# Cost Comparison Analysis of Pediatric Dental Sedation in Georgia vs Texas for Medicaid Policy Change

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## OBJECTIVE

To examine the expenditure of delivering pediatric dental sedation to Medicaid eligible children ages zero to twenty-one years old in the operating room (OR), in-office general anesthesia (GA) and in-office intravenous sedation (IV) in Georgia vs Texas, and to determine any fiscal benefit to support policy change implementation.

## INTRODUCTION

Despite the advances in preventative care, thousands of children under 5 years of age still suffer from early childhood caries (ECC) in the U.S., with children covered by Medicaid disproportionately affected. Due to the age, behavior, and often extensive treatment these children need, pharmacologic management goes beyond the use of nitrous oxide or oral conscious sedation (OCS) and necessitates the use of IV sedation or general anesthesia. With major restrictions in OR access currently experienced by pediatric dentists across the U.S., many healthy (ASA I and II) children are on an extensive waiting list as long as 6 months or more to complete their dental care.[1] These limitations and wait lists inevitably lead to more pain and life-threatening infections that result in costly Emergency Department visits.

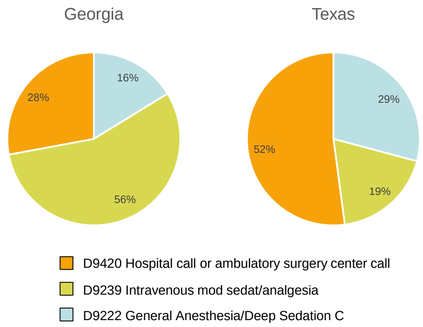
Although dental treatment in the OR is imperative in some cases, i.e. patients with comorbidities and ASA III or higher, it is the most expensive option due to fees including facility, anesthesia, staff, etc. If healthy, ASA I and II, children with extensive dental needs can be treated in the office with GA or IV sedation, it would simultaneously improve the access to care for Medicaid enrollees and allow a more fiscally responsible means for the government to provide care. The aim of the study is to compare the policy and reimbursement fees of Georgia versus Texas for dental sedation, and to hopefully facilitate discussions to elicit policy change that increases access to care.

## MATERIALS AND METHODS

An open records request was completed for State Fiscal Year (SFY) 2019 in Georgia and Texas for Medicaid-eligible enrollees. We sought total Medicaid expenditures for SFY 2019 for services with the following procedure codes for the population criteria of enrollees up to age 21:
**D9222**: Deep Sedation/GA for 1st 15 minutes
**D9239**: IV Moderate Sedation for 1st 15 minutes, and
**D9420**: Hospital or Ambulatory Center Call.
The number of claims was determined to be the number of cases per sedation modality.

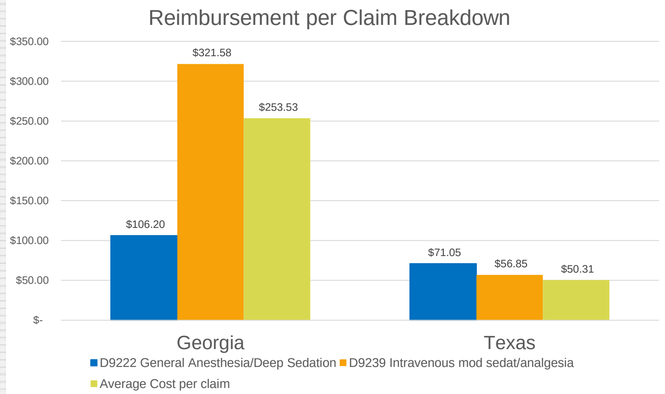
We also consulted anesthesiology groups that provide office-based IV sedation or GA in 19 states to establish an average cost of their anesthesia services. Lastly, we viewed current literature to determine the comprehensive costs of pediatric dental services requiring general anesthesia and hospitalization. This information was compared to available open-access Texas and Georgia Dental Medicaid policy.

## RESULTS




**Georgia** Medicaid had 35,994 cases that required sedation above OCS to properly treat dental needs in SFY 2019--16% were office based deep sedation/GA, 56% were office based IV sedations, and 28% were hospital calls.

**Texas** Medicaid had 54,074 cases that required sedation above OCS to properly treat dental needs in SFY 2019--29% were office based deep sedation/GA, 19% were office based IV sedations, and 52% were hospital calls.




**Georgia:**

Reimbursement per claim for office-based GA for the first 15 minutes is $106.2

Reimbursement per claim for office-based IV sedation for the first 15 minutes is $321.58

**Texas:**

Reimbursement per claim for office-based GA for the first 15 minutes is $71.05

Reimbursement per claim for office-based IV sedation for the first 15 minutes is $56.85

**Fee Schedules:**

- Average anesthesia services provided by 33 providers in over 19 states was **$1385** for healthy, ASA 1 patients for 2 hours of anesthesia.
- Medicaid fee schedule
  Georgia: (GA**) $921.52** (8 units, 2 hours)
  Georgia: (IV) **$792.96** (6 units, 1.5 hours, additional units can be submitted for post approval)
  Texas: (GA) **$365.66** (8 units, 2 hours)
  Texas: (IV) **$270.94** (6 units- maximum, 1.5 hours)
- Rashewsky et al, found the average hospital dental rehabilitation case to cost approximately **$7303** versus **$414** at a dental school. Their findings aligned with Lalwani et al with average savings of **$5000** for in-office GA compared to hospital based. [2-3]

## DISCUSSION

For the dental community and its patients, there is currently a major access barrier to the OR that has been exacerbated by the COVID-19 pandemic and the continuing financial struggles of U.S. hospitals.[4] A joint effort has been undertaken by the AAPD, ADA, AAOMS to petition Congress and the Centers for Medicare and Medicaid Services to establish a specific dental facility fee code so that hospitals may be more willing to schedule dental cases. A safe alternative to this access problem is in-office GA or IV by a licensed anesthesia provider. In Georgia, there is more utilization of in-office IV compared to Texas, 56% versus 19%, respectively. This is likely due to the fact that Georgia reimburses more for in-office IV and GA compared to Texas, and there is policy to try in-office sedation prior to hospital GA. Current literature shows that there is an estimated **$5000** in savings for in-office GA compared to hospital-based GA. In addition, there is an anesthesia and recovery time savings of 74 minutes for office-based procedures.[3] If the cost savings are extrapolated over half of the hospital cases that Texas Medicaid paid for in 2019, it could mean a savings of **$70,300,000**. If Texas Medicaid would reform its reimbursement on in-office GA and IV, healthy ASA I and II children would be treated safely. This would reduce resource inefficiencies, improve the overall health of vulnerable children, and encourage dental anesthesia participation.

## REFERENCES

1. Bridging Health Equity Gaps for People with Disabilities and Chronic Conditions, 117th Cong. (2022) (Testimony of American Academy of Pediatric Dentistry, American Association of Oral and Maxillofacial Surgeons, & American Dental Association).
2. Rashewsky S, Parameswaran A, Sloane C, Ferguson F, Epstein R. Time and cost analysis: pediatric dental rehabilitation with general anesthesia in the office and the hospital settings. *Anesth Prog*. 2012;59(4):147-153.
3. Kirk Lalwani, Jonathan Kitchin, Peter Lax, Office-Based Dental Rehabilitation in Children With Special Healthcare Needs Using a Pediatric Sedation Service Model, Journal of Oral and Maxillofacial Surgery, Volume 65, Issue 3, 2007, 427-433
4. American Academy of Pediatric Dentistry, Pediatric Oral Health Research and Policy Center. Keels MA, Vo A, Casamassimo PS, Litch CS, Wright R (eds). Denial of Access to Operating Room Time in Hospitals for Pediatric Dental Care. Pediatric Oral Health Research and Policy Center, American Academy of Pediatric Dentistry, Chicago, IL, April, 2021.