

## Marshfield Clinic: Medical-Dental Primary Care Demo Project



Welcome



Explore

Locations

Doctors Find a Portor Q



Healthy Living

Working with your doctor, make healthy choices or treat serious or chronic diseases.



#### Specialties

Our world-class health professionals address your health concerns.

#### Marshfield Clinic

- Non-Profit Organization
- •56 locations and 2 hospitals
- •3,741,308 patient encounters in 2011
- •86 different medical specialties
- •772+ physicians
- 400+ research and educational projects
- •30,000 square miles of primary service area





Surgeon General David Satcher referred to oral disease as a "silent epidemic" that is "affecting our most vulnerable citizens - poor children, the elderly, and many members of racial and ethnic minority groups."



#### Oral Health: A National Problem

- •Over 108 million Americans lack dental insurance [2.5 times the number that had no health insurance]
- •Oral health burdens 53 million children and adults across the U.S.
- The poor endure markedly higher oral disease and markedly lower access to prevention and treatment services
- •CMS projects that the total national expenditures for dental care will almost triple between 2000 and 2020 (from \$62.0 billion in 2000 to \$167.9 billion in 2020, a 271% increase)

#### References:

• US DHHS, National Call to Action to Promote Oral Health, Rockville, MD, DHHS, PHS, NIH, National Institute of Dental and Craniofacial Research. NIH Publication No. 03-5303, Spring 2003.

CMS



## Call To Action: Key Strategies

- 1. Create access to Dental and Oral Care
- 2. Integrate Medical & Dental Care
- Focus on Population/Public Health and Prevention
- 4. Facilitate Oral-Systemic Research
- 5. Train Next Generation Dental Providers, Educators and Researchers

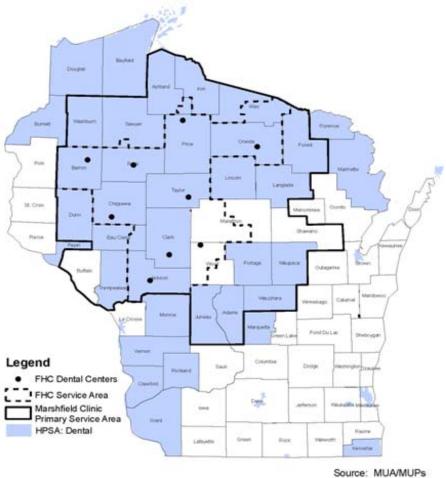








## Health Professional Shortage Area: Dental



Source: MUA/MUPs BPHC Web site (9/13)





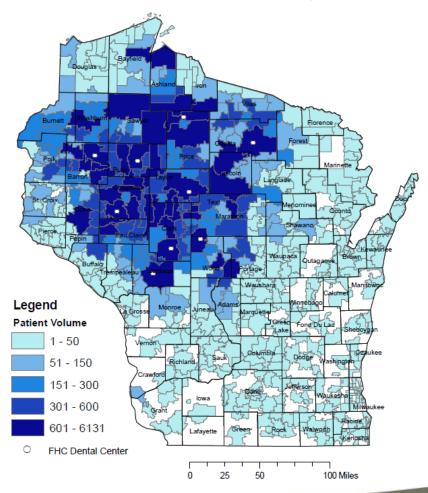




- 9 FQHC providing dental services to people from all of Wisconsin's 72 counties
- 45 plus (FTE) dentists
- 30,680 unique dental patients [2010]
- 41,449 unique dental patients [2011]
- 46,815 unique dental patients [2012]
- 44,267 unique dental patients [2013]

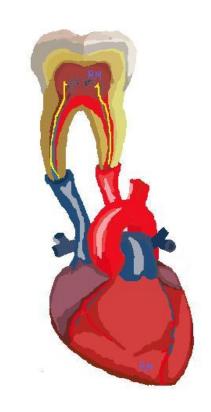
## 100,025 Patients Treated by Family Health Center Dental Initiative

November 2002 - December 31, 2013





**Integrating Medical and Dental Care** 



## Why? Growing Evidence for the Need to Integrate THIRD PARTIES DRIVING IT

2009 University of Michigan study included 21,000 BCBS members and found that with regular periodontal care, it was observed:

- 10% reduction in diabetes related medical costs;
- 20% reduction in costs related to the treatment of cardiovascular disease in patients with heart disease and diabetes;
- 30% reduction in costs related to treatment of kidney disease for patients with diabetes and kidney disease;
- 40% reduction in costs related to treating congestive heart failure for patients with diabetes.

According to researched cited by CIGNA, expecting mothers with chronic periodontal disease during the second trimester are 7 times more likely to deliver preterm (before 37<sup>th</sup> week).



## More Insurance Companies Understanding the Need for Medical/Dental Integration

- Aetna Initiates Dental/Medical Integration Program Offering Free Dental Care to "At-Risk" Members Based on Research (2006)
- CIGNA Offers Extended Benefits to Expecting Mothers, Diabetics and Cardiovascular Disease Patients to Improve Health and Lower Costs (2006)
- Blue Cross Blue Shield of Michigan Commissioned Study by University of Michigan Researchers Demonstrate Link Between Good Oral Health and Lower Medical Costs for Diabetics (2009)





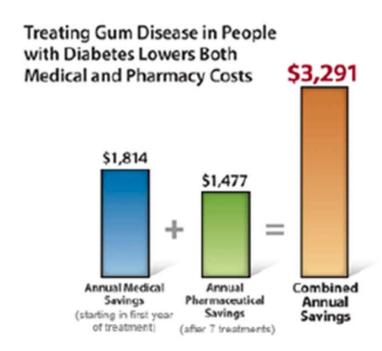
#### The Economic View

One quick example: United Concordia Study, Dr Marjorie Jeffcoat, 2012 -Looked at medical & dental claims data of people with Type II diabetes from a pool of 1.7M patients

## The UCWellness Oral Health Study produced several key findings.<sup>2</sup>

Over the course of the study, each diabetic member who treated their gum disease:<sup>1</sup>

- Saved an average of \$1,814 in medical costs annually.
- Had an average reduction of 33% in annual hospital admissions.
- Had an annual average of 13% fewer physician visits.



#### Teaching Oral Health in U.S. Medical Schools:

## Results of a National Survey

Hours of Oral	Percentage of U.S.

Health Curriculum Medical Schools

0 10.2%

0 - 2 38.6%

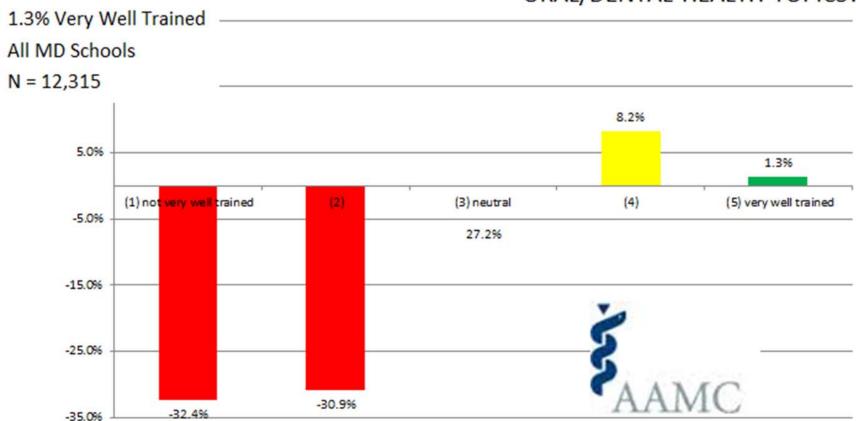
0 - 4 69.3%

0 - 6 80.7%

Reference: Ferullo A, Silk H, Savageua J. Academic Medicine, Vol 86, No 2, February 2011, 226-230.



AAMC 2012 survey question Q 39: How well do you feel that your medical school has trained you to address ORAL/DENTAL HEALTH TOPICS?



160 Students [1.3%] in the entire country felt very well trained to address oral health issues.



## Advantages of Access to Patient's Dental Information

- Access to more reliable dental information and history
- Better communication
- Better continuity of care
- Easy and faster access
- Reduce narcotics abuse
- Holistic care
- Better coordination of care



## Where is the dental diagnosis???

PROGRESS NOTES
Vecall expm- Soft Assue (WNL)
Probing - Bleeding Chrited to (DL) 15 = 8mm
and lineral of 18 = 5 mm . If referred to DV
LADJay In evaluation. All other treas have
vestinded well to Brist.
It complains on sensitivity cold last
Recession & trothebrush Assasion noted on (B) 12+13
Pair induced by blowing proce of air on both
of these areas Dr. Recession - Hypensynthy
The Sensodyno- Pt to contact us dot endo consult
& pain besuts Alter asing Engoldine for 2 wks.

#### Diabetes ←→Periodontal Disease

- It is established beyond a reasonable doubt that diabetes has a deleterious effect on periodontal disease
- Evidence is mounting with respect to the impact of periodontal health on diabetic control
- Clearly, in their role as guardians of health, it is critical for dentists and physicians to work together to manage their diabetic patients



## **Complications of Diabetes**

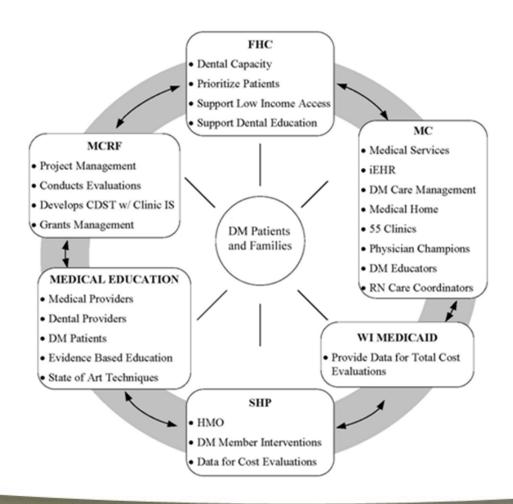
### Systemic Complications

- Diabetic Neuropathy
- Diabetic Nephropathy: can lead to dialysis or kidney transplant
- Diabetic Retinopathy and blindness
- Heart attack, stroke, foot amputation
- Poor wound healing

### **Oral Complications**

- Aggressive form of periodontitis
- Necrotizing ulcerative gingivitis
- Tooth decay and root caries
- Dental caries
- Candidal infection
- Burning mouth syndrome
- Lichen planus

## Medical-Dental Primary Care Demo Project Summary



## **Specific Goals**

- Outreach and education to target individuals/patients from an insurer/HMO and subsequently from physician community
- 2. Development and implementation of an integrated medical and dental EHR with bi-directional capabilities and embedded clinical decision support tools
- Interprofessional education and outreach to effectively and efficiently implement the EHR-based integration and promote collaboration at the individual professional level
- 4. Development of monitoring processes and systems to evaluate performance and identify opportunities for improvement

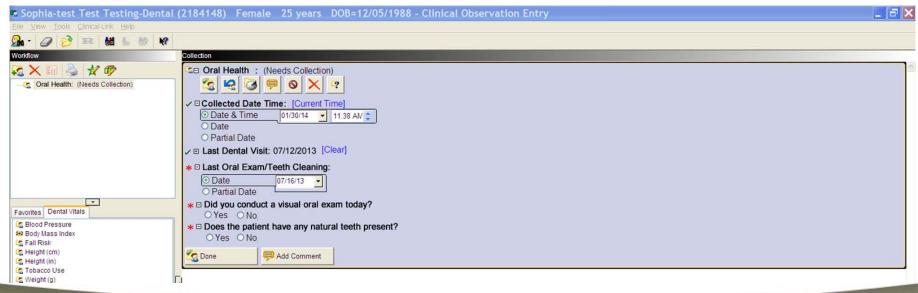


#### **CDS Tools Intervention**

Care: Care based on evidence, prevention, disease management, and outcomes				
Intervention	providers to integrate oral care and coordination for diabetic	See below.		
	patients/population			

#### Health Data Collection by the Medical Staff in Observations

- Last Dental Visit
- Last Oral Exam/Teeth Cleaning
- Did you conduct a visual oral examination today?
- Does the patient have any natural teeth present?



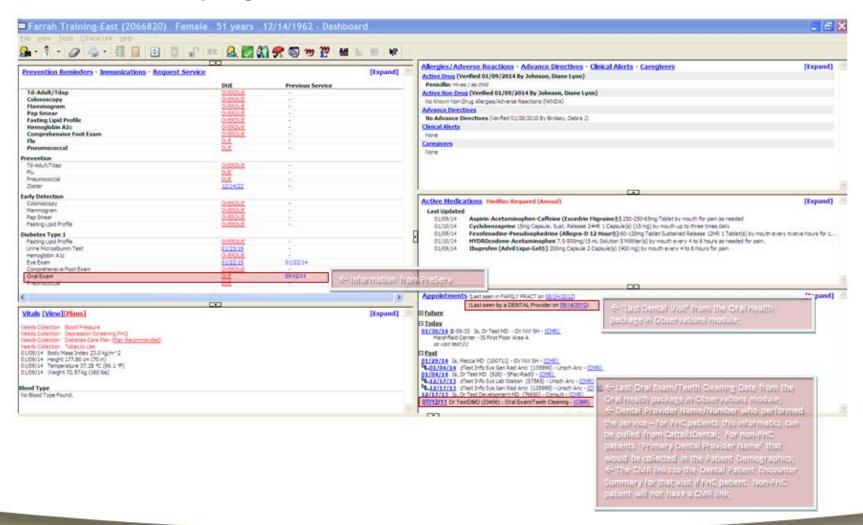


# Display Oral Exam Due Date for All Diabetic Patients in PreServ

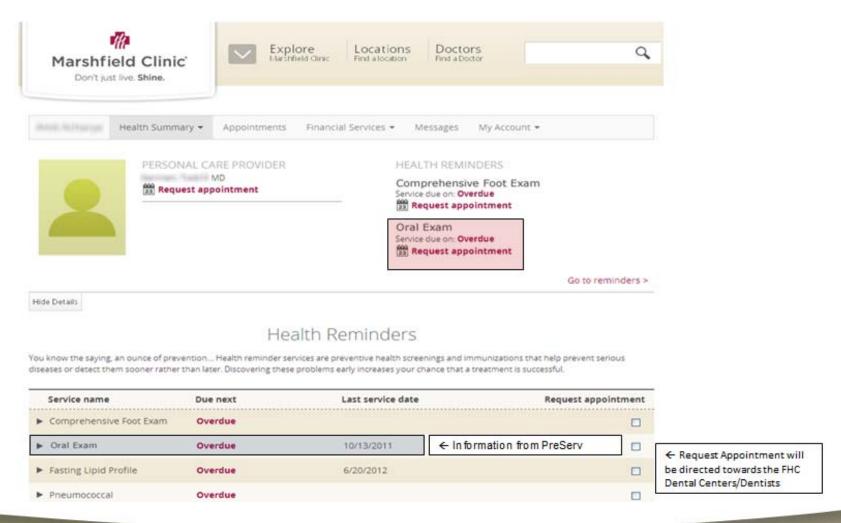
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DUE   EARLY DETECTION				
DIABETES TYPE 1				
	Due	Last 2 Services		
Mammogram	OVERDUE	04/10/08	06/06/06	2
Eye Exam	OVERDUE	declined 06/10		
Comprehensive Foot Exam	OVERDUE			
Pneumococcal	DUE	•	-	
EARLY DETECTION				
Colonoscopy	12/14/12			
Mammogram	OVERDUE	04/10/08	06/06/06	
Pap Smear	05/05/13	05/05/10		
Fasting Lipid Profile **	10/06/10	02/2010		
Bone Mineral Density	12/14/27	•	•	
DIABETES TYPE 1				
Fasting Lipid Profile ™	10/06/10	02/2010	-	
Urine Microalbumin Test	06/08/15			
Hemoglobin A1c	12/01/10	06/01/10	-	
Eye Exam	OVERDUE	declined 06/10		
Comprehensive Foot Exam	OVERDUE			
Oral Exam	DUE	02/02/07		
Pneumococcal	DUE			



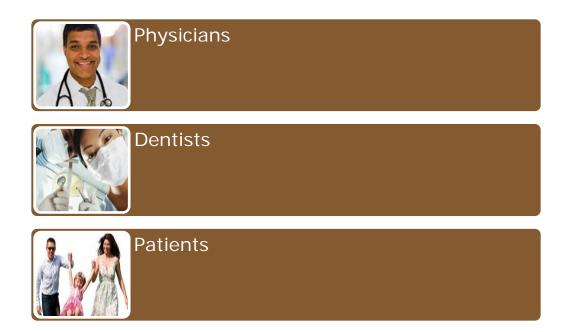
## Display Oral Exam Information in the Dashboard



## Display Oral Exam Information in the Patient Portal



## **Three Target Education Groups**





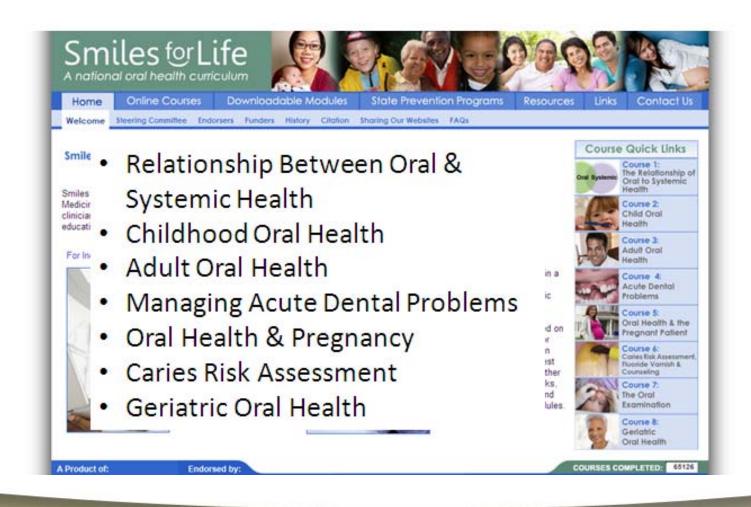
Large "N" - 300+ primary care providers

Large range of knowledge and application

- Pre & Post Testing
- Transparency



#### Smiles for Life Curriculum



## **Smiles for Life**

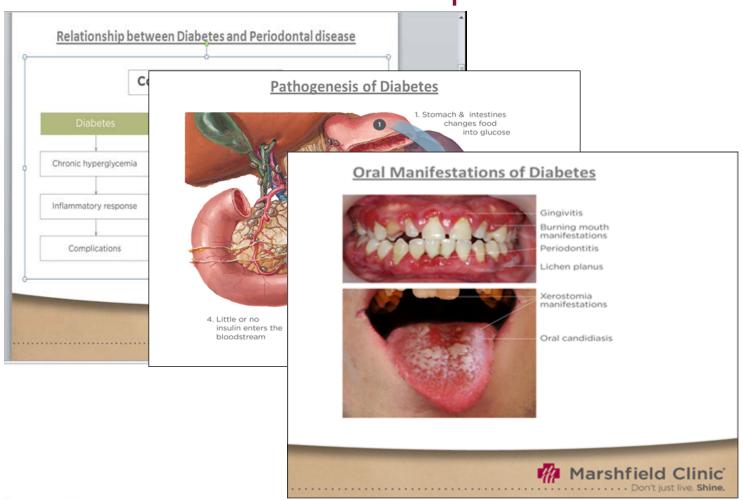
#### Free Content & Credit



Initiative activities are made possible as a result of funding from the DentaQuest Foundation, the Washington Dental Service Foundation, and the Connecticut Health Foundation.

- •In the coming days Marshfield Clinic providers will get notice to complete modules.
- •Conversations with the State medical schools to introduce curriculum and rotation components

## **Computer Based Education**





#### Smaller "N"

Academic Detailing -

- Continuing Education Sessions
- Endocrinologist presentation
- Department Meeting
- Computer Based Training Modules
- Pre-Post Test Questions

### **Apply Emerging Research**

Journal of Dental Research, 92(10): 888-892, 2013

#### **Dental Findings & Identification of Undiagnosed Hyperglycemia**

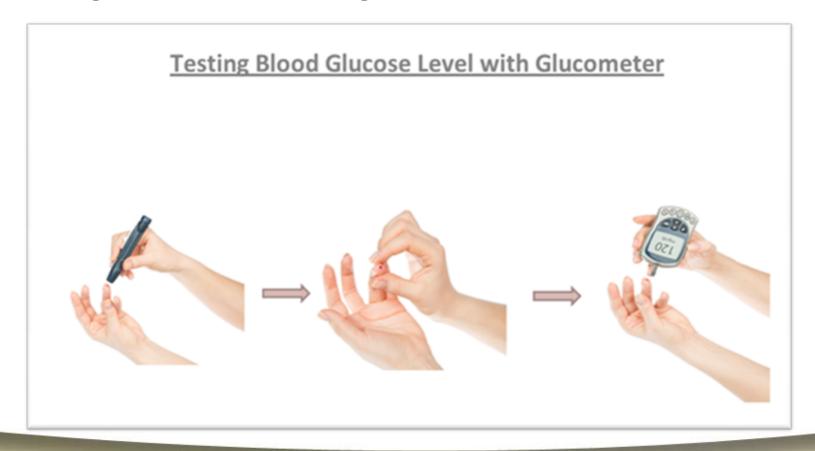
Key finding: Dental patients who were never told they were pre-diabetic or diabetic, but had at least one self reported diabetic risk factor [had a first degree blood relative with, had hypertension, hypercholesterolemia, overweight] and had 26% or more teeth with deep pockets [5mm+] or 4 or more missing teeth were correctly identified 72% of the time as pre-diabetic or diabetic when compared with HbA1c diagnostic testing and / or fasting plasma glucose levels. N = 1097

In other words, if a patient has a risk factor, multiple deep pockets on periodontal examination and or multiple missing teeth; perform glucose testing and / or refer to medicine.



#### **Dental Assistants**

Training in Chairside Screening & Risk Assessment





# Patients

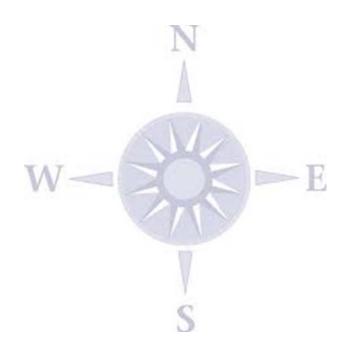


#### **Care Coordination Education**

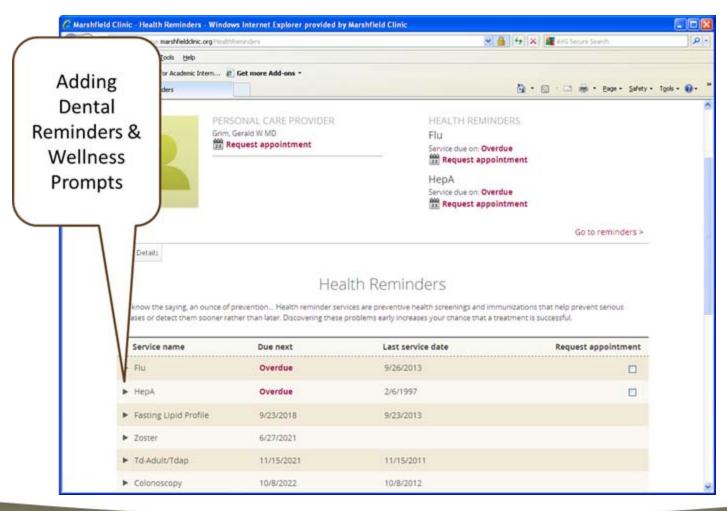
• Educating the Diabetic Educators

Dental Assistants

Patient Care Navigators



### "My Marshfield Clinic" Patient Portal



#### **Patient Portal-Wellness Education**

Opcoming on may 1, aver-

 You synced your glucose monitor on July 31, 2012

#### Wellness Advice

Preventing Falls Among Older Adults

To protect our older family members and help them stay safe, healthy, and independent. Encourage the older adults in your life to: Get some exercise. Be mindful of medications. Keep their vision sharp. Eliminate hazards at home. read more »

Why is Dental Health Important?

An attractive smile is only one reason for maintaining good dental health. It also means a higher quality of life and may help prevent or reduce the consequences of other diseases and conditions.

read more >



715 555-1211 Stratford Center send a message



Lucinda Marygold, MD Endocrinology 715 387-5301 Marshfield Center send a message

#### Recommended Articles

These articles were recommended to you in ti team.

- Strep Throat
- Pharyngitis
- Strep Throat
- · Asthma and Pregnancy
- Asthma and Your Child
- · Asthma and Your Child
- Asthma control drugs
- Self-Care for Skin Rashes





Locations

Doctors



My Marshfield Clinic

Healthy Living > Dental > Why Dental Health Is Important

#### WHY IS DENTAL HEALTH IMPORTANT?



Practicing good dental health is important to maintaining a healthy mouth, teeth and gums. It will also help your appearance and quality of life



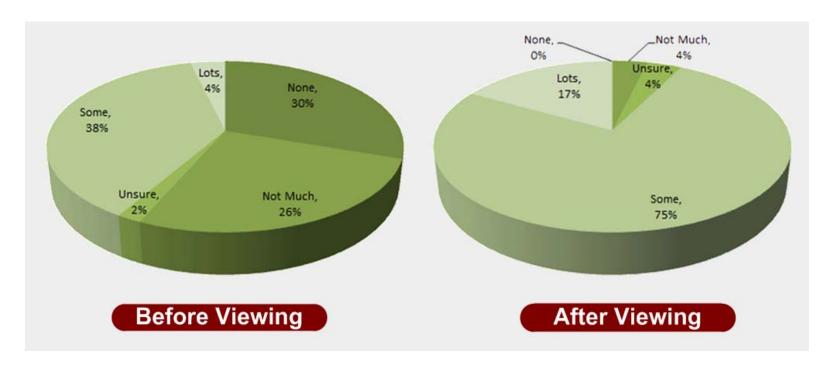
# Patient Education Module



Development sponsored in part by Delta Dental of Wisconsin grant



#### **Pre-implementation**



- 51% of all patients reported (N=53) their knowledge increased from 'no/not much knowledge' to 'some/lots of knowledge' after viewing
- 92% reported having 'some/lots of knowledge' following viewing, regardless of initial knowledge-level.



### **Develop, Train & Implement an Integrated Curriculum**

Artery Disease	Hypertension	Cancer Screening	Pregnancy
Antiplatelet Therapy	BP < 140/90	Screening Mammography	Glucose Screening
Drug Therapy for LDL > 130	Plan of Care	Colorectal Screening	Periodontal Exam
Beta Blocker if prior MI		Influenza Vaccination > Age 50	
LDL Level < 100	Periodontal evaluation should be considered	Pneumococcal Vaccination > Age 65	
ACE or ARB w/DM	According to the American Academy of Periodontology,	periodontal disease was associated with a 2.7-fold increase in pancreatic cancer	
treatment of periodontitis reduces systemic markers of inflammation and endothelial dysfunction	people with periodontal disease are almost twice as likely to have coronary artery disease		
	Antiplatelet Therapy Drug Therapy for LDL > 130  Beta Blocker if prior MI  LDL Level < 100  ACE or ARB w/DM  treatment of periodontitis reduces systemic markers of inflammation and	Antiplatelet Therapy  Drug Therapy for LDL > 130  Plan of Care  Periodontal evaluation should be considered  According to the American Academy of Periodontology,  treatment of periodontitis reduces systemic markers of inflammation and  Periodontology,  people with periodontal disease are almost twice as likely to have	Antiplatelet Therapy  Drug Therapy for LDL > 130  Plan of Care  Colorectal Screening Influenza Vaccination > Age 50  Periodontal evaluation should be considered  According to the American Academy of Periodontal disease was associated with a 2.7-fold increase in pancreatic cancer  people with periodontal disease are almost twice as likely to have

Periodontal Exam 12mo / 6mo\* ADA guide



#### **Acknowledgements**

**Marshfield Clinic** 

Marshfield Clinic Research Foundation

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Marshfield Clinic Division of Education

**DentaQuest Foundation** 

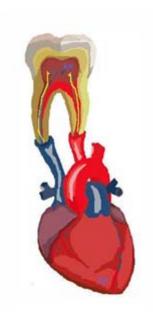
**National Interprofessional Initiatives** 

Security Health Plan

Delta Dental of Wisconsin



"The best scientific thought is agreed that dentistry is a field of medicine. . . . There is no logical right whatever to isolate [the oral cavity] from the rest of the body as if it were made up . . . of ivory pegs in stone sockets." – Dr. Alfred Owre



**Dean of Dentistry** 

University of Minnesota, 1905-27 Columbia University, 1927-33