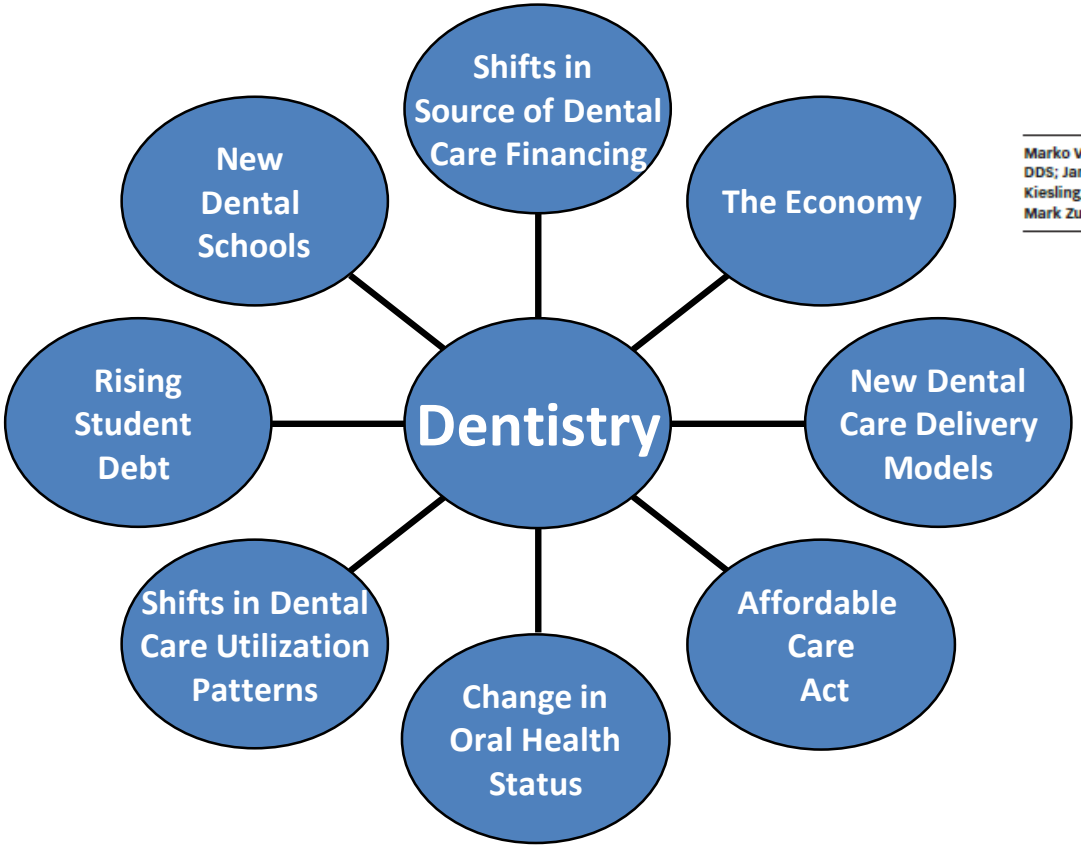
The Road Ahead

Data-Driven Insights on the Shifting Dental Care Landscape

Marko Vujicic, PhD
Chief Economist & Vice President
Health Policy Institute

HPI Health Policy Institute
ADA American Dental Association®

A Very Dynamic Environment



GUEST EDITORIAL

A profession in transition

Marko Vujicic, PhD; Hilton Israelson, DDS; James Antoon, DMD; Roger Kiesling, DDS; Thomas Paumier, DDS; Mark Zust, DDS

Dentistry is a profession in transition. Important economic, demographic and political forces are colliding to reshape the practice environment for America's dentists. To better understand the potential changes on the horizon, the American Dental Association (ADA) recently carried out a comprehensive, future-oriented analysis of the dental care sector as part of the 2015-2020 strategic plan development process.[1] This first-of-its-kind analysis drew on research carried out by health care consulting firm Diringer and Associates, various external consultants and the ADA's Health Policy Resources Center. Researchers investigated a wide variety of topics over a period of several months. To help identify the most pressing environmental factors that need to guide the ADA's strategic plan and to assist in a "what does it all mean for dentistry" discussion, a group of external thought leaders with diverse backgrounds and perspectives were asked to share their insights at a two-day conference. The full report, A Profession in Transition,[1] was released in August 2013. This is an executive summary of the key findings.

> One of the most important findings is that utilization of dental care is declining among working-age adults, particularly the young and the poor, and that this trend is unrelated to the recent economic downturn.

LOOKING BACK

Several important structural changes have occurred in the dental care sector in recent years. Structural changes are those that are driven by changes in the underlying behaviors of various groups—including patients, dentists and payers—and are distinct from cyclical changes that are driven simply by economic cycles.

One of the most important findings is that utilization of dental care is

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Chris Morris, Special to CNBC.com
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Rayid Ghani

Senior Fellow

Rayid Ghani serves as a Chicago Harris Senior Fellow and as Chief Data Scientist for the Computation Institute's Urban Center for Computation and Data.

As Chief Data Scientist, Ghani will help analyze city data and build complex computer models that simulate the impact of policy decisions and urban development. In addition, he will work with Chicago Harris on an array of efforts, including the launch of a new masters degree program in data-driven policymaking to be offered jointly with the Department of Computer Science, and a conference on urban technology innovation in partnership with the City of Chicago.

Prior to joining UChicago, Ghani was chief scientist of the highly regarded Obama for America data analytics team. During the 2012 campaign season, Ghani's team applied advanced data-mining and machine-learning methods to create new tools for fundraising, voter turnout, advertising and campaign strategy. Now, working with the Computation Institute and the University of Chicago Harris School of Public Policy, Ghani hopes to adapt those methods to address challenges in areas such as education, public safety and health care.

Before joining the Obama re-election campaign in July 2011, Ghani directed the analytics research group at Accenture Technology Labs, mining large datasets with computational methods to study consumer behavior. During the campaign, Ghani turned his attention to voter preferences, using data from social media, campaign surveys and other sources to develop personalized approaches to solicit donations or register voters.

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By Michael Scherer
updated 11:45 AM EST, Thu November 8, 2012 | Filed under: Web

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President Obama's campaign manager hired an analytics department five times as large as that of the 2008 operation.

The Power of Data

The Washington Post

Fancy Stats

What the Maple Leafs and Blackhawks tell us about advanced analytics in the NHL

By Neil Greenberg May 5 Follow @ngreenberg

The Power of Data

The next big thing to hit medical care will be new ways of accumulating, processing, and applying data—revolutionizing medical care the same way Billy Beane and his minions turned baseball into "moneyball" .

The ADA Health Policy Institute

BloombergBusinessweek
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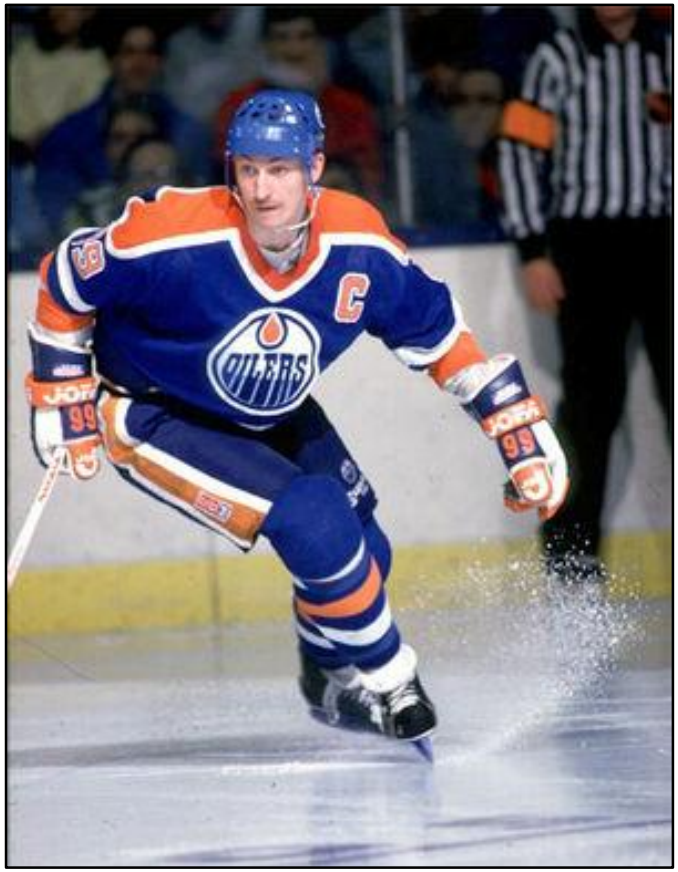
About Me

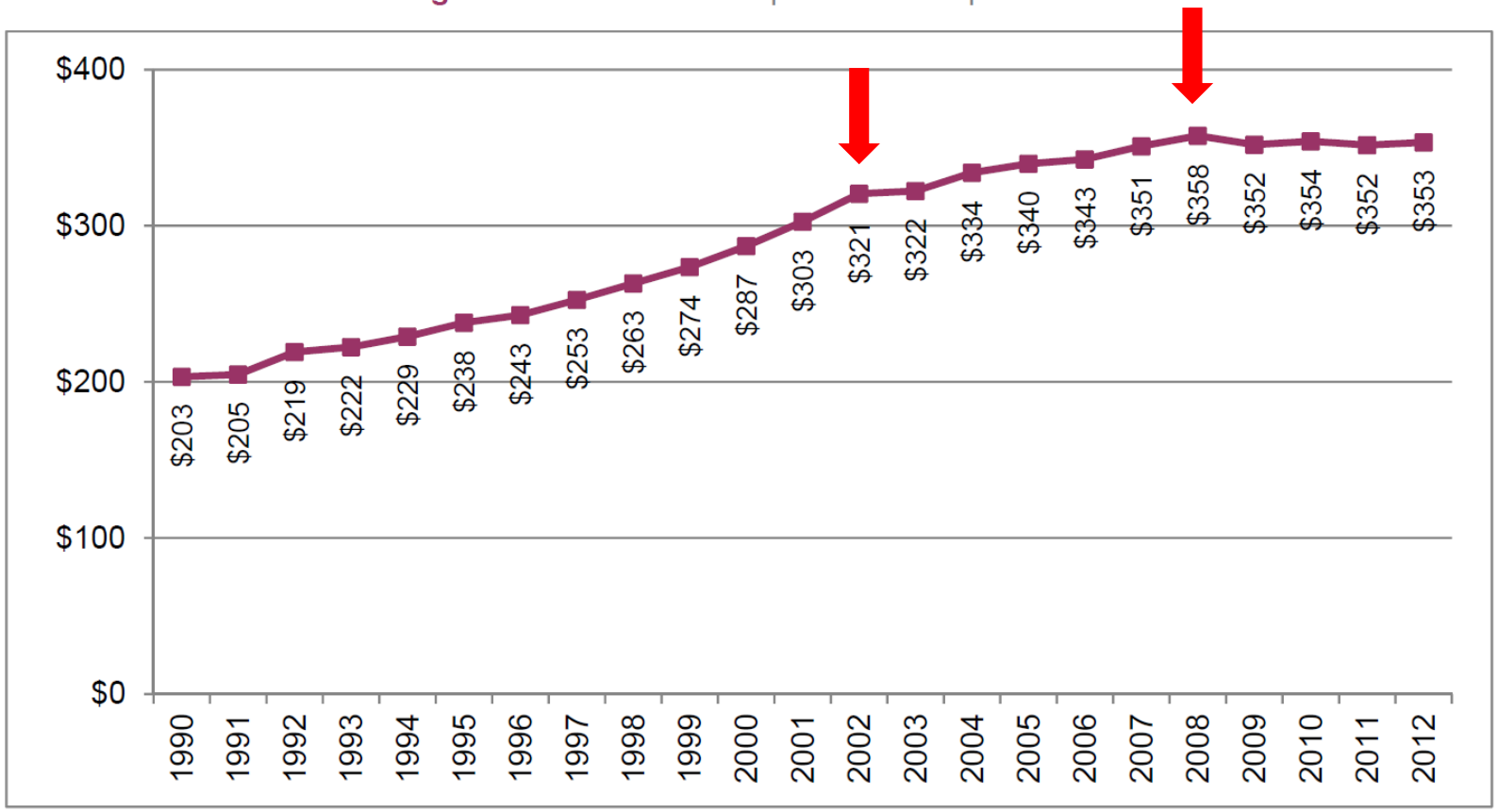
Agenda



Part 1 – A Look Back…

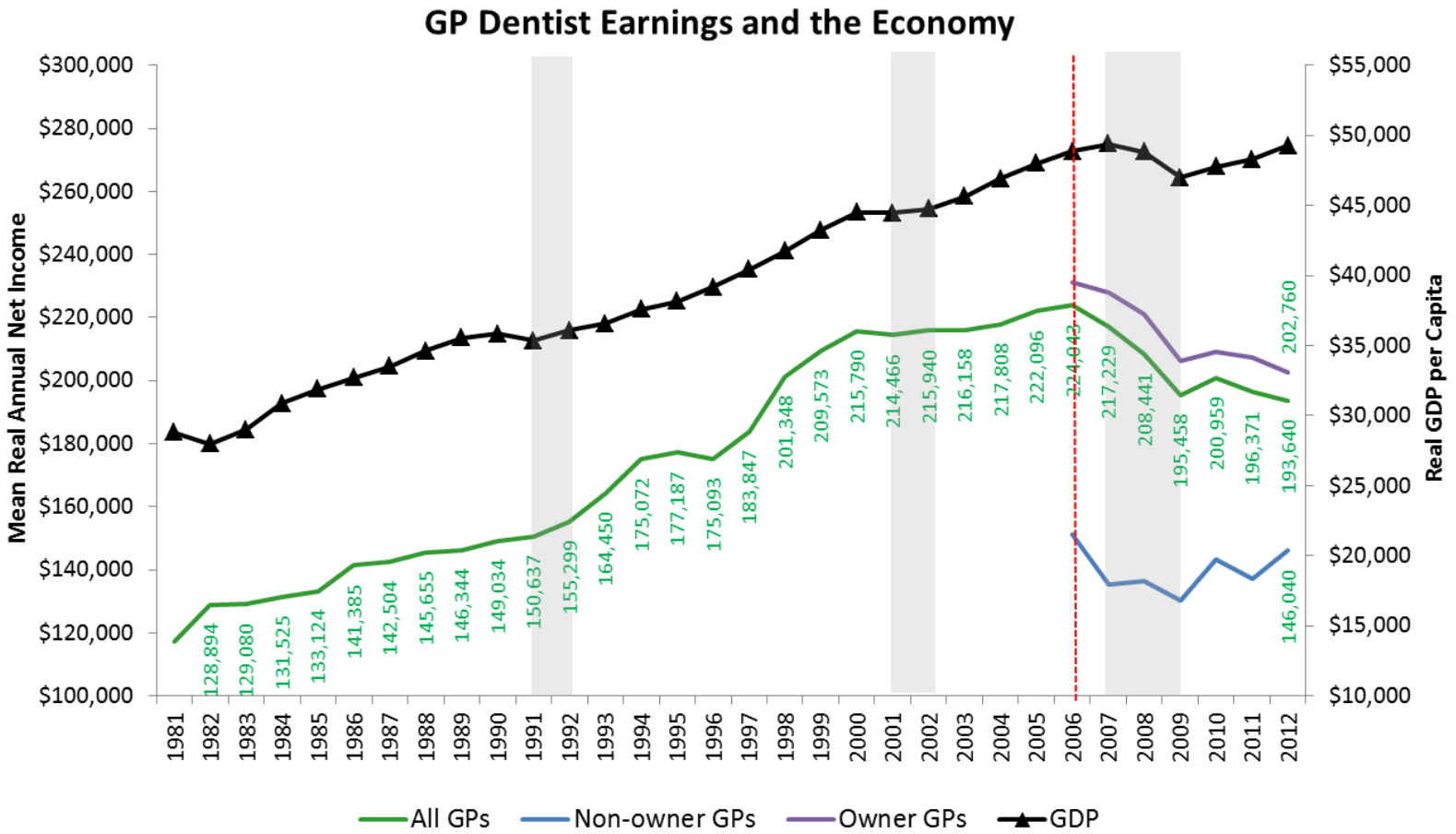
Total Dental Spending

Figure 2: National Per-Capita Dental Expenditure



Source: Centers for Medicare and Medicaid Services; U.S. Bureau of Economic Analysis; U.S. Census Bureau.**Note:** Expenditure adjusted for inflation using GDP implicit price deflator. Per-capita dental expenditure in 2012 dollars.

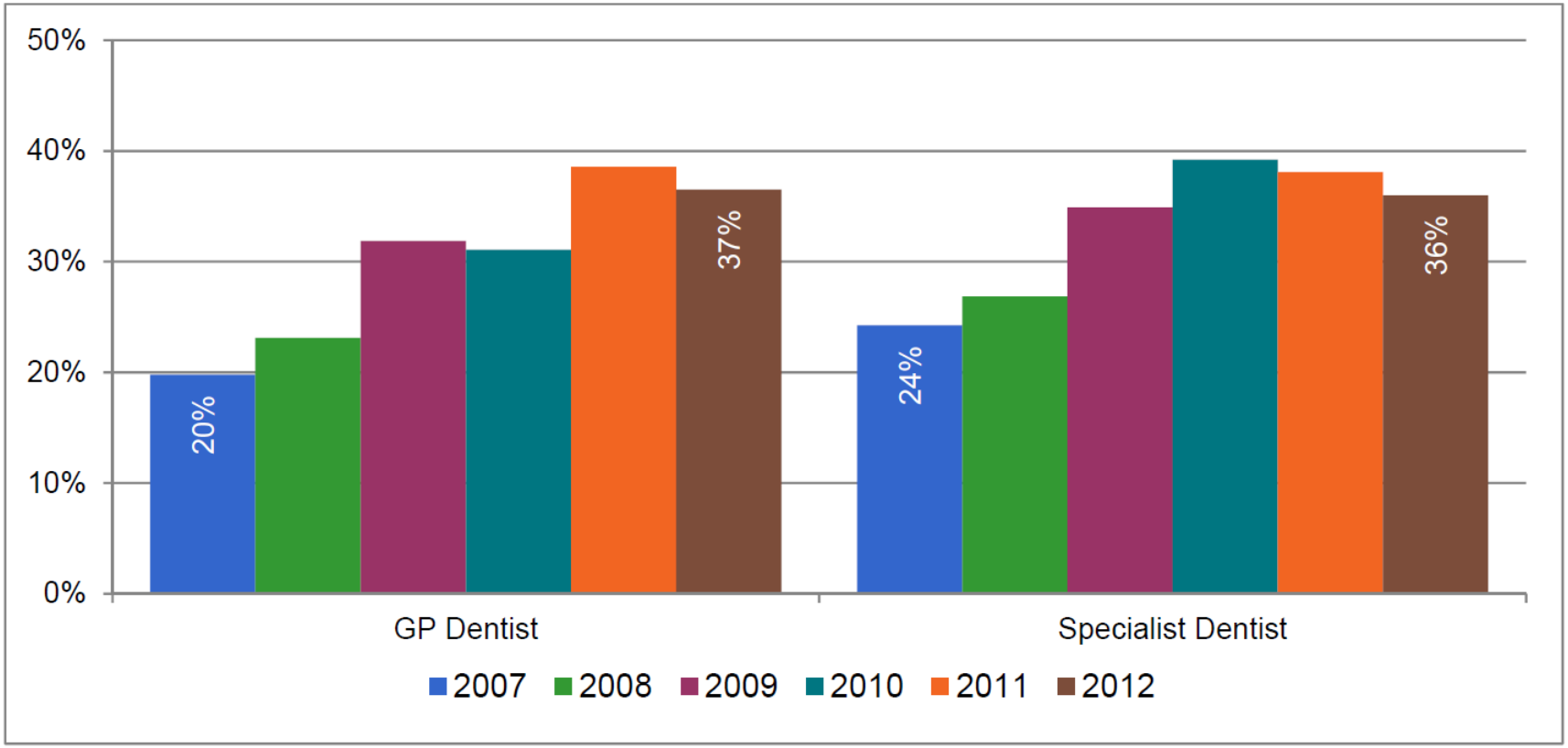
Dentist Earnings



Source: ADA Health Policy Resources Center; Bureau of Economic Analysis; Bureau of Labor Statistics.
Note: Net income data are based on the ADA Health Policy Resources Center annual *Survey of Dental Practice* and are weighted to adjust for representativeness. Shaded areas denote recession years according to NBER. GDP is deflated using the GDP deflator. Net income is deflated using the all-item CPI. All values are in constant 2012 dollars.

Dentist Busyness

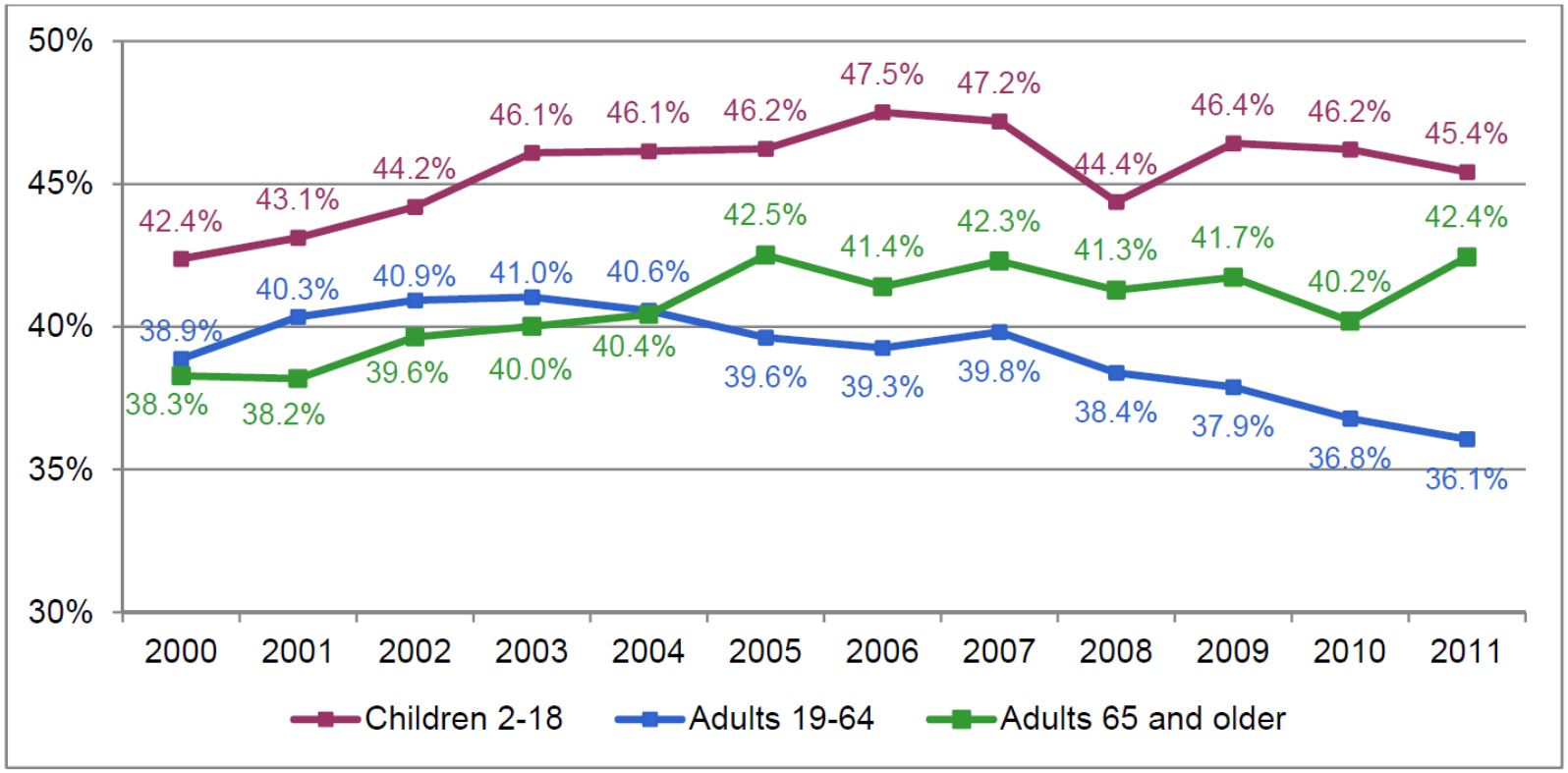
Figure 2: Percentage of Dentists "Not Busy Enough"



Source: ADA Health Policy Institute annual *Survey of Dental Practice*. **Note:** Indicates the percent of dentists reporting they are 'not busy enough and can see more patients.'

Dental Care Use

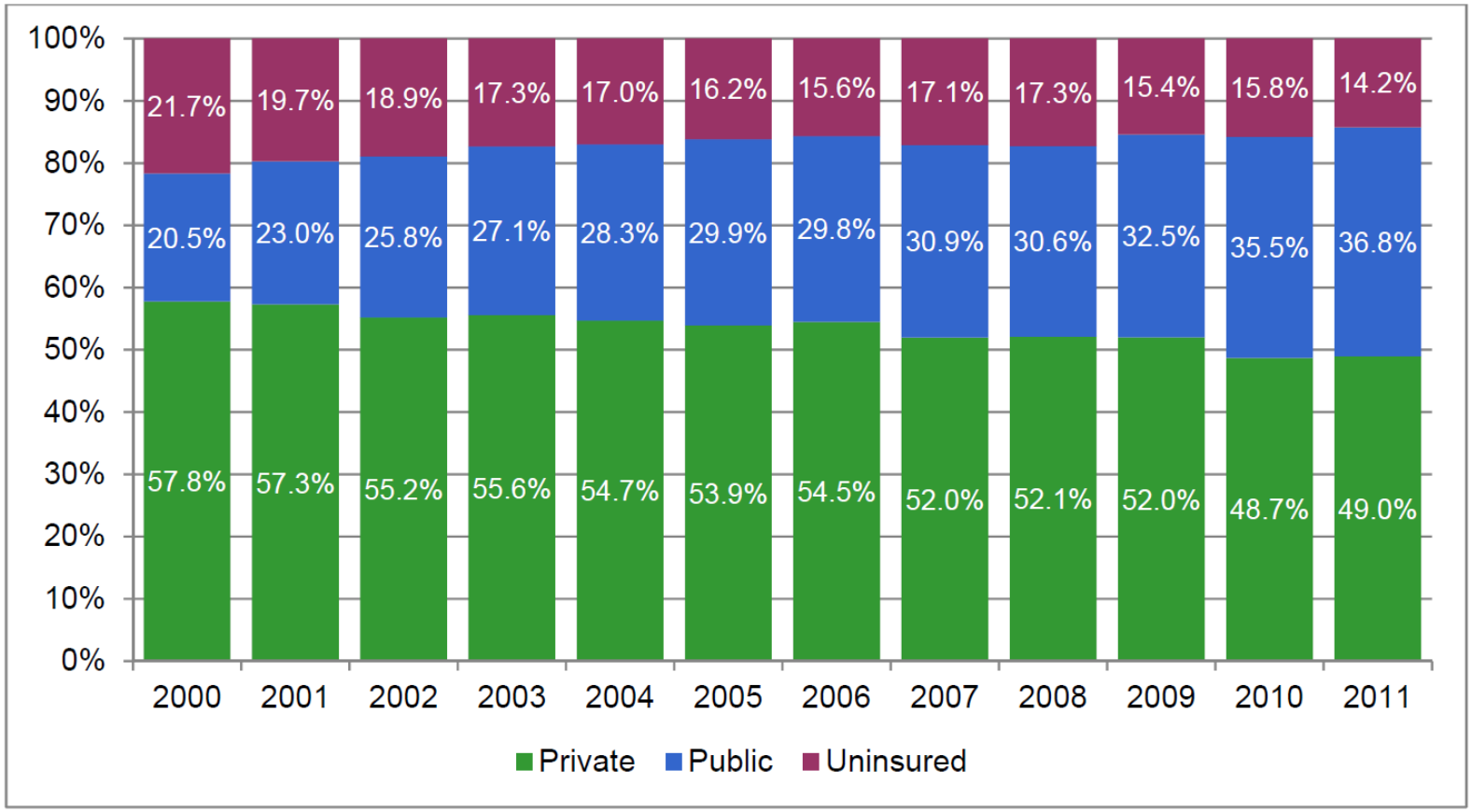
Figure 1: Percentage of the Population with a Dental Visit in the Year, 2000-2011



Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes are statistically significant at the 5% level for children ages 2-18 (2000-2011), at the 1% level for adults ages 19-64 (2003-2011), and at the 1% level for adults ages 65 and over (2000-2011).

Dental Benefits

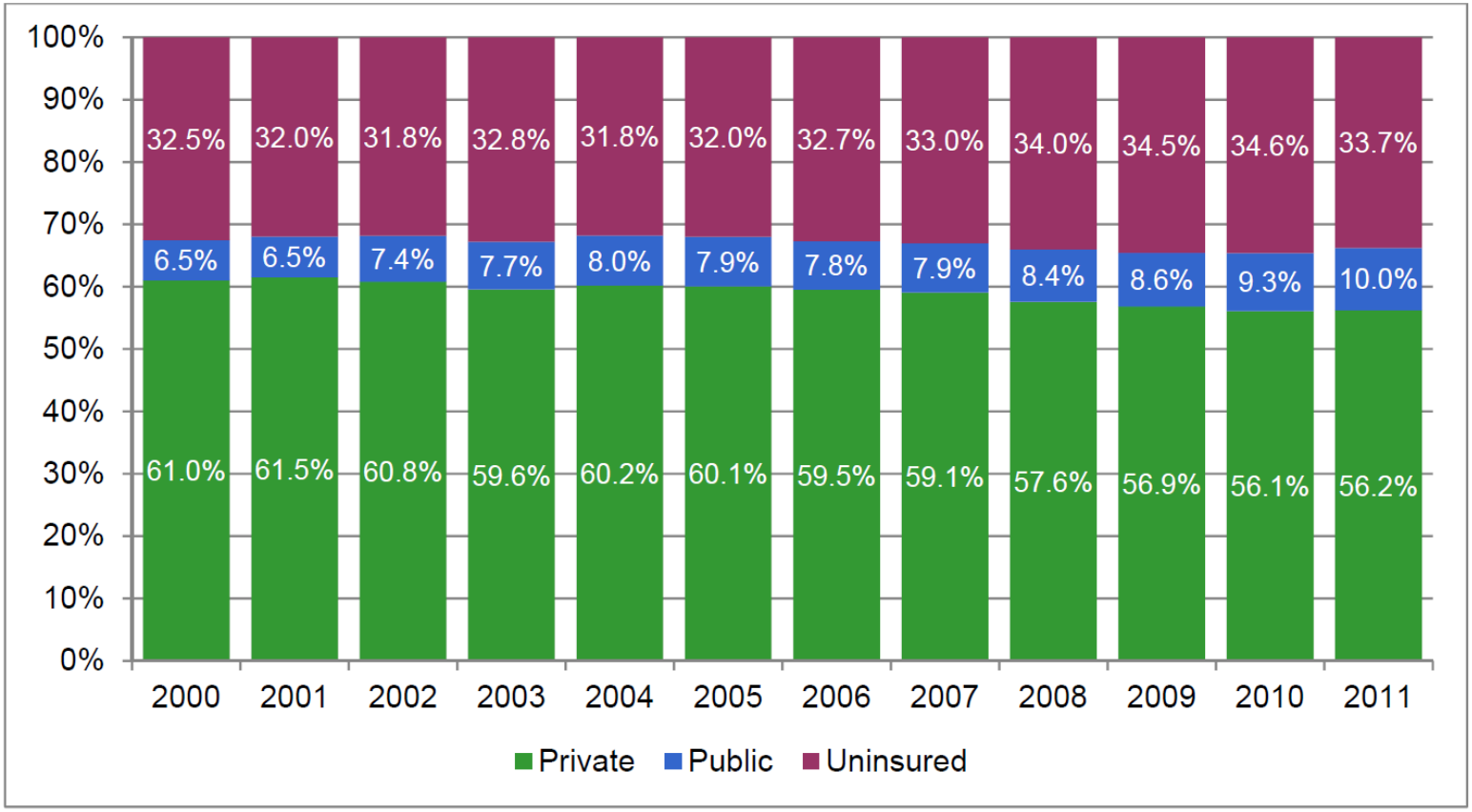
Figure 1: Source of Dental Benefits, Children Ages 2 to 18



Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** All changes are significant at the 1% level (2000-2011).

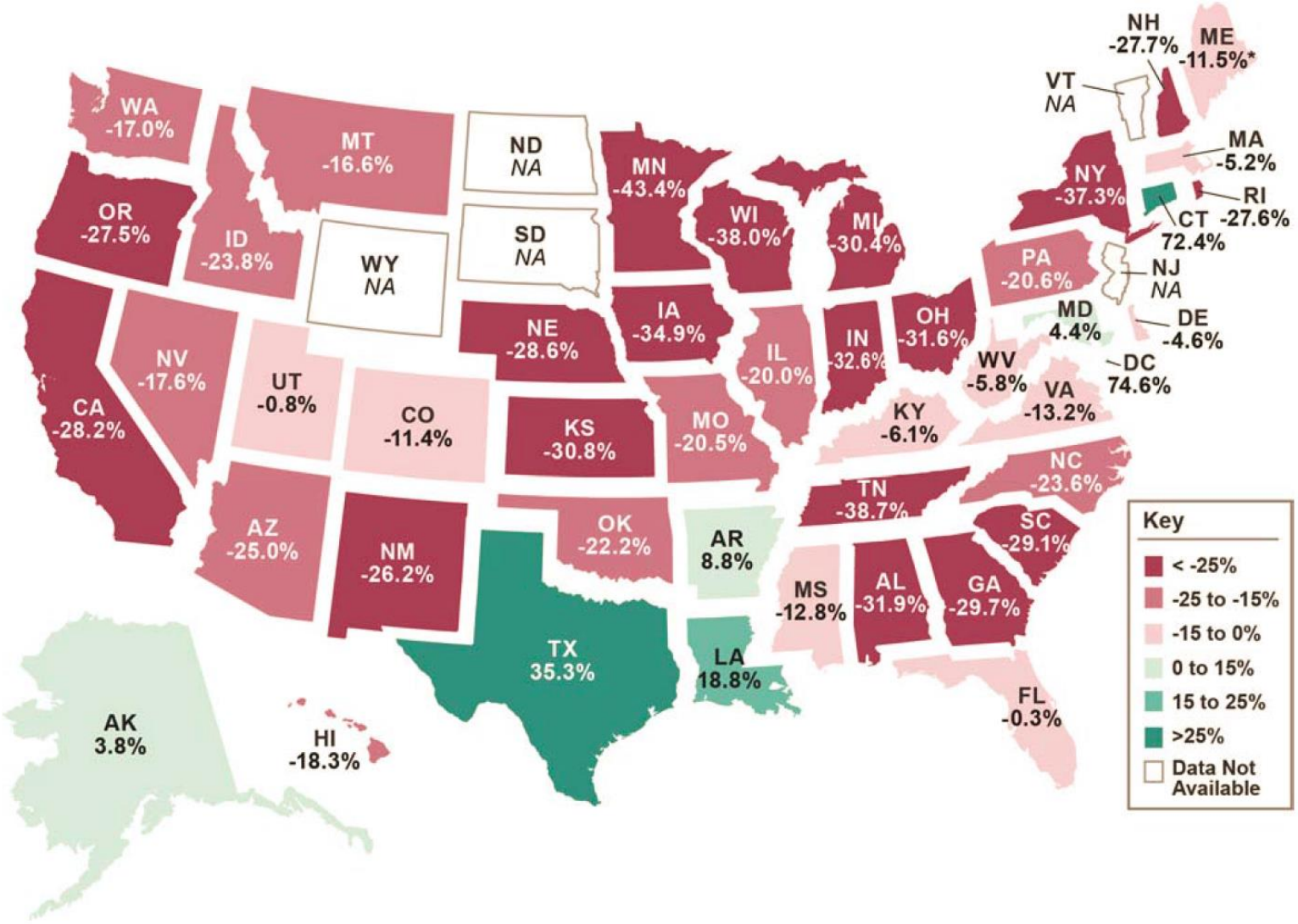
Dental Benefits

Figure 2: Source of Dental Benefits, Adults Ages 19 to 64

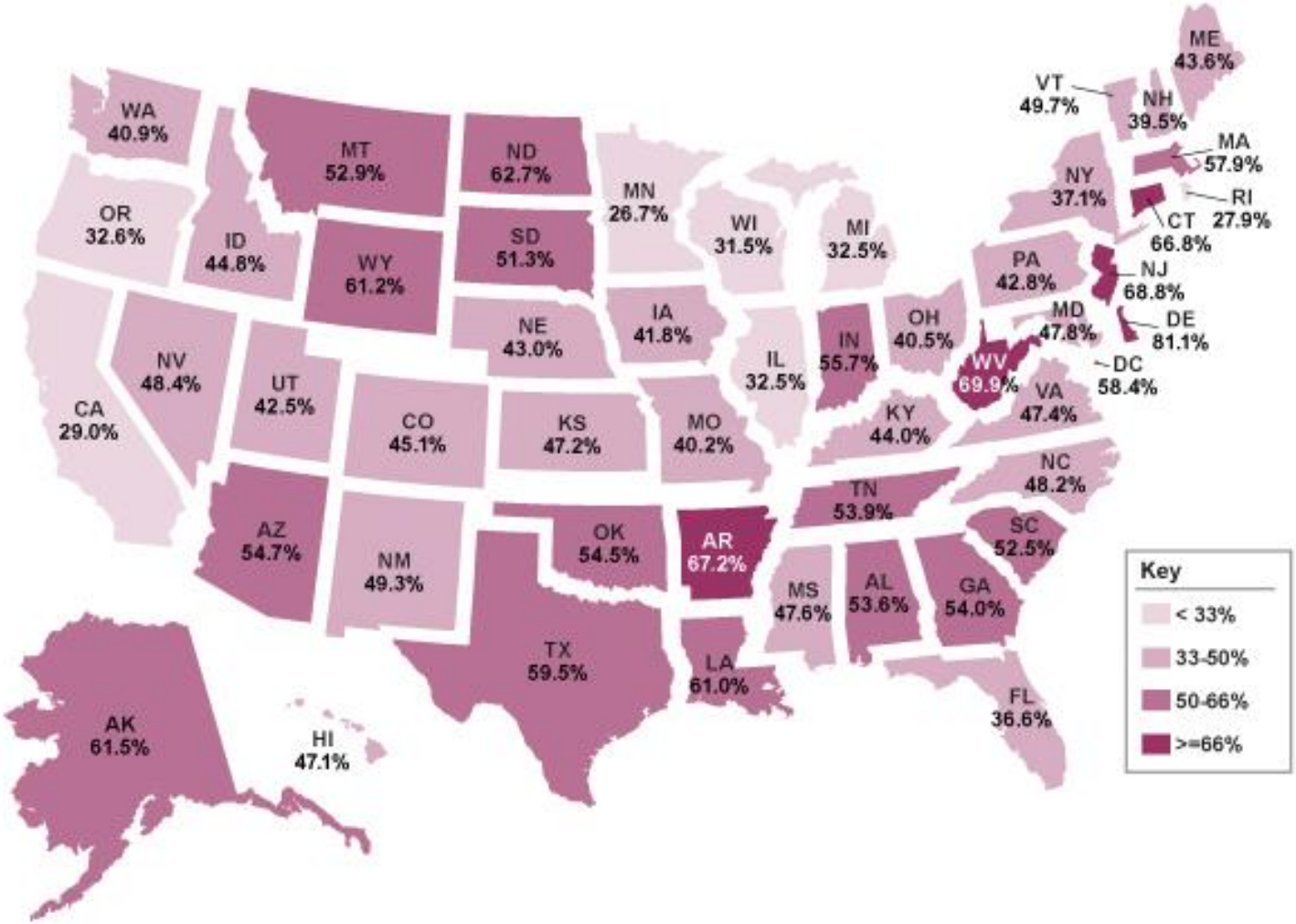


Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes for private and public benefits are significant at the 1% level (2001-2011). Changes for the uninsured are significant at the 5% level (2001-2011).

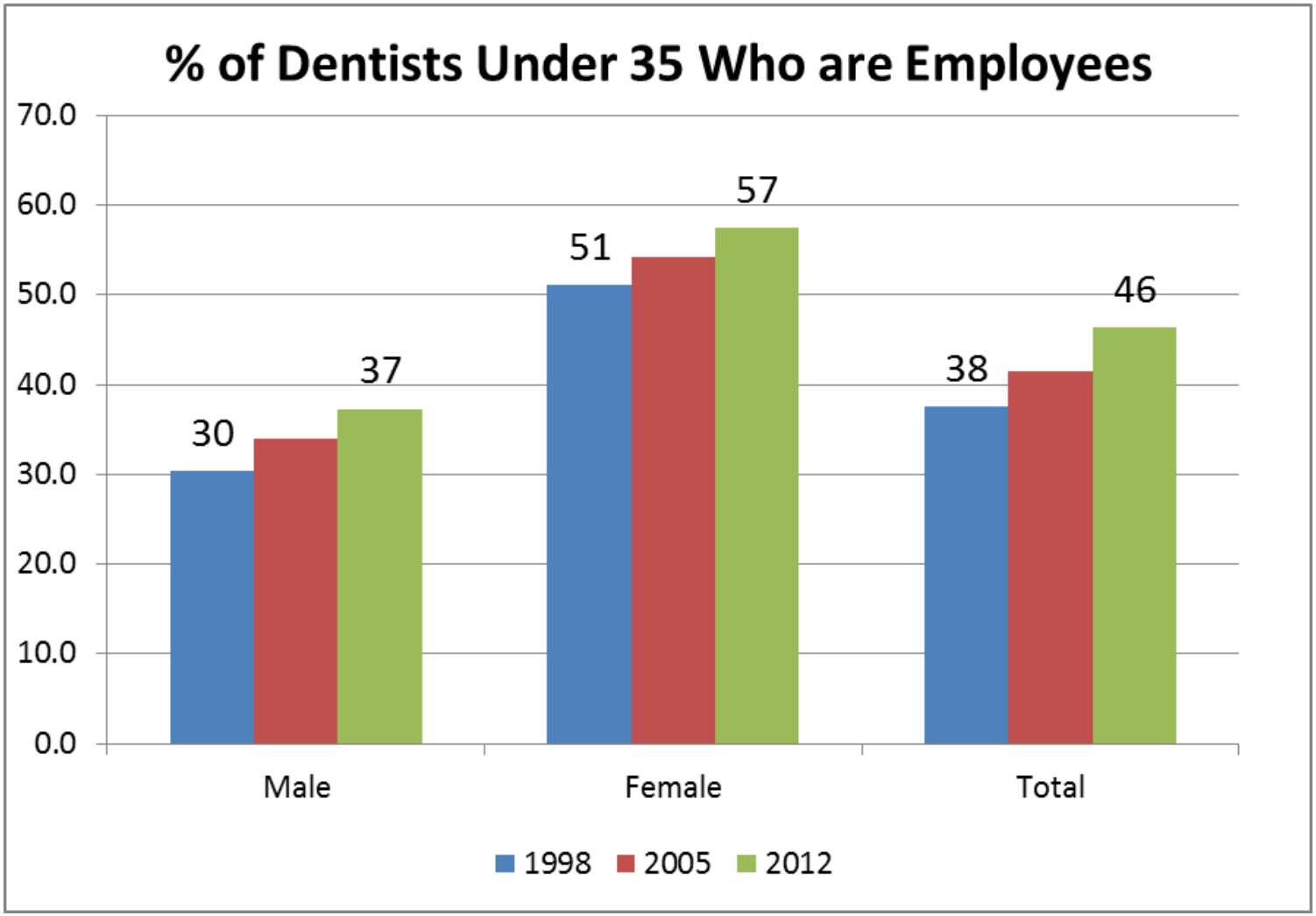
Medicaid Reimbursement



Medicaid Reimbursement



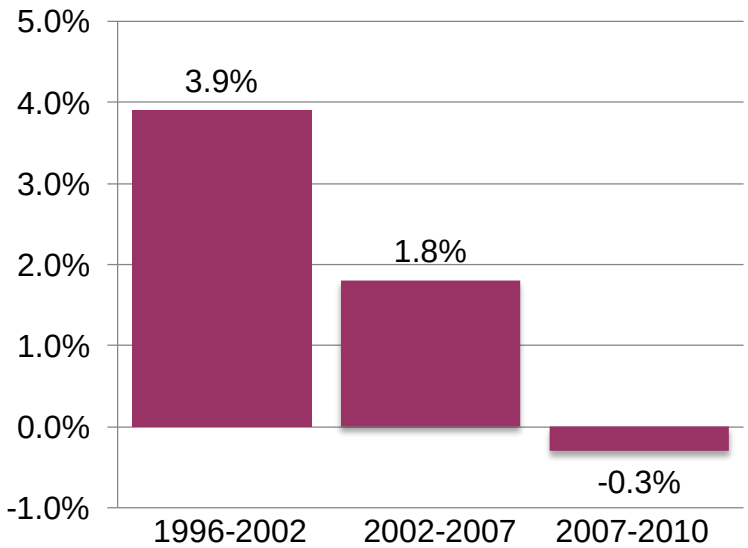
Practice Patterns



Part 2 – A Look Forward…

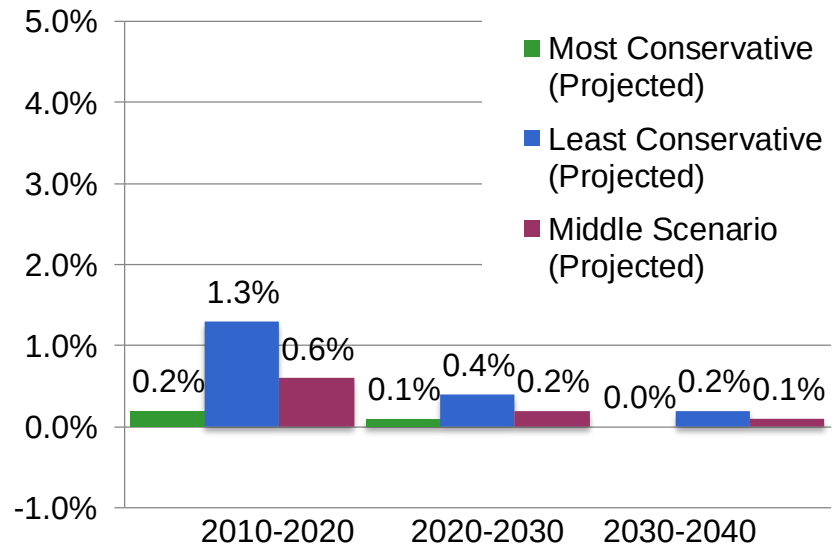
A ‘New Normal’ in Dental Spending

Historical Annual Per Capita Dental Spending Growth Rates



Source: Centers for Medicare and Medicaid Services; U.S. Bureau of Economic Analysis; U.S. Census Bureau.

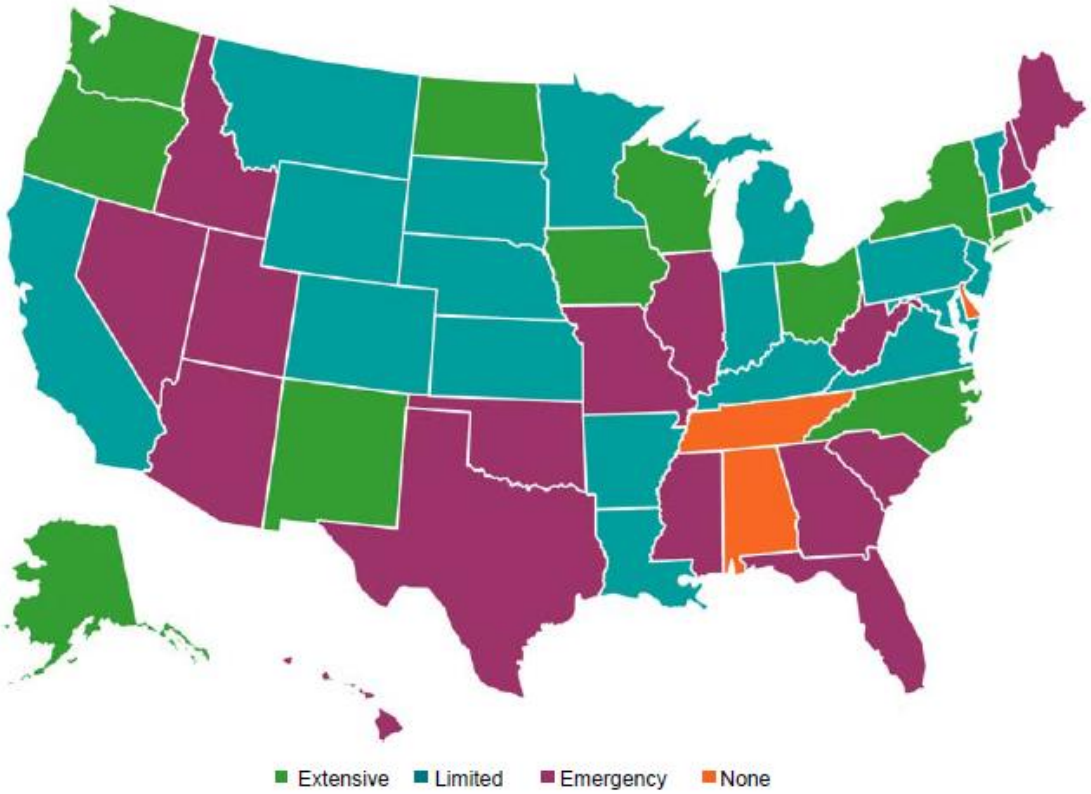
Projected Future Annual Per Capita Dental Spending Growth Rates



Source: 1996-2010 Medicaid Expenditure Panel Survey (MEPS), AHRQ. 2012 U.S. Census National Population Projections.

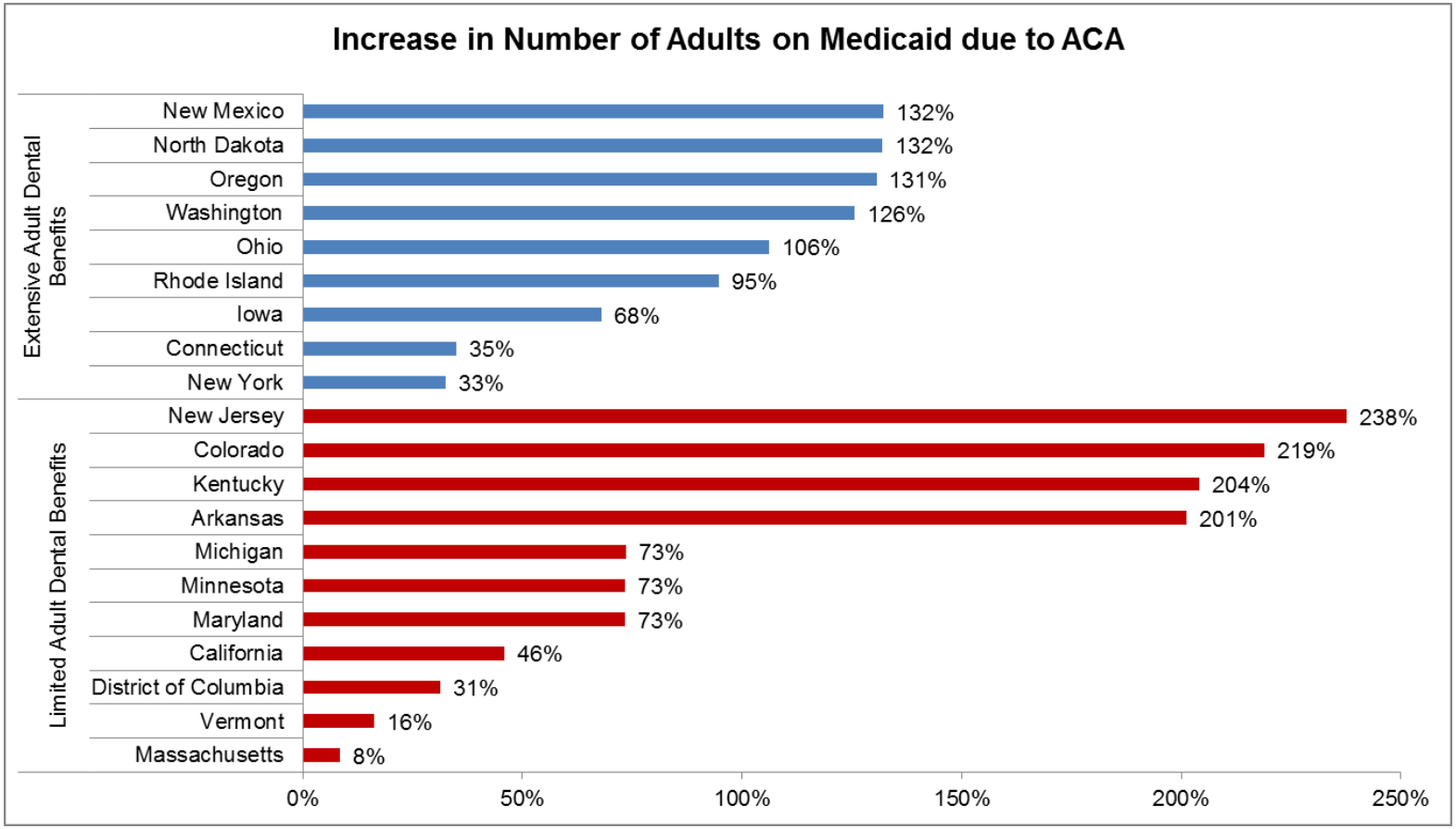
Medicaid Expansion

Figure 2: Adult Dental Benefit Provided in State Medicaid Programs



Source: ADA Health Policy Resources Center analysis of state Medicaid policies as of December 6, 2013. **Notes:** Kansas' Medicaid program officially covers emergency dental services, but all of the plans contracted with Kansas' Medicaid program offer two routine dental check-ups (exams and cleanings) per year for adults over 21. Maryland's Medicaid program officially covers emergency dental services, but the majority of Medicaid beneficiaries are enrolled in the Medicaid managed care program which provides limited adult dental benefits.

Medicaid Expansion



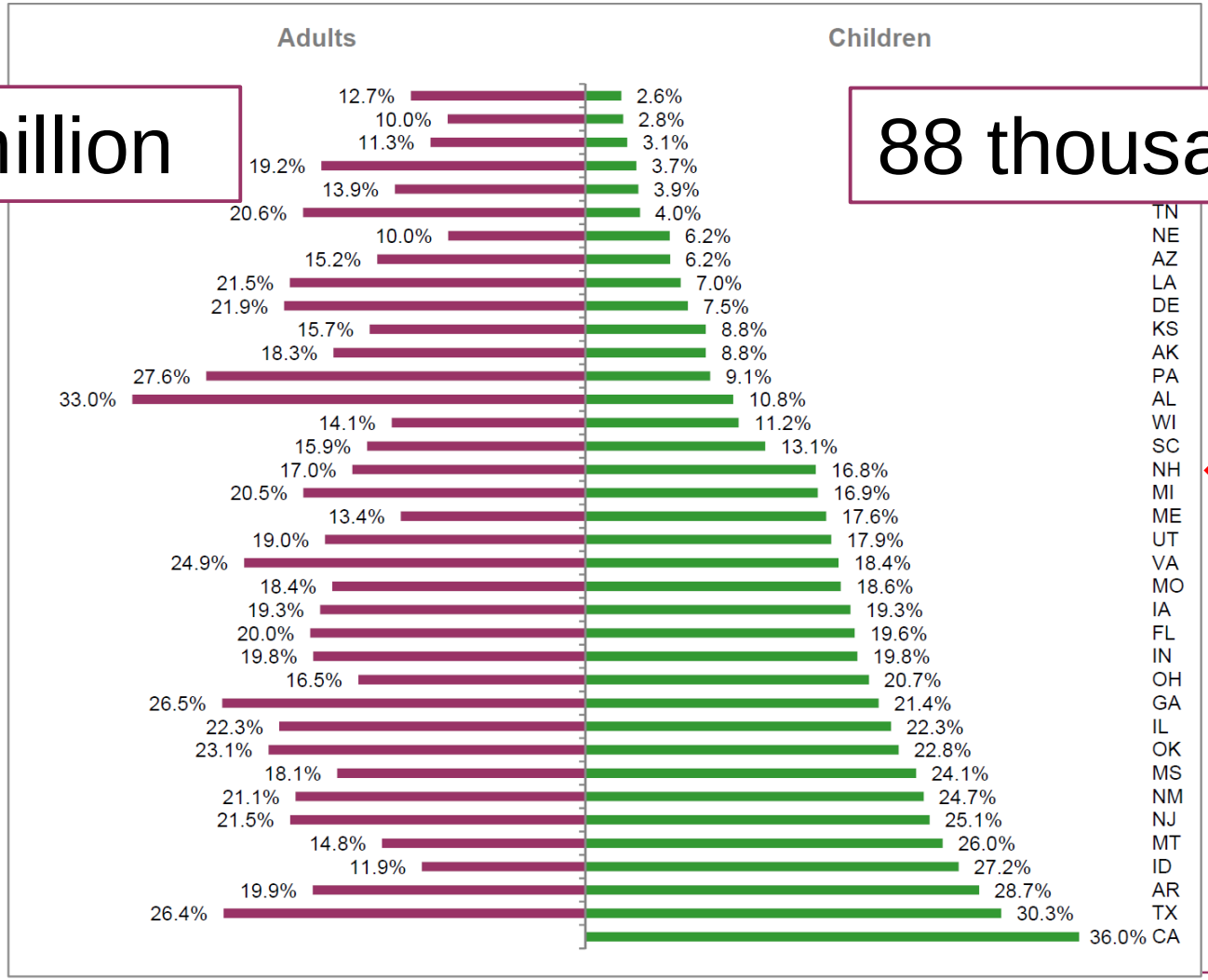
Source: ADA Health Policy Resources Center analysis of State Medicaid Policies, Kaiser Family Foundation. **Notes**: We examined the Medicaid benefits offered by each state to determine the type of dental benefits provided to enrolled adults. States typically post benefits information on their state Medicaid website, or in a statement of benefits. We classified each state's adult Medicaid dental benefits into one of four categories: extensive dental benefits, limited dental benefits, emergency dental benefits, and no dental benefits. While there is no clearly defined, well-established method for classifying adult Medicaid dental benefits, these categories are consistent with previous methodology developed by the ADA. We calculated the potential percentage change in adults eligible for Medicaid by dividing the number of adults potentially eligible for Medicaid in 2014 as determined by the Kaiser Family Foundation by the number of adults enrolled in Medicaid in 2010, by state.

Health Insurance Marketplaces

Figure 1: 2014 Take-up Rate of Stand-Alone Dental Plans in Health Insurance Marketplaces

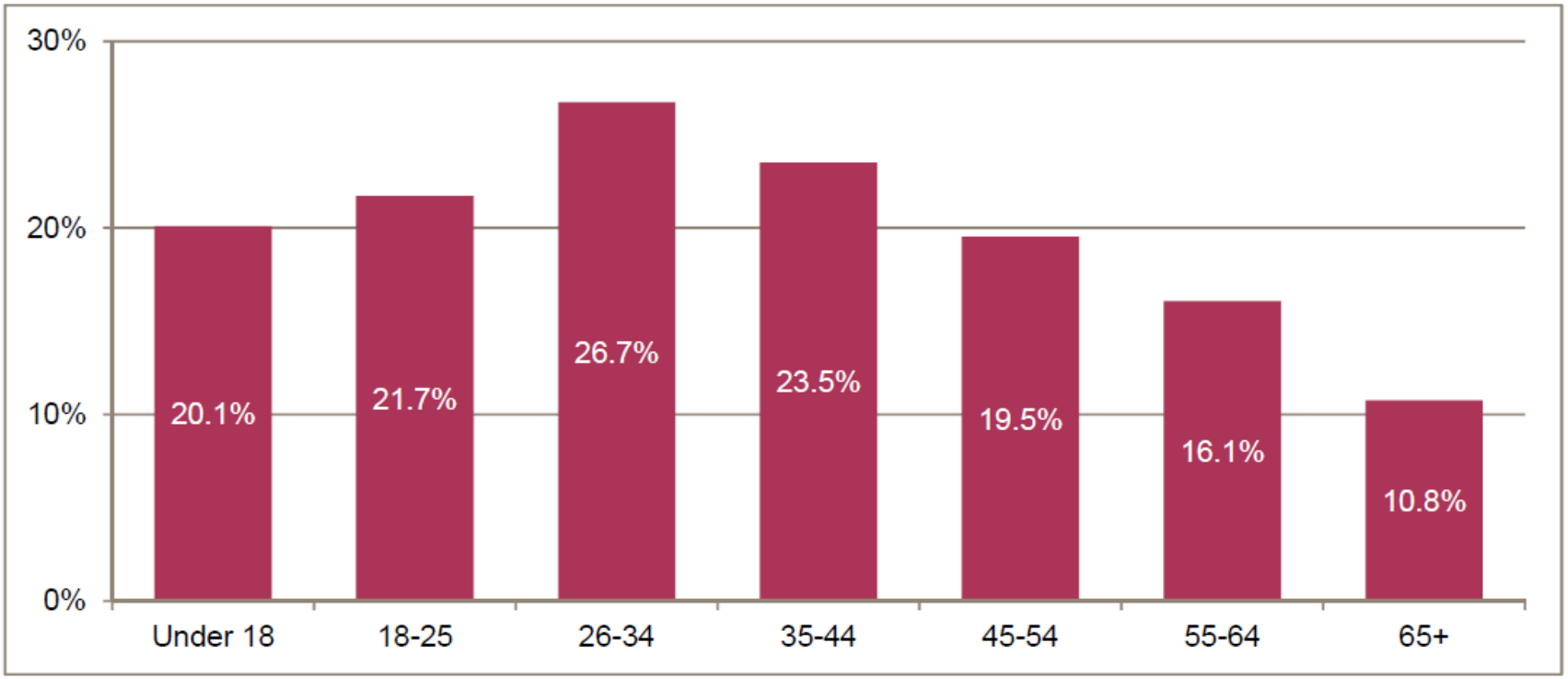
1.1 million

88 thousand



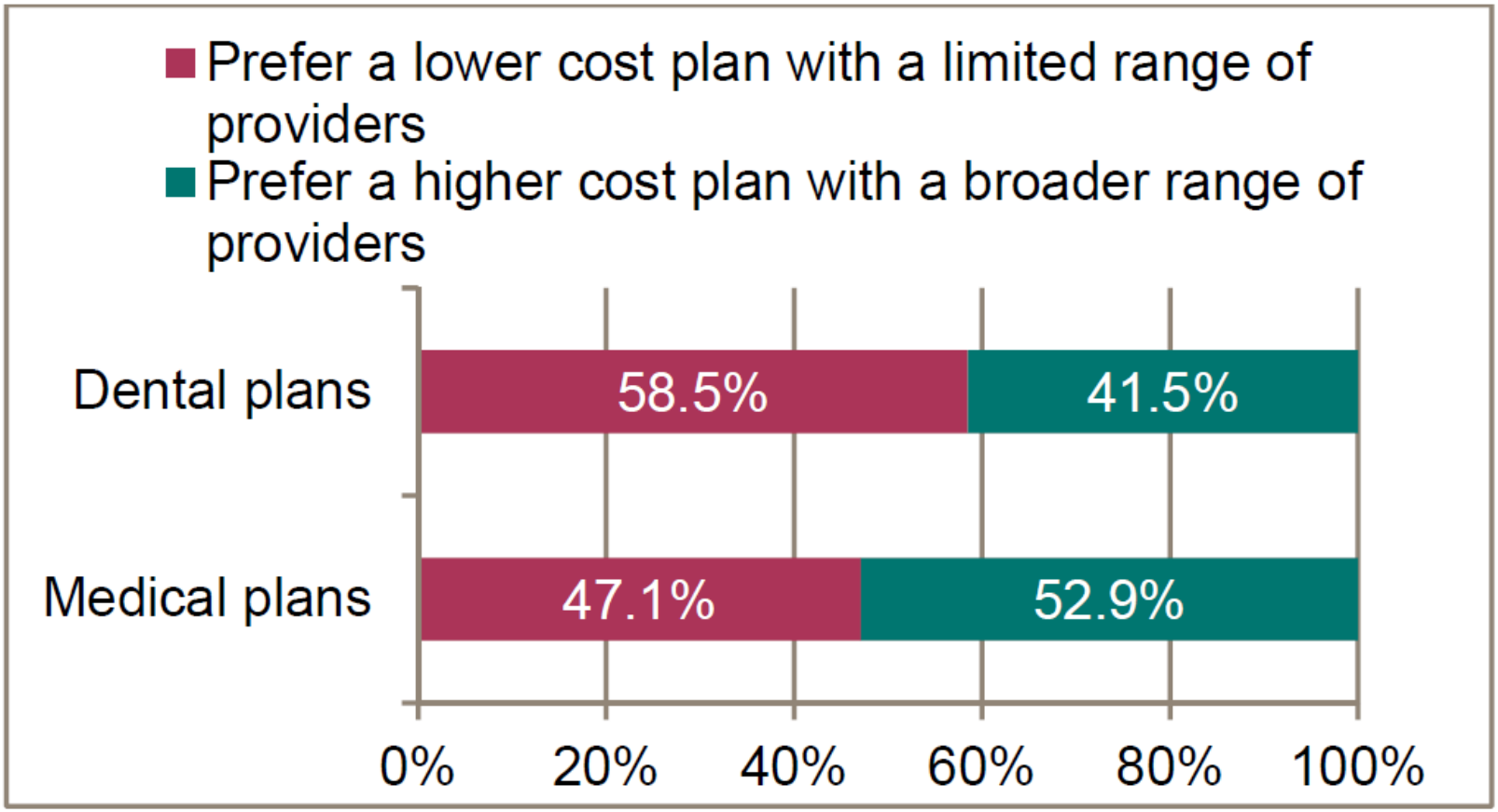
Health Insurance Marketplaces

Figure 1: Take-Up Rate of Stand-Alone Dental Plans in Health Insurance Marketplaces by Age Group



Source: ADA Health Policy Institute analysis of HHS's marketplace enrollment data through April 19, 2014. **Notes:** We calculate the number of individuals in each age group that selected a medical plan and an SADP in the 36 states currently operating through the FFM. We assume that all individuals that selected an SADP also selected a medical plan. We calculate the take-up rate for SADPs by dividing the number of individuals that selected an SADP by the number of individuals that selected a medical plan. We also include individuals aged under 18 in California that selected an SADP through February 28, 2014. In California, no adult-only or family SADPs are offered.

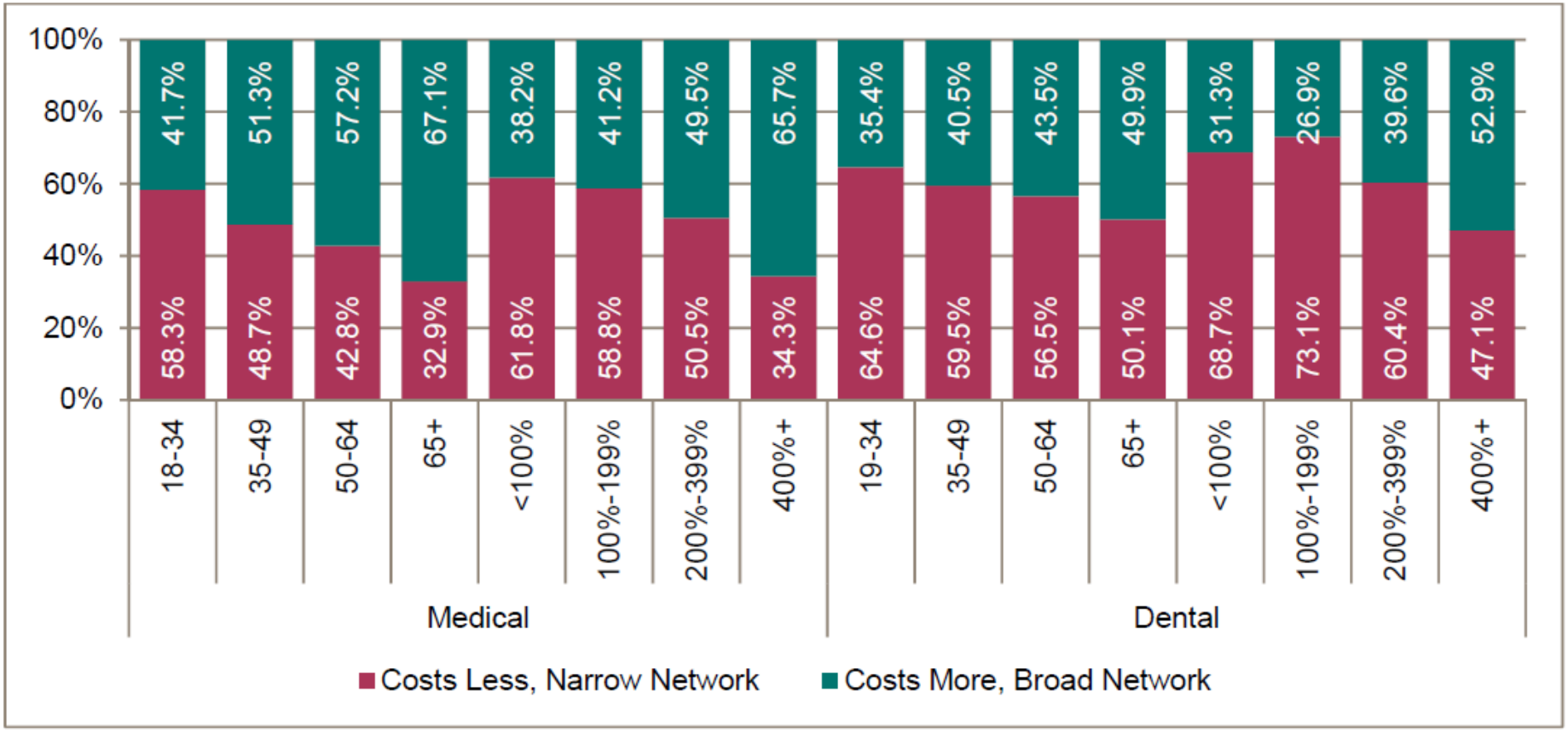
Preferences for Dental Plans



Source: ADA Health Policy Institute analysis of Harris Poll survey data collected April 2014. **Notes:** Results based on 3,007 observations. HPI combined responses from the three survey questions to understand adults' final plan preferences. Combining response calculations are based on final preferences after adults were provided the choice to switch their initial plan preferences upon being informed of potential cost and provider choice implications. All adults were questioned about medical and dental plan preferences separately. All survey responses are weighted by general population weights provided by Harris Poll.

Preferences for Dental Plans

Figure 5: Adult Medical and Dental Plan Preferences by Age and Income



Dependent Coverage Policy

BRIEF REPORT

The Effect of the Affordable Care Act's Expanded Coverage Policy on Access to Dental Care

Marko Vujicic, PhD, Cassandra Yarbrough, MPP, and Kamyar Nasseh, PhD

Conclusions: The dependent coverage policy was associated with an increase in private dental benefits coverage and dental care utilization, and a decrease in financial barriers to dental care among young adults aged 19–25.

Emphasis on Value

A View of the Changing Landscape

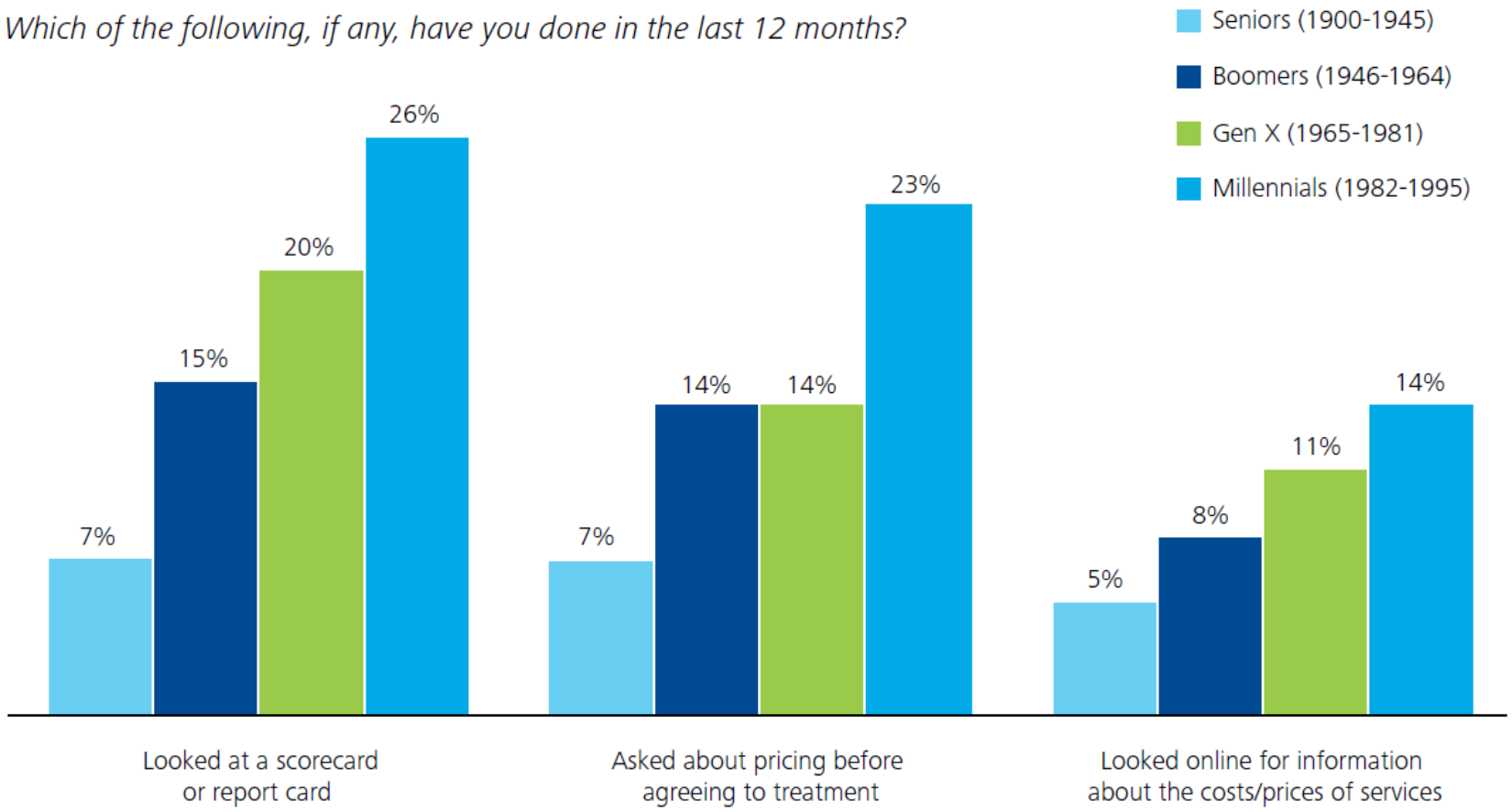
From...	→	To...
Provider Centric	FOCUS	Patient Centric/Consumer
Value Blind Reimbursement	VALUE	Value-based Reimbursement & Accountability
Episodic Fragmented Care	PATIENT FLOW	Continuous & Coordinated
Inpatient-Focused	DELIVERY SETTING	Ambulatory/Office/Home Focused
Individuals	APPROACH	Population Based
Disease and Treatment	OBJECTIVE	Health/Wellness Prevention

Source: Dowling M. The Journey to Excellence. AHRQ Webinar. July 16, 2010 qtd. In Glassman P. Oral Health Quality Improvement in the Era of Accountability. Pacific Center for Special Care. 2011.

Consumerism

Looking for value: asking about pricing, searching for quality

Which of the following, if any, have you done in the last 12 months?



Source: Deloitte Center for Health Solutions: 2013 Survey of U.S. Health Care Consumers

Consumerism

Dentists in **Los Angeles, CA 90024**

Location: 90024

Procedure: Check-up & Cleaning

Speciality: All

Insurance: I do not have insurance

Sort by: Rating

45 Dentists near Los Angeles, CA

VIEW PROFILE | SCHEDULE

Dr. Ebi Nikjoo — 33 Recommendations

10921 WILSHIRE BLVD, LOS ANGELES, CA 90024 | 310-683-0123

OVERALL QUALITY (46 reviews) — OVERALL PRICES: EXPENSIVE – GREAT

Check-up & Cleaning: $35 ~~$505~~

- General Dentist
- 6 yrs in practice

VIEW PROFILE | SCHEDULE

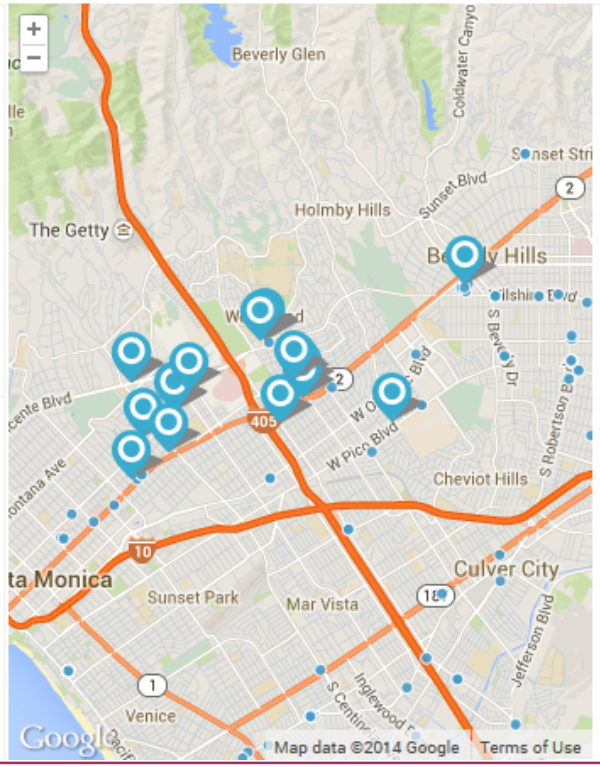
Dr. Ronelle Claypool — 2 Recommendations

10921 WILSHIRE BLVD, LOS ANGELES, CA 90024 | 310-596-1370

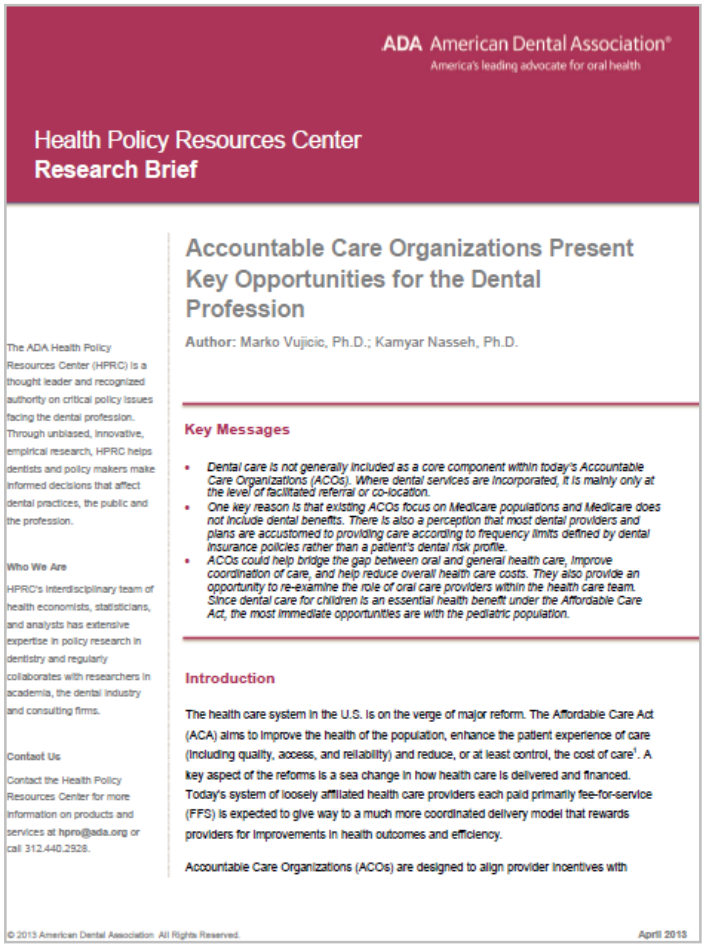
OVERALL QUALITY (31 reviews) — OVERALL PRICES: EXPENSIVE – GREAT

Check-up & Cleaning: $39 ~~$307~~

- General Dentist
- 16 yrs in practice



Increased Care Coordination



ADA American Dental Association®
America's leading advocate for oral health

Health Policy Resources Center
Research Brief

Accountable Care Organizations Present Key Opportunities for the Dental Profession

Author: Marko Vujicic, Ph.D.; Kamyar Nasseh, Ph.D.

The ADA Health Policy Resources Center (HPRC) is a thought leader and recognized authority on critical policy issues facing the dental profession. Through unbiased, innovative, empirical research, HPRC helps dentists and policy makers make informed decisions that affect dental practices, the public and the profession.

Who We Are

HPRC's interdisciplinary team of health economists, statisticians, and analysts has extensive expertise in policy research in dentistry and regularly collaborates with researchers in academia, the dental industry and consulting firms.

Contact Us

Contact the Health Policy Resources Center for more information on products and services at hpro@ada.org or call 312.440.2928.

Key Messages

- *Dental care is not generally included as a core component within today's Accountable Care Organizations (ACOs). Where dental services are incorporated, it is mainly only at the level of facilitated referral or co-location.*
- *One key reason is that existing ACOs focus on Medicare populations and Medicare does not include dental benefits. There is also a perception that most dental providers and plans are accustomed to providing care according to frequency limits defined by dental insurance policies rather than a patient's dental risk profile.*
- *ACOs could help bridge the gap between oral and general health care, improve coordination of care, and help reduce overall health care costs. They also provide an opportunity to re-examine the role of oral care providers within the health care team. Since dental care for children is an essential health benefit under the Affordable Care Act, the most immediate opportunities are with the pediatric population.*

Introduction

The health care system in the U.S. is on the verge of major reform. The Affordable Care Act (ACA) aims to improve the health of the population, enhance the patient experience of care (including quality, access, and reliability) and reduce, or at least control, the cost of care[1]. A key aspect of the reforms is a sea change in how health care is delivered and financed. Today's system of loosely affiliated health care providers each paid primarily fee-for-service (FFS) is expected to give way to a much more coordinated delivery model that rewards providers for improvements in health outcomes and efficiency.

Accountable Care Organizations (ACOs) are designed to align provider incentives with

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Practice Consolidation

The trend toward larger, consolidated multi-site practices is expected to continue, driven by changes in practice patterns of new dentists, a drive for efficiency, and increased competition for patients.

GUEST EDITORIAL

A profession in transition

Marko Vujicic, PhD; Hilton Israelson, DDS; James Antoon, DMD; Roger Kiesling, DDS; Thomas Paumier, DDS; Mark Zust, DDS

Dentistry is a profession in transition. Important economic, demographic and political forces are colliding to reshape the practice environment for America's dentists. To better understand the potential changes on the horizon, the American Dental Association (ADA) recently carried out a comprehensive, future-oriented analysis of the dental care sector as part of the 2015-2020 strategic plan development process.[1] This first-of-its-kind analysis drew on research carried out by health care consulting firm Diringer and Associates, various external consultants and the ADA's Health Policy Resources Center. Researchers investigated a wide variety of topics over a period of several months. To help identify the most pressing environmental factors that need to guide the ADA's strategic plan and to assist in a "what does it all mean for dentistry" discussion, a group of external thought leaders with diverse backgrounds and perspectives were asked to share their insights at a two-day conference. The full report, A Profession in Transition,[1] was released in August 2013. This is an executive summary of the key findings.

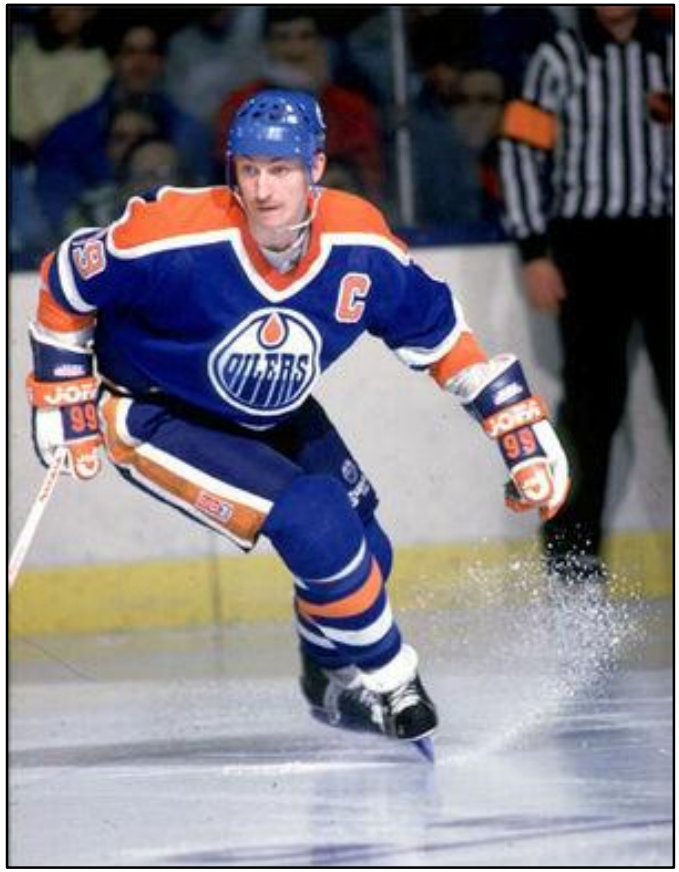
> One of the most important findings is that utilization of dental care is declining among working-age adults, particularly the young and the poor, and that this trend is unrelated to the recent economic downturn.

LOOKING BACK

Several important structural changes have occurred in the dental care sector in recent years. Structural changes are those that are driven by changes in the underlying behaviors of various groups—including patients, dentists and payers—and are distinct from cyclical changes that are driven simply by economic cycles.

One of the most important findings is that utilization of dental care is

Part 3 – Some Opportunities…



#1 - Support Dentists in New Ways

Help Dentists Improve Efficiency

- Identify, understand, and educate dentists about the various practice models that are emerging
- Practice management support
- Help dentists treat the growing sectors: young, old, and Medicaid

ADA Center for Professional Success™

#2 - Leverage the Value Agenda

THE BIG IDEA

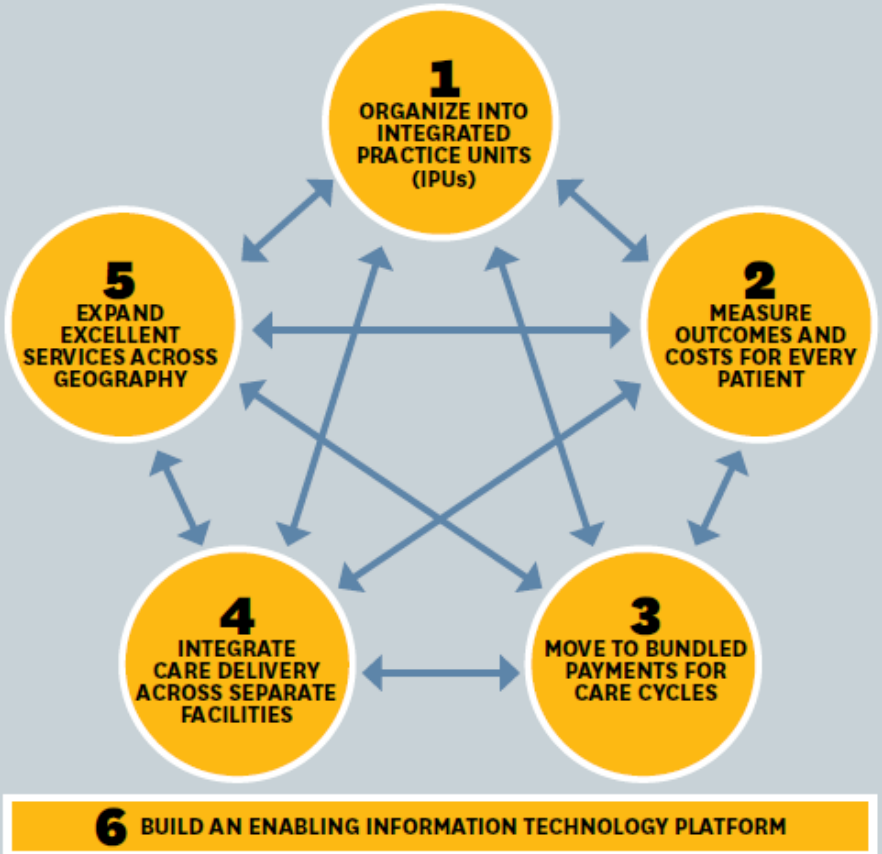
The Strategy That Will Fix Health Care

Providers must lead the way in making value the overarching goal *by Michael E. Porter and Thomas H. Lee*

Organizations that progress rapidly in adopting the value agenda will reap huge benefits, even if regulatory change is slow.

The Value Agenda

The strategic agenda for moving to a high-value health care delivery system has six components. They are interdependent and mutually reinforcing. Progress will be greatest if multiple components are advanced together.



#2 - Leverage the Value Agenda

COMMENTARY

Defining oral health

A prerequisite for any health policy

Michael Glick, DMD,
Daniel M. Meyer, DDS

Oral health as a critical component of overall health was brought to the forefront by the first-ever surgeon general's report on oral health in 2000.[1] This was an important step for dentistry, but unfortunately it never achieved enough traction to be incorporated into most health policies. In 2005, The 8th World Congress on Preventive Dentistry was organized jointly by the World Health Organization, the International Association for Dental Research, the European Association of Dental Public Health and the British Association for the Study of Community Dentistry. Participants from 43 countries emphasized that oral health is an integral part of general health and well-being. More significantly, they affirmed that oral health is a basic human right.[2] The congress commited to support the work carried out by national and international health authorities, research institutions, nongovernmental organizations and civil society for the promotion of health and prevention of oral diseases. Six years later, the United Nations[3] recognized oral disease as an integral part of other noncommunicable diseases (NCDs)—principally, diabetes, cardiovascular diseases,

> No matter how oral health is defined, the message remains: Oral health is essential to an individual's general health and quality of life. To that end, it should be a key element in beneficial health policies.

stroke, chronic respiratory diseases and cancers—and stimulated a renewed interest toward achieving international recognition of the burden of oral diseases.

The alignment of oral diseases with NCDs was based on common social determinants, including income and educational status, and risk factors such as unhealthy diet, tobacco use and excessive alcohol use, and not on the basis of transmission. Another step toward recognition of the importance of oral health was the FDI World Dental Federation's call for oral health to be included within all health policies.[4] Unless oral health is recognized as an integral part of overall health and well-being by all stakeholders—health professionals, third-party payers and policymakers—the profession as we know it will change dramatically in the emergent health care landscape. To provide a uniform message, an agreed-upon definition of oral health is needed.

Currently, a number of professional organizations have multiple variations of definitions and descriptions of oral health. As our knowledge about health

DQA
DENTAL QUALITY ALLIANCE®

Improving Oral Health Through Measurement

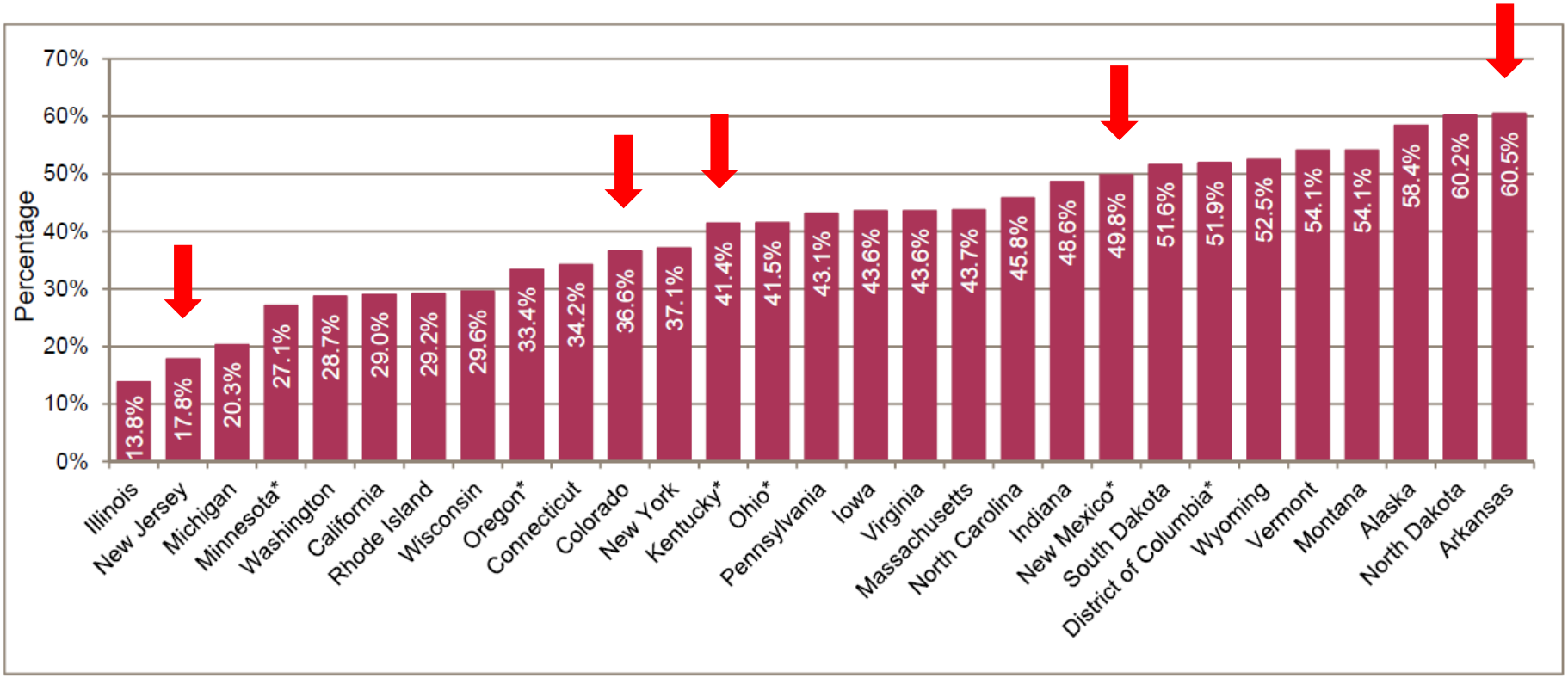
#3 – Develop a Medicaid Strategy

1. Promote Solutions that Create 'Enabling Conditions' in Medicaid Programs
   a) Reduce administrative burdens
   b) Increase patient and provider outreach
   c) Implement appropriate provider incentive structure
   d) Promote fair and reasonable program integrity initiatives

2. Provide Practical Tools to Help Dentists Succeed
   a) Design a suite of CE products for Medicaid-interested providers
   b) Provide support services (e.g. call center, FAQs, mentors)
   c) Synthesize and disseminate 'best practices' for various types of dental practices participating in Medicaid

Medicaid Reimbursement

Figure 3: Adult Dental Medicaid Fee-for-Service Reimbursement as a Percentage of Commercial Dental Insurance Reimbursement, 2014



Source: Medicaid FFS reimbursement data collected from state Medicaid agencies. Commercial dental insurance reimbursement data collected from FAIR Health. Notes: 2013 commercial reimbursement rates inflated to 2014 dollars using the all-items CPI. *The following states enroll the majority of their adult Medicaid beneficiaries in managed care programs for dental services: DC, KY, MN, NM, OH, OR and VT. The relative reimbursement rates shown in this figure may not be representative of typical dentist reimbursement in Medicaid.

#4 - Increase Dental Care Use

Better Understand Behavior

What is the perceived value proposition of dental care for key segments of the population?

- "Whatever my insurance covers"
- "Dental care is part of my wellness routine"
- "I really don't have a lot of dental care needs"
- "Every time I go I get a treatment plan for $'000s"

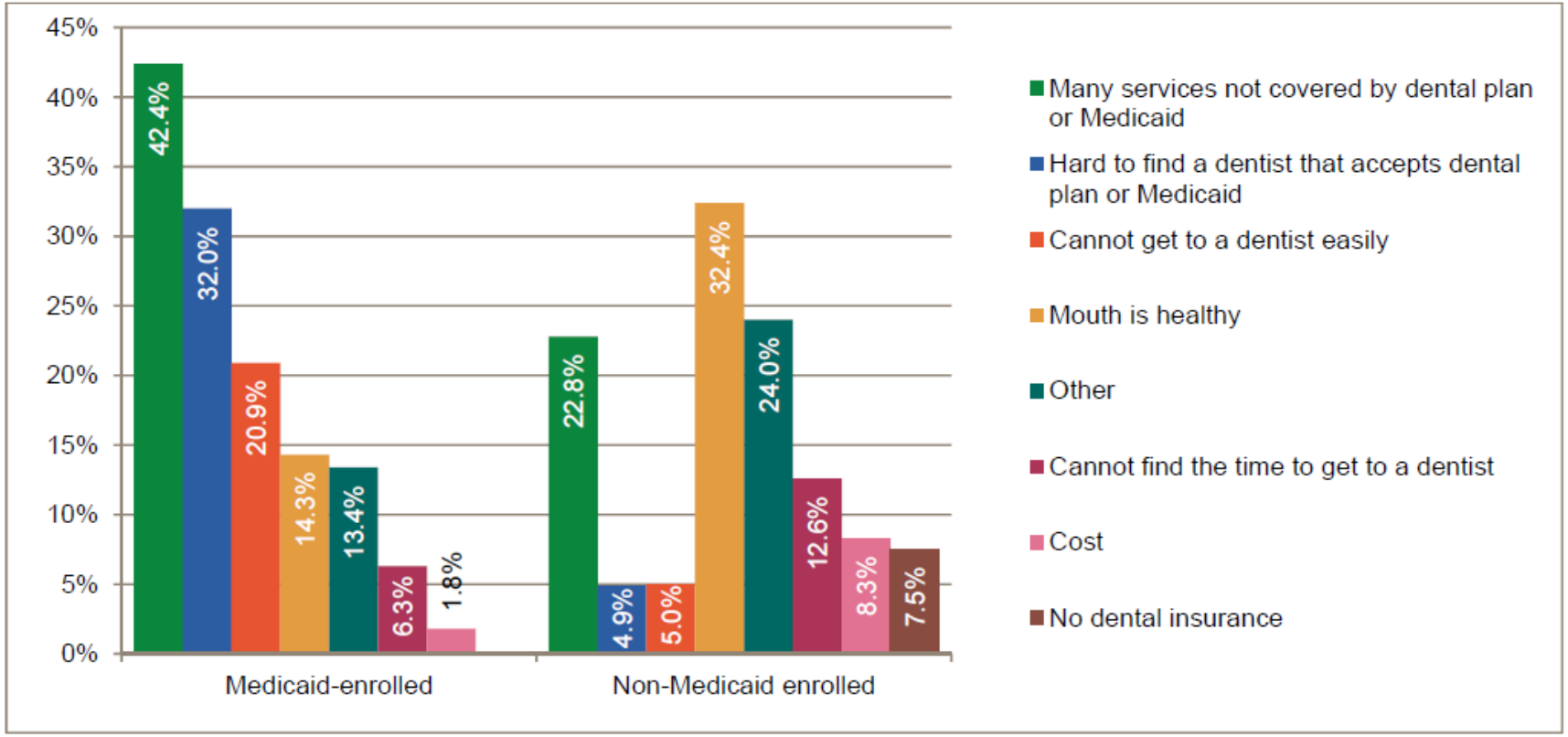
Explore Ways to Influence Behavior

- Oral literacy campaign targeting Millennials
- Promote expanded dental insurance coverage

  OR
- 'Wean' population off of dental insurance

Getting at Perceived Value of Dental Care

Figure 8: Reasons Why Adults Do Not Plan to Visit a Dentist in the next 12 Months



Source: ADA HPI analysis of Harris Poll survey data. Notes: Results for non-Medicaid enrolled adults based on 462 observations. Results for Medicaid-enrolled adults based on 73 observations. Respondents were asked this question if they indicated that they would not visit the dentist in the next 12 months, or if they were unsure whether they would visit the dentist in the next 12 months. All survey results are weighted by general population weights provided by Harris Poll.

#5 - Rethink the Role of the Dental Practice

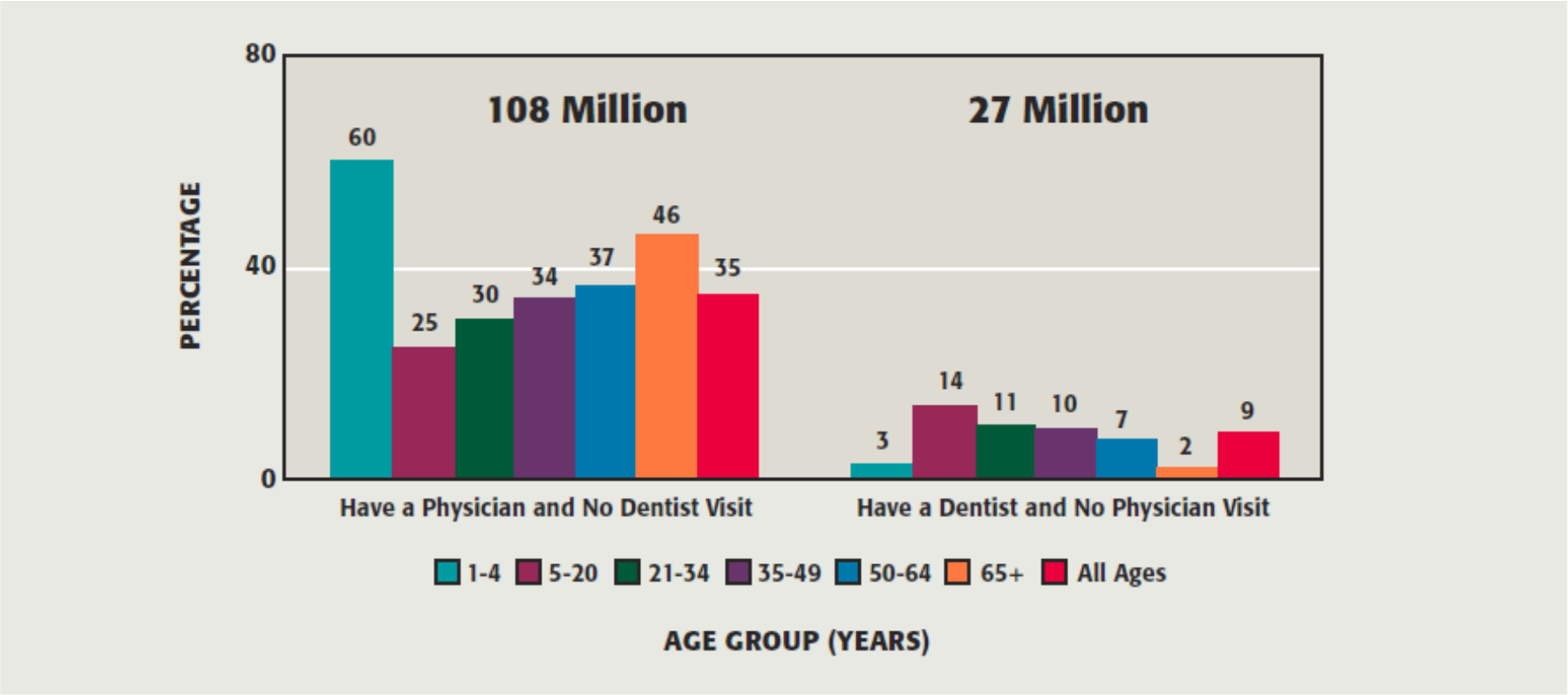


Figure. Visits to dentists and physicians in the course of one year among U.S. patients. Analysis by the American Dental Association Health Policy Resources Center, based on data from 2011 (the most recent year for which data are available) from the Medical Expenditure Panel Survey of the Agency for Healthcare Research and Quality.

Thank You!

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