Who's Not Going to the Dentist?

Sociodemographic Factors Affecting Annual Dental Visits in California versus the US

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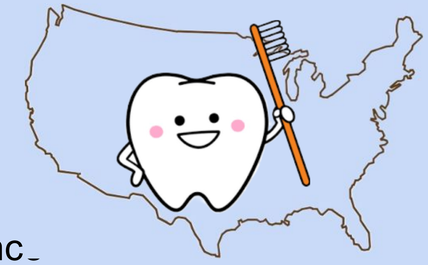


Background

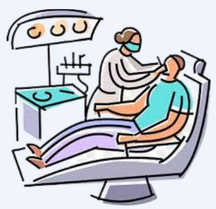
- Dental care is an important precursor to identifying other medical issues such as heart disease and diabetes
- Low income US adults are twice as likely as to have mild to moderate untreated caries, and triple the likelihood to have severe untreated caries than high income[1]
- The adults in the United States are also shown to have more difficulty in obtaining dental care due to the financial barriers[2]
- Oral health among low income populations is heavily neglected, even with the expansion of Medicaid plans[3]

Objective

- To determine how sociodemographic factors influence the frequency of adult dental visits at the state and federal level

Methods

- A secondary data analysis was conducted using the 2020 CDC Behavioral Risk Factor Surveillance System (BRFSS) Oral Health Database
- The BRFSS is a nationwide survey dedicated to collect uniform, state-specific data on adults' health-related risk behaviors, health conditions, and use of preventative services; BRFSS conducts more than 400,000 interviews a year
- Synthetic comparison group of **the United States category that excludes California data** was created
- Conducted **chi-squared tests** comparing California to United States for income level, gender, education, race, and age.



Results

- California has a significantly higher dental visit rate (49.2% n=4779) than United States (42.7% n=252666) in the <$15,000 annual income level (See **Fig.1**)
- White in California (73.2% n=1770) has significantly higher dental visit rate than that of the US (69.7% n=202716), while all other races in California have similar rate as the US (See **Fig.2**)
- California and the United States are significantly different in dental visit rate for every education level (See **Table 1**)
- An increase in education had the largest impact on increasing dental visit rates compared to all other factors: 26.3% difference in California and 38.8% in the US from less HS to College Graduate (See **Fig. 3**)

Table 1. Sociodemographic Factors of Yearly Dental Visits

* All variables with p-value that is less than the significance level of 0.05 are bolded and superscripted with an asterisk.
All USA data in the poster do not include California data

Population Demographics	California (n)	United States (n)	P-values
All Adults	64.6% (4779)	64.5% (252666)	.848567
Income			
<$15,000*	49.2% (240)	42.7% (10938)	**.040379***
$15,000-24,999	51.3% (232)	49.9% (23772)	.275169
$25,000-34,999	55.3% (206)	57.9% (17783)	.586302
$35,000-49,999	57.8% (269)	65.2% (28069)	.183688
$50,000+	72.8% (1784)	78.4% (131849)	**.000027***
Gender			
Male	63.4% (1492)	64.2% (115043)	.93358
Female	65.8% (1693)	69.8% (148817)	.418424
Race			
White*	73.2% (1770)	69.7% (202716)	**.00019***
Black	62.5% (159)	58.8% (17272)	.220687
Hispanic	56.7% (761)	57.9% (19938)	.384836
Other	63.8% (365)	63.4% (13508)	.916664
Multi-racial	61.9% (74)	59.6% (4834)	.646615
Education			
Less HS*	49.8% (238)	40.1% (10017)	**.000761***
HS/GED*	62.7% (498)	57.8% (60336)	**<.00001***
Some post HS*	63.0% (772)	66.2% (72281)	**.019343***
College Graduate*	76.1% (1668)	78.9% (120132)	**.001406***
Age			
18-24 y.o.	64.0%(289)	67.1% (16634)	.179932
25-34 y.o.	59.3% (554)	59.8% (25695)	.485619
35-44 y.o.	62.0% (462)	65.5% (33238)	.054111
45-54 y.o.*	61.4% (437)	67.9% (41196)	**.004887***
55-64 y.o.	66.0% (530)	67.8% (51998)	.516456
65+ y.o.*	74.2% (913)	69.6% (95099)	**.000013***

Figure 1. Adults Who Report Visiting the Dentist or Dental Clinic within the Past Year by Income (2020)
*: The upper limit for each income interval is NOT included

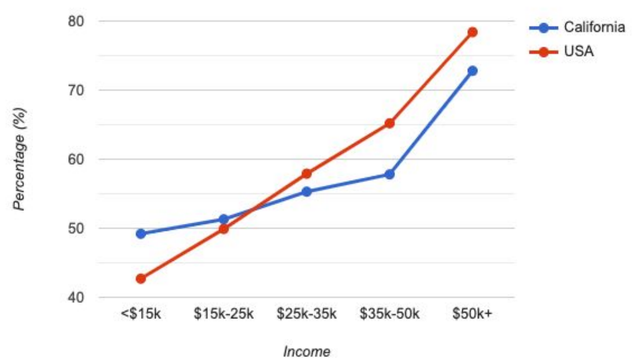


Figure 2. Adults Who Report Visiting the Dentist or Dental Clinic within the Past Year by Race (2020)

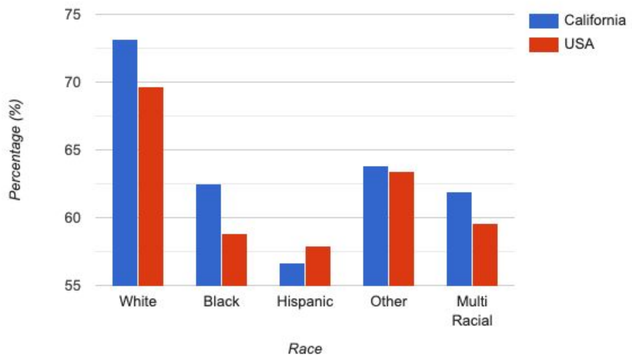
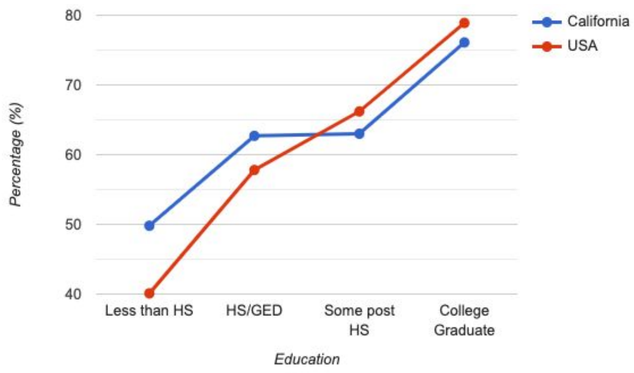


Figure 3. Adults Who Report Visiting the Dentist or Dental Clinic within the Past Year by Education (2020)



Conclusion

- The disparity between race and education levels that is affecting groups receiving dental care likely contribute to these groups having higher rates of diabetes and heart disease
- This can be mainly attributed to income, with rising income levels, individuals are more likely to pay for dental insurance
- After the Affordable Health Care Act, the US improved low income access to dental care
- Higher education can lead to a better understanding of the importance of dental care and a higher income to receive proper dental care

Limitations

- The 2020 BRFSS survey was conducted during or after the SARS-CoV2 pandemic
- Comparisons between California and the rest of the US may not be typically accurate because California had the highest number of SARS-CoV2 cases

Policy Implications

- Expanding Medicaid coverage and eligibility for dental services
- Policies should be put in place to prohibit discrimination based on race or ethnicity in dental care
- Encouraging diversity within the dental field can improve cultural competency, reduce disparities in access to care, and make patients more comfortable when visiting the dentists

References

Acknowledgements

We'd like to thank Dr. Nguyen-Grozavu, Frances Rivera, Behnan Albahsahli for supporting and providing feedback to make this project possible.