

Differences Between Rural, Suburban, and Urban Consumers' Perspectives Regarding Their Experiences with Obtaining Oral Health Services

Margaret Langelier, MSHSA, Simona Surdu, MD, PhD

Oral Health Workforce Research Center, Center for Health Workforce Studies, School of Public Health, University at Albany

ABSTRACT

Background: This study sought to obtain information from US consumers about perceived barriers and facilitators to obtaining oral health services when needed.

Methods: The study used an online survey of a nationally representative cross sectional sample of the US adult population ages 18 years and older. The oral health survey module consisted of 25 skip logic questions about oral health literacy, oral hygiene behaviors, experience accessing services, etc. Data were analyzed using SAS 9.4.

Results: The 6,951 respondents varied in sociodemographic characteristics and geography of residence. Rural residents were significantly more likely to report 4 or more oral health problems in the past 6 months (10.9% vs 7.2%, $P < 0.0001$) or to report poor oral health status (16.3% vs 9.9%-11.2%, $P < 0.0001$) than were suburban or urban residents. Almost half of suburban respondents (49.7%) indicated no difficulty in obtaining dental care when needed while just 30.7% of urban respondents and 19.5% of rural respondents reported no difficulties obtaining services. The barrier to care most often reported by rural residents was an inability to afford dental services (24.9%); urban residents most frequently reported an inability to find a dentist who could provide needed services (57.7%); suburban residents most often reported an inability to find the time to go to a dentist (51.8%).

Conclusions: Geographic differences in patients' access to oral health services suggest that program and policy initiatives are needed to address the oral health needs of underserved populations, especially those living in urban or rural areas.

CONTACT

Oral Health Workforce Research Center
Center for Health Workforce Studies

518-402-0250
info@oralhealthworkforce.org
www.oralhealthworkforce.org



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This work is supported by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) as part of an award totaling \$448,203. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement by, HRSA, HHS, or the US Government. For more information, please visit HRSA.gov.

INTRODUCTION

- Geographic location of patients and providers is among the many factors contributing to decreasing utilization of oral health services among US adults

Study Objectives:

- Obtain the consumer perspective on access to needed oral health services
- Identify factors that impact access to oral health services including demographic and socioeconomic characteristics, oral health literacy and oral health status, geographic location, availability of oral health providers, and level of knowledge about appropriate care-seeking behaviors

METHODS

- Online survey of a representative, cross-sectional sample of US adults ages 18 years and older
- Oral health module of 25 skip logic questions was appended to the Consumer Survey of Health Care Access fielded bi-annually by the Association of American Medical Colleges
- Characteristics of the 6,951 survey respondents were evaluated using descriptive statistical analyses, including frequency distribution, cross tabulation, and chi-square test
- Data were weighted by age, gender, race/ethnicity, employment status, household income, educational attainment, and geographic region to represent the US adult population as measured by the US Census
- Analyses was conducted using SAS 9.4

RESULTS

- Respondents in suburban or urban areas were significantly more likely to self-report a need for oral health services in the 12 months prior to survey completion than were rural respondents

Table 1. Self Reported Need for Dental Care in the Last 12 Months

	Rural		Suburban		Urban		P-value (Chi-square)
	n	%	n	%	n	%	
No	501	32.2	741	23.1	462	21.5	<0.0001
Yes	1054	67.8	2461	76.9	1688	78.5	
All	1555	100.0	3202	100.0	2150	100.0	

RESULTS, Cont.

- Rural respondents were significantly more likely to report poor or fair oral health status than were suburban or urban residents

Table 2. Self-Reported Overall Oral Health Status

Self-Reported Overall Oral Health Status	Rural		Suburban		Urban		P-value (Chi-square)
	n	%	n	%	n	%	
Poor	253	16.3	314	9.9	240	11.2	<0.0001
Fair	320	20.6	598	18.8	409	19.1	
Good	489	31.4	1034	32.4	604	28.2	
Very good	359	23.1	880	27.6	502	23.4	
Excellent	135	8.7	360	11.3	387	18.1	
All	1555	100.0	3186	100.0	2142	100.0	

- Rural residents were significantly more likely to report 4 or more oral health problems in the most recent 6-month period than were urban or suburban residents

Table 3. Number of Self-Reported Oral Health Problems in the Previous 6 Months

# of Oral Health Problems	Rural		Suburban		Urban		P-value (Chi-square)
	n	%	n	%	n	%	
4+	170	10.9	230	7.2	154	7.2	<0.0001
3	112	7.2	203	6.4	198	9.2	
2	209	13.5	450	14.0	354	16.5	
1	436	28.1	898	28.1	659	30.7	
None	627	40.3	1421	44.4	785	36.5	
All	1555	1.0	3202	1.0	2150	1.0	

- Urban and rural resident were significantly more likely than suburban residents to report that travel time to a dental provider was 30 minutes or greater

Table 4. Self-Reported Travel Time to a Dental Provider

Travel time	Rural		Suburban		Urban		P-value (Chi-square)
	n	%	n	%	n	%	
Less than 30 minutes	738	70.5	1886	77.6	1150	69.5	<0.0001
30 to 60 minutes	247	23.6	439	18.0	431	26.1	
More than an hour	60	5.7	98	4.0	72	4.4	
Not applicable (transported in ambulance, etc.)	1	0.1	8	0.3	1	0.1	
All	1047	100.0	2431	100.0	1654	100.0	

RESULTS, Cont.

- Almost half of suburban residents (49.7%) reported no barriers to obtaining dental care when needed
- Only 19.5% of rural residents and 30.7% of urban residents reported encountering no barriers to accessing care
- Rural residents who reported barriers to access most often reported an inability to afford dental services or lack of insurance
- Urban residents most often reported inability to find a dentist who provided needed services or difficulty with traveling to a dentist

Table 5. Self-Reported Barriers to Dental Services

Barriers to dental care	Rural		Suburban		Urban		Total	
	n	%	n	%	n	%	n	%
No difficulties	661	19.5	1683	49.7	1040	30.7	3384	100.0
I cannot afford to go to the dentist	288	24.9	484	42.0	382	33.1	1154	100.0
It is too hard to find a dentist that accepts my dental plan (eg, Medicaid)	78	21.4	133	36.5	154	42.2	365	100.0
I am afraid of going to the dentist	81	23.2	170	49.0	97	27.8	348	100.0
I cannot find the time to get to a dentist	35	10.8	169	51.8	123	37.5	327	100.0
I cannot find a dentist who provides the services I need	34	13.6	71	28.7	143	57.7	248	100.0
I cannot easily travel to a dentist	34	20.9	59	35.7	71	43.5	164	100.0
Other (ie, no dental insurance, limited coverage)	23	22.5	52	50.0	29	27.5	104	100.0

CONCLUSIONS

- Proportionally more survey respondents reported:
 - Barriers to accessing dental services due to lack of dental insurance coverage
 - Difficulty finding a dentist to accept their insurance plan
 - Inability to afford dental care or difficulty with easily traveling to a dentist
- The proportion of people who reported these difficulties varied by geography
- Geographic differences in access suggest the importance of tailoring policy and programs to address barriers to access to dental services for underserved populations, especially those living in rural and urban areas
- Present efforts to link underserved population groups with dental services remain important and should continue at the local, state, and federal level