Nevada Department of Health and Human Services

Oral Health Program

Cover Page To Be Developed

DRAFT FOR REVIEW BY AC4OH COMMITTEE

May 20, 2022

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EXECUTIVE SUMMARY

The 2022-2032 Nevada Oral Health State Plan is designed to:

- Increase the understanding that oral health IS health
- Provide a roadmap to improve oral health across the state by reducing the burden of oral health disease with a focus on health disparities and underserved populations
- Identify objectives and strategies for advancing oral health priorities at the state and local levels

The Plan identifies national and state level oral health burden data to lay out the unmet needs across populations and within communities. While progress has been made since the last Nevada Oral Health State Plan was published in 2008, with improvements in XX and XX, significant gaps remain including health disparities among a number of historically marginalized and underserved populations, the statewide infrastructure needed to ensure access to oral health prevention and treatment services, lack of high quality data stratified by population to inform program models and interventions and describe the true burden of oral health disease, lack of evidence based programs and their impacts, and lack of a culturally and developmentally appropriate messaging on oral health important and oral health literacy.

The most common oral diseases and conditions can be prevented. Safe and effective measures are available to reduce the incidence of oral diseases and disparities and increase quality of life. The overarching goal of the Plan is to improve oral health statewide and identifies objectives and strategies in focus areas of infrastructure and policy, prevention, and oral healthcare services.

CURRENT LANDSCAPE – BURDEN OF DISEASE

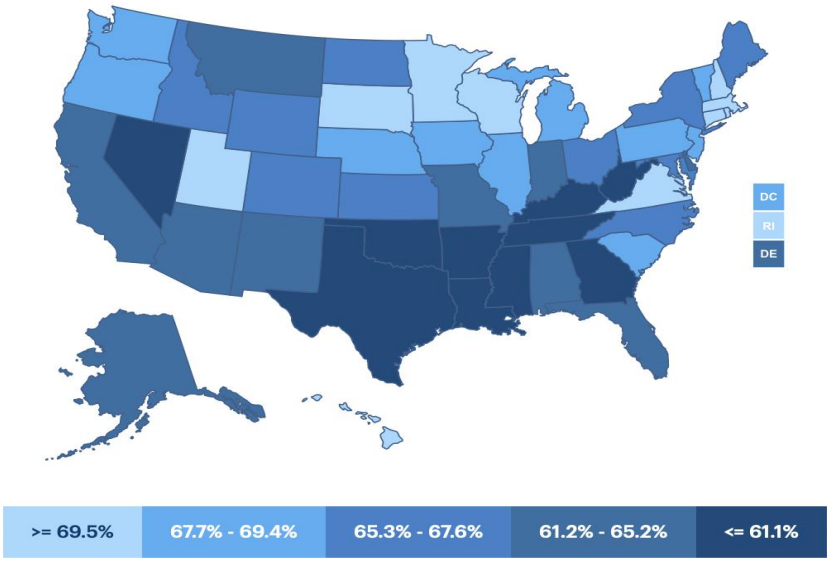
The Burden of Oral Disease in Nevada

> *"Nevadans experience many oral diseases and conditions in greater number than their national counterparts. Significant efforts have been made statewide to reduce the incidence of oral diseases; however additional work is needed to reduce the disparities between various groups."*
> ***Nevada State Health Division***

Oral disease is one of the most overlooked chronic diseases that affects both adults and children. Oral diseases and conditions include but are not limited to dental caries (tooth decay), periodontal disease, tooth loss, and oro-pharyngeal cancers. These diseases and conditions can diminish social interactions, self- esteem, appreciation for food flavors, chewing satisfaction, and overall quality of life for many people.

Nevada is ranked 35th overall in the national for dental health; 45th for dental habits and care; 28th for oral health[1]; and 41st for adults who reported visiting a dentist or dental clinic in the past year (60.8%) (Figure 1).[2] In addition, Nevada received a "C" in Oral Health from the Nevada Medical Center's 2019 Healthcare Report Card.[3]

Figure 1. Percentage of Adults who Reported Visiting a Dentist or Dental Clinic within the Past Year

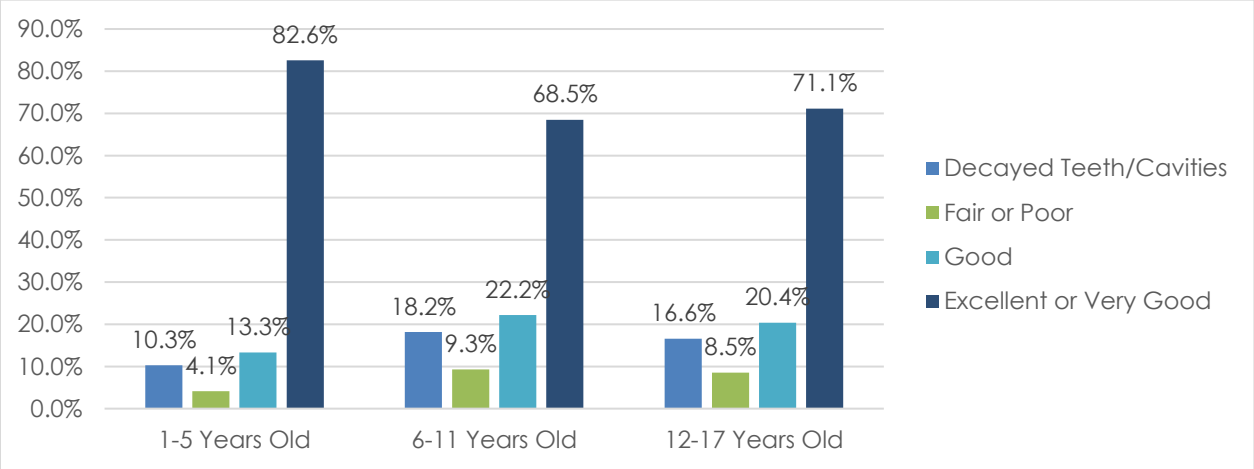


[1] WalletHub. States with the Best & Worst Dental Health. Retrieved from https://wallethub.com/edu/states-with-best-worst-dental-health/31498
[2] America's Health Rankings. Retrieved from https://www.americashealthrankings.org/explore/annual/measure/dental/state/NV
[3] Nevada Medical Center. Healthcare Report Card 2019. Retrieved from https://nvmedicalcenter.org/healthcare-report-card-2019/

A close look at the oral health of Nevadans reveals the following:

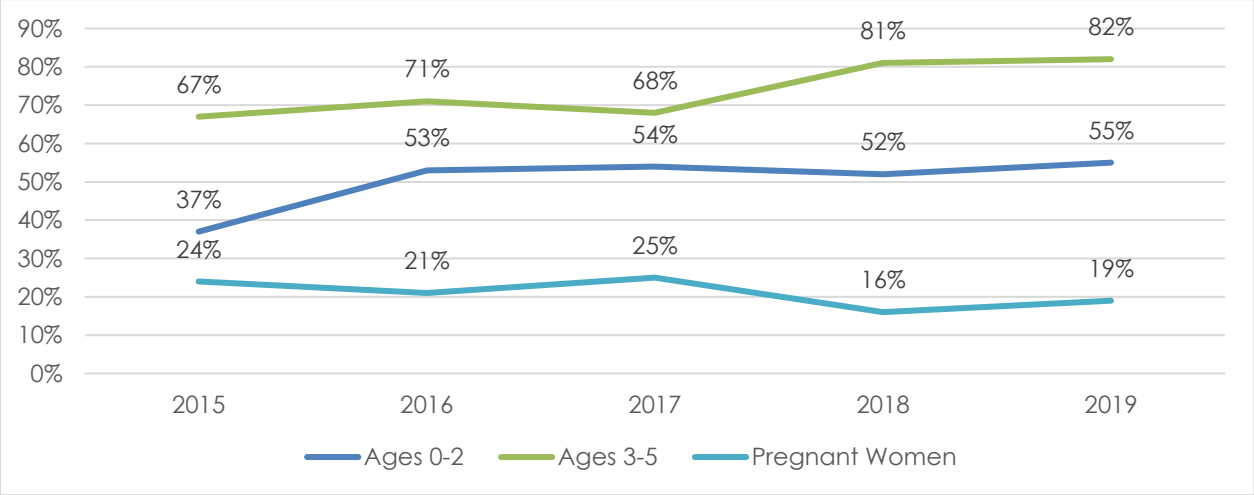
- 15.5% of Nevada children answered "Yes" to having tooth decay in 2019-2020, versus 9.7% in 2018.[4] By age group, 10.3% of children ages 1-5 had decayed teeth/cavities; 18.2% of children ages 6-12 had decayed teeth/cavities; and 16.6% of adolescents ages 12-17 had decayed teeth/cavities (Graph 1).[5]

Graph 1. Condition of Teeth, by Age, 2019-2020



- About 2 out of 10 (19.8%) of pregnant women from the Head Start population had dental services (Graph 2).[6]

Graph 2. Rates of Dental Service Utilization Among Head Start Populations, Nevada, 2015-2019



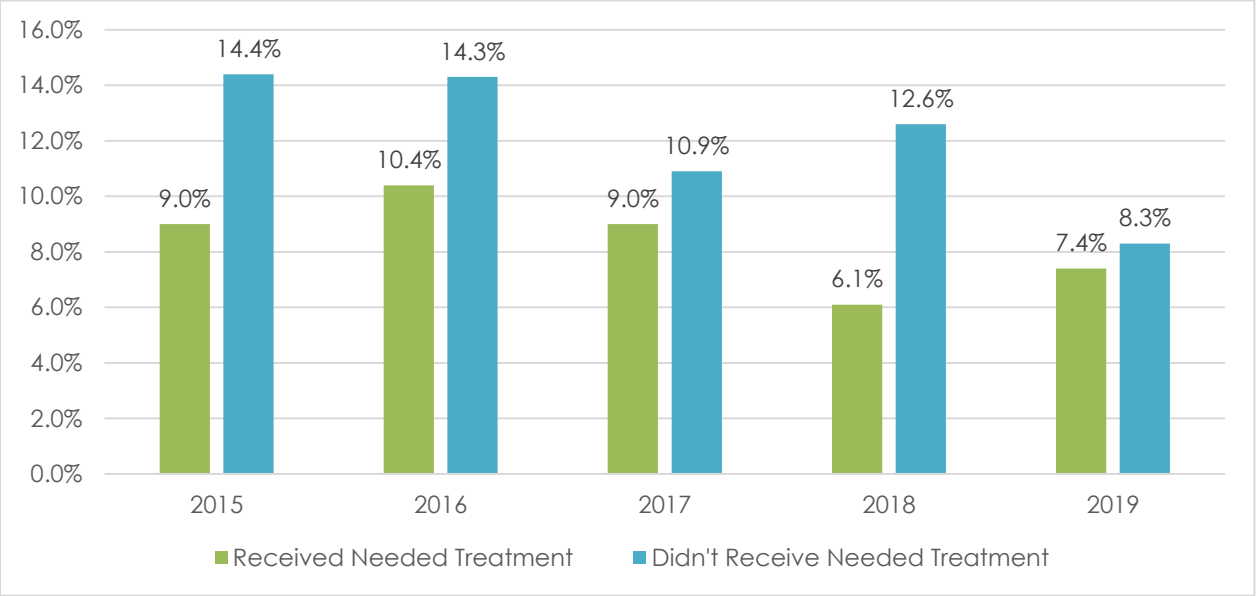
[4] National Survey of Children's Health. Nevada. Decayed Teeth or Cavities. Retrieved from https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/NationalSurveyofChildrensHealth_15929305430520/Nav

[5] National Survey of Children's Health. Nevada. Decayed Teeth or Cavities. Retrieved from https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/NationalSurveyofChildrensHealth_15929305430520/Nav

[6] Tableau. Head Start Program Information Reports. Retrieved from https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/HeadStartProgramInformationReports/Home

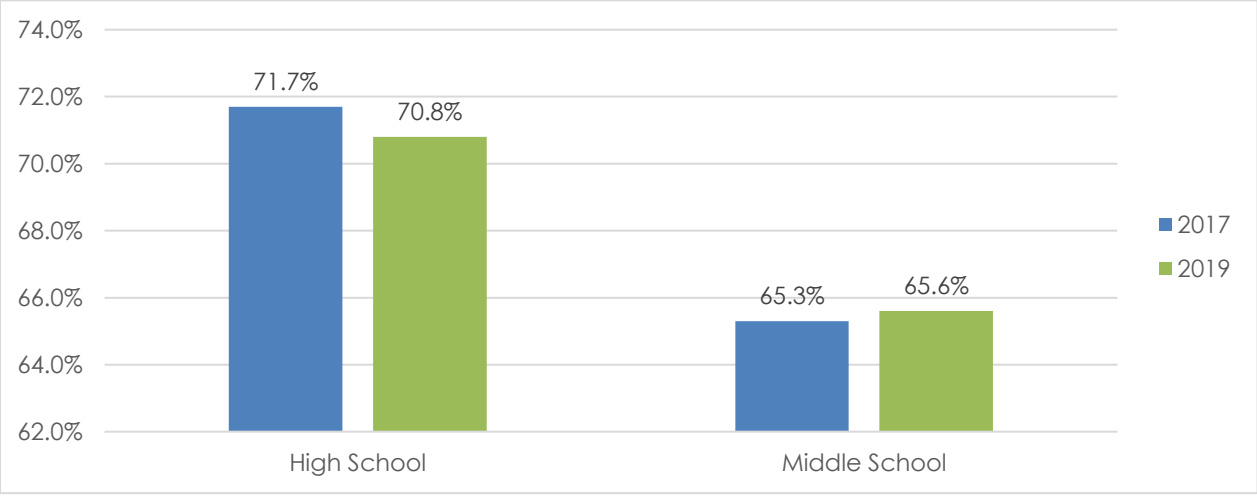
- While 82% of the children 3-5 years old in the Head Start population had dental services (Graph 2), the rates for not receiving needed treatment remain consistently higher than those receiving needed treatment (Graph 3) over the five year period.[7]

Graph 3. Rates of Treatment Outcomes of 3-5 Year Old Head Start Enrollees, Nevada, 2015-2019



- Only 65.6% of middle school students and 70.8% of high school students report having visited a dentist in 2019 (Graph 4).[8, 9]

Graph 4. Nevada Public School Students who Visited the Dentist in the Last Year, 2017 and 2019



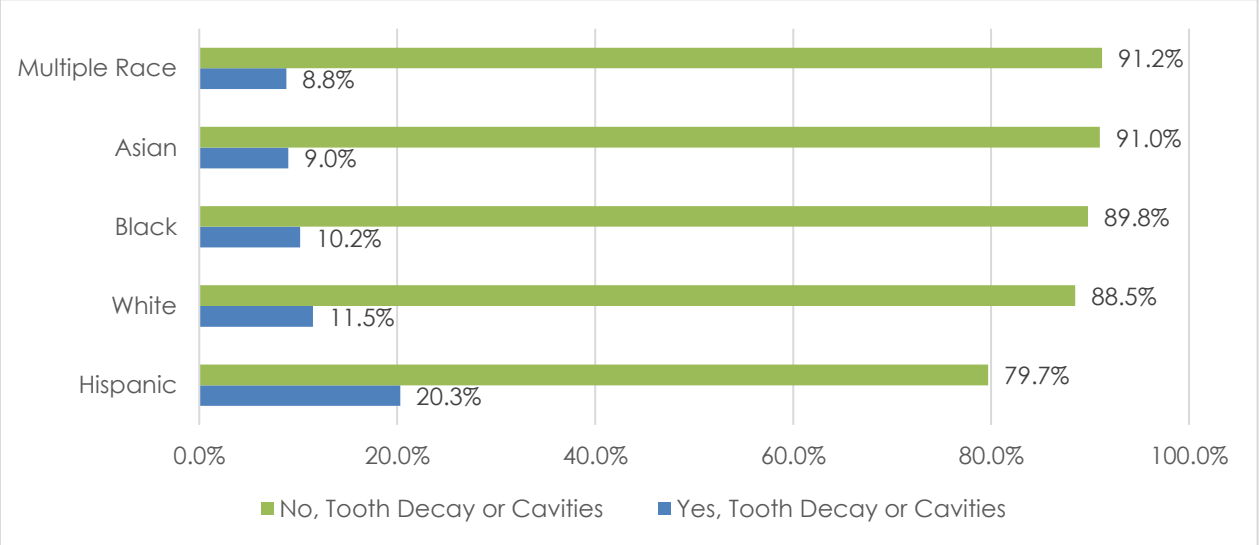
[7] Tableau. Head Start Program Information Reports. Retrieved from https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/HeadStartProgramInformationReports/Home\

[8] Diedrick, M., Lensch, T., Zhang, F., Peek, J., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *Nevada Middle School Youth Risk Behavior Survey (YRBS) Comparison Report, 2017-2019.*

[9] Diedrick, M., Lensch, T., Zhang, F., Peek, J., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *Nevada High School Youth Risk Behavior Survey (YRBS) Comparison Report, 2017-2019.*

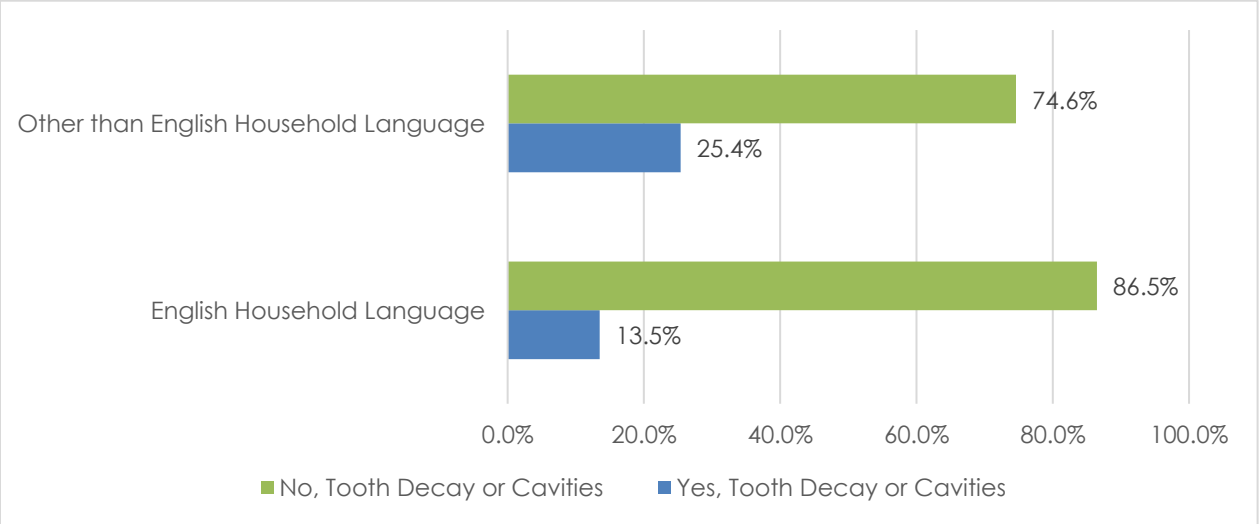
- The rates of decayed teeth or cavities for children ages 1-17 was highest among Hispanic children (20.3%), White children (11.5%), and Black children (10.2%) (Graph 5).[10]

Graph 5. Percent of Children, Ages 1-17, Who have Decayed Teeth or Cavities in Past Year by Race/Ethnicity, Nevada, 2019-2020



- The rates of decayed teeth or cavities for children ages 1-17 that spoke a language other than English in the household (25.4%), compared to those who spoke English in the household (13.5%) (Graph 6).[11]

Graph 6. Percent of Children, Ages 1-17, Who have Decayed Teeth or Cavities in Past Year by Household Language, Nevada, 2019-2020

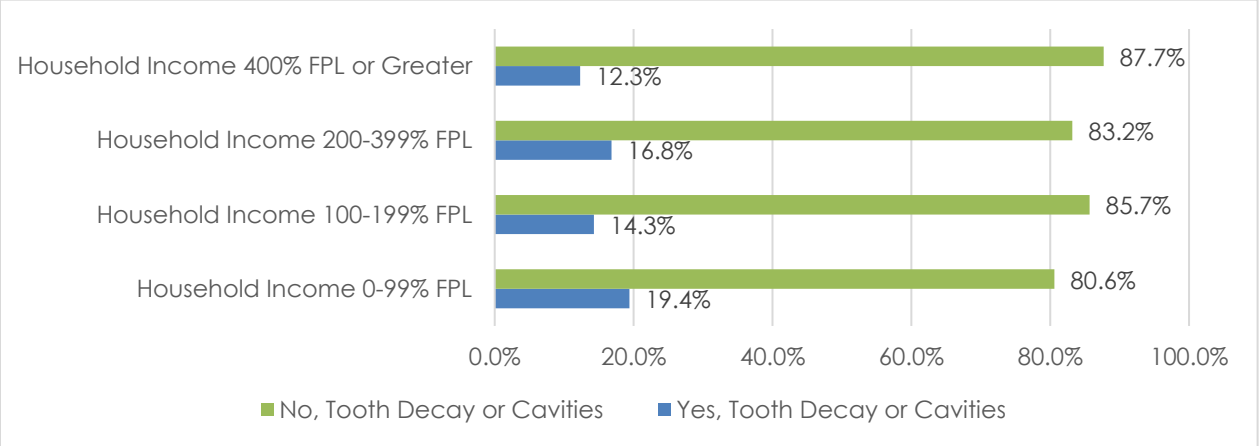


[10] Child and Adolescent Health Measurement Initiative. 2019-2020 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved from https://www.childhealthdata.org/browse/survey/results?q=8576&r=30&g=915

[11] Ibid. https://www.childhealthdata.org/browse/survey/results?q=8576&r=30&g=917

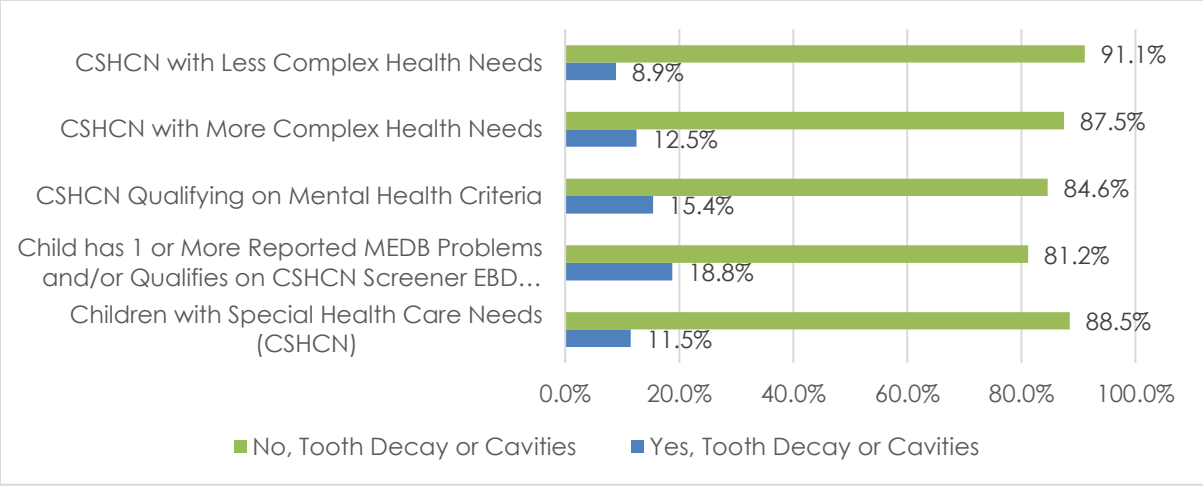
- The rates of decayed teeth or cavities for children ages 1-17 by household income was higher for those with income 0-99% FPL (19.4%), compared to those with incomes at 100-199% FPL (14.3%), incomes 200-399% FPL (16.8%), and incomes 400% FPL (12.3%) (Graph 7).[12]

Graph 7. Percent of Children, Ages 1-17, Who have Decayed Teeth or Cavities in Past Year by Household Income,, Nevada, 2019-2020



- Children with Special Health Care Needs (CSHCN) ages 1-17 had higher rates of decayed teeth or cavities compared to CSHCN with less complex health needs (Graph 8).[13]

Graph 8. Percent of Children, Ages 1-17, Who have Decayed Teeth or Cavities in Past Year by Special Health Care Needs, Nevada, 2019-2020

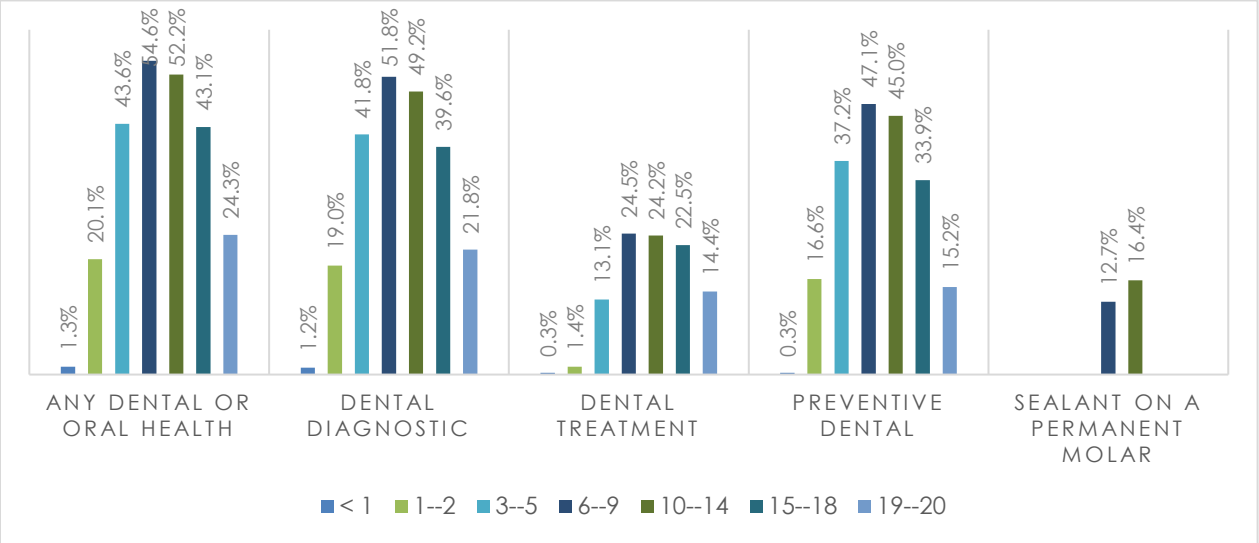


[12] Child and Adolescent Health Measurement Initiative. 2019-2020 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved from https://www.childhealthdata.org/browse/survey/results?q=8576&r=30&g=900

[13] Child and Adolescent Health Measurement Initiative. 2019-2020 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved from https://www.childhealthdata.org/browse/survey/results?q=8576&r=30&g=921

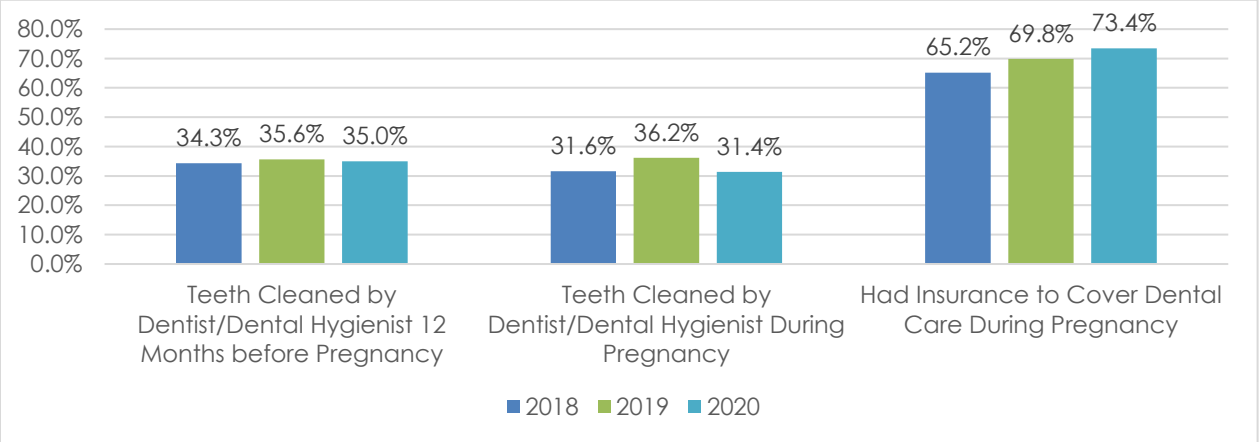
- Categorically and medically needy refers to to families and children, aged, blind, or disabled individuals, and pregnant women who are eligible for Medicaid. Graph 9 below shows the various utilization of dental services for children up to age 20 in these categories for Medicaid eligibility.[14] The categories with the least usage of services are Dental Treatment and Sealant on Permanent Molar, followed by Preventive Dental.

Graph 9. Percent of Utilization of Categorically and Medically Needy Medicaid Eligibility, Various Dental Services by Age Group, 2019



- The Pregnancy Risk Assessment Monitoring System (PRAMS) includes results that describe the oral health care of pregnant and perinatal women. PRAMS data show that approximately 35% of women had their teeth cleaned 12 months before pregnancy; 34.1% had their teeth cleaned during pregnancy; and 73.4% had insurance to cover dental care during pregnancy in 2020 (Graph 10).

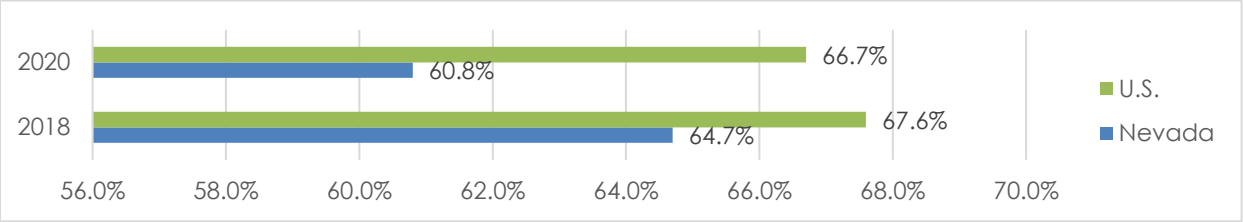
Graph 10. PRAMS Data, Nevada, 2018-2020



[14]Tableau. CMS 416 Oral Health Report. Retrieved from https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/CMS416OralHealthReport/Navigation

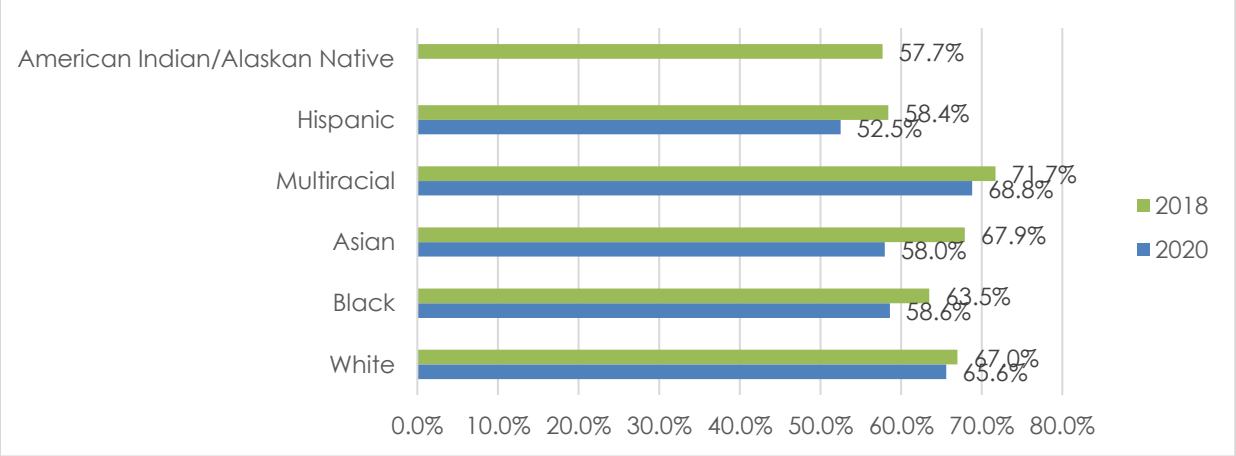
- 60.8% of adults reported having visited the dentist or dental clinic in 2020, a decrease from 2018 at 64.7% (Graph 11).[15]

Graph 11. Percent of Adults who Visited the Dentist or Dental Clinic within the Past Year for any Reason, 2018, 2020



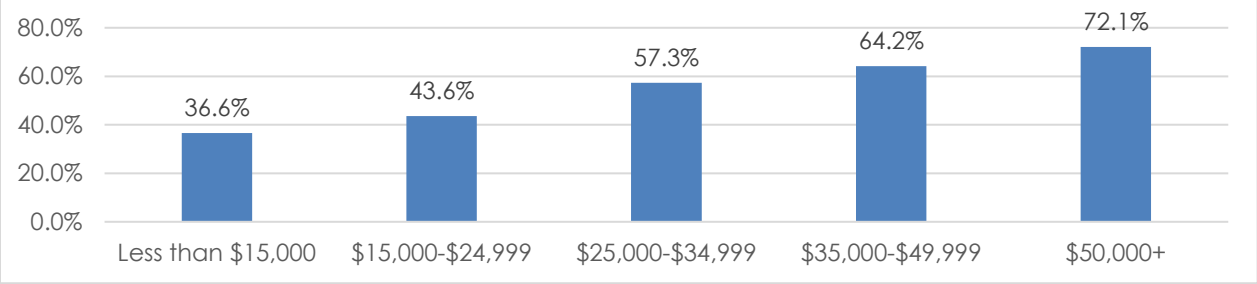
- The rates of dental visits in 2020 were lower among adult Hispanic (52.5%), Asian (58.0%), Black (58.6%), compared to their White counterparts (65.6%) (Graph 12).[16]

Graph 12. Percent of Adults who Visited the Dentist or Dental Clinic within the Past Year for any Reason by Race/Ethnicity, 2018, 2020



- The rates of dental visits in 2020 were lower among low-income adults compared to higher income adults (Graph 13).[17]

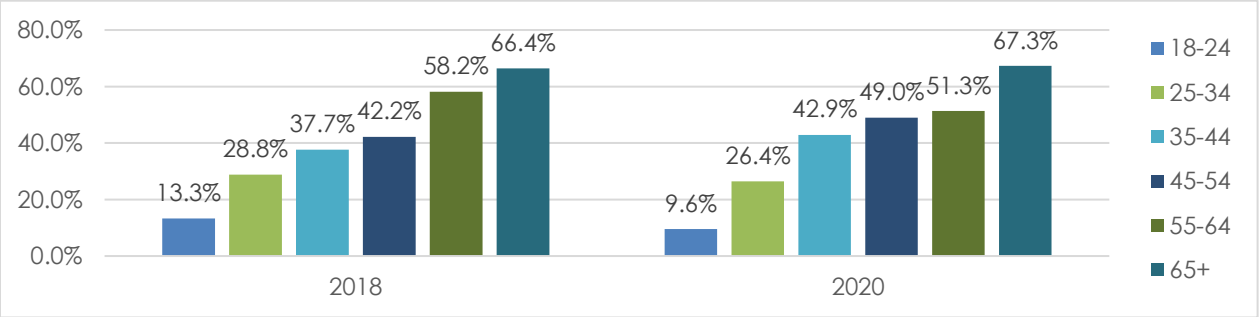
Graph 13. Percent of Adults who Visited the Dentist or Dental Clinic within the Past Year for any Reason by Household Income, 2018, 2020



[15] America's Health Rankings. Retrieved from https://www.americashealthrankings.org/explore/annual/measure/dental/state/NV
[16] BRFSS Prevalence Data. Retrieved from https://www.cdc.gov/brfss/data_tools.htm
[17] BRFSS Prevalence Data. Retrieved from https://www.cdc.gov/brfss/data_tools.htm

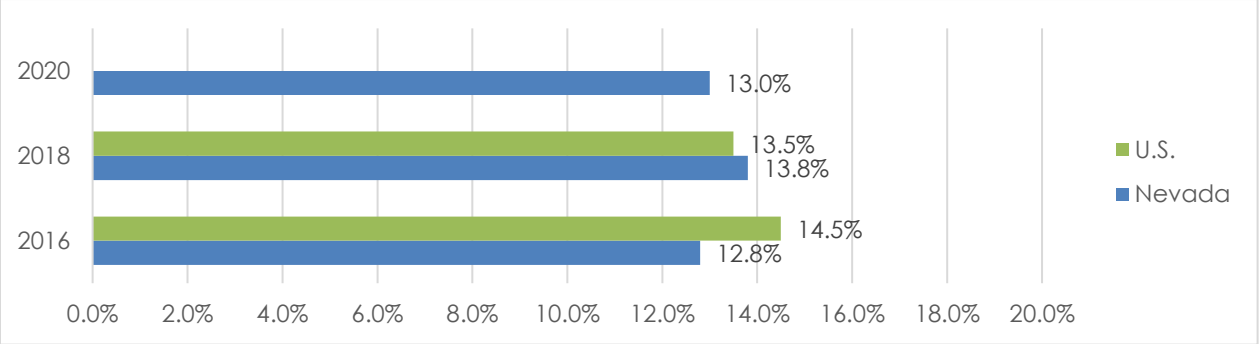
- About 7 out of 10 (67.3%) of adults aged 65 and over have had any permanent teeth extracted (Graph 14) in 2020.[18]

Graph 14. Adults that have had any Permanent Teeth Extracted, 2018, 2020



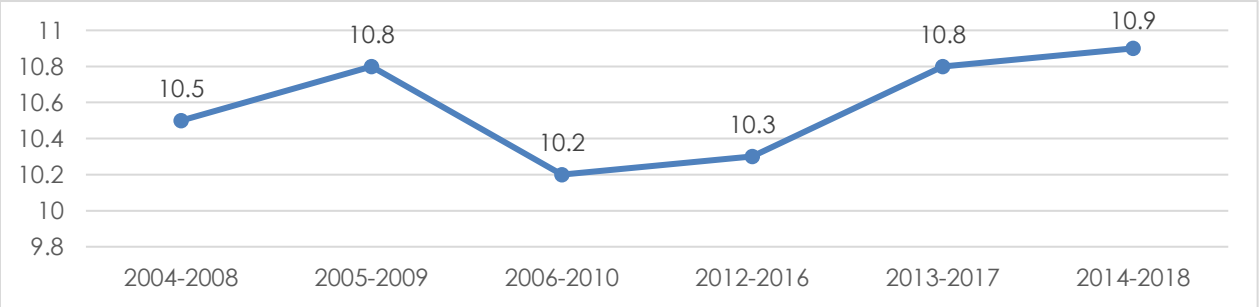
- In 2020, 13.0% of adults in Nevada aged 65 and over have had all their permanent teeth extracted (Graph 15).[19] The data for the U.S. was not available for 2020.

Graph 15. Adults Aged 65+ who have had All Their Natural Teeth Extracted, 2018, 2020



- Graph 16 shows the incidence rate of oral cavity and pharynx cancer[20] in Nevada. The rate is 10.9 cases/100,000 population compared to the U.S. rate of 11.9. The prior value for Nevada was 10.8. The rate is highest among males at 16.1 cases/100,000 population versus Females at 6.0 cases/100,000 population.

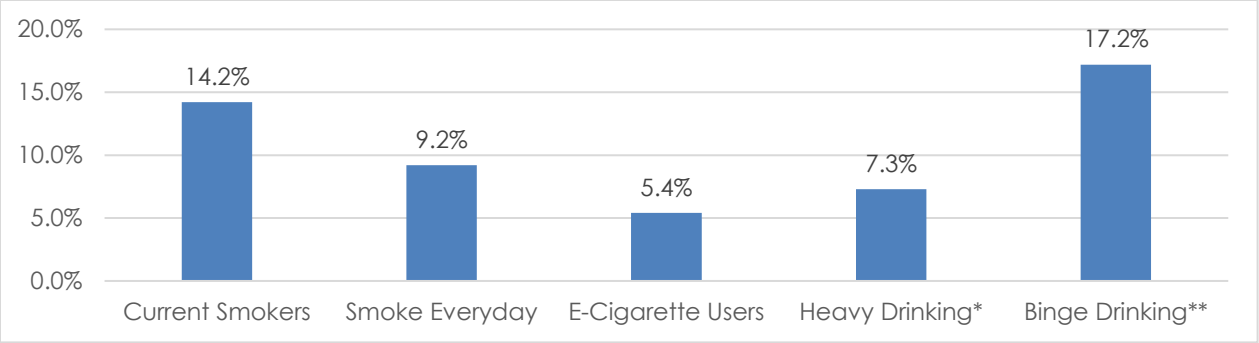
Graph 16. Oral Cavity and Pharynx Cancer Incidence Rate



[18] BRFSS Prevalence Data. Retrieved from https://www.cdc.gov/brfss/data_tools.htm
[19] BRFSS Prevalence Data. Retrieved from https://www.cdc.gov/brfss/data_tools.htm
[20] Nevada Tomorrow. Oral Cavity and Pharynx Cancer Indicence Rate. Retrieved from https://www.nevadatomorrow.org/indicators/index/view?indicatorId=333&localeId=31

- The known risk factors for developing oral cancer are tobacco use and heavy alcohol consumption. According to the American Cancer Society, individuals who both smoke and drink excessively are 30 times more likely to develop oral cancer than those who do not smoke or drink.[21] 2020 data show that 14.2% of the adult population are current smokers and 9.2% smoke everyday; 17.2% of the population are binge drinkers, and 7.3% are heavy drinkers. 2017 data on E-Cigarette use (latest available data), show that 5.4% of adults are current users.

Graph 17. Adult Tobacco Use and Alcohol Consumption



**Heavy drinkers (males having more than 14 drinks/week and females having more than 7 drinks/week); **binge drinkers (males having 5 or more drinks on one occasion, females having 4 or more drinks on one occasion).*

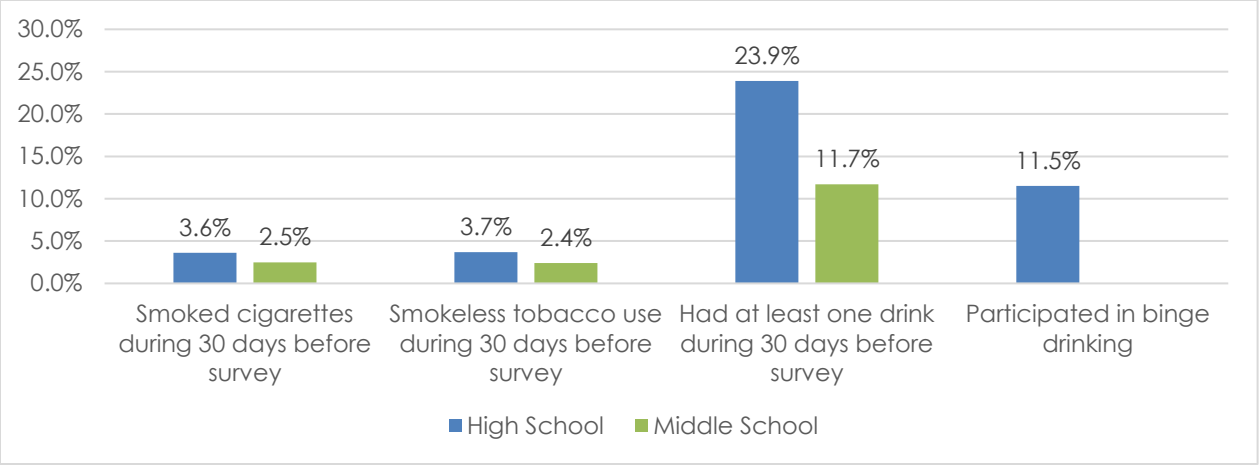
- In 2019, 3.6% of high school and 2.5% of middle school students smoked cigarettes one or more time during past 30 days; 3.7% of high school and 2.4% of middle school students used smokless tobacco one or more time during past 30 days; 23.9% of high school and 11.7% of middle school students had at least one drink during 30 days; and 11.5% of high school students engaged in binge drinking.[22, 23]

Graph 18. Youth Tobacco Use and Alcohol Consumption, 2019

[21] American Cancer Society. Risk Factors for Oral Cavity and Oropharyngeal Cancers. Retrieved from https://www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/causes-risks-prevention/risk-factors.html

[22] Diedrick, M., Lensch, T., Zhang, F., Peek, J., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *Nevada Middle School Youth Risk Behavior Survey (YRBS) Comparison Report, 2017-2019.*

[23] Diedrick, M., Lensch, T., Zhang, F., Peek, J., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *Nevada High School Youth Risk Behavior Survey (YRBS) Comparison Report, 2017-2019.*



- In 2019, 11.8% of high school students drank a can, bottle, or glass of soda or pop one or more times per day during the 7 days before the survey.[24]

In addition to the data above, The National Oral Health Surveillance System (NOHSS) shows the following indicators for Nevada (Figure 2):[25]

Figure 2. NOHSS Indicators, Nevada

NOHSS Indicator	Domain	Value	Desired
children saw a dentist in the previous year	access to care	**77%**	higher
children saw a dentist for preventive care in the previous year	access to care	**74%**	higher
children in grades 9-12 had a dentist visit in the previous year	access to care	**73%**	higher
adults age 18+ who visited a dentist in the previous year	access to care	**65%**	higher
adults with diabetes had a dental visit in the previous year	access to care	**65%**	higher
children ages 1-20 enrolled in Medicaid or CHIP received a dental visit	access to care	**44%**	higher
pregnant people reported having their teeth cleaned during the 12 month..	access to care	**no data**	higher
school-based health centers provided any oral health service	community interventions	**42%**	higher
third grade children with any history of caries	health outcome	**65%**	lower
children ages 1-20 enrolled in Medicaid or CHIP received a preventive den..	access to care	**37%**	higher
pregnant people reported having their teeth cleaned during their	access to care	**no data**	higher
adults age 65+ who have lost 6+ teeth	health outcome	**40%**	lower
third grade students with dental sealants	health outcome	**38%**	higher
patients of federally-qualified health centers had an annual dental visit	access to care	**11%**	higher
school-based health centers provided dental sealants services	community interventions	**8%**	higher
school-based health centers provided topical fluoride services	community interventions	**42%**	higher
third grade children with untreated caries	health outcome	**28%**	lower
adults age 65+ who lost all their natural teeth	health outcome	**14%**	lower
Medicaid or CHIP-enrolled children ages 6-9 had sealants placed during th..	health outcome	**13%**	higher
Medicaid or CHIP-enrolled children ages 10-14 had sealants placed during	health outcome	**16%**	higher

[24] Diedrick, M., Lensch, T., Zhang, F., Peek, J., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *Nevada High School Youth Risk Behavior Survey (YRBS) Comparison Report, 2017-2019.*

[25]https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/NationalOralHealthSurveillanceSystem/Nav

third grade students needed urgent dental treatment	health outcome	**6%**	lower
Head Start enrollees with any history of caries	health outcome	**54%**	lower
Kindergarten children with any history of caries	health outcome	**no data**	lower
Kindergarten students with untreated caries	health outcome	**no data**	lower
Head Start enrollees with untreated caries	health outcome	**32%**	lower
Head Start enrollees needed urgent dental treatment	health outcome	**3%**	lower
Kindergarten students needed urgent dental treatment	health outcome	**no data**	lower
has a state oral health surveillance program approved by the Council of	infrastructure	**No**	present
age-adjusted new annual cases of oral or pharyngeal cancer per 100k peo..	health outcome	**14/100k**	lower
age-adjusted mortality oral or pharyngeal cancer per 100k people	health outcome	**3/100k**	lower

Among Nevadans, "cost" (all 57%; low-income 64%; middle income 67%) was most often cited as reason for not visiting the dentist more frequently in 2016 (most recent data available); followed by "afraid of dentist" (all 20%; low-income 22%; middle income 16%); "trouble finding a dentist" (all 15%; low-income 30%; middle income 6%); and "inconvenient location or time" (all 11%; 6% low-income; 14% middle income).[26]
In addition, 49% of low-income adults and 40% of middle-income adults residing in Nevada consider themselves to have fair or poor oral health, which is slightly greater than the national average of 47% and 33% for low- and middle-income adults, respectively.[27]

Furthermore, a lower percentage of Nevadans (73%) compared to the national average (75%) report that they value keeping their mouth healthy, feel that they need to visit the dentist twice a year (63% Nevada; 61% U.S., and agree that regular dental visits will keep them healthy (67% NV; 71% U.S.).

Since the release of the *US Surgeon General's Report on Oral Health* in 2000, research has documented an integral relationship between poor oral health and chronic diseases including cardiovascular disease and diabetes[28]. Research has also documented that poor oral health impacts a child's performance in school – their ability to concentrate and learn along with missed school hours for dental care.[29] Poor oral health also has demonstrated an impact on the economy, with over $45 billion in lost productivity in the U.S. each year due to untreated oral disease,[30] in addition to the higher costs of treating dental disease.[31]

[26] ADA HPI Oral Health & Well-Being. Nevada. Retrieved from https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/ADAHPIOralHealthWell-Being_16096272649150/Home
[27] ADA HPI Oral Health & Well-Being. Retrieved from https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/ADAHPIOralHealthWell-Being_16096272649150/Home
[28] Association of State and Territorial Dental Directors (ASTDD). (2018). White Paper: Opportunities for Improving Oral Health and Chronic Disease Program Collaboration and Medical-Dental Integration. Retrieved from https://www.astdd.org/docs/opportunities-for-improving-oh-and-cd-integration-white-paper.pdf
[29] Jackson, S. L., Vann, W. F., Jr, Kotch, J. B., Pahel, B. T., & Lee, J. Y. (2011). Impact of poor oral health on children's school attendance and performance. *American journal of public health*, *101*(10), 1900–1906. Retrieved from https://doi.org/10.2105/AJPH.2010.200915
[30] Righolt, A. J., Jevdjevic, M., Marcenes, W., & Listl, S. (2018). Global-, Regional-, and Country-Level Economic Impacts of Dental Diseases in 2015. *Journal of dental research*, *97*(5), 501–507. Retrieved from https://doi.org/10.1177/0022034517750572
[31] University of Illinois, Chicago. (2019). The Many Costs (Financial and Well-Being) of Poor Oral Health. Retrieved from: https://dentistry.uic.edu/news-stories/the-many-costs-financial-and-well-being-of-poor-oral-health/

Oral diseases are progressive and cumulative, and if left untreated, become more complex and difficult to manage over time. The good news is that the majority of oral diseases are also preventable. In populations with access to community water fluoridation, topical fluorides and dental sealants, reductions in dental diseases are evidenced. Unfortunately these proven preventive practices are not available to all Nevadans, as Nevada does not have the following:[32]

- Prevention programs: Dental screening programs, Early Childhood Caries (ECC) prevention programs, Fluoride varnish programs, and School-based or school-linked sealant programs;
- Requirement or mandate for dental health screening or certificate at school entry;
- Special population programs for older adults or pregnant women.

Community water fluoridation, fluoride mouthrinse programs, and fluoride varnish programs serve to prevent oral disease. Nevada ranks 27th in the nation for water fluoridation[33] as 75% of the population is served by community water systems (CWS) receiving fluoridated water (Figure 3).[34]

Figure 3. Fluoridation Status, Nevada, May 2021

			% Fluoridated		% of Total	
	Systems	Population	Systems	Population	Systems	Population
All Water Systems	233	2,827,010	--	--	100.00	100.00
Fluoridated						
Adjusted	2	288,831	4.26	13.69	0.86	10.22
Natural	33	32,491	70.21	1.54	14.16	1.15
Variable/Other	0	0	0.00	0.00	0.00	0.00
Defluoridated	0	0	0.00	0.00	0.00	0.00
Consecutive	12	1,788,929	25.53	84.77	5.15	63.28
Multi-source	0	0	0.00	0.00	0.00	0.00
Total	47	2,110,251	100.00	100.00	20.17	74.65
Non-Fluoridated						
Non-Adjusted	152	479,242	--	--	65.24	16.95
Variable/Other	16	77,759	--	--	6.87	2.75
Defluoridated	0	0	--	--	0.00	0.00
Consecutive	14	78,021	--	--	6.01	2.76
Multi-source	4	81,737	--	--	1.72	2.89
Total	186	716,759	--	--	79.84	25.35

[32] Association of State & Territory Dental Directors. 2020 ASTDD State Synopsis. Retrieved from https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/ASTDDStateSynopses/Home
[33] American Health Rankings. Water Fluoridation. Retrieved from https://www.americashealthrankings.org/explore/annual/measure/water_fluoridation/state/NV
[34] Centers for Disease Control and Prevention. State Fluoridation Reports. Summary Report. Nevada. Retrieved from https://nccd.cdc.gov/DOH_MWF/Reports/Summary_Rpt.aspx

In addition to these barriers, Nevada faces barriers in accessing care, shortages of professionals, and disparities across the state as described in the following sections.

Access to Care

Nevada faces serious issues in its health care system, including:

- **Shortage of Health Professionals** – Currently, 67.3% of the state's population resides in a federally designated primary care Health Professional Shortage Area (HPSA); ***71.1% resides in a federally designated dental care HPSA***; and 94.5% resides in a federally designated mental health care HPSA (Table 1).[35]

Table 1. Population Residing in HPSAs in Nevada 2021

Region/ County	Population Residing in HPSAs						Population
	Primary Medical HPSA		Dental HPSA		Mental HPSA		
	#	%	#	%	#	%	
Rural and Frontier							
Churchill County	26,780	100.0	26,780	100.0	26,780	100.0	26,780
Douglas County	33,319	66.4	37,441	74.6	50,169	100.0	50,169
Elko County	21,100	39.4	35,539	66.3	53,589	100.0	53,589
Esmeralda County	955	100.0	955	100.0	955	100.0	955
Eureka County	1,763	100.0	1,763	100.0	1,763	100.0	1,763
Humboldt County	12,986	78.6	12,986	78.6	16,519	100.0	16,519
Lander County	5,957	100.0	5,957	100.0	5,957	100.0	5,957
Lincoln County	4,530	100.0	4,530	100.0	4,530	100.0	4,530
Lyon County	56,582	100.0	56,582	100.0	56,582	100.0	56,582
Mineral County	4,508	100.0	4,508	100.0	4,508	100.0	4,508
Nye County	47,028	100.0	47,028	100.0	47,028	100.0	47,028
Pershing County	4,723	100.0	4,723	100.0	4,723	100.0	4,723
Storey County	4,578	100.0	4,578	100.0	4,578	100.0	4,578
White Pine County	9,547	100.0	9,547	100.0	9,547	100.0	9,547
Regional Subtotal	234,356	81.6	252,917	88.1	287,228	100.0	287,228
Urban							
Carson City	51,049	92.9	51,049	92.9	54,941	100.0	54,941
Clark County	1,514,394	64.2	1,479,376	62.7	2,358,347	100.0	2,358,347
Washoe County	335,222	70.9	472,810	100.0	297,118	62.8	472,810
Regional Subtotal	1,900,665	65.9	2,003,235	69.4	2,710,406	93.9	2,886,09
Nevada	**2,135,021**	**67.3**	**2,256,152**	**71.1**	**2,997,634**	**94.5**	**3,173,326**

- **Rapid Population Growth** – Nevada has been growing rapidly, and that growth is expected to continue. Over the next decade, the population in Nevada is projected to grow 9.3% from 3,173,326 in 2021 to 3,469,124 in 2031 (Table 3).[36] The population of

[35] Packham, J., Griswold, T., Terpstra, J., Warner, J. (2022) Physician Workforce in Nevada: A Chartbook. Retrieved from https://med.unr.edu/statewide/reports-and-publications pp. 22

[36] Griswold, T., Packham, J., Warner, J., Etchegoyhen, L. (2021). Nevada Rural and Frontier Health Data Book - 10th Edition. Retrieved from https://cms2files.revize.com/elkocountynevada/boards/Health/2021/DATA%20BOOK%202021%20Final%203-4-21.pdf pp. 16

urban Nevada is projected to grow by 9.7% or 280,169. The population of rural and frontier Nevada is projected to grow by 5.4% or 15,629.

Table 2.Population Projections in Nevada, by County, 2021 to 2031

Region/County	Population			Change 2021 - 2031	
	2021	2026	2031	#	%
Rural and Frontier					
Churchill County	26,780	26,885	27,411	631	2.4
Douglas County	50,169	50,488	50,675	506	1.0
Elko County	53,589	54,389	54,126	537	1.0
Esmeralda County	955	922	861	-94	-9.8
Eureka County	1,763	2,059	2,207	444	25.5
Humboldt County	16,519	16,779	16,603	84	0.5
Lander County	5,957	5,774	5,493	-464	-7.8
Lincoln County	4,530	4,408	4,348	-182	-4.0
Lyon County	56,582	63,512	66,229	9,647	17.0
Mineral County	4,508	5,513	4,603	95	2.1
Nye County	47,028	48,808	50,566	3,358	7.5
Pershing County	4,723	4,792	4,797	74	1.6
Storey County	4,578	5,228	5,882	1,304	28.5
White Pine County	9,547	9,407	9,056	-491	-5.1
Regional Subtotal	**287,228**	**297,964**	**302,857**	**15,629**	**5.4**
					Urban
Carson City	54,941	55,039	55,294	353	0.6
Clark County	2,358,347	2,483,268	2,564,507	206,160	8.7
Washoe County	472,810	524,466	546,466	73,656	15.6
Regional Subtotal	**2,886,098**	**3,062,773**	**3,166,267**	**280,169**	**9.7**
Nevada – Total	**3,173,326**	**3,360,737**	**3,469,124**	**295,798**	**9.3**

- **Uninsured Residents** – A large percentage of Nevada's population is without health insurance. In Nevada 10.2% of the state population are uninsured, compared to the nation at 8.6% (Table 2).[37]

Table 3. Health Insurance Coverage, Nevada versus the U.S., 2020

Population	Uninsured	Employer Insured	Medicaid	Medicare	Military	Non-Group
Nevada	10.2%	47.8%	19.1%	15.4%	2.9%	4.5%
U.S.	8.6%	50.3%	17.8%	15.6%	2.3%	5.5%

The lack of dental coverage and high cost of dental care is the main reason individuals delay treatment. Currently in Nevada, for children up to the age of 21, Medicaid includes comprehensive dental care, which includes a full range of dental services necessary for the prevention of disease and maintenance of oral health. For Medicaid-eligible pregnant women, additional periodontal and restorative services are also available. For those 21 years of age and older, Medicaid covers only limited emergency dental services, including emergency extractions

[37] Kaiser Family Foundation (KFF). (2021). Health Insurance Coverage of the Total Population (CPS). Retrieved from https://www.kff.org/other/state-indicator/health-insurance-coverage-of-the-total-population-cps/?currentTimeframe=0&selectedRows=%7B%22states%22:%7B%22nevada%22:%7B%7D%7D%7D&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

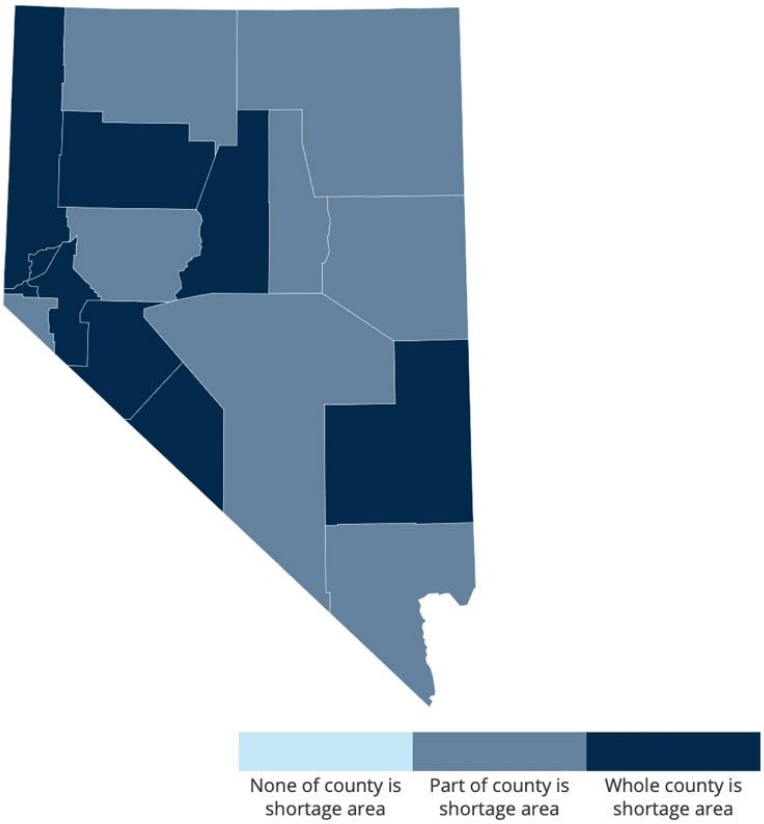
and the furnishing of a complete or partial denture, along with any associated restorative procedures to prepare abutment teeth, if denture is deemed medically necessary.

Seeking care in emergency departments for non-traumatic dental conditions has increased substantially in Nevada. Data from 2012-2017 (latest data available)[38] shows that Nevada Emergency Department encounters are on the rise, from 749,796 encounters in 2012 to 979,369 encounters in 2017. The highest utilizers of these encounters were the 21-44 age group (65% of all encounters), which aligns with the limited Adult NV Medicaid benefits. The Medicaid population was also the highest population in the emergency rooms for dental visits in 2017, with 400,000 encounters.

Dental Care Workforce Capacity

As mentioned above, ***71.1% of the state's population resides in a federally designated dental care HPSA*** (Table 1). Figure 3 below shows county-level data on Dental Care Health Professional Shortage Areas (HPSAs) in Nevada, indicating counties that are entirely in a HPSA or partially in a HPSA. There are no counties in Nevada that are not in a Dental Care HPSA. The ratio of dentists to patients is 1,600:1.[39]

Figure 4. Health Professional Shortage Areas: Dental Care, by County, 2022 – Nevada[40]



[38] Emergency Room Redirect for Non-Traumatic Dental Conditions Pilot Program. https://dhcfp.nv.gov/uploadedFiles/dhcfpnvgov/content/Public/AdminSupport/MeetingArchive/MCAC/2019/MCAC_04_09_19_Oral_Health.pdf

[39] County Health Rankings. Nevada. Dentists. Retrieved from https://www.countyhealthrankings.org/app/nevada/2022/measure/factors/88/map

[40] https://www.ruralhealthinfo.org/charts/9?state=NV

Table 4 below lists the Dental Care HPSAs by county. Nine of the 17 counties are whole county shortage areas.

Table 4. Health Professional Shortage Areas: Dental Care, by County, 2022 – Nevada[41]

County	Value
Carson City	Whole County is Shortage Area
Esmeralda County	Whole County is Shortage Area
Lander County	Whole County is Shortage Area
Lincoln County	Whole County is Shortage Area
Lyon County	Whole County is Shortage Area
Mineral County	Whole County is Shortage Area
Pershing County	Whole County is Shortage Area
Storey County	Whole County is Shortage Area
Washoe County	Whole County is Shortage Area
Clark County	Part of County is Shortage Area
Churchill County	Part of County is Shortage Area
Douglas County	Part of County is Shortage Area
Elko County	Part of County is Shortage Area
Eureka County	Part of County is Shortage Area
Humboldt County	Part of County is Shortage Area
Nye County	Part of County is Shortage Area
White Pine County	Part of County is Shortage Area

Oral Health Disparities

Oral health disparities persist in the Nevada. Individuals are more likely to have poor oral health if they are low-income, uninsured, and/or members of racial/ethnic minority, or rural populations who have suboptimal access to quality oral health care.

Oral Health Disparities in Nevada Children Aged 1 to 17:

- **Cavities and Racial/Ethnic Groups.** 20.3% of Hispanic children have decayed teeth or cavities, compared with 11.5% of White children (Graph 5). In addition, 25.4% of non-English households have children with decayed teeth or cavities, compared with 13.5% of English-speaking households (Graph 6).
- **Cavities/Household Income.** 19.4% of children from low-income households (0-99% of FPL) have decayed teeth or cavities, compared to 16.8% for families with household incomes 200-399% of FP (Graph 7).
- **Cavities/Treatment.** 8.3% of 3-5 Year-Old Head Start enrollees did not receive needed treatment (Graph 3).
- **Dental Visits.** 65.6% of middle school and 70.8% of high school students visited the dentist in 2019 (Graph 4).
- **Preventive Dental Services.** Preventive dental services ranges from 16.6% to 47.1% utilization of categorically and medically needed Medicaid eligible children (Graph 9).

[41] https://www.ruralhealthinfo.org/charts/9?state=NV

Oral Health Disparities in Nevada Adults:

- **Dental Visits.** In 2020, 60.8% of Nevada adults visited the dentist or dental clinic in past year, compared to 66.7% for the U.S. overall (Graph 11).
- **Dental Visits and Racial/Ethnic Groups.** In 2020, 50.3% of Hispanic adults; 53.8% of Asian adults; 61.6% Black adults in Nevada, visited the dentist or dental clinic in past year, compared to 66.1% White adults (Graph 12). In 2018, 57.7% of American India/Alaska Native adults visited the dentist compared to 67.0% of White adults (Graph 12).
- **Dental Visit/Household Income.** Adults with household incomes below $35,000 visited the dentist or dental clinic at much lower rates than those above $35,000 (Graph 13).
- **Edentulism (complete tooth loss)**. 13.0% of adults aged 65+ have lost all of their teeth (Graph 14).
- **Pregnant Women**. Only 31.4% of pregnant women had their teeth cleaned by dentist/dental hygienist during pregnancy; and 73.4% had insurance to cover dental care (Graph 10).

Oral Health Disparities in People with Disabilities:

Children with special health care needs (CSHCN) are those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services beyond that required by children generally. A trip to the dentist can be an extremely traumatic experience for children with developmental disabilities and special needs, and finding a dentist that can provide specialized care for special needs children can be very difficult.

- **Cavities.** 11.5% of CSHCN ages 1-17 have decayed teeth or cavities (Graph 8); 15.4% of CSHCN qualifying on mental health criteria have tooth decay or cavities; and 18.8% of children with 1 or more reported mental, emotional, developmental or behavioral (MEDB) problems and/or qualifies on CSHCN Screener EBD criteria have tooth decay or cavities.
- **Utilization of Dental Services.** As categorically and medically needy children age, they utilize dental services less, with the highest rates among 6-9 year olds (Graph 9).

In addition, significant oral health disparities exist in rural communities. Several factors have been well documented as contributing to the oral health challenges of rural communities, including provider shortages in rural areas, a lack of dentists who accept Medicaid or have discounted fee schedules, geographic isolation, a lack of public transportation, cultural norms, and poverty.[42]

[42] https://www.norc.org/PDFs/Walsh%20Center/Oral_Rural%20Evaluation%20Issue%20Brief-6pg_mm.pdf

THE NEVADA ORAL HEALTH PROGRAM

Mission and Vision

The mission of the Nevada Oral Health Program is to protect, promote, and improve the oral health of Nevadans.

The Oral Health Program and its partners collaborate to promote optimal oral health for Nevadans across the lifespan. Current and proposed oral health initiatives include:[43]

1. Identifying and supporting opportunities for inter-discipline oral health education.
2. Establishing sustainable oral health objectives that focus on pregnant women, infants and young children.
3. Ensuring the availability of dental services for Medicaid and Nevada Check-up eligible children.
4. Increasing the availability of education regarding oral disease prevention, as well as access to oral health services for Nevadans living with disabilities.
5. Ensuring oral health is integrated into chronic disease prevention, education and self-managing disease programs.
6. Improving quality, availability and relevance of oral health data and surveillance material.
7. Improving oral health for all adults, including the older adult population.
8. Leveraging in-state opportunities for infrastructure and policy improvement and development.
9. Developing sustainable funding sources for the State Oral Health Program and community oral disease prevention programs.

History and Background of the Nevada's State Oral Health Plan[44]

The first State Oral Health Plan for Nevada was developed by the Governor's Maternal and Child Health (MCH) Advisory Board in 1998. In 2002, an updated State Oral Health Plan was released as an outcome of the strategic meeting of oral health stakeholders held in January 2002 funded through a grant from the HRSA Bureau of Primary Health Care (BPHC). The HRSA/BPHC grant provided funding to develop a plan for the State Oral Health Program.

In 2003, the State Oral Health Program released three documents describing the oral health disease burden, health disparities, and unmet needs in the state. The Healthy Smile-Happy Child Third Grade Screening Report, the Oral Health Program Report 2003 and the Burden of Oral Disease 2003 are all available online at www.health2k.state.nv.us/oral.

[43] Nevada Department of Health and Human Services. Division of Public and Behavioral Health. Oral Health Program. Retrieved from https://dpbh.nv.gov/Programs/OH/OH-Home/
[44] Nevada's State Oral Health Plan. Retrieved from https://www.astdd.org/statepractices/SUM31006NVstateplan_2013.pdf

On January 23, 2004, stakeholders were once again convened for an Oral Health Summit funded by the Centers for Disease Control and Prevention (CDC) to build upon the 2002 State Oral Health Plan and to develop a comprehensive plan for oral health activities throughout Nevada. The Summit was structured to use the Surgeon General's *National Call to Action to Promote Oral Health* in updating the plan so that Nevada's plan would reflect national objectives. The *National Call to Action* is "an invitation to expand plans, activities, and programs designed to promote oral health and prevent disease, especially to reduce the health disparities that affect members of racial and ethnic groups, poor people, many who are geographically isolated, and others who are vulnerable because of special oral health care needs."

At the 2004 State Oral Health Summit, stakeholders and coalition members developed a draft State Oral Health Plan, which was distributed to summit participants for review and comment. Input from stakeholders was used to develop the final plan, which contained seven overarching goals and corresponding objectives listed in Table 5:

Table 5. Goals and Objectives from the 2004 State Oral Health Plan

Goals	Objectives
Goal 1: To maintain and expand an Oral Health System in Nevada.	1.1. Maintain a State Oral Health Program. 1.2. Maintain an Oral Health Advisory Committee. 1.3. Identify resources and capacity, determine needs, and develop a community based reporting system. 1.4. Develop an ongoing surveillance system.
Goal 2: To change the culture of accepted norms.	2.1. Utilize targeted, community-based social norms marketing regarding oral health throughout the lifespan. 2.2. Link medical and dental health. 2.3. Provide oral health education and care in schools and other appropriate venues. 2.4. Educate public officials and community leaders utilizing the *National Call to Action*. 2.5. Assist communities in using the *National Call to Action* to develop local plans. 2.6. Make it easy to seek care and information.
Goal 3: To develop policy to promote oral health.	3.1. Develop and disseminate concise and relevant messages for policymakers and administrators at local, state, and federal levels related to the results of oral health research and the oral health status of their constituents. 3.2. Expand Medicaid coverage to include basic oral health services for adults, especially seniors. 3.3. Pursue policy changes to improve provider participation in public health insurance programs and enhance patient access to care (provider recruitement and training, electronic billing, presumptive eligibility.) 3.4. Seek legislative policies to provide dental service coverage, especially for at-risk populations. 3.5. Increase oral health care access and improve oral health outcomes by amending Nevada Revised Statute (NRS) and Nevada Administrative Code (NAC) related to licensure and scope of practice. 3.6. Allow a portion of the continuing education requirement for licensure to be completed by providing oral health services on a volunteer basis. 3.7. Expand the oral health workforce capacity and productivity in Dental Health Professional Shortage Areas (HPSA) by creating new and expanding existing incentives. 3.8. Implement legislation to prohibit the sale of soda pop in K-12 schools, require oral health screening prior to school enrollment, require oral health education in school curricula and promote consumption of fluoridated water in schools.

	3.9. Dedicate a portion of "sin taxes" for oral health programs.
Goal 4: To develop sustainability of the State Oral Health Program.	4.1. Build and nurture broad-based coalitions that incorporate the views and expertise of all stakeholders and that are tailored to specific populations, conditions, or programs. 4.2. Engage stakeholders and coalitions to advocate for the goals of the Oral Health Program. 4.3. Engage stakeholders and coalitions to advocate for funding for the Oral Health Program.
Goal 5. To promote effective disease prevention and treatment strategies and programs.	5.1. Promote expansion of existing and establishment of new school based sealant programs. 5.2. Promote use of sealants by safety net providers and private practice dental offices. 5.3. Promote an increase in the percent of Nevadans with access to optimally fluoridated community water systems. 5.4. Promote the use of fluoride varnish for at risk populations. 5.5. Promote the integratation of oral health education into existing educational programs such as tobacco and drug cessation programs, pre-natal education, parenting classes, and school curricula. 5.6. Reduce the morbidity and mortality from oral cancer**.**
Goal 6: To increase accees to direct dental services.	6.1. Eliminate barriers to provider participation in public health insurance programs. 6.2. Publicize successful programs that promote oral health to facilitate their replication. 6.3. Create a stable source of funding for safety net providers. 6.4. Establish new safety net sites.
Goal 7: To reduce barriers to care.	7.1. Enhance patient access to care. 7.2. Identify flexible alternative care delivery sites. 7.3. Identify consumer access issues. 7.4. Provide culturally compentent care.

For the 2004 State Oral Health Plan, a tracking grid was developed to chart progress towards achieving the goals. The following progress was made towards the 2004 plan and reported in the 2008 State Oral Health Plan:

- Almost 9,000 children received close to 30,000 free dental sealants through school-based dental sealant programs;
- The percent of children in Nevada with dental sealants increased from 33 to 41 percent;
- Physicians and nurses provided over 25,000 fluoride varnish treatments to at-risk children;
- The percent of Nevadans with access to optimally fluoridated community water supplies exceeded the Healthy People 2010 goal of 75 percent;
- Over 3,000 individuals participated in oral health education classes;
- The number of dental safety-net programs increased from 20 to 29;
- The number of mobile dental programs increased from five to nine;
- The number of Nevada licensed dentists increased from 1,186 to 2,130;
- The number of dentists participating in Nevada's Medicaid program, the number with paid claims of at least $10,000, and the number who saw 100 or more beneficiaries tripled;
- The percent of Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) eligible children who received at least one initial or periodic EPSDT screen increased from 38 percent to 58 percent;

- The number of EPSDT eligible children who received any dental service increased from 7,054 to 30,647;
- The number of EPSDT eligible children who received a preventive dental service increased from 18,656 to 24,427;
- The percent of children enrolled in Head Start receiving preventive care increased from 33 percent to 92 percent and the percent who received dental treatment increased from 37 percent to 63 percent;
- The Trust Fund for Public Health, the Fund for a Healthy Nevada, and the Department of Health and Human Services (DHHS) Community Services Block Grant (CSBG) allocation unit dispersed almost $8.5 million to community-based agencies to support oral health activities.
- The state has a comprehensive State Oral Health Plan that is used by the Oral Health Program and other stakeholders throughout the state for program planning, evaluation, resource development, and advocacy. This ensures that individual program activities are aligned with overarching goals.

Prior to the 2008 State Oral Health Summit to identify oral health policy priorities for potential inclusion in the 2008 State Oral Health Plan, the State Oral Health Summit Planning Committee participated in a policy tool, created by the Children's Dental Health Project funded by the CDC. The proposed policies identified were:

- Expand access to oral health services in rural Nevada;
- Establish an oral health program in statute and secure state funding to support the program;
- Expand existing and implement new school-based dental sealant programs;
- Maintain existing population levels at which community water fluoridation is mandated;
- Require oral health education in school curricula.

The Oral Health Advisory Committee (OHAC) and community-based coalition members participated in workshops at the 2008 State Oral Health Summit. Strategies for implementation of the five priority areas were discussed at the summit and were included in the 2008 State Oral Health Plan, which included the goals and objectives listed in Table 6.

Table 6. Goals and Objectives from the 2008 State Oral Health Plan

Goals	Objectives
Goal 1: Build the infrastructure needed to support oral health in Nevada.	1.1. By 2009, establish a Nevada State Health Division Oral Health unit in statute. 1.2. Annually, obtain $500,000 in funding to sustain the Nevada State Health Division Oral Health unit. 1.3. By 2010, stakeholders from all 17 counties in Nevada will actively participate in regional oral health coalitions that
Goal 2: Implement evidence-based oral health prevention activities.	2.1. Maintain existing county population levels at which community water fluoridation is mandated in Nevada statute. 2.2. By 2013, implement dental sealant programs in all Nevada counties. 2.3. By 2013, implement community-based fluoride programs in all Nevada counties.
Goal 3: Increase access to oral health	3.1. By 2011, increase state funding to support loan repayment for dentists who commit to care for underserved populations.

services for all underserved Nevadans (rural, special needs, aged, very young, low-income, and uninsured).	3.2. By 2011, increase state funding to support low or no-cost loans for dental students who commit to care for underserved populations. 3.3. By 2011, establish community scholarships to support dental students who commit to care in rural communities. 3.4. By 2011, establish rural rotations for all UNLV SDM students. 3.5. By 2013, establish a state-funded loan pool to assist with costs of establishing and maintaining dental practices in underserved communities. 3.6. By 2011, establish telemedicine programs to support rural dental Providers 3.7. By 2013, provide supplemental reimbursement by Medicaid to rural providers who participate in Medicaid and Nevada Check Up. 3.8. By 2013, provide supplemental reimbursement by Medicaid for the extra time and special knowledge and skills needed to provide care to individuals with special needs and the frail elderly. 3.9. By 2013, establish continuing education programs for general dentists on treatment of clients with special needs, the aged and very young. 3.10. By 2010, reduce the length and complexity of the Medicaid enrollment and application forms for providers and clients. 3.11. By 2013, establish presumptive eligibility for Medicaid and Nevada Check Up.
Goal 4: Change perceptions about and increase awareness of oral health.	4.1. By 2013, mandate oral health education in school curricula. 4.2. By 2013, implement a statewide targeted oral health education program for consumers. 4.3. By 2011, implement interdisciplinary training of oral health and medical professionals.

The following progress was made towards the 2008 plan: Draft with participation of AC4OH committee.

"The nation will never drill, fill and extract its way out of what amounts to a public health crisis among some populations. Throwing more 'treaters' into the mix amounts to digging a hole in an ocean of disease."

Mary Otto

Teeth: The Story of Beauty, Inequality, and the Struggle for Oral Health in America

ADVISORY COMMITTEE ON THE STATE PROGRAM FOR ORAL HEALTH (AC4OH) COMMITTEE

During the 2009 legislative session, Assembly Bill No. 136 was introduced to create a State Program for Oral Health within the Nevada State Health Division (NSHD). The bill called for a 13-member advisory committee, the Advisory Committee on the State Program for Oral Health (AC4OH) to make recommendations to the health division. The bill passed with unanimous approval on April 22 2009, from both houses of the state legislature and was signed into law by the Governor of Nevada. Although not a funded mandate, the law acknowledges the importance of having a state program to address the oral health needs of Nevada residents.

Pursuant to Nevada Revised Statutes (NRS) 439.2792(1), the Advisory Committee shall advise and make recommendations to the Division of Public and Behavioral Health of the Department of Health and Human Services (herein after referred to as "the Division") concerning the Oral Health Program. The Advisory Committee shall support the Division to promote the health and well-being of Nevadans through the delivery or facilitation of essential services to ensure families are strengthened, public health is protected, and individuals achieve their highest level of self-sufficiency.[45]

The thirteen-member Advisory Committee's duties are to assist Division staff in determining the needs of local communities and in setting priorities for the promotion of oral health; and assisting in the development of performance indicators, accountability measures, reporting requirements and program policies.[46]

In September 9, 2011, in preparation for the next State Oral Health Summit, AC4OH and NSHD staff gathered to participate in a policy tool to develop feasible priorities to implement in the State Oral Health Plan. Priorities ranked by opportunity and feasibility are listed in Table 7. [47]

Table 7. Priorities to Implement in the State Oral Health Plan

Priority	Description
Priority 1	Creating a data-driven statewide oral health surveillance system.
Priority 2	Increasing oral health education and awareness.
Priority 3	Creating a state-funded dental sealant program.
Priority 4	Providing state funding for the oral health program.
Priority 5	Mandating that all children have dental exams as a requirement to attend school.

The Nevada State Oral Health Plan's goals and objectives guide oral health promotion activities throughout the state. Community-based coalitions were tasked to implement the plans. A number of outcomes have resulted from the activities of AC4OH and the community-based coalitions in implementing the various plans including: [48]

- White papers on community water fluoridation, school-based dental sealant programs, the dental workforce, senior oral health needs, early childhood oral health, and K-12 oral health have been developed and used to educate the community, policy makers and funders about oral health promotion and disease prevention strategies.
- A dental advisory committee for the state Medicaid program has been re-established and expanded.
- The state licensing board has adopted regulations to allow a portion of the continuing education requirement for dental and dental hygiene licensure renewal to be obtained

[45] Nevada Department of Health and Human Services. Division of Public and Behavioral Health. Advisory Committee on the State Program for Oral Health (AC4OH). Retrieved from https://dpbh.nv.gov/Programs/OH/dta/Boards/AC4OH-Home/
[46] Nevada Department of Health and Human Services. Advisory Committee on the State Program for Oral Health. Bylaws. Retrieved from https://dpbh.nv.gov/uploadedFiles/dpbhnvgov/content/Programs/OH/Docs/By-laws%20Revised%20AC4OH%20Bylaws%20-%201%2024%2014%20Final.pdf
[47] Nevada's State Oral Health Plan. Retrieved from https://www.astdd.org/statepractices/SUM31006NVstateplan_2013.pdf
[48] Nevada's State Oral Health Plan. Retrieved from https://www.astdd.org/statepractices/SUM31006NVstateplan_2013.pdf

through the provision of dental services on a voluntary basis through approved non-profit agencies.

- Relationship building and a desire to create legislation that satisfied the needs of all parties resulted in passage of a bill which will result in Nevada recognizing the Western Regional Licensing Examination for licensure in Nevada.
- The state licensing board has adopted regulations to allow dental hygienists to receive a special endorsement to provide care in school and community-based settings. Public health endorsed dental hygienists must receive their endorsement each year through the Nevada State Board of Dental Examiners (NSBDE).

STRATEGIC FRAMEWORK AND CONCEPTS THAT INFORM THE 2022 NEVADA ORAL HEALTH STATE PLAN

Development of the 2022 Nevada State Oral Health Plan

The 2022 Nevada State Oral Health Plan was developed through a combination of research on Nevada data, burden of disease, demographics, current infrastructure needs, as well through key informant and stakeholder interviews, and leadership from the Nevada State AC4OH Committee. The committee, Nevada Oral Health Program Staff, and our researchers reviewed state data and reports and national best practice oral health and public health frameworks. The following issues were identified as critical to advancing oral health in Nevada.

- The lack of current, accessible data is a critical issue that impedes the state in identifying unmet infrastructure and treatment needs, impeding the ability to make data driven decisions.
- A lack of funding and support for the Oral Health State Program, and the position of Dental Director has limited the state's capacity to lead change and promote the implementation of evidence-based practices and training statewide.
- There is a need for improved capacity to provide culturally competent community-based oral health programs, messaging and care, and a commensurate need for diverse providers who are representative of the community.
- Access to oral health screenings, preventative services and oral health care is still lacking for many Nevadans, including members of special populations, such as those who are poor or low income, individuals with disabilities, aging adults, pregnant women and historically marginalized populations.
- There is a need for robust, clear, culturally, and developmentally appropriate messaging on the fact that oral health is health, and a need for strong leadership statewide in promoting this message.

The Nevada Oral Health Program, the AC4OH Committee, and key stakeholders interviewed as well as those who contributed to previous meetings and workgroups have built goals and objectives and strategies described in the Objectives and Strategies section below. This ten-year

plan will be updated in 2032 and the Nevada Oral Health Surveillance Plan will be published in XX.

National Strategies for Improving Oral Health

More than a decade ago, Surgeon General Richard H. Carmona called on leaders across public and private sectors and the public to affirm that oral health is essential to general health and well-being at every stage of life through *A National Call to Action to Promote Oral Health: A Public-Private Partnership Under the Leadership of the Office of the Surgeon General* on published in 2003.[49] The goals of the *Call to Action* reflect those of Healthy People 2010, which include:

- To promote oral health.
- To improve quality of life.
- To eliminate oral health disparities.

As a force for change to enhance the nation's overall health and well-being, the *Call To Action* urges that oral health promotion, disease prevention, and oral health care have a presence in all health policy agendas set at local, state, and national levels.

American Dental Association (ADA)

The ADA's mission is to help dentists succeed and support the advancement of the health of the public. ADA advocates for public health by focusing on crucial issues such as access to care, the rules and regulations that surround the practice of dentistry. For example, ADA's 2021 Federal Legislative and Regulatory Accomplishments address efforts including:[50]

- Advocated for funding in the American Rescue Plan to strengthen community-based efforts in the Health Resources and Services Administration (HRSA), which led to the allocation of $46 million for the expansion of community-based primary care medical and dental residency programs in rural and underserved communities.
- Supported the introduction of the Medicaid Dental Benefit Act of 2021, which would make comprehensive dental care a mandatory component of Medicaid coverage for adults in every state. Currently, less than half of the states provide "extensive" dental coverage for adults in their Medicaid programs. Without a federal requirement the optional adult dental benefit is sometimes not provided by states.
- Supported the House passage of the Oral Health Literacy and Awareness Act, which would authorize a public education campaign across all relevant programs of the HRSA to increase oral health literacy and awareness. The ADA also supported appropriations funding for oral health literacy at HRSA.

[49] Office of the Surgeon General (US). National Call To Action To Promote Oral Health. Rockville (MD): National Institute of Dental and Craniofacial Research (US); 2003. Retrievd from https://www.ncbi.nlm.nih.gov/books/NBK47472/

[50] https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/advocacy/ada_2021_lobby_accomplishments.pdf?rev=81e8396602724c66b2a60c7f1cf4b66c&hash=0919034958254A3110F3D5F27604510F

The U.S. Department of Health and Human Services (HHS) Oral Health Strategic Framework

The *HHS Oral Health Strategic Framework 2014–2017*[51] outlines a strategic alignment of HHS operating and staff divisions'resources, programs, and leadership commitments to improve oral health care and delivery. The *Framework* is written for oral health, behavioral health, and primary care health professionals and program administrators within and outside of the federal government and other external stakeholder groups interested in oral health. It serves as an essential resource to (1) optimize the implementation of activities planned and those underway, (2) strengthen existing cross-agency collaboration, and (3) identify new avenues for private-public partnerships by creating maximum synergy with other current federal and non-federal oral health initiatives. Goals and strategies from the Framework are listed in Table :

Table 8. Goals and Strategies from the HHS Oral Health Strategic Framework

Goals	Strategies
Goal 1: Integrate Oral Health and Primary Health Care	• Advance interprofessional collaborative practice and bidirectional sharing of clinical information to improve overall health outcomes. • Promote education and training to increase knowledge, attitudes, and skills that demonstrate proficiency and competency in oral health among primary care providers. • Support the development of policies and practices to reconnect the mouth and the body and inform decision-making across all HHS programs and activities. • Create programs and support innovation using a systems change approach that facilitates a unified patient-centered health home.
Goal 2: Prevent Disease and Promote Oral Health	• Promote delivery of dental sealants in school-based programs and expand community water fluoridation. • Identify reimbursement strategies and funding streams that enhance sustainability of prevention programs. • Coordinate federal efforts focused on strengthening the infrastructure and capacity of local, state, and regional oral health programs. • Explore new clinical and financial models of care for children at high risk for developing caries, such as risk-based preventive and disease management interventions.
Goal 3: Increase Access to Oral Health Care and Eliminate Disparities	• Expand the number of health care settings that provide oral health care including diagnostic, preventive, and restorative services in Federally Qualified Health Centers, school-based health centers, Ryan White HIV/AIDS-funded programs, and Indian Health Service-funded health programs. • Strengthen the oral health workforce, expand capabilities of existing providers and promote models that incorporate other clinicians. • Improve the knowledge, skills, and abilities of providers to serve diverse patient populations. • Promote health professionals' training in cultural competency. • Assist individuals and families in obtaining oral health services and connecting with a dental home. • Align dental homes and oral health services for children. • Create local, regional, and state-wide partnerships that bridge the aging population and oral health systems. • Support collection of sex/gender and racial and ethnic stratified data pertaining to oral health.

[51] U.S. Department of Health and Human Services Health Resources and Services Administration. 2014. Oral Health Strategic Framework 2017-2017. Retrieved from https://oralhealth.hsdm.harvard.edu/files/oralhealth/files/oralhealthframework.pdf?m=1498574657

Goal 4: Increase the Dissemination of Oral Health Information and Improve Health Literacy	• Enhance data value by making data easier to access and use for public health decision-making through the development of standardized oral health measures and advancement of surveillance. • Improve the oral health literacy of health professionals through use of evidence- based methods. • Improve the oral health literacy of patients and families by developing and promoting clear and consistent oral health messaging to health care providers and the public. • Assess the health literacy environment of patient care settings. • Integrate dental, medical, and behavioral health information into electronic health records.
Goal 5: Advance Oral Health in Public Policy and Research	• Expand applied research approaches, including behavioral, clinical, and population-based studies, practice-based research, and health services research to improve oral health . • Support research and activities that examine the influence of health care system organization, reimbursement, and policies on the provision of oral health care, including fostering government and private sector collaboration. • Address disparities in oral health through research that fosters engagement of individuals, families, and communities in developing and sharing solutions and behaviors to meet their unique needs. • Promote the translation of research findings into practice and use. • Develop policy approaches that support state Medicaid and CHIP programs to move from paying for volume to purchasing value, and from treating disease to preventing disease. • Evaluate the impact of policy on access to care, oral health services, and quality.

The Association of State & Territorial Dental Directors (ASTDD) Guidelines and Best Practices

The ASTDD is a national, non-profit organization representing state and territorial oral health program directors. ASTDD formulates and promotes the establishment of national dental public health policy, assists state/territorial dental programs in the development and implementation of programs and policies for the prevention of oral diseases; builds awareness and strengthens dental public health professionals' knowledge and skills by developing position papers and policy statements; provides information on oral health to health officials and policy makers, and conducts conferences for the dental public health community.[52]

ASTDD provides a list of Best Practice Approach Reports[53] on their website to guide program planning, development, implementation and evaluation to help to build more effective state, territorial, and community oral health programs to enhance the oral health of Americans and reduce disparities.

Healthy People 2030

Healthy People provides a framework for prevention for communities in the U.S. *Healthy People 2030* is a comprehensive set of key disease prevention and health promotion objectives. The health objectives and targets allow communities to assess their status and build an agenda for community health improvement. The *Healthy People 2030* goals were informed by a workgroup that leaders from the Centers for Disease Control, Health Resources and Services Administration, Indian Health Services (HIS), National Institute of Dental and Craniofacial

[52] ASTDD. Who We Are. Retrieved from https://www.astdd.org
[53] ASTDD. Best Practices. Retrieved https://www.astdd.org/best-practices/

Research (NIDCR) at the National Institute of Health (NIH), Office of Disease Prevention and Health Promotion (ODPHP) and the National Center for Health Statistics.[54] Their core dental goal for 2030 is "Improve oral health by increasing access to oral health care, including preventive services."

The *Healthy People 2030* oral health objectives for the nation and the current status of each indicator for the United States and for Nevada are summarized in Table 9.

Table 9. Healthy People 2030 Oral Health Indicators and Target Levels

Objective Number and Description	National Baseline	National Target
AHS-02 | Increase the proportion of persons with dental insurance	54.5	59.8
AHS-05 | Reduce the proportion of persons who are unable to obtain or delayed in obtaining necessary dental care	4.6	4.10
NWS-10 | Reduce the consumption of calories from added sugars by persons aged 2 years and over	13.5	11.5
OH-01 | Reduce the proportion of children and adolescents with lifetime tooth decay experience in their primary or permanent teeth	48.4	42.9
OH-02 | Reduce the proportion of children and adolescents with active and currently untreated tooth decay in their primary or permanent teeth	13.4	10.2
OH-03 | Reduce the proportion of adults with active or untreated tooth decay	22.8	17.3
OH-04 | Reduce the proportion of older adults with untreated root surface decay	29.1	20.1
OH-05 | Reduce the proportion of adults aged 45 years and over who have lost all of their natural teeth	7.9	5.4
OH-06 | Reduce the proportion of adults aged 45 years and over with moderate and severe periodontitis	44.5	39.3
OH-07 | Increase the proportion of oral and pharyngeal cancers detected at the earliest stage	29.5	34.2
OH-08 | Increase the proportion of children, adolescents, and adults who use the oral health care system	43.3	45.0
OH-09 | Increase the proportion of low income youth who have a preventive dental visit	78.8	82.7
OH-10 | Increase the proportion of children and adolescents who have received dental sealants on 1 or more of their primary or permanent molar teeth	37.0	42.5
OH-11 | Increase the proportion of persons served by community systems with optimally fluoridated water systems	72.8	77.1

[54] https://health.gov/healthypeople/about/workgroups/oral-health-workgroup

STAKEHOLDER ENGAGEMENT

AC4OH Committee

Will update this when the committee is formed, and new members voted in.

Interviews

To better understand the issues surrounding oral health prevention, access, and care across Nevada, as well as the state of infrastructure and funding, interviews were conducted between XX and XX date. The following were some of the findings that came out of those interviews:

- XX Summarize any interviews, feedback from community stakeholders, committee input, etc. here
- XX Will be updated when interviews completed.

"The teeth are made from stern stuff. They can withstand floods, fires, even centuries in the grave. But the teeth are no match for the slow- motion catastrophe that is a life of poverty: its burdens, distratctions, diseases, privations, low expectations, transience, the addiction antidotes that offer temporary relief at usurious rates.

Mary Otto

Teeth: The Story of Beauty, Inequality, and the Struggle for Oral Health in America

PRIORITY AREAS

The priority areas, objectives and strategies listed below were developed with the OHP, AC4OH Committee, key stakeholder interviews and informed by the ASTDD Guidelines for State and Territorial Oral Health Programs.

Policy and Infrastructure - Objectives and Strategies

1) **Build the capacity of the Nevada State Oral Health Program to improve oral health statewide.**
   a) Provide State Appropriations to Financially Support the State Oral Health Program, State Dental Health Officer, and State Public Health Dental Hygienists per NRS 429.279, 429.272 as essential and critical additions to the medical team within DHHS.
   b) Explore viability of partial funding stream from percentage of licensing fees and fines paid to the Nevada State Board of Dental Examiners and information withing the tax expenditures report (required by NRS 360) to support direct services, access to care and needs assessments.
2) **Integrate data, evidence-based practices, program models and interventions between the Division of Public and Behavioral Health and the OHP.**
   a) Maintain clear lines of reporting for all Oral Health Program staff including the State Dental Health Officer and State Public Health Dental Hygienist and ensure that the Nevada Chief Medical Officer provides direct mentorship.
   b) Create a collaborative and open environment to improve the stability and retention of the professionals that hold the Dental Director and Dental Hygienist positions, reducing the loss of historical knowledge is often lost from turn over within the Oral Health Program and administrative changes that occurs within the Division.
   c) Provide dental expertise and best practice guidance to multiple programs in the Division of Public and Behavioral Health by holding regular cross interagency meetings
   d) Promote and Publicize AC4OH and Oral Health State Program statewide
3) **Build the AC4OH Committee membership to full capacity of 13 members thereby increasing the leadership needed to impact oral health program, policy, and practice statewide.**
   a) Recruit key stakeholders and leaders to the Committee to reach committee membership statutory requirement of 13 members.
   b) Provide continued administrative support by Division of Public and Behavioral Health for the organization and oversight of AC4OH Committee meetings.
   c) Ensure the Oral Health Program and 2022 Plan objectives are linked to the oral health community through the leadership, expertise, and resources of the AC4OH.
4) **Improve the understanding of oral health in Nevada through data gathering, analysis, monitoring, and dissemination with particular emphasis on disproportionately impacted populations.**
   a) Develop a surveillance plan by engaging stakeholders to identify key oral health indicators to inform a published Oral Health Burden Report every 3 years and Make data

accessible and actionable to enable community partners and policymakers to design new programs and activities to address unmet needs.

b) Update the Basic Screening Survey of 3rd graders (last one was 2008-2009) and to merge that data with the DOE's child level demographic data.
c) Identify standardized oral health questions for inclusion within all federal health surveys implemented at the state level including but not limited to Behavioral Risk FactorSurveillance System (BRFSS), Pregnancy Risk Assessment Monitoring System (PRAMS) and Youth Risk Behavioral Surveillance System (YRBS).
d) Ensure data is gathered on historically marginalized populations and documents disparities and special population needs
e) Develop a dental health provider inventory which includes all providers across the state broken out by those who take Medicaid and those who serve special populations
f) Work with hospitals to include oral health in the hospital's community health needs assessments.

5) Increase federal grant income to the state to support oral health programs and services

a) Conduct analysis of existing data identify data gapsand/or possible modifications of current resources to support successful grant applications and ensure compliance with federal reporting requirements and internal evaluations.
b) Identify resources and gaps in services and infrastructure and leverage existing resources that have not been aligned to establish a logic model and implementation plan that will make the case for funding requests.
c) Increase the amount of federal funding applications submitted and awarded for oral health programs to bring more federal funding back to Nevada to increase prevention, access to care services and to expand the oral health workforce statewide.

6) Increase outreach and promotion activities to improve health literacy, awareness of OHP programs, and increase access to services through a well-designed and implemented Communication Plan.

a) Solicit input from communities on appropriate communication channels (e.g., social media, texting) and settings (e.g., bus/train stops, gas station pumps) for selected messages and communication strategies.
b) Develop an OHP and AC4OH Communication Plan guided by the ASTDD Communication Plan Template for the state oral health program.
c) Develop statewide and regional oral health literacy campaigns using a variety of media, using culturally, developmentally and linguistically appropriate and tailored to specific populations with a focus on the underserved.

Prevention and Screening - Objectives and Strategies

1) Increase prevention of oral health disease statewide through outreach, education and promotion with a focus on underserved/special populations.

a) Identify funding steams and reimbursement strategies that support and sustain prevention programs
b) Promote oral health screening for seniors in long term care facilities

c) Support families in Head Start and Early Head Start in finding a dental home and promote early screening in these settings
d) As a prescriber of controlled substances, oral health providers should be provided with state training to work with substance use disorder patient, screen patients for substance use disorders and provide brief interventions and referrals.
e) Establish Medicaid reimbursement for dental providers that provide substance use disorder screening and explore mechanism to expand Medicaid dental benefits for those undergoing substance use disorder treatment.

2) Improve prevention through integration of oral health and primary health

a) Increase the number of physicians who screen for oral health disease
b) Provide evidence-based practices and strategies to health care providers who want to screen for oral health disease and provide oral health information to clients
c) Support primary care providers in providing oral health education and information to patients on the link between Human Papillomavirus (HPV) and oral cancers, diabetes and other chronic conditions linked to oral health issues and the importance of oral health management.

3) Align Medicaid dental policies to NRS, resulting in enhanced utilization of preventive services and early intervention when restorative dental services are needed.

a) Enhance communication and collaboration between state agencies to support the intent of legislature and mission of the Division of Health Care Financing and Policy facilitated by the State Dental Officer or OHP staff.
b) Monitor Medicaid utilization for evaluation of policy effectiveness.
c) Increase Medicaid reimbursement for preventive dental services such as sealants, fluoride varnish application, dental cleanings, and silver diamine fluoride application.

4) Implement, manage, and evaluate community-based and population-based prevention programs and strategies with a focus on barrier reduction for underserved populations.

d) Reduce oral health inequities by producing information in culturally, linguistically, and developmentally accessible formats
e) Develop and fund/ support School Sealant Programs statewide
f) Develop community health worker programs to deliver oral health education with a focus on underserved populations

Oral Healthcare - Objectives and Strategies

1) Reduce gaps in coverage by expanding dental healthcare access for all Nevadans

a) Identify gaps in coverage with a focus on special populations, including poor and low-income individuals, children, pregnant women, seniors, minority populations and individuals with disabilities.

2) Improve Medicaid enrollment to increase access to oral health care

a) Create mechanism for greater accountability from Medicaid vendors, which in turn will increase Nevada's Medicaid Dental utilization rating and effectiveness.
b) Develop provider training and expand Medicaid dental benefits for adults with special health care needs.
c) Advocate for management care organizations, DHHS and NV Medicaid to increase provider participation in Medicare and Medicaid

d) Increase patient/parental awareness of Medicaid recipients regarding availability of oral healthcare

3) **Increase utilization of teledentistry to provide screenings, preventive care, and referrals to care to meet unmet needs in dental HPSAs across the state.**
   a) Facilitate use and expansion of portable delivery systems and teledentistry pilot project to allow a greater geographical reach, connect community based and clinical settings, and help dentists to work more frequently with dental hygienists and public health endorsed dental hygienists.
   b) Include teledentistry as part of regional pilots. Provide funding for purchase of needed equipment in rural settings.
   c) Disseminate new DHCFP guidelines for attestation and billing of teledental services.
4) **Provide education and resources to FQHC clinics to support patients in referrals to dental care or collaboration/subcontracting with dentists to provide care**
5) **Encourage Critical Access Hospitals (CAHs) to open dental units.**
   a) Provide incentives, possibly via higher reimbursement levels made possible through emergency room savings, for CAHs that operate or house such services.
   b) Partner with the Nevada Hospital Association, the Nevada Dental Association, and others to bring CAHs and dental experts together to learn from hospitals that operate dental clinics and examine how such partnerships might expand in rural Nevada.
   c) Build on the relationship between oral health and overall health, including the potential to drive down costs for chronic diseases and emergency department use.
6) **Encourage integration of importance of oral health into primary medical care as well as expand knowledge within private sector dentistry.**
   a) Develop a core set of oral health clinical proficiencies for primary health care providers and evaluate what works in terms of increasing the adoption of these competencies.
   b) Add an oral health member to the Primary Care Advisory Council, NAC 439a.710 to add a new membership category of "oral health professional," to allow permanent voice for oral health on the committee.
   c) Work with regulatory Boards to institute mandatory continuing education requirements for re-licensure of medical and dental licensees that focus on dental public health issues as they relate to general health and access.
   d) Integrate oral health into the Chronic Disease Prevention and Health Promotion (CDPHP) programs, which currently lack a dental health component despite evidence of oral health's importance in over-all health.
   e) Restructure State Boards to include one dental professional on the Nevada State Board of Medical Examiners and on the Nevada State Board of Nursing, and one medical professional to the Nevada State Board of Dental Examiners.
   f) Integration of dental elements into the States University Medical schools. This would allow for basic understanding of dental conditions and health impact of poor oral health, as well as establish cross discipline integration of emerging providers.
   g) Work with state oral health coalitions and stakeholders to identify existing law or regulation that impedes access to care.

Workforce Capacity - Objectives and Strategies

1. **Increase access to culturally competent dental care for underserved populations across Nevada**
2. **Promote education, recruitment, and retention strategies to improve the racial and ethnic diversity in the dental workforce to make it more aligned with the population in Nevada.**
3. **Develop and implement dental workforce strategies that address the workforce shortages in rural areas of Nevada and dental HPSA's.**
   a) Increase opportunities for dental/dental hygiene students and residents to interact and volunteer with Nevada dentists in rural Nevada.
   b) Develop and implement innovative programs that will engage the dental workforce within dental health professional shortage areas (HPSA) and enhance dental services offered to populations living in the HPSAs.
   c) Expand mobile dental clinics and workforce development to address oral health of dental HPSAs in Nevada
   d) Develop plan to use community health workers to deliver services and engage patients through community based prevention programs

MEASURING IMPACT

Evaluation Plan

The goal of the evaluation of the Plan is to improve oral health outcomes for Nevadans through continuous assessment and monitoring leading to data that is accessible and actionable.
This goal is aligned with the ASTDD essential public health service #9: Improve and innovate dental public health functions through ongoing evaluation, research, and continuous quality improvement. Strategies for evaluation highlighted by the ASTDD include:

- Engaging evaluation consultants and epidemiologists to assess barriers to and successes of implemented policies, plans and laws.
- Using process and outcome indicators to track progress.
- Using the evaluation methods and measures outlined in the communication plan to determine the most effective strategies and any unintended consequences.

ABOUT THE AUTHORS

APPENDIX

Selected References

ATSDD Guidelines for State and Territorial Oral Health Program Assessment Tool

Program: Date:

Assess the State Oral Health Program's Ability to Perform the 10 Essential PH Services where *1= Poor 2=Fair 3= Satisfactory 4= Very Good 5=Excellent

10 Essential PH Services to Promote Oral Health	Current Program Level 1-5*	Desired Program Level 1-5*	Comments
1. Assess and monitor the population's oral health status, factors that influence oral health, and community needs and assets.			
2. Investigate, diagnose and address oral health problems and hazards affecting the population.			
3. Communicate effectively to inform and educate people about oral health and influencing factors and educate/empower them to achieve and maintain oral health.			
4. Mobilize community partners to leverage resources and advocate for/act on oral health issues.			
5. Develop, champion and implement policies, laws and systematic plans that support state and community oral health efforts.			
6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices.			
7. Reduce barriers to care and access to and use of personal and population-based oral health services.			
8. Assure an adequate, culturally competent and skilled public and private oral health workforce.			
9. Improve and innovate dental public health functions through ongoing evaluation, research and continuous quality improvement.			
10. Build and maintain a strong organizational infrastructure for dental public health.			