

Community Health Improvement Plan

Sierra County Public Health Department

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Sierra County Community Health Improvement Plan Sierra County Oral Health Program

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Executive Summary

Key Findings

According to the 2019 United States Census Bureau, there are approximately 3,005 individuals living in Sierra County; of those, half are over the age of 55. Sierra County is classified as frontier due to the limited access to essential services and health resources, including oral health care. There is a variety of reasons Sierra County community members are unable to attain the highest level of oral health, many of which were highlighted in the 2020 Sierra County Oral Health Needs Assessment. These barriers include geographic location, weather conditions, available services offered in-county, limited acceptance of certain medical and dental insurance, and attitude and beliefs about dental health.

To highlight the barriers and gaps for oral health in Sierra County, multiple findings from the needs assessment demonstrate the impact on the oral health disease burden in Sierra County. For example, 21% of East side respondents and 32% of West side respondents reported untreated tooth pain in their household. Sixty percent of West side respondents and 42% of East side respondents reported losing at least one tooth due to decay. Additionally, data from the needs assessment indicates only 32% of West side residents believe they have access to fresh fruits, vegetables, and whole grains. The current oral health status and lack of access to foods of nutritional value are two examples of oral health topics that must be addressed immediately on a countywide scale.

The environmental scan utilized in the needs assessment shows there are two dental providers to serve residents, and one of those accepts Medi-Cal Dental insurance. The needs assessment indicates that 31% of East side community members and 34% of West side community members report paying out-of-pocket for dental care. Based off community survey data and focus group interviews, it can be inferred community members whose insurance heavily regulates what dental providers are in their network will often deter them from utilizing the insurance, thus, they pay for the services out-of-pocket in order to have their dental care needs taken care of sooner and in more convenient locations.

The City of Loyalton water system was fluoridated in the 1960s; however, on November 7, 2006, city residents voted to permanently discontinue fluoridation of their drinking water supply. City residents who voted to discontinue fluoridation won by a narrow margin, with 137 for fluoridation and 175 against. While public water is no longer fluoridated, findings from the needs assessment show that approximately 44% of East side residents and 31% of West side residents surveyed believe that the water is still fluoridated. At a local event where 24 people were surveyed, 38% believed fluoride is not a naturally occurring substance that helps protect against tooth decay. This data paired with conversations with some residents showed that common misconceptions about fluoride are still persistent in the communities; including that fluoride is a synthetic chemical, that fluoride may alter child behavior, and that fluoride is an unhealthy substance.

The framework included in this Community Health Improvement Plan (CHIP) will allow the Local Oral Health Program to better address the oral health status of the County and fulfill the needs of Sierra County communities. Increasing oral health awareness, improving access to education and resources, providing opportunity for increased acceptance of Medi-Cal Dental benefits, and promoting alternative water fluoridation methods will empower residents and may improve and sustain the oral health status of Sierra County residents on a personal and countywide level.

Overview

Advisory Committee

The Sierra County Local Oral Health Program (LOHP) formed an Advisory Committee and facilitated the first meeting in August 2019. The Advisory Committee continues to meet monthly, or as often as needed, and new members are recruited and welcomed. Active members of the Advisory Committee include members from local dental offices, Sierra-Plumas Joint Unified School District, and local medical clinics.

The CHIP was reviewed by the Advisory Committee and adapted. The information in the Oral Health Needs Assessment was used as evidence to provide baseline data and inform the selection and prioritization of health objectives. The mission of this 5-year plan is to provide a roadmap for improving the County's oral health landscape through a unified set of goals and strategies that current and future partners can implement to achieve a healthier Sierra County.

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| Vision | All Sierra County residents will lead a healthy life with a healthy smile. |
| Values | In the pursuit of this vision, our actions will be guided by the following values: <ul style="list-style-type: none">❖ Integrity❖ Compassion❖ Accountability❖ Service |
| Focus | The four areas of focus for the Sierra County Local Oral Health Program include: <ol style="list-style-type: none">1. Healthy Equity2. Informed and Engaged Community3. Evidence-based/Evidence-informed4. Sustainability |

Background

Sierra County is located in the heart of the northern section of the Sierra Nevada mountain range. Sierra County is comprised of one incorporated city and twelve small communities, all widely spread throughout 962 square miles.

Sierra County's Oral Health Program was funded in July 2018; however, the program's start date was delayed until August 1, 2019. To support the mission of the Local Oral Health Program (LOHP), an Advisory Committee was established, LOHP staff attended community events, gave educational presentations to high-risk populations, distributed oral health resources, and collected and analyzed the data for the county's oral health needs assessment.

Since 2009, Sierra County Public Health Department programs including Women, Infants, and Children (WIC) have collaborated with local dental partners to host the annual Dental Fair. At this event, all elementary school students at Loyaltan Elementary and Downieville School receive a dental screening and those with returned consent forms receive a fluoride varnish application. Due to the small population size of Sierra County, all children at the Dental Fair are seen in one day, with follow-up dates provided for absent students. Data collected during the dental fair is consistent with the required information for the Kindergarten Oral Health Assessment. Although Sierra County has been collecting the data for years, it has not been inputted into the System for California Oral Health Reporting (SCOHR). The Local Oral Health Program is actively working with school and State personnel to retroactively enter previous years' data. Once this is complete, the Oral Health Program may be able to run trend analyses.

Since the beginning of the LOHP, program staff have planned and executed many outreach and education events in an effort to increase community engagement and encourage healthy behaviors. Such events include hosting a booth at the Calpine Family Fun Festival, celebrating National Children's Oral Health Month, disseminating toothbrush kits to community members, through student education days and food distribution programs, and collaborating with local partners to provide oral health

education. Additionally, staff have attended conferences and webinars to inform their outreach methods and adopt new activities that promote improved dental health habits.

Sierra County Community Health Improvement Plan for Oral Health

The following sections provide a 5-year framework, which highlights the direction of the Sierra County Oral Health Program. All objectives, goals, and strategies were created in agreement with the Advisory Committee, and seek to promote equity, engagement, evidence-informed/evidence-based practices, and sustainability.

Goals

Goal 1: To improve the oral health of Sierra County residents by addressing determinants of health, promoting healthy behaviors, and implementing evidence-informed programs in all communities.

Goal 2: Promote oral health by developing and implementing prevention and healthcare policies and guidelines for programs, health care providers, and institutional settings.

Goal 3: In partnership with other local organizations and programs, promote tobacco free and sugar free campaigns to community members and dental offices throughout Sierra County.

Goal 4: Re-fluoridate Sierra County public water systems.

Goal One Summary

The Sierra County Oral Health Program seeks to improve oral health and prevent tooth decay by promoting healthy habits among children and adults, such as receiving dental care at least twice a year and learning proper tooth brushing and flossing methods. Efforts to accomplish this goal include improving outreach and education efforts, establishing a school-linked dental service and promoting oral health curricula focused on proper dental hygiene. The following key findings from the Sierra County Needs Assessment informed this goal:

- Approximately 21% of East side respondents and 32% of West side respondents reported untreated tooth pain in their household. 21% of East side respondents and 34% of West side residents reported a member of their household had one or more untreated cavities.
- 60% of West side respondents and 42% of East side respondents reported losing at least one tooth due to decay.
- When asked the True/False question “Children should see a dentist by age one or within six months after their first tooth erupts/appears”, 21% of West side respondents claimed this was false, whereas 8% of East side respondents claimed this was false.
- 18% of West side respondents and 12% of East side respondents believe using a hard toothbrush will clean your teeth better than a soft toothbrush.

Goal 1: To improve the oral health of Sierra County residents by addressing determinants of health, promoting healthy behaviors, and implementing evidence-based/evidence-informed programs

Objective 1.1: By June 2022, a school-linked service will be established at each school in Sierra County for all elementary school-age children.

| Strategy | Activities | Partners | Short-Term Measures | Long-Term Measures |
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| 1.1.1 Support development and implementation of evidence-informed programs for dental sealants, fluoride varnish, and oral health education in local schools | Investigate feasibility of expanding services offered during annual dental fair, to potentially include glass ionomer dental sealants | <ul style="list-style-type: none"> ❖ Schools ❖ Local Dental Offices ❖ Local Dental Professionals and Volunteers ❖ WIC ❖ First 5 ❖ CHDP | Number of Kindergarten – 6 th grade students who received dental sealants, fluoride varnish, and oral health education in school setting | Decreased rates of caries in children Kindergarten – 6 th grade |

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| | Improve opportunities to increase returned signed consent forms and encourage more participation in events like the dental fair | | | |
| 1.1.2 Improve sealant education | Create and adapt sealant education materials | <ul style="list-style-type: none"> ❖ UCSF COHTAC ❖ ADA ❖ CDA ❖ First 5 | Number of materials distributed | Increase number of children who receive dental sealants |
| 1.1.3 Identify at least one provider in the State of Nevada who qualifies as a Medi-Cal Dental provider. If allowable by the state of California, assist in enrolling this provider as a Medi-Cal Dental provider to accept Sierra County residents | Create and distribute a survey to Northern Nevada dental providers about interest in Medi-Cal Dental Provider enrollment | <ul style="list-style-type: none"> ❖ Medi-Cal Dental ❖ Nevada Division of Public & Behavioral Health | Provide a write-up of survey findings to Medi-Cal Dental | Number of Northern Nevada dental providers who accept Medi-Cal Dental |
| 1.1.4 Identify at least one dental champion. Ideally, this champion will not be an existing advisory committee member. | Identified person will follow-up with and link students who need more restorative and/or invasive procedures to a provider | <ul style="list-style-type: none"> ❖ School ❖ UCSF or CDHA (provide dental champion training) | Educational materials, Medi-Cal Dental provider list or contacts | Number of students who were linked to appropriate dental services |

Objective 1.2 At least three educational presentations will be facilitated each year by LOHP staff and/or Advisory Committee members to inform students, teachers, and community members about healthy oral health behaviors.

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| 1.2.1 Collaborate with local and governmental organizations to educate and promote positive oral health behaviors for all populations in Sierra County | Promote infant and toddler dental visits by adapting and creating educational materials and improving outreach | <ul style="list-style-type: none"> ❖ WIC ❖ MCAH ❖ CHDP ❖ Family Resource Center ❖ First 5 ❖ Loyaltton Senior Center ❖ Schools ❖ Health Clinics | Increase or provide dental kits, which include Xylitol gum | Linkage or referrals to services |
| 1.2.2 Coordinate with schools to provide oral | Adopt an oral health curriculum which best suits | <ul style="list-style-type: none"> ❖ School Administration ❖ School Nurse | Number of toothbrush kits distributed | Decrease rate of tooth decay among |

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| health education on a regular basis | the needs of Sierra County | ❖ Teachers | Pre and post observation survey for teachers/parents on children's oral health behavior | elementary age children |
| | Distribute a toothbrush kit after each educational session or every three months, whichever comes first | | | |
| 1.2.3 Collaborate with community partners to provide up-to-date information about best practices for oral health | Create a bi-monthly newsletter to send to partner organizations and key stakeholders with program updates and information on best practices | <ul style="list-style-type: none"> ❖ WIC ❖ MCAH ❖ CHDP ❖ Family Resource Center ❖ First 5 ❖ Loyalton Senior Center ❖ Schools ❖ Health Clinics | <p>Number of newsletters distributed to partner organizations and community members</p> <p>Website metrics for Oral Health webpage</p> | Decrease rate of tooth decay among elementary age children |

Goal Two Summary

Oral health can influence a child’s performance and success in all aspects of life, including school. California data indicates that by third grade, two-thirds of children have been affected by tooth decay. The Sierra County Oral Health Program will be taking a streamlined approach to ensure local Kindergarten Oral Health data is collected, maintained, and reported to benefit the county and state. In order to improve the oral health status and subsequently lower school absenteeism, the Local Oral Health Program intends to increase participation in KOHA, which would allow early detection of caries and provide linkage to care.

| Goal 2: Promote oral health by developing and implementing prevention and healthcare policies and guidelines for programs, health care providers, and institutional settings | | | | |
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| Objective 2.1: By June 2022, establish reporting of Kindergarten Oral Health Assessments (KOHAs) returned to the school district to the System for California Oral Health Reporting (SCOHR). | | | | |
| Strategy | Activities | Partners | Short-Term Measures | Long-Term Measures |
| 2.1.1 Identify current KOHA processes for neighboring schools and Counties, and identify best practices | Collaborate with neighboring and regional counties | ❖ Northern Rural Oral Health Collaborative | Improve screening of Kindergarten and 3 rd grade students | KOHA data will be updated/added in SCOHR system, annually |
| 2.1.2 Develop and implement a KOHA handbook for Sierra-Plumas Joint Unified School District (SPJUSD) and Sierra County Office of Education (SCOE) | KOHA handbook will be created in partnership with California Office of Oral Health and UCSF | ❖ Northern Rural Oral Health Collaborative ❖ UCSF ❖ School Nurse | Improve screening of Kindergarten and 3 rd grade students | KOHA data will be updated/added in SCOHR system, annually |
| | KOHA handbook will be distributed to all elementary school principals and Kindergarten teachers | | | |
| 2.1.3 Collaborate with SPJUSD school nurse or lead staff to educate school staff and parents on the importance of KOHA completion | Annually, host an educational session for school staff and Kindergarten parents | ❖ School Administrative Staff ❖ School Nurse ❖ Community Members ❖ Parents | Number of completed KOHA forms | Number of children who identify as having a permanent dental home |

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| | Facilitate access to a dental home for children requiring an oral health assessment | | | |
| 2.1.4 Annually collaborate with SPJUSD and SCOE to facilitate access and education focused on accurately reporting into the SCOHR system | Provide at least one training on proper methods of reporting into SCOHR system for all new school administration staff | ❖ Schools | Train one person, annually | Report from California Office of Education on Compliance |

Goal Three Summary

The Sierra County Oral Health Program will strive to promote tobacco-free and sugar-free campaigns by collaborating with community partners to develop and disseminate appropriate information. The following key findings from the Sierra County Oral Health Needs Assessment informed this goal:

- 30% of survey respondents on the East and West side of Sierra County currently use tobacco.
- According to the 2017/2018 California Student Tobacco Survey, 30% of Sierra County students in 7th through 12th grades reported ever using e-cigarettes.
- When asked if access to fresh fruits, vegetables, and whole grains is available, 84% of East side respondents answered yes, whereas only 32% of West side respondents answered yes.

| Goal 3: In partnership with other local organizations and programs, promote tobacco-free and sugar-free campaigns to community members and dental offices throughout Sierra County | | | | |
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| Objective 3.1: By June 2022, at least one dental provider will provide tobacco prevention and cessation resources and/or counseling to Sierra County residents. | | | | |
| Strategy | Activities | Partners | Short-Term Measures | Long-Term Measures |
| 3.1.1 Offer tobacco-centered trainings to local dental professionals | Invite TURP staff to at least one Advisory Committee annually to provide updates and presentation to enhance knowledge on current tobacco issues | <ul style="list-style-type: none"> ❖ Tobacco Use Reduction Program (TURP) ❖ Local Dental Offices | Pre and Post survey conducted by TURP | Advisory Committee Member Satisfaction Survey |
| 3.1.2 Attend community events in partnership with the Tobacco Use Reduction Program | At each community event, highlight oral health education by incorporating hands-on learning activity | <ul style="list-style-type: none"> ❖ TURP | Public Opinion Poll or Participant Survey results | Number of community events attended |

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| 3.1.3 Facilitate trainings and acquire educational resources for licensed dental providers and other personnel | Create a list of tobacco cessation resources and provide dental providers with those resources | ❖ TURP | Number of tobacco cessation materials distributed by dental providers | Number of dental and medical clinics participating in materials distribution |
| Objective 3.2: By June 2022, at least three sugar-free campaigns will be promoted in Sierra County. | | | | |
| 3.2.1 Collaborate with California Department of Public Health Nutrition and Obesity Prevention branch | Identify point of contact at CDPH | ❖ California Department of Public Health – Nutrition and Obesity Prevention | Number of materials acquired | Number of materials given to clinics and partner organizations |
| 3.2.2 Host educational sessions at community events to promote healthy eating and drinking behaviors | Conduct activities at community events to promote Rethink Your Drink campaign objectives | Community events may include any family friendly event hosted in Sierra County | Public Opinion Poll results taken after participation | Number of community events attended |
| 3.2.3 Offer Rethink Your Drink trainings and materials to local dental professionals and community members and stores | Offer Rethink Your Drink brochures and flyers to all dental offices and health clinics and stores | ❖ WIC ❖ CHDP ❖ Dental Offices ❖ Health clinics ❖ Stores | Number of materials distributed by dental offices and health clinics | Number of dental offices and health clinics participating in RTYD material distribution |
| | Design and publish a webpage intended only for Rethink Your Drink materials on Oral Health website | ❖ CDPH - NOP | Metrics for webpage traffic | Increased activity to LOHP website |

Goal Four Summary

Since the 1960's, Loyalton was the only community in Sierra County that had a fluoridated water system. However, fifteen years ago community water fluoridation ceased after a narrow community vote; 137 votes for fluoridation, 175 against. The Sierra County Oral Health Program will evaluate the feasibility and cost-effectiveness of community water fluoridation and/or alternative fluoridation methods for community members, as highlighted in the plan below.

The following key findings from the Sierra County Oral Health Needs Assessment informed the educational aspect of goal four:

- Approximately 44% of people residing on the East side of the County believe their public water is fluoridated. On the West side, 31% of respondents believe this is true.
- Approximately one in four residents in Sierra County do not believe fluoride is a naturally occurring mineral.

| Goal 4: Re-fluoridate Sierra County public water systems | | | | |
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| Objective 4.1: By June 2022, increase fluoride awareness and/or education in Sierra County by 10%. | | | | |
| Strategy | Activities | Partners | Short-Term Measures | Long-Term Measures |
| 4.1.1 Plan and implement a public awareness campaign focused on fluoride, annually | Promote a Sierra County Oral Health Program page on at least one social media platform | <ul style="list-style-type: none"> ❖ UCSF ❖ ADA ❖ CDA ❖ ASTDD ❖ UCSF COHTAC | Social media metrics | Poll to analyze overall personal belief about effectiveness of social media/fluoride education |
| | Conduct activities with community partners to improve awareness of fluoride benefits | <ul style="list-style-type: none"> ❖ Sierra County HHS ❖ First 5 ❖ CHDP ❖ Schools ❖ Family Resource Center | | |
| 4.1.2 Increase access to fluoride by integrating fluoride application into the school-linked service | Increase promotion and education of fluoride application prior to annual dental fair | <ul style="list-style-type: none"> ❖ School ❖ UCSF ❖ CDA ❖ NDA | Increase number of children who receive fluoride varnish | Decrease rate of dental caries in children Kindergarten – 6 th grade |

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| | Purchase fluoride varnish application for all children participating in annual dental fair | | | |
| 4.1.3 Encourage use of fluoride supplementation as alternative to Community Water Fluoridation | In each dental toothbrush kit, include at least one fluoridated tube of toothpaste | <ul style="list-style-type: none"> ❖ School ❖ UCSF | Increase number of fluoridated toothpaste tubes distributed | Decrease rate of dental caries |
| Objective 4.2: By June 2022, LOHP will assess feasibility and cost effectiveness of community water fluoridation by analyzing data, working with state and local Environmental Health Departments, and collaborating with the University of California San Francisco’s California Oral Health Technical Assistance Center and Department of Preventive and Restorative Dental Services. | | | | |
| 4.2.1 Analyze current and historical data regarding residents using community water connections | Collaborate with local and state Environmental Health Program to obtain data and water system information | <ul style="list-style-type: none"> ❖ Sierra County Environmental Health Department ❖ California State Water Board | Summary of data findings | Report findings to State regarding cost effectiveness of community water fluoridation |
| 4.2.2 Engage with UCSF Fluoridation Consultant staff to assess implementation of conventional and alternative fluoridation methods | Attend quarterly Fluoridation Advisory Committee meetings | <ul style="list-style-type: none"> ❖ UCSF ❖ ASTDD | Review research and programs that address rural community water fluoridation methodology | Integrate an individualized and/or unconventional water fluoridation method in Sierra County |

Next Steps

The Sierra County Community Health Improvement Plan will serve as a program activity guide and will influence the trajectory of the Local Oral Health Program. Advisory Committee members will utilize this plan to inform key decision-making.

This Plan will be available to Sierra County residents to foster transparency and ensure accountability. Additionally, this document will be shared with community leaders and key stakeholders to highlight the current strengths and areas for improvement regarding oral health access, resources, outreach, and education that will impact oral health status.

With this CHIP, the Local Oral Health Program will be able to effectively implement programming and work toward achieving each goal highlighted above. A program evaluation intended to examine and improve effectiveness will be conducted as soon as program implementation begins.

Appendix A. Oral Health Program Asset Map

