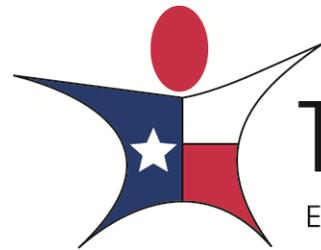


Emergency Department and Inpatient Hospitalization for Non-Traumatic Dental Conditions in Texas

Texas Oral Health Coalition – 2018 Annual Meeting

October 19, 2018

Austin, Texas



Texas Health Institute

EDUCATION ★ AWARENESS ★ POLICY DEVELOPMENT ★ PREVENTION

Acknowledgements

- THI has developed this report with funding support provided by the **DentaQuest Foundation**
- THI would also like to thank the **DentaQuest Institute** for their technical and analytical expertise in the development of this report
- THI Staff:

Gourav Patil, MPH, MBBS, *Public Health Research Analyst*



ORAL HEALTH IN TEXAS

Emergency Department and Inpatient Hospitalization for Non-Traumatic Dental Conditions in Texas



Texas
Health
Institute

October | 2018

- To view or download the report, please visit the oral health program page at:

www.texashealthinstitute.org

Prior Research

Inpatient Admissions for Dental Conditions in Texas from 2004-2010

NATALIA I. CHALMERS, DDS, PhD¹ AND ANKIT SANGHAVI, BDS, MPH²
 1: DentaQuest Institute, Columbia, MD 2: Texas Health Institute, Austin, TX

RESEARCH OBJECTIVES

- Relatively little is known about inpatient admissions for dental conditions.
- Patient admitted to the hospital for dental conditions are likely to have severe, untreated dental conditions and have complicated health histories.
- Admissions are likely to be expensive and make use of a wide range of hospital services.

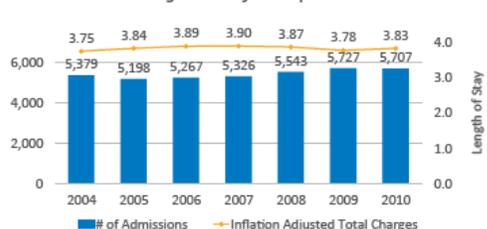
STUDY DESIGN

- Claims data from more than 500 hospitals in Texas from 2004 to 2010.
- Inclusion criteria was defined as inpatient admission with a dental condition.
- Patients were stratified by source of admission, status on discharge status, primary payer, and length of stay.
- Demographic information included gender, age, and race/ethnicity.
- Dental conditions were defined as ICD-9-CM codes 520.XX – 529.9X.

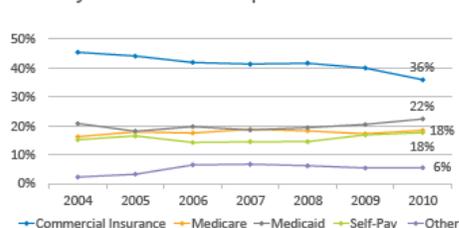
PRINCIPAL FINDINGS

- 51% of patients were admitted to the hospital via physician or clinic referral.
- 40% of patients were admitted from the emergency department.
- 90% of patients were discharged home.
- Two-thirds of admitted patients were white and 25% were Hispanic.
- 150 patients died while in the hospital.

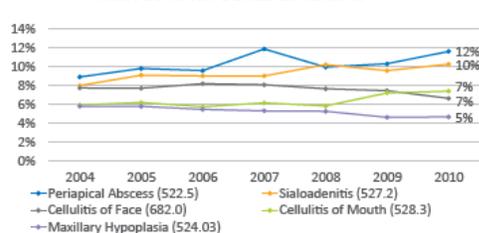
Number and Length of Stay for Inpatient Admissions



Payer Distribution for Inpatient Admissions



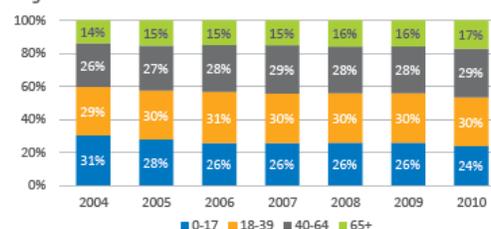
Most Common Dental Conditions



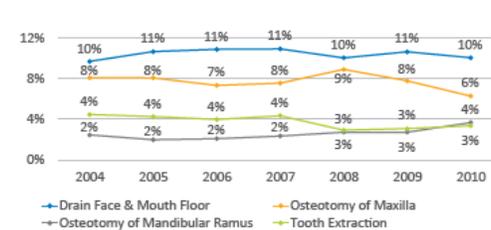
Total and Average Costs



Age Distribution of Patients Admitted for Dental Conditions



Most Common Procedures Performed



CONCLUSIONS

- Inpatient admissions for dental conditions increased in Texas from 2004 to 2010.
- These admissions are costly and are increasing faster than the rate of inflation.
- Inpatient admissions for dental conditions are consistently distributed across age groups.
- Medicaid, Medicare and the uninsured are increasingly covering these costs.

POLICY IMPLICATIONS

- Complications from unmet dental needs could be deadly.
- 150 Texans died in the hospital due to dental conditions.
- These admissions are preventable.
- Lower costs, better patient outcomes and experience can be achieved with comprehensive dental care.

FOR MORE INFORMATION

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Overview

- The current analysis reviews Emergency Department and Inpatient Hospital Discharge data requested from the Texas Department of Health and Human Services (DSHS)
- Data acquired from January 2011 through June 2017
- Data presented in this report focuses on calendar year 2016, the last full year for which data is available.



Background

- 16.6% of Texans are uninsured – the highest rate in the country
- Texas Medicaid does not offer comprehensive adult dental benefits
 - Only offers emergency dental treatment
- Lack of dental coverage leads to higher rates of ED utilization for the treatment of dental conditions



Background

- Care provided in the emergency setting represents one of the most expensive treatment modalities available.
- Care provided is non-definitive
- Patients frequently only receive antibiotics and opioid medications
- As care is not comprehensive, patients often return for further care



Background

- Regular dental care is associated with positive patient outcomes, including, reductions in:
 - Stroke
 - Heart disease
 - Oral cancer
 - Lower HgA1C (blood sugar) levels in diabetic patients



Background

- As of 2017, there were 28,797,290 individuals living in Texas
 - Expected to increase 2% each year through 2020
- 3,061,090 Texans live in a region classified as rural
- 49% of all children with special health needs in Texas are covered by Medicaid



Background

- 407 hospital systems cover 254 counties in Texas
- 10,647,047 emergency department visits for any reason occurred in 2016, an increase of 1.5% over the previous year
- 1,471,871 (14%) were admitted for further treatment as an inpatient



Methods

- This report defines non-traumatic dental conditions using the list provided by the Association of State and Territorial Dental Directors (ASTDD).
- Also, included are patients admitted with a primary diagnosis of cellulitis of the face or neck secondary to a dental condition



Methods

- Emergency visit is classified as a stay in the hospital of 23 hours or less
- Inpatient visit is classified as a stay of 24 hours or more
- Rate per 100,000 of the population were calculated using 2016 population estimates from the U.S. Census Bureau's American Community Survey
- Rate per 100,000 of the Medicaid-enrolled population were calculated using 2016 Medicaid enrollment information from Texas Health and Human Services.



There is a Story!



Average annual cost of
preventive dental visit

\$180-\$211



Average annual cost
of restorative care

\$300-\$591



Average annual charges
for NTDC's related ED
visits in Texas

\$1,853



Average annual charges
for inpatient admissions for
NTDC's in Texas

\$46,198



Key Findings

Hospital Visits for NTDC's among Adults in Texas, 2016									
	2016								
	Total				Medicaid Enrollees				
	# of Visits	Rate Per 1000,000 of Polulation	Average Charge	Total Charge	# of Visits	% of Total Visits	Rate Per 1000,000 of Polulation	Average Charge	Total Charge
Ed Visits for NTDC's	122,096	437.54	\$1,853	\$226,283,179	25,647	21%	631.61	\$1,692	\$43,401,217
Inpatient Admissions for NTDC's	4,692	16.81	\$46.198	\$216,761,003	700	15%	17.24	\$42,726	\$29,908,388



Key Findings

Emergency Department

- **122,096** emergency department visits for a dental condition in 2016
- Average charge for all payers: **\$1,853**

Inpatient Admissions

- **4,692** patients were admitted primarily through a physician's referral or the emergency department
- Average charge for all payers: **\$46,198**



Key Findings

Emergency Department

- **21%** of ED visits were by Medicaid patients
- Average charge of these visits: **\$1,692 per visit**

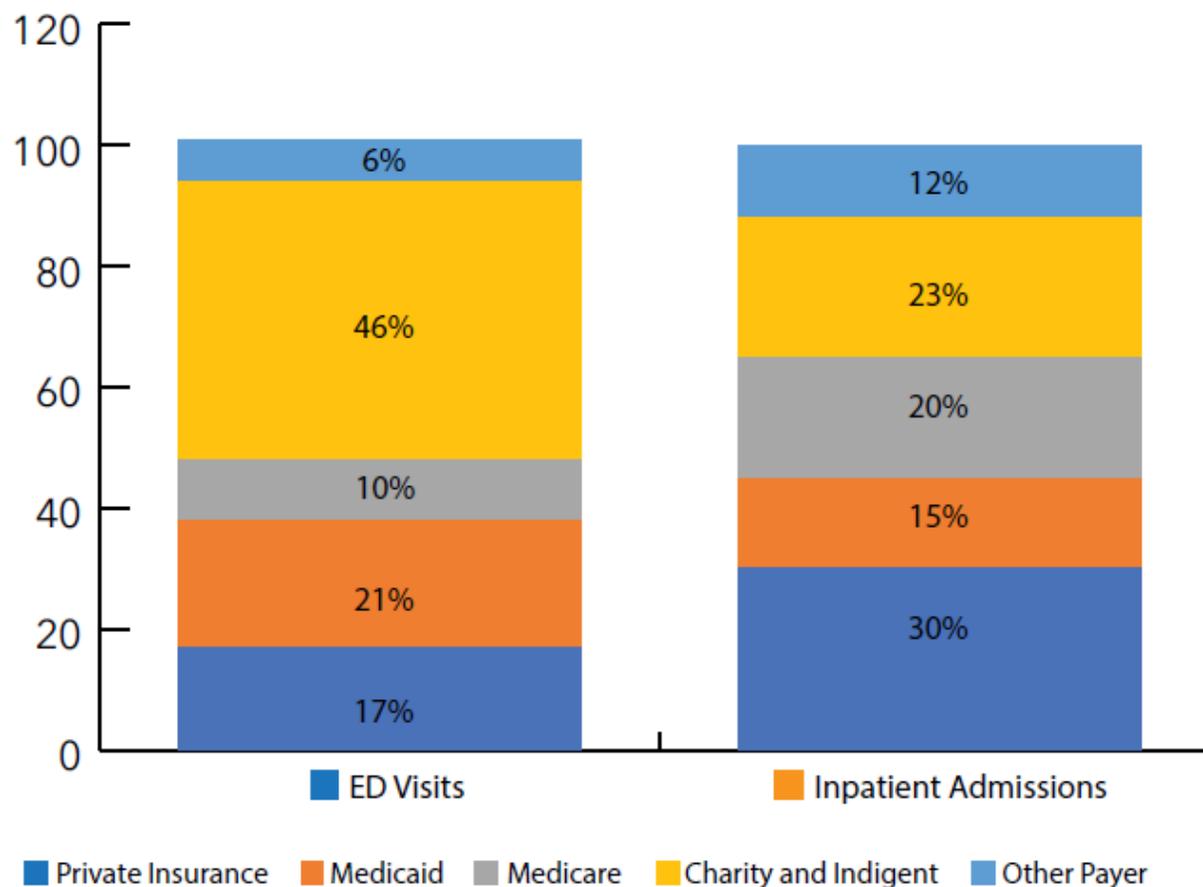
Inpatient Admissions

- **15%** of inpatient admissions were Medicaid patients
- Average charge of these visits: **\$42,726 per stay**



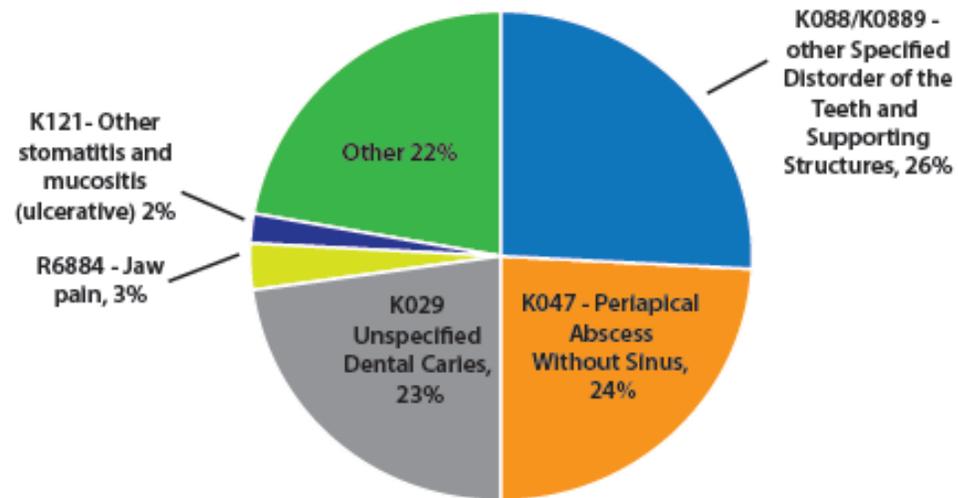
Key Findings: Payers

Distributions of Payers Hospital for NTDC's
in Texas, 2016

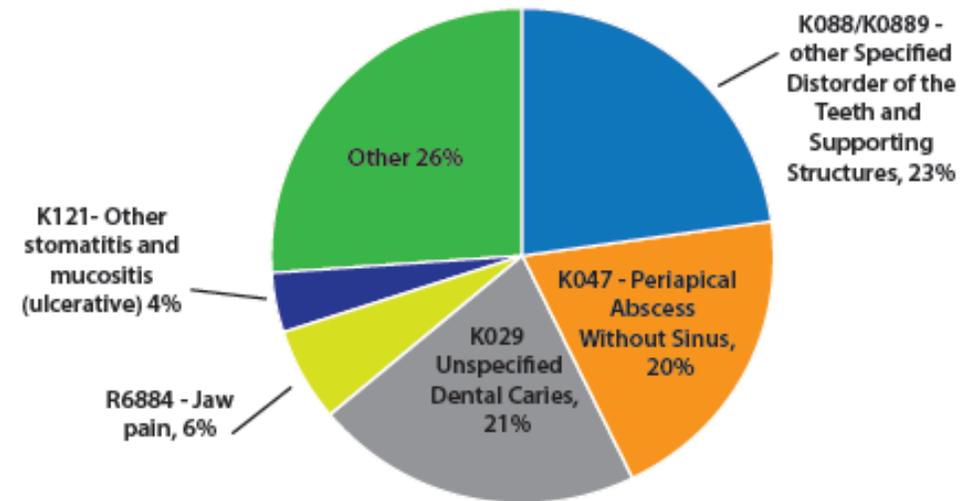


Key Findings: Diagnoses

Common Diagnosis among Patients with ED Visits for Dental Conditions in 2016

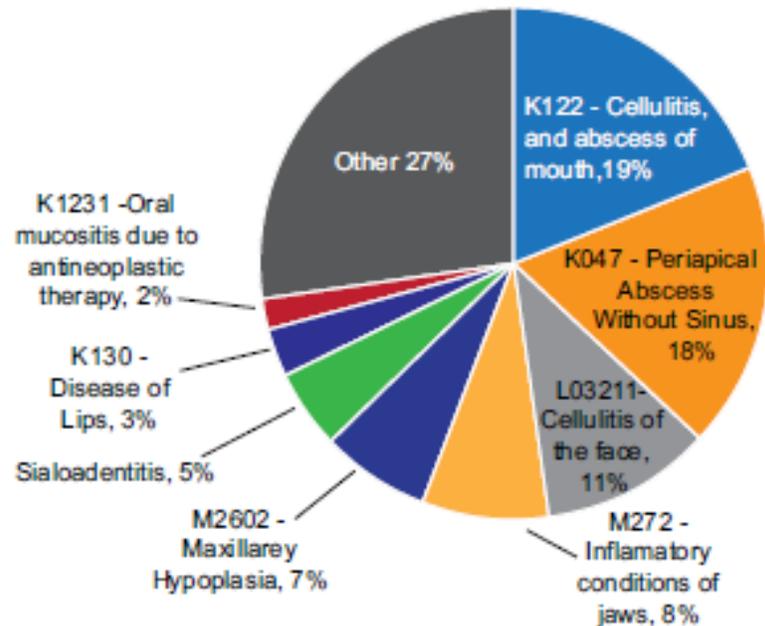


Common Diagnosis among Medicaid Enrollees with ED Visits for Dental Conditions in 2016

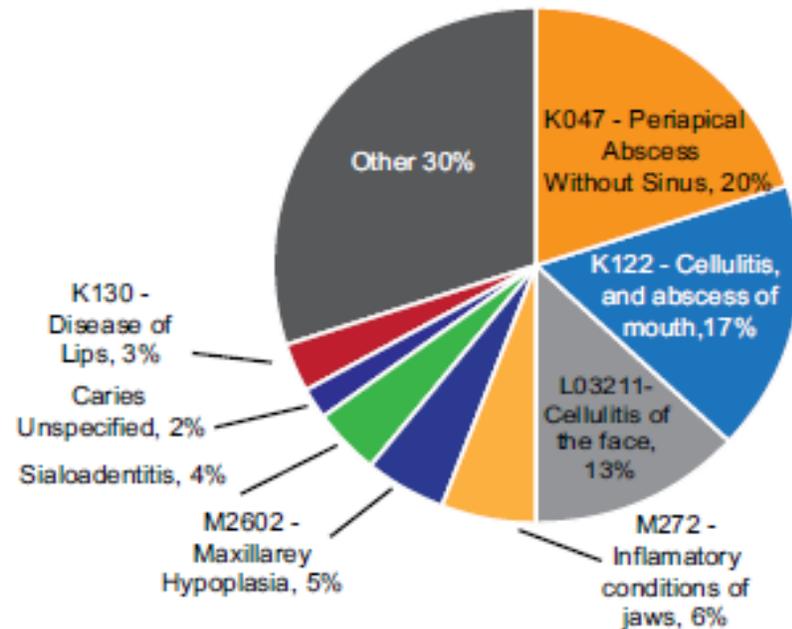


Key Findings: Diagnoses

Common Diagnosis among Patients with IP Admissions for NTDC's in 2016



Common Diagnosis among Medicaid Enrollees with IP Admissions for NTDC's in 2016



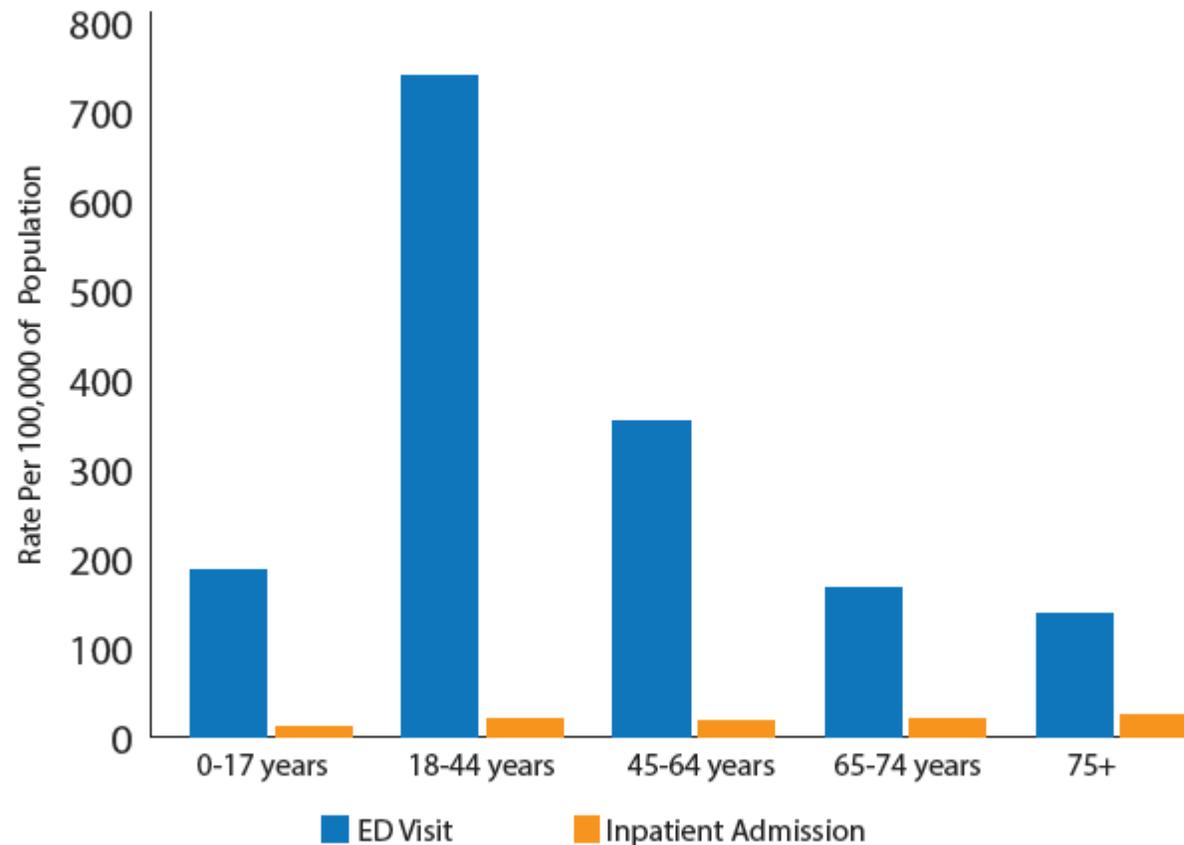
Key Findings: Socio-demographics

- Patients aged 18-44 years visited the emergency department more than any other age group
- Non-Hispanic black patients enrolled in Medicaid had the highest ED utilization of any other group
- Non-Hispanic white patients had the highest inpatient utilization of any other group
- A majority of the counties with the highest utilization for either inpatient or ED were classified as rural

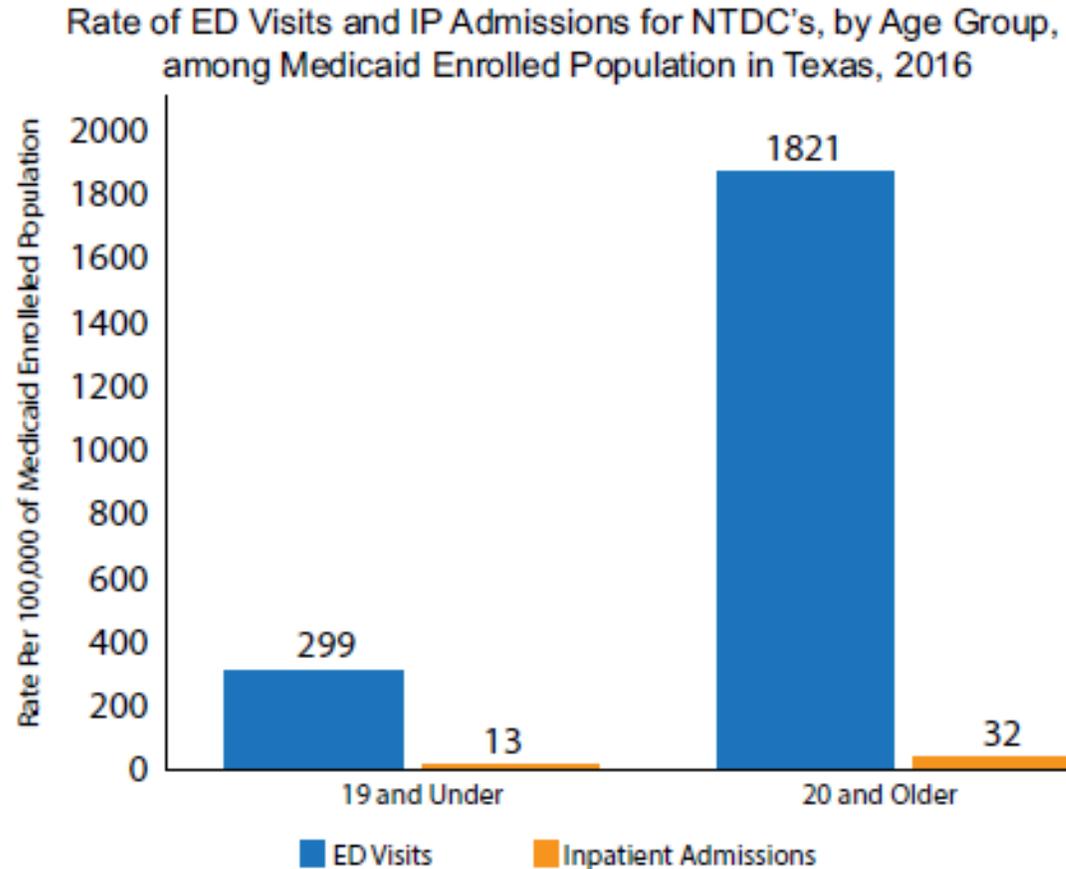


Key Findings: Socio-demographics

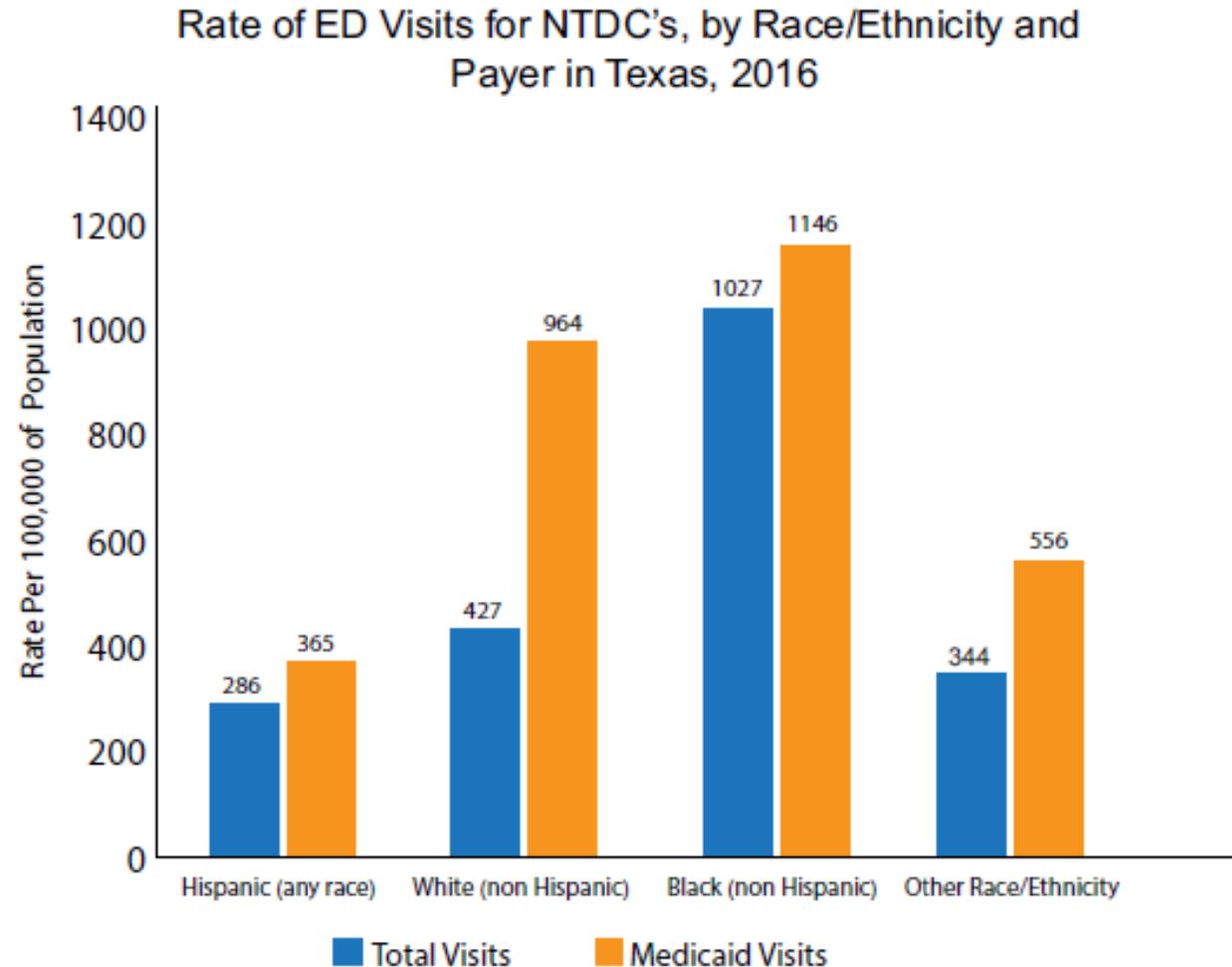
Rate of Hospital Visits for Dental Conditions, by Age Group in Texas, 2016



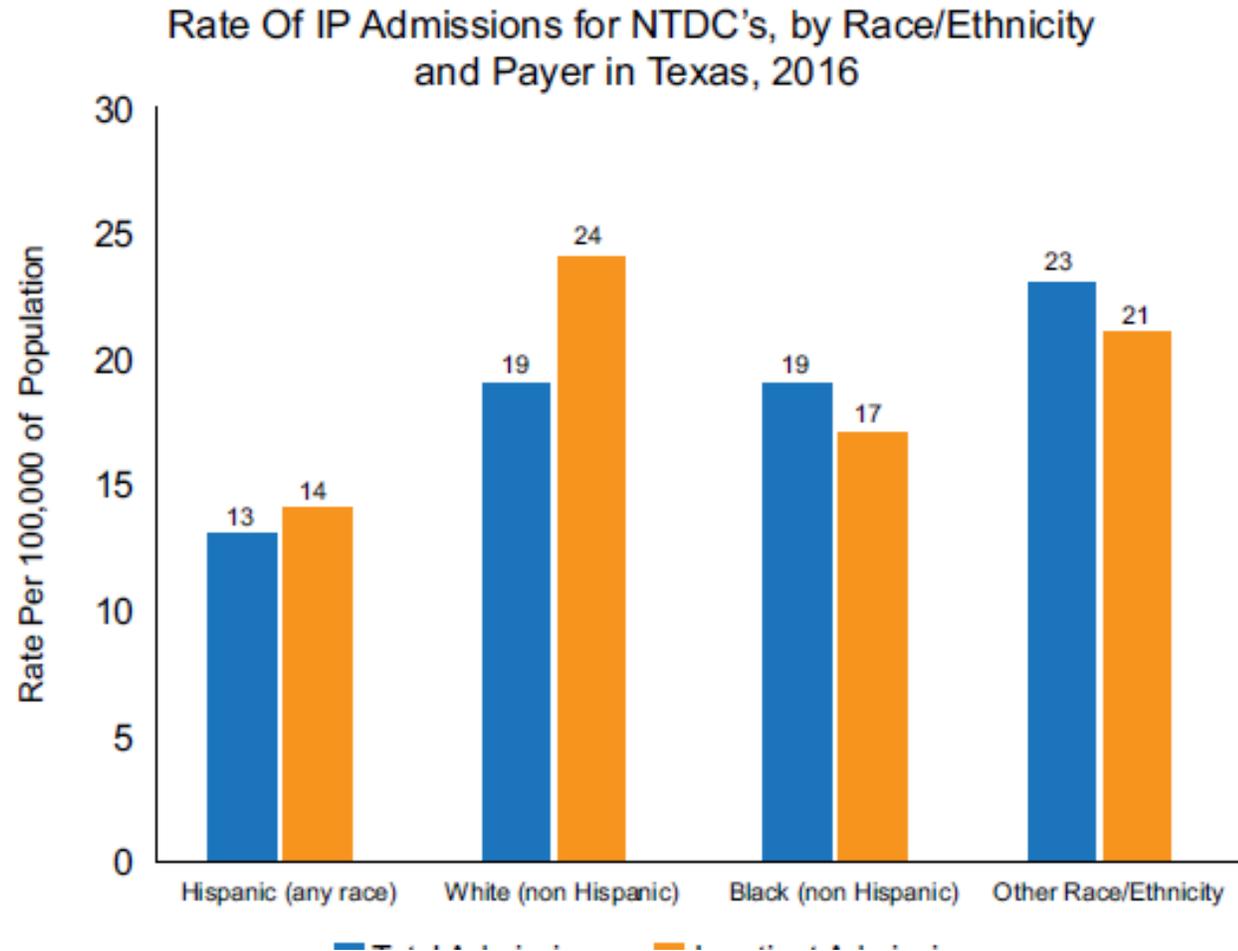
Key Findings – Socio-demographics



Key Findings: Socio-demographics

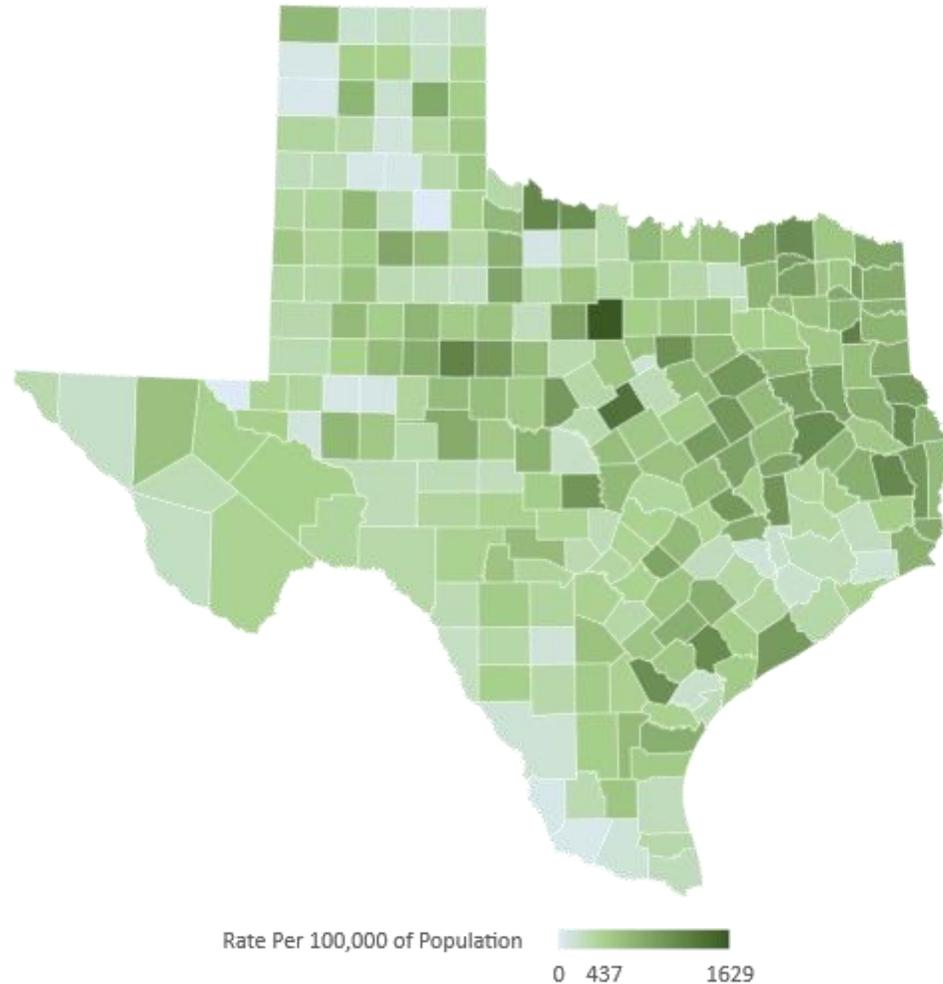


Key Findings: Socio-demographics



Key Findings: Socio-demographics

Rate of ED Visits in Texas Counties, 2016

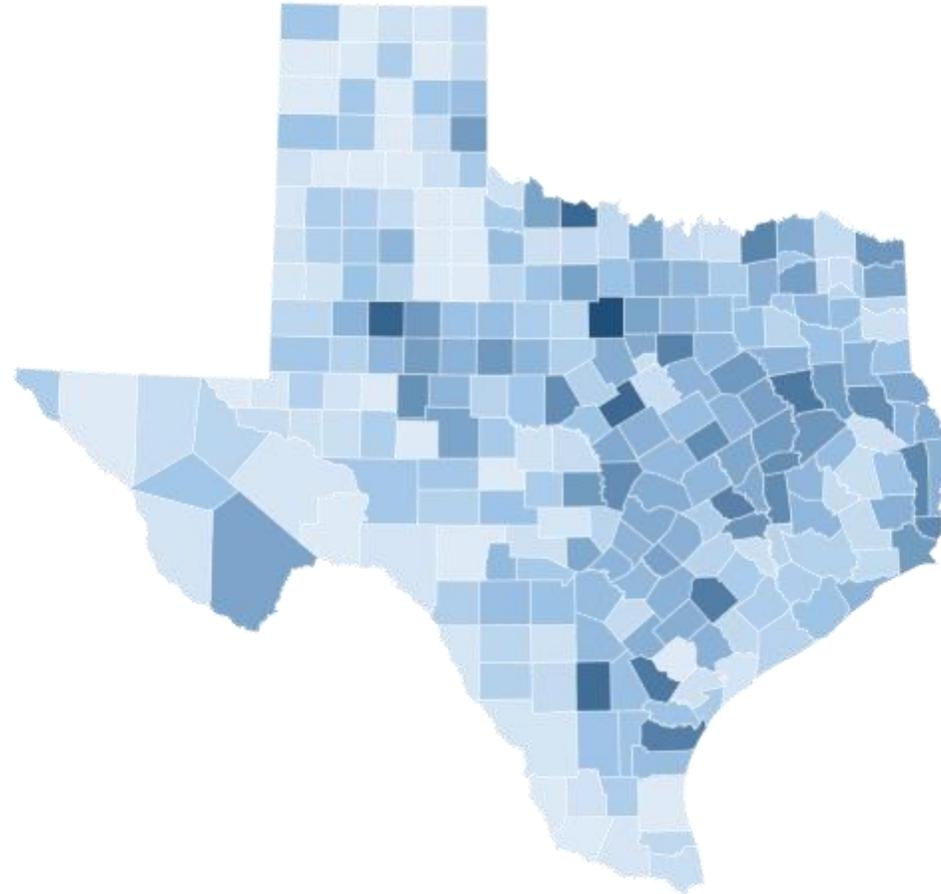


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Key Findings: Socio-demographics

Rate of ED Visits among Medicaid Enrolled Patients in Texas Counties, 2016



Rate Per 100,000 of Medicaid Enrolled



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Conclusion

- Public dollars, whether Medicare, Medicaid or indigent/charity care programs, bear the brunt of the charge burden for these visits in Texas
- Shifting the focus from one of retrospective treatment to prospective management will positively impact overall health in Texas.
- A more strategic approach will not only reduce the inefficiencies in the way we utilize our healthcare resources but could positively impact the overall health and well-being of all Texans.



Questions and Feedback?

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