

**IMPLICATIONS OF
EVIDENCE BASED
DENTISTRY
FOR MEDICAID
AND SCHIP**

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WHERE ARE WE GOING?

**HOW DO WE
LEVERAGE EVIDENCE
BASED DENTISTRY
TO IMPROVE ORAL
HEALTH?**

WHERE ARE WE GOING?

- **EVIDENCE BASED MODELS**
- **DEFINE TREATED POPULATIONS**
- **BEST CURRENT EVIDENCE**
 - **HEALTH OUTCOMES**
 - **COST TO BENEFIT**
- **CONCLUSIONS**

EVIDENCE BASED APPROACHES

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graph TD; A[EVIDENCE BASED APPROACHES] --> B[EVIDENCE BASED GUIDELINES POLICIES]; A --> C[EVIDENCE BASED DECISION MAKING];
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**EVIDENCE BASED
GUIDELINES
POLICIES**

**EVIDENCE BASED
DECISION MAKING**

EVIDENCE BASED CARE

ADA DEFINITION

“...an approach to oral health care that requires the judicious integration of systematic assessments of clinically relevant scientific evidence, relating to the patient's oral and medical condition and history, with the dentist's clinical expertise and the patient's treatment needs and preferences.”

EVIDENCE BASED APPROACHES

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graph TD; A[EVIDENCE BASED APPROACHES] --> B[EVIDENCE BASED GUIDELINES POLICIES]; A --> C[EVIDENCE BASED DECISION MAKING];
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**EVIDENCE BASED
GUIDELINES
POLICIES**

**EVIDENCE BASED
DECISION MAKING**

EVIDENCE BASED GUIDELINES

- **EXPLICIT PROCESS (GUIDELINES FOR GUIDELINES)**
 - **QUESTION FORMULATION (PICO)**
 - **INCLUSION EXCLUSION CRITERIA**
 - **QUALITY ASSESSMENT**
 - **HETEROGENEITY OF DATA**
- **BALANCE HARMS AND BENEFITS**
- **COST TO BENEFIT – COMPARED**
- **RECOMMENDATION PRACTICAL**
- **POPULATION/GROUP BASED**

EVIDENCE BASED APPROACHES

A COMBINED DEFINITION

“Evidence based dentistry is a set of principles and methods intended to insure to the greatest extent possible, clinical decisions, guidelines and other types of policies are based on and consistent with good evidence of effectiveness and benefit.”

DAVID M EDDY, HEALTH AFFAIRS 24:9-17, 2005

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SCHIP & MEDICAID CONDITIONS

- **AGES 0-20**
- **HIGH TURN-OVER – IMPLIES**
 - **FAST ROI AND**
 - **LOW MAINTENANCE / HARMS**
- **PREGNANT WOMAN
COVERAGE**

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GOALS

- **IDENTIFY BEST EVIDENCE BASED SERVICES FOR FINITE BUDGETS IN THESE POPULATIONS**
- **COMPARE CARE DELIVERY MODELS; NON-DENTAL; COMMUNITY BASED PREVENTION; SCHOOL BASED**

0-20 YRS OLD - TURNOVER

CORE STRATEGIES

- SEALANTS
- FLUORIDE
- XYLITOL

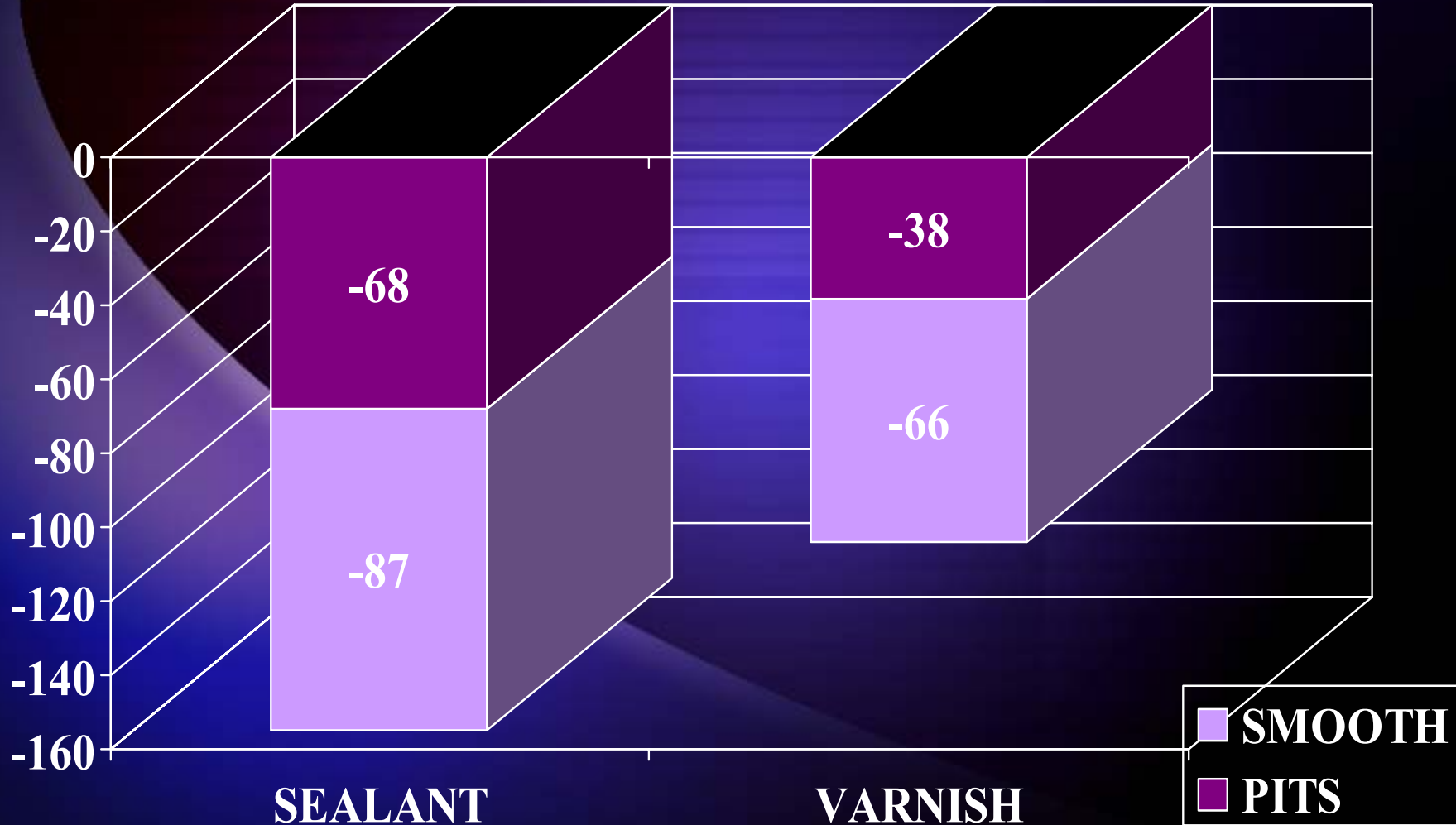
EVIDENCE BASIS FOR SEALANTS

Lodral C et al. Factors influencing the effectiveness of sealants — a meta-analysis. Community Dent Oral Epidemiol 1993; 21:261—268

- **META ANALYSIS - 24 STUDIES**
- **CARIES REDUCTION AVE. = 71.36%**
- **CONCLUSIONS - FISSURE SEALANTS ARE EFFECTIVE IN PREVENTING DENTAL CARIES**

CARIES REDUCTION

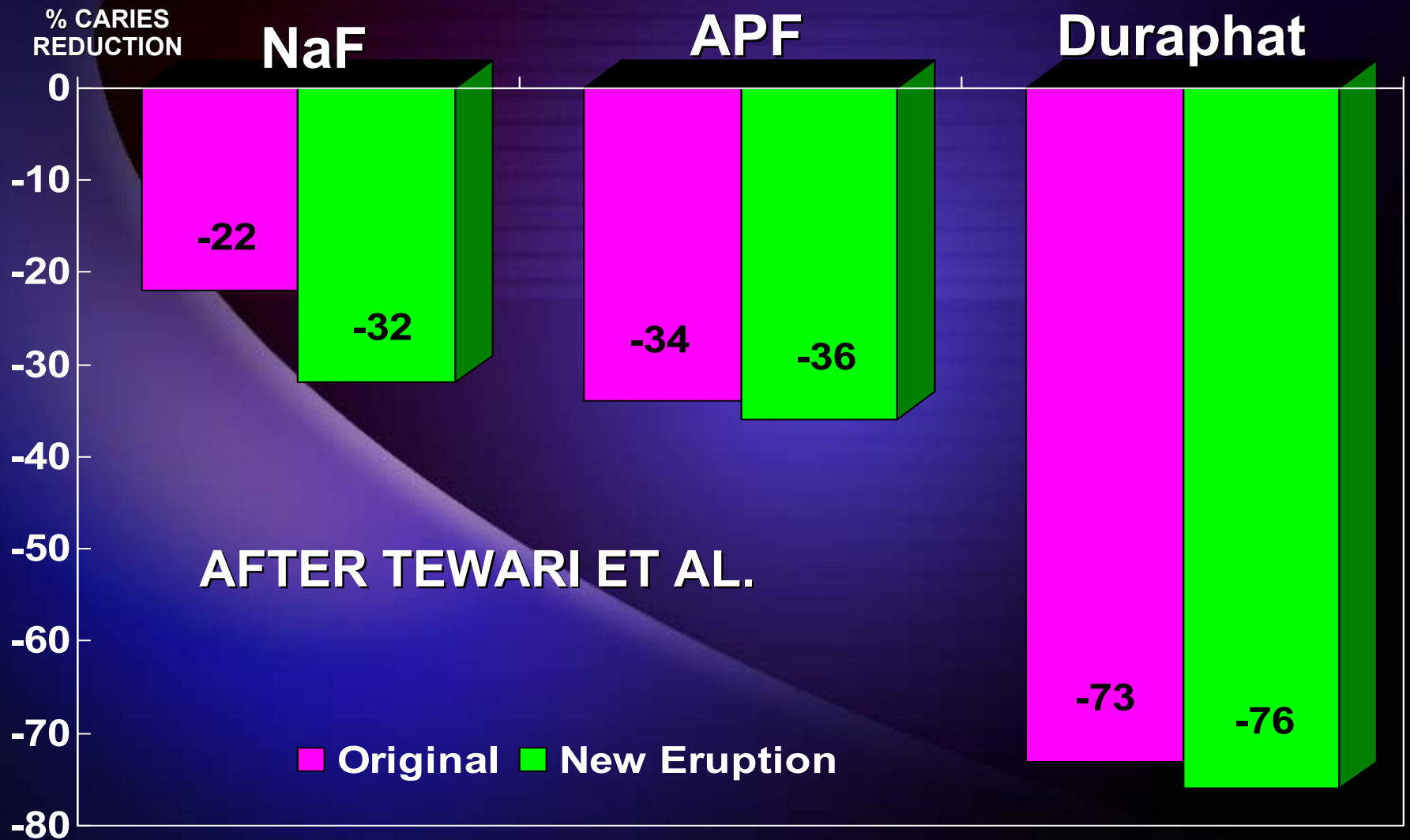
BRAVO ET AL.



DELTA DENTAL STUDY (DAC)

- **239,443 CHILDREN WITH SEALANTS**
- **272,872 CHILDREN WITHOUT SEALANTS**
- **85% REDUCTION IN ALL CARRIES IN SEALED GROUP**
- **SEALING UNSEALED WOULD SAVE \$31M OVER 4 YEARS**

DURPHAT CARIES REDUCTION





XYLITOL EFFECTS

AALTONEN ET AL. *Acta Odontol Scand.* 2000 Dec;58(6):285-92.)

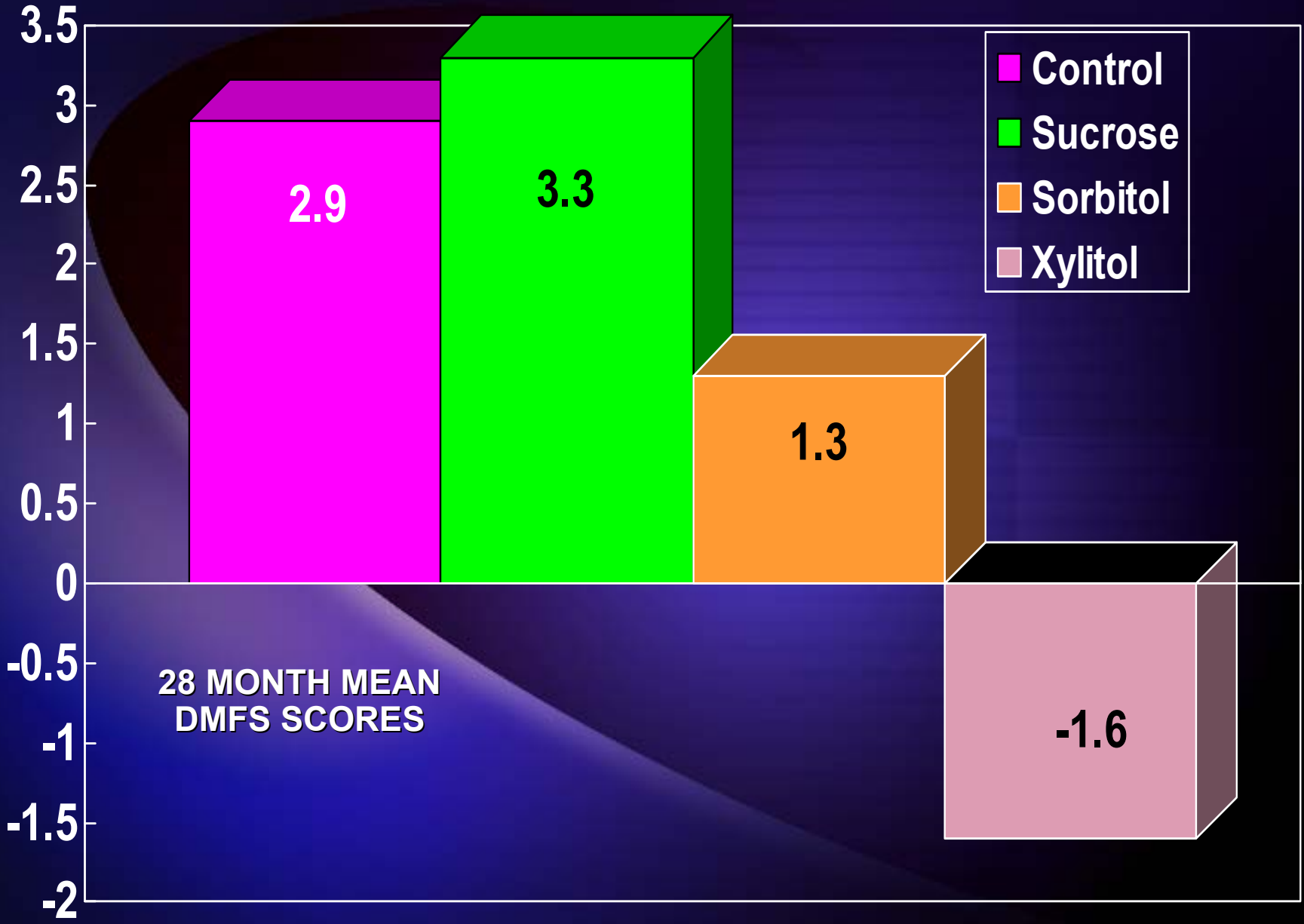
PACIFIER STUDY IN ONE YEAR OLD CHILDREN

- **REDUCED MUTANS STREP. INFECTION BY 16%**
- **REDUCED CARIES TO ZERO IN TEST GROUP ($p < 0.001$)**
- **REDUCED OTITIS MEDIA BY 19% - 38%**

XYLITOL

1,227 10 - 12 year olds with supervised gum chewing for a 28-month period

REMINERALIZATION



WHO CAN ADMINISTER?

	DDS	NON DDS	COMM BASE	SCHOOL BASE
SEALANT	X	?	?	?
FLUORIDE	X	X	X	X
XYLITOL	X	X	X	XXX

LOW MAINTENANCE / HARM

SEALANT	X
FLUORIDE	X
XYLITOL	X

SIMONSEN

NO HARM

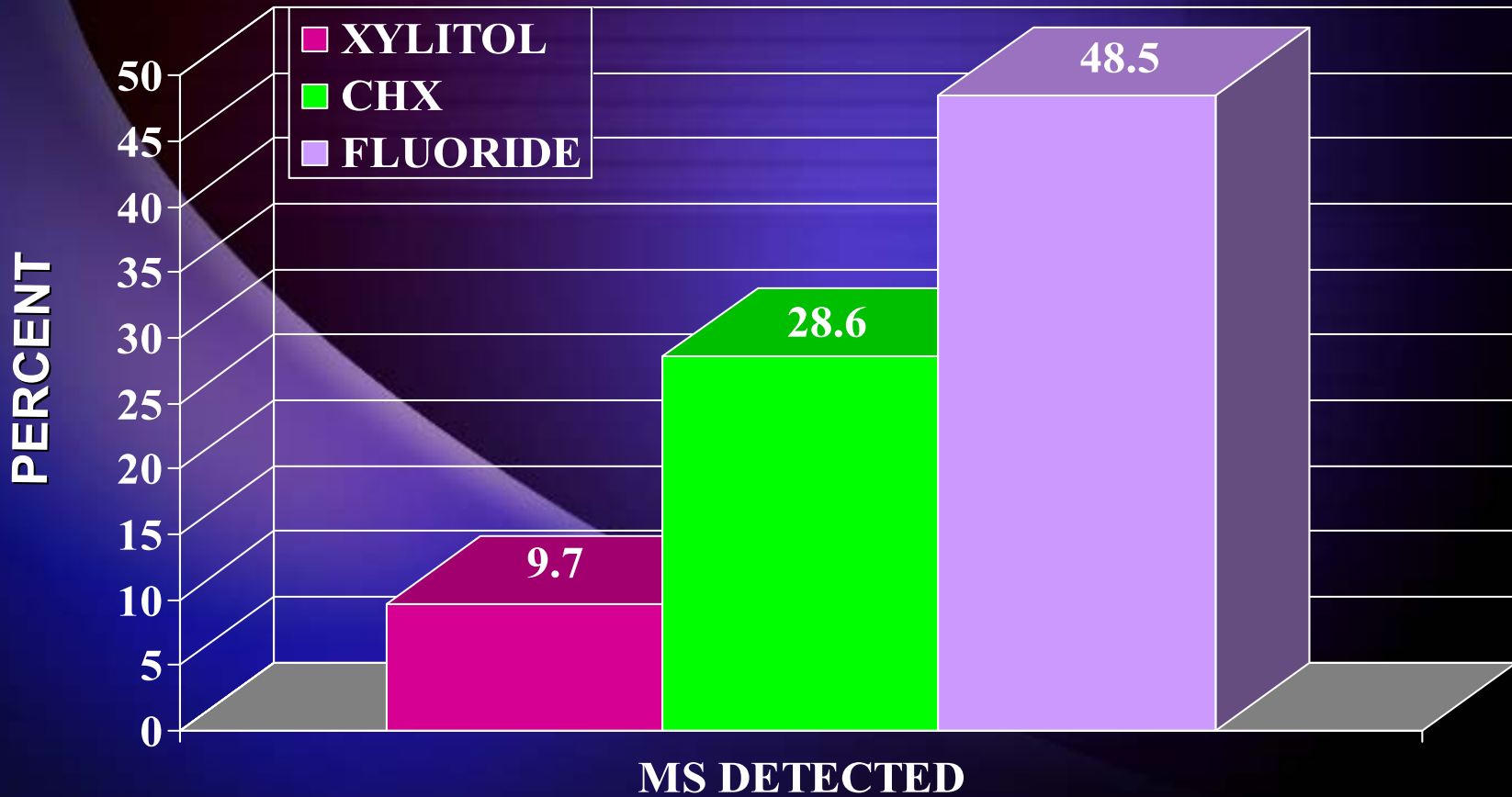
NO HARM

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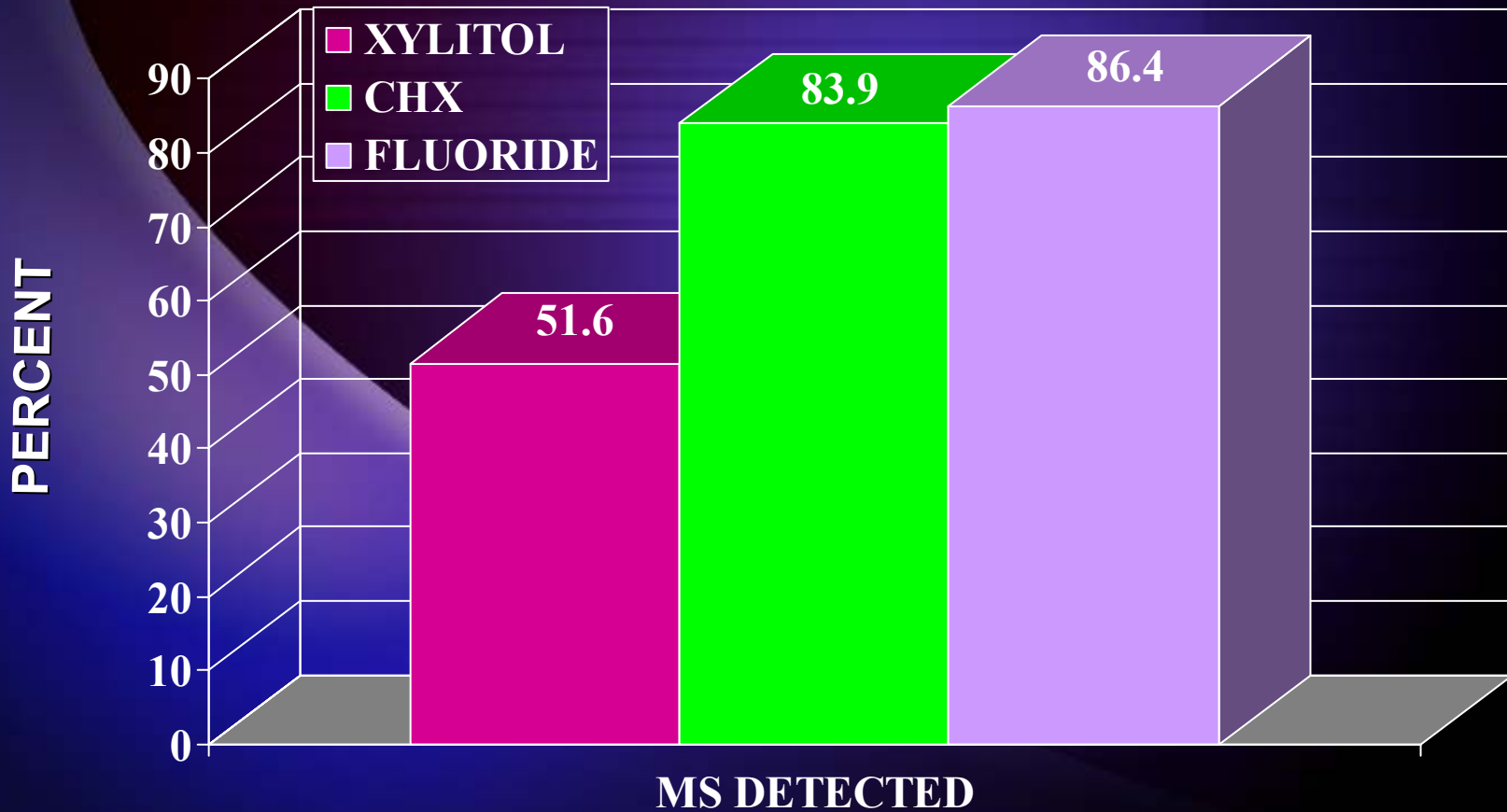
MATERNAL CONSUMPTION

169 MOTHER-CHILD PAIRS - TWO YEAR STUDY
JDR 79:1885-9, 2000



MATERNAL CONSUMPTION

169 MOTHER-CHILD PAIRS – AT 6 YEARS
Caries Research, 2001 35: p. 173-177



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BEST CURRENT EVIDENCE

	LOW COST	BROAD APPL	FAST ROI	BEST BUY
SEALANT	NO	?	YES	1
FLUORIDE	YES	YES	YES	3
XYLITOL	MID	YES	YES	2



NEED CASH
FOR ALCOHOL
RESEARCH