

Emergency Department Utilization Rates Pre & Post Medicaid Expansion in New Jersey

Gabriela Vegas, DDS. Mary Beth Giacona, DMD, MPH.
Rutgers School of Dental Medicine, Department of Pediatric Dentistry and Community Health

Abstract

Children without health insurance are less likely to have a dental home and less likely to receive routine dental care. This puts them at higher risk for developing caries lesions that progress to dental abscesses and painful infections. These children are more likely to need urgent care for preventable dental disease and often end up in hospital Emergency Departments for non-traumatic dental emergencies. Care delivered in hospital emergency departments costs significantly more than services provided in a dental office, and is rarely definitive treatment. In 2021, the “Cover all kids” ACT (P.L. 2021, c.132) provided Medicaid coverage for residents of New Jersey under the age of 19. In 2023, \$11 million dollars in new funding expanded coverage regardless of immigration status. Therefore thousands more New Jersey’s children became eligible for health coverage as of January 1, 2023.

Introduction

According to the American Dental Association 33.6% of Americans do not have dental benefits, and 10.3% of these people are children aged 2 to 18 years old. Most people assume that the cost of a dental visit without insurance is out of reach, which may prevent them from seeking dental care and establishing a dental home. The use of hospital emergency departments (EDs) for non-traumatic dental problems places a major burden on the health care system and its resources. During 2007-2009 dental complaints accounted for at least 1% of emergency department visits, and 41% of these encounters involved uninsured patients. A more recent study done at the Texas A&M University School of Public Health found that approximately \$2 billion are spent each year on ED visits for preventable dental conditions, constituting 1.15% to 2.5% of all visits. Costs related to emergency department visits for dental pain can range from \$400 to \$1500, compared to \$90 to \$200 for a regular clinic visit. Emergency departments (ED) are staffed by non-dental professionals who are generally not equipped to deal with such emergencies, resulting in an inefficient use of healthcare resources. As a result 90% of the patients seen, receive only antibiotics or pain medication and about half of them, will not follow up with a dental provider. Studies have shown that individuals insured by Medicaid, or not insured at all, are more likely to use an Emergency Department for NTDC. The state of New Jersey recently enacted a legislation that drastically changed eligibility requirements for Medicaid (NJFamilyCare) for children under the age of 19 years. Children can now qualify regardless of their immigration status. This is expected to lead to an additional 16,000 children having health insurance with dental benefits. This reform started January 1, 2023 eligibility for all individuals under the age of 19 that meet the financial qualification of being below 355% of the Federal Poverty Level (FPL), (\$8,875/month for a family of four) will benefit from it.

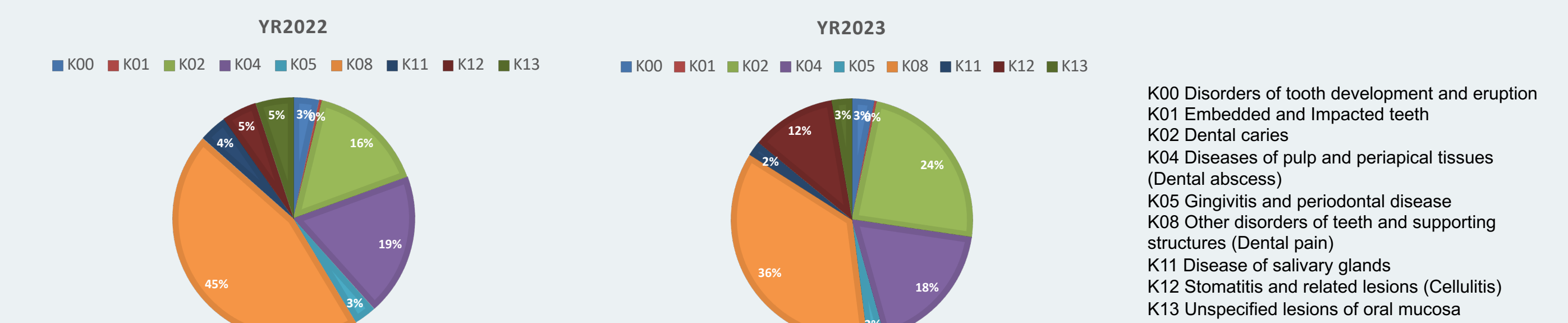
Objectives

To examine the effect of Medicaid expansion on the use of emergency department visits for non-traumatic dental conditions in a New Jersey hospital. To compare the Emergency Department utilization rates by children for non-traumatic dental complaints before and after Medicaid reform. To determine the characteristics (prevalence, types, diagnosis) of these NTDC in the University Hospital.

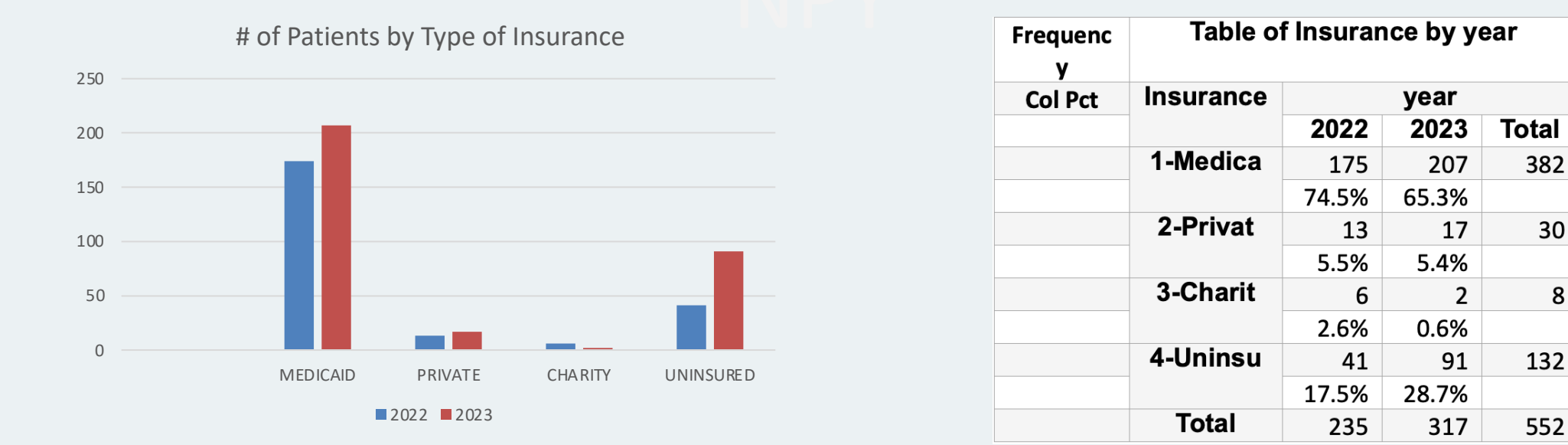
Methods

This study evaluated differences in utilization rates of University Hospital’s Emergency Department (UHED) for non-traumatic dental emergencies pre and post Medicaid expansion, by examining records for patients reporting to UHED for non-traumatic dental emergencies in the year before (2022) and the year after (2023) enactment. Eligible records were identified by searching for ICD-10-CM codes related to oral pain and dental caries/dental abscess for individuals aged 19 years and younger who presented to UHED in the selected time frames. IRB approval: 2023001674 Retrospective Chart review: - Data extraction/Epic: NTDC visits were identified using the International Classification of Diseases- Clinical Modification-Tenth revision (ICD-10-CM) codes. Patient demographics, payer information (insurance), day off the week, were examined. Data Analysis: - Assess difference (statistical significance) for trend over time of ED visits for NTDC before and after Medicaid reform.

Results



During the study period, there were a total of 15,829 encounters in 2022 and 16,742 encounters in 2023 in the ED of University Hospital. Among all ED visits, a prevalence of 1.48% in 2022 and 1.89% in 2023 of ED visits for NTDC was observed. The most common recorded diagnosis for patients with NTDCs was “other disorders of teeth and supporting structures (Dental pain)”, coded as K08. The K08 ICD code was used for 45% of NTDCs in 2022 and 36% in 2023. The next most used ICD code was for dental abscess, K04 (19% in 2022, 18% in 2023).



There was a statistically significant difference in insurance status of patients presenting to UH ED with NTDC in 2023 vs 2022. In 2023 a lower percentage of patients were insured by Medicaid (65.3% 2023, 75.4% 2022). The percentage of privately insured patients were very similar (5.4% 2023, 5.5% 2022). Patients with charity care comprised a small percentage of the study population. Fewer patients were covered under charity care in 2023. (0.6% 2023, 2.6 2022). Despite Medicaid expansion, there were more uninsured patients in 2023 (28.7%) compared to 2022 (17.5%).

Discussion/Conclusion

Legislation like the Cover All Kids Act is designed to increase enrollment in Medicaid and subsequently increase utilization of primary care services and decrease the necessity for more expensive and complicated procedures. As of January 1, 2023, thousands of New Jersey’s children became eligible for Medicaid, regardless of their immigration status. The expectation would be that increasing the number of insured children will increase utilization of primary care services and decrease Emergency Department visits for non-traumatic dental complaints. Unfortunately, the data collected from University Hospital’s ED indicates this has not happened in Newark, New Jersey. In 2023 there was a statistically significant increase in the number of patients with NTDCs who were uninsured and a decrease in the percentage of patients covered by Medicaid. In 2023, there was a statistically significant increase in prevalence of children presenting to the ED with NTDCs compared to 2022.

Over the two-year course of this study 552 children between the aged 19 years or younger reported to the Emergency Department at University Hospital with non-traumatic dental complaints. These visits cost the healthcare system hundreds of thousands of dollars and none of these children received definitive dental care in the ED. If these patients had instead sought care at a dental office, they would have been more likely to receive definitive treatment at tremendous cost savings to the healthcare system.

This study highlights one of the major problems facing our US healthcare system: the use of Emergency Departments as “primary care” facilities, especially by uninsured and low-income patients. Targeting messages to this population can help reduce the burden on our system. New Jersey needs to improve on informing the public about Medicaid expansion and encouraging families to enroll if eligible. Secondary to that, those enrollees need to access dental providers for primary care. The families need education on the importance of oral health and should be encouraged to seek care for their young children at dental offices. Measures should be taken to ensure that there are an adequate number of dental providers who accept Medicaid insurance and be willing to treat these children in their offices.

The short duration of this study may be the reason why the results did not show an increase in Medicaid coverage or a decrease in ED utilization for NTDCs. The plan is to continue to track and analyze data on patients presenting to University Hospital’s Emergency Department with non-traumatic dental complaints and hopefully see the intended long-term effects of Medicaid expansion in years to come. Parallel to this, research is under way to track utilization rates of preventive dental services by Medicaid enrollees to gauge whether or not New Jersey’s Medicaid expansion policy will have its intended effect: to increase access to primary care for New Jersey’s vulnerable children.

References

- Emergency department referrals. (n.d.). American Dental Association. <https://www.ada.org/resources/community-initiatives/action-for-dental-health/emergency-department-referrals>.
- Gawel, R. (2021). Emergency room visits for dental problems cost \$2 billion a year. Dentistry Today. <https://www.dentistrytoday.com/emergency-room-visits-for-dental-problems-cost-2-billion-a-year/>
- Owens, P. L., Manski, R. J., & Weiss, A. J. (2021). Emergency Department Visits Involving Dental Conditions, 2018. In Healthcare Cost and Utilization Project (HCUP) Statistical Briefs. Agency for Healthcare Research and Quality (US).
- Kim, P. C., Zhou, W., McCoy, S. J., McDonough, I. K., Burston, B., Ditmyer, M., & Shen, J. J. (2019). Factors Associated with Preventable Emergency Department Visits for Nontraumatic Dental Conditions in the U.S. International Journal of Environmental Research and Public Health, 16(19), 3671. <https://doi.org/10.3390/ijerph16193671>
- VanMalsen, J. R., Figueiredo, R., Rabie, H., & Compton, S. M. (2019). Factors Associated with Emergency Department Use for Non-traumatic Dental Problems: Scoping Review. 84, j3-j3.
- Stern, A., & Stern, A. (2023, January 24). Governor Murphy announces expanded access for NJ FamilyCare - TrentonDaily. TrentonDaily - Stories of Progress and Opportunity in Trenton: New Jersey’s Capital City of Trenton. <https://www.trentondaily.com/governor-murphy-announces-expanded-access-for-nj-familycare/>

Acknowledgement

Dr. Anthony Rosania, MD, MHA, MSHI Rutgers New Jersey Medical School