

Health Policy Brief

June 2021

The Challenge of Meeting the Dental Care Needs of Low-Income California Adults With the Current Dental Workforce

Nadereh Pourat, Paula Ortega-Verdugo, and Maria Ditter

SUMMARY: Access to oral health care, particularly for low-income individuals who face financial and other barriers to access, depends in part on the availability and practice characteristics of dentists. We measured both the need for oral health care among low-income California adults and the characteristics of practicing dentists using multiple sources, including the California Health Interview Survey and Dental Board of California data. We found a low supply of working dentists in several regions that had high rates of low-income adults; a small proportion of dentists

who provided dental visits under Medi-Cal; a significant number of dentists nearing retirement age; and an underrepresentation of Latinx and Black dentists in comparison to the low-income communities they serve. The findings presented in this policy brief highlight the need for policies that improve access, including increasing the participation of dentists in Medi-Cal, training more dentists from underrepresented communities of color, and increasing the capacity for dental care in areas with few dentists.

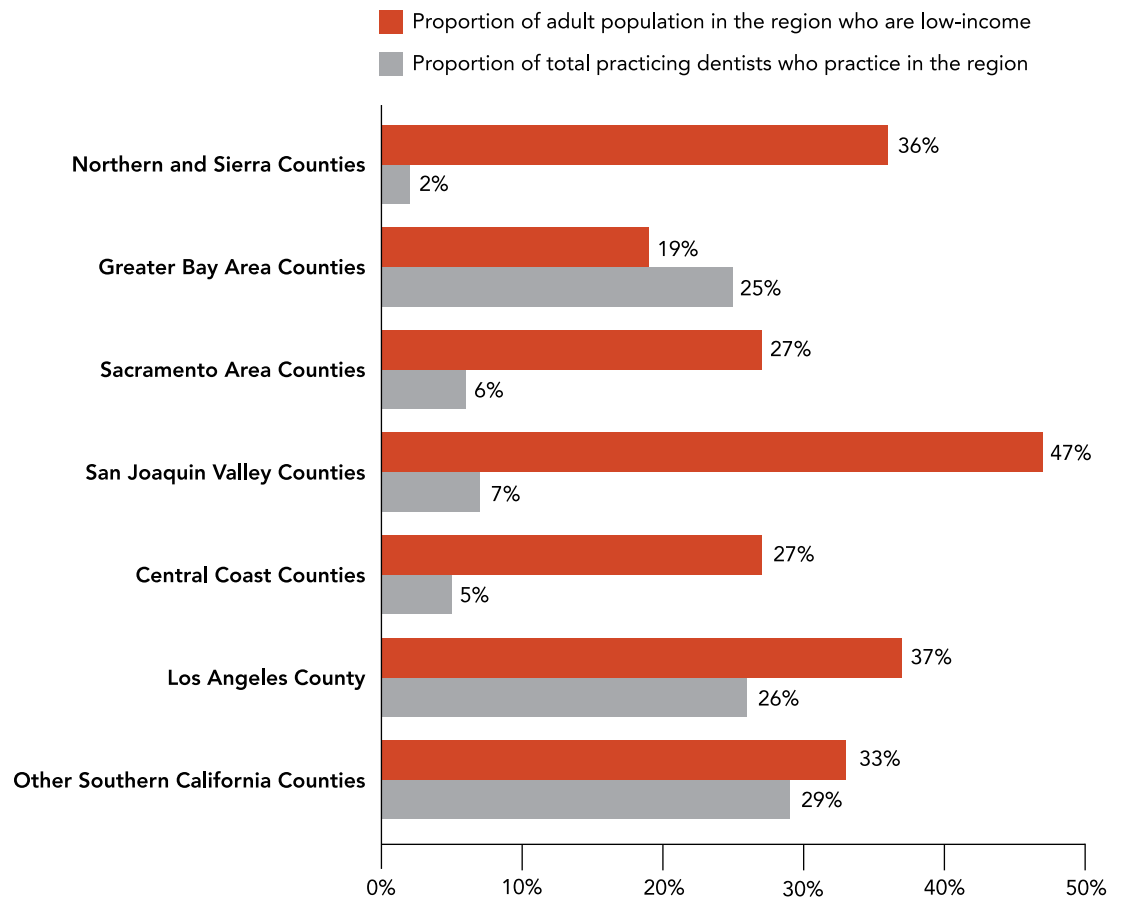
Nearly one-third of an estimated 39.5 million Californians are adults with incomes below 200% of the federal poverty level (FPL), according to the California Health Interview Survey (CHIS). Evidence indicates poorer oral health and lower access to oral health care among this population.^{1,2} In addition, the evidence also suggests that access to oral health depends on an adequate supply of dentists, and that it is impacted by dentists' individual and practice characteristics.³ For this policy brief, we used data from the 2018 and 2019 CHIS to assess the need for dental care among low-income California adults. We also used data from the Dental Board of California and the California Dental Association to estimate the supply of practicing dentists in California and their characteristics. We further used the

most recent data from the California Health and Human Services (CHHS) Open Data Portal to identify dentists who were Medi-Cal (California's version of Medicaid) providers and to determine the number of encounters they had with Medi-Cal beneficiaries.^{4,5,6}

“Access to oral health care depends on an adequate supply of dentists and is impacted by dentists' individual and practice characteristics.”

Exhibit 1

Proportion of Adults in California Regions Who Are Low-Income and Distribution of Practicing Dentists by Region



Sources: 2018 and 2019 California Health Interview Surveys, 2020 California Dental Association (CDA), 2020 Dental Licensing Board

Note: Low-income California adults are those with incomes of 0%–199% FPL.

Several California Regions With Many Low-Income Adults Had Fewer Practicing Dentists

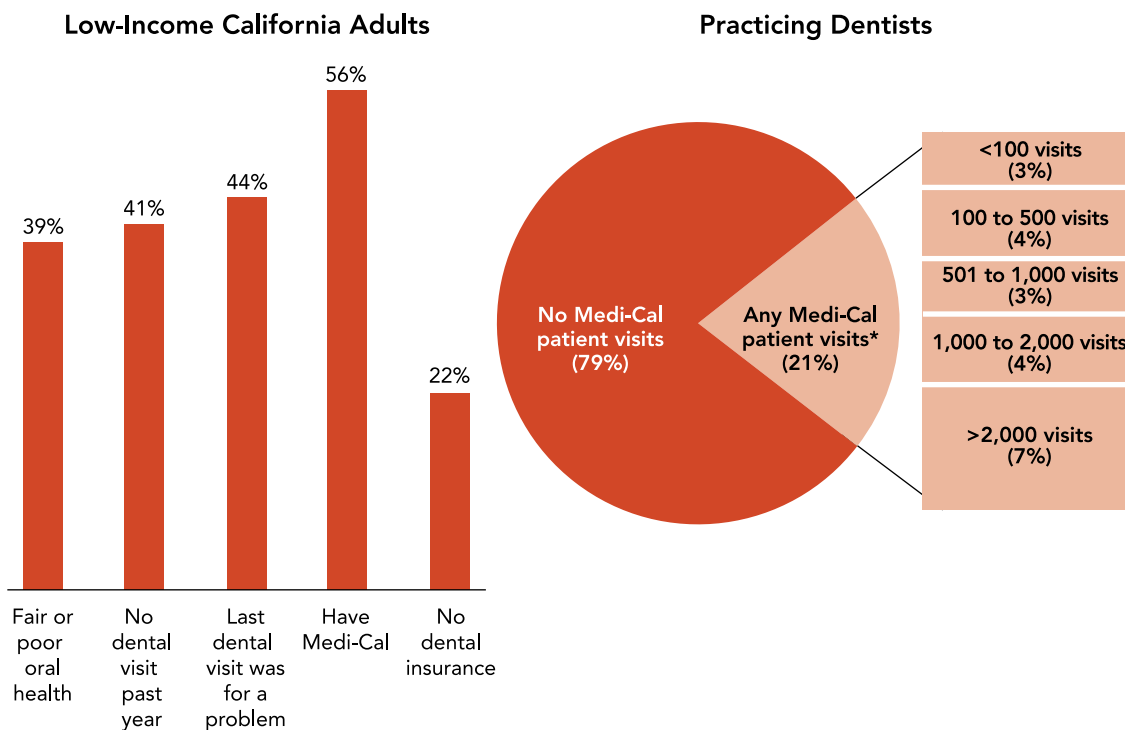
An estimated 9.8 million adults in California were low-income in 2018–2019, and an estimated 28,000 dentists were practicing in California in 2020 (data not shown). Most dentists practiced in the Greater Bay Area (25%), Los Angeles (26%), and other

Southern California counties (29%) (Exhibit 1). However, a higher proportion of low-income adults lived in some regions that had a low concentration of dentists. For example, while 47% of adults in San Joaquin Valley counties were low-income, just 7% of dentists in the state practiced there.

“A higher proportion of low-income adults lived in some regions that had a low concentration of dentists.”

Need for Oral Health Care by Low-Income Adults and Supply of Practicing Dentists Delivering Care to Medi-Cal Beneficiaries

Exhibit 2



Sources: 2018 and 2019 California Health Interview Surveys, 2020 California Dental Association (CDA), 2020 Dental Licensing Board, California Health and Human Services (CHHS) 2019 Dental Utilization by Provider, 2021 CHHS Managed Care Provider Network, 2021 CHHS Profile of Enrolled Medi-Cal Fee-for-Service (FFS) Providers

*"Medi-Cal patient visits" refers to Medi-Cal patients of all ages.
 Notes: Low-income California adults are those with incomes of 0%–199% FPL. Totals may not add to 100% due to rounding.

Few Practicing Dentists Provided a High Volume of Care to Medi-Cal Beneficiaries

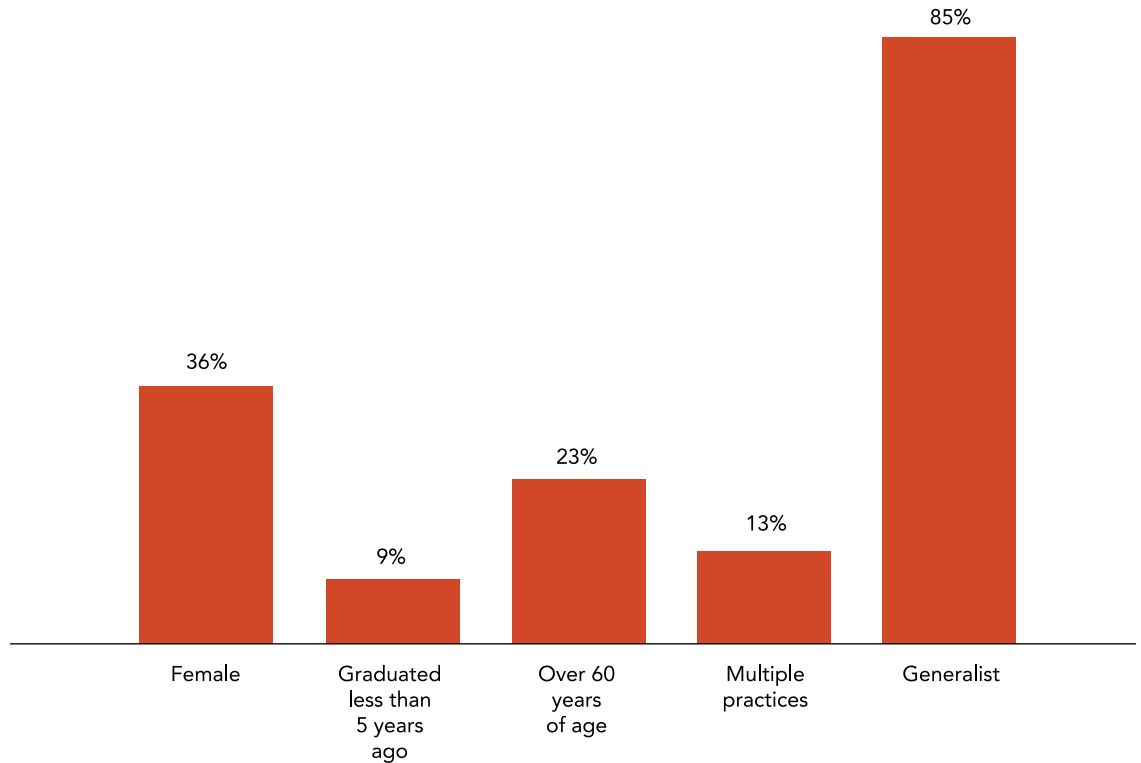
Of low-income adults in California, 39% reported fair or poor oral health status, and 41% reported not having visited the dentist in the past year (Exhibit 2). Of those who had visited a dentist in the past year, 44% reported it was for a problem rather than for routine cleaning. More than half of low-income adults were Medi-Cal beneficiaries and had coverage for dental benefits (56%),

and 22% did not have any dental insurance. However, only 21% of practicing dentists provided care to Medi-Cal beneficiaries of all ages. This included 7% who provided more than 2,000 Medi-Cal visits, and 3% who provided fewer than 100 Medi-Cal visits. Of the 79% who did not provide such care, 7% were registered as participating dentists but did not provide any care to Medi-Cal beneficiaries (data not shown).

“Only 21% of practicing dentists provided care to Medi-Cal beneficiaries of all ages.”

Exhibit 3

Characteristics of Practicing Dentists



Sources: 2020 California Dental Association (CDA), 2020 Dental Licensing Board

“While an estimated 9% of practicing dentists were within five years of having graduated, nearly one-fourth of dentists were 60 years of age or older and near retirement age.”

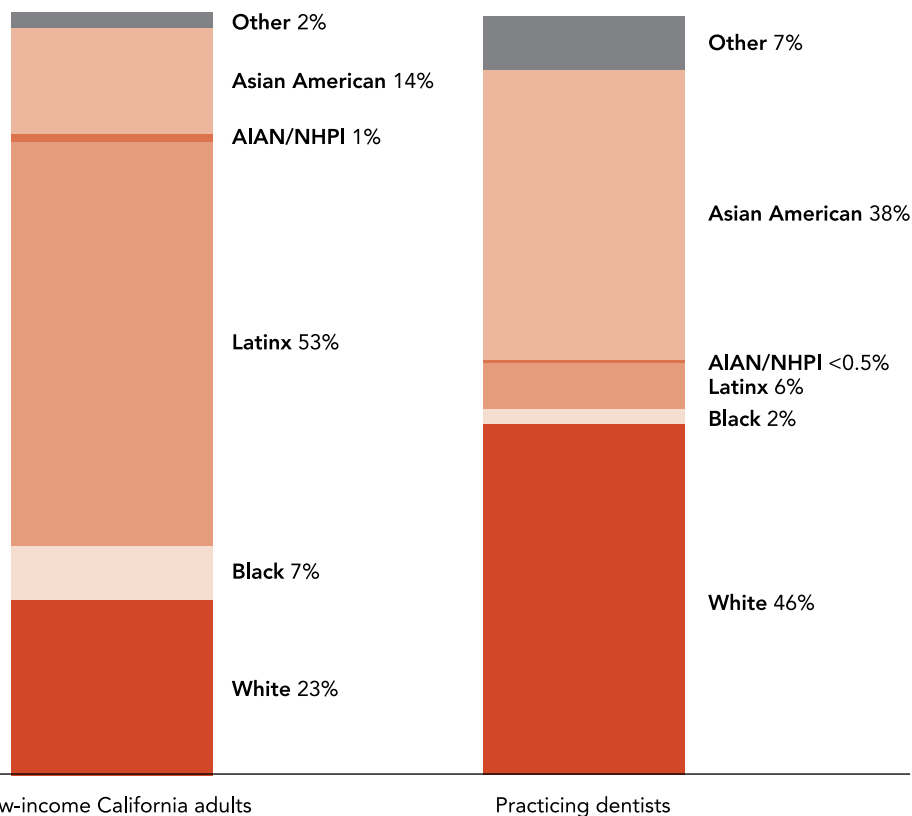
Many Practicing Dentists Were Older, and Most Were Generalists

The dental workforce is aging. While an estimated 9% of practicing dentists were within five years of having graduated, nearly one-fourth of dentists were 60 years of age or older and near retirement age (23%) (Exhibit 3). Some dentists (13%) had multiple practice licenses and were likely to

split their time between different locations. Most (85%) were generalists and did not report a specialty. Additional analyses showed that specialties reported included pediatrics (20%), orthodontics (26%), prosthodontics (9%), oral surgery (13%), and periodontics (14%) (data not shown). About 36% of practicing dentists were female.

Racial/Ethnic Distribution of Low-Income Adults and Practicing Dentists

Exhibit 4



Sources: 2018 and 2019 California Health Interview Surveys, 2020 California Dental Association (CDA)

Notes: Low-income California adults are those with incomes of 0%–199% FPL. AIAN/NHPI includes American Indian/Alaska Native and Native Hawaiian/Pacific Islander groups. “Other” includes all other races and two or more races. Totals may not add to 100% due to rounding.

Fewer Practicing Dentists Were From the Low-Income Communities of Color They Served

Most low-income adults were Latinx (53%), but only 6% of practicing dentists were Latinx (Exhibit 4). Similarly, more low-income adults were Black (7%) and American Indian/Alaska Native and Native Hawaiian/Pacific Islander groups combined (1%), but few practicing dentists were from these communities (2% and less than 0.5%, respectively). More dentists in communities of color (36%) participated in Medi-Cal compared to dentists in white communities (29%; data not shown).

Policy Implications

Our findings highlight the importance of dentist availability in improving access to oral health care for low-income adults (those earning less than 200% FPL) in California. Our data showed that despite the high prevalence of poor oral health, many low-income adults did not visit a dentist and, if they did, it was to address problems rather than to receive preventive care.

Data also showed that two likely access barriers are the low proportion of dentists who provide a significant amount of care to Medi-Cal beneficiaries and the low availability of dentists in areas with more low-income adults. Low availability of Latinx

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and Black dentists may also be a barrier, as these dentists are more likely to practice in areas with more low-income populations and communities of color and to be more willing to participate in Medi-Cal.^{7,8} The large number of dentists who may retire or reduce their practice hours in the near future can further reduce access. Factors such as specialization may reduce access to the general care needed by most individuals but can improve access to more advanced care. Similarly, while multiple practice locations may further reduce access due to a lower number of hours a dentist may be available in a given location, multiple locations might also improve limited access to more areas.

Our findings imply that improving access to oral health care for low-income California adults will likely require policies that promote greater participation of dentists in Medi-Cal. Since 2018, the CalHealthCares Program has repaid loans of 79 dentists in exchange for five years of service to Medi-Cal beneficiaries.⁹

California Proposition 56 provided supplemental payments for several dental services under Medi-Cal during fiscal years 2017–18 and 2018–19. Under the Dental Transformation Initiative, California has also used financial incentives to promote access to dental care for children covered under Medi-Cal. Continuation of these policies and incentivizing of care delivery to low-income adults are needed to improve access.^{10,11} Additional policy tools include increasing reimbursement rates for dental services and other financial and nonfinancial incentives to encourage better participation of dentists in Medi-Cal.¹²

Pipeline education programs to increase the number of dentists from communities of color are another strategy for increasing access. Combining these efforts with loan repayment programs that are tied to practicing in areas and communities with fewer dentists is likely to increase their effectiveness. It is essential to ensure availability of multilingual staff and interpretation services in all dental practices in the short term, and to provide cultural

competency training in dental school curricula in the long term.^{13,14} Policies to boost the capacity of existing dental providers are also needed—for example, training of expanded-function hygienists and dental therapists, mobile dentistry, and teledentistry services.

Data Sources and Methods

We used the 2018 and 2019 California Health Interview Surveys (CHIS) to examine characteristics of the low-income California adult population. Income was measured based on total annual income of a household divided by the number of individuals in the household, and it was reported as a percentage of the federal poverty level (income of under 200% FPL is less than \$24,280 for a single person, and less than \$50,200 for a household of four). We considered adult Medi-Cal beneficiaries to have dental insurance. Among the remainder of respondents, we identified those who reported having dental insurance and those who reported having no dental insurance. Some Medi-Cal beneficiaries may have had limited-scope Medi-Cal, though most individuals with this coverage may underreport it.

The list of all licensed dentists in California was obtained from the Dental Board of California in June 2020 and supplemented by data from the California Dental Association obtained at the same time. The latter included information on race/ethnicity, specialty, and retirement and student status. Additional data on Medi-Cal participation in 2021 and provision of dental care to Medi-Cal beneficiaries in 2019 were obtained from the California Health and Human Services (CHHS) Open Data Portal.^{4,5,6} Dentists with a current license in California who were not retired or who were dental students were considered to be practicing. Data on student and retired status were only available for the California Dental Association members. The location of practicing dentists was based on ZIP codes of business addresses reported to the California Dental Association, the National Provider Directory,¹⁵ and the Dental Board of California. Inaccuracies in county attribution may be present. The proportion of dentists participating in Medi-Cal but not providing care to Medi-Cal beneficiaries may be overestimated, as the most recent utilization data were for 2019, and dentist participation in Medi-Cal data was updated in 2021. Race/ethnicity and gender of dentists may be subject to non-response bias, as many did not report these data. Dentists who did not report a specialty were considered to be generalists. All analyses are descriptive and do not reflect causal relationships.

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Endnotes

- 1 Pourat N, Ditter M. 2020. *Income Disparities Widen the Gap in Oral Health of California Adults*. Los Angeles, Calif.: UCLA Center for Health Policy Research. <https://healthpolicy.ucla.edu/publications/search/pages/detail.aspx?PubID=2012>
- 2 Nasseh K, Vujicic M. 2014. The Effect of Growing Income Disparities on U.S. Adults' Dental Care Utilization. *Journal of the American Dental Association* 145(5): 435-442. <https://www.sciencedirect.com/science/article/abs/pii/S0002817714600362>
- 3 Bersell CH. 2017. Access to Oral Health Care: A National Crisis and Call for Reform. *Journal of Dental Hygiene (American Dental Hygienists' Association)* 91(1): 6-14. <https://jdb.adba.org/content/91/1/6.full>
- 4 California Health and Human Services. 2019. *Dental Utilization by Provider – CY 2019*. CHHS Open Data Portal. <https://data.cbhs.ca.gov/dataset/dental-utilization-per-provider>
- 5 California Health and Human Services. 2021a. *Managed Care Provider Network*. CHHS Open Data Portal. <https://data.cbhs.ca.gov/dataset/managed-care-provider-network>

- 6 California Health and Human Services. 2021b. *Profile of Enrolled Medi-Cal Fee-for-Service (FFS) Providers*. CHHS Open Data Portal. <https://data.cbhs.ca.gov/dataset/profile-of-enrolled-medi-cal-fee-for-service-ffs-providers>
- 7 ADA Health Policy Institute. 2021. *Racial and Ethnic Mix of the Dentist Workforce in the U.S.* American Dental Association. https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIgraphic_0421_1.pdf?la=en
- 8 Mertz EA, Grumbach K. 2007. Identifying Communities With Low Dentist Supply in California. *Journal of Public Health Dentistry* 61(3): 172-177. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1752-7325.2001.tb03386.x>
- 9 Physicians for a Healthy California. 2021. *CalHealthCares Program*. <https://www.phcdocs.org/Programs/CalHealthCares>
- 10 Snyder A. 2009. *Increasing Access to Dental Care in Medicaid: Targeted Programs for Four Populations*. Issue Brief. California HealthCare Foundation. <https://www.cbhf.org/wp-content/uploads/2017/12/PDF-IncreasingAccessToDentalCareInMedicaid.pdf>
- 11 Anderson G, Grumbach K, O'Neil E. 2004. *Evaluation of Strategies to Recruit Oral Health Care Providers to Underserved Areas of California*. Center for California Health Workforce Studies at the University of California, San Francisco. <https://healthforce.ucsf.edu/publications/evaluation-strategies-recruit-oral-health-care-providers-underserved-areas-california>
- 12 Community Clinic Association of Los Angeles County. 2019. *Dental and Oral Health Policy Recommendations – 2019*. <https://ccalac.org/dental-and-oral-health-policy-recommendations-2019-2/>
- 13 Hammersmith KJ, Lee JY. 2009. A Survey of North Carolina Safety-Net Dental Clinics' Methods for Communicating With Patients of Limited English Proficiency (LEP). *Journal of Public Health Dentistry* 69(2): 90-94. https://www.researchgate.net/publication/23569257_A_Survey_of_North_Carolina_Safety-Net_Dental_Clinics%27_Methods_for_Communicating_with_Patients_of_Limited_English_Proficiency_LEP
- 14 Lie D, Carter-Pokras O, Braun B, Coleman C. 2012. What Do Health Literacy and Cultural Competence Have in Common? Calling for a Collaborative Health Profession Pedagogy. *Journal of Health Communication* 17(Suppl. 3). <https://www.tandfonline.com/doi/full/10.1080/10810730.2012.712625>
- 15 Centers for Medicare & Medicaid Services. 2021. *National Provider Identifier Standard (NPI) – Data Dissemination*. Department of Health and Human Services, Centers for Medicare & Medicaid Services. <https://www.cms.gov/Regulations-and-Guidance/Administrative-Simplification/NationalProviderStand/DataDissemination>



The California Health Interview Survey covers a wide array of health-related topics, including health insurance coverage, health status and behaviors, and access to health care. It is based on interviews conducted continuously throughout the year with respondents from more than 20,000 California households. CHIS is a collaboration of the UCLA Center for Health Policy Research, the California Department of Public Health, the California Department of Health Care Services, and the Public Health Institute. For funders and other information on CHIS, visit chis.ucla.edu.

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