

ORAL HEALTH AND DIABETES IN PATIENTS EXPERIENCING HOMELESSNESS

National Network for Oral Health Access

National Health Care for the Homeless Council

November 27, 2018



NATIONAL
HEALTH CARE
for the
HOMELESS
COUNCIL

OBJECTIVES

- Describe the relationship between periodontal disease and diabetes
- Identify barriers experienced by patients experiencing homelessness to access health care services.
- Learn from health centers about their work in treating patients who experience homelessness for oral health and diabetes care.

Population we serve

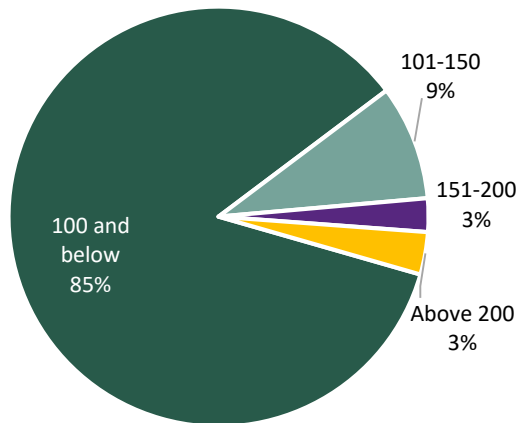
Table 1. Percent Homeless Served by HCH Grantees Compared to All Grantees

Patient Characteristics	All Grantees	HCH Grantees
Total Patients Served	25,860,296	934,174
Total Homeless Served (% of Homeless patients compared to respective Total Patients)	1,262,961 (4.9%)	886,576 (94.9%)

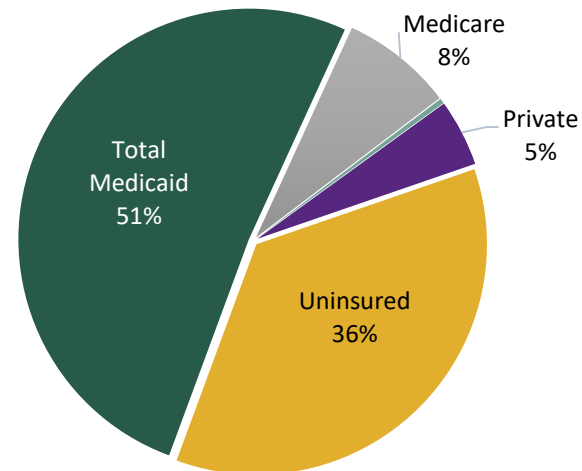
Housing Type

Shelter	254,906 (28.8%)
Doubling Up	253,949 (28.6%)
Transitional	108,283 (12.2%)
Street	76,782 (8.7%)
Other	121,398 (13.7%)
Unknown	71,258 (8%)

Federal Poverty Level:
HCH Grantees (295)



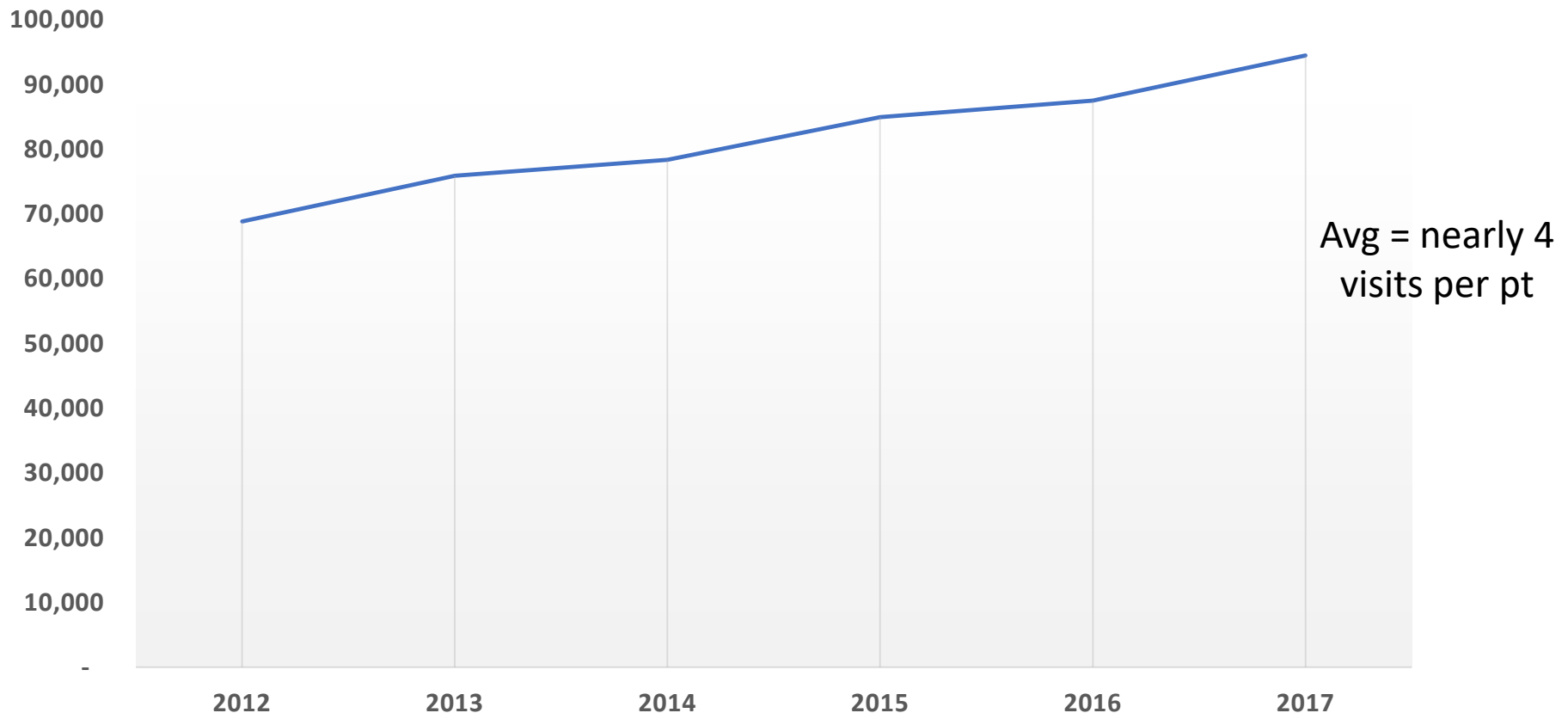
Payer Mix: HCH Grantees



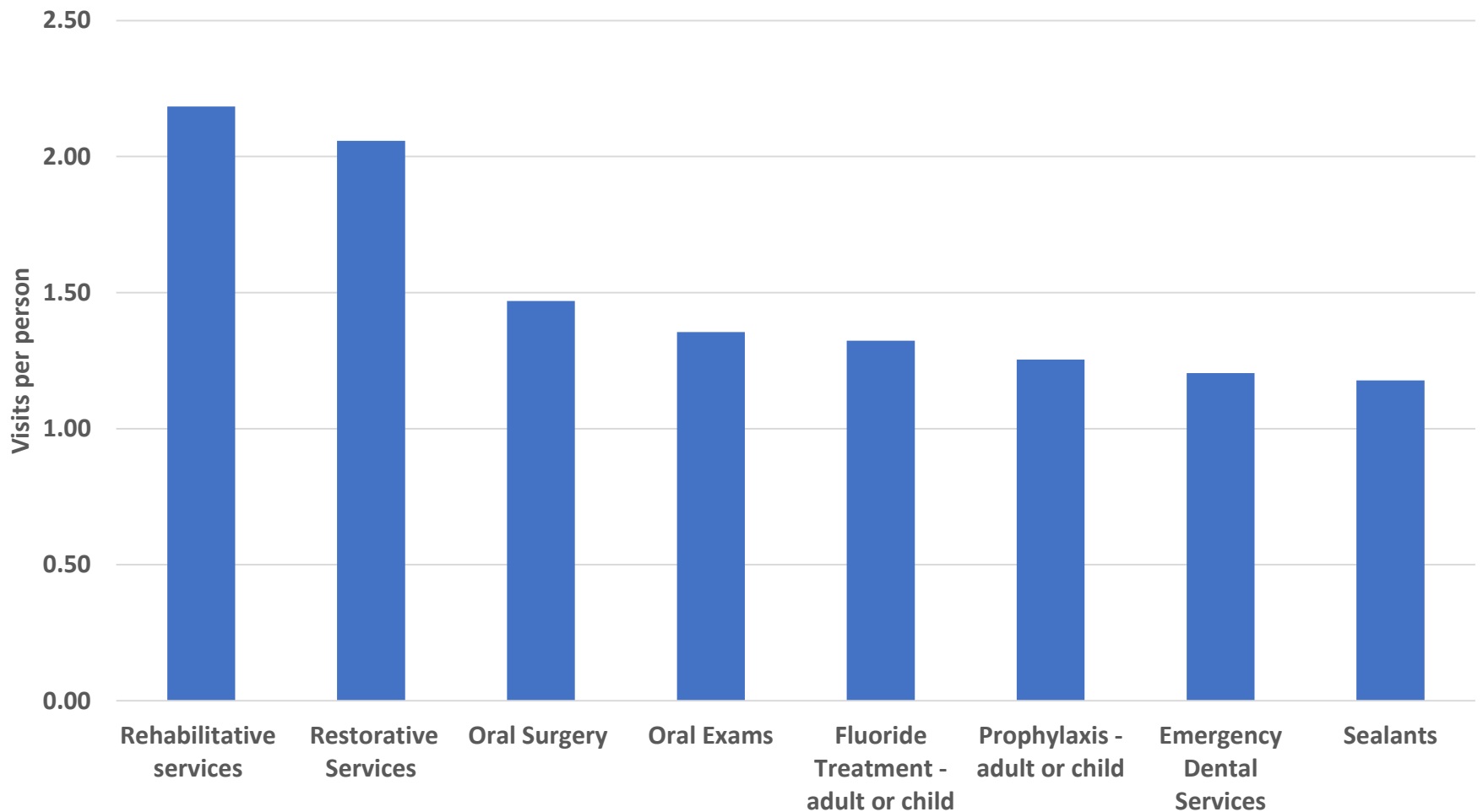
Source: <https://www.nhchc.org/2018/10/new-fact-sheet-examines-uds-health-data-relevant-to-hch-programs/>

Steady Increase in Patients seen with Diabetes 2012-2017

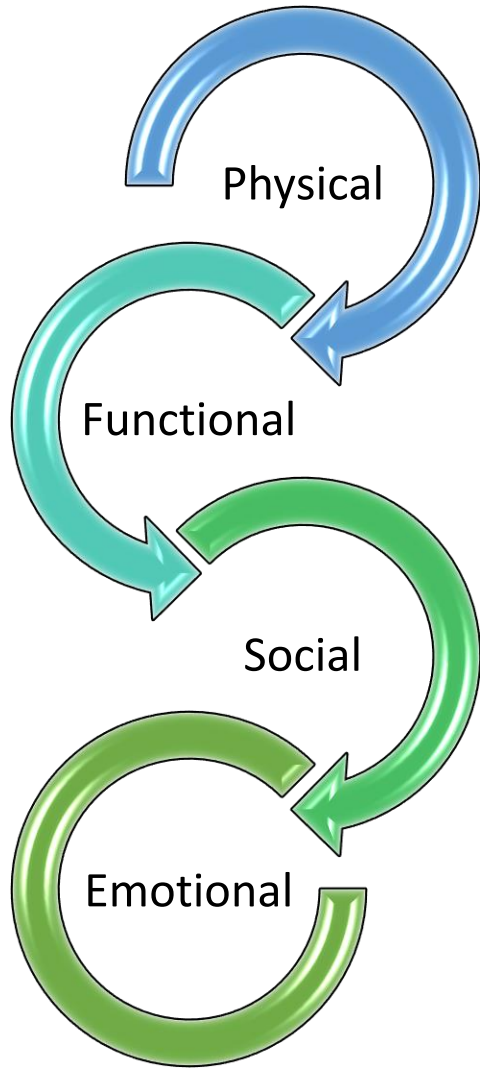
Total Pts Seen with DM Diagnoses (330h)



Frequency of Visits by Dental Service (Health Care for the Homeless)

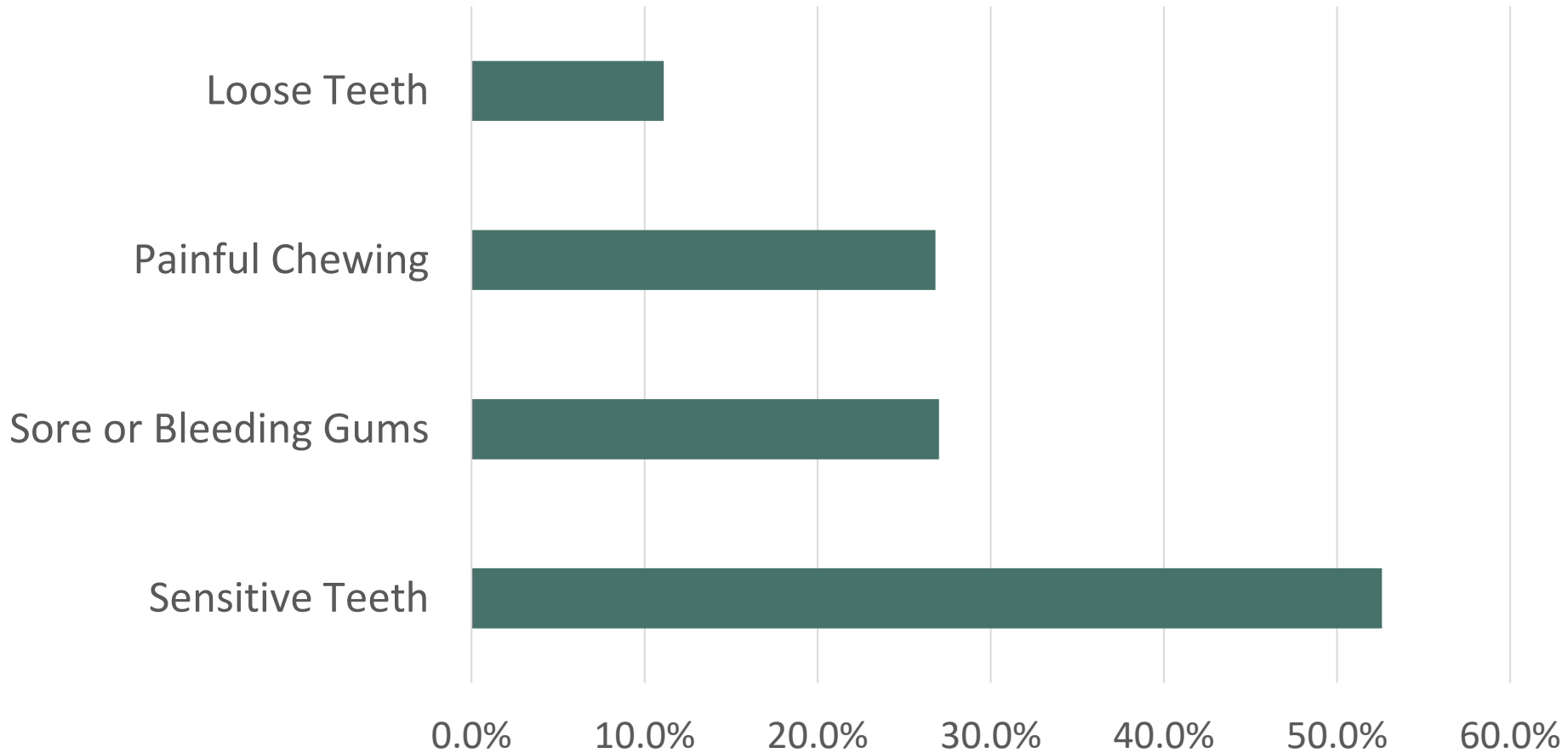


Oral Health Impact: Quality of Life



- Physical: Pain & bleeding gums, tooth loss, abscesses, infections
- Functional Restrictions: Chewing, talking
- Social: Job/employment opportunity
- Emotional: social discomfort, isolation

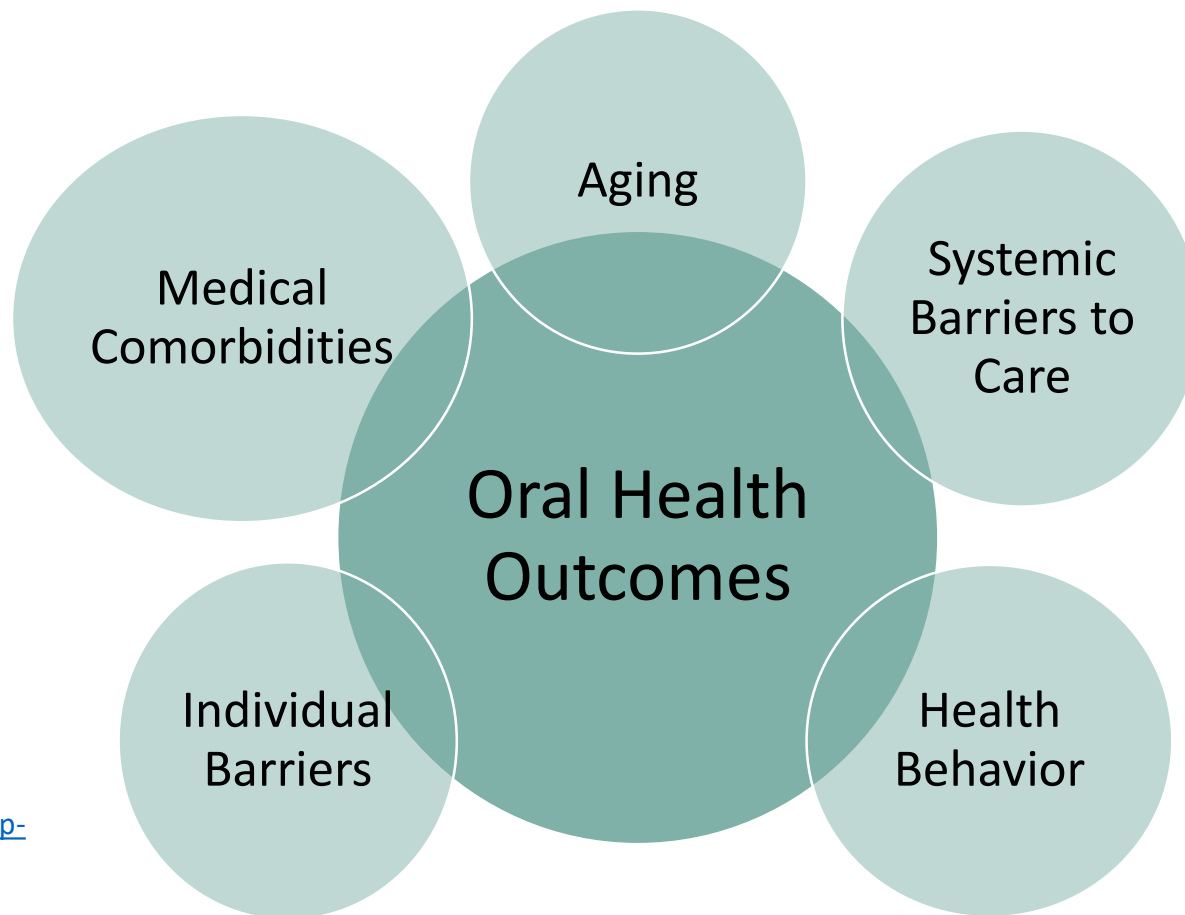
High Prevalence of Periodontal Disease⁵



PEH (14-28) in Seattle, WA with PD indicators

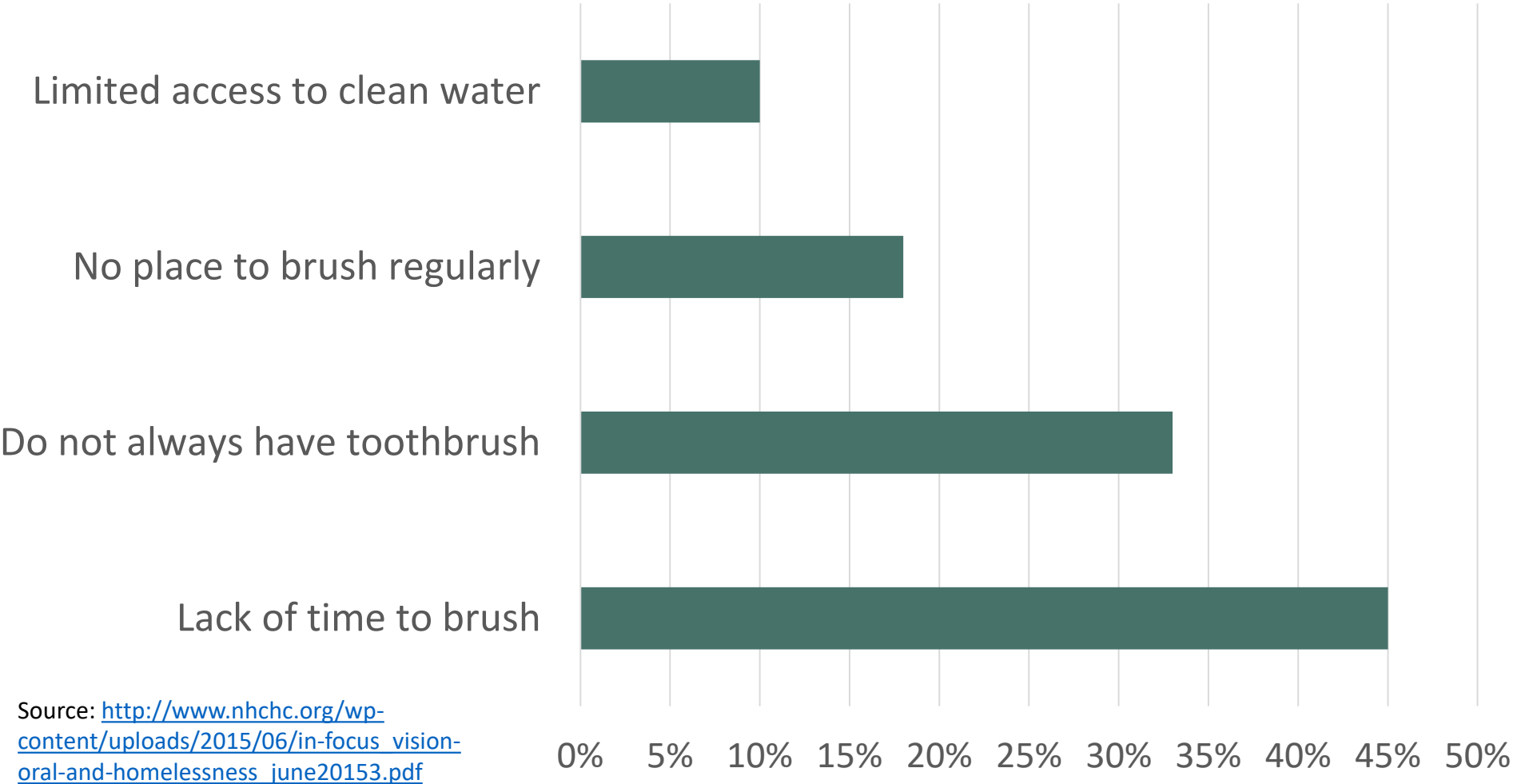
Source: http://www.nhchc.org/wp-content/uploads/2015/06/in-focus_vision-oral-and-homelessness_june20153.pdf

Factors Impacting Oral Health Outcomes



Source: http://www.nhchc.org/wp-content/uploads/2015/06/in-focus_vision-oral-and-homelessness_june20153.pdf

Barriers to Maintain Oral Hygiene



Source: http://www.nhchc.org/wp-content/uploads/2015/06/in-focus_vision-oral-and-homelessness_june20153.pdf

Poor Access to Care → Poor Outcomes

- Healthcare system barriers
- Missed opportunities for early detection
- Lack of direct dental services in most HCH programs¹¹
- Lack of insurance and inability to afford care^{10,12}
- Limited Medicare coverage service requirements for adults and limited providers under coverage¹⁰

Novel examples from the Field

- “Our facility operates on a unique premise: clients are required to perform community service rather than offer monetary co-pay for services that are provided. This system gives clients an opportunity to express their gratitude by ‘paying it forward’ into the community.” – Brent Crane, Executive Director, Food & Care Coalition, Provo, Utah



Source: <file:///Users/alaina/Desktop/Projects/Diabetes%20&%20Oral%20Health%20FAQ/healing-hands-fall-2015-web-ready-pdf.pdf>

Novel examples from the Field



- All clients, regardless of insurance status, are offered free dental care with no copays, including clients who need dentures. NYU Lutheran has five dental clinics and one of the largest dental residency training programs in the country. All HCH clients are referred to one site, where designated contact staff members are familiar with Community Medicine and the needs of homeless clients. - NYU Lutheran Department of Community Medicine

Source: <file:///Users/alaina/Desktop/Projects/Diabetes%20&%20Oral%20Health%20FAQ/healing-hands-fall-2015-web-ready-pdf.pdf>

Focus points to consider

1. Educate patients about programs that provide dental coverage
2. Develop local resources by identifying dentists who will accept your patients
3. Prevention! Don't let your patients ignore their dental problem until it becomes an emergency

Sources

1. Lebrun-Harris LA, Baggett TP, Jenkins DM, et al. Health status and health care experiences among homeless patients in Federally Supported Health Centers: Findings from the 2009 Patient Survey. *Health Serv Res.* 2013; 48(3):992-1017.
2. FastStats: Oral and dental health. The Center for Disease Control and Prevention. <http://www.cdc.gov/nchs/fastats/dental.htm>. Update April 29, 2015.
3. Seirawan H, Elizondo LK, Nathason N, Mulligan R. The oral health conditions of the homeless in downtown Los Angeles. *CDA Journal.* 2010; 38(9):681-688.
4. Chiu SH, DiMarco MA, Prokop JL. Childhood obesity and dental caries in homeless children. *J Pediatr Health Care.* 2013; 27:278-283.
5. Chi D, Milgrom P. The oral health of homeless adolescents and young adults and determinants of oral health: preliminary findings. *Spec Care Dentist.* 2008; 28(6):237-242.
6. Factors affecting oral health over the life span. National Institute of Dental and Craniofacial Research. <http://www.nidcr.nih.gov/DataStatistics/ SurgeonGeneral/sgr/chap10.htm>. Updated March 24, 2015.

Sources

7. Oral Health in America: A report of the Surgeon General. National Institute of Dental and Craniofacial Research. <http://silk.nih.gov/public/hck1ocv.@www.surgeon.fullrpt.pdf>. Published in 2000.
8. D'Amore MM, Cheng DM, Kressin NR, et al. Oral health of substance dependent individuals: impact of specific substances. *J Subst Abuse Treat*. 2011. 41(2):179-185
9. Guideline: Sugars intake for adults and children. World Health Organization. http://apps.who.int/iris/bitstream/10665/149782/1/9789241549028_eng.pdf?ua=1. Published 2015.
10. DiMarco MA, Luington SM, Menke EM. Access to and utilization of oral health care by homeless children/families. *JHCPU*. 2010; 21(2):67-81
11. 2013 Health Center Data: Health Care for the Homeless Grantees. Health Resources and Services Administration, US Department of Health and Human Services. <http://bphc.hrsa.gov/uds/datacenter.aspx?q=tall&year=2013&state=&fd=ho>. Published 2013.
12. Baggett TP, O'Connell JJ, Singer DE, Rigotti NA. The unmet health care needs of homeless adults: A national study. *Am J Public Health*. 2010. 100:1326-1333



Oral Health and Diabetes

Candace Owen, RDH, MS, MPH
NNOHA Education Director

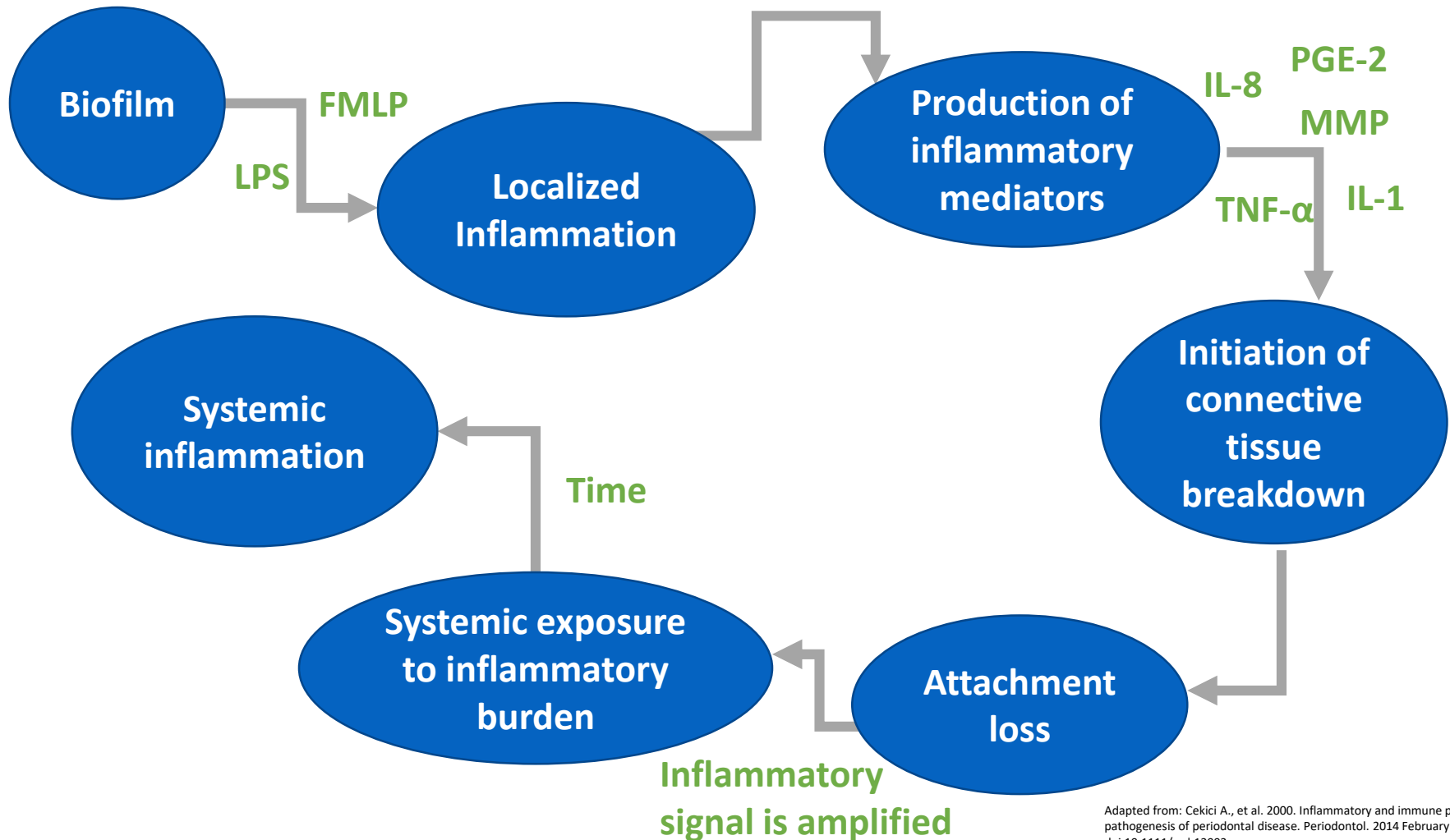
Periodontal Disease Prevalence for PEH

- NHANES 2009-2014 data on periodontal disease in US adults
 - 60.4% of adults under <100% FPL experienced periodontal disease
 - Prevalence of periodontal disease increases with increased poverty levels
 - Over 59% with diabetes has periodontal disease

What's the Evidence?

- Healthy People 2020 recognizes the impact of oral health to general health
- 2000 Surgeon General's Report: Oral Health in America: **"The control of existing oral infections is clearly of intrinsic importance and a necessary precaution to prevent systemic complications."**
- 2003 US Health and Human Services *National Call to Action to Promote Oral Health* discusses the burden of oral diseases on social, emotional, and physical health.

Inflammatory Response



What We Know...

- Association between diabetes and periodontal disease
- Persons with diabetes have higher prevalence of periodontal disease, more severe disease
- Periodontitis can adversely affect glycemic control in diabetics
- Periodontal treatment had short-term effect on lowering A1c (baseline A1c 7-9)
- Health Services studies show cost savings

Association is NOT Causation!

- Studies suggest association between chronic diseases and periodontal disease
- Diseases, including periodontal disease is multi-factorial
- By addressing risk factors for one chronic disease, may likely reduce effects of another

Oral Manifestations of Diabetes

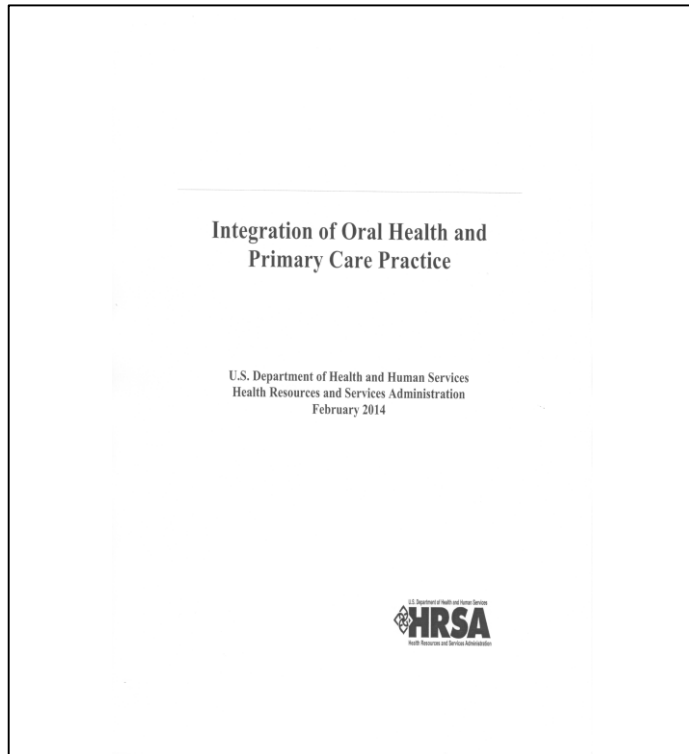
- Periodontal disease
- Xerostomia
- Dental caries
- Tooth loss
- Oral Candidiasis
- Oral Lichen Planus
- Burning mouth syndrome
- Alterations in taste



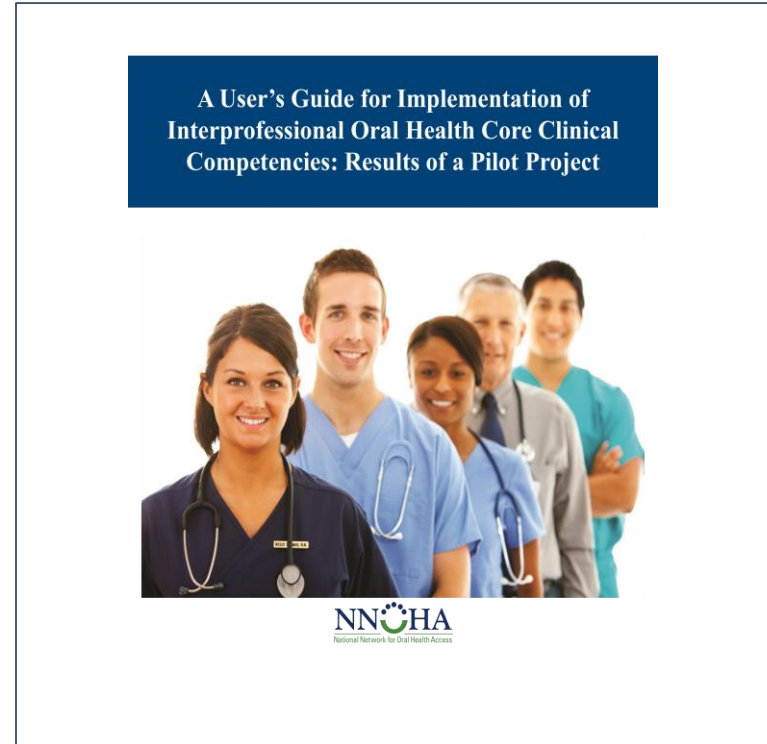
Accessing Patients with Diabetes

- Expanding dental access through expansion and/or contracting
- Academic partnerships with dental hygiene programs
- Commitment by health center administration and board to prioritize populations for dental care
- QI metrics for % patients with diabetes that receive dental care

HRSA Integration of Oral Health and Primary Care Practice (IOHPCP)



<https://www.hrsa.gov/sites/default/files/hrsa/oral-health/integrationoforalhealth.pdf>



http://www.nnoha.org/nnoha-content/uploads/2015/01/IPOHCCC-Users-Guide-Final_01-23-2015.pdf

Core Clinical Competency Domains

1. Risk assessment → *Ask*
2. Oral health evaluation → *Look*
3. Preventive interventions → *Do*
4. Communication & education → *Talk*
5. Interprofessional collaborative practice → *Refer*

Referral: Interprofessional Collaboration

- Health Center dental services onsite or through contracting
- Challenges
 - State Medicaid programs may not cover adult dental care or may not cover periodontal treatment
 - Patients with diabetes may not qualify for state Medicaid benefits
 - Capacity of health center dental programs is 26% of primary care capacity

Resources

- American Diabetes Association:
<http://www.diabetes.org/living-with-diabetes/treatment-and-care/oral-health-and-hygiene/diabetes-and-oral-health.html>
- American Dental Association:
<https://www.ada.org/en/member-center/oral-health-topics/diabetes>
- National Institute of Health:
<https://www.nidcr.nih.gov/health-info/diabetes> and
<https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/gum-disease-dental-problems>

Oral Health and Diabetes for Patients Experiencing Homelessness

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With contribution from Colorado Community Health Network and Colorado Department of Public Health and Environment.

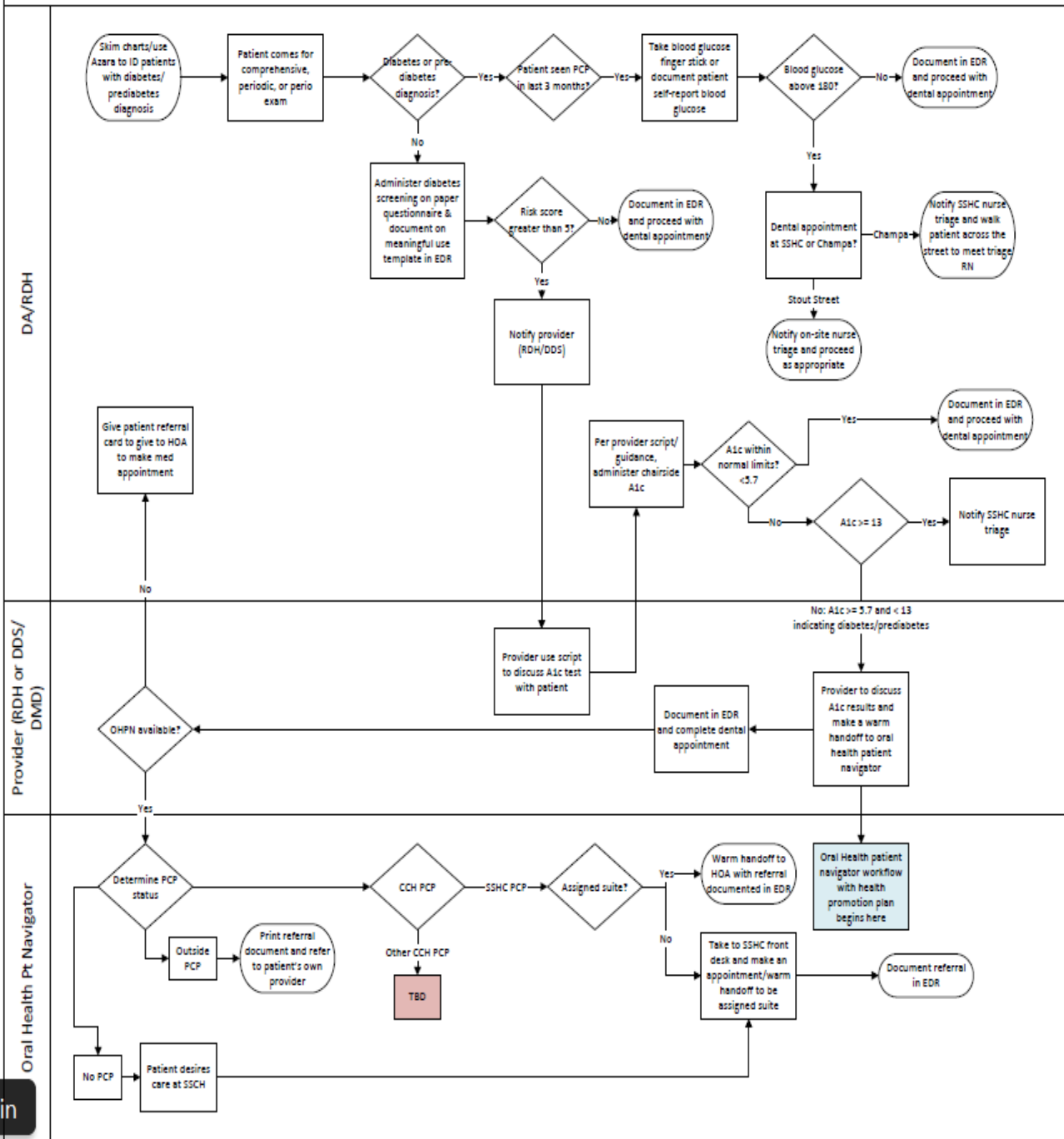
DIABETES ORAL
HEALTH
INTEGRATION
PROJECT
April 2017-present



Patient with Previous Diagnosis of Diabetes or pre Diabetes

- Patients presenting for Comprehensive Oral Exam, Periodic Oral Exam, or Periodontal Evaluation are seated and Health History is reviewed.
- If patient has been previously diagnosed with diabetes, They are asked what their last A1c was and when it was taken. If it has been over three months they are referred to their primary care suite using the trackable referral workflow. If they have a PC provider at some other location, a letter is generated to give to the patient for the PC provider.
- Point of Care A1c or blood glucose test is administered. If either is over our pre set limit the patient is referred to medical, sometimes immediately.

Dental to Medical Workflow



Patient with no previous diagnosis of Diabetes or pre Diabetes

- Verbal Risk assessment is provided
- If score indicates need for POC A1c test, it is administered and score documented. If over 5.7, trackable referral process is instituted through Electronic Dental/Health Record using the Azara template "Health Promotions Plan" .
- If patient receives services at a different location, a letter is generated through the EHR, given to patient and HPP is sent for Navigator follow up.

Digital Diabetes Risk Assessment Questionnaire



Are you at risk for type 2 diabetes?

Patient declined screening

Your score

1. How old are you?.....

Less than 40 years (0 points)
 40-49 year (1 point)
 50-59 years (2 points)
 60 years or older (3 points)

2. Are you a man or a woman?.....

Man Woman

3. If you are a woman, have you ever been diagnosed with gestational diabetes?..

Yes No

4. Do you have a mother, father, sister or brother with diabetes?.....

Yes No

5. Have you ever been diagnosed with high blood pressure?.....

Yes No

6. Are you physically active?.....

Yes No

7. What is your weight category?.....

ft. in. lbs.

Total score

Height	Weight (lbs.)		
4' 10"	119-142	143-190	191+
4' 11"	124-147	148-197	198+
5' 0"	128-152	153-203	204+
5' 1"	132-157	158-210	211+
5' 2"	136-163	164-217	218+
5' 3"	141-168	169-224	225+
5' 4"	145-173	174-231	232+
5' 5"	150-179	180-239	240+
5' 6"	155-185	186-246	247+
5' 7"	159-190	191-254	255+
5' 8"	164-196	197-261	262+
5' 9"	169-202	203-269	270+
5' 10"	174-208	209-277	278+
5' 11"	179-214	215-285	286+
6' 0"	184-220	221-293	294+
6' 1"	189-226	227-301	302+
6' 2"	194-232	233-310	311+
6' 3"	200-239	240-318	319+
6' 4"	205-245	246-327	328+

1 point	2 points	3 points
If you weigh less than the amount in the left column: 0 points		

Adapted from Bang et al., Ann Intern Med 151:775-783, 2009.
Original algorithm was validated without gestational diabetes as part of the model.

A1c

Patient agrees to do A1c screening A1c Score:

Patient declined A1c screening

A1c Date	A1c Score	Screening Score	Patient Declined Screening	Patient Declined A1c
07/25/2018	6.50	8		

Data collection and reporting

- Ability to create and modify reports
- Monthly data collection
- Refining metrics
- Data:
 - Diabetic risk assessment questionnaire
 - Point-of-care A1c tests administered
 - Point-of-care A1c test results
 - Medical to dental referrals
 - Dental to medical referrals

Category	Total
Questionnaires Given	544
POC A1c Administered	114
A1c < 5.7	93
A1c 5.7	21

Oral Health Patient Navigator



- Follow up on Diabetes referrals to Medical or outside sources.
- Provides direct transportation or taxi voucher or bus pass to appointment.
- Assists patients in getting diabetes education.
- Brings down the barriers caused by social determinants of health.

Colorado Context

- Same day billing for medical, dental, and behavioral health - FQHCs can bill three encounters on one day
- Registered dental hygienists are billable providers and have an extensive scope of practice
- Adult Medicaid dental benefit - \$1,000 annual cap
- Diabetes point-of-care HbA_{1c} testing in the dental clinic is reimbursable by Medicaid (Do411)

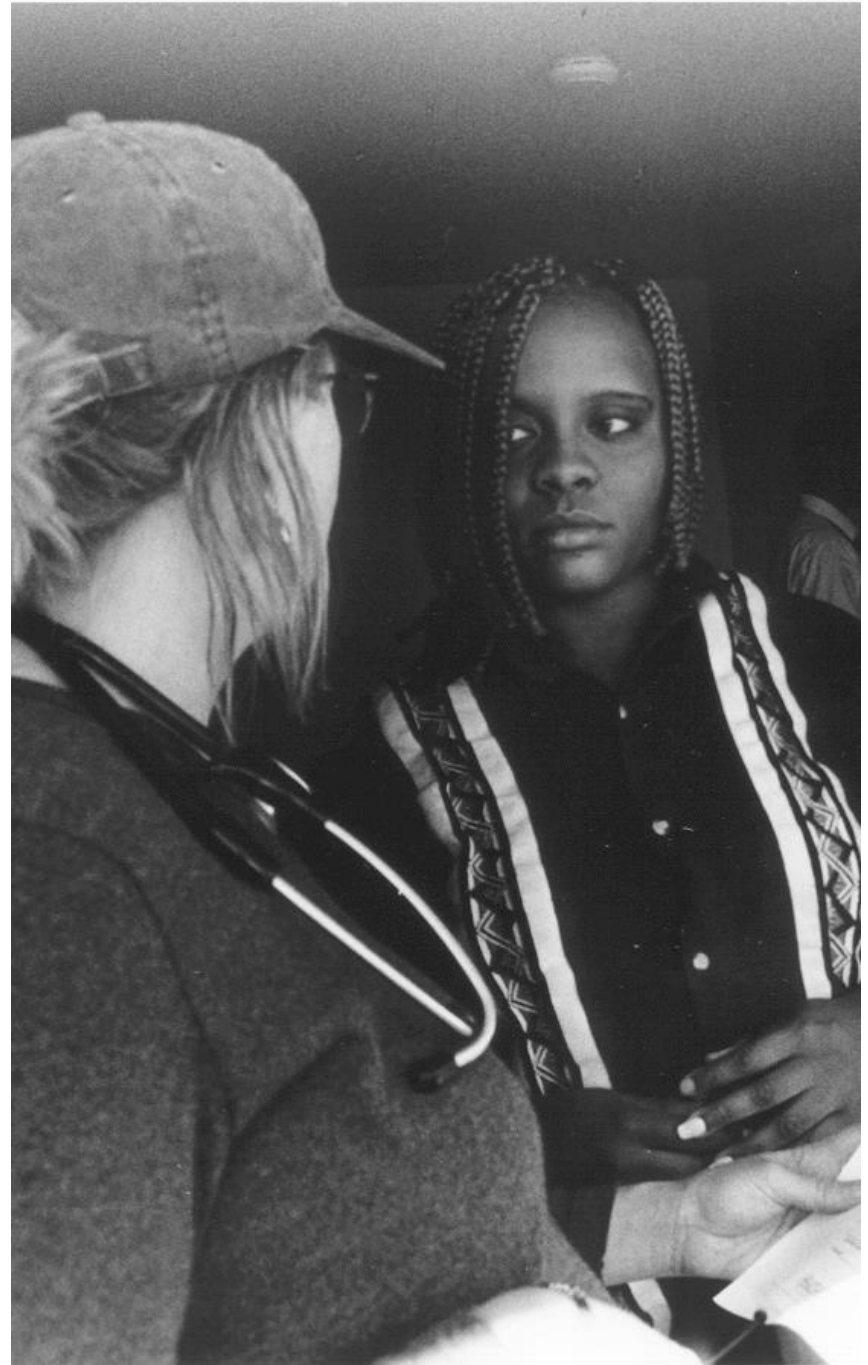
Albuquerque Health Care for the Homeless

Oral Health and Diabetes Webinar
Kendra Saiz, Dental Assistant
Anita Córdova, Chief Advancement
Officer

1985 to Present

AHCH is a freestanding Health Care for the Homeless, providing integrated primary medical and dental, behavioral health and social services through extensive outreach and at its central services campus.

Albuquerque Health Care for the Homeless, Inc.



Leading with and Anchored by Our Vision & Mission

Mission: Provide caring and comprehensive health and integrated supportive services, linking people experiencing homelessness to individual and collective solutions

and

Be a leader in implementing innovative service models and a catalyst for solutions to homelessness

and

Uphold a commitment to diversity and equity

Vision: To live in a world that is just and without homelessness.



Albuquerque Health Care for the Homeless, Inc.

AHCH Hallmarks



Albuquerque Health Care for the Homeless, Inc.

Outreach, two-pronged

Comprehensiveness

Integration

Access

Person-centered care

No wrong door

Harm reduction

Integrated Oral Health Services



Integrated Traditional + Non-Traditional Services

Low-Demand Entry Thresholds

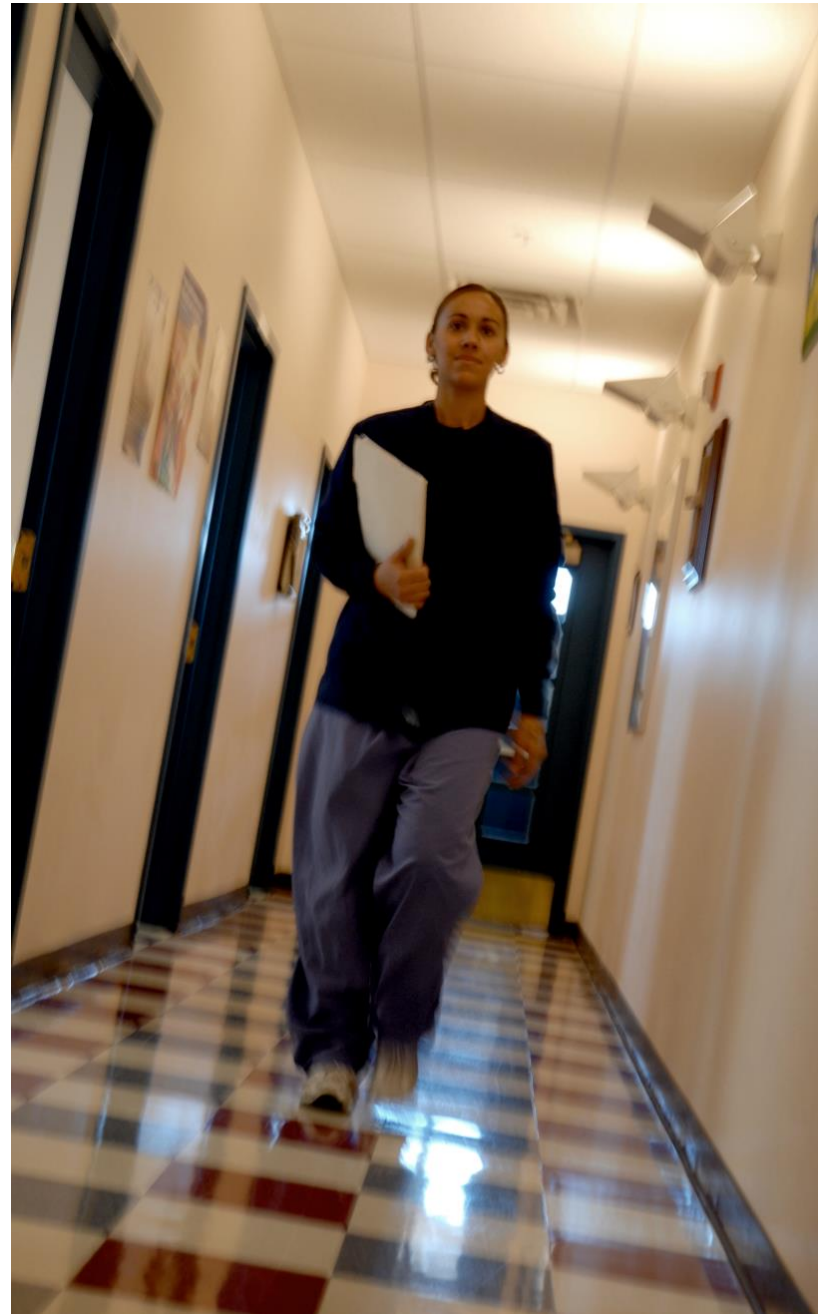
Outreach takes services to
the field

Resource Center links to
additional services

Housing and engagement
specialists

ArtStreet

Extensive collaboration



Oral Health and Diabetes

It's a condition that occurs when the body can't use glucose normally. Which then also affects many organs of the human body.



Target Blood Sugar Levels for Diabetes

Age 20+

Fasting	less than 100
Before Meal	70-130
After Meal (1-2hrs)	less than 180
Before Exercise	if taking insulin, at least 100
Bedtime	100-140

Amounts shown above [mg/dL](#)

A1c	less than or around 7.0%
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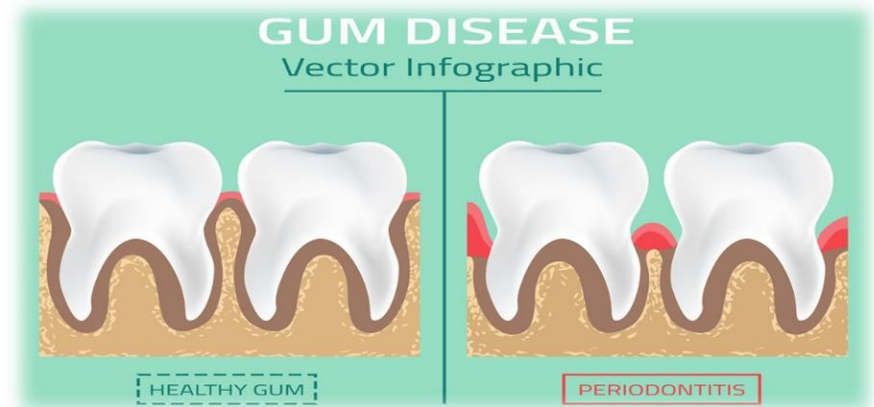
These are general medical guidelines.
Please follow your doctor's instructions.



WebMD

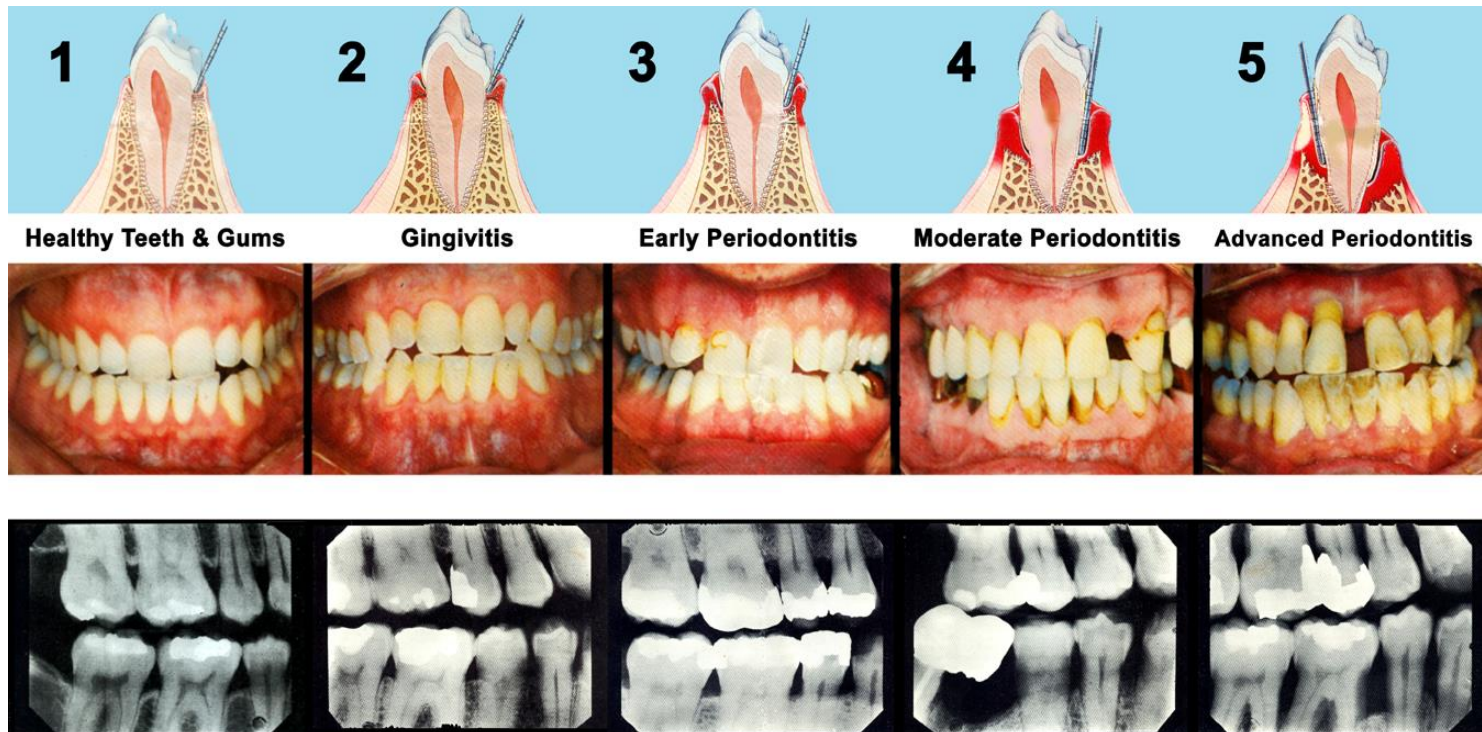
Periodontal disease

Periodontal disease is bacteria caused from plaque that builds up between gums and teeth. When left untreated, Bacteria continues to grow & causes gums to become inflamed. Which then leads to other dental complications.



The Link Between Periodontal Disease and Diabetes

- Diabetic Control
- Blood Vessel Change
- Bacteria
- Smoking
- Thrush
- Dry Mouth



Integrated Oral Health & Diabetes Measures

- 40% of patients with diabetes who had a medical or dental visit will have a dental exam within 12 months
- 35% of all of AHCH's clients will be seen in the dental program.
- 50% of the chosen high risk population will develop self-management goals related to oral health.

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COMING SOON!

**Oral Health and Diabetes for
Patients Experiencing Homelessness
Fact Sheet**

January 2019

- Resources for patients and providers
- Diabetes and periodontal disease statistics
- Medical and dental integration resources

CONTACT US!



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