

### Assessing the Impact of Policy Incentives on California Dental Provider Participation in Medicaid

Eliza(Beth) Mertz, PhD, MA, Matthew Jura, PhD, MSc, Shuang Liang, MS, Aubri Kottek, MPH, Alfa-Ibrahim Yansane, AM, PhD, Bradley Munson, Marko Vujicic, PhD.

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## Progressive Policy Change in California

- Adult dental coverage in Medicaid is optional
- California provided full adult coverage for over 40 years
- Many policy changes have been enacted to improve Medi-Cal dental access and care since 2014



\* Impact on service would vary by demonstration pilot sites, which also vary by domains and counties

ACA = Affordable Care Act; DTI = Dental Transformation Initiative; HRSA = Health Resources and Services Administration; OHSE = oral health service expansion; suppl. = supplemental; repay. = repayment; OHI = oral heath infrastructure; CDT = dental procedure codes



#### **Data Sources**

 Data from come from Medicaid enrollment and claims files, provider state license and national provider identifier (NPI) data, ADA Masterfile and other data, as well as county-level neighborhood data from the American Community Survey (ACS).

#### Population studied

• Adults ages 21+ with Medicaid dental insurance in California from 2014-2019.

#### Statistical methods

 Multilevel logistic regressions considering multiple observations per unit of analysis, utilizing generalized estimating equations and interrupted time series parametrization modeled the policies' effect on provider participation. We modeled three binary outcomes:

1) any dental claim each year,

2) claims for at least 100 adult Medicaid patients each year, and

3) at least 1 dental claim at a safety net clinic (SNC) each year.



**Step 4.** Pair unmatched from step 3 with DHCS FFS provider dataset\*

Step 5. Pair unmatched from

step 4 with ADA Masterfile of

CA dentists: CA lic + fuzzy

address or ZIP code match

Step11. Code service address as a FFS/MCO, FQHC, Tribal Clinic, or Dental School

to ADA to assign missing demographic info

Step 10. Match against

CalHealthCares loan repayment

awardee list by name and

service county/company

Step 9. Validate, clean, and

merge duplicate IDs; Went back

Step 8. Assign unique ID to all the providers (matched and unmatched) in claims

Step 7. Combine matched, unmatched, and unincluded NPIs from claims

Step 6. Pair unmatched from step 5 with NPPES using Full name + fuzzy address match

Step 2. Pair unmatched CA licensees from step 1 with NPPES using loose match: CA lic + fuzzy name match

CA Dental Board & Dental Hygiene Board

The goal is to assign NPI, demographics, and

match claim to create a universe database.

**Step1**. Exact match between CA

board data and National Plan and

**Provider Enumeration System** 

(NPPES) on name and license #

and state

# Extent of provider participation

Distribution of adult visits per rendering provider, 2019



### Dental Providers

Rendering >100 patient visits\* vs. all active licensees in California\*\*



\*Rendering providers are dentists (general and specialist) and RDHAPs with adult claims in each year.

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\*\*Statewide providers include all active dentist and RDHAP licensees in California, and any additional rendering providers from the claims data.



## Provider distribution by county

N of Medicaid Dentists and RDHAP per 10K population at county level

Year = 2019





### Multilevel regression models List of covariates included in layered provider models

#### Baseline

- Marginal effect of policy intervention alone (i.e., Prop 56/SB97)
- Pre-trend
- Immediate effect
- Post-trend

#### Policies

- HRSA oral health expansion
- awards to FQHCs
  Dental Transformation
- Initiative domains 1-4
- Loan repayment awardee

#### Provider Characteristics

- Claims for children
- Prior year Medi-Cal provider
- Prior year Tribal providerPrior year dental school
- provider
- Prior year FQHC provider
- Provider type (general dentist, specialist, RDHAP)
- Demographics (sex, race and ethnicity, age)

#### **County Characteristics**

- Racial and ethnic composition
- Percent female
- No. of dentists per 1k
- population
- Rural status



### Medicaid provider

### Among universe of providers, factors predictive of any FFS/DMCO claims



## Extent of provider participation Among universe of providers, factors predictive of 100+ patients annually (non-FQHC)





## Provider Participation in Medi-Cal Dental

- The predictive positive factors of being an enrolled provider (1+ claim) are prioryear Medicaid enrollment, being an RDHAP (vs. general dentist), and non-white provider race.
- The predictive negative factors include practice rural status, older and younger dentists (vs. 50-64), and being a specialist dentist (vs. general dentist).
- Predictors for dental providers to serve 100+ patients were similar: prior-year Medicaid enrollment, being an RDHAP (vs. general dentist), non-white provider race, along with larger county dentist per population ratio and other policy factors.
- The negative predictive factors were also similar: county rural status, dentist age and specialist status, as well as certain policy factors.



### Medicaid provider- Safety Net

### Among universe of providers, factors predictive of any FQHC claims

FQHC Provider





## Safety Net Provider Enrollment

- The most predictive positive factors of working in SNCs were prior-year Medicaid enrollment, Black and Hispanic dentists (vs. white), younger dentists, county rural status, and several other policy factors, including capacity-building grants and loan repayment awardees.
- The negative predictive factors include being a specialist dentist (vs. general dentist), male gender (vs. female), and other policy factors.

### Conclusion

- In California's Medi-Cal program, FFS enhancements along with full reinstatement of dental benefits has provided minimal incentive for provider enrollment and limited benefit for adult patients' access to care.
- Loan repayment provides larger per person return for provider enrollment, but this was only provided for 37 dentists (in 2018-2019) in a state of over 39 million people, of which almost 14 million are enrolled in Medicaid.
- Although dwarfed by the FFS environment, federal investments provide sustained improvements in access in SNCs.

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