San Mateo County Oral Public Health Program (SMC OPHP) Program Evaluation Report, 2017-2022

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EXECUTIVE SUMMARY

The San Mateo County Oral Public Health Program (OPHP) was launched within San Mateo County Health to systematically address the oral public health needs of community members, particularly those facing the biggest systemic barriers to oral health. The program collaborates with many oral health community partners and across sectors to accomplish its goals and objectives.

This evaluation report uses qualitative and quantitative programmatic, primary and secondary data to determine the OPHP's progress in: implementing the program as intended, reaching target goals, providing a cost-effective program, providing a program valued by community members, and collecting the data necessary to measure impact.

The OPHP launched new pilot programs in its first four and a half years as a program. It experimented with developing and supporting school-based/ linked oral health preventive programs, developing community partnerships, educating the community about oral health, and integrating oral health into medical and primary care.

The OPHP directly provided oral health education to around 10,000 students. It provided funding, supplies, planning assistance and the partnership development needed for organizations to collaborate to provide school-based preventive services. It created tools and trainings to support school staff in implementing the state mandated Kindergarten Oral Health Assessment (KOHA). As a result, the number of students provided these services increased substantially from the first to last year of the program, as did the number of schools and districts reporting KOHA data.

A key recommendation is that the OPHP engage and partner with priority populations more to plan, implement, and evaluate programs. Another is to further develop and organize its infrastructure, particularly its surveillance processes. A final is to work more closely with the Health Plan of San Mateo on all oral public health initiatives.

The OPHP learned the necessity of planning and evaluating programs with feasibility and sustainability as guiding values, due to limited staff capacity and funding. It learned the importance of leaning on community partners to accomplish collective goals, as its role shifted from providing direct services to coordinating with partners to provide services.



INTRODUCTION

Background

In 2015-16, the Oral Health Coalition (OHC) of San Mateo County conducted a needs assessment to determine the oral health landscape in the county. The Oral Health Coalition has convened oral health partners from public, private, philanthropic, educational, and governmental organizations for over twenty years to address the needs primarily of communities facing systemic barriers to oral health and overall health. The needs assessment showed the oral health inequities that exist in San Mateo County, and the severe lack of sufficient dental providers to care for communities facing systemic barriers to oral health.

To address these issues, the Oral Health Coalition raised funds to create both a Strategic Plan for the coalition, and the San Mateo County Oral Public Health Program (OPHP), also known as a "Local Oral Health Program" (LOHP). The OPHP is housed in San Mateo County Health's Family Health Services division. The two-year funding for the OPHP created two new staff positions to oversee the implementation of the OHC's Strategic Plan.

In 2018, the OPHP received additional five-year grant funding from the California Department of Public Health's (CDPH) Office of Oral Health (OOH) (Grant No. 17-10722 A02, "Moving California Oral Health Forward," hereafter referred to as the "state grant") to further the development of the OPHP. The state grant—the first of its kind in California, available to all local health jurisdictions--included a work plan developed by the CDPH OOH. Each county receiving state grant funds was required to select, implement, and evaluate certain objectives from the work plan, primarily focused on building the infrastructure and developing the public health plans necessary to launch a county-wide collective impact oral public health program. Other objectives in the work plan could be chosen by each county and these objectives focused on implementing evidence-based strategies and activities to improve oral public health.

In 2019, the Oral Health Coalition revised its Strategic Plan to include the objectives from the OPHP's state grant work plan. In 2019, a visiting epidemiologist hired for the OPHP created an Evaluation Plan as required by the state grant, in partnership with a temporarily created "Data Workgroup" housed in the Oral Health Coalition. The Evaluation Plan combined indicators from both the revised Strategic Plan and the OPHP state grant work plan, detailed below under "Key Indicators."

Evaluation Purpose

The purpose of this evaluation report is to provide the process and outcome data summarizing the impact the OPHP has had on oral public health in San Mateo County, and to answer the key evaluation questions outlined below under "Key Evaluation Questions."



Priority Populations

The OPHP priority populations are: low income pregnant people, parents/ primary caregivers of infants, toddlers, and children, and infants, toddlers, and children.

Partners

The partners who provided some of the data for this evaluation report are San Mateo County Health epidemiologists, and staff of organizations providing school oral health screenings and preventive services in San Mateo County.

Intended Use

The intended users of this report are oral health partners primarily in San Mateo County. These include but are not limited to: priority populations, SMC Health staff, Oral Health Coalition members, Health Plan of San Mateo staff, community-based organization staff, medical and dental professionals, including dental and dental hygiene society members, the County Board of Supervisors, and early learning and elementary school staff.

Oral health partners can use this report to reinvigorate discussions about county-wide oral health outcomes and oral public health initiatives. For example, partners can used it to guide the selection of future oral health focus areas, and to determine which partners may be best suited to successfully implement activities in these areas to achieve results.

The OPHP will use the data, specific recommendations, and lessons learned in this report to improve the program. The process of creating this report has already spurred the OPHP to update and revise oral health surveillance processes, indicators, and target goals with partners.

Key Evaluation Questions:

As described in the 2019 Evaluation Plan, the key evaluation questions are:

- 1. (Process) Has the program been implemented as intended? Why or why not? Was the target population reached as intended? Are community members satisfied that the program met local needs? Are program activities informed by a diverse group of partners? Were services provided or activities conducted within a reasonable time frame?
- 1. (Process) Has credible evidence been gathered to demonstrate the efficacy of the OPHP activities?
- 2. (Outcome) Was the program successful at affecting the intended health outcomes? Did the SMC OPHP accomplish the goals it intended to achieve? What were the unintended consequences or benefits?



3. (Cost-effectiveness) Does the value or benefit of the program's outcomes exceed the cost of producing them?

Can allocation of resources be improved?

4. (Attribution) Can the outcomes be related to the program, as opposed to other things going on at the same time?

To what extent did the effort lead to anticipated results?

What was the change and to what extent did the effect contribute to the change?

What difference did the effort make to the organization, participants, and community?

Key Indicators:

Key indicators from the Evaluation Plan are listed below. Some of the indicators have been revised since the Plan's publication in 2019.

Target population	Indicators
Low-income children	Percentage of residents aged 1-20 years enrolled in Medi-Cal for at least 90
	continuous days who received any preventive dental service
	Percentage of residents aged 6-9 years enrolled in Medi-Cal for at least 90
	continuous days who received a dental sealant on a permanent molar
	Percentage of kindergarten children with caries experience, including treated and untreated tooth description.
	and untreated tooth decay
	· [Decreased] ED visit rates in target population for (non-traumatic) dental conditions
	 Numbers and percentage of students enrolled in K-6 with ≥50% students in
	NSLP
	· Numbers and percentage of K-6 students with chronic absenteeism in
	schools with ≥50% students in NSLP
	· Geographic distribution of children <3 yrs with FPL ≤322%
	 Geographic distribution of children 3-19 yrs with FPL ≤138%
Low-income parents	Percentage of adults in Medi-Cal who used the OH care system in the past
	year
	· [Decreased] ED visit rates in target population for (non-traumatic) dental
	conditions
	· Geographic distribution of adults 19-65 yrs with FPL ≤266%
Low-income pregnant	Number of pregnant women enrolled in SMC WIC
women	Proportion of women who have had preventive dental care during pregnancy
	Number of women with OBGYN visits at SMMC
	· Geographic distribution of women 15-44 yrs with FPL ≤322%
Oral health (OH) care	· Geographic distribution of licensed OH care providers
providers	
Medi-Cal PCPs	· Geographic distribution of HPSM PCPs



SMCH public health	Number of SMCH outreach staff
(PH) outreach staff	Number of WIC outreach staff
	Number of non-SMCH PH outreach staff in OHC-participating
	organizations/agencies

OPHP Strategy	Indicators
Fluoride varnish (FV) / Sealant	 Number and percentage of SMC elementary schools with ≥50% in NSLP with co-located preventive dental services Number of students who received preventive dental services at SMC school site with ≥50% in NSLP Number of OH school-based sealant days held in participating elementary and middle schools Number and percentage of students who received an oral health screening Number of dental hygiene students who participated in school-based preventive dental services.
Oral health education	 Number and percentage of K-6 students who received OH education and resources at SMC school site with ≥50% in NSLP Number and percentage of SMC elementary schools with ≥50% students in NSLP with on-site OH education Number of public health students who participated in on-site OH education
Public health outreach	 Number of children with special needs referred from any co-located site to dental case management Percent of children with special needs referred from any co-located site to dental case management who received dental services within 6 months following initial contact Number of WIC and SMCH staff who received OH education training
Primary care providers	 Percent of [child] enrollees who received FV application(s) through HPSM providers Percent of [child] enrollees who received [dental] assessment through HPSM providers Number of [HPSM] PCPs who received FV and/or caries prevention training Number of HPSM referrals to Medi-Cal FFS dental providers
Dental workforce	 Number of OH care providers who received training Percentage of OH care providers registered with Medi-Cal Percentage/Geographic distribution of OH care providers accepting new Medi-Cal enrollees Percentage/Geographic distribution of OH care providers with ongoing Medi-Cal enrollees
Kindergarten Oral Health Assessment (KOHA)	 Number of school districts with MOU Percentage of schools with kindergarteners contributing to SCOHR Proportion of KOHA forms with screening data (i.e., not waived) Proportion of kindergarteners who submitted KOHA



Oral health	Proportion of available secondary oral health data sources available on OEE		
surveillance system	data portal.		
,	Proportion of OHC member organizations/agencies reporting performance		
	activities		
	Number of data dissemination reports published		
	Number of OHC members who received training in OHSS resources		
Oral health	Number of university departments actively participating		
communications	· Number of dental professional schools actively participating		
network	Percentage of OHC members actively participating in workgroups		
	Number of policy statements/briefs submitted to policy decision-makers		
	Number of SMC residents reached through shared OH messaging		
	· Number of presentations given		

EVALUATION METHODS AND DESIGN

For process and outcome indicators related to activities directly implemented by the OPHP, an internal Excel tracker was used to collect quantitative data at periodic intervals. Results were reported to the state through biannual progress reports, and to SMC Health staff and Oral Health Coalition members through various power point presentations and email communications over the grant cycle. Simple descriptive statistics and graphs in this report illustrate these results.

Many of the indicators listed above were scheduled to be tracked biannually after the publication of the Evaluation Plan. However, due to lack of staff capacity, the majority of indicators tracked were those required to be reported biannually to the OOH.

Qualitative and mixed-method surveys were distributed throughout the grant cycle. The results were analyzed by program staff and used to inform planning and implementation of activities.

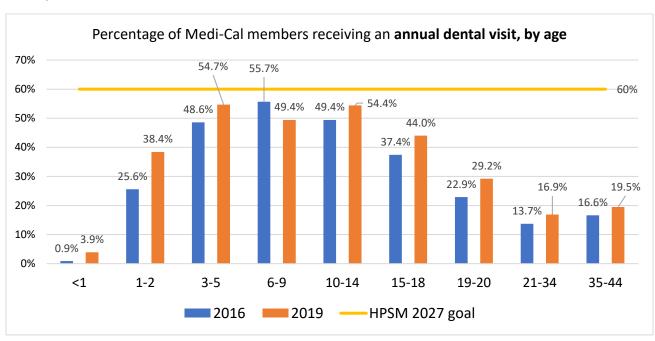
Secondary outcome data was collected for years it was available. The baseline year is most often 2016, and the final year, 2019. More recent oral health data from many of the sources below is currently being analyzed by SMC Health epidemiologists.

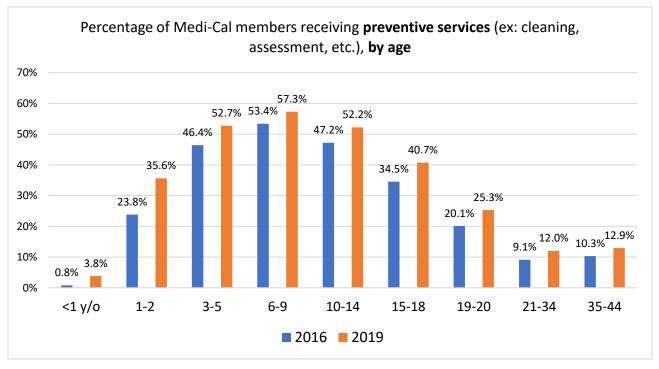


RESULTS

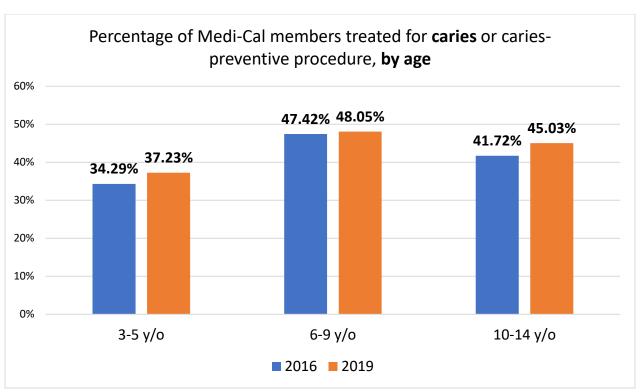
Target population indicators

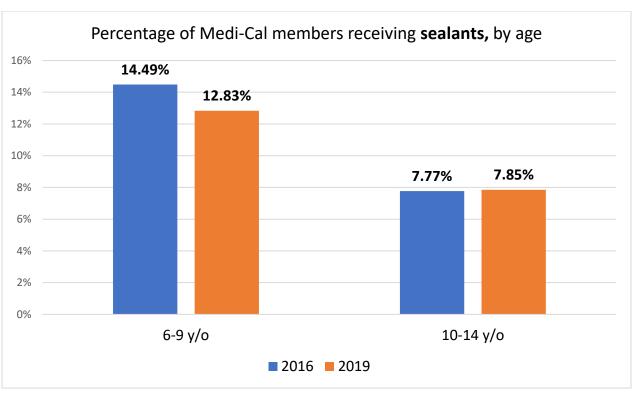
People on Medi-Cal health insurance (Source: California Health and Human Services Data Portal):



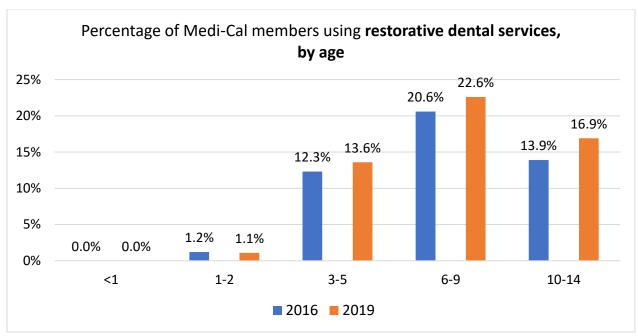






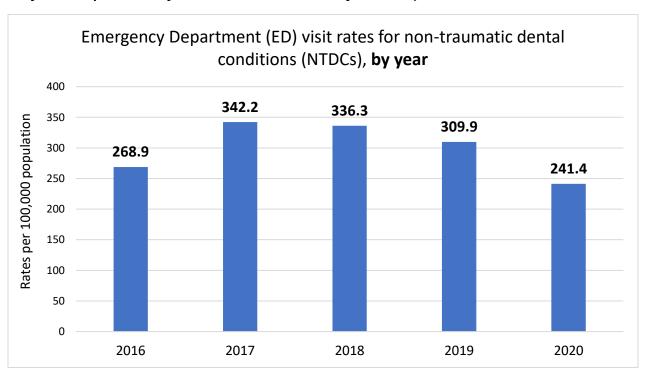




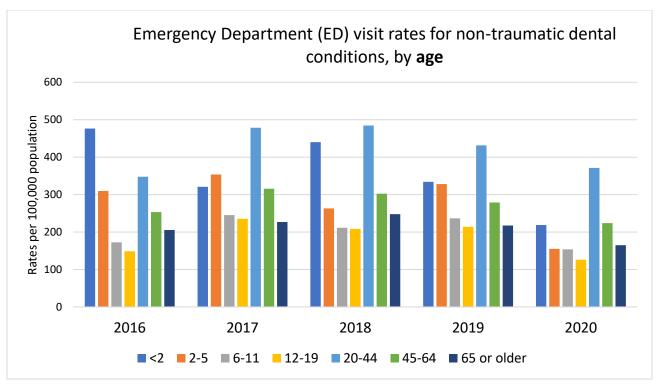


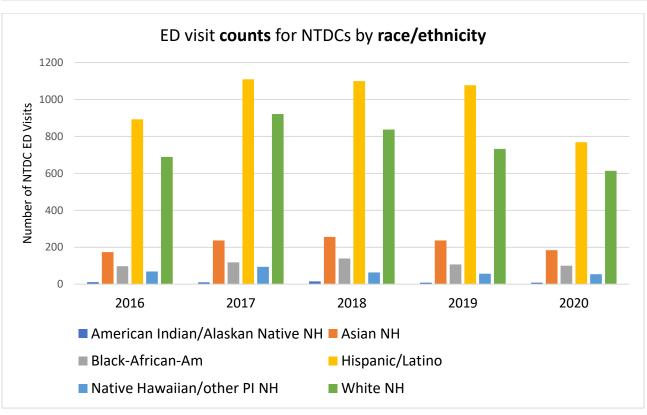
Source: California Health and Human Services (CHHS) Data Portal

Emergency Department (ED) visit rates for non-traumatic dental conditions (NTDCs) (Source: California Department of Health Care Access and Information):

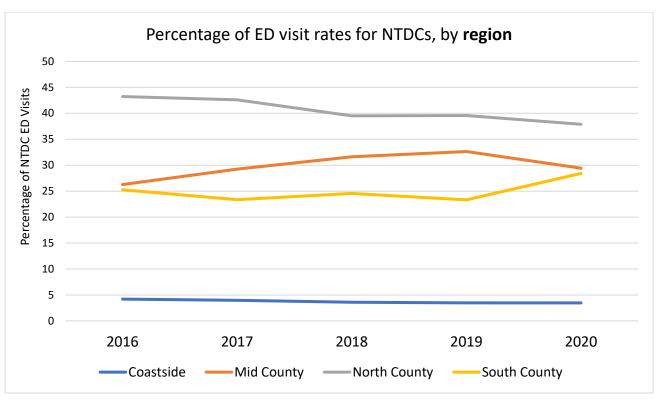


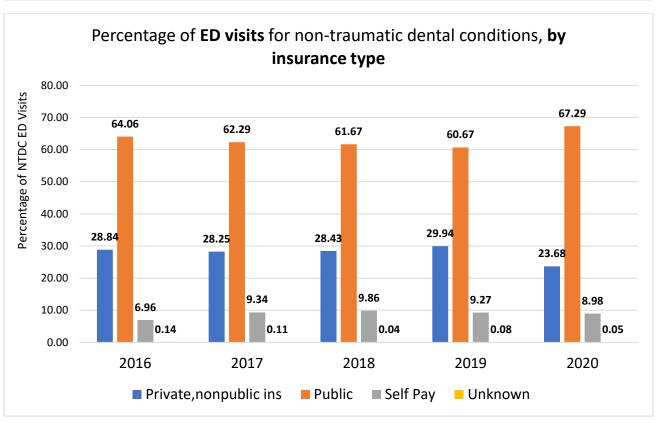














SMC's 2018 Health Quality of Life survey:

Prevalence of SMC community members without dental coverage: 32.8%

Percentage of SMC population 18 and older that had a routine dental checkup in the past year: 78.9%

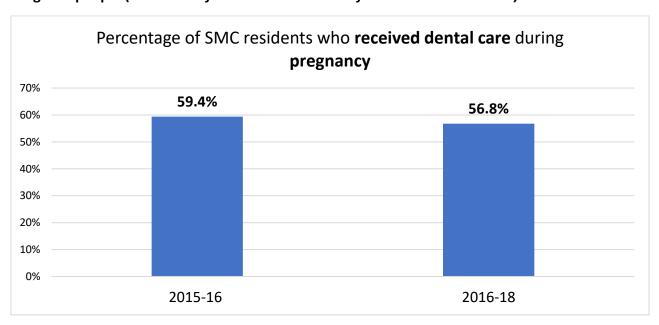
Percentage of SMC population under 18 that had a routine dental checkup in the past year: 86.2%

Region	Lack of dental insurance	Self or family member had unresolved dental problems because of lack of dental insurance	Visited a dentist for routine checkup in past year	Had usual source of dental care (dental home)
North County	29.6%	31.5%	77.4%	80.9%
Mid-County	33.2%	26.3%	80.2%	84.7%
South County	36.9%	30.5%	79.9%	79.0%
Coastside	34.1%	27.9%	74.8%	82.3%
Income level	Lack of dental insurance	Self or family member had unresolved dental problems because of lack of dental insurance	Visited a dentist for routine checkup in past year	Had usual source of dental care (dental home)
<200 % Federal Poverty Level (FPL)	57.9%	41.6%	51.1%	57.2%
200-400% FPL	36.5%	34.2%	72.8%	81.3%
>400% FPL	21.7%	20.7%	88.9%	89.9%
Age	Lack of dental insurance	Self or family member had unresolved dental problems because of lack of dental insurance	Visited a dentist for routine checkup in past year	Had usual source of dental care (dental home)
0-4			63.7%	
5-12			93.6%	
13-17			97.2%	
18-39	26.6%	45.3%	73.9%	78.0%
40-64	25.4%	27.7%	81.5%	83.6%
65+	55.8%	21.3%	79.5%	82.4%

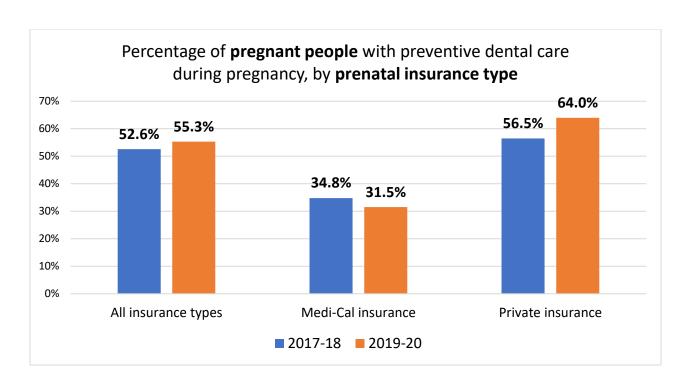


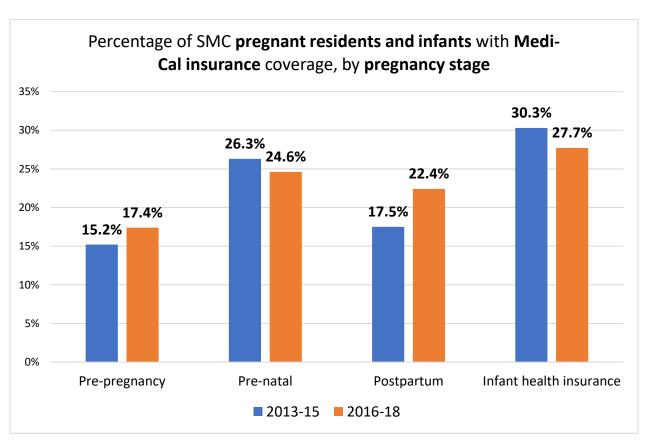
Race/ethnicity	Lack of dental insurance	Self or family member had unresolved dental problems because of lack of dental insurance	Visited a dentist for routine checkup in past year	Had usual source of dental care (dental home)
Asian	28.2%	25.0%	80.9%	82.4%
Black	32.1%	Not enough respondents	67.7%	66.9%
Hispanic/ Latino/a	35.7%	44.4%	67.5%	69.0%
White	34.4%	21.3%	85.4%	89.4%
Other	27.5%	Not enough respondents	76%	77.4%
Educational attainment	Lack of dental insurance	Self or family member had unresolved dental problems because of lack of dental insurance	Visited a dentist for routine checkup in past year	Had usual source of dental care (dental home)
High school or less	42.8%	39.0%	65.1%	62.9%
More than high school	31.0%	27.0%	81.6%	85.6%

Pregnant people (Source: California Maternal and Infant Health Assessment):

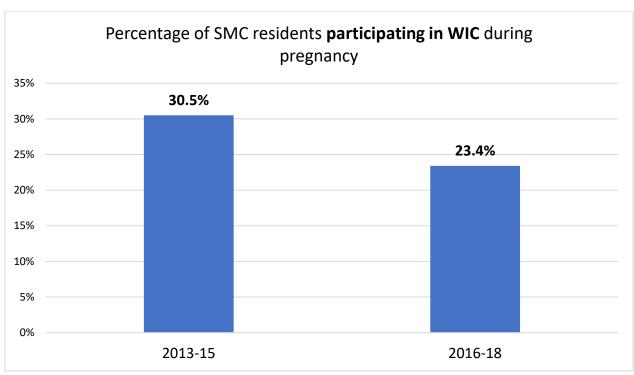


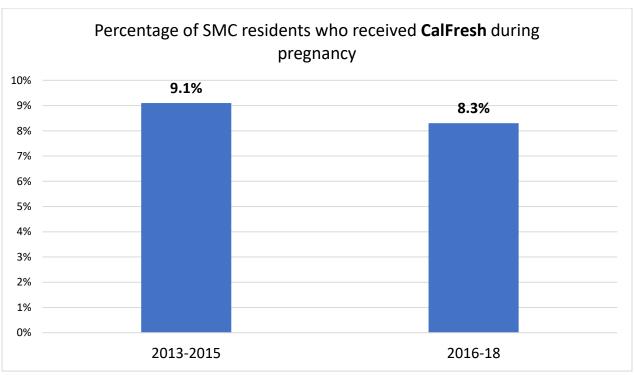






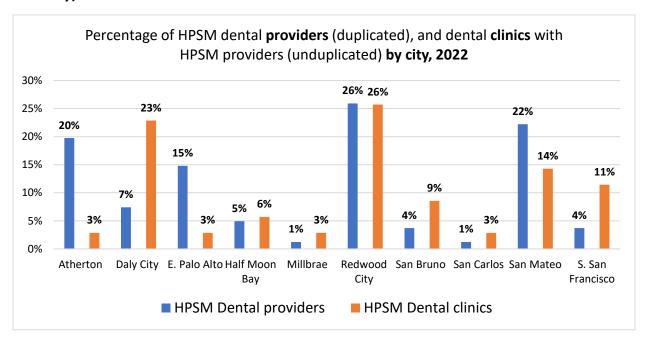








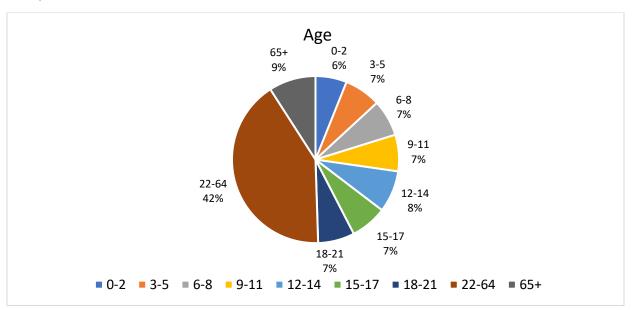
Dental workforce (Source: Health Plan of San Mateo online dental provider map and directory):



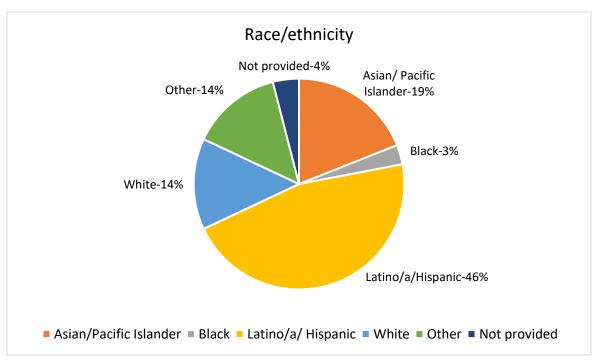
Health Plan of San Mateo members:

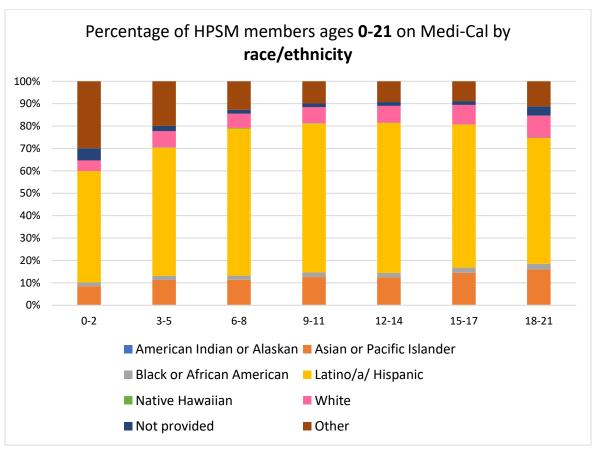
Health Plan of San Mateo (HPSM) is the sole public managed care plan provider in the county under the County Organized Health System (COHS) model. HPSM has over 135,000 members, and 77%, or about **100,000 members**, are on Medi-Cal health insurance.

HPSM Medi-Cal member demographics, **2020** (Source: HPSM Population Needs Assessment, **2020**):

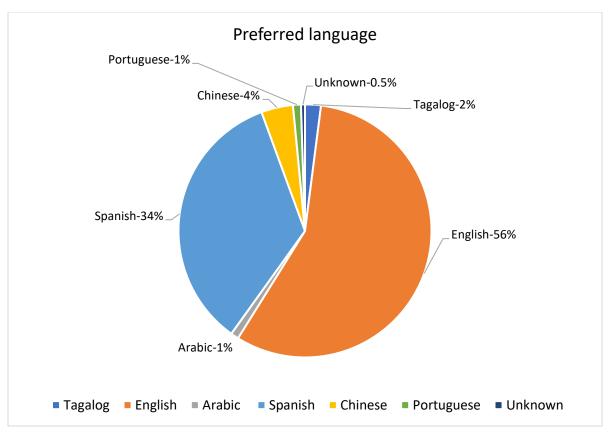


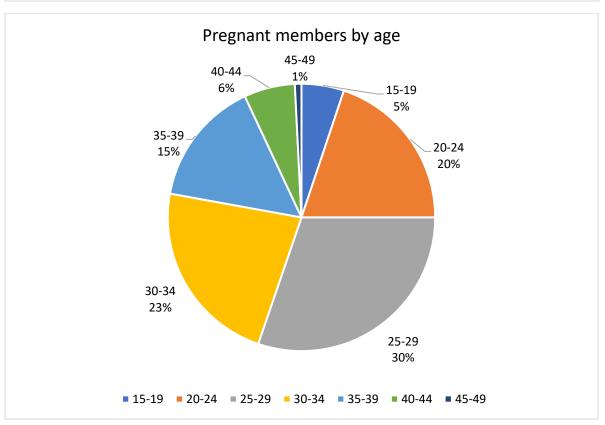






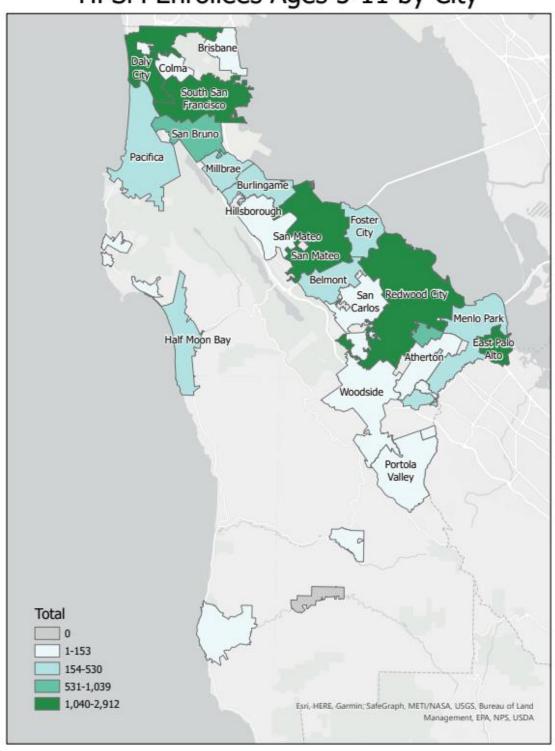








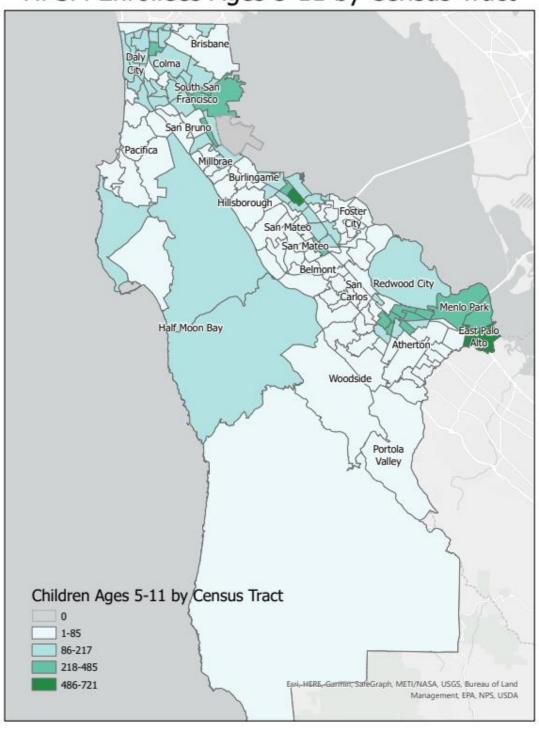
HPSM Enrollees Ages 5-11 by City



Source: SMC Health Epidemiology and HPSM



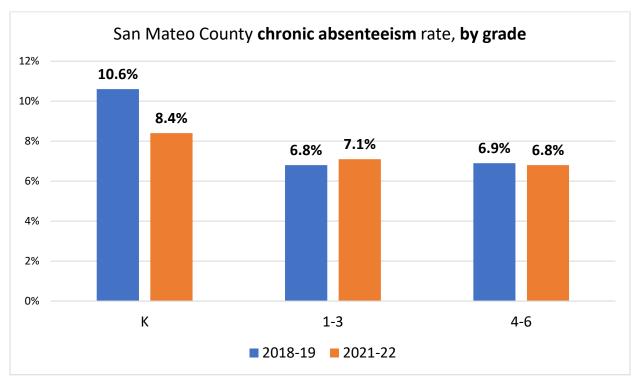
HPSM Enrollees Ages 5-11 by Census Tract



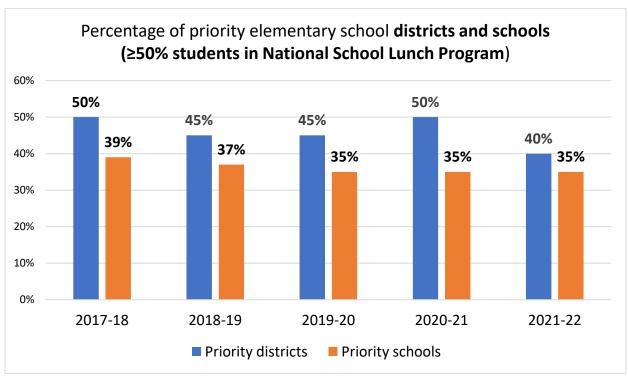
Source: SMC Health Epidemiology and HPSM



Elementary school data:

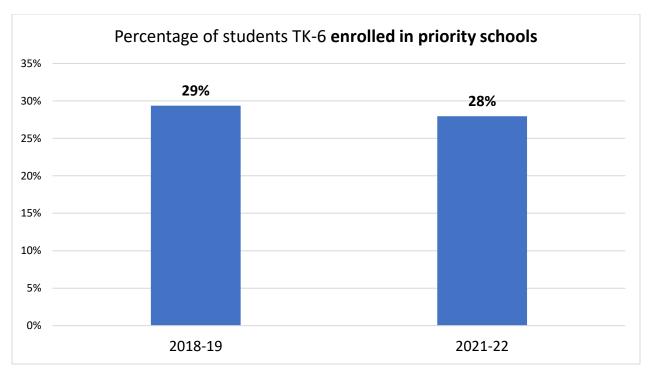


Source: California Department of Education DataQuest

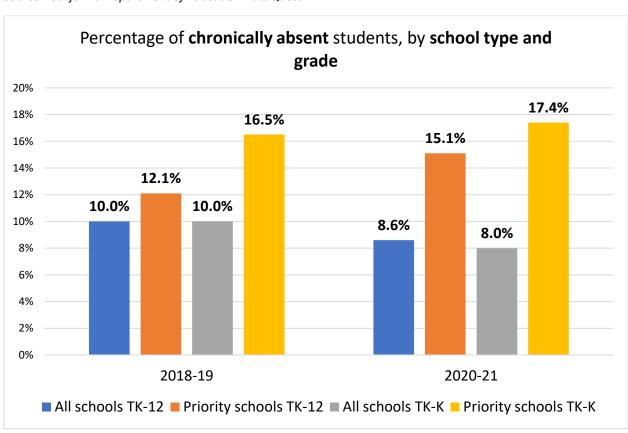


Source: California Department of Education. For a table of all names of districts and schools by year, see Appendix Δ





Source: California Department of Education DataQuest



Source: California Department of Education DataQuest



Programmatic indicators

Strategy: School-based oral health education

Oral health education provided in elementary schools and Child Development Centers (CDCs)

The OPHP developed an educational program called "Dr. Toothbrush and Friends," (DTAF) intended primarily for students in pre-kindergarten (preschool), transitional kindergarten, and kindergarten. It was also provided to 1st-6th graders. The content presented to each grade was tailored to be appropriate to that grade level. The DTAF program was delivered by OPHP staff, sometimes in partnership with other organizations. OPHP also had a dental public health intern from UCSF assisting with this oral health education. The concept was to provide DTAF to the same classrooms and students every three months, to reinforce oral health messages, and to provide new toothbrush kits at the recommended interval for changing toothbrushes. Toothbrush kits and educational materials were given to students and teachers after the sessions.

The program, including data tracking, began in April of 2018. When the COVID-19 pandemic hit and school closures happened in March of 2020, all future planned DTAF sessions at schools were cancelled. The last educational session was delivered on 2/27/20. Virtual educational sessions were later developed and provided in partnership with Sonrisas Dental Health ("Sonrisas"), a nonprofit dental clinic with two sites in San Mateo County, serving primarily the low-income population. Toothbrush kits continued to be provided to schools during school closures by delivering them at the same time school lunches were delivered to families at schools. The program phased out during the grant cycle due to the pandemic and lack of staff capacity.

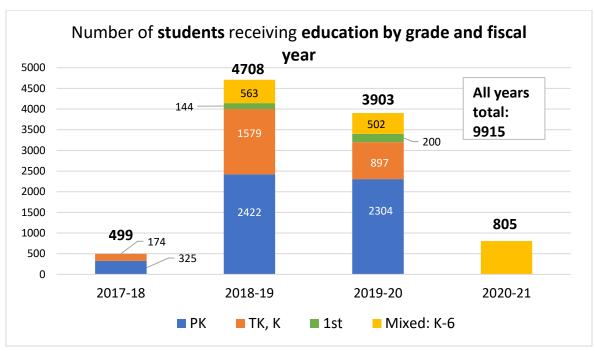
Students receiving oral health education were administered pre- and post-tests to measure knowledge changes. However, not enough surveys were collected and scored from the same students to be able to provide robust and meaningful results. All the tests collected were from students ages 5 and younger.

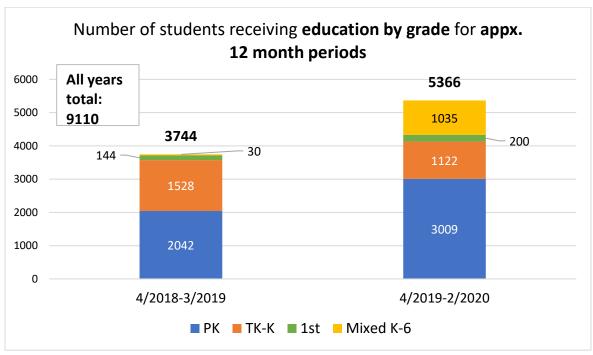
However, one classroom's results were analyzed. Of the 19 children with completed pre-and post-tests, 8 students (42%) showed an improvement in their score from pre-to post-test.

The graphs below present data covering the key indicators in the "Oral health education strategy area" from the key indicator table above. To be able to compare year by year data for approximately twelve-month periods, the data is presented from 4/2018-3/2019 (12 months), and 4/2019 - 2/2020 (11 months) in addition to being compared by fiscal year. "Priority" schools and districts are those where more than 50% of students are eligible to receive free and reduced-price meals. This is a key indicator for high poverty schools, and these schools and districts are the ones the OPHP focuses on reaching with services.



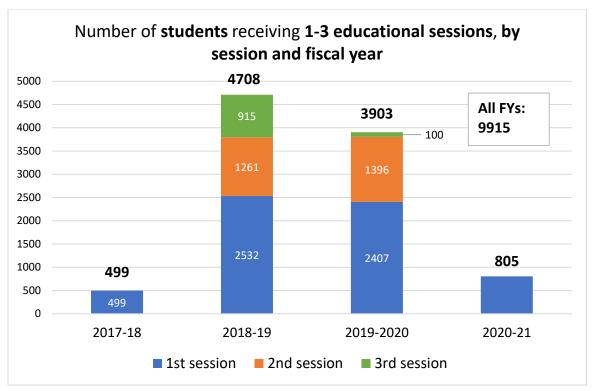
All educational information shown also includes data collected for children with special needs. Because yearly totals include students receiving anywhere from 1-3 sessions, the student totals are duplicated numbers. Data for the unduplicated number of students served is unavailable. All education was provided at public schools, Child Development Centers, preschools, or through summer programs for public school children.

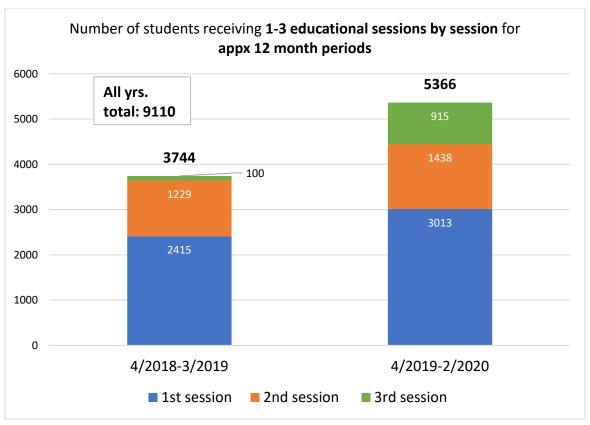




2020-21 data not included because dates of sessions are unknown

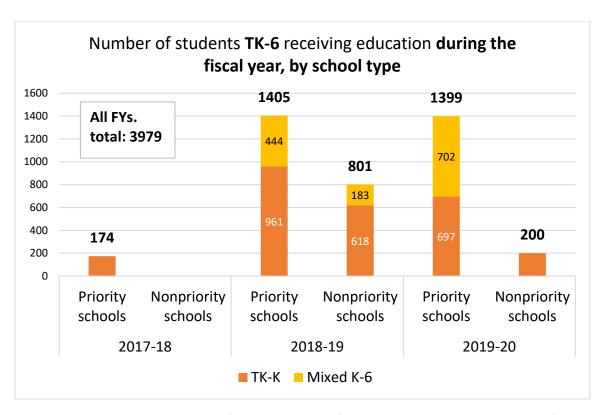




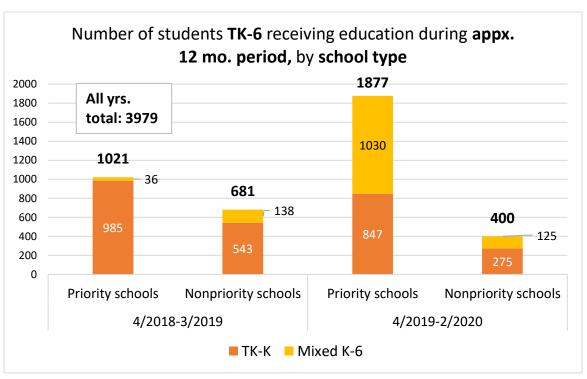


2020-21 data not included because dates of sessions are unknown



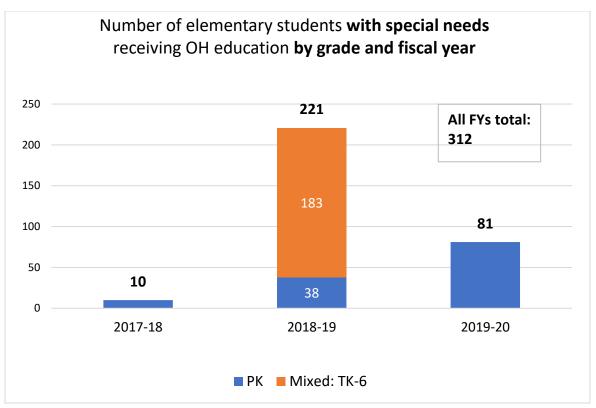


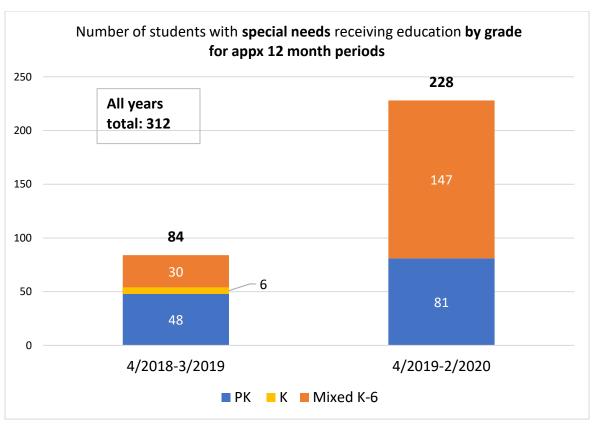
Source in addition to internal data: California Department of Education. PreK is not shown because "priority school eligibility" is unknown for preschools.



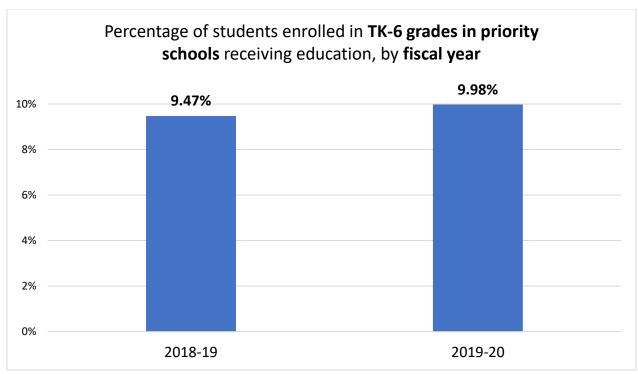
Source in addition to internal data: California Department of Education. PreK is not shown because "priority school eligibility" is unknown for preschools.



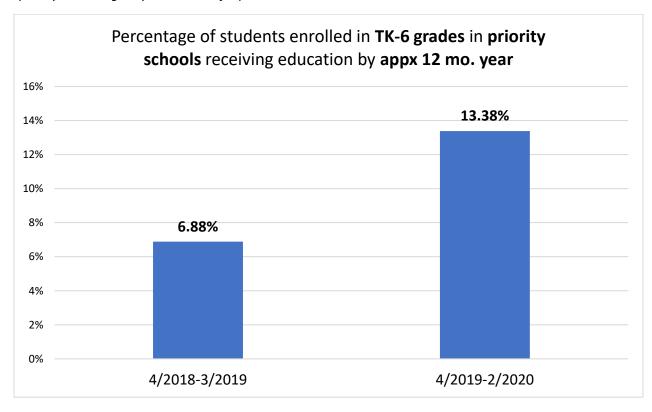






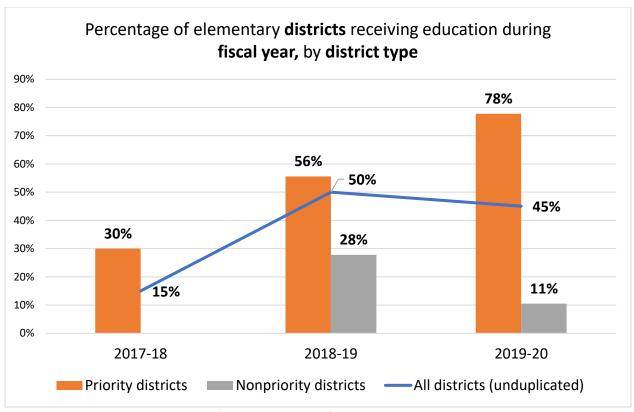


Source in addition to internal data: California Department of Education DataQuest. PreK is not shown because "priority school eligibility" is unknown for preschools.

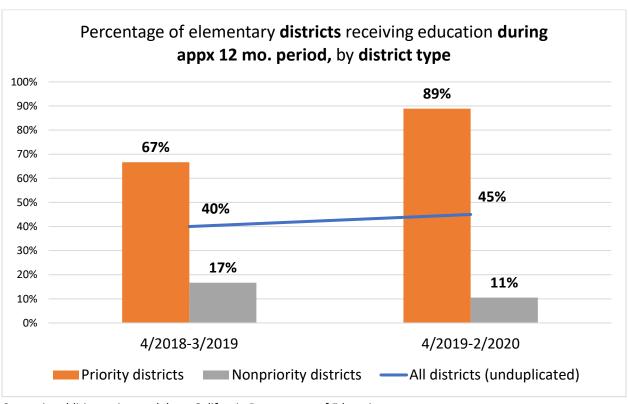


Source in addition to internal data: California Department of Education DataQuest. PreK is not shown because "priority school eligibility" is unknown for preschools.



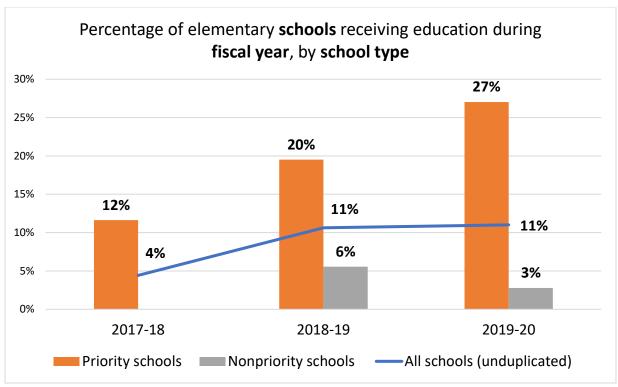


Source in addition to internal data: California Department of Education

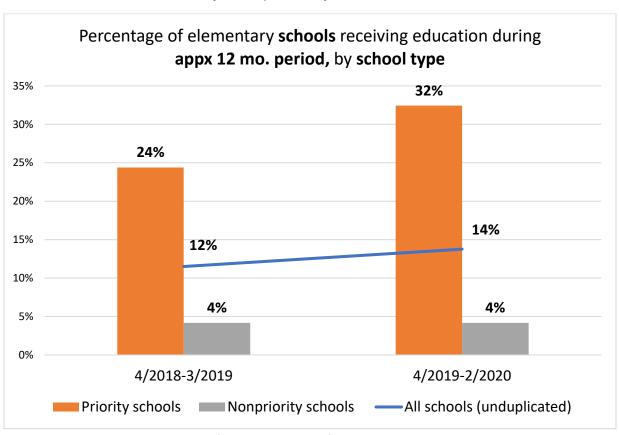


Source in addition to internal data: California Department of Education



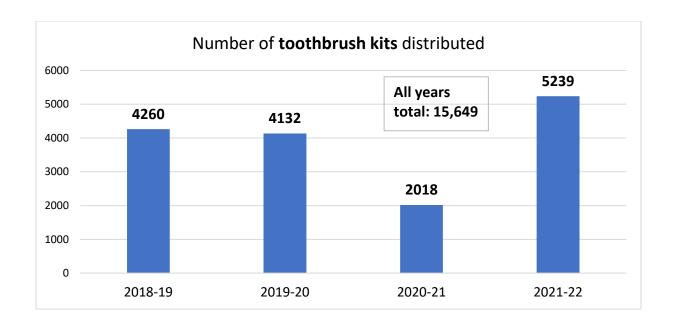


Source in addition to internal data: California Department of Education



Source in addition to internal data: California Department of Education





<u>Strategy:</u> School based preventive dental services: oral health screenings, fluoride varnish applications, sealant applications

In the spring of 2019, the OPHP started partnering with Sonrisas to deliver screenings, fluoride varnish, and sealants to students in grades PK-8 at elementary schools.

Another Federally Qualified Health Center with a dental clinic in San Mateo County, Ravenswood Family Health Network ("Ravenswood"), also started providing school-based preventive services through their Virtual Dental Home model. Ravenswood began providing their aggregate data to OPHP in the 2021-22 fiscal year.

A third nonprofit organization, Healthier Kids Foundation (HKF), has been providing school dental and other wellness screenings at one school in San Mateo County since 2017. HKF began providing its aggregate screening data to the OPHP in 2021-22, including previous years' data.

In addition to providing screenings, each organization also provides written or phone call follow ups to parents/ primary caregivers of students who receive a screening, to summarize findings. Referral assistance is given to those students screened with urgent oral health needs.

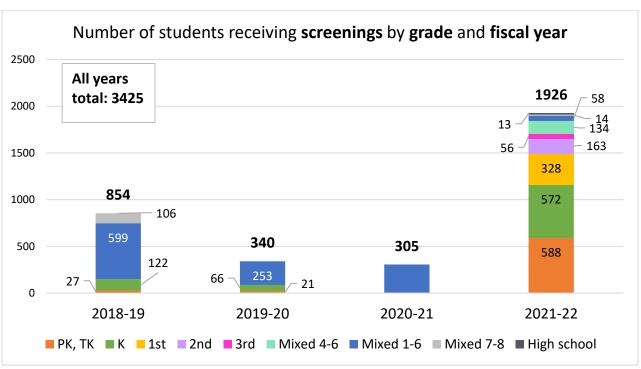
All oral health screenings occurred at public elementary schools, preschools, or Child Development Centers. In 2021-22, some screenings also took place at youth and migrant education centers.

Because of school closures and school restrictions due to the pandemic, screenings were largely paused during the pandemic, and resumed in 2021-22.

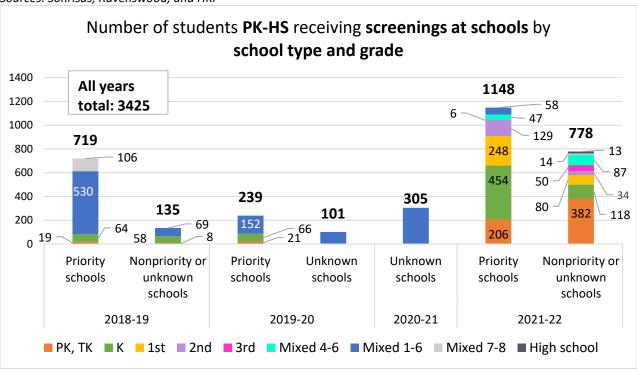


Data for all indicators in the "Fluoride varnish/ sealant strategy area" is included below.

Oral health screenings

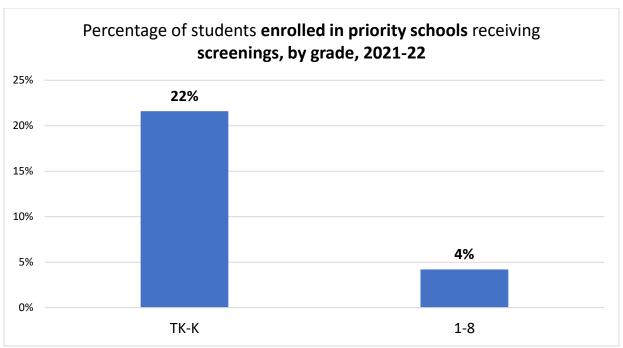




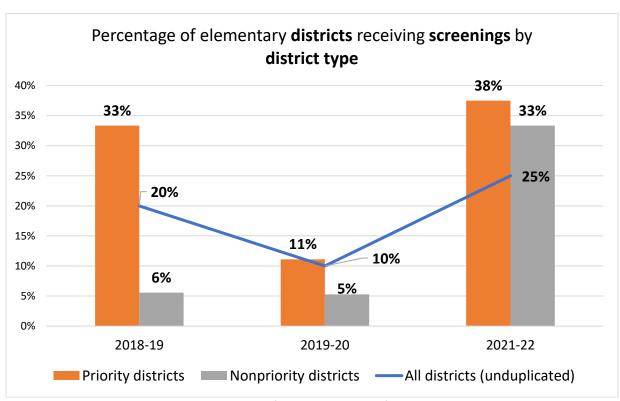


Sources: Sonrisas, Ravenswood, and HKF and California Department of Education



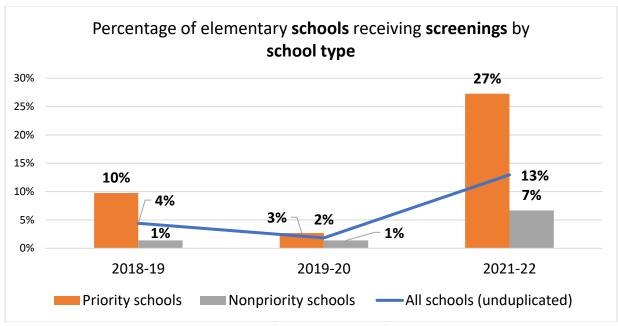


Sources: Sonrisas, Ravenswood, and HKF and California Department of Education DataQuest. Preschool enrollment not included because priority status unknown.



Sources: Sonrisas, Ravenswood, and HKF and California Department of Education.

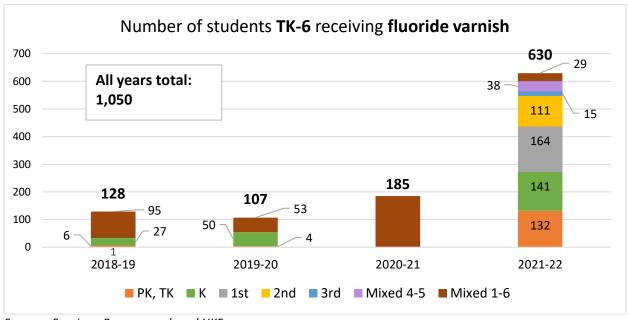




Sources: Sonrisas, Ravenswood, and HKF and California Department of Education.

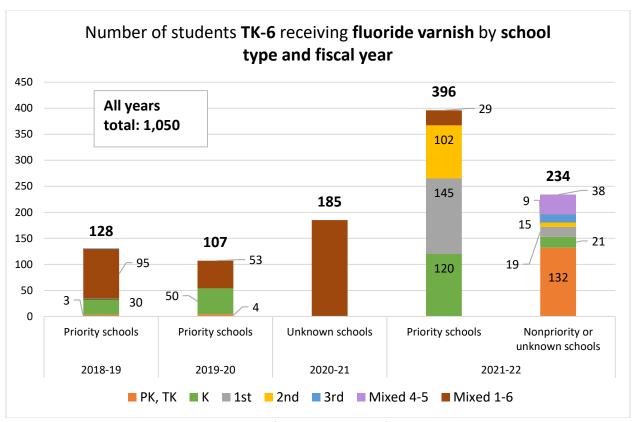
Fluoride varnish applications

The OPHP partnered with Sonrisas to provide students with fluoride varnish at elementary schools from 3/2019-2/2020. The OPHP supplied the fluoride varnish, and Sonrisas provided the staff and volunteers. Sonrisas' volunteers often included dental hygiene or dental assistant students. In 2021-22, both Sonrisas and Ravenswood provided students with fluoride varnish applications at schools.

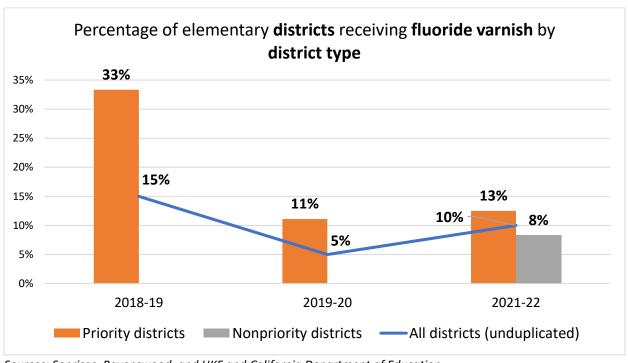


Sources: Sonrisas, Ravenswood, and HKF



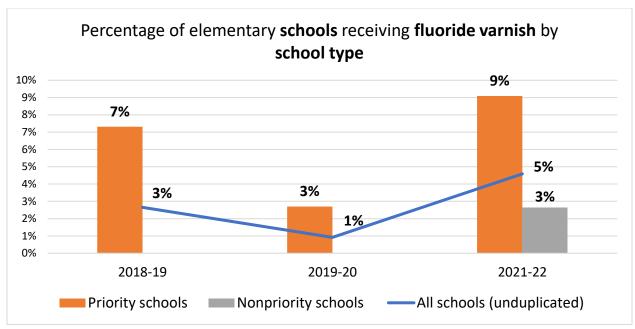


Sources: Sonrisas, Ravenswood, and HKF and California Department of Education



Sources: Sonrisas, Ravenswood, and HKF and California Department of Education





Sources: Sonrisas, Ravenswood, and HKF and California Department of Education

Sealant applications

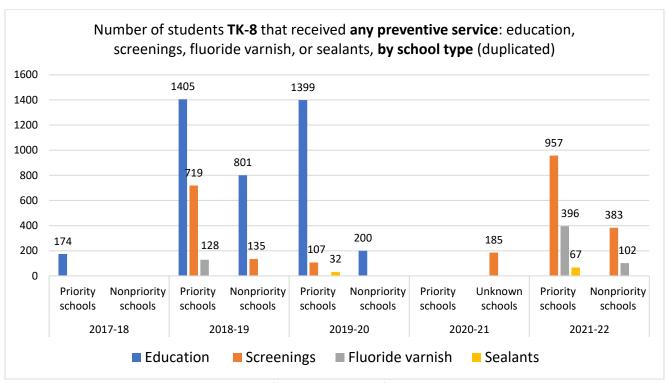
In 2019, the OPHP and Sonrisas partnered to pilot a sealant program at Bayshore Elementary in Daly City, a priority school. The OPHP provided supplies and Sonrisas provided staff and volunteers. In the spring of 2019, students at Bayshore were screened, and those who needed and consented to receiving sealants were identified. The sealants were later applied in the fall of 2019 to students in grades 1-6. Although the school's leadership wanted to continue the program after the pilot ended, because of a lack of funding, it could not continue.

Through their Virtual Dental Home model, Ravenswood also began providing comprehensive oral health preventive services at schools. In 2021-22, they provided sealants to students grades K-2 at Belle Haven and Los Robles-Ronald McNair Elementary Schools in E. Menlo Park and E. Palo Alto, both priority schools.

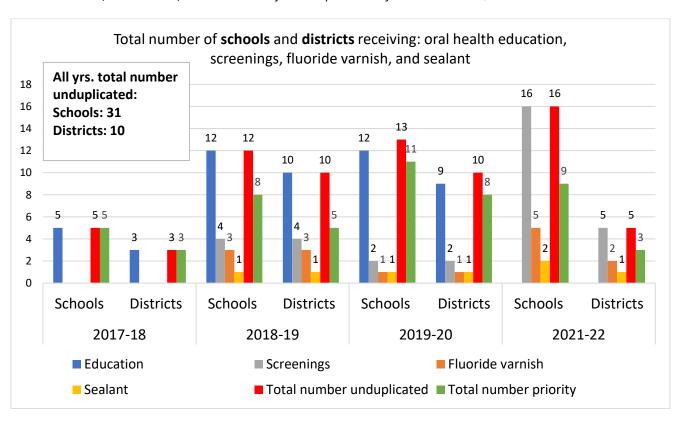
Year	Number of children who received	Number of sealants placed	Number of children who received follow
	sealants	•	up care
2019-20	32	83+	3
2021-22	9-Jan-June 2022 58- July-Dec 2021 Total: 67	25- Jan-June 2022 58+- July-Dec 2021	All children receiving sealants are scheduled for follow up retention checks
Totals:	99		



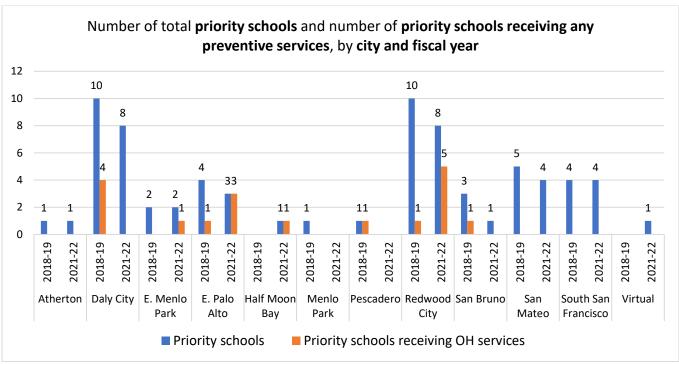
School-based preventive services totals



Sources: Sonrisas, Ravenswood, and HKF and California Department of Education DataQuest







Sources: Sonrisas, Ravenswood, and HKF and California Department of Education

Strategy: Public Health Outreach

Indicators:

Number of children with special needs referred from any co-located site to dental case management

Percent of children with special needs referred from any co-located site to dental case management who received dental services within 6 months following initial contact

Two of the three indicators for this strategy measure children with special needs referred from any co-located site to dental case management. During the earlier years of the grant, the OPHP messaged to SMC Health and San Mateo Medical Center staff that they could refer patients to the OPHP for "dental case management." There was some work done to integrate dental referral notes into the software system used in Family Health Services. However, dental case management data was not regularly tracked. This activity ceased when the staff member providing referral services was reassigned to COVID-19 duties during the pandemic.

In June 2019, the OPHP conducted a survey of parents of children with special needs (see Appendix B for full survey results).

The survey's quantitative results showed 81% of parents rated the condition of their child's teeth as good, very good, or excellent, with no toothache, decay, or unfilled cavities. The same



percentage reported taking their child to see a dentist in the last 12 months, and 90% reported they had dental insurance. However, about a quarter of parents said their child didn't get needed dental care because they couldn't afford it in the last 12 months. Around 40% of students did *not* have a dentist listed on their school emergency contact form.

Qualitative results showed parents' main concern was finding dental providers that could fully treat their child. They mentioned dental providers may not complete the full appointment and treatments if children struggle to sit still, open their mouths, etc.

Indicator:

Number of WIC and SMC Health staff who received oral health education and training

Oral health education to healthcare / dental providers coordinated or presented by SMC OPHP:

	# attendees- FY18 (6 mos. data)	# attendees- FY19 (full year data)	FY21 (full year data)	# attendees- FY22 (7 months data)
	15 (Comprehensive Perinatal Services Program, CPSP)	15 est. (California Children's Services, CCS Advisory group)	15 minute video created for County employees about oral health, available on County's intranet	16 (Comprehensive Perinatal Services Program, CPSP)
		24 (Women, Infants and Children, WIC)		8 (County employees, as part of County Wellness program) 25 (Dental society members and other OH partners)
Yearly totals: All years totals:	15 103 attendees 78 video views	39		49

In FY 2019, a "Train the Trainer" oral health presentation for WIC staff was developed so they could provide oral health education to clients. It was used by WIC staff for about three months.

Toothbrush kits including toothbrush, toothpaste, floss, and informational flyers on oral health topics were distributed over the grant cycle to WIC, SMC Health nurse home visiting programs,



and through the OPHP's collaboration with the Nutrition Education and Obesity Prevention program at SMC Health.

Other:

Other WIC and oral health partnerships included the integration of Ravenswood's Virtual Dental Home at WIC sites, which was offered to WIC children. The program has since ended. Discussions are now occurring between the OPHP and WIC leadership about ways to re-start integration of oral health activities with WIC programs.

Strategy: Primary Care Providers (PCPs)

Indicators:

Percent of [child] enrollees who received fluoride varnish (FV) application(s) through Health Plan of San Mateo (HPSM) providers

Percent of [child] enrollees who received [dental] assessment through HPSM providers

Number of HPSM [PCP/ medical] referrals to Medi-Cal Dental providers

Three of the four indicators for this strategy required tracking children enrolled in Health Plan of San Mateo's (HPSM) medical insurance program to see if their HPSM primary care providers provided them fluoride varnish applications, dental assessments, and/or referrals to Medi-Cal Dental. This data was originally designed to be tracked and analyzed by OPHP staff biannually. An OPHP system to collect and analyze this data has not been designed or implemented todate.

In 2022, the OPHP set up recurring meetings with HPSM Dental leadership to discuss collaborating more closely. One area of collaboration is data sharing. OPHP plans to work closely with HPSM to share data over the next grant cycle.

Indicator:

Number of primary care providers who received fluoride varnish and/or caries prevention training

FY17	FY18	FY20
6	21	2
For: Planned Parenthood	For: Sound Pediatrics,	For: Chinese Hospital
San Mateo, Chinese	PediaHealth, MD private	
Hospital, MD private	practice, Pediatric Medical	
practice	Group	
All years total: 30		



Strategy: Dental Workforce

In January of 2022, HPSM took over the dental benefits for Medi-Cal Dental providers from the California Department of Health Care Services (DHCS). This is a five year "medical dental integration" pilot program at HPSM.

All current oral health Medi-Cal Dental providers in San Mateo County have one transitional year to apply to become Health Plan of San Mateo Dental (HPSM Dental) providers to continue services to their clients on Medi-Cal Dental. They will receive enhanced reimbursement rates for some oral health care services. Because of this, "HPSM Dental provider" wording has been added to the dental workforce indicators.

This HPSM pilot program is currently the primary effort in San Mateo County to address the severe oral health care provider shortage for low income populations.

<u>Indicator:</u>
Percentage of Medi-Cal Dental (now HPSM Dental) providers of all licensed dentists in SMC

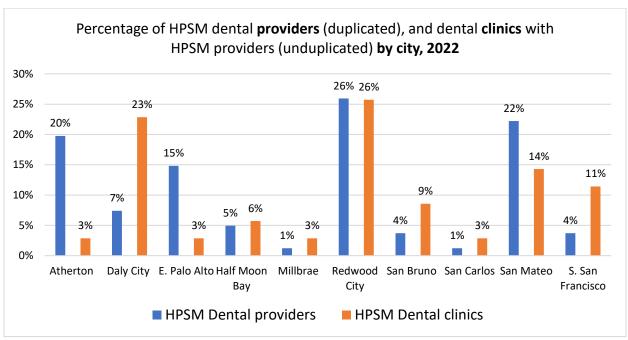
FY16	FY22
3.5%	8.1%
Number private dental providers billing Medi-Cal Dental: 31 Number licensed dentists: 885	Number of HPSM Dental providers, all specialties: 81
	Number of new HPSM providers going through credentialing process, as of Jan. 2022: 134
	Number of standalone dental clinics serving people on HPSM Dental: 35
	Est. number actively licensed dentists in SMC: 1000

Sources: 2015 Oral Health Coalition Needs Assessment, HPSM Dental Provider Directory, Dental Board of California



Indicator:

Percentage/geographic distribution of oral health care providers with ongoing Medi-Cal Dental (now HPSM Dental) enrollees



Source: HPSM Dental Provider Directory

Number of HPSM dental providers, by specialty, 2022

General dentistry	Pediatric dentistry	Orthodontics	Endodontics
71	5	3	2

Source: HPSM Dental Provider Directory

Indicator:

Percentage/geographic distribution of oral health care providers accepting new Medi-Cal enrollees

As of July 2022, the Health Plan of San Mateo's map of dental providers showed all clinics were accepting new pediatric patients, and some were accepting new adult patients.

Indicator:

Number of oral health care providers who received training

While previous OPHP Directors had done some planning to train oral health care providers on various subjects, no trainings were conducted during this grant period.



Strategy: Kindergarten Oral Health Assessment (KOHA)

The main strategy developed by OPHP Directors from 2018-2021 regarding the Kindergarten Oral Health Assessment was to have OPHP staff be responsible for: collecting the completed KOHAs from schools in the county, totaling the data from the forms, and entering all the data into the statewide database for KOHA, called the "System for California Oral Health Reporting," or "SCOHR." At the time this strategy was developed, previous Directors had funding for staff positions from both the state and the Oral Health Coalition. So, some staff time could be allotted to collect the forms and do the data analysis and entry. The OPHP also had a UCSF Dental Public Health resident as an intern to assist with this program. Memoranda of Understanding (MOUs) were executed with six school districts so that OPHP staff could collect the KOHA forms from schools.

When additional funding allowed for an epidemiologist to be hired in the OPHP, the epidemiologist quickly realized this model of having OPHP staff collect and report all KOHA data for the county would not be sustainable. The epidemiologist launched a "KOHA screening pilot" program in partnership with the Office of Oral Health. The aim of the pilot was to be able to scan KOHA forms using a regular office printer into a system that would then automatically extract the data to be reported from the forms. Currently, school staff, public health or County Office of Education (COE) staff in most counties manually record required data from each individual KOHA form, total all of this data so it is in aggregate form, and then manually enter the aggregate data again into the database, a time-consuming process.

While many technical issues needed to develop the scanning system were addressed during the pilot program, the process of extracting the data from the forms needed further work to function as planned. The Office of Oral Health is taking the learnings from this first pilot and implementing a second KOHA screening pilot with other counties in 2022-23.

Considering these previous KOHA efforts, OPHP staffing capacity, and program values of feasibility and sustainability, in 2022, the OPHP partnered with the COE to train school health and office staff on how to collect, total, and enter the required KOHA data into the database.

The goal is for all county elementary schools and elementary school districts to be responsible for collecting KOHA forms and reporting the aggregate KOHA data into SCOHR, as stipulated in the statewide KOHA legislation. This allows all partners with access to the SCOHR database, particularly the COE and OPHP, to obtain and report on the data, in compliance with the KOHA legislation.

In the spring of 2022, the OPHP and COE conducted a baseline survey of school staff, including many school nurses. The goal was to determine their current knowledge and practices around KOHA (see Appendix C for complete results).



The results showed that of the 28 respondents from 75% of elementary school districts, 86% said their school currently sends the KOHA form to parents in the kindergarten enrollment/ registration packet, or during the kindergarten enrollment and registration process. All respondents said the forms are collected by administrative or health staff, and 80% said the forms are reported in schools' existing reporting systems, or are kept in students' health file. However, when asked if they report KOHA aggregate data into the state database SCOHR, half said they didn't know, and 44% said no. When asked if they report any KOHA data directly to the district, as required in the legislation, half said no, and 42% said they didn't know.

The OPHP Program Coordinator also attended monthly school nurse meetings and presented about KOHA. Through these meetings and subsequent 1:1 emails and phone calls with school staff, the overriding theme was staff were not aware the KOHA was required to be collected and reported annually, and they did not have systems or processes in place to do so. Many expressed misinformation or misunderstanding that the KOHA is no longer a state requirement.

Because of this, the OPHP and COE created KOHA informational documents, data collection trackers and forms, a series of virtual trainings, and a thirty minute training video about KOHA for school staff (a "KOHA toolkit"). The OPHP conducted outreach by phone and email to school staff and personally assisted them to become database users, quadrupling the number of database users. The KOHA toolkit materials are now available on the COE's "Nurses' Corner" webpage (https://www.smcoe.org/for-schools/nurses-corner.html).

KOHA trainings for school staff and attendance, 2022

Date	Number of attendees	Number of districts
4.6.22	19	12 (60%)
5.9.22	19	10 (50%) and the COE
KOHA training video	80 views	
Totals:	38 attendees 80 video views	17 districts (85%)

The May 2022 training was provided by OPHP staff, and a post-training survey was administered to attendees. There were two respondents, and both responded they "strongly agree" to the statement: "This training was helpful to understand what the Kindergarten Oral Health Assessment is, why it is required, and how schools can report the data annually."

SCOHR KOHA data, 2017-18-2021-22

The graphs below show key indicator data obtained from the SCOHR database from 2017-18 to 2021-22. The final graph shows a snapshot of students' rates of untreated decay alongside chronic absenteeism rates at the same schools. Research has shown one of the primary causes

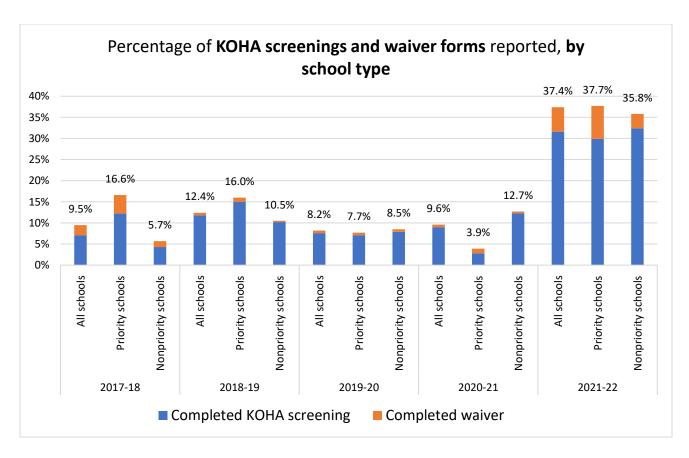


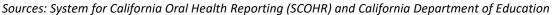
of chronic absenteeism among students is oral health problems. Chronic absenteeism is defined by the California Dept. of Education as eligible students being absent for 10% or more of the days they were expected to attend school.

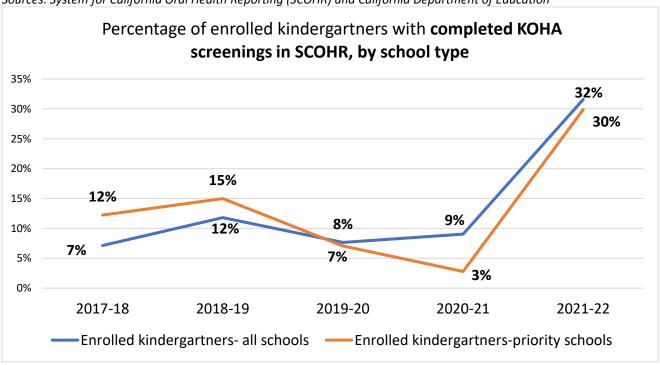
All key indicators from the "KOHA strategy area" in the key indicator table are covered in the table / graphs below, or have been reported in the information above.

	2017-18	2018-19	2019-20	2020-21	2021-22
Number of	591	950	600	640	2155
completed					
screenings					
in SCOHR					
Number of	27	32	17	21	76
schools					
with data in					
SCOHR					
Number of	3	8	4	5	13
districts					
with data in					
SCOHR					
Number of	139	274	76	39	370
students					
with					
untreated					
decay					
Number of	174	300	77	78	521
students					
with caries					



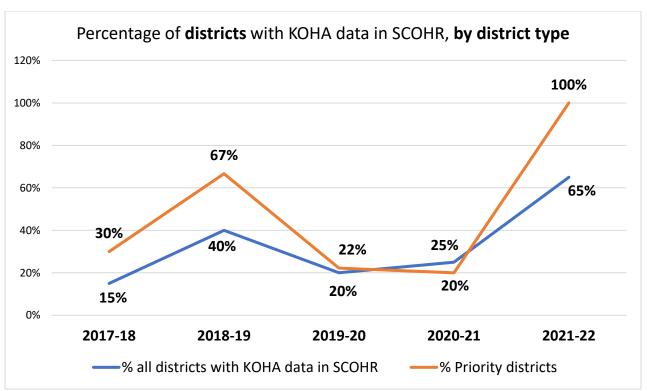




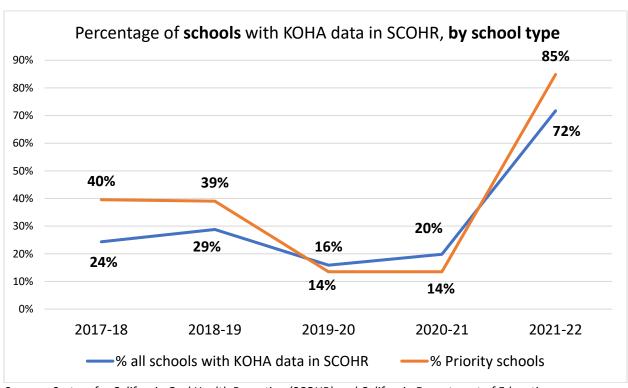


Sources: System for California Oral Health Reporting (SCOHR) and California Department of Education DataQuest



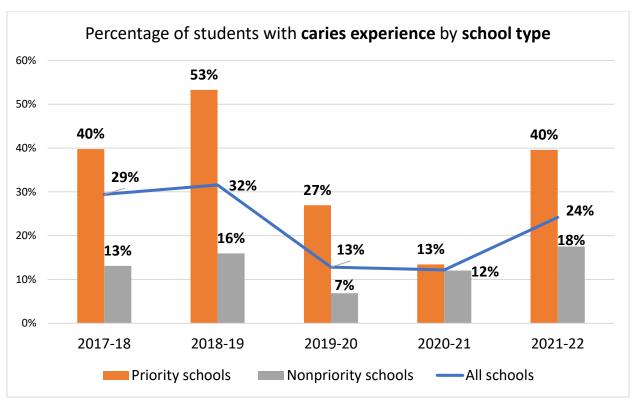


Sources: System for California Oral Health Reporting (SCOHR) and California Department of Education

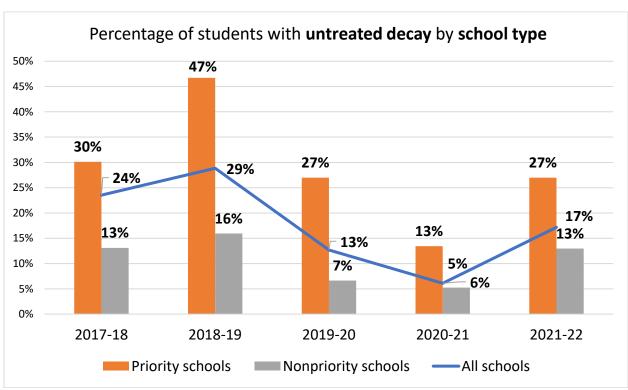


Sources: System for California Oral Health Reporting (SCOHR) and California Department of Education



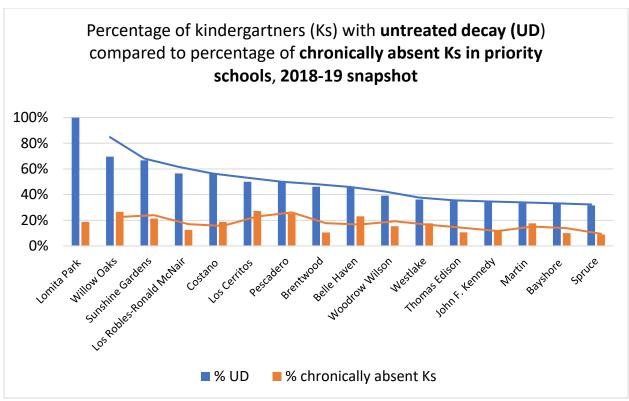


Sources: System for California Oral Health Reporting (SCOHR) and California Department of Education



Sources: System for California Oral Health Reporting (SCOHR) and California Department of Education





Sources: System for California Oral Health Reporting (SCOHR) and California Department of Education Data Quest

Strategy: Oral Health Surveillance System

Indicator:

Proportion of available secondary oral health data sources available on Office of Epidemiology and Evaluation data portal

The OPHP's temporary epidemiologist began discussions and planning to create a more structured "Oral Health Surveillance System (OHSS)." Some of the things it would consist of included: an oral health data repository, reference documents about oral health data sources, instructions for data collection and analysis, and more. The creation of this system was informed by a data needs assessment conducted by the epidemiologist. A larger goal was to link OPHP oral health data to the SMC Health data portal.

The OPHP Oral Health Surveillance System currently consists of internal program data trackers, information about oral health data sources, a template for a data dashboard, the Evaluation Plan, and this Evaluation Report, with its accompanying raw data.

In the next grant cycle, OPHP surveillance system goals are to work with partners to revise indicators, create more specific target goals for certain data that align with HPSM Dental's goals, and create systems and processes to collect data at regular intervals by clearly assigned staff.



Indicator:

Number of OHC member organizations/ agencies reporting performance activities

While one Oral Health Coalition member organization—Sonrisas--partnering with the OPHP provided some data over the grant cycle about their services to the OPHP, other oral health data sharing between partners and the OPHP did not occur in a systematic, structured way. In the spring and summer of 2022, the OPHP began convening school-based screening organizations in regular meetings and created a data sharing process, which was used to collect data for this report. The goal is all school based oral health services providers continue to report their aggregate, de-identified data to the OPHP at least twice a year.

Indicator:

Number of data dissemination reports published

The OPHP staff provided data and programmatic updates through power point presentations to various partners over the grant cycle. In 2022, the OPHP began emailing twice monthly program updates to oral health partners, with data reports included. To the OPHP's knowledge, this Evaluation Report is the first official oral health data report published by the OPHP since the start of this grant cycle in 2018.

Indicator:

Number of OHC members who received training in Oral Health Surveillance System resources

There is no record of formal presentations conducted by the OPHP for Oral Health Coalition members about the OPHP's oral health surveillance system.

Strategy: Oral Health Communications Network

Indicator:

Number of university departments and dental professional schools actively participating

As described above, the OPHP partnered with UCSF's Dental Public Health program to host an intern. The OPHP also worked with a student from Tuoro University College of Osteopathic Medicine to design oral health educational materials in Chinese. In 2022, the OPHP is partnering with a health communications researcher and student at Santa Clara University. In addition, OPHP partner organizations providing school-based oral health services use volunteer dental hygiene or dental assistant students from nearby colleges and universities.

Indicator:

Percent of OHC members actively participating in workgroups



The OPHP and Oral Health Coalition (OHC) have worked together closely for years, and this partnership currently forms what can be deemed an "oral health communications network" in San Mateo County. In 2022, the OPHP began tracking OHC member meeting attendance from the current list of OHC members (~135 members), to determine actively participating members. Each workgroup meeting had an average of 7 (~5%) members in attendance. The quarterly coalition meetings had an average of 20 (15%) members attending.

Indicator:

Number of SMC residents reached through shared oral health messaging

The OHC formed a temporary Communications Workgroup to discuss messaging on a broader scale to community members about oral health. In 2019, they created messaging for National Children's Dental Health Month, and OHC members were asked to distribute the images created in English and Spanish widely. Another partnership between the OPHP and the Nutrition Education and Obesity Prevention provided around 800 educational materials to around 200 people through oral health tabling events hosted at Federally Qualified Health Centers (FQHCs) across San Mateo County.

When COVID hit in 2020, the OPHP created an infographic for the public about going to the dentist during COVID, which was uploaded to the SMC Health website.

In 2022, the OPHP discussed broader mass messaging goals with the OHC Core Team. The Core Team expressed interest in learning more from priority populations about their messaging needs through focus groups. The OPHP conducted outreach to nearby universities' Communications Departments and is now partnering with Santa Clara University on a focus group project. The goal is to talk with priority populations and determine their values, key oral health messaging needs, barriers to getting oral health information and accessing care, trusted key messengers, and frequently utilized communication channels. These will help the OPHP create key messages, adapt or create new messaging materials, and distribute them through channels /messengers identified in the focus groups. The focus groups will begin in fall of 2022.

The OPHP plans to update its existing webpage on SMC Health's website with new content.

Indicator:

Number of oral health presentations given

The OPHP presented about program progress to professional health and dental partners, including: SMC Family Health Services leadership and staff, San Mateo Medical Center Board, Sequoia Healthcare District Board, Oral Health Coalition Core Team, and school nurses.



Oral health education presentations to low income pregnant people coordinated or presented by SMC OPHP

# attendees- FY20 (full year data)	# attendees- FY21 (full year data)
21	60

DISCUSSION, ACTIONABLE RECOMMENDATIONS, AND LESSONS LEARNED

General discussion (for more detailed discussion by strategy area, see below)

OPHP programmatic services (process indicators)

The first cycle of state grant funding for Local Oral Health Programs provided an opportunity for San Mateo County Health to develop its Oral Public Health Program, and experiment in providing or coordinating the provision of various oral public health services in the county.

The OPHP was largely successful over the first 2.5 years and the last year of the grant cycle in reaching priority populations and increasing: oral health services provided at schools, oral health trainings provided to primary care providers, funding /supplies provided to partner oral health organizations, and the development of broader oral health education and messaging.

Unsurprisingly, the school and dental clinic closures caused by the COVID-19 epidemic in March of 2020 resulted in less service provision by the OPHP from the spring of 2020 to about the fall of 2021. Once schools began allowing more service providers back to their sites in 2021-2022, services provided or coordinated with partners once again increased.

Other circumstances affecting the OPHP during the grant cycle were a decrease in overall funding and staffing changes. In 2019, the two-year funding provided by the Oral Health Coalition for the OPHP ended, resulting in less staff working in the program. In 2018 and 2021, the program had changes in leadership, resulting in three different Program Directors/ Coordinators during the 4.5 year grant cycle. In 2021-22, the OPHP did not have any staff working directly in the program for five months of the fiscal year. It was partially staffed with one full time employee (Coordinator) for the other seven months. These posed challenges for service provision continuity, and necessitated discussions about strategic changes in the OPHP to continue to provide feasible and sustainable oral public health services.

SMC oral health outcome indicators

Dental care utilization data for Medi-Cal health insurance members

Annual dental visit rates were highest for those ages 3-14 (around 50%). The state and county goal is for 60% of all children on Medi-Cal to have annual dental visits. The lowest annual dental visit rates were for ages 19-44.



Preventive dental service utilization increased in every age group from 2016-2019, with the largest increases among 1-2 year olds. The age groups receiving preventive services the least were 21-44 year olds.

Emergency Department visit rates for non-traumatic dental conditions

Emergency Department visit rates for non-traumatic dental conditions (NTDCs) declined for the entire population from 2017-2020, with the largest decline from 2019-2020, likely due to the pandemic. ED visit rates were highest every year from 2016-2020 for those living in North County, for American Indian/ Alaska Natives, and for those under 2 years of age and between 20-44 years old. Of those ages 0-11, the 0-5 age group has consistently higher ED visit rates. The 21-44 year old age group utilizes preventive services the least, and visits the ED the most. There are stark disparities in the percentage of ED visits for NTDCs between people on public health insurance compared to private insurance, with public insurance members visiting the ED consistently twice as often as those with private insurance. Data that was unable to be collected for this report is the cost of these ED visits. In the future, data on the total amount spent on Medi-Cal members with ED visits for NTDCs, and the amount spent on children with Medi-Cal treated under general anesthesia for NTDCs can be collected.

Pregnant population

The percentage of pregnant people who received dental care during pregnancy decreased slightly from 2015-2018. There were slight increases in 2017-18 in the percentage of Medi-Cal members receiving preventive dental care during pregnancy, and decreases in 2020-21, possibly due to the pandemic. The percentage of people with pre-natal Medi-Cal insurance coverage decreased slightly from 2013-18, but the percentage with postpartum insurance coverage increased during the same time period.

Caries and untreated decay data

From 2016-19, there were slight increases in the percentage of members ages 3-14 treated for caries, but there were decreases in members ages 6-9 receiving sealants.

Kindergarten Oral Health Assessment data shows unchanged inequities year to year in caries and untreated decay rates between higher poverty and lower poverty schools. Higher poverty (priority) schools consistently have about 1.5 times the rates of caries and untreated decay compared to lower poverty schools. There was no consistent trend from 2018-19 snapshot data comparing untreated decay rates to chronic absenteeism rates in priority schools.

The Office of Oral Health's 2030 goal is to reduce caries prevalence and increase sealant prevalence by ten percentage *points* for school-aged children. Based on 2019 CHHS data, this would mean San Mateo County's 2030 sealant prevalence goals for 6-9 year olds would be around 23%, and for 10-14 year olds, 16%, almost double the rates currently.



2018 San Mateo County Health Quality of Life survey data

The 2018 Health Quality of Life Survey results shows those living in South County, and those with lower income, lower education, and older age lacked dental insurance in higher percentages. Lower percentages of Black and Latino/a/Hispanic populations visited a dentist for a routine checkup in the past year and had a usual source of dental care compared to other races/ethnicities. Those ages 0-4 had the lowest percentages visiting a dentist for a routine checkup in the prior year. These inequities illustrate the systemic problems in access to dental care and insurance in San Mateo County.

General actionable recommendations and lessons learned

Programmatic recommendations, lessons learned

In the future, the OPHP should focus when possible on coordinating and implementing fewer programs, and on developing more robust workplans and evaluation plans for each program area, given lack of staff capacity and funding. The OPHP currently can be maximally staffed with one full time employee and one half time employee. This is not sufficient to complete all the goals and objectives of the next state grant cycle's workplan, so additional funding and staffing sources will need to be considered.

The strategy areas outlined in this plan that the OPHP will continue to focus on implementing in the next grant cycle are: Kindergarten Oral Health Assessment school-based screenings, oral health surveillance, oral health mass messaging for priority populations, and partnership development, with a particular focus on developing a deeper partnership with Health Plan of San Mateo. For the other strategy areas outlined in this plan, the OPHP will need to lean on and support other oral health partners in the county that are best suited to lead them.

The OPHP should meet with epidemiology and HPSM colleagues to discuss and revise the key oral health indicators to be tracked and reported regularly in the future by OPHP. Clear target goals, such as specific percentage increase/decrease goals from baseline rates need to be established for indicators and should align with those already established by partners like HPSM and the Office of Oral Health. A practice that can become the standard for the OPHP and community oral health partners is to use updated oral health data to inform all oral public health improvement activities. Where there are data gaps, primary data collection will be needed. Since the HPSM will be conducting an evaluation of its five-year medical / dental integration pilot program, a recommendation is that the OPHP work closely with HPSM to share oral health data, to avoid duplicating efforts. In the spring of 2022, the OPHP set up recurring meetings with HPSM Dental staff and both have been discussing key areas for partnership.

The outcome data shows the OPHP should continue to focus on its existing priority populations, 0-5 year olds and pregnant populations with lower incomes, lower education, and that identify



racially/ethnically as Latino/a/Hispanic or Black. More programmatic focus should be put when possible on those *younger* than 5 years old, as 0-4 year olds visited a dentist for a routine checkup at the lowest percentages, and have highest ED visit rates. The "parenting / primary caregiver" population generally falls within the 21-44 age group, and because this group has high ED visit rates and low preventive service visit rates, more focus should be spent by the OPHP on addressing the oral public health needs of primary caregivers, while also focusing on the needs of their children.

The root causes of high ED visit rates for non-traumatic dental conditions for those on Medi-Cal, those under 2 years of age, and those 21-44 years of age need to be researched and discussed in further detail over the next grant cycle. The OPHP can work with HPSM, San Mateo Medical Center, and the Oral Health Coalition to develop specific goals and action items aimed at lowering these rates.

The data shows dental inequities remain largely unchanged from the 2015 Oral Health Coalition Needs Assessment. Specific dental disparity and dental inequity reduction goals should be established. The Office of Oral Health's 2030 goal is for oral health disparities among schoolaged children to be reduced by 50%.

While it has long been understood the lack of dental providers in San Mateo County is a systemic problem causing poor oral health, other "upstream" causes need to be outlined and addressed by the OPHP where feasible. Focusing on the systemic causes of poor oral health should take precedence over addressing individual level factors for the OPHP. Engaging with priority populations to co-plan and co-create oral public health programs is a public health gold standard to improve health and racial equity, increase trust, and create more effective interventions with communities experiencing inequities. The OPHP should plan to develop the infrastructure and processes to be able to engage priority populations in program planning and decision making over the next grant cycle.

Discussion, actionable recommendations, and lessons learned, by strategy area

School-based / school-linked oral health programs

Oral health education

OPHP programmatic data shows during the two years when the OPHP provided oral health education to students (appx 12 mo. years, not fiscal years), the number of total students receiving education increased by 43%, (3744-5366), including a 170% increase in the number of children with special needs served. Each year, 54-56% of students receiving education were in preschool (pre-kindergarten). The number of students reached in priority schools (>50% of students receive free and reduced price meals) increased by 84% (1021-1877). The number of priority schools and districts served increased by 33% from the first to second year. Between 55-65% of students received one oral health session, and the rest received two or three.



Because the program was designed to be delivered to the same students with multiple educational sessions throughout the year, a limitation of this data is no unduplicated student totals are available. A recommendation for data collection in the future is to track unduplicated students / clients reached, regardless of the service provided.

While education delivered increased from the first to the second year, out of all the enrolled TK-6 grade students in priority schools in the county, 7% received education the first year, and 14% the second year. The program provided depth in reaching the same students with multiple sessions, but not breadth in being able to reach more priority students at more priority schools.

A limitation of the educational program was in the design and data collection of the pre and post surveys. The pre and post surveys were intended to show whether the educational sessions improved students' knowledge and understanding of oral health. Because the majority of surveys were not collected and tracked, we do not have this information. It is unclear how the survey used was selected or created, and whether this decision was informed by research. A recommendation for the future is to use validated surveys from the oral/ dental health research whenever possible. The appropriate age level to survey for valid results can also be discussed in the future and should be backed by research. The surveys received by the OPHP were completed by preschoolers who circled pictures as answers and often the results were difficult to interpret due to preschoolers' developing handwriting skills. A lesson learned is to use surveys with older students.

It is unknown the process undertaken to develop the educational content delivered to students, and whether this was informed by research or with input from intended populations. There is a large amount of existing oral health educational materials and curricula available, and the Office of Oral Health has collected lists of many that are vetted. A recommendation is to use existing, vetted educational materials / curricula and evidence-based materials when available to avoid duplicating work and to assure its quality. Getting input from populations that are intended users of the educational materials is also ideal.

A final recommendation is to periodically survey teachers, school leadership, and parents to assess how satisfied they are with the educational program. When OPHP staff attended school nurse meetings in the spring of 2022 to educate the nurses about the Kindergarten Oral Health Assessment, some asked whether the oral health educational presentations would resume. So, the presumption is the nurses liked the program, and this is anecdotal.

The educational program required a half time staff member to implement and education was provided monthly, including during summers, at a rate of about 6-10 presentations/ month. Because so many sessions occurred monthly, the bulk of this staff's time was spent on providing this education. The OPHP values providing oral health education to the community and is currently looking for organizations or individuals that could spearhead the provision of oral health education in ways and formats that could reach larger numbers of priority populations in more locations.



School-based / linked oral health preventive services

Local Oral Health Programs—public health departments across the state of California-- and the state Office of Oral Health learned and changed direction together regarding school oral health programs over the first grant cycle. Providing comprehensive school-based oral health services was a big emphasis in the state workplan in the grant cycle, including implementing fluoride varnish and sealant programs. However, backed by the research, the state later recommended counties focus less on providing school-based fluoride varnish programs, and more on providing screenings in greater numbers to kindergartners and first graders eligible for KOHA, and then to all third graders. Once goals have been obtained for these screenings, the state recommends adding sealant programs to the school screenings.

School-based preventive services provided in San Mateo County during the grant cycle were oral health screenings, fluoride varnish, and sealant. Few of these services could be provided in FY2019-20 and FY2020-21 due to the pandemic. **The summary in this section compares**FY2018-19 to FY2021-22. Three different organizations provided services: a Federally Qualified Health Center dental clinic (Ravenswood Family Health Network, "Ravenswood"), a local nonprofit dental clinic (Sonrisas Dental Health, "Sonrisas"), and a local nonprofit organization (Healthier Kids Foundation), with financial and other support from the OPHP.

The total number of students receiving oral health screenings increased by 126% (854 in 2018-19 to 1926 in 2021-22) and the total number of priority students receiving screenings increased by 60% (719 in 2018-19 to 1148 in 2021-22). The total number of priority districts receiving screenings (3) did not change between 2018-19 and 2021-22, although the percentage did increase slightly because only 8 districts had priority schools in 2021-22 compared to 9 in 2018-19. The total number of priority schools receiving screenings increased by 125% (4 schools in 2018-19, and 9 schools in 2021-22).

Screenings were provided to kids ranging in age from infants to high schoolers. The majority of grades screened in 2018-19 were 1st-6th graders, while the majority screened in 2021-22 were PK-1st graders.

Based on data from completed Kindergarten Oral Health Assessment (KOHA) screening forms returned to schools and entered into the SCOHR database, the percentage of students with caries experience decreased by 25% among all students (32% to 24%) and priority school students (53% to 40%) from 2018-19 to 2021-22. Rates of untreated decay decreased by 41% for all students (29% to 17%), and by 43% for priority school students (47% to 27%). As mentioned above, inequities in caries and untreated decay remain between priority and nonpriority schools, with priority schools having about 1.5 times the rates of caries and untreated decay compared to nonpriority schools.

Limitations of this data are that it is a relatively small sample size, and many corrections had to be made by OPHP staff of the caries experience data due to misunderstandings among dental



professionals about how to complete the KOHA form. New KOHA forms issued in 2021-22 may help reduce the problem of incorrectly completed KOHA forms. The OPHP has plans in 2022-23 to message to dental professionals more about the KOHA form and how to complete it. A general KOHA data recommendation is that screening organizations request KOHA data from the OPHP regularly, to inform their programming.

Despite the challenges of interrupted services and relationship building caused by the pandemic, the screening organizations increased their school screenings substantially in 2021-22 from 2018-19 levels. Because even more priority schools have agreed to receive screenings in 2022-23, the school response to the screenings seems to be positive. A recommendation is to conduct a survey periodically of schools that receive oral health screenings to determine their satisfaction with the screenings.

A limitation of these screenings is they require a substantial amount of funding for current organizations to provide. While screening organizations have increased their screenings, they fall significantly short of the state's goals for kindergarten oral health screenings. The Office of Oral Health's goal is for every county to have at least 60% of students eligible for the KOHA screened annually. Eligible students are kindergartners and any first grader enrolled in public school for the first year. In 2021-22, 6822 public school kindergartners were enrolled, making the target goal for KOHA completion for that year 4,093 in San Mateo County. This same year, 572 kindergartners total were screened, or 14% of the target goal. While the majority of these kindergartners were enrolled in priority schools (494), the number screened reached just 23% of all priority kindergartners.

A recommendation the OPHP discussed in the spring and summer of 2022 with screening organizations is to focus more screenings on transitional and kindergarten grades versus older grades and if applicable, schedule more screenings at priority schools, instead of nonpriority schools. The OPHP also discussed other models of school-based screenings with the Oral Health Coalition and neighboring counties. As a result, the OPHP is planning to partner with the dental societies in San Mateo County in 2022-23 to provide free kindergarten oral health screenings for priority students by using volunteer dental society members.

A lesson learned by the OPHP was the necessity of having better communication and coordination among all screening organizations. In the spring of 2022, the OPHP took on the role of coordinating all school screening organizations by facilitating recurring meetings and creating shared documents and processes for tracking school screenings and data. Through these meetings, areas needing further action or decision making naturally arose. Recently, a priority area discussed was the need to clarify with schools the passive consent form process they use or will use in the future to host screening organizations more easily. This will need further action and follow up in the next grant cycle.

A success in the final year of the grant cycle with KOHA was the implementation of a new strategy to create tools and trainings for school staff so they could learn about their



responsibilities regarding the state-mandated KOHA screenings (see "Results" section above for more information). As a result, compared to 2018-19, in 2021-22, the percentage of all enrolled kindergartners with completed KOHA screenings reported in the database increased by 167% (12% to 32%), and increased by 100% for kindergartners enrolled in priority schools (15% to 30%). The *number* of completed KOHA forms entered in SCOHR for all students increased from 950 to 2155 (127% increase), and from 398 to 649 for priority students (63% increase). The percentage of districts reporting KOHA data in the database increased 63% for all districts (number increased from 8 to 13), and 49% for priority districts. The percentage of schools reporting KOHA data in the database increased by 148% for all schools (29% to 72%), and 118% for priority schools (39% to 85%). The number of total schools entering data increased from 32 to 76.

A KOHA lesson learned is that it is necessary to train and assist school level staff to collect and record KOHA forms and data. While it is helpful to have buy-in and support for KOHA from upper levels of leadership at schools, messages and outreach directed solely to leadership without concurrent training and support for the school level staff responsible for KOHA implementation are not sufficient to achieve results in KOHA reporting.

Fluoride varnish

Two organizations currently provide school-based fluoride varnish (FV) to students, Ravenswood and Sonrisas. OPHP provided fluoride varnish supplies to these organizations throughout the grant cycle.

From the 2018-19 to 2021-22 school years, the number of all students receiving fluoride varnish increased by 392% (128 to 630) and for priority students by 209% (128 to 396). The total number of priority students receiving fluoride varnish out of all enrolled priority students was 0.86% (128 / 14835) in 2018-19, and increased to 3.3% in 2021-22 (396/12052). The number of districts receiving fluoride varnish decreased from 3 to 2 from 2018-19, and from 3 to 1 for priority districts during the same time period. However, the total number of schools receiving FV increased from 3 to 5, although the number of priority schools (3) receiving FV remain unchanged from 2018-19 to 2021-22.

As described above, because the Office of Oral Health has advised counties to focus school-based preventive services on screenings and sealant programs, the OPHP will provide screenings only at schools with its planned partnership with dental societies.

Sealant

In 2019, the OPHP and Sonrisas partnered with one elementary school to pilot a sealant program. Thirty-two students received sealants. The program was successful, as evidenced by the school's desire to have the program continue in future years. However, due to lack of funding, the pilot could not continue as a regular offering.



Currently, Ravenswood is the only organization in the county providing school-based sealants to students, through their Virtual Dental Home model. In 2021-22, Ravenswood provided 58 students with sealants in the first six months of the fiscal year, and 9 students with sealants in the last 6 months of the fiscal year. The nine students were from two priority schools, in grades K-2. Ravenswood schedules sealant retention checks for all students receiving sealants. Ravenswood was a recipient of oral health equipment support from the OPHP through funding from the Office of Oral Health in 2021-22.

Total school based oral health preventive services:

In 2018-19, 982 total students (duplicated) received screenings or fluoride varnish, and in 2021-22, this number increased to 1905 students (94% increase). For priority school students, 847 received screenings, fluoride varnish or sealants in 2018-19 and 1420 received them in 2021-22, a 68% increase.

Organizations providing school-based preventive oral health services are gradually increasing the numbers of students served in priority schools.

Public Health Outreach

The number of attendees at OPHP educational events increased every year from 2018-2022. The OPHP is located within Family Health Services (FHS), which includes many programs serving children and their caregivers, including nurse home visiting programs and Women, Infants, and Children (WIC). It therefore makes sense that the OPHP continue to strengthen relationships with FHS colleagues and develop ways to integrate oral health into their work as capacity and time allow. A recommendation is to develop specific workplans for each program wanting to integrate oral health, so goals and activities are clearly outlined for all partners.

The oral health needs of the subpopulation of children with special needs are primarily addressed by certain pediatric dental clinics and surgery centers in the county and surrounding areas, a state workgroup, and other partnerships between the medical and educational sectors. The survey conducted by the OPHP can inform these partners on some of the barriers parents/caregivers said they face to getting quality dental care for their children with special needs. The OPHP will continue to support this work.

This public health outreach strategy as written in the 2019 OPHP Evaluation Plan is encompassed in the 2022-27 state grant workplan's objective related to developing key partnerships. The action items and evaluation measures listed in the workplan for this objective will serve as the plan for this strategy area in the next grant cycle.



Primary Care Providers

From fiscal years 2016-17 to 2019-20, the OPHP partnered with Health Plan of San Mateo and the Children's Health and Disability Prevention (CHDP) program to provide fluoride varnish trainings to those CHDP medical providers who were not already billing HPSM for fluoride varnish in the last grant cycle. The OPHP is currently in discussion with HPSM about resuming these efforts. A recommendation is that OPHP and HPSM contact the providers trained in the past to see if they are currently providing fluoride varnish for patients, and to learn what is working well and what is challenging in providing this service. This can inform future planning.

The overall recommendation for this strategy area is for the OPHP and HPSM to work closely together on any activities, as HPSM's Medi-Cal primary care providers are the population to reach, and HPSM has provider relations staff and infrastructure.

Dental Workforce

The HPSM medical / dental integration pilot launched in January of 2022 is currently the primary driver of increasing dental providers serving people on Medi-Cal in San Mateo County. They have already more than doubled the percentage of Medi-Cal oral health care providers from 2015-16 to 2022, and new providers are currently going through the process to become approved HPSM Dental providers. Through the recurring meetings OPHP set up with HPSM Dental staff in the spring of 2022, opportunities for the OPHP to support and further this work will be discussed.

Communications Network

The indicators in this strategy area in the 2019 Evaluation Plan are now incorporated into objectives in the 2022-27 state grant workplan, and into the Communications Plan developed by the OPHP in 2022. The work in this area will be tracked and measured according to these plans and objectives. The OPHP began tracking meeting attendance for various partnerships in 2022 and will continue to do this in the 2022-27 grant cycle to determine levels of engagement. A recommendation is for the OPHP to periodically survey partners it convenes in recurring meetings to assess their views on the strength of the partnership, successes, and areas for improvement.



APPENDIX

A. Priority districts and schools, by year:

Source: California Department of Education

2017-18	2018-19	2019-20	2020-21	2021-22
Bayshore ESD	Bayshore ESD	Cabrillo Unified	Bayshore ESD	Bayshore ESD
1. Bayshore	1. Bayshore	SD	1. Bayshore	1. Bayshore
Elementary	Elementary	1. El Granada	Elementary	Elementary
	-	Elementary	-	
Cabrillo Unified	Jefferson ESD	Jefferson ESD	Cabrillo Unified	Cabrillo Unified
SD	1. Daniel Webster	1. CA Virtual	<u>SD</u>	<u>SD</u>
1. Alvin Hatch	2. Garden Village	Academy San	1. Alvin Hatch	1. Alvin Hatch
2. El Granada	3. George	Mateo	2. El Granada	
	Washington	2. Daniel Webster		
	4. JFK	3. Garden Village		
	5. Margaret	4. George		
	Pauline Brown	Washington		
	6. Susan B.	5. JFK		
	Anthony	6. Margaret		
	7. Thomas Edison	Pauline Brown		
	8. Westlake	7. Susan B.		
	9. Woodrow	Anthony		
	Wilson	8. Westlake		
	Elementary	9. Woodrow		
		Wilson		
		Elementary		
<u>Jefferson ESD</u>	<u>La-Honda</u>	<u>La-Honda</u>	<u>Jefferson ESD</u>	<u>Jefferson ESD</u>
1. Daniel Webster	Pescadero USD	Pescadero USD	1. CA Virtual	1. CA Virtual
2. FDR	1. Pescadero	1. Pescadero	Academy	Academy
3. Garden Village	Elementary and	Elementary and	2. Daniel Webster	2. Daniel Webster
4. George	Middle	Middle	3. George	3. George
Washington			Washington	Washington
5. JFK			4. JFK	4. JFK
6. Margaret			5. Margaret	5. Margaret
Pauline Brown			Pauline Brown	Pauline Brown
7. Susan B.			6. Susan B.	6. Susan B.
Anthony			Anthony	Anthony
8. Thomas Edison			7. Westlake	7. Westlake
9. Westlake			8. Woodrow	8. Woodrow
10. Woodrow			Wilson	Wilson
Wilson			Elementary	Elementary
Elementary (10)	NATILL 505	NATIO SECO	1 - 11 1	A 4:111
<u>La-Honda</u>	Millbrae ESD	Millbrae ESD	<u>La-Honda</u>	Millbrae ESD
<u>Pescadero USD</u>	1. Lomita Park	1. Lomita Park	Pescadero USD	1. Lomita Park
	Elementary	Elementary		Elementary



F	T	T	T	T
1. Pescadero			1. Pescadero	
Elementary and			Elementary and	
Middle			Middle	
Millbrae ESD	Ravenswood City	Ravenswood City	Millbrae ESD	Ravenswood City
1. Lomita Park	<u>ESD</u>	<u>ESD</u>	1. Lomita Park	<u>ESD</u>
Elementary	1. Aspire EPA	1. Aspire EPA	Elementary	1. Aspire EPA
	Charter	Charter		Charter
	2. Belle Haven	2. Belle Haven		2. Belle Haven
	3. Brentwood	3. Brentwood		3. Costano
	4. Costano	4. Costano		4. KIPP Valiant
	5. KIPP Valiant	5. KIPP Valiant		Charter
	Charter	Charter		5. Los Robles-
	6. Los Robles	6. Los Robles-		Ronald McNair
	Magnet	Ronald McNair		Elementary
	7. Willow Oaks	7. Willow Oaks		·
	Elementary	Elementary		
Ravenswood City	Redwood City ESD	Redwood City ESD	Ravenswood City	Redwood City ESD
ESD	1. Connect	1. Connect	ESD	1. Adelante Selby
1. Aspire EPA	Community	Community	1. Aspire EPA	Spanish
Charter	Charter	Charter	Charter	2. Connect
2. Belle Haven	2. Fair Oaks	2. Garfield	2. Belle Haven	Community
3. Brentwood	3. Garfield	3. Henry Ford	3. Costano	Charter
4. Costano	4. Hawes	4. Hoover	4. KIPP Valiant	3. Garfield
5. Green Oaks	5. Hoover	5. KIPP Excelencia	Charter	4. Henry Ford
6. KIPP Valiant	6. John Gill	Charter	5. Los Robles-	5. Hoover
Charter	7. KIPP Excelencia	6. Rocketship	Ronald McNair	6. KIPP Excelencia
7. Willow Oaks	Charter	RWC	Elementary	7. Rocketship
Elementary	8. Rocketship	7. Roosevelt	Liementary	RWC
Liementary	RWC	8. Selby Lane		8. Roosevelt
	9. Roosevelt	9. Taft Elementary		9. Taft Elementary
	10. Selby Lane	3. Tare Elementary		3. Tare Elementary
	11. Taft			
	Elementary			
Redwood City ESD	San Bruno Park	San Bruno Park	Redwood City ESD	San Mateo-Foster
1. Connect	ESD	ESD	1. Adelante Selby	City ESD
Community	1. Allen	1. Allen	Spanish	1. Laurel
Charter	2. Belle Air	2. Belle Air	2. Connect	2. LEAD
2. Fair Oaks	Elementary	Elementary	Community	3. San Mateo Park
3. Garfield	Licilicitaly	Licilicitaly	Charter	4. Sunnybrae
4. Hawes			3. Garfield	,
5. Hoover				Elementary
6. John Gill			4. Henry Ford 5. Hoover	
7. KIPP Excelencia			6. KIPP Excelencia	
Charter			7. Rocketship	
8. Rocketship			RWC	
RWC			8. Roosevelt	
9. Roosevelt			9. Taft Elementary	



10. Selby Lane				
11. Taft				
San Bruno Park	San Mateo-Foster	San Mateo-Foster	San Bruno Park	South San
ESD	City ESD	City ESD	ESD	Francisco USD
1. Allen (Decima	1. Beresford	1. LEAD	1. Allen	1. Los Cerritos
M.)	2. Fiesta Gardens	2. San Mateo Park	2. Belle Air	2. Martin
2. Belle Air	International	3. Sunnybrae	Elementary	3. Spruce
	3. LEAD	3. Sullilybrae	Elementary	4. Sunshine
Elementary	4. San Mateo Park			Gardens
Con Malan France	5. Sunnybrae	C. H.C.	Con Malan Frata	Elementary
San Mateo-Foster	South San	South San	San Mateo-Foster	
City ESD	Francisco USD	Francisco USD	City ESD	
1. Fiesta Gardens	1. Los Cerritos	1. Los Cerritos	1. Fiesta Gardens	
International	2. Martin	2. Martin	International	
2. LEAD	3. Spruce	3. Spruce	2. Laurel	
3. San Mateo Park	4. Sunshine	4. Sunshine	3. LEAD	
4. Sunnybrae	Gardens	Gardens	4. San Mateo Park	
	Elementary	Elementary	5. Sunnybrae	
			Elementary	
South San			South San	
Francisco USD			Francisco USD	
1. Los Cerritos			1. Los Cerritos	
2. Martin			2. Martin	
3. Spruce			3. Spruce	
4. Sunshine			4. Sunshine	
Gardens			Gardens	
Elementary			Elementary	
Total Districts: 10	Total districts: 9	Total districts: 9	Total districts: 10	Total districts: 8
Percentage of all	Percentage of all	Percentage of all	Percentage of all	Percentage of all
districts: 50%	districts: 45%	districts: 45%	districts: 50%	districts: 40%
(10/20)	(9/20)	(9/20)	(10/20)	(8/20)
Total schools: 43	Total schools: 43	Total schools: 37	Total schools: 37	Total schools: 33
Percentage of all	Percentage of all	Percentage of all	Percentage of all	Percentage of all
schools: 39%	schools: 37%	schools: 35%	schools: 35%	schools: 31%
(43/111)	(41/111)	(37/107)	(37/106)	(33/106)



B. Oral Health Parent Questionnaire at K-12 Special Education Sites Results

Response rate: 46% (n= 21 parents)

1. Condition of child's teeth

Excellent: 14.3% (n=3) Very good: 42.9% (n=9) Good: 23.8% (n=5) Fair: 14.3% (n=3) Poor: 4.8% (n=1)

2. During the last 12 months, did child have toothache, decay, or unfilled cavity:

Yes: 0

No: 81% (n=17)

Don't know: 19% (n=4)

3. During the last 12 months, did child see dentist for any kind of dental care:

Yes: 81% (=17) No: 19% (n=4)

4. During the last 12 months was there a time your child needed dental care but didn't get it because you couldn't afford it:

Yes: 23.8% (n=5) No: 71.4% (n=15) Don't know: 4.8% (n=1)

5. Do you have any kind of insurance that pays for any/all dental, including Medi-Cal?

Yes: 90.5% (n=19) No: 4.8% (n=1)

Don't know: 4.8% (n=1)

6. Do you have any concerns?

"I have problems finding a dentist because my son already is 21, the pediatric
dentist will not attend him. The adult dentists don't want to attend to him
because he does not sit down and open his mouth. This is a struggle I am having
this year. I would like for you to recommend a dentist. We have United Health
Care and Medi-Cal insurance



- "Yes my son is very sensitive"
- "Yes"
- "Yes, discoloration of his upper front teeth, what would be the causes?"
- "My child's last appointment did not finish (only half) because he could not endure"
- "My daughter just went to the dentist. We weren't able to get X-rays, but did have a teeth cleaning."

7. Students in program who list a dentist on their emergency form:

Dentist listed: 58% (n=58) No dentist listed: 42% (n=42)

C. 2022 KOHA Survey results

The survey had **28 respondents**, consisting of: Health Aids/Technicians, Principals, Administrative Coordinators, and School / District Nurses, from **75% of all elementary school districts** in the county (15).

1. When does your school currently send out the Kindergarten Oral Health Assessment forms to parents/students?

Kindergarten enrollment/ registration-86%

Unsure-11%

Partners with a dental clinic to do KOHA- 3%

2. Who collects the KOHA forms?

Office/ administrative staff- 58%

School nurses/ health technicians: 32%

Either office /admin staff or health staff: 11%

3. Who does follow ups on missing forms?

Office/ admin staff- 56%

Health staff- 33%

No follow up-11%

4. How do you record results?

Electronic or manual tracking system- 50%

Student's medical/health file- 30%

Don't know / not recorded- 20%

5. Does your school currently send a KOHA report to your school district after all forms are due on May 31st?

No- 50%



Don't know- 42% Yes- 8%

6. Do you enter KOHA data into the statewide database "SCOHR?"

Don't know- 50%

No- 44%

Yes- 6%

6a. If yes to above, who currently enters the KOHA data into the database? Please write name, title, and school.

Number of responses: 3

6b. Additional contact information of person involved in KOHA work at school and/or district level. Please write name, title, and school.

Number of responses: 17

7. If you would like to be a KOHA champion for your school/district, please enter your contact information here.

Number of responses: 7



DATA SOURCES / REFERENCES

- California Department of Education DataQuest, Enrollment data: https://dq.cde.ca.gov/dataquest/
- California Department of Education, Free and Reduced Price Meals student data: https://www.cde.ca.gov/ds/ad/filessp.asp
- California Department of Health Care Access and Information (HCAI), formerly the California Office of Statewide Health Planning and Development (OSHPD): https://hcai.ca.gov/. Data obtained from HCAI by SMC Health epidemiologists
- California Department of Public Health Maternal and Infant Health Assessment (MIHA)
 data: https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Data-and-Reports.aspx
- California Health and Human Services (CHHS) data:
 https://data.chhs.ca.gov/organization/department-of-health-care-services
- Dental Board of California, licensed providers: https://search.dca.ca.gov/results
- Health Plan of San Mateo Dental Provider directory and maps:
 https://hpsm.healthtrioconnect.com/public-app/consumer/provdir/entry.page and https://www.hpsm.org/member/hpsm-dental/choose-a-dentist
- Health Plan of San Mateo 2020 Population Needs Assessment report: https://www.hpsm.org/docs/default-source/commission/commission/smhc-meeting-materials-august-11-2021.pdf?sfvrsn=bb0cd606 2
- Health Quality of Life Survey: data obtained internally from SMC Health epidemiologists
- Oral Health Coalition Needs Assessment, 2015: not available online
- Oral Health Coalition Strategic Plan, 2017-2020: https://www.smchealth.org/oral-health
- San Mateo County Oral Public Health Program Evaluation Plan, 2019: https://www.smchealth.org/oral-health
- System for California Oral Health Reporting (SCOHR) Kindergarten Oral Health Assessment (KOHA) data: https://www.ab1433.org/home/overview

