

RESEARCH REPORT

Hospital Utilization

For Non-Traumatic Dental Conditions in Oregon from 2013 to 2015

Authors:

Avery R. Brow, MA2

Former Scientific Communications Manager, Analytics and Evaluation DentaQuest Partnership for Oral Health Advancement

Eric P. Tranby, PhD

Manager, Data and Impact, Analytics and Evaluation CareQuest Institute for Oral Health

Sean Boynes, DMD, MS

Vice President, Health Improvement CareQuest Institute for Oral Health

Acknowledgments:

The authors acknowledge Alister Suarez, consultant for DentaQuest, for his initial analysis, critical appraisal, and commentary on the manuscript and Justin Gonzalez, director of Clinical Affairs at Advantage Dental, for his critical appraisal and review of the research report.

Methods:

This study was reviewed and approved by the Western Institutional Review Board and utilizes data available from the Oregon Health Authority's All-Payer, All-Claims Reporting (APAC) database and contains three years of data from 2013 to 2015 (1). The dataset contains administrative claims data for all of Oregon's insured patients including medical, pharmacy, enrollment data, billed information, and provider information for those with commercial, Medicare, and Medicaid coverage (1). This data does not include any claims by uninsured individuals. Non-traumatic dental conditions were defined using the Association of State and Territorial Dental Directors (ASTDD) and the recently adopted Dental Quality Alliance (DQA) guidelines (2). Emergency department visits and inpatient admissions for dental conditions were analyzed separately.

Gender was dichotomously categorized as either male or female; age was divided into eight categories: 0-9, 10-19, 20-34, 35-44, 45-54, 55-64, 65-74, and 75+. Race was defined as White, Black, American Indian or Alaskan Native, Asian, Native Hawaiian or Pacific Islander, or another race; and ethnicity as Hispanic/Latino or not Hispanic/Latino. Fifty-five percent of the data available on race and ethnicity is missing from the original data source. Rates per 10,000 population are calculated using census information (21). Payers were classified into one of six groups: commercial-employer provided, commercial self-insured, Medicaid, dual eligibles, Medicare-only, and other. Given that care provided in EDs is often only palliative, we also investigated repeat visits to the ED by patients for non-traumatic dental conditions. Data was also evaluated for all counties in Oregon. All analyses were conducted in R and Stata 15.

Hospital Utilization

For Non-Traumatic Dental Conditions in Oregon from 2013 to 2015

Contents

Key Findings
Abstract
Introduction
Determinants of Hospital Utilization for Oral Health Conditions
Findings
Hospital Utilization Trends After Medicaid Expansion in Oregon
Implications
Social Disparities in Hospital Utilization
Discussion
References
Appendix 1

Key Findings



- Between 2013 to 2015, emergency department (ED) visits for non-traumatic dental conditions (NTDCs) had increased with 79% of ED visits for a dental condition paid for by Medicaid and those aged 20-34 had the highest visit rate across all three years.
- Among all ED users, Black and American
 Indian or Alaskan Native patients had
 the highest ED utilization rate.
- Residents of rural counties were more likely to utilize the ED compared to non-rural counterparts.
- About 13% of patients visited the ED multiple times in a year, with most returning within 15 days.



Abstract

Poor oral health remains a national concern impacting overall health and continues to burden an already overtaxed health care system. These issues are exacerbated by differing levels of coverage nationally, particularly in those states that lack any public oral health coverage. Those with significant and immediate need are forced to seek care from alternative settings and often are not equipped to provide dental treatment. Oregon operates a unique system called coordinated care organizations (CCOs) designed to link providers from across disciplines and focus on prevention and chronic disease management.

Using claims data from the All-Payer, All-Claims (APAC) database, this paper evaluates claims from 2013 to 2015 for all patients presenting to an emergency department (ED) or as an inpatient for a non-traumatic dental condition (NTDC). ED visits for NTDCs increased from 2013 to 2015 with 79% of ED visits for a dental condition paid for by Medicaid, and those aged 20-34 had the highest visit rate across all three years. Black and American Indian or Alaskan Native patients had the highest ED utilization. Residents of rural counties were more likely to utilize the ED than urban counties. 76% of patients visited the ED one time with a charge of \$13,888,516.

Oregon operates a unique system called coordinated care organizations (CCOs) designed to link providers from across disciplines and focus on prevention and chronic disease management.

Consistent with other findings, the increased visits are likely due to expanded Medicaid coverage. Increased usage by rural residents is supported by other studies. This paper continues to demonstrate the need for multi-level solutions that continue to decrease ED utilization across the state.



Introduction

Determinants of Hospital Utilization for Oral Health Conditions

Poor oral health continues to be a national issue impacting overall health while continuing to add cost to an already expensive U.S. health care system. In fact, poor oral health increases the likelihood of negative outcomes and health status including poor chronic condition management (3-7), poorer nutrition (8-9), lower quality of life (10), missed work and school days and enhances health disparities for many communities (11).

These issues can be heightened in many states given the uneven distribution or complete lack of public oral health benefits, poor oral health literacy, and lack of affordable dental care (12-13). Often, patients with immediate or significant needs are forced to seek care from alternative settings not positioned or equipped to provide that care, such as EDs (14-15). Services provided in the ED are costly and generally focus on immediate relief of pain or infection, rather than offering comprehensive or preventive care (11). Nationwide, in 2010, it is estimated that these dental-related, medical visits cost an additional \$1.7 billion per year and 79% could be seen by a dental office, avoiding the need for an ED visit altogether (16).

Addressing utilization of EDs and other inappropriate, alternative settings for the treatment of dental conditions remains a significant challenge for dental providers and insurers, particularly state Medicaid programs. Since 2014, the state of Oregon has utilized a unique system to offer health insurance coverage through regional coordinated care organization (CCO) networks, which link providers from across disciplines, including behavioral and oral health. CCOs focus on prevention and chronic disease management while limiting ED visits as a system-wide performance goal (17-19). Fifteen CCOs operate in the state and share responsibility for member health, measurement and quality improvement, transparency, and maintenance of costs. Additionally, in 2014, comprehensive dental coverage was re-established for adults (20).

This report evaluates both ED and inpatient hospital utilization for non-traumatic dental conditions in Oregon from 2013 to 2015. The coordinated provision of care, and the purposeful inclusion of both dental and behavioral health within their model that are excluded from most other Medicaid programs makes the evaluation of ED and inpatient usage in Oregon valuable for both policy makers and state leaders, particularly as more states consider the inclusion, or expansion, of adult dental benefits within their own Medicaid programs.

Findings

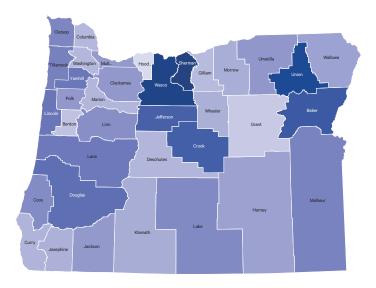
Hospital Utilization Trends After Medicaid Expansion in Oregon

Both ED and inpatient visits for non-traumatic dental care more than doubled from 14,105 total visits in 2013 to 26,981 visits in 2015 for any insurance type (see Appendix 1). This is a direct result of Medicaid expansion enrollment, as similar patterns were observed in only Medicaid-enrolled patients with 9,798 total visits in 2013 and 21,758 in 2015. Inpatient and emergency department utilization peaked in 2014, both for those with all insurances and Medicaid-only; this finding is consistent with the literature demonstrating similar increases in 2014 with Medicaid expansion, and resulting declines in ED utilization beginning in 2015 (23).

ED visits for dental-related conditions are not evenly distributed across the state (Figure 1). Rates of ED visits among Medicaid enrollees are significantly higher in rural counties than non-rural counties (t=2.18, p<0.05). Baker, Crook, Douglas, Jefferson, Sherman, Union, and Wasco counties are all classified as rural and have the seven highest rates of ED visits for dental-related conditions in the state.

Females access dental care through ED and inpatient settings more frequently than males across all years (Figure 2). Individuals 20-34 represented the highest rate of visits to an ED for a dental-related condition for all years. Inpatient

Figure 1. Rate of ED Visits for Non-Traumatic Dental Conditions by Medicaid Enrollees in Oregon Counties in 2015.



Rate of ED Visits Per 10,000 of Medicaid Population

Powered by Bing
72.4 412.6 @GeoNames

Figure 2. Rate of ED Visits and Inpatient Admissions for Dental Conditions, By Gender and Age, in Oregon 2015

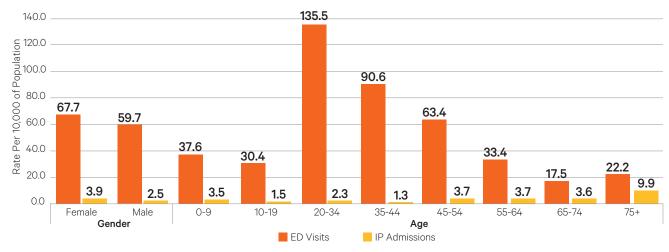
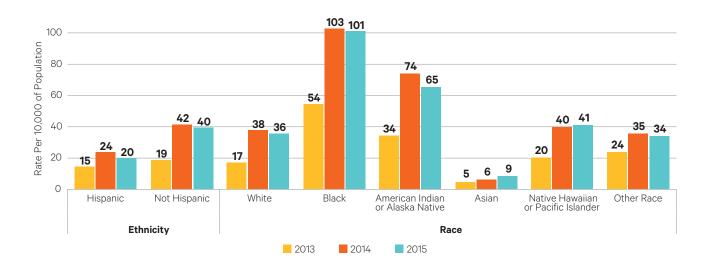


Figure 3. Rate of ED Visits for Dental Conditions, by Ethnicity and Race, in Oregon 2013 - 2015

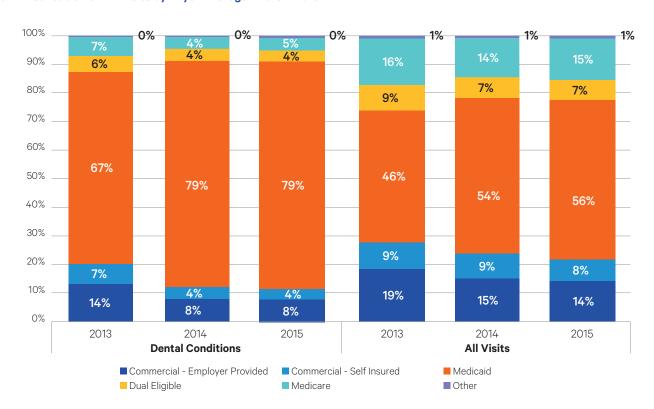


admissions remained steady in all age groups, except for those adults over 75, when inpatient admissions for dental-related conditions increased sharply. Patients identifying as Black had the highest rate of ED utilization, followed by those identifying as either American Indian or Alaskan Native (Figure 3).

Medicaid is more likely to pay for an ED or inpatient visit for a dental-related condition than ED or inpatient visits other reasons. In 2015, 79% of ED visits due to dental conditions were paid by Medicaid, compared to only 56% of ED visits for any reason (Figure 4). Similarly, 39% of inpatient admissions for dental conditions are paid for by Medicaid, compared to 33% of ED visits for any reason (Figure 5).

The percentage of dental-related ED visits paid by Medicaid increased 12% from 67% in 2013 to 79% in 2015; a similar increase was seen for all-reason ED visits from 46% in 2013 to 56% in 2015. At the same time, the share of costs paid by employer-provided commercial plans decreased both for all conditions, and for dental-related visits. Similar patterns were

Figure 4. Distribution of ED Visits by Payer in Oregon 2013 - 2015



observed for dental-related inpatient admissions. Twenty-three percent of the inpatient admissions were paid for by Medicaid in 2013; this increased to 39% in 2015. This reduction is likely due to increased Medicaid expansion enrollments. Costs for all-reason inpatient admissions remained relatively steady across all insurance types, except for those with Medicare, and dual-eligibles.

Eighty-seven percent of patients made only one visit to an ED (Figure 6). The charge for these visits was \$13,888,516. Thirteen percent made two or more visits to an ED for a dental-related condition within 365 days for a total charge of \$1,367,909. Among the 13% with more than one visit, the majority revisited an ED between one and 15 days of the initial, dental related visit.

Figure 5. Distribution of Inpatient Admissions by Payer in Oregon 2013 - 2015

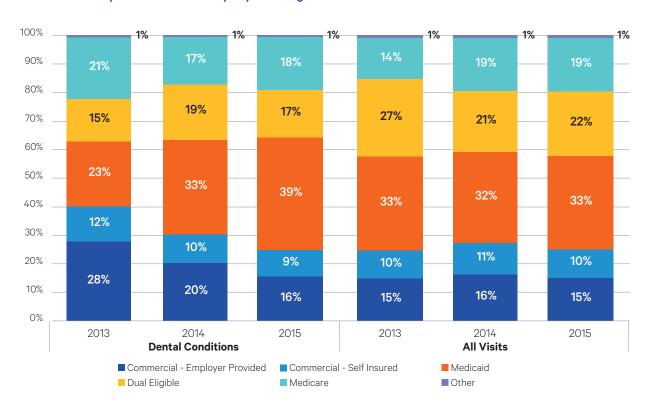
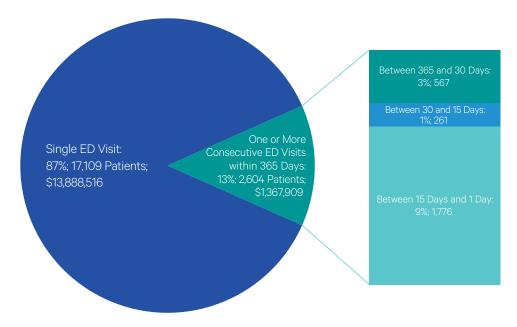


Figure 6. Distribution of ED Visits for Non-Traumatic Dental Conditions, by Number of Visits, in Oregon 2015



Implications

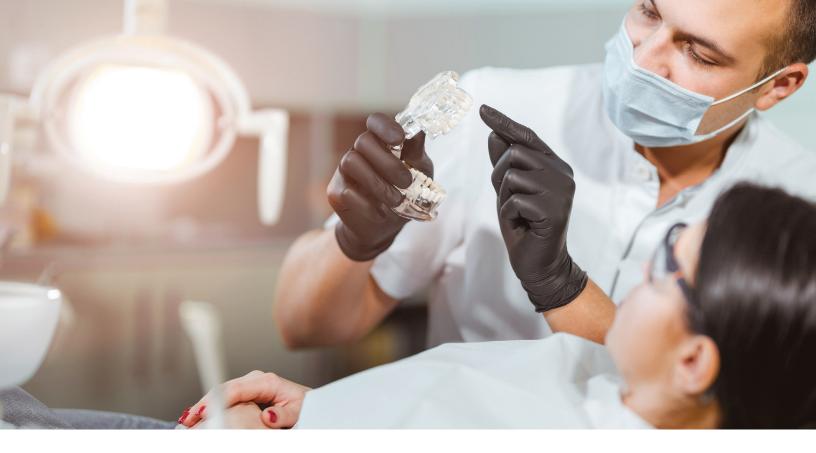
Social Disparities in Hospital Utilization

Oregon experienced higher utilization in both the ED and the inpatient admissions for non-traumatic dental care at the outset of their Medicaid program. Previous analyses show that when adults gain coverage from public insurance programs there is an increase in utilization of all services, including EDs and that this trend continues for newly enrolled recipients for at least two years after enrollment (22-23). Additionally, inpatient admissions increased over the same time period as ED visits in our cohort. These findings correlate to previous studies looking at medically related increases in inpatient admissions after adult Medicaid expansion in Oregon and Connecticut (23-24). Consistent with prior research, females are more likely than males to utilize the ED for dental related issues, particularly among those carrying Medicaid coverage (25-27). This finding, though similar, necessitates further exploration to conceptualize and understand the underlying interpersonal and social factors that are driving this trend.

Similarities with an analysis of Oregon ED utilization from 2010 were found (17). The authors of that analysis reported in 2015 that dental related complaints accounted for 2.5% of ED visits and determined that dental related issues represented the second most common discharge diagnosis in adults aged 20-39. Additionally, 56% of oral health related visits resulted in prescriptions for both an opioid and an antibiotic; these visits averaged \$402 per visit (17). Direct agreement was found with this analysis that the utilization of the ED for non-traumatic dental care is a costly public health issue that does not result in chronic health and is more likely to affect susceptible residents of Oregon.

To make positive changes for rural children and adults, Oregon is implementing teledentistry programs with providers to increase access of services, particularly in rural areas in the state.

The findings of this analysis also correlate with other statespecific analysis that rural populations are more likely to utilize the ED for dental issues than for their non-rural counterparts. Increased utilization of the FD relates to the fact that rural areas. are more likely to have dental care team shortages, rural adults and children are more likely to have untreated dental needs, and rural communities are associated with socioeconomic factors that enhance poor oral health and nutrition (28-30). A recent study conducted found that rural children are more likely to have unmet dental needs, cite additional barriers in receipt of dental care, and have higher odds of an ED visit at least once in the past year (31). To make positive changes for rural children and adults, Oregon is implementing teledentistry programs with providers to increase access of services, particularly in rural areas in the state. Implementation of these teledentistry programs offer promising advantages and care improvements for rural residents of the state (32).



Discussion

It is likely that the increases seen in Oregon EDs and inpatient hospitalization utilization trends are the result of expanded Medicaid coverage and, at least partially, represent the shift in costs from the uninsured to Medicaid when they gained coverage under expansion, though this is not definitive as this data does not include the uninsured. The increase is likely also connected to the poor oral health of those patients who did not have access to dental care prior to expansion and may reflect inadequate existing provider networks to meet the pent-up demand for dental care, inadequate patient education about dental benefits, or poor literacy on the behalf of beneficiaries on where to seek appropriate care. Utilization of EDs is also higher due to geographic barriers faced by patients. A recent study shows that when patients experience lower spatial access to primary care services, they are more likely to then seek that care from an ED (33). This finding is also true for pediatric patients, a population that experiences universal coverage in the state of Oregon (34). The need for multi-level solutions, such as referral programs between EDs and local dentists and programs that increase access to dental care for those without ready access to dental care, such as teledentistry and expanded practice dental hygienists to continue decreasing ED utilization for care that can be more effectively delivered in lower cost environments continues in Oregon. At-risk Oregonians appear to be the residents that will benefit the most from these types of interventions and awareness campaigns.

The need for multi-level solutions, such as referral programs between EDs and local dentists and programs that increase access to dental care for those without ready access to dental care, such as teledentistry and expanded practice dental hygienists to continue decreasing ED utilization for care that can be more effectively delivered in lower cost environments continues in Oregon.

References

- Oregon Health Authority. Oregon All Payer All Claims Database (APAC): An Overview. 2018. State of Oregon: Salem OR.
- Association of State and Territorial Dental Directors. Recommended Guidelines for Surveillance of Non-Traumatic Dental Care in Emergency Departments. 2017. Accessed from: https://www.astdd.org/docs/ed-dental-care-protocols-w-appendices-july-6-2017.pdf. Griffin SO, Baker LK, Griffin PM, Cleveland JL, Kohn W. Oral health needs among adults in the United States with chronic diseases. J Am Dent Assoc. 2009;140(10):1266-1274. DOI: https://doi.org/10.14219/jada.archive.2009.0050.
- Singer RH, Stoutenberg M, Feaster DJ, Cai J, Hlaing WM, Metsch LR, Salazar CR, Beaver SM, Finlayson TL, Talavera G, Gellman MD, Schneiderman N. The association of periodontal disease and cardiovascular disease risk: results from the Hispanic Community Health Study/Study of Latinos. J Periodontol. 2018;89(7):840-857. DOI: https:// doi.org/10.1002/JPER.17-0549
- Kholy KE, Genco RJ, Van Dyke TE. Oral infections and cardiovascular disease. Trends Endocrinol Metab. 2015;26(6):315-321.
 DOI: https://doi.org/10.1016/j.tem.2015.03.001.
- Hwang SL, Shim JL, Kang D, Choi J. Poor oral health predicts higher 10-year cardiovascular risk: a propensity score matching analysis. J Cardiovasc Nurs. 2018;33(7):429-436.
 DOI: https://doi.org/10.1097/JCN.0000000000000497.
- Liljestrand JM, Havulinna AS, Paju S, Mannisto S, Salomaa V, Pussinen P. Missing teeth predict incident cardiovascular events, diabetes, and death. J Dent Res. 2015;94(8):1055-1062.
 DOI: https://doi.org/10.1177/0022034515586352.
- Palacios C, Joshi KJ. Nutrition and health: a two-way relationship. In: Bales CW, Locher JL, Saltzman E. Handbook of Clinical Nutrition and Aging. New York, NY: Springer Health+Business; 2015. 91-98.
- 8. Hugo C, Cockburn N, Ford P, March S, Isenring E. Poor nutritional status is associated with worse oral health and poorer quality of life in aged care residents. Jour Nursing Home Res. 2016;2:118-122. DOI: http://dx.doi.org/10.14283/jnhrs.2016.18.
- Chaffee BW, Rodrigues PH, Kramer PF, Vitolo MR, Feldens Ca. Oral healthrelated quality-of-life scores differ by socioeconomic status and caries experience. Community Dent Oral Epidemiol. 2017;45(3):216-224. DOI: https://doi.org/10.1111/cdoe.12279
- Cohen LA, Bonito AJ, Eicheldinger C, Manski RJ, Macek MD, Edwards RR, Khanna N. Comparison of patient visits to emergency departments, physician offices, and dental offices for dental problems and injuries. J Public Health Dent. 2015;71(1):13-22. DOI: https://doi.org/10.1111/j.1752-7325.2010.00195.x
- Henderson E, Dalawari P, Fitzgerald J, Hinyard L. Association of oral health literacy and dental visitation in an inner-city emergency department population. Int J Environ Res Public Health. 2018;15(8). DOI: https://doi.org/10.3390/ijerph15081748.
- Willink A, Schoen C, Davis K. Dental care and Medicare beneficiaries: access gaps, cost burdens and policy options. Health Aff (Millwood). 2016;35(12):2241-2248.
 DOI: https://doi.org/10.1377/hlthaff.2016.0829.
- Lee HH, Lewis CW, Saltzman B, Starks H. Visiting the emergency department for dental problems: trends in utilization, 2001 to 2008. Am J Pub Health. 2012;102(11)e77-e83.

- DOI: https://doi.org/10.2105/AJPH.2012.300965.
- Rampa S, Veeratrishul A, Raimondo M, Connolly C, Allareddy V, Nalliah P. Hospital-based emergency department visits with periapical abscess: updated estimates from 7 years. J Endod. 2019;45(3):250-256. DOI: https://doi.org/10.1016/j.joen.2018.12.004.
- 15. Wall T, Nasseh K, Vujicic M. Majority of dental-related emergency visits lack urgency and can be diverted to dental offices. 2014. ADA Health Policy Institute: Chicago IL. Accessed from: https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0814_1.ashx.
- 16. Kaiser Family Foundation. Medicaid in 2018. 2018. The Henry J Kaiser Family Foundation: San Francisco CA.
- 17. Oregon Health Plan. Coordinated Care Organizations (CCO). n.d. State of Oregon: Salem OR. Accessed from: https://www.oregon.gov/oha/HSD/OHP/Pages/Coordinated-Care-Organizations.aspx.
- Sun BC, Chi DL, Schwarz E, Milgrom P, Yagapen A, Malveau S, Chen Z, Chan B, Danner S, Owen E, Morton V, Lowe RA. Emergency department visits for nontraumatic dental problems: a mixed-methods study. Am J Public Health. 2015;105(5):947-955. DOI: https://doi.org/10.2105/AJPH.2014.302398.
- Wallace NT, Carlson MJ, Mosen DM, Snyder JJ, Wright BJ. The individual and program impacts of eliminating Medicaid dental benefits in the Oregon Health Plan. Am J Public Health. 2011;101(11):2144-2150. DOI: https://doi.org/10.2105/AJPH.2010.300031.
- United States Census Bureau. Population and Housing Unit Estimates. n.d. Accessed from: https://www.census.gov/programs-surveys/popest/data/tables.html.
- McMorrow S, Gates JA, Long SK, Kenney GM. Medicaid expansion increased coverage, improved affordability, and reduced psychological distress for low-income parents. Health Aff (Millwood). 2017;36(5):808-818. DOI: https://doi.org/10.1377/hlthaff.2016.1650.
- 22. Ladhania R, Haviland AM, Venkat A, Telang R, Pines JM. The effect of Medicaid expansion on the nature of new enrollees' emergency department use. Med Care Res Rev. 2019;73(3):213-224. DOI: https://doi.org/10.1177/1077558719848270.
- Nikpay S, Buchmueller T, Hildebrand WO, Levy H. Early Medicaid expansion in Connecticut stemmed the growth in hospital uncompensated care. Health Aff (Millwood). 2015;34(7):1170-1179, DOI: https://doi.org/10.1377/hlthaff.2015.0107.
- 24. Anderson L, Cherala S, Traore E, Martin NR. Utilization of hospital emergency departments for non-traumatic dental care in New Hampshire, 2001-2008. J Community Health. 2011;36(4):513-516. DOI: https://doi.org/10.1007/s10900-010-9335-5.
- Trikhacheva A, Page M, Gault H, Ochieng R, Barth BE, Cannon CM, Shakhnovich O, Engelman KK. Dental-related emergency department visits and community dental care resources for emergency room patients. KS J Med. 2015;8(2):61-72.
 DOI: https://doi.org/10.17161/kjm.v8i2.11521.
- McCormack LA, Jones SG, Coulter SL. Demographic factors influencing nonurgent emergency department utilization among a Medicaid population. Health Care Manag Sci. 2016;20(3):395-402. https://doi.org/10.1007/s10729-016-9360-8.
- 27. Gamm L, Hutchison L, Dabney B, Dorsey A. Rural Healthy People 2010: A

- Companion Document to Health People 2010, Vol 1. 131-144. College Station TX: The Texas A&M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center. Accessed from: https://srhrc.tamhsc.edu/docs/rhp-2010-volume1.pdf.
- 28. Braswell A, Johnson N. Rural America's Oral Health Care Needs. 2013.

 Accessed from: https://www.ruralhealthweb.org/getattachment/Advocate/Policy-Documents/RuralAmericasOralHealthCareNeeds-(1).pdf.aspx?lang=en-US.
- 29. National Research Council. Improving access to oral health care for vulnerable and underserved populations. Washington DC:
 National Academies Press. 2011. Accessed from:
 http://www.nationalacademies.org/hmd/Reports/2011/Improving-Access-to-Oral-Health-Care-for-Vulnerable-and-Underserved-Populations.aspx.
- 30. DeVoe JE, Krois L, Stenger R. Do children in rural areas still have different access to health care? Results from a statewide survey of Oregon's Food Stamp population. J Rural Health. 2009;25(1):1-7. DOI: https://doi.org/10.1111/j.1748-0361.2009.00192.x.
- Daniel SJ, Kumar S. Teledentistry: a key component in access to care.
 J. Evid Based Dent Pract. 2014;14(Suppl):201-208. DOI: https://doi.org/10.1016/j.jebdp.2014.02.008.
- 32. Fishman J, McLafferty S, Galanter W. Does spatial access to primary care affect emergency department utilization for nonemergent conditions? Health Serv Res. 2018;53(1):489-508. DOI: https://doi.org/10.1111/1475-6773.12617.
- 33. Gregory EF, Chamberlain JM, Teach SJ, Engstrom R, Mathison DJ. Geographic variation in the use of low-acuity pediatric emergency medical services. Pediatr Emerg Care. 2017;33(2):73-79, DOI: https://doi.org/10.1097/PEC.0000000000000081.

Appendix 1

Appendix 1: Utilization and Expenditure on Dental Care by Insurance Type										
	Panel A: All Payers					Panel A: Medicaid Enrollees				
	Count	% of Total Visits	Rate Per 10,000 of Population	Inflation Adjusted Total Cost	Inflation Adjusted Avg. Cost	Count	% of Total Visits	Rate Per 10,000 of Population	Inflation Adjusted Total Cost	Inflation Adjusted Avg. Cost
	2013					2013				
ED Visits	13,379	1.7%	34.04	\$7,177,737	\$536	9,554	2.3%	142.85	\$1,442,172	\$151
Inpatient Visits	726	0.3%	1.85	\$9,973,642	\$13,738	244	0.2%	3.65	\$1,680,218	\$6,886
Total	14,105	1.3%	35.89	\$17,151,379	\$1,216	9,798	1.7%	146.50	\$3,122,390	\$319
	2014					2014				
ED Visits	26,239	2.5%	66.09	\$13,559,107	\$517	21,572	3.5%	222.20	\$6,104,451	\$283
Inpatient Visits	1,416	0.5%	3.57	\$20,016,496	\$14,136	726	0.5%	7.48	\$6,520,296	\$8,981
Total	27,655	2.1%	69.66	\$33,575,603	\$1,214	22,298	2.9%	229.68	\$12,624,747	\$566
	2015					2015				
ED Visits	25,681	2.3%	63.74	\$13,888,516	\$541	21,052	3.1%	200.96	\$6,643,683	\$316
Inpatient Visits	1,300	0.5%	3.23	\$20,956,912	\$16,121	706	0.5%	6.74	\$6,158,742	\$8,723
Total	26,981	1.9%	66.97	\$34,845,428	\$1,291	21,758	2.6%	207.70	\$12,802,425	\$588

CareQuest Institute for Oral Health

CareQuest Institute for Oral Health® is a national nonprofit championing a more equitable future where every person can reach their full potential through excellent health. We do this through our work in grantmaking, research, health improvement programs, policy and advocacy and education as well as our leadership in dental benefits, care delivery and innovation advancements. We collaborate with thought leaders, health care providers, patients and local, state and federal stakeholders, to accelerate oral health care transformation and create a system designed for everyone. To learn more, visit <u>carequest.org</u>.

This report and others are available at carequest.org.