

ABSTRACT

Purpose of study: The objective of this research was to understand the impact of the quality of Medicaid dental benefits and the availability of dental providers for Medicaid enrollees on utilization of dental services. This study used comparative analysis to describe differences in dental services utilization among adult Medicaid enrollees in Oklahoma and New York, states with very different adult dental benefits.

Methods: This study analyzed Medicaid enrollment and dental claims data for the period between January 1, 2012, and December 31, 2013, for adults 21 years of age and older in the states of New York and Oklahoma. The data for Medicaid-enrolled adults in New York were extracted using the Salient Interactive Miner software. Oklahoma Medicaid data were obtained from the Oklahoma Health Care Authority. Utilization rates were compared by state of enrollment using odds ratios and 95% confidence intervals (CI) to contrast dental care obtained in emergency departments with that obtained in dental offices or clinics, by patients' demographics and county of residence. Statistical significance was defined as $P < 0.05$ using 2-tailed tests.

Key Findings: During the 2-year study period, only 14.9% of Medicaid-enrolled adults in Oklahoma received oral health services in dental offices or clinics. In contrast, in New York, 30.2% of adult Medicaid enrollees had oral health services in dental offices or clinics. Study findings showed that 1.8% of Medicaid-enrolled adults in Oklahoma and 0.8% of Medicaid-enrolled adults in New York received at least one dental service in a hospital emergency department in 2012-2013.

Use of dental offices or clinics for oral health services was higher among Medicaid-enrolled adults in New York than in Oklahoma across all demographic, urban/rural, and dentist supply groups in 2012-2013. Conversely, utilization rates for dental care in hospital emergency departments were much higher in Oklahoma than in New York for all demographic groups (except for adults 65 years of age and older), for adult Medicaid enrollees residing in urban counties, and for enrollees in counties with a greater supply of dentists.

In 2012-2013, Medicaid-enrolled adults in Oklahoma were 4.48 times more likely (95% CI=4.36-4.60, $P < 0.0001$) than adult Medicaid enrollees in New York to receive dental services in emergency departments as opposed to dental offices or clinics. The likelihood of using emergency departments for oral health problems was particularly elevated in Oklahoma among adults aged 35 to 44 years, women, Hispanics, Non-Hispanic American Indians, and adults residing in urban counties and counties with 50 or more dentists providing services to Medicaid adults.

Implications: The lack of a dental benefit restricts access to services in private dental offices and dental clinics and encourages utilization of emergency departments when dental complaints arise. Enrollees' utilization of dental services was quite low in both states, suggesting a need to improve the oral health literacy of adults about the importance of oral health services. Study findings suggest that the supply of dentists participating in state Medicaid programs, coupled with an adequate adult dental benefit, is predictive of lower use of emergency departments for avoidable dental conditions.

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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.^{1,2}
- Oklahoma Medicaid provided an emergency-only dental benefit for adult enrollees. In contrast, New York offered an extensive dental benefit.^{3,4}
- The objective of this study was to compare the utilization of dental services among adults insured by Medicaid in Oklahoma and New York.

METHODS

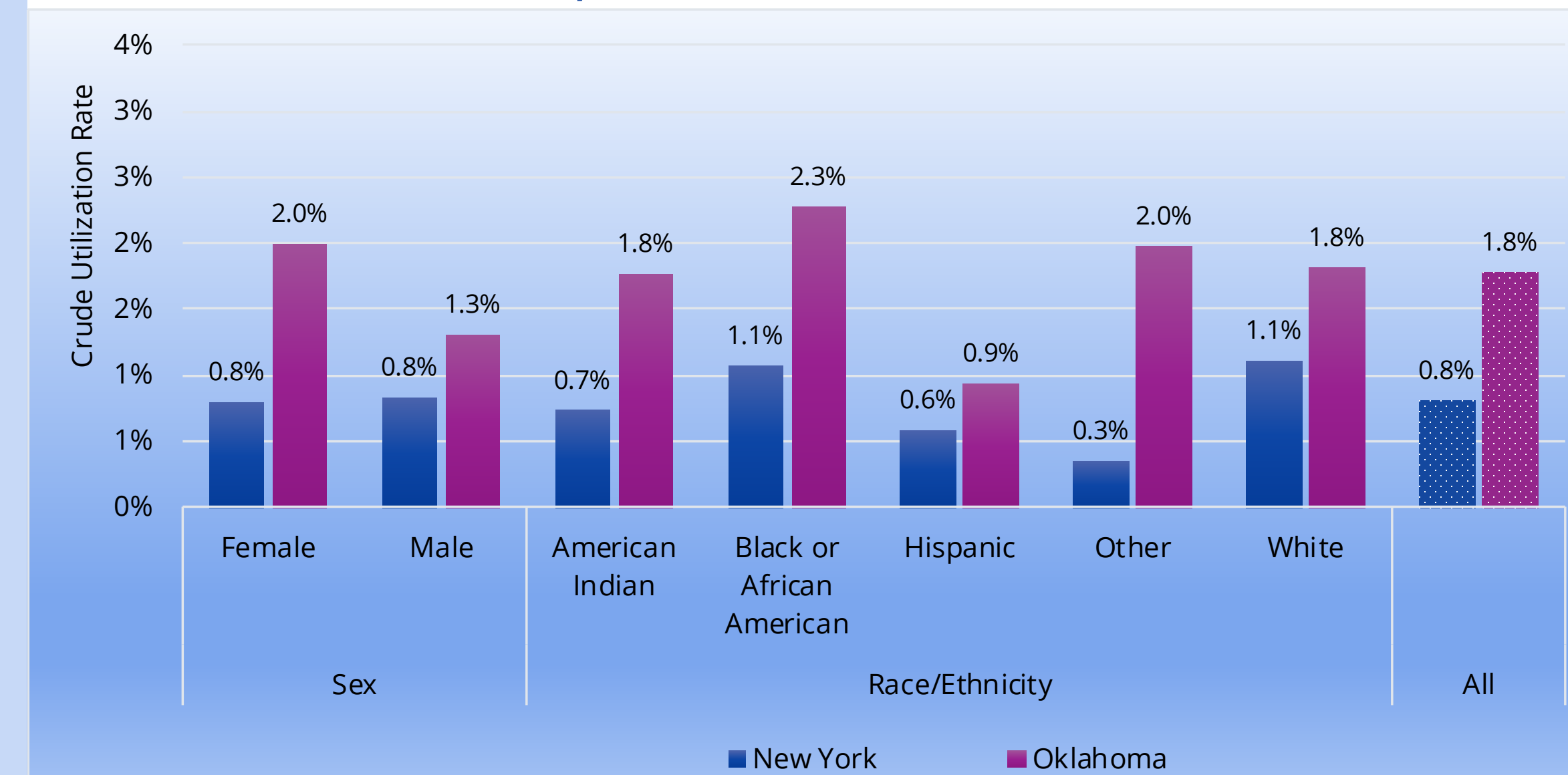
- The findings of this report are based on an analysis of enrollment and claims data from 1/2012-12/2013 for Medicaid adults 21 years of age and older in Oklahoma and New York.
- Utilization rates for dental services provided in dental offices/clinics and in EDs were measured as percentages of enrollees 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%).

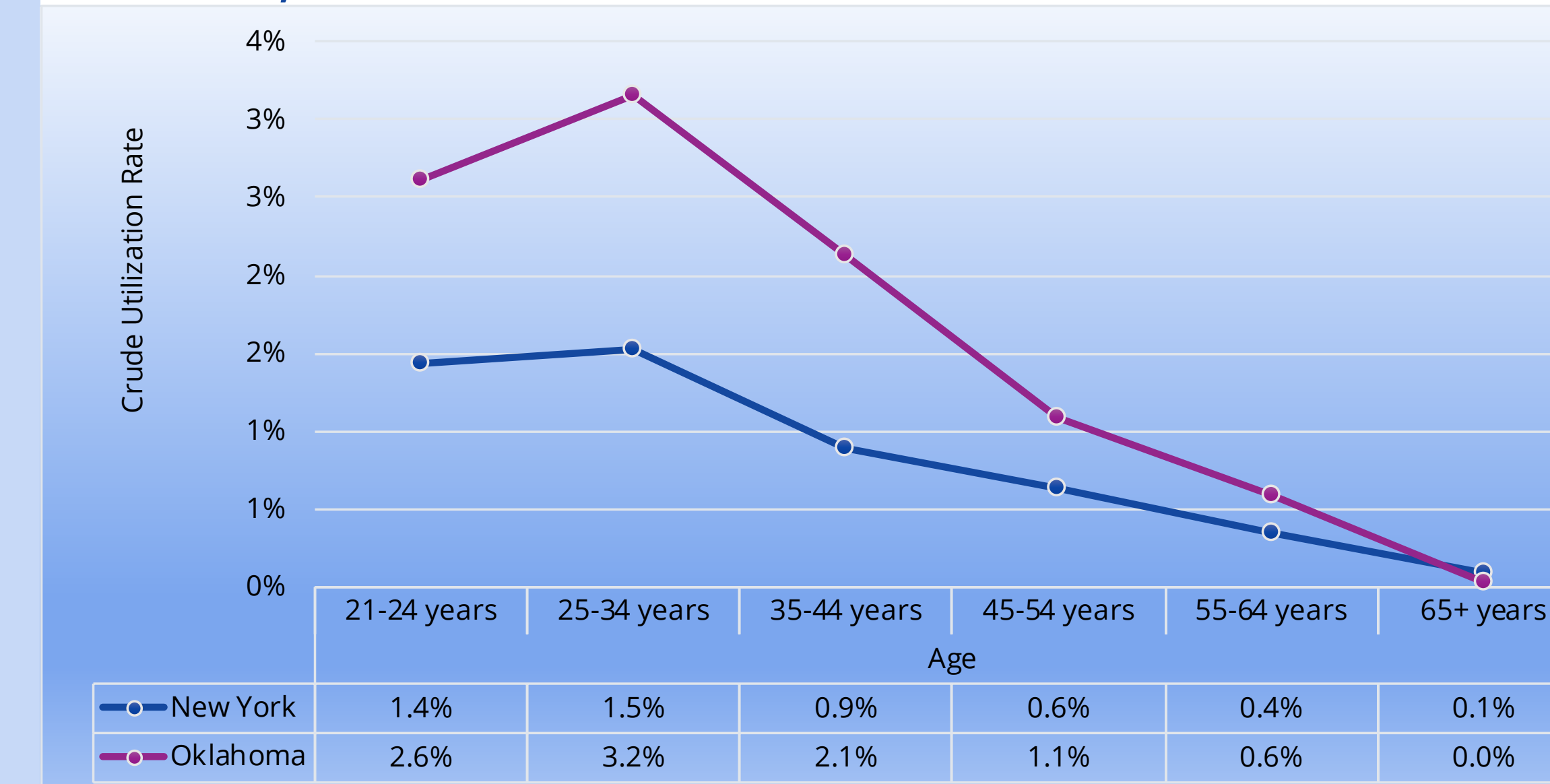
Figure 1. Medicaid Utilization Rates for Dental Services in EDs Among Adults 21 Years and Older Statewide and by Sex and Race/Ethnicity in New York and Oklahoma, 2012-2013



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).

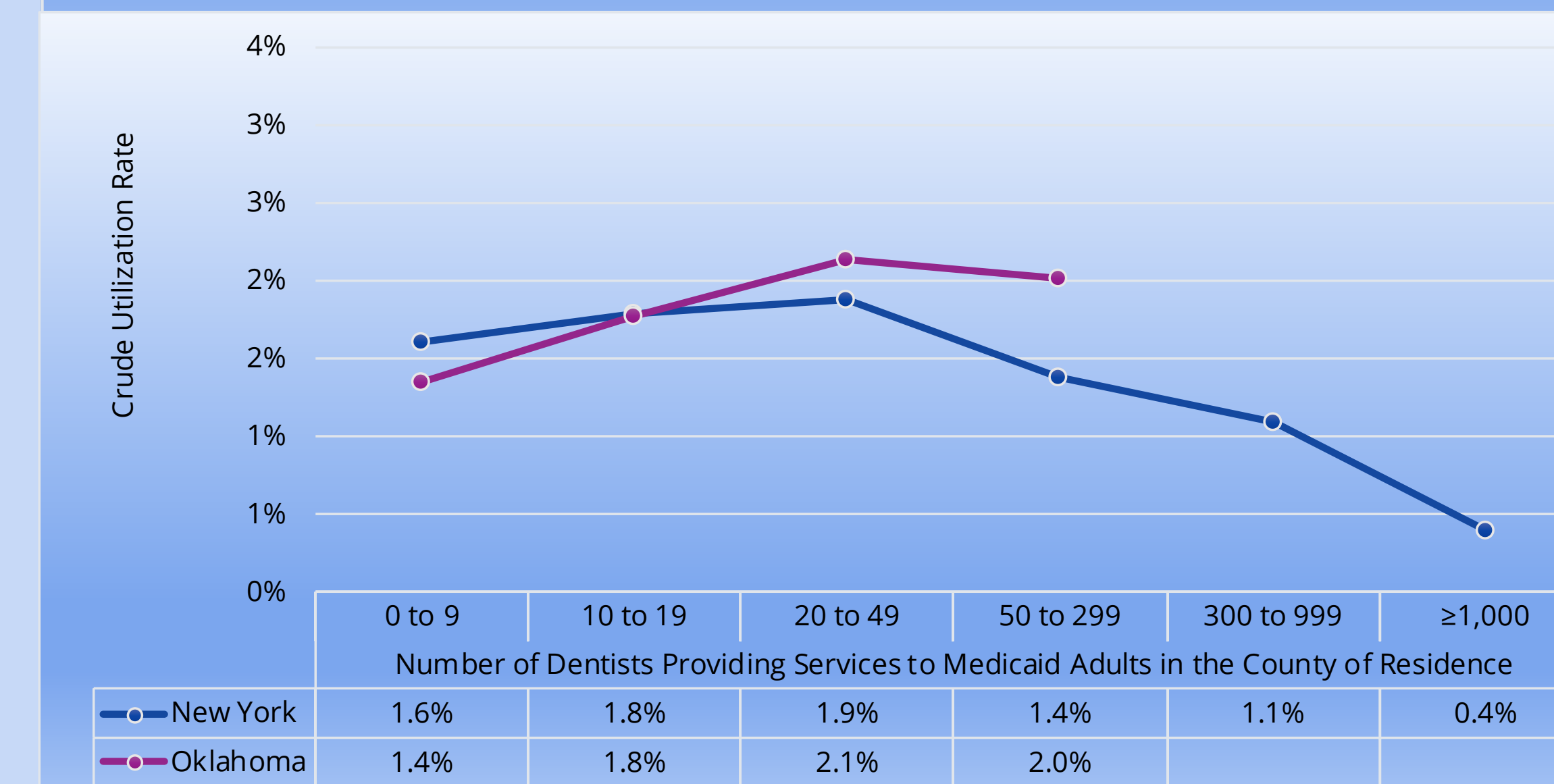
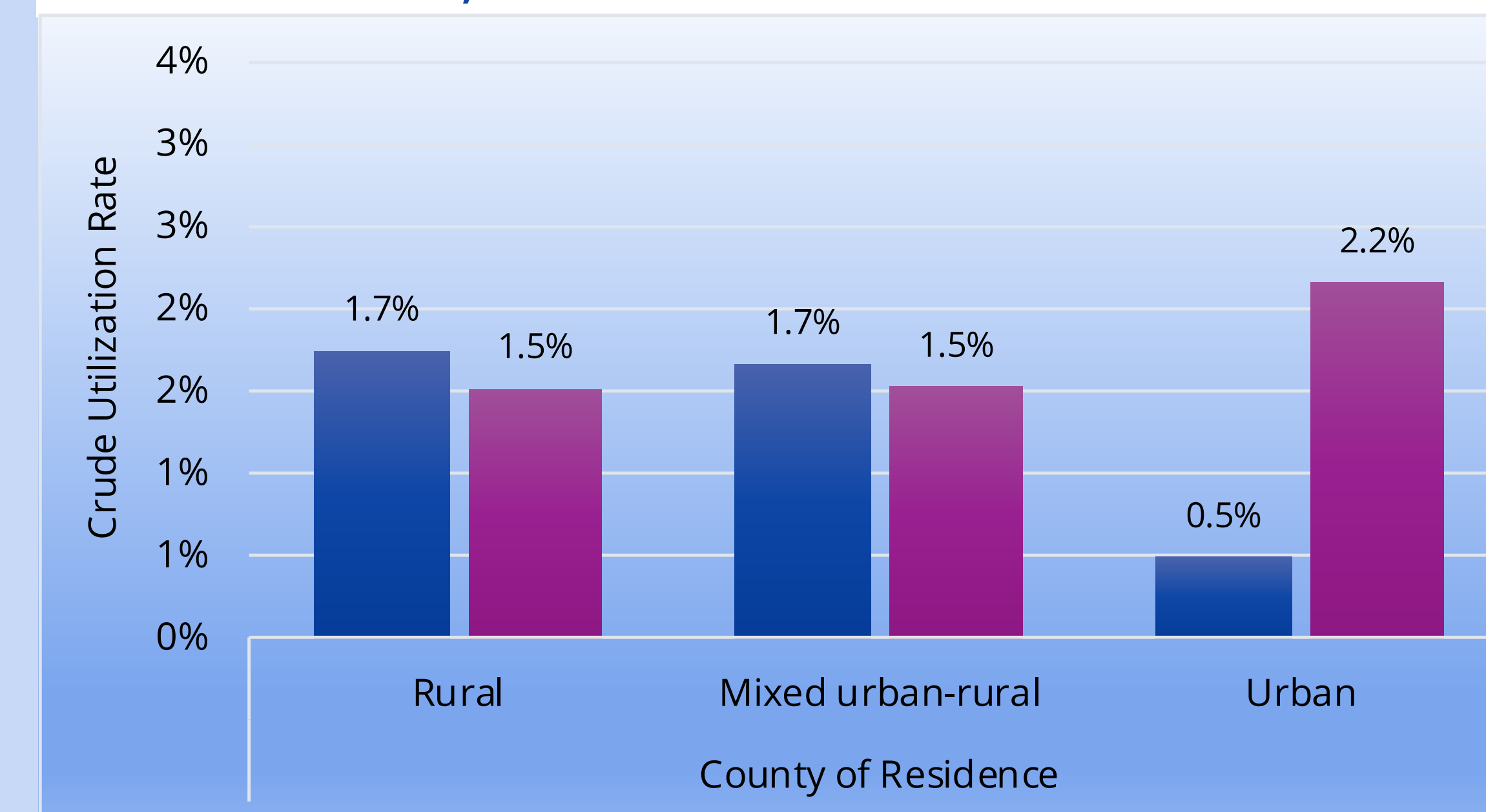
RESULTS (cont.)

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
All			
Medicaid adults 21 years and older	4.5	4.4	4.6
Sex			
Female	4.9	4.7	5.0
Male	3.8	3.6	4.0
Age			
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
Race/ethnicity			
American Indian ^a	6.0	4.6	7.7
Black or African American ^a	3.2	3.0	3.4
Hispanic	6.2	5.6	6.8
White ^a	2.9	2.8	3.0
Urban-rural status			
Rural	1.5	1.5	1.6
Mixed urban-rural	1.6	1.4	1.7
Urban	9.0	8.6	9.3
Number of dentists providing services to Medicaid adults in the county of residence			
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 ($P < .0001$).
^a 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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