Yolo County Oral Health Program

Final Evaluation Report for FY2018-2022

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Prepared By:

David Linebarger
Yolo County Health and Human Services Agency
Oral Health Program Program Coordinator

&

Rebecca Tryon
Yolo County Health and Human Services Agency
Manager, Healthy Communities Initiative

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EXECUTIVE SUMMARY

The Yolo County Local Oral Health Program (LOHP) was off to a robust start prior to COVID addressing the four Strategic Plan (SP) (Appendix X) focus areas below:

- Improving oral health literacy
- Increasing access to oral health care
- Increasing screenings for children
- Increasing the number of oral health policies

The program peaked in 2019, and is slowly re-emerging to meet pre-pandemic milestones.

How Much Did We Do?

Documentation of screenings, education sessions, literacy campaigns and policies revealed the following highlights:

- In the 2018/19 School year:
    - 28 elementary/middle school classrooms received oral health education
    - Over 3,600 students in all 5 districts were screened (approx. 1/3 of all school-aged students)
- As of June 2022 the Yolo County oral health website had over 106K hits
- Movie theatre ads yielded approximately 500,000 impressions over 4 years
- One oral health policy was adopted in 2019 (HAPPI protocol)

How Well Did We Do It?

It can be difficult to measure 'quality' of outreach and education programs that are aimed at community change. Some metrics include:

- Onboarding the Davis Joint Unified School District (DJUSD) to provide oral health curriculum and start allowing school screenings after many years of resistance
- Consistent use of the ADA "Smile Smarts" curriculum, training school nurses on this curriculum and getting permission to translate the curriculum into Spanish
- Increasing the percentage of kindergarten and 3rd grade students who were screened annually prior to COVID
- 45 schools (15% increase) are now part of the oral health program, ready to screen and educate in fall 2022

Impact of the Program

While program activities halted/reduced from 2020-2022, these metrics reflect the community impacts:

- Dignity Hospital reported a 50% reduction in hospital-acquired pneumonia after they adopted a policy to utilize the HAPPI protocol 2019

- The LOHP is supporting the expansion of a Virtual Dental Home to a high need school in W. Sacramento (Riverbank Elementary) to provide comprehensive exams, emergency care, and screenings/education
- 10% increase in the number of dentists accepting Medi-Cal Dental patients (adults and children) since 2017
- At least 75% of the Oral Health Advisory Committee (OHAC) members consistently rate their satisfaction level with the committee at 4/5 or 5/5 annually.

PROGRAM EVALUATION AIMS

The aim of the evaluation metrics developed was two-fold:

1. To address the SP goals that were created in 2017, just prior to the county receiving the oral health funds from the OOH at CDPH
2. To determine whether or not program efforts were meeting short, medium, or long-term goals as outlined in the 2017 program logic model (Appendix I)
3. To address oral health concerns as identified in the 2017-20 Community Health Assessment (CHA) (oral health was identified as number 10 of the top 10 community health concerns)

Further, the approach taken with identifying specific metrics was to utilize data gathering that was already occurring, such as with oral health screenings that were being facilitated by two Federally Qualified Health Centers (FQHCs), and then identifying data gaps and a plan to address those gaps so that data gathered would address the needs listed above.

The following were the LOHPs evaluation questions and key indicators:

Evaluation Questions

The following are key questions posed by stakeholders and HHSA staff in developing the oral health SP, as informed by the Needs Assessment (NA) and stakeholder input:

- Did we raise community awareness about Rethink Your Drink (sugary beverage reduction), tobacco cessation, water fluoridation, and Medi-Cal Dental services?
- Did we increase oral health literacy among elementary school students?
- Did we increase the number of kindergarten and third grade elementary school students screened?
- Did we increase the number of schools that enter kindergarten enrollment oral health data into the SCOHRS database?
- Did we successfully engage city council, institutional leaders, and key community decision makers to support community water fluoridation and other oral health policies?

- Did we increase the number of Medi-Cal Dental recipients who utilized preventative dental services in order to decrease the number of emergency department visits with a dental diagnosis?
- Have we successfully engaged stakeholders in the OHAC as measured by their satisfaction and participation in the OHAC?

Indicators

The oral health SP identified five key indicators (outcome measures) that will be used to determine the program's success. These indicators are:

- The percentage of child (1-20 years old) Medi-Cal Dental beneficiaries in Yolo County that receive any dental service, as compared to the overall percentage for California children
- The rate of ED visits with a dental diagnosis, as compared to 2016 rates for Yolo County and the state
- The number of elementary school students who receive oral health screenings in school or community settings
- The percentage of students screened who show Class II/III decay at the time of screening
- The number of elementary schools utilizing oral health literacy curricula
- The number of cities with fluoridated water by 2022
- The number of oral health policies passed by 2022
- The annual average satisfaction score for stakeholders participating in the Advisory Committee

In addition to the aims of the evaluation approaches discussed above, it is worthy of notation to also indicate that another purpose of the evaluation process was to determine, on a 'big picture' scale, the significance of the LOHP and its purpose among the community, decision makers, and our partners. Oral health has often been forgotten in conversations and decisions being made that pertain to community health, and was not a topic that was on the forefront of the minds of many decision makers and health care entities outside of dentistry itself. In some ways, the impact of our program, which can somewhat be measured by our evaluation metrics, was also a way for us to reflect on how 'ready' and interested the community was in regards to prioritizing oral health at the policy, system, education, and awareness level. We did not necessarily set out with this aim, but in retrospect it certainly became clear to us that some metrics reflected the tone or interest (or in some cases disinterest) in bringing oral health to the forefront of health discussions.

INTRODUCTION

Use and Need for the Evaluation Plan

There are several reasons for our approach to evaluation of the LOHP efforts over the past 5 years. At the time that the LOHP received the Prop. 56 oral health funds, there had already been a robust and active oral health collaborative meeting regularly who had commissioned a 5-year NA which, in turn, became the foundation for our Action Plan and evaluation metrics of the LOHP once the Prop. 56 funds were in place.

The group that had been meeting, which became known as our OHAC, was largely interested in community water fluoridation and had worked on efforts in the City of Davis with no success in past years. They did recognize that community oral health literacy, a need for better access to oral health care, and improved interventions for children (like screenings and school-based education/care) were also part of the broad approach needed to move toward water fluoridation and overall improvement of oral health status.

This impassioned group (OHAC) was a major audience for our evaluation efforts because it was widely recognized that we needed a way to assess the impact of our efforts, even beyond the program funded by the state. Further, the Evaluation Plan and metrics helped set some expectations and 'level set' some of those expectations as to what was feasible and realistic to measure, and what the benefits and limits of evaluation would be. This was helpful to educate stakeholders who had no background or experience with public health and, at times, lofty ideas about what we could accomplish or change simply because their strong passion and desire for better oral health outcomes outweighed experience with population health.

Additionally, the evaluation metrics were the first of their kind for the LOHP, as no previous data regarding the impact of school screenings, oral health literacy, policy development, etc. had been documented. Thus, we were starting from scratch in developing a menu of metrics that would reflect the work of the Prop. 56 program, as well as the overall work/vision of the OHAC.

Priority Populations

In Yolo County, based upon the 2017 NA that informed the evaluation plan, the priority populations for interventions were:

- Elementary school children, particularly at those schools with > 50% FRPM
- Medi-Cal eligible residents who may not realize their Medi-Cal benefits also include oral health benefits (Medi-Cal Dental)
- Seniors, particularly those with limited access to dental services or who have other physical limitations with holding toothbrushes, or have untreated decay and are at a risk for tooth loss
- The City of Woodland, specifically regarding water fluoridation

- The LatinX community, particularly families and young children, rural communities, migrant communities and those who are undocumented and do not have access to Medi-Cal Dental services or other forms of dental insurance
- The population as a whole in Yolo County, given that there is widespread under-utilization of dental benefits for routine care even among individuals with dental insurance

Meetings were held in late 2018 to mid-2019 with the OHAC to determine the aims, metrics, and intended audiences for the interventions. Additionally, the LOHP Coordinator had several sessions with OOH staff to discuss the Evaluation Plan. The evaluation grid in Appendix II, showing the measures and the data, were developed in early 2019 with the OHAC.

The following is a table of data measures, the audience to receive the information, and the purpose of the data and how it could be used to better the program and/or improve outcomes for the community.

Table 1. Overview of Data Measures, Audiences, and Purpose of Evaluation Metrics

Data measures	**Audience shared with**	**Purpose/Discussion**
Social media, media campaign impact, outreach event reach	-LOHP Staff -OHAC - HHSA Branch Leadership team	- determine utility of media and outreach -demonstrate breadth of reach -analyze which campaigns/messages were most effective -determine gaps in outreach/public dissemination of information
School OH curriculum utilization data	- School district leadership - OHAC - Healthy Yolo (includes BOS, WIC, MCAH, and many stakeholders) - Press release to local community	-highlight successes/wins - encourage other districts to onboard and use curriculum - to link education and changes in decay rates at schools over time - address challenges/barriers in getting OH curriculum into schools -support relationships with schools
School Screening Data	-OHAC -School leaders -Public (press releases, media) -Screening partners	- celebrate successes and positive trends in data -look for gaps in schools screened and create a plan to fill gaps -identify schools with high decay rates for intervention support -educate decision makers about the need for early oral health intervention
SCOHRS data	-OHAC -County office of education	- identify gaps in schools not entering data and work with them to enter data

	-School Districts -School nurses	-work with schools to understand the messaging to parents regarding the screening and help them become 'pro' screening
Medi-Cal Dental and ED visits with an oral health diagnosis data	-OHAC -Healthy Yolo Stakeholders -Hospital Medical Directors -Medi-Cal Dental providers in Yolo County -Sacramento District Dental Society (SDDS)	-look at trends in data to determine if upstream prevention efforts are having an impact -help increase the number of youth receiving preventative care to be at least at the state average -advocate for more Medi-Cal dental providers in the County
Meetings with elected officials, decision makers, institutional leaders to discuss OH policies (include meeting outcome data)	- HHSA leadership - OHAC - Community members/champions - OH stakeholders	- Keep County leadership informed and garner support for discussions around fluoridation - Engage champion residents when needed to advocate for policies - Inform OH stakeholders, including OHAC, of progress on policy work (particularly water fluoridation) - Adjust strategies if we experience roadblocks
Medi-Cal Dental office use of Tobacco Cessation/RYD materials	- Medi-Cal Dental offices - OHAC - SDDS - Smile, CA staff	- Identify challenges in discussing these topics - Identify creative ways to encourage discussion of these topics in dental settings - Understand dental patient receptivity to information - Compare our program to other programs in the region
Advisory Committee Participation Satisfaction	-LOHP Staff - HHSA leadership -OHAC	- improve satisfaction of scores that are low - Understand the needs of the OHAC and how the OH program can support that -Celebrate success if scores are high -Look at how satisfaction compares with overall success of the OH program and address negative trends/gaps

Meetings were held in late 2018 to mid-2019 with the OHAC to determine the aims, metrics, and intended audiences for the interventions. At this time the OHAC was comprised of approximately 30 stakeholders, including FQHC representation, private dentists, CBOs working with low-income families and rural communities, CHDP staff, WIC, and others. Input about evaluation metrics was also solicited from Yolo County HHSA Prevention Program staff, who had experience with evaluation metrics for health promotion, as well as branch leadership. Additionally, the LOHP Coordinator had several sessions with OOH staff to discuss the Evaluation Plan. The evaluation grid in Appendix II, showing the measures and the data, were developed in early 2019 with the OHAC.

Data was shared routinely at OHAC meetings, including health literacy data (education events, classes taught in schools, etc.), school screening data, and widespread literacy campaign data, such as movie theatre ads. However, the data sharing component was only in place for approximately a year before COVID hit and the LOHP staff were redirected to COVID.

During OHAC meetings, data was used to discuss needs to adapt or enhance program activities to help support better impact/outcomes. Data also spurred discussions about how to increase the number of schools participating in screenings and providing oral health education. In 2022, various metrics were shared with two County Board of Supervisors with regard to supporting fluoridation efforts. Attempts have also been made to connect with a City Council member in Woodland to discuss oral health overall, and to begin discussions about water fluoridation in Woodland. That effort is on hold as the water fluoridation sub-group develops their community outreach plan.

Data was also provided to HHSA leadership for consideration to include in Board Updates when appropriate. Finally, school screening data for the districts was utilized to garner support to add additional schools to the screening schedule through letters from the Yolo County Health Officer to the school principal. This method was effective in onboarding more schools in West Sacramento's Washington Unified School District and for re-invigorating efforts in Esparto Elementary school. Further, decay rates from pre-schools in Davis as well as data for the county overall was useful in helping the DJUSD allow for screenings to occur at select schools.

Plans were in place to provide oral health data 'scorecards' for each school district on the LOHP website. However, delays in getting the website finalized and then the onset of COVID stalled those efforts. They will be revisited in the next 5-year cycle, as the website is up and running, and staff have received training on how to update the website.

EVALUATION METHODS AND DESIGN

Collection methods and data sources were identified in 2017, during development of the program evaluation plan, and are listed below in Table 2.

Table 2. Evaluation indicators and data sources

Indicator	Data Source (Bold denotes qualitative or mixed approach; unbolded is quantitative measures
The percentage of child (1-20 years old) Medi-Cal Dental beneficiaries in Yolo County that receive any dental service, as compared to the overall percentage for California children	https://www.dhcs.ca.gov/services/Pages/DentalReports.aspx
The rate of ED visits with a dental diagnosis, as compared to 2016 rates for Yolo County and the state	https://www.dhcs.ca.gov/services/Pages/DentalReports.aspx
The percentage of students screened who show Class II/III decay at the time of screening	Source: screening data from our FQHC partners who provide screening data. A standardized form was developed for data collection, and agencies provide the form by July 15 annually for the school year. **See Appendix III for the form.**
The number of elementary school students who receive oral health screenings in school or community settings	Source: screening data from our FQHC partners who provide screening data. A standardized form was developed for data collection, and agencies provide the form by July 15 annually for the school year. **See Appendix III for the form.** **Additional Source**: SCHORS data for each district. This provides data on how many entering Kinders have visited a dentist and received a screening
The number of cities with fluoridated water by 2022	Key measure: Documented if a policy were to pass. Other metrics include number of visits to elected officials, and **discussion/documentation of the general 'tone' of the elected official as it pertains to fluoridation**, number of dentists in needs assessment that support water fluoridation Other metrics: number of community events, particularly in Woodland, to raise oral health literacy/awareness as an indirect effort to help residents understand the importance of oral health care, including policies to help reduce oral health decay

The annual average satisfaction score for stakeholders participating in the OHAC	Data from annual survey, completed by SurveyMonkey, paper form at OHAC meetings (pre-pandemic), or MS Forms (2022); **Qualitative questions with quantitative rating scales. Data is discussed at meetings, especially responses to the questions about what members would like to see different or improved for future meetings.**
The number of oral health policies passed by 2022	Documentation of policies passed. **Information, such as meeting notes with key players in policy development, any surveys, or materials related to the policy will be retained.** In our case, the policy that was passed with Dignity Hospital was the implementation of the HAPPI protocol. This involved discussions with Hospital Risk Management staff and provision of the policy electronically. It was not a difficult policy to move forward.
The number of elementary schools utilizing oral health literacy curriculum	Data included documentation of schools implementing the curriculum, the number of trainings to school staff on the curriculum that the Yolo County LOHP staff provided, **evaluation of the curriculum by teachers/nurses (very rarely did they submit their evaluations);** LOHP staff also visited a number of schools with their mascot "Mighty Molar" to help reinforce the messages and got verbal feedback about the curriculum (which was largely positive).

Data collection limitations

Several factors disrupted our data collection efforts during the 5-year grant period, and they include:

- Initial challenges with getting all FQHCs to report data in a consistent way to the LOHP; this was resolved with a meeting to discuss and develop a uniform reporting form that was implemented in 2019 for the 2018-19 school year, and beyond
- Difficulty getting feedback from school nurses or teachers who implemented the oral health curriculum to complete the post-lesson survey which asked about how useful and impactful they felt the lesson was to students
- COVID and staffing issues – From February 2020 through December 2021 LOHP staff were partially or completely redirected to COVID efforts. Further, at the same time that COVID caused widespread shut-downs and staff re-direction, the previous LOHP Coordinator has taken a new position as a manager. Hiring

of the LOHP Coordinator to backfill the position did not occur until March 2021, and he did not assume his role in full until January 2022.

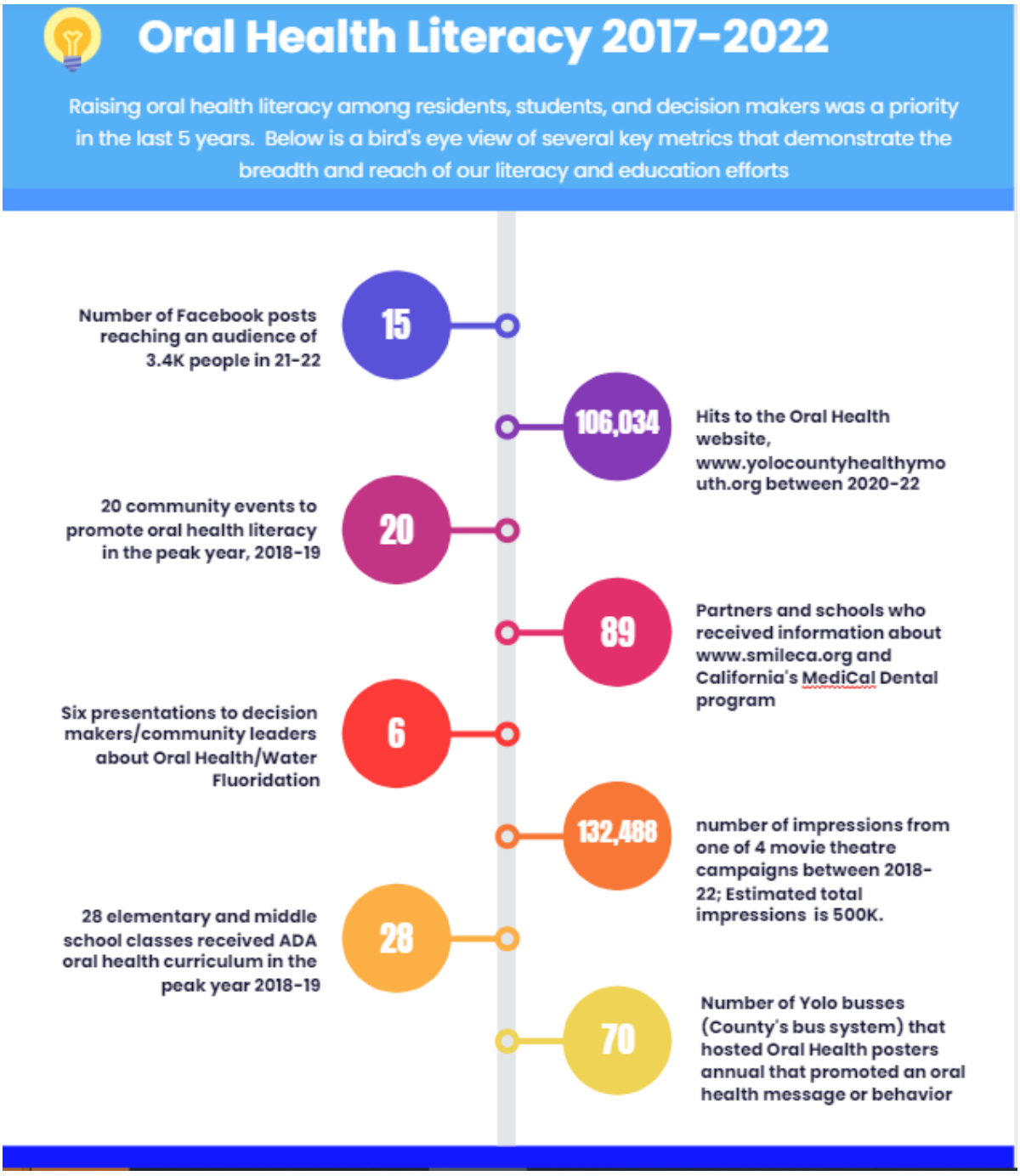
- COVID and limitations on screenings- given our screening program is largely school-based, with some limited community-based screenings, these activities halted in March 2020. The timing meant that planned screening and education events for the 19-20 school year did not happen at many schools, as Spring was a time of frequent screenings/lessons implemented. Given our own lack of staffing during COVID and also persistent limitations on who could go back to school campuses after COVID, collecting screening data and providing education was very limited.
- Challenges in working on water fluoridation, which is a key policy initiative: We started a water fluoridation workgroup, but due to COVID and also limited experience of the LOHP staff with water fluoridation, the committee did not make much progress until Spring 2022 when Marjorie Stocks and Dr. Pollick stepped up to help us plan and get organized around this effort.
- Medi-Cal Dental utilization and ED rates: while the data is available, the efforts to educate residents about their Medi-Cal benefits was non-existent during COVID. It was a common education point at health fairs and community events, which have only recently been happening again in 2022

RESULTS

A complete list of results for all metrics can be found in the Evaluation Grid, Appendix II.

A number of evaluation measures pertained to increasing oral health literacy and educating leaders and decision makers about oral health. The graphic below provides an overview of some of the oral health literacy/education efforts during the 5-year grant cycle. Of note is the fact some form of oral health education was delivered in the classroom in 75% of elementary and middle schools during the peak year. Priority was given to schools that are > 50% FRPM, yet no school was excluded from receiving education. Our team received special permission from the ADA to translate the Smile Smarts curriculum into Spanish to accommodate our Spanish-speaking students and to be used at dual immersion schools.

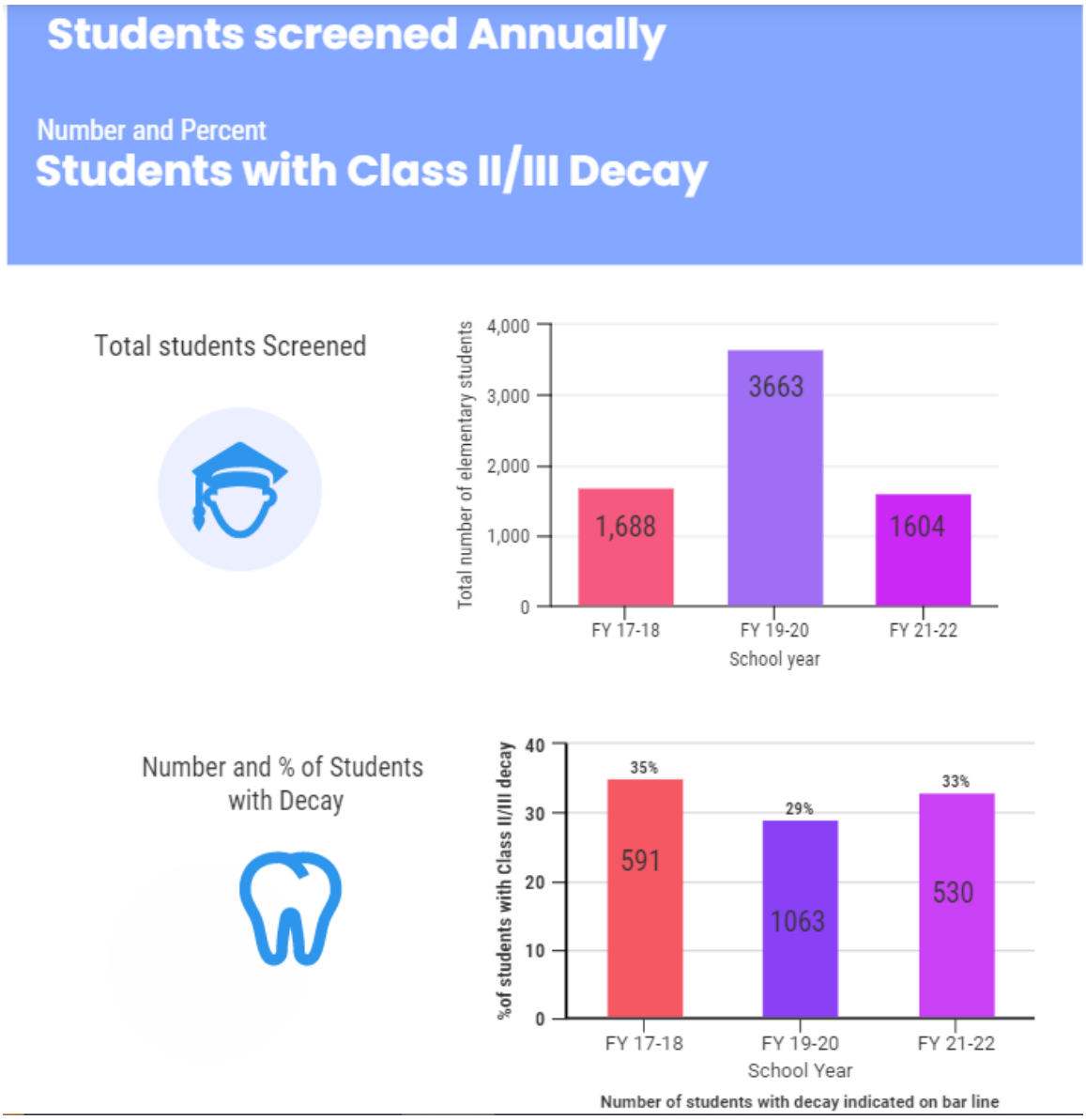
Education materials were provided in English and Spanish at community events when available and the LOHP health educator, who attends most of the events, is bilingual Eng/Spa as well.



Improving access to school-screenings for elementary school students was a priority effort. The pattern for screening data shows a bell-shaped curve, with a peak in the number of students being screened in the 2019-20 school year. While COVID closed schools in March 2020, many screening activities had already occurred in the fall and winter 2019-20, providing us with the largest number of students screened. Approximately 1/3 of elementary school students grades K-6 received an oral health

screening on campus during the peak year. Unfortunately, decay rates did not show a decline during the 5-year period. However, comparison across years is difficult given the number of students screened was nearly zero in the 20-21 school year, and was back down to grant inception numbers in our 5th year, largely due to slow revitalization of the program post-COVID.

Staff at two of our three screening partners are bilingual Eng/Spa, and we have an on-staff health educator who is bilingual in Eng/Spa as well who was available to help support school screenings when possible.

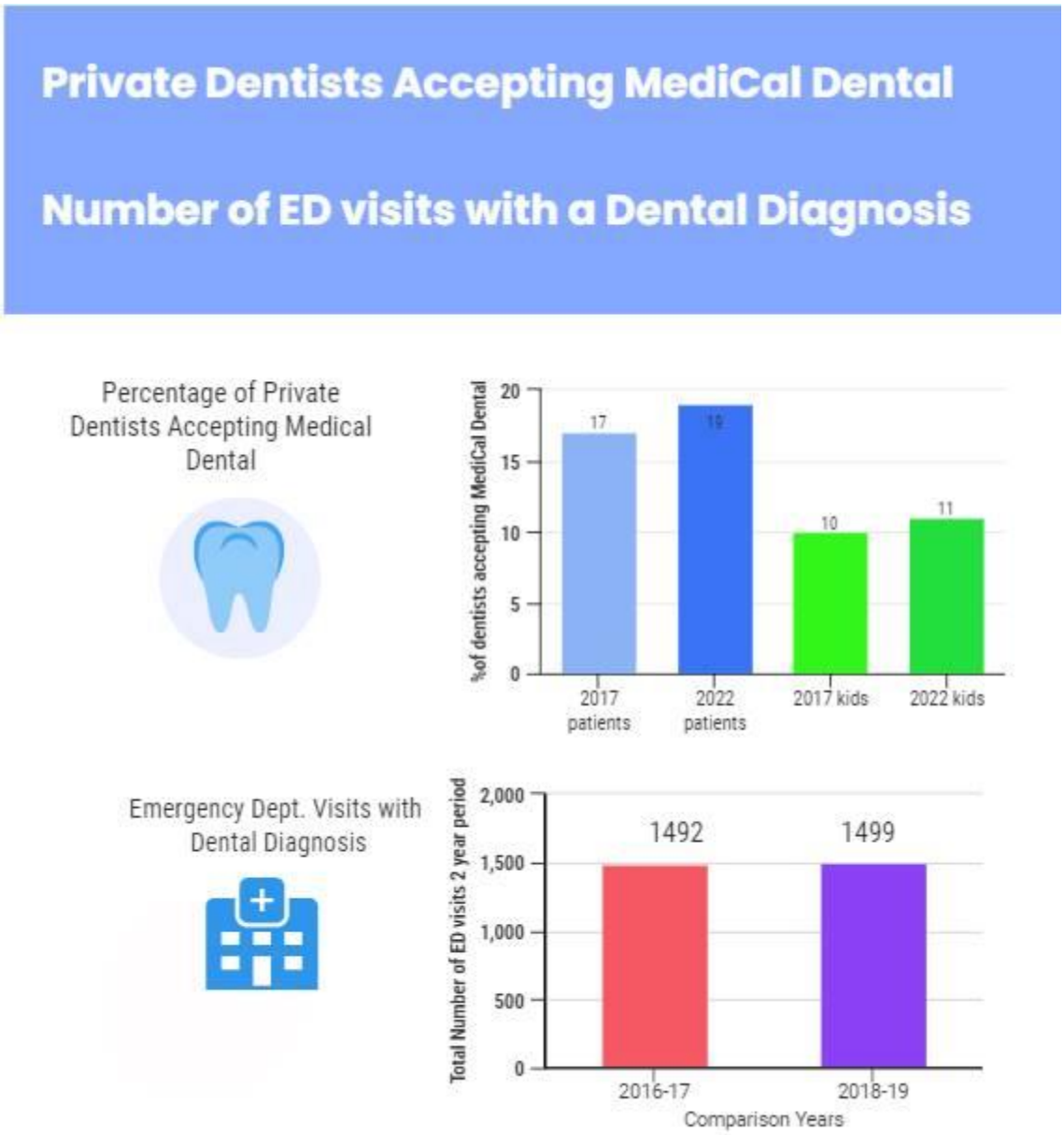


Similar to the trends in school screening data pre and post pandemic, KOHA data, as entered into SCOHRS shows that the 19-20 school year was the peak year for entry. . The 20-21 and 21-22 school year entries have been far less due to the pandemic and schools lacking capacity to do the entries. We are seeing a resurgence of schools entering data, but still far below the 19-20 school year levels. Some schools were also delayed in entering 20-21 data until 2022. Similarly, 21-22 school year data has only been entered by one school district and therefore additional entries for this year may be forthcoming as the school nurses get caught up with their work.

The data in SCOHRS reveals there being high KOHA participation rates with the families returning the assessment forms. In the 19-20 school year, there was a 75% KOHA participation rate across the four districts returning the assessments. In the 21-22 school year, there was a 92% KOHA participation rate for Woodland Joint Unified School District. We intend to re-connect with the school nurses responsible for entering data into SCOHRS before the 22-23 school year. We attempted to onboard the two additional districts in 2019 to participate in SCOHRS that had not previously entered data into SCOHRS to no avail. However, we will resume our efforts to support their use of SCOHRS in the upcoming year and beyond.,

An additional aim was to increase access to dental care, particularly for the Medi-Cal Dental program recipients. Limited care options have been a long-standing issue in the county. Efforts have been made to expand dental services within the FQHCs as well as to encourage private dentists to accept more Medi-Cal Dental patients.

Data shows that there was a slight increase in the percentage of private dentists accepting Medi-Cal Dental. What is also not visible from this data is that one of our FQHCs, Elica Health, purchased a mobile dental van, called HOW (Health on Wheels), that is utilized to bring care to hard-to-reach populations. Thus far, HOW has made regular visits to one of Woodland's homeless shelters, 4th and Hope, and to some of the seasonal Migrant Camps to reach our LatinX migrant workers. Further, CommuniCare Health Centers has opened a specialty office to serve pediatric patients and provide more complex dental services than their regular clinics. However, hiring a specialty dentist has been problematic.



A final focus of our program was on increasing the number of oral health policies in Yolo County. The primary desire was to achieve water fluoridation in one additional city. However, due to COVID and also due to the length of time needed to achieve fluoridation, we did not accomplish that goal. We did aid in the implementation of one oral health policy with our healthcare partner, Dignity Health. With support from Dr. Diane Baker, who is a national leader on implementation of the HAPPI protocol to reduce non-ventilator, hospital-acquired pneumonia in surgical wards, we were able to accomplish this and now both Yolo County Hospitals have this policy adopted (Sutter Health already had the policy in place). Dignity reported a 50% reduction in hospital acquired pneumonia since implementing the protocol. While the HAPPI protocol is

more about reducing infections, it still elevates the importance or oral health in overall health and shows that oral health behaviors play a key role in maintaining health far beyond just keeping teeth cavity free.

See the link below for a one-page overview of HAPPI.

https://www.hqinstitute.org/sites/main/files/hqi_2017_quinn_poster.pdf

Here is a short video about the HAPPI protocol:
https://www.youtube.com/watch?v=1VmfcHu8F70

DISCUSSION

Interpretation of Results

Oral health literacy and education

The reach of the program with regard to improving oral health literacy was demonstrated by the depth and breadth of literacy activities our program completed. We aimed to reach several key groups with our messaging: students, parents of young children, Medi-Cal eligible residents, the LatinX community, and decision makers.

Our data showed that we achieved this, as well as put forth literacy campaigns to reach the broader audience as a whole.

Anecdotally, we learned through conversations with students, teachers, residents at community events, and our dental partners, that oral health literacy and the priority given to oral health is very low, especially relative to the attention paid to what is traditionally seen as medical health or physical health. Thus, investing the time and funds into elevating oral health literacy and general awareness of how important oral health is for overall health, was important and necessary if we also wanted to reduce decay rates and improve utilization of services.

Upon review of the various media channels we utilized, it became clear that some are more impactful than others, especially when cost is considered. We will move away from movie theatre campaigns in the future, as it is difficult to say that they had much impact even if impressions are high. Most people might go to the movies once or twice in a month, and need to arrive prior to the movie begins to get the message. They are costly ads. Instead, we might shift our funds to more external bus ads, print ads in local circulars that are distributed to every household, and cost-free methods, such as social media.

Literacy efforts also included oral health curriculum utilization in schools, which expanded greatly during the 5-year period. It is difficult to say how much the program might have grown even further had it not been for COVID. The long term win is that now all districts have in place a relationship with the oral health program and/or

screening partners who provide education and are open to training nurses/teachers on curriculum. We already have plans in place to train the nursing students who work at one of our largest districts and have implemented the curriculum in years past.

More work needs to be done on institutionalizing oral health education in schools as part of regular health curriculum, and our hope is that over time we can be a part of the process to do so.

Screening and Decay rates

Similar to the education efforts, the screening data pattern has a 'bell shaped' curve, as the program peaked in the 19-20 year and then fell off due to COVID. Because screening data was largely non-existent in the 20-21 year, and light in the 21-22 year, the sample size at year 1 and year 5 were similar, but difficult to compare decay rates to year 3, our most robust year.

Regardless of sample size, it's clear that the decay rates among elementary school students is higher than preferred, so there is work to be done as well.

Prior to COVID we were on track to have screenings done for nearly every kindergarten and 3rd grade classrooms, in addition to other grades as well in some districts. Given that screenings in the 21-22 school year only happened for two months of the school year and yet we achieved screening the same number of students as were done in the entire 17-18 school year, we are confident that next year and beyond we can get back to our goal of screening all kinders/3rd graders and more.

With regard to decay rates and prevention, we also lost momentum on our KOHA efforts, which were growing prior to COVID. In the 19-20 year we had worked with districts to determine which schools/districts were reporting and offered TA and support to those who were not. Unfortunately we experienced a 'closed door' in two districts who simply did not want to participate in collecting and entering the data.

Now that COVID has passed and there may be changes in staff and mindset about health initiatives in schools, we will refocus efforts to get those schools/districts on board and also focus some of our community education efforts on the importance of completing the KOHA for every child, and the importance of establishing a dental home. Poor screening data, showing high decay rates, can be levered with the districts to spur better participation and reinforcement of KOHA.

Access to Care: Medi-Cal utilization rates, ED visits, dentists accepting MediCal

An additional goal of the LOHP was to improve utilization of dental services, particularly for the Medi-Cal eligible population and reduce the rates of ED visits coded to oral health issues, which might indicate that residents were seeking oral health care for issues before they became emergencies.

We do not have data for recent years, but comparison of the 2018 and 2019 data for number of Medi-Cal Dental recipients who received services was nearly identical: 10,915 and 10,819, respectively. Increased efforts to inform the community about Medi-Cal Dental services as well as the increase in residents utilizing Medi-Cal overall during the pandemic might show that the numbers for 21-22 have increased, but that data is not available.

What is available, however, is the data on percentage of dentists who accept Medi-Cal Dental. We saw 10% increases overall in the number of dentists who accept Medi-Cal Dental for both adult and pediatric dentistry. Yolo County is still lacking specialty care and we know that wait times for dental appointments at FQHCs can be up to several months. Thus, more work is to be done in this arena. CommuniCare, an FQHC partner has struggled to hire a specialty dentist for the specialty suite they have built, likely due to wage gaps between private specialty dentistry and FQHC dentistry.

Further, overall in the dental industry there is a lack of trained dental professionals available for hire. FQHCs are struggling to hire RDH, or dental assistants, in addition to dentists. With inflation and cost of living being high in our region, RDHs and dental assistants may have turned to other professions and dentists may be seeking employment elsewhere or not choosing to consider FQHC work.

Actionable Recommendations

The list of actionable items that the LOHP will carry forward into the upcoming 5-year grant cycle include:

- Updating the Evaluation Plan in Q1 of the new grant cycle
- Establishing a protocol for an annual evaluation data summary and review by the OHAC every July or August
    - Adjustments to data collection or metrics can be made at this time
- Reaffirming the school screening sub-committee to ensure annually that all screening partners are in agreement on which schools they are responsible for screening, utilization of the form, and any other logistics needed
- Discussion with the OHAC and the County Performance Measure Steering Committee whether it would be better to continue focus on K/3rd graders for screening, or all grades in elementary school for data reporting
- Reviewing and documenting Medi-Cal-related oral health data annually
- Aiming for 85% participation rate in the annual OHAC survey
    - Build in a plan to release the survey the same month annually for consistency
- Create a one-pager of oral health data points and program strategic goals for decision makers/elected officials

- Create a short 'report card' of oral health data for each school district annually based on screening data
- Post the Evaluation Plan, Evaluation Report, and annual district scorecards on the website www.yolocountyhealthymouth.org

Lessons Learned

It's difficult to discuss the lessons learned without looking at the impact of COVID on the program. Prior to COVID we were seeing growth in key areas, such as school participation in education and screenings, robust participation in OHAC meetings, and strong community engagement. Lack of staffing in COVID made most of the work impossible, and getting back to school screenings was delayed until Spring 2022.

Some lessons that came out of COVID, as we look critically on the program and what works and what is useful and impactful, here are some insights:

- Identifying a clear role for OHAC members is important for keeping some of the oral health work going even if/when the LOHP staff are unavailable
    - Action item is to develop workgroups for key components of the oral health SP and to have a chair who is a non-LOHP member
    - Work groups can also work on aspects of the strategic plan that do not fall under LOHP work plan priorities as funded by Prop. 56
- Develop an Action Plan for our SP and identify which members will work in work-groups (sub-committees) to advance that work
- Develop the website in such a way that uploading key items, such as evaluation results, new resources, etc. is easy- ensure that staff are trained to do this
- Some things are out of our control, such as schools being inaccessible for screenings – consider looking at other ways of screening students that doesn't depend upon schools

Other lessons learned are the sum of experience with the program overall, and are as follows:

- Leverage data to create a compelling case as to why schools should participate in screenings and get the Health Officer onboard via a letter to the schools; consider sending this out to all schools and districts who don't participate in screenings
    - This was useful in several cases to get the school onboard with screenings
- Engaging private dentists is difficult, especially with our limited staffing; utilizing relationships with the local Dental Society study club and Sacramento District Dental Society (SDDS) has allowed us to better connect with local dentists. We will be engaging some dentists on the OHAC to try and implement tobacco

cessation counseling and resources along with providing RYD resources for their patients

- In discussing water fluoridation, work with the Technical Assistance team at UCSF and follow their water fluoridation manual (recently developed) for the process
    - Level-set expectations and timelines with fluoridation workgroup members who want to get ahead of the game and do community outreach too early
- Community events and media promotions are fun and engaging ways to spread oral health messages, but being choosey about which ones to participate in will avoid over-burden on staff and minimize pouring resources into activities that don't provide a clear return on investment
    - Example: movie theatre ads- innovative and have a large reach, but there is no clear way to know what he impact is, which makes it hard to justify the cost
    - Example: Some community events have had little turn-out, especially post-pandemic, and others where we don't see our target audience as much

It is important for the LOHP to clearly understand the distinctions of the workplan from OOH and the SP developed with the OHAC and identify where there is overlap to not duplicate efforts. Also, it is important to understand where there are differences between the plans to not miss anything. The LOHP found it useful to focus the OHAC meetings around the strategic goals outlined in the SP and build them into the agenda for each meeting so that updates and action items are addressing the goals and priorities to ensure we are staying on track

The LOHP has found partnerships are critical for furthering the oral health work in the county. The school screening partners are particularly important for maintaining professional relationships with and assisting them with expanding their efforts for increasing the number of children screened. These school screening partnerships have allowed for unique opportunities in order to expand the reach of school screenings and leverage the ability to provide follow-up services for children in need of dental care, such as fluoride varnish applications and sealant placement.

The developing partnership with Elica Healthcare has proven to be advantageous for this with their mobile dental van that is equipped to provide these services easily on-site. Also, a new potential partnership is developing with the LOHP and Oral Health Solutions that is seeking to implement the Medi-Cal Dental Referral and Navigation System (MDRAN) in Yolo, where SDDS would provide care coordination with the referral follow-ups for children to receive dental services; the LOHP hopes to work with its school screening partners to implement this new tracking system. SDDS has already been an important partner to connect with Yolo dentists for implementing workplan objectives as well. Smile, CA has been an invaluable partner for providing and co-branding effective media and outreach materials.

COMMUNCATION PLAN FOR EVALUATION RESULTS

Once the report is accepted by the OOH, the LOHP has the following activities planned to disseminate the information included in the plan

- Send the report to the OHAC and have an agenda item to discuss key findings and what these findings mean for future work
- Post the report on the oral health website, www.healthymouth.org
- Share findings of the evaluation report and the 2022 5-year needs assessment with Yolo County's Health Council, which advises the Board of Supervisors
    - This activity will also be an invitation for Health Council to participate in the OHAC
- Share this report and the 2022 Needs Assessment with the entire Healthy Communities Team in the HHSA, as some metrics may be important as the team embarks on development of the County's 3-year CHIP.
- Utilize these data as talking points in future meetings with our Champion Provider and others in discussing the need for increased oral health resources and awareness on an ongoing basis
- Share the screening data with our school partners to use in strategizing on how to improve school participation in screenings.
- Use data in future social media messages, as appropriate, to encourage residents to engage in oral health best practices to improve oral health outcomes for our community

Appendix I: EVALUATION GRID

Evaluation Question 1A: Did we raise community awareness about Rethink Your Drink (RYD, sugary beverage reduction), tobacco cessation, water fluoridation, and Medi-Cal Dental services?

Evaluation Question 1B: Did we increase oral health literacy among elementary school students?

Indicators or Performance measure	Data Source	Grant Implementation	Grant Close-Out	Was measure met?	How well did you do?	Notes
# of Oral Health Social Media posts and page "likes" on the Community Health Facebook Page	Community Health Facebook page	0 Facebook Posts (FY17-18)	5 Facebook Posts (FY18-19) 15 Facebook posts; 3.4k followers on HHSA Facebook page (FY21-22)	Yes	Increase	Social media messaging became a higher priority with the pandemic and people staying home
# of "Hits" to the Oral Health website, including "Hits" on information about RYD, tobacco cessation, water fluoridation and Medi-Cal Dental	Web designer, Angry Sam productions	0 (FY19-20)	106,034 (2020 – 2022 YR)	Yes	Increase	Website launched July 2019 and data on "hits" was only available starting June 2020
# of community events where Oral Health information and MediCal Dental information is shared	Activity Tracking Form (ATF)	O Events (FY17-18)	20 Events (FY18-19) 2 Events (FY21-22)	Yes	Decrease	The pandemic stopped events entirely in March 2020 and lasted through 2021
# of community presentations to adults about oral health and access to oral health care services	Activity Tracking Form (ATF)	0 Presentations (FY17-18)	1 Presentation to RISE Inc. Senior Group (FY18-19) 0 Presentations (FY21-22)	Yes	Decrease	
# of dental providers with Rethink Your Drink and/or tobacco cessation materials in waiting areas or available for	Activity Tracking Form (ATF)	0 (FY17-18)	3 (RYD at CommuniCare Woodland, West Sac, Davis) (FY18-19 – FY21-22)	Yes	No Change	

distribution to patients:						
# of media campaigns or social posts educating the community about water fluoridation:	Activity Tracking Form (ATF)	O (FY17-18)	1 media campaign (website) (FY21-22)	Yes	Increase	
# of partners& schools who receive information about MediCal Dental/Smile California	Oral Health staff email to partners with resources	0 Partners; 0 Schools (FY17-18)	30 Partners; 39 Schools (FY19-20) 44 Partners; 45 Schools (FY21-22)	Yes	Increase	
# of presentations to stakeholders/decision makers about oral health:	Number of presentations and audience reported in ATF	0 (FY17-18)	1 (FY18-19) 1 (FY19-20) 1 (FY20-21) 3 (FY21-22)	Yes	Increase	6 Total (Yolo Dental Society 11/9/17; Health Council 7/11/19; Health Council 10/8/20; Supervisor Saylor 9/1/21; Yolo Dentists 2/9/22; Supervisor Barajas 3/4/22)
# of media campaigns (bus ads, movie theatre adds, newspaper ads) that promote MediCal Dental/Smile CA and/or the Oral Health website for low cost provider information	Media source reach information, ATF for number of ads and timing of the ads	0 (FY17-18)	2 Newspaper Ads; 4 Movie Theatre Ads (FY18-19) 4 Movie Theatre Ads; 4 Streaming Ads (Peacock and Hulu); 2 Exterior Bus Ads (FY21-22)	Yes	Increase	

# of elementary school classrooms that receive oral health education annually	School District nurses; tracked in the ATF	0 (FY17-18)	28 classrooms (FY18-19) 8 classrooms (FY21-22)	Yes	Decrease	OH education started off strong in Davis classrooms in 2019 and various other schools in Yolo, and the pandemic stopped all OH education in March 2020 and then re-commenced in Fall 2021; slowly reenlisting schools for OH education
# of Yolo County MediCal-Dental child beneficiaries who receive an oral health service:	Department of Health Care Services online data portal for MediCal Dental utilization	10,915 (Ages 1-18) (2018 YR)	10, 819 (Ages 1-18) (2019 YR)	Yes	Decrease	

Evaluation Question 2A: Did we increase the number of Kindergarten and third grade elementary school students screened for decay and who receive follow up treatment (sealants, fluoride) in the school setting? **Evaluation Question 2B: Did we increase the number of schools that enter Kindergarten enrollment oral health data into the SCOHRS database?**						
Indicator or Performance Measures	**Data Source**	**Grant Implementation**	**Grant Close-Out**	**Was measure met?**	**How well did you do?**	**Notes**
# and % of Kindergarten students screened annually:	Community partners-Northern Valley Indian Health, CommuniCare Smile Saver and	Total Students Screened: 1,668 (FY17-18)	Total Students Screened: 3,663; 77% (FY19-20) 1,604; 70% (FY21-22)	Yes	Decrease	The pandemic drastically reduced the number of students being screened and schools are still being reenlisted by FQHC partners to continue providing screenings. The data shows that screenings increased between

# and % of 3rd grade students screened	Elica Healthcare program staff					FY17-18 and FY19-20 but then decreased in FY21-22. We did not have K and 3rd specific data available from all of our screening partners until post-pandemic, so grant implementation and closeout data provided is from total number of students screened
# and % of screened kindergarten and 3rd grade students who show Class II/III decay and a history of restorations	Community partners- Northern Valley Indian Health, CommuniCare Smile Saver and Elica Healthcare program staff	Total Students w/Class II/III decay: 591; 35% (FY17-18)	Total Students w/Class II/III decay: 1,063; 29% (FY19-20) 530; 33% (FY21-22)	Yes	Decrease (Decay rates have increased)	Same as above, grant implementation and closeout data provided is from total number of students screened to show differences in class II/III decay rates from FY17-18 to FY21-22 even though total numbers of students screened are much less post-pandemic. K and 3rd specific grade data will continue to be focused on moving forward. Also, decay rates have worsened through the pandemic
# and % of screened students who receive fluoride in a school setting after being screened # and % of screened 3rd grade students who	Community partners- Northern Valley Indian Health, CommuniCare Smile Saver and Elica Healthcare program staff	Total Students Receiving Fluoride: 629; 29% (FY17-18)	0 Fluoride; 0 Sealants (FY21-22)	Yes	Decrease	See Notes above; FY17-18 data is for total students screened. Varnishes have not been implemented post-pandemic at school screenings yet due to Covid-19 concerns and short staffing. Sealants have always just been advised to students needing sealants at screenings via a

receive sealants in a school setting						reporting form that goes home with the students. We will be working with our screening partners to implement sealants at screenings moving forward
# elementary school and school districts that have annual oral health screenings for Kindergarten and 3rd grade students	Community partners- Northern Valley Indian Health, CommuniCare Smile Saver and Elica Healthcare program staff	39 Schools (FY17-18)	45 Schools (FY21-22)	Yes	Increase	
# of Elementary Schools that report Kindergarten oral health assessment data in SCOHRS	SCOHRS database; Oral Health Program Coordinator will access the data	21 Schools (FY17-18)	29 Schools (FY19-20) 17 Schools (FY20-21)	Yes	Decrease	On average half of the schools enter KOHA data into SCOHRS. FY19-20 saw an increase in entries due to the LOHP working closely with the schools to ensure it being completed. We are seeing most of the same schools that were entering data pre-pandemic have been entering data through the pandemic. FY20-21 data was used for grant closeout as FY21-22 data has not been fully entered yet

Evaluation Question 3: Did we successfully engage city council, institutional leaders, and key community decision makers to support community water fluoridation and other oral health policies?						
Indicator or performance measures	**Data Source**	**Grant Implementation**	**Grant Close-Out**	**Was measure met?**	**How well did you do?**	**Notes**
Number of meetings with elected officials or decision makers to discuss water fluoridation	Oral Health ATF	0 (FY17-18)	2 (FY21-22)	Yes	Increase	Water fluoridation has only recently become a higher priority for the LOHP and presentations were given to two county supervisors in fall 2021 and in spring 2022
# of local or institutional champions involved in policy discussions	Oral Health Program ATF, emails, Oral Health Advisory Committee listserv	7 (FY19-20)	9 (FY21-22)	Yes	Increase	The LOHP's water fluoridation workgroup has been rearranged with old members leaving and new members joining from its inception until now but has also increased
# of oral health policies passed	Copy of policy or ordinance from institution or city/county	0 (FY17-18)	1 (2019 YR) 0 (FY21-22)	Yes	Increase	Assisted with passing of HAPPI policy for Dignity Health. Water fluoridation will continue to be the LOHP's priority policy to work on

Evaluation Question 4: Did we increase the number of Medi-Cal Dental recipients who utilized preventative dental services in order to decrease the number of emergency department visits with a dental diagnosis?						
Indicators or Performance Measures	**Data Source**	**Grant Implementation**	**Grant Close-Out**	**Was measure met?**	**How well did you do?**	**Notes**
# and % of private dentists and dental clinics that accept new MediCal dental patients annually	Sacramento District Dental Society (SDDS), Smile California website	Private Dentists Accepting Medi-Cal Dental Patients: 17% (Children); 10% (Adult) (2017 YR)	Private Dentists Accepting Medi-Cal Dental Patients: 19% (Children); 11% (Adult) (2022 YR)	Yes	Increase	
# of ED visits with a dental diagnosis	Department of Healthcare Services OSHPD (Office of Statewide Planning and Development)	1,511 Visits for All Ages (2012-2016 YR) 2016-17: 1492	1,520 Visits for All Ages (2017 – 2019 YR) 2018-19: 1499	Yes	Increase	The data available does not tell the best story considering the Grant Implementation data is over four years and the Close-Out data is over three years and with only a slight increase between the two data points
# of CHDP providers who apply fluoride varnish at visits with children 6 and under	CHDP program staff	0 (FY17-18)	0 (FY21-22)	No	No Change	We tried to coordinate this in the beginning of the grant cycle, but was never followed through with due to CHDP lacking bandwidth and/or funding to implement varnish application for their clients

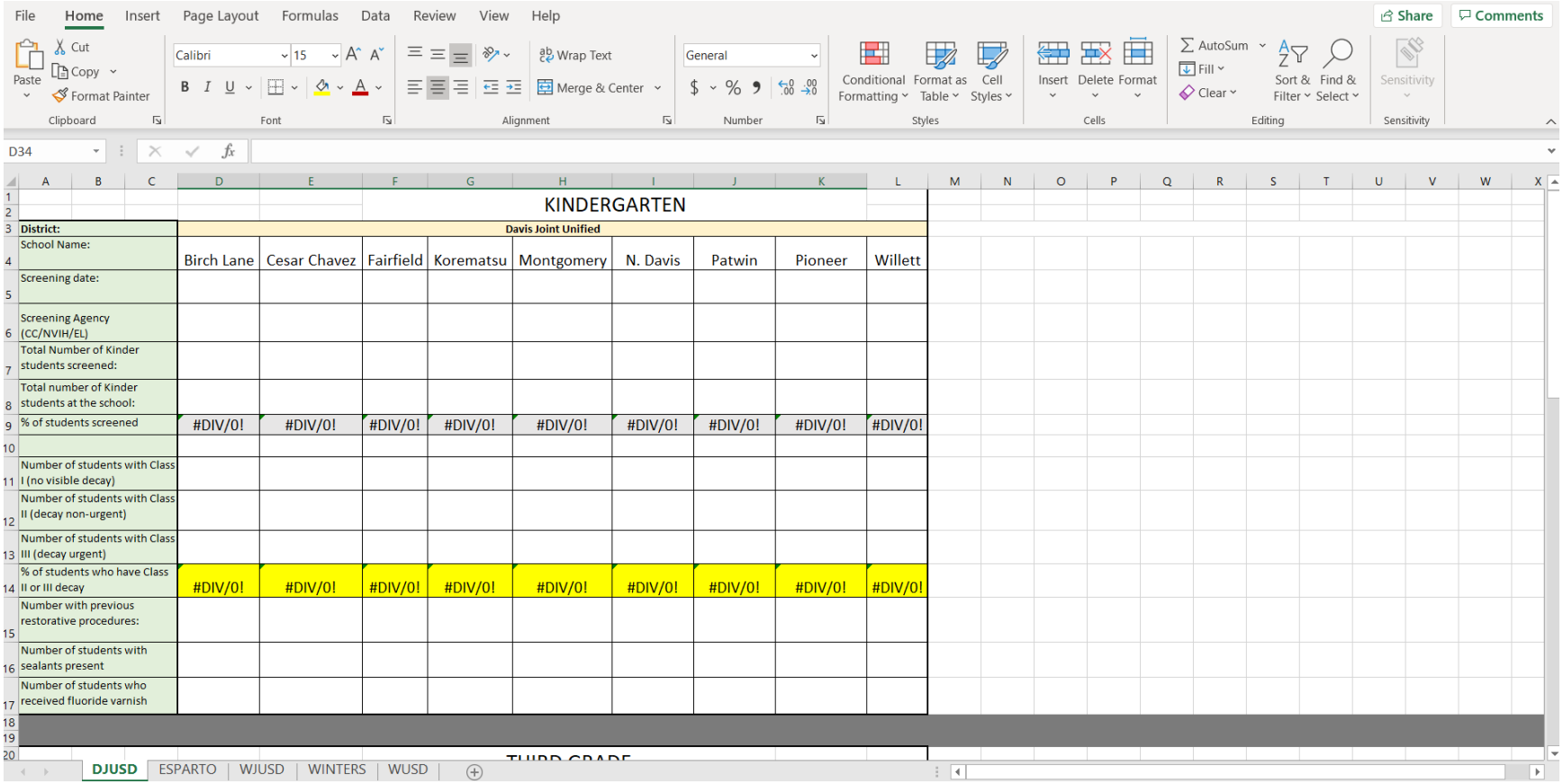
Evaluation Question 5: Have we successfully engaged stakeholders in the Oral Health Advisory Committee as measured by their satisfaction and participation in the Advisory Committee?						
Indicators or Performance Measures	**Data Source**	**Grant Implementation**	**Grant Close-Out**	**Was measure met?**	**How well did you do?**	**Notes**
# of stakeholders who attend monthly advisory committee meetings	Monthly meeting sign-in sheets	20 (FY16-17)	44 (FY21-22)	Yes	Increase	
# and % of stakeholders who rate satisfaction at a 4 or 5 out of 5 on an annual survey	Oral Health Surveymonkey survey	12; 83% (FY18-19)	4; 75% (FY20-21) 13; 85% (FY21-22)	Yes	Increase	
# of organizations on the Advisory Committee master list/email list	Advisory Committee contact list Advisory Committee email list	5 (FY16-17)	17 (FY21-22)	Yes	Increase	

Appendix II: Yolo County Oral Health Logic Model

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	*Short*	*Medium*	*Long*
Staffing Health Officer Oral Health Program Staff (1.65 FTE) **Dental expertise and dental advisors** Denti-Cal/Low-cost dental providers, Safety Net clinics Oral health advisory committee **Community agency partnerships** Community Partners (RISE, FRCs, First5, etc.) HHSA Partners (WIC, MCAH, CHDP) **Collaboration with schools** Yolo County Office of Ed. School Districts Head Start	Coordinate and collaboration data collection, convene advisory groups, provide resources/education, media campaigns Provide expertise on dental needs; relationships with dental community, weigh in on program decisions, promote oral health prevention messages among their patients Host promotion events and classes; encourage oral health prevention behaviors among clients, connect clients to services and understanding of the importance of oral health; promote oral health messages Facilitate screenings; encourage screening participation, engage in oral health education throughout the year for elementary schools; promote oral health behaviors in school	Dental and community partners; CDPH, residents (through media and events); elementary schools and school district nurses Fellow dentists/dental clinics; dental patients; residents with dental messages; decision makers about oral health policies DentiCal eligible clients, stakeholders who can promote the importance of oral health; decision makers, schools/low-income residents; other community-based organizations Students, School nurses, teachers/para-educators, parents of elementary students; student clubs, after school programs; pre-schools, decision makers	**Results in terms of learning or doing** Increased collaboration among partners to improve oral health literacy and access to oral health services by the community Increase promotion of oral health prevention messages among providers and via media, support for oral health policies that improve oral health outcomes, increased literacy of oral health needs among partners Promote oral health prevention messages among clients and partners; improve access to screenings and care for DentiCal recipients, improve oral health education Increase the number of elementary school kids who receive oral health screenings; Improve oral health literacy among staff and students	**Results in terms of changing action** Improve timely access to oral health services for DentiCal recipients; integrate oral health into health discussions/policy development Increase community oral health literacy and utilization of oral health services; Increase community engagement to support water fluoridation or other oral health policies Increase use of preventative oral health services use among HHSA clients; improve community oral health habits Increase the number of kids who receive annual dental visits; Decrease the number of kids and adults with Class II or greater decay	**Results in terms of change to the conditions** Reduce the number of ED visits associated with oral health issues Improve utilization of oral health data to form health policies and promote access to oral health care Increase the number of cities with water fluoridation Reduce the rate of dental decay in kindergarten students, as well as adults; reduce the severity of dental decay in kids and adults Improve health outcomes associated with oral health, such as heart disease, obesity, diabetes, birth outcomes.

Appendix III – Sample Oral Health Screening Data Collection form

Each screening agency uses this form, as an Excel Document, to record all screening numbers, including total students screened, Class II/III decay rates, and other metrics. There is a tab for all school districts. Screening agencies return the form to the LOHP in Spring/Summer after the school year for tabulation.



KINDERGARTEN

District:	Davis Joint Unified								
School Name:	Birch Lane	Cesar Chavez	Fairfield	Korematsu	Montgomery	N. Davis	Patwin	Pioneer	Willett
Screening date:									
Screening Agency (CC/NVIH/EL)									
Total Number of Kinder students screened:									
Total number of Kinder students at the school:									
% of students screened	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Number of students with Class I (no visible decay)									
Number of students with Class II (decay non-urgent)									
Number of students with Class III (decay urgent)									
% of students who have Class II or III decay	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Number with previous restorative procedures:									
Number of students with sealants present									
Number of students who received fluoride varnish									