Integrating Diabetes Prevention and Management and Oral Health: Lessons Learned from a Pilot Project

National Network for Oral Health Access Annual Conference November 13, 2018
Introductions

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Disclosures

No conflicts of interest to report
Acknowledgments

This project is supported by Grant 5 NU58DP001009 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the presenters and do not necessarily represent the official views of CDC.
Presentation Objectives

- Describe how a variety of partners worked together to promote integrated care for patients with diabetes
- Outline the Diabetes Oral Health Integration (DOHI) pilot project
- Identify promising practices that can be translated to participants’ organizations
- Describe commonly-used quality improvement strategies that CHCs can apply to integration efforts
Project Background
Diabetes and Oral Health

- Diabetes can influence oral health and vice versa\(^1\)
  - Poorly-controlled blood glucose can contribute to periodontal disease
  - Untreated periodontal disease can contribute to elevated blood glucose
- Integrating oral health and diabetes prevention/management is one tool to advance the patient-centered medical home
- Diabetes is a HRSA priority for Community Health Centers and Primary Care Associations

Colorado Caveats

- Same day billing for medical and dental - can bill both 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 testing in the dental clinic is reimbursable by Medicaid (D0411)
DOHI Project Overview

- Develop and test a change package to enhance comprehensive, patient-centered care for patients with (pre)diabetes
- Pilot test at Colorado Coalition for the Homeless
  - Empanelment
  - Screening for diabetes and prediabetes in dental
  - Bidirectional referrals between medical and dental
  - Referrals to evidence-based programs
DOHI Change Package Development

- **Process:**
  - Learn from current practices
  - Review literature
  - Adapt existing change concepts
  - Create a change package

- **Goals:**
  - Customizable
  - Multi-faceted
  - Realistic
DOHI Change Package Key Concepts

- Engaged Leadership
- Expanded Care Team
- Patient-Centered Care
- Data-Driven Quality Improvement
- Transformative Access
- Community Relationships & Partnerships

DOHI Practice Coaching Components

- Core team and project champions
- Assess existing practices and infrastructure
- Align with existing efforts
- Utilize model for improvement
Project Implementation
Colorado Coalition for the Homeless

- Mission: Create lasting solutions to homelessness
- Advocate for, and provide a continuum of, housing and services to improve the health, well-being, and stability of those it serves
- Comprehensive approach addresses the causes of homelessness as well as the consequences, offering critical assistance to over 15,000 individuals and families each year
- Quality assurance and quality improvement are part of CCH values and philosophy
In 2017...

- 10% of CCH patients had a diabetic diagnosis
- 14.9% of CCH patients had an A1c that indicated prediabetes
- 34.7% of patients with diabetes had an A1c value indicating uncontrolled diabetes

- 3,600 Unique Patients
  - 15,200 Visits
  - 32 Dental Staff Members
    - 2 Hygienists in the Integrated Suites
    - 2 Clinical Hygienists
    - 6 Clinical Dentists at 2 Clinic Locations
      - 15 Dental Operatories
    - 1.5 Dental Assistants per Clinical Dentist

18,032 people received health care
8,477 received medical care
3,661 received dental care
12,108+
Why *this* project?

- CCH clinical quality priorities include improved prediabetes/diabetes screening, effective education and follow up for these individuals
- Open system: 30% of patients seen at CCH Dental have not accessed CCH Primary Care for any needs and may not have a medical home
- Individuals experiencing homelessness frequently have neglected their health due to overwhelming social concerns. They are likely to access dental services more often than primary care due to urgent needs
- Integrated health system provides a unique opportunity to coordinate care across departments
Barriers to Improving Care

- Electronic Dental Record (EDR) templates were not supportive of diabetes screening
- Dental workflow did not include A1c point-of-care or risk assessment for diabetes/prediabetes
- No tool for tracking referrals between health center teams (i.e. dental to medical and vice versa)
- Lack of practical support for clients - transportation, financial, emotional, etc.
- Facility-based Diabetes Group curriculum
Preparing for Implementation

▪ Identify Project Manager and Diabetic Program Manager
▪ Schedule telephone meetings with stakeholders at Denver Health to learn best practices implementing National Diabetes Prevention Program (NDPP) & Diabetes Self-Management Education (DSME) program. Both are evidence based ADA programs
▪ Learn about current CCH diabetes education, screening & support
▪ Technical assistance assessment of Quality Assurance team, Primary Care team and Oral Health team
Implementation at the Coalition

- Screening in dental clinic
  - Diabetes and prediabetes risk assessment questionnaire
  - Point-of-care HbA1c test (DO411)

- Bidirectional Referrals
  - Dental to medical and medical to dental

- Evidence-based diabetes prevention and management programs
  - CCH Diabetes Education Group
  - National Diabetes Prevention Program (NDPP)
  - Diabetes-Self Management Education (DSME)
Changes to Support Implementation

- **Health Information Technology**
  - EHR: NextGen
  - EDR: QSI
  - AZARA populational health

- **Workflows**
  - Assessment, screening for (pre)diabetes, and referral from dental to medical
  - (Pre)diabetes diagnosis and referral from medical to dental

- **Diabetes/prediabetes education curriculum**
  - American Association of Diabetes Educators training
Lessons Learned: Compliance and Logistics

- CLIA waivers may be needed to do point-of-care (POC) A1c testing; waiver is test- and site-specific
- Patient consent process for POC test
- Documented policies and procedures for risk assessment, POC test, referrals, and follow-up
- Coordinating with billing department to ensure needed documentation is complete for D0411
- State scope of practice considerations for utilizing POC test
- Staff compliance and training
Lessons Learned: DOHI Change Package Concepts
Engaged Leadership
Engaged Leadership

- Consideration and approval of the project by Integrated Health Management Team
  - Management/Director level staff from all five departments, Chief Clinical Officer, Vice President of Integrated Health Services
- Regular meetings of Dental Director and Diabetes Manager with primary care, behavioral health, and quality improvement team members
- Alignment with organizational priorities
- DOHI Core Team representation from clinical, operational, project management, and IT roles
- QI Coaches available to clarify grant deliverables and assist in development of workflows/PDSAs
Team-Based Care
Team-Based Care

- Nurse Manager-led suites with patients empaneled to a suite
- Define roles and responsibilities to promote integration
- Huddles occur each morning to prepare the team to provide high quality integrated health care
- Patients collaborate with staff to plan visit according to expressed needs, including social determinants of health
Care Team Members

Dental suite:
- Dentist
- Dental Hygienist
- Dental Assistant
- Oral Health Patient Navigator
- Health Operations Associate

Primary care suite:
- Primary Care Provider
- Medical Assistant
- Patient Navigator
- Peer Mentor
- Case Manager
- Outreach worker
- Psychiatrist
- Behavioral Health Provider
- Nurse
- Dental Hygienist
- Health Operations Associate
Process Improvement

- Process improvement is driven by the Chief Clinical Officer using the LEAN format
- Develop, test, and refine workflows
- Document processes and procedures
The workflow started here...
Dental to Medical Workflow

- Instituted POC Hba1c test
- Extensive meetings, deliberation and training for dental team
- Terms and language borrowed from primary care
- EDR Analyst and Oral Health Patient Navigator provided insight on structuring referrals
Medical to Dental Workflow

- Initial workflow already in place due to existing integrated dental hygienist
- Information given to medical assistant and key primary care champions who provided required training
Patient-Centered Care
Patient-Centered Care

- Trauma-informed approach drives patient care and staff relations
- Preventive, episodic, urgent, and ongoing care for all conditions
- Individualized approach to care planning
- Collaboration encouraged among all staff - no private offices
- Street outreach, substance use treatment services including Medication-Assisted Treatment (MAT)
- Linkages to legal advice, parole officers, transportation, respite care, hotel vouchers
- Biannual patient satisfaction survey
Patient-Centered Care

- Enhance diabetes education training for staff/providers from medical and dental teams
  - American Diabetes Education Association
- Infuse diabetes education into day-to-day patient interactions
- DOHI project aligned with CCH recognition as a NCQA Patient-Centered Medical Home
Data-Driven Quality Improvement
Data-Driven Quality Improvement

- UDS measures: grant opportunities considered from the lens of quality improvement
- Key measures viewed regularly with a process improvement approach
- Use workflow mapping to identify workflow concerns
- Utilize Plan-Do-Study-Act cycles
Health Information Technology

- Integrated EHR and EDR
  - EDR: QSI
  - EHR: NextGen
- Health Promotion Plan
- Dedicated IT/data support
  - EDR Analyst
  - Business Intelligence Analyst
- Ability to modify templates
  - Creation of diabetes risk assessment questionnaire template
Digital Diabetes Risk Assessment Questionnaire

Are you at risk for type 2 diabetes?

1. How old are you? .................................................................................................................. 2
   - 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? ................................................................................................. 0
   - Man
   - Woman

3. If you are a woman, have you ever been diagnosed with gestational diabetes? ............. 1
   - Yes
   - No

4. Do you have a mother, father, sister or brother with diabetes? ........................................ 1
   - Yes
   - No

5. Have you ever been diagnosed with high blood pressure? ................................................ 1
   - Yes
   - No

6. Are you physically active? .................................................................................................... 1
   - Yes
   - No

7. What is your weight category? ............................................................................................ 2
   - 5' 1 in 160 lbs
   - Total score

A1c
- Patient agrees to do A1c screening
- A1c Score: 6-6.0
- Patient declined A1c screening

A1c Table

<table>
<thead>
<tr>
<th>A1c Score</th>
<th>Screening Score</th>
<th>Patient Declined Screening</th>
<th>Patient Declined A1c</th>
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</thead>
<tbody>
<tr>
<td>5.5%</td>
<td>9</td>
<td></td>
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Data collection and reporting

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

### DOHI Project Category Measures
Data collection dates: February - September 2018

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
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<tbody>
<tr>
<td>Questionnaires Given</td>
<td>544</td>
</tr>
<tr>
<td>POC A1c - Administered</td>
<td>114</td>
</tr>
<tr>
<td>A1c Score &lt; 5.7</td>
<td>93</td>
</tr>
<tr>
<td>A1c Score $\geq$ 5.7</td>
<td>21</td>
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Transformative Access
Transformative Access

- Warm handoff to oral health patient navigator for connection with primary care
  - Task/alert to navigator if not available for warm handoff
- CCH preference is to make a same day appointment to see provider
- Transportation
- Hotel vouchers
- Outreach with portable dental equipment to nearby day and overnight shelters
Community Relationships & Partnerships
Community Relationships & Partnerships

- National Diabetes Prevention Program
- Diabetes Self-Management Education Program
- Consumer Advisory Board with consumer representation
- Private Foundations
- Faith-Based Organizations
- Advocacy and policy - state and national
Project Successes

- Oral Health Patient Navigator
- Staff training
  - Smiles for Life
  - American Diabetes Educational Association Levels I, II, III, and Manager Level certifications
- Reimbursement for POC test - D0411
- Selection of improved POC A1c device
Project Challenges

- Supporting an at-risk homeless population with few resources
- Coordinating Dental and Medical staff to attend meetings
- Maintaining buy-in from clinical staff to keep meeting schedules and prioritize project
- Loss of DOHI Nurse Lead with no replacement nurse due to staff shortage.
- Difficulty identifying options for (pre)diabetes education and time spent managing staff training
- Errors in screening results with initially-selected A1c device
Lessons Learned

- Project champions
- Core team
- Frequent team meetings bimonthly/monthly
- IT capacity
- Data Capture/Audits
- Technical assistance
- QI Coaches
What’s Next?
Next Steps - CCH

- Integration may be expanded to include other chronic diseases
- Clinic staff value the developed processes
- Taken action towards capturing data
- Introductory video in development to educate patients on diabetes integrated care
- Other education tools: Diabetes logo, magnets, buttons and cards
Next Steps - DOHI Project

- Enhance existing model with Advisory Board and contractors
- Add cardiovascular disease, risk factors, non-FQHC model
- Create data feedback loops
- Integrate into Accountable Care Collaborative
- Coordinate with public health systems to support integration
Questions?

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- Holly Kingsbury: holly@cchn.org
Resources

▪ Integration Tools
  – CCHN Oral Health Integration Manual
  – Organized, Evidence-Based Care: Oral Health Integration
  – THE MOUTH: The Missing Piece to Overall Wellness and Lower Medical Costs
  – Working Together to Manage Diabetes
  – ADA Risk Assessment
  – American Association of Diabetes Educators

▪ Practice Transformation
  – Oral Health Disparities Collaborative Implementation Manual
  – The Primary Care Team Guide
  – The 10 Building Blocks of Primary Care
  – Institute for Healthcare Improvement (IHI) Quality Improvement Resources
  – Safety Net Medical Home Initiative Resources & Tools