


Teledentistry: A New Era for Oral Health

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1

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

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2



California Department of
Public Health CDPH

Karen Smith, MD, MPH
Director and State Public Health Officer



Health Care Systems

- Increasing focus on health vs health care
- No longer enough to provide late stage repair
 - We need to intervene in the “social determinants of health”
- The population is changing
 - Older, more diverse, more complex
- Increasing interest in community as the level of focus
- Increased use of “big data”, value, and collaboration

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3

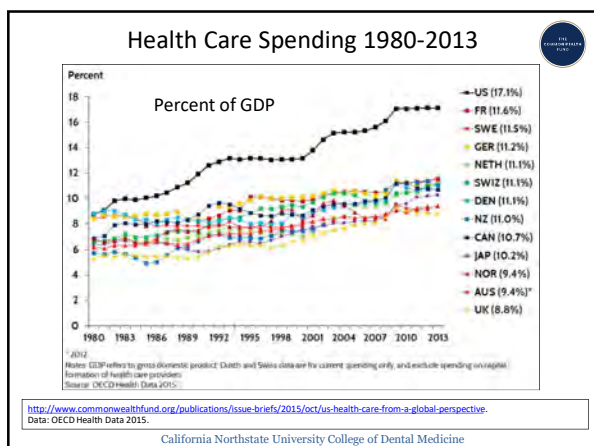
Drivers of the Health Reform in the U.S. Health Care System

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.

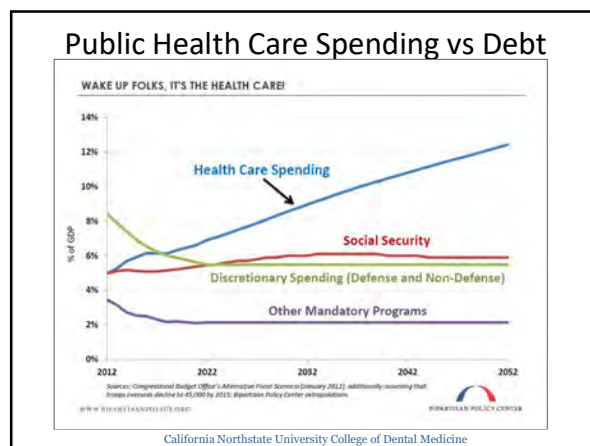


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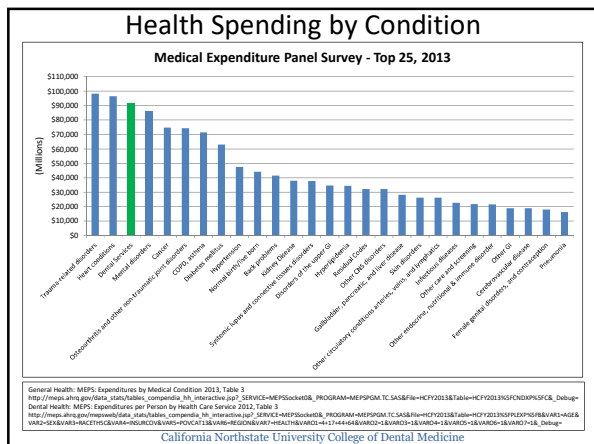
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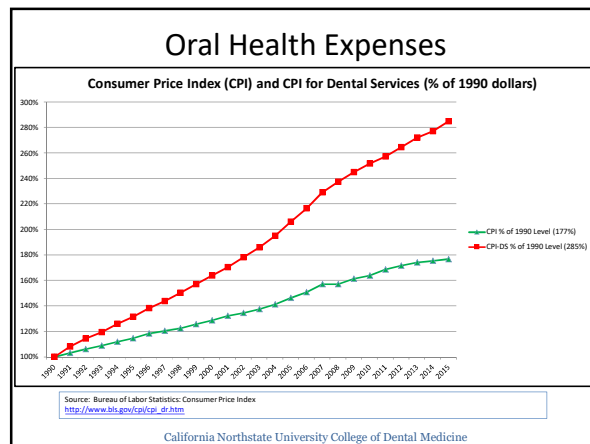
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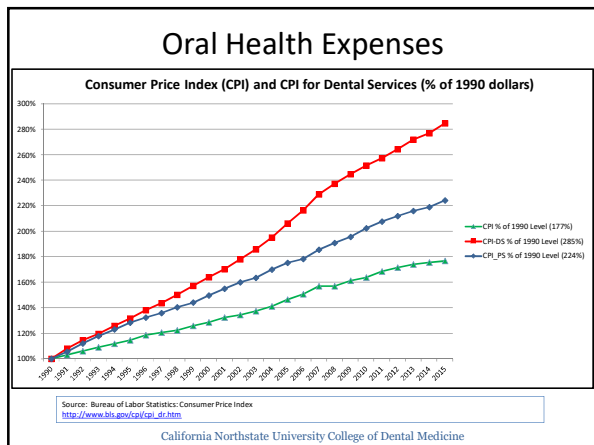
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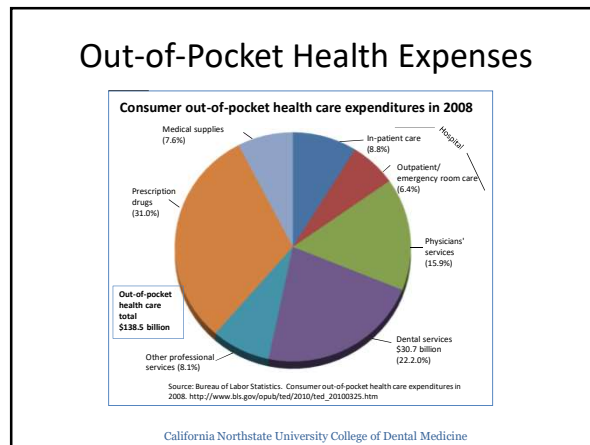
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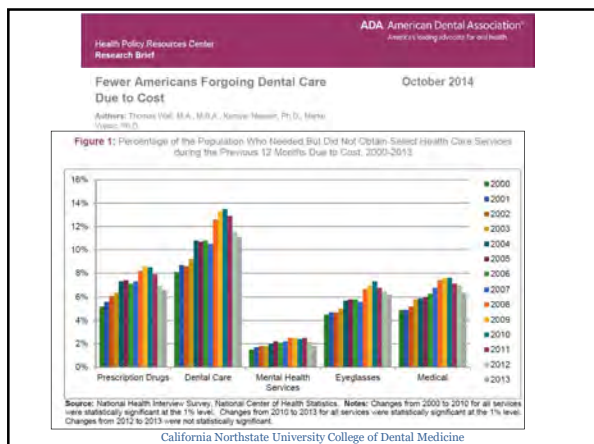
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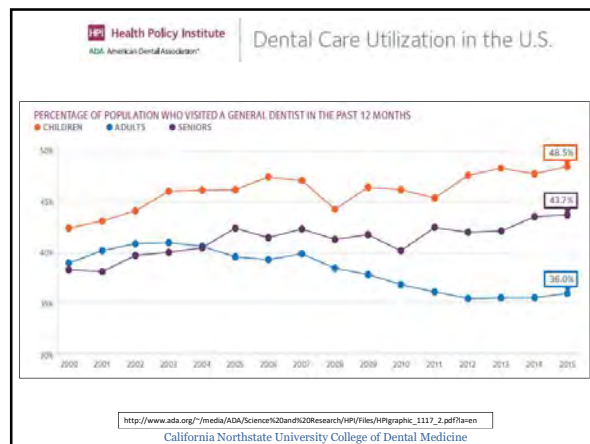
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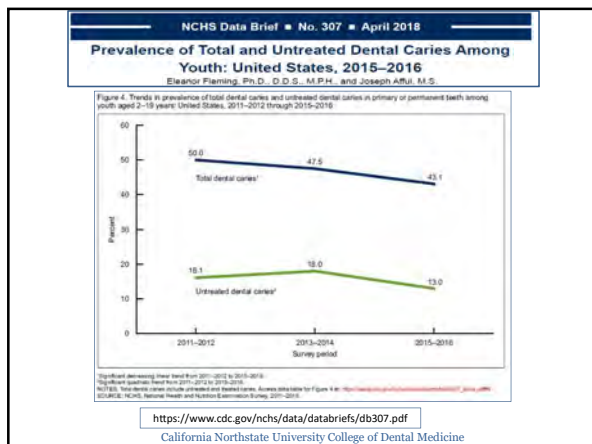
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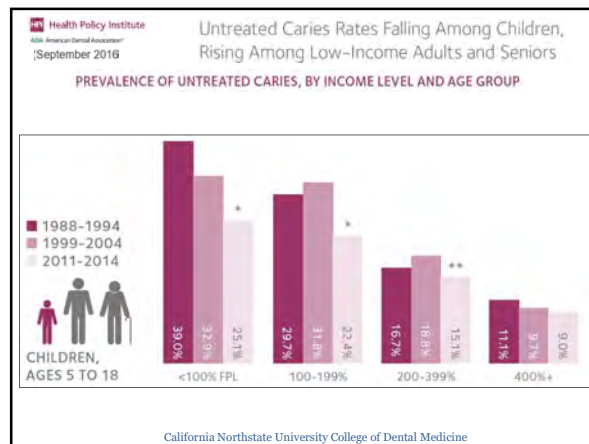
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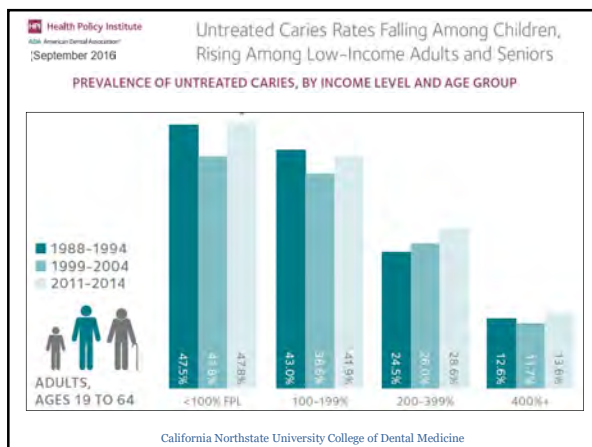
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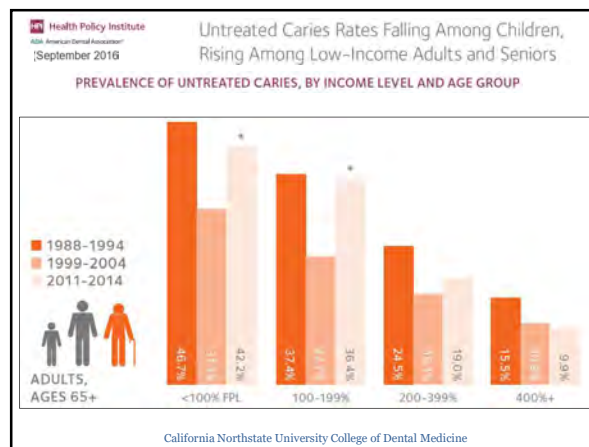
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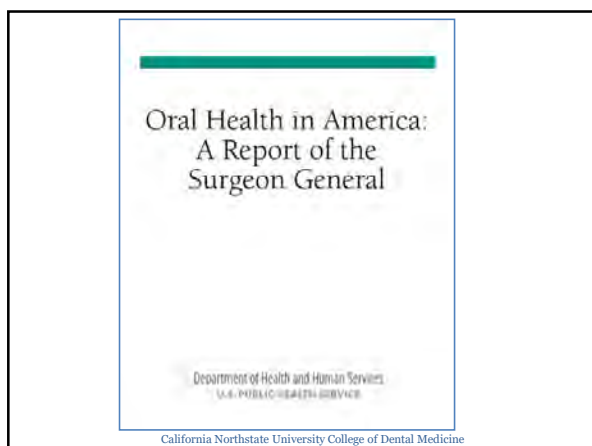
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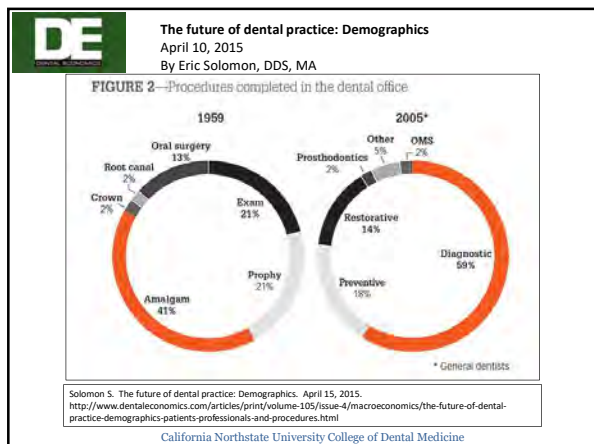
23

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

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24



25

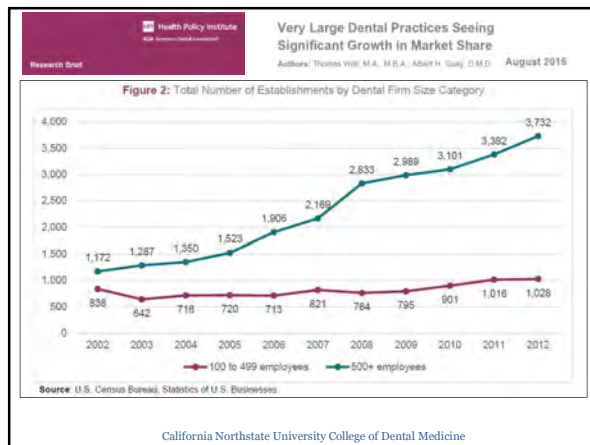


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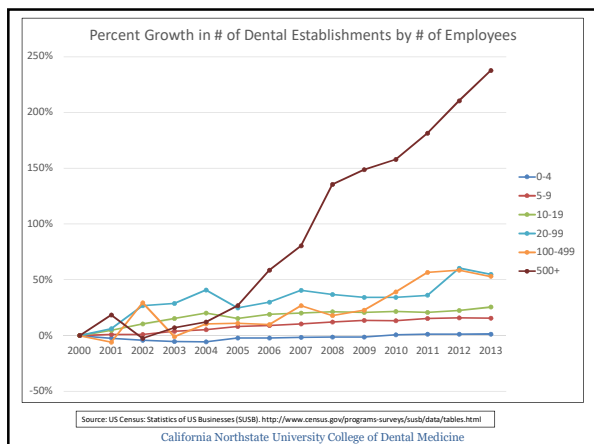
The current dental care system primarily serves the wealthiest and healthiest segments of the population

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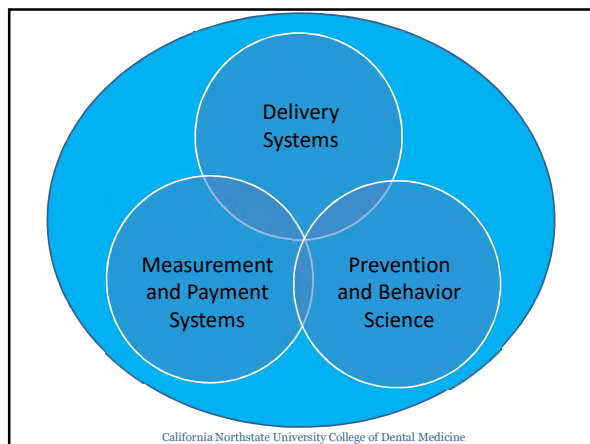
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28



29



30




- DQA
- Payers
 - Dental Benefit Companies
 - Public Payers
- HRSA: Health Center system
- Group Practices

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31

The Declining Role for the Dental Drill

Remineralization



Caries Arresting Medications




Sealing Caries


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32

Fluoride Varnish



Silver Diamine Fluoride




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33

Sealing Caries

Dental Sealants



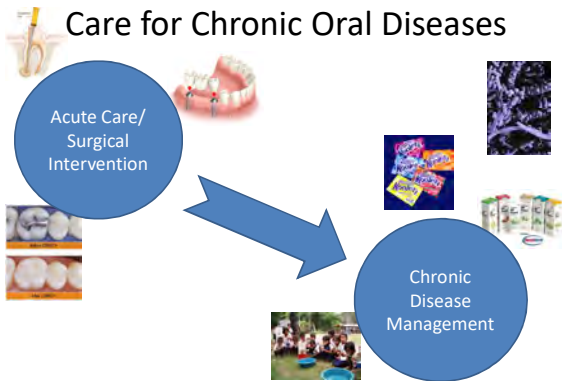
Interim Therapeutic Restorations



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34

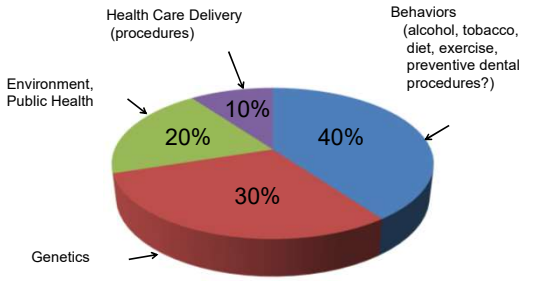
Care for Chronic Oral Diseases



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35

Total Health: How Long and How Well We Live



McGinnis JM & Foege WH. Actual Causes of Death in the United States. JAMA 1993; 270(18):2207-12 (Nov 10). McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health Affairs 2002; 21(2):78-83 (Mar).

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36

Teledentistry



DE
Sending dental X-rays: why email should not be your option

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

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37

mHealth

Electric Toothbrushes With Bluetooth Connectivity



PRESENTING THE ORAL-B 7000 ELECTRIC TOOTHBRUSH WITH BLUETOOTH CONNECTIVITY

YOUR TOOTHBRUSH WOULD LIKE TO HAVE A WORD WITH YOU

It records brushing activity as data that you can chart on your own and share with dental professionals.

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38

mHealth



PH₂OH PROFESSIONAL RESOURCES

ABOUT APPS SHOP NEWS CONTACT


The purpose of PH of Oral Health PH2OH initiative is to deliver new technology for pH saliva testing. This new innovation involves mobile phone application to capture time sensitive data and to communicate with the server in compliance with HIPAA regulations. Currently saliva-testing examination tool is used by the dental team to educate patients, assist in preventive treatment planning and properly select dental materials in order to isolate changes in the patient's oral hygiene. Dental team currently measures saliva pH through pH level test strip.

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39

SCIENCE

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



4 Star Yee Szei Chai & Jimmy Hui
23 May 22, 2017, 2:08 PM • 5/20

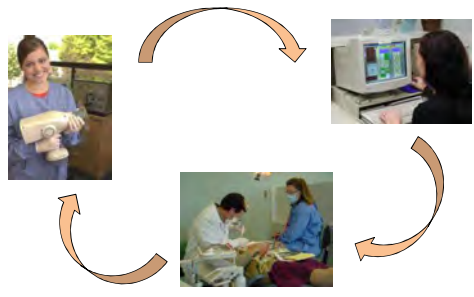
The robot implanted **two artificial teeth**

<http://www.businessinsider.com/dentists-in-china-used-a-robot-to-perform-implant-surgery-2017-4>

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40

The Virtual Dental Home



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41

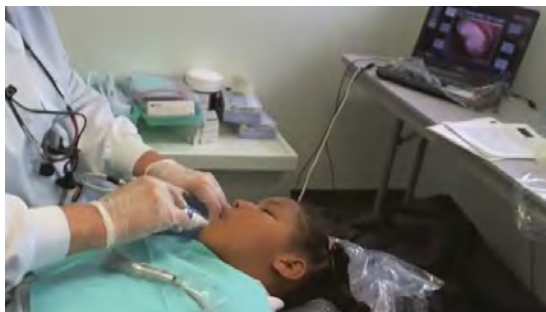
EHR: Radiographs



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42

EHR: Photographs



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43

Space and Equipment



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44

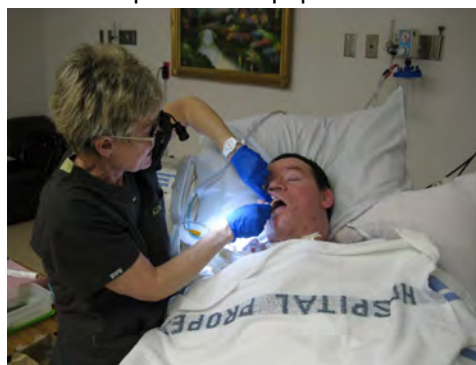
Space and Equipment



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45

Space and Equipment



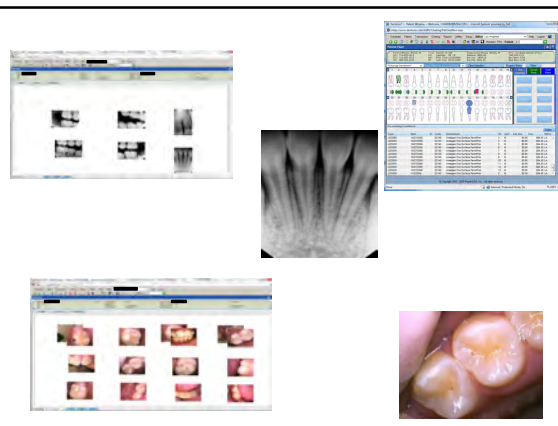
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46



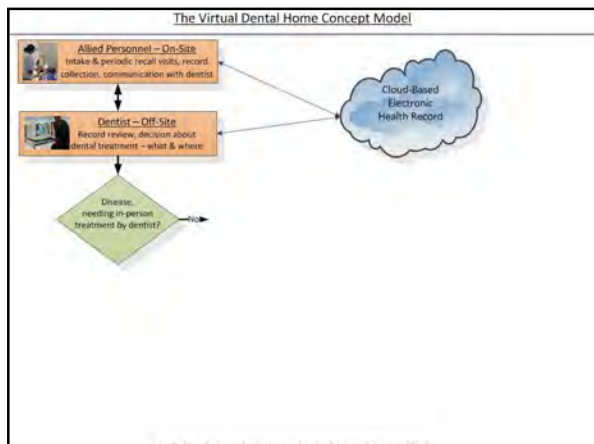
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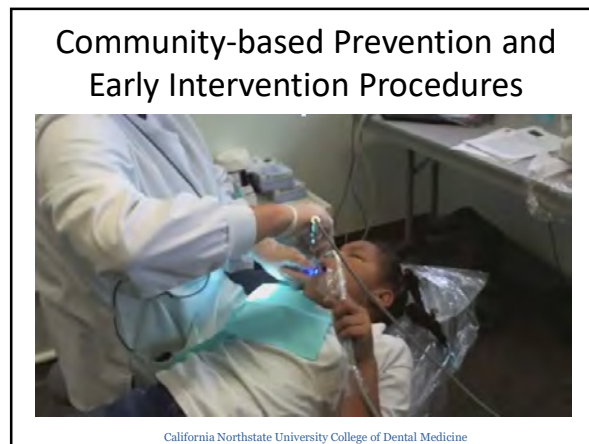


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48



49



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50



51

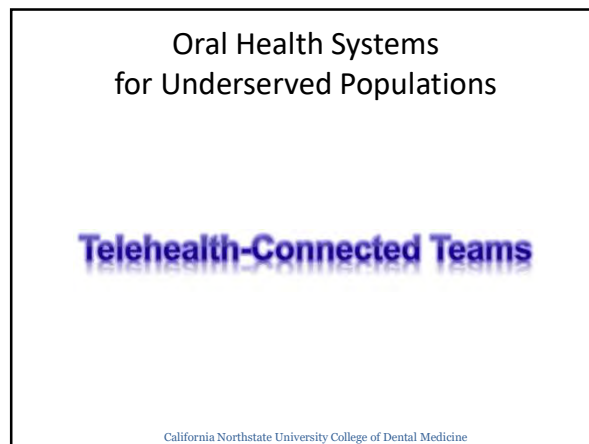


52



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53



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54

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

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55

The Virtual Dental Home Current Trainees

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56

The Virtual Dental Home Current Trainees

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57

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

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58

Ravenswood Family Health Center

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59

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60

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61

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62

Ravenswood Family Health Center



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63

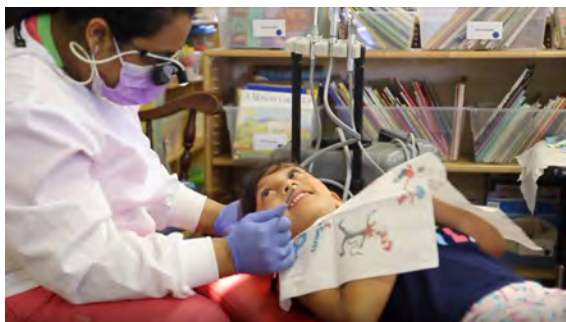
Ravenswood Family Health Center



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64

Ravenswood Family Health Center



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65

San Mateo County



- 2018
- 27 sites
- Multiple agencies and schools
- 2 full time community teams
- Across San Mateo County



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66

66

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

ADANews
December 07, 2015

House passes guidelines on teledentistry
December 07, 2015

Washington — It's similar to visiting a bricks and mortar dental office; only the dentist may be on a computer screen instead of in person.

On the teledentist model could have securely reviewed their patient care instructions to a specialist or dental hygienist at a community dental care event. Dentists could also virtually supervise the oral health care of nursing home patients, residents in rural areas or others who don't have access to a dentist in their area.

Teledentistry can take many forms and the ADA now has specific guidelines and expectations for dentists interested in delivering their services virtually.

The ADA House of Delegates passed Resolution 45H-2015, Comprehensive ADA Policy Statement on Teledentistry, in November at ADA 2015 – America's Dental Meeting.

Having ADA policy is certainly critical for the profession to accept and implement teledentistry because the Association can now support dentists to do it, said Dr. Paul Cassaman, a consultant to the ADA Council on Access, Prevention and Interprofessional Relations.

Dr. Cassaman looks at teledentistry as an expansion of the traditional dental practice, where patients can have a virtual dental home instead of a physical one. It provides easier access to dental care to patients in nursing homes or those who live in rural areas without a dentist.

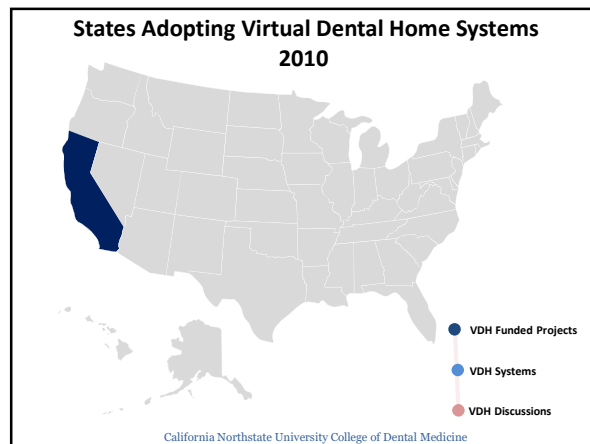
Dentists can also develop a plan for patients to receive care through virtual visits, including other treatment of a community site from skilled dental personnel under the dentist's virtual supervision.

Treatment based on experience Dr. Paul Cassaman discussed how teledentistry has been implemented in his dental clinic in California. Photo by ACE Event Photography

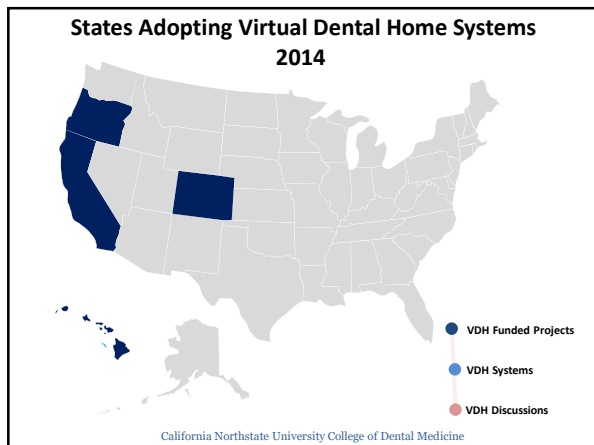


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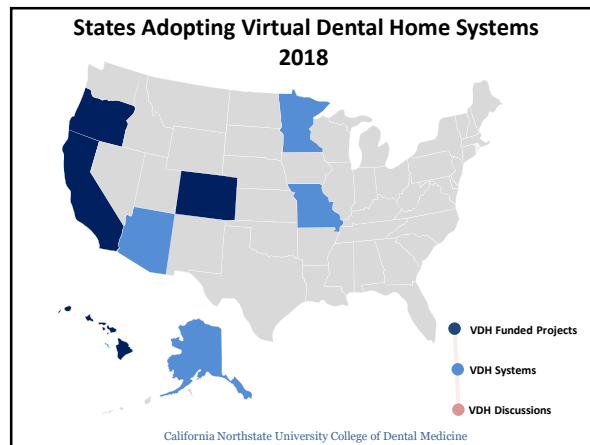
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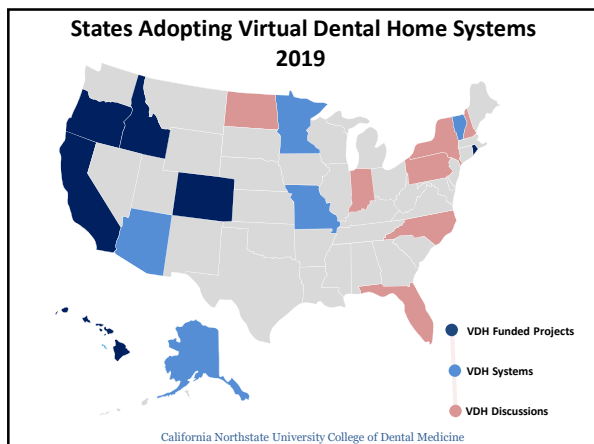
68



69



70



71

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72

Community Engaged Oral Health Systems

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73

Dental Care is a Team Sport

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74

What is a dental practice?

High cost surgical suite

Low cost community site

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75

What is a dental practice?

High cost surgical suite

Low cost community site

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76

Advocacy on Using Telehealth-Connected Teams

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77

EXPANDING ORAL HEALTH: TELEDENTISTRY

Improving Oral Health Using Telehealth-Connected Teams and the Virtual Dental Home System of Care: Program and Policy Considerations

August 2018

Presented by: **Dr. Stephen C. Wu, MD**
 Assistant Dean for Research
 Director, Center for Health Equity Research
 Department of Oral Public Health
 California Northstate University

DentaQuest
 Partnership
 for Oral Health Advancement

DentaQuest Partnership for Oral Health Advancement. Leveraging Teledentistry to Close Gaps in Oral Health.
<http://www.dentaquestpartnership.org/teledentistrypublicpage/>

PG1

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78

Slide 78

PG1

Paul Glassman, 11/18/2019

EXPANDING ORAL HEALTH: TELEDENTISTRY

THE PUBLIC POLICY LANDSCAPE

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 must be addressed before systems using these technologies can or will be deployed.

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79

EXPANDING ORAL HEALTH: TELEDENTISTRY

Legal and 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

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80

EXPANDING ORAL HEALTH: TELEDENTISTRY

Legal and Regulatory Environment

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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81

Public Health Dental Hygiene Practice in New Hampshire


Gail T. Brown, JD, MSW
NH Oral Health Coalition

Hope Saltmarsh, RDH, M.Ed.
Greater Derry-Oral Health Collaborative

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82


NH dental hygiene practice is authorized under RSA 317-A
The Dental Practice Act



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83

Training on Using Telehealth-Connected Teams



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84

Telehealth-Connected Teams: Training

Virtual Dental Home Implementation Dashboard: (Provider Entity)										
VDH Name	Regulatory	Equipment	EDR	IT System	Workflow	Site Workflow	Enrollment	Clinical Workflow	Patient Care	Other Training
Task: Review and bill to Community	Approved MOU with community site(s)	Review list, determine EDR compatible options	Set up VDH patient identifier	Develop overall plan	Develop/implement initial outreach materials	Develop/implement site contact	Develop consent to participate in VDH	Develop plan for appointing patients for restorative	Develop plan for communication to parents	After visit summary developed
Scope of Project change to HRSA (Form 5-B or 5-C) submitted/ approved	Place order with vendor (s)	Place order with vendor (s)	Review and enter non-billable codes	EDR, imaging and billing accessible remotely	MOU developed with scope of work	Set meeting to develop plan	Develop consent to participate in VDH	Follow up with patient/parent	Test delivery of care summary	Schedule HRSA approval training
Intermittent clinic notification to DHCS submitted	Equipment set-up	Equipment set-up	Meet with IT staff and develop plan	Test internet/VPN functionality	MOU negotiations	Complete site planning guide	Determine plan to distribute/collect enrollment packets	Follow up with patient/parent	Test delivery of care summary	Schedule HRSA approval training
Ready to operate and bill	Ready to operate and bill	Ready to use	System fully functioning	System fully functioning	MOU fully executed	Modifications to workflow complete	Enrollment process modifications complete	Enrollment process modifications complete	Enrollment process modifications complete	Enrollment process modifications complete

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85

Telehealth-Connected Teams: Training

Regulatory	Equipment	EDR
Signed MOU with community site(s)	Review list, determine EDR compatible options	Set up VDH patient identifier
Scope of Project change to HRSA (Form 5-B or 5-C) submitted/ approved	Place order with vendor (s)	Review and enter non-billable codes
Intermittent clinic notification to DHCS submitted	Equipment set-up	Meet with IT staff and develop plan
Ready to operate and bill	Ready to use	System fully functioning

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86

Telehealth-Connected Teams: Training

IT System	MOU Process	Site Workflow
Develop overall plan	Sites identified, initial outreach completed	Determine primary site contact
EDR, imaging and billing accessible remotely	MOU developed with scope of work	Set meeting to develop plan
Test internet/VPN functionality	MOU negotiations	Complete site planning guide
Complete modifications identified during testing	MOU signed by community site	Test workflow and identify modifications
System fully functioning	MOU fully executed	Modifications to workflow complete

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87

Telehealth-Connected Teams: Training

Enrollment	Clinical Workflow	Patient Care
Develop consent to participate in VDH	Develop plan for appointing patients for restorative	Develop plan for communication to parents
Develop/design enrollment forms	Develop identifier that patient has had initial exam through VDH	After-visit summary developed
Determine plan to distribute/collect enrollment packets	Develop consent process for restorative care and immediate referral	Process for parent-dentist communication developed
Test enrollment plan, identify modifications	Follow up with patient/parent	Test delivery of care summary
Enrollment process modifications complete	Patient placed in recall at VDH site for next visit	Patient communication plan in place

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88

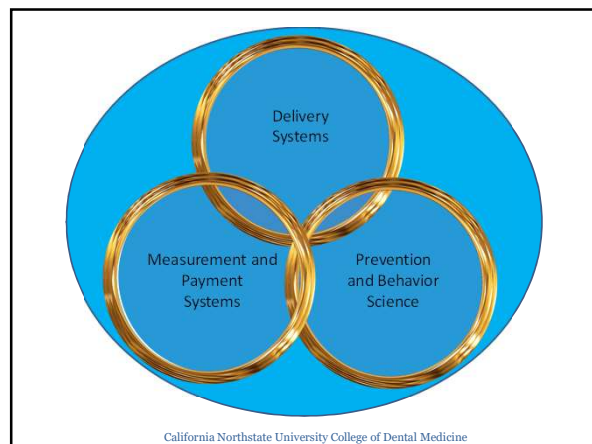
Dental Care in the Future

- 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**

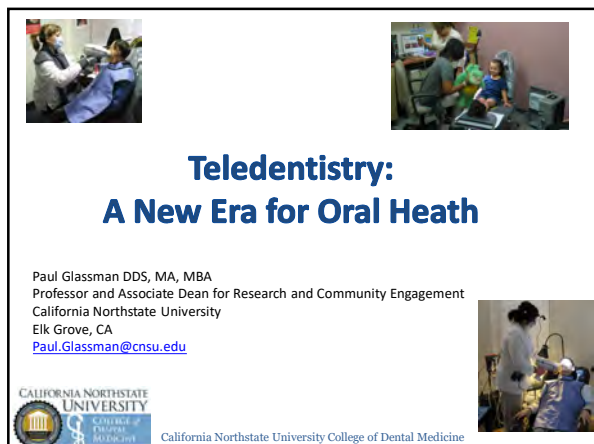


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89




90



**Teledentistry:
A New Era for Oral Health**

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CALIFORNIA NORTHSTATE UNIVERSITY
COLLEGE OF DENTISTRY
California Northstate University College of Dental Medicine

The slide features three small images: a dentist examining a patient, a dental professional with a child, and a dental procedure in progress.