Teledentistry: A New Era for Oral Health

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Disclosures
The presenter has consulting arrangements with the following entities:
- DentaQuest Impact, Inc.
- The Colgate-Palmolive Company
- Virtual Dental Care
- Idaho Department of Health
- Rhode Island Department of Health
- Multiple dental care providers

Drivers of the Health Reform 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 1980-2013

Public Health Care Spending vs Debt
Health Care Spending

“Medical costs are the tapeworm of American economic competitiveness”


Health Care and Social Spending as a Percent of GDP 2013

Social Determinants of Health

The Quadruple Aim

National Oral Health Expenses

California Northstate University College of Dental Medicine
The Surgeon General’s Report

• “Although there have been gains in oral health status for the population as a whole, they have not been evenly distributed across subpopulations.”

• **Profound** health disparities exist among populations including:
  – Racial and ethnic minorities
  – Individuals with disabilities
  – Elderly individuals
  – Individuals with complicated medical and social conditions and situations
  – Low income populations and those living in rural areas
The current dental care system primarily serves the wealthiest and healthiest segments of the population.
• DQA
• Payers
  – Dental Benefit Companies
  – Public Payers
• HRSA: Health Center system
• Group Practices

The Declining Role for the Dental Drill

Remineralization

Caries Arresting Medications

Sealing Caries

Fluoride Varnish
Silver Diamine Fluoride

Sealing Caries

Dental Sealants
Interim Therapeutic Restorations

Care for Chronic Oral Diseases

Acute Care/Surgical Intervention

Chronic Disease Management

Total Health: How Long and How Well We Live

Health Care Delivery (procedures)

Behaviors (alcohol, tobacco, diet, exercise, preventive dental procedures?)

Environment, Public Health

Genetics

20%
10%
40%
30%

**Teledentistry**

- Dentist to dentist interactions: share records, patients
- Real time video consultation – dentist to dentist/patient
- Store-and-forward record review
- Patient to dentist interactions
- Real time video surgical support
- mHealth data collection
- Telehealth-connected team delivery systems

**mHealth**

- Dentists in China successfully used a robot to perform implant surgery without human intervention

**The Virtual Dental Home**

**EHR: Radiographs**
Community-based Prevention and Early Intervention Procedures

The Virtual Dental Home Sites

Oral Health Systems for Underserved Populations

Telehealth-Connected Teams
Telehealth-Connected Teams and Virtual Dental Homes

Key Outcomes

- Reach people, emphasize prevention, and lower costs
- Majority of people kept and verified healthy on-site
  - About 2/3 of children had all needed services completed by dental hygienist
- Continuous presence
- Community organization integration
- Dentist integration

The Virtual Dental Home Current Trainees

- 8- DentalQuest Learning Collaborative
- 19- DHCS Dental Transformation Initiative
- 1- Delta Dental
- 5- HRSA
- 1- CA Wellness
- 2- Regional Centers
- 2- Hawaii
- 3- Oregon
- 5- Colorado

Total = 46 entities

San Mateo County

- 2010
- 1 site in VDH Demonstration
- Partner – IHSD Head Start Agency
- 1 part time community team
- East Palo Alto

Ravenswood Family Health Center

- Ravenswood Family Dentistry
  - Serving Children of All Ages
  - 1907 Bay Road
  - East Palo Alto
  - (650) 289-7700
San Mateo County

- 27 sites
- Multiple agencies and schools
- 2 full time community teams
- Across San Mateo County

States Adopting Virtual Dental Home Systems

- 2010 VDH Funded Projects
- 2014 VDH Systems
- 2018 VDH Discussions

- 2019 VDH Funded Projects
- 2018 VDH Systems
- 2019 VDH Discussions

VDH Funded Projects
VDH Systems
VDH Discussions

67 68 69 70 71 72
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## Community Engaged Oral Health Systems

### Dental Care is a Team Sport

**What is a dental practice?**

- High cost surgical suite
- Low cost community site

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Advocacy on Using Telehealth-Connected Teams

[Link to DentaQuest Partnership for Oral Health Advancement](https://www.dentaquestpartnership.org/teledentistrywhitepaper)
There are several legal and regulatory issues that can either inhibit or facilitate realizing the potential benefits of telehealth-connected teams to deliver oral health services.

**The Regulatory Environment**

- **Ability to use telehealth**
  - Scope of practice laws, regulation, interpretation
  - Ability of allied personnel to collect diagnostic records prior to a patient being seen by a dentist
  - Ability of allied personnel to perform procedures in locations separate from dentists
  - Understanding that dentists can develop a diagnosis and treatment plan without an in-person visit with the patient

- **Ability to be paid for services performed using telehealth technologies**
  - Principle: consider telehealth technologies as communication tools, distinct from the health services that are being provided.
  - Require payors to pay for covered services whether performed in-person or with the use of telehealth technologies
  - Include store-and-forward as well as real time

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**NH dental hygiene practice is authorized under RSA 317-A**

*The Dental Practice Act*
Telehealth-Connected Teams: Training

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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