The National Telehealth Webinar Series

Presented by
The National Network of Telehealth Resource Centers
The Virtual Dental Home: Implications for Policy & Strategy
Paul Glassman, DDS, MA MBA
Professor of Dental Practice, Director of Community Oral Health, University of the Pacific
and
Mario Gutierrez, MPH
Executive Director, Center for Connected Health Policy
Thursday, August 15, 2013
(9:00AM HST, 10:00AM AKST, 11:00AM PST, 12:00PM MST, 1:00PM CST, 2:00PM EST)
Disclaimers

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Always consult with legal counsel.

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National Telehealth Policy Resource Center

www.telehealthpolicy.us

• We are an independent, non-profit focused on identifying and overcoming policy barriers to the use of telehealth, and developing the base of evidence of its benefits to the nation’s health care systems.

• We provide technical advice on policy, regulatory and legal issues related to telehealth on a state and national level, and publish reports, policy briefs, studies and papers.
The Virtual Dental Home: Overview and Results

Paul Glassman DDS, MA, MBA
Professor and Director of Community Oral Health
University of the Pacific School of Dentistry
San Francisco, CA
The Virtual Dental Home Update

- Background: Health Reform, Accountability
- Caries Management
- The Health Workforce Pilot Project #172
- The Virtual Dental Home Progress Report
- Economic Analysis: Cost of Neglect of Dental Disease and Costs of the Virtual Dental Home
- AB1174, why it was proposed and what it would do
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.
The Era of Accountability
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
Moving Oral Health Care from Volume to Value**

**Value = health outcomes achieved per dollar spent over the lifecycle of a condition**
Moving Oral Health Care from Volume to Value**

**Value = health outcomes achieved per dollar spent over the lifecycle of a condition
Moving Oral Health Care from Volume to Value**

**Value = health outcomes achieved per dollar spent over the lifecycle of a condition**

- Collect and Manage Data
- Meaningful Use
- EHRs + Other Data Sources
- Measurement
- Monitoring
- Incentives Based on Health Outcomes

**Meaningful Use**

**Collect and Manage Data**

**EHRs**

**Incentives Based on Health Outcomes**
Moving Oral Health Care from Volume to Value*

**Value = health outcomes achieved per dollar spent over the lifecycle of a condition**
Moving Oral Health Care from Volume to Value**

**Value = health outcomes achieved per dollar spent over the lifecycle of a condition**
**Value = health outcomes achieved per dollar spent over the lifecycle of a condition**
Prevention and Early Intervention Strategies

• Partial caries removal
• Interim Therapeutic Restorations
Community-Based Prevention and Early Intervention Strategies

ALAN W. BUDENZ, MS, DDS, MBA, AND PAUL SUBAR, DDS, EDD

ABSTRACT  Many people in California face significant barriers to obtaining dental care. Creation of a community-based oral health delivery system that could deliver preventive and simple therapeutic oral health services in community settings where these populations live or receive social and/or general health services has been one of the proposed strategies for improving access to oral health care. Two of the newer techniques are caries management by risk assessment and interim therapeutic restoration.
Incomplete Caries Removal

• 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.
Atraumatic Restorative Treatment

Two systematic reviews on longevity of ART restorations vs amalgam and pain and fear experienced during restoration.¹,²

• Longevity: In primary teeth there was no significant difference in longevity over 12 and 24 months. In permanent dentition longevity of ART restorations is equal to or greater than that of equivalent amalgam restorations for up to 6.3 years.

• Pain and fear: ART promotes less discomfort for patients, contributing to a reduction of anxiety and fear during the dental treatment. Results also indicated that ART minimizes pain reported by patients


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)
The CA Health Workforce Pilot Project

Healthcare Workforce Development Division

HEALTH WORKFORCE PILOT PROJECTS PROGRAM (HWPP)
HWPP program allows organizations to test, demonstrate, and evaluate new or expanded roles for healthcare professionals, or new healthcare delivery alternatives before changes in licensing laws are made by the Legislature. Various organizations use HWPPs to study the potential expansion of a profession’s scope of practice to:

- Facilitate better access to healthcare
- Expand and encourage workforce development
- Demonstrate, test and evaluate new or expanded roles for healthcare professionals or new healthcare delivery alternatives
- Help inform the Legislature when considering changes to existing legislation in the Business and Professions code
The CA Health Workforce Pilot Project

HEALTH WORKFORCE PILOT PROJECTS

ABSTRACT

APPLICATION: #172

TRAINING CURRENT ALLIED DENTAL PERSONNEL FOR NEW DUTIES IN COMMUNITY SETTINGS

APPLICANT/SPONSOR:
Pacific Center for Special Care
at the University of the Pacific
Arthur A. Dugoni School of Dentistry
2155 Webster Street
San Francisco, California 94115

PROJECT DIRECTOR:
Dr. Paul Glassman
Director of Community Oral Health

SPONSOR TYPE:
Non-profit Education Institution

PURPOSE:
To teach new skills to existing categories of health care personnel and to improve the oral health of underserved populations by expanding duties of dental assistants, and dental hygienists working in community settings
The CA Health Workforce Pilot Project

• RDAs, RDHs, and RDHAPs will make the decision about which radiographs to take, if any, to facilitate an initial oral evaluation by a dentist.

• RDAs, RDHs, and RDHAPs will place “Interim Therapeutic Restorations” (ITR)
The Virtual Dental Home
The Virtual Dental Home: Bringing Oral Health to Vulnerable and Underserved Populations

Paul Glassman, DDS, MA, MBA; Maureen Harrington, MPH; Maysa Namakian, MPH; and Paul Subar, DDS, EDD

Abstract Large and increasing oral health disparities in the U.S. population led the Institute of Medicine to call for expanded research and demonstration of delivery systems that test new methods and technologies. These new methods include delivering oral health services in nontraditional settings, using nondental professionals, expanded roles for existing dental professionals and new types of dental professionals, and incorporating telehealth technologies. The virtual dental home is a system that demonstrates the characteristics called for by the IOM.
**Allied Personnel – On-Site**
Intake & periodic recall visits, record collection, communication with dentist
EHR: Radiographs
EHR: Photographs
### Pre-existing Conditions

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<th>Date</th>
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<th>Surf</th>
<th>Est. Ins.</th>
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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
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
Study on Telehealth vs In-Person Decision Making
In-Person Versus “Virtual” Dental Examination: Congruence Between Decision-Making Modalities

MAYSA NAMAKIAN, MPH; PAUL SUBAR, DDS, EDD; PAUL GLASSMAN, DDS, MA, MBA; ROBERT QUADE, PHD, MBA; AND MAUREEN HARRINGTON, MPH

ABSTRACT This study evaluated the agreement of a dentist’s conclusions reached through an in-person versus a virtual examination. The dentist determined whether a patient was healthy enough to be treated only by allied dental personnel in a community setting or whether the patient needed to be seen by a dentist. The study concludes that a virtual examination is a strong substitute for an in-person examination and validates the application of telehealth-enabled examinations.
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

Cloud-Based Electronic Health Record

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

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

University of the Pacific Program management

Disease, needing in-person treatment by dentist?

No

Yes

Pacific Center for Special Care, University of the Pacific School of Dentistry, © 2012
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)
Oral Health Systems for Underserved Populations

Geographically Distributed
Collaborative
Telehealth Enabled
Prevention Focused
Systems of Oral Health Care Without Walls
Oral Health Systems for Underserved Populations

Geographically Distributed

Telehealth Enabled

Oral Health Care Team
Current VDH Sites

- **Sacramento** - Elementary school-based facilities working with community dentists
- **Visalia/Fresno** — Nursing home facilities working with community dentists
- **San Diego** - Head Start Centers and Elementary schools working with a health center
- **Eureka** - Residential facilities for people with disabilities working with a health center
- **Alameda and Contra Costa Counties** - Residential facilities for people with disabilities working with community dentists
- **Santa Clara and Santa Cruz Counties** - Residential facilities for people with disabilities working with community dentists
- **San Mateo County** - Residential facilities for people with disabilities working with community dentists
- **Pacoima** – a Community Center working with community dentists
- **San Mateo County** – Head Start Centers working with a Health Center
- **Los Angeles** – Head Start Centers working with a Health Center
## Patients and Visits

<table>
<thead>
<tr>
<th>Population Type</th>
<th># of Patients Seen</th>
<th>Total Visits</th>
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<td>Head Start</td>
<td>871</td>
<td>2537</td>
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<tr>
<td>Elementary</td>
<td>214</td>
<td>1027</td>
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<tr>
<td>Long Term Care</td>
<td>179</td>
<td>798</td>
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<tr>
<td>Multifunction Community Center</td>
<td>221</td>
<td>483</td>
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<tr>
<td>Regional Center</td>
<td>112</td>
<td>486</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>1597</strong></td>
<td><strong>5331</strong></td>
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Data Current as of 4/30/13
## Referrals to Dental Offices

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<tr>
<th>Type of Site</th>
<th>% Needing Referral to Dental Office</th>
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<tr>
<td>Elementary</td>
<td>66%</td>
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<tr>
<td>Long Term Care</td>
<td>51%</td>
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<tr>
<td>Head Start</td>
<td>43%</td>
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Data Current as of 4/30/13
## HWPP Procedures Completed

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<tr>
<th>Population Type</th>
<th># of Patients Seen</th>
<th>Xrays Taken in Utilization</th>
<th>ITRs Placed in Utilization</th>
<th>ITRs placed in Training</th>
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<tbody>
<tr>
<td>Head Start</td>
<td>871</td>
<td>351</td>
<td>61</td>
<td>40</td>
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<tr>
<td>Elementary</td>
<td>214</td>
<td>300</td>
<td>14</td>
<td>20</td>
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<tr>
<td>Long Term Care</td>
<td>179</td>
<td>109</td>
<td>178</td>
<td>10</td>
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<tr>
<td>Multifunction</td>
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<tr>
<td>Community Center</td>
<td>221</td>
<td>201</td>
<td>33</td>
<td>20</td>
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<tr>
<td>Regional Center</td>
<td>112</td>
<td>64</td>
<td>54</td>
<td>20</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>1597</strong></td>
<td><strong>1025</strong></td>
<td><strong>340</strong></td>
<td><strong>110</strong></td>
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Data Current as of 4/30/13
# Ratings of Procedures

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<th>Procedure Performed During Utilization Phase</th>
<th>#</th>
<th># of Rated as Acceptable</th>
<th># of Rated as Unacceptable</th>
<th>Adverse Outcomes</th>
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<td>Radiographic Decision</td>
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<td>Interim Therapeutic Restorations</td>
<td>340</td>
<td>340</td>
<td>0</td>
<td>0</td>
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<tr>
<td>All Other Procedures</td>
<td>8934</td>
<td>-</td>
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Data Current as of 4/30/13
## Administrators Survey

How satisfied are you with the dental care provided through the VDH?

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<th>Satisfaction</th>
<th>Response Percent</th>
<th>Response Count</th>
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<td>Very satisfied</td>
<td>96.2%</td>
<td>25</td>
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<tr>
<td>Somewhat satisfied</td>
<td>3.8%</td>
<td>1</td>
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<tr>
<td>Not very satisfied</td>
<td>0.0%</td>
<td>0</td>
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<tr>
<td>Not at all satisfied</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Don’t know</td>
<td>0.0%</td>
<td>0</td>
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Data Current as of 4/30/13
The Virtual Dental Home Cost Analysis
(as of 2/28/31)

• Reductions of the costs of neglect

The Costs of Neglect of Dental Disease:
And the Impact of the Virtual Dental Home

April 10, 2013
THE COSTS OF NEGLECT OF DENTAL DISEASES

Neglected dental disease can lead to serious, widespread, and sometimes tragic consequences, including missed school days among children and missed work among adults, increased expenses for advanced reparative dental treatment, preventable visits to hospital emergency departments and operating rooms, decreased social engagement and employability among adults with missing teeth, and even occasional life threatening infections.

Emphasizing scientifically validated prevention and early intervention procedures can help to increase both clinical and cost effectiveness of such a program. Indeed, our analysis suggests that if 1000 children enrolled in Head Start who were previously not receiving dental services were to participate in such a program, California’s MediCal program would actually save $2000 because the cost of providing the services would be more than offset by lower costs stemming from the consequences of neglect. This is just one example of the potential benefits of such a research and prevention based program; other populations stand to reap benefits as well.
The Virtual Dental Home: Cost of Providing Care vs. Cost of Neglect

Cost of providing care (salaries, materials, equipment, infrastructure)

Cost of Neglect
(transportation, cost of dental treatment, costly hospital ED/OR visits, associated medical problems, lost days of school and work)

Pacific Center for Special Care, University of the Pacific School of Dentistry, © 2012
The Virtual Dental Home: Cost of Providing Care vs. Cost of Neglect

Cost of providing care (salaries, materials, equipment, infrastructure)

Cost of Neglect
(transportation, cost of dental treatment, costly hospital ED/OR visits, associated medical problems, lost days of school and work)

Community on-site care delivered by allied personnel emphasizing prevention and early intervention
The Virtual Dental Home: Cost of Providing Care vs. Cost of Neglect

Cost of providing care
(salaries, materials, equipment, infrastructure)

Cost of Neglect
(transportation, cost of dental treatment, costly hospital ED/OR visits, associated medical problems, lost days of school and work)

Dental Office or Clinic Care
delivered by dentists using fixed equipment in fixed offices

Community on-site care
delivered by dentists using movable or portable equipment

Community on-site care
delivered by allied personnel emphasizing prevention and early intervention

Pacific Center for Special Care, University of the Pacific School of Dentistry, © 2012
The Virtual Dental Home: Cost of Providing Care vs. Cost of Neglect

Cost of providing care (salaries, materials, equipment, infrastructure)

Cost of Neglect (transportation, cost of dental treatment, costly hospital ED/OR visits, associated medical problems, lost days of school and work)

- Hospital ED/OR Care: delivered by dentists or physicians in the hospital ED or OR
- Dental Office or Clinic Care: delivered by dentists using fixed equipment in fixed offices
- Community on-site care: delivered by dentists using movable or portable equipment
- Community on-site care: delivered by allied personnel emphasizing prevention and early intervention

Pacific Center for Special Care, University of the Pacific School of Dentistry, © 2012
Current Regulatory Barriers

• HWPP duties need to be moved to statute
• Need to clarify payment for telehealth enabled procedures
AMENDED IN ASSEMBLY MARCH 21, 2013

CALIFORNIA LEGISLATURE—2013–14 REGULAR SESSION

ASSEMBLY BILL No. 1174

Introduced by Assembly Member Bocanegra

February 22, 2013

An act to amend Sections 1752.4, 1753.5, 1753.6, and 1910 of the Business and Professions Code, and to add Section 14132.726 to the Welfare and Institution Code, relating to oral health.
The Virtual Dental Home: Overview and Results

Paul Glassman DDS, MA, MBA
Professor and Director of Community Oral Health
University of the Pacific School of Dentistry
San Francisco, CA
Summary of Key Issues & Opportunity for Questions
The National Telehealth Resource Center Webinar Series

3rd Thursday of every month

Next Webinar:

Telehealth Topic: Home Monitoring
Presenter: Pacific Basin Telehealth Resource Center
Date: Thursday, September 19, 2013
Times: 9:00AM HST, 10:00AM AKST, 11:00AM PST, 12:00PM MST, 1:00PM CST, 2:00PM EST
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http://www.surveymonkey.com/s/NationalTRCWebinarSeries

TRC activity is supported by grants from the Office for the Advancement of Telehealth, Office of Health Information Technology, Health Resources and Services Administration, DHHS