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Colorado Dental Health Analysis: Overview and Methodology

July 2025

Overview

Oral health is a vital part of overall well-being—impacting everything from nutrition and speech to chronic disease and quality of life. This interactive dashboard, developed in partnership with the [Colorado Dental Association](#), provides a clear picture of dental care in Colorado using commercial claims data from 2022 to 2024 from the Colorado All Payer Claims Database (CO APCD).

Explore trends in utilization, costs, and demographics using detailed CDT (Current Dental Terminology) codes. The dashboard also breaks down the cost of care by charge amount, allowed amount, out-of-pocket costs, and insurance payments, giving a full view of how dental services are paid for and delivered. Whether you're a provider, policymaker, or advocate, this tool offers valuable insights to support better decision-making and promote equitable, affordable access to dental care across Colorado.

Key Considerations

- **Self-Insured Employer Coverage:** The CO APCD does not include claims data for approximately 50% of individuals who are covered by self-insured employers. This is because self-insured employers are not required to submit data under federal ERISA regulations, so their participation is voluntary.
- **Scope of Claims:** This analysis includes only commercial claims. It does not include claims from Medicare, Medicare Advantage and Medicaid.
- **Claims Classification in CO APCD:** The CO APCD categorizes claims using a combination of service setting, provider type, and billing format. This helps organize data for more accurate analysis of health care utilization and costs.
- **Dental Claims** – A dental claim is defined in the CO APCD based on the following criteria:
 - It is billed using the ADA dental claim form or the 837D electronic format.
 - It includes procedure codes from the Current Dental Terminology (CDT) coding system.
 - These criteria ensure that only services specific to dental care are classified as dental claims, separate from medical claims that may involve oral health services.

Definitions and Methods

Cost Measures

Allowed Amount: Amount paid by the patient and health insurance plans combined.

Charged Amount: Amount a provider bills for service before any discounts, insurance adjustments, or payments.

Health Plan Only: Amount paid solely by health insurance plans for overall care.

Patient Only: Amount paid solely by the patient. Also known as 'out-of-pocket' cost, which includes copay, coinsurance and deductibles.

The cost measures in the dashboard includes the average, minimum, maximum, and 25th, 50th, and 75th percentiles for each cost measure across dental procedures.

- Average payments are calculated by summing the total payments (numerator) divided by the total claims (denominator).
- Percentile payments are calculated based on the number of payments in each category of the distribution with the 50th percentile representing the median or the midpoint in the distribution, and 25th percentile meaning that 25% of the payments fall below that value and 75% are above that value.

Total Cost Calculations: Calculated using the total allowed amount (health plan plus patient cost).

Per Person Per Year (PPPY) Cost: This is the average yearly cost per person. It's calculated by dividing the total cost by the number of member months (each month a person is eligible counts as one-member month), then multiplying by 12 to get an annual rate.

Utilization Measure

Utilization per 1,000 people: The number of unique dental services used each year, shown as a rate per 1,000 people to allow easy comparison across groups.

Geographical Groupings

The rural and urban county classification is based on the U.S. Office of Management and Budget county-level designation: counties that are part of a Metropolitan Statistical Area are considered “urban” and all other counties are considered “rural”.

The following is a list of rural and urban Colorado counties:

- Urban counties (17): Adams, Arapahoe, Boulder, Broomfield, Clear Creek, Denver, Douglas, El Paso, Elbert, Gilpin, Jefferson, Larimer, Mesa, Park, Pueblo, Teller, and Weld
- Rural counties (47): Alamosa, Archuleta, Baca, Bent, Chaffee, Cheyenne, Conejos, Costilla, Crowley, Custer, Delta, Dolores, Eagle, Fremont, Garfield, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Kiowa, Kit Carson, La Plata, Lake, Las Animas, Lincoln,

Logan, Mineral, Moffat, Montezuma, Montrose, Morgan, Otero, Ouray, Phillips, Pitkin, Prowers, Rio Blanco, Rio Grande, Routt, Saguache, San Juan, San Miguel, Sedgwick, Summit, Washington, Yuma

Demographics Measures

Data is available at various demographic levels, including age group, race/ethnicity, and sex. Users can also view the top dental procedure codes by cost and utilization across these demographic groups.

Race and Ethnicity

Race and Ethnicity Race and ethnicity data is collected in the CO APCD following the Office of Management and Budget (OMB) guidelines. All categories are based on self-identification. OMB requires a minimum of five race categories: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White. OMB's minimum categories for ethnicity are: Hispanic or Latino and Not Hispanic or Latino. Only race and Hispanic ethnicity indicators are required for submission by a payer under CIVHC's Data Submission Guidelines (DSG). Any other parameters are voluntary.

Please note that the data does not yet fully represent the race/ethnicity distribution in the CO APCD as all payers (public and private) are working on improving their data collection and submission. CIVHC continues to work with payers to improve these fields.

Age Group Assignment:

Member age is based on age at the time of service. Age groups used in this report are: 0 to 17 ("Child"), 18 to 34 ("Young Adult"), 35 to 64 ("Mature Adult"), 65 or older ("Senior Adult").

Sex

Sex is reported by payers in the eligibility files submitted to the CO APCD. It is typically collected at the time of health plan enrollment and reflects the information provided by the member or captured from administrative records.

Data Caveats

- Claims without an associated description for the CDT codes are not included in the analysis.
- In May 2025, CIVHC identified some issues with dental claims data from one of our payer partners. These issues relate to how claims were processed and how alternate or adjusted claims were recorded.
 - These discrepancies affect data submitted between July 1, 2021, and March 31, 2025 and impacts approximately 13% of dental claims. CIVHC is working closely with the payer to fully understand and resolve the matter. CIVHC will share more information as it becomes available.
 - For additional information or updates, contact us at info@civhc.org

Additional Information

Service Dates Included:

This analysis includes dental claims data from calendar years 2022, 2023, and 2024.

Claims Selection Criteria:

- The analysis is limited to dental claims for Colorado residents.
- Only claims with primary insurance and dental coverage are included.
- Denied or reversed claims are excluded. Additionally, only claim lines with an allowed amount greater than \$0 are considered.

Data Suppression

Following privacy protection standards used by the Centers for Medicare & Medicaid Services (CMS), data for "claim counts" and "distinct visits" are suppressed for values fewer than 11 units. Throughout the report, data points impacted by low volume are left as blank for the cost and utilization measures.

Data Vintage

This report is based off claims data in the CO APCD data warehouse refresh of May 2025. For more information about number of claims in the CO APCD during a particular reporting year and data discovery information regarding payer submissions, please visit our website at civhc.org.

For more information or additional questions, contact us at info@civhc.org.