



YUBA COUNTY
PUBLIC HEALTH

ORAL HEALTH NEEDS ASSESSMENT

JUNE 2019



**FOR MORE INFORMATION ABOUT THIS REPORT, PLEASE
PLEASE CONTACT**

HHSD_ORALHEALTH @CO.YUBA.CA.US

YADIRA FRIDAY AT YFRIDAY@CO.YUBA.CA.US

**COPIES OF SURVEY TOOLS, FOCUS GROUP QUESTIONS, AND
ASSESSMENT TOOLS REFERENCES IN THIS REPORT CAN BE
PROVIDED UPON REQUEST**

Table of Contents

ACKNOWLEDGEMENTS	3
EXECUTIVE SUMMARY	4
SUMMARY OF FINDINGS	4
<i>Protective/Risk Factors</i>	5
<i>Access to care</i>	5
<i>Dental Service Utilization</i>	6
<i>Community Input</i> ^{3,6,28-29}	7
NEXT STEPS	10
INTRODUCTION	11
BACKGROUND	11
<i>Advisory Committee</i>	12
METHODS	13
<i>Secondary Data</i>	13
<i>Primary Data</i>	13
Focus Groups	13
Community Oral Health Survey	14
Provider Survey	14
FINDINGS	15
COUNTY SNAPSHOT	15
<i>Prevalence of Oral Disease among Children</i>	20
ORAL DISEASE PREVALENCE	20
<i>Prevalence of Oral Disease among Adults</i>	24
RISK FACTORS	26
<i>Tobacco</i>	26
<i>Chronic Illness: Diabetes</i>	27
<i>Sweetened Beverage Consumption</i>	28
<i>Pregnancy</i>	28
PROTECTIVE FACTORS	30
<i>Community Water Fluoridation</i>	30
ACCESS TO SERVICES	32
<i>Dental Provider Shortage</i>	32
Federally Qualified Health Centers	34
Supportive Community Resources	35
Yuba County Health and Human Services	36
<i>Cost, Fear, & Cultural Barriers</i>	37
<i>Utilization</i>	39
Children	39
Adults	41
<i>Community Input</i>	46
Community Oral Health Survey	46
Focus Groups	52
CLOSING STATEMENT	58
STRATEGIC PRIORITIES	58
WORKS CITED	59

Acknowledgements

This report was made possible by funding from Yuba County Health and Human Services, the California Department of Public Health/Oral Health Program (CDPH/OHP), and with support from internal and external partners.

We would like to thank:

Peach Tree Clinic: Greg Stone, Mundip Singh, Kathy Hawes

The Happy Toothmobile: Ronda Bowers, Dr. Rupaul Ghuman

Harmony Health: Rachel Farrell, Christina Villegas

First 5 Yuba: Robin Timoszyk, Ericka Summers

Ampla Health

Camptonville Community Partnership: Kathy LeBlanc

Head Start: Yolanda Padilla, Cheri Hargis, Nayeli Romero, Maribel Macedo

Yuba County Office of Education: Mary Huang, Amy Nore

Marysville Joint Unified District: Pam Barnhill, Jessica Guth, Sheryl Scotten, Maria Cabrera, Veronica Lepe, Maria (Lulu) Vaca, Jolie Carreon, Kathy Woods

Wheatland Elementary School District: Melissa Wyatt, Craig Guensler

Wheatland High School District: Renee Calta

Plumas Lake School District: Melody Bell

Focus Group Participants

Community Oral Health Survey Participants

Executive Summary

This report will present the findings of the Oral Health Needs Assessment conducted July 2018-June 2019, and identify oral health needs, risk/protective factors, resources, and barriers to access. The Yuba County Health and Human Services Public Health Division (YCHHSD), with input from community partners and providers (CPP), facilitated this assessment process. A Core Committee (CC) was established as the advisory committee for the needs assessment and strategic planning process. Methods included a statistical analysis of existing data, as well as the collection of primary data in the form of focus groups and surveys. The information gathered will guide the strategic planning process, and support strategies to improve the oral health landscape and outcomes for Yuba County residents.

Summary of Findings

Prevalence of oral disease

- 26% to 43.56% of children screened ^{1,2} in the last three years had untreated dental caries. According to YCHHSD fluoride varnish 2012-2018 data, the annual average of children with a dental classification of II or higher was 43.89%. ²
- The YCHHSD Oral Health Community Survey revealed that 15% of all respondents rated the condition of their teeth as excellent. That percentage decreases when respondents are separated into Dentical insured (6.45%) and low-income (10.32%) groups.³
- 23.5% of adults age 18 and older reported poor dental health as indicated by the removal of 6 or more adult teeth due to decay, gum disease, or infection. This is more than double the prevalence seen in the State and higher than the national value.⁴

Protective/Risk Factors

- Yuba County does not have fluoridated drinking water outside of the boundaries of Beale Air Force Base.⁵ The County had drinking water fluoridation briefly through the efforts of First 5 Yuba and Olivehurst Public Utility District (OPUD),⁶ but public pressure led to the reversal of the decision to fluoridate OPUD drinking water in 2013.⁷
- 12.32% of parents surveyed by YCHHSD reported their child had been prescribed fluoride tablets, drops, or vitamins by a provider.³
- 54.95% of parents surveyed by YCHHSD reported their child had received fluoride varnish application.³
- 52.1% of adults reported an average weekly soda consumption of at least one (17.6%) soda and up to seven (15.4%).⁸ 59.40% indicated they had consumed a sugary drink the day before.⁹
- 25.4% of children that received fluoride varnish also consumed more than 3 sugary snacks and/or drinks per day.²
- 22.50% of adults report they are current smokers.¹⁰ 17.2% of the population reports cigarette use some days or every day,¹² 2.8% of high school students reported using smokeless tobacco at least one day in the past 30 days, and 17.3% of students reported e-cigarette use at least one day in the past 30 days.¹³
- 15.3% of adults surveyed reported a diagnosis of diabetes,¹⁴ and 86.8% of those never diagnosed had been told they were pre-diabetic or borderline.¹⁵

Access to care

- Analysis of Kindergarten Oral Health Assessments from 2012-2017 indicated that 1.77% of oral health exams were waived due to lack of access, 1.48% were waived due to financial burden, and 7.33% waived by withholding consent.

- From 2012-2017 47.18% of Kindergarten Oral Health Assessments were not returned at all, and in 2017, 54.16% of Kindergarten Oral Health Assessments were not returned.¹⁶
- Yuba County has a Health Professional Shortage Area HPSA score of 19, classifying it as a Health Professional Shortage Area.¹⁷ Additionally, the rate of Dentists per 100,000 population in Yuba County (34.9 Dentists/100,000 population) is lower than State (80.2 Dentists/100,000 population) and National (65.6 Dentists/ 100,000 population) rates.¹⁸
- Only two providers within County borders accept Denti-Cal, and one of those providers provides pediatric services exclusively.
- Of the nineteen providers within a 25 miles radius of the YCHHSD building (a high need and populated area) only nine are currently accepting patients as of January 2019.¹⁹
- Nine offices within 25 miles of YCHHSD offer services in Spanish, and seven of those offices are currently accepting patients. No local offices have reported services in languages other than English and Spanish.¹⁹
- Emergency room data was not available to assess the prevalence of emergency room visits resulting from preventable dental conditions.
- Data regarding dental care for pregnant women was also limited, with a 39.8% prevalence reported for the Greater Sacramento Region.²⁰ Within a local sample, 33.75% of women who reported a pregnancy in the last three years, also reported being told they should not have dental treatment during pregnancy. 41.38% reported hearing this from a Dentist; 36.21% from a Medical Doctor.³

Dental Service Utilization

- 79.3% of parents reported their children visited the dentist within the past year for routine check-up/cleaning (80.61% of children seen within a year).³

- In 2017, the Happy Toothmobile saw 1048 patients 0-17, 22% of which were age 0-5.¹
- In 2016, 39.49% of children ages 1-20 received treatment for caries or a caries-preventive procedure. This can be compared to 11.61% of 21-44 year olds.²¹
- Utilization of restorative treatments was 19.23% for children 1-20, and 9.81% among those age 21-44.²³
- 72.09% of those age 1-20 received a filling and preventative care within the same year.²²
- The percentage of Federally Qualified Health Clinic FQHC patients aged 6-9 with sealant to first molars is 70.70% in Yuba County and 51.80% in the State of California.²⁴ From 2013-2015, 12.51% of children age 6-9 and 6.56% of children age 10-14 had sealants on either their first or second molars. The average ratio of dental sealants to restorations on occlusal surfaces of permanent first and second molars was 1.3.²⁵
- 14.97% of beneficiaries 19+ used their dental benefits for two consecutive years, compared to 44.56% of children age 1-18.²⁶
- The percentage of uninsured population in Yuba County is 12.24%, with 18-64 year olds comprising of 89.19% of the uninsured.²⁷

Community Input 3,6,28-29

- The education leader and dental provider focus group highlighted the gap in adult care and education.⁶
- The focus group with medical and dental providers shed light on the landscape and reasons why there is a lack of dental hygienists and Registered Dental Hygienists in Alternative Practice RDHAPs in the community.²⁸⁻²⁹
- 58.33% of adults who responded to The Community Oral Health Survey indicated that the condition of their teeth and gums was good (42.33%) or excellent (16%).

- The Community Oral Health Survey lists: cost (63.03%), fear/pain/nervousness (26.89%), don't know where to go (18.49%), and difficult to schedule appointment (18.49%) as the top reasons for not receiving dental services.
- Respondents for the community survey also indicated, more dentists to choose from (30.10%) and better communications about benefits from my health plan (21.15%) would increase access.
- 35.99% of respondents indicated that they see dentists as often as [they] like.
- 27.27% indicated that the main reason for their last dental visit was pain or trouble with teeth, gums, or mouth.
- 24.83% of adult respondents indicated their medical doctor had asked about [their] dental health. 46.27% of respondents with children reported their child's medical provider asked about dental care or looked at their teeth during a well-child exam.
- 82.03% of respondents indicated they were insured. Only 17.97% indicated they did not have dental insurance.
- 51.03% of respondents indicated they were Medi-Cal insured.
- Of those that are Medi-Cal Dental insured.....
 - 47.58% indicated the current health of their teeth and gums was good (41.13%) or excellent (6.45%).
 - 31.45% reported they had not been to the dentist in 1-2 years and 25.81% reported their last visit as 2-5 years ago or more.
 - 36.07% reported their last visit was due to pain or trouble with teeth, gums, or mouth.
 - 7.38% indicated that dentures were the main reason for their last visit.
 - 65% indicated they do not currently have a dentist they see on a regular basis, and 64.52% do not get their teeth professionally cleaned at least once a year.

- 49.19% have had an adult tooth pulled (not including wisdom teeth).
- 31.45% of Medi-Cal insured respondents indicated their medical doctor had asked about [their] dental health. 46.36% of respondents with children reported that their child's medical provider ever asked about dental care or looked at their teeth during a well-child exam.
- 45.97% reported their family does not always get the dental care they need.
 - 50% listed costs as the main reason for not seeing the dentist as often as they need, but high on the list was fear/pain/nervousness (30.36%), difficulty scheduling appointments (25%), dentist does not accept Denti-Cal (23.21%), and transportation (19.64%).
 - 39.17% reported more dentists to choose from would help them see the dentist more often, along with reminders (25%), and better communication about benefits from [their] health plan (25%).
 - 14.63% responded agree or strongly agree to the statement that dental visits are only important if you have a dental emergency.
 - 90.98% of Medi-Cal respondents agreed or strongly agreed fluoride strengthens/protects teeth and helps prevent cavities.
 - 90.08% of Medi-Cal respondents agreed or strongly agreed baby teeth are important even though they fall out.
 - 53.57% of Medi-Cal covered women who have been pregnant in the past 3 years indicated a dentist told them they should not have dental treatment during

pregnancy. 39.29% reported they heard the same message from a medical provider.

- 24.53% reported taking their child to the dentist before turning a year. 48.11% said their first visit was between 1-2 years.
- 15.63% report that their child has been prescribed fluoride tablets, drops, or vitamins with fluoride. 58.72% report their child has had fluoride varnish application.

Next Steps

Our next steps will address some of the findings in this assessment and identify goals and objectives that align with the Mission, Vision, and Values of our organization and the State Oral Health Plan. The strategies should focus on:

- Caries prevention in young children.
- Dental visits and education for pregnant women.
- Community water fluoridation efforts.
- Increased cooperation and collaborations among all community partners that provide oral health services, resources, referrals, and education.
- Tobacco cessation counseling in dental offices and other healthcare settings.
- Integration of oral health in general health settings, and engagement by medical providers.
- Emergency department visits for preventable dental conditions.
- Greater access to general anesthesia dentistry and denture services for adults.
- Accessible Medi-Cal dental utilization data, and emergency room data, for program planning and advocacy.

Introduction

Good Oral Health is foundational when assessing the health of individuals and communities. It affects nutrition, chronic illness, reproductive health outcomes, and even socioeconomic factors like employment.

Though Yuba County has a high percentage of the population that is Medi-Cal insured (38.09% higher than state and national percentages),²⁷ there is still 12.24% of the population that is uninsured.²⁷ Utilization among children 0-20 is more than quadruple that of adults when it comes to preventative service utilization measures, and for seniors that utilization is almost a fifth of what children in this community access. The focus group data gathered seems to support the gap in care for adults in this community, identifies cost, the lack of providers, and individual perceived need as some of the barriers to care.³

The Oral Health Core Committee (CC) - with contributions from medical providers, dental providers, Federally Qualified Health Center staff, school nursing staff, education leaders, and various community partners- compiled this oral health needs assessment. While many efforts in the community exist with the mission to improve the overall health of children and families, there are opportunities for growth and improvement when it comes to the dental service network, but also for community partners that do not provide direct services.

Background

The California Healthcare, Research and Prevention Tobacco Tax Act of 2016 provided the funding for the Yuba County Public Health Oral Health Needs Assessment. This tax act provides \$30 million annually to support the California State Oral Health Plan. Yuba County was awarded a 5-year oral health grant, and expects to use the funding to work toward objectives that align with the five key goals outlined in the 2018-2028 State Oral Health Plan.

Goal 1: Improve the oral health of Californians by addressing determinants of health and promote healthy habits and population-based prevention interventions to attain healthier status in communities.

Goal 2: Align the dental health care delivery system, payment systems, and community programs to support and sustain community-clinical linkages for increasing utilization of dental services.

Goal 3: Collaborate with payers, public health programs, health care systems, foundations, professional organizations, and educational institutions to expand infrastructure, capacity, and payment systems for supporting prevention and early treatment services.

Goal 4: Develop and implement communication strategies to inform and educate the public, dental teams, and decision makers about oral health information, programs, and policies.

Goal 5: Develop and implement a surveillance system to measure key indicators of oral health and identify key performance measures for tracking progress.

Advisory Committee

Due to reduced participation in the Community Health Assessment, the Oral Health Core Committee (CC) was composed of eight internal staff members from different disciplines of YCHHSD. Community Partners (FQHCs, Medical and Dental Providers, Education Leaders) were brought in as needed in order to respect their time.

Core Committee Past and Present

Nelly Camarena	Supervising Public Health Nurse
Del York	Supervising Public Health Nurse
Kelli DiVecchia	Supervising Public Health Nurse
Kendra Larian	Epidemiologist
Melissa Fair	Health Program Coordinator
Yadira Friday	Health Education Specialist
Tracy Bryan	Program Manager
Dr. Homer Rice	Health Administrator

Methods

Both quantitative and qualitative methods were used to collect the data necessary for this oral health assessment. Once collected, the data were analyzed and interpreted to provide a foundation for strategic planning. In some cases, state and national percentages were used to estimate prevalence in the absence of county specific data.

Secondary Data

County specific data was pulled from the Office of Statewide Health Planning and Development (OSPUD), the California Health Interview Survey (CHIS), California Dental Association (CDA), and the US Census Bureau.

Utilization data was primarily provided through the California Department of Health Care Services (DHCS) Medi-Cal Dental program. No additional data was requested from the Centers for Medicare & Medicaid Services, and only the public information on the website was used. The 2015-2016 Maternal and Infant Health Assessment survey was also used.

The Happy Toothmobile provided aggregate client data, as did Maternal, Child and Adolescent Health (MCAH) and the YCHHSD Fluoride Varnish Clinics 2016-2018. The Tobacco Education Program provided county level survey data.

Primary Data

Focus Groups

Three focus groups were held for education leaders (schools and early education programs), dental providers, and medical providers (pediatricians, OBGYNs, etc.). A set of structured questions were used for each group and tailored depending on participants. The questions were open-ended to provoke discussion. The focus group audio was recorded and transcribed, and later analyzed for common themes by the facilitator and Project Coordinator.

Community Oral Health Survey

A survey of oral health knowledge, opinions, and beliefs was distributed to the community both electronically and in hard copy. SurveyMonkey® was used to share the survey electronically in English. The link was shared with providers, education staff, and school outreach officers. It was also sent to community partners and internal departments that interact with the target population.

Hard copies were provided, in English and Spanish, to partners at Head Start and Wheatland Elementary School District. Public Health staff also setup tables in the YCHHSD lobby to recruit survey participants. These tables were setup from 10am-12pm on six different occasions to try and reach our target of at least 300 surveys. Hmong and Spanish translation was available by request. Social workers (CalWORKs, Homeless Integration Services, etc.) also distributed the surveys during fieldwork. All hard copies were entered manually into SurveyMonkey® after it closed at the end of October 2018.

Provider Survey

A provider survey was sent to all Medi-Cal Dental providers in the area via email, mail, and fax. LOHP Program staff emailed and called offices in advance to let them know about the survey, and discuss the needs assessment process. The survey closed at the end of October 2018. Office visits should be considered going forward as a way of garnering a better response from dental providers.

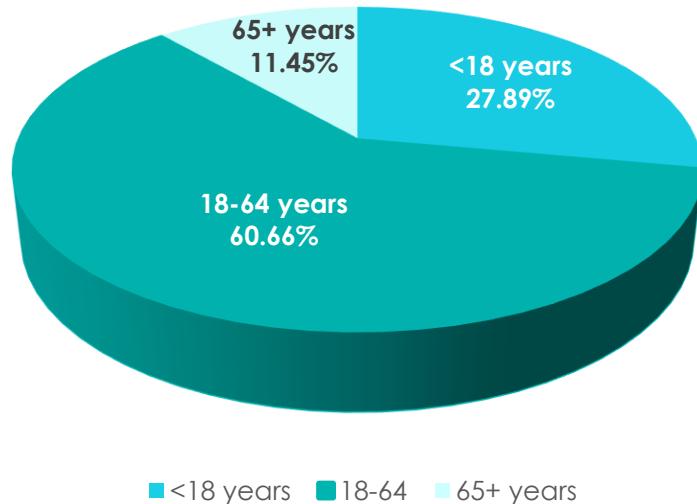


Findings

County Snapshot

With nearly 74,000 residents, Yuba County is one of the smaller counties in California. Yuba County is one of California's original counties, incorporated on February 18, 1850. It is home to about 73,897 residents with 2 cities, 10 census-designated places, and one census designated place that falls on the border of Butte and Yuba County. The County itself is 644 square miles, with a population density of approximately 117 people per square mile.²⁷ As shown in Figure 1, 27.89% of the population is under the age of 18; 60.66% of the population is between 18-64 years of age, and 11.45% are 65 and older. When compared to statewide averages, Yuba County has about 4% more persons under the age of 18, and a smaller population of 18-64 year olds by almost 3%.²⁷

Figure 1: Yuba County Population by Age Group, 2016
Source: US Census Bureau – 2012-2016



To understand this community, it is also crucial to note the distribution of the population within county boundaries. Although the average population density is 117 people per square mile, the density of this population is not uniform. Figures 2-

4 demonstrate the areas with the highest density of individuals, families, and children tend to be in the southern region of the county that borders Yuba City.

Figure 2: Yuba County Population Density 2012-16
US Census Bureau – Population Density by Tract - American Community Survey 2012-2016

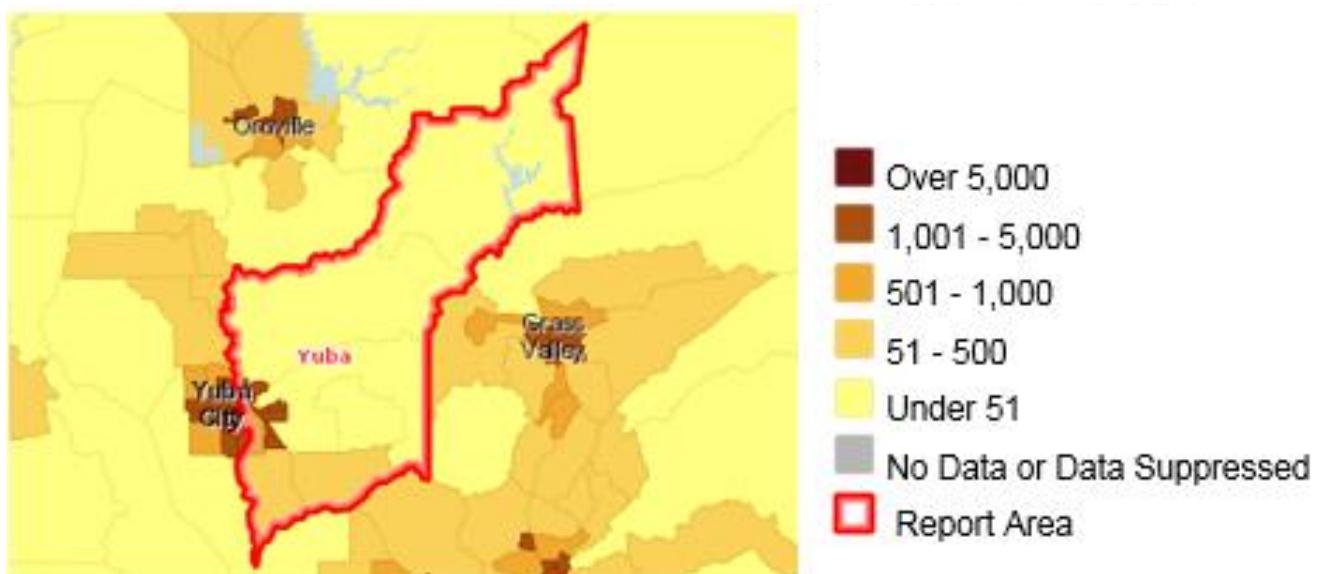


Figure 3: Yuba County Population Age 0-17 2012-16
US Census Bureau – Percent by Tract - American Community Survey 2012-2016

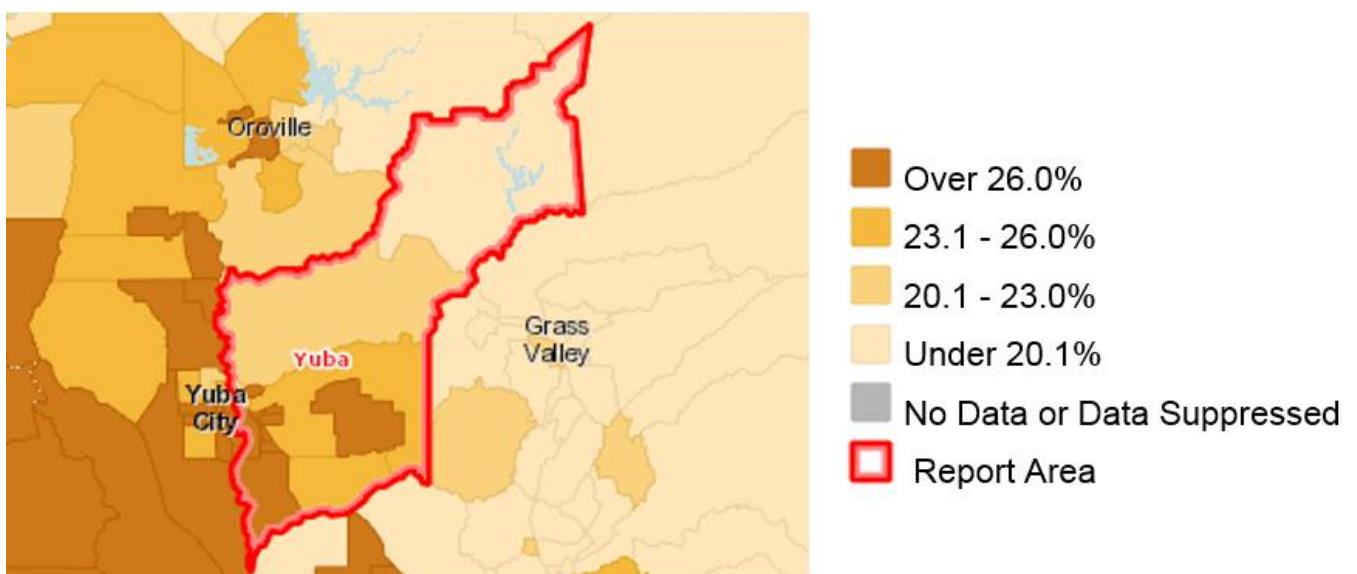
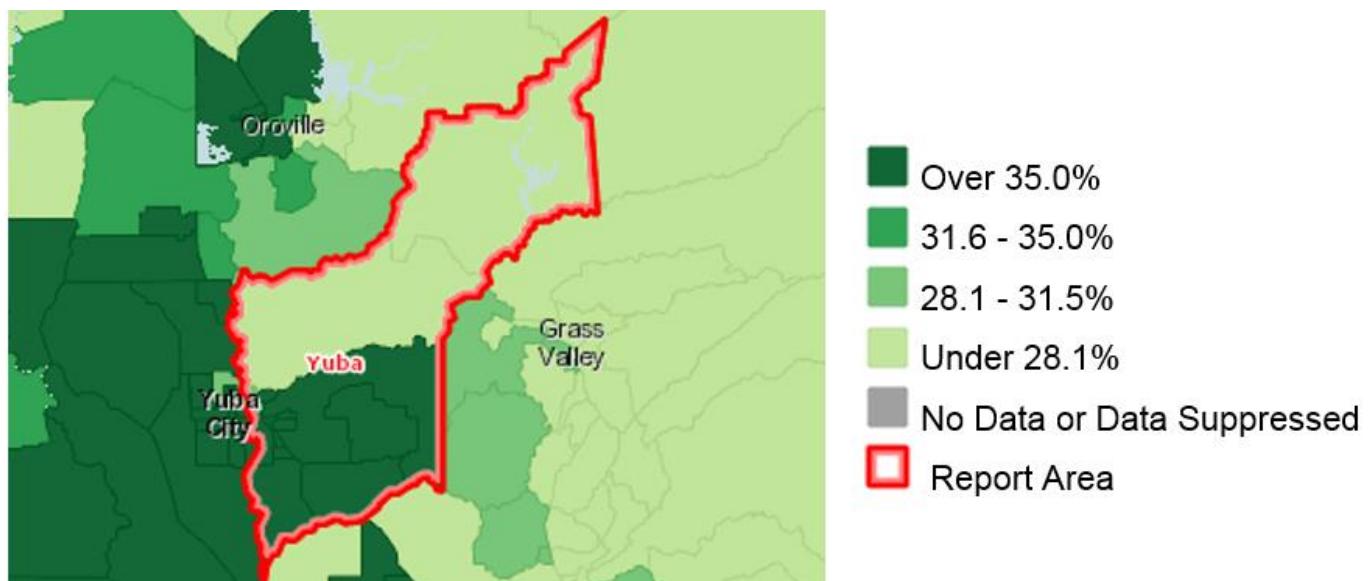


Figure 4: Yuba County Households with Children Age 0-17 2012-16
US Census Bureau – Percent by Tract - American Community Survey 2012-2016



The only notable difference in this trend in population percentage by tract occurs when looking at the percentage by tract of those that are age 65. Figures 5-6 shows that percentage by tract of populations from 55-64 and 65 years of age.

Figure 5: Yuba County Percent of Population Age 55-64 2012-16
US Census Bureau – Percent by Tract - American Community Survey 2012-2016

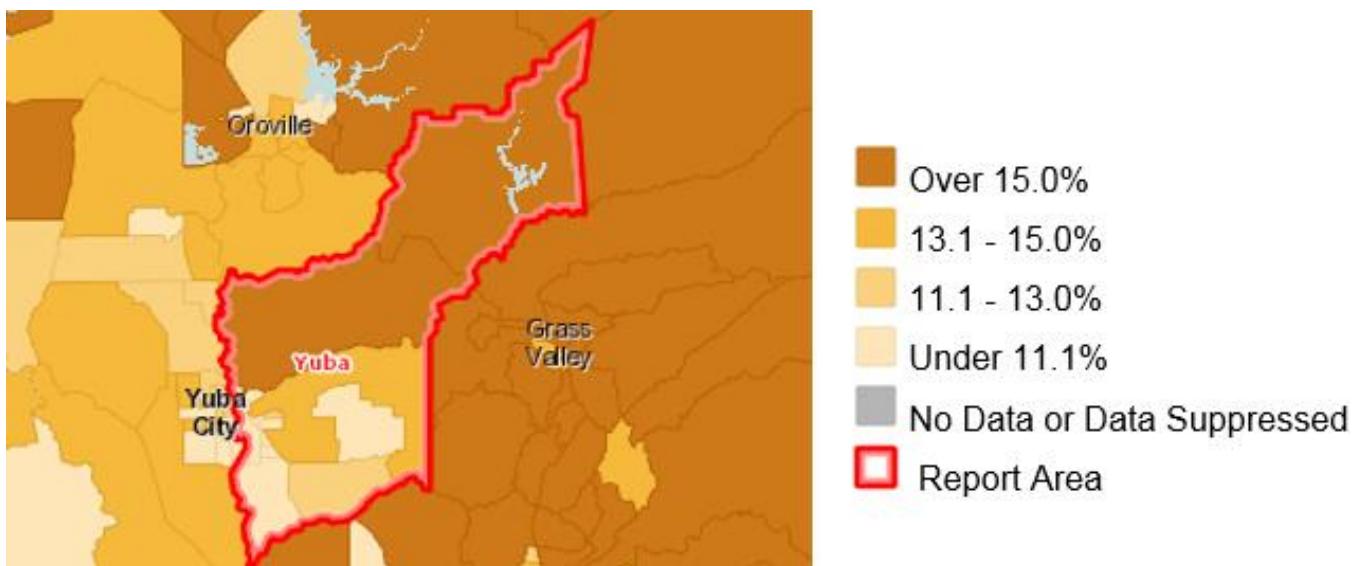
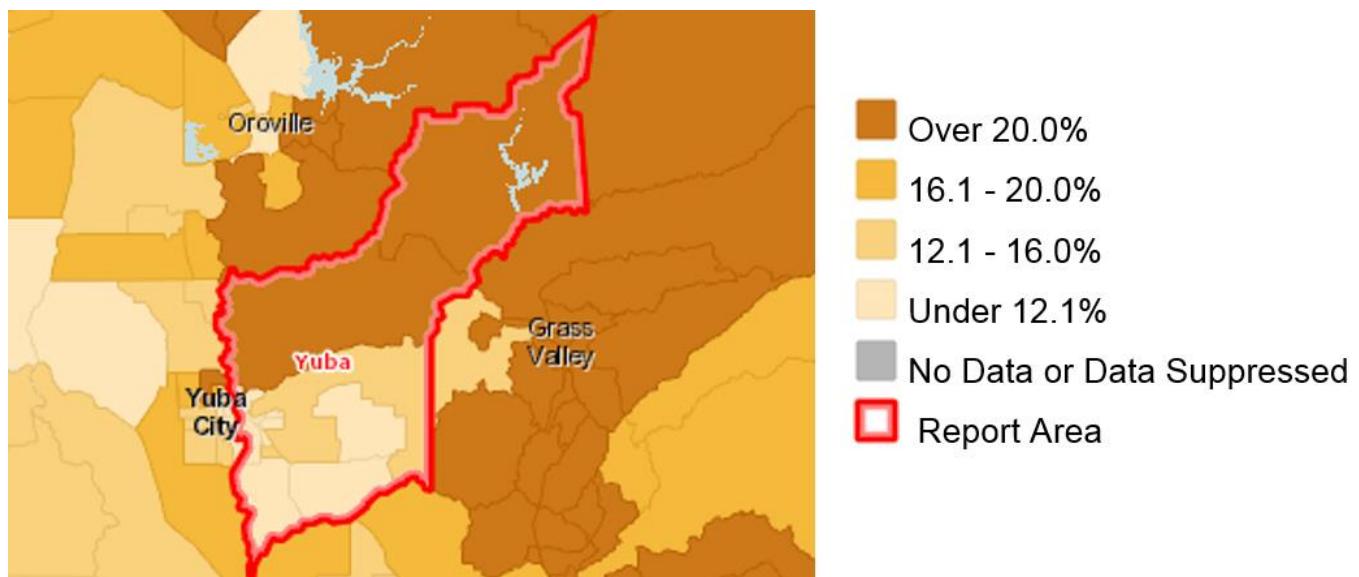


Figure 6: Yuba County Percent of Population Age 65 2012-16
US Census Bureau – Percent by Tract - American Community Survey 2012-2016



These distributions help make sense of the health services landscape, and the way resources are allocated in Yuba County. Although the northern areas may benefit from additional services and health providers, currently most of the services available are in areas with high density of children, families, and population in general.

The racial and ethnic diversity of Yuba County can be seen in Figures 7-8.

Figure 7: Yuba County Population by Race Alone 2012-16
US Census Bureau – Percent by Tract - American Community Survey 2012-2016

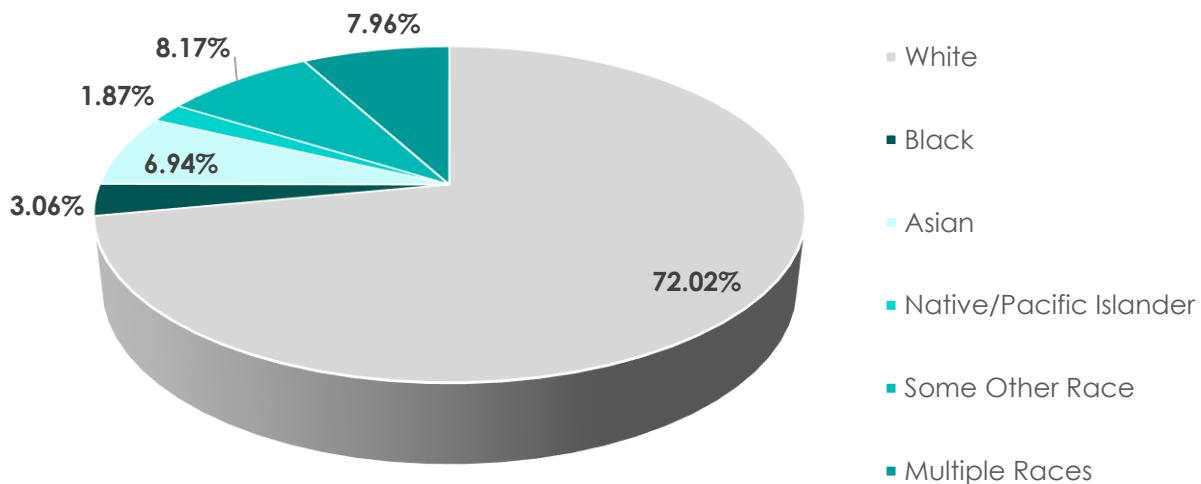
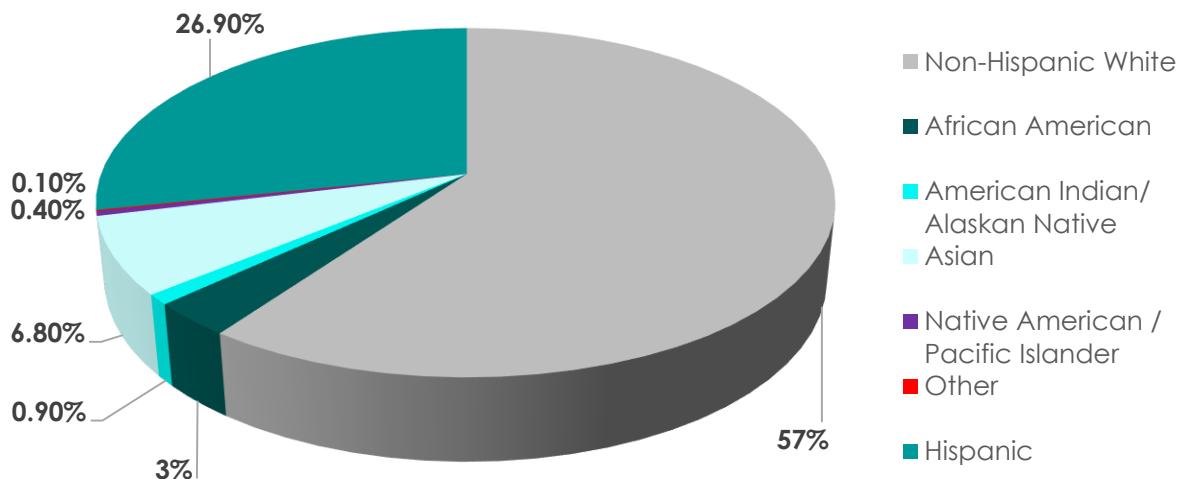


Figure 8: Yuba County Population by Race and Ethnicity 2012-16
 US Census Bureau – Percent by Tract - American Community Survey 2012-2016



About 20.78% of the total population (and 28.92% of children 0-17) were estimated to be living below the federal poverty level in 2016.²⁷ 26.93% of the total population is Hispanic/Latino, and 38.33% of households with children under 18 are Hispanic/Latino. Of the total Hispanic/Latino population, 22.42% are also living in poverty, which is slightly lower than the national average (23.4%) and slightly higher than the state average (21.91%). A higher percentage of Asians (24.03%) are living in poverty when compared to state (11.58%) and national (12.33%) averages which is concerning considering 69.71% of households with children are Asian. The same is seen when looking at the category Non-Hispanic White (19.24%), which shows a higher percentage living in poverty when compared to state (14.3%) and national (12.44%) averages. 52.54% of family households with children are Non-Hispanic White.²⁷ The percentage of those under 18 that are multiple races is 49.6% [Data about new mothers and/or poverty level among new mothers].

English proficiency can be a factor in the access and utilization of healthcare services. An estimated 8.47% of individuals in Yuba County are estimated to have insufficient proficiency in English. The percentage of those age 5 that report limited English Proficiency is 9.24%.

Oral Disease Prevalence

Prevalence of Oral Disease among Children

Dental caries are among the most common chronic diseases in the United States even though they are preventable. In children, tooth decay is five times more common than asthma³¹, four times more common than childhood obesity, and twenty times more common than diabetes.³² Oral health can affect the self-esteem and overall wellness of children contribute to increased school absenteeism, learning difficulties, and diminished nutritional status. When it comes to risk factors for children, those from low income households are more than twice as likely to have untreated tooth decay on primary or permanent teeth than those from higher-income households.³³

The Kindergarten Oral Health Assessment (KOHA) AB 1433 provides data regarding the prevalence of tooth decay among children. However, high rates of assessments not returned, or waived, challenges the assumption that reported data is statistically significant and representative.



From 2015-2017, the average screening results demonstrate 18.1% of children screened had evidence of untreated tooth decay (Figure 9). On average, 61% of all assessments are either not returned or not completed/waived by the parent (Figure 10).

Figure 9: Prevelance of Untreated Decay in Pre-K Children
Source: California Dental Association AB 1433 Pre-K Reported Data

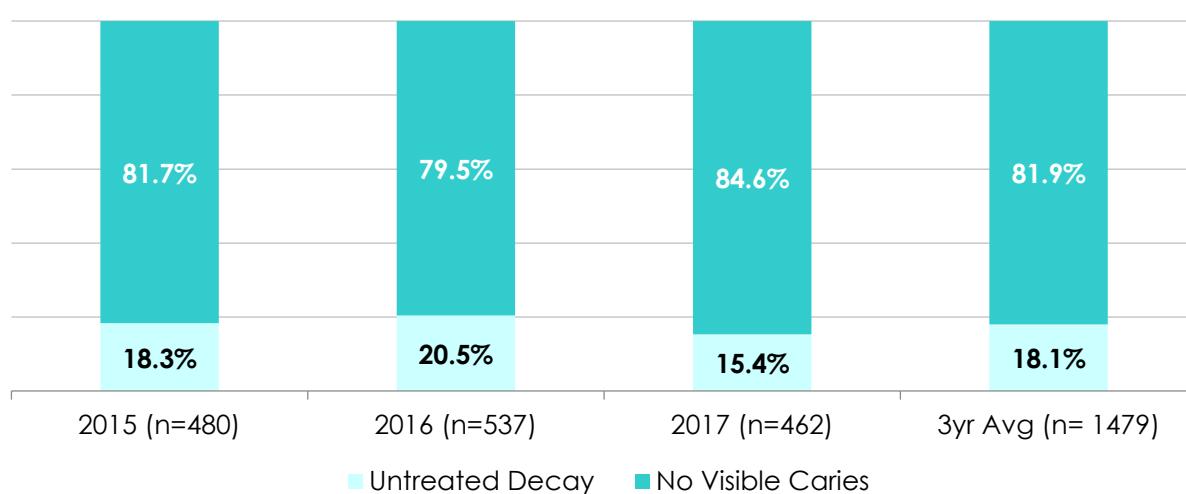
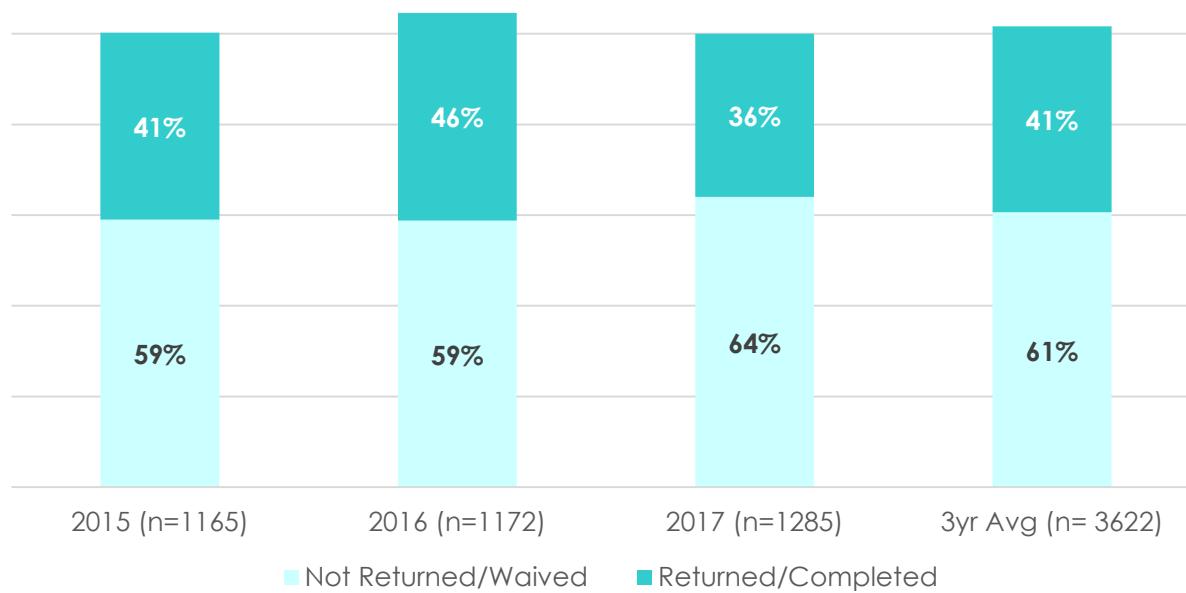
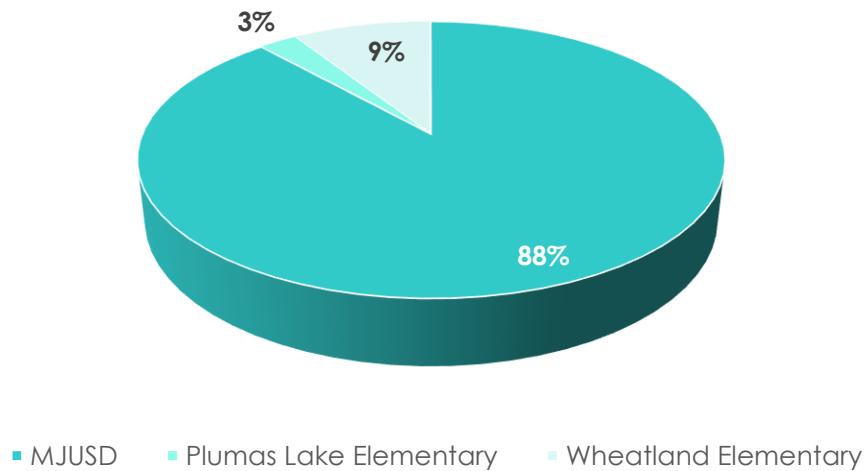


Figure 10: Pre-K Assessments Returned 2015-2017
Source: California Dental Association AB 1433 Pre-K Reported Data



The percentage of assessments returned by school districts varies. The focus group summary will delve into the different barriers to compliance school experience. Figure 11 illustrates the percentage of those assessments not returned or waived, broken down by school district.

Figure 11: Assessments Not Returned or Completed by District in 2017
Source: California Dental Association AB 1433 Pre-K Reported Data



Even though Marysville Joint Unified School District MJUSD has five times as many eligible students, their return/completion total (174 assessments returned and completed) was only slightly higher than that of smaller Plumas Lake Elementary (151) in 2017. When assessments are not returned at all, valuable data about barriers and insurance type is not captured. Figure 12 shows the assessment form and the options that parents can check when waiving indicating financial burden, lack of providers, lack of consent, or other.

Figure 12: Sample Pre-K Oral Health Assessment

Section 2: Oral Health Data Collection (Filled out by a California licensed dental professional)

IMPORTANT NOTE: Consider each box separately. Mark each box.

Assessment Date:	Caries Experience (Visible decay and/or fillings present)	Visible Decay Present: <input type="checkbox"/> Yes <input type="checkbox"/> No	Treatment Urgency: <input type="checkbox"/> No obvious problem found <input type="checkbox"/> Early dental care recommended (caries without pain or infection; or child would benefit from sealants or further evaluation) <input type="checkbox"/> Urgent care needed (pain, infection, swelling or soft tissue lesions)
<i>Licensed Dental Professional Signature</i>		<i>CA License Number</i>	<i>Date</i>

Section 3: Waiver of Oral Health Assessment Requirement

To be filled out by parent or guardian asking to be excused from this requirement

Please excuse my child from the dental check-up because: (Check the box that best describes the reason)

I am unable to find a dental office that will take my child's dental insurance plan.

My child's dental insurance plan is:

Medi-Cal/Denti-Cal Healthy Families Healthy Kids Other _____ None

I cannot afford a dental check-up for my child.

I do not want my child to receive a dental check-up.

Optional: other reasons my child could not get a dental check-up: _____

If asking to be excused from this requirement: ► _____

Signature of parent or guardian

Date

The law states schools must keep student health information private. Your child's name will not be part of any report as a result of this law. This information may only be used for purposes related to your child's health. If you have questions, please call your school.

Return this form to the school **no later than May 31** of your child's first school year.

Original to be kept in child's school record.

YCHHSD collects caries experience data as part of yearly fluoride varnish clinics. From 2016-2018, 44% of children screened through the fluoride varnish clinics were Class II or above, indicating visible caries, and a need for additional referral and follow-up. 7% required immediate attention.

The Centers for Disease Control and Prevention, State Oral Health Survey 2004-2005 provides a baseline for caries experience and untreated tooth decay among kindergarten and third grade students. The statewide surveillance data indicates that over half (53.6%) of kindergarten students in the survey had some level of dental caries. This percentage increases to more than two-thirds (70.9%) for third grade students.³⁴

The impact of childhood caries on racial or ethnic minority groups within the county is not represented directly in the data. Although aggregate data would suggest a higher burden for these groups, there is a general lack of oral health data collected on population subgroups, including the Hmong population.³⁵ Yuba County does have a higher proportion of Asian children (26.39%), Native American/Alaskan Native children (52.59%), African American children (55.93%) and Non-Hispanic White children (30.07%) living in poverty when compared to state averages. Because of the connection between family income and parent education to greater odd of untreated childhood caries,³⁶ the available data suggests a greater risk among these groups.

Prevalence of Oral Disease among Adults

In the United States, an estimated 42% of US adults 30 years or older had periodontitis, with 7.8% classified as severe periodontitis.³⁷ The prevalence of periodontitis is about 70.1% among adults 65 years and older.³⁷ Higher prevalence of periodontal disease is also observed in Hispanic (63.5%), African American (59.1%), and non-Hispanic White (40.8%) populations. Research states that 40% of Americans 20 years or older living in poverty were more susceptible to untreated tooth decay.³⁸ With these national statistics in mind, the prevalence of oral disease in Yuba County can be estimated as follows:

	U.S. %	# Yuba Residents
Periodontal disease-30 years and older	42%	16,698 adults 30+
Severe periodontal disease-30 years and older	7.8%	3101 adults 30+
Periodontal disease-65 and older	70.1%	5957 adults 65+
Periodontal disease-Hispanics	63.5%	8,798 Hispanic Adults
Periodontal disease-African-Americans	59.1%	630 African Americans
Periodontal Disease-Non-Hispanic Whites	40.8%	17,351 Non-Hispanic White Adults
Untreated Decay-20 years and older + living in poverty	40%	3,683 poor adults 18+ *
Untreated Decay-All persons living in poverty	40%	6,032 all persons living in poverty

The Behavioral Risk Factor Surveillance System indicates that 23.5% of those 18 years and older, 11,796 adults, report poor dental health as characterized by the loss of six or more permanent teeth.³⁹ The Community Oral Health Survey 2018 shows that 51% of Medi-Cal Dental beneficiaries reported having a permanent tooth pulled in their lifetime. Only 30% of those with private insurance reported ever having a tooth pulled.³ Adults with Medi-Cal Dental insurance (36%) were more likely to report that their last dental visit was due to pain than their private insurance (9%) counterparts.³ Other dental health indicators to consider:

- Lower rates of dental visits made by adults with Medicaid coverage. ⁴⁰
- Adults living at or below federal poverty level were less than half as likely to visit the dentist annually.⁴⁰
- Residents of rural areas were less likely to have a dental visit in the past year.⁴⁰
- The homeless are among the most vulnerable low-income population.⁴⁰

Risk Factors

Poor dietary habits, tobacco use, chronic illness, and pregnancy can increase the risk for oral decay, infection, and/or cancers.

Tobacco

According to the 2017 California Health Interview Survey (CHIS), 22.50% of all adults in Yuba County identify as current smokers and 26.20% as former smokers.¹¹

Figure 13: Smoking Status of Yuba County Adults
Source: 2017 California Health Interview Survey

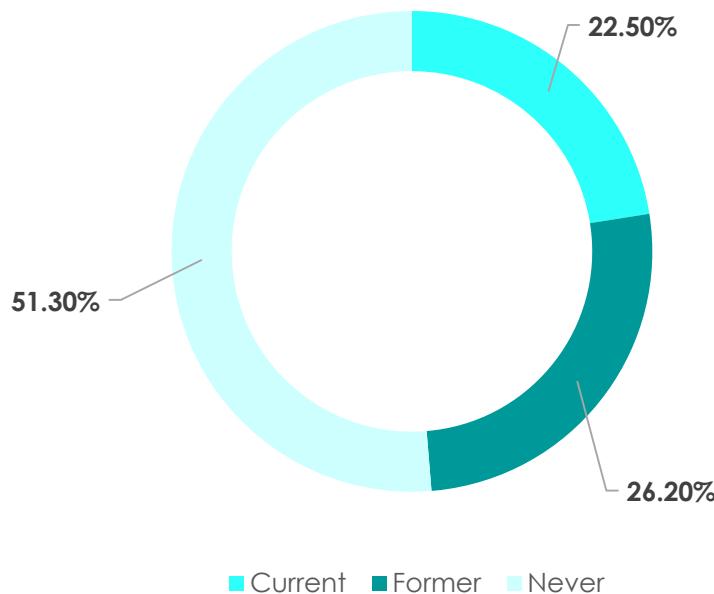
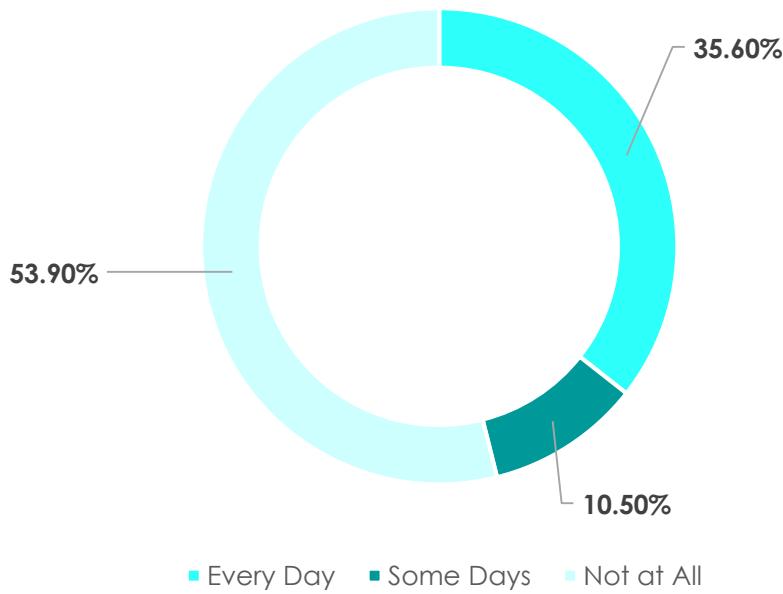


Figure 14: Habits of Yuba County Smokers
Source: 2017 California Health Interview Survey

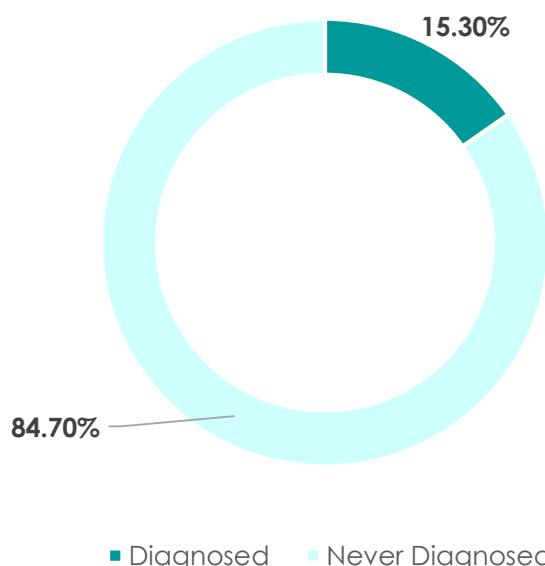


The CHIS data also indicated 25.2% of adult men and 20% of adult women in Yuba County currently smoke cigarettes. A look at the 2016-2017 Yuba County California Healthy Kids Survey sheds light on the growing issue of e-cigarettes and smokeless tobacco among high school teens. The percentage of high school students reporting cigarette use (22%-20% depending on the grade) in the past 30 days, the use of e-cigarettes (15%-24%), and use of smokeless tobacco products (14%) were all higher than the state averages⁴¹ in these small samples. It should be noted that because of the sample size, the data gathered is not considered statistically stable. The Yuba County Tobacco Prevention Program anticipates more current data on tobacco use and trends by the end of summer of 2019.

Chronic Illness: Diabetes

The intersection of overall health and oral health can be seen most vividly when looking at the interaction of diabetes and dental disease. Patients with diabetes are more at risk for developing oral infections and periodontal disease. Conversely, gum disease can make diabetes harder to manage which perpetuates a comorbid, bi-directional, cycle.⁴² In Yuba County, 15.3% of adults have ever been diagnosed with diabetes outside of pregnancy, and 13.2% had ever been told they were pre-diabetic or borderline by a physician.¹⁴

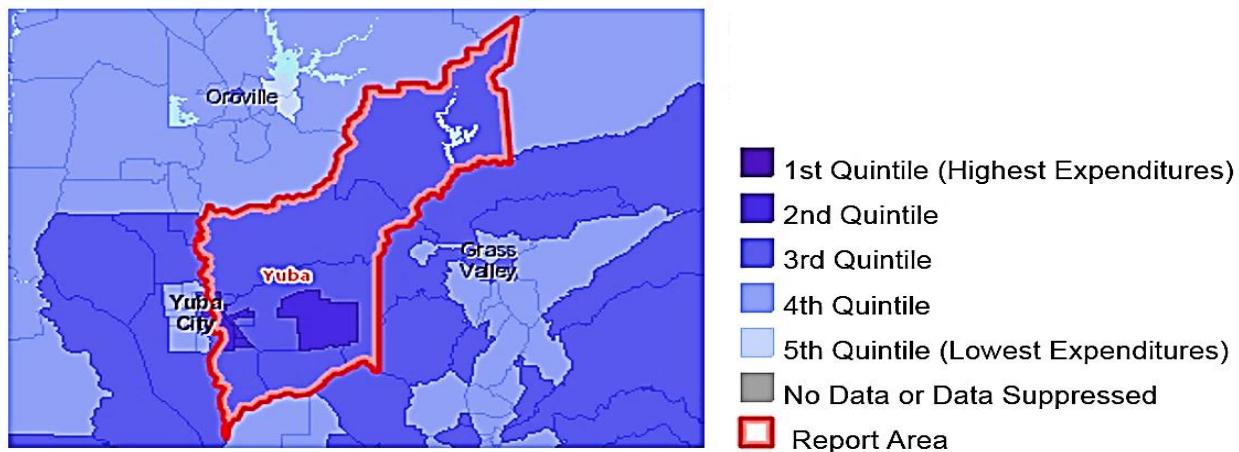
Figure 15: Diabetes Experience, Yuba County Adults 2017
Source: California Health Interview Survey 2017



Sweetened Beverage Consumption

Sugar sweetened beverages like juice and soda have been linked to an increased risk for tooth decay.⁴³ While 47.8% of adults in Yuba County reported zero weekly soda consumption, many did indicate the consumption of soda (21.6%) or sugary drinks (40.6%) the previous day.⁸ From 2016-2018, about 25% of child participants in annual fluoride varnish clinics consumed more than three sugary snacks and/or drinks per day.² Although detailed soda expenditure data was not readily available, a look at the geographic distribution of comparative spending shows that Yuba County does have a higher level of soda expenditures when compared to surrounding areas. Particularly, the Marysville area and parts of Beale Air Force Base demonstrated high soda expenditures.

Figure 16: Yuba County Soda Expenditures 2014
Source: Nielsen, Nielsen SiteReports.2014



Pregnancy

Pregnant women will often experience an increased risk for caries, loosening of teeth, oral tumors/lesions, gingivitis, and periodontitis due to physiological changes brought on by pregnancy. According to research, women with untreated dental conditions during pregnancy can be linked to poor pregnancy outcomes like pre-term birth and low birth weight.⁴⁴ Despite the importance of oral care during pregnancy, dental care is not yet an integrated component of

the basic care women receive during pregnancy.⁴⁵ According to the results of the Community Oral Health Survey, only 34% of Medi-Cal insured women reported having their teeth cleaned during pregnancy, and over half indicated that they had been advised against dental treatment by a dentist.¹

Figure 17: Teeth Cleaning During Pregnancy by Insurance Type
Source: YCHHSD Community Oral Health Survey 2018

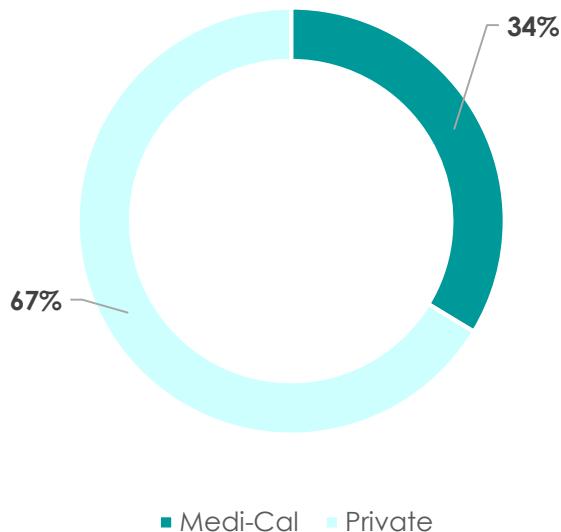
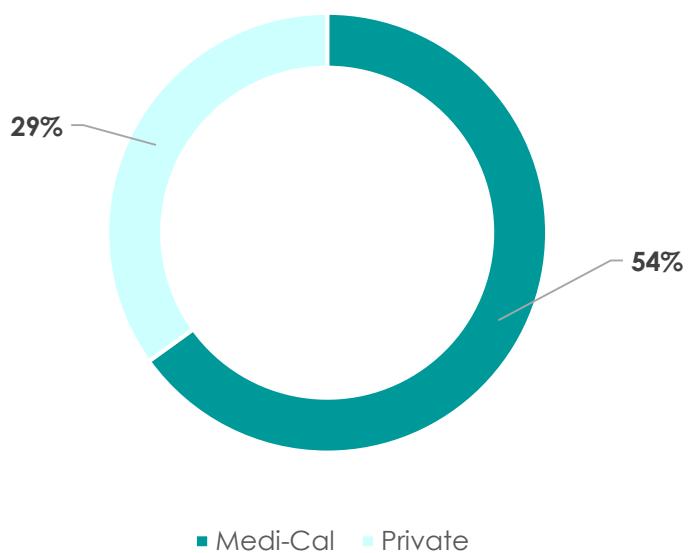


Figure 18: Advised Against Treatment By A Dentist
Source: YCHHSD Community Oral Health Survey 2018



Protective Factors

Community Water Fluoridation

Community water fluoridation is a population approach to caries reduction that is evidenced based and cost-effective. Other sources of fluoride (toothpaste, rinses, varnish, and supplements) contribute to decay prevention, but research has shown that community water fluoridation alone can lead to a reduction of tooth decay for adults and children by 25%.⁴⁶ The cost savings are directly related to community size, and for smaller communities, the return on investment is about \$15.95 per person.⁴⁷ Water fluoridation is required for community water systems with 10,000 connections or more.⁴⁸ Yuba County has a group of smaller utility districts that do not meet or exceed 10,000 connections.

District	Area Served	Connections
Olivehurst Public Utility District OPUD	Plumas Lake & Olivehurst	~6000 ⁴⁹
Linda County Water District	Linda	~ 4000 ⁵¹
Beale Air Force Base	Beale AFB	~800 ⁵¹
California Water Service	Marysville	Unknown
City of Wheatland	Wheatland	~ 1000 ⁵¹
North Yuba Water District	Brownsville, Challenge, Forbestown, Rackerby	~800 ⁵¹

Of the drinking water distributors listed, only Beale Air force Base has a fluoridated system. Beale has maintained an average fluoride concentration of 0.84 mg/L for

the past five years.⁵² In 2009, First 5 Yuba approved a \$150,000 grant towards infrastructure necessary to fluoridate the Olivehurst Public Utility District. OPUD is the largest distributor of drinking water that serves vulnerable populations. A Board of Directors' vote reversed the fluoridation decision in April of 2014, and accounts of the experience permeated focus groups and partner meetings throughout the needs assessment process. Various partners insisted that local providers, agencies, and community members supported community water fluoridation, but a small opposing group pressured OPUD into reversing the decision.^{6,8} The focus groups also suggest, through anecdotal encounters with families, that some community members may not be aware that OPUD fluoridation had ended⁶. An in-depth assessment of community beliefs, perceptions, and attitudes surrounding community water fluoridation could be crucial for future efforts, but was beyond the scope of this assessment. At the very least, this assessment contributes to the collective knowledge of where drinking water in Yuba County comes from.

Access to Services

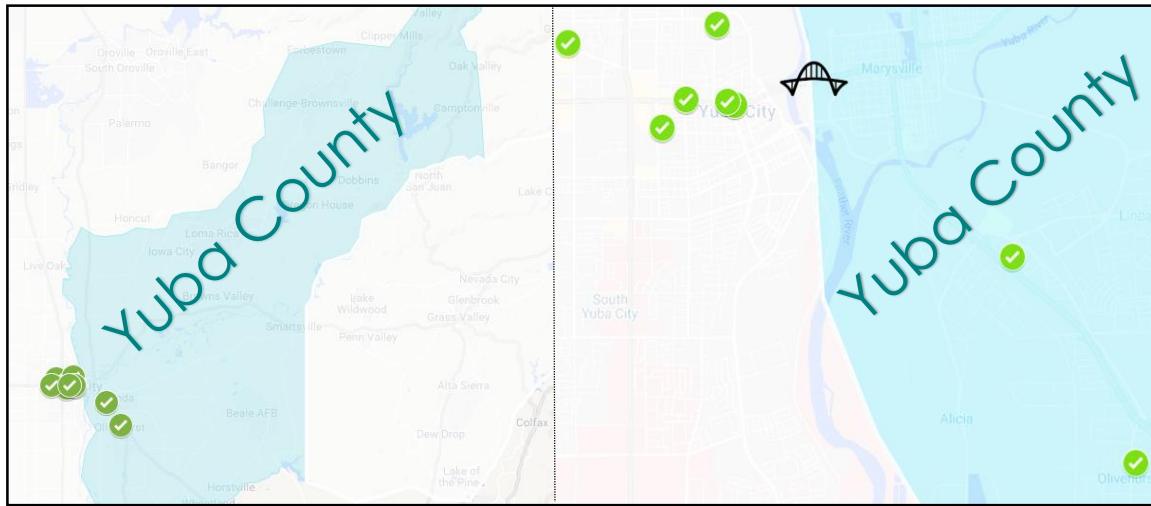
Access to dental services plays a critical role when it comes to oral health outcomes. A combination of factors are at play when considering the reasons Yuba County residents do not receive dental services. Less than half of children age 0-20, and only one-tenth of adults 21-44 received any preventative services in 2016.²¹ Within Yuba County, 38.09% of the population are insured through Medi-Cal, which provides dental coverage for children and adults. There is a disconnect between those eligible and enrolled and those actually receiving dental services.

Dental Provider Shortage

The focus groups, surveys, and meetings all echoed sentiments that there are not enough dentists to choose from in Yuba County, and that this fundamental problem impacts the entire system. When discussing the Kindergarten Oral Health Assessment with Education Leaders, it was mentioned that schools would be more motivated to comply with the assessment if they had viable referrals for their families. Community members (30%) indicated that increasing provider choice would help them see the dentist more often.⁶ Besides cost and fear, not knowing where to go, difficulty scheduling an appointment, bad past experiences, and transportation problems ranked high as main reasons survey respondents did not seek the care they need.³ Providers mentioned that there were few centers for sedation dentistry that they can refer Medi-Cal patients to, and that these centers are as far as Salida or Sacramento.²⁸⁻²⁹ Partners also communicated a lack of offices that provide services to adults²⁸⁻²⁹. Yuba County has a HPSA score of 19, classifying it as a Health Professional Shortage Area.¹⁷ The ratio (3,080:1)⁵³ of population to dentists in Yuba County is among the worst in the state. Figure 18 shows the distribution of dental offices currently accepting both Medi-Cal and new patients.

Figure 19: Map of Dentists Currently Accepting Medi-Cal and Patients

Interactive map at: <https://drive.google.com/open?id=1lsVEKOsUwieFdHOfw-JTuJpfz-bmJUC&usp=sharing>



Within a 25-mile radius of the Yuba County Health and Human Services Department (YCHHSD) building where residents apply for benefits and services, there were 19 total dental providers that accept Medi-Cal. Of those 19 offices, only 9 were currently accepting new patients, and only 7 offered Spanish translation services. None of the offices advertise Hmong translation services for their offices.⁵⁴ Figure 18 shows that only 2 providers are located on the Yuba County side of the main bridge dividing Sutter and Yuba County. It is relevant to note the bridge as a barrier because the perceived distance creates reluctance from the public to go “over the bridge” for services.^{6, 28-29} It also characterizes the relationship between the two counties, which frequently share resources like dentists, a local hospital, and even clients. Partner suggestions for improving the shortage of dentists include capital investments to build capacity, as well as training professionals within the community who will remain within the County and serve vulnerable populations. Recruiting from outside the community has proven difficult because of competition from communities with more resources and the necessary skills needed to serve this population appropriately.

Federally Qualified Health Centers

Below is a list of Federally Qualified Health Centers (FQHCs) that provide resources to the target population.

Entity	Description of Services Offered
The Happy Toothmobile	Full service dentistry including screenings, cleanings, sealants, and restorative treatments to children 0-5 and their siblings.
Ampla	<p>Comprehensive medical, dental, mental health, and specialty healthcare services for all ages.</p> <p>Preventative Sealants</p> <ul style="list-style-type: none"> • Dentures/Partials on hold as of 12/27/18 • X-Rays/Dental Exams • Prophylaxis/Cleanings • Root Canals • Oral Surgery • Crowns & Bridges • WIC Program
Harmony Health	<p>No dental services offered*</p> <p>Full-service family practice medical clinic provides treatment for acute illness and cradle to the grave primary care. The only Comprehensive Perinatal Services Program in Yuba County.</p> <ul style="list-style-type: none"> • Registered Dietician • Certified Lactation Consultants • Chiropractic Services • Acupuncture • MAT Medical Assisted Treatment • Birth Center • Behavioral Health Department • Home Visitation • Family Resource Center

Supportive Community Resources

Below is a list of partners that provide support and resources outside of direct care. This network of community entities provide education, collaborative relationships, awareness, referrals, and facilitate services and screenings.

Entity	Description
First 5 Yuba	First 5 Yuba funds a variety of services that promote early learning, staying healthy, and strengthening families. It was through collaborative efforts with Marysville Joint Unified School District (MJUSD) and Peach Clinic that the Happy Toothmobile came to be.
Head Start	<p>Services promote child development in the areas of:</p> <ul style="list-style-type: none">- school readiness;- physical;- emotional;- dental;- nutritional health; and- the development of social and emotional skills. <p>Early Head Start targets children 0-3 years old, and pregnant women in their third trimester. Head Start provides services to children 3-5 years old.</p>
Marysville Joint Unified School District	MJUSD is part of the partnership that paves the way for the Happy Toothmobile to provide full dental services to children. Enrollments in 2018 were approximately 9975, making it the largest district in the County.
Wheatland Elementary School District	This district is comprised of five schools and recorded 1502 total enrollments in 2018.
Plumas Lake Elementary School District	This district is comprised of two elementary schools and one intermediate school. Enrollments for 2018-2019 were 1319 total students.
Yuba COE	The Yuba County Office of Education (YCOE) supports district school leaders and teachers across the County with professional learning, organizational support, and many educational opportunities. They provide a variety of services for the 6 school districts, their charter schools, and one community college district in the County.

Yuba County Health and Human Services

The YCHHSD provides a wide array of services through a diverse system of holistic programs. It is responsible for planning, managing, coordinating, and delivering a continuum of these services in a manner that is responsive to the needs of the community. YCHHSD is committed to promoting a safe, healthy and self-sufficient environment and investing in the Yuba County community to improve the overall well-being of our residents. There are several major divisions within YCHHSD including: Child and Adult Protective Services, Public Assistance, Employment Services; Public Health, Veterans Services, and Finance and Administration. The new Local Oral Health Program (LOHP) is under the umbrella of the Public Health. The mission of the LOHP is to improve the oral health of Yuba County residents through collaboration, education, and public awareness.

Figure 20: Yuba County Health and Human Services Building on Packard Avenue



Cost, Fear, & Cultural Barriers

Barriers to care within this community are both tangible and perceived. Over 60% of Medi-Cal beneficiaries reported that cost was the main reason for not seeing a dentist as often as they need. Medi-Cal has allocated funds to restore full dental services for adults as of January 2018,⁵⁵ but the perception of out-of-pocket costs persists. Partners and community members shared stories of cases where the anticipated costs for care were too much for low-income families to cover.⁶

“Fear, pain, and nervousness” was indicated as the main barrier by 27% of Medi-Cal respondents. These results touch on the cultural issues at play. In a community with marked generational poverty, the cultural norm does not include regular preventative dental care. Educators with access to low-income families explained that children do not receive care because of a lack of engagement and oral health literacy from caregivers. Common beliefs from the target population include:

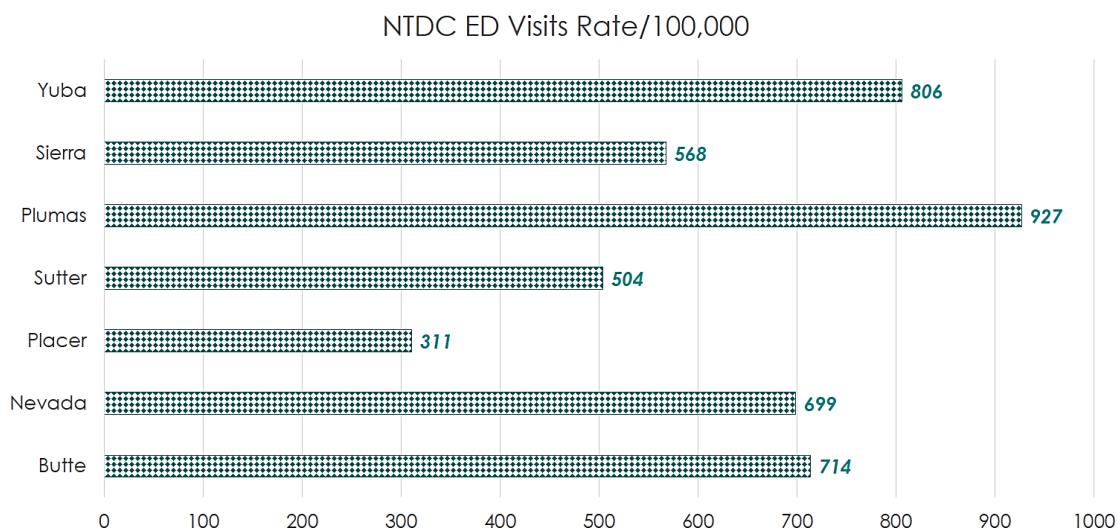
“They are just baby teeth...”

“...not a priority.”

“I see dentists as often as I like.”

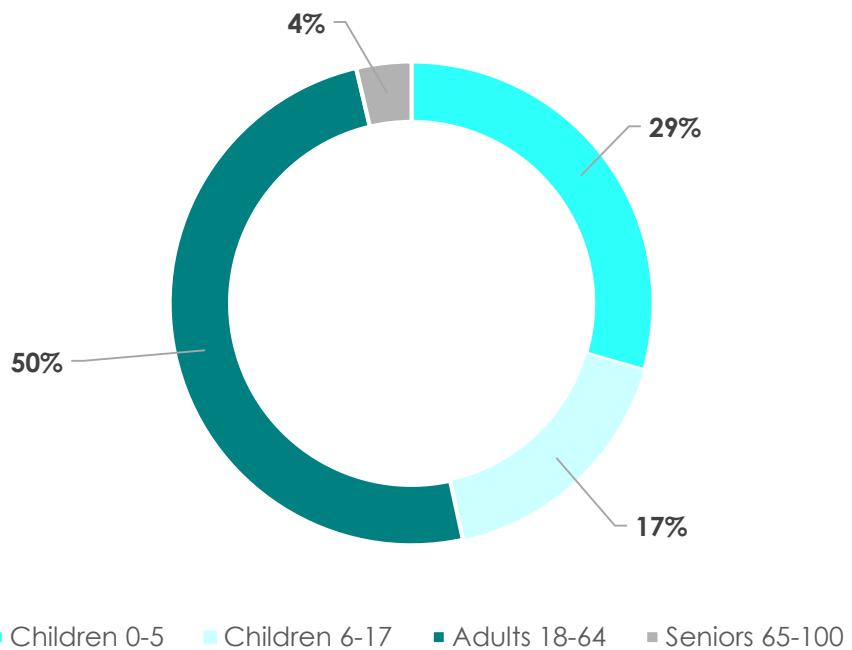
The cultural devaluing of preventative dental care leads to higher costs downstream which perpetuates the cycle. Resulting costs downstream are also evident in the utilization of emergency departments (ED) for Non-Traumatic Dental Conditions (NTDC). Yuba County has a higher rate of visits when compared to most neighboring counties, with the highest utilization occurring in the 18-64 age group.⁵⁶

Figure 21: Emergency Room Visits For Non-Traumatic Dental Conditions (NTDC) By County



Source: OSDPD 2012-2016 Emergency Department Files – Non-Traumatic Dental Conditions (NTDC)- does not exclude individuals with multiple visits and rates are not age adjusted

Figure 22: Emergency Room Visits By Age
Source:OSDPD 2012-2016 Emergency Department Files



The use of emergency departments for Non-Traumatic Dental Conditions NTDC is on the rise,⁵⁷ especially among low-income or uninsured families,⁵⁸ and those with low health literacy.⁵⁹ Strategies for lowering the amount of ED visits for dental conditions include broadening access to preventative services, and diversion programs. One Virginia program⁶⁰ diverted patients to an urgent care unit within the oral and maxillofacial surgery clinic, and as a result saw dental ED visits decline by half in the first year of the program. Addressing low oral health literacy can also impact the number of ED visits for dental conditions⁶¹.

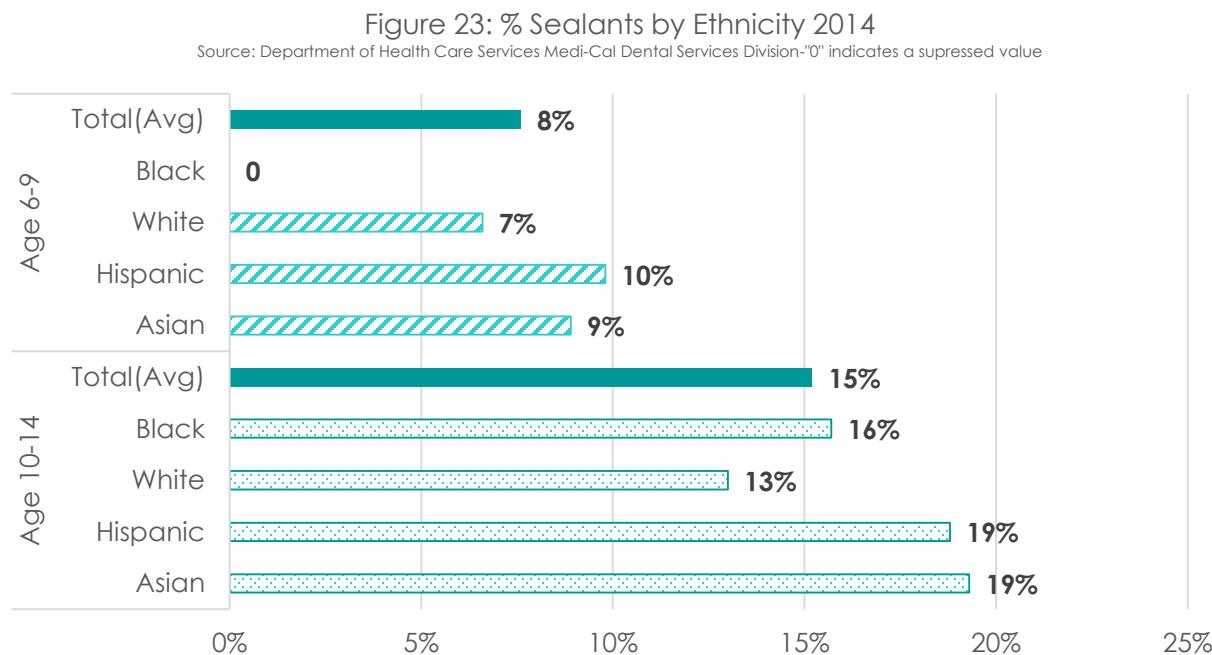
Shifting cultural beliefs about dental care will not happen overnight, but oral health education and literacy are vital to sparking positive behavior change in this community. Intrinsic barriers can be addressed through culturally competent and compassionate education. Efforts should be collaborative and accessible to individuals at various stages of behavior change. They should work in conjunction with the sociopolitical milieu and promote policy changes that increase access to preventative services, and mitigate the use of emergency rooms for non-traumatic dental conditions.

Utilization

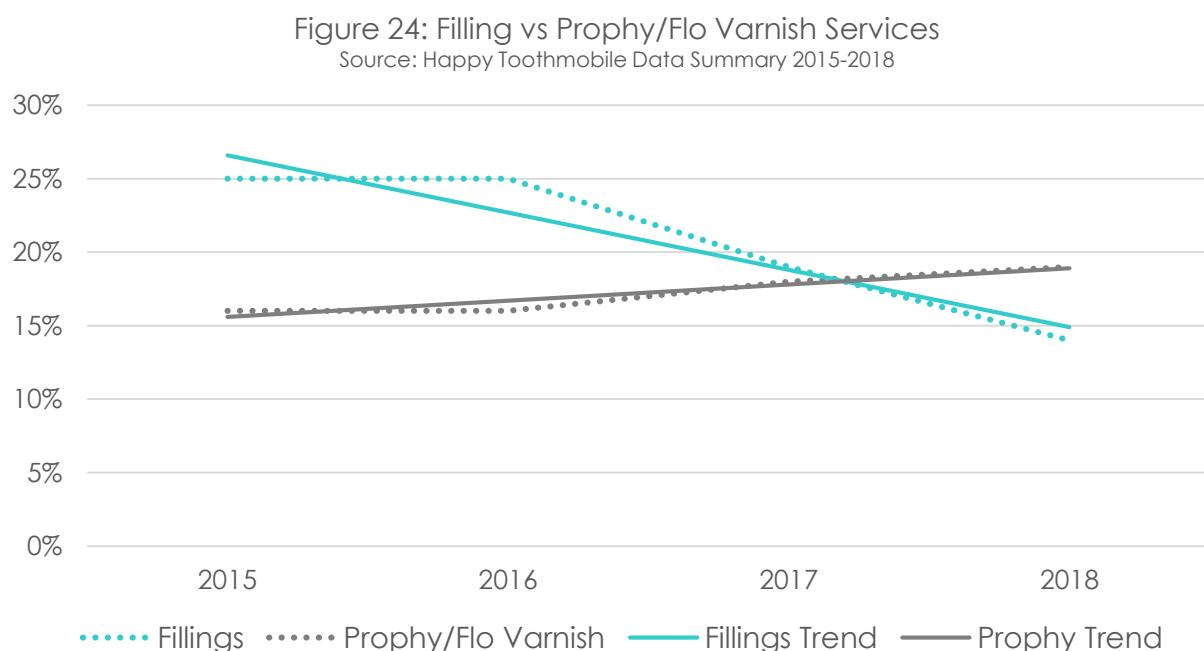
Children

According to the California Health Interview Survey (CHIS) 2017, 61% of parents living under 200% of the federal poverty level indicated that their children had dental insurance. FQHC utilization for children 0-18 was highest in groups that showed same plan coverage for three years. About 81% of these children, with 3 years on the same plan, and age 1-18, received a dental service in 2016. When looking at 90-day continuous enrollment for Medi-Cal in 2016, only 37.65% received an oral exam and evaluation with caregiver. Of those with at least one dental visit or dental encounter, 50% had at least one Annual Dental Visit (ADV). Preventative service utilization in 2016 was 49% for children 0-18. Sealant utilization at FQHCs is higher in Yuba County (70.70%) when compared to California (51.80%). When sealant utilization is dissected by ethnicity and age group, White

beneficiaries had the lowest rates of sealants for those 6-9 years old and 10-14 years old. However, several data points for sealants by ethnicity were suppressed between 2014-2016, and therefore a complete conclusion cannot be drawn.



The Happy Toothmobile reported extractions as 2% of their services rendered from 2015 to 2018. The Happy Toothmobile data also suggests that as prophylaxis services like fluoride varnish increase, filling services decrease.



Adults

There is a marked decrease in utilization among those 19-65 years old. In 2017, 98% of California Health Interview Survey (CHIS) respondents had never used free dental care programs, and only 30% of adults living under 200% of the federal poverty line indicated that their last visit was for a routine checkup or cleaning.

Figure 25: Time Since Last Dental Visit, Yuba County Adults
Source: 2017 California Health Interview Survey

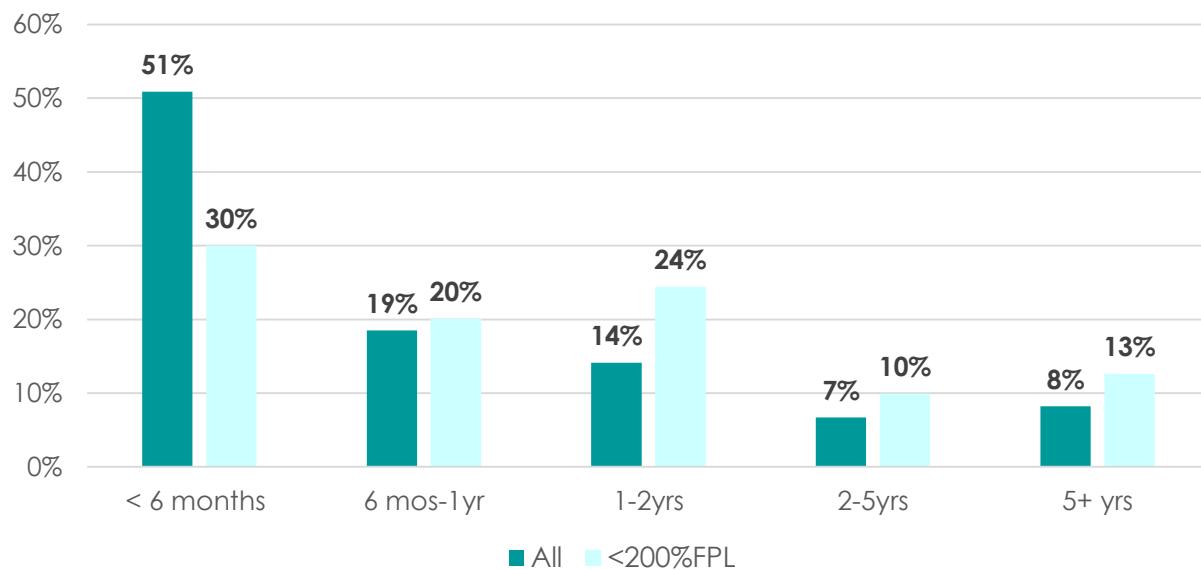
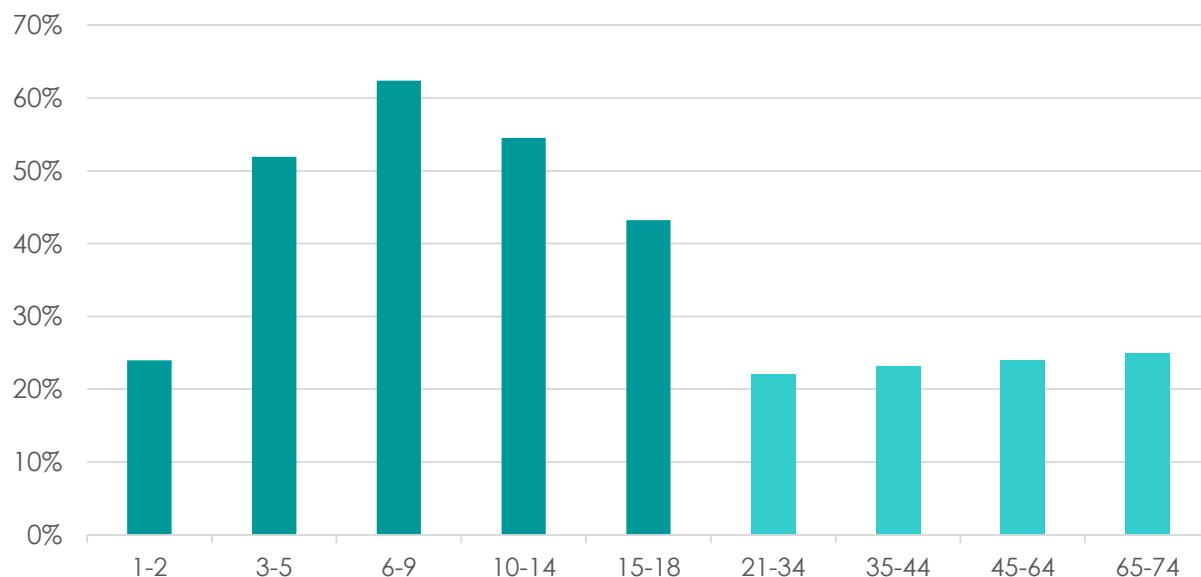


Figure 26: Annual Dental Visit ADV by Age
Source: Department of Health Care Services Medi-Cal Dental Services



Comprehensive exams are lower for adults, along with the percentage of those receiving caries preventative procedures, any preventative service, at least one dental visit or FQHC encounter, and any dental treatment service.

Figure 27: Beneficiaries Recieving Comprehensive Dental Exam 2016

Source: Department of Health Care Services Medi-Cal Dental Services Division

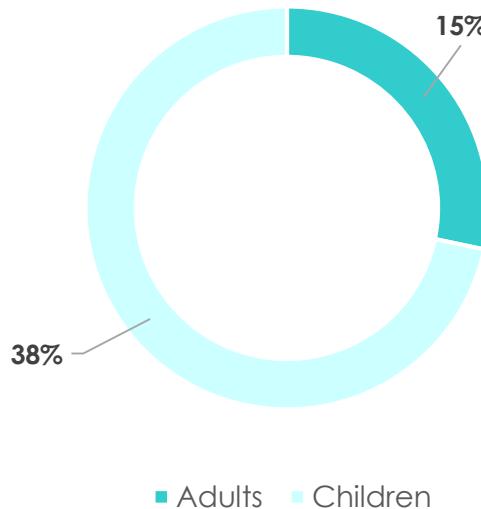


Figure 28: Recieving Caries Txmt/Prevention Services 2016

Source: Department of Health Care Services Medi-Cal Dental Services Division

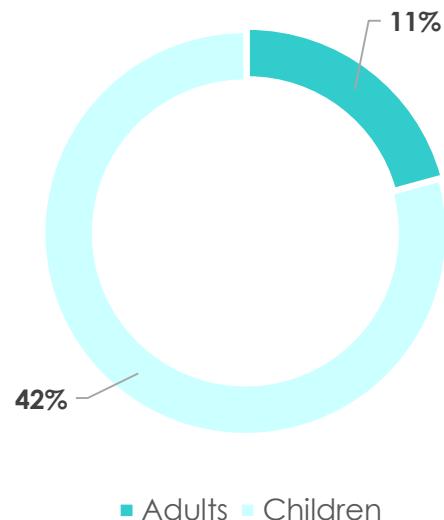


Figure 29: Beneficiaries Recieving Any Preventative Service 2016
Source: Department of Health Care Services Medi-Cal Dental Services Division

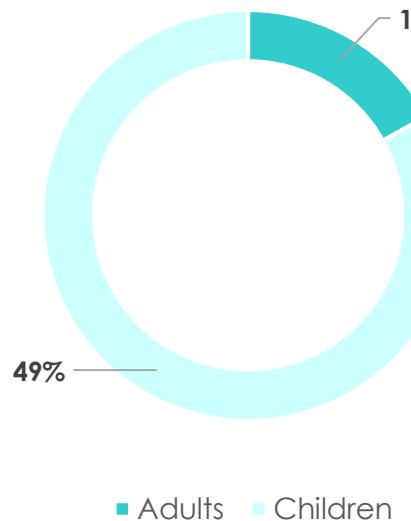


Figure 30: Annual Dental Visit (ADV) 2016
Source: Department of Health Care Services Medi-Cal Dental Services Division

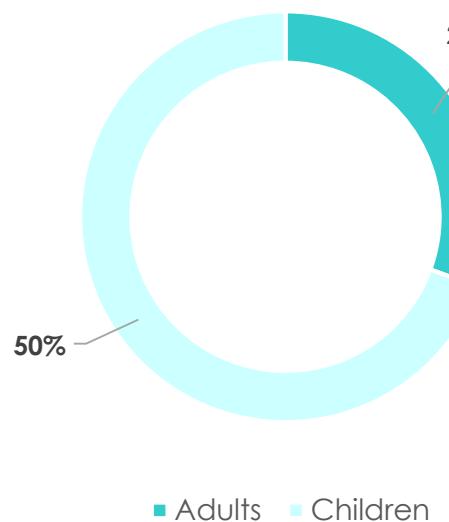
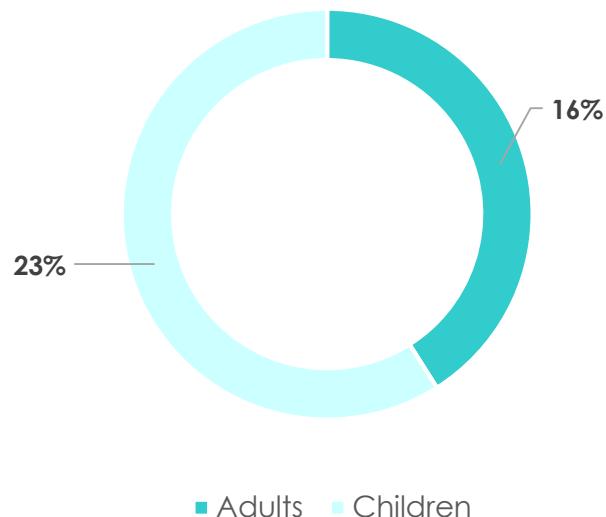


Figure 31: Beneficiaries with Any Dental Treatment Service 2016

Source: Department of Health Care Services Medi-Cal Dental Services Division



The trend for Annual Dental Visits (ADV) among adults age 22-64 years can be seen in Figure 29, and is currently trending downwards. The ADV and utilization measures for children and seniors show a more positive trend.

Figure 32: ADV for Adults From 2007-2016

Source: Department of Health Care Services Medi-Cal Dental Services Division

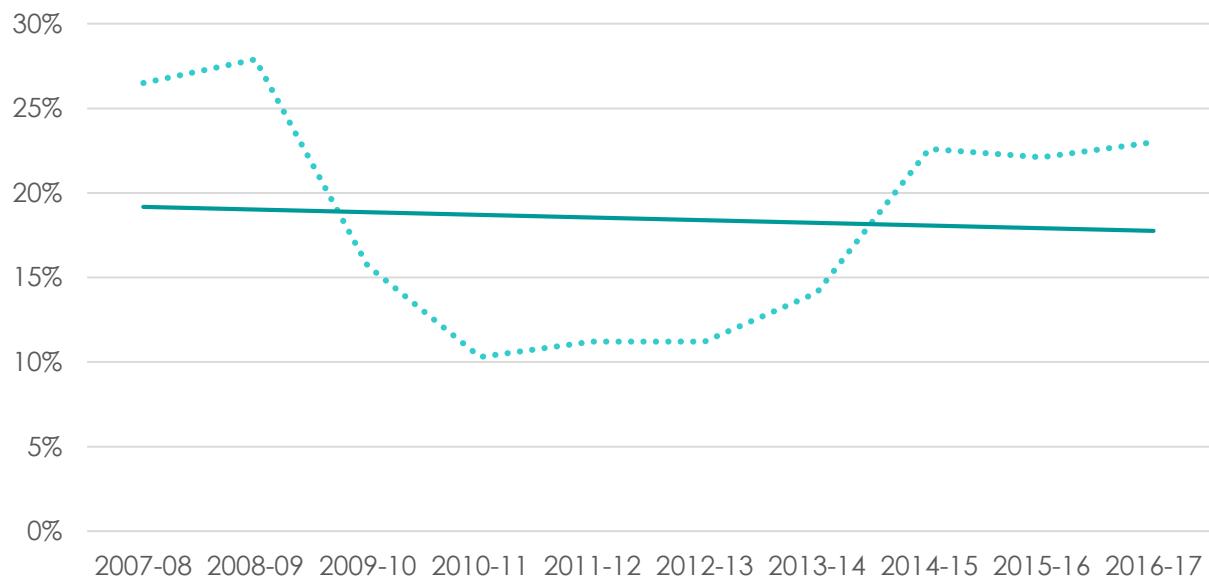


Figure 33: ADV for Seniors from 2007-2016
Source: Department of Health Care Services Medi-Cal Dental Services Division

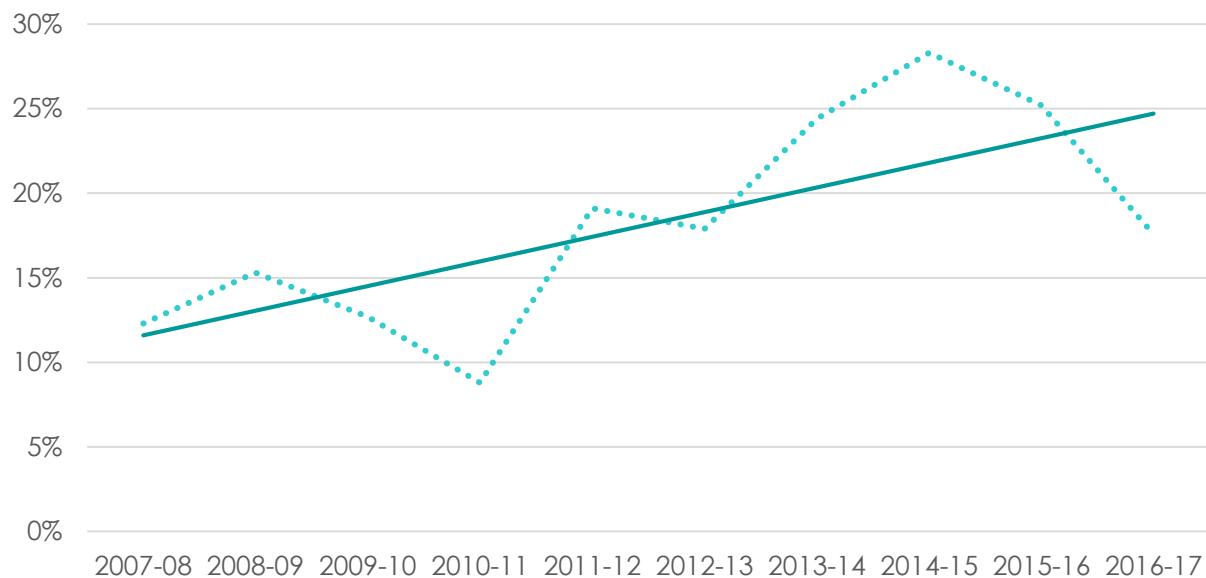
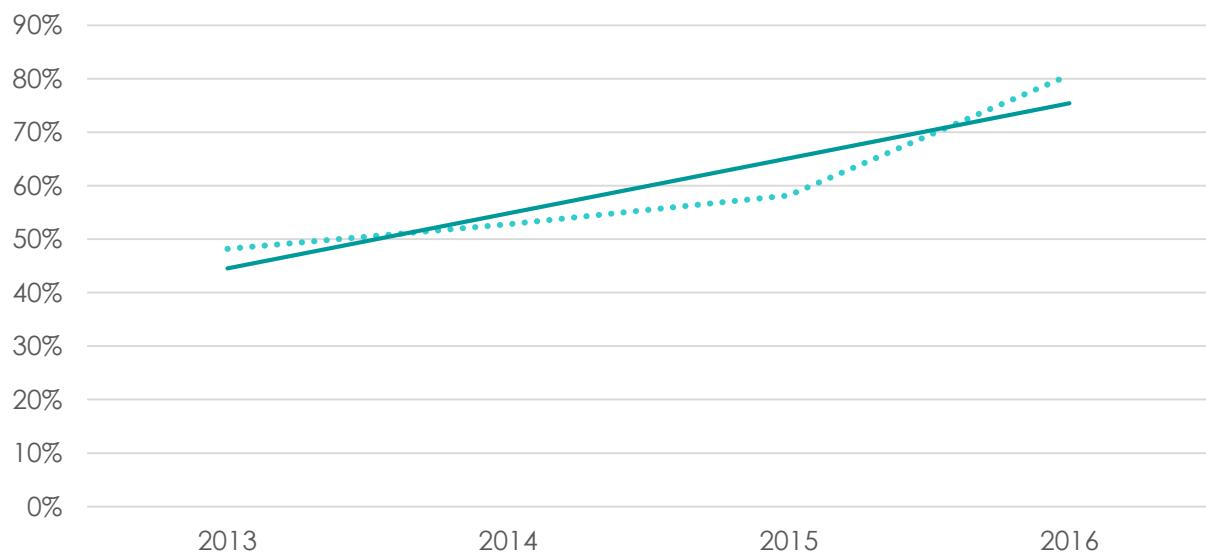


Figure 34: Utilization for Children from 2013-2016
Source: Department of Health Care Services Medi-Cal Dental Services Division: Continuos
Same Plan Enrollment during 3 year period



Community Input

Community Oral Health Survey

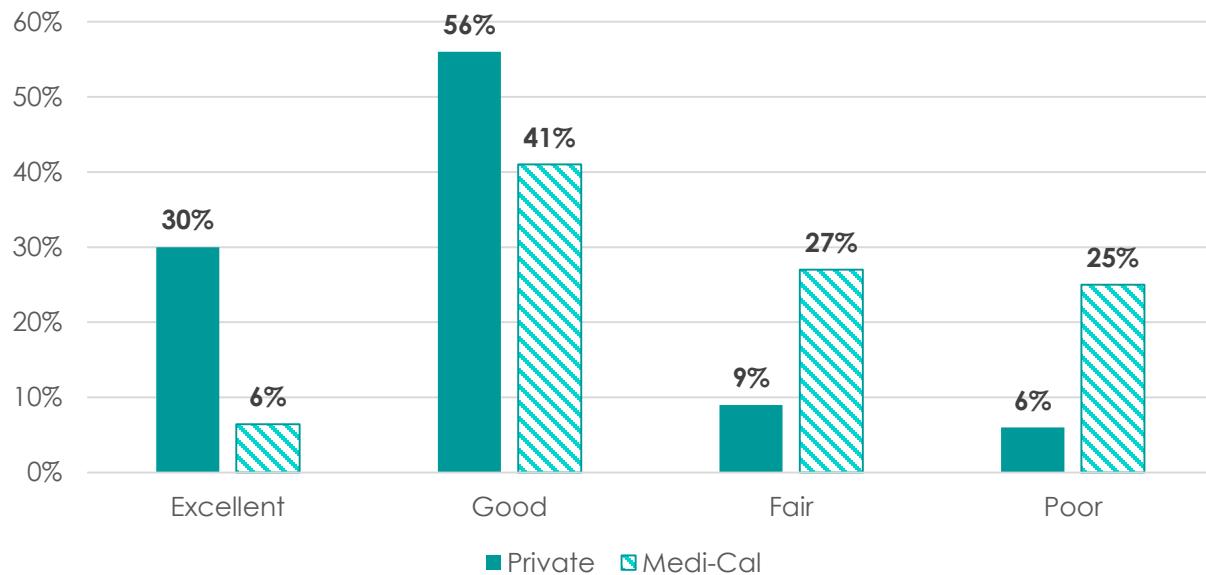
The Community Oral Health Survey had a total of 380 respondents from five zip codes within the County. Adults 27-40 years old made up 58% of the respondents, with high representation for Linda residents (55%), Medi-Cal beneficiaries (48%), and parents (82%). Most surveys were completed in hard copy (75%) with only 25% done through the online link.

95692	Wheatland	8%	Private(from Job)	46%	White/Caucasian	52%
95901	Linda	55%	Denti-Cal/Medi-Cal	48%	Latino/Hispanic	23%
95903	Beale AFB	8%	ACA/Covered California	2%	Black/ African American	6%
95961	West Linda	23%	Don't Know	4%	Asian/Pacific Islander	5%
95991	Yuba City	6%	Insured	81%	American Indian	3%
			Uninsured	19%	Multi-race	8%
					Other	3%
			< High School	12%	18-26 years old	17%
			High School or Equivalent	48%	27-40 years old	58%
			College Degree or More	40%	41-64 years old	22%
			Spanish	5%	65+ years old	3%
					Pregnant in last 3 yrs	54%
					Child under 18	82%

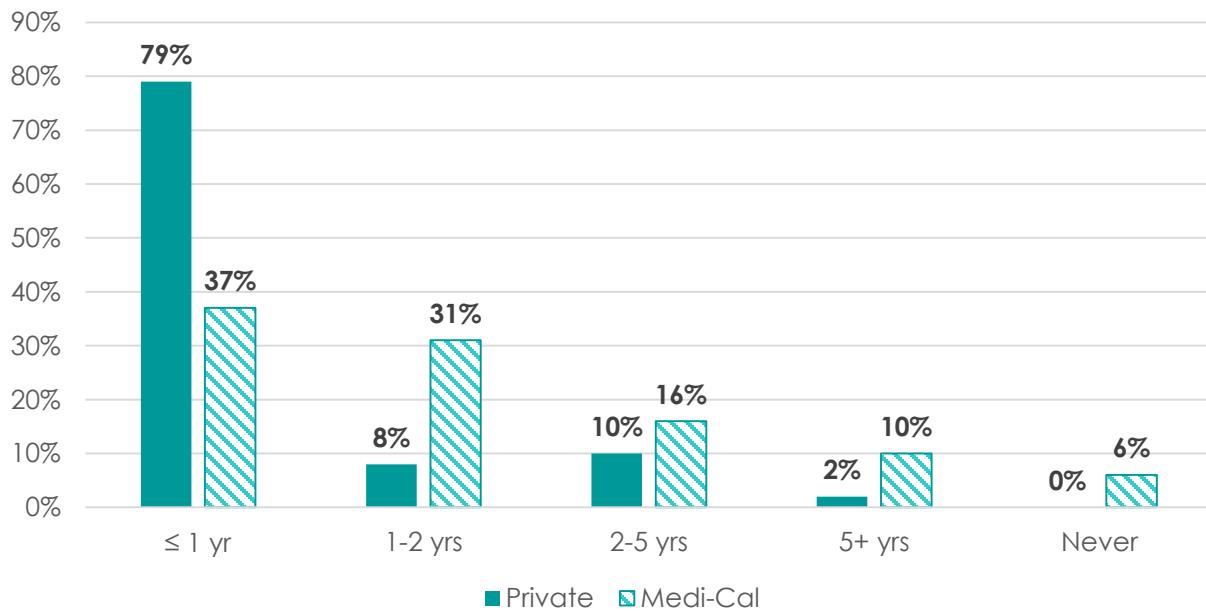
The ethnic breakout of this survey sample was somewhat consistent with the overall percentages for the County. White/Caucasian, Hispanic, African American, and Native Americans were slightly over-sampled, but still within five percent of County estimates. Asian/Pacific Islanders seemed to be the only category that was under-sampled despite the availability of Hmong translation for the survey.

Several questions were asked in order to gauge a respondent's oral health status and access to services. There are significant disparities between those with private insurance and Medi-Cal beneficiaries when it comes to oral health status.

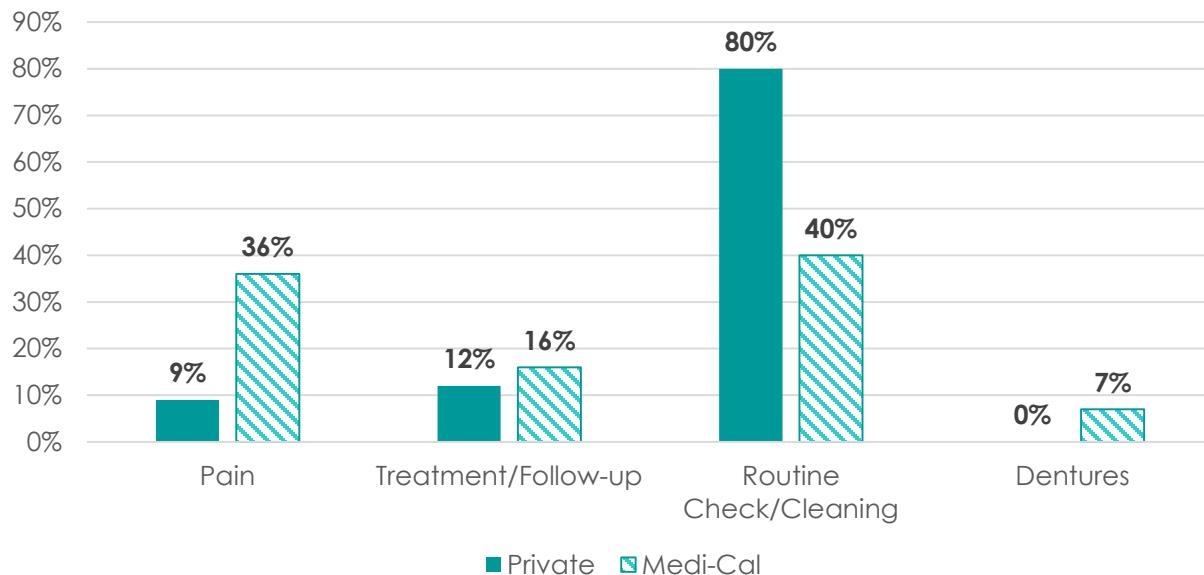
How would you rate the current health of your teeth and gums?



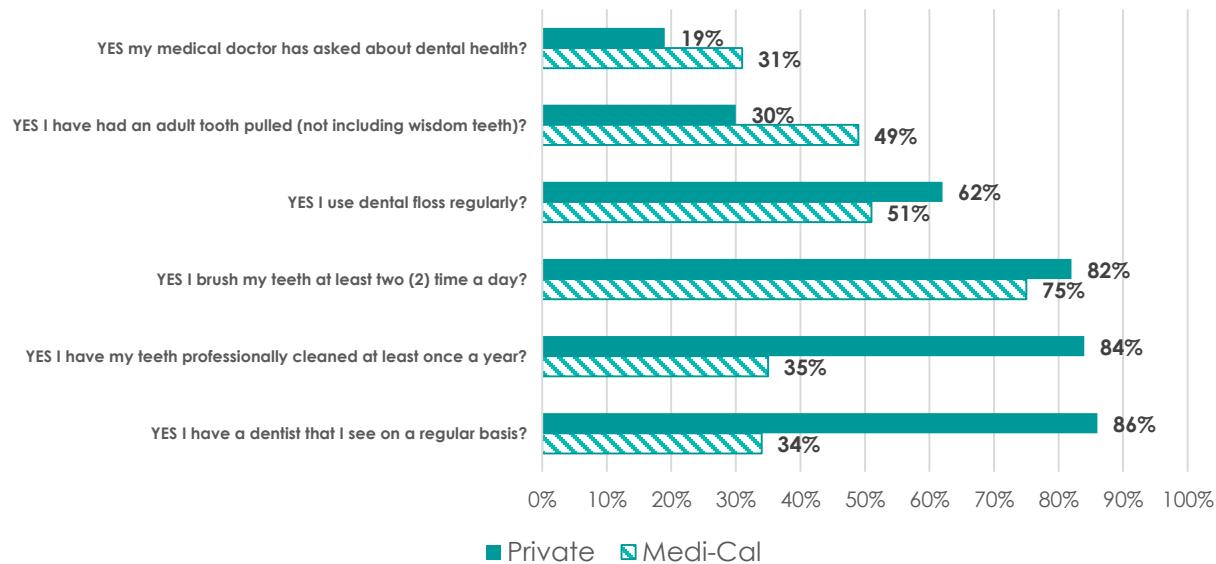
When was your last visit to a dentist?



What was the main reason for your last dental visit?



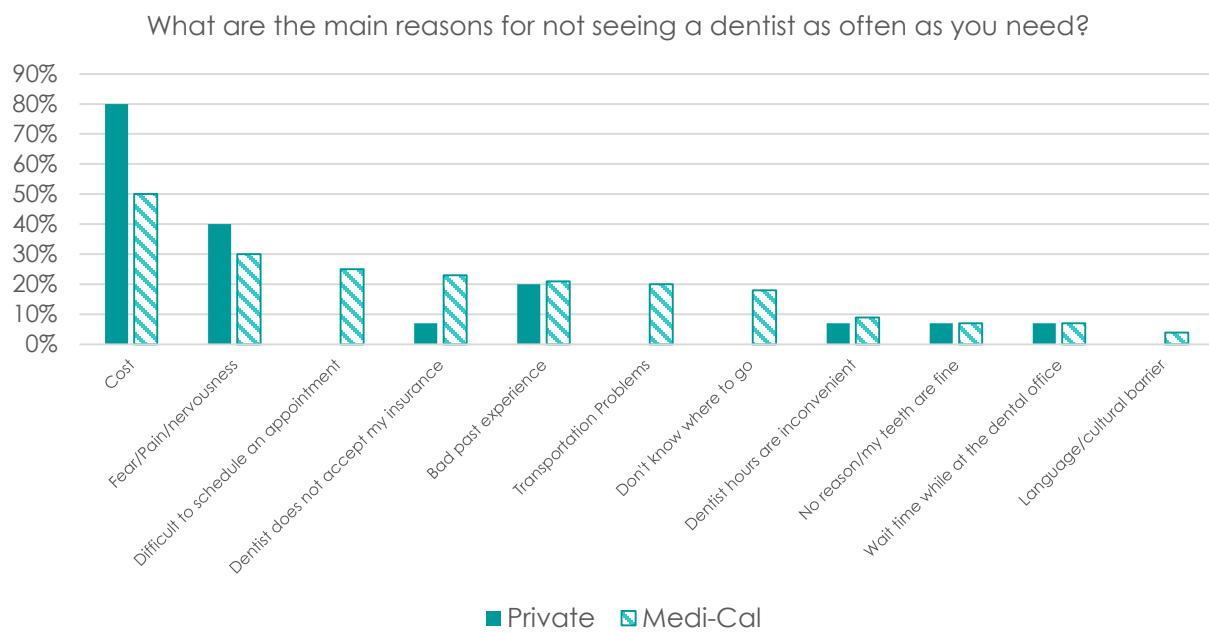
Questions by Insurance Type



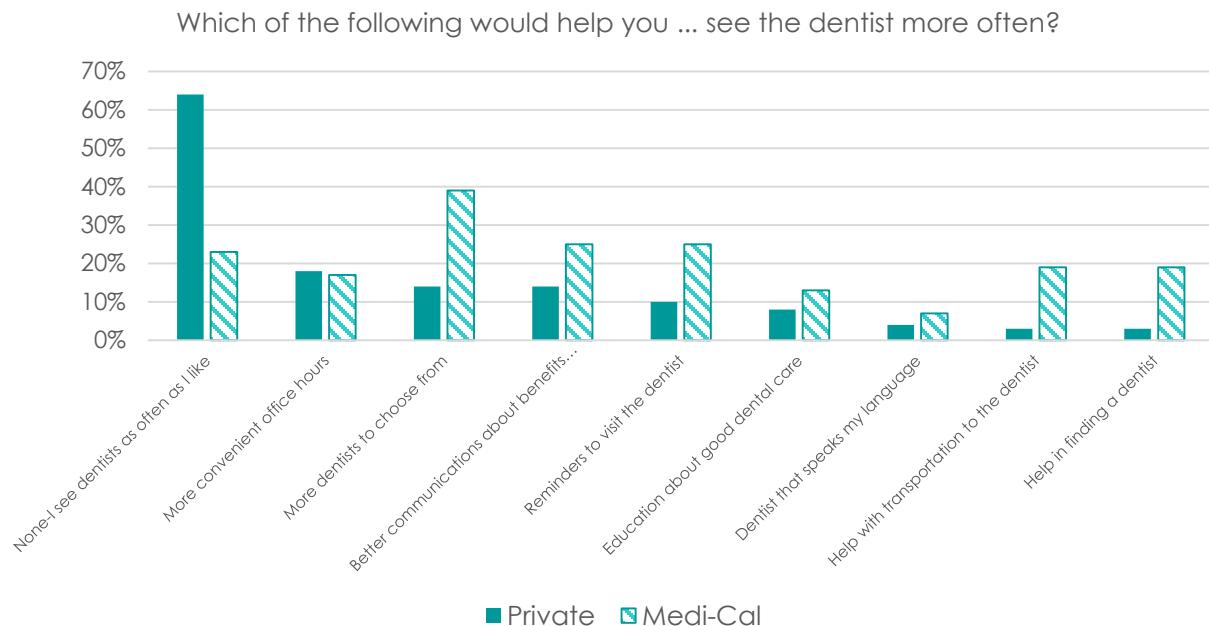
Although oral health knowledge was not measured in this survey, feedback from partners during focus groups imply that parents and adults have a low health literacy rate. The next community oral health survey may include oral health

knowledge questions to estimate a baseline for oral health education programs, and oral health literacy campaigns.

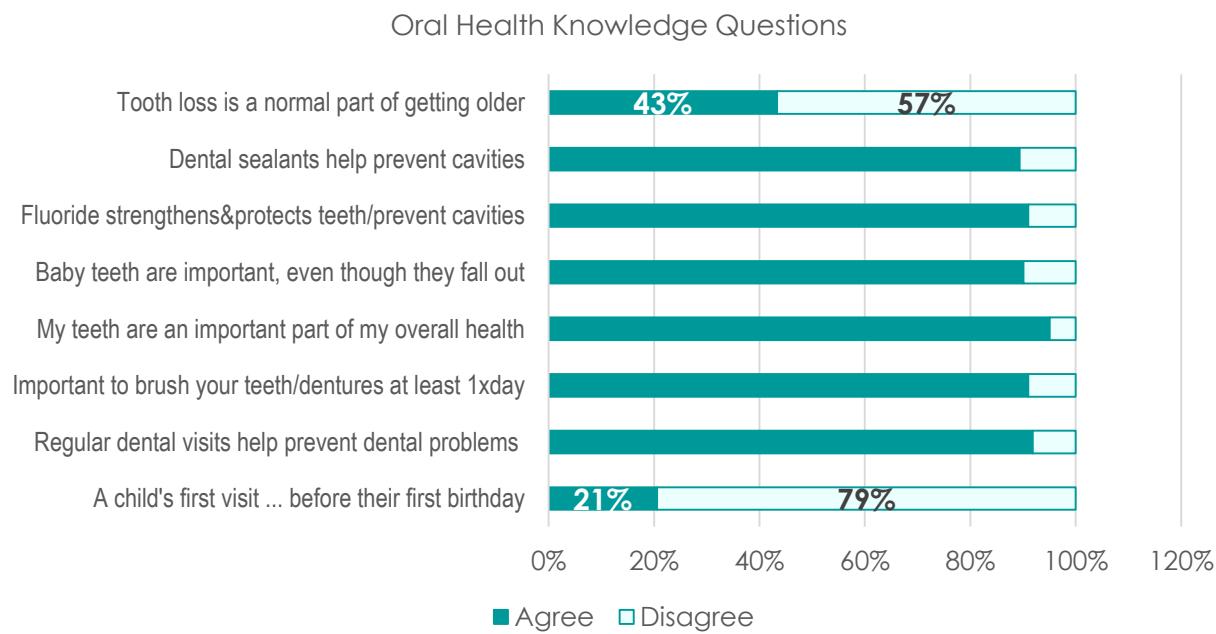
Barriers to care were ranked by allowing the respondents to check all boxes that applied to their situation. Cost was at the top of the list despite insurance type. Below is a comprehensive breakdown of all barriers listed and the totals for Medi-Cal beneficiaries in the sample.



Respondents were then asked to rank changes that would help them and their families see the dentist more often. The responses were interesting in that the same group that identified barriers also increasingly responded that no changes would help them see the dentist more. This hints at the cultural barriers at play because in this sample, the prevailing consensus seemed to be that adults and families were seeing dentists as much as they needed to according to their own self-reflection.

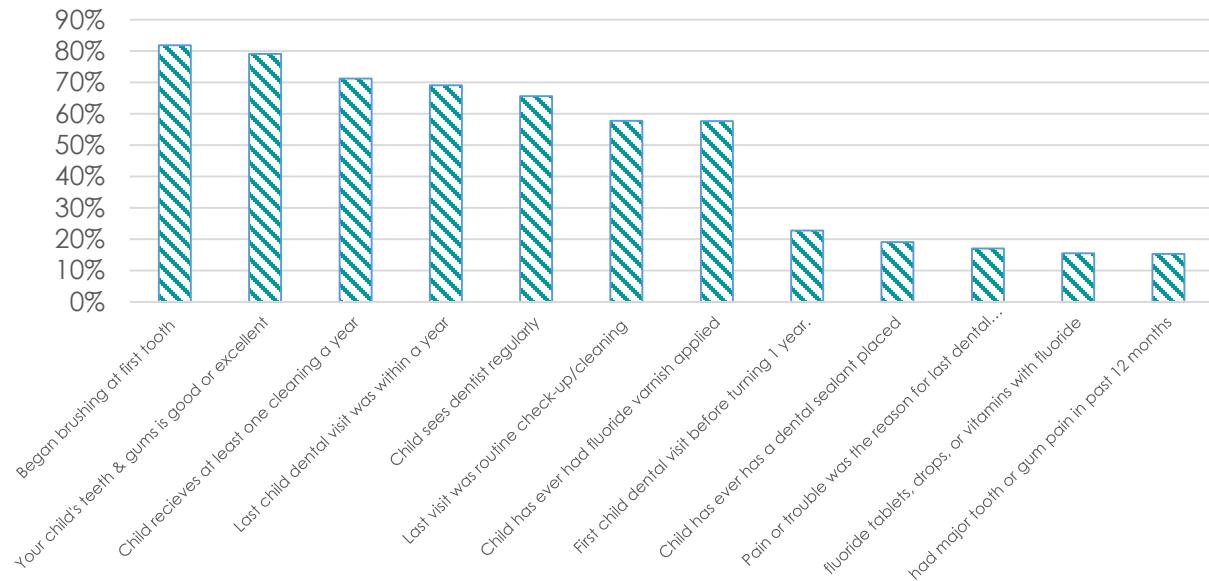


Questions regarding Oral Health Knowledge showed a slight gap in knowledge for Medi-Cal beneficiaries, but overall, most parents were aware of key oral health concepts.



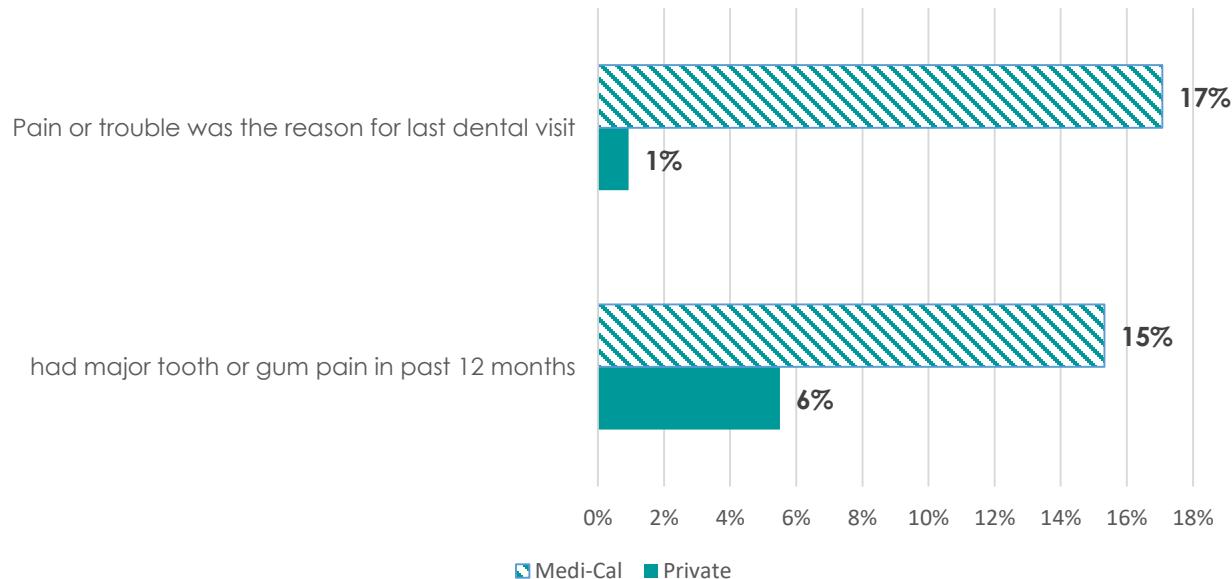
When asked about their children, a high percentage of respondents reported some great oral health habits like brushing their child's first tooth, receiving at least one dental cleaning a year, and fluoride varnish application.

Oral Health Status & Utilization for Medi-Cal Children



However, when it came to fluoride supplements and sealants in particular, there was low proportions for all insurance types. Medi-Cal beneficiaries were more likely to report that their child's last visit was due to pain or gum trouble or that their child had experienced major tooth or gum pain in the past 12 months

Child Tooth or Gum Pain by Insurance Type



Focus Groups

Focus groups were held with education leaders, dental, and medical providers. The focus groups with dental providers and community education leaders were held on September 21, 2018. The medical providers were consulted on September 20, 2018. There were fourteen attendees from FQHCs, district entities, and community based organizations. The focus groups revolved around the following topics:

- Oral Health
- Access to Dental health Services
- Dental Needs
- Community Resources
- Families
- Schools
- Future Recommendations

Qualitative data analysis of the education focus group helped identify the overarching themes. These were the concepts mentioned and agreed upon most frequently.

Qualitative Analysis

Oral health education is necessary for everyone, but especially parents.

The primary take away from this focus group was the belief that it starts with parents and their level of engagement and education. Educators said frequently, getting parents to be actively engaged in their child's routine dental care, could be difficult. This lack of engagement was identified as part of the reason for many issues downstream like lack of compliance with the Kindergarten Oral Health Assessment AB1433, difficulties getting parents to sign consent forms for dental services, and the tendency for parents to not to follow up with dental referrals and basic oral hygiene recommendation. It is possible that the way policy is structured also plays a role in the de-valuing of oral health in parents' minds. Participants brought up that the oral health assessments that are requested of parents are always "reminders" and taken as suggestions instead of a serious recommendation for preventing dental disease. The current system allows parents to continue to disregard the importance of early dental care unless some sort of educational intervention is able to reach parents and explain the importance of oral health in a way that resonates with them.

Evidence:

"Denti-Cal is underutilized, parents don't bring their kids in every six months, they don't know if they are supposed to."

"There is no reason for your kid to have all these cavities. It doesn't cost you any to take your kid to the dentist, but yeah if you let it get so bad yeah there is gonna be a co-payment if you need prevention dentistry."

"...they are not excluded for not getting a dental like they are with a physical. It's just a reminder....just recommended."

"They're not going to keep a kid from starting kindergarten in the fall if they don't turn it in." "No. They won't."

"My schools have the best parent participation and follow through....and that is directly related to ...education."

"It's getting the parent to understand that you go to the dentist, even if it doesn't hurt."

"They think you take your child to the dentist when it hurts."

"We never went to the dentist."

"[last night at a parent meeting], we had one parent show up, and she was not even a parent; she was the cousin of a parent."

"We see the same parents at all the meetings."

What can we do? "Having the parents and the kids involved and having incentives. A family dental, not just for the child."

"The parent is the one you have to target."

"You look at some of these parents' mouths, and we expect them to take care of their child's teeth."

"I'd like to see more in the middle schools and high schools as well."

Word association responses to "**Oral Health Education**"

"yes!"

"non-existent."

"we need more."

"...especially for adults...umhmm."

There is a lack of access to dental care services.

Lack of access was a multifaceted issue. In addition to a recognizable shortage of providers, cost, language, transportation, and cultural barriers were indicated.

Evidence:

"Lacking"

"Very little"

"There aren't providers in Yuba County." "Dentists in general, or dentists that take Medi-Cal?" "Both."

"The community that we serve, they don't have transportation...It is really convenient when [The Happy Toothmobile] is there."

"Language barrier...like Hmong."

"In the Hmong culture you have to have a leader. You can't have a young person speaking to them....[the translator] needs to be someone that people know."

"What if you don't like the way the dentist treated your child, but they are the only dentist you have?"

"The need for adults is so big, because however little services the children have, the adults....it's even worse...there is very few dentists."

"We constantly have adults coming in, knocking on the door 'can you help me? Can you help me? Can you help me?'"

"Asking them to go over the bridge...you might as well ask them to fly to the east coast."

"Most of the people that need it really badly here are on Medi-Cal, and dentists just do not want to take them. It is not enough money for them. Some of them don't like that type of clientele."

"The bridge is maybe a half a mile long, but for these people here, it could be 100 miles long."

"Some people around here have only been to Yuba City a handful of times in their life and it's a couple miles away....they end up in the ER."

Denti-Cal is great, but confusing and underutilized.

Education about Medi-Cal benefits is necessary for families, but also for partners that interact with families. Specifically, the group requested there to be information in plain language that is accessible to varying literacy levels and not so jargon intensive.

Evidence:

Denti-Cal is..... "fabulous" "confusing"

"If you have Medi-Cal, it doesn't cost a thing...not everything is covered for adult dental."

"There is a confusion of what is covered."

"[Parents have said in the past] that they won't take children under 3, but they do...is this going to be out of pocket or is Denti-Cal going to cover it?"

"There is a certain amount that...parents will have to pay if they go to sedation dentistry. Sometimes families will say I do not have the hundred dollars or whatever."

"Denti-Cal is underutilized, parents don't bring their kids in every six months, they don't know if they are supposed to."

"High no-show rate"

"Their [phone] numbers change in 6 months."

“[We need] more education for us to help parents navigate the system.”

“We come across a lot of families that say, ‘No we can’t take them, we don’t have money.’”

“In plain language...Medi-Cal for Dummies”

“[Denti-Cal has] been changing over the years.”

FQHCs are a strength, but face limitations.

FQHCs are identified as a strength of the current system, but are overwhelmed especially when it comes to adult care. The demand exceeds the available providers, and strains the system resulting in long waitlists and wait times. The focus groups agreed that the work that they do is vital, and should be supported. Their unique structure as FQHCs do create certain barriers to care, but overall they are viewed as a strength in the current system.

Evidence:

“We are a drop in a bucket.”

“We do a motivational interview.”

“For adults, when they call Ampla, you can’t get an appointment. You can walk in for antibiotic and pain meds, but our treatment will be weeks away...they’re overwhelmed; huge waitlist.”

“They have great people, but they are just so overwhelmed.”

“Doing a great job for the community... there’s way too many patients trying to get into that system.”

“We are able to get a child in right away.”

“He was one of the rare FQHC dentists that was doing molar root canals, but he has stopped doing them....places like Western Dental where they get paid by procedure not by encounter, they will do them. It is covered.”

Water fluoridation was seen positively

All the groups were asked to give feedback on water fluoridation and the fact that Yuba County does not have water fluoridation. The response was positive in each group, and suggested that, at least in this sample, the community could be receptive to these types of efforts.

Evidence:

"It would help."

"It would be one last thing that parents have to worry about."

[Do you think it would be helpful if we had fluoridated water?] "Definitely."

Underserved Populations

The populations identified as "underserved" were adults, migrant/undocumented families, and the Hmong population.

Evidence:

"The adults and the undocumented."

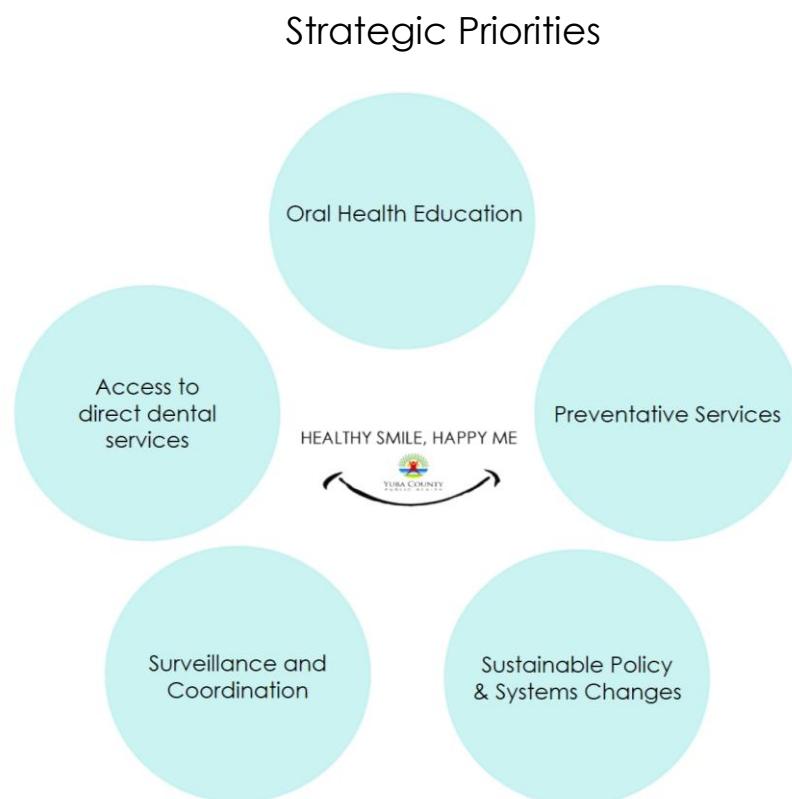
"[The undocumented] are a very quiet community and risk their health."

"The Hmong population have language and cultural barriers."

Closing Statement

As we peel back the layers of complexity for oral health in Yuba County, there are priority areas that have emerged as our guiding light. LOHP continues to collaborate with and learn from partners to improve oral health outcomes and hold true to the mission, vision and values of the program. The values of LOHP have directly informed strategic priorities and an implementation plan for 2017-2022.

MISSION	To improve the oral health of Yuba County residents through collaboration, education, and public awareness.
VISION	A Yuba County where all residents can have healthy smiles.
VALUES	Access – Education – Prevention – Collaboration – Advocacy



Endnotes and References

- 1 "Happy Toothmobile Data." 2017.
- 2 "YCHHSD Fluoride Varnish Data." 2012-2018.
- 3 "YCHHSD Community Oral Health Survey." 2018.
- 4 Prevention, Centers for Disease Control and. *Behavioral Risk Factor Surveillance System*. Ed. Additional data analysis by CARES. 2006-2010. 2018. <<https://www.communitycommons.org/board/chna>>.
- 5 The California Water Boards. *Fluoridation by Public Water Systems: Is My Water Supply Fluoridated?* 28 August 2018. 15 January 2019. <https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html>.
- 6 Education Leaders. Focus Group 21 September 2018.
- 7 Meer, Ben van der. "OPUD decision to stop fluoridation won't halt First 5 funds." *Appeal-Democrat* 25 February 2013. 15 January 2019. <https://m.appeal-democrat.com/opud-decision-to-stop-fluoridation-won-t-halt-first-funds/article_02551036-ffc8-5754-82cb-ee00db10f41c.html>.
- 8 UCLA Center for Health Policy Research. *Average weekly soda consumption (Yuba County, Adults)*. AskCHIS 2011-2017. 15 January 2019. <<http://ask.chis.ucla.edu/>>.
- 9 UCLA Center for Health Policy Research. *Soda or sugary drinks consumed yesterday* 2017. AskCHIS 2011-2017. 15 January 2019. <<http://ask.chis.ucla.edu>>.
- 10 UCLA Center for Health Policy Research. *Adult Smoking Status-current, former, and never*. AskCHIS 2011-2017. 15 January 2019. <<http://ask.chis.ucla.edu>>.
- 11 UCLA Center for Health Policy Research. *Adult Current smoking habits of people who have ever smoked (Yuba County)*. AskCHIS 2011-2017. 15 January 2019. <<http://ask.chis.ucla.edu>>.
- 12 Centers for Disease Control and Prevention. "Behavioral Risk Factor Surveillance System." Accessed via the *Health Indicators Warehouse*. 2006-12. Source geography: County.
- 13 Yuba County. *California Healthy Kids Survey* 2016-17.
- 14 UCLA Center for Health Policy Research. *Ever diagnosed with diabetes, adults (Yuba County)*. AskCHIS 2017. 15 January 2019. <<http://ask.chis.ucla.edu>>.
- 15 UCLA Center for Health Policy Research. *Ever told has pre-or borderline,adults (Yuba County)*. AskCHIS 2017. <<http://ask.chis.ucla.edu>>.
- 16 AB1433 Reported Data (Yuba County). 2012-2017. <<https://www.cda.org/PublicResources/CommunityResources/KindergartenOralHealthRequirement/AB1433Results/tabid/253/u1074q/79756261/Default.aspx>>.
- 17 Health Resources & Services Administration. *HPSA Find (Yuba County)*. n.d. <<https://data.hrsa.gov/tools/shortage-area/hpsa-find>>.
- 18 US Department of Health and Human Services. *Health Resources and Services Administration*. Area Health Resource File. 2015. Source geography: County.
- 19 California Department of Health Care Services. *Denti-Cal Provider Directory Search for Medi-Cal Dental Program Providers*. 2019. <<https://www.denti-cal.ca.gov/find-a-dentist/home>>.
- 20 Maternal Infant Health Assessment Survey (Yuba County). *Dental Visits SF2015-2016* 2015-2016.
- 21 Centers for Medicare & Medicaid Services. *CY2016 Preventative Data by County and Ethnicity*. n.d. <<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research-Statistics-Data-and-Systems.html>>.
- 22 Centers for Medicare & Medicaid Services. *CY 2016 Prev to Fill Data by County and Ethnicity*. n.d. <<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research-Statistics-Data-and-Systems.html>>.

23 Centers for Medicare & Medicaid Services. CY2016 Restorative Data by County and Ethnicity. n.d. <<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research-Statistics-Data-and-Systems.html>>.

24 Centers for Medicare & Medicaid Services. CY2016 FQHC Sealants Peach Tree Clinic Data. n.d. <<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research-Statistics-Data-and-Systems.html>>.

25 Centers for Medicare & Medicaid Services. CY2013-2015 Sealants, Sealants Info by County and Ethnicity. n.d. <<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research-Statistics-Data-and-Systems.html>>.

26 Centers for Medicare & Medicaid Services. "Usual Source of Care 2013-2015." n.d. CY2016 Data by County and Ethnicity. CY2013-2015 MultiYear Measures. <<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research-Statistics-Data-and-Systems.html>>.

27 US Census Bureau. American Community Survey 2012-16. n.d. Source geography: Tract.

28 Medical Providers. Focus Group. Yadira Friday. 20 September 2018.

29 Dental Providers. Focus Group. Yadira Friday. 21 September 2018. <<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research-Statistics-Data-and-Systems.html>>.

30 Centers for Medicare & Medicaid Service. CY2016 Preventative Data by County and Ethnicity. n.d. <<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research-Statistics-Data-and-Systems.html>>.

31 Benjamin, Regina M. *Oral Health: The Silent Epidemic*. 2nd iss., vol. 125, Article First Published Online, 2010, pp. 158–159, *Oral Health: The Silent Epidemic*. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2821841/>

32 American Academy of Pediatric Dentistry 2004 Available at <http://www.mychildrensteeth.org/assets/2/7/ECCstats.pdf>

33 This data is publically available and was last accessed on May 16, 2019. Available at <https://www.cda.org/PublicResources/CommunityResources/KindergartenOralHealthRequirement/AB1433Results/tabcid/253/u1074a/79756261/Default.aspx>

34 Centers for Disease Control and Prevention, Oral Health Data, Available at <https://nccd.cdc.gov/oralhealthdata/>

35 Lor, Maichou. "Systematic review: health promotion and disease prevention among Hmong adults in the USA." *Journal of racial and ethnic health disparities* 5.3 (2018): 638-661.

36 Duffy, Erin L., et al. "Association between type of health insurance and children's oral health, NHANES 2011–2014." *Journal of public health dentistry* 78.4 (2018): 337-345.

37 Eke, Paul I., et al. "Prevalence of periodontitis in adults in the United States: 2009 and 2010." *Journal of dental research* 91.10 (2012): 914-920.

38 http://www.cdc.gov/oralhealth/publications/factsheets/adult_oral_health/adults.htm

39 Centers for Disease Control and prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2006-10. Source geography: County. Available at <https://www.cdc.gov/brfss/>

40 "Dental Disease is a Chronic Problem Among Low-Income Populations." (2000) Available at: <https://www.gao.gov/new.items/he00072.pdf>

41 "Yuba County California Healthy Kids Survey." Survey 2016-2017

42 Shimpi N. et al. (2019) Interdisciplinary Care Model: Diabetes and Oral Health. In: Acharya A., Powell V., Torres-Urquidy M., Postoraro R., Thyvalikakath T. (eds) *Integration of Medical and Dental Care and Patient Data. Health Informatics*. Springer, Cham. Available at https://link.springer.com/chapter/10.1007/978-3-319-98298-4_4#citeas

43 Nielsen, Nielsen SiteReports.2014. Source geography: Tract

44 Silk, Hugh, et al. "Oral health during pregnancy." *American family physician* 77.8 (2008). Available at http://www.ginecologo-ostetrica.it/wp-content/uploads/2017/05/1_IgieneOrala_oral_health_during_pregnancy1.pdf

45 Hans, Mayank, et al. "Oral health awareness and practices in pregnant females: A hospital-based observational

study." *Journal of Indian Society of Periodontology* 23.3 (2019): 264. Available at <http://www.ijisponline.com/preprintarticle.asp?id=253437&type=0>

46 Griffin SO, Regnier E, Griffin PM, Huntley VN. Effectiveness of fluoride in preventing caries in adults. *J Dent Res.* 2007;86(5):410–414.

47 Griffin, Susan O., Kari Jones, and Scott L. Tomar. "An economic evaluation of community water fluoridation." *Journal of public health dentistry* 61.2 (2001): 78-86.

48 This is the bill text for the California mandate for water systems with 10,000 connections or more. Available at http://www.leginfo.ca.gov/pub/95-96/bill/asm/ab_0701-0750/ab_733_bill_951010_chaptered.html

49 Tilotson, John "RE: OPUD area served." Message to Yadira Friday. 5 March, 2019. E-mail

50 Cantwell, Gary "RE: Yuba County Water" Message to Yadira Friday. 25 April 2019. E-mail

51 <https://sdwis.waterboards.ca.gov/PDWW/>

52 https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html

53 <https://www.countyhealthrankings.org/app/california/2019/rankings/yuba/county/outcomes/overall/snapshot>

54 <https://www.denti-cal.ca.gov/find-a-dentist/>

55 Federal, US Attorney General Authorizes Expanded, and Cannabis Enforcement. "Federal Updates." *Policy 1* (2018): 11. <https://www.sfdph.org/dph/files/election/Federal-State-Local-Update-1-11-2018.pdf>

56 OSDPD 2012-2016 Emergency Department Files – Non-Traumatic Dental Conditions (NTDC)- does not exclude individuals with multiple visits and rates are not age adjusted

57 Wall, Thomas, and Marko Vujicic. "Emergency department use for dental conditions continues to increase." *Health Policy Institute Research Brief*. American Dental Association. April(2015).

58 Lee, Helen H., et al. "Visiting the emergency department for dental problems: trends in utilization, 2001 to 2008." *American journal of public health* 102.11 (2012): e77-e83.

59 Ranade, Ashwini, et al. "Determinants of emergency department utilization for non-traumatic dental conditions in Massachusetts." *Journal of public health dentistry* 79.1 (2019): 71-78.

60 Wall, T., K. Nasseh, and M. Vujicic. "Majority of dental-related emergency department visits lack urgency and can be diverted to dental offices." *Chicago, IL: American Dental Association Health Policy Institute* (2014).

61 Morrison, Andrea K., et al. "Low caregiver health literacy is associated with higher pediatric emergency department use and nonurgent visits." *Academic pediatrics* 14.3 (2014): 309-314.

62 New Medi-Cal Dental Fee Schedule as of January 1, 2018. Available at: http://ahca.myflorida.com/medicaid/review/Reimbursement/2018-01-01_Fee_Schedules/Dental_Fee_Schedule_2018.pdf