
UNIVERSITY OF
WASHINGTON



NORTHWEST CENTER TO REDUCE
ORAL HEALTH DISPARITIES



**What is the problem of access to
oral care services and
improvement in oral health?**

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The quality improvement project is being funded by Advantage Dental Services, LLC and the evaluation of the project is supported by a grant from the Robert Wood Johnson Foundation's Reducing Health Care Disparities through Payment and Delivery System Reform program.

University of Washington and Advantage Dental Services, LLC are grantees of Reducing Health Care Disparities through Payment and Delivery System Reform - a national program of the Robert Wood Johnson Foundation.



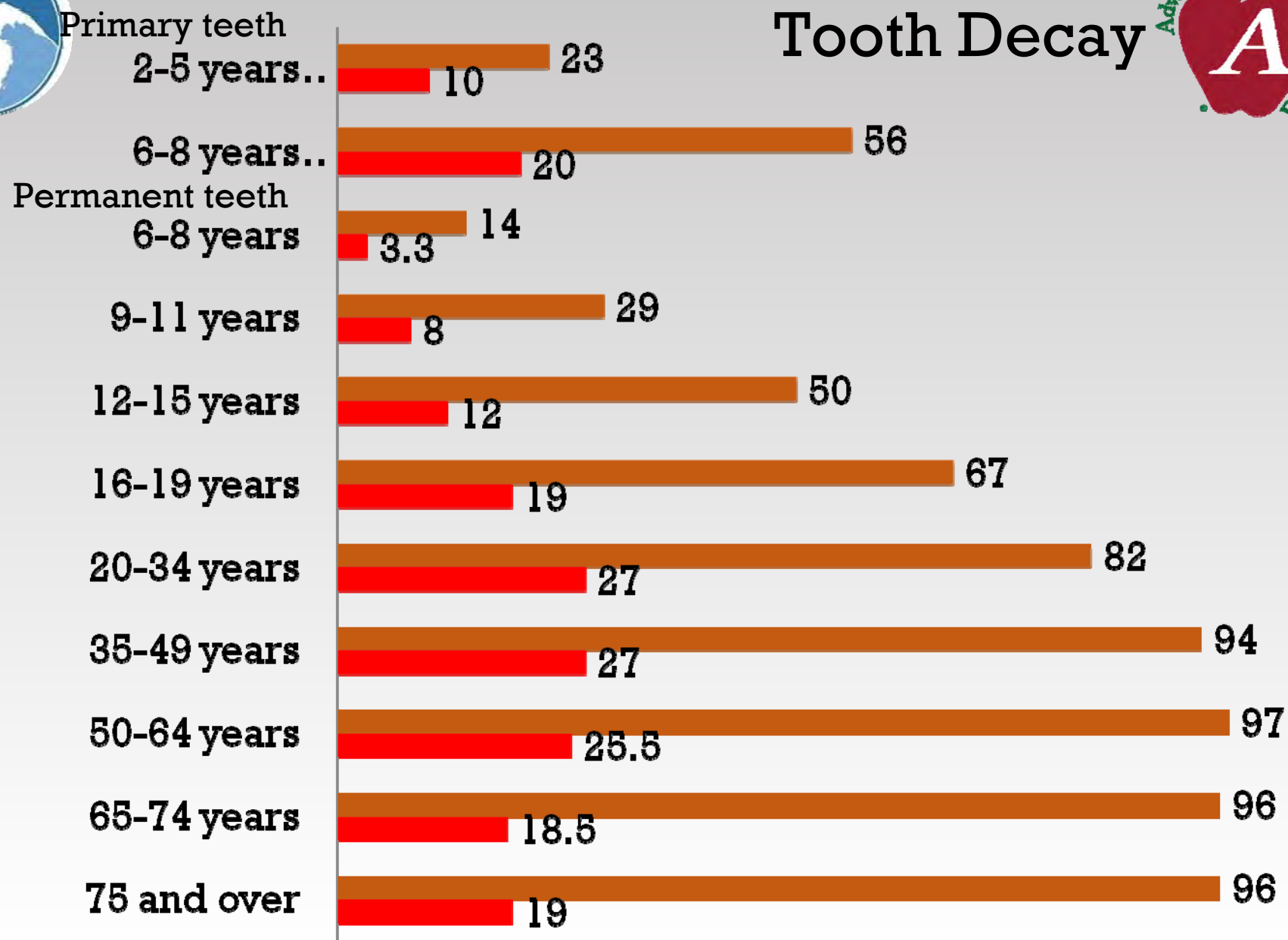
- The problem
- We are part of the solution
- PREDICT
- Conclusions



The problem



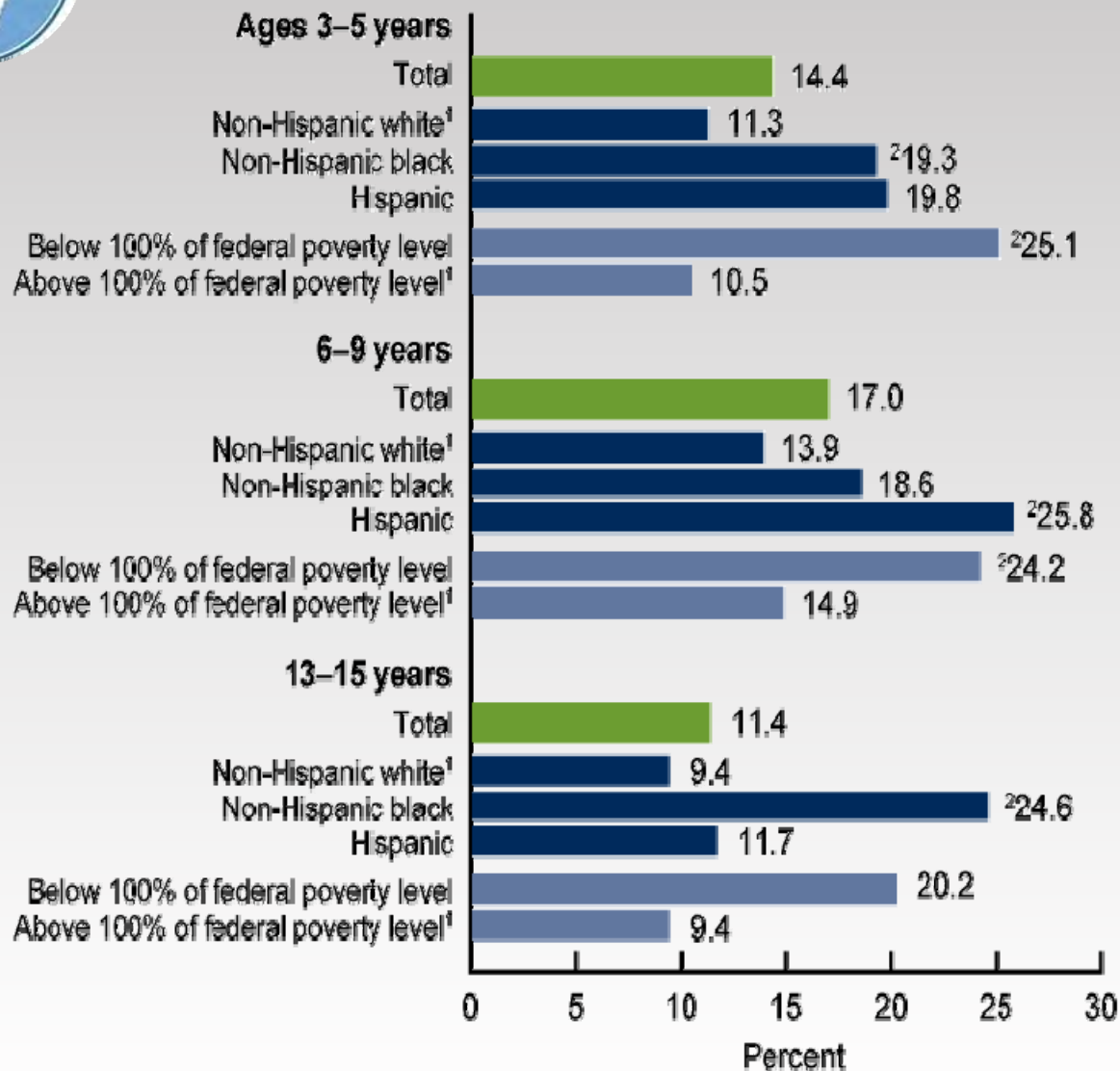
Tooth Decay



■ Dental caries experience, % ■ Untreated dental caries, %



Disparities in Untreated tooth decay



Untreated tooth decay is 1.5 to 3 times higher for Hispanics, American Indians and African Americans compared with non-Hispanic white children

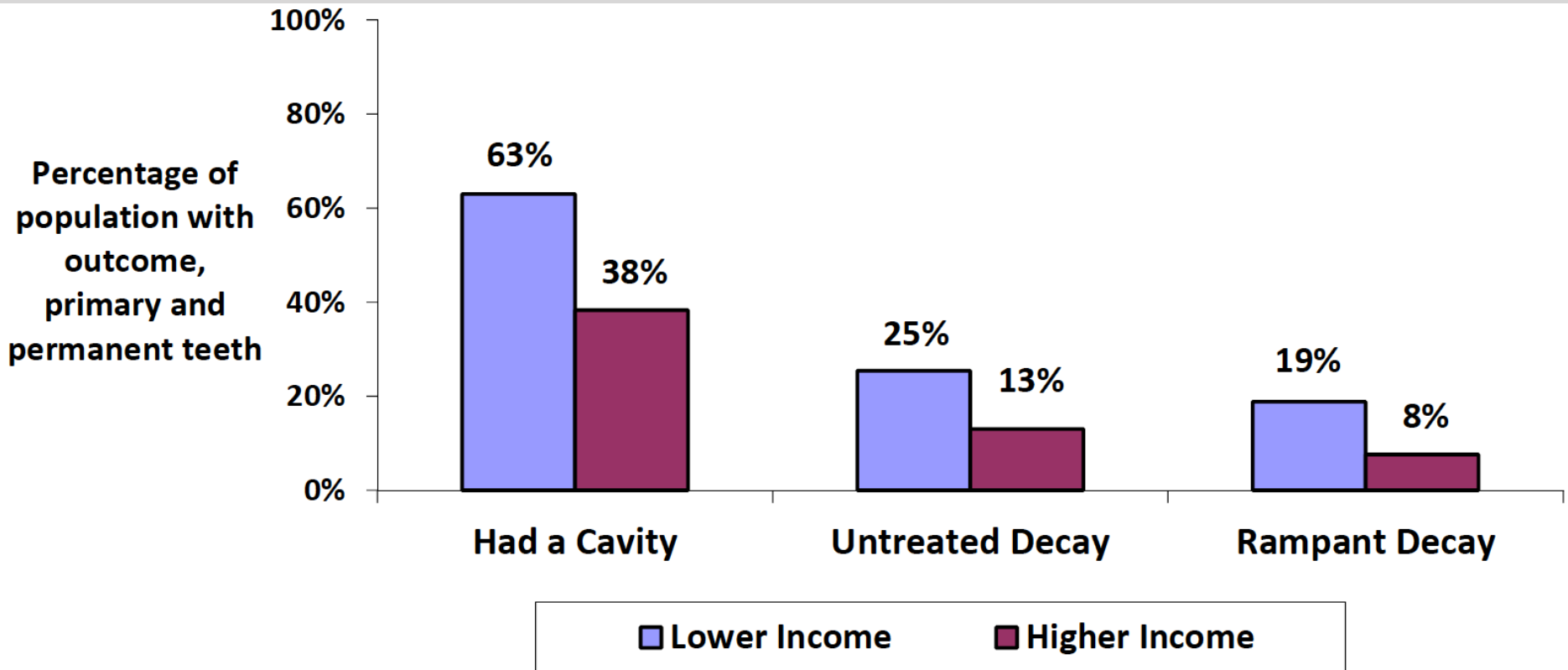
Reference group.

$p < 0.05$.

SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2009-2010.

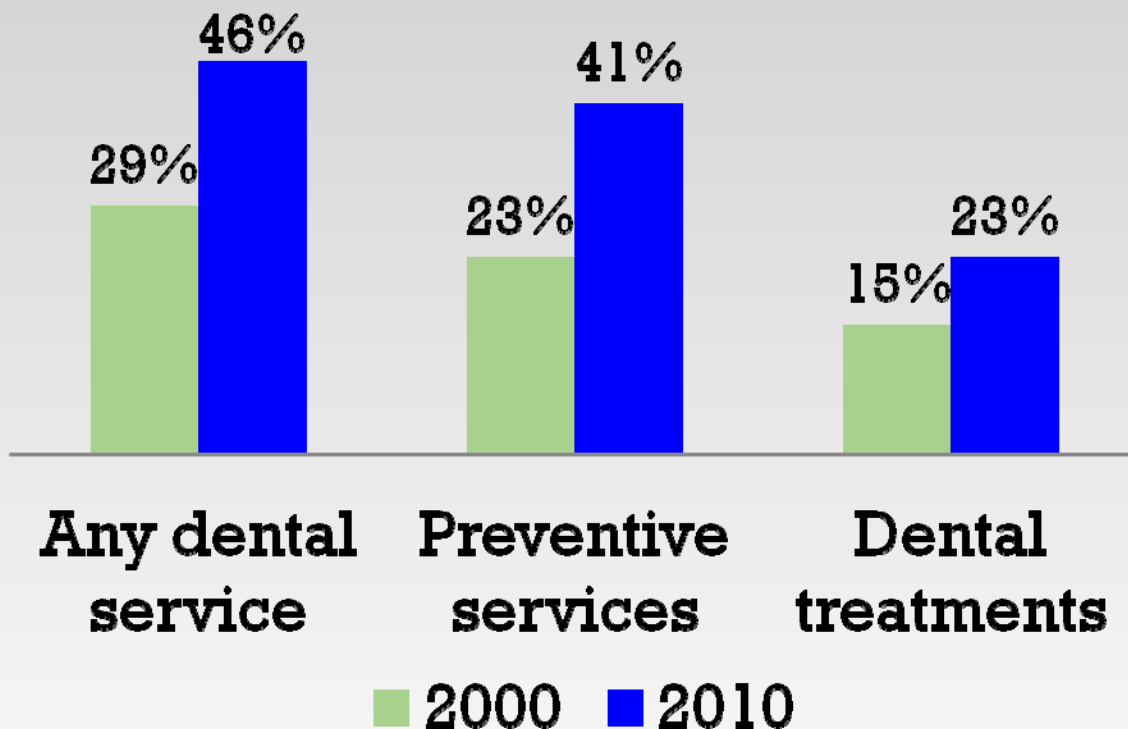


Oregon Smile Survey 2012: 3rd graders





Dental care



Children covered by Medicaid
2000: 21 million
2010: 33 million

Through the 2010 affordable Care act (aCa) at least 5.3 million more children gained dental coverage by 2014

And adults too!



School screening and preventive programs



- Target high-risk schools
- Children are treated equally within a school, regardless of their oral health or risk
- Low rate of return of consents for screening: 30% to 50%
- Few dentist visits following referral recommendations: 20%
- Limited resources to reach all children



Dental Care Compensation and Delivery System



Capitation system becoming increasingly common for Center for Medicare and Medicaid Services.

However:

- Incentivizes low utilization
- Reactive and inefficient:
 - Clients seek the service
 - Few clients use most of the resources
 - High relapse rate and costs
- Goals for improvement: counts all utilization equally



Re-envisioning the Dental Care system



- Incentivizes a population risk-based approach: universal progressive system
- Pro-active and efficient:
 - Service seeks clients : Go where the need is
 - Prevention and disease stabilization in low-cost settings
 - Complex treatments in clinics
 - Scale up: better use of paraprofessionals and dentists
 - Focus on primary and secondary prevention, reduce costs
- Goals for improvement and compensation plan: evidence-based, risk-based and team-based



We are part of the solution



PREDICT

**delivery and payment
system redesign**



PREDICT delivery and payment system



- A quality improvement project of Advantage Dental Services, LLC
- A partnership between the University of Washington and a for-profit dental care organization (Advantage)
- Supported by
 - the Robert Wood Johnson Foundation's Reducing Health Care Disparities Through Payment and Delivery System Reform program.
 - the Central Oregon Health Council's Quality Improvement Measures Targeted Quality program



PREDICT

delivery and payment system
redesign



Population-centered

Risk- and

Evidence-based

Dental Interprofessional Care Team



PREDICT Implementation



What

Quality improvement project

When

Jan 2016 – Dec 2017

Who

All 41,000 children (< 21 years old), pregnant women and new mothers enrolled in Oregon Health Plan (Oregon's Medicaid) and served by Advantage Dental Services

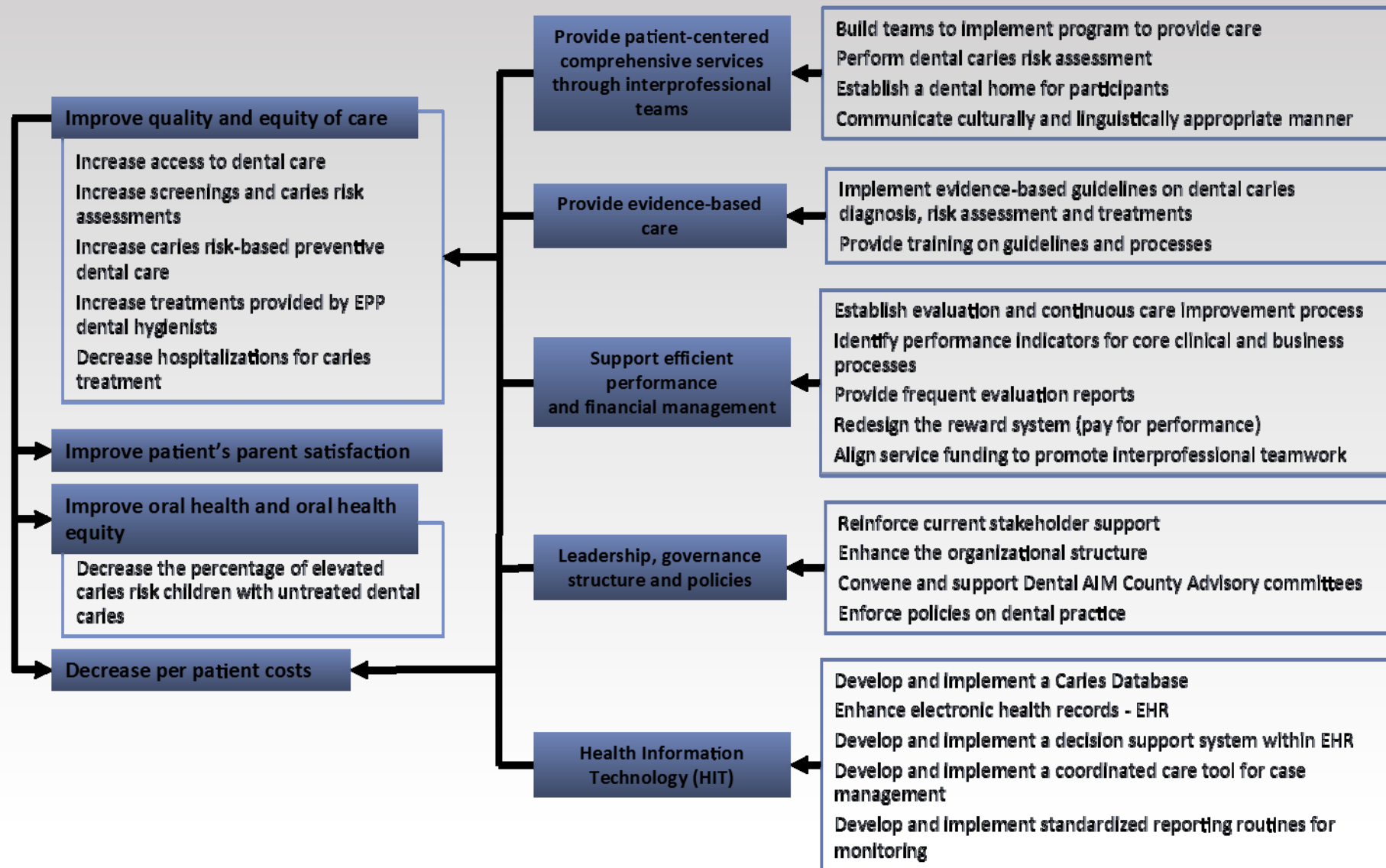
Where

Community settings (WIC, schools, etc) and dental clinics of 7 rural counties in Oregon



PREDICT planning model

outcomes, drivers and core components





PREDICT



The TEAM

- Extended-Practice Permit (EPP) **Dental Hygienists** in **community** settings
- Dentists and specialists** in dental **practices**
- Case managers and outreach workers**
- HIT** specialists and administrative staff



PREDICT:

Redesign the delivery system



- **Evidence-based Clinical guidelines development and training**



- **Progressive Universal Dental Care System**
 - All children continuously assessed for caries
 - Children receive treatments based on their individual needs



PREDICT:

Redesign the payment system



**Capitation system with global budgeting and
pay-for-performance**

- Incentivize the **whole team**: dentists, dental hygienists, case managers, outreach workers, HIT and administrative staff
- Withhold **funds** from global budget
- Set** performance **goals** annually
- Monitor** performance monthly
- Reward** quarterly for good performance



Will this work?



PREDICT



**Theory-informed and
evidence-based intervention**

**Rigorous evaluation to
generate the highest level of
evidence**

**Commitment of the company to
publish the results**



PREDICT Evaluation



What

Randomized controlled trial

When

August 2015 – July 2017

Who

Test: ~41,000 children (< 21 years old)

Control: ~41,000 children (< 21 years old)

Where

Test: 7 rural counties in Oregon

Control: 7 rural counties in Oregon



PREDICT

- Population-based: All children
- Progressive Risk-based prevention: children at elevated risk
- Caries arrest care at community settings and restorative/surgical care at dental offices
- Referrals with intensive case management: Several letters, calls, and problem-solving/support
- Continuity of care
- Data collection: intensive data collection

CONTROL



- Need-based: Not all schools
- Not risk-based prevention: all children treated the same
- Restorative care at dental offices
- Basic referrals: one letter and 2 call attempts
- Continuity of care: ?
- Data collection: intensive data collection



PREDICT

Evaluation: Outcomes



- **Quality of care and Oral-Health related Quality of Life**
 - Baseline and final interview of 840 parents of children < 21 years old, pregnant women and new mothers (60 per county)
- **Dental caries**
 - Baseline and final clinical exams of 1160 target population
- **Dental utilization and cost**
 - Data from claims for all 82,000 target population
- **Organizations' readiness for implementing changes**
 - Baseline and final survey of Advantage's providers and staff



Conclusions



New dental care delivery and payment system is possible

Better access and quality of care (convenient places)

Better oral health

Decrease disparities in dental care and oral health

Simple, large RCT for evaluation

Partnership between university, for-profit company and foundation



Thank you

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Evidence base: Clinical Guidelines



Procedure	Evidence
Screening and Risk assessment	
Management of caries by risk	
Case management	
Toothbrushing with fluoridated toothpaste – caries prevention	~22%
Silver diamine fluoride twice a year – caries prevention	
Silver diamine fluoride twice a year – caries arrest	
Silver diamine fluoride + sealants twice a year – caries arrest/restore function	
Glass ionomer sealants – caries prevention	