San Joaquin County Oral Health Needs Assessment

March 2024

San Joaquin County
Public Health Services
health grows here

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Executive Summary

Oral health is an essential part of overall health, with plenty of evidence that connects a healthy mouth with a healthy body. Our mouths affect our ability to eat, speak, smile, and show emotions, which play a significant role in a person's self-esteem, productivity, and attendance at school or work. The California Oral Health Plan defines oral health as an "integral component of health throughout life; oral health refers to the health of the entire oral-facial system, including the teeth, gums, hard and soft palates, linings of the throat and mouth, tongue, lips, salivary glands, chewing muscles, and upper and lower jaws."[1]

This needs assessment report presents the updated findings for the San Joaquin County 2023 Oral Health Needs Assessment. The findings identify continued barriers to care, improved utilization rates, and data that continues to identify oral health as a priority issue for underserved populations. The assessment process was completed with the assistance of the San Joaquin County Oral Health Advisory Committee, who contributed with updated resources, opportunities, and gaps in care. Primary data was collected through key informant interviews and focus groups with key stakeholders and community members, as well as community and dental provider surveys. Secondary data was obtained from previously used resources with the most current updates. Most of the findings indicate the continued need to prioritize oral health in populations that are disproportionately underserved. The following presents key findings about the oral health status in San Joaquin County.

Key Findings

1. **Utilization of dental services by children and adults covered by Medi-Cal has improved but remains below the state average.**
   - Annual dental visits for Medi-Cal recipients have recovered since the COVID-19 pandemic, with utilization rates similar to as they were in 2019.[2]
   - Preventive dental service utilization is lower among Medi-Cal recipients over 18 years of age.[2]
2. **Racial disparities in oral health outcomes are evident across various community populations in San Joaquin County.**
   - Black and White children with Medi-Cal coverage consistently received dental sealants at a lower rate compared to Asian and Latinx/Hispanic children with the same coverage year after year.[3]
   - Pregnant individuals of Asian/Pacific Islander, Black, or Latinx descent showed a notably lower tendency to seek dental care during pregnancy when compared to pregnant White persons (30.4%, 38%, 34.8% compared to 44.4%, respectively).[4]
3. **The water systems in San Joaquin County remain not fluoridated,** which puts the population (especially those who are medically vulnerable and underserved) at a higher risk for dental caries.[5]
4. **There are not enough dental providers or federally qualified health centers (FQHC's) to serve the County's Medi-Cal population.**

- The Medi-Cal population-to-provider ratio is almost four times greater than the state average and more than twice the generally accepted benchmark (1 dentist per 4,306 Medi-Cal eligible in San Joaquin County compared to 1 dentist per 1,100 population for the state average and 1 dentist per 2,000 Medi-Cal eligible benchmark, respectively).[6]

5. **Community input revealed community experiences and barriers to equitable access to local oral health services.**
   - Community survey respondents identified the main barriers to care, which included cost, fear, and lack of dental insurance.
   - Community survey respondents who had a child 0-17 years who was unable to get dental care in the last 12 months identified the main barriers, which included inconvenient or unavailable appointment times and cost.
6. **Kindergarten Oral Health Assessment (KOHA) reporting has increased, but efforts are needed to increase and promote the importance of KOHA.**
   - There are still high rates of tooth decay among youth in San Joaquin County.
   - KOHA reporting has increased but needs improvement in continuous reporting, especially after the COVID-19 pandemic.

Next Steps

Based on these findings, it is evident that efforts are still needed in San Joaquin County to improve access to dental healthcare. The Healthy People 2030 objectives currently have 15 objectives related to oral health, aiming to prevent and control oral and craniofacial diseases, conditions, and injuries and to improve access to related services.[5] Similar to their goal to improve access to oral health, our oral health program will focus on improving and implementing best practices for affordable, quality dental care.

Introduction

Oral Health Affects the Entire Life Course

Maintaining good oral health is essential, as it has significant impact not only on oral health, but also on individuals' overall wellbeing. Oral hygiene holds significant importance for individuals, families, and society, as it enables them the ability to communicate, taste, chew, engage in affectionate gestures, and express emotions through facial expressions.[7] According to the California Oral Health Plan, good oral health means being free of tooth decay and gum disease, as well as being free of chronic oral pain, oral cancer, birth defects such as cleft lip and palate, and other conditions that affect the mouth and throat.[1]

The impact of poor oral health can have an extremely negative effect for many in a social and physical context. Untreated oral diseases can lead to pain or sepsis, particularly in cases where individuals fail to maintain regular oral hygiene practices, neglect routine dental check-ups, or have

teeth that are severely decayed. Below are important factors to consider for the oral health status at each stage of life, according to Care Quest Institute for Oral Health[8]:

- ***Pregnancy:*** It is highly recommended and safe to visit the dentist during pregnancy. Considering gum disease is common during pregnancy,[9] routine dental visits are an opportunity for prevention and treatment of undesirable oral health outcomes. It is also crucial for those who are pregnant to have regular dental visits in order to prevent the transmission of dental disease to their babies, as oral health starts with the mother.
- ***Childhood (0-9):*** Early childhood caries (cavities) and related pain that children can experience are linked to negative impacts on play and school and can lead to higher school absenteeism.[10]
- ***Adolescence (10-17):*** Youth playing sports are recommended to use a mouth guard, since oral injuries are common. Chipped teeth from oral piercings are also common. Additionally, E-cigarette use (vaping) is commonly used by adolescents and is linked to increased risk of gum disease and oral lesions.[11]
- ***Young Adulthood (18-39):*** Young adults are highly susceptible to eating disorders, which are linked to increased oral lesions and dental erosion of enamel. Furthermore, the use of tobacco and alcohol regularly increases the risk of oral cancer in later years.[12]
- ***Middle Age (40-64):*** Poor oral health among adults can lead to increased risk for chronic conditions, reduced employment opportunities, and poor quality of life.[14] Periodontal disease is common in middle age, especially those with other chronic diseases such as diabetes, kidney disease, and cardiovascular disease.[13]
- ***Older Adulthood (65+):*** Nearly one-third of older adults have untreated tooth decay, which can lead to tooth loss, difficulty eating, and malnutrition. Poor oral health is linked to an increased risk of chronic conditions like diabetes, heart disease, stroke, and respiratory issues.[14] Additionally, poor oral health has been linked to an elevated risk of Alzheimer's disease and other forms of dementia, with tooth loss particularly correlated with this heightened risk.[15] Painful or decaying teeth can severely limit an older adult's ability to eat properly, exacerbating these risks and compromising overall health.

Best Practices: Innovations in Programs, Systems, and Policies

An assessment of local oral health problems and of the barriers and gaps that contribute to them is best viewed in comparison to dental public health best practices. Some of the best, innovative practices, programs, and systems recommended to improve oral health at a community level involves several components:

- **Focus on early prevention, including dental visits by age one, the application of fluoride varnish, and dental sealants.** The latter has been shown to reduce dental decay in school age children by 80%. This upstream approach means focusing on pregnancy and young children to prevent early dental decay and build a lifetime of good oral health habits.[7]

- **Co-location of services** in places like Women, Infants, and Children (WIC) sites, schools, and community or senior centers. This approach brings services to where people are. School-based/school linked programs and the utilization of mobile dental clinics in the community and for institution-bound individuals are some of the best examples of addressing barriers to access.
- **Systematic linkages to care** through oral health care coordination and other peer educators to ensure that underserved populations can access culturally and linguistically appropriate support and assistance.
- **Community-wide and individual educational messages, including oral hygiene education and skill building,** that are age, culturally, and linguistically appropriate, and delivered through trusted sources.
- **Integration of medical and dental services** includes dental screening, application of fluoride varnish, oral health education, and referral to a dental practitioner during well-child and/or Obstetrics (OB) visits.[16]
- **Community-wide policies** can improve access to and the promotion of clean drinking water and limit consumption of sugar-sweetened beverages and youth access to tobacco and vape products.
- **Community water fluoridation** as an effective community-based strategy to reduce dental caries.[5]

Needs Assessment Background

This report, created under the guidance of the San Joaquin County Oral Health Strategic Planning Steering Committee, in collaboration with Miriam Abrams and Associates, presents findings on the oral health status, knowledge and behaviors of County residents; analyzes barriers to accessing dental care and maintaining good oral health practices; and identifies opportunities to improve the oral health status of the County's vulnerable and underserved populations.

Funding for this needs assessment, part of a five-year Local Oral Health Program (LOHP) grant to San Joaquin County, was made possible by the California Healthcare, Research and Prevention Tobacco Tax Act of 2016, which provides $30 million annually to activities that support the California Oral Health Plan 2018-2028. California local health jurisdictions received funding to expand their capacity to coordinate public health activities that support oral health education, disease prevention (including oral diseases caused by tobacco use), surveillance, and linkages to treatment. Findings from this local oral health needs assessment will inform the development of the San Joaquin County Oral Health Strategic Plan for 2024 – 2028 and prioritize strategies that serve our most underserved and vulnerable populations. This report uses multiple data sources to create a baseline assessment of the oral health status among San Joaquin County residents. The information presented aligns closely with the goals and objectives of the California State Oral Health Program.

Methodology

The needs assessment process was conducted by the San Joaquin County Local Oral Health Program (LOHP) staff, with guidance from the Oral Health Advisory Committee (OHAC). Data collection was done similarly to the last needs assessment, with primary data collected from key informant interviews and focus groups. In addition, the LOHP opted to survey both community members and dental providers. Secondary data was collected from various databases utilized from the previous assessment.

The key areas of the assessment included:

- Demography
- Oral health status and utilization of services
- Resources for care: capacity of dental providers
- Resources for care: facilities and other dental systems of care or services
- Risk factors for poor oral health outcomes
- Oral health knowledge and habits
- Barriers to care
- Environmental scan

Oral Health Advisory Committee

The Oral Health Advisory Committee (OHCA) is composed of 15 key community-based organizations, partners, and agencies that meet bimonthly to provide guidance on the needs assessment process and assist in developing a five-year oral health strategic plan in addition to a one-year strategic action plan. The OHAC convened regularly from April through September 2023. The committee will continue to meet on a quarterly basis.

Data Sources and Collection

Primary data was collected through community input via focus groups and key informant interviews. Interviews and focus group protocols were adopted from the LOHP's previous needs assessment which contained structured questions to encourage open-ended discussion to gather information about participants' oral health experiences (e.g., oral health habits, dental visits). A total of four focus groups were conducted, with three completed with local community organizations and programs. Similar to the first assessment, convenience sampling was used to recruit participants from each organization and a $25 gift card was offered to participants who stayed for the entire time. One organization provided interpretation for non-English speaking participants from the Asian and Pacific-Islander population. All four sessions were recorded by the moderator, who asked for verbal consent to record during the meetings, which were transcribed into notes for analysis and determination of recurring themes.

An environmental scan was composed of twelve key informant interviews. Interviewees were strategically selected from organizations that serve the priority populations or have specific

knowledge about oral health issues in the community. Interviewees included dental experts and providers, agency representatives and decision makers, and community-based organization representatives. Interviews were held virtually and recorded by LOHP staff. Transcripts were analyzed through thematic coding. Interviews used open-ended questions to learn about their organization/program and about the population(s) they serve. The interview content used the Ecological Theory Model to determine best practices and brainstorming strategies to increase awareness on the importance of oral health. The Ecological Systems Theory looks at the influence of social environments on human development. Research suggests that looking at dental caries in children is influenced by multiple factors at the individual, familial, community, and societal levels.[17]

To collect additional information from the community and dental providers, two new surveys were developed. The community survey provided insight on the population's general knowledge of dental hygiene, common risk factors such as smoking and nutrition, and current oral health care access and barriers to care. The dental providers survey gathered details about the services provided by dental professionals, opinions on the Medi-Cal Dental program, and provider perspectives on serving Medi-Cal patients.

Findings

San Joaquin County Demographics

San Joaquin County is situated in the north of the Central Valley with a growing population of just over 793,229.[18] The county consists of seven main cities (Stockton, Lodi, Manteca, Tracy, Ripon, Escalon, and Lathrop), many small towns, as well as rural farming and ranching communities. The county is rich in diversity, including Latinx, White, Asian, Black/African American, Native Hawaiian/Pacific Islander and American Indian/Alaska Native populations. San Joaquin County is also linguistically diverse. Many residents of the county (41%) speak languages other than English at home and over one quarter of residents communicate at home in Spanish.[19]

There are 344,503 (43%) San Joaquin County residents who are eligible for Medi-Cal benefits, according to the Department of Health Care Services. This is a slight decrease from 44% reported in the 2018 Oral Health Needs Assessment.[20] Disparities in insurance coverage continue to exist across the county's population. Compared to other age groups, individuals between the ages of 19 and 64 are more likely to be uninsured (48%)[21] and racial disparities exist within this group.

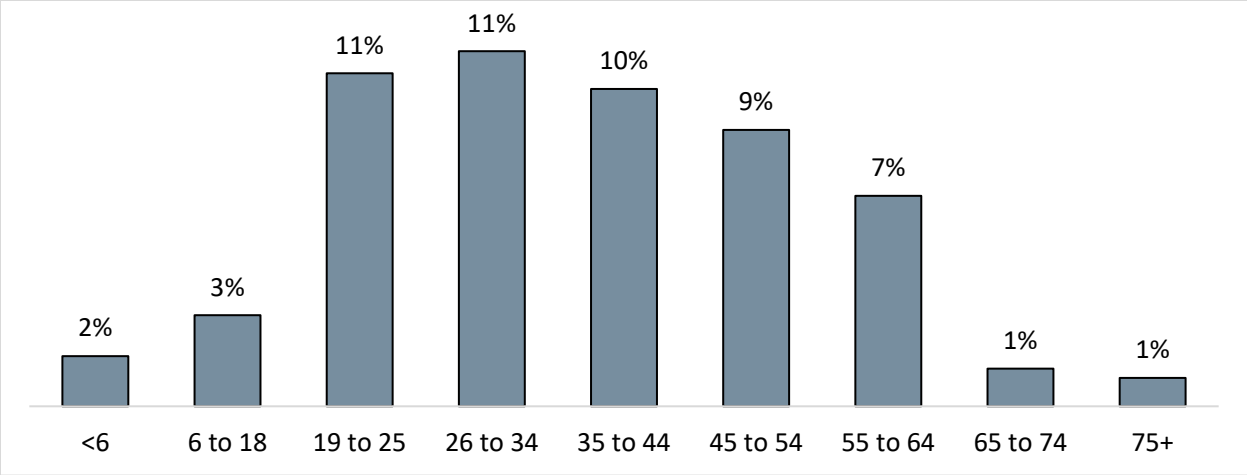

Figure 1: Percent Uninsured by Age Group in San Joaquin County, 2022[21]

The Free and Reduced Price Meal (FRPM) Program has been used as a guide to determine the percentage of students living at or below the federal poverty level. In San Joaquin County, a higher percentage (59%) of school age children qualified for the FRPM program compared to California (58%) during the 2022-2023 school year.[22]

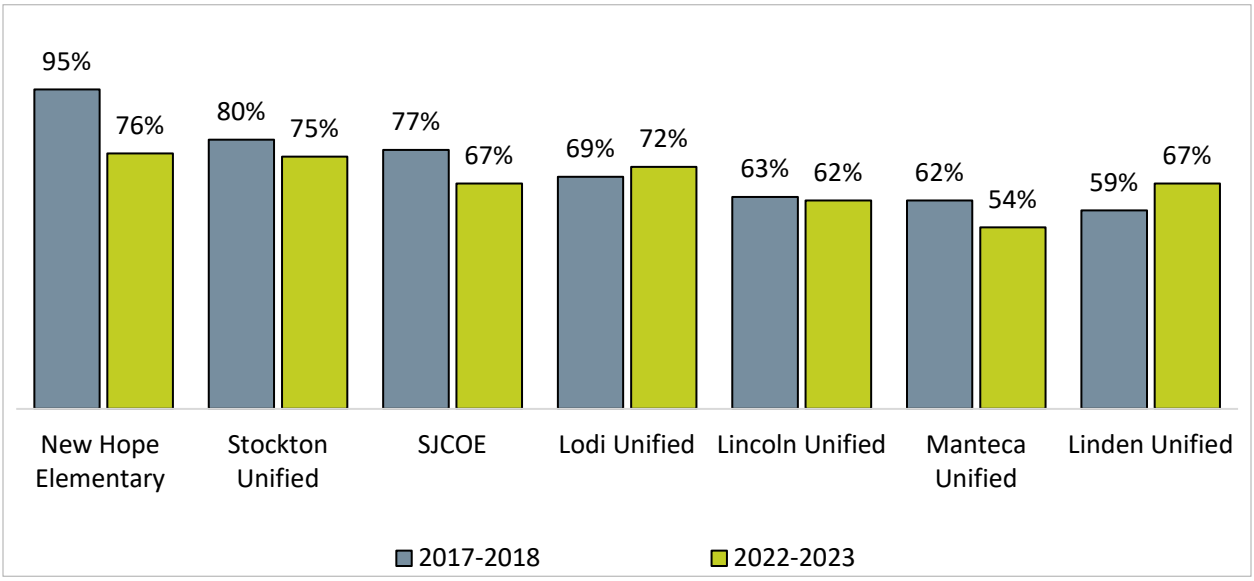

Figure 2: Percentage of students participating in the Free and Reduced-Price Meal Program in San Joaquin County school districts[22]

Children's Oral Health Status

Dental disease has been recognized as a leading cause of school absences, resulting in students experiencing pain and struggling to concentrate in the classroom. The Kindergarten Oral Health Assessment (KOHA), required by law (AB 1433), is designed to tackle dental disease in children and ensure they have access to dental care.[23] Proof of the assessment must be submitted annually by school districts for students enrolled in school for the first time, whether kindergarten or first grade. During the 2022-2023 school year, about 46% of kindergarteners completed an oral health assessment.[23] Analysis shows that 12% of kindergarteners had untreated decay (see Figure 3

below) and 29% already had at least one cavity (also called caries experience, see Figure 4).[23] It should be noted that data on Caries Experience was not initially reported until the 2019-2020 school year.

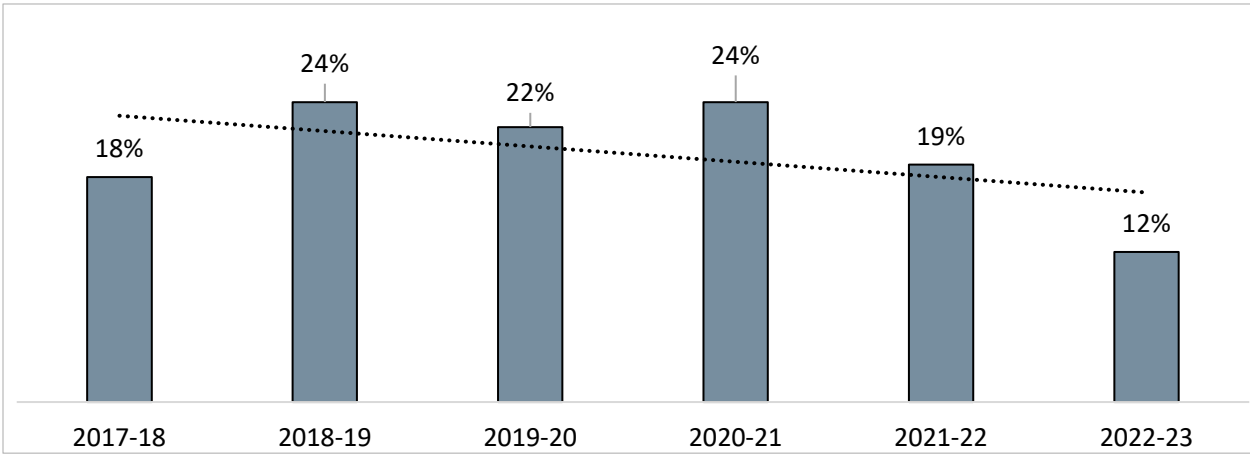

Figure 3: Percentage of Untreated Tooth Decay among Kindergarten Students in San Joaquin County Public Schools [23]

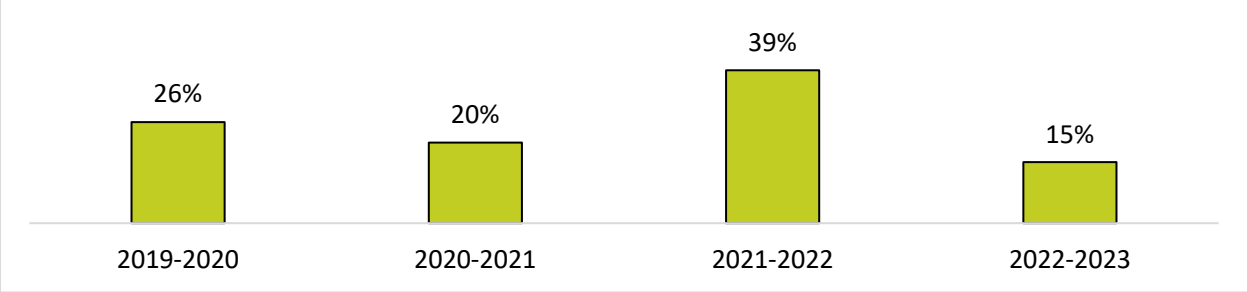

Figure 4: Percentage of Caries Experience among Kindergarten Students in San Joaquin County Public Schools, 2018-2023[23]

During the 2018-2019 school year, the California Department of Public Health (CDPH) conducted a statewide assessment of tooth decay among children in third grade.[24] Surveillance results were grouped by region, where San Joaquin County was grouped with other counties within the San Joaquin Valley region including Fresno, Kern, Stanislaus, Tulare, Merced, Kings, and Madera counties. Within the San Joaquin Valley region, 75.9% of students presented with caries experience, 29.7% of students had untreated decay, and 33.2% of students had sealants placed on their permanent molars. Third grade students from the San Joaquin Valley region had the highest prevalence of tooth decay and untreated decay when compared to other regions throughout the state.[24]

Table 1

Percent of third graders with caries experience, untreated tooth decay, and dental sealants by region[24]

Region	Caries Experience (lower is better)	Untreated Decay (lower is better)	Sealants (higher is better)
California	60.6%	21.9%	37.0%
Bay Area	45.4%	15.7%	44.6%
Sacramento	46.2%	17.2%	28.9%
Northern/Sierra	51.6%	20.7%	36.5%
Southern	60.4%	21.8%	40.0%
Central Coast	64.2%	16.3%	46.8%
Los Angeles County	64.7%	20.7%	30.5%
San Joaquin Valley	75.9%	29.7%	33.2%

Dental Service Utilization

Utilization of Medi-Cal preventive dental services, sealants, and annual dental visits are all indicators of having access to preventive services and continuity of oral health care. Dental visits are important for prevention and treatment of oral diseases, therefore regular utilization of dental services is necessary for optimal oral health. Dental visits are an opportunity for preventive care, including early detection, diagnosis, and treatment of oral conditions or diseases. The delay of dental visits, preventive dental services, and treatment may result in more complex dental problems.

Medi-Cal Utilization for Children and Adults

Annual dental visits among Medi-Cal beneficiaries have increased over the last three years (2020 – 2022). The most recent data show that utilization is about the same as it was in 2019, indicating that rates have recovered since the COVID-19 pandemic and Medi-Cal beneficiaries visit their dentist at about the same rate that they did before most dental office and non-emergent dental services were paused in 2020. In San Joaquin County, the rate of annual dental visits for Medi-Cal beneficiaries has improved in recent years but remains below the state average.[2]

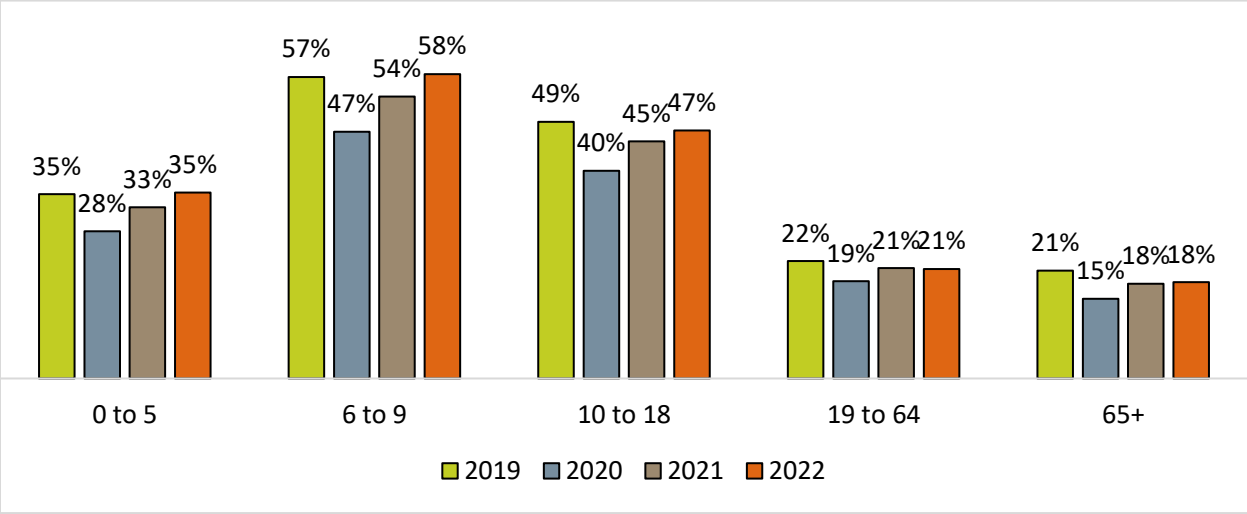

Figure 5: Medi-Cal Utilization Annual Dental Visit by Age in San Joaquin County, 2019-2021[2]

Dental sealants are a thin, plastic coating painted on the chewing surfaces of back teeth for protection against bacteria and acids to help prevent cavities.[24] Sealants are recommended for children aged 6-11 when all molars are expected to erupt.[2] In San Joaquin County, sealant usage among children aged 6-9 years who have Medi-Cal remains similar to the state average in 2022.[26] Disparities exist by race/ethnicity, where Asian and Latinx/Hispanic children in San Joaquin County received dental sealants at a higher rate than Black or White children, year over year. Furthermore, Native Hawaiian/Pacific Islander children in San Joaquin County receive dental sealants at a higher rate when compared to the state average for 2022 (18% and 14%, respectively).[2]

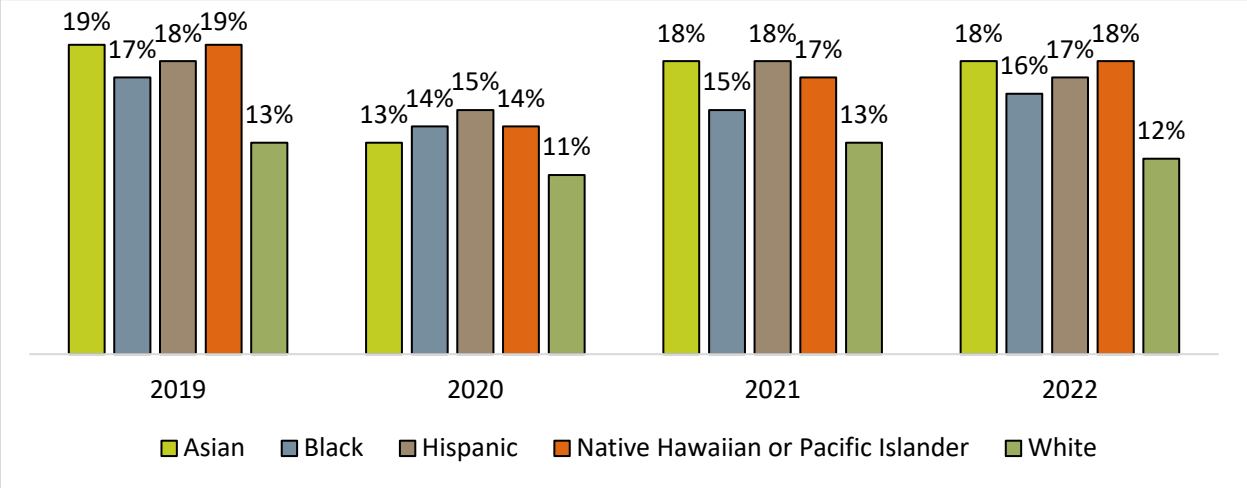

Figure 6: Percentage of San Joaquin County Medi-Cal Beneficiaries Aged 6-9 who Received Dental Sealants by Race/Ethnicity[2]

Low preventive dental service utilization was also noted for Medi-Cal beneficiaries over 18 years of age.[3] Preventive dental care includes services such as oral exams, teeth cleaning, routine x-rays, and sealants. Figure 7 below shows the preventive dental services utilization for Medi-Cal recipients in San Joaquin County from 2019-2021.

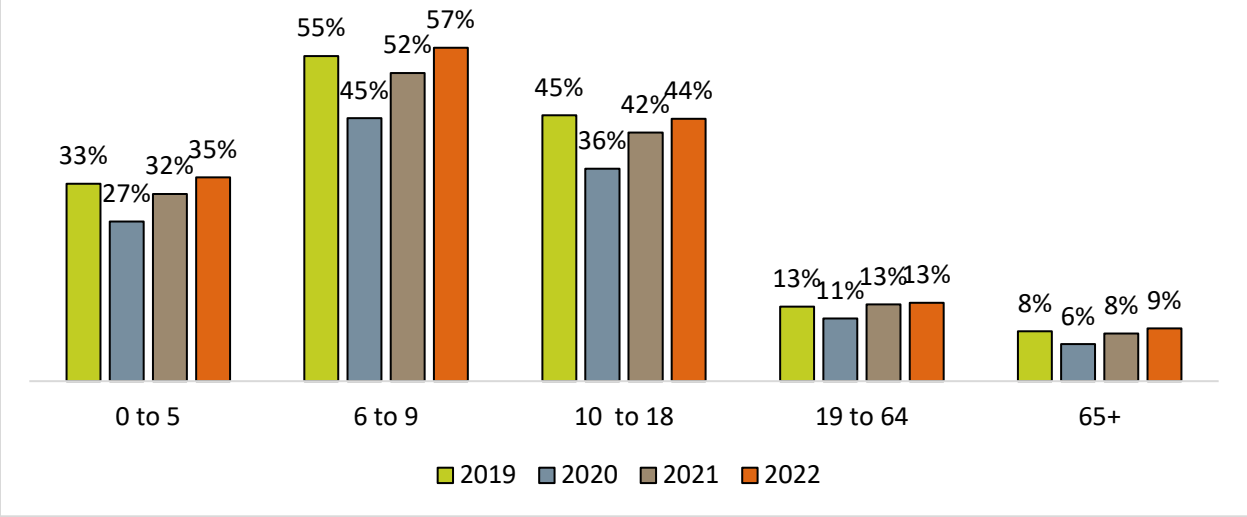

Figure 7: Preventive Dental Services Utilization among Medi-Cal beneficiaries in San Joaquin County, 2019-2022[2]

Dental Visits to the Emergency Department

Analyzing the data on emergency department visits due to dental conditions is a way to measure access to care for the population. The emergency department is not equipped to provide dental care and often treatments are more costly than they would be if treated in a dental clinic. Furthermore, treatment may not address the underlying dental condition and typically focus on reducing inflammation and pain. A large proportion of oral health problems in emergency departments are not a result of trauma but can be prevented altogether in a primary dental care setting.[27] In San Joaquin County, the rate of emergency department visits for Non-Traumatic Dental Conditions (NTDCs) that are classified as Caries/Periodontal/Preventive Conditions (CPP) is higher than that for the state across all ages and race/ethnicity. Figure 8 and 9 show crude rates per 100,000 population (person-years at risk).[28]

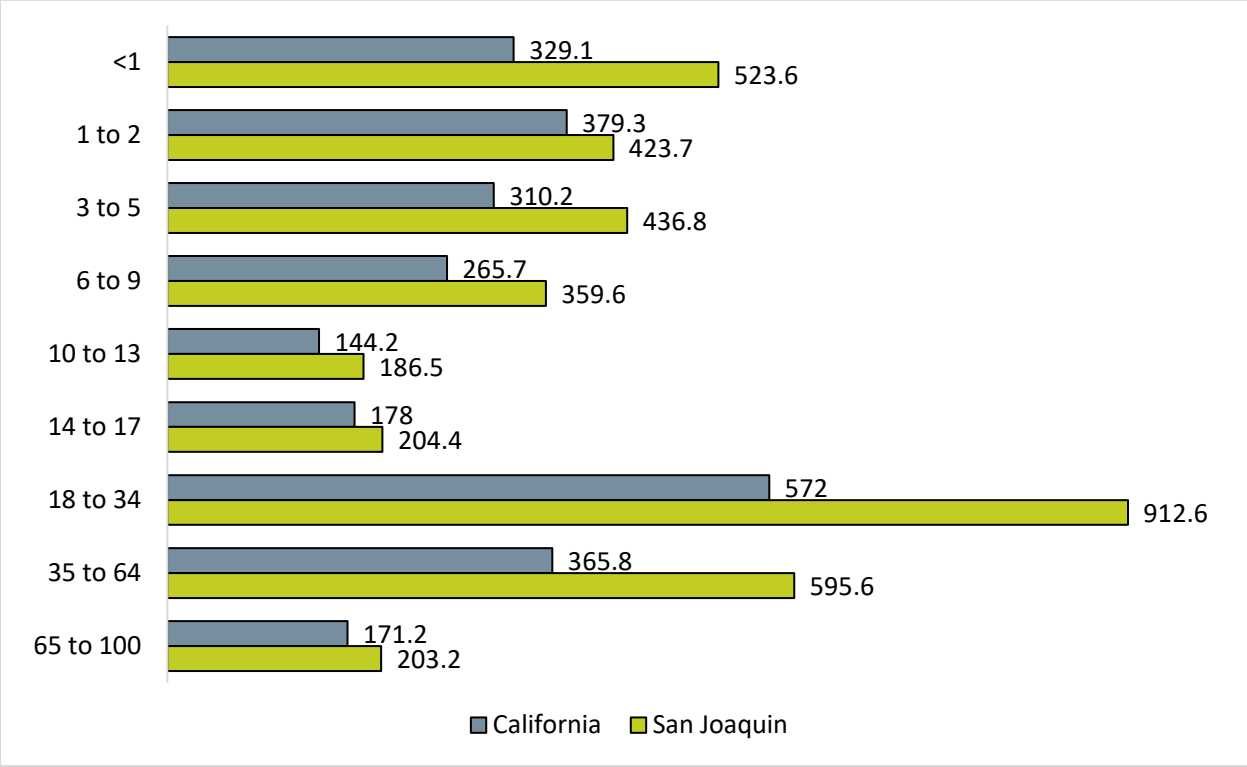

Figure 8: Rate of Emergency Department Visits Involving Dental Conditions by Age, 2017-2019[28]

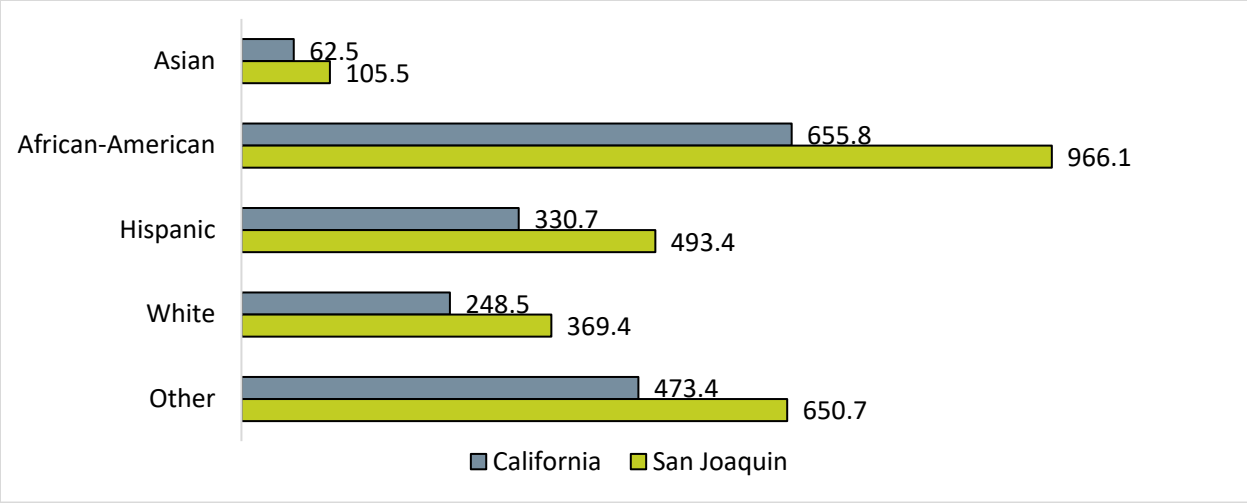

Figure 9: Rate of Emergency Department Visits Involving Dental Conditions by Race/Ethnicity, 2017-2019[28]

Dental Visits During Pregnancy

During pregnancy, maintaining proper oral health is vital for the health of both mother and baby. Dental visits during pregnancy are both safe and essential. These visits provide an opportunity for providers to educate expectant parents about maintaining good oral hygiene and adopting healthy eating habits. Additionally, pregnant people can learn about preventing the transmission of oral bacteria to their babies by not sharing utensils or licking pacifiers.[29] Physiological and hormonal changes that occur during pregnancy may increase the risk of gingivitis, tooth or gum infection, tooth erosion, dental caries, and periodontitis.[30] Since 2015, pregnant people in San Joaquin County have visited the dentist at higher rates, year over year, but rates remain lower than the state average.[4]

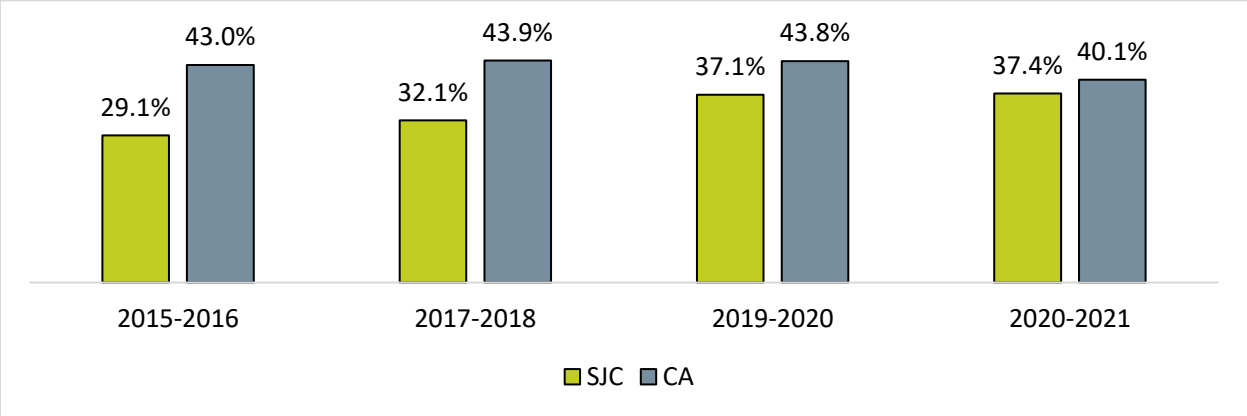

Figure 10: Percent of Dental Visits during Pregnancy in Comparison to the State, 2015-2021[4]

Disparities in access to dental care are apparent for pregnant individuals in the county based on race, age, income, and insurance type. Pregnant individuals who are Asian/Pacific Islander, Black, or Latinx are significantly less likely to visit the dentist when compared to those who are White.[4] Younger parents (15-24 years old) are slightly less likely to visit the dentist than older adults (24-34 years old) (34.3% and 35.9%, respectively).[4] Lastly, there is inequity based on insurance type. Pregnant individuals who have Medi-Cal insurance were less likely to visit the dentist when

compared to those who have private insurance.[4] This data shows an increase in those receiving dental care during pregnancy since the baseline Oral Health Needs Assessment report in 2018.[4]

Table 2

Receipt of Dental Visit during Pregnancy San Joaquin County, 2020-2021[4]

DDS Visit	Race/Ethnicity				Family Income			Health Insurance	
	White	Hispanic	API	Black	0-100% FPL	101-200% FPL	≥200% FPL	Medi-Cal	Private
37.4%	44.4%	34.9%	30.4%*	38%*	32.9%	36%	47.5%	29.7%	50.9%

* Estimate should be interpreted with caution due to low statistical reliability (RSE is between 30% and 50%).

Risk Factors for Poor Oral Health

Tobacco

It was noted in the previous assessment that the percentage of adult smokers in San Joaquin County was trending downward. With the most recent data from our community survey, the trend has continued to decline; however, San Joaquin County reports a higher rate of adult smokers (14%) to the California average (9%).[31] Ninety percent (90%) of community survey respondents indicated that they do not use any tobacco products. Additionally, 59% of respondents reported that their dentist had not provided education on tobacco and its effects on oral health.

Vape use, also known as e-cigarette use, has continued to rise among teens from the previous needs assessment.[32] According to the California Healthy Kids Survey, students in grades 7-11 smoke e-cigarettes more than traditional cigarettes, with higher use among 11th graders.[32] Figure 11 shows the most recent trend of lifetime of tobacco use by grade level in San Joaquin County.

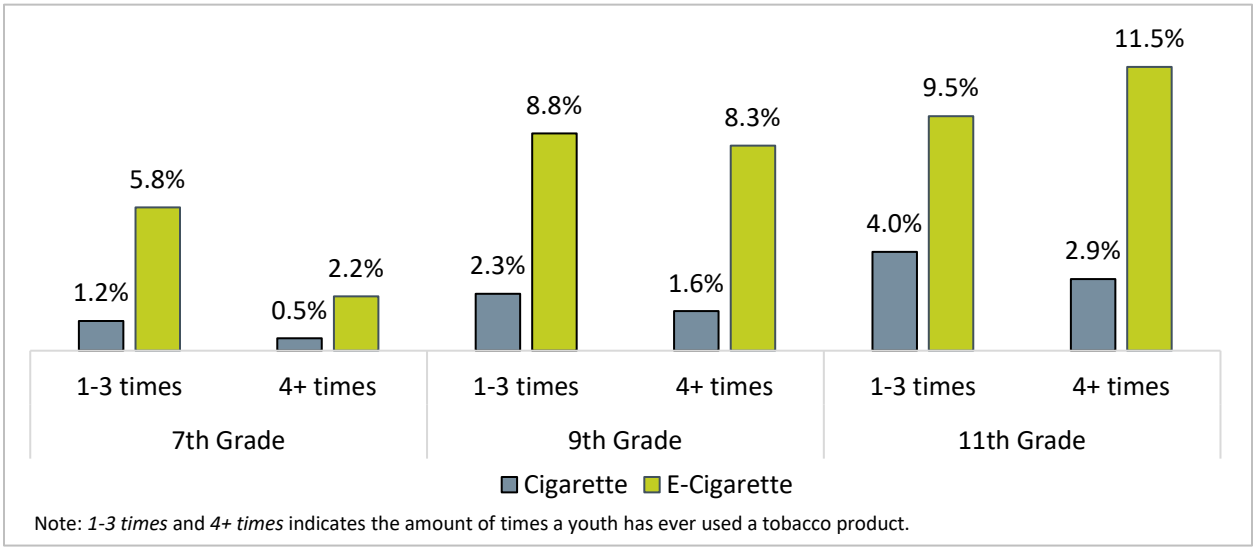

Figure 11: Lifetime Tobacco Use by Grade Level in San Joaquin County, 2017-2019[32]

Sugar Sweetened Beverages

Sugar sweetened beverages (SSBs) are known to have negative effects on teeth. Community input gathered from surveys and focus groups indicates that most participants were aware that SSBs

cause cavities and their dentists had told them to limit or avoid candies and sweets. From the community survey, most respondents (68%) indicated that their dentist had a discussion with them about the types of beverages they drink and the effect of sugary beverages on their teeth. One focus group participant mentioned that they told their children if they eat too many sweets, they would be "*chimuelo*" (toothless).

Diabetes and Oral Health

Approximately 13.9% of adults 18 and older within San Joaquin County have been diagnosed with diabetes.[33] The 2022 San Joaquin Community Health Needs Assessment (CHNA) indicated that diabetes was among the top five causes of death for Asian and Native American/Pacific Islander residents in the county.[33] The Healthy San Joaquin Collaborative identified diabetes as a priority health need.[33]

According to the Centers for Disease and Control (CDC), those with diabetes should take extra precautionary measures to maintain good oral health.[34] Diabetes affects the production of insulin, which regulates blood sugar. A common effect of uncontrolled diabetes is raised blood sugar levels, which can weaken white blood cells that fight infections and may be present in saliva. Plaque accumulates on the teeth due to bacteria, and uses sugar as fuel, which can cause gum disease and cavities. Controlling diabetes is important for oral health to prevent severe gum disease, since infections in the mouth can take longer to heal.

Community Water Fluoridation

Community water fluoridation is considered a best practice for preventing tooth decay at the community level. It is defined as the "process of adjusting the amount of fluoride in drinking water to a level recommended for preventing tooth decay."[35] Community water fluoridation is a primary objective for Health People 2030.

San Joaquin County has 322 public water systems maintained by the San Joaquin County Environmental Health Department. Ninety-six of those public water systems are classified as community water systems that provides "at least 15 service connections used by year-round residents or regularly serves 25 year-round residents."[36] Public water systems provide affordable, safe drinking water to large groups of community residents at a manageable cost that is dedicated to maintenance and numerous regulatory requirements.[36] According to the Centers for Disease Control and Prevention (CDC) "My Water's Fluoride" tool, no water systems in San Joaquin County are fluoridated.

Access to Dental Services

Medi-Cal Dental Provider Capacity

In total, there are 455 total active dental licenses in the county.[37] Currently, there are only 80 dental providers, 5 Oral Surgeons and 19 Orthodontists who accept Medi-Cal dental insurance.[6] These providers are primarily concentrated in the cities of Stockton, Tracy, Manteca, and Lodi.[6] Six of 29 (21%) community clinics provide dental services in San Joaquin, which is an improvement from the 2018 baseline (11%) but still below the California average of 68%.[6,38] For a comparison from 2018 to 2024, see Table 3 below. San Joaquin County maintains its designation as a Health Professional Shortage Area for dental providers, certified by the Health Resources & Services Administration (HRSA).[39]

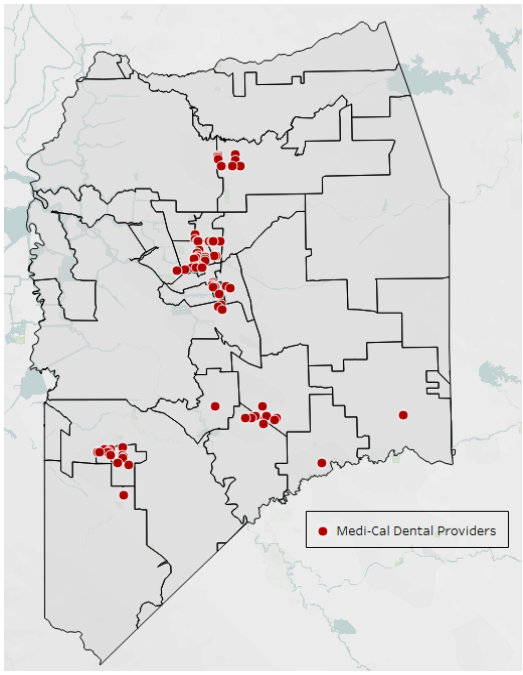

Figure 12 (above): Medi-Cal Dental Providers in San Joaquin County,

Table 3

Federally Qualified Health Centers Providing Dental Services[38]

FQHCs providing Dental Services	N	%
San Joaquin County Baseline (2018)	2	11%
San Joaquin County Current (2024)	**6**	**21%**
California Baseline (2018)	886	68%
California Target (2025)	974	74%

Although there is no standard population-to-dental provider ratio, it is commonly recommended for dental providers to aim for a patient base of 2,000 per one Full-Time Equivalent (FTE) dental provider, or 2,000:1. In California, the state average is 1,100 of the patient population per one dental provider. According to Smile, California's 'Find A Dentist' tool, in San Joaquin County, there are 1,743 residents to one dental provider (1,743:1) and 4,306 Medi-Cal eligible county residents per 1 Medi-Cal dental provider (4,306:1).[6,38] These ratios indicate that the patient to provider population within San Joaquin County are higher than the state average, but well within the commonly recommended population-to-dental provider ratio. However, the Medi-Cal specific population-to-provider ratio is almost four times greater than the state average and twice the recommended population-to-dental provider ratio. This data shows a significant and urgent need more dental providers in San Joaquin County, particularly those that serve Medi-Cal populations.

Dental Provider Perspectives

A total of 19 dental providers completed the provider survey prepared by the LOHP. Participating providers were from a variety of practice backgrounds, with the majority being general dentists with a private practice (58%). There were no responses from Registered Dental Hygienists (RDHs) or Registered Dental Assistants (RDAs). More than half of providers (53%) were in Stockton and 82% of the reporting practices had patients of both pediatric and adult age groups. Among these

practices, 53% follow the recommendation of the American Academy of Pediatric Dentistry (AAPD) by starting to see pediatric patients either at the age of one or when their first tooth appears.

Among the reporting practices, 40% of respondents indicated they did not have a relationship with other community dental clinics and only a third accept community clinic referrals.

Just over half of respondents (56%) provide dental care for pregnant patients, which include routine teeth cleanings, dental x-rays, and local anesthesia. Only 13% of providers reported discussing dental treatment plans with the patient's prenatal care provider. However, majority of them (56%) did so only when they were aware of or concerned about a dental problem.

Provider Perspectives on Medi-Cal Dental

Most counties in California have long struggled with a shortage of dental providers who accept Medi-Cal dental insurance. For San Joaquin County providers, almost three quarters of survey respondents indicated they do not accept Medi-Cal insured patients (72%). Seven providers indicated they are no longer accepting patients insured by Medi-Cal and Figure 13 cites the most common reasons indicated. Studies have shown that reimbursement rates are often below the cost, which discourages dentists from electing to participate in most Medicaid programs. In 2016, California had the lowest Medicaid reimbursement rates for both child and adult dental care services among all states that provide dental services via the fee-for-service model.[40]

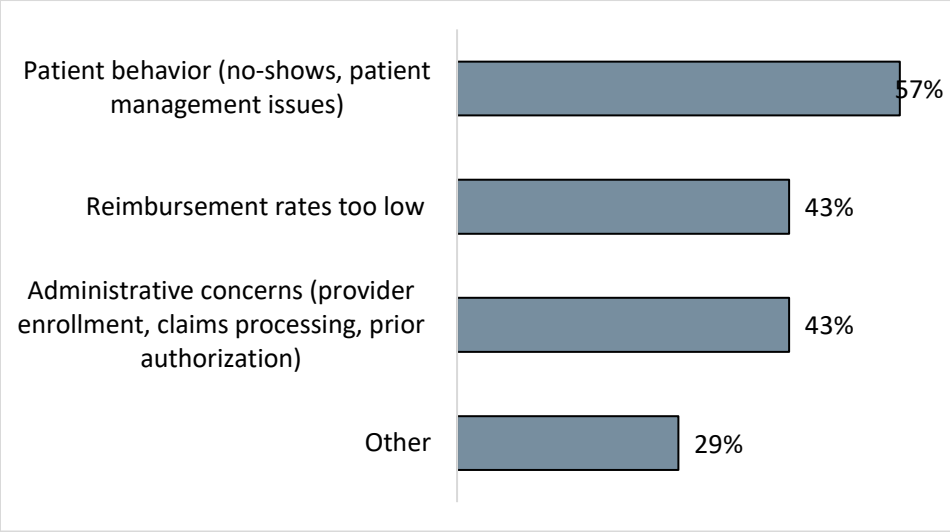

Figure 13: Dentists no longer see Medi-Cal dental beneficiaries (n=12)

Half of responding providers were influenced to be a Medi-Cal dental provider because it was a service they wanted to provide to patients, with a quarter of providers indicating it was a helpful source of revenue.

Figure 14 below shows dental provider opinions on improvements they think should be made to the Medi-Cal Dental Program before they would consider serving the Medi-Cal population. About 57% of respondents indicated they might be interested in taking Medi-Cal patients if changes are made. Additionally, 63% of respondents indicated they would be somewhat likely to start taking Medi-Cal patients if one or more of these improvements were made. Of note, all providers agreed that if reimbursement rates were higher, it would encourage them to accept Medi-Cal patients.

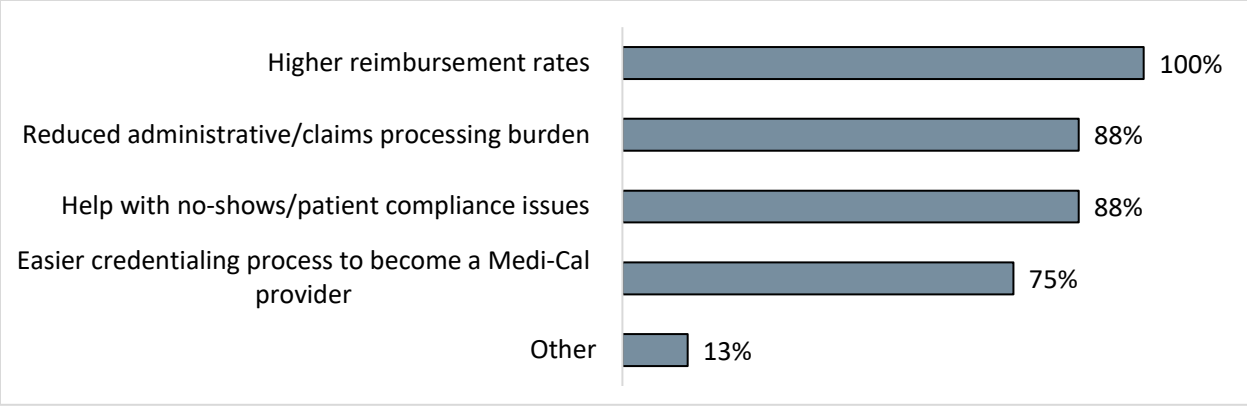

Figure 14: Improvements that would help promote Medi-Cal beneficiary acceptance for dentists in San Joaquin County (n=8)

Dental providers gave recommendations on how to improve access to dental care for children and adults in San Joaquin County, regarding less of insurance type. Many respondents indicated that insurance reimbursement was too low or caused an administrative burden. Many other respondents indicated that dental providers, Registered Dental Hygienists in Alternative Practice (RDHAP), and other care providers should be valued and paid at higher rates because they have been historically undervalued within San Joaquin County. Common responses included child and parent education on the importance of oral health and encouraging regular appointments and attendance at appointments. A summarized list of provider responses is located in Table 4 below.

Table 4: *San Joaquin County dental providers' suggestions for improved access to dental care*

For children (n=10)	For adults (n=8)
Better reimbursement rates	Better reimbursement rates
Value non-corporate pediatric dentistry	Eliminate corporate practices in dentistry
Provider funding to pay RDHAPs and support them in building sealant and dental screening programs	Increasing patient commitment to oral health care, having some means of ownership in the treatment provided (e.g., co-pay)
Educate parents on importance of child oral health and get children to appointments	Offer educational programs and further care coordination
Increase school-based clinics or a shuttle service for appointments arranged by care coordinators	Increasing transportation to appointments
	Invest in and respect for quality care providers

Appointment availability based on Insurance

Average appointment wait times for a routine, non-urgent dental visit varied between providers who accept Medi-Cal and those who only accept private insurance. All surveyed providers who accept Medi-Cal beneficiaries indicated that they were booked out nine weeks or more in advance for adult patients. This was a stark contrast to providers who accept private insurance, where 44% had appointment availability within 1-2 weeks and 19% who had appointment availability within 3-5 weeks. There were not enough Medi-Cal Dental providers who accept children to make an accurate comparison to providers who accept private insurance.

Community Input

This section captures the results of community focus groups and key informant interviews. This information revealed individual experiences and barriers to equitable access to oral health services. Community input was obtained from focus groups, key informant interviews, and the community oral health survey.

Focus Group Findings

The LOHP conducted four focus groups from August to September 2023 with community organizations that serve underserved populations. A total of 16 focus group participants attended to discuss their oral health habits, dental care experiences, barriers to oral health care, and suggestions for improvement to access oral health services. Although not a representative sample size, participants did offer compelling perspectives.

Oral Health Habits

Most participants mentioned they regularly brush their teeth at least twice a day, with 5 stating their wish they knew how to brush properly. Flossing was identified as a lesser habit to adopt, with three participants stating it was not important, only if they brushed. One participant recommended how oral hygiene is essential and should be taught in schools and daycares to start children early and make it an early habit.

All16 participants agreed that tobacco consumption was bad for oral health. Six participants said they were aware tobacco use discolors teeth, promotes bad breath, and can cause gum disease. Most participants also indicated that no dentist had provided them with education or counseling on the negative effects of tobacco on oral health and no resources on cessation if they smoked.

All 16 participants shared that they knew SSBs were harmful to their teeth and cause cavities. Additionally, the participants noted their dentist counseled them on avoiding sugary drinks and candy at least once in their lifetime. One participant noted that she counseled her children by saying “if you drink a lot of sugar, or eat a lot of candy, you are going to be “***chimuelo***” (Spanish for ‘toothless’).”

Dental Care Experiences

When asked about good and bad dental experiences, there was an equal consensus on both experiences. Most participants stated that they go to the dentist every 6 months based on recommendations from their dentist. Many stated they go to the dentist depending on their insurance coverage and only if there is an issue. Participants reflected on dental assistants being very comforting and patient during their visits, offering reassurance and making them feel comfortable enough to return to the same dental home.

Participants stated they had bad experiences when dentists were being ‘rough’ and not communicating well, making them feel uncomfortable. Several participants commented on dental fears due to pain, stating they did not receive proper administration of numbing before treatment, especially during deep cleanings and wisdom teeth removals.

Barriers to Dental Care

Costs and being a Medi-Cal beneficiary were significant barriers for most participants in accessing dental care. Several participants indicated they did not feel a need to see a dentist if there weren't any dental issues and considered it an unnecessary financial burden and a lesser priority. Participants felt that dental providers did not give thorough teeth cleanings because they had Medi-Cal dental coverage. One participant felt dentists are "only worried about service-based care instead of value-based care." Another participant mentioned "I recall a dentist I had through Medi-Cal, Dr. Pull tooth" is what I will call him to not expose him. Because all he wanted to do was pull my teeth, not treat them to help save them."

Improvements Needed to Access Oral Health Care

All 16 participants agreed that having mobile dental clinic services would help the community access dental care. One respondent stated that "all mouths should be treated equally" in reference to accessing equitable dental services regard of insurance or cultural differences. Participants also indicated that they wish dental offices could provide more financial options for co-pays and to consider waiving late and/or no-show fees since it disproportionately affects persons with Medi-Cal. Participants expressed a need for recruiting more dental specialists in the county and creating incentives to encourage dental graduates to work in the county. All participants agreed that having more resources from community organizations and campaigns on oral health and access to care would make a significant difference to reinforce the importance of oral health.

Community Survey Findings

The community oral health survey yielded 101 respondents who reside in San Joaquin County and approximately 71% were from Stockton. Most respondents were between the ages of 25-34 (38%). 83% of respondents identified as female, 6% identified as male, and 1% identified as non-binary. Survey respondents were racially and ethnically diverse, with the majority (49%) identifying as Hispanic or Latino.

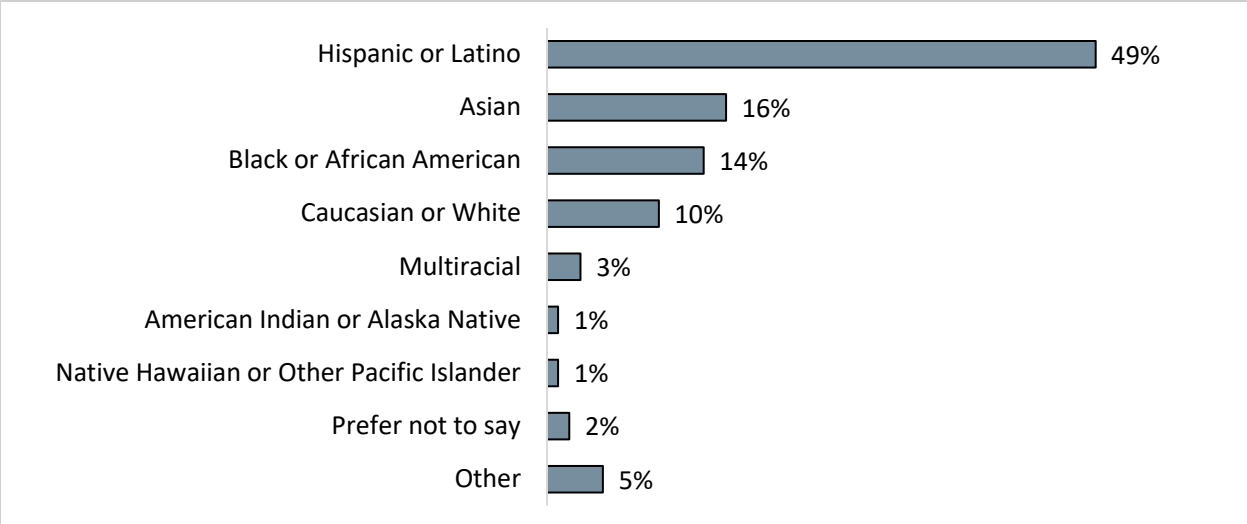

Figure 14: Community Survey Respondents by Race/Ethnicity (n=101)

Ninety-one percent (91%) of respondents reported having dental insurance coverage, with over half enrolled in the Medi-Cal dental program (58%) and 32% covered by private insurance. About a third of respondents indicated that they visit their dentist every six months (66%) and 76% stated they had seen a dentist within the last year, primarily for routine dental cleaning and/or checkup (82%).

Among the pregnant respondents (n=35), 29% reported having a dental visit during their pregnancy and only 14% had an appointment scheduled.

Participants reported their main reasons for not visiting a dentist within the last year were cost (40.7%) and sentiments of fear, apprehension, or dislike going (22.2%). A full listing of participants reported reasons for not visiting a dentist in the last year is located below in Figure 15.

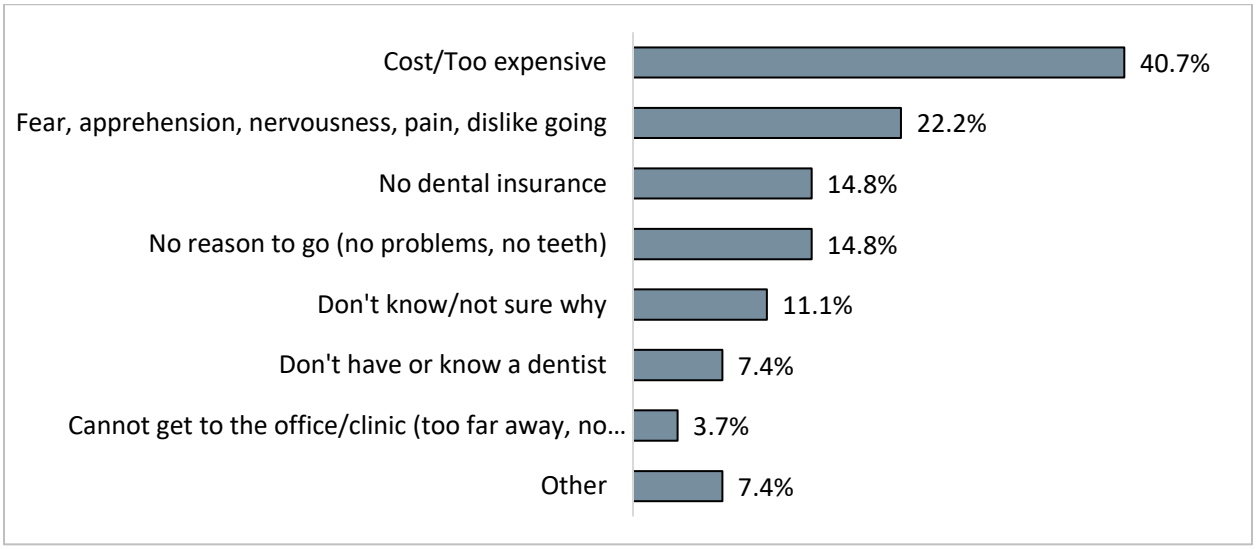

Figure 15: Survey respondents' reasons for not visiting a dentist within the last year (n=27)

Most survey participants with children 0-17 years brought their child to the dentist within the last 6 months (66% of 70 respondents), 19% said their child's last dental visit was over a year ago, and 1% had never taken their child to the dentist. During the last 12 months, 18% of parents (n=12) were unable to get dental care for their child (see figure 16). Of note, none of the participants who selected "Cost" stated they had Medi-Cal. No further explanation was provided by parents who indicated "other" reason.

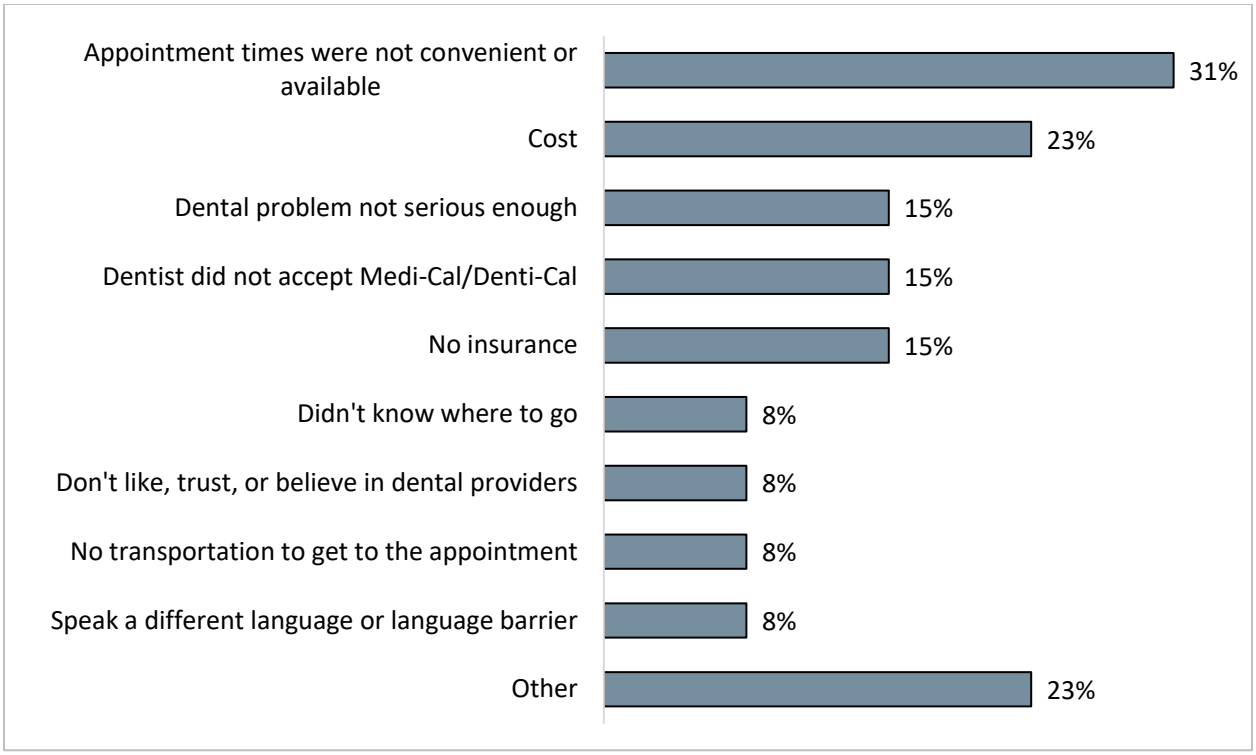

Figure 16: Survey participants' reason that child 0-17 years was not able to get dental care (n=12)

Eighty percent (80%) of survey participants felt their overall oral health was 'Good' (46%) or 'Excellent' (34%) and more than half of respondents indicated they brush their teeth twice a day (60%). Flossing was not reported as often, with only 30% of participants indicating they floss at least once a day and about a quarter indicating they floss twice a day.

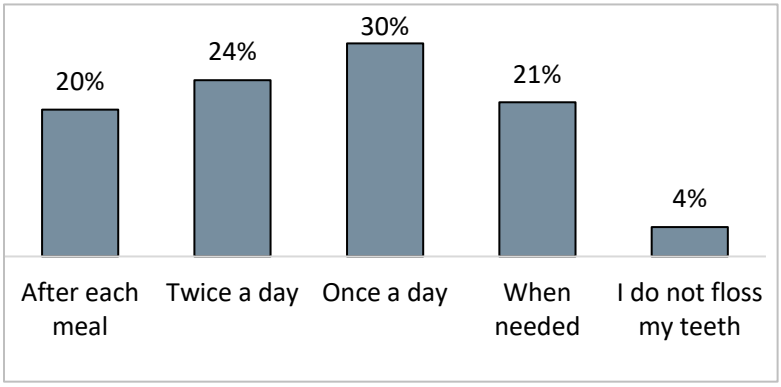

Figure 17: Survey respondents' frequency of flossing (n=198)

Environmental Scan

Key informant interviews were conducted with several key community-based organizations and representatives from adjacent governmental agencies throughout the county. Thematic coding was used to assist to determine best-practices and brainstorm strategies that were grounded in the Ecological Systems Theory. Appendix I reflects the summary of all the interviews and the common themes that were discussed on strategies and changes needed to prevent oral health issues. Below is a list of the agencies and CBOs/non-profit organizations that participants represented:

- Community-Based Organizations

- Community Center for the Blind and Visually Impaired
- El Concilio
- Family Resource Network
- Little Manila Rising
- San Joaquin County Dental Society

Government Agency Programs

- First 5 San Joaquin
- Health Plan of San Joaquin
- San Joaquin County Human Services Agency – Aging and Community Services
- San Joaquin County Public Health Services
- San Joaquin County Women, Infants, and Children (WIC)
- Valley Mountain Regional Center

Federally Qualified Health Centers

- Community Medical Centers (CMC)
- Golden Valley Health Centers (GVHC)

Strengths, gaps, and potential solutions were identified through the oral health environmental scan for San Joaquin County. Discussions from the key informant interviews and focus groups focused on the county's current resources and opportunities to improve oral health in the county.

Strengths

San Joaquin TEETH Collaborative

Since 2017, First 5 San Joaquin has maintained the San Joaquin Treatment & Education for Everyone on Teeth & Health (SJ TEETH) Collaborative. The Collaborative has facilitated strong collaborations between stakeholders and leaders throughout the county, including partners from schools, community clinics, the local dental society and dental hygienists association, and community based organizations, including non-profit and for-profit providers and groups. The group is driven by a high level of interest and motivation across agencies to improve oral health in the county. A primary component of the SJ TEETH Collaborative is the involvement and leadership from community-based organizations that through the SJ TEETH care coordination program, funded by First 5 San Joaquin. Care coordinators serve low-income families with children under age 6.

St. Raphael's Free Dental Clinic

St. Raphael's dental clinic is under the umbrella of St. Mary's Dining Hall and has been providing free dental services to San Joaquin County's homeless and working poor individuals and families for over 60 years. The clinic collaborates with San Joaquin Dental Society, as well as other local agencies to provide much needed care to the population most at need including uninsured individuals.

Virtual Dental Home Program

The Virtual Dental Home program (VDH) was established in 2017 by Community Medical Centers and serves over 40 sites in the county. It is a community-based oral health system that provides preventive and therapeutic services in community settings, such as schools.[25] The program offers a mobile dental office equipped with telehealth technology that can send photos and x-rays to a dentist, who then establishes a treatment plan. The program currently serves 46 school sites in the county and has served thousands of children and those with special needs.

School-Linked Dental Program

The LOHP, in partnership with Community Medical Centers, has provided a School-Based/School-Linked (SBSL) dental program for schools with high FRPM enrollment. The services include oral health education, dental screenings, fluoride varnish application, sealants, care coordination, and referral management for children. Screenings have helped with KOHA reporting and gathering data on both untreated tooth decay and caries experience among the student population.

Currently, the School-Linked dental program serves 11 schools throughout the county, with an average FRPM participation of 71.4%. Memorandums of Understanding (MOUs) were established between schools and Community Medical Centers to continue services on an annual basis. The school-linked dental program expects to establish more MOUs with other schools and districts with high FRPM percentage enrollment to expand and sustain the program.

Give Kids A Smile & San Joaquin Dental Society Foundation

Organized by a small Board of Directors, the San Joaquin Dental Society Foundation was established in 2020 as the 501(c)3 not-for-profit charity arm of the San Joaquin Dental Society[39]. The foundation was founded by dentists in the San Joaquin County area to provide funding for dental health education and dental health programs in our community. The foundation hosts an annual Give Kids a Smile (GKAS) event in February to provide free dental treatment and hygiene services to underserved and under-insured children in the San Joaquin County area. Treatment is provided regardless of insurance.

Gaps

These key areas were highlighted from focus group and key informant interview participants as gaps in the oral health systems and access to care:

- Continued lack of Medi-Cal dental providers and specialists
- Access to transportation to attend dental appointments

- Access to dental providers and specialists, especially due to dental referrals to specialists located outside of the county
- Oral health is a low priority for families due to limited availability of appointments and lack of importance
- Community misinformation about fluoride (including community water fluoridation and basic facts about the use and safety of fluoride)

Potential Solutions

Key informant interviews identified the following as potential solutions to the aforementioned gaps:

- Expansion of the Virtual Dental Home to help expand tele-dentistry
- Implementation of Medical Dental Referral and Navigation (MDRAN) system for streamlined dental referrals for children and families on Medi-Cal
- Establish sustainable oral health education and campaign efforts
- Integrate Medical and Dental services by having primary care doctors conduct brief dental screenings, apply fluoride varnish in the medical office, and refer patients to a dental home
- Recruit dental service specialists and new dental graduates to the county
- Improve policy and advocacy efforts to increase funding for Federally Qualified Health Centers to provide dental services

Conclusion

It is evident that the recognition on the importance of oral health as a priority is slowly on the incline in San Joaquin County, with certain needs and resources still to be met. There are several important oral health needs that San Joaquin County will continue to work on improving that will be included in the Oral Health Strategic Plan 2024-2027. The county has several significant strengths and assets in the community that will be utilized and built upon while creating new strategies. San Joaquin County remains deeply committed to prioritizing oral health and will continue to collaborate with partners and organizations to guarantee that everyone has the necessary knowledge, access, and ability to achieve optimal oral health.

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Appendices

Attachment 1:

Level	Changes needed to PREVENT oral health issues	Effective strategies to PREVENT oral health issues
Microsystem (individual and home)	• More help from parents at home to brush/floss children's teeth • Avoid/limit sugary drinks and snacks • Provide helpful resources for families to reinforce importance of good oral health at home • Lack of oral health education at home, emphasize diet factors for those with low income with higher carb/sugar consumption	• Parents brush teeth together; children model what parents do • Stella is a great story, fun to help encourage families to brush • Teach families about electric/manual toothbrushes, soft vs hard toothbrushes
Mesosystem (schools, neighborhood, community services, workplaces)	• More promotion of public events where oral health is incorporated • More presentations from PHS to vulnerable populations • Address issue of food deserts for healthier eating • CBOs provide giveaways for children and families • Better access to care for prenatal patients; involve lactation consultants • More education on fluoride and its safety • Supply all families with toothbrushes, don't assume they have one • Partner with local dental practices • Develop more campaigns reminding people about oral health • Training for dental staff for children with special needs • More availability of dental appointments • Use of mobile dental units to meet people where they are	• Oral health education in the classroom • Transit/transportation partnerships to help families get to dental appointments and events not based in Stockton • More dental resource fairs in the county • Have case workers provide resources/classes about importance of oral health • Mandatory WIC classes • Promote KOHA, include care coordination and follow up • Promote oral health on social media, make it a norm and teach people how to brush/floss • Consider flyers/messaging at local areas where word spreads quickly, i.e. laundry mats, grocery stores, meat markets • Expand VDH program to help with preventive services, reduce fear of dentists
Macrosystem (countywide policies)	• Find grants aimed to help advocate for underserved groups needing help getting dental care • More funding needed for FQHCs providing dental services	• RDHAPs are great resources, they are often neglected and need to be prioritized especially for Medi-Cal beneficiaries and to expand their practices • Integrate medical and dental care • Have school nurses provide fluoride varnish

	• Providing higher reimbursement rates for Medi-Cal dental providers, especially for complex procedures and due to high inflation • Changes needed for adults/elderly with Medi-Cal dental, increase coverage for complex cases • More communication from the CA Office of Oral Health on review of the workplan • More tele-dentistry investment, remote education and appointment options • Policy for those who are uninsured and need access to dental care • Policy that provides 1 workday annually to use for dental visits • More dental specialists needed in the county • New Cal-AIM initiative will address oral health • Better dental workforce, need for reinforcement on a policy level, consider better incentives • Establish mandate for new dental providers to participant in community dental work (i.e. previously the Take 10 initiative) • Train pediatricians to provide oral health assessment and referrals	• Continued messaging for parents to see their dental provider, emphasize saving them pain in the long run • Messaging on tobacco and oral health • Water fluoridation in the county • Limit junk foods at schools • Long wait times in clinic; follow up appointments are scheduled too far out • Awareness for other Medi-Cal dental providers besides Western Dental • Consider a day at the capital to help promote awareness of oral health to key decision makers • Persons deal with multiple health providers, consider having a dental provider mandatory