
Paul Glassman DDS, MA, MBA  
Professor and Director of Community Oral Health  
University of the Pacific School of Dentistry  
San Francisco, CA  
pglassman@pacific.edu

Amanda Stengis MPH  
Starling Advisors  
amanda@starlingadvisors.com
Agenda

• Drivers of health reform in the general health and oral health industries
• How the general health industry is reacting to health reform
• Opportunities for the oral health industry in health reform
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.
Drivers of the Quality Movement

#1 – The Cost of Health Care
Health Care Spending 1980-2011


Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
Public Health Care Spending vs Debt

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.bipartisancolicy.org
What Changes In Survival Rates Tell Us About US Health Care

EXHIBIT 1

Per Capita Health Spending And 15-Year Survival For 45-Year-Old Women, United States And 12 Comparison Countries, 1975 And 2005

SOURCE Authors’ analysis based on data from the sources described in the text. NOTES The dashed line separates 1975 values (blue circles) and 2005 values (red squares). Values are presented for the percentage of forty-five-year-old women surviving fifteen years.

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Health Care Outcomes 2007-2010
US vs Best Performing Developed Countries

• Almost 2x more likely to die from a condition amenable to health care interventions before 75 years old than France
• Over 6 times more likely to have lower limb amputations as a consequence of diabetes than UK
• Almost 2x more likely to die in a hospital after admission for acute myocardial infarction than Denmark
• Almost 3x more likely to have post-operative sepsis during hospital stay than Switzerland
• Over 2.5 times more likely to have a foreign object left in the body during a procedure than Denmark

Data: OECD Health Data 2012.
National Oral Health Expenses

U.S. National Dental Expenditures 2000 - 2023 ($ Billions)

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

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 2000 dollars)

Source: Bureau of Labor Statistics: Consumer Price Index
http://www.bls.gov/cpi/cpi_dr.htm
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

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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

Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
Out-of-Pocket Health Expenses

Fewer Americans Forgoing Dental Care Due to Cost

**Authors:** Thomas Wall, M.A., M.B.A.; Kamyar Nasseh, Ph.D.; Marko Vujicic, Ph.D.

**Figure 1:** Percentage of the Population Who Needed But Did Not Obtain Select Health Care Services during the Previous 12 Months Due to Cost, 2000-2013

**Source:** National Health Interview Survey, National Center of Health Statistics. **Notes:** Changes from 2000 to 2010 for all services were statistically significant at the 1% level. Changes from 2010 to 2013 for all services were statistically significant at the 1% level. Changes from 2012 to 2013 were not statistically significant.
Dental Care Utilization Rate Highest Ever among Children, Continues to Decline among Working-Age Adults

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

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 18-64 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: Kamyar Nasseri, 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.
# Dental Expenditures by Income Strata - 2010

<table>
<thead>
<tr>
<th>Family Income</th>
<th>Number (000,000)</th>
<th>% of Population</th>
<th>% with Visit</th>
<th>Expenditures (000,000)</th>
<th>% of Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>46.8</td>
<td>15%</td>
<td>24%</td>
<td>$4,232</td>
<td>7%</td>
</tr>
<tr>
<td>Near Poor</td>
<td>14.5</td>
<td>5%</td>
<td>27%</td>
<td>$1,612</td>
<td>3%</td>
</tr>
<tr>
<td>Low</td>
<td>42.7</td>
<td>14%</td>
<td>28%</td>
<td>$5,468</td>
<td>9%</td>
</tr>
<tr>
<td>Middle</td>
<td>93.0</td>
<td>30%</td>
<td>35%</td>
<td>$17,302</td>
<td>29%</td>
</tr>
<tr>
<td>High</td>
<td>111.7</td>
<td>36%</td>
<td>51%</td>
<td>$31,111</td>
<td>52%</td>
</tr>
</tbody>
</table>

Definitions: Poor = < FPL; Near poor = >FPL-125% FPL; Low = >125%-200% FPL; Middle = >over 200%-400%FPL; high = >400% FPL.


Source = AHRQ MEPS Dental Services Expenses General Dentist Visits 2010

[http://meps.ahrq.gov/mepsweb/data_stats/tables_compendia_hh_interactive.jsp?_SERVICE=MEPSSocket0&_PROGRAM=MEPSPGM.TC.SAS&File=HCFY2010&Table=HCFY2010%5FPLEXP%5FB&VAR1=AGE&VAR2=SEX&VAR3=RACETH5C&VAR4=INSURCOV&VAR5=POVCAT10&VAR6=MSA&VAR7=REGION&VAR8=HEALTHVARO1=4+17+44+64&VARO2=1&VARO3=1&VARO4=1&VARO5=1&VARO6=1&VARO7=1&VARO8=1&TCOPT1=GEN&_Debug=]
Figure 1. Distribution of procedures, *U.S. civilian noninstitutionalized population, 1999 and 2009


* 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.

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
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.
Impact of Health Center System

US Population Compared to Health Center Patients (in millions)

2011 2012 2013 2014

US Population
Patients served by health centers

Impact of Health Center System

Number of Health Center Patients (in millions)

- Total patients
- # have medical services
- # have dental services


Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
The Era of Accountability

Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
The Triple Aim

- improving the experience of care
- improving the health of populations
- reducing per capita costs of health care
The Era of Accountability

The Urban Institute

Moving Payment from Volume to Value: What Role for Performance Measurement?

Timely Analysis of Immediate Health Policy Issues
December 2010
Robert A. Berenson
UnitedHealth’s medical home programs in four states shows average third year net savings of 6.2 percent of medical costs, resulting in a return on investment of 6 to 1, largely due to payment model that rewards value,” the company said in a statement about the medical home initiative, which was part of a 44-page report released this week called on “advancing primary care delivery.”

The report is the latest signal to doctors and hospitals that insurers aren’t about to abandon accountable arrangements that pay providers to keep patients healthy and out of more expensive inpatient settings.
Reduction in hospital-acquired conditions: 2010 -2013

• 1.3 million fewer hospital-acquired conditions
• 17 percent decline in hospital-acquired conditions
• 50,000 fewer patients died in hospitals
• $12 billion in health care costs were saved
• Occurred during period of concerted attention by hospitals to reduce adverse events, due in part to provisions of the Affordable Care Act such as Medicare payment incentives to improve the quality of care and the HHS Partnership for Patients initiative.

Quality Measurement or Improvement Activities in Sectors of the Oral Health Delivery System

• Federal or National Agencies and Programs
• The Oral Health Safety-Net
• Large Group Dental Practices
• The Dental Benefits Industry
• Professional Dental Associations
• Hospital-based Dental Practices
• Dental Practice-based Research Networks
… Who We Are

Starling Advisors works nationally with Health Centers, Networks, and PCAs to answer the question:

“What changes, if any, do we need to make to insure a role in providing high-quality, comprehensive primary care under Health Reform?”
THE IMPACT OF HEALTH REFORM
# Shifting Landscape with Reform

<table>
<thead>
<tr>
<th>Pre-Reform</th>
<th>Post-Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment for volume</td>
<td>Payment for value</td>
</tr>
<tr>
<td>More care provided in facilities (hospitals)</td>
<td>Shift care to the community setting</td>
</tr>
<tr>
<td>Group underwriting of health insurance</td>
<td>Affordable individual insurance options</td>
</tr>
<tr>
<td>Limited data on quality, cost, and outcomes</td>
<td>Primary care expected to manage populations with data</td>
</tr>
<tr>
<td>Rigid workforce and scope of practice models</td>
<td>Loosening of restrictions and expansion of care teams</td>
</tr>
<tr>
<td>Reliance on physicians as exclusive source of medical decision making</td>
<td>Increased dependence on evidence-based care</td>
</tr>
<tr>
<td>Care provided in silos; high burden on human resources to coordinate care</td>
<td>Increased collaboration across care settings, coordination through technology</td>
</tr>
<tr>
<td>A focus on the process</td>
<td>A focus on the patient</td>
</tr>
</tbody>
</table>

- **Health Centers generally well positioned**
- **Health Centers may be well positioned**
- **Health Centers likely not well positioned**
Reform: Simplified

Non “Value-Based” Healthcare Financial Resources
- DSH Payments
- Uncompensated care pools
- Patient responsibility

Insurance Pools

Private Managed Care Enterprises
- Traditional Managed Care
- Marketplace Plans
- Provider Organized Managed Care

Management Services Organizations (MSOs)
- Independent Practice Associations (IPAs)
- ACOs

Hot Topics: Health Center Strategies

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PROPRIETARY AND CONFIDENTIAL
What are Value Based Payments?

• Value-based payments reward achievement of healthcare related goals with enhanced payments.

• When Health Centers are paid like private providers, value-based payments are the mechanism to “earn back” a PPS equivalency.
Current Payment Pressure: Volume-Based

- Current Medicaid:
  - Current FQHC Rate: $140
  - Current Collection Rate: $99.26 (70.9%)
  - Slide Rate: $30 ($7 / 23%)

- Current Self-Pay:
  - Current Fee Schedule Rate: $123
  - Current Collection Rate: $69.99 (56.9%)

- Potential Commercial –Style Rates:
  - Current Fee Schedule Rate: $123
  - Improved Collection Rate: $86.10 (70.0%)

Averages based on Health Center survey respondent data. May not be representative of your Health Center but same analysis is relevant and possible.
Current Payment Pressure: At Risk Value-Based Payments

Current Medicaid
- Current FQHC Rate: $140
- Current Collection Rate: $99.26 (70.9%)

Commercial Rates
- Current FQHC Rate: $123
- Current Collection Rate: $69.99 (56.9%)

Future
- Value-Based Payments: $??
- Better Collection: $19.68
- Current FQHC Rate: $69.99 (56.9%)

- Limited value based payments are earned by managing quality outcomes
- To maximize financial opportunity, providers must manage “Total Medical Expense” of the populations they serve.

Averages based on Health Center survey respondent data. May not be representative of your Health Center but same analysis is relevant and possible.
What is Value Based Reimbursement?

To provide comprehensiveness in healthcare delivery, you must receive premium payments. To receive premium payments in the future, you must bear financial risk.

Increasing risk, increasing reward

Cost-based
Pay for Performance
Shared-savings
Global payments
Partial capitation
Full capitation

Historically, much of the P4P in dental has occurred within the pediatric population. Examples include: dental screenings, preventative services (i.e. sealants), risk assessments (i.e. Caries)

In some states, Medicaid Directors are starting to evaluate PMPM payments for defined patient populations.
5 Key Observations

1. The State will have the biggest impact on how Healthcare reorganizes
2. Regardless, Health Centers will have to manage more commercial-style contracts than before
3. Due to a variety of factors, significant pressure will be put on Health Center reimbursement
4. Organizations that can manage total medical expense and take risk will be favored
5. Scale is critical
Important Competencies for CHC Dental Practice Engaging in VBR

- Performance Management (Quality)
- Operations and Finance Efficiencies
- Innovation in Delivery
- Leveraging Scale
- Sophisticated Data Use
- Value Based Reimbursement
THE VALUE OF ORGANIZING
Each type of network has a specific purpose...

**IPA**
- We need to be free to negotiate with any and all payers in our region.

**ACO**
- I need to enter a very specific program with specific requirements.

**MSO**
- I need to support better organization and performance to participate.
Benefits of Working in Networks

• Considerable leverage in determining how changes in payment will impact network participants.
• Mitigates risk to individual CHCs.
• Capability to make new payment methodologies work.
• Shared investments in these capabilities.
• Leadership position for CHCs in their communities.
Networks can help CHC dental practices build needed competencies

- Data Analytics and Exchange
- Operational and Financial Efficiencies
- Promoting High Performing Medical Homes
- Expanding Care Coordination
- Continuous Operational Improvement
- Engaging Patients
- Payor Contracting
Why is integration with other health care providers important?

Payers
- Seek scale that is consistent, repeatable, and broad
- Expect effective and efficient clinical and financial outcomes

Patients
- Benefit from having their care managed across care settings
- Seek consistent, reliable, and trusted interactions with their providers

Providers
- Benefit with more comprehensive information about individual patients across care settings
- Advantaged when health planning can occur across a population of patients
Clinical Integration Defined

Clinical Integration is the process of utilizing a network to demonstrate healthcare value to consumers and payers. Clinical integration is necessary in order to...

• participate in joint risk-based contracting
• protect from anti-trust
• demonstrate collective primary care value
• achieve the Triple Aim and deliver accountable care
• establishes care is more efficient and effective as a network
What can dental learn from the Medical Model?

• Integration provides the workflows, relationships, and performance management necessary for accountable care and value based reimbursement

• Establishes the **legal** right to organize **as a network** with payers for reimbursement

• Results in shared clinical programs (i.e. UM, patient engagement, care planning, etc.)
Defining Clinical Integration

Participation Criteria

Performance Improvement

Information Technology

Joint Contracting

Legal Entities

Flow of Funds

Clinician Leadership

ACCOUNTABILITY
# Clinical Integration Roadmap (Sample)

<table>
<thead>
<tr>
<th>Core Strategy</th>
<th>Activities (Examples)</th>
<th>Deliverables (Examples)</th>
</tr>
</thead>
</table>
| **Identify Clinical Performance Standards** | • Standards based on current contract requirements and other reporting obligations  
• Establish performance management processes  
• Identify Evidence Based Guidelines based on current contract Standards | • Develop a Gain sharing policy  
• Participation agreement amendments  
• Quality Improvement plan for under performers  
• Documented performance baselines and Y1 progress |
| **Planning for Technology and Data** | • Data collection and analysis strategy  
• Analysis of patient/provider portals/IT  
• Preliminary planning for claims data  
• Preliminary planning for UM  
• Comprehensive plan for centralized data analytics strategy | • Data reports  
• Claims management workplan with MSO/vendor support for Y2  
• UM workplan with MSO for Y2  
• Data analytics |
| **Establish Shared Clinical Programs** | • Establish a network-level QI plan  
• Shared patient engagement/satisfaction programs  
• Implement a network-level care management program | • QI plan documented  
• Patient engagement and patient satisfaction tools documented  
• Care planning protocols developed, templates created, care coordination infrastructure implemented |
| **Leverage Clinical Integration with Payers** | • Legal opinion on clinical integration  
• Utilize demonstrated effectiveness and efficiency in contract negotiations | • Payer contracts |
The 2011 IOM Reports on Oral Health

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Themes from the 2011 IOM Reports on Oral Health

Improve access to services and oral health through:

• Chronic disease management

• Delivery Systems
  – Telehealth
  – Payment incentives
  – Workforce expansion

• Drive change and accountability through
  – Quality measures and improvement
Care for Chronic Oral Diseases

- Acute Care/
  Surgical
  Intervention

- Chronic
  Disease
  Management

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Total Health: How Long and How Well We Live

- Genetics: 30%
- Environment, Public Health: 20%
- Health Care Delivery (procedures): 10%
- Behaviors (alcohol, tobacco, diet, exercise, preventive dental procedures): 40%

Care for Chronic Oral Diseases

Acute Care/Surgical Intervention
- Provider-centric model
- Care delivered in fixed offices and clinics
- “Treatment” based on discrete procedure-based episodes of care
- Payment based on discrete procedure-based episodes of care
- Emphasis on surgical interventions

Chronic Disease Management
- Patient-centric model
- Care delivered where people are to the extent possible
- “Management” based on maintaining health across the life-cycle of a condition
- Payment based on value of health improvement across life-cycle of a condition
- Emphasis on risk assessment, prevention, and early intervention, using biological, medical, behavioral, and social tools
Deployment of

Science of caries and chronic disease management

Oral Health Resources
Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
Figure. The evidence pyramid displays the quality of evidence according to type of study. “Quality” refers to the likelihood of predicting what would occur in one’s own practice (and the least probability of bias). Guidelines explicitly based on this evidence pyramid offer clinicians a simplified mechanism for obtaining and potentially using the knowledge identified in this pyramid. Conversely, the lowest level of evidence, with the least likelihood of predicting what would occur in one’s practice (and the highest probability of bias), can provide useful background information (such as laboratory and animal studies, cross-sectional epidemiologic studies, and expert opinion or narrative reviews). “Filtered information” is so-called secondary research. These reports systematically search for, critically appraise, distill and present the results of primary research, called here “unfiltered information.” Adapted from Harvey Cushing/John Hay Whitney Medical Library, Yale University.2

Niederman R, Clarkson J, Richards, D. The Affordable Care Act and evidence-based Care. JADA 2011;142(4):364-367
Diffusion of Innovation

Sealants and dental caries: Insight into dentists' behaviors regarding implementation of clinical practice recommendations
Jean A. O'Donnell, Adriana Modesto, Marnie Oakley, Deborah E. Polk, Benita Valappil and Heiko Spallek
JADA 2013;144(4):e24-e30

• Results: Personal clinical experience emerged as the determining factor in dentists’ treatment decisions ... Additional factors were lack of reimbursement and mistrust of the recommendations. ... knowledge of the recommendations did not lead to their adoption when the recommendation was incongruent with the dentist’s personal experience.

• Conclusions: ... ingrained practice behavior based on personal clinical experience that differed substantially from evidence-based recommendations resulted in a rejection of these recommendations.
• Expert panel convened by ADA Council on Scientific Affairs
• Sealants are effective in reducing occlusal caries incidence in permanent first molars of children, with caries reductions of 76.3 percent at four years, when sealants were reapplied as needed. Caries reduction was 65 percent at nine years from initial treatment, with no reapplication during the last five years
• The use of explorers is not necessary for the detection of early lesions. Forceful use of a sharp explorer can damage tooth surfaces
• The clinician should use recent radiographs, if available, in the decision-making process but should not obtain radiographs for the sole purpose of placing sealants
• The evidence supports the placement of sealants over non-cavitated caries lesions in the pits and fissures of permanent teeth in children, adolescents, and young adults.

• This finding does not support reported concerns about poorer outcomes associated with the inadvertent sealing of caries and should lessen the reluctance of practitioners to provide sealants—an intervention proven to be highly effective in preventing caries.
Incomplete Caries Removal

ULTRACONSERVATIVE AND CARIOSTATIC SEALED RESTORATIONS: RESULTS AT YEAR 10


- This 10-year study evaluated bonded and sealed composite restorations placed directly over frank cavitated lesions extending into dentin vs. sealed conservative amalgam restorations and conventional unsealed amalgam restorations.

- The results indicate that both types of sealed restorations exhibited superior clinical performance and longevity compared with unsealed amalgam restorations.

- Also, the bonded and sealed composite restorations placed over the frank cavitated lesions arrested the clinical progress of these lesions for 10 years.
Figure 1B. At year 6, there is no evidence of progress of the lesions shown in Figure 1A.

Figure 1C. At year 10, the lesions in Figure 1A are well-delineated and not progressing, the distance between the carious lesions and the pulp is not decreasing and the pulp is not in danger in either tooth no. 30 or 31.
Incomplete Caries Removal

F. Schwendicke*, C.E. Dörfer, and S. Paris

Department for Conservative Dentistry and Periodontology, Christian-Albrechts-University, Arnold-Heller-Str. 3, 24105 Kiel, Germany; *corresponding author, schwendicke@konspar.uni-kiel.de


• Increasing numbers of clinical trials have demonstrated the benefits of incomplete caries removal, in particular in the treatment of deep caries.
• Teeth treated with incomplete caries removal showed risk reduction for both pulpal exposure and pulpal symptoms.

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Interim Therapeutic Restoration (ITR)

Policy on Interim Therapeutic Restorations (ITR)

Originating Council
Council on Clinical Affairs

Review Council
Council on Clinical Affairs

Adopted
2001

Revised
2004, 2008

AAPD Policy on Interim Therapeutic Restorations (ITR)

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The Changing Standard of Care

• 1923 Frye vs United States (community standard)
  – Supreme Court ruling - “Locality rule” - originated in the late 1800s, accommodated clinicians living in rural and urban areas who had differing education, training and access to information.

• 1993 - Daubert v Merrell Dow Pharmaceuticals Inc
  – Required judges to act as gatekeepers to ensure that only sound scientific knowledge is admitted in court
  – Scientific knowledge, in this context, derives from human clinical trials that involve implementation of the Baconian scientific method to identify valid and reliable outcomes. Furthermore, sound scientific knowledge is not excluded simply because it may not be accepted by the local community.

• Conclusion: Clinicians who do not know, or do not follow, practices based on the best evidence-based guidelines may be placing themselves at risk.

Science of caries and chronic disease management
Deployment of Oral Health Resources

- Science of caries and chronic disease management
- Community-based telehealth enabled teams
EHR: Radiographs
EHR: Photographs
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The Virtual Dental Home Concept Model

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

Cloud-Based Electronic Health Record
Radiographs
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

Disease, needing in-person treatment by dentist?

Cloud-Based Electronic Health Record
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?

No

Allied Personnel – On-Site
Prevention & early intervention procedures, case management, integration into educational, social, general health systems

Yes

Dentist – On-Site
Disease treatment

Dentist – Dental Office
Disease treatment

Dentist – Dental Clinic
Disease treatment

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

Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
Oral Health Systems for Underserved Populations
Hub and Spoke System

- Community Site
- Community Site
- Community Site
- Community Site
- Community Site
- Dental Treatment Center

Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
California To Launch Medicaid-Funded Teledentistry

Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
Denti-Cal Teledentistry Billing

Teledentistry

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

Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
AB1174
Implementation Resources

• Intermittent Clinics
• Dental Hygiene Billing
• Dentist Contracting
Deployment of Science of caries and chronic disease management

Community-based telehealth enabled teams

Financial Incentives aligned with oral health outcomes

Oral Health Resources

Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
What is a dental practice?

High cost surgical suite

Low cost community site
Economic Calculations in Dental Practice
Economic Calculations in Dental Practice
Economic Calculations in Dental Practice
Economic Calculations in Dental Practice
Economic Calculations in Dental Practice

Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
Economic Calculations in Dental Practice
Economic Calculations in Dental Practice
What is a dental practice?

High cost surgical suite

Low cost community site

Pacific Center for Special Care at the University of the Pacific Arthur A. Dugoni School of Dentistry
Disruptive Innovation

• Disruptive innovation, describes a process by which a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves up market, eventually displacing established competitors.
Disruptive Innovation

• As companies tend to innovate faster than their customers’ needs evolve, most organizations eventually end up producing products or services that are actually too sophisticated, too expensive, and too complicated for many customers in their market. Companies pursue these “sustaining innovations” at the higher tiers of their markets because this is what has historically helped them succeed: by charging the highest prices to their most demanding and sophisticated customers at the top of the market, companies have achieved the greatest profitability.
Disruptive Innovation

• However, by doing so, companies unwittingly open the door to “disruptive innovations” at the bottom of the market. An innovation that is disruptive allows a whole new population of consumers at the bottom of a market access to a product or service that was historically only accessible to consumers with a lot of money or a lot of skill.
## Disruptive Innovation

- Some examples of disruptive innovation include:

<table>
<thead>
<tr>
<th>Disruptor</th>
<th>Distruptee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal computers</td>
<td>Mainframe and mini computers</td>
</tr>
<tr>
<td>Mini mills</td>
<td>Integrated steel mills</td>
</tr>
<tr>
<td>Cellular phones</td>
<td>Fixed line telephony</td>
</tr>
<tr>
<td>Community colleges</td>
<td>Four-year colleges</td>
</tr>
<tr>
<td>Discount retailers</td>
<td>Full-service department stores</td>
</tr>
<tr>
<td>Retail medical clinics</td>
<td>Traditional doctor’s offices</td>
</tr>
<tr>
<td>Low cost transportation – Japanese Autos</td>
<td>Traditional American automobile industry</td>
</tr>
</tbody>
</table>
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 Care in the Future

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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*

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Paul Glassman DDS, MA, MBA
Professor and Director of Community Oral Health
University of the Pacific School of Dentistry
San Francisco, CA
pglassman@pacific.edu

Amanda Stengis MPH
Starling Advisors
amanda@starlingadvisors.com