



# Dental Access among Children in Medicaid: Is Well Care or Ambulatory Service Utilization a Predictor of Preventive or Diagnostic Dental Service Utilization?

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## Introduction

Tooth decay is the most common chronic childhood disease, especially among children from low-income families. These children have twice as many dental caries as children from higher-income families, and their caries are more likely to go untreated.<sup>1</sup>



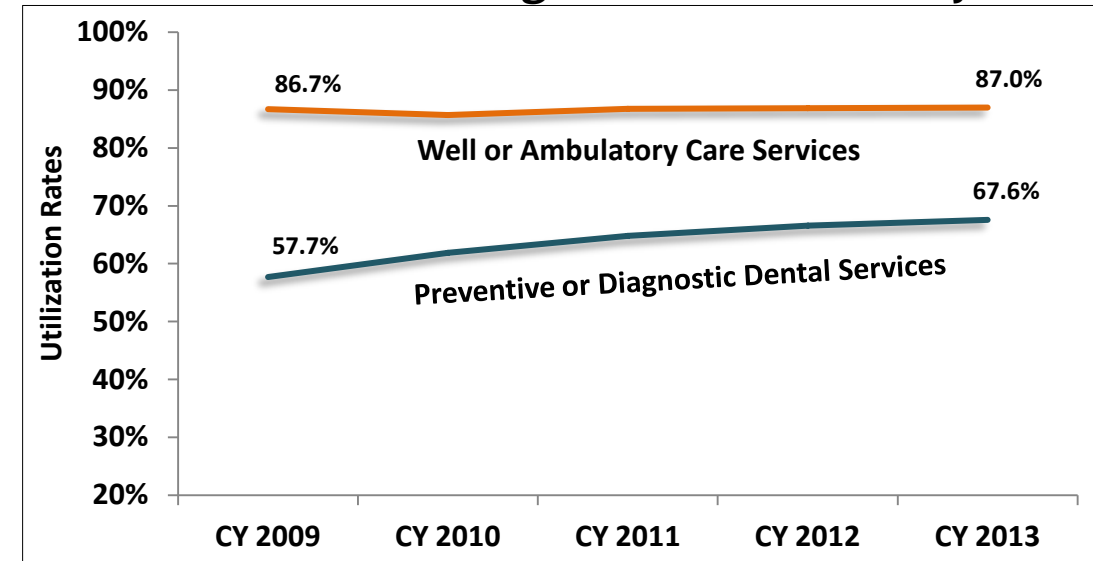
Source: Frederick Memorial Hospital, Retrieved from <http://blog.fmh.org/index.php/2013/02/28/five-steps-to-a-healthy-mouth/>

Highlighting the importance of proper oral health care for children, an objective of the Healthy People 2020 initiative is to “increase the proportion of low-income children and adolescents who received any preventive dental service during the past year.”<sup>2</sup>

## Objective

In Maryland’s Medicaid program, well or ambulatory care utilization rates are greater than preventive or diagnostic dental care utilization rates among children. We explored the relationship between these two types of service with the goal of informing policy discussions on a primary care provider’s (PCP’s) role in preventive dental health.

Utilization Rates of Children Aged 2-18 Years in Maryland Medicaid



## Methods

Subjects of this study were: (1) Maryland Medicaid enrollees from calendar year (CY) 2009 to CY 2013; (2) aged 2 to 18 years; and (3) enrolled for an entire calendar year. Key variables included race/ethnicity, disability, rural/urban residence, and gender.

Using Maryland Medicaid data, we identified all children who received a preventive or diagnostic dental service for each year. Then we conducted a logistic regression to examine whether children receiving a well or ambulatory care service were more likely to receive a preventive or diagnostic dental service.

## Findings

### Descriptive Statistics

Variables	Pooled Sample	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013
<b>Dependent:</b>						
Preventative or diagnostic dental service (%)	64.1	57.7	61.9	64.8	66.6	67.6
<b>Independent:</b>						
Any well or ambulatory visit (%)	86.6	86.7	85.7	86.8	86.9	87.0
Female (%)	49.0	49.0	48.9	49.1	49.1	49.1
White (%)	25.4	25.9	25.7	25.6	25.2	24.9
Black (%)	49.4	51.8	50.5	49.4	48.5	47.7
Hispanic (%)	16.2	14.9	15.7	16.0	16.6	17.2
Other (%)	9.0	7.4	8.1	9.1	9.7	10.3
Rural (%)	22.1	22.7	22.4	22.2	21.8	21.4
Disabled (%)	4.9	5.5	5.2	4.9	4.6	4.4
<b>Total Observations</b>	<b>1,900,738</b>	<b>325,709</b>	<b>356,777</b>	<b>384,125</b>	<b>406,717</b>	<b>427,410</b>

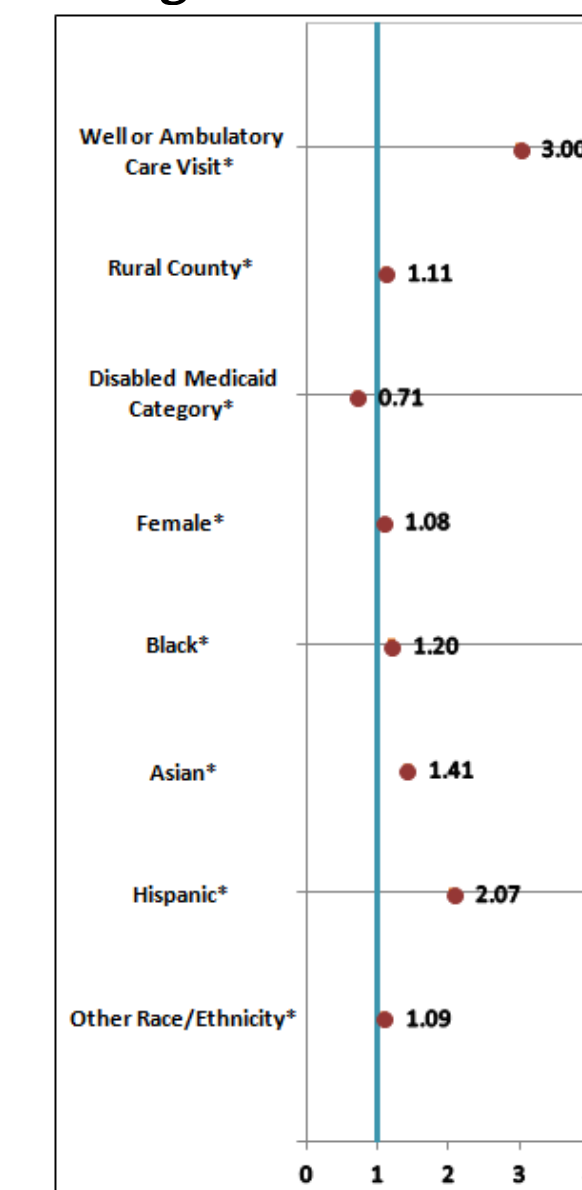
### Summary Statistics

- The number of children receiving a preventive or diagnostic dental service increased by 17.2% from CY 2009 to CY 2013
- The rates for well or ambulatory care were relatively the same across all calendar years: between 86 and 87%

### Regression

- Children receiving a well or ambulatory care visit had three times the odds of receiving a preventive or diagnostic dental service: Odds Ratio (OR) = 3.00; 95% Confidence Interval (CI) = 2.97, 3.03
- Children in rural counties<sup>3</sup> had slightly higher odds of receiving a preventive or diagnostic dental service than children in urban counties: OR = 1.11; CI = 1.11, 1.12
- Disability lowered the odds of receiving a preventive or diagnostic dental service: OR = 0.71; CI = 0.70, 0.72
- Hispanics had twice the odds of receiving a preventive or diagnostic dental visit than Whites: OR = 2.07; CI = 2.05, 2.09

### Odds of Receiving a Preventive or Diagnostic Dental Service



## Conclusion & Policy Implications

Although there is a correlation between primary care visits and preventive dental visits, children enrolled in Medicaid are more likely to see their PCP than their dentist. State Medicaid programs can build upon this and use physician visits as an opportunity for targeted outreach for recommended health care services. Additionally, there appears to be an opportunity to reach out to individuals with disabilities to increase their rates of preventive health.

## Limitations

- Parents of children who receive dental or well or ambulatory care services may differ from parents who do not receive these services in unmeasurable ways (e.g., motivation to seek preventive care).
- Based on data construct, it is not known which service occurred first (e.g., well care visits leading to dental visits or dental visits leading to well care visits).
- There are several definitions of “rural” used in analyses of Maryland. As an example, Frederick County is considered part of the Washington Suburban region in other state analyses.

## References/Acknowledgements

- 1 U.S. Department of Health and Human Services. (2000). *Oral health in America: A report of the Surgeon General—Executive summary*. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health.
- 2 U.S. Department of Health and Human Services. (2015, May 13). *Oral health*. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/oral-health/objectives>
- 3 Rural county designation based on Maryland Rural Counties Coalition. Members of Coalition include: Allegany, Caroline, Carroll, Cecil, Dorchester, Frederick, Garrett, Harford, Kent, Queen Anne's, Somerset, Talbot, Washington, Wicomico, and Worcester. Retrieved from <http://www.mdcounties.org/index.aspx?NID=224>
- 4 Maryland Department of Health and Mental Hygiene. (2013). *2013 annual oral health legislative report as required by Health-General Article sections 13-2504(b) and HB 70 (Ch. 656 of the Acts of 2009)*. Retrieved from <https://mmhc.dhmmh.maryland.gov/Documents/dentalJCRfinal9-13.pdf>