 to 2012 for Prescription Drugs, Dental Care and Eyeglasses are statistically significant at the 1 percent level. Change from 2010 to 2012 for Mental Health Services is significant at the 5% level.

ADA Health Services Policy Center. Research Brief: Financial Barriers to Dental Care Declining After a Decade of Steady Increase. October, 2013
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.
Dental Care Utilization Rate Highest Ever among Children, Continues to Decline among Working-Age Adults

Authors: Kamyr Nasseh, Ph.D.; Marko Vujicic, Ph.D.

Figure 3: Percentage of Children Ages 2-18 with a Dental Visit in the Year for Select Income Groups, 2000-2012

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.
The majority of underserved people with the majority of dental disease do not take advantage of the traditional dental care delivery system
The current dental care system primarily serves the wealthiest and healthiest segments of the population.
Figure 1. Distribution of procedures, U.S. civilian noninstitutionalized population, 1999 and 2009

1999
516 million procedures*
Endodontic, 2.0%
Orthodontic, 6.8%
Periodontic, 0.8%
Oral Surgery, 3.4%
Restorative, 7.1%
Prosthetic, 6.9%
Restorative, 6.1%
Other Procedure, 1.3%
Diagnostic, 41.9%
Preventive, 29.8%
Diagnostic + Preventive = 71.7%

2009
548 million procedures*
Endodontic, 5.4%
Orthodontic, 1.6%
Periodontic, 0.6%
Oral Surgery, 3.1%
Prosthetic, 6.0%
Restorative, 6.1%
Other Procedure, 1.3%
Diagnostic, 43.4%
Preventive, 32.5%
Diagnostic + Preventive = 75.9%

* For persons with a visit
* Other includes procedures not otherwise reported.
Dentist Earnings Not Recovering with Economic Growth

Authors: Bradley Munson, B.A.; Marko Vujicic, Ph.D.

December 2014

Figure 1: General Practitioner Dentist Earnings, 1981 to 2013

Source: ADA Health Policy Institute; Bureau of Economic Analysis; Bureau of Labor Statistics. Note: Net income data are based on the ADA Health Policy Institute annual Survey of Dental Practice with years 2000-2013 weighted to adjust for nonresponse bias. Shaded areas denote recession years according to NBER. GDP is deflated using the GDP deflator. Net income is deflated using the all-item CPI. All values are in constant 2013 dollars.
A Profession in Transition:
Key Forces Reshaping the Dental Landscape
People who get care

People who need care
Science of caries and chronic disease management

Community-based telehealth enabled teams

Financial Incentives aligned with oral health outcomes

Deployment of Oral Health Resources
The Virtual Dental Home
EHR: Radiographs
EHR: Photographs
The Virtual Dental Home Concept Model

**Allied Personnel – On-Site**
Intake & periodic recall visits, record collection, communication with dentist

**Dentist – Off-Site**
Record review, decision about dental treatment – what & where

Cloud-Based Electronic Health Record
The Virtual Dental Home Concept Model

**Allied Personnel – On-Site**
Intake & periodic recall visits, record collection, communication with dentist

**Dentist – Off-Site**
Record review, decision about dental treatment – what & where

Cloud-Based Electronic Health Record

Disease, needing in-person treatment by dentist? No
The Virtual Dental Home Concept Model

**Allied Personnel – On-Site**
Intake & periodic recall visits, record collection, communication with dentist

**Dentist – Off-Site**
Record review, decision about dental treatment – what & where

Cloud-Based Electronic Health Record

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Disease, needing in-person treatment by dentist?

**Allied Personnel – On-Site**
Prevention & early intervention procedures, case management, integration into educational, social, general health systems
Community-based Prevention and Early Intervention Procedures
The Virtual Dental Home Concept Model

Allied Personnel – On-Site
Intake & periodic recall visits, record collection, communication with dentist

Dentist – Off-Site
Record review, decision about dental treatment – what & where

Disease, needing in-person treatment by dentist?

Yes → Dentist – On-Site
Disease treatment

No → Allied Personnel – On-Site
Prevention & early intervention procedures, case management, integration into educational, social, general health systems

Cloud-Based Electronic Health Record

Community On-Site
Allied Personnel Care (least expensive, most cost avoidance)

University of the Pacific
Program management

Community On-Site
Dentist Care (moderate expense, moderate cost avoidance)
The Virtual Dental Home Sites

[California map showing various cities and sites]
Oral Health Systems for Underserved Populations

Telehealth-Connected Teams
Hub and Spoke System
Demonstration Project: Conclusions

- Telehealth connected teams can reach populations who do not normally get care in the traditional system
- Most underserved people (~2/3) can be kept healthy on-site in community locations
- Allied dental personnel can safely decide what diagnostic records to collect and perform ITRs (however only allowed to do so in HWPP)
- Payment mechanisms do not support telehealth connected teams and telehealth-enabled procedures
AB 1174

Assembly Bill No. 1174

CHAPTER 662

An act to amend Sections 1684.5, 1925, and 1944 of, to add Section 1926.05 to, and to add, repeal, and add Sections 1753.55 and 1910.5 of, the Business and Professions Code, and to add and repeal Section 128196 of the Health and Safety Code, and to amend Section 14132.725 of the Welfare and Institutions Code, relating to oral health.

[Approved by Governor September 27, 2014. Filed with Secretary of State September 27, 2014.]
Health & Science

California To Launch Medicaid-Funded Teledentistry
AB 1174
Provisions

• New Duties
  – Allied dental personnel can make the decision about which radiographs to take, if any, to facilitate an initial oral evaluation by a dentist.
  – Allied dental personnel can place “Interim Therapeutic Restorations” (ITR)

• Payment Expansion
  – California Medicaid Program is required to pay for services performed using “store and forward” telehealth systems
Teledentistry

Denti-Cal Bulletin. June, 2015, V31, #8
http://www.denti-cal.ca.gov/provsrvcs/bulletins/Volume_31_Number_08.pdf
AB1174
Implementation Resources

• Intermittent Clinics
• Dental Hygiene Billing
• Dentist Contracting
Spread and Sustainability

• Training
  – Courses
  – Consultation

• Technical assistance and support

• Incentives to create a population with good oral health
Value-Based Incentives for Oral Health
A California Pilot Project
Value-Based Incentives

Purchasers of Care → Dental Plans → Providers → Consumers

Will lead to use of:
- Community-based services
- Telehealth-connected teams
- Chronic Disease Management
- Care Management
- Health Literacy
- Evidence-based prevention and early intervention procedures

Resulting in:
- Improved
- Integration of services
- Experiences receiving care
- Oral health Lower
- Cost-per-capita
Dental Care in the Future

• Dental Practice =
  – Geographically distributed
  – Telehealth enabled
  – Oral health teams

• Chronic disease management
  – using biological, medical, behavioral, and social tools

• Integrated with general health, educational, and social service systems

• Interacting with the majority of the population

• Focused on oral health outcomes in the Era of Accountability
State Actions

• Support Pilots Projects
  – Delivery systems
  – Financing mechanisms

• Allow payment for services provided using telehealth technologies (CA AB1174, 2014)

• Develop and systems that can bring dental services to where people are who are not getting services currently

• Emphasize payment and delivery of behavior change, preventive, and early intervention in community sites
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