

# Understanding Dental Claims: Data Quality Considerations and a Use Case

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**Institute for Health  
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# About the Data

Commercial dental claims data (NH Comprehensive Health Information System); July 2017 to June 2019

Approximately 550,000 commercially covered lives

- ▶ Cigna (approximately 35,000)
- ▶ Delta Dental (approximately 17,000)
- ▶ Delta Dental Plan of NH (approximately 360,000)
- ▶ Harvard Pilgrim (approximately 24,000)
- ▶ Metropolitan Life (approximately 84,000)
- ▶ Guardian Life (approximately 29,000)

Medicaid Fee-for-service dental claims data; Jan. 2018 - Dec. 2019

- ▶ Approximately 114,000 Medicaid covered lives

# Dental Data Considerations

- ▶ Dental claims data is reasonably stable with membership consistent and persistent but is not immune to quality issues
- ▶ Understanding dental service delivery (Ex: understanding the impact of benefit structures on cost and utilization)
  - ▶ Some plans include more services than others, thus increasing costs
- ▶ Provider and population focused (Ex: Oral health needs specific to children in different demographic groups; oral health services in public vs. private settings)
- ▶ Linking medical and dental claims (Ex: cost and utilization of oral health services across settings)
  - ▶ CDT codes (ADA) versus CPT codes (AMA)

# Data Quality Assurance Process

- ▶ All checks are performed as part of the data submission process, at the payer level:
  - ▶ File checks - deviations in file format, valid values, etc.
  - ▶ Population checks - verification of values within an expected range, persistency, continuity, and interactions
  - ▶ Quarantine of claims without eligibility and plan groups with lower than expected ratio of claims to members
  - ▶ Cost checks - review of PMPM, total costs and service line counts
  - ▶ More granular review (Ex. Type of service indicated a coding problem in which some CDT codes began with a "0" instead of a "D")
  - ▶ Finalize data selection and submit recommendations to NHCHIS or state

# Use Case: Oral Health Report Suite - Project History

## 2017

- ▶ Quality checks of dental claims data
- ▶ Preliminary analysis of commercial and Medicaid FFS data

## 2018

- ▶ Prototype of online reporting tool
- ▶ Development of analytic plan with Oral Health Stakeholder Group

## 2019

- ▶ Release of Oral Health Report Suite

## 2020

- ▶ Enhancements to the Oral Health Report Suite
  - ▶ Additional years of data
  - ▶ New analysis/reports

# Use Case: Oral Health Report Suite

<https://tinyurl.com/y5skbd3x>



# Use Case: Oral Health Report Suite

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NH Oral Health Report Suite Home Page > Table of Contents - NH Medicaid Dental > Dental Type of Service - NH Medicaid Dental

Dental Type of Service :

**Dental Low-level Type of Service**

- Diagnostic
- Endodontics
- Implant Services
- Orthodontics
- Periodontics
- Preventive
- Prosthodontics - Fixed
- Prosthodontics - Removable
- Prosthetics
- Restorative
- Oral/Maxi Surgery
- Adjunctive General Services

**Integrated Delivery Network**

- 1 - Monadnock, Sullivan, Upper Valley
- 2 - Capital
- 3 - Nashua
- 4 - Derry and Manchester
- 5 - Central, Winnepesaukee
- 6 - Seacoast and Strafford
- 7 - North Country and Carroll

**Age category**

Report filters are to the left of the report. Scroll down for more options. This report uses NH Medicaid (FFS) data. The Previous Analytic Period is from 01/01/2018 to 12/31/2018. The Current Analytic Period is from 01/01/2019 to 12/31/2019.

< Costs & Rates by Dental Type Charts | Membership, Costs & Rates by Dental Type Data >

**Dental PMPM by Dental Type of Service**

Dental Type of Service	PMPM Previous Period	PMPM Current Period
Diagnostic	~\$4.0	~\$4.0
Implant Services	~\$0.5	~\$0.5
Endodontics	~\$0.5	~\$0.5
Orthodontics	~\$2.5	~\$2.2
Periodontics	~\$5.0	~\$5.0
Preventive	~\$5.5	~\$5.5
Prosthodontics - Fixed	~\$6.5	~\$6.5
Prosthodontics - Removable	~\$1.0	~\$1.0
Prosthetics	~\$1.0	~\$1.0
Restorative	~\$1.0	~\$1.0
Oral/Maxi Surgery	~\$1.0	~\$1.0
Adjunctive General Services	~\$1.0	~\$1.0

**Visit Rate per 1,000 Members/Year\* by Dental Type of Service**

Dental Type of Service	Rate per 1,000 Members/Year* Previous Period	Rate per 1,000 Members/Year* Current Period
Diagnostic	~1,500	~1,500
Implant Services	~100	~100
Endodontics	~100	~100
Orthodontics	~100	~100
Periodontics	~1,500	~1,500
Preventive	~1,500	~1,500
Prosthodontics - Fixed	~1,500	~1,500
Prosthodontics - Removable	~100	~100
Prosthetics	~100	~100
Restorative	~700	~700
Oral/Maxi Surgery	~200	~200
Adjunctive General Services	~200	~200

**Visit Rate % Change by Dental Type of Service Over Years**

Dental Type of Service	% Change
Diagnostic	~5%
Implant Services	~-7%
Endodontics	~-7%
Orthodontics	~-5%
Periodontics	~-12%
Preventive	~2%
Prosthodontics - Fixed	~2%
Prosthodontics - Removable	~-2%
Prosthetics	~-2%
Restorative	~-4%
Oral/Maxi Surgery	~-4%
Adjunctive General Services	~-4%

\*Rate is annualized for members active <12 months. This report uses the following parameters: ( Integrated Delivery Network = '2 - Capital' ) OR ( Integrated Delivery Network = '3 - Nashua' ) OR ( Integrated Delivery Network = '4 - Derry and Manchester' ) OR ( Integrated Delivery Network = '6 - Seacoast and Strafford' )

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Prepared by the Center for Health Analytics, Institute for Health Policy and Practice at the University of New Hampshire for the New Hampshire Children's Health Foundation

# Use Case: Oral Health Report Suite

<https://tinyurl.com/y5skbd3x>







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**Thank you!**

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