

# Utilization of Dental Services Among Medicaid-Enrolled Adults in 2 States with Different Adult Dental Coverage in Medicaid

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## ABSTRACT

**Objective:** There is strong evidence suggesting that access to and utilization of oral health services depends on the availability of dental insurance coverage. The objective of this study was to compare the utilization of dental services among adults insured by Medicaid in a state with a limited emergency dental benefit for adults (Oklahoma) to one with a full adult dental benefit (New York).

**Methods:** This study analyzed Medicaid enrollment and dental claims data for adults ages 21 years and older in Oklahoma and New York in 2012-2013 to describe the use of emergency departments (ED) instead of dental offices or clinics for dental care. Dental services utilization rates were calculated and compared using odds ratios (OR) and 95% confidence intervals (CI).

**Results:** In 2012-2013, 14.9% of Oklahoma and 30.2% of New York Medicaid-enrolled adults received dental care from dentists; 1.8% of Oklahoma and 0.8% of New York Medicaid-enrolled adults used EDs for treatment of dental problems. Medicaid insured adults in Oklahoma were 4.5 times (95% CI=4.4-4.6) more likely to receive dental services in EDs than those in New York. The contrast was greatest for women, adults ages 25 to 44 years, Hispanics, in urban areas, and areas with 50 or more dentists serving the Medicaid population.

**Conclusions:** Study findings suggested that a limited dental benefit for Medicaid-enrolled adults impacts utilization of oral health services by increasing the use of EDs for dental conditions. In addition, ED dental care utilization varied by patients' demographics, geography, and the supply of dentists.

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## INTRODUCTION

- Patients' insurance status, demographic characteristics, and the local dentist supply have been studied and linked to the use of hospital emergency departments (EDs) for dental care.<sup>1,2</sup>
- Oklahoma Medicaid provided an emergency-only dental benefit for adult enrollees. In contrast, New York offered an extensive dental benefit.<sup>3,4</sup>
- The objective of this study was to compare the utilization of dental services among adults insured by Medicaid in Oklahoma and New York.

## METHODS

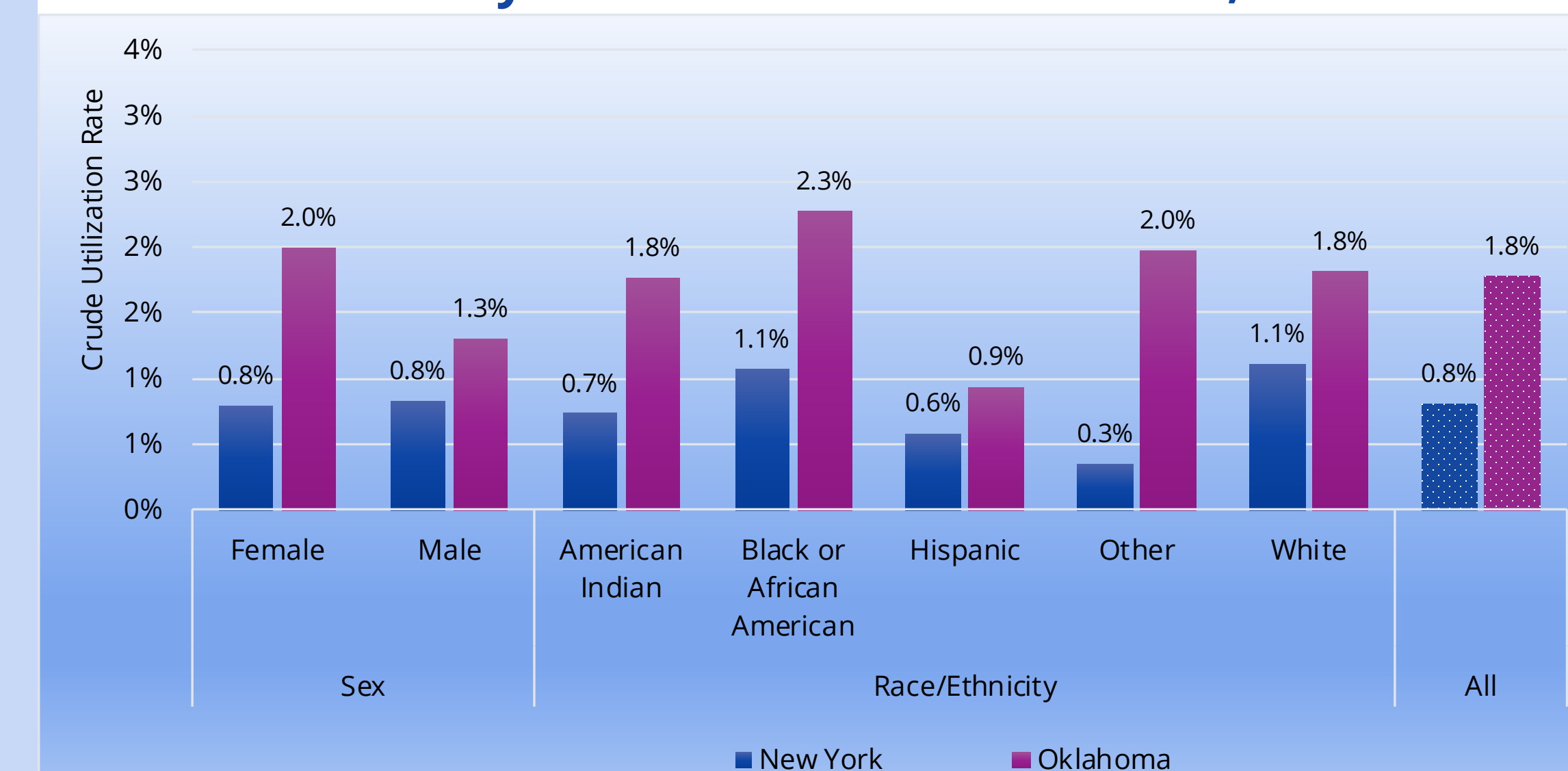
- The findings of this report are based on an analysis of enrollment and claims data from 1/2012-12/2013 for Medicaid adults 21 years of age and older in Oklahoma and New York.
- Utilization rates for dental services provided in dental offices/clinics and in EDs were measured as percentages of enrollees using dental services by demographics, settings in which services occurred, supply of dentists, and geography.
- Utilization rates for dental services were compared by state of enrollment using odds ratios (OR) and 95% confidence intervals (95% CI) to contrast dental care obtained in EDs with that obtained in dental offices or clinics.

## RESULTS

In 2012-2013, 0.8% of the Medicaid-enrolled adults in New York had at least one visit for an oral health problem in EDs. In Oklahoma, 1.8% of the adult enrollees received at least one service for a dental complaint in an ED. About 30% of New York and 15% of Oklahoma Medicaid-enrolled adults received dental care from dentists.

Rates of utilization of EDs for dental services were much higher in Oklahoma than in New York, particularly for women (152% difference), Non-Hispanic American Indians (143% difference), and Blacks or African Americans (113%).

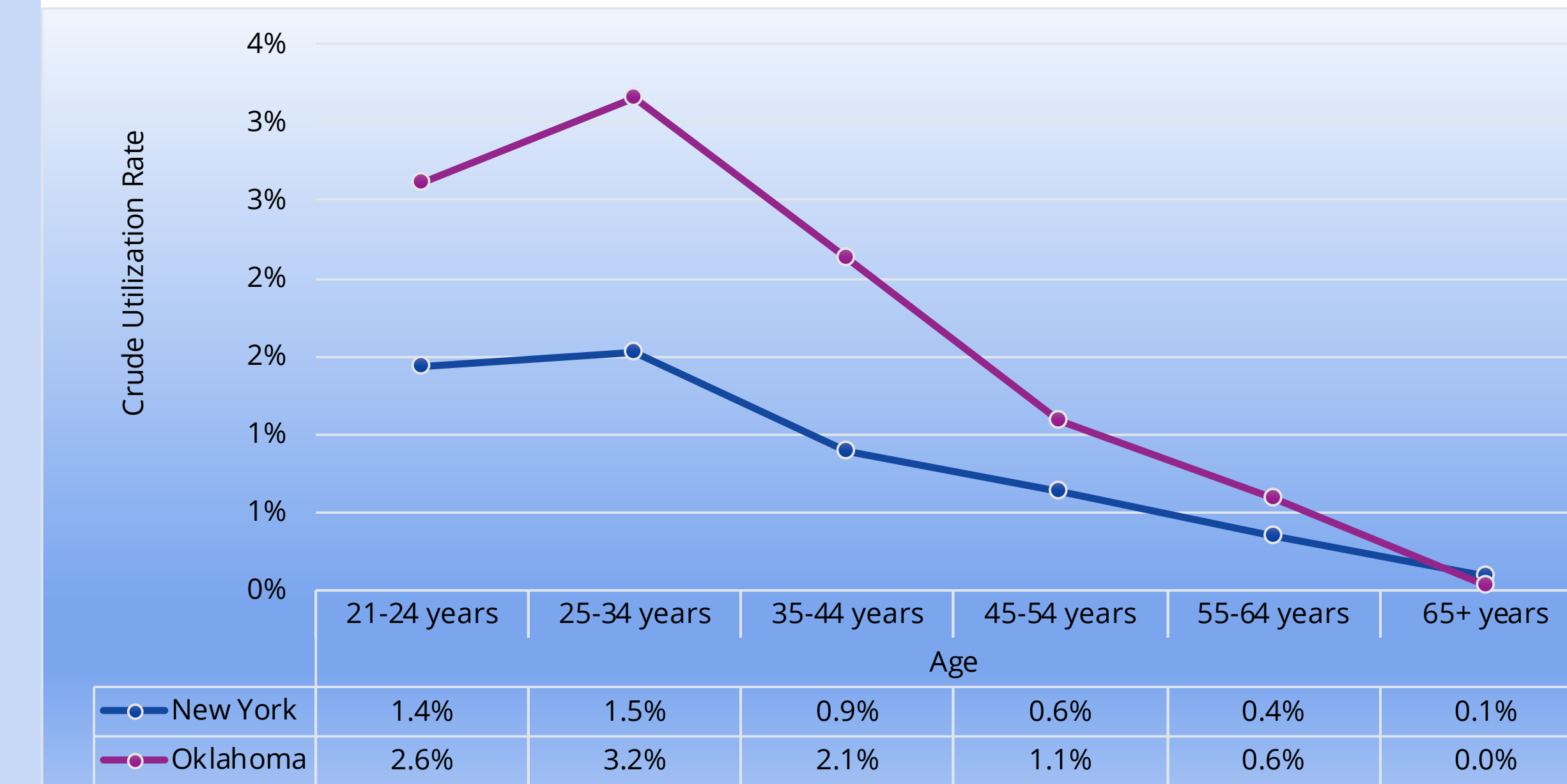
**Figure 1. Medicaid Utilization Rates for Dental Services in EDs Among Adults 21 Years and Older Statewide and by Sex and Race/Ethnicity in New York and Oklahoma, 2012-2013**



Medicaid adults aged 35 to 44 years in Oklahoma had much higher utilization rates of EDs for dental complaints than in New York (140% difference).

## RESULTS (cont.)

**Figure 2. Medicaid Utilization Rates for Oral Health Services in EDs Among Adults 21 Years and Older by Age Groups in New York and Oklahoma, 2012-2013**



Rates of utilization of EDs for dental services were much higher in Oklahoma than in New York in urban counties (341% difference) and counties with 20 to 49 dentists providing services to Medicaid-enrolled adults (46% difference).

**Figure 2. Medicaid Utilization Rates for Dental Services in EDs Among Adults 21 Years and Older Urban-Rural Status of the County of Residence and Number of Dentists Serving Medicaid Enrollees in New York and Oklahoma, 2012-2013**



In 2012-2013, Medicaid-enrolled adults in Oklahoma were 4.5 times (95% CI: 4.4-4.6;  $P < .0001$ ) more likely than those in New York to receive dental services in EDs as opposed to dental offices or clinics.

The odds ratios of using EDs for oral health problems were significantly ( $P < .0001$ ) higher in Oklahoma than in New York for each sex, age, race/ethnicity, and geographic category of Medicaid-enrolled adults, except for those aged 65 years and older.

The odds ratios were particularly high for women (OR=4.9), adults aged 35 to 44 years (OR=5.8), Hispanics (OR=6.2), Non-Hispanic American Indians (OR=6.0), and urban counties (OR=9.0), or counties with 50 or more dentists providing services to Medicaid adults (OR=5.7).

## RESULTS (cont.)

**Table 1. Bivariate Analyses of Medicaid Utilization Rates for Oral Health Services in EDs Vs Dental Offices or Clinics Among Adults 21 Years and Older in Oklahoma Compared With New York by Demographics and Geography, 2012-2013**

Demographic and Geographic Characteristics	Odds Ratio	95% Confidence Interval	
		Lower Limit	Upper Limit
<b>All</b>	4.5	4.4	4.6
<b>Sex</b>			
Female	4.9	4.7	5.0
Male	3.8	3.6	4.0
<b>Age</b>			
21-24 years	3.1	3.0	3.3
25-34 years	3.9	3.7	4.0
35-44 years	5.8	5.4	6.1
45-54 years	4.2	3.9	4.6
55-64 years	4.6	4.1	5.2
65+ years	0.8	0.5	1.2
<b>Race/ethnicity</b>			
American Indian <sup>a</sup>	6.0	4.6	7.7
Black or African American <sup>a</sup>	3.2	3.0	3.4
Hispanic	6.2	5.6	6.8
White <sup>a</sup>	2.9	2.8	3.0
<b>Urban-rural status</b>			
Rural	1.5	1.5	1.6
Mixed urban-rural	1.6	1.4	1.7
Urban	9.0	8.6	9.3
<b>Number of dentists providing services to Medicaid adults in the county of residence</b>			
0-9	1.5	1.3	1.6
10-49	1.7	1.6	1.8
≥50	5.7	5.5	6.0

Note: All differences except among adults aged 65+ years were statistically significant ( $P < .0001$ ).  
<sup>a</sup> Non-Hispanic ethnicity.

## CONCLUSIONS

- The lack of a dental benefit restricts access to dental services in dental offices/clinics and increases utilization of EDs when dental complaints arise. As a result, Medicaid enrollees in Oklahoma were more than 4 times more likely than those in New York to use EDs to obtain needed dental services.
- Study findings suggest that the supply of dentists participating in state Medicaid programs, coupled with an adequate adult dental benefit in Medicaid, is predictive of lower use of EDs for dental conditions.

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