

Impacts of Dentists' Demographic and Practice Characteristics on Medicaid Participation

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School of Public Health | University at Albany, SUNY

May 5th, 2021

Association of American Medical Colleges

GDI & Health Workforce Research Joint Conference



Center for Health Workforce Studies

- The Center for Health Workforce Studies (CHWS)—established in 1996—is an academic research center based at the School of Public Health at the University at Albany, State University of New York (SUNY)
- Mission: To provide timely, accurate information and conduct policy-relevant research about the health workforce
- Goal: To assist health, professional, and educational organizations, policy makers, planners, and other stakeholders to understand issues related to the supply, demand, distribution, and the use of health workers

Background

- **As of November 2020, about 6.8 million (35%) New Yorkers were enrolled in Medicaid and eligible for Medicaid dental benefits in New York State (NYS)**
- **An important dentist workforce issue is the extent to which dentists participate in Medicaid**
 - One major barrier for Medicaid beneficiaries to receive dental care is the limited availability of dentists accepting Medicaid in NY
 - American Dental Association (ADA) research found Medicaid acceptance varies by dentists' gender, age, specialty, and the state in which they practice
 - It is unclear what impacts those factors have on a dentist's willingness to accept Medicaid in NY

Objectives

- **This study explored the demographic, educational, and practice characteristics of NY dentists to better understand and assess the factors impacting dentist participation in the NYS Medicaid program**

Data

Data Sources

1. 2018 ADA New York Dentist Profile Masterfile, N=14,629 (12,837 with NPIs)

- Data elements include Provider NPI, Setting, Gender, Race/ethnicity, Age, Dental school information, Residency information, Specialty, Practice address and DSO/FQHC affiliation

2. 2018 New York Medicaid Enrolled Provider Listing, N= 6,127 Dentists

- Data elements include the provider's Medicaid Provider ID, NPI, provider or facility name, Medicaid type, profession or service, provider specialty, service address, city, state, zip code, and county

Data

- **Medicaid Enrolled Dentist**

- **5,241** unique dentists were identified in both datasets by linking using NPIs
- **40.8%** of NY dentists were enrolled in Medicaid

- **Variables Included in the Merged Dataset**

- **Demographic** -- NPI, gender, age, and race/ethnicity
- **Educational** -- dental school, graduation year (exp.), residency status, and residency graduation
- **Geographic** -- office address, school and residency location
- **Practice** -- specialty, setting, residency specialty, DSO/FQHC affiliation, and Medicaid participation status in 2017

Research Methods

Research Questions

1. What were the NYS dentists' demographic, educational, geographic, and practice characteristics? What proportion of dentists accept Medicaid by these characteristics?
2. What is the relationship between dentists' demographic, educational, geographic, and practice characteristics and their Medicaid participation?

Methods

1. Q1 – Summary statistics on key variables
2. Q2 -- Multivariate regressions in SPSS (Binary Logistic)

Summary Results – All NY Dentists

Characteristics of NY Dentists (N=12,837)

- **69%** of NY dentists were male. The majority were ages 45-64 (**51%**) and were non-Hispanic White (**57%**)
- **48%** of dentists were graduates from 1980-1999; 94% graduated from dental schools in the US
- **76%** of dentists worked as general practitioners, **5%** worked as orthodontists, **5%** worked as oral and maxillofacial surgeons, and **4%** worked as pediatric dentists
- **81%** of dentists worked in private dental practices, **6%** worked in community health clinics/FQHCs, **6%** in academic dental centers, and **4%** in dental service organizations (DSOs)
- **57%** NY dentists completed residency training; of those, **83%** completed their residency in NY

Summary Results – Medicaid Acceptance

Characteristics of Medicaid Dentists (N=5,241)

- **40.8%** of NY dentists were Medicaid-enrolled, **64%** were male dentists, **50%** were ages 45-64, and **45%** were non-Hispanic White
- Female dentists had higher **Medicaid acceptance rates** at **38.5%** compared to male dentists (**31%**)
- Dentists who were racial or ethnic minorities had higher acceptance rates compared to White, non-Hispanic dentists
- In regards to setting, FQHC and hospital dentists had highest rates, **73%** and **60%**, respectively
- In regards to specialty, pediatric dentists had the highest rate at **55%**, followed by oral and maxillofacial surgeons (**48%**), while prosthodontists had the lowest rate at **10%**. **33%** of general dentists were active
- Dentists with residency trainings had higher rates at **35%**, compared to **31%** for those without residency

Regression – Impacts on Medicaid Status

A binomial logistic regression was conducted to estimate the impacts of selected variables --

- Medicaid enrollment status was coded as a binary dependent variable; independent variables included gender, race/ethnicity, dental school attended, residency status, practice setting, specialty, region, rural/urban status, and years of experiences since dental school graduation
- **Race/Ethnicity, Dental School Attended, Practice Setting, Specialty, Region, Rural/Urban Status, and dentist's Years of Experience had statistically significant impacts ($P < 0.001$)** on dentist's Medicaid acceptance status
- **Gender and dentist's Residency Status had no significant impact**

Regression – Results

- Dentists who were Black non-Hispanic (**2.6 times**), who were Hispanic/Latinx (**2.1 times**), or who were Asian/Pacific Islander, non-Hispanic (**1.6 times**) were more likely than dentists who were White, non-Hispanic to accept Medicaid beneficiaries for treatment
- Dentists who graduated from foreign schools (**2.5 times**), from New York University (**1.8 times**), or from SUNY Stony Brook (**1.4 times**) were more likely to accept Medicaid beneficiaries for treatment compared to dentists who graduated from dental schools in other states
- Dentists who worked at FQHCs (**5.8 times**), at hospitals (**3.4 times**), or worked as dental school faculty (**1.8 times**) were more likely to accept Medicaid beneficiaries for treatment compared to dentists working full-time in private practice

Regression – Results (cont.)

- Pediatric dentists (**2.4 times**) and oral and maxillofacial surgeons (**2.1 times**) were more likely to accept Medicaid beneficiaries for treatment than general dentists
- Dentists in prosthodontics, periodontics, and endodontics were less likely (**79%, 58%, and 58%**, respectively) than general dentists to accept Medicaid beneficiaries for treatment
- For each extra year of practice experience, a dentist was estimated to be **2%** less likely to accept Medicaid
- Dentists from the Capital Region, Finger Lakes, Long Island, and Mid-Hudson regions were less likely to accept Medicaid beneficiaries for treatment than dentists in New York City area, while dentists from Western NY were **22%** more likely
- Dentists from rural New York areas, defined as residing in areas with RUCA code 7 to 10, were **1.6 times** more likely to accept Medicaid beneficiaries for treatment than urban dentists

Discussion/Limitations

- Over one-third of dentists in NY enrolled in Medicaid in 2018, which is comparable to the ADA estimation that 31.3% of dentists in New York State participated in Medicaid/CHIP
- While certain characteristics of dentists are linked to accepting Medicaid beneficiaries for treatment, it is evident that there is a need for more dentists to serve Medicaid beneficiaries, especially adults
- More research is needed to understand why the majority of dentists do not serve Medicaid beneficiaries
- About 12% of dentists from the ADA Masterfile without NPI information were excluded; Many of them may be active in Medicaid but billing under their organizational NPI instead of their own NPI
- More research is needed to better understand the volume of oral health services provided to Medicaid beneficiaries

Conclusions

- This study identified race gaps that existed among dentists providing services to Medicaid beneficiaries
- FQHCs are confirmed to be significant safety net providers in providing oral health services to Medicaid beneficiaries in NY
- Pediatric dentists had higher Medicaid acceptance rates compared to general dentists, ensuring continued access to oral health services to children
- It is concerning that adults seem not to have the same access to care, and access to specialty care also seems problematic
- Dental school attended has a significant impact on a dentist's willingness to treat Medicaid beneficiaries

Questions?

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