Mendocino County
Oral Health Needs Assessment Report

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Introduction

WHY NEEDS ASSESSMENT?

A model best practice in social impact work is utilizing a community-based needs assessment to guide the development, implementation and evaluation of the goals, strategies and objectives that drive community interventions, initiatives, and oral health efforts. A needs assessment can illuminate areas that need greater attention or raise a well-known issue to a higher level of community priority with the potential to result in significant impact and outcomes based on the qualitative and quantitative data findings.

The following report captures and presents the findings from a Mendocino county-wide oral health needs assessment process that took place from June to October 2018. The community needs assessment aimed to understand what the highest priority needs are when it comes to addressing oral health in Mendocino County. More specifically, it sought to answer the following research questions:

1. What is the status of oral health in Mendocino county?
2. What are the oral health needs of the community as they relate to:
    a. Oral health concerns;
    b. Access to appropriate and evidence-based oral health services and education; and
    c. The capacity of local resources to address oral health concerns.
3. What are the resources and assets in Mendocino County that can be leveraged to address the highest needs in the community?

The findings from the Mendocino County oral health needs assessment will be used to inform the development of a localized county Community Health Improvement Plan (CHIP). This plan will set forth goals and strategies in a number of priority areas for the purposes of improving the county's oral health status.

CALIFORNIA ORAL HEALTH PLAN

Though this needs assessment is locally driven by both the Mendocino County Health and Human Services (HHSA) Agency Public Health Department and the Oral Health Advisory Committee, it is part of a statewide initiative to improve oral health across fifty-eight counties in California. The California Department of Public Health (CDPH) has developed a ten-year plan to improve the state of oral health in California. This planning process leveraged both an advisory committee of experts in the state, and an assessment of available data and oral health indicators for vulnerable populations.

As part of this statewide oral health plan, local health jurisdictions have been provided with work plans that involve creating localized community health improvement plans. This local process closely mirrors the State's process for developing a community health improvement plan. Each local health department will execute the goals,

objectives and activities designated in the work plan over the course of 2018 through 2022.

MENDOCINO COUNTY

Mendocino County is one of the local health jurisdictions in California that are developing a county-wide oral health plan to improve the oral health of the most vulnerable and underserved populations in the local community. Objective two in the state's work plan dictates that local jurisdictions conduct an assessment of needs and oral health status. In order to inform a plan for improvement, Mendocino County has conducted this needs assessment to identify the most pressing oral health needs for the county's underserved and vulnerable populations.

Mendocino County's Community Health Education and Engagement Unit (CHEE), under the County Health and Human Services Public Health Department, has served as the backbone for this community-based oral health needs assessment effort. In March 2018, CHEE convened an Oral Health Advisory Committee made up of twenty-six community leaders from various local clinics and organizations that tackle oral health and work with vulnerable and underserved populations. Then, in May 2018, the Mendocino County HHSA, Public Health Department contracted with VIVA Strategy + Communications, a social impact consulting firm, to facilitate and support the needs assessment work.

Oral Health Advisory Committee members were engaged to collect and share existing and available oral health data that would contribute to the Mendocino County oral health needs assessment. The Advisory Committee then provided input about priority areas for further research and inquiry, as well as primary data collection efforts. Finally, the Advisory Committee provided guidance and feedback on the formation of this needs assessment report.

This needs assessment will be used by Mendocino County to develop a data-driven improvement plan that aligns with the goals and objectives set forth by the CDPH California Oral Health Plan.

Methodology

The methodology for the Mendocino County oral health needs assessment was informed by several frameworks and recommendations provided by the California Department of Public Health. These frameworks included the ASTDD Seven Step Model, Maternal Child and Adolescent Health (MCAH), and a basic approach to needs assessment. Through these frameworks, the following approach was employed to conduct the needs assessment.

First, as noted above, an advisory committee was formed of community stakeholders that have expertise and knowledge about oral health for Mendocino County. This

committee was utilized to collect data through their own organizations and networks, and to review inbound data from a landscape scan. Next, a list of data needs was compiled based around the California Oral Health Plan goals, objectives and criteria. This list informed the landscape scan and data that was queried. The analysis of this landscape scan was provided to the Mendocino County Oral Health Advisory Committee to develop goals and strategies for the local health improvement plan.

KEY INFORMANT INTERVIEWS

Through the landscape scan, several data points were identified as unavailable or difficult to acquire. These missing data points helped to inform the development of an interview protocol and a community survey, for the purposes of primary data collection.

The interview protocol was designed to glean insights from key informants about their perceived sense of community oral health needs, as well as community assets and resources that could be leveraged to address these needs. Interviews were conducted with eleven individuals by phone, email and in-person. The interviews were semi-structured, with a set of nine open-ended questions to understand the interviewee's role in the community, their knowledge of community assets and needs, and the organizational capacities needed to address these needs. See Appendix A for the interview questions.

COMMUNITY SURVEYS

In addition, a 16-question community survey was distributed to community members through a network of organizations recommended by the Advisory Committee. The survey sought to understand respondent behaviors, knowledge and attitudes about oral health, as well as barriers to accessing dental services, and perspectives on how the community can address oral health needs. See Appendix B for the survey questions.

The survey was made available in English and Spanish, and distributed through hard-copy and electronic methods. Hard-copy surveys were manually entered into the Survey Monkey platform for analysis with the electronically completed surveys. A quantitative analysis of survey responses was conducted, using descriptive statistics. Qualitative data from open-ended survey questions was analyzed through a method of coding and identifying central themes and ideas.

An additional community survey was administered in-person to dental patients, waiting to receive services at an Adventist Medical Evangelism Network (AMEN) free mobile clinic that was held in Ukiah on April 4 – 6, 2018. Some of the patients were bilingual or monolingual, so a translator was used to interpret the survey questions.

EQUITY

A central intention of this needs assessment was to ensure that equity was embedded and woven into the process, from conception to completion. Throughout the needs

assessment there was an awareness of, and attention to, the county's most vulnerable populations. Surveys were made available in Spanish, and in hard copy to remove any potential barriers to completing it. Given the rural geographic makeup of the county, the interviews were conducted by phone and email when in-person interviews were not feasible for interviewees.

Based on the demographic layout of Mendocino County, there was a particular focus on exploring the unique oral health needs, challenges, and assets of children, older adults, Native American communities, and individuals experiencing homelessness. Available data on these groups are captured here.

Environmental Scan

According to the 2017 Status of Oral Health in California report, the health of the entire mouth and throat, is considered oral health and is not solely limited to dental health[1]. Research has shown the importance of oral health and the significant impact that poor oral health can have on the everyday lives of individuals. For example, missed school days; poor oral health may cause pain that interferes with the ability to eat and impact nutritional health, impact focus in work or school, and can become so severe that it leads to emergency room visits[2]. Bacterial infections caused by poor oral hygiene and care can lead to other health issues for those that are diabetic or have other health conditions[3]. Tooth loss and decay can also have social-emotional impacts caused by feelings of isolation and self-consciousness about appearance[4]. In addition, oral and pharyngeal cancers can be fatal if they are not detected and treated early[5].

In order to prevent and properly treat oral health concerns, there are a number of interventions and practices that can be utilized, such as fluoridation of water, fluoride varnish, dental sealants, and regular dental screenings, tobacco cessation counseling for tobacco users, reduction in consumption of sugary foods and beverages, among many others. However, for many people there are often barriers and disparities to accessing and utilizing these interventions, such as the lack of education about services and proper oral health, lack of water fluoridation, lack of insurance to cover services, lack of cancer screening, lack of transportation or a shortage of dental services in one's geographic area, among others.

Across California, there is a need to address disparities and barriers to oral health for vulnerable and underserved populations such as children, low-income communities, the disabled and the elderly. The following findings outline available secondary and tertiary data about the status of oral health in Mendocino County. Statewide data as

[1] Gadgil, M., Jackson, R., Rosenblatt, N., Aleemuddin, A., Peck, C., & Bates, J. (2017, April).
[2] U.S. Department of Health and Human Services. (2014).
[3] U.S. Department of Health and Human Services. (2014).
[4] U.S. Department of Health and Human Services. (2014).
[5] Gadgil, M., Jackson, R., Rosenblatt, N., Aleemuddin, A., Peck, C., & Bates, J. (2017, April).

well as data from neighboring counties were also included, either when data was not available, or when there was added value in drawing comparisons to other locations. There is also focus on particular vulnerable and underserved populations where there are accessible data that can support a general understanding of oral health needs.

MENDOCINO COUNTY: STATUS OF ORAL HEALTH IN THE GENERAL POPULATION

Mendocino County is a largely rural county located on the northern coast of California. The county is made up of 3,506 square miles of land inhabiting 88,018 people[6]. Within Mendocino County is the Round Valley Indian Reservation made up of six small tribes[7]. The population in Mendocino County is 64.9% White, 25.4% Latino, 6.3% American Indian, 4% multi-racial, 2.2% Asian, and 1.1% African American[8]. The median household income in 2016 was $43,510 and about 19% of the population lives in poverty.[9] There are pockets of poverty throughout the county with some of the highest concentrations in areas like Covelo, Ukiah and Laytonville[10].

ORAL HEALTH DISPARITIES

The California Oral Health Plan identifies several risk factors for oral health that are targeted for improving oral health in counties across the state. These factors include tooth loss, emergency room visits for dental problems, and lack of screening for oral and pharyngeal cancer.

According to the 2016 California Health Interview Survey, 27.8% of adult respondents from Mendocino County reported “fair” or “poor” condition of teeth, and 5.6% reported not having natural teeth.[11] This closely aligned with 27.2% respondents across the state reporting “fair” or “poor” condition of teeth; however, only 2.1% of respondents across the state reported not having natural teeth.[12]

Emergency room visits for dental concerns can often be prevented through routine dental visits and accessible dental health care. Based on available data, there were 125,117 Medi-Cal ER visits for dental-related issues in California in 2015.[13] Almost 14% of those ER visits were for children.[14] Locally, there is minimal available data on emergency room visits for dental complaints. Between October 2017 and January

[6] U.S. Census Bureau (July 1, 2017).
[7] Round Valley Indian Tribes. (2018, May 30).
[8] U.S. Census Bureau (July 1, 2017).
[9] U.S. Census Bureau (July 1, 2017).
[10] California Center for Rural Policy. (2014, May 29).
[11] UCLA Center for Health Policy Research. AskCHIS 2016. *Condition of Teeth – Adults* (Mendocino County, California).
[12] UCLA Center for Health Policy Research. AskCHIS 2016. *Condition of Teeth – Adults* (Mendocino County, California).
[13] California Department of Health Care Services. (2016, November).
[14] California Department of Health Care Services. (2016, November).

2018, the Adventist Health Ukiah Medical Center reported 142 emergency room dental complaints, and the Howard Adventist Health Hospital reported 82 complaints.[15]

Oral and pharyngeal cancer can be identified early through screening, but can be fatal if not detected or treated in time. The statewide age-adjusted rate of oral cancer from 2014 to 2015 was 9.94 per 100,000; in Mendocino County, the rate of oral cancer was 12.05 per 100,000, which is higher than the statewide rate.[16] From 2011 to 2015 there 78 reported cases of oral and pharyngeal cancer in Mendocino County.[17] In California, between 2005-2009 there were 3,272 adults, ages 20 years and older, that were diagnosed early at Stage I of oral and pharynx cancer; but, there were 8,878 adults that were diagnosed at stage III or higher.[18]

PREVENTION

Also included in the California Oral Health Plan are preventive factors for oral health that are targeted areas for improvement in counties across the state, such as dental visits for individuals with diabetes and pregnant women, tobacco cessation counseling, increasing the number of dental providers in shortage areas, and fluoridation of water.

According to the 2016 California Health Interview Survey, about 8.9% of respondents in Mendocino County have been diagnosed with diabetes, compared with 9.1% in the entire state.[19] Based on this information, the rate of diabetes in the county appears slightly below that of the state. However, there is no available county data about the rates of dental visits amongst this population.

When it comes to perinatal dental visits, the California Department of Health Care Services and Department of Public Health reported that in 2012 about 4 in 10 pregnant women visited the dentist, though the rates were higher for women with private health insurance than those with Medi-Cal.[20] Available local data from the Mendocino Community Health Clinic reports that 397 pregnant women were seen for dental services over the last three years.[21]

Dental insurance is also an important factor to consider for prevention efforts, as it can be an access barrier for preventive oral health services. As of January 2016, 47% of Mendocino County's population was enrolled in Medi-Cal, which offers Denti-Cal dental coverage.[22] In 2015, 87.1% of the county's children ages 0 - 5 were enrolled in

[15] Adventist Health Ukiah Medical Center. (2018, June). [Emergency Room Dental Complaints October 8, 2017 - January 31, 2018]
[16] California Cancer Registry. (2018). *Age-Adjusted Invasive Cancer Incidence Rates by County in California, 2014 - 2015*.
[17] California Cancer Registry. (2018). *Age-Adjusted Invasive Cancer Incidence Rates by County in California, 2014 - 2015*.
[18] Morris, C., Ramirez, C., Cook, S., Parikh-Patel, A., Kizer, K., Bates, J., & Snipes, K. (2013, June).
[19] UCLA Center for Health Policy Research. AskCHIS 2016. *Ever Diagnosed with Diabetes* (Mendocino County, California).
[20] Byrne, J. V., & Lee, P. A. (2017).
[21] Mendocino Community Health Clinic. (2018, June). [Visits by Pregnant Women].
[22] Graves, S. (November 2016).

Medi-Cal, compared to 57% statewide.[23] Though Medi-Cal may offer coverage for dental visits, this does not mean that all recipients are receiving an annual dental visit. Between 2015 and 2016, only 28.7% of adults ages 21-64 who were eligible or enrolled in the same Medi-Cal plan for at least 90 days received an annual dental visit.[24] Though many residents may qualify for Medi-Cal, there are still a number that are uninsured. Five federally qualified health centers in Mendocino County that offer dental services reported the percentage of uninsured patients seen in 2017; these numbers ranged from 10.53% to 31.47% of patients seen were uninsured.[25] These centers also reported the proportion of patients seen in 2017 that received dental services, ranging from 22.13% to 43.14% of total patients having received dental health services.[26]

In addition, to preventive dental visits and dental insurance, tobacco cessation programs are important factors for reducing oral health complications. The 2016 California Health Interview Survey indicates that 18.9% of respondents in Mendocino County currently smoke, in comparison to 11.9% statewide.[27] With a higher rate of smokers than that of the state, Mendocino County may have a greater need for smoking cessation programs. The five federally qualified health centers in Mendocino County reported the proportion of patients that received tobacco screening and cessation services in 2017. These ranged from 61.03% to 94.84% of patients receiving screening and cessation services, with the majority of health centers providing these services to over 80% of their patients.[28]

Across the state there are areas that are experiencing a shortage of dental health professionals, which impacts the capacity for counties to provide needed preventive services. As of June 2018, there are currently 441 dental shortage area designations in California, requiring 259 practitioners to lift the shortage designation.[29] Of those 441 designations, 16 are in Mendocino County.[30] Areas are assigned a score between 1

[23] Research and Analytic Studies Division. January 2016.
[24] California Department of Health Care Services. (2017, March).
[25] Health Center Program. (n.d.). *ANDERSON VALLEY HEALTH CENTER, INC.;* Health Center Program. (n.d.). *2017 LONG VALLEY HEALTH CENTER, INC.;* Health Center Program. (n.d.). *2017 MENDOCINO COAST CLINICS, INC.;* Health Center Program. (n.d.). *2017 MENDOCINO COMMUNITY HEALTH CLINIC, INC.*; Health Center Program. (n.d.). *2017 REDWOOD COAST MEDICAL SERVICES*
[26]Health Center Program. (n.d.). *ANDERSON VALLEY HEALTH CENTER, INC.;* Health Center Program. (n.d.). *2017 LONG VALLEY HEALTH CENTER, INC.;* Health Center Program. (n.d.). *2017 MENDOCINO COAST CLINICS, INC.;* Health Center Program. (n.d.). *2017 MENDOCINO COMMUNITY HEALTH CLINIC, INC.*; Health Center Program. (n.d.). *2017 REDWOOD COAST MEDICAL SERVICES*
[27] UCLA Center for Health Policy Research. AskCHIS 2016. *Current Smoking Status - Adults* (Mendocino County, California).
[28] Health Center Program. (n.d.). *ANDERSON VALLEY HEALTH CENTER, INC.;* Health Center Program. (n.d.). *2017 LONG VALLEY HEALTH CENTER, INC.;* Health Center Program. (n.d.). *2017 MENDOCINO COAST CLINICS, INC.;* Health Center Program. (n.d.). *2017 MENDOCINO COMMUNITY HEALTH CLINIC, INC.*; Health Center Program. (n.d.). *2017 REDWOOD COAST MEDICAL SERVICES*
[29]Bureau of Health Workforce: Health Resources & Services Administration. (2018, June 30).
[30] Health Resources & Services Administration. (n.d.). *HPSA Find*.

and 26, with higher numbers requiring more attention.[31] Of the 16 designations in Mendocino County, 10 have a score over 10.[32]

ORAL HEALTH NEEDS OF CHILDREN

To fully understand the oral health needs of children in Mendocino County, it is important to first consider available data on the status of oral health issues amongst the county's children, and then consider the status of prevention and intervention efforts. The following captures what is known about oral health issues amongst children in the community, as well as how children are impacted by prevention and intervention strategies that currently exist.

ORAL HEALTH DISPARITIES

Though there are great efforts to reach children with prevention services, there are still a number of children requiring intervention for oral health needs, including treatment under general anesthesia. Of Mendocino County children, ages 3 months to 5 years enrolled in Head Start in 2017, 10% required dental treatment; and, 93% of those children that required treatment received an intervention.[33] Pediatric Dental Initiative (PDI) provides oral surgery under general anesthesia for children in Northern California, and 33 counties in California. For the period of January 1, 2015 to July 31, 2018 PDI served a total of 1,187 Mendocino County children, in comparison with 3,652 in neighboring Sonoma County and 628 in Humboldt County.[34] The California Child Health and Disability Prevention program screened 10,284 Medi-Cal eligible children in the 2016-2017 year, and made dental referrals for 2.2% of those children.[35]

Available kindergarten assessment data also provides insights into how untreated tooth decay is impacting children. Reporting for the 2016 kindergarten oral health requirement, from four school districts in Mendocino County, indicated that 99 children had proof of a dental assessment and 23 had untreated tooth decay[36]. In 2014, based on reporting from five different school districts in the county, 220 children had proof of assessment and 59 had untreated tooth decay[37].

For children consuming sugary beverages and fast food on a regular basis, their risk of dental caries may be heightened. In 2013, 29% of the county's children were consuming one or more sweetened beverages a day, compared with 31% in nearby

[31] Health Resources & Services Administration. (n.d.). *HPSA Find*.

[32] Ibid.

[33] Head Start Mendocino County. (2018, July). [Head Start Dental Data].

[34] Pediatric Dental Initiative. (2018, August). [Total Patients Treated by County at PDI from January 1, 2015 through July 31, 2018].

[35] California Health and Disability Prevention Program. (2018, June). [Number of Children that Received CHDP exams 2014 – 2018].

[36] California Dental Association. (n.d.). *AB1433 Reported Data*: *Kindergarten Oral Health Requirement*(report).

[37] California Dental Association. (n.d.). *AB1433 Reported Data*: *Kindergarten Oral Health Requirement*(report).

Humboldt County and 48% in Sonoma County, and 42% of children statewide.[38] Though the rates of children regularly consuming sugary beverages in Mendocino County is lower than neighboring areas, there are still a substantial number of children that may be at increased risk for dental caries. For the county's low-income children, there is also a need to lower the number of children consuming fast food meals on a regular basis. According to 2017 survey data from the Supplemental Nutrition Assistance Program, 51% of Mendocino County children, ages 2 to 17, in the program had consumed fast food one or more times in the past week.[39]

PREVENTION

The California Oral Health Plan highlights several preventive oral health factors focused on children, which include increasing the number of children receiving preventive dental visits and dental sealants. Based on responses to the 2016 California Health Interview Survey 98.1% of children in Mendocino County had dental insurance, compared to 96.6% in neighboring Humboldt County and 100% in close by Sonoma County, and 92% statewide.[40] And, as of September 2015, 87.1% of the county's population of children ages 0-5 were enrolled in Medi-Cal.[41] This is compared to 57% of the child population (ages 0-5) in California, and close to half in neighboring Sonoma County.[42] This suggests that most Mendocino County children have some dental coverage to ensure that they receive preventive oral health services.

Dental sealants for children are another preventive measure that can impact a child's oral health trajectory. In Mendocino County, in 2015, 2.2% of children (77 of 3,496 children) ages 6-9 that were Medi-Cal eligible for 90 days were sealant users.[43] This compares to 9.9% of children ages 6-9 in neighboring Sonoma County, and 13.6% of eligible children ages 6-9 across California.[44] Based on this data it appears that the county has a large portion of children enrolled in Medi-Cal, however, more of these children need to be receiving dental sealants through Denti-Cal.

Regular dental visits for children are another strategy to ensure that any oral health concerns are identified and addressed early, and that children are receiving preventive treatments. In a statewide survey conducted between 2013 and 2014, 4.1% of children between the ages of 2 and 11 years had received a dental visit *more than* 12 months before; and, 8.9% of children ages 2 through 11 years had *never* had a dental visit.[45] According to responses from the 2016 California Health Interview Survey, 60.3% of

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[38] Lucile Packard Foundation for Children's Health. Kids Data.org 2014. *Children Drinking One or More Sugar-Sweetened Beverages Per Day* (Mendocino County, Humboldt County, Sonoma County, California).
[39] California Department of Public Health (n.d.). *2017 County Profiles: Supplemental Nutrition Assistance Program Education*(Issue brief).
[40] UCLA Center for Health Policy Research. AskCHIS 2016. *Currently Insured* (Mendocino County, Humboldt County, Sonoma County, California).
[41] Research and Analytic Studies Division (2016, January).
[42] Research and Analytic Studies Division (2016, January).
[43] California Department of Health Care Services. (2016, October).
[44] California Department of Health Care Services. (August 29, 2017).
[45] Annie E. Casey Foundation. Kids Count Data Center 2013-2015. *Children Who Have Had Annual Dental Visits in 2013-2015* (California).

Mendocino County children (ages 3-11) with dental insurance had seen a dentist within the past 6 months, compared to 80% of insured children in Humboldt County, and 46.5% in Sonoma County.[46] Though a majority of children in Mendocino County seem to be covered for dental services, there are a number of children that are not receiving regular visits with a dentist.

In addition to the general population of children enrolled in Medi-Cal, the county is also making great strides to ensure that other vulnerable and underserved children are receiving timely preventative services. Over the course of 2017, the average rate of children in the welfare system in Mendocino County receiving timely dental exams was 82.7%, compared with 61.5% in California.[47] The majority of children enrolled in Head Start in Mendocino County are also receiving dental care. In 2017, 95.7% of Head Start children ages 3 months to 3 years old, and 96.9% of children ages 3 to 5 years old had completed dental care in the county.[48] Mendocino Community Health Clinic, a local clinic and federally qualified health clinic (FQHC), also provides dental screenings to local school districts in the Ukiah and Willits areas. They have steadily increased their number of school-based screenings from 67 in 2014-2015 to 125 screenings in 2016-2017.[49]

ORAL HEALTH NEEDS OF OLDER ADULTS

In addition to children, the elderly are another population that may have higher risk of untreated oral health concerns. According to a 2018 report released by the Center for Oral Health, about half of older adults living in California nursing facilities have untreated tooth decay and almost 40% of nursing home residents have trouble chewing due to missing teeth or issues with contact between their teeth.[50] The survey findings in the report also indicate that elderly community members living in nursing homes in rural communities are almost 10% more likely to have untreated tooth decay than in urban areas in the state.[51]

Though the older adult population in Mendocino County made up a very small portion of the Medi-Cal eligible, dental-related emergency room visits in 2015, there were still several hundred individuals requiring emergency related oral health services.[52] Of those Medi-Cal eligible, dental-related emergency room visits in 2015, almost 34% of those were amongst Hispanic/Latino adults over the age of 65, and nearly 27% were amongst white adults.[53] Though they may be enrolled or eligible for Medi-Cal, older

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[46] UCLA Center for Health Policy Research. AskCHIS 2016. *Time Since Last Dental Visit; Currently Insured* (Mendocino County, Humboldt County, Sonoma County).
[47] Webster, D., Lee, S., Dawson, W., Magruder, J., Exel, M., Cuccaro-Alamin, S., Putnam-Hornstein, E., Wiegmann, W., Saika, G., Eyre, M., Chambers, J., Min, S., Randhawa, P., Sandoval, A., Yee, H., Tran, M., Benton, C., White, J., & Lee, H. (2018).
[48] Head Start Mendocino County. (2018, July). [Head Start Dental Data].
[49] Mendocino Community Health Clinic. (2018, June). [School Screenings By Year].
[50] Bhaskara, S. (2018, March).
[51] Bhaskara, S. (2018, March).
[52] California Department of Health Care Services. (2016, November).
[53] California Department of Health Care Services. (2016, November).

adults in Mendocino County may not always receive regular annual dental visits. Between 2015-2016, only 33.7% of adults ages 65 to 74 who were eligible or enrolled in Medi-Cal for at least 90 days received an annual dental visit; and the number decreased to 28.1% for eligible or enrolled adults ages 75 to 84.[54]

The Area Agency on Aging of Lake and Mendocino Counties identified various oral health needs in their cross-county Older Adult Needs Assessment conducted mid-year 2018.[55] Community members ages 60 and over were invited to participate in a survey, and were asked about the ease of certain activities, access to health care, and access to transportation.[56] There were 89 participants in the survey, with a large portion of participants ages 71-80 (42.7%).[57] The majority of respondents reported being independent with regards to activities of eating (84.27%) and transportation (71.91%). However, when it came to access to health care only 32.91% of respondents (n=79) reported having dental insurance, and 63.29% reported having Medicare/Medi-Cal. When asked about having had a dental exam in the last 3 years, 72.2% (n=72) of respondents reported that they had received a dental exam.[58] Though available data seems to suggest that many older adults in Mendocino County have the resources they need to address their oral health, this data is limited. In addition, for the county's most vulnerable older adults there may be opportunities to improve the care and supports they are receiving in order to reduce preventable oral health conditions.

ORAL HEALTH NEEDS OF THE INDIGENOUS COMMUNITY

As previously mentioned, there are several indigenous tribes based throughout Mendocino County, some of which reside on the Round Valley Indian Reservation, in Covelo, as well as other parts of the county. These tribes include the Cahto Tribe of Laytonville Rancheria, Hopland Band of Pomo Indians, Potter Valley Tribe, among many others.[59] Therefore, it is important to also consider the unique oral health needs and concerns of Native American residents in the community. According to a 2015 oral health survey, about 65% of American Indian/Alaskan Native adults in the U.S. have untreated tooth decay, and 17% have severe periodontal disease.[60] Oral health also impacts American Indian children at tremendous rates. The 2017 IHS Oral Health Survey revealed that 86% of American Indian/Alaskan Native children in the U.S. have untreated dental caries in their baby teeth.[61] Available data on a more local level suggests that there are also unique access needs amongst American Indian/Alaska Natives. The 2015 Native Oral Health Project survey of 53 American Indian/Alaskan

[54] California Department of Health Care Services. (2017, March).

[55] Area Agency on Aging of Lake & Mendocino Counties PSA26. (n.d.).

[56] Area Agency on Aging of Lake & Mendocino Counties PSA26. (n.d.).

[57] Area Agency on Aging of Lake & Mendocino Counties PSA26. (2018, October). [Lake and Mendocino Counties Older Adult Needs Assessment Survey Results Data].

[58] Area Agency on Aging of Lake & Mendocino Counties PSA26. (2018, October). [Lake and Mendocino Counties Older Adult Needs Assessment Survey Results Data].

[59] California Department of Water Resources. (n.d.).

[60] Phipps, K. R., Dr. P.H., & Ricks, T. L. (2016, March).

[61] Phipps, K. R., Dr. P.H., & Ricks, T. L. (2017, April).

Native mothers residing in Northern California indicated that 72% of respondents experienced one or more barriers to accessing oral health care; and, one of the most common barriers was travel time to dental appointments.[62] Given the rural makeup of many parts of Northern California, and in particular, Mendocino County, it is important to consider geographic and transportation access for oral health, especially for vulnerable and underserved populations.

ORAL HEALTH NEEDS OF THE HOMELESS COMMUNITY

In a rural county, attention to community members that may be greatly impacted by geographic access to oral health care is important. With limited resources, individuals who experience homelessness often have greater challenges obtaining vital care to address oral health concerns, and prevent future issues. A needs assessment conducted in 2017, looked at three communities in Mendocino County to understand homelessness in the community.[63] The researchers conducted a count of the homeless population in 24/7 homeless programming and living on the streets, during the fall and winter of 2017.[64] Through this count, they approximated at least 300 homeless individuals in the three cities of Ukiah, Fort Bragg and Willits.[65] Five of the federally qualified health centers have also tracked services provided to individuals that identify as homeless, though it is unclear if there is any duplication between clinics. According to service data reported for 2017, the proportion of homeless patients served by federally qualified health centers in the county ranged from .54% to 8.22% of their total patient population.[66]

Available research suggests that individuals experiencing homelessness are often at great risk for experiencing oral health problems. In 2009, researchers from the Health Resources and Services Administration conducted a survey study of health experiences and needs amongst 618 homeless patients, and compared these with non-homeless patients.[67] They found that 59.1% of the homeless survey respondents were smokers, 87.5% had dental concerns in the past 6 months, and 52.7% had needed dental care in the past year.[68] Another study of oral health needs amongst the homeless in downtown Los Angeles revealed that 58.9% of the homeless had dental caries in comparison to 22.7% of the general population.[69] This available research

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[62] Crawford, A., Wimsatt, M.A., (2015, September).
[63] Marbut, R.G., (March 19, 2018).
[64] Marbut, R.G., (March 19, 2018).
[65] Ibid.
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[69]Davidson, C. (2015, June).; Mulligan, R. (2018).

suggests that there is a great need to address oral health concerns of individuals experiencing homelessness.

NEED FOR ADDITIONAL DATA

Through the process of conducting the environmental scan, it became evident that there is a need for additional primary data on oral health in Mendocino County. Furthermore, much of the available data is a few years old and therefore poses challenges when trying to understand the current state of oral health in the community. Some of the local data gaps that were identified are as follows:

- Reporting on kindergarten assessments from Mendocino County school districts
- Dental screening programs in local school districts
- Data on preventable emergency room visits

Key Informant Interviews

Ten semi-structured interviews were conducted with eleven key informants from eight community-based organizations and services located throughout Mendocino County. Interviews were conducted by phone, email and in-person when possible in order to accommodate the time and geographic needs of the stakeholders. The organizations that were included in the interview sample represent nonprofit organizations, hospitals, dental clinics, and county programs; these organizations serve a wide range of community members, including the elderly and disabled, homeless, families and children. The following captures the oral health needs and assets that materialized from these ten stakeholder interviews.

INTERVIEW FINDINGS: ORAL HEALTH NEEDS

Four key themes surrounding community oral health needs rose the surface through the ten key informant interviews with eleven stakeholders. These areas of need were: Access for community members; Education and awareness for community members; Capacity building for providers; Attitudes and practices that contribute to oral health. Many of these needs intersect with one another, so efforts aimed at some focus areas may simultaneously impact other areas of concern. The following overview outlines these perceived areas of need in more detail.

ACCESS TO ORAL HEALTH SERVICES FOR COMMUNITY MEMBERS

There was an overwhelming emphasis on improving community access to oral health services through the key informant interviews. Access was defined in a variety of ways by interview participants. One area to improve oral health access is by increasing the number of providers that the community can go to for services. 80% of interview participants articulated a need for more providers to practice in Mendocino County. In addition, 40% of interviewees noted a need to have additional services and

specializations in the county, such as pediatric dentists, oral surgeons, and practitioners that are able to conduct emergency follow-up.

Another significant access need that arose in the interviews was for more mobility to access services. 80% of interviewees articulated a need for more ability to physically access services, either due to transportation need or the need to leave the county for needed services. Given the rural geography of Mendocino County, community members that do not have easy transportation access have a harder time reaching services. Suggestions to address this need were mobile clinics that can reach more isolated parts of the county.

A third area of access that emerged in the interviews was affordability, either due to cost and income or dental coverage. 60% of the interviewees mentioned the affordability of dental care as a need, particularly for low-income members; and 50% of stakeholders interviewed noted either a lack of dental coverage as a challenge, or a lack of providers in the community that accept Medi-Cal coverage. A couple of interviewees mentioned that having more providers who are willing to accept Medi-Cal or offer pro-bono services would be a way to address these needs.

There was a smaller number (20%) of interviewees that also mentioned a need to address access to other resources such as nutritious food, clean water for brushing teeth, and hygiene stations for under resourced community members.

Finally, the need for timeliness and cognizance of time as an access barrier was addressed in interviews. 50% of the key informants highlighted that the wait time to get an appointment is a challenge to address for community members, especially those requiring time-sensitive care. 30% of interviewees also highlighted that there is a need to address the time it takes to make and attend several appointments when dental plans only allow one service per visit.

EDUCATION/KNOWLEDGE/AWARENESS FOR COMMUNITY MEMBERS

Improving community awareness of services was another significant priority area for the stakeholders interviewed. 90% of the interviewees articulated a need for more community outreach and education and awareness efforts. Their responses included a need to raise awareness of available services, how to navigate services in Mendocino County, and educate on the importance of healthy behaviors that promote oral health.

CAPACITY FOR PROVIDERS

Some of the community stakeholders interviewed also expressed a need to focus efforts on the providers in Mendocino County, and in particular around capacity building. 30% of interviewees noted that providers could receive additional training on how to work with children, patients who have trauma histories, and patients who have mental health challenges. 20% of the interviewees also mentioned a need for more dental chairs and equipment in Mendocino County.

ATTITUDES & PRACTICES

About half of the key informants interviewed highlighted that there is a need to improve how the community prioritizes oral health, and their understanding of how important certain behaviors are for improving and maintaining oral health. 60% of interviewees reported observing behaviors in the community that are not conducive to overall oral health; and, 50% of the interviewees felt that there is a need for oral health and healthier behaviors, such as eating nutritious foods, to be prioritized in the community.

COMMUNITY MEMBERS TO FOCUS EFFORTS

Respondents were also asked which community groups in the county there might be additional need for oral health efforts, given their work in the county. The following are populations that interview participants articulated as needing additional supports and access for oral health:

- Individuals experiencing homelessness
- Individuals struggling with substance abuse
- Low-income individuals and families
- Transitional aged youth
- Older adults
- Children
- Individuals with disabilities and cognitive challenges
- Native Americans
- Undocumented individuals and families

INTERVIEW FINDINGS: ORAL HEALTH ASSETS

The key informant interviews also sought to understand what strengths and assets exist in Mendocino County to foster and support oral health of community members. There were two core asset areas uncovered in the interview process, which are outlined here.

COMMUNITY MOTIVATION AND WILLINGNESS TO HELP

Several interviewees expressed that the community as a whole often has a desire and willingness to work together and advance efforts for the betterment of the community. 50% of the interviewees mentioned that this was an asset of Mendocino County, citing support during the recent wildfire that impacted the community, and addressing needs when they are brought to the community's attention, as examples.

EXISTING SERVICES AND RESOURCES IN THE COMMUNITY

Despite some of the noted service and access gaps in Mendocino County, there was a lot of emphasis on the existing resources in the county that are working hard to serve the community. 60% of the interviewees reported that there are some existing clinics, programs and providers that are addressing oral health concerns, mentioning that some providers offer pro-bono services, and there are clinics that accept Medi-Cal coverage for dental services. There also were 30% of key informants that highlighted

existing funding streams and efforts to find available funding as strengths of Mendocino County, when it comes to oral health.

Knowledge, Attitudes and Behavior Survey

The 16-question anonymous survey was sent to various community partners for distribution, as well as distributed to the general public. Eighteen organizations returned completed surveys, and surveys were also completed online through the Healthy Mendocino website. The organizations that returned surveys included: three health clinics and a RDHAP services provider, one family resource center, a veteran clinic, a senior center, a home visiting program for families of children 0-5 years old, WIC, a homeless center, a nonprofit serving youth, a behavioral and mental health nonprofit, a substance treatment program, two community fairs, and a collective serving Latinos in the community. The following captures the demographics of survey participants, and the overall findings on oral health needs and assets in Mendocino County for consideration when developing the community health improvement plan.

SURVEY PARTICIPANT DEMOGRAPHICS

There was a total of 383 respondents to the survey, though not every question was answered by every respondent. Participants were asked demographic questions such as zip code in which they reside, their gender, age, education, income level, language spoken in the home, and number of children in the household.

ZIP CODE

A large portion of the respondents reported residing in Ukiah (45.69%). There were also numbers of participants living in Fort Bragg (13.84%) and Willits (9.4%). Other participants reported living in areas like Boonville (4.96%), Philo (3.92%), Redwood Valley (3.92%), Laytonville (2.61%), Hopland (2.35%), and Covelo (1.31%). Smaller numbers of respondents came from other parts of the county such as Albion, Little River, Gualala, Elk, Navarro, Caspar, Comptche, Yorkville, and Calpella.

It is important to note that there were 14 respondents to the survey that reported coming from neighboring counties, such as Lake County, Humboldt County and Sonoma County. It is possible that these survey participants receive services in Mendocino County through the partner organizations that distributed the survey. These responses were included in the analysis, as their experiences with Mendocino County services can add value to an understanding of what works well and what is needed in the community.

GENDER AND AGE

Gender makeup of respondents was split almost evenly between “male” (49.09%) and “female” (50.39%), with a very small portion (.52%) reporting as “other.” Survey participants were predominantly over the age of 18 years, with only 5.5% under 18. The largest adult age group was 65 years and older (18.85%). The second largest age

groups were adults 35 to 44 years old (17.8%), and 25 to 34 years old (16.49%). A smaller number (12.83%) of adults were between the ages of 55 and 64.

EDUCATION AND INCOME

When asked about the highest level of education completed, respondents (n=374) primarily reported high school graduate, diploma or equivalent (24.6%) and some college (26.74%). 13.9% of respondents had completed some high school but had not received a diploma, and 3.21% had completed no schooling. Some respondents (7.49%) have had trade, technical or vocational training.

For higher education, 10.16% of respondents have a bachelor's degree and 8.02% have an associate degree. Post graduate degrees were reported among 4.28% of respondents, and some post graduate work had been done by 1.6% of respondents.

About 94% (n=360) of respondents provided an approximate average household income. The majority (56.67%) of respondents reported an annual income range of $0 to $24,999. The next largest reported annual household income range was $25,000 to $49,999 (21.94%). There were a smaller number of respondents that have annual household incomes over $50,000 (12.78%), with very few that have an annual household income over $75,000 (3.06%).

LANGUAGE

Respondents were asked what primary languages are spoken in their household (n=381). The majority of respondents reported speaking English only (80.84%), and about 12.34% reported speaking Spanish only. There were a smaller number of respondents (6.04%) that speak both Spanish and English in their household. Only about .7% of respondents reported another language spoken in the home, which were Laos, Native American, and American Sign Language.

CHILDREN IN THE HOUSEHOLD

Respondents were asked to report how many children live in their household. A little under half of the survey participants (n=182) responded to the question. Of those that responded, 38.47% reported having two children in the household, and 34.07% reported having only one child in the household. Other respondents reported having three children (13.74%), and about the same reported having four or more children in the house (13.74%).

SURVEY FINDINGS: COMMUNITY ORAL HEALTH NEEDS

Though the survey captured a small sample of the community, the responses do provide a current glimpse into some of the oral health needs and assets in the community. The following outlines the various needs that emerged from the community survey.

DENTAL CARE AND COVERAGE

Dental care is a significant preventative factor for oral health, and is often what is associated with the topic of oral health. Survey participants were asked to rate the overall condition of their teeth and gums. Of the 372 respondents that rated the condition of their teeth and gums, a large number (41.4%) responded with a rating of either "fair" or "poor". One common barrier to dental care is access to dental coverage for services. When asked about having current dental coverage, 30.42% of respondents (n=378) reported not having dental coverage, and 3.44% were not sure if they had dental coverage.

Participants were also asked approximately how long it had been since their last visit to the dentist or dental clinic. 29.65% of respondents (n=371) reported having visited a dentist or dental clinic one *or more years ago*, and 3.77% reported not being sure how long it had been since they last visited a dentist.

BARRIERS TO CARE

In order to better understand possible barriers to care, participants were prompted to provide reasons for not having seen a dentist in the past year or longer. Respondents could select as many reasons as applied, and had an option to provide a written "other" response if their reason(s) were not listed as a selection option.

The top four reasons selected for not having seen a dentist in the past year or more (n=173) were: No insurance (25.43%); Cannot afford dental care (23.12%); Do not have a reason to see the dentist (19.65%); Afraid of the dentist (13.29%). Almost a third of respondents to this question (n=47) also provided a written response for "other" reasons. Many of the written responses reinforced the previous options they selected, and other written responses provided additional insights into the barriers that participants experience to dental care. Some of the additional challenges to accessing care consisted of not having teeth or dentures (8.5%), personally being inconsistent with attending and scheduling appointments (10.6%), and using drugs (4.2%).

WHAT CAN MENDOCINO COUNTY DO?

Survey respondents were then asked the open-ended question, "*What can Mendocino County do to better address oral health needs in the community?*" Three central themes emerged from the 204 responses that highlighted perceived needs in the community. These themes were access, education and awareness, and attention to special populations in the community. The following outlines each of these themes in more detail.

THEME 1: ACCESS

More Care

Access to oral health care includes the ability to find *available* care for one's specific needs and concerns. In Mendocino County, many survey respondents (14.2%) articulated that there is a need for more dental providers and clinics in general that can provide services and screen, as well as a need to expand the types of services and specialties in the county, such as pediatric dentists and surgeons (2.9%). A couple of

these responses articulated that this need coincided with the challenge of finding a nearby dentist that had available appointments. There were also a few survey participants (1.5%) that articulated a need to improve the existing capacity of providers, including how to address anxiety and complications with certain procedures.

There was also a desire from several respondents to increase the number of providers that accept Medi-Cal (6.9%) in order to improve access to oral health care. As outlined previously in the environmental scan, 47% of Mendocino County's population was enrolled in Medi-Cal as of 2016, and 87.1% of children ages 0-5 were enrolled in Medi-Cal as of 2015.[70] With a substantial number of Mendocino County residents enrolled in Medi-Cal, having more providers that accept Medi-Cal would be important to address.

Affordability - Cost & Coverage

The ability to afford oral health care and access comprehensive insurance coverage for these services, was another central need that surfaced amongst survey respondents. A large amount of responses (26.5%) centered around cost, articulating the need to increase the availability of low-cost or free care, and offering sliding scale services in the county. A smaller number of participants suggested exploring payment options for dental services (2.9%).

Regarding oral health coverage, several respondents expressed a need to improve access to dental coverage in the county, including for those community members that are not eligible for Medi-Cal (7.4%). Few participants raised the need to expand what existing dental coverage allows and covers, including permitting multiple services to be done in one visit (2.5%). These responses focused on the amount of time it takes to schedule and attend multiple appointments when several services are required.

Physical Access to Care & Resources

Another interesting, but less prominent, theme was to improve physical access to both care and resources needed to maintain oral health. One common response for this particular focus area suggested providing free toothbrushes, toothpaste, floss, and mouthwash resources to underserved community members (2.5%).

There were also survey participants that expressed a need to address geographic challenges to accessing care in the community. A few suggestions included increasing mobile dentistry services that can access rural areas such as reservations and rancherias (1.9%), and providing transportation services for community members to receive services (1.5%).

Time

Time was another area of need that emerged in some of the responses surrounding access. This particular theme seems to intersect with the need for increasing the

[70] Graves, S. (November 2016).; Research and Analytic Studies Division (2016, January).

number of providers in the county. Several respondents (3.9%) stated that there is a need to reduce the time it takes to obtain an appointment. If there were more providers and dental chairs in the county, it is possible that this need could be reduced. In addition, some participants suggested that more providers could offer late or weekend hours so that appointments are more accessible (2.5%).

THEME 2: MORE EDUCATION & AWARENESS

Though improving the number of providers and resources in the community is an important need, it may only be useful if the community is aware that these resources exist and the value that they bring for improving oral health. Survey participants conveyed that education and awareness was an important need to attend to. Several respondents (5.4%) spoke to a need for developing more outreach efforts such as campaigns, messaging and advertising, and campaigns in schools and the community. Some respondents also articulated specific focus areas for community education. These focus areas included: improving community understanding of the importance of oral health (3.9%); improving community understanding of the impact that certain behaviors and practices can have on oral health (2.9%); and improving community awareness of what resources are available for addressing oral health, and how to access these resources (2.9%).

THEME 3: MORE ATTENTION TO SPECIAL POPULATIONS IN THE COMMUNITY

Amongst the 204 responses to the question of what Mendocino County can do, 11.3% of respondents highlighted specific groups of community members to target community oral health efforts towards. These groups include: children and youth, older adults, veterans, people experiencing homelessness, those that are monolingual Spanish speaking, agricultural workers, and individuals in incarceration.

SURVEY FINDINGS: COMMUNITY HEALTH ASSETS

In spite of the survey's focus on community needs, there were some important community assets worth highlighting from the responses.

BELIEFS, KNOWLEDGE, AND PERCEPTIONS

When asked about how important their oral health is to them, survey respondents (n=374) primarily expressed that oral health is of importance. About 48.13% felt that oral health is extremely important, and 38.24% rated oral health as very important to them. There were also positive trends when it came to beliefs towards different statements. Respondents were asked to rate the extent to which they agreed or disagreed with several statements about oral health. The majority of participants (76.99%) "agreed" or "strongly agreed" that going to bed with a cup or bottle with anything in it but water could hurt a child's teeth (n=365). Around the same number of respondents (74.37%) "disagreed" with the statement that there is no need to worry

about baby teeth because they will just fall out (n=355). A majority (60.06%) also agreed that fluoride helps to fight cavities (n=358).

In addition to beliefs and perceptions, a large number of respondents reported having good overall dental health. Of the 372 respondents that rated the overall condition of their teeth and gums, more than half (58.6%) rated their teeth and gums as either "good", "very good" or "excellent."

AMEN Community Survey

The Adventist Medical Evangelism Network (AMEN) held a free clinic for the first time on April 4 – 6, 2018 in Ukiah, California, offering dental services to community members. A brief 10-question community survey was designed by a local epidemiologist and administered in-person at the clinic. A translator was used to help interpret questions to patients that were monolingual or bilingual.

SURVEY PARTICIPANT DEMOGRAPHICS

There was a total of 55 respondents to the survey, though not every participant responded to each question. Participants were asked a few demographic questions including their gender, age, zip code, status of employment, and number of people in the household.

ZIP CODE

The majority of respondents, 59.3% (n=54) reported residing in Ukiah. A smaller number of respondents (11.1%) reported residing in Willits and about 5.6% reported residing in Redwood Valley.

GENDER AND AGE

The majority of survey participants (n=55) were female (67.3%) and 32.7% identified as male. The average age of respondents (n=55) was 47 years old.

EMPLOYMENT AND HOUSEHOLD SIZE

Of the 55 survey respondents, 58.2% reported not being employed, and 41.8% reported currently being employed.

When asked about household size, 52 survey participants responded. 32.7% had one person in their household, while 15.4% reported five persons in their household. 34.7% of respondents had between two and four persons in their household, and a smaller percentage (17.3%) reported having between six and eight persons in the household.

SURVEY FINDINGS: COMMUNITY ORAL HEALTH NEEDS

Before reviewing the findings, it is important to note that the survey captured a very small sample of Mendocino County residents and may not be representative of the needs of the entire county.

DENTAL CARE AND COVERAGE

The survey asked participants if they had seen a dentist the past 12 months, before coming to the clinic; the majority of respondents (70.9%) reported that they had not seen a dentist in the past year. Participants were also asked to provide all the reasons that best described why they had not received dental care in the past year. A majority of the 54 respondents (81.5%) to this question reported that they could not afford the cost, and 41.6% reported that their insurance did not cover the cost of dental care. A smaller number (11.3%) responded that they did not have insurance, 7.4% stated that there was a lack of dentist in their area, and 5.6% reported that the dentist was not open at a convenient time.

Respondents were also asked to report if they are employed, if their employer provides dental coverage. Of the 16 respondents to this question, 62.5% responded “no”, while 25.1% reported “yes” and 12.5% responded that they were self-employed.

OTHER BARRIERS TO CARE

Other reasons for not accessing care included fear of, or not liking the dentist (13%); not wanting to spend the money (7.4%); being too busy (7.4%); not being able to take time off (3.7%); lack of transportation (3.7%); and, the dental office being too far away (1.9%).

The survey also asked participants if they have access to a vehicle. The majority of the 43 respondents to the question reporting having access to a vehicle (88.4%). A smaller number of respondents (9.3%) reported not having access to a vehicle, and about 2.3% stated that they sometimes have access to a vehicle.

Community Oral Health Asset Mapping

MENDOCINO COUNTY ORAL HEALTH ASSETS

Though the focus of the needs assessment was to identify priority areas of concern to address in the community, there were many community assets that were identified throughout the environmental scan, key informant interviews and community oral health survey. These assets, along with those identified by the Advisory Committee, were compiled into a shared document. Resources with an identifiable location were mapped using an online, cloud-based software application. This interactive map can be added to as new community resources are identified and can be used for developing strategic initiatives and efforts to address community oral health needs.

Conclusion

The community oral health needs assessment has illuminated a number of important oral health needs that should be addressed as Mendocino County develops the oral health community improvement plan through 2022. Equally so, the needs assessment has surfaced several significant strengths and assets in the community that should be considered and leveraged when developing strategies for tackling these county-wide needs. Given the community's resiliency and propensity to work together, there appear to be a wide range of opportunities for strategic partnerships, and collaborative initiatives to ensure that all of the county's members have the knowledge, access, and support they need to reach optimal oral health.

Appendix A: Key Informant Interview Questions

Interviewee Profile:

1. Please describe your role at [insert organization name].
2. What types of services does [insert organization name] provide to the community?
3. What is the demographic makeup of the people your organization serves?

Community Assets:

1. What do you see are the strengths that Mendocino County has to address the oral health needs of the community?
2. Based on your experience in the county, what are the most significant barriers or challenges to oral health?

Population Specific Oral Health Needs:

1. How does the population you work with meet, or not meet, their concerns with oral health?
2. What populations in the county are you most concerned about when it comes to oral health?

Organizational Capacity to Meet the Need:

3. What are the highest priorities or biggest challenges *you see* **organizations in the community** face when addressing oral health needs? In other words, are there certain capacity needs that providers and organizations have that need to be met? Examples may include:
    a. Referral system?
    b. Screening?
    c. Dental chairs?
    d. Training?
    e. Number of providers?
    f. Mobility?
    g. Education and awareness?
    h. Other?
4. What opportunities do you see for improving oral health in Mendocino County?

Appendix B: Community Oral Health Survey Questions

1. What is your gender?
    a. Male
    b. Female
    c. Other
2. What is your age range?
    a. Under 18
    b. 18-24
    c. 25-34
    d. 35-44
    e. 45-54
    f. 55-64
    g. 65+
3. What is the zip code where you currently live?

    _____
4. How many children under the age of 18 years old live in your household?
    a. 1
    b. 2
    c. 3
    d. 4
    e. 5
    f. 6 or more
5. What is your approximate average household income?
    a. $0-$24,999
    b. $25,000-$49,999
    c. $50,000-$74,999
    d. $75,000-$99,999
    e. $100,000-$124,999
    f. $125,000-$149,999
    g. $150,000-$174,999
    h. $175,000-$199,999
    i. $200,000 and up
6. What language do you mainly speak at home?
    a. English
    b. Spanish
    c. Chinese
    d. Russian
    e. Vietnamese
    f. Other. Please describe: _____
7. What is the highest level of education you have completed?
    a. No schooling completed
    b. Some high school, no diploma
    c. High school graduate, diploma or equivalent (e.g., GED)
    d. Some college

    e. Trade/technical/vocational training
    f. Associate degree
    g. Bachelor's degree
    h. Some post graduate work
    i. Post graduate degree
8. Do you currently have any kind of dental coverage?
    a. Yes
    b. No
    c. Not sure/I don't know
9. About how long has it been since you last visited a dentist or a dental clinic for any reason?
    a. 0-6 months ago
    b. 7-12 months ago
    c. 1-3 years ago
    d. 4-5 years ago
    e. 5 or more years ago
    f. Do not know/not sure
    g. Never
10. If it has been more than 12 months ago since your last dental visit, what are the main reason(s) you have not seen a dentist?
    a. No insurance
    b. Can't afford dental care
    c. Afraid of the dentist
    d. Do not have transportation to the dentist
    e. Dentist is too far away
    f. Dentist does not speak my language
    g. Do not have a dentist
    h. Can't take time off from work or school
    i. No child care
    j. Do not have a reason to see the dentist
    k. Other: _____
11. How important is oral health to you?
    a. Extremely important
    b. Very important
    c. Somewhat important
    d. Not so important
    e. Not at all important
12. In general, how would you rate the overall condition of your teeth and gums?
    a. Excellent
    b. Very good
    c. Good
    d. Fair
    e. Poor
13. How much do you agree or disagree with the following statement? "Going to bed with a cup or bottle with anything in it but water can hurt a child's teeth."

a. Strongly agree
b. Agree
c. Neither agree nor disagree
d. Disagree
e. Strongly disagree

14. How much do you agree or disagree with the following statement?: “There is no need to worry about baby teeth because they will just fall out.”
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree
15. How much do you agree or disagree with the following statement?: “Fluoride helps fight cavities.”
    a. Strongly agree
    b. Agree
    c. Neither agree nor disagree
    d. Disagree
    e. Strongly disagree
16. What can Mendocino County do to better address oral health needs in the community?

    _____

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