Please Note

- This presentation summarizes *Access to Oral Health Care in Central California*– a study funded by The California Endowment and conducted by the Central Valley Health Policy Institute (CVHPI) at California State University, Fresno

- For more information about *Access to Oral Health Care in Central California*, please visit: http://www.csufresno.edu/ccchhs/institutes_programs/CVHPI/dental/

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Access to Oral Health Care in Central California

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Purpose of Project

Central Valley Health Policy Institute
California State University, Fresno

- An 18-county oral health access profile to support planning and policy analysis related to care for low-income and underserved residents of Central California region
- Explore socio-economic factors associated with oral care access
- Offer policy recommendations based on study findings

Context:
Oral Health in California

- Tooth decay is the most common chronic childhood disease
- More than one-half of kindergarteners & more than 7 out of 10 third-graders have experienced tooth decay
- More than 1 out of 4 elementary school children have untreated tooth decay

Source: Children Now: California Report Card '09

The Surgeon General has reported that tooth decay is the most common chronic childhood disease– 5 times more common than asthma and 7 times more common than hay fever in school children.

Children frequently have poor oral health and, in CA, their oral health is substantially below national targets.

More than half of kindergarteners & more than 7 out of 10 third-graders have experienced tooth decay.

More than 1 out of 4 elementary school children have untreated tooth decay.

Left untreated, dental diseases can result in severe pain and infection leading to various health problems, difficulty with activities of daily living, and in rare cases, death.

In addition, poor oral health is one of the leading causes of absenteeism in the classroom as well as at work.

Context: Oral Health in California

- Periodontal (gum) disease is linked to[1]:
  - Pre-term delivery/low birth weight infants
  - Atherosclerosis and vascular disease
  - Diabetes and increased prevalence and severity of gingivitis and periodontitis

- Dental diseases can result in severe pain and infection leading to various health problems, difficulty with activities of daily living, and in rare cases, death[2]

- The mouth is a reflection of overall health and well-being

1. Source: http://jada.ada.org/content/vol137/suppl_2/index.dtl
2. Source: California HealthCare Foundation, *Denti-Cal Facts and Figures,* May 2007.

Context: Oral Health in California

- Preventable dental conditions accounted for more than 83,000 emergency department (ED) visits in 2007—a 12% increase from 2005
- Hospitals charged commercial insurers, government programs, and uninsured individuals about $55 million for ED visits for preventable dental conditions in 2007
- Of the 18 central California counties, 7 had higher rates of ED visits for preventable dental conditions than diabetes and asthma ED visits

Source: California HealthCare Foundation, *Emergency Department Visits for Preventable Dental Conditions in California,* 2009.

The California HealthCare Foundation defined ACS dental conditions, also known as "preventable dental conditions" as:

1. Diseases of hard tissues of teeth
2. Diseases of pulp and periapical tissues
3. Gingival and periodontal diseases
4. Other diseases and conditions of the teeth and supporting structures
5. Diseases of the oral soft tissues, excluding lesions specific for gingiva and tongue

The 7 counties with higher rates of preventable ED visits for dental conditions than diabetes and asthma ED Visits are:

1. Amador 2. Calaveras 3. Inyo 4. Mariposa 5. Mono 6. San Luis Obispo 7. Tuolumne

Context: Oral Care Financing for Low-Income Californians

- Denti-Cal is the primary public payer for dental care for low-income Californians
- While nearly all Medi-Cal beneficiaries have access to dental benefits, they face significant barriers to receiving care
- Only 40% of private dental practices accepted Denti-Cal payments in 2003
- Only about 1 in every 4 Medi-Cal patients received any Denti-Cal services in 2004

Source: California Healthcare Foundation, *Denti-Cal Facts and Figures*, May 2007.

Percent of Medi-Cal enrollees using Denti-Cal services & ED visits for preventable dental conditions

County	Percent of Medi-Cal enrollees that utilized dental benefits (2004)	Total dental ACS ED visits per 100,000 (2007)
Amador	15.00%	560
Calaveras	21.00%	414
Fresno	31.00%	261
Inyo	9.00%	*
Kern	27.00%	286
Kings	21.00%	243
Madera	25.00%	323
Mariposa	16.00%	*
Merced	22.00%	381
Mono	4.00%	*
Monterey	21.00%	230
San Benito	18.00%	201
San Joaquin	25.00%	268
San Luis Obispo	17.00%	419
Santa Cruz	19.00%	214
Stanislaus	24.00%	411
Tulare	22.00%	444
Tuolumne	17.00%	779

Source: California HealthCare Foundation, 2007 & 2009

*Due to these sparsely populated counties, The California HealthCare Foundation consolidated these three counties into a the “Central East” region which also includes Alpine. The total dental ACS ED visits per 100,000 for the 4 counties (Alpine, Inyo, Mariposa, and Mono) was 338. Alpine County was not included in this study.

The data for Medi-Cal enrollees utilizing dental benefits are from 2004. There does not seem to be a more recent summary report.

Low Denti-Cal Utilization Rates

- While about 95% of all Medi-Cal beneficiaries are eligible for dental benefits, not all are receiving the dental care they need

- Three important questions:
  - Is there an overall oral health provider shortage?
  - Is there a misdistribution of services (geographically and/or socio-economically)?
  - Are there other access issues?

Dental Health Professional Shortage Areas

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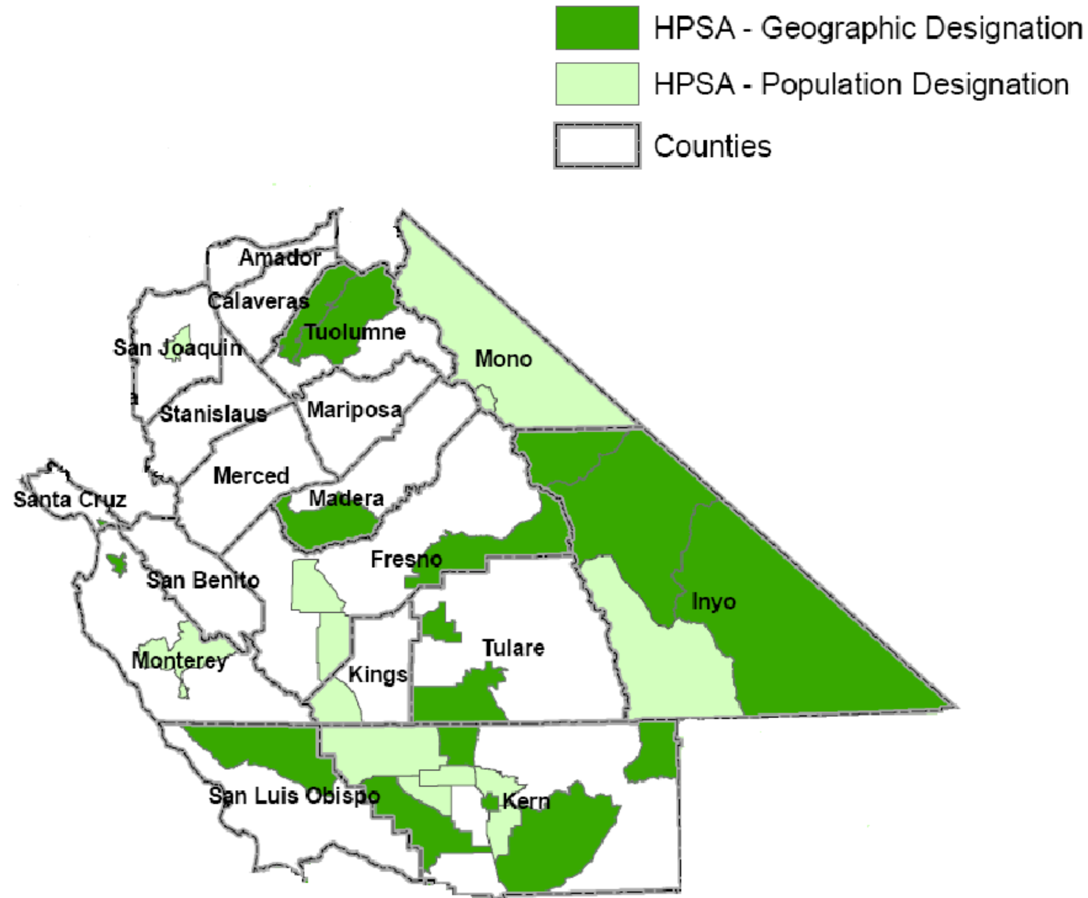
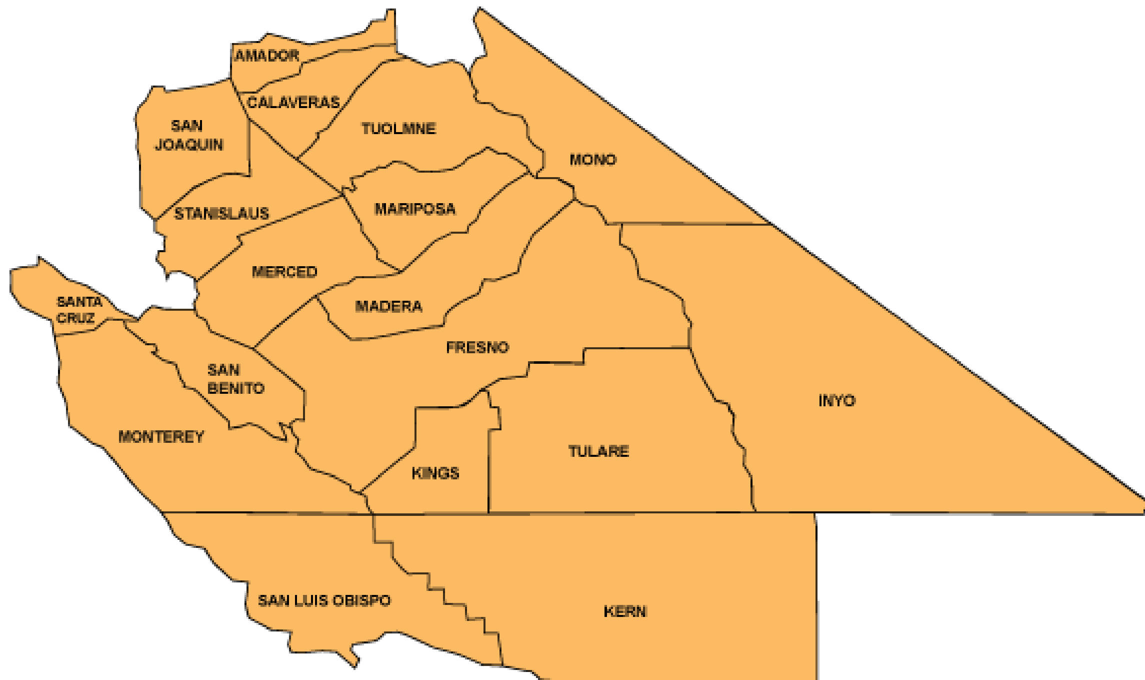


Source: U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Bureau of Health Professions, 2008

A Study of Access to Oral Health Care in Central CA

Central Valley Health Policy Institute
California State University, Fresno

- Assessed oral health care accessibility in The California Endowment's 18 county central CA region



Prior to this study, there have not been data on oral health accessibility for TCE's 18 county Central California region

Methodology

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- Multiple research methods, including literature review, quantitative survey, demographic and spatial analysis, qualitative interviews, regional focus groups
- Began by conducting a scan and analysis of existing secondary data and reports from public sector

Methodology: Qualitative Interviews

- Interviewed key informants in the 18-county region. Investigators used a protocol that combined close-ended and qualitative questions to assess oral health resources, initiatives, best practices for preventive care, access challenges, advocacy efforts and policy issues.

- 34 interviews were completed with organizations that included dental clinics, public health departments, Head Start, First 5 organizations, community-based organizations and others

Methodology: Quantitative Survey

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- Identified the universe of providers (about 2000 practicing in 2008) across 18 counties using multiple sources, including state licensing data and www.whitepages.com
- Sampled 1800 dental practices in the 18 counties- stratified by county using equal probability of selection method
- Letters sent to all dental providers about the study
- Surveys mailed out to dentists and their practice managers
- Telephone and mail follow-up on surveys
- 900 surveys completed equaling a 50% return rate

Methodology: Data Analysis and Presentation

- Developed profiles for the region and each county and selected sub-county/community clusters

- Key data elements were compiled that reflect oral health access across geographic and socio-economic groups

Methodology:Demographic Data Source

- Demographic data was gathered from an online company, Maponics (www.maponics.com) that specializes in custom mapping services.
- Census County sub-divisions were used. Each sub-division includes multiple census tracks and zip codes.

Methodology:Regional Focus Groups

- Conducted 4 regional focus groups/ community meetings with key stakeholders to (1) get feedback on preliminary findings and presentation, and (2) explore policy and program implications of findings
- Regional meetings were co-sponsored by "Little Smiles" of the Kern County Department of Public Health, Community Oral Health Services of Monterey, First 5 Fresno County and First 5 Amador County

Notes form the regional focus groups can be found at: http://www.csufresno.edu/ccchhs/institutes_programs/CVHPI/dental/

Qualitative Interviews Findings

- Across all counties, respondents view the shortage of dental providers who accept Denti-Cal (Medi-Cal) or Healthy Families as the primary barrier to access
- Respondents noted other access barriers: transportation, language, affordable care, lack of public education/awareness about the importance of dental care
- Mixed opinions of the impact of Oral Health Screenings (AB 1433)

Additional notes on access barriers:
Shortage of Denti-Cal/Medi-Cal providers- the majority of key informants reported a lack of dental providers who accept public insurance in their respective counties. Dental specialists, such as oral surgeons, orthodontists, and pediatric dentists are more difficult to access for low-income residents.
Transportation- key informants reported that rural residents must travel to the nearest jurisdiction where dental care is available. In the rural counties with no Denti-Cal providers, patients must travel up to 3-4 hours to receive dental care.
Language barriers- A number of key informants stated that many patients and families are Spanish-speaking, which often makes communication difficult. Dentistry is among the least diverse health professions and there is a growing shortage of Latino dentists.
Affordable care- affordability of dental care is a main access barrier for the uninsured. Other than community health clinics, few practices offer reduced or low-cost dental care.
Key informants also reported that a barrier is the lack of public education and awareness about the importance of dental care.

AB 1433 is a policy that became effective January 1, 2007 and requires an oral health screening within the first year of entering public schools. The law was intended to start getting children routine dental care early and into dental homes. Parents are allowed to sign a waiver if they can't find a provider, they can't afford a check-up, or if they don't want their child to be seen by a dentist. On one hand, there was a key informant who said that results from this legislation have been dismal because parents are choosing to opt out. On the other hand, some informants say that AB 1433 has been a stepping stone in raising awareness of the importance of oral health.

Qualitative Interviews Findings

- Across counties, respondents reported the main challenge to providing care is funding
  - Funding sources included: Medi-Cal/Denti-Cal, First 5, Head Start, County Health Department's, County Office's of Education, CA Children's Dental Disease Prevention Program, and private grants
- Counties are trying their best to piece together oral health care services for low-income children and families, but there are still gaps

Kern County is an example where multiple entities are piecing together an oral health safety net for low-income residents. Through the Public Health Services department, children in the Child Health and Disability Prevention program receive well-child medical screenings, which include an oral health assessment. Case managers contact families to follow-up on assessments and make referrals. Families also receive enrollment assistance for insurance programs such as First 5, Kaiser Kids, Medi-Cal, and Gateway Medi-Cal. The Public Health Services department also conducts a "school round-up." A dental hygienist visits schools throughout the county to educate and provide AB1433 oral health assessments. First 5 funding is available only for the 4 to 5 year-old children who need a complete exam and follow-up treatments. The Healthy Promotions Dental Program offers dental care to uninsured adults in Kern County. The program has an annual budget of $40,000 to provide free care to patients who are in need of dental services. The program recruits dentists and dental hygienists to conduct cleanings, x-ray, and exams. Patients who are in the most in need of services are prioritized and sent to one of the 11 dentists in their network or the dental site at Bethany Homeless Shelter. Currently, there are approximately 150 patients on the waiting list. Services for young children and uninsured adults are available for residents of Kern County, but older children are often left without care. In most counties, there are services specifically for young children; however, older children and adults have very limited sources of dental care.

Additional information on the qualitative interview findings are available at: http://www.csufresno.edu/ccchhs/institutes_programs/CVHPI/dental/

Misc Notes: Federally Qualified Health Centers are able to bill Medi-Cal directly as part of their single pre-negotiated per-visit Medi-Cal rate

Quantitative Survey Findings

- Practices in all 18 Counties provided information
- 26% of dental practices currently serving Denti-Cal
- 17% of dental practices accepting new Denti-Cal
- 98% of dental practices serving children under 18
- 70% of dental practices serving children under 5
- 73% of dental practices have Spanish speaking staff

Quantitative Survey Findings

Dental Practices Accepting NEW Denti-Cal Patients

County	# Surveyed	Percent New DC	Projected # accepting New DC
Amador	1.00	20.00%	2.20
Calaveras	1.00	11.11%	1.44
Fresno	41.00	24.55%	81.75
Inyo	0.00	0.00%	0.00
Kern	39.00	34.82%	81.48
Kings	5.00	29.41%	9.12
Madera	4.00	21.05%	7.58
Mariposa	0.00	0.00%	0.00
Merced	11.00	27.50%	20.35
Mono	0.00	0.00%	0.00
Monterey	11.00	15.28%	26.13
San Benito	0.00	0.00%	0.00
San Joaquin	14.00	12.07%	28.84
San Luis Obispo	4.00	6.67%	8.67
Santa Cruz	4.00	6.15%	7.69
Stanislaus	9.00	10.00%	18.70
Tulare	9.00	13.04%	16.57
Tuolumne	1.00	5.56%	1.78

The '# surveyed' column is the number of dental practices surveyed who indicated they accept new Denti-Cal patients. The 'percent new DC' column is the percent of dental practices out of every surveyed practice in the county that accept new Denti-Cal patients. And because it was not possible to receive a completed survey from every dental practice in a particular county projections were made to fill in the gaps based on the number of surveys we received. The 'projected #' column is the number of dental practices we project would indicate they accept new Denti-Cal patients if every survey in a given county was completed.

Quantitative Survey Findings

Dental Practices Accepting Denti-Cal Patients in the Past

County	# surveyed	Percent past DC	Projected # accepting DC in past
Amador	2.00	40.00%	4.40
Calaveras	5.00	55.56%	7.22
Fresno	97.00	58.08%	193.42
Inyo	1.00	50.00%	3.50
Kern	64.00	57.14%	133.71
Kings	6.00	35.29%	10.94
Madera	13.00	68.42%	24.63
Mariposa	2.00	50.00%	2.50
Merced	25.00	62.50%	46.25
Mono	3.00	60.00%	2.40
Monterey	42.00	58.33%	99.75
San Benito	5.00	50.00%	10.50
San Joaquin	66.00	56.90%	135.98
San Luis Obispo	25.00	41.67%	54.17
Santa Cruz	35.00	53.85%	67.31
Stanislaus	47.00	52.22%	97.66
Tulare	42.00	60.87%	77.30
Tuolumne	8.00	44.44%	14.22

The '# surveyed' column is the number of dental practices surveyed who indicated they accepted Denti-Cal patients in the past. The 'percent past DC' column is the percent of dental practices out of every surveyed practice in the county that accepted Denti-Cal patients in the past. And because it was not possible to receive a completed survey from every dental practice in a particular county projections were made to fill in the gaps based on the number of surveys we received. The 'projected #' column is the number of dental practices we project would indicate they accepted Denti-Cal patients in the past if every survey in a given county was completed.

Quantitative Survey Findings

Practice Characteristics Associated With Current Acceptance of Denti-Cal Patients

	Accepts Denti-Cal	Does Not Accept Denti-Cal
	n=232	n=663
FTE Dentists	1.66 (2.08)	1.21 (.69)
FTE Hygienists	.62 (1.22)	1.14 (1.69)
Years Open	16 (12.4)	19.7 (13.5)
Provide Care in language(s)** other than English	94%	90%
Provide Voluntary Dental Services	14%	6%

All differences are significant at $p < .05$ unless otherwise noted

*** difference significant at $p < .10$*

These data are based on the survey of practices in 18 central California counties. The data shows that dental practices that report that they currently accept Denti-Cal patients have a higher number of full time equivalent (FTE) dentists but a lower FTE for hygienists in comparison to dental practices that are not currently accepting Denti-Cal patients.

In addition practices that currently accept Denti-Cal patients have been open for fewer years, are more likely to provide care in languages other than English, and are more likely to provide voluntary dental services compared to dental practices that are not currently accepting Denti-Cal patients.

Quantitative Survey Findings

Practice Characteristics Associated With Acceptance of NEW Denti-Cal Patients

	Accepts New Denti-Cal	Does Not Accept New Denti-Cal
	n=154	n=741
FTE Dentists	1.65 (1.28)	1.25 (1.13)
FTE Hygienists	.44 (.88)	1.13 (1.69)
Years Open	13.4 (11.9)	19.8 (13.4)
Provide Care in language(s) other than English	97%	89%
Provide Voluntary Dental Services	13%	7%

All differences are significant at $p < .05$ unless otherwise noted

These data are based on the survey of practices in 18 central California counties. The data shows that dental practices that report that they currently accept new Denti-Cal patients have a higher number of full time equivalent (FTE) dentists but a lower FTE for hygienists in comparison to dental practices that are not currently accepting new Denti-Cal patients.

In addition practices that currently accept new Denti-Cal patients have been open for fewer years, are more likely to provide care in languages other than English, and are more likely to provide voluntary dental services compared to dental practices that are not currently accepting Denti-Cal patients.

Also, compared to the data in the previous slide, dental practices accepting new Denti-Cal patients have, on average, been open fewer years than dental practices currently serving Denti-Cal patients, but not accepting NEW Denti-Cal patients.

Quantitative Survey Findings

Demographic Features of Zip Codes Where Dental Practices Accept NEW Denti-Cal Patients

	Zip Code Includes At Least One Practice that Accepts New Denti-Cal	Zip Code Includes Only Practices that Don't Accept New Denti-Cal
	n=85	n=142
Median Household Income ($)**	42,231 (13,642)	49,147 (15,756)
% of Households with Children**	44% (11%)	38% (12%)
Hispanic % of Population**	53% (24%)	36% (25%)
Population	32,846 (17,757)	26,881 (18,390)
Population Density	1,810 (2,404)	1,525 (2,247)

*** differences significant at $p < .05$*

These data are based on the survey of practices in 18 central California counties and demographic data on zip codes. The table compares zip codes where there was at least one dental practice in a zip code that reported accepting NEW Denti-Cal patients with those zip codes in which no practice reported accepting Denti-Cal. We excluded all zip codes for which there was no response in the survey of practices.

Initial observations of the data in a visual map-based format suggested a relationship between population density and locations that contained dental practices accepting NEW Denti-Cal patients. The quantitative data suggests a different conclusion. The analysis shows that zip codes containing one or more dental practices accepting NEW Denti-Cal patients have a lower median household income, a higher % of households with children in them and a higher Hispanic % of the population than zip codes that do not have dental practices accepting new Denti-Cal patients.

And while population numbers and population density seem to be higher for zip codes containing one or more dental practices accepting new Denti-Cal patients the variables are not statistically significant; possibly due to the extremely high standard deviations. Nonetheless, if we included all zip codes in the region (instead of only those with a dentist that responded to our survey), the results would indicate that overall zip code population and population density are related to presence of any dental practice and dental practices that accept Denti-Cal.

Quantitative Survey Findings

Additional Findings

- Fluoridation almost completely absent in region
- 99% of survey respondents stressed importance of fluoridation for patients
- Barriers to dental practices serving Denti-Cal patients
    1. Reimbursement rates too low – 82%
    2. Too much paperwork/red tape – 68%

Summary of Findings

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California State University, Fresno

- There does not appear to be a regional shortage of oral health care providers
  - BUT, there are very few providers in some counties and in rural parts of many counties
  - AND there are relatively few oral health providers accepting NEW Denti-Cal patients
- Transportation, language, affordable care and other barriers to access are present

For additional information about Dental Health Professional Shortage Areas, please see: California Healthcare Foundation, *Denti-Cal Facts and Figures*, May 2007.
Available at: http://www.chcf.org/documents/policy/EDUseDentalConditions.pdf

Final Product

Central Valley Health Policy Institute
California State University, Fresno

- Please visit: http://www.csufresno.edu/ccchhs/institutes_programs/CVHPI/dental/
- Website is a complete package tying survey data to visual analysis
- Individual landing page for each county
  - GIS based maps include survey data and basic demographics
  - Qualitative interview summaries

Policy Recommendations

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California State University, Fresno

- Study findings indicate that many low-income Central California residents do not have reasonable access to oral health care services
- If the goal of public policy is that all Californians have reasonable access to oral health care, the following recommendations could be considered:

Policy Recommendations

1. Protect, expand, and enhance public oral health care programs and services for underserved and uninsured populations, e.g. school-based programs, mobile clinics, community health centers, etc.

2. Increase Denti-Cal reimbursement rates as well as streamline administrative workload on providers

3. Provide funding for community dental clinic start up, fixed costs

4. Establish a permanent and continuing revenue source to fund the state's loan repayment program for providers willing to serve in medically underserved areas

5. Provide Medi-Cal beneficiaries information about dental benefits and where to seek care

6. Complete a policy analysis of AB 1433 to assess the impact on children's oral health

Policy Recommendations

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California State University, Fresno

- It is recognized that recommendations based on study findings are aspirational
- There are a number of barriers to potential policy reforms including costs associated with recommendations
- There does not appear to be an advocacy effort to improve access
- There continues to be a need for innovations in practice and service delivery that can improve access separate from these policy recommendations

About CVHPI

The Central Valley Health Policy Institute improves equity in health and health care by developing the region's capacity for policy analysis and program development through integrating the resources of California State University, Fresno and the institutions and communities of the San Joaquin Valley. The Institute was funded in July 2003 by The California Endowment, in partnership with the university, to promote health policy and planning in the region.

Additional information about the Central Valley Health Policy Institute, its programs and activities, can be found at: www.cvhpi.org

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Additional Resources

Central Valley Health Policy Institute
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- American Dental Association
  www.ada.org
- California Dental Association
  www.cda.org
- California HealthCare Foundation
  www.chcf.org
- Children Now
  www.childrennow.org