




Imagining a Caries-Free Generation

Implementing CAMBRA

National Oral Health Conference
Huntsville, Alabama
April 24, 2013

California Dental Association
MOVING FORWARD. TOGETHER.



Improving The Oral Health Of Californians



Our Missions

- CDA
The CDA is committed to the success of our members in service to their patients and the public.
- CDAF
To improve the health of all Californians by supporting the dental profession in its effort to meet community needs.

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Setting the CAMBRA Table

What the session is...

A Call To Action!

What it is not...

CAMBRA 101



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Appetizer

Passionate CAMBRA Supporters...




Douglas A. Young, DDS, MS, MBA
University of the Pacific, Arthur A. Dugoni School of Dentistry
Department of Dental Practice


Michael Monopoli, DMD, MPH, MS
DentaQuest Foundation
Director of Policy and Programs

Margherita Fontana, DDS, PhD
University of Michigan School of Dentistry
Department of Cariology, Restorative Sciences and Endodontics

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Entree



- **SWOT Analysis** Lays the Foundation
- Sustaining the **Paradigm Shift** by Aligning Reimbursement with Policy
- Focus on the **Evidence** to make Systems Change a Reality

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A Moveable Feast?



Q & A... Please share your comments and questions

Let's take action to move forward.
Don't just dream it...be it!

A CAMBRA Champion!



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Laying a strong foundation: SWOT Analysis of CAMBRA

NOHC
April 22-24, 2013
Huntsville, Alabama

Douglas A. Young
Email: dyoung@pacific.edu

Objectives

1. Brief update on where we are
 - A. Define CAMBRA
 - B. Caries Balance/Imbalance
2. WHY?
3. SWOT Analysis
4. Where do we go from here?

The Term CAMBRA is...

simply an acronym for “caries management by risk assessment”.

an evidenced-based philosophy to provide preventive and intervention therapy based on individual caries risk.

a generic concept NOT a CRA form, protocol, company, or product line, nor is it “owned” by anyone.

Update: caries disease

Evidence-based Dentistry
Guest Editor
Mark V. Thomas, DMD

DENTAL CLINICS
OF NORTH AMERICA

January 2009 • Volume 53 • Number 1

Evidence-Based Caries, Risk Assessment, and Treatment

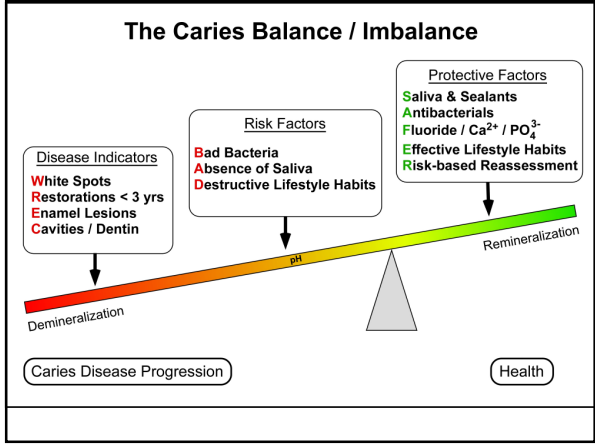
Margherita Fontana, DDS, PhD^{1,*}, Douglas A. Young, DDS, MS, MBA², Mark S. Wolff, DDS, PhD²

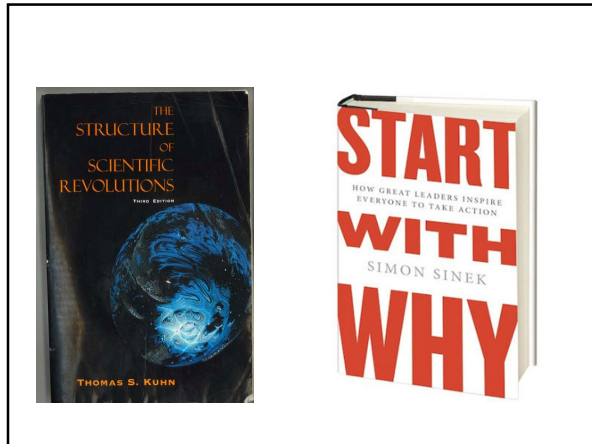
KEYWORDS

• Evidence base • Dental caries • Risk assessment

• Treatment • Management

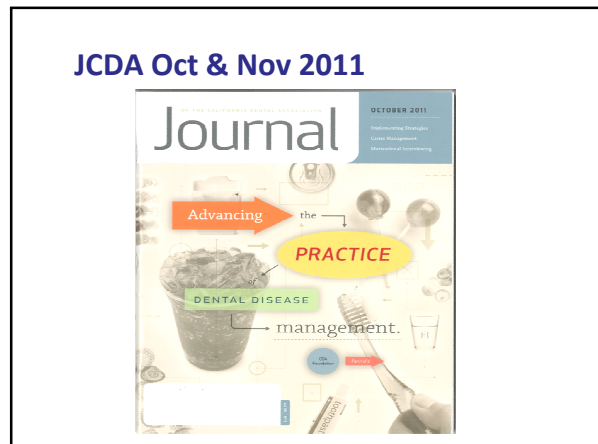
Dental caries is a dietary and host-modified biofilm disease process, transmissible early in life that, if left untreated, will cause destruction of dental hard tissues. If allowed to progress, the disease will result in the development of caries lesions on tooth surfaces, which initially are noncavitated (eg, white spots), and eventually can progress to cavitation. The *causae* model,¹ where the etiologic disease-driving agents are balanced against protective factors, in combination with risk assessment, offers the possibility of patient-centered disease prevention and management before there is irreversible damage done to the teeth. This article discusses how to use evidence supporting risk assessment and management strategies for the caries process.





WHY...

- are you here?
- do we still treat caries disease with a drill?
- don't we change?
- don't we speak with one voice and make it happen?
- "Demand Change!"... "Make Change Happen!"





This I Believe: A Reaction to CAMBRA and its Effects on Access to Care

STEVEN P. GEIERMANN, DDS

ABSTRACT This article suggests opportunities to incorporate new preventive paradigms, such as CAMBRA and motivational interviewing, into current pre-existing government and organizational programs and offers resources in order to increase access to care for those most in need.

PREVENTION

CDJ JOURNAL, VOL. 39, #111



The Business of Prevention

RONALD INGE, DDS

ABSTRACT Providing good oral health care is the goal of both the dental profession and the dental benefits industry. Dentists are well-trained to provide appropriate care. Unfortunately, that training offers little insight into the business of delivering care. Dental benefits companies must invest heavily to create a structure that allows for appropriate care to be delivered.

DETERMINING BENEFITS

CDJ JOURNAL, VOL. 39, #111



The Evolving Role of Insurance Carriers in Caries Prevention in Children

JOHN R. LUTHER, DDS, AND MICHAEL D. WEITZNER, DMD, MS

ABSTRACT This article suggests opportunities to incorporate new preventive paradigms, such as CAMBRA and motivational interviewing, into current pre-existing government and organizational programs and offers resources in order to increase access to care for those most in need.

FEDERAL SUPPORT OF CAMBRA

CDJ JOURNAL, VOL. 39, #111



Federal Policy-Making in Support of CAMBRA Implementation

BURTON L. EDELSTEIN, DDS, MPH

ABSTRACT For caries management by risk assessment to become broadly institutionalized in practice, dental professionals need to be trained, the public needs to be informed, research needs to develop and test best practices, payment incentives need to be aligned, health informatics systems need to be developed, and integrated, accountable systems of care need to be advanced. This contribution details how recent federal and state governmental actions support these advances through legislation, regulation, and program administration.



Translating the Caries Management Paradigm Into Practice: Challenges and Opportunities

MARGHERITA FONTANA, DDS, PHD, AND MARK WOLFF, DDS, PHD

ABSTRACT In an era of evidence-based care, the question of how much evidence is needed to implement changes into practice becomes central to dentistry's recognition that dental caries management must change to a focus on risk-based, patient-centered disease management rather than just restorative care. This article reviews some of the opportunities, needs, and challenges involved in the adoption and implementation of caries management strategies into everyday clinical practice.



Successful Business Models for Implementation of Caries Management by Risk Assessment in Private Practice Settings

YASMI O. CRYSTAL, DMD, FAAPD; JEAN L. CREASEY, RDH, DDS; LINDSEY ROBINSON, DDS; AND FRANCISCO RAMOS-GOMEZ, DDS, MS, MPH

ABSTRACT This article describes how to implement caries management by risk assessment successfully in private practice, detailing the formats used in a pediatric dental practice and in a general dentistry practice. The authors discuss the barriers for implementation as well as how they overcame these obstacles to achieve patient satisfaction, improve health outcomes, provide optimal patient care, advance their professional success, and expand the economic viability of their practices.

CREATING A ROADMAP

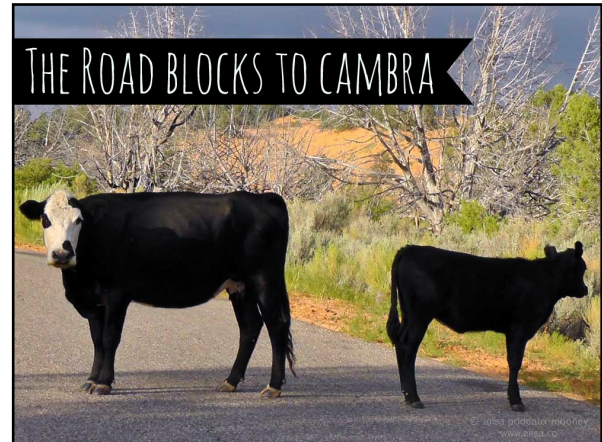
CEA JOURNAL, VOLUME 38, 2010



Changing the Face and Practice of Dentistry: a 10-Year Plan

DOUGLAS YOUNG, DDS, EDD, MBA, MC; CHARLES S. RICKS, DDS, MPH; JOHN D. B. FEATHERSTONE, MS, PhD; MARGHERITA FONTANA, DDS, PhD; SUSAN M. FOURNIER, STEVEN P. GERBMAN, DDS; MICHELLE HURLBUTT, RDH, MSQC; V. ANN KUTICH, DMD; ROSALIND LOTTUS, MBA; JOHN R. LUTHER, DDS; BRIAN B. NOVY, DDS; MARK S. WOLFF, DDS, PhD; AND ALLEN WONG, DDS, EDD

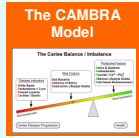
ABSTRACT Jan. 7 through 9, 2011, the California Dental Association Foundation hosted a symposium on caries management by risk assessment in which a diverse range of stakeholders from across the nation gathered to discuss current and future status of CAMBRA. The consensus of the group was to develop a national strategic plan for CAMBRA implementation which will chart the course to improve the standard in caries disease management within the next decade. This paper represents the initial start of this living document.



Internal Strengths and Weaknesses

Strengths

- improves health and lowers cost by treating the disease
- identifies those who will most likely need care
- improves access to care and work force models
- may reinvigorate the dental public health infrastructure



The CAMBRA Model

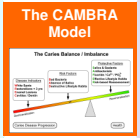
Weaknesses

- traditional restorative model still predominates
- not supported by current reimbursement models
- lack of appropriate diagnostic and billing codes
- no coordinated effort by organized dentistry or government agencies to facilitate or mandate CAMBRA

External Opportunities and Threats

Opportunities

- to reduce the healthcare burden given the current economic/political challenges
- to improve oral health using best methodology, terminology, CDT codes
- educate dentistry, medicine, and the general public
- Create and unify body of organization for CAMBRA and speak with one voice




The CAMBRA Model

Threats


- Current poor economic and political climate
- Not enough evidence validating CAMBRA improves outcomes, reduces costs
- lack of diagnostic codes and reimbursement models
- Mistrust may exist among Healthcare providers, purchasers, and patients

CAMBRA Vision Statement

- CAMBRA represents best practices and should become the standard of care in caries disease prevention and treatment.



CAMBRA Mission Statement



- promote the CAMBRA philosophy to practitioners and patients through research, education, and collaboration. CAMBRA provides an evidence-based methodology to assess caries disease indicators and risk factors on an individual basis. Results are the basis for an individualized treatment care plan that includes behavioral, chemical, and minimally invasive procedures that are most appropriate for the individual patient.

THE ROAD TO CAMBRA

Where do we go from here?

- Organize and speak loudly with one voice!
- How best to collaborate with all stakeholders?
- Do we need a unifying organization?
- Leverage the "why" first not the "what or how"

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Improving the Oral Health of All

CAMBRA and Dental Benefits

April 2013

CAMBRA

MOVING TOWARD REIMBURSEMENT

Given a goal, you decide on what key variable you need to change to achieve it-the same way a business picks objectives for inside the company like customer satisfaction-and develop a plan for change and a way of measuring the change. Bill Gates

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The Challenge

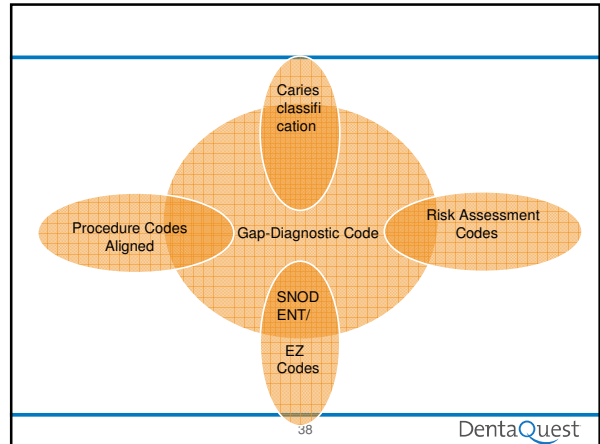
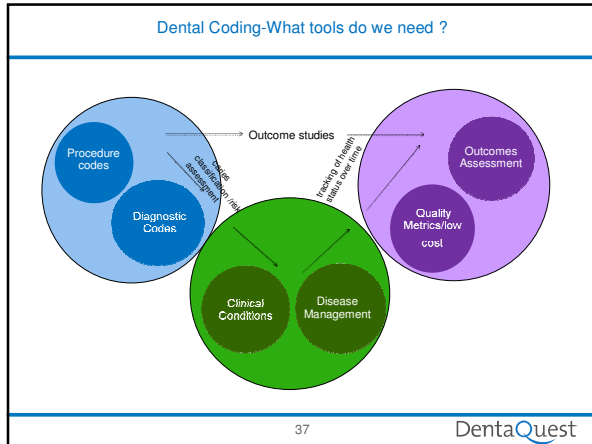
- To develop and apply benefits appropriate to the new paradigm
- Must be science based and incorporate principles of disease management
- Must be based on individual need and/or risk, patient centered and prevention focused
- Must improve outcomes and reduce cost
- Must have buy-in from all stakeholders

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Current Model

- > Surgically based
- > One size-fits all benefits
 - Group underwriting
- > Based on historic norms
 - purchaser preferences
- > Some scientific basis /some EB guidelines
- > No quality measures
 - Outcomes never really evaluated
- > No universally accepted diagnostic codes
- > Cost is the primary driver

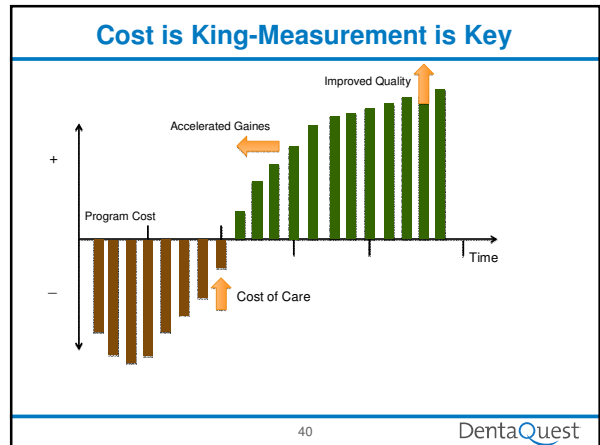
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Growing Reliance on Risk Assessment- Key to Success

The Environment	Elephant in the Room	Additional Concerns
<ul style="list-style-type: none"> • ADA/Specialty Guidelines • Risk Assessment Tools • CAMBRA 	<ul style="list-style-type: none"> • Provider Concerns-Will Carriers use to downgrade benefits? 	<ul style="list-style-type: none"> • Purchaser buy-in • Patient buy-in • Implementation • Pricing

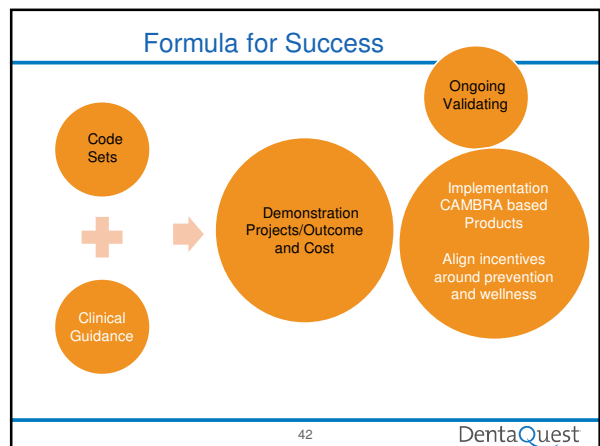
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Need some Help from our Clinical Friends

- Standardization of Risk Assessment Protocol
- Identification of missing procedure codes
- Best practices in Caries Management
- Payment for non traditional services-products, wellness, other

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What are we doing today?

- Evaluating diagnostic code sets-SNODENT and EZ Codes
- PBRN Network evaluating CAMBRA in Practice
- Project Engage-Temple U. thinking outside the box
- Introduction of Risk Assessment Codes in CDT
- Dental Quality Alliance working on dental quality measures


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CAMBRA Implementation

Improved Outcomes

- Breaking the cycle of disease
- Improved mother and child risk profile
- Improved oral and overall health
- Improved school performance
- Avoiding a lifetime of dentistry

Healthier Patients




& Lower Costs

- Reduction in lost work & school time
- Reduced need for costly dental interventions
- Lower medical costs (OR & ER Hospitalizations)
- Improved corporate image & market standing

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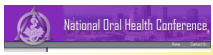
CAMBRA:

How much evidence is needed?

What kind of evidence?

Margherita Fontana, DDS, PhD

University of Michigan School of Dentistry
Department of Cariology, Restorative Sciences and Endodontics

Are we ready for a different model of care?

- Who are “we”?

It is true evidence (quality, quantity and consistency) for many of our daily caries intervention choices should be much stronger, and yet we want to allow for EBD and fluidity of changes overtime

So...what can be safely incorporated into practice?

and how?


Caries management pathways preserve dental tissues and promote oral health

Tsai et al., Telford M, Pitts NB, Ekstrand RR, Rickotts D, Longbottom C, Eggerman JI, Davy C, Fisher J, Young DA, Lundbergson JM, Evans RW, Zoller CC, Green D, Margherita S, Fontana M, Zandona A. Caries management pathways preserve dental tissue and promote oral health. Community Dent Oral Epidemiol 2015; 41: e12-e40. © 2012 John Wiley & Sons A/S. Published by Blackwell Publishing Ltd

UNIVERSITY OF MICHIGAN

- Opponents of “high risk strategy”: Difficult to identify risk, and evidence risk-based management is limited
- But, considering the health of our patients, is more important to assess risk using best available evidence than doing nothing due to lack of perfect evidence?

Is caries risk assessment addressed in dental education?



Answer	%
Yes	100%
No	0%
Total	100%

ADEA Cariology Section-
Teaching of Cariology in the
USA ☐ DDS (44/58, 85%)

- Practice has remained focused on the consequences of the disease
- Is evidence the culprit for lack of change?



Evidence for Current Model of Care?

- Caries control = restorative care (strongest predictor of increased problems overtime)
- Evidence for six month interval recall?
- Evidence for prophy during recall?
- Evidence for flossing?
- Use of EB strategies (e.g., fluoride, sealants)?



E.g., fluoride only used in 63% high risk and 32% of moderate risk patients (Bader et al., 2003)

Should similar caries management and preventive measures be administered to all?

- Targeted health care has become paramount in an environment of increasing healthcare costs and resource constraints
- There is a **marked disparity** in dental caries distribution and access to care



Modern Caries Management = Personalized Dentistry = CAMBRA

- Detect caries lesions early enough to reverse or prevent progression (need diagnostic codes)
- Assess caries risk (need risk codes...soon to come!)
- Use risk-based non-surgical therapy
- Use risk-based minimally invasive restorative procedures only when needed

Goal-Outcomes: Maintain health and preserve tooth structure
(need outcomes assessment/quality metrics)



✓ Evidence Based Information

✓ Detection tools and criteria

✓ Diagnostic tools

✓ Risk Assessment tools

✓ Management products

✓ Operative Dentistry (Preservation of tooth structure, when to remove?)

Many Advances in Cariology...



A recent survey of 467 practices within one of the three U.S. Practice-Based Research Networks found that:

- 84.1 % of children and 36.2 % of adults received in-office fluoride,
 - 69.5 % children and 13.6 % adults received sealants,
 - 7.7 % children and 17.3 % adults were prescribed chlorhexidine rinse,
 - 35.3 % children and 32.2 % adults were recommended xylitol gum.
- (Riley et al., JADA 2010)

- A significant number of practices have yet to adopt treatments based on assessment of caries-risk
- (Riley et al., Comm Den Oral Epidemiol 2010)



Outcomes Based Practice?

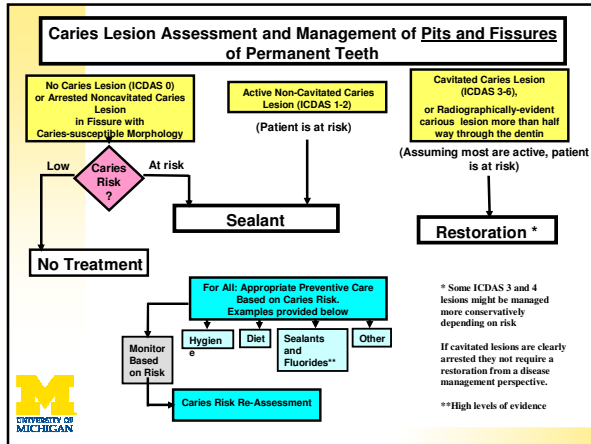
Doctor: A person who is trained to help people stay healthy

Dentist: A person who is trained to examine and fix teeth

FUTURE? Dentist: A member of the healthcare team who is trained to help people stay healthy (...and preserve tooth structure)



Reading-Let's Learn Together (2000). Chapter: Communities (expository non-fictional) by Gail Saunders-Smith



Evidence on existing caries risk assessment systems: are they predictive of future caries?

Tellez M, Gomez J, Pretty I, Ellwood R, Ismail AI. Evidence on existing caries risk assessment systems: are they predictive of future caries?. Community Dent Oral Epidemiol 2012. © 2012 John Wiley & Sons A/S

- Wide variations (definitions, type and # of risk factors/indicators)
- Cariogram (Prospective studies; Sen+spec=110-139)
- CAMBRA (1 retrospective)
- Need to validate existing forms or develop new ones...

But what about data on specific risk factors/indicators?

Reliability of Caries Risk Indicators

	Visible Plaque	Buffer Capacity	Flow Rate	Diet (sucrose activity)	White spots	DMFT	>1 DS	Combined
Sensitivity	37%	21%	24%	24%	79%	79%	88%	19%
Specificity	71%	77%	83%	90%	43%	49%	39%	86%

Raitio *et al.*, 1996; Angulo *et al.*, 1995

		CAVITATIONS		P-value χ^2	OR
		N	%		
Restorations last 3 years	No	3,052	51.2	<0.001	1.46
	Yes	2,761	60.5		
Approximal enamel lesions on x-rays	No	3,425	41.5	<0.001	8.21
	Yes	3,059	85.4		
White spots	No	4,636	49.6	<0.001	2.77
	Yes	1,898	73.2		

Domejan *et al.*, 2011

And how about evidence on therapies?

Executive Summary of Evidence-based Clinical Recommendations: Professionally Applied Topical Fluoride
The Council on Scientific Affairs, American Dental Association, May, 2006

COVER STORY Executive summary follows page 216

Evidence-based clinical recommendations for the use of pit-and-fissure sealants
A report of the American Dental Association Council on Scientific Affairs

Nonfluoride caries-preventive agents: Executive summary of evidence-based clinical recommendations
Michael P. Kethmann, Eugenio D. Beltrán-Agular, Ronald J. Billings, Robert A. Burne, Melinda Clark, Kevin J. Donly, Philippe P. Huyjoel, Barry P. Katz, Peter Milgrom, Woosung Sohn, John W. Stamm, Gene Watson, Mark Wolff, J. Tim Wright, Domenick Zero, Krishna Aravamudan, Julie Frantsve-Hawley and Daniel M. Meyer
J Am Dent Assoc 2011;142:1065-1071

Changing Paradigms

Can we agree on best practices? Challenges?

- #1: Is it Evidence or is it Reward?
- Procedures vs. Outcomes
- Calibration
- Public Expectations/ Standard of Care
- Etc.

If no value is given to strategies to maintain and restore health (=get paid for wellness), they will not happen

Economic models that show quality improvement and reduced costs

Conclusions

- Continue building strength of EBD approaches
- Continue using same outdated approach? Or
- Change current system to use of best EBD approach

The latter choice is the one that the scientific community has been encouraging the profession to embrace.

- Best practices? Focus on outcome associated reward?

Thank you...

