Oral Health Care for Diabetic Patients without Homes

Irene V. Hilton, DDS, MPH, FACD
NNOHA Dental Consultant
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NNOHA Education Director
May 18, 2018
National Healthcare for the Homeless Council
Objectives

• Understand the impact of oral health and dental conditions in patient diabetes management

• Learn how to screen patients with diabetes for periodontal disease and other oral conditions

• Describe strategies to address the challenges in referring health center patients with diabetes for dental care
Text: NNOHA to 22333

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What's your favorite vacation spot?
Today’s Path

• Introductions, oral health & diabetes, homelessness

• IOHPCP initiative & framework

• Daily Planet health center program

• Daily Planet continues, conclusion
Oral Health and Diabetes

You cannot have good health if you have bad teeth!

Irene Hilton, DDS, MPH, FACP
NNOHA Dental Consultant
Strategic Partners’ Technical Assistance Strategies to Prevent and Manage Diabetes

**Improving Health Systems & Infrastructure**
- EHRs with Diabetes Modules
- Diabetes Informatics
- Health Information Exchange (HIE) & Telemedicine
- Patient Centered Medical Home (PCMH)
- Use Patient Portals

**Optimizing Provider & Multidisciplinary Teams**
- Team Based Care
- Promote National Standards
- New Techniques for Early Detection Screening
- Case Management
- Sharing of Diabetes Management Promising Practices
- **Eye, Foot, Dental, & Kidney Screening**
- Provider Counseling of Patients

**Facilitating Behavior Change in Patients**
- CHW Directed Patient Education
- Lifestyle/Self-Management
- Promote Physical Activity and Healthy Diets
- Address Childhood & Adult Obesity
- Increase Patient Health Literacy
Oral Manifestations of Diabetes

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

*(many slides courtesy of Dr. George Taylor, UCSF)*
Tooth Loss: Detrimental Changes in Food Choices

- Fruits
- Vegetables
- Dietary and crude fiber
- Carotene
- Saturated fat
- Cholesterol
2015 Global Diabetes Prevalence
415M
Moderate Periodontal Disease Prevalence

Periodontal Disease Prevalence by Race/Ethnicity

Etiology of Periodontitis

Low
IL-10
TGF-β
IL-1ra
TIMPs

High
TNFα
IL-6
IL-1β
IFN-γ
PGE2
MMPs

Fatty acids
FMLP
LPS

IL-8
Type 2 diabetes

Adipose tissue

Pancreas

β-cell failure

TNFα

Muscle

Liver

Peripheral inflammation

Activation of cell stress pathways

Peripheral insulin resistance

Overall health decline
Diabetes and periodontal disease are both inflammatory diseases
What we Know...

• Association between diabetes and periodontal disease

• Persons with diabetes have higher risk of developing periodontal disease

• People with poor control get gum disease more often and more severely, and they lose more teeth than do persons with good control
Mechanisms:
Diabetes Effect on Periodontal Disease

• Diabetes causes blood vessels to thicken, which slows circulation in micro-vessels. Weakens resistance of gum and bone tissue to infection

• When diabetes is poorly controlled, high glucose levels in mouth fluids help bacteria that cause gum disease grow
Diabetic Periodontitis
Bi-directional Relationship

Diabetes a risk factor for periodontitis

Periodontitis a risk factor for poorer glycemic control
Mechanisms: Periodontal Disease Effect on Diabetes

• Cytokinins (TNF-α etc) associated with periodontal disease interfere with insulin

• Models where periodontal infection contribute to hyperglycemia
Chronic inflammation
Visceral obesity
Proinflammatory state
Chronic overexpression of cytokines
Insulin resistance
Pancreatic beta cell damage
Diabetes

Conceptual Model: Adapted from Richard Donahue, 2004
What we Know...

- Periodontitis can adversely affect glycemic control in patients with diabetes
- Diabetic patients with more severe periodontal disease at higher risk of diabetic complications
- Chronic untreated periodontal disease is an inflammatory burden
Periodontal Infection: Its Effect on Glycemic Control
Periodontal Infection and Complications of Diabetes

- Shultis et al., 2007; Diabetes Care.
  - Prospective cohort study of N=529, type 2 diabetes
  - Up to 22 years follow-up
  - Severe periodontal disease associated with macroalbuminuria (MA- kidney damage) and ESRD

(n = 529). □, none/mild periodontitis; ▢, moderate periodontitis; ■, severe periodontitis; □, edentulous.
Significance of improving glycemic control

- Any sustained lowering of blood glucose helps delay the onset and progression of microvascular complications of diabetes
  - Neuropathy – 50%
  - Any cardiovascular disease – 38%
  - Coronary heart disease – 22%
  - Stroke – 21%
  - Visual Impairment – 23%
  - Kidney disease – 40% of new cases of renal failure due to diabetes
Diabetic Periodontitis
Does Periodontal Treatment Improve HbA1c?

• Reviews of meta-analyses are mixed!

• Most looking at 3 and 6 month interval post intervention

• Most are looking at pre-intervention HbA1c between 7-9
Periodontal Treatment

• Scaling & root planning ie. “deep cleaning”
Clinical Trial Confusion


  *Findings from this overview do not support the information that periodontal treatment may improve glycaemic control.*

OR


  *Periodontal treatment (SRP) results in a statistically significant reduction in HbA1C levels at 3 months, with a lower reduction at 6 months.*
Area Foot Ulcer < Area Ulcerated Infected Periodontal Pockets
Health Services Studies

United Concordia’s landmark Oral Health Study shows that annual cost savings of $3,291, $2,956, $1,029, $3,964 and $2,430 are possible when individuals with diabetes, heart disease, cerebrovascular disease (stroke), rheumatoid arthritis and pregnancy are treated for gum disease.

*3-year average of $1,814 in savings from reduced hospital and office visits begins in the first year of periodontal treatment. Pharmacy savings realized annually after patient receives at least 7 periodontal treatment and/or maintenance visits.
Oral Health & Homelessness
Oral Health Status

• Homeless persons are 12 times more likely than individuals with stable housing to have dental problems

• Homeless adults have more intensive dental problems, such as periodontal disease and edentulism (complete lack of teeth)
Challenges

• Carrying/keeping TB & TP, finding place to perform OH
• Non-optimal diet
• Keeping dentures/partials
• Stress triggers inflammatory process
• Other health issues
• Unable to access dental care, ED utilization
Restoring an individual's teeth and smile is the last step to returning to mainstream society.
BREAK TIME!
IOHPCP Framework

Candace Owen, RDH, MS, MPH
NNOHA Education Director

- Recommendations included HRSA developing oral health competencies for non-dental professionals
2014 HRSA Integration of Oral Health and Primary Care Practice (IOHPCP) Initiative

- Develop oral health core clinical competencies for primary care clinicians
- Translate into primary care practice in safety net settings

**Goal:**
- Improve access for early detection and preventive interventions leading to improved oral health

- 3 Health Centers
- PCPs deliver oral health interventions
- Standardization of training, clinical protocols
- Measures/QI
Strategic Partners’ Technical Assistance Strategies to Prevent and Manage Diabetes

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Facilitating Behavior Change in Patients
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- Address Childhood & Adult Obesity
- Increase Patient Health Literacy
Oral Health Core Clinical Competency Domains

• Risk assessment
• Oral health evaluation
• Preventive interventions
• Communication & education
• Interprofessional collaborative practice
Assessment: Ask...

- Are you having any dental problems...pain, bleeding gums, problems eating?
- When was your last dental examination?
- Where do you usually go?
Evaluate: Signs of Periodontal Disease

- Bleeding, red, swollen gums
- Pus
- Bad breath or bad taste
- Teeth loose or separating
- Changes in bite
- Changes fit of partial dentures
Diabetic Periodontitis
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
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
Steps to Success

Step I: Planning
Step II: Training Systems
Step III: HIT Systems
Step IV: Clinical Care Systems
Step V: Evaluation Systems

*Figure 1. Implementation Flowchart*
Training Systems

• Online training
• In-person training (interdisciplinary collaboration opportunity)

• On-boarding new health professionals
Things to Learn

1. Risk assessment
2. Oral health evaluation
3. Preventive interventions
4. Communication & education
5. Interprofessional collaborative practice

1. What to ask?
2. What to look for?
3. What to do?
4. What to say?
5. How to refer?
Online Training

• Smiles for Life: www.SmilesforLifeOralHealth.org
  • Nation’s most comprehensive and widely used oral health curriculum for PCP

• American Academy of Pediatrics

• Oral Health Nursing Education and Practice (OHNEP)
  • http://ohnep.org/
The Smiles for Life curriculum consists of eight 60-minute modules covering core areas of oral health relevant to health professionals. User competencies are measured through assessments at course completion. Users must score an 80% or higher to receive credit for each course.

Looking for the Canadian modules? 🇨🇦

Click here to be directed to the downloadable courses.
HIT Systems

- Create prompts within EMR for dental related questions
- Utilize team members and resources to enhance clinical flow
- Develop method to schedule dental appointments
- Develop way to track referrals from medical to dental
- Include OHI in patient summary
<table>
<thead>
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<th>What system do you use for your EDR?</th>
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<tr>
<td>Dentrix</td>
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<tr>
<td>eClinicalWorks</td>
</tr>
<tr>
<td>NextGen</td>
</tr>
<tr>
<td>Centricity</td>
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<tr>
<td>Other</td>
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<tr>
<td>What system do you use for your EMR?</td>
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<tr>
<td>eClinical Works</td>
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<td>NextGen</td>
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<tr>
<td>Centricity</td>
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<tr>
<td>Other</td>
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</table>
Auto Scoring Guidelines:

a. High risk - any 'Yes' to either Risk Factor or Clinical Findings.

b. High risk - 2 or more 'No' in the Protective factors and all 'No' to both Risk Factors and Clinical Findings.

c. Low risk - 'No' to all Risk Factor and Clinical Findings and 2 or more 'Yes' to Protective Factors.
Documenting Dental Care

From ADA Risk Assessment, document the Dental Care questions
eCW Referrals
Centricity Referrals
Clinical Care Systems

• Who performs what?
• During what part of the PC visit?
• Clear division of labor
• Develop a workflow
• Test cycles
• Document procedures and clinical protocols
<table>
<thead>
<tr>
<th>Domain Tasks</th>
<th>Scenario 1</th>
<th>Scenario 2</th>
<th>Scenario 3</th>
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<tbody>
<tr>
<td>Risk Assessment</td>
<td>100% Support staff</td>
<td>10% Support staff</td>
<td>50% Support staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>90% Provider</td>
<td>50% Provider</td>
</tr>
<tr>
<td>Oral Evaluation (e.g., clinical oral screening)</td>
<td>Provider</td>
<td>Provider</td>
<td>Provider</td>
</tr>
<tr>
<td>Preventive Interventions (e.g., fluoride varnish)</td>
<td>Support staff (before oral evaluation)</td>
<td>Support staff (after oral evaluation)</td>
<td>Support staff (after oral evaluation)</td>
</tr>
<tr>
<td>Communication and Education</td>
<td>Provider and take-home materials</td>
<td>Provider and take-home materials</td>
<td>Provider and take-home materials</td>
</tr>
<tr>
<td>Interprofessional Collaborative Practice (e.g., referral)</td>
<td>Provider (check-off box in the EMR), patient takes laminated &quot;yellow tooth&quot; reminder card to front desk</td>
<td>Provider (check-off box in the EMR), &quot;passport&quot; sheet with primary care follow-up visits (i.e., lab, radiology, dental)</td>
<td>Provider (check-off box in the EMR). Can print out a list of community oral health professionals from EMR</td>
</tr>
</tbody>
</table>
Follow-Up

• Reminder calls to increase dental appointment attendance
  • Determine who will do the follow-up
• Warm hand-off
• Same day visits
• List of patients given to dental
• Medical scheduler follows up
Patient Name: ________________________________

Date: __________________

Please schedule a dental appointment for this patient.

______________________ MD/CNM/NP
eCW Follow-Up

Referral (Outgoing)

Patient: Test, Case (6093527)
Insurance: BCBS HMO
RefFrom: Watkins, Sebastia
Facility From: East Georgia Healthcare Center
Auth Code: 
StartDate: 04/13/2018
Referral Date: 04/13/2018
Open Cases: 
AppDate: 04/13/2018
Received Date: 04/13/2018
Priority: Routine

RefTo: 
Provider: Murray, Cherie
Specialty: Dental
Facility To: Compassionate Care Dental C
Auth Type: 
End Date: 04/13/2019

Assigned To: Gonzalo, Araez

Diagnosis / Reason

Reason
Sl. No Description
1 uncontrolled diabetic needs eval and tx

Diagnosis

Code Name

Procedures

Code Name

Send Referral
Evaluation Systems

• Determine what data to collect
• What information is important to drive system changes?
• Most data can be collected through EMR/EDR
• Other data sources
  • Patient surveys
  • Provider surveys
## Peer Review

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<td>21</td>
<td>Proper immunizations given when indic. (Flu/Pne)</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Problem list is updated (has recent dx listed)</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Documentation supports code assigned to visit</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Chart signed off at time of visit (within 24 hours)</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Integrated Care: BH/Dental/CPS Referrals</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Patient referred to Dental if no screening on chart</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Patient referred to CPS for &gt;5 meds</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Patient referred to CPS for A1C &gt;9</td>
<td></td>
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<tr>
<td>30</td>
<td>Patient referred to CPS for Asthma/Spirometry</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Patient referred to CPS for Lipids if &gt;100</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Patient seen by BH at least annually</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Seen by BH if psych med. prescribed/changed</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Seen by BH for uncontrolled chronic illness</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Signature of reviewer doing the Audit:</td>
<td>Printed Name</td>
</tr>
<tr>
<td>36</td>
<td>Signature of Clinical Director:</td>
<td>Printed Name</td>
</tr>
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</table>

*Figure 8. Peer Review Tool*
IPOHCCC Minimum Core Set of Measures

1. # and % of OH assessments/screening performed by PCP
2. # and % of FL varnish applications for high-risk patients
3. # and % of patients receiving OH preventive interventions
4. # and % patients referred from medical to dental
5. # and % of patients that are linked to definitive OH care and treatment
IPOHCCC Minimum Core Set of Measures

6. Changes in quality of care/outcome indicators
7. Knowledge and skills of primary care providers
8. Patient experience and knowledge for oral health
Integration Readiness Assessment

Get out your cell phones!
Does your ED/CEO completely buy into/support integration?

Yes

No
Is your dental director/CDO part of your clinic's management team?

- Yes
- No
- I don't know
<table>
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<tr>
<td>At least 1 site is co-located</td>
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<tr>
<td>All sites are co-located</td>
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Primary care and dental both understand and use the model for improvement or other QI methods to test and implement new ideas.
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<tr>
<td>All primary care and dental staff are open to learning about integration</td>
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<tr>
<td>1-2 staff (PC or dental) will be resistant to learning about integration</td>
</tr>
<tr>
<td>Both PC and dental staff will be resistant to learning about integration</td>
</tr>
<tr>
<td>Response</td>
</tr>
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</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Somewhat</td>
</tr>
<tr>
<td>No</td>
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<tr>
<td>True</td>
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Our organization's EMR and EDR are integrated and interoperable.
Turn and Talk!

- What are areas that your organization can improve readiness for integration of oral health and primary care?

- What are areas that your organization show readiness for integration of oral health and primary care?
Resources


BREAK TIME!
DAILY PLANET HEALTH SERVICES
MISSION AND VISION

- DPHS envisions a community where ALL are empowered to live healthy, enriched and stable lives.
- DPHS operates several federally qualified healthcare centers in Richmond Virginia. We address the holistic wellness of those who are financially at risk by providing accessible, comprehensive, and integrated quality health services on a sliding fee scale and without regard to one’s insurance, financial or housing status.
- DPHS has been recognized by NCQA as a Patient-Centered Medical Home since February 2014.
CY 2017 PATIENT STATS & DEMOGRAPHICS

7,227 men, women and children for 38,000 patient visits

Insurance Status
70% are uninsured; 13% Medicaid; 10% Medicare; 7% private insurance

Income Status
75% are 100% or below of the Federal Poverty Level

Housing Status
67% are homeless; 16% live in public housing

Medical Status
75% are “complex” patients with multiple chronic diseases and a majority have a co-occurring mental health disorder
DAILY PLANET HEALTH SERVICES
PATIENT-CENTERED SERVICE DELIVERY MODEL

- Primary Care
- Case Management
- Dental Care
- Behavioral Health
- Pharmacist’s Services
- Eye Care
- Health Education
- Safe Haven
- Medical Respite
PATH TO INTEGRATED CARE
WITH FUNDING SOURCES

Co-located for years (PH, BH, OH, CM)

2005 VCU (Pharm-BH)
2010 NIATx (PH-BH)
2011 APhA (PH-Pharm)
2012 VHCF (PH-BH)
2013 VAOHC (OH-PH)
2014 RMHF & TCF (PH-BH)
2015 RMHF (OH-PH)
2016 BD & Direct Relief (OH-PH Diabetes Impact Expansion)
2017 SAMHSA (PH-BH Expansion including OBOT program)
Patient-centered team-based care

- Shared Goals
- Clear Roles
- Mutual Trust
- Effective Communication (EHR)
- Measurable processes and outcomes

Cross-training and learning

Inter-professional chronic care management
ED/CEO supported integration
COO and Dental Director members of management team
Dental and Primary Care co-located
PDSA model
Dental and Primary Care staff had buy-in
Clinical champions identified
EMR and EDR have integrated scheduling
ORAL HEALTH – PRIMARY HEALTH INTEGRATION

Planning
   Population Health
   Assemble Team

Modifying Training Systems

Updating Health Information Systems
   Electronic Health Record (eClinicalworks)

Modifying Clinical Care Systems
   Joint appointments with physician and pharmacist (shared model of care)
   Co-located dental services
   Care planning

Developing Evaluation Systems
   Survey
   Outcomes (clinical and process)
PATIENT POPULATION

Diabetes Impact Patients

High risk diabetes patients

A1c >7

Dedicated clinic day

Shared model of care (physician-pharmacist)

Group education

Access to YMCA Program

Foundation population for many new initiatives
INTER-PROFESSIONAL TEAM

- **Patient**
  - Compliance
  - Communication

- **Primary Care Provider**
  - Diagnosis & Definition of Treatment goals
  - Management of Care
  - Refers to Specialists
  - Chronic Disease Management
  - Assessment and Referral to OH provider
INTER-PROFESSIONAL TEAM

❖ Pharmacist
  ❖ Medication Reconciliation & Medication Education
  ❖ Immunization Programs, Assessments & Plan

❖ Dentist
  ❖ Oral Health Management
  ❖ Oral Health Education

❖ Chief Operating Officer
  ❖ Project and grants management
  ❖ Administration liaison with staff, community & funders
INTER-PROFESSIONAL TEAM

❖ Nutritionist
  ❖ Meal Planning & Nutrition Goals

❖ Dental Hygienist
  ❖ Oral Hygiene Instruction and Self-care Application
  ❖ Monitoring of Periodontium levels

❖ Health Educator/Auxiliary Staff
  ❖ Diabetes Education, Medical Assistants, Dental Assistants, Schedule Coordinator
COMMUNITY TEAM MEMBERS

❖ Patient
❖ YMCA
❖ Virginia Oral Health Coalition
❖ Community Health Solutions
TEAM TRAINING

Group Education
  Virginia Oral Health Coalition
    All team members
Cross profession training
  Blood glucose meter training
  Electronic Health Record
Sustainability
PATIENT CARE PROCESS

Patient registers

Patient triaged by M.A.

Patient visit provider, pharmacist

Patient in Group

Patient leaves with appt.- referral

No Shows called by Case Management

Podiatrist

Referrals

Optometrist

Dentist

New Patient Exam Treatment Plan Follow-up 6 months
PATIENT BENEFITS

Notebook for Self-Care

Group classes with lunch

Preventive Dental Care (2 visits per year)
  Pilot Program – covered complete dental plan for 9 patients

Bus tickets

Referral to YMCA (coverage of cost)

Medication copay/cost coverage for homeless patients
Medical-Oral Health Provider/Patient Partnership Agreement

As a Patient-Centered Medical Home, we are committed to your life-long health and wellness. We believe that to achieve this goal there must be a partnership between you, the patient, and your healthcare providers (physician, nurse practitioner, dentist, and dental hygienist).

We will work together to...

- Care for the management of your Diabetes
- Achieve and maintain your health over your lifetime

You will...

- Be honest about your history, symptoms, and other important information about your health
- Take all of your medicine and follow your doctor’s advice
- Make healthy decisions about your daily habits and lifestyle
- Prepare for and keep scheduled visits or reschedule visits in advance
- Follow the medical and dental care plan that is agreed upon at your office visit as best you can
- Participate in developing an action plan to self-manage your diabetes
- Take steps to achieve a healthy lifestyle and get preventive services
- Ask questions if you do not understand any portion of your health care
- Notify us if your insurance, prescription coverage or financial situation changes

Your Healthcare Providers will...

- Explain diseases, treatments, and results in an easy-to-understand way
- Provide 24 hour access to medical care and same day appointments, whenever possible
- Give my patients clear directions about medicines and other treatments
- Provide clear instructions about expectations, treatment goals, and future plans
- Respect your privacy and keep your healthcare formation confidential
- Offer appropriate medical/oral health recommendations and information based on your health
INITIAL DENTAL VISIT

- Referral received from Primary Health
- Patient scheduled for new patient exam
- New patient exam consist of a full set of radiographs, comprehensive examination to include an oral exam and oral cancer screening
- A treatment plan is developed and reviewed with patient
- Oral Health education
ELECTRONIC HEALTH RECORD

Shared scheduling
Structured data fields
  Documentation
  Data Analysis
Referrals
DENTAL ELECTRONIC HEALTH RECORD
**Progress Notes**

**Pt Info** | **Encounter** | **Physical** | **Hub**
---|---|---|---

**Diabetes**
- Self-Care Behaviors
- Microalbuminuria
- Diabetic eye exam
- Flu shot
- ACE/ARB
- Cholesterol Medication
- Aspirin
- Pneumovax
- Hepatitis B Vaccine
- Medications
- Behavioral Health

**Diabetes Mellitus without complications**
- Low Risk
- Essential hypertension
- HTN

---

**Subjective:**
- **Chief Complaint(s):**
  - HPI:
  - Current Medication:
    - Lantus Solostar Pen 100 units and increased dosage
    - TruTrack strips 50s #50 bottle
    - trazodone 50 mg tablet 1 tab(s) orally qhs
    - Synthroid 25 mcg (0.025 mg) tablet 1 tab(s) orally once a day
    - Generic paroxetine 10 mg capsule 1 tab orally once a day

---

**Diabetes**
- Self-Care Behaviors
- Microalbuminuria
- Diabetic eye exam
- Flu shot
- ACE/ARB
- Cholesterol Medication
- Aspirin
- Pneumovax
- Hepatitis B Vaccine
- Medications
- Behavioral Health
**Endocrinology/Diabetes**

<table>
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<tr>
<th>c/o</th>
<th>Symptom</th>
<th>Duration</th>
<th>Notes</th>
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<td>5</td>
<td>Self-Care Behaviors</td>
<td></td>
<td>Daily Oral Hygiene Yes,</td>
</tr>
<tr>
<td></td>
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<tr>
<td>5</td>
<td>Microalbuminuria</td>
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<tr>
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<td>Diabetic eye exam</td>
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<tr>
<td>5</td>
<td>Erythrocytosis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Self-Care Behaviors**

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Oral Hygiene</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Daily Foot Checks</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Notebook Provided</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Notebook Use</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

**Structured**

- Default: Yes
- Default for All: Yes
- Clear All: Yes
Reason for Appointment
1. Type 2 Diabetes Mellitus

History of Present Illness
Diabetes:
48 year old male with Type 2 diabetes, Pt. reports not going to the gym very often.
Diabetes F/U doing well and without complaints.
Home glucose monitoring AM fasting: 120, after meals about 140-150.
Hypoglycemic episodes none.
Compliance with medications.
HGBA1C 6.9 up from 5.4.
Self-Care Behaviors
  Daily Oral Hygiene Yes
  Daily Foot Checks Yes
Microalbuminuria
  Status Normal 12/2017
Flu shot
  Influenza Vaccine Received
  Date Received 12/2017
Cholesterol Medication
  Managed On Statin
Aspirin
  Managed Aspirin
Pneumovax
  Pneumococcal Vaccine Received
  Date Received 12/2017
Hepatitis B Vaccine
  Hepatitis B Series Complete
YMCA Referral
  YMCA Referral
Polyuria none.
Polydypsia none.
Polyphagia none.
Lost his cousin and has been feeling depressed and not going to the gym as much. Will have joint replacements in summer.
Reason for Appointment
1. Diabetes Group - Reducing Risks

Assessments
1. Diabetes education, encounter for - Z71.89 (Primary)

Treatment
1. Diabetes education, encounter for
Clinical Notes: Patients educated on complications of diabetes and ways to manage and reduce their risk. Provided information on necessary labs and testing to be regularly performed as well as goal values according to evidence-based practice. Patients counseled on quitting smoking and discussed barriers. Emphasized the importance of getting regular health checkups, including dental and eye exams. Instructed patients on how to perform daily foot checks. Patients shared their own perspectives on sexuality and diabetes. Addressed concerns about diabetes complications and answered questions about ways to stay healthy. Patients are asked for feedback on how to improve sessions.

Preventive Medicine

Electronically signed by Kelly, PharmD Goode, Pharm. D. on 12/01/2017 at 09:09 AM EST
Sign off status: Completed
SUCCESS OF GROUPS

- **Diabetes Impact group meets weekly**
  - Monthly topic based on AADE curriculum
  - Additional sessions
    - Dental care
    - Yoga
- **Patients share within the group successes and challenges**
- **Patients share their solutions for challenges faced**
- **Support one another**
- **Share a meal**
  - Learn portion control
  - Try new foods
  - Examples of healthy foods
  - Learn to carbohydrate count
EVALUATION

Diabetes-Oral Health Survey (pre- and post)
Referrals
Diabetes Clinical Outcomes
  A1c
  BMI
  Tobacco Cessation
  Immunizations
Dental Outcomes
  Probing depths
  Plaque index
  Oral Hygiene
  Missing teeth
  Bleeding on probing
DIABETES-ORAL HEALTH SURVEY

**Does your insurance pay for dental care?**

- Yes: [Diagram showing percentage]
- No: [Diagram showing percentage]
- Not applicable: [Diagram showing percentage]

Answered: 32 Skipped: 0

**During the past 12 months, was there any time when you needed dental care (including checkups), but didn't get it because you couldn't afford it?**

- Yes: [Diagram showing percentage]
- No: [Diagram showing percentage]
- Unsure: [Diagram showing percentage]

Answered: 32 Skipped: 0
Before being seen by the dentist at The Daily Planet, about how long had it been since you last saw a dentist? Include all types of dentists, such as orthodontists, oral surgeons, and all other dental specialists, as well as dental hygienists.

Answered: 31   Skipped: 1

- Never
- 1 year or less ago
- More than 1 year, but less than 5 years ago
- Between 2 and 5 years ago
- More than 5 years ago
- Unsure
Would you say that your oral health affects the quality of your life?

Answered: 32  Skipped: 0

- Yes: 70%
- No: 20%
- Unsure: 10%
POST SURVEY FINDINGS

- Responses from 23 of the 34 referred patients. The remaining patients were unable to be reached for survey.
- When asked if they agree or disagree the program allowed them to see a dentist, the majority agreed.
- Most patients received dental services 1-3 times during the 2 year timeframe. While 13% received dental care 4-6 times.
- When asked, how would you rank your ability to get a dental appointment, 48% said excellent, while 43% said good.
- When asked how they would rate the quality of medical and dental care received during the program, 52% said excellent, 39% said good and 9% said fair.
# PILOT PROGRAM OUTCOMES

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Final</th>
<th>Patients with Decrease</th>
<th>Patients w/A1c &lt;8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1c</td>
<td>9.6%</td>
<td>8.9%</td>
<td>66.7%</td>
<td>30%</td>
</tr>
<tr>
<td>BMI</td>
<td>35.23</td>
<td>35.58</td>
<td>40%</td>
<td></td>
</tr>
</tbody>
</table>

*average
PILOT PROGRAM OUTCOMES

Immunizations

Influenza 73.3%
Pneumococcal 76.7%

Screenings

Tobacco Use 100%
Monofilament 100%
DENTAL OUTCOMES

- The project resulted in improved access to dental care for many patients.
  - Patients were referred to the dental clinic from the primary care clinic
- These patients were offered a free initial dental examination, x-rays and cleaning.
- 9 patients served as pilot patients. These 9 patients were offered their comprehensive dental treatment at no cost. In order to alleviate the financial barrier many patients face.
  - 6 completed their dental treatment plan. The remaining patients have outstanding treatment recommendations
PATIENT CASE #1

51 yo African American Female
Partially Edentulous
Upper complete/ lower partial
Average oral hygiene
Adherent to appointments
Self-management/care
  up to date
Patient as advocate
Weight loss
## ORAL HEALTH – PRIMARY HEALTH OUTCOMES

84 patients

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Current</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI</td>
<td>34.36</td>
<td>34.47</td>
<td>+ 0.11</td>
</tr>
<tr>
<td>A1c</td>
<td>9.73</td>
<td>8.73</td>
<td>- 1</td>
</tr>
</tbody>
</table>

43% of patients with A1c < 8%
25% of patients with A1c <7%
**CHALLENGES**

**Data Management**
- Building EHR documentation
- Separate system for dental providers
- Compiling and analyzing data

**Team-Based Care**
- Integration of additional health care professionals
  - Internal & External

**Patient Care Issues**
- Follow-up for missed appointments
- Behavioral management (stress, tobacco cessation, weight management)
- Access (food, transportation, other social determinants of health)
- Finances
PATIENT-CENTERED INTEGRATION

True integration is bi-directional and collaborative.
TOOLKIT EXERCISE

Leadership Assessment

Integration Readiness
Connecting the dots for those in need
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OH-PH CHAMPIONS

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NEW ORLEANS, LA
NOVEMBER 11-14, 2018
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