Oral Health Is Health

2022-2032 Nevada Oral Health State Plan

Nevada Department of
Health and Human Services
Oral Health Program

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AC4OH Members

Lisa Collier, DDS
Chief Dental Officer
Community Health Alliance

Tina Brandon Abbatangelo, DMD
Clinical Director
UNLV School of Dental Medicine

Whitney Bryant, DDS, MBA
Dentist
Dr. Teeth

Jose R. Cucalon Calderon MD FAAP
Assistant Professor of Pediatrics
UNR School of Medicine
Co-Chair of the Nevada Chapter for the National Hispanic Medical Association
General Pediatrics at the Healthcare Center

David Cappelli, DMD, PhD
Chair
Department of Biomedical Sciences
UNLV School of Dental Medicine

Mary Teresa (Terri) Chandler, RDH
Founder/Executive Director
Future Smiles

Catherine McCarthy, MD, FAAFP
Professor, Department of Family and Community Medicine
Director, Rural Obstetrics Program
UNR School of Medicine

Tara Van Orden, DMD, MPH
CDR, United States Public Health Service
Chief Dental Officer
Reno-Sparks Indian Colony Tribal Health Center

Bryce S. Putnam, DMD
Associate Dental Director
Nevada Health Centers Health Officer, Elko County

Lynn Short, RDH, MPH
Teaching Assistant Professor
School of Public Health
UNR

Breana Taylor RN, MSN
School Nurse Coordinator
Office for a Safe and Respectful Learning Environment
Nevada Department of Education

Jessica Woods, RDHAP, BSDH, MPH, PHEDH, RDA, CDHC
Public Health Dental Hygienist

HOW TO USE THIS REPORT

2022-2032 Nevada Oral Health State Plan contains the following sections:

Section	Description
Executive Summary	Summary of the 2022-2032 Nevada Oral Health State Plan.
The Nevada Oral Health Program	Describes the Nevada Oral Health Program, its Mission and Vision, and its History and Background.
Advisory Committee on the State Program for Oral Health (AC4OH)	Describes the AC4OH and their responsibilities.
Development of the 2022-2032 Nevada Oral Health State Plan	How the 2022-2032 Nevada Oral Health State Plan was developed, and the National Best Practices and Strategic Frameworks used to inform the plan.
Oral Health – A National Perspective	A brief description of the burden of oral disease in the U.S. and its impact.
The Burden of Oral Disease in Nevada	Focuses on the oral health environment in Nevada, including data on access to care, water fluoridation, the oral health of children and adolescents, children and youth with special health care needs, pregnant people and infants, adults, and seniors, and discusses oral health disparities identified in the data presented.
Key Findings – A Focus on Oral Health Disparities	A description of the key findings of this report.
Priority Areas	Identifies the four priority areas of the 2022-2032 Nevada Oral Health State Plan: Policy and Infrastructure; Prevention and Screening; Oral Healthcare Access and Quality; and Workforce Capacity.
Measuring Impact	Describes the process the AC4OH Committee will use to implement and measure progress toward plan objectives.

EXECUTIVE SUMMARY

The key message of this report is **Oral Health Is Health**, and the most common oral diseases and conditions can be prevented. Safe and effective methods are available to reduce the incidence of oral diseases and disparities and increase quality of life. If prioritized by leaders and policymakers, these methods would result in measurable, impactful change in the health of Nevada children, adults, and seniors.

Therefore, this 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 disease with a focus on health disparities and underserved populations; and
- 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 describe the unmet needs across populations and within communities in Nevada. While progress has been made since the last Nevada oral health state plan was published in 2008, 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, specific data stratified by population, describing the true burden of oral health disease to inform program models and interventions; lack of evidence-based programs and their impacts; and lack of a culturally and developmentally appropriate messaging on the importance of oral health and oral health literacy.

Key findings derived from the data reviewed include:

- Increased access to services for Hispanic children and adults;
- Increased access to oral healthcare to low socioeconomic populations;
- Expanded Head Start oral health services;
- Expanded and increased preventive services for children enrolled in Medicaid;
- Increased availability of services for people with disabilities;
- Improved oral healthcare screening and services to seniors aged 65 and older;
- Increased number of adults who visit the dentist in a 12-month period;
- Improved access to oral healthcare for Nevadans living in rural communities and
- Improved access for pregnant people, including those who are Medicaid eligible.

Key informant interviews conducted as part of the Nevada Oral Health State Plan development provided further insight into gaps and needs across the State, including a need to focus on underserved and historically marginalized populations such as Hispanic families and children, individuals (especially adults) with disabilities, pregnant people and seniors. Additionally, interviewees stressed the need for timely, accurate data through an oral health surveillance

system. Such a system should include an accessible data repository at the State where providers, advocates, funders, and organizations could access oral health data to make data informed decisions when planning or implementing programs.

Additionally, the need for consistent, sufficient, and sustainable funding for the Oral Health Program was identified as a gap by those interviewed. They cited that sufficient resources are critical to improve outcomes in oral health and reduce the burden of disease across the State.

The overarching goal of the Plan is to improve oral health statewide and identify objectives and strategies in the four priority areas including, Policy and Infrastructure, Prevention and Screening, Oral Healthcare Services, and Workforce Capacity. The strategies under each objective (found in the Priority Areas Section of the Plan) have been designed based on best practices from the Association of State and Territorial Dental Directors (ASTDD), Healthy People 2030, the American Dental Association, and the American Dental Hygienists Association to meet the unmet needs found in the Burden of Oral Health Disease in Nevada Section of the Report.

The objectives and strategies form the backbone of the plan and will be used by the AC4OH Committee, State leaders, advocates, and providers to advance oral health outcomes across the State, along with an Action Plan that will be used by the Committee to align resources, identify and engage partners, and track progress toward these objectives. The Action Plan will be developed in Committee Meetings over FY 2023. This ten-year plan will be updated in 2032 in whole but is dynamic and may be updated yearly as needed.

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 Nevada Oral Health Program and its partners collaborate to promote oral health for Nevadans across the lifespan. Current and proposed oral health initiatives include:[1]

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

History and Background

The first State Oral Health Plan for Nevada[2] was developed by the Governor's Maternal and Child Health (MCH) Advisory Board (now called the Maternal Child and Adolescent Health 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 Health Resources & Services Administration (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. These documents are the Healthy Smile-Happy Child Third Grade Screening Report, the Oral Health Program Report 2003, and the Burden of Oral Disease 2003.

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[1] 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/

[2] 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 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.

In 2008, a State Oral Health Summit was convened 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 Oral Health Advisory Committee and community-based coalition members participated in workshops at the 2008 State Oral Health Summit. Strategies for implementation and priority areas in the 2008 State Oral Health Plan can be found at https://dpbh.nv.gov/uploadedFiles/dpbhnvgov/content/Programs/OH/Oral_Health_Program_Reports/Burdenoforaldisease2008.pdf.

On September 9, 2011, in preparation for the next State Oral Health Summit, the Advisory Committee on the State Program for Oral Health and Nevada State Health Division (now called the Division of Public and Behavioral Health) 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 included:

- 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

Due to funding limitations and challenges, there has not been an Oral Health State Plan published in Nevada for 10 years. The 2022-2032 Nevada Oral Health State Plan represents a reset and a significant investment in Nevada's oral health, documenting the need to ensure sustainable resources for the Oral Health Program. The position of the Advisory Committee on the State Program for Oral Health is that **Oral Health Is Health** and must be prioritized now and into the future.

> *"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)

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, now called the Nevada Division of Public and Behavioral Health. 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 supports 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.[3]

The AC4OH led the development of this 10-year Oral Health State Plan. The Committee provides guidance and recommendations to the Division of Public and Behavioral Health to improve oral health outcomes across the state. 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.[4]

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[3] Nevada Department of Health and Human Services. Advisory Committee on the State Program for Oral Health. Home. Retrieved from https://dpbh.nv.gov/Programs/OH/dta/Boards/AC4OH-Home/

[4] 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

DEVELOPMENT OF THE 2022-2032 NEVADA ORAL HEALTH STATE PLAN

The 2022-2032 Nevada Oral Health State Plan was developed through a combination of secondary data gathering and reporting as well as primary data gathering through interviews of 20 key informants and subject matter experts, including 11 members of the AC4OH. The members of Nevada State AC4OH, Nevada Oral Health Program staff, and third-party researchers reviewed state data and national best practices for oral health, as well as public health frameworks when designing this plan's objectives and strategies. Those best practice frameworks are highlighted below.

The following issues were identified through interviews with key informants and subject matter experts as critical to advancing oral health in Nevada:

- There is a critical need for funding and support for the Nevada Oral Health Program, which has been underfunded and therefore unable to truly impact oral health across the State.
- The position of the State Dental Director (vacant for the last year) has limited the state's capacity to lead change and promote the implementation of evidence-based practices and training statewide.
- Nevada lacks current, accessible data, and this impedes the State in identifying unmet infrastructure and treatment needs and the ability to make data driven decisions.
- There is a need for improved capacity to provide culturally informed 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, preventive services, and oral health care is still lacking for many Nevadans, including members of special populations, such as those who experience low socioeconomic status, individuals with disabilities, aging adults, pregnant people, 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.
- A lack of providers who take Medicaid is a significant challenge, and growing that provider network is seen as difficult due to low reimbursement rates for care.
- Gaps in care exist in the rural areas of the State and more should be done to incentivize providers to work in those areas to address this need.

National Best Practices and Strategic Frameworks, Informing the Nevada Oral Health State Plan

The 2022-2032 Nevada Oral Health State Plan has been designed to align with the best practices outlined in Oral Health America: Advances and Challenges and other best-practice strategies and frameworks described below. These best practices, which are provided here in links, will be used to drive the action plan and inform activities of this state plan.

American Dental Association (ADA)

The ADA's mission is to help dentists succeed and support the advancement of the health of the public. ADA provides a collection of evidence-based clinical practice guidelines, systematic reviews, and primary studies that help improve dental practices.

American Dental Hygienists Association (ADHA)

The ADHA advocates for the oral health of populations that have unmet needs, including low-income children, pregnant women, elders, and persons who are developmentally, physically, mentally or medically compromised. The ADHA promotes integration of oral health into existing programs and advocates for evidence-based community oral health programs to improve overall health.

The Association of State & Territorial Dental Directors (ASTDD)

This plan was also informed by ASTDD's Proven and Promising Best Practices for State and Community Oral Health Programs which provides a list of Best Practice Approaches to guide program planning, development, implementation, and evaluation to help build more effective state, territorial, and community oral health programs to enhance the oral health of Americans and reduce disparities and to help achieve the Healthy People 2030 Oral Health Objectives listed below and meet the national *Call To Action*.

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.[5]

The core oral health goal for 2030 is: *"Improve oral health by increasing access to oral health care, including preventive services."* Oral health objectives for the nation and the current status of each indicator for the United States are summarized in Appendix A. In addition, Healthy People 2030 provides a list of evidence-based resources related to Oral Conditions.

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

The *Oral Health Strategic Framework 2014–2017* outlines a strategic alignment of HHS operating and staff divisions' resources, programs, and leadership commitments to improve

[5] Healthy People 2030. Oral Health Workgroup. Retrieved from https://health.gov/healthypeople/about/workgroups/oral-health-workgroup

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.

ORAL HEALTH - A NATIONAL PERSPECTIVE

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 oropharyngeal cancers. These diseases and conditions can profoundly impact quality of life in the following ways:[6]

- Extensive tooth loss impairs chewing efficiency, limits food choices and diminishes the pleasures of eating;
- Tooth loss can affect speech, limiting social interaction, detracting from physical appearance, and lowering self-esteem;
- People with extensive or complete tooth loss are more likely to substitute easier-to-chew foods, which may be less nutritious;
- Pain from untreated oral diseases can restrict normal activities of daily life and disturb sleep;
- Untreated caries can destroy tooth structure ultimately leading to ulcerations and abscesses;
- Periodontitis can destroy supporting tissues of teeth and lead to abscesses that result in swelling, bleeding, and pain;
- Untreated, caries and periodontitis ultimately lead to tooth loss;
- May increase the risk of adverse health outcomes, including but not limited to, cardiovascular diseases, Alzheimer's disease and dementia, obesity, diabetes and metabolic disorders, rheumatoid arthritis, and several cancers; and
- Poor oral health impacts a child’s performance in school – their ability to concentrate and learn along with missed school hours for dental care.[7]

Oral disease has long been associated with risk behaviors such as poor oral hygiene, consuming sugary foods and beverages as well as tobacco and alcohol use. Medications that cause the mouth to go dry can cause issues with oral health, including increased caries risk, increased plaque build-up, mouth sores, poor nutrition due to difficulty chewing and swallowing, and

[6] Griffin, S.O., Jones, J.A., Brunson, D., Griffin, P.M., Bailey, W.D. Burden of Oral Disease Among Older Adults and Implications for Public Health Priorities. Am J Public Health. 2012 Mar; 102(3): 411-418. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3487659/

[7] 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

increased risk of developing thrush, a yeast infection in the mouth. In addition, poor oral health is associated with other chronic diseases such as diabetes and heart disease.[8]

Over the last 20 years, new threats to oral health have emerged, including the increasing prevalence of e-cigarette use or vaping products. It is well documented that tobacco affects oral tissues and is directly implicated in oral cancer and periodontal disease.[9] According to the Centers for Disease Control and Prevention (CDC), "Oropharyngeal cancers traditionally have been caused by tobacco and alcohol, but recent studies show that about 70% of cancers of the oropharynx may be linked to human papillomavirus (HPV)."[10] In addition, oropharyngeal cancer is now the most common HPV-associated cancer among men.

To compound this, an overarching challenge to oral health is the inadequate access to dental care due to the shortage of dental professionals. This shortage of dental professionals adversely affects individuals and their families, leading to the inevitability of untreated disease. The financial impact of untreated oral diseases cannot be understated and may impose additional economic costs to families and healthcare systems beyond those directly related to disease. In 2018, the annual cost of dental care in the U.S. was nearly $136 billion, 3.7% of the total health care spending; $55 billion of this amount was paid by patients and make up more than one quarter of all out-of-pocket health care spending.[11] In addition, according to the CDC:[12]

- On average, over 34 million school hours are lost each year because of unplanned (emergency) dental care.
- Over $45 billion is lost in productivity in the U.S. each year because of untreated oral disease.
- In 2017, there were 2.1 million emergency room visits for dental emergencies. Medicaid pays for about 69% of these visits for children and about 40% for adults.
- During 1996–2013, $26.5 billion was spent on dental care for children and adolescents. About 70% of this total was used for preventive services, such as general exams and cleanings, X-rays, and orthodontic treatment (such as braces).
- Nearly 18% of working-age adults report that the appearance of their mouth and teeth affects their ability to interview for a job. For people with low incomes, the percentage increases to 29%.

A major conclusion of *Oral Health in America: A Report of the Surgeon General*[13] more than 20 years ago was that oral health is essential to overall health and well-being. Other conclusions from this report remain valid today, specifically, that many systemic diseases and conditions, as

[8] Centers for Disease Control and Prevention. Oral Health. Oral Health Conditions. Retrieved from https://www.cdc.gov/oralhealth/conditions/index.html
[9] WebMD. (2021). Smoking and Oral Health. Retrieved from https://www.webmd.com/oral-health/guide/smoking-oral-health
[10] Centers for Disease Control and Prevention. HPV and Cancer. Statistics. Retrieved from https://www.cdc.gov/cancer/hpv/statistics/index.htm
[11] National Institutes of Health. Oral Health in America: Advances and Challenges. Retrieved from https://www.nidcr.nih.gov/sites/default/files/2021-12/Oral-Health-in-America-Executive-Summary.pdf pp. 5
[12] Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). Cost-Effectiveness of Oral Diseases Interventions. Retrieved from https://www.cdc.gov/chronicdisease/programs-impact/pop/oral-disease.htm
[13] Department of Health and Human Services. (2000). Oral Health in America: A Report of the Surgeon General. Retrieved from https://www.nidcr.nih.gov/sites/default/files/2017-10/hck1ocv.%40www.surgeon.fullrpt.pdf

well as treatments for such conditions, have important oral manifestations; conversely, oral infections may place many individuals at greater risk for morbidity from a variety of causes.

Although microbial infections continue to be the primary cause of the most prevalent oral diseases, profound disparities in the experience of these diseases persist and can be explained only in terms of a complex interplay among risk factors and social determinants; effective approaches to disease prevention and oral health promotion are available, and these may require community action, as well as individual self-care behaviors and professional care. Our system for educating providers and delivering appropriate care to the population remains an important determinant of oral health; and the limited availability of dental insurance continues to be a major barrier to oral health for many Americans.[14]

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 largely preventable and treatable in the early stages. Effective prevention and treatment interventions include: [15, 16]

- Reducing disparities and improving access to effective preventive services and dental care;
- Brushing with fluoride toothpaste, daily flossing, and professional dental treatment;
- Eating a healthy diet, limiting food with added sugars;
- Avoid using tobacco products and alcohol;
- Understanding the medications that may cause dry mouth and ensuring proper management of this side effect;
- Dental sealants are a quick, easy, and painless way to prevent most of the cavities that children get in their permanent molars , where 9 in 10 cavities occur);
- School-based dental sealant programs at no charge for children less likely to receive private dental care; and
- Community water fluoridation is an effective way to deliver fluoride to all community members regardless of age, education, or income.

National data, as well as Nevada level data, described in the next section, demonstrate the need for data-driven responses at the state and community level that are anchored on best practice frameworks proven to improve oral health. The Nevada Oral Health State Plan objectives and strategies can be found in the Priority Areas section below.

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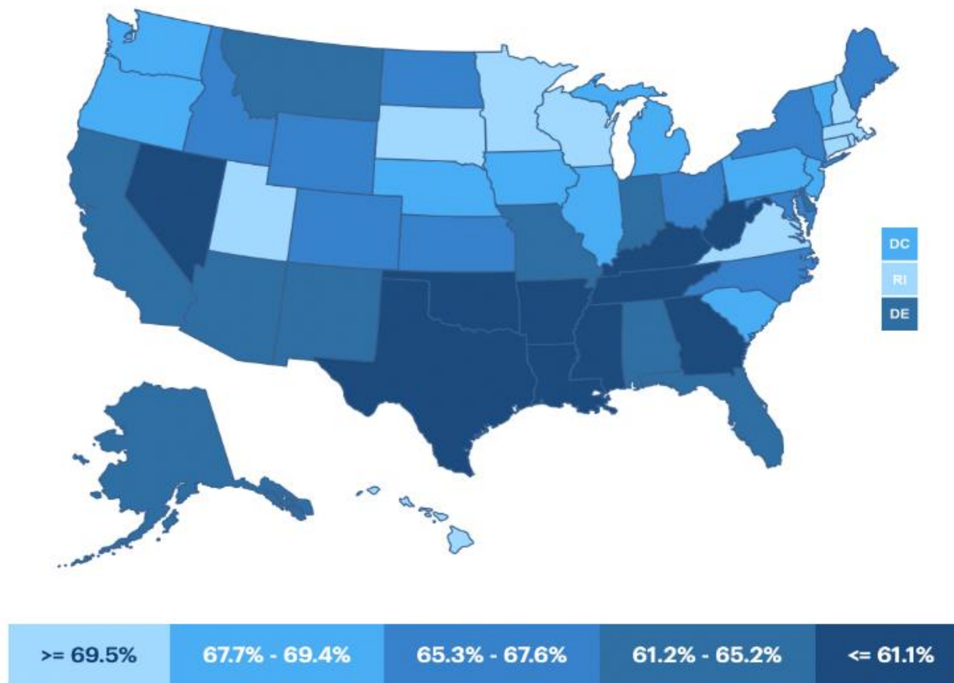
[14] National Institutes of Health. Oral Health in America: Advances and Challenges. Retrieved from https://www.nidcr.nih.gov/sites/default/files/2021-12/Oral-Health-in-America-Executive-Summary.pdf pp. 1-2
[15] Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). Cost-Effectiveness of Oral Diseases Interventions. Retrieved from https://www.cdc.gov/chronicdisease/programs-impact/pop/oral-disease.htm
[16] Healthy People 2030. Oral Conditions. Retrieved from https://health.gov/healthypeople/objectives-and-data/browse-objectives/oral-conditions

THE BURDEN OF ORAL HEALTH 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***

The above quote from *The Burden of Oral Disease in Nevada – 2012* still holds true today as can be seen in the data presented below. [17] The need to invest in Nevada's oral health needs is clear and well documented. Currently, Nevada is ranked 35th overall in the nation for dental health; 45th for dental habits and care; 28th for oral health[18]; and 41st for adults who reported visiting a dentist or dental clinic in the past year (60.8%) (Figure 1).[19] In addition, Nevada received a "C" in Oral Health from the Nevada Medical Center's 2019 Healthcare Report Card.[20]

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



Below is a close look at the barriers to accessing care, the oral health of Nevada residents, and disparities across the State.

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[17] Nevada State Health Division. Department of Health and Human Services Bureau of Child, Family and Community Wellness. The Burden of Oral Disease in Nevada – 2012. Retrieved from https://oralhealthnevada.com/wp-content/uploads/2015/02/BurdenOfOralDisease_in_Nevada.pdf

[18] WalletHub. States with the Best & Worst Dental Health. Retrieved from https://wallethub.com/edu/states-with-best-worst-dental-health/31498

[19] America's Health Rankings. Retrieved from https://www.americashealthrankings.org/explore/annual/measure/dental/state/NV

[20] Nevada Medical Center. Healthcare Report Card 2019. Retrieved from https://nvmedicalcenter.org/healthcare-report-card-2019/

Access to Care

HPSAs are areas designated by the Health Resources and Services Administration as those that are experiencing a shortage of health professionals. Currently, 67.3% of the Nevada's population resides in a federally designated primary care Health Professional Shortage Areas (HPSA); ***71.1% resides in a federally designated <u>dental care HPSAs</u>***; and 94.5% resides in a federally designated mental health care HPSAs (Table 1).[21] In 2020, the number of dentists per 100,000 population in Nevada is 54.1, compared to the U.S at 61.0.[22]

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**

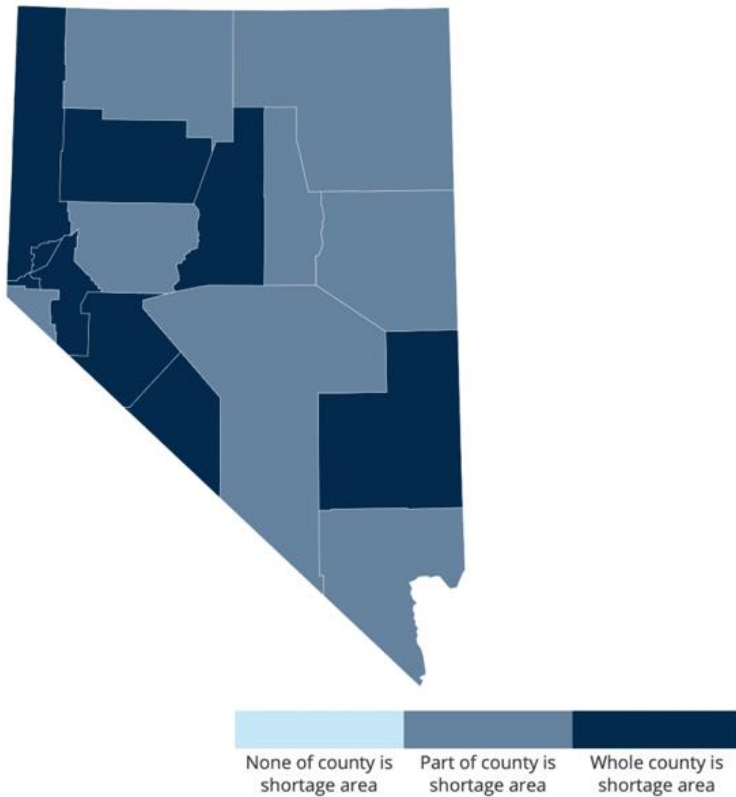
Figure 2 below shows county-level data on Dental Care Health Professional Shortage Areas (HPSA) in Nevada, indicating counties that are entirely in a HPSA or partially in a HPSA.[23] All Nevadans are located in a Dental Care HPSA, illustrating the access barriers for our state related to oral healthcare. Figure 2 provides a visual reference to these statistics, while Table 2 lists each county that is in a Dental HPSA.

[21] 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

[22] American Dental Association. The Dentist Workforce – Key Facts. Retrieved from https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/hpigraphic_0221_1.pdf?rev=1829a4f788c14974a1ac89ff1e288c0f&hash=A27C6AD199EB6FCAB15DB069BAF0CC85

[23] Rural Health Information Hub. Health Professional Shortage Areas. Retrieved from https://www.ruralhealthinfo.org/charts/9?state=NV

Figure 2. Health Professional Shortage Areas: Dental Care, by County, 2022 – Nevada



Nine of the 17 Nevada counties are whole county Dental Health Professional Shortage Areas (Table 2).[24]

Table 2. Health Professional Shortage Areas: Dental Care, by County, 2022 – Nevada

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

[24] Rural Health Information Hub. Health Professional Shortage Areas. Retrieved from https://www.ruralhealthinfo.org/charts/9?state=NV

Rapid Population Growth in Nevada

The population in 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).[25] The population of 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. As the population grows, existing oral health shortages can be expected to continue or grow, requiring significant investments in capacity.

Table 3. 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 Nevada Residents

To compound the issues of dental shortage areas and a growing population base, a large percentage of Nevada's population is without health insurance, further limiting access to care. In Nevada 10.2% of the state population are uninsured, compared to the nation at 8.6% (Table 4).[26]

Table 4. Health Insurance Coverage, Nevada and U.S., 2020

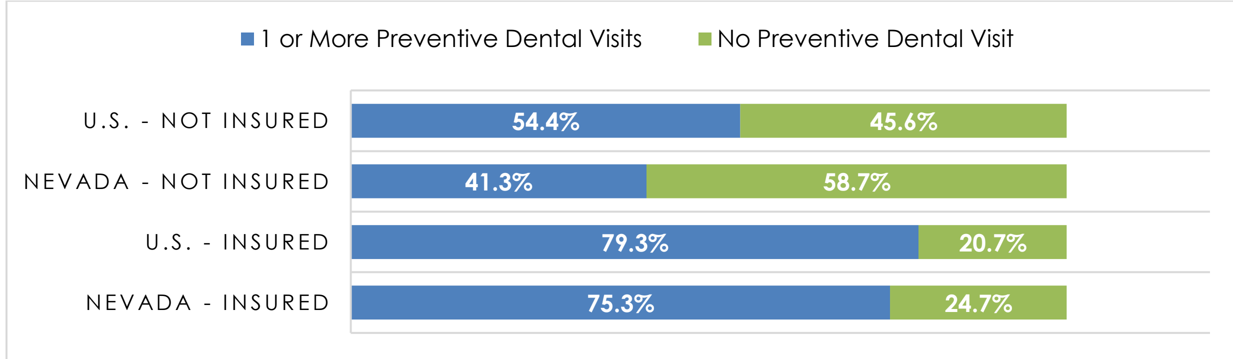
Population	Uninsured	Employer Insured	Medicaid	Medicare	Military	Non-Group
Nevada	10.2%	47.8%	19.1%	15.4%	2.9%	4.5%
U.S.	8.6%	50.3%	17.8%	15.6%	2.3%	5.5%

[25] 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

[26] 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

As can be seen in Graph 1, uninsured children ages 1-17 had preventive dental visits at a lower rate than those with insurance. In Nevada, 75.3% of insured children ages 1-17 had 1 or more preventive dental services compared to 41.3% of those that were uninsured.[27]

Graph 1. Preventive Dental Visit by Insurance Status, Children Ages 1-17, Nevada and U.S., 2019-2020



The lack of dental coverage and high cost of dental care are the main reasons individuals delay treatment. According to a report from the American Dental Association, among Nevadans, "cost" (all 57%; low-income 64%; middle income 67%) was most often cited as the 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).[28]

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 people, 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 and the furnishing of a complete or partial denture, along with any associated restorative procedures to prepare abutment teeth, if a partial 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) [29] 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.

[27] 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 www.childhealthdata.org

[28] 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

[29] 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

Water Fluoridation

Community water fluoridation, fluoride mouth rinse programs and fluoride varnish programs serve to prevent oral disease. In populations with access to community water fluoridation, topical fluorides and dental sealants, reductions in dental diseases are evidenced.

Nevada ranks 27th in the nation for water fluoridation[30]. There are 233 total water systems in Nevada - 47 are fluoridated and 186 are non-fluoridated. Currently, 74.65% of the population is served by community water systems receiving fluoridated water and 25.35% are not (Figure 3).[31]

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

Children and Adolescent Oral Health

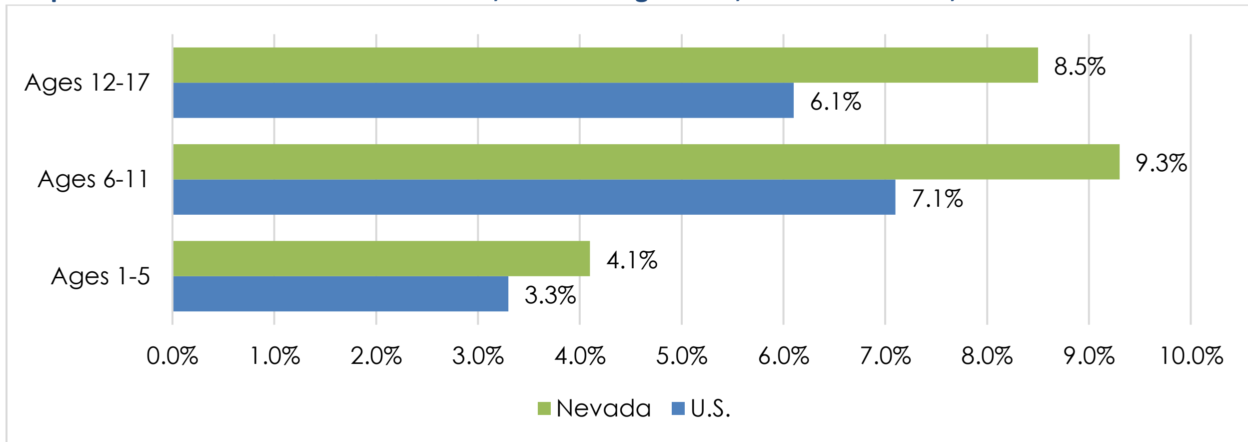
In 2019-2020, 4.1% of Nevada's children ages 1-5 had fair or poor condition of teeth, compared to 3.3% for the U.S.; 9.3% of Nevada's children ages 6-11 had fair or poor condition of teeth, compared to 7.1% for the U.S.; and 8.5% of Nevada's children ages 12-17 had fair or poor condition of teeth, compared to 6.1% for the U.S. (Graph 2).[32]

[30] American Health Rankings. Water Fluoridation. Retrieved from https://www.americashealthrankings.org/explore/annual/measure/water_fluoridation/state/NV

[31] Centers for Disease Control and Prevention. State Fluoridation Reports. Summary Report. Nevada. Retrieved from https://nccd.cdc.gov/DOH_MWF/Reports/Summary_Rpt.aspx

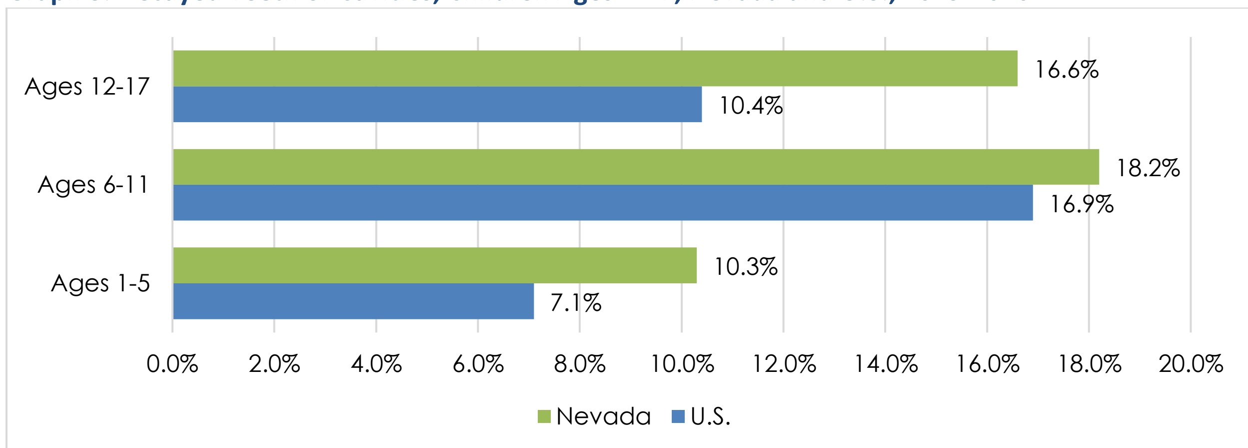
[32] Child and Adolescent Health Measurement Initiative. 2019-2020 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved from www.childhealthdata.org

Graph 2. Fair or Poor Condition of Teeth, Children Ages 1-17, Nevada and U.S., 2019-2020



In 2019-2020, 10.3% of Nevada's children ages 1-5 had decayed teeth or cavities, compared to 7.1% for the U.S.; 18.2% of Nevada's children ages 6-11 had decayed teeth or cavities, compared to 16.9% for the U.S.; and 16.6% of Nevada's children ages 12-17 had decayed teeth or cavities, compared to 10.4% for the U.S. (Graph 3).[33, 34]

Graph 3. Decayed Teeth or Cavities, Children Ages 1-17, Nevada and U.S., 2019-2020



For both Nevada and the U.S., the rates of decayed teeth or cavities for children ages 1-17 was highest among Hispanic children (NV 20.3%; U.S. 15.1%). The rates of decay for white children was NV 11.5%; U.S. 10.0%, and the rate of decay for black children was NV 10.2%; U.S. 11.9% (Graph 4).[35] Hispanic children in Nevada have higher rates of decayed teeth or cavities. Higher rates of decay amongst Hispanic children demonstrates the need for culturally competent dental outreach and awareness programs and services as well as an increase in the numbers of pediatric dentists who provide care for Medicaid clients, as Hispanic children have higher rates of Medicaid usage than their non-Hispanic counterparts.[36]

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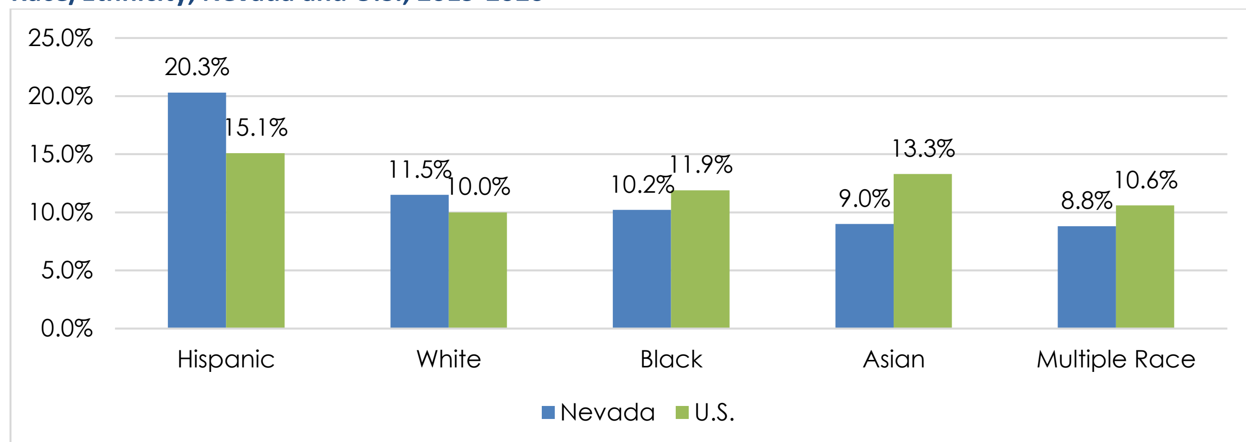
[33] Child and Adolescent Health Measurement Initiative. 2019-2020 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved from www.childhealthdata.org

[34] Ibid

[35] Ibid

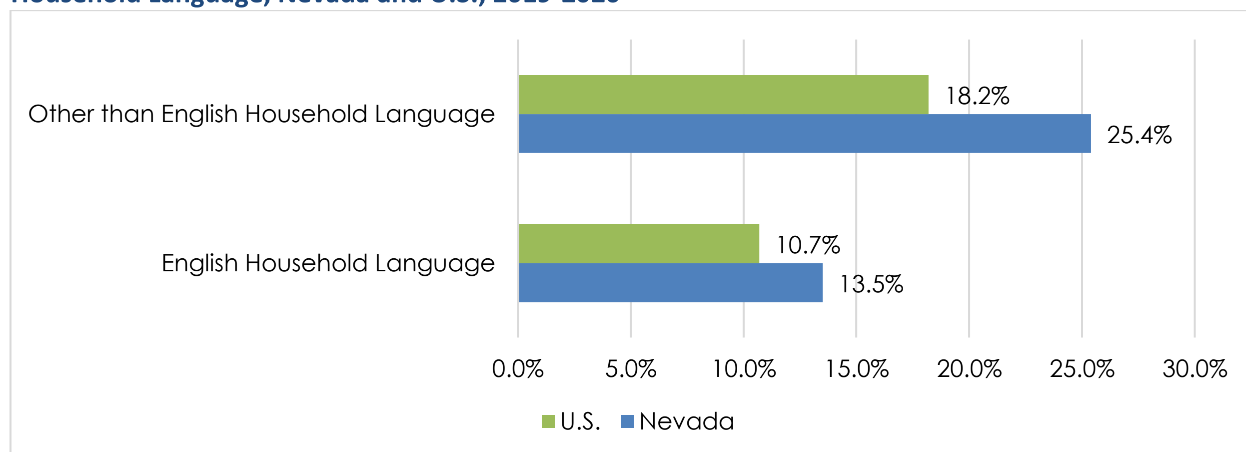
[36] Artiga, S., Hill, L., Orgera, K, & Damico, A. (2021). Health Coverage by Race and Ethnicity, 2010-2019. Retrieved from https://www.kff.org/racial-equity-and-health-policy/issue-brief/health-coverage-by-race-and-ethnicity/

Graph 4. Percent of Children, Ages 1-17, Who have Decayed Teeth or Cavities in Past Year by Race/Ethnicity, Nevada and U.S., 2019-2020



The rates of decayed teeth or cavities for children ages 1-17 that spoke a language other than English in the household was higher in Nevada (25.4%) than the U.S. (18.2%). The rates were also higher in Nevada (13.5%) than the U.S. (10.7%) for those who spoke English in the household (Graph 5).[37] These data once again speaks to the need for culturally informed care, as well as a need to improve rates of diversity in dental school graduates and providers serving Nevada communities.

Graph 5. Percent of Children, Ages 1-17, Who have Decayed Teeth or Cavities in Past Year by Household Language, Nevada and U.S., 2019-2020

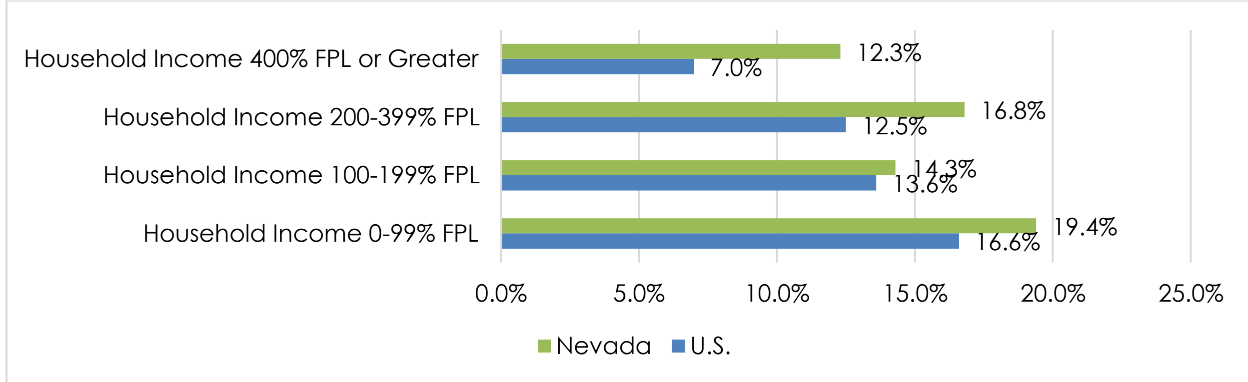


The rates of decayed teeth or cavities for children ages 1-17 by household income was higher for those in Nevada with income 0-99% of the Federal Poverty Level (FPL) (19.4%), compared to those with incomes at 100-199% FPL (14.3%), incomes 200-399% FPL (16.8%), and incomes 400% FPL (12.3%) (Graph 6). In addition, the rates are higher in all categories for Nevada compared to the U.S.[38] A lack of Medicaid providers exacerbates poverty challenges and must be addressed to improve these numbers.

[37] 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 www.childhealthdata.org

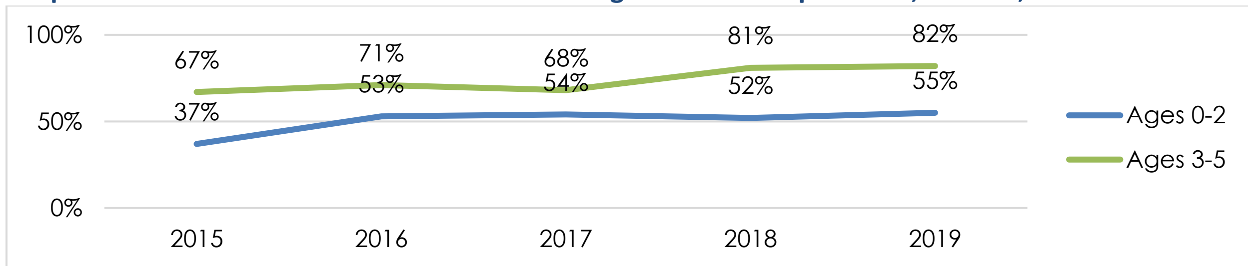
[38] Ibid

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



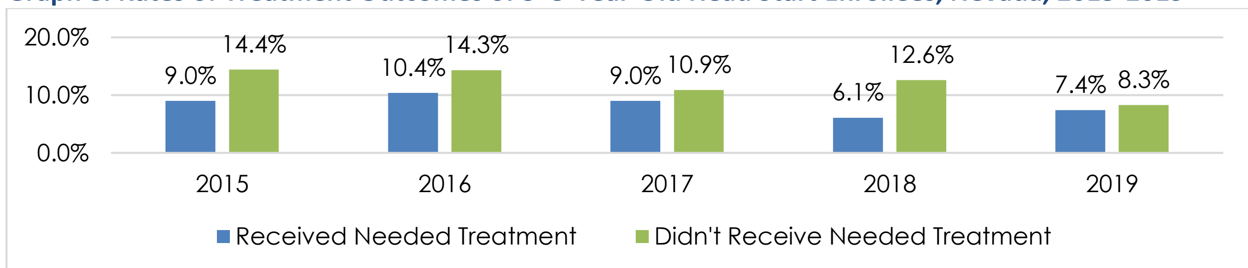
In 2019, 82% of children 3-5 years old in the Nevada Head Start (early childhood education program for children from low-income families) population had dental services (Graph 7).[39]

Graph 7. Rates of Dental Service Utilization Among Head Start Populations, Nevada, 2015-2019



However, among the Nevada Head Start population, the rates for not receiving needed treatment after a dental health problem was identified remain consistently higher than those receiving needed treatment (Graph 8) over the five-year period 2015-2019. [40]

Graph 8. 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 9).[41, 42]

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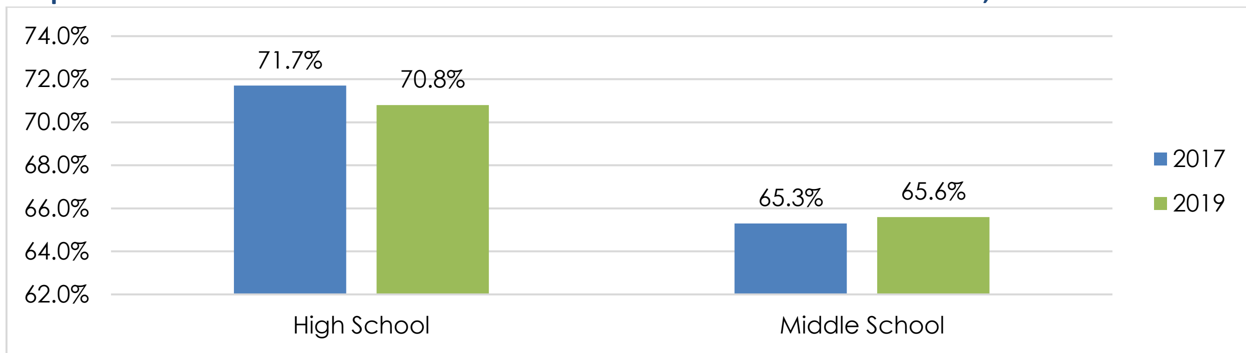
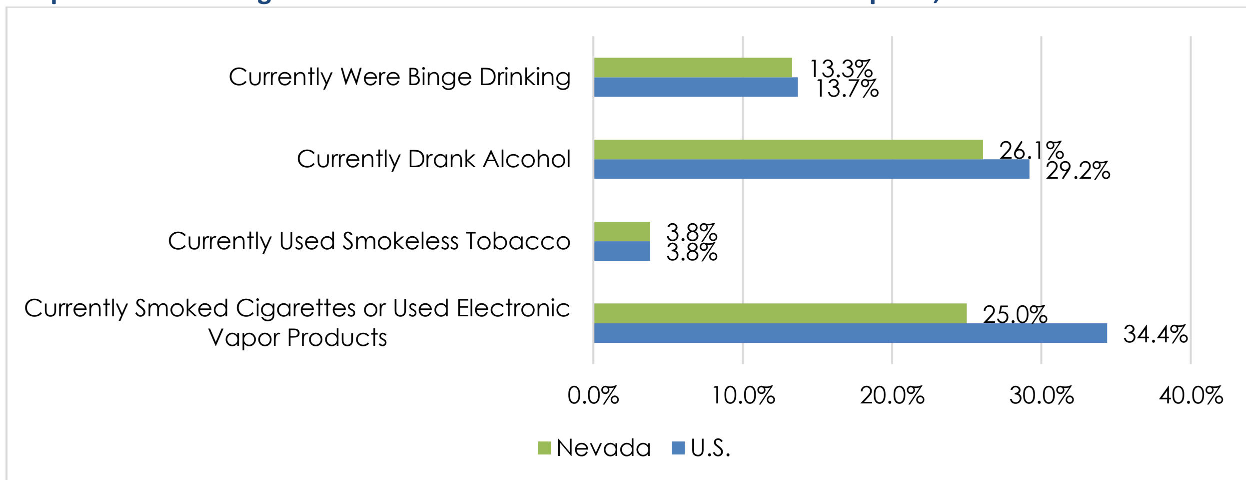
[39] Tableau. Head Start Program Information Reports. Retrieved from https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/HeadStartProgramInformationReports/Home\
[40] Ibid
[41] Diedrick, M., Lensch, T., Zhang, F., Peek, J., Clements-Nolle, K., Yang, W. State of 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.*
[42] 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.*

Graph 9. Nevada Public School Students Who Visited the Dentist in the Last Year, 2017 and 2019



In 2019, the rates for tobacco use and alcohol consumption were lower than the national rates, as 25.0% of Nevada high school students currently smoked cigarettes or used electronic vapor products containing tobacco compared to 34.4% for the U.S.; 26.1% of Nevada high school students currently drank alcohol compared to 29.2% for the U.S.; and 13.3% of Nevada high school students were binge drinking compared to 13.7% for the U.S. (Graph 10).[43] Smoking, drinking and vaping all contribute to oral health problems.[44, 45, 46]

Graph 10. Nevada High School Youth Tobacco Use and Alcohol Consumption, 2019



In addition, 11.8% of Nevada high school students drank a can, bottle, or glass of soda or pop one or more times per day compared to 15.1% for the U.S.[47] While Nevada rates were lower than the national rates, many school-aged children and teens are still drinking soda and other sugar-filled beverages as a regular part of their daily routine. The 2017-2019 Nevada High School Youth Risk Behavior Survey (YRBS) Comparison Report found that 11.8% of youth drank

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[43] Centers for Disease Control and Prevention. High School Youth Risk Behavior Survey (YRBS). Nevada and U.S. 2019. Retrieved from https://nccd.cdc.gov/youthonline/App/Default.aspx

[44] Centers for Disease Control and Prevention. Oral Health. Tobacco Use. Retrieved from https://www.cdc.gov/oralhealth/fast-facts/tobacco-use/index.html

[45] DentaQuest. Vaping and Your Oral Health. Retrieved from https://dentaquest.com/oral-health-resources/oral-health-library/general-oral-health/vaping/

[46] University of Pennsylvania School of Dental Medicine. (2018). The Surprising Truth About Alcohol and Oral Health. Retrieved from https://penndentalmedicine.org/blog/alcohol-and-oral-health/

[47] Centers for Disease Control and Prevention. High School Youth Risk Behavior Survey (YRBS). Nevada and U.S. 2019. Retrieved from https://nccd.cdc.gov/youthonline/App/Default.aspx

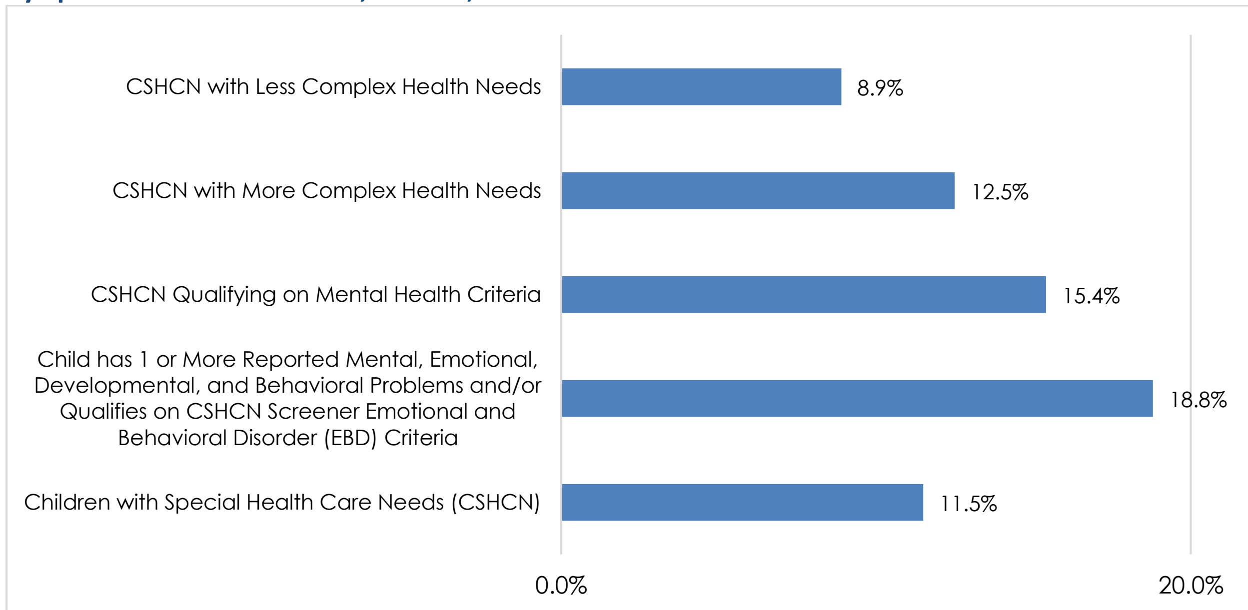
a can, bottle, or glass of non-diet soda/pop at least one time per day in the seven days prior to administration of the survey, below the national average of 18.7%.[48] For Nevada's children in kindergarten, the majority did not drink any diet soda (88.8%); a total of 8.7% reported that their child drank diet soda a few times a week; 2.1% reported daily consumption; and 0.5% reported consuming more than once a day.[49]

The regular consumption of soft drinks has consequences on dental health, as drinking too much can cause a host of dental problems, including gum disease, tooth decay, dental cavities and even bad breath.[50]

Individuals with Disabilities and Special Health Care Needs

Children and Youth with Special Health Care Needs (CYSHCN) ages 1-17 had higher rates of decayed teeth or cavities compared to CYSHCN with less complex health needs (Graph 11).[51] This data demonstrates the existing gaps in care for children with disabilities and special healthcare needs and speaks to the need for investment in training, education for providers, and increased awareness for parents and caregivers of resources and dentists who can support oral healthcare for this population.

Graph 11. Percent of Children and Youth, Ages 1-17, Who have Decayed Teeth or Cavities in Past Year by Special Health Care Needs, Nevada, 2019-2020



[48] 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.*

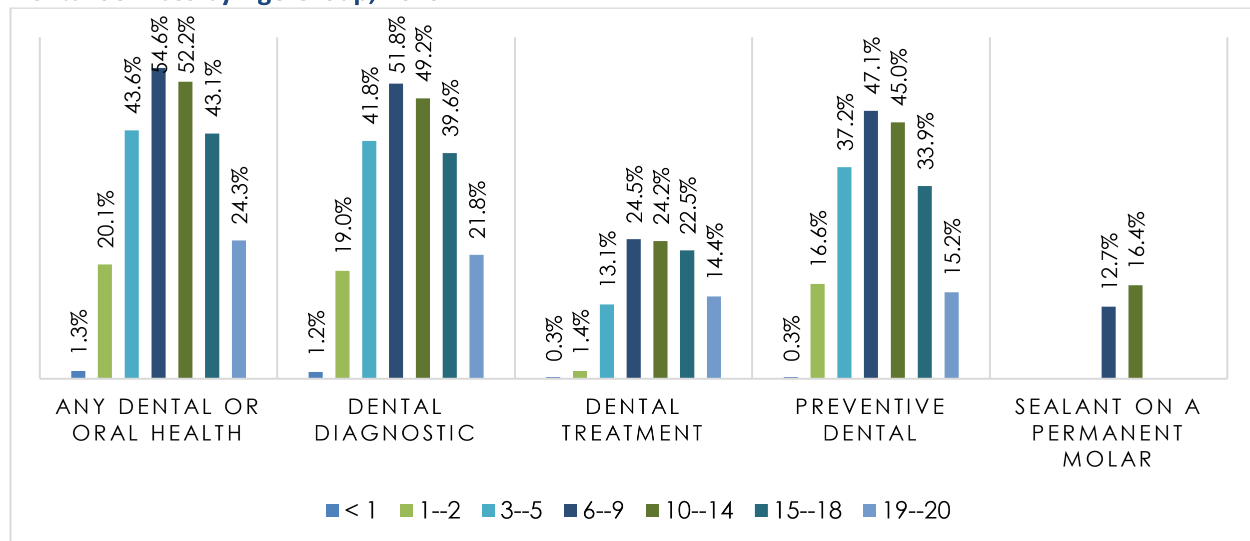
[49] Nevada Institute for Children's Research and Policy, UNLV. Results of the 2019-2020 Nevada Kindergarten Health Survey. Retrieved from https://nic.unlv.edu/files/KHS%20Year%2012%20Report%2011.04.20%20Final.pdf pp 45-46

[50] Colgate. What are Sugar Drinks Doing to Your Teeth. Retrieved from https://www.colgate.com/en-us/oral-health/cavities/what-are-sugar-drinks-doing-to-your-teeth#

[51] 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" is a Medicaid designation that refers to families and children, aged, blind, or disabled individuals, and pregnant people who are eligible for Medicaid. Graph 12 below shows the various utilization of dental services for children up to age 20 in these categories for Medicaid eligibility.[52] The categories with the least usage of services are Dental Treatment and Sealant on Permanent Molar, followed by Preventive Dental. A lack of providers who are trained to work with special needs populations is a barrier to these individuals accessing care.

Graph 12. Percent of Utilization of Categorically and Medically Needy Medicaid Eligibility, Various Dental Services by Age Group, 2019



In addition, adults with disabilities are more likely to have poor oral hygiene, periodontal disease and untreated tooth decay than the general population. In a study conducted by Tufts University School of Dental Medicine and Tufts University School of Medicine,[53] which reviewed the dental records of 4,732 patients with disabilities showed a high burden of oral disease, including dental caries (cavities), periodontitis (gum disease) and missing teeth. Furthermore, nearly 25% of the patients had a limited ability to accept any dental intervention and required specialized resources, such as general anesthesia, and almost 40% of all patients able to accept dental treatment required some form of behavioral assistance.

Pregnant People and Infants

According to the Centers for Disease Control and Prevention (CDC), nearly 60-75% of pregnant people have gingivitis; 1 in 4 women of childbearing age have untreated cavities; children of mothers who have high levels of untreated cavities or tooth loss are more than 3 times more likely to have cavities as a child; and children with poor oral health status are 3 times more likely to miss school because of dental pain. [54]

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

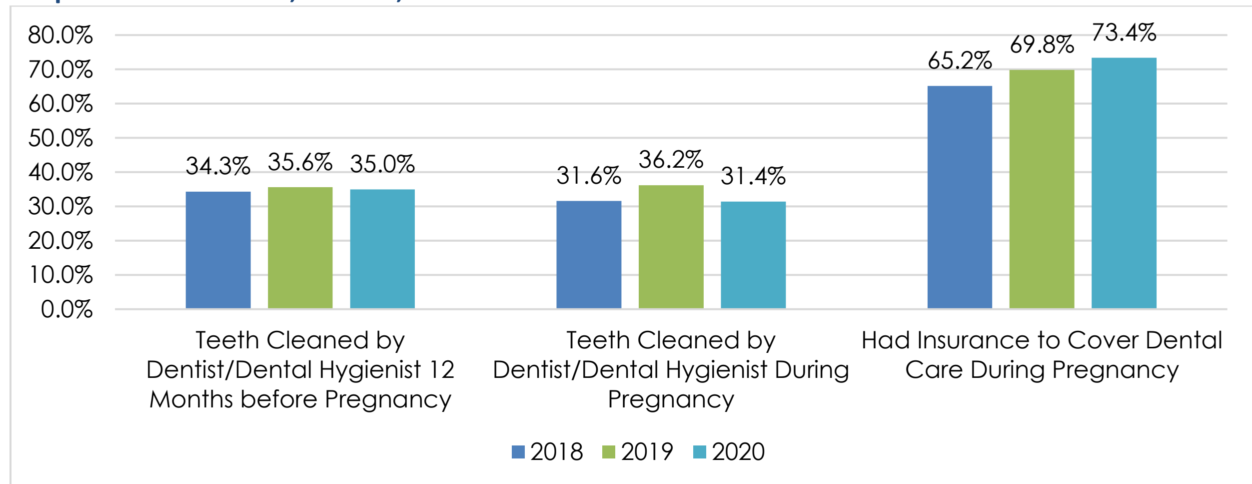
[53] Tufts Now. Improving the Oral Health of Adults with Special Needs Proves Challenging. Retrieved from https://now.tufts.edu/2012/08/01/improving-oral-health-adults-special-needs-proves-challenging

[54] Centers for Disease Control (CDC). Pregnancy and Oral Health. Retrieved from https://www.cdc.gov/oralhealth/publications/features/pregnancy-and-oral-health.html

Poor oral health during pregnancy can lead to poor health outcomes for the parent and baby. Improving oral health for pregnant people is one way to prevent cavities in young children, as pregnancy may make people more prone to periodontal disease and cavities. Therefore, oral health may be considered an important part of prenatal care.[55]

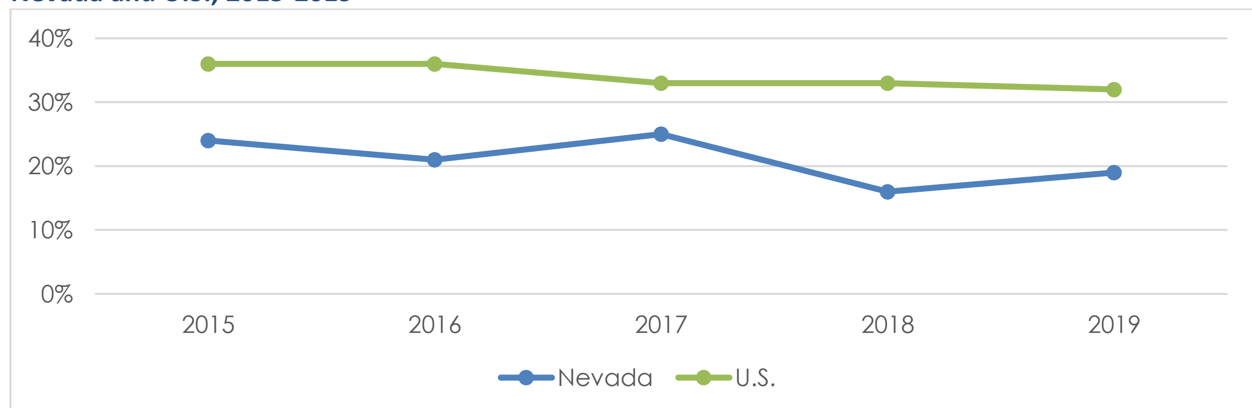
The Pregnancy Risk Assessment Monitoring System (PRAMS) includes results that describe the oral health care of pregnant and perinatal people. PRAMS data show that approximately 35% of women had their teeth cleaned 12 months before pregnancy; 34.1% had their teeth cleaned during pregnancy; and 73.4% had insurance to cover dental care during pregnancy in 2020 (Graph 13).

Graph 13. PRAMS Data, Nevada, 2018-2020



Furthermore, about 2 out of 10 (19.8%) of pregnant people from the Head Start population had dental services (Graph 14).[56]

Graph 14. Rates of Dental Service Utilization Among Pregnant People in Head Start Population, Nevada and U.S., 2015-2019



[55] Centers for Disease Control (CDC). Pregnancy and Oral Health. Retrieved from https://www.cdc.gov/oralhealth/publications/features/pregnancy-and-oral-health.html
[56] Tableau. Head Start Program Information Reports. Retrieved from https://public.tableau.com/app/profile/association.of.state.territorial.dental.directors/viz/HeadStartProgramInformationReports/Home

Cleft lip and cleft palate, birth defects commonly called "orofacial clefts", occur when a baby's lip or mouth do not form properly during pregnancy.[57] Having a cleft palate can impact how teeth form and are spaced, as well as cause bacteria in the mouth to flourish due to constant exposure to air, drying the mouth. Early dental healthcare for children with cleft palate is essential.

Factors that increase the chance of having a baby with an orofacial cleft include smoking, diabetes, and use of certain medicines.[58] Services and treatment for children with orofacial clefts vary; however, with treatment, most children do well and lead a healthy life. Surgery to repair a cleft lip usually occurs in the first few months of life and is recommended within the first 12 months of life, and surgery to repair a cleft palate is recommended within the first 18 months of life or earlier if possible. [59]

According to the Centers for Disease Control and Prevention: [60]

- About 1 in every 1,600 babies is born with cleft lip with cleft palate in the U.S.
- About 1 in every 2,800 babies is born with cleft lip without cleft palate in the U.S.
- About 1 in every 1,700 babies is born with cleft palate in the U.S.

Table 5 shows the percentage of Nevada infants born with Cleft Palate from 2017-2021.

Table 5. Number of Infants Born with Cleft Lip/Palate

Year	# Births	# Cleft Lip/Palate	%
2017	35,620	26	0.07%
2018	35,510	32	0.09%
2019	34,966	19	0.05%
2020	33,572	18	0.05%
2021	33,108	25	0.08%

Adults

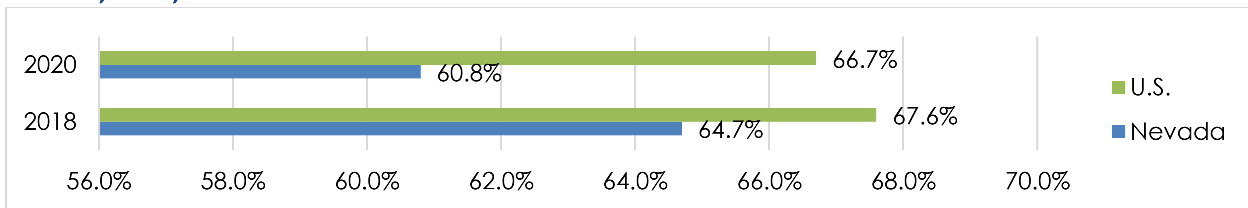
According to the American Dental Association data, a lower percentage of Nevadans (73%) compared to the national average (75%) report that they value keeping their mouth healthy, and 63% in Nevada versus 61% across the U.S. feel that they need to visit the dentist twice a year. Sixty-seven percent of Nevadans agree that regular dental visits will keep them healthy versus 71% of individuals across the country. 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.[61]

[57] Centers of Disease Control and Prevention. Birth Defects. Cleft Lip/Cleft Palate. Retrieved from https://www.cdc.gov/ncbddd/birthdefects/cleftlip.html
[58] Ibid
[59] Ibid
[60] Ibid
[61] 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

These data demonstrate the need for more community-based education and awareness of the importance of regular dental visits and importance of oral healthcare across the State. Awareness and equational campaigns and initiatives should be designed to increase dental visits for those populations with the greatest need for increased visits, such as Hispanic adults and low-income adults, as seen in Graphs 16 and 17 below.

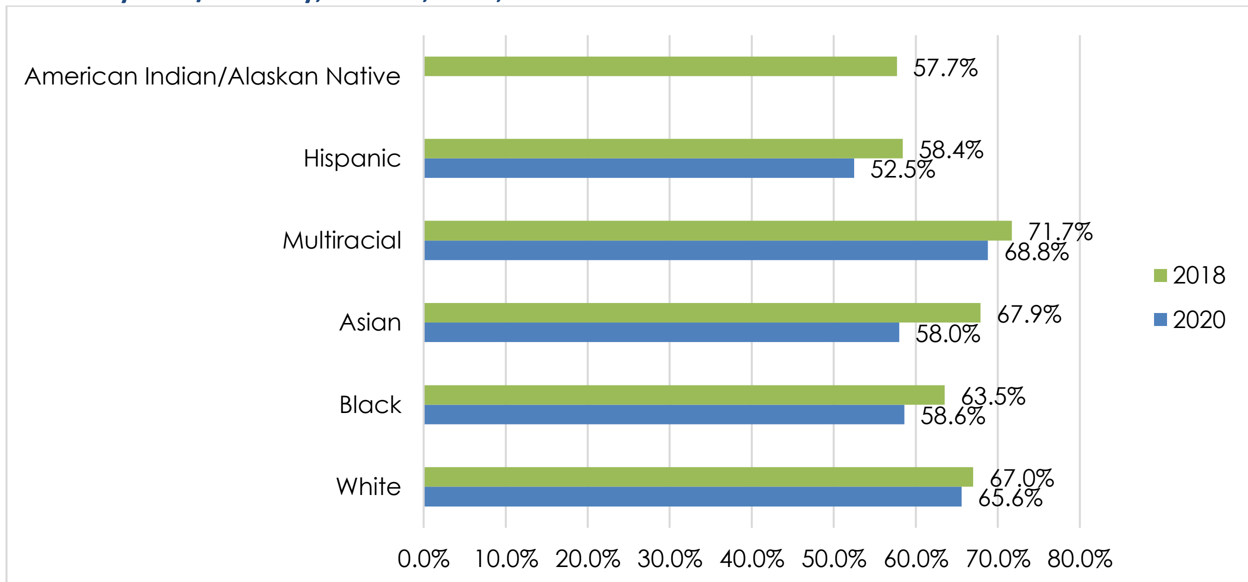
Based on America's Health Rankings, in Nevada, 60.8% of adults reported having visited the dentist or dental clinic in 2020, a decrease from 2018 at 64.7% (Graph 15). [62]

Graph 15. Percent of Adults who Visited the Dentist or Dental Clinic within the Past Year for any Reason, Nevada, 2018, 2020



The rates of dental visits in 2020 were lower among Hispanic (52.5%), Asian (58.0%), and Black (58.6%) adults, compared to their White counterparts (65.6%) (Graph 16).[63] Rates for American Indian Alaskan Native Nevadans is unavailable at the time of this writing

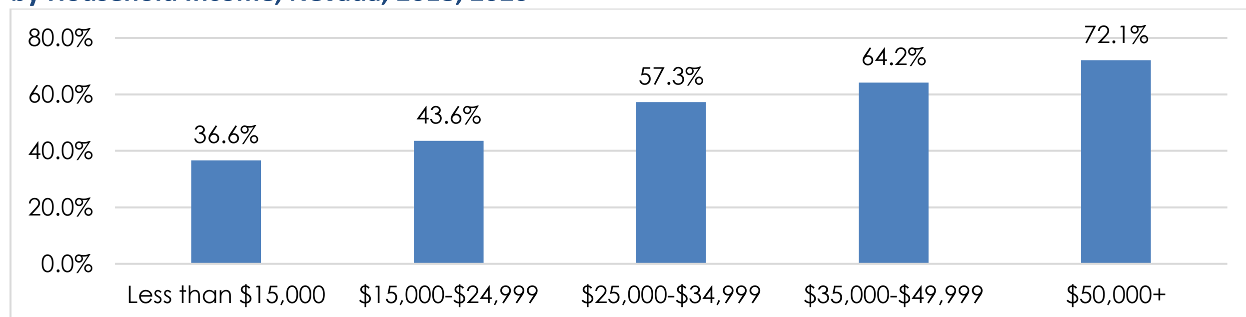
Graph 16. Percent of Adults who Visited the Dentist or Dental Clinic within the Past Year for any Reason by Race/Ethnicity, Nevada, 2018, 2020



The rates of dental visits in 2020 were lower among low-income Nevada adults compared to higher income adults (Graph 17).[64]

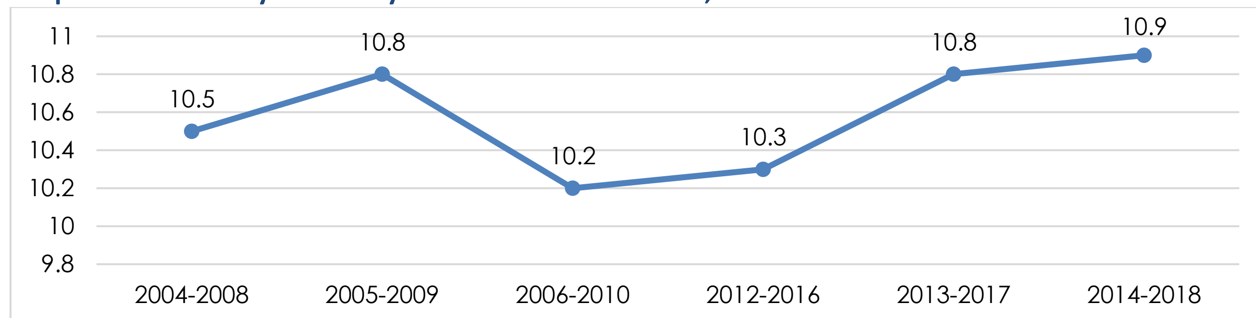
[62] America's Health Rankings. Retrieved from https://www.americashealthrankings.org/explore/annual/measure/dental/state/NV
[63] BRFSS Prevalence Data. Retrieved from https://www.cdc.gov/brfss/data_tools.htm
[64] Ibid

Graph 17. Percent of Adults who Visited the Dentist or Dental Clinic within the Past Year for any Reason by Household Income, Nevada, 2018, 2020



Overall, the lifetime risk of developing oral cavity and oropharyngeal cancer is about 1 in 60 (1.7%) for men and 1 in 140 (0.71%) for women.[65] Graph 17 shows the incidence rate of oral cavity and pharynx cancer[66] 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 18. Oral Cavity and Pharynx Cancer Incidence Rate, Nevada



The known risk factors for developing oral cancer are tobacco use and heavy alcohol consumption. According to the American Cancer Society, national data shows that individuals who both smoke and drink excessively are 30 times more likely to develop oral cancer than those who do not smoke or drink.[67] Smoking is a risk factor for oral cancer.

2020 data show that 14.2% of the Nevada adult population are current smokers and 9.2% smoke every day, compared to 15.5% and 10.6% for the U.S., respectively; 17.2% of Nevada adults are binge drinkers compared to 15.7% of the U.S. population; and 7.3% Nevada adults are heavy drinkers compared to 6.7% for the U.S. 2017 data on E-Cigarette use (latest available data), show that 5.4% of Nevada adults are current users compared to 4.6% for the U.S. (Graph 19).[68]

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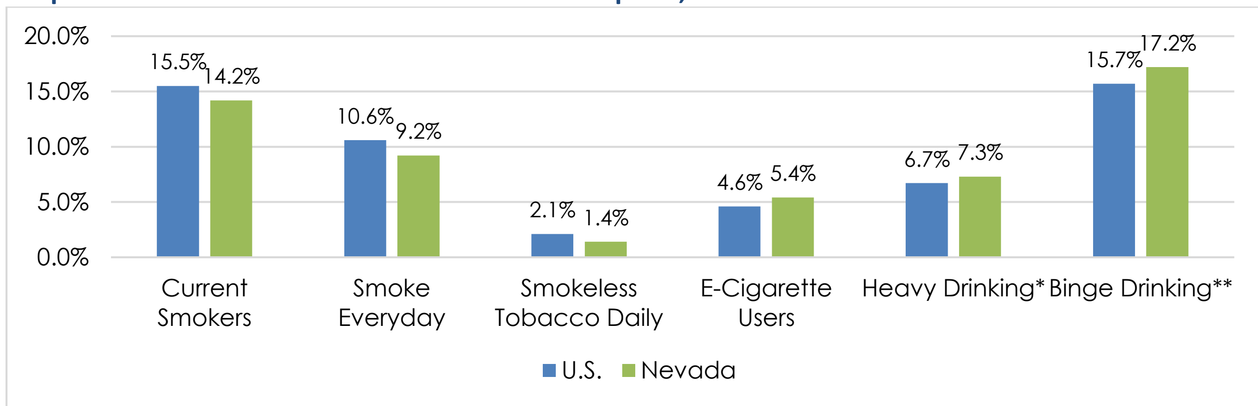
[65] American Cancer Society. Key Statistics for Oral Cavity and Oropharyngeal Cancers. Retrieved from https://www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/about/key-statistics.html

[66] Nevada Tomorrow. Oral Cavity and Pharynx Cancer Incidence Rate. Retrieved from https://www.nevadatomorrow.org/indicators/index/view?indicatorId=333&localeId=31

[67] 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

[68] BRFSS Prevalence Data. Retrieved from https://www.cdc.gov/brfss/data_tools.htm

Graph 19. Adult Tobacco Use and Alcohol Consumption, Nevada and U.S.

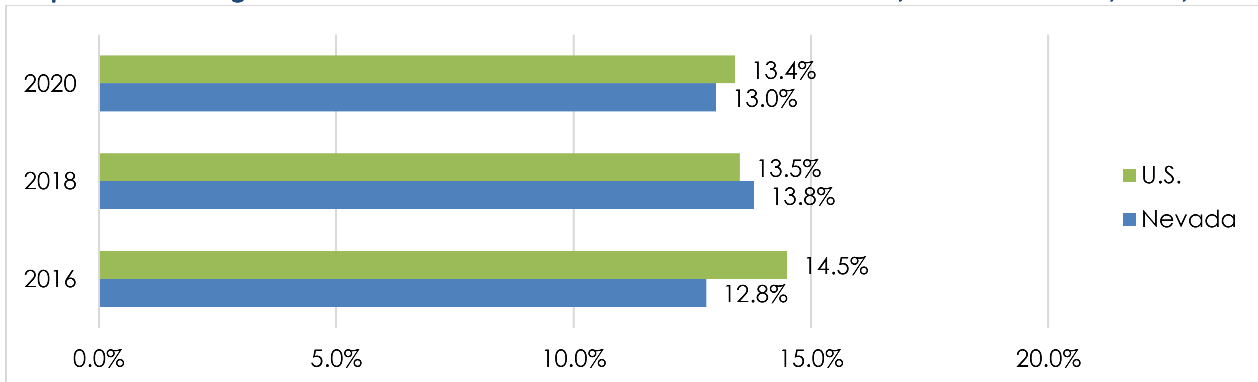


**Heavy drinkers (males having more than 14 drinks/week and females having more than 7 drinks/week); **binge drinkers (males having 5 or more drinks on one occasion, females having 4 or more drinks on one occasion).*

Seniors

In 2020, 13.0% of adults in Nevada aged 65 and over have had all their permanent teeth extracted (Graph 20), compared to 13.4% for the U.S.[69] Nevada ranks 26th for teeth extractions among seniors.[70]

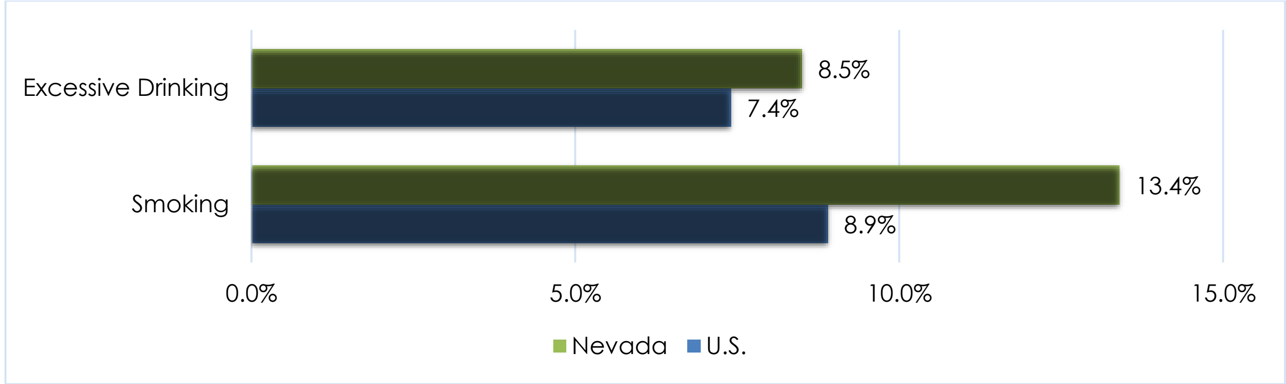
Graph 20. Adults Aged 65+ who have had All Their Natural Teeth Extracted, Nevada and U.S., 2018, 2020



As can be seen in Graph 20, in 2020, 13.4% of adults in Nevada aged 65 and over- use tobacco, compared to 8.9% for the U.S.[71] Nevada ranks 49th for tobacco use among seniors.[72] In addition, 8.5% of adults in Nevada aged 65 and over excessively drink, compared to 7.4% for the U.S.[73] Nevada ranks 42nd for excessive drinking among seniors.[74] While rates for smoking and excessive drinking for adults in Nevada are lower than the national average, these rates are higher than the national average for Nevadans over age 65, impacting the oral health of this population and increasing their risk of oral cancer.

[69] BRFSS Prevalence Data. Retrieved from https://www.cdc.gov/brfss/data_tools.htm
[70] America's Health Rankings. Senior Report 2022. Retrieved from https://assets.americashealthrankings.org/app/uploads/2022-senior-report-state-summaries.pdf
[71] BRFSS Prevalence Data. Retrieved from https://www.cdc.gov/brfss/data_tools.htm
[72] America's Health Rankings. Senior Report 2022. Retrieved from https://assets.americashealthrankings.org/app/uploads/2022-senior-report-state-summaries.pdf
[73] Ibid
[74] Ibid

Graph 21. Adults Aged 65+ who Tobacco Use and Alcohol Consumption, Nevada and U.S., 2020



KEY FINDINGS - A FOCUS ON ORAL HEALTH DISPARITIES

Key findings derived from the data detailed above include the need for improved health equity across underserved populations:

- Increased access to services for Hispanic children and adults;
- Increased access to oral healthcare to low socioeconomic populations;
- Expanded Head Start oral health services;
- Expanded and increased preventive services for children enrolled in Medicaid and those not eligible for Medicaid;
- Increased availability of services for people with disabilities;
- Improved oral healthcare screening and services to seniors aged 65 and older;
- Increased number of adults who visit the dentist in a 12-month period;
- Improved access to oral healthcare for Nevadans living in rural communities and
- Improved access for pregnant people, including those who are Medicaid eligible.

Findings from the data as well as the interviews conducted (summarized in the Development of the 2022-2032 Nevada Oral Health State Plan section above) demonstrate the need for investment in oral health outreach, training, provider recruitment, culturally informed care, and a focus on historically underserved populations.

As with states across the country, oral health disparities persist in Nevada. Individuals are more likely to have poor oral health if they are low-income, uninsured, and/or members of racial/ethnic minority, have a disability, or live in a rural community where they have suboptimal access to quality oral health care. Key findings by special population include:

Oral Health Disparities in Nevada Children Aged 1 to 17

- **Condition of Teeth.** Nevada children ages 1-17 had higher rates of fair or poor condition of teeth compared to the U.S. (Graph 2).
- **Cavities.** Nevada children ages 1-17 had higher rates of decayed teeth or cavities compared to the U.S. (Graph 3).
- **Cavities and Racial/Ethnic Groups.** 20.3% of Hispanic children have decayed teeth or cavities, compared with 11.5% of White children (Graph 4). In addition, 25.4% of non-English speaking households have children with decayed teeth or cavities, compared with 13.5% of English-speaking households (Graph 5).
- **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 FPL (Graph 6).
- **Dental Treatment.** 8.3% of 3–5-Year-Old Head Start enrollees did not receive needed treatment (Graph 7).
- **Dental Visits.** 65.6% of middle school and 70.8% of high school students visited the dentist in 2019 (Graph 9).

- **Preventive Dental Services.** 58.7% of uninsured Nevada children ages 1-17 had no preventive dental visits compared to 24.7% of insured Nevada children ages 1-17 (Graph 1). Preventive dental services ranges from 16.6% to 47.1% utilization of categorically and medically needy Medicaid eligible children (Graph 12).

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 15).
- **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 16). In 2018, 57.7% of American India/Alaska Native adults visited the dentist compared to 67.0% of White adults (Graph 16).
- **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 17).
- **Oral Cavity/Pharynx Cancer**. The incidence rate of oral cavity and pharynx cancer in Nevada is 10.9 cases/100,000 population compared to the U.S. rate of 11.9 (Graph 18).
- **Pregnant People**. Only 31.4% of pregnant people had their teeth cleaned by dentist/dental hygienist during pregnancy; and 73.4% had insurance to cover dental care (Graph 13). About 2 out of 10 (19.8%) of pregnant people from the Head Start population had dental services (Graph 14).

Oral Health Disparities in People with Disabilities

Children and youth with special health care needs (CYSHCN) 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 children and youth with special health care needs (CYSHCN) ages 1-17 have decayed teeth or cavities (Graph 11); 15.4% of CYSHCN 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 CYSHCN Screener's Emotional and Behavioral Disorder (EBD) criteria have tooth decay or cavities. These rates can be compared to the 10.3% of Nevada children ages 1-5 had decayed teeth or cavities in 2019-2020, 18.2% of Nevada children ages 6-11 had decayed teeth or cavities, and 16.6% of Nevada children ages 12-17 had decayed teeth or cavities (Graph 3). Graph 11 also provides data on the difference in cavity rates among children and youth with special healthcare needs versus with less complex health needs.
- **Utilization of Dental Services.** As categorically and medically needy children age, they utilize dental services less, with the highest rates among 6–9-year-old children (Graph 12).

Adults with disabilities, particularly Intellectual and Development Disabilities (ID/DD), also face significant challenges accessing dental care, including many of the same challenges faced by children with disabilities, such as sensory challenges, lacking access to a provider trained to serve individuals with ID/DD. Finding a provider who will take Medicaid is also a challenge due to professional shortages and the lack of providers who take Medicaid across Nevada.

Patients with special healthcare needs present with specific challenges during treatment, including the need for behavioral modifications, issues of guardianship and documentation for informed consent, Medicaid reimbursement limitations, complex or uncommon medication regiments, and may require sedation/hospital care to provide dental services in a timely manner. Often the lack of preventive care and routine therapeutic services under Medicaid exacerbates the patient's condition and leads to the need for costly and full mouth treatment.

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.[75]

To improve the health equity and access to care for all Nevadans, with a focus on health disparities that impact oral health, the objectives and strategies listed below, are based on the data and findings presented here, as well as informed by best practices to address specific gaps and needs.

[75] Bayne, A., Knudson, A., Garg, A., and Kassahun, M. (2013). Promising Practices to Improve Access to Oral Health in Rural Communities. Retrieved from https://www.norc.org/PDFs/Walsh%20Center/Oral_Rural%20Evaluation%20Issue%20Brief-6pg_mm.pdf

PRIORITY AREAS

To better understand the issues surrounding oral health prevention, access, and care across Nevada, as well as the state of infrastructure and funding, key stakeholder input was solicited, interviews were conducted, and AC4OH committee meetings were held between May 1, 2022, and June 30, 2022. The priority areas, objectives and strategies listed below were developed in partnership with the Oral Health Program, AC4OH Committee, key stakeholder interviews, and informed by the ASTDD Guidelines for State and Territorial Oral Health Programs which describe best practices to address gaps and needs.

In addition, Healthy People 2030 Oral Health Objectives (see Appendix A for complete list) will be addressed through the objectives and strategies, which are described below in the following categories: **Policy and Infrastructure, Prevention and Screening, Oral Health Care Access** and **Quality and Workforce Capacity**. These Nevada Oral Health State Plan objectives and strategies are designed to align with and meet Healthy People 2030 Oral Health Objectives.

Policy and Infrastructure - Objectives and Strategies

The Nevada Oral Health Program has historically struggled to increase infrastructure, financial sustainability, and maintain consistent leadership. A strong and sustainable governmental oral health program at all levels is crucial to achieving optimal oral health for Nevada. The following objectives and strategies to address the policy, infrastructure, and surveillance capacity of the Nevada Oral Health Program have been developed to address the following Healthy People 2030 objective:

- **Increase the number of states and DC that have an oral and craniofacial health surveillance system - OH-D01**

This Healthy People 2030 objective focuses on creating a strong public health infrastructure that will provide Nevada with the capacity to prevent oral diseases, promote health, and prepare and respond to the challenges and threats to health.

In addition, the objectives and strategies align with the Association of State and Territorial Dental Directors infrastructure and capacity elements for State Oral Health Programs , including:[76]

- *Assessment* – Establish and maintain a ***state-based oral health surveillance system*** for on-going monitoring, timely communication of findings, and the use of data to initiate and evaluate interventions. Oral health data are crucial for identifying program and

[76] Association of State and Territorial Dental Directors. (2012). State Oral Health Infrastructure and Capacity: Reflecting on Progress and Charting the Future. Retrieved from https://www.astdd.org/docs/infrastructure-enhancement-project-feb-2012.pdf

policy priorities, helping states monitor their progress toward Healthy People objectives and determining the effectiveness and efficiency of different interventions.

Nevada does not currently have an oral health surveillance plan. A surveillance system requires data about different aspects of oral health across a lifespan and is conducted periodically to assess changes.

- *Policy Development* - Provide leadership to address oral health problems with a full-time state dental director and an adequately staffed oral health unit with competence to perform public health functions. One of the essential public health services is to *"Mobilize community partners to leverage resources and advocation for/act on oral health issues."* State oral health programs should build partnerships to reduce the burden of oral disease by establishing a state oral health advisory committee, community coalitions, and governmental workgroups. Such partnerships require ongoing communication and collaborations but are crucial for policy development.

Nevada needs to actively pursue collaborations internal and external to the health agency partnerships are developed over time, adding to the importance of a sustainable infrastructure.

The Policy and Infrastructure Objectives and Strategies for Nevada include:

1) **Build the infrastructure capacity of the Nevada State Oral Health Program to improve oral health statewide.**
   a) Obtain State Appropriations to financially support the State Oral Health Program, a full time State Dental Health Officer, and full time State Public Health Dental Hygienist per NRS 429.279, 429.272 as essential and critical additions to the medical team within Department of Health and Human Services.
   b) Explore federal match for state general fund or other state revenue streams.
   c) Explore ways to diversify funding sources including competing for federal grants to sustain infrastructure.
   d) Explore viability of partial funding stream from percentage of licensing fees and fines paid to the Nevada State Board of Dental Examiners and information within 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 Department of Health and Human Services and the State Oral Health Program.**
   a) Provide dental expertise and best practice guidance to multiple programs in the Division of Public and Behavioral Health by holding regular cross interagency meetings with Maternal Child Health (MCH), Nevada WIC, Chronic Disease Prevention and Health Promotion, Primary Care Office (PCO), Aging and Disability Services Division (ADSD), Division of Child and Family Services (DCFS), Welfare Early Childhood Education, and the Nevada Governor's Council on Developmental Disabilities and county health departments.
   b) Integration of oral health messages and activities into other health-related programs allowing for consistent messaging, opening the possibility to foster sharing of resources, joint funding proposals or activities.

c) Promote and publicize AC4OH and Oral Health State Program statewide.

3) **Build the AC4OH membership to full capacity of 13 members thereby increasing the leadership needed to impact oral health program, policy, and practice statewide.**
   a) Recruit and maintain key stakeholders and leaders to the Committee to reach committee membership statutory requirement of 13 members, with a focus on Diversity, Equity and Inclusion (DEI) when recruiting individuals to serve on the Committee.
   b) Request continued administrative support by the Division of Public and Behavioral Health for the organization and oversight of AC4OH meetings.
   c) Ensure the Oral Health Program and 2022 Plan objectives and strategies are linked to the oral health community through the leadership, expertise, and resources of the AC4OH by utilizing an operations plan derived from this Strategic Plan at each AC4OH quarterly meeting.
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 and publish surveillance plan by engaging stakeholders to identify key oral health indicators. The state-based oral health surveillance system (SOHSS) should include the 10 items identified by the Council of State and Territorial Epidemiologists as the operational definition of the SOHSS, with a wider variety of indicators based on the needs and resources of the State. The Surveillance plan should be updated every 5 years, and its data incorporated into an Oral Health Burden Report.
   b) Engage stakeholders to develop an Oral Health Burden Report and make data accessible and actionable to enable community partners and policymakers to design new programs and activities to address unmet needs.
   c) Work with the Nevada State Office of Data Analytics to create a dashboard of oral health data and a schedule of receiving data at appropriate intervals to keep surveillance updated.
   d) Update the Basic Screening Survey of 3rd graders (last one was 2008-2009) and older adult basic screening survey and merge the third grade Basic Screening Survey data with the Department of Education's child-level demographic data.
   e) Identify standardized oral health questions for possible inclusion within all federal health surveys implemented at the state level, including, but not limited to, Behavioral Risk Factor Surveillance System, Pregnancy Risk Assessment Monitoring System and Youth Risk Behavioral Surveillance System.
   f) Ensure data is gathered on historically marginalized populations and documents disparities and special population needs.
   g) Update the Dental Services Directory of free, reduced cost, and sliding fee dental services throughout Nevada.
   h) OHP program staff will maintain and expand liaison roles with agencies and organizations (e.g., Department of Education Office of Early Childhood Learning, NV Home Visiting, childcare facilities) throughout Nevada with the purpose of expanding the reach of oral health messaging on decay prevention and good oral health practices to children, children and youth with special health care needs, adolescents, and people of childbearing age.

i) Facilitate active public/private partnerships, such as educational institutions, Nevada State Board of Dental Examiners, professional associations, chronic disease coalitions, non-profit organizations, philanthropic organizations, etc. to promote and support oral health.
j) Collaborate with community partners, dental and medical providers, and the public to increase utilization of Early and Periodic Screening, Diagnosis, and Treatment oral health screenings, prevention services, and dental treatment.
k) Provide support to persons with special health care needs through collaborating with agencies serving special needs populations.
l) Work with hospitals to include oral health in the hospital's community health needs assessments.
m) Collaborate with the Nevada Primary Care Association, Nevada Rural Hospital Partnership, Nevada Hospital Association, coalitions addressing maternal child health across the state, and Nevada Primary Care Office to support Federally Qualified Health Centers, rural clinics, and workforce development for Oral Health.
n) Support local agencies in addressing Oral Health initiatives.
o) Assist in building oral health coalitions that are active, independent, and statewide.

5) **Increase federal grant income to the state to support oral health programs and services.**
   a) Conduct analysis of existing data to identify data gaps and/or possible modifications of current resources to support successful grant applications and ensure compliance with federal reporting requirements and internal evaluations.
   b) Establish/create an operational logic model that may be utilized in funding requests to clearly communicate programmatic need.
   c) Increase available funding by identifying and applying for federal and other grant opportunities to support oral health prevention, access to services, and workforce improvements.
   d) Explore collaborative grant opportunities with the State and community-based non-profits and service providers.
6) **Increase outreach and promotion activities to improve health literacy, increase access to services through a well-designed and implemented Communication Plan.**
   a) Develop an Oral Health Program and AC4OH Communication Plan guided by the Association of State and Territorial Dental Directors Communication Plan Template for the State Oral Health Program.
   b) Develop statewide and regional oral health literacy campaigns using a variety of media which uses culturally, developmentally, and linguistically appropriate messages tailored to specific populations and focusing on the underserved.

Prevention and Screening - Objectives and Strategies

The Healthy People 2030 overarching goal for oral conditions is to *"Improve oral health by increasing access to oral health care, including preventive services."* The prevention and screening objectives and strategies developed for Nevada specifically address the following Healthy People 2030 objectives:

- **Reduce the proportion of children and adolescents with lifetime tooth decay experience in their primary or permanent teeth – OH-01**
- **Reduce the proportion of children and adolescents with active and currently untreated tooth decay in their primary or permanent teeth – OH-02**
- **Reduce the proportion of adults with active or untreated tooth decay – OH-03**
- **Reduce the proportion of older adults with untreated root surface decay – OH-04**
- **Reduce the proportion of adults aged 45 years and over who have lost all of their natural teeth – OH-05**
- **Reduce the proportion of adults aged 45 years and over with moderate and severe periodontitis – OH-06**
- **Increase the proportion of oral and pharyngeal cancers detected at the earliest stage – OH-07**
- **Increase the proportion of children and adolescents who have received dental sealants on 1 or more of their primary or permanent molar teeth – OH-10**
- **Increase the proportion of persons served by community systems with optimally fluoridated water systems – OH-11**
- **Reduce the consumption of calories from added sugars by persons aged 2 years and over - NWS -10**

The Prevention and Screening objectives and strategies for Nevada include:

1) **Reduce the incidence of oral health disease statewide through prevention, outreach, education, and promotion with a focus on underserved/special populations.**
   a) Identify funding streams and reimbursement strategies that support and sustain prevention programs.
   b) Promote oral health education for seniors in long term care facilities. Plan a basic screening survey for the older adult population.
   c) Support families in Head Start and Early Head Start in finding a dental home and promote early screening in these settings
   d) Develop practice guidance (prenatal/perinatal) on oral health care during pregnancy
   e) Improve oral health literacy across populations
   f) Improve access for children and adults with disabilities to Medicaid funded oral healthcare with providers trained in the unique needs of this population.
   g) Improve access for medically necessary dental care to realize functional improvements in daily living for those with craniofacial impacts.
   h) Develop and distribute science-based messages about oral health in plain language for all relevant audiences
   i) As a prescriber of controlled substances, oral health providers should be offered state provided training to work with people living with substance use disorder, screen patients for substance use disorders, and provide brief Screening, Brief intervention, Referral to Treatment.
   j) Work to 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.

k) Work to Establish Medicaid reimbursement for dental providers that provide teledental services to expand Medicaid dental benefits and support legislation that creates policies around teledentistry.
l) Increase Human Papillomavirus vaccination education and encourage education and awareness of oral cancer screenings.
m) Use ASTDD Best Practice Approach to Community Water Fluoridation to address the non-fluoridated areas of Nevada, such as pediatricians prescribing fluoride supplements.

2) **Improve prevention through integration of oral health and primary health.**
   a) Increase the number of physicians, physician assistants, registered nurses, and certified nursing assistant and pharmacists who understand oral health disease.
   b) Increase the number of physicians and nurses that apply fluoride varnish to children's teeth and refer children to a dental home.
   c) Provide evidence-based practices and strategies to healthcare providers who want to screen for oral health disease and provide oral health information to clients.
   d) Support primary care providers in providing oral health education and information on Human Papillomavirus (HPV) to patients on the link between HPV and oral cancers, diabetes and other chronic conditions linked to oral health issues and the importance of oral health management.
   e) Support policies to expand the scope of practice for oral health professionals including immunizations, teledentistry, and emergency management.
3) **Promote enhanced utilization of preventive services and early intervention through community education.**
   a) Monitor Medicaid utilization for evaluation of policy effectiveness and work with Medicaid dental team to create reports, dashboards, and policy recommendations.
   b) Work to with the Nevada Division of Healthcare Financing and Policy to increase Medicaid reimbursement for preventive dental services such as sealants, fluoride varnish application, dental cleanings, and silver diamine fluoride application.
   c) Work to with the Nevada Division of Healthcare Financing and Policy to expand adult Medicaid dental services within Federally Qualified Health Centers.
4) **Implement, manage, and evaluate community-based and population-based prevention programs and strategies with a focus on barrier reduction for underserved populations.**
   a) Reduce oral health inequities by producing information in culturally, linguistically, and developmentally accessible formats.
   b) Identify funding to support School-Based Sealant Programs statewide.
   c) Train school nurses to complete Basic Screening Surveys (BSS), apply fluoride varnish, and integrate teledentistry for school-based oral health emergencies.
   d) Develop community health worker, doula, and Emergency Medical Technician programs to deliver oral health education with a focus on underserved populations.

Oral Healthcare Access and Quality - Objectives and Strategies

According to Healthy People 2030's Oral Health Workgroup findings, *"Certain age groups, racial/ethnic groups, and income levels continue to have a greater burden of oral disease. The prevalence of untreated tooth decay is often higher among non-Hispanic Black populations, Mexican-American populations and older adults."* This is mirrored in the oral disease data

presented in this report. Access to care and insurance coverage are also important factors that continue to affect oral health disparities.

The Oral Healthcare and Quality objectives and strategies developed for Nevada specifically address the following Healthy People 2030 objectives:

- **Increase the proportion of persons with dental insurance - AHS-02**
- **Reduce the proportion of persons who are unable to obtain or delayed in obtaining necessary dental care -AHS-05**
- **Increase the proportion of children, adolescents, and adults who use the oral health care system – OH-08**
- **Increase the proportion of low-income youth who have a preventive dental visit – OH-09**

The Oral Healthcare and Quality objectives and strategies for Nevada include:

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 low socioeconomic status individuals, children, pregnant people, seniors, minority populations and individuals with disabilities.
   b) Educate policy makers about evidence based and cost-effective ways to prevent oral diseases, reduce oral health care expenses, and increase oral health equity
   c) Post up to date, accurate and understandable information on the Nevada State Oral Health Program website regarding oral health and public health issues
2) **Improve Medicaid enrollment to increase access to oral health care**
   a) Work with the Nevada Division of Health Care Financing and Policy on Home and Community Based Services waiver to develop provider training and expand Medicaid dental benefits for adults with special health care needs.
   b) Increase patient/parental awareness through community education regarding the availability of Medicaid funded oral healthcare.
   c) Increase access points and education by health professionals including doctors, nurses, doulas and midwives, for pregnant people enrolled in Medicaid to utilize dental benefits.
   d) Increase the number of providers across the State who serve Medicaid children and adults and Medicare clients.
3) **Increase utilization of teledentistry to provide screenings, preventive care, and referrals to care to meet unmet needs in dental Health Professional Shortage Areas 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) Explore possibility of expanded scopes or practice for dental hygienists who receive additional training to help address oral health service shortage areas.

c) Include teledentistry as part of regional pilots in emergency departments for non-traumatic dental conditions. Provide funding for purchase of needed equipment in rural settings.
d) Disseminate new Nevada Division of Health Care Financing and Policy guidelines for attestation and billing of teledental services.

4) Increase the number of Critical Access Hospitals (CAHs) that provide dental units.
   a) Educating, facilitating, partnering for incentives, possibly via higher reimbursement levels made possible through emergency room savings, for Critical Access Hospitals that operate or house such services.
   b) Partner with the Nevada Hospital Association, Nevada Rural Hospital Partnership, 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) Educate professionals, practicians, and Nevadans on the relationship between oral health and overall health, with the potential to drive down costs for chronic diseases and emergency department use through improved oral health.

5) Encourage integration of importance of oral health into primary medical care as well as expand knowledge within private sector dentistry.
   a) Utilize Health Resources and Services Administration Integrating Oral Health and Primary Care Practice 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) Work with the Primary Care Advisory Council, NAC 439a.710 to add a new membership category of "oral health professional," ensure oral health has a voice.
   c) Work with health care professional licensing 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 programs.
   e) Work with Nevada Universities to integrate dental elements into Nevada medical schools and nursing schools, to facilitate basic understanding of dental conditions and the health impact of poor oral health and within emerging providers.
   f) Work with state oral health coalitions and stakeholders to identify existing law or regulation that may impede access to care.

Workforce Capacity - Objectives and Strategies

A qualified, educated, diverse workforce is key to making progress toward all other objectives in this plan. This crucial public health infrastructure component provides the necessary foundation for all public health services. According to The Association of State and Territorial Dental Directors, an essential public health service is to *"Assure an adequate and competent public and private oral health workforce".* [77]

[77] Association of State and Territorial Dental Directors. (2012). State Oral Health Infrastructure and Capacity: Reflecting on Progress and Charting the Future. Retrieved from https://www.astdd.org/docs/infrastructure-enhancement-project-feb-2012.pdf

The objectives and strategies to address Workforce Capacity of the Nevada Oral Health Program have been developed to address Healthy People 2030:

- **Increase the number of states and DC that have an oral and craniofacial health surveillance system - OH-D01**

The Oral Healthcare and Quality objectives and strategies for Nevada include:

1) **Increase access to culturally informed dental care for underserved populations across Nevada**
    a) 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.
    b) Promote education and training of dental providers in decreasing bias and implicit bias to improve health outcomes of diverse populations.
    c) Develop partnerships with Tribal Clinics to deliver culturally informed dental education and explore innovative dental delivery services in tribal communities. This may need to be a separate strategy.
2) **Develop and implement dental workforce strategies that address the workforce shortages in rural areas of Nevada and dental Health Professional Shortage Areas (HPSAs).**
    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 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 a plan to use community health workers to deliver services and engage patients through community-based prevention programs.
    e) Create pathways for dental hygienists to complete the American Dental Association Community Dental Health Coordination curriculum.
    f) Support dental hygienist's education in public health dentistry and educate the dental hygienist about the various avenues of a public health endorsed dental hygienist can take.
    g) Support public policy that creates public-private partnerships to create incentives for workforce expansions in underserved, rural, and uninsured areas.

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 Association of State and Territorial Dental Directors 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 Association of State and Territorial Dental Directors 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.

In addition, the Nevada Oral Health Program and the AC4OH can use the Healthy People 2030 targets to measure progress.

The Oral Health State Plan is designed to be implemented over the next ten years and led by the AC4OH. The Committee will design an Action Plan that will accompany this State Oral Health Plan, that will be used to engage leadership, champions, community providers, and the public in advancing the objectives and strategies listed above as well as used to monitor progress.

ABOUT THE AUTHORS

This project was researched, written, and produced by Strategic Progress, LLC. Authors include Cyndy Cendagorta Gustafson, MA, Strategic Progress CEO, Project Manager and Lead Strategist, and Principal Investigator Paula Cassino, of Strategic Progress.

Strategic Progress, LLC is a Nevada-based company specializing in public policy research and data analytics, federal grant development and strategic positioning of large-scale initiatives.

This report was written for the Nevada Oral Health Program, in collaboration with Jannette Gomez, Nevada State Public Health Dental Hygienist, and the AC4OH Committee.

APPENDIX A

Healthy People 2030 Oral Health Indicators and Target Levels:

Objective Number and Description	National Baseline	National Target
Oral Health Conditions		
OH-03 | Reduce the proportion of adults with active or untreated tooth decay	22.8	17.3
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
Adolescents		
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
Health Care Access and Quality		
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
Health Policy		
OH-11 | Increase the proportion of persons served by community systems with optimally fluoridated water systems	72.8	77.1
Nutrition and Healthy Eating		
NWS-10 | Reduce the consumption of calories from added sugars by persons aged 2 years and over	13.5	11.5
Older Adults		
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
Preventive Care		
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
Public Health Infrastructure		
OH-D01 | Increase the number of states and DC that have an oral and craniofacial health surveillance system	N/A	N/A

APPENDIX B

Interview Questions and Process

Unstructured interviews were conducted between May 1-June 30, 2022 to provide insight from the AC4OH and 20 key stakeholders on the Oral Health Program planning process, role in advancing the plan, draft goals and objectives and unmet needs in Nevada.

Interviewees were asked the following questions:

- What are the greatest needs when it comes to oral health in Nevada?
- What special populations are most underserved? Why?
- What are the barriers faced by individuals from the special populations you discussed just now or other groups? What can be done to address those barriers?
- What assets do we have to mobilize to advance oral health in Nevada?
- What are the biggest challenges you see to improved oral health in the state?
- What do you see as the most important investment in oral health in Nevada over the next 3-5 years?
- What do you see as the most critical role for the AC4OH?
- What are your priorities for action for the first year after the Plan is published? Why?

Discussions were held in an unstructured manner, allowing for the interviewee to expand on their thoughts about the needs in Nevada for oral health investment, as well as allowed for discussion about possible pathways forward and the strategies needed to advance oral health. Interviewee answers were typed into a Word document and highlights from those interviews, key themes, and quotes were gathered after all interviews were completed for inclusion in this Plan.

These interviews were meant to provider deeper insight into the role of the AC4OH in designing, implementing and evaluating the Oral Health Plan. Interviewees included a diverse group of individuals representing a range of special populations in Nevada, including Hispanic individuals, Black individuals, parents of children with disabilities, seniors, pregnant people, Medicaid eligible individuals and families, as well as representatives of community service providers, dentists and hygienists serving underserved populations including Tribal communities in northern Nevada and individuals living with substance use disorders, as well as those populations mentioned previously.