Time to Think (and Act) Differently:

Why We Need a New Approach to Improve Oral Health in America

Marko Vujicic, PhD
Chief Economist & Vice President
Health Policy Institute
Health Reform In Massachusetts Increased Adult Dental Care Use, Particularly Among The Poor

Health Policy Institute

By Kamary Nasr and Marko Vujcic

Research shows that the Affordable Care Act (ACA) is increasing access to care for some adults, but its impact on dental care is not as clear. This study examines the effects of the ACA on dental care use among adults in Massachusetts.

The results show that the ACA has led to a significant increase in dental care use, particularly among adults with low incomes. The study also found that the ACA has led to a decrease in the number of adults who go without dental care.

This study suggests that the ACA has had a positive impact on dental care use, particularly among low-income adults. Further research is needed to understand the long-term effects of the ACA on dental care use.

© 2017 American Dental Association. All Rights Reserved.
The main reason people avoid the dentist isn’t fear

For women in professions that require advanced degrees, such as dentists and physicians, discrepancies in pay are becoming harder to explain.

Why Some Millennials Aren't Smiling: Bad Teeth Hinder 28% In Job Search

Decaying teeth and gum problems make one in three young adults aged 18 to 34 (33%) reluctant to smile, the ADA found. About one in five have cut back on socializing as a result of dental problems. And 28% say the appearance of their teeth and mouth undermines their ability to interview for a job.
“Skate to where the puck is going to be, not where it is.”
Under our current financing and delivery model, we may be hitting a limit in terms of how much we can improve access to, and utilization of, dental care services and, ultimately, oral health.

What got us here will not get us there.

We need to deliberately, proactively and collectively drive major oral health care system reform. We need to move into ‘Era 3’.
Dental Benefits Coverage

PERCENTAGE WITH DENTAL BENEFITS

- AGE 2-18
- AGE 19-34
- AGE 35-49
- AGE 50-64
- AGE 65+

Source/Notes: Based on ADA Health Policy Institute analysis of Medical Expenditure Panel Survey data. Children are ages 2 to 18, adults are ages 19 to 64 and seniors are ages 65 and older. This is an update of previously published research. Detailed methodology is available at [http://bit.ly/2w3LLUp](http://bit.ly/2w3LLUp). Changes from 2014 to 2015 by age group were not statistically significant. An estimate of the proportion of seniors in the 'Medicaid with Dental Benefits' category or 'No Dental Benefits' is not available.
Dental Benefits Coverage - Children

Source: Health Policy Institute analysis of the Medical Expenditure Panel Survey, AHRQ. Notes: All changes from 2000 to 2015 were statistically significant at the 1% level. Changes from 2014 to 2015 were not statistically significant.
REPORTING COST BARRIERS TO DENTAL CARE BY AGE GROUP

Source/Notes: Based on Health Policy Institute analysis of Medical Expenditure Panel Survey data. Children are ages 2 to 18, adults are ages 19 to 64 and seniors are ages 65 and older. CHIP is the Children's Health Insurance Program. This is an update of previously published research. Detailed methodology is available at http://bit.ly/2xSLtoY. Changes from 2014 to 2015 group were not statistically significant, except for 19-34 age group. FPL is Federal Poverty Level.
### Barriers to Dental Care for Adults

**Reasons for Not Visiting the Dentist More Frequently, Among Those Without a Visit in the Last 12 Months**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>56%</td>
</tr>
<tr>
<td>Afraid of Dentist</td>
<td>29%</td>
</tr>
<tr>
<td>Inconvenient Location or Time</td>
<td>18%</td>
</tr>
<tr>
<td>Trouble Finding a Dentist</td>
<td>13%</td>
</tr>
<tr>
<td>No Original Teeth</td>
<td>5%</td>
</tr>
<tr>
<td>No Perceived Need</td>
<td>16%</td>
</tr>
<tr>
<td>No Reason</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
</tr>
</tbody>
</table>
Dental Care Utilization

PERCENTAGE OF POPULATION WHO VISITED A GENERAL DENTIST IN THE PAST 12 MONTHS

- CHILDREN
- ADULTS
- SENIORS


Source/Notes: Based on Health Policy Institute analysis of Medical Expenditure Panel Survey data. Children are ages 2 to 18, adults are ages 19 to 64 and seniors are ages 65 and older. CHIP is the Children's Health Insurance Program. This is an update of previously published research. Detailed methodology is available at http://bit.ly/2xsLtoY. Changes from 2014 to 2015 by age group were not statistically significant.
The gap in dental care use between low-income and high-income children has narrowed in recent years. For seniors it has widened.

### Percentage of Population Who Visited a General Dentist in the Past 12 Months – By Poverty Level

- **Below Poverty Line**
  - **Children:** 38.5%
  - **Adults:** 19.2%
  - **Seniors:** 22.3%

- **More Than 4x Poverty Line**
  - **Children:** 56.4%
  - **Adults:** 48.7%
  - **Seniors:** 60.3%

**Source/Notes:** Based on Health Policy Institute analysis of Medical Expenditure Panel Survey data. Children are ages 2 to 18, adults are ages 19 to 64 and seniors are ages 65 and older. CHIP is the Children’s Health Insurance Program. This is an update of previously published research. Detailed methodology is available at [http://bit.ly/2xsLtoY](http://bit.ly/2xsLtoY). Changes from 2014 to 2015 by age group were not statistically significant.
Putting it Together…A ‘New Normal’?
Untreated Caries

Racial Disparities in Untreated Caries
Narrowing for Children

Untreated Caries Rates Falling Among Low-Income Children

PREVALENCE OF UNTREATED CARIES, BY AGE GROUP

CHILDREN, AGES 5 TO 18
24.6% 23.3% 18.2%
ADULTS, AGES 19 TO 64
26.2% 22.7% 20.5%

PREVALENCE OF UNTREATED CARIES, BY RACE AND AGE GROUP

NON-HISPANIC WHITE
NON-HISPANIC BLACK
HISPANIC
MEXICAN AMERICAN
24.6% 23.3% 18.2%
26.2% 22.7% 20.5%

In contrast, untreated caries rates are stable among adults and seniors.

PREVALENCE OF UNTREATED CARIES, BY INCOME LEVEL AND AGE GROUP

CHILDREN, AGES 5 TO 18
LOW INCOME
26.8% 22.3% 19.7%
MID INCOME
26.8% 22.3% 19.7%
HIGH INCOME
26.8% 22.3% 19.7%
ADULTS, AGES 19 TO 64
LOW INCOME
26.2% 22.7% 20.5%
MID INCOME
26.2% 22.7% 20.5%
HIGH INCOME
26.2% 22.7% 20.5%

In contrast, the rate of untreated caries for adults and seniors is stable.

Note: Based on HPI analyses of National Health and Nutrition Examination Survey (NHANES) data. The NHANES is designed to measure the health and nutritional status of the civilian noninstitutionalized U.S. population. Survey participants are selected through a complex, multistage process that includes probability proportional to size selection at the population level, randomization at the household level, and random selection at the individual level. NHANES is available from: www.cdc.gov/nchs/nhanes.htm.

For more information, visit ADA.org/HPI or contact the Health Policy Institute at hpi@ada.org.
Key Take-Aways

• Children
  – Dental care use is rising steadily among lower-income children and minority populations. Financial barriers to dental care low and declining, driven by steady dental insurance coverage expansions with comprehensive benefit package. Unmet needs declining, especially among vulnerable groups. Sustained, significant, and steady narrowing of disparities.
  – Because children’s oral health is “essential” in federal and state health policy, the coverage (and affordability) issue has largely been addressed. However, we are still nowhere near having every child in a dental home, nor visiting a dentist annually.

• Adults
  – Long-standing decline in dental care use, especially among young adults. No change (statistically) in untreated caries rates in recent years. Financial barriers to dental care declining for several years, but no uptick in dental care use. Exception is slight gains for low-income adults living in states that expanded Medicaid and provide dental coverage to adults in Medicaid.
  – Data suggest a “new normal” for adults. Coverage expansion important, but alone it is unlikely to increase access and utilization. Need other major reforms.

• Seniors
  – Dental care use rising steadily among higher-income seniors, leading to widening disparities. Financial barriers to dental care are rising slowly. No change (statistically) in untreated caries rates in recent years.
  – Definitely have not addressed the coverage issue for seniors. For low-income seniors there are major affordability challenges. For middle- and high-income seniors, extent to which affordability is an issue is less clear cut. There is significant out of pocket spending on dental care and this can be interpreted in many ways.
Geographic Access

Publicly Insured Children Per Medicaid Dentist Within a 15-Minute Boundary

- No Medicaid Office
- <500:1
- 500:1-2000:1
- >2000:1

3% of publicly insured children do not have a Medicaid or CHIP dentist within a 15 minute travel time.

13% of publicly insured children live in areas with more than one Medicaid or CHIP dentist within a 15 minute travel time for every 500 publicly insured children.

60% of publicly insured children live in areas with one Medicaid or CHIP dentist within a 15 minute travel time for every 500 to 2,000 publicly insured children.

23% of publicly insured children live in areas with less than one Medicaid or CHIP dentist within a 15 minute travel time for every 2,000 publicly insured children.
Geographic Access

Breakdown of Publicly Insured Children per Medicaid or CHIP Dentist Within 15 Minute Travel Time

- Less than 500 to 1
- Between 500 and 2000 to 1
- More than 2000 to 1
- None

© 2017 American Dental Association. All Rights Reserved.
Reimbursement in Medicaid

Figure 1: Medicaid Fee-For-Service Reimbursement as a Percentage of Fees Charged by Dentists, Child Dental Services, 2016

Figure 2: Medicaid Fee-For-Service Reimbursement as a Percentage of Private Dental Insurance Reimbursement, Child Dental Services, 2016
Barriers to Dental Care in CA

FIGURE 6. Most frequently mentioned barriers for children’s dental visits (n = 98).¹ ('The first barrier mentioned by those who cited barrier.)
1% of publicly insured children do not have a Medicaid or CHIP dentist within a 15 minute travel time.

95% of publicly insured children live in areas with more than one Medicaid or CHIP dentist within a 15 minute travel time for every 500 publicly insured children.

4% of publicly insured children live in areas with one Medicaid or CHIP dentist within a 15 minute travel time for every 500 to 2,000 publicly insured children.

0% of publicly insured children live in areas with less than one Medicaid or CHIP dentist within a 15 minute travel time for every 2,000 publicly insured children.
Reimbursement in Medicaid

Figure 1: Medicaid Fee-For-Service Reimbursement as a Percentage of Fees Charged by Dentists, Child Dental Services, 2016

Figure 2: Medicaid Fee-For-Service Reimbursement as a Percentage of Private Dental Insurance Reimbursement, Child Dental Services, 2016
Access to Medicaid Dentists in CT

**Figure 1. Percent of Practices Offering an Appointment**

- **All Practices (n=781)**: 92% (715 appointments)
- **General & Pediatric (n=648)**: 91% (591 appointments)
- **Endodontist (n=12)**: 83% (10 appointments)
- **Oral Surgery (n=59)**: 92% (54 appointments)
- **Orthodontist (n=62)**: 97% (60 appointments)

**Figure 2. Length of Time to Appointment Offered**

- **All Practices (n=715)**:
  - Same Day: 11% (79 appointments)
  - 1 to 6 days: 48% (343 appointments)
  - 7 to 13 days: 17% (122 appointments)
  - 14 to 20 days: 8% (67 appointments)
  - 21 to 27 days: 6% (43 appointments)
  - 28+ days: 10% (71 appointments)

59% (422 appointments) offered in less than 1 week
76% (544 appointments) offered in less than 2 weeks
The Limits of Incremental Reform

Percent of Medicaid or CHIP Children With a Dental Visit in the Past 12 Months, 2016 (from CMS416)
Era 3 for Medicine and Health Care

Constant conflict rules the health care landscape, including issues related to the Affordable Care Act, electronic health records, payment changes, and consolidation of hospitals and health plans. The moral of physicians and other clinicians is in jeopardy.

One foundational cause of the discord is an explicit collision of 2 era with incompatible beliefs.

Era 1
Era 1 was the ascendency of the profession, with roots millennia deep—back to Hippocrates. Its norms include these—the profession of medicine is noble, it has special knowledge, inaccessible to others, it is humanitarian, and it self-regulates. In return, society acceded to the medical profession’s privilege most other groups do not get, the authority to judge the quality of its own work.

However, the idealism of era 1 was shaken when researchers examining the system of care found problems, such as enormous unexplained variation in practice, rates of injury from errors in care high enough to make health-care public health issues, and, in justice related to race and social class, and profit-seeking. They also reported that some of the soaring costs of care were wasteful—not producing better outcomes.

These findings made a pure reliance on trusted professions seem naive, if medical professionals were scientific, why was there so much variation? If they were competent, how could they permit so much harm? If they are self-regulating, how could they waste so much?

Era 2
Era 2 was the complexity helped birth era 2, which dominates the present. Exponents of era 2 believe in professional trust and pre-eminence, those of era 2 believe in accountability metrics, measurement, incentives, and markets. The machinery of era 2 is the manipulation of contingencies, rewards, punishment, and pay for performance. The collision of norms from these 2 eras—between the romance of professional autonomy on the one hand, and the various tools of external accountability on the other—leads to discomfort and self-protective reactions. Physicians, other clinicians, and many health care managers feel angry, misunderstood, and overcontrolled. Payers, governments, and consumer groups feel suspicious, resisted, and often helpless. Champions of era 1 circle the wagons to defend professional prerogatives. Champions of era 2 invest in more and more rigorous inspection and control.

Second, Step Complex Individual Incentives
Alignment of payment systems and incentives with triple aim for organizations makes sense, but payers and health care executives should declare a moratorium on complex incentive programs for individual clinicians, which are confusing, unstable, and invite gaming. The CMS should refine value-based payment models for clinicians to large groups. A moratorium would require placing more trust in the intrinsic motivation of the health care workforce and putting more effort into learning and less into managing carrots and sticks.

Third, Shift the Business Strategy from Revenue to Quality
Maximizing revenue continues too much to dominate the business models of health care organizations. That reflects short-term thinking. A better, more sustainable route to financial success is improving quality. This requires reorganizing the theory and methods of improvement as a core competency for health care leaders. It also requires that the CMS and other payers continue to un

Conclusion
Era 1 is the era of professional dominance. Era 2 is the era of accountability and market theory. Let era 3 be the moral era. Era 1 enthusiasts will find that prescription abrasive. Era 2 devotees will find it naïve. But the discord is not helping clinicians, communities, or patients. Without a new moral ethos, there will be no winners.
The Need for Systems Change

Incremental Change Leftovers…

1. Expand dental coverage for adults and seniors to help address affordability challenges. Reforms benefit design to address shortcomings.

‘Era 3’ Systems Change…

1. Develop a consensus definition, and compact set of empirical measures, of oral health.

2. Reform dental care payment models so they reward:
   a) Adherence to evidence-based care protocols
   b) Quality of services and the patient experience
   c) Oral health outcomes

3. Accelerate dental care delivery model innovation
   a) Integrate oral health. Without other health professions bought in and participating, the ceiling for progress is massively lowered. We need all hands on deck.
   b) Promote ‘top of the license’, team-based, practice models. The value-based health care movement will drive this.
Third, Shift the Business Strategy From Revenue to Quality
Maximizing revenue continues too much to dominate the business models of health care organizations. That reflects short-term thinking. A better, more sustainable route to financial success is improving quality.

Fourth, Give Up Professional Prerogative When It Hurts the Whole
From era 1, clinicians inherit the trump card of prerogative over the needs and interests of others. “It’s my operating room time.” “I give the orders.” “Only a doctor can....” “Only a nurse can....” These habits and beliefs do harm. Although most clinicians richly deserve respect and gratitude, the romantic image of the totally self-sufficient physician no longer serves professionals or patients well. The most important question a modern professional can ask is not “What do I do?” but “What am I part of?” Those who prepare young professionals should nurture that redirection from prerogative to citizenship. Physician guilds should reconsider their self-protective rhetoric and policies.

Fifth, Use Improvement Science
Modern quality sciences offer a sterling alternative to the hostility and misunderstanding that inspection, reward, and punishment create. For those methods to work, they have to be used, but for the most part, health care still does not use them. Four decades into the quality movement, few in health care have studied the work of Deming, can recognize a process control chart, or have mastered the power of tests (“plan-do-study-act” cycles) as tools for substantial improvement. Yet, proof of concept is apparent in leading organizations that are using quality improvement strategically. Academicians should make mastery of improvement sciences part of the core curriculum for the preparation of clinicians and managers.
EDITORIAL

A new definition for oral health developed by the FDI World Dental Federation opens the door to a universal definition of oral health

On September 6, 2016, a new definition of oral health was overwhelmingly approved by the FDI World Dental Federation General Assembly. This was a key part of the organization’s advocacy and strategic plan—Vision 2020. The definition, together with a companion framework, creates an opportunity for the profession to reflect on what oral health encompasses and what the implications are of this definition for clinical practice and oral health policy. But why was a new definition needed?

Although oral health has been recognized for millennia to be an essential component of overall health and well-being, it has not been clear whether oral health has meant the same thing for different components of our profession and for our stakeholders. And if we are uncertain as a profession what we mean, how can we explain ourselves clearly to our patients, other health care professionals, policy makers, and those others we seek to collaborate with and inform? A common definition can bring stakeholders together to advocate for the importance of oral health, to influence and shape parameters of care, health policies, research, education, and reimbursement models, and to shape the future of our profession. During the creation of FDI’s Vision 2020, it became evident that there was a need for a universally accepted definition of oral health, one that conveys that oral health is a fundamental human right and that facilitates the inclusion of oral health in all policies. To accomplish this goal, the FDI charged a newly created Think Tank with producing such a definition.

A definition was needed that included the full scope of health and well-being and, ultimately, one that could be agreed on by all. Traditionally, oral health

Definition of oral health.

Oral health is multifaceted and includes the ability to speak, smile, smell, taste, touch, chew, swallow, and convey a range of emotions through facial expressions with confidence and without pain, discomfort, and disease of the craniofacial complex.

Further attributes of oral health:

- It is a fundamental component of health and physical and mental well-being. It exists along a continuum influenced by the values and attitudes of people and communities.
- It reflects the physiological, social, and psychological attributes that are essential to the quality of life.
- It is influenced by the person’s changing experiences, perceptions, expectations, and ability to adapt to circumstances.
Reform Payment and Delivery

Virtual Dental Home

We are pioneering a new way to provide dental care to underserved communities.
Thank You!

@ADAHPI

ADA.org/HPI

hipi@ada.org
Young Adults Need Extreme Convenience

Cost is the top reason regardless of income, age, or source of dental benefits.

Trouble finding a dentist is a close second among adults with Medicaid dental benefits.
Dental Care Presents The Highest Level Of Financial Barriers, Compared To Other Types Of Health Care Services

Exhibit 1

Percentages of National Health Interview Survey respondents who did not get selected health care services they needed in the past 12 months because of cost, by age group, 2014

- Dental care
- Medical care
- Prescription drugs
- Eyeglasses
- Mental health care

Source: Authors’ analysis of data for 2014 from the National Health Interview Survey. Notes: The sample consisted of 50,077 respondents. For all age groups, the difference between dental care and medical care not obtained was significant (p < 0.05).
Dental Benefits Coverage

51.3% Private Dental Benefits
38.5% Medicaid or CHIP with Dental Benefits
10.3% Medicaid without Dental Benefits
27.5% No Dental Benefits

In 2015 10.3% of children had no form of dental benefits coverage. This is the lowest level ever and down from 15.8% in 2010.

Source/Notes: Based on ADA Health Policy Institute analysis of Medical Expenditure Panel Survey data. Children are ages 2 to 18, adults are ages 19 to 64 and seniors are ages 65 and older. This is an update of previously published research. Detailed methodology is available at http://bit.ly/2w3lu6p. Changes from 2014 to 2015 by age group were not statistically significant. An estimate of the proportion of seniors in the ‘Medicaid with Dental Benefits’ category or ‘No Dental Benefits’ is not available.