

# **Investments in Children's Oral Health are Investments in a Prosperous Future: Economic Costs of Oral Health Problems in the U.S.**

A report from the  
Children's Sentinel Nutrition Assessment Program (C-SNAP)  
Commissioned by the  
Pew Charitable Trusts and the Partnership for America's Economic Success

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# Oral Health Includes The Oral Cavity –Mouth, Teeth, Gums & Tongue – and the “Craniofacial Structures”

“These are tissues whose functions we often take for granted, yet they represent the very essence of our humanity. They allow us to speak and smile; sigh and kiss; smell, taste, touch, chew, and swallow; cry out in pain; and convey a world of feelings and emotions through facial expressions.”

- U.S. Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, 2000.

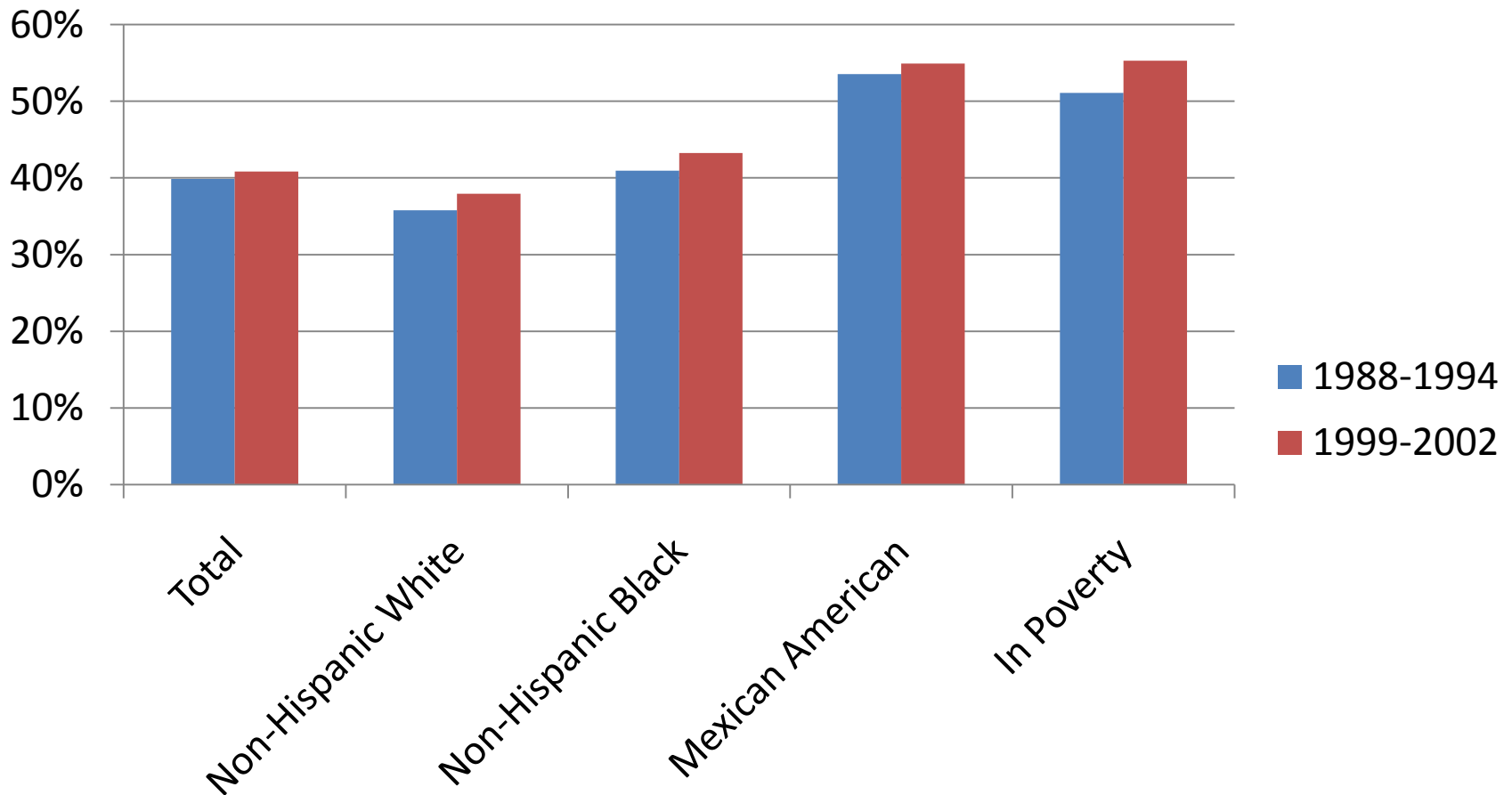
# Oral Health Problems are a “Silent Epidemic”

“Tooth decay continues to be the single most common chronic disease among U.S. children, despite the fact that it is highly preventable through early and sustained home care and regular professional preventive services. “

DHHS Centers for Medicare & Medicaid Services,  
Guide to Childrens’ Dental Care In Medicaid

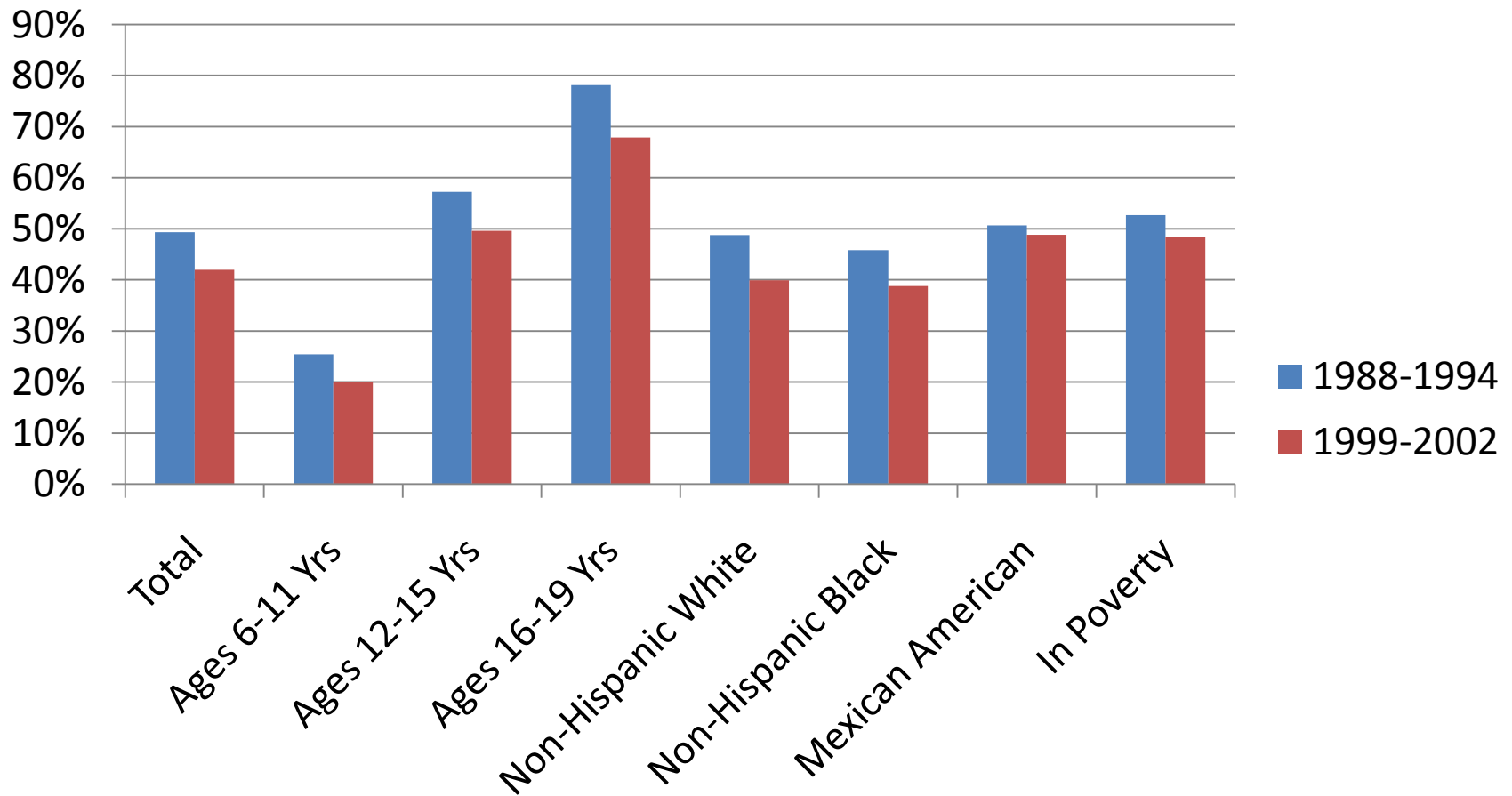
October 2004

# Proportion of U.S. Children Ages 2-11 Years with Dental Caries in Primary Teeth, 1988-1994 & 1999-2002



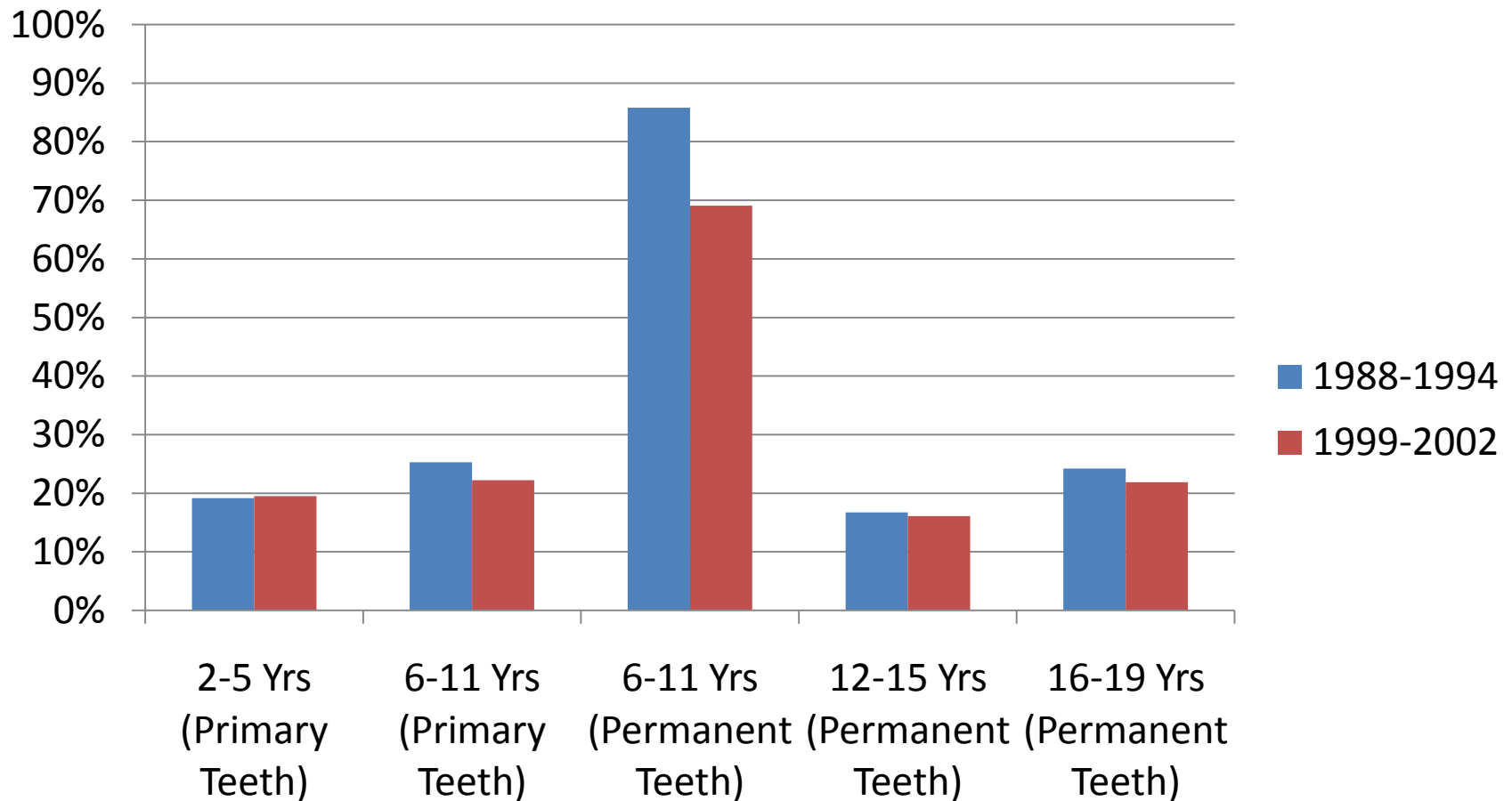
Source: CDC/NCHS, National Health & Examination Survey (NHANES), various years

# Proportion of U.S. Children with Dental Caries in Permanent Teeth by Age Group and Race/Ethnicity & Poverty Status: 1988-1994 & 1999-2002



Source: CDC/NCHS, National Health & Examination Survey (NHANES), various years

# Proportion of U.S. Children with Untreated Dental Caries by Age Group and type of Teeth: 1988-94 & 1999-2002



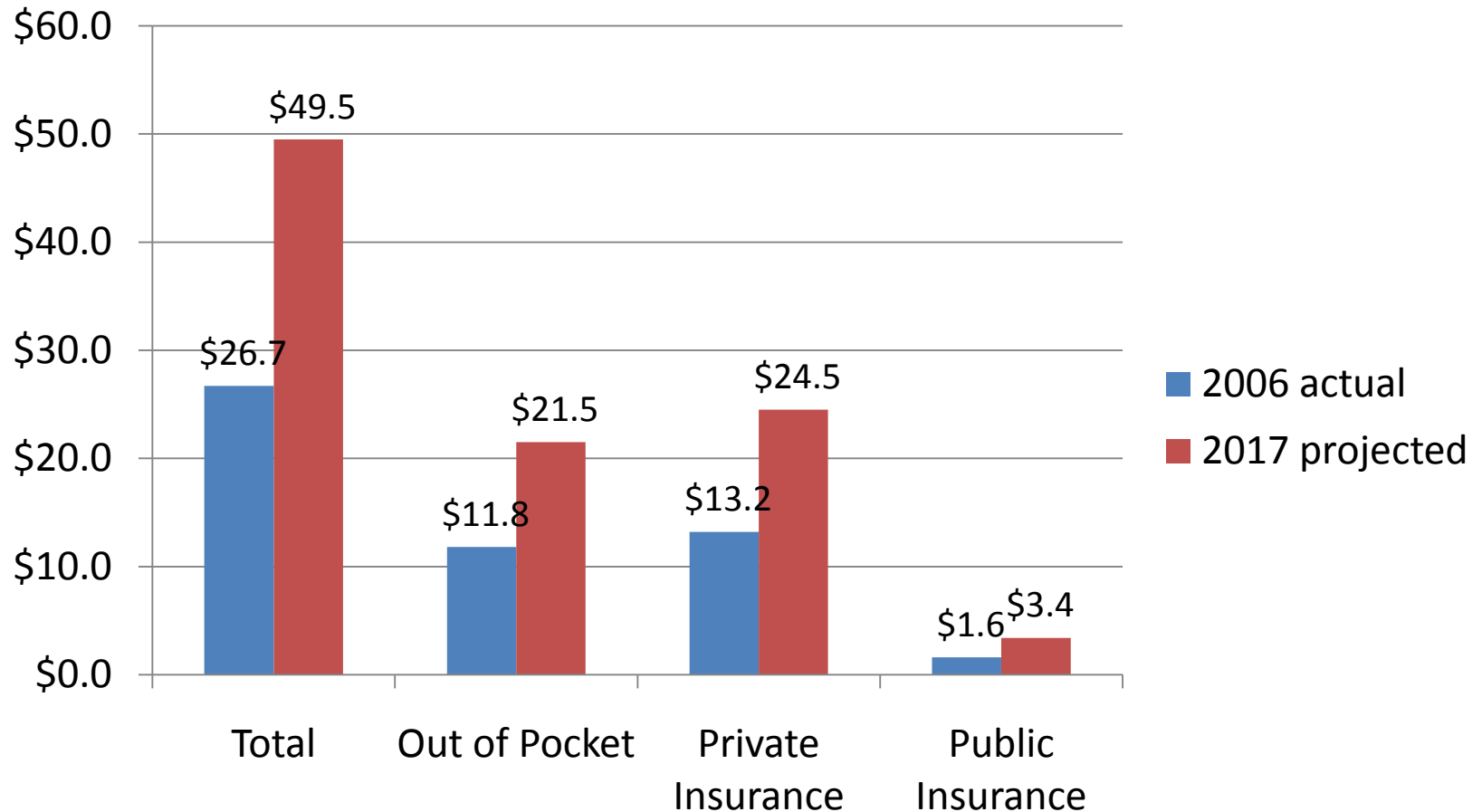
Source: CDC/NCHS, National Health & Examination Survey (NHANES), various years

# Oral Health Problems Impose Direct and Indirect Costs on Individuals, Families and the Economy

- Costs of dental health services are increasing
  - Out of pocket costs are increasing
  - Dental insurance is not available to all
  - Public and private costs are increasing
- Costs of oral health hospitalizations are high
- Oral health impacts systemic/overall health
- Oral health problems harm human capital
- Human capital loss harms U.S. Businesses

# U.S. Child Dental Services Expenditures, Estimated 2006 and Projected 2017, By Source of Funds

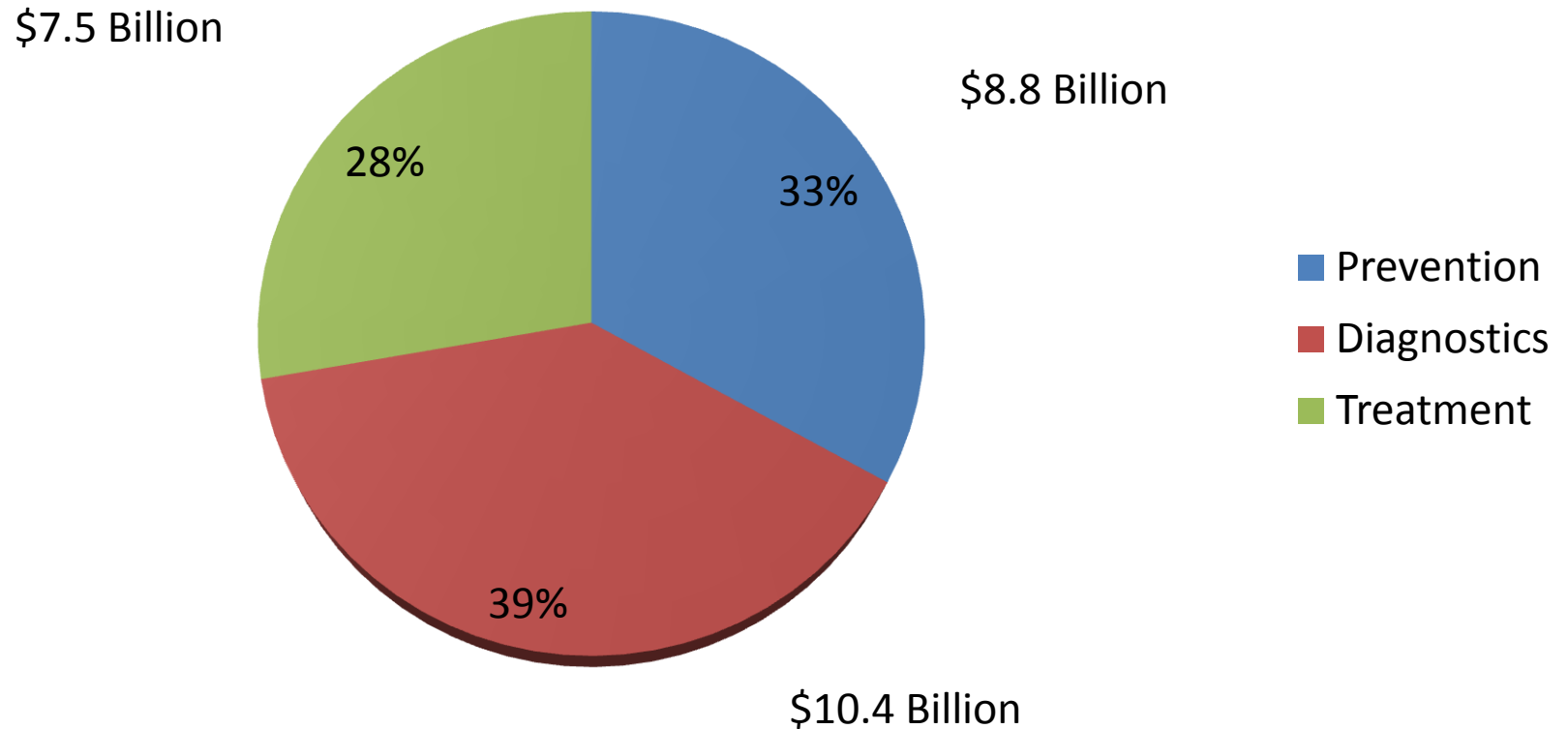
\$Billions



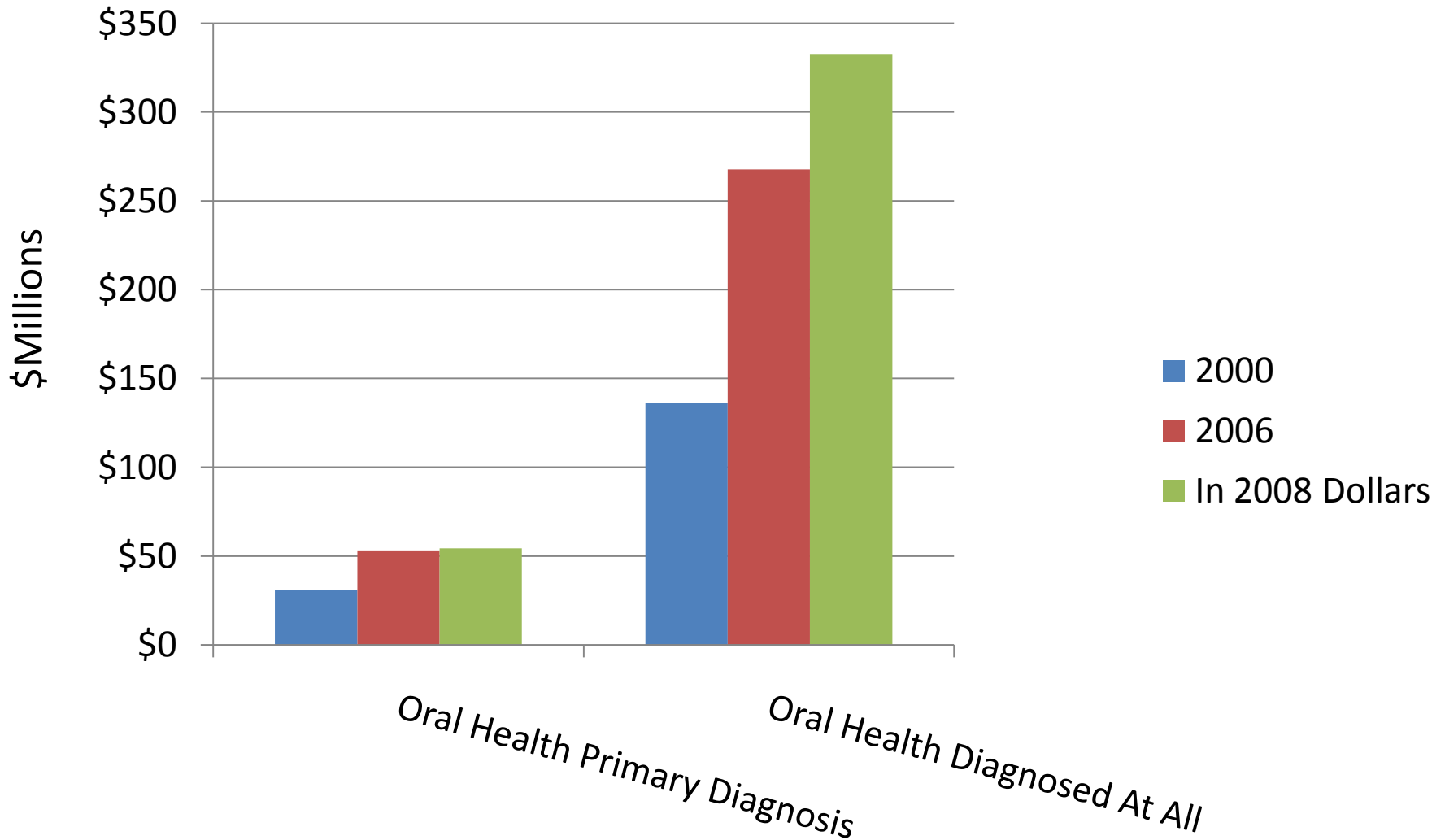
Source: Based on data from Centers for Medicare and Medicaid Services, Office of the Actuary.

# Distribution of Total Costs of Dental Service Procedures for Children (\$26.7 Billion), in 2006

## Costs by Procedure Type



# Costs of Pediatric Hospitalizations Involving Oral Health Diagnoses: 2000, 2006 & 2006 in 2008 Dollars



# Indirect Costs of Oral Health Problems Include a Share of Total Special Education Expenditures

- Oral health problems can impair school readiness & educational achievement,
  - Missing school because of dental problems has been shown to affect school performance and learning adversely,
  - Each year, more than 51 million hours of school are missed by children nationally due to oral health problems
- In 2006, federal on budget funds for Special Education were \$11.46 Billion

**Table 1: Median Income Levels of People 25 Years and Over By Level of Educational Attainment, 2007 and Net Present Value of Lifetime Earnings at Each Median Income Level\***

Educational Attainment	Median Annual Income (Standard Error)	Net Present Value of Lifetime Earnings Over 40 Working Years At Median Earning Level (Discount Rate = 3.3%)
Total	\$35,507 (\$76)	\$782,348
Less than 9 <sup>th</sup> Grade	\$18,035 (\$317)	\$397,377
9 <sup>th</sup> to 12 <sup>th</sup> Non-graduate	\$20,689 (\$178)	\$455,854
High School Graduate	\$28,290 (\$222)	\$623,332
Some College, No Degree	\$32,264 (\$116)	\$710,894
Associate Degree	\$36,362 (\$205)	\$801,187
Bachelor's Degree	\$47,240 (\$196)	\$1,040,869
Masters Degree	\$56,707 (\$335)	\$1,249,462
Doctorate Degree	\$75,638 (\$1,441)	\$1,666,581
Professional Degree	\$89,602 (\$2,311)	\$1,974,259

\*Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2007 .

# Oral Health is also Associated with Other Major Health Problems

- Depression
  - NIMH Director estimates depression costs U.S. economy \$83 Billion per year
- Diabetes
  - American Diabetes Association estimates direct and indirect costs of diabetes are \$132 Billion per year
- Asthma
  - Asthma & Allergy Foundation estimated annual direct and indirect costs of Asthma in 1998 at \$18.2 Billion

# Investments in Children's Oral Health are Investments in a Prosperous Future for All Americans

- Effective social structures exist to successfully address children's oral health problems.
- American genius and ingenuity have solved much bigger problems, and they can solve the problem of children's poor oral health.
- Successful businesses require a smart and healthy workforce.
- A workforce growing up with good oral healthcare, and without chronic oral health problems is more likely to be healthy, strong, and productive.

Thank you for Your  
Attention