

# **Look Ma, No Cavities! Fact or Fiction?**

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The findings and conclusions in this presentation have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

# Look Ma, No Cavities

- 1958 Ad Campaign
  - Crest toothpaste
- Mad Magazine
  - December 1958



POORIESE HIGH SCHOOL

By the Secretary of *Nelson Stud*

*You are a winning man with a teen age gang - one of these days he'll get his teeth knocked out!*

See how kids Participle

Nuremberg Rockefeller

"Look, Mom - no more cavities!"

Crest Gumpaste helps gums take the place of teeth by coating them with a hard white enamel finish! Just the thing for punks who get their teeth knocked out from running around with teen-age gangs.



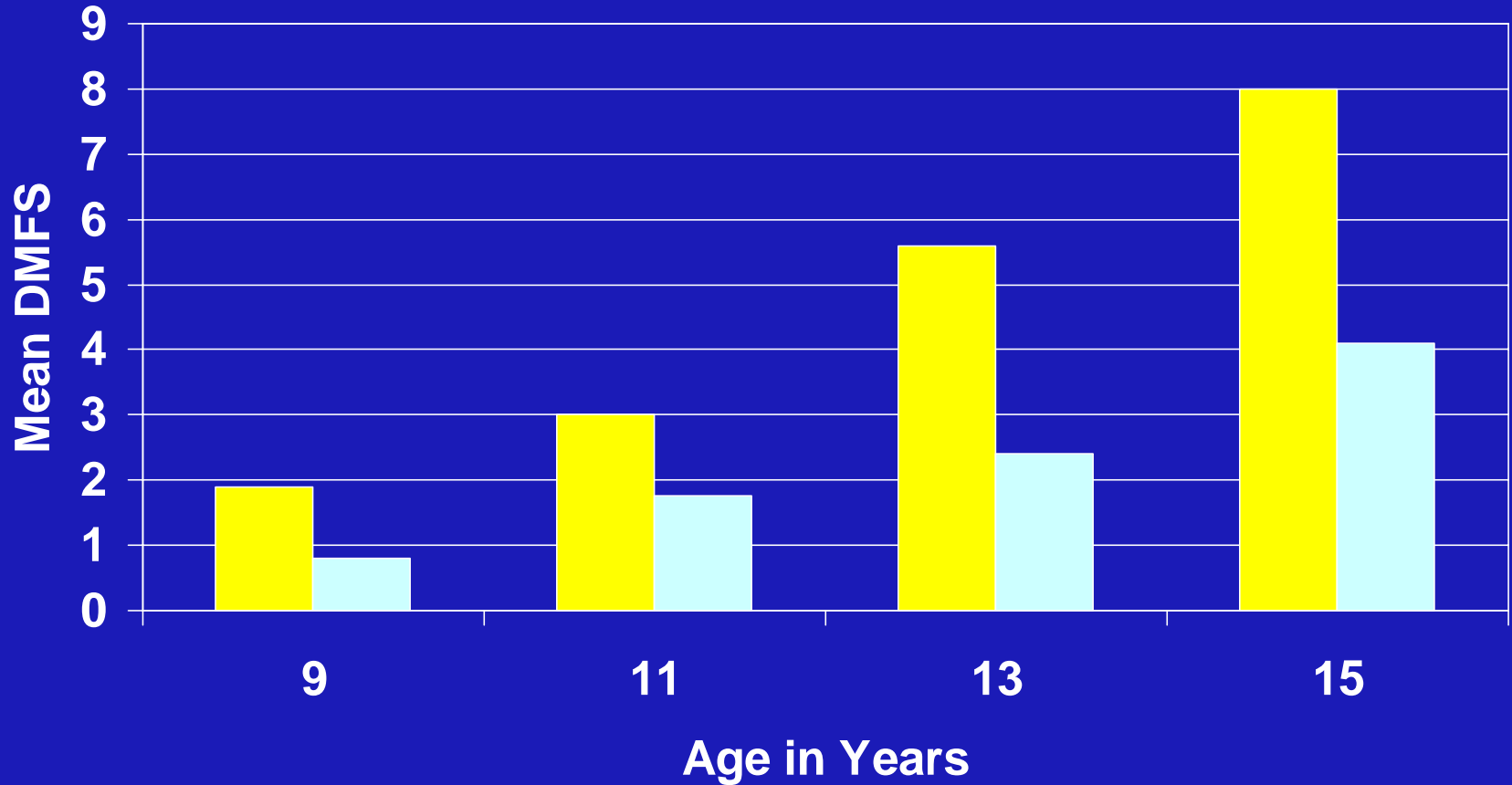
**Crest**  
GUM PASTE

Placeholder is a trademark for  
Parker & DuSable in various  
countries and jurisdictions.

© 1958 The DuSable System Co.

# Look Ma, No Cavities!

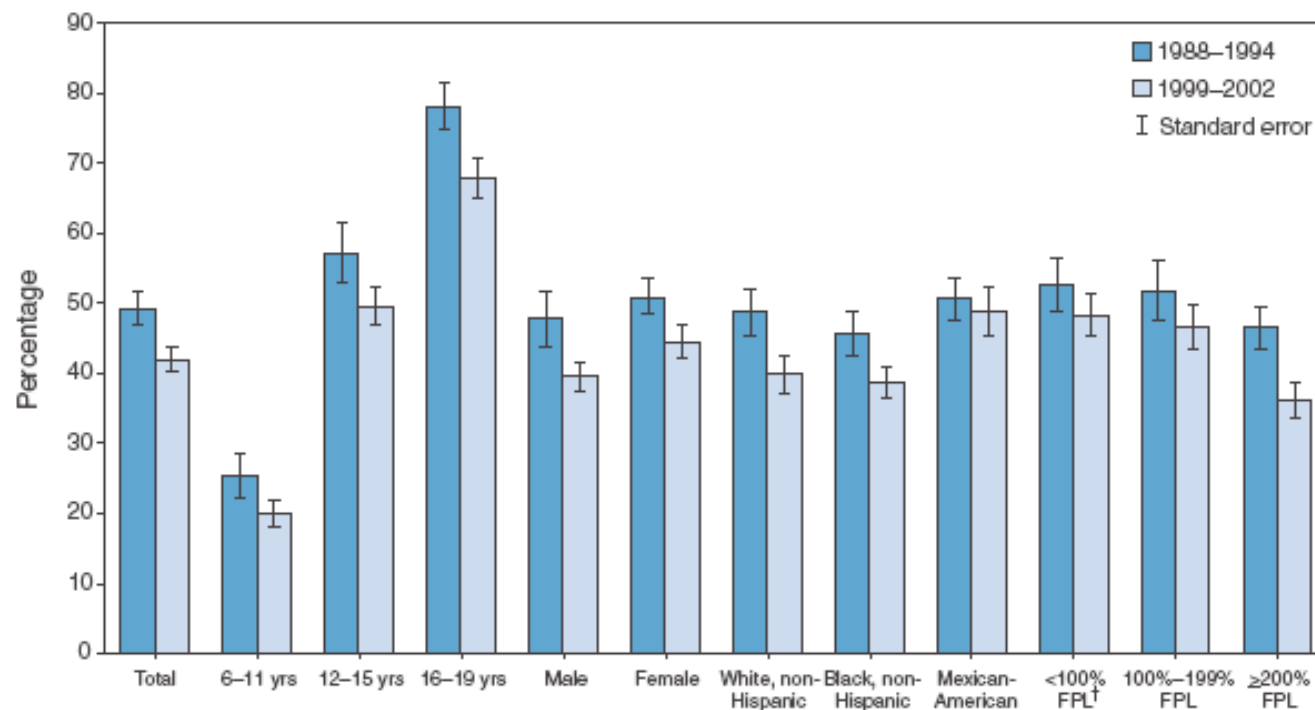
## 1979-1980 vs. 1988-1994



# Caries Decline

## 1988-1994 vs. 1999-2002

FIGURE 5. Prevalence of dental caries in permanent teeth\* among children and adolescents aged 6–19 years, by selected characteristics — United States, National Health and Nutrition Examination Survey, 1988–1994 and 1999–2002



\* Defined as having one or more decayed, missing, or filled surfaces in permanent teeth (DMFS>0) among those with at least one permanent tooth. All estimates are adjusted by age (single years) and sex to the U.S. 2000 standard population, except sex, which is adjusted only by age.

† Percentage of the Federal Poverty Level (FPL), which varies by income and number of persons living in the household.

August 26, 2005

## U.S. dental health improves

Fluoride credited for less decay than seen a decade ago, especially in children, study says.

By Ely Portillo

Knight Ridder Newspapers

WASHINGTON -- Americans have healthier teeth than they had a decade ago.

The number of cavities in the average mouth is down, and people are keeping their teeth longer, according to a federal study released Thursday.

The tooth decay decline was greatest among kids but holds "across every group," said Dr. William Maas, director of the federal Centers for Disease Control and Prevention's Division of Oral Health. The unit's study compared U.S. dental health in two periods: between 1988-94 and 1999-2002.

Although all racial, economic and age groups showed improvement, the study found

TOP STORIES

BUSINESS

ENTERTAINMENT

HEALTH

OFFBEAT

POLITIC

## Tooth Decay In Kids On Decline

August 25, 2005 10:38 p.m. EST

Danielle George - All Headline News Staff Reporter

Atlanta, Georgia (AHN) - According to the federal government fluoride and toothpaste are the major factors in the decline of tooth decay among children in the United States.

A study by the Centers for Disease Control and Prevention found 42 percent of kids aged 6 to 19 had had a cavity or filling in their permanent teeth when examined between 1999 and 2002, a 15-percent decrease from the 1988-1994 period.

Tooth decay among adults fell between 4 and 6 percent, with 20 percent fewer over the age of 60 reporting they had lost all their teeth, the Atlanta-based CDC said.

"This reduced decay in all ages is really a reflection of the widespread availability of fluoride," said Dr. William Maas, director of the CDC's division of oral health. "It works for all ages."

# **Question of the Day**

## **Posed by State Health Director**

Everything I read says that decay rates are declining; so why is the prevalence of tooth decay so high in my state?

# National Compared to State Data



# National & State Oral Health Data

## ➤ National data

- NHANES
- Selection of individuals
- Voluntary participation

## ➤ 8-9 year olds

- 741 children

## ➤ State data

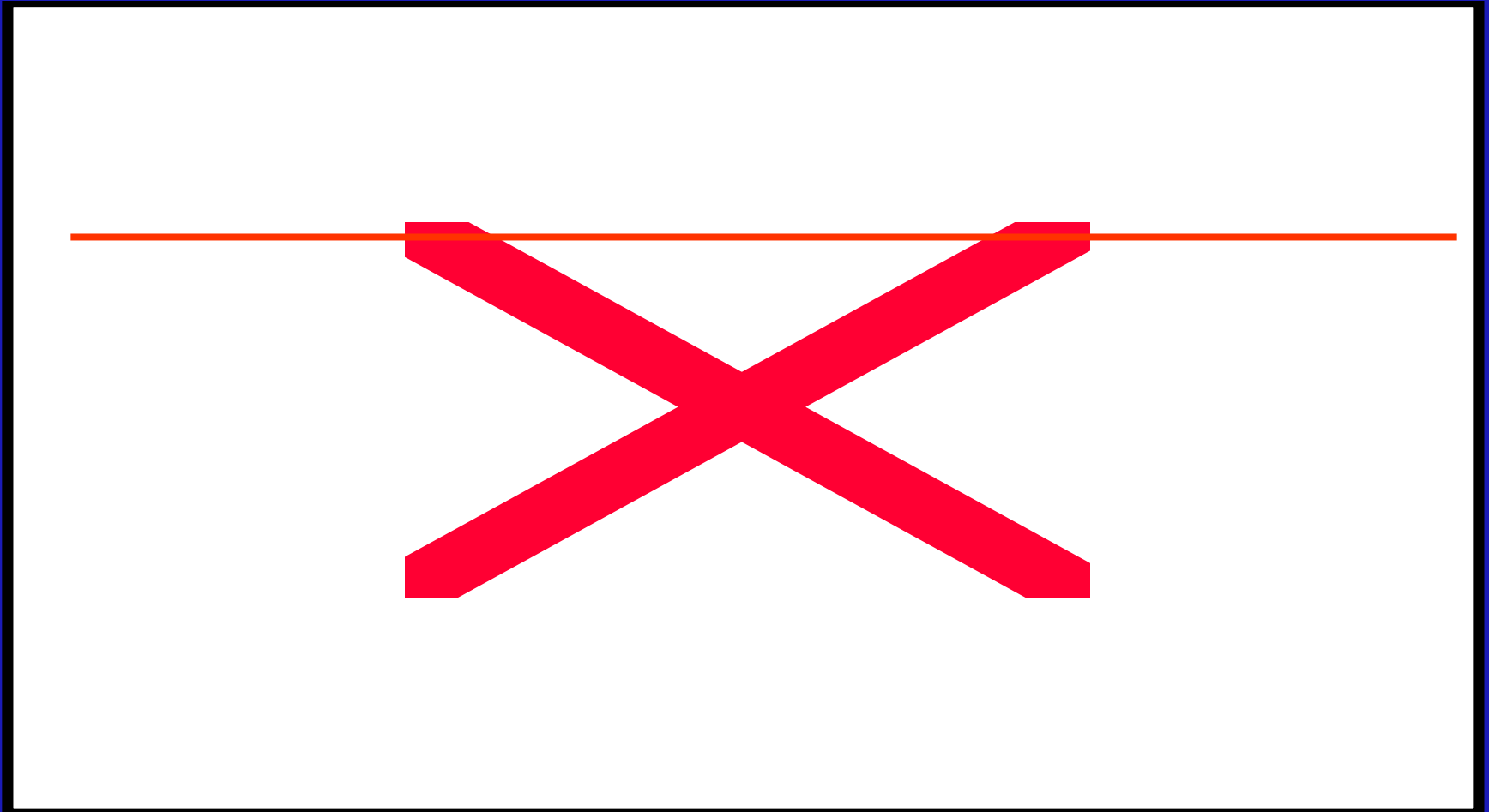
- BSS
- Selection of schools
- Combination of positive and passive consent

## ➤ 3<sup>rd</sup> Grade

- 31 states
- 93,471 children

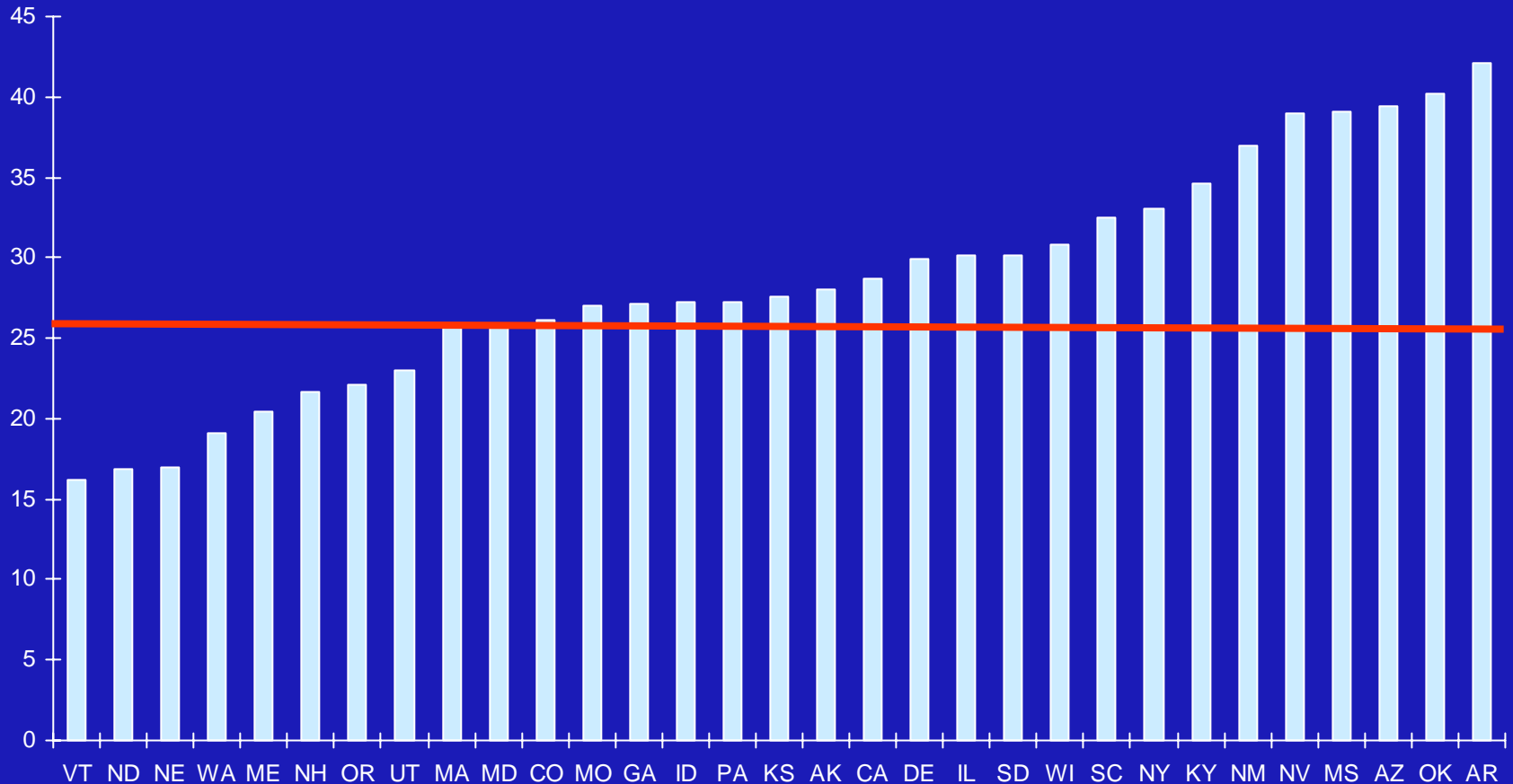


# Percent of 3<sup>rd</sup> Graders with Caries Experience



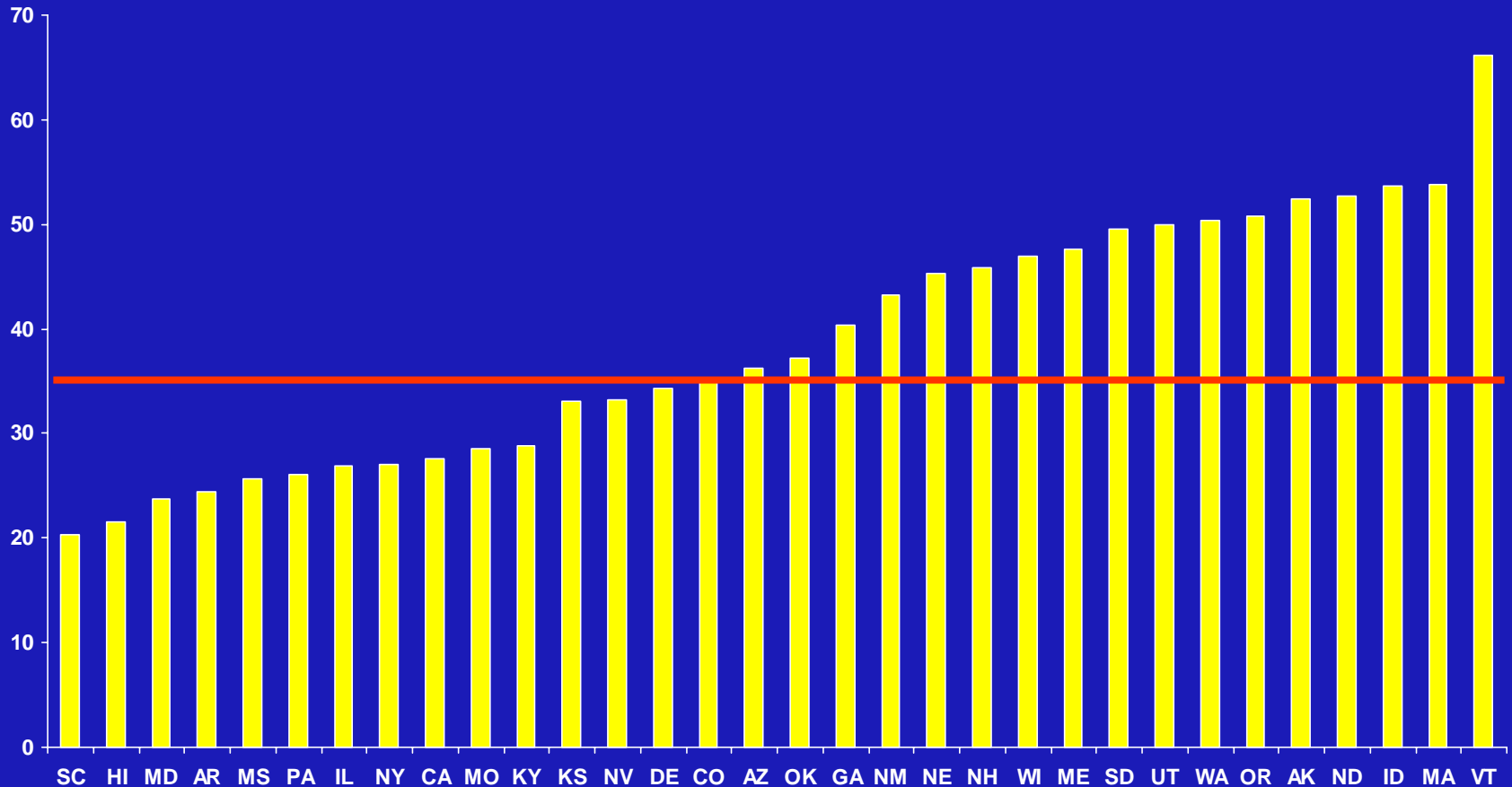
Source: NHANES IV, National Oral Health Surveillance System  
Caries experience in primary & permanent teeth

# Percent of 3<sup>rd</sup> Graders with Untreated Decay



**Source: NHANES IV, National Oral Health Surveillance System**  
**Untreated decay in primary & permanent teeth**

# Percent of 3<sup>rd</sup> Graders with Dental Sealants



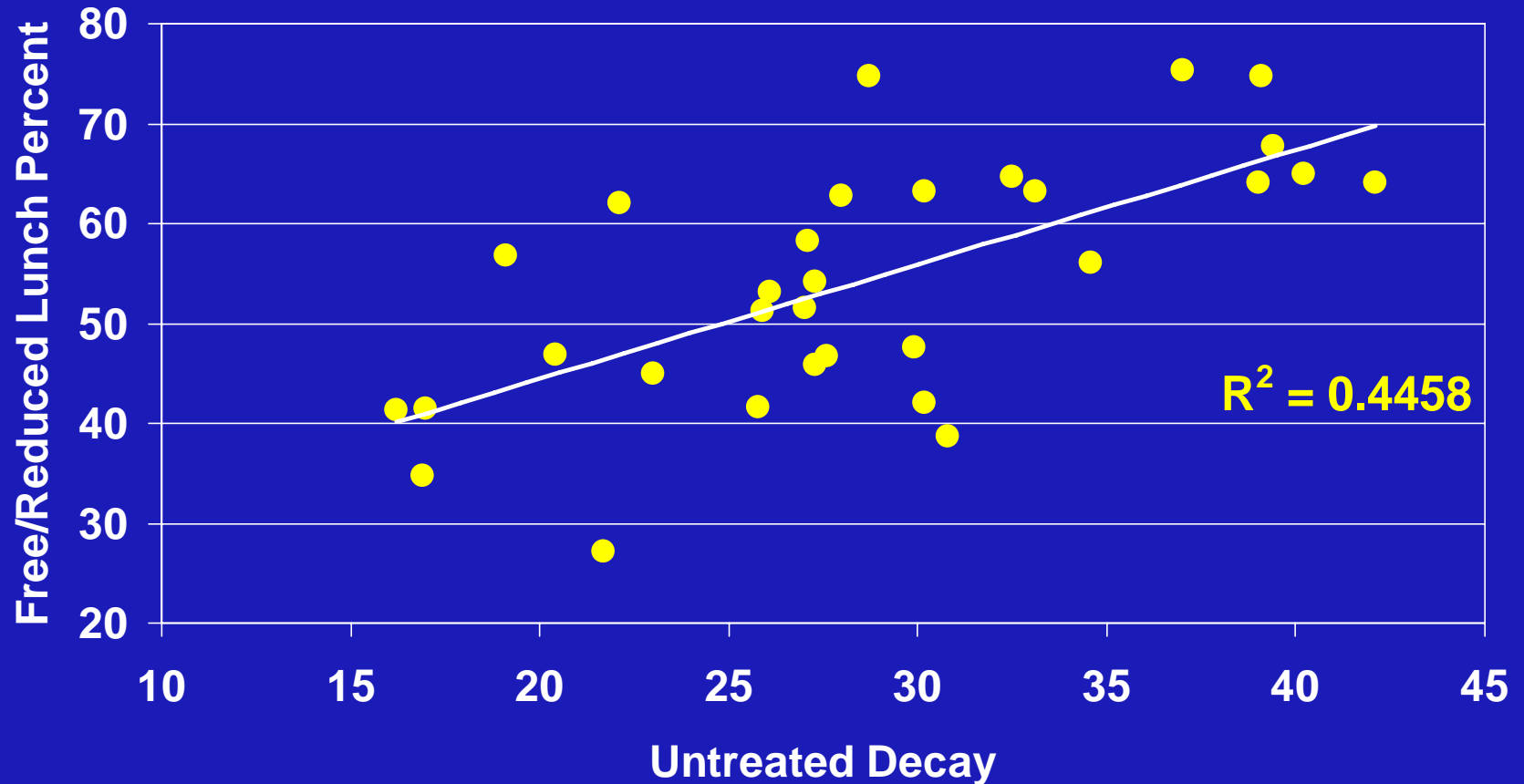
Source: NHANES IV, National Oral Health Surveillance System  
Dental sealants on permanent molars

# Look Ma, No Cavities!



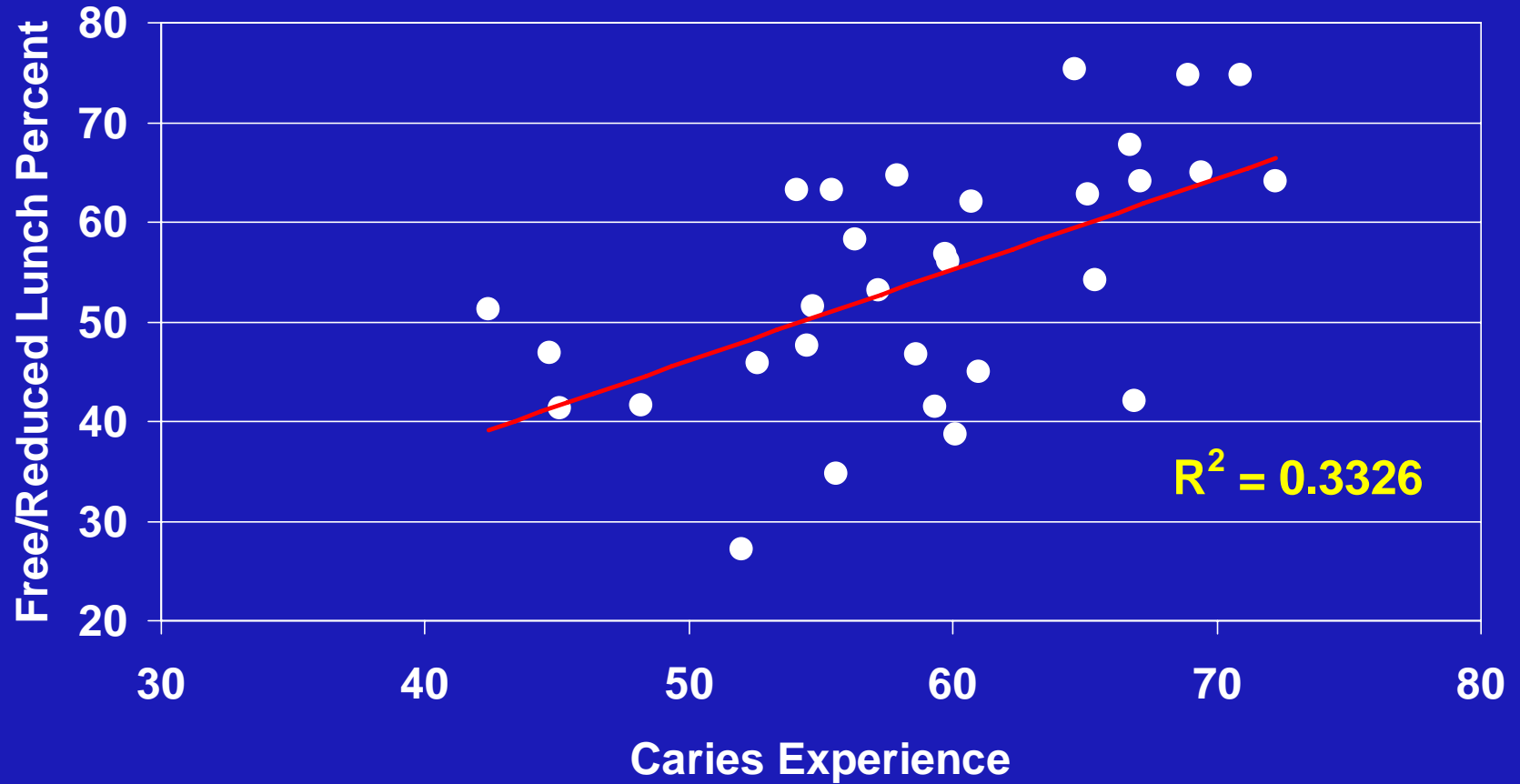
- Large variation in decay experience from state to state
- Why does this variation exist?

# FRL & Untreated Decay

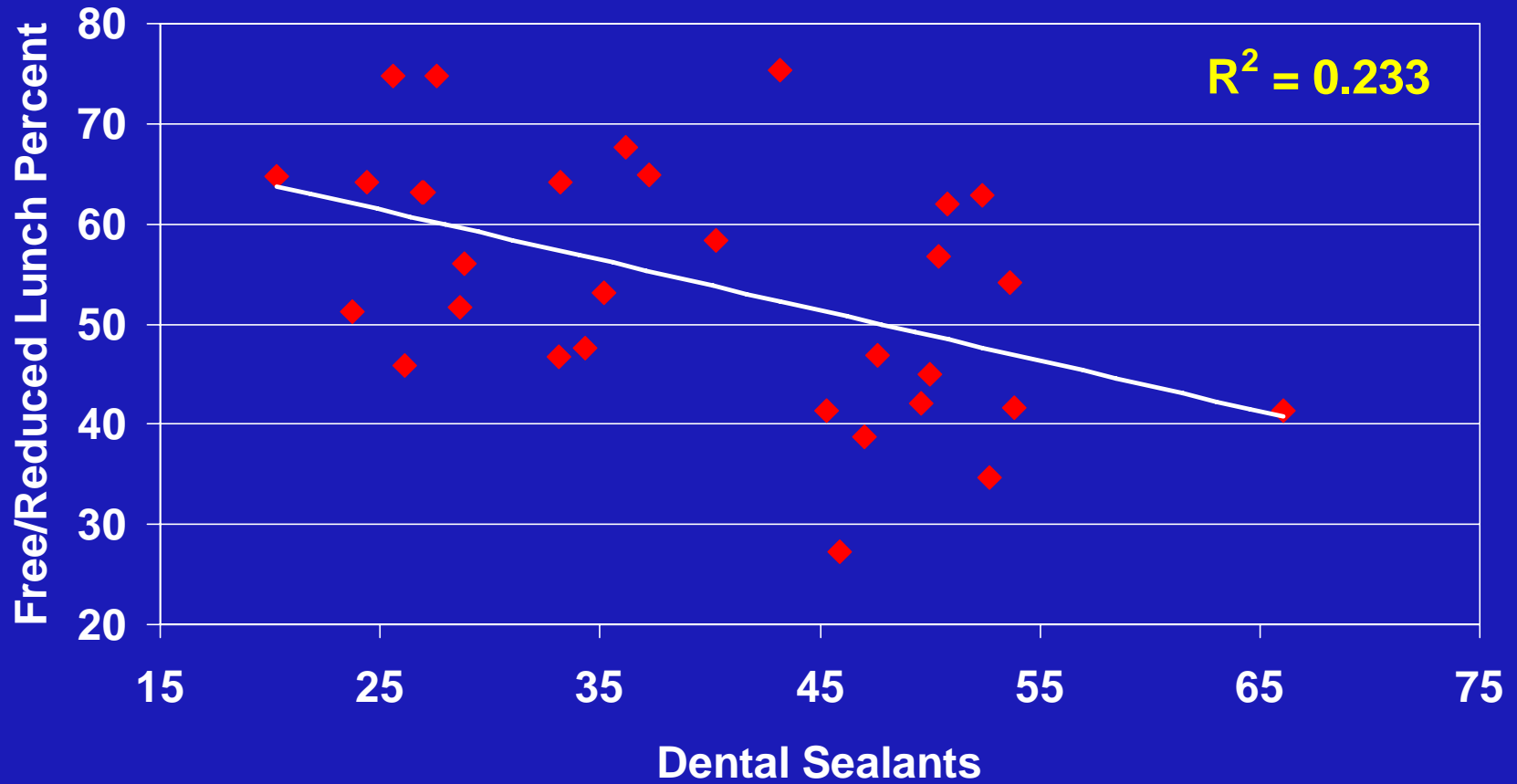


$R^2 = 0.4458$

# FRL & Caries Experience



# FRL & Dental Sealants



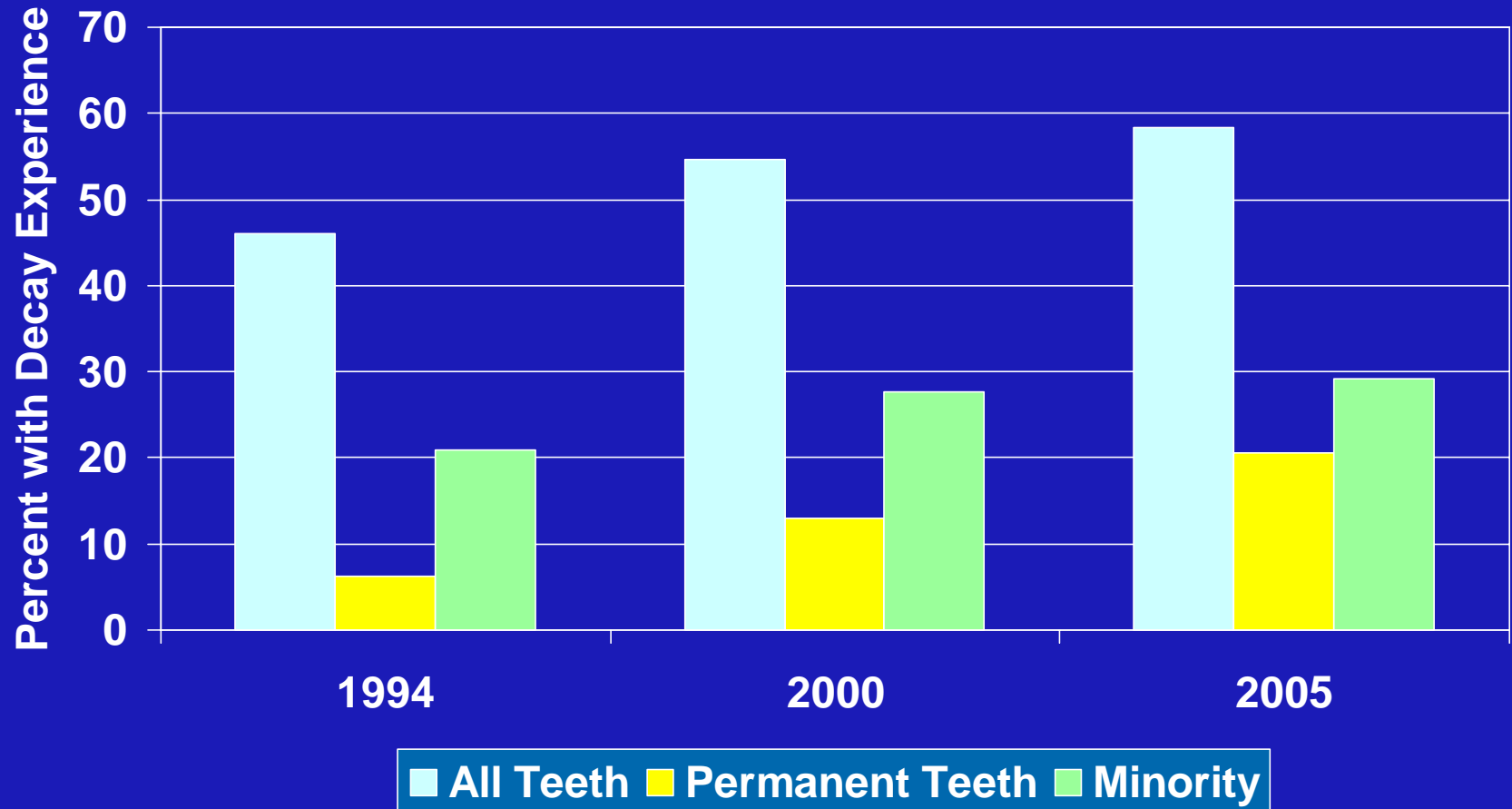
# Look Ma, I've Got Cavities!



- Is the decline in caries prevalence noted in national data occurring nationwide?
- *Is it possible that caries prevalence is on the rise in some states?*

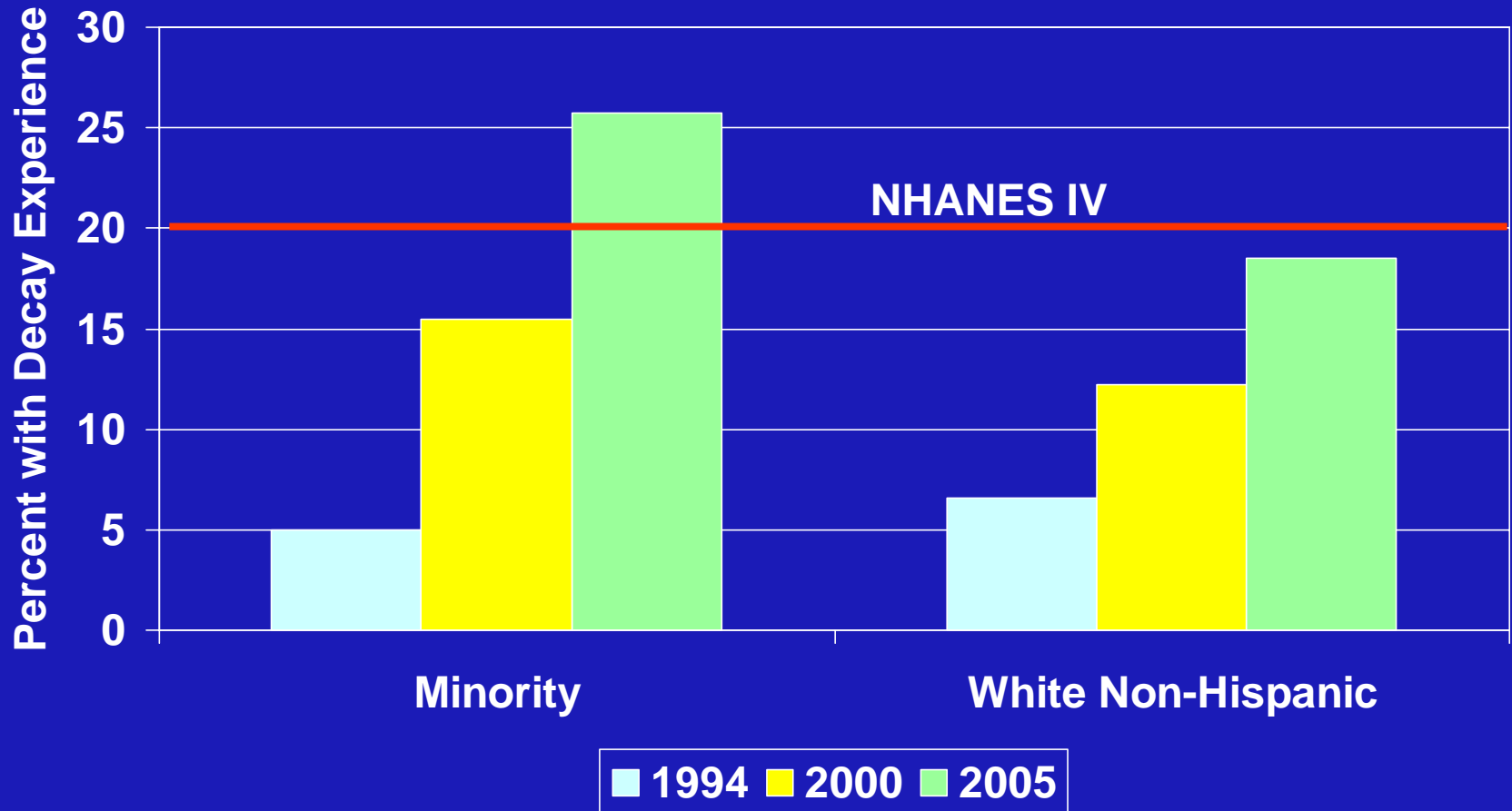


# One State's Experience



2<sup>nd</sup> Grade Children

# Permanent Dentition Only

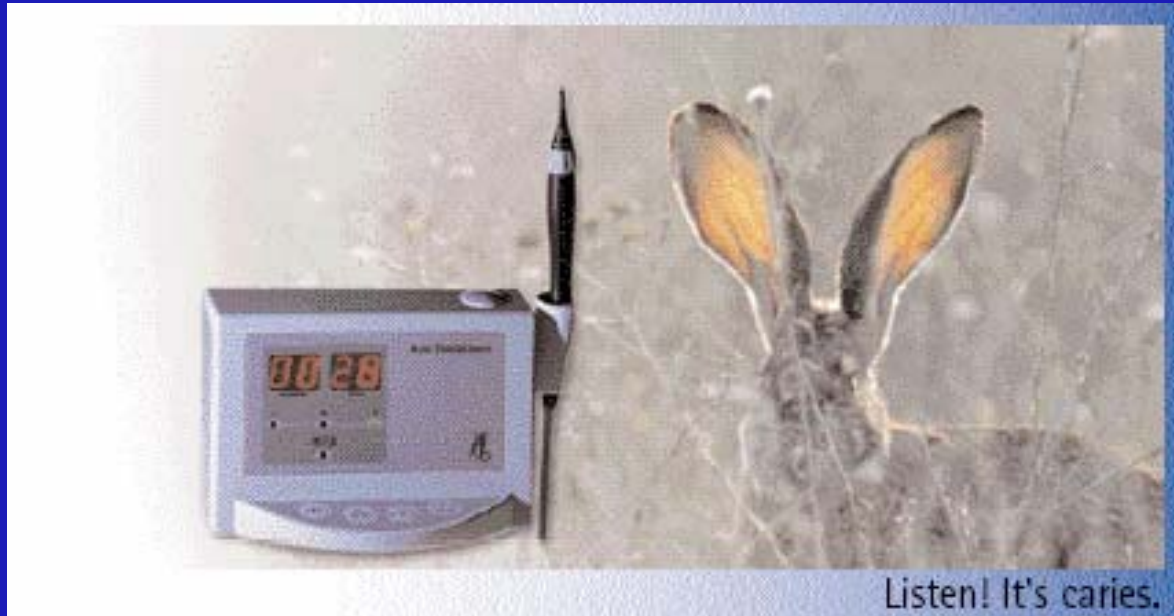


2<sup>nd</sup> Grade Children

# Why is Prevalence Increasing?

- Differences in sampling/survey design
- Actual increase in caries ...
  - Changing dietary patterns
    - Increasing sugar consumption
    - Decreasing water (fluoride) consumption
- Treatment effect ...
  - Dentists may be treating small lesions not previously treated

# Treatment Effect



# Quote from Dental Economics

... documented that well over 94% of the stains in pits and grooves of nonsmokers have undetected carious lesions.

As dentists working in 2001, we need to use the science at our disposal. The amount of routine, "run-of-the-mill" dentistry that goes undiagnosed is probably enough to keep dentists as busy as they want to be.

# Look Ma, No Cavities



**Fact or Fiction?**