# Assessing Dental Care Capacity for Patients with Special Needs in California

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## Introduction

Special Healthcare Needs is defined by the Maternal and Child Health Bureau as those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition or who require health and related services of a type or amount beyond that required by children generally[1]

- **The Need:** Oral health is the most frequently cited unmet health need for the estimated 7 million individuals with SHCN in California[2,3]
- **The Problem:** Despite 35,215 active dental licenses in the state, workforce participation remains low.[4] Nationally, only 10% of general dentists treat children with SHCN "often," while 70% report treating them "rarely or never" due to limited experience or clinical comfort[5]
- **The Gap:** There is a critical lack of statewide data describing the actual availability of dental providers prepared to treat this vulnerable population, particularly in rural regions[6]
- **Clinical Complexity:** Treating patients with SHCN often requires specialized behavior guidance, medical immobilization, or hospital-based dental treatment under general anesthesia – services typically restricted to pediatric specialists and oral surgeons.
- **The "Safety Net" Gap:** While Medi-Cal Dental (Denti-Cal) is the primary insurer for this population, provider participation is historically low due to administrative burdens and low reimbursement rates, exacerbating the geographic disparities.

## Methods

- **Data Sources:** Data was aggregated from 2025 DHCS California Children's Services public database and the Medi-Cal Dental Fee-for-Service (FFS) and Safety Net Clinic directories
- **Provider Filtering:** Total records (n=50,359) were filtered to identify unique practitioners by **National Provider Identifier (NPI)** to prevent overcounting providers working at multiple clinic sites.
- **Geographic Classification:** Counties were stratified into **Urban (n=22)** and **Rural (n=36)** based on the Rural Urban Continuum Codes (RUCC) designations.
- **Statistical Analysis:** Descriptive statistics summarized provider density by county type.
  - **Wilcoxon Rank-Sum tests** were used to compare child-to-provider ratios between urban and rural cohorts.
  - **Spearman's Correlation (r)** assessed the relationship between the California Children's Services (CCS) enrollment size and workforce availability.

## Data Collection

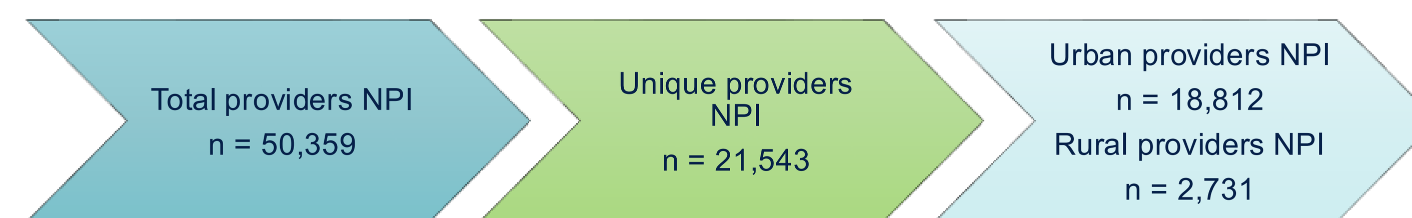
Information gathered through publicly available datasets and direct outreach to statewide organizations

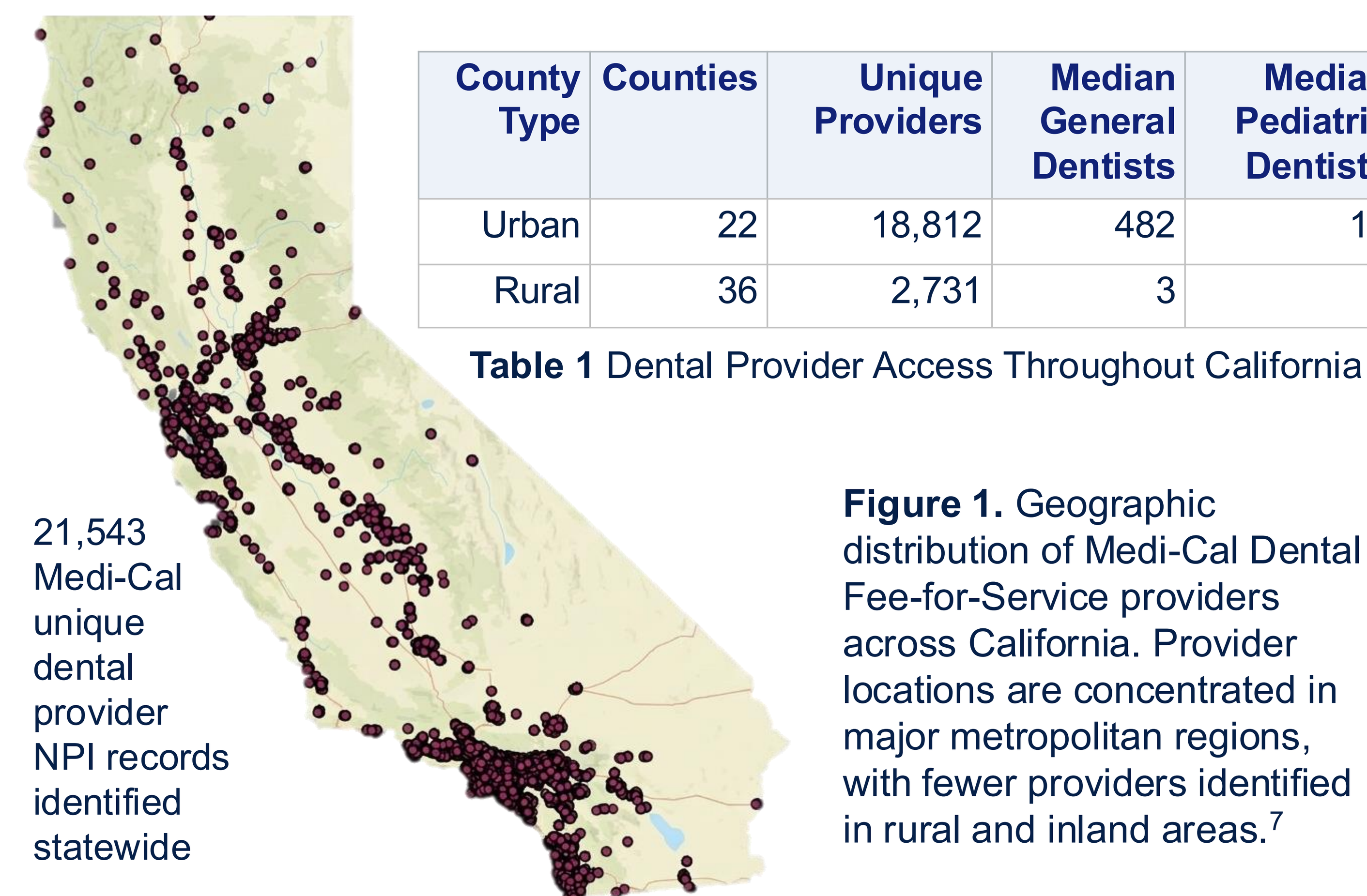
### California Children's Services (CCS)[8]

- Statewide program administered by the California Department of Health Care Services (DHCS)
- Provides case management and specialty medical services for children with qualifying conditions up to age 21
- 58 offices operate throughout California, **179,241** children receiving services as of December 2025
- Oral health Program Coordinators available at some locations

### Medi-Cal Dental Provider Data[9]

- Medi-Cal Dental Fee-for-Service (FFS) provider and Safety Net Clinic (SNC) enrollment data were obtained from the California Health and Human Services Open Data Portal
- The dataset includes geographic information for dental providers enrolled in the Medi-Cal Dental program as of October 2025




| County Type | Counties | Unique Providers | Median General Dentists | Median Pediatric Dentists |
|---|---|---|---|---|
| Urban | 22 | 18,812 | 482 | 15 |
| Rural | 36 | 2,731 | 3 | 0 |

**Table 1** Dental Provider Access Throughout California

**Figure 1.** Geographic distribution of Medi-Cal Dental Fee-for-Service providers across California. Provider locations are concentrated in major metropolitan regions, with fewer providers identified in rural and inland areas.[7]

## Data Analysis

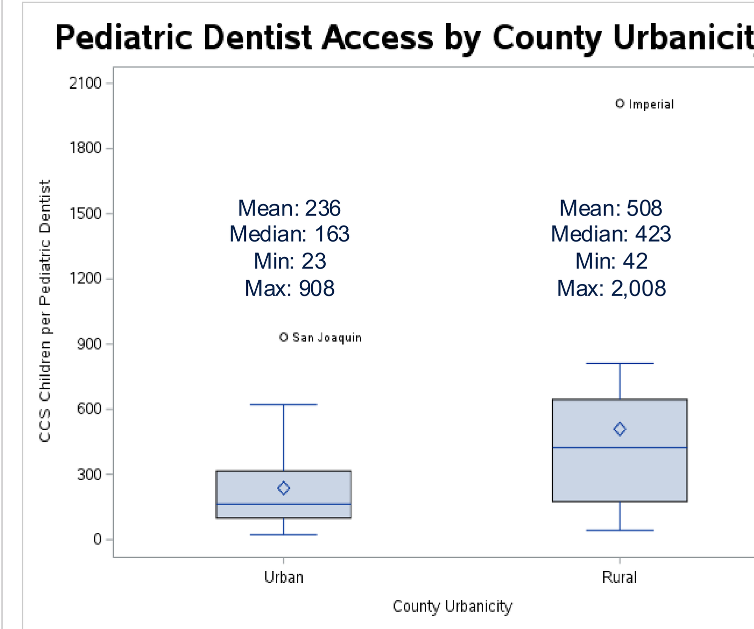



**Figure 2.** Distribution of CCS-enrolled children per pediatric dentist in urban and rural California counties. Rural counties demonstrated significantly higher ratios of CCS-enrolled children per pediatric dentist compared with urban counties (Wilcoxon p = 0.034).

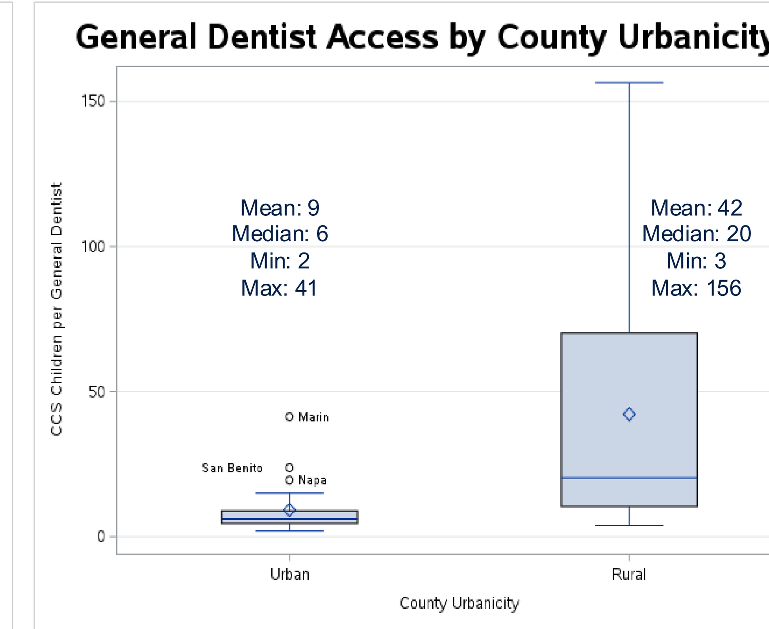



**Figure 3.** Distribution of CCS-enrolled children per general dentist in urban and rural California counties. Rural counties had significantly higher ratios of CCS-enrolled children per general dentist relative to urban counties (Wilcoxon p = 0.005).

- **Significant Geographic Disparity:** Rural counties (n=36) have a significantly lower density of pediatric (p=0.034) and general (p=0.005) dental providers compared to urban counties (n=22)
- **Specialty Access Gap:** While urban counties maintain a median of 15 pediatric dentists, the median for rural counties is **zero**, indicating a complete absence of local pediatric specialty care in over 60% of rural jurisdictions
- **Workforce Density:** Even among general practitioners, rural counties face a "thin" workforce with a median of only 3 providers per county, compared to 482 in urban regions, severely limiting the available safety net for SHCN patients

## Results

- **Unique Workforce identified:** While 50,359 total Medi-Cal provider records exist, deduplication by NPI revealed a unique workforce of only <u>21,543</u> providers statewide and provider locations were concentrated in major metropolitan areas
- **Urban-Rural Divide:** Urban counties maintain a median of 15 pediatric dentists, whereas the **median for rural counties is zero.** Rural counties had significantly higher ratios of CCS-enrolled children per pediatric dentist and per general dentist than urban counties (p = 0.034 and p = 0.005)
- **Geographic Correlation:** Total provider counts are strongly correlated with the size of the CCS population (r≈0.95); however, rural and inland areas face disproportionately high child-to-provider ratios
- **Provider Population**: Analysis of the Medi-Cal Dental Fee-for-Service (FFS) and Safety Net Clinic (SNC) data identified limited provider records across California
- **"Specialty Desert" (See Figure 4):** 61.1% of rural counties lack a single pediatric dentist or oral surgeon, creating absolute barriers to specialty and surgical care

## Discussion

- **Geographic Proximity vs. Access**: The presence of a provider record does not guarantee clinical capacity or willingness to treat the SHCN population.
- **Fragmentation:** The high discrepancy between "records" and "unique NPIs" suggests a fragmented system where providers are linked to multiple clinics, potentially overestimating actual workforce capacity.
- **Policy Needs:** There is a critical need for targeted workforce incentives and enhanced referral infrastructure to bridge the gap between rural patients and specialty dental care

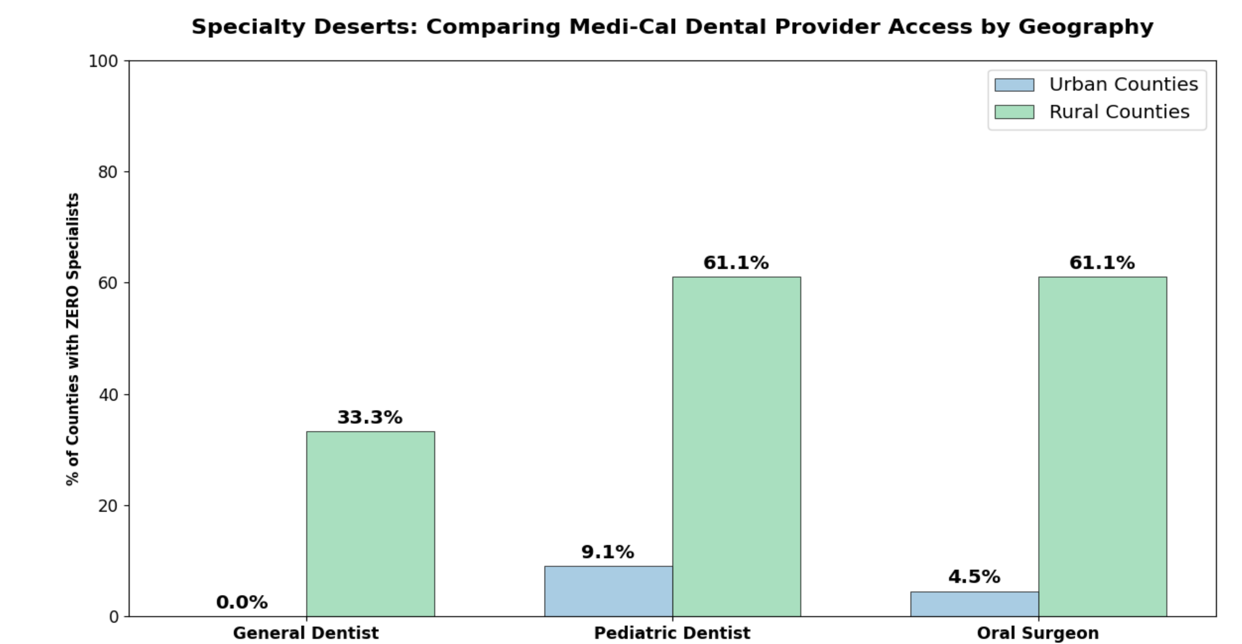



**Figure 4. Comparison of County-Level Provider Access by Geographic Classification.** Bars represent the percentage of California counties with zero identified Medi-Cal dental providers in each category. While urban counties (n=22) maintain nearly universal access to general and specialty providers, rural counties (n=36) exhibit significant "specialty deserts," with 61.1% of counties lacking a single pediatric dentist or oral surgeon. Differences in provider-to-patient ratios were statistically significant for general dentists (p=0.005) and pediatric dentists (p=0.034).

## Limitations

Provider datasets reflect enrollment rather than confirmed clinical availability and do not capture provider experience treating individuals with special healthcare needs.

## Next steps

- Conduct statewide surveys of dental providers to assess training, experience, and willingness to treat individuals with SHCN
- Expand statewide resource mapping and referral infrastructure to help families and service coordinators identify available dental providers

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