The Burden of Oral Disease in Nevada - 2006

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Executive Summary

> *"You are not healthy without good oral health."*
>
> Dr. C. Everett Koop, Surgeon General of the United States, 1981-1989

Why Attention to Oral Health Is Important

Oral health is an essential and integral component of overall health and is much more than just healthy teeth. Good oral health not only means being free of tooth decay and gum disease, but it also means being free of chronic oral pain conditions, oral cancer, birth defects such as cleft lip and palate, and other conditions that affect the mouth and throat. Oral health is intimately related to the health of the rest of the body. Mounting evidence suggests that infections in the mouth such as periodontal (gum) diseases may increase the risk of heart disease, may put pregnant women at greater risk of premature delivery, and may complicate control of blood sugar for people living with diabetes. In addition, changes in the mouth often are the first signs of problems elsewhere in the body, such as infectious disease, immune disorders, nutritional deficiencies, and cancer.

What Is Included in the Burden of Oral Disease in Nevada - 2006

This report summarizes the most current information available on the oral disease burden of people in Nevada. As available, comparisons are made with national data and the Healthy People 2010 goals. Several barriers hinder the ability of some Nevadans to attain optimal oral health. The Burden of Oral Disease in Nevada – 2006 attempts to identify racial/ethnic, socio-economic as well as geographic discrepancies in disease prevalence and access to prevention and treatment resources.

How We Are Doing

When comparing oral disease rates for Nevadans with those available for the nation, seven out of ten (70%) of Nevada's third-grade students have tooth decay in comparison to 50 percent (50%) of children aged six to eight across the country. Nearly twice as many adolescents in Nevada (31% vs. 16%) are suffering with untreated dental caries (tooth decay) than their national counterparts. Among third-grade children in Nevada, poorer children have more untreated dental decay (52% vs. 29%) and more caries experience (80% vs. 62%) than other children as well as fewer protective dental sealants (36% vs. 52%). Also among Nevada's third-grade students sampled, a significantly higher proportion of minority children had untreated decay in comparison to White Non-Hispanic children (78% vs. 61%).

Nationwide, people living in rural areas also have a higher oral disease burden because of difficulties in accessing preventive and treatment services. In Nevada, the 2005 results of the Basic Risk Factor Surveillance Survey (BRFSS) showed significantly fewer adults in our rural/frontier communities (52%) have visited a dentist during the past year than in the urban communities of Clark County (66%) and Washoe County (70%). Only 51 percent of adult Nevadans from rural/frontier areas reported having any dental insurance coverage in comparison to 66 percent in the two urban counties. More adults residing in rural/frontier areas of Nevada also reported having had permanent teeth extracted due to decay or gum disease (49%) than in Clark County (45%) or Washoe County (42%).

*During 2005, approximately **6,431** patients were seen for basic dental services in the emergency rooms of Nevada's hospitals. The estimated total cost of these emergency room visits was **$3,963,519.***

Many Nevadan's are utilizing hospital emergency rooms for dental care. A review of 2005 data on Nevada hospital and emergency room use by patients for whom the primary diagnosis was dental caries, gum disease or an abscessed tooth indicates that approximately 6,431 patients were seen for these basic dental services, which would have been more appropriately treated in a dental office or clinic. The estimated total cost of these emergency room visits was $3,963,519. (Outpatient data was excluded from the request because very young children, medically compromised individuals and individuals with special needs are frequently [and appropriately] treated in an out-patient hospital setting due to the fact that they need additional medical support services in order to undergo dental treatment.)

Nevada's battle against methamphetamine use has increased awareness of the drug's many dangers including its devastating oral effects. The rampant caries associated with methamphetamine use is attributed to the acidic nature of the drug, the drug's dry mouth effect, its propensity to cause cravings for high calorie carbonated beverages, tooth grinding and clenching, and its long duration of action leading to extended periods of poor oral hygiene. According to the 2004 National Survey on Drug Use and Health (NSDUH), Nevada has the highest prevalence rates for methamphetamine use by persons aged 12 years or older. Oral health stakeholders statewide are collaborating in education initiatives and other activities to prevent methamphetamine use.

Oral diseases are progressive and cumulative and if left untreated, become more complex and difficult to manage over time. The good news is that the majority of oral diseases are also preventable. Across the United States in populations with access to community water fluoridation, topical fluorides, and dental sealants, reductions in dental diseases are evidenced. Unfortunately these proven practices are not available to Nevadans equally. Clark County initiated community water fluoridation in 2000 and currently it is the only region in Nevada that has optimally fluoridated water available through their public water supplies. Not only does community water fluoridation effectively prevent dental caries, it is one of very few public health prevention measures that offer significant cost savings to almost all communities [Griffin et al. 2001]. It has been estimated that for every one dollar invested in community water fluoridation there is a savings of approximately $38 in averted costs. During SFY06 it is estimated that the cost of providing community water fluoridation in Clark County was only $0.194 per person and the estimated savings in averted dental disease was nearly 13 million dollars.

Numerous programs across the state are working to improve the oral health of Nevadans through education, prevention and increasing access to dental care. Community-based as well as school-based/school-linked initiatives such as dental sealant programs and fluoride varnish programs are reaching out to youth at risk of dental disease. Information on these initiatives, as well as many of Nevada's safety-net dental care providers, is included in this report.

Although appropriate home oral health care and population-based prevention are essential, professional care is also necessary to maintain optimal dental health. Regular dental visits provide an opportunity for the early diagnosis, prevention, and treatment of oral diseases and conditions for people of all ages. Access to professional care is impacted by a wide variety of factors which include: local availability of dental care providers; transportation accessibility; insurance availability and dental care coverage levels; as well as the existence of providers that accept public insurance programs or offer sliding fee and/or pro bono services for the uninsured.

In conclusion, 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 efforts are needed to reduce the disparities between various groups. To reach our vision that *"All Nevadans achieve optimal oral health,"* we must work to eliminate access-to-care issues and to increase and continue to support practices that have been proven to prevent oral diseases. Cost-effective measures exist that can improve the quality of life and the health of our residents.

Oral health is essential to general health and well-being and can be achieved.

Introduction and Timeline of Nevada's Oral Health Milestones

The mouth is our primary connection to the world: it is how we take in water and nutrients to sustain life, our primary means of communication, the most visible sign of our mood, and a major part of how we appear to others. Oral health is an essential and integral component of overall health throughout life and is much more than just healthy teeth. Oral refers to the whole mouth: the teeth, gums, hard and soft palate, linings of the mouth and throat, tongue, lips, salivary glands, chewing muscles, and upper and lower jaws. Not only does good oral health mean being free of tooth decay and gum disease, but it also means being free of chronic oral pain conditions, oral cancer, birth defects such as cleft lip and palate, and other conditions that affect the mouth and throat. Good oral health also includes the ability to carry on the most basic human functions such as chewing, swallowing, speaking, smiling, kissing, and singing.

The mouth is an integral part of human anatomy and plays a major role in our overall physiology. Thus, oral health is intimately related to the health of the rest of the body. For example, mounting evidence suggests that infections in the mouth such as periodontal diseases may increase the risk of heart disease, may put pregnant women at greater risk of premature delivery, and may complicate control of blood sugar for people living with diabetes. Conversely, changes in the mouth often are the first signs of problems elsewhere in the body, such as infectious diseases, immune disorders, nutritional deficiencies, and cancer.

This report summarizes the most current information available on the oral disease burden of people in Nevada. It also highlights groups and regions in our state that are at highest risk of oral health problems and discusses strategies to prevent these conditions and provide access to dental care. Comparisons are made with national data whenever possible and to the *Healthy People 2010* goals when appropriate. For some conditions, national data, but not state data, are available at this time. It is hoped that this information will help raise awareness of the need for monitoring the oral health burden in Nevada and guide efforts to prevent and treat oral diseases and enhance the quality of life of Nevada's residents.

The vision of the state Oral Health Program is that *"All Nevadans Achieve Optimal Oral Health."* To reach this vision we have adopted a mission to improve the oral health of Nevadans through education and prevention. As background on how far we have come in our efforts to address the oral health needs of Nevadans the following ***Milestones in Public Oral Health in Nevada*** timeline is provided.

Milestones in Public Oral Health in Nevada

1979 ★ First class of dental hygiene students graduate from the Community College of Southern Nevada (CCSN)

1994 ★ Saint Mary's establishes the Take Care-A-Van dental sealant program to serve Washoe County and the surrounding rural counties

1996 ★ The meeting, "Developing Partnerships: A Forum on Access to Dental Care for Low-Income Children" in Nevada is convened

1998 ★ The meeting, "Oral Health 2000: Building Effective Community Coalitions" is convened
★ Governor's Maternal and Child Health Advisory Board releases *An Oral Health Action Plan for Nevada*
★ Northern Nevada Dental Coalition for Underserved Populations (CUSP) is established in Washoe County
★ Health Access Washoe County (Reno) starts providing dental services
★ Huntridge Teen Clinic (Las Vegas) starts providing dental services
★ Miles for Smiles mobile program starts delivering dental services in Clark County

1999 ★ Legislature appropriates one-time funding for a Nevada State Health Division Oral Health Initiative
★ Legislature mandates community water fluoridation in counties with a population of 400,000 or more
★ Northern Nevada Dental Health Program is established
★ First class of dental hygiene students starts at Truckee Meadows Community College (TMCC)
★ First class of General Practice Residents starts in Las Vegas

2000 ★ Clark County implements community water fluoridation
★ Healthy Smile/Happy Child early childhood caries prevention program is implemented
★ Prevent Abuse and Neglect through Dental Awareness (P.A.N.D.A.) is established

2001 ★ Nevada is awarded a CDC cooperative agreement to fund an oral health program
★ Legislature enacts licensure by credential for dentists and dental hygienists
★ Legislature enacts Public Health Endorsement for dental hygienists licensed in Nevada
★ First class of dental students starts at the UNLV School of Dental Medicine
★ First class of dental hygiene students graduates from TMCC
★ Crackdown on Cancer program is initiated

2002 ★ Community Coalition for Oral Health (CCOH) is established in Clark County
★ State Oral Health Advisory Committee is established
★ First class of Pediatric Dental Residents starts in Las Vegas
★ Saint Mary's Take Care-A-Van restorative program is established to serve Washoe and the surrounding rural counties

2003 ★ First Basic Screening Survey (BSS) of children enrolled in 3rd grade is completed
★ Health Access Washoe County (Reno) opens a second dental clinic in southwest Reno

2004 ★ First BSS of children enrolled in Head Start is completed
★ First State Oral Health Plan is developed
★ Seal Nevada South and Seal Nevada North programs are established
★ Healthy Smiles Family Dentistry clinic opens in Yerington
★ First CCSN Baccalaureate degree in Dental Hygiene class is enrolled

2005 ★ Regional Oral Health Plans are developed
★ Northeastern Coalition for Oral Health (NECOH) established for Elko, Eureka, Humboldt, Lander, and White Pine Counties
★ Carson/Douglas Oral Health Coalition established
★ Central Nevada Oral Health Coalition established for Esmeralda, Lincoln, Mineral, and Nye Counties
★ First BSS of seniors residing in assisted living facilities is completed
★ First class graduates from the UNLV School of Dental Medicine
★ Orthodontic Residency program opens in Las Vegas
★ Legislature votes to accept Western Regional Examination Board for dental and dental hygienist licensure in Nevada
★ Miles for Smiles mobile program initiated in northeastern Nevada
★ Paradise Park Children's Dental Clinic opens in Las Vegas
★ Oral Health America's Smiles Across America-Las Vegas program established

2006 ★ Churchill, Lyon, Pershing, and Storey Counties Regional Oral Health Coalition (CLPS ROHC) established
★ Nevada Health Centers opens Elko Family Dental Clinic
★ Community Coalition for Oral Health established 501(c)3 status
★ Community Coalition for Oral Health hosts the first annual fundraising event "Art of the Smile"
★ Community Coalition for Oral Health presents the first annual Oral Health Awards
★ Community College of Southern Nevada graduates first class of Baccalaureate Degree in Dental Hygiene students

National and State Objectives on Oral Health

Oral Health in America: A Report of the Surgeon General (the *Report*) alerted Americans to the importance of oral health in their daily lives [USDHHS 2000a]. Issued in May 2000, the *Report* further detailed how oral health is promoted, how oral diseases and conditions are prevented and managed, and what needs and opportunities exist to enhance oral health. The *Report*'s message was that oral health is essential to general health and well-being and can be achieved. However, several barriers hinder the ability of some Americans to attain optimal oral health. The Surgeon General's *Report* concluded with a framework for action, calling for a national oral health plan to improve quality of life and eliminate oral health disparities.

One component of an oral health plan is a set of measurable and achievable objectives on key indicators of oral disease burden, oral health promotion, and oral disease prevention. One set of national indicators was developed in November 2000 as part of *Healthy People 2010,* a document that presents a comprehensive, nationwide health promotion and disease prevention agenda [USDHHS 2000b]. *Healthy People 2010* is designed to serve as a roadmap for improving the health of all people in the United States during the first decade of the 21st century. Included are objectives for key structures, processes, and outcomes related to improving oral health. These objectives represent the ideas and expertise of a diverse range of individuals and organizations concerned about the nation's oral health.

The Surgeon General's report on oral health was a wake-up call, spurring policy makers, community leaders, private industry, health professionals, the media, and the public to affirm that oral health is essential to general health and well-being and to take action. That call to action led a broad coalition of public and private organizations and individuals to generate *A National Call to Action to Promote Oral Health* [USDHHS 2003]. The Vision of the *Call to Action* is "To advance the general health and well-being of all Americans by creating critical partnerships at all levels of society to engage in programs to promote oral health and prevent disease." The goals of the *Call to Action* reflect those of *Healthy People 2010*:

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

National objectives on oral health such as those in *Healthy People 2010* provide measurable targets for the nation, but most core public health functions of assessment, assurance, and policy development occur at the state level. The *National Call to Action to Promote Oral Health* calls for the development of plans at the state and community levels, with attention to planning, evaluation, and accountability [USDHHS 2003]. The *Healthy People 2010* oral health objectives for the nation and the current status of each indicator for the United States and for Nevada are summarized in Table I.

Table I. *Healthy People 2010* Oral Health Indicators, Target Levels, and Current Status in the United States and Nevada

***Healthy People 2010* Objective [Objective Number and Description]**	**Target (%)**	**National[a] (%)**	**Nevada Status (%)**
21-1) Dental caries (tooth decay) experience			
a) Young children, aged 2–4 years	11	23	54[h]
b) Children, aged 6–8 years	42	50	71[i]
c) Adolescents, aged 15 years	51	59	61[j]
21-2) Untreated caries (tooth decay)			
a) Young children, aged 2–4 years	9	20	38[h]
b) Children, aged 6–8 years	21	26	44[i]
c) Adolescents, aged 15 years	15	16	31[j]
d) Adults, aged 35–44 years	15	26	DNC
21-3) Adults with no tooth loss, aged 35–44 years	42	39	59[k]
21-4) Edentulous (toothless) older adults, aged 65–74 years	20	25[b]	19[k]
21-5) Periodontal (gum) diseases, adults aged 35–44 years			
a) Gingivitis, aged 35–44 years	41	48[c]	DNC
b) Destructive periodontal (gum) diseases, aged 35–44 years	14	20	DNC
3-6) Oral and pharyngeal cancer death rates reduction (per 100,000 population)	2.7	3.0[d*]	3.0[l]
21-6) Oral and pharyngeal cancers detected at earliest stages, all	50	35[e]	32[m]
21-7) Oral and pharyngeal cancer exam within past 12 months, aged 40+ years	20	13[d]	DNC
21-8) Dental sealants			
a) Children, aged 8 years (lst molars)	50	28	41[i]
b) Adolescents (1st and 2nd molars) aged 14 years	50	14	48[j]
21-9) Population served by fluoridated water systems, all	75	68[b]	76[n]
21-10) Dental visit within past 12 months			
Children and adults aged 2+ years	56	43[f]	DNC

Healthy People 2010 Objective [Objective Number and Description]	Target (%)	National [a] (%)	Nevada Status (%)
21-11) Use of oral health care system by adult residents in long-term care facilities	25	19[g]	41[o]
21-12) Low-income children and adolescents receiving preventive dental care during past 12 months, aged 0–18 years	57	31[f]	DNC
21-13) School-based health centers with oral health component, K–12 **a) Dental sealants** **b) Dental care**	--	DNC	0
21-14) Community-based health centers and local health departments with oral health components, all	75	61[b]	54
21-15) System for recording and referring infants and children with cleft lip and cleft palate, all	51 (all) states and D.C.	23 states and District of Columbia [g]	Yes
21-16) Oral health surveillance system, all	51 (all) states and D.C.	*Current status not available*	Yes
21-17) Tribal, state, and local dental programs with a public health trained director, all **a) state and local** **b) tribal and Indian Health Service**	--	DNC	DNC

Table I Sources:
U.S. Department of Health and Human Services. *Healthy People 2010, Progress Review, 2000.* Available at www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.xls.

DNC = Data not collected
*Age adjusted to the year 2000 standard population
[a] National data are for 1999–2000, unless otherwise noted.
[b] Data are for 2002.
[c] Data are for 1988–1994.
[d] Data are for 1998.
[e] Data are for 1996–2000.
[f] Data are for 2000.
[g] Data are for 1997.
[h] *Healthy Smile Happy Child Oral Health Survey of Head Start Students – Nevada 2004* [i] *Healthy Smile Happy Child Oral Health Survey of Third-Grade Children – Nevada 2006*
[j] *Crackdown on Cancer Program, School Year 2005-2006.* (Includes data on youth ages 14-18.)

[k] *2005 Nevada BRFSS – Oral Health Module*
[l] *NCI State Cancer Profiles,* www.statecancerprofiles.cancer.gov, accessed 01/17/07.
[m] *Nevada Interactive Health Databases,* http://health2k.state.nv.us/nihds, Nevada data are for 1999-2003
[n] *Water Fluoridation Reporting System (WFRS) Report – Annual Summary – 2006 – State of Nevada*
[o] *Healthy Smiles for Healthy Living Senior Oral Health Survey – Nevada 2005*

The Burden of Oral Diseases

Prevalence of Disease and Unmet Need

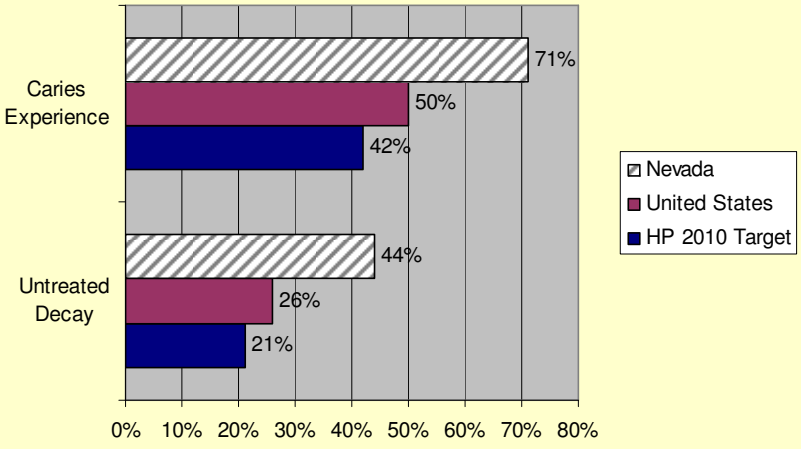
Children

Dental Caries

Nationally, dental caries is four times more common than childhood asthma and seven times more common than hay fever. Dental caries is a disease in which acids produced by bacteria on the teeth lead to loss of minerals from the enamel and dentin, the hard substances of teeth. Unchecked, dental caries can result in loss of tooth structure, inadequate tooth function, unsightly appearance, pain, infection, and tooth loss.

The prevalence of decay in children is measured by assessing caries experience (if they have ever had decay and now have fillings), untreated decay (active unfilled cavities), and urgent care (reported pain or a significant dental infection that requires immediate care). Caries experience and untreated decay are monitored by Nevada as consistent with the National Oral Health Surveillance System (NOHSS), which allows comparisons with other states and with the nation. For comparisons between Nevada, the nation, and the *Healthy People 2010* targets, see Figure I.

Figure 1. Dental Caries Experience and Untreated Decay among 3rd Grade Children in Nevada and 6 to 8-year olds in the United States and the Healthy People 2010 Target



Source: *Healthy People 2010*, 2nd edition. U.S. Dept of Health and Human Services, November 2000.
State Data Source: *Healthy Smile Happy Child Oral Health Survey of Third-Grade Children – Nevada 2006*.

Dental caries is not uniformly distributed in the United States or in Nevada. Some groups are more likely to experience the disease and are less likely to receive treatment. The most recent data for third grade children in Nevada and six to eight year olds in the nation, for selected demographic groups, are summarized in Table II.

Table II. Dental Caries Experience, Untreated Dental Decay, and Urgent Need for Dental Care Among 6 to 8-year-old Children in the United States and Third Graders in Nevada, by Selected Demographic Characteristics

	Caries Experience		Untreated Decay		Urgent Need for Care
	United States[a] (%)	Nevada[f] (%)	United States[a] (%)	Nevada[f] (%)	Nevada[f] (%)
TOTAL	**50**	**71**	**26**	**44**	**6**
Race or Ethnicity					
American Indian or Alaska Native	91[b]	DSU	72[b]	DSU	DSU
Asian	90[c]	DSU	71[c]	DSU	DSU
Native Hawaiian or other Pacific Islander	79[d]	DSU	39[d]	DSU	DSU
Hispanic or Latino	DSU	81	DSU	55	11
Black or African American, not Hispanic or Latino	56[e]	76	39[e]	47	5
White, not Hispanic or Latino	46[e]	63	21[e]	27	4
Sex					
Female	49[e]	74	24[e]	45	6
Male	50[e]	68	28[e]	43	6
Children Eligible for Free or Reduced Lunch Program					
Yes	DNA	80	DNA	52	7
No	DNA	62	DNA	29	3

Table II Sources:
Healthy People 2010, Progress Review, 2000. U.S. Department of Health and Human Services. Available at www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.xls.
DNA = Data not analyzed
DNC = Data not collected
DSU = Data are statistically unreliable or do not meet criteria for confidentiality
[a] All national data are for children aged 6–8 years old, 1999–2000, unless otherwise noted.
[b] Data are for Indian Health Service areas, 1999.
[c] Data are for California, 1993–1994.
[d] Data are for Hawaii, 1999.
[e] Data are from NHANES III, 1988–1994.
[f] *Healthy Smile Happy Child Oral Health Survey of Third-Grade Children – Nevada 2006*.

Cleft Lip and Cleft Palate

Healthy People 2010 goal 21-15 is to increase the number of states and the District of Columbia that have a system for recording and referring infants and children with cleft lips, cleft palates, and other craniofacial anomalies to craniofacial anomaly rehabilitative teams. Cleft lip and cleft palate are reported in about one of 1,000 live births, and isolated cleft palate is reported in about 0.5 of 1,000 live births, making these three conditions among the most common birth defects. Physicians and nurses in hospital nurseries are usually the first to examine newborns and are responsible for noting any congenital anomalies and describing them on the neonatal medical records. Therefore, hospital personnel must understand the definitions of congenital defects and abnormalities of the lips and palate, properly examine newborns, and correctly record any malformations.

Proper diagnosis is important because newborns with cleft lip or cleft palate should be referred immediately to an interdisciplinary core craniofacial team to assess these infants and to counsel the parents prior to discharge. Sending infants home without comprehensive instructions for their parents or caregivers can seriously compromise the health of the infants. Surgical repair of the lips often is performed soon after birth; repair of the palate usually should be performed before age 18 months. Appropriate intervention will minimize the extent to which physical and psychosocial trauma adversely affects child development.

During calendar year 2005, according to Nevada's Birth Outcomes Monitoring System, 44 newborns in Nevada were identified with cleft lip and/or cleft palate, 1.2 of 1,000 live births. Nevada's Children with Special Health Care Needs (CSHCN) Program provides limited assistance for some severe, chronic, or disabling disorders. Cleft Palate is listed as a covered condition for those meeting the program's residential and financial criteria.

Little is known about how to prevent oral-facial clefts. Research suggests that folic acid taken before conception and during the first two months of pregnancy may help prevent cleft lip/palate and isolated cleft palate. Other studies have shown that consumption of alcohol during pregnancy increases the risk of cleft lip/palate and smoking during pregnancy increased the risk for isolated cleft palate. Because some types of medications have been linked to an increased risk of cleft lip/palate, all pregnant women should only use medications prescribed by a physician who knows of the pregnancy and get early and regular prenatal care. Families with a history of cleft lip/palate may wish to discuss the chances of recurrence with a genetic counselor prior to conception.

Adults

Dental Caries

People are susceptible to dental caries throughout their lifetime. Like children and adolescents, adults can experience new decay on the crown (enamel covered) portion of the tooth. But adults can also develop caries on the root surfaces of teeth as those surfaces become exposed to bacteria and carbohydrates as a result of gum recession. In the most recent national examination survey, 85 percent of U.S. adults had at least one tooth with decay or a filling on the crown. Root surface caries affects 50 percent of adults aged 75 years or older [USDHHS 2000a].

Not only do adults experience dental caries, but a substantial proportion of that disease is untreated at any point in time. The prevalence of untreated dental decay in the United States for adults aged 35–44 years or 65–74 years, by selected demographic groups, is summarized in Table III. Nevada data on untreated dental caries in adults is not available.

Table III. Proportion of Adults* with Untreated Dental Caries, by Selected Age Groups and Demographic Characteristics

	Age 35–44 Years	**Age 65–74 Years**
	United States[a] (%)	**United States (%)**
***Healthy People 2010* Target**	**15**	**15**
Sex		
Female	25[b]	14
Male	27[b]	20
Education Level		
Less than high school	51[b]	DNA
High school graduate	34[b]	DNA
At least some college	16[b d]	DNA
TOTAL	**26**	**17**

Table III Sources:
* Excludes edentulous adults (persons without natural teeth).
Aged 35–54 years
U.S. Department of Health and Human Services. *Healthy People 2010, Progress Review, 2000.* Available at www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.xls.
Aged 65–74 years
Health, United States, 2006. Table 75, p. 293.Available at www.cdc.gov/nchs/data/hus/hus06.pdf.
DNA = Data not analyzed
[a] National data are for 1999–2002 unless otherwise indicated.
[b] Data from NHANES III, 1988–1994.

Tooth Loss

A full dentition (set of teeth) is defined as having 28 natural teeth, exclusive of third molars (the wisdom teeth). Most persons can keep their teeth for life with adequate personal, professional, and population-based preventive practices. As teeth are lost, a person's ability to chew and speak decreases and interference with social functioning can occur. The most common reasons for tooth loss in adults are tooth decay and periodontal (gum) disease. Tooth loss also can result from infection, unintentional injury, and head and neck cancer treatment. In addition, certain orthodontic and prosthetic services sometimes require the removal of teeth.

Despite an overall trend toward a reduction in tooth loss in the U.S. population, not all groups have benefited to the same extent. Women tend to have more tooth loss than men of the same age group. African Americans are more likely than whites to have tooth loss. The percentage of African Americans who have lost one or more permanent teeth is more than three times as great as for whites. Among all predisposing and enabling factors, low educational level has often been found to have the strongest and most consistent association with tooth loss.

Data for Nevada and the United States on the percentage of adults who have had no teeth extracted because of disease and the percentage who have lost all of their permanent teeth are presented in Table IV.

Table IV. Proportion of Adults Aged 35–44 Years Who have Lost No Teeth and Proportion of Adults Aged 65–74 Years Who have Lost All Natural Teeth, by Selected Demographic Characteristics				
	Aged 35–44 Years No Tooth Extractions		Aged 65–74 Years Lost All Natural Teeth	
	United States[a] (%)	Nevada[e] (%)	United States[b] (%)	Nevada[e] (%)
***Healthy People 2010* Target**	**42**	**42**	**20**	**20**
Race or Ethnicity				
American Indian or Alaska Native	23[c]	DNA	25[c]	DNA
Asian	DNC	DNA	DSU	DNA
Native Hawaiian and other Pacific Islander	DNC	DNA	DSU	DNA
Hispanic or Latino	DSU	48	20	5
Black or African American, not Hispanic	30	46	34	21
White, not Hispanic	43	65	23	18
Sex				
Female	36	57	24	23
Male	42	62	24	15
Education Level				
Less than high school	15[d]	44	43	28
High school graduate	21[d]	47	23	30
At least some college	41[d]	70	13	12
Disability Status				
Persons with disabilities	DNA	49	34	21
Persons without disabilities	DNA	61	20	18
TOTAL	**39**	**59**	**25**	**19**

Table IV Sources:
**Healthy People 2010, Progress Review, 2000.* U.S. Department of Health and Human Services. Available at www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.xls. Accessed July 26, 2005.
DNA = Data not analyzed
DNC = Data not collected
DSU = Data are statistically unreliable or do not meet criteria for confidentiality
[a] National data are for 1999–2000 unless otherwise indicated.
[b] National data are for 2002 unless otherwise indicated.
[c] Data are for Indian Health Service areas, 1999.
[d] Data are from NHANES III, 1988–1994.
[e] Nevada data are from *2005 Nevada BRFSS – Oral Health Module.*

Periodontal Diseases

Gingivitis is characterized by localized inflammation, swelling, and bleeding gums without a loss of the bone that supports the teeth. Gingivitis is usually reversible with good oral hygiene. Daily removal of dental plaque from the teeth is extremely important to prevent gingivitis, which can progress to destructive periodontal disease.

Periodontitis (destructive periodontal disease) is characterized by the loss of the tissue and bone that support the teeth. It places a person at risk of eventual tooth loss unless appropriate treatment is provided. Among adults, periodontitis is a leading cause of bleeding, pain, infection, loose teeth, and tooth loss [Burt & Eklund 1999].

The prevalence of gingivitis and destructive periodontitis in the United States is summarized in Table V. Nationally, the prevalence of gingivitis is highest among American Indians and Alaska Natives, Mexican Americans, and adults with less than a high school education. Cases of gingivitis likely will remain a substantial problem and may increase as tooth loss from dental caries declines or as a result of the use of some systemic medications. Although not all cases of gingivitis progress to periodontal disease, all periodontal disease starts as gingivitis. The major method available to prevent destructive periodontitis, therefore, is to prevent the precursor condition of gingivitis and its progression to periodontitis. Nevada data on gingivitis and destructive periodontitis has not been collected.

Table V. Proportion of Adults aged 35–44 Years with Gingivitis or Adults Aged 35–44 Years with Destructive Periodontal Disease, by Selected Demographic Characteristics

	Aged 35-44 years Gingivitis	**Aged 35-44 Years Destructive Periodontal Disease***
	United States[a] (%)	**United States[b] (%)**
***Healthy People 2010* Target**	**41**	**14**
American Indian or Alaska Native	96[c]	59[c]
Asian or Pacific Islander	DSU	DSU
Asian	DNC	DNC
Native Hawaiian and other Pacific Islander	DNC	DNC
Black or African American	51	33[d]
White	47	20[d]
Hispanic or Latino	DSU	DSU
Mexican American	61	16
Not Hispanic or Latino	DNA	DNA
Black or African American	51	24
White	45	17

	Aged 35-44 years Gingivitis	Aged 35-44 Years Destructive Periodontal Disease*
	United States[a] (%)	**United States[b] (%)**
***Healthy People 2010* Target**	**41**	**14**
Female	45	14
Male	52	26
Less than high school	60	35[d]
High school graduate	52	28[d]
At least some college	42	15[d]
Persons with disabilities	DNA	DNA
Persons without disabilities	DNA	DNA
TOTAL	**48**	**20**

Table V Sources:
Healthy People 2010, Progress Review, 2000. U.S. Department of Health and Human Services. Available at www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.xls.
DNA = Data not analyzed
DNC = Data not collected
DSU = Data are statistically unreliable or do not meet criteria for confidentiality
* Defined as 1 or more teeth with 4 mm or more loss of periodontal attachment.
[a] National data are from NHANES III, 1988–1994 unless otherwise indicated.
[b] National data are from 1999–2000 unless otherwise indicated.
[c] Data are for Indian Health Service areas, 1999.
[d] Data are from NHANES III, 1988–1994.

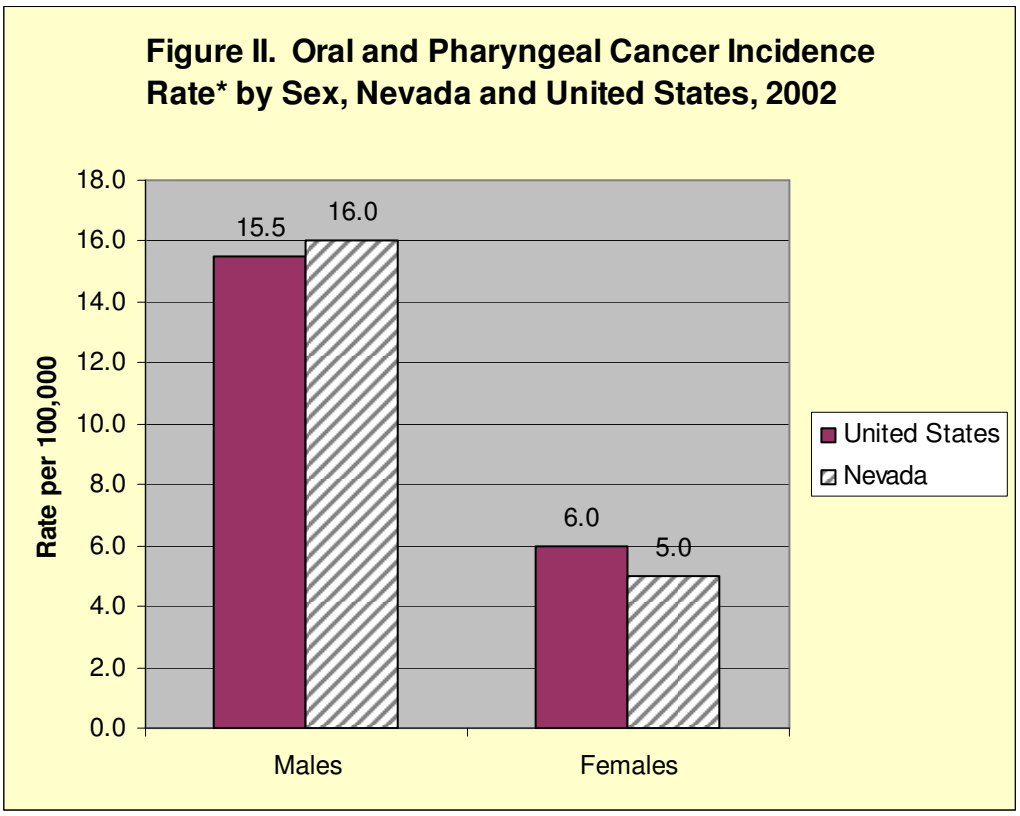
Oral Cancer

Cancer of the oral cavity or pharynx (oral cancer) is the fourth most common cancer in African American men and the seventh most common cancer in white men in the United States [Ries et al. 2004]. According to the American Cancer Society, an estimated 30,990 new cases of oral cancer and 7,430 deaths from these cancers occurred in the United States in 2005. The 2002 age-adjusted (to the 2000 U.S. population) incidence rate of oral cancer in the United States was 10.4 per 100,000 persons. Nearly 90 percent of cases of oral cancer in the United States occur among persons aged 45 years and older. The age-adjusted incidence was more than twice as high among men (15.6) than among women (6.1), and the mortality rate was significantly higher in men than in women (4.1 vs. 1.5).

Survival rates for oral cancer have not improved substantially over the past 25 years. More than 40 percent of persons diagnosed with oral cancer die within five years of diagnosis [Ries et al. 2004], although survival varies widely by stage of disease when diagnosed. The five-year relative survival rate for persons with oral cancer diagnosed at a localized stage is 81 percent. In contrast, the five-year survival rate is only 51 percent once the cancer has spread to regional lymph nodes at the time of diagnosis and is just 29 percent for persons with distant metastasis.

Some groups experience a disproportionate burden of oral cancer. Nationally, African Americans are more likely than whites to develop oral cancer and much more likely to die from it. Cigarette smoking and alcohol are the major known risk factors for oral cancer in the United States, accounting for more than 75 percent of these cancers [Blot et al. 1988]. The use of tobacco, including smokeless tobacco [USDHHS 1986; IARC 2005] and cigars [Shanks & Burns 1998] also increases the risk of oral cancer. Dietary factors, particularly low consumption of fruit, and some types of viral infections also have been implicated as risk factors for oral cancer [McLaughlin et al. 1998; De Stefani et al. 1999; Levi 1999; Morse et al. 2000; Phelan 2003; Herrero 2003]. Radiation from sun exposure is a risk factor for lip cancer [Silverman et al. 1998].

The incidence rates of cancers of the oral cavity and pharynx for Nevada and the United States is shown in Figure II. The oral cancer death rate by sex and race/ethnicity for Nevada and the United States is shown in Table VI.



*Per 100,000, age-adjusted to 2000 U.S. population
Source: National Cancer Institute, SEER, http://statecancerprofiles.cancer.gov/

Table VI. Oral Cavity & Pharynx Cancer – Death Rate – Death Years 1999-2003, by Selected Demographic Characteristics		
	Annual Death Rate over rate period*	
	U.S.	Nevada
***Healthy People 2010* Target**	**2.7**	**2.7**
Female, All races/ethnicities	1.5	1.8
Female, White (Includes Hispanic)	1.5	1.7
Female, Black (Includes Hispanic)	1.8	**
Female, Hispanic (any race)	0.9	**
Male, All races/ethnicities	4.1	4.2
Male, White (Includes Hispanic)	3.8	4.3
Male, Black (Includes Hispanic)	6.9	**
Male, Hispanic (any race)	2.9	**
TOTAL	**2.7**	**2.9**

*Per 100,000, age-adjusted to 2000 U.S. population

**Data has been suppressed to ensure confidentiality and stability of rate estimates.

Source: National Cancer Institute, SEER, www.statecancerprofiles.cancer.gov, accessed 01/17/07.

Based on available evidence that oral cancer diagnosed at an early stage has a better prognosis, several *Healthy People 2010* objectives specifically address early detection of oral cancer: Objective 21-6 is to "Increase the proportion of oral and pharyngeal cancers detected at the earliest stage," and Objective 21-7 is to "Increase the proportion of adults who, in the past 12 months, report having had an examination to detect oral and pharyngeal cancer" [USDHHS 2000b].

Between 1990 and 2003, the number of Nevadans diagnosed with cancer of the oral cavity or pharynx was 1,141. Three hundred and sixty or 32 percent of the cancers were diagnosed at the earliest stage (stage I, localized), 437 at the regional stage, 105 at the distant stage and 239 were unstaged. During the 2005-06 school year, the University of Nevada, Las Vegas (UNLV) School of Dental Medicine (SDM) Crackdown on Cancer program delivered tobacco education to 26,690 of Nevada's middle and high school students. They performed oral cancer screenings on 9,452 high school students with parental consent. Two hundred six oral lesions were identified during the screenings. Approximately, five percent (5%) of the lesions had suspicion levels of five or higher. Suspicion levels indicate severity of the lesion on a scale of one to ten. The more severe a lesion, the greater chance it will progress to oral cancer. Eighty percent (80%) were found in the oral cavity. Forty percent (40%) of the lesions were found among tobacco users and sixty-seven percent (67%) were found in male students. Data for Nevada and the United States on the proportion of oral cancer cases detected at the earliest stage are presented in Table VII.

Table VII. Proportion of Oral Cancer Cases Detected at the Earliest Stage, by Selected Demographic Characteristics		
	United States* (%)	**Nevada [b] (%)**
***Healthy People 2010* Target**	**50[a]**	**50**
Race or Ethnicity		
American Indian or Alaska Native	24	DSU
Asian or Pacific Islander	29	DNA
Asian	DNA	28
Native Hawaiian or Other Pacific Islander	DNA	DNA
Black or African American	21	25
White	37	32
Hispanic or Latino	35	36
Sex		
Female	40	36
Male	33	30
TOTAL	**35**	**32**

Table VI Sources:
Healthy People 2010, Progress Review, 2000. U.S. Department of Health and Human Services.
Available at www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.xls.
DNA = Data not analyzed
*National data are for 1996–2000.
[a] *Healthy People 2010*, 2nd ed. U.S. Department of Health and Human Services, November 2000.
[b] State Data Source*: Nevada Interactive Health Databases,* http://health2k.state.nv.us/nihds/, Nevada data are for 1999-2003

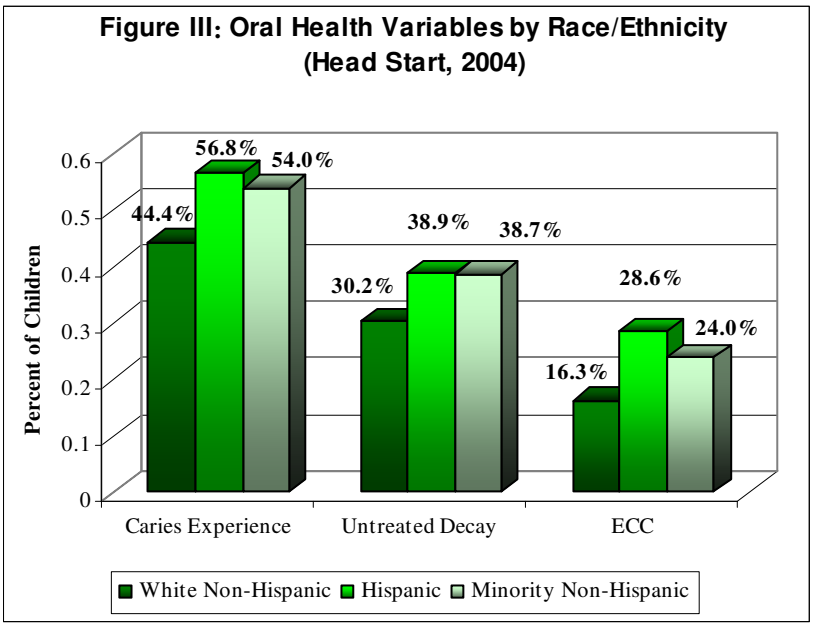
Disparities

Race and Ethnic Groups

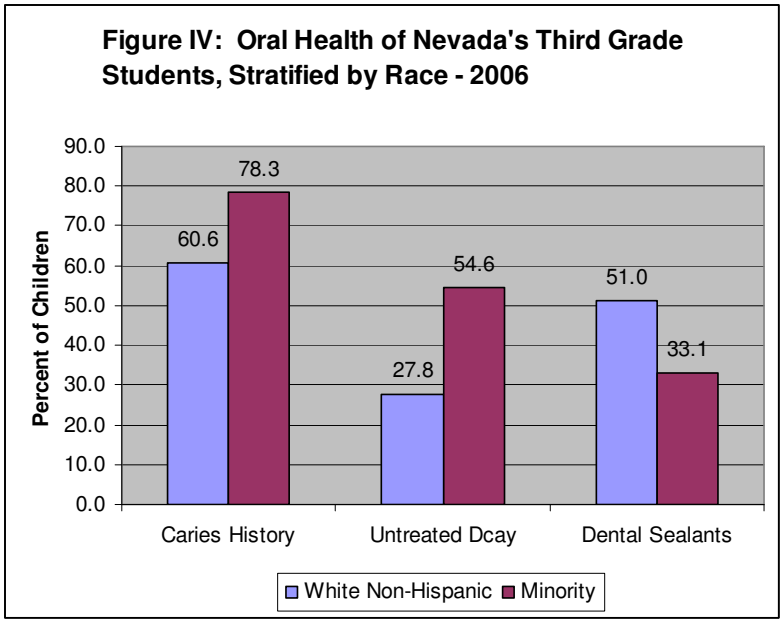
Although gains in oral health status have been achieved for the population as a whole, they have not been evenly distributed across subpopulations. Non-Hispanic blacks, Hispanics, and American Indians and Alaska Natives generally have the poorest oral health of any of the racial and ethnic groups in the U.S. population. As reported above, these groups tend to be more likely than non-Hispanic whites to experience dental caries in some age groups, are less likely to have received treatment for it, and have more extensive tooth loss. African American adults in each age group are more likely than other racial/ethnic groups to have gum disease. Compared with white Americans, African Americans are more likely to develop oral or pharyngeal cancer, are less likely to have it diagnosed at early stages, and experience a worse five-year survival rate.

There is evidence of racial and ethnic disparities in several Nevada subpopulations. For the at-risk population of Head Start children, significant differences were found for all oral health indicators between race/ethnicity categories. Fewer white, Non-Hispanic children had caries

experience, untreated decay, and early childhood caries (ECC) than all other minorities. There was a difference of at least eight percent between whites and minorities for all variables. More Hispanic children had ECC than other minorities but the percentages for other variables were similar (See Figure III).



An open mouth survey conducted during 2005-06 confirms that these disparities are still present as the children attend third grade. A significantly higher proportion of minority children have untreated decay in comparison to white Non-Hispanic children (78% vs. 61%). In addition, a significantly higher proportion of minority children have untreated decay (55% vs. 28%), and a significantly lower proportion of dental sealants (33% vs. 51%). (See Figure IV.) Unfortunately, sample sizes in individual race/ethnic categories were too small to report statistical differences.



According to the 2005-06 data provided by the Crackdown on Cancer program, screenings on high school students between ages 14 and 18 revealed similar outcomes. A higher proportion of Hispanic students (37%) had untreated decay than non-Hispanic students (28%). A smaller proportion of Caucasian students had untreated decay (26%) than other races. In addition significantly more Caucasian (60%) and American Indian (60%) students had protective dental sealants in place than Hispanic (38%), African American (28%) or Asian (40%) students.

Women's Health

Most oral diseases and conditions are complex and are the product of interactions between genetic, socioeconomic, behavioral, environmental, and general health influences. Multiple factors may act synergistically to place some women at higher risk of oral diseases. For example, the comparative longevity of women, compromised physical status over time, and the combined effects of multiple chronic conditions, and side effects from multiple medications used to treat them can result in increased risk of oral disease [Redford 1993].

Many women live in poverty, are not insured, and are the sole head of their household. For these women, obtaining needed oral health care may be difficult. In addition, gender-role expectations of women may affect their interaction with dental care providers and could affect treatment recommendations as well.

Many, but not all, statistical indicators show women to have better oral health status than do men [Redford 1993; USDHHS 2000a]. Women are less likely than men at each age group to have severe periodontal disease. Both African American and white women have a substantially lower incidence rate of oral and pharyngeal cancers than do African American and white men, respectively. However, a higher proportion of women than men have oral-facial pain, including pain from oral sores, jaw joints, face/cheek, and burning mouth syndrome.
A woman's oral health status may also have significant implications for birth outcomes and for their children's oral health. According to a September 2006 article in the Maternal and Child Health Journal entitled *Oral Health in Women During Preconception and Pregnancy: Implications for Birth Outcomes and Infant Oral Health,* a woman's preconception and pregnancy experience with the two most prevalent diseases of the mouth—periodontal disease and dental caries—not only influences her own oral health status but also may increase her risk of other disease such as atherosclerosis, rheumatoid arthritis, and diabetes, impact pregnancy outcome, and her off-spring's risk of developing early and severe dental caries.

Data are emerging that identifies maternal periodontal disease as an infectious risk factor for preterm birth and other adverse outcomes of pregnancy. The evidence supporting interventions before, during, and after pregnancy to reduce caries transmission (mother-to-child) is well documented.

People with Disabilities

The oral health problems of individuals with disabilities are complex. These problems may be due to underlying congenital anomalies as well as inability to receive the personal and professional health care needed to maintain oral health. More than 54 million persons are defined as disabled under the Americans with Disabilities Act, including almost one million children under six years of age and 4.5 million children between six and 16 years of age.

No national studies have been conducted to determine the prevalence of oral and craniofacial diseases among the various populations with disabilities. Several smaller-scale studies show that the population with intellectual disability or other developmental disabilities has significantly higher rates of poor oral hygiene and needs for periodontal disease treatment than the general population, due, in part, to limitations in individual understanding of and physical ability to perform personal prevention practices or to obtain needed services. Caries rates among people with disabilities vary widely among people with disabilities but overall their caries rates are higher than those of people without disabilities [USDHHS 2000a].

In the 2005 BRFSS, significantly more adult Nevadans who reported being "limited in any way" have had some or all of their permanent teeth extracted than those who reported "no limitations" (62 percent versus 41 percent, respectively).

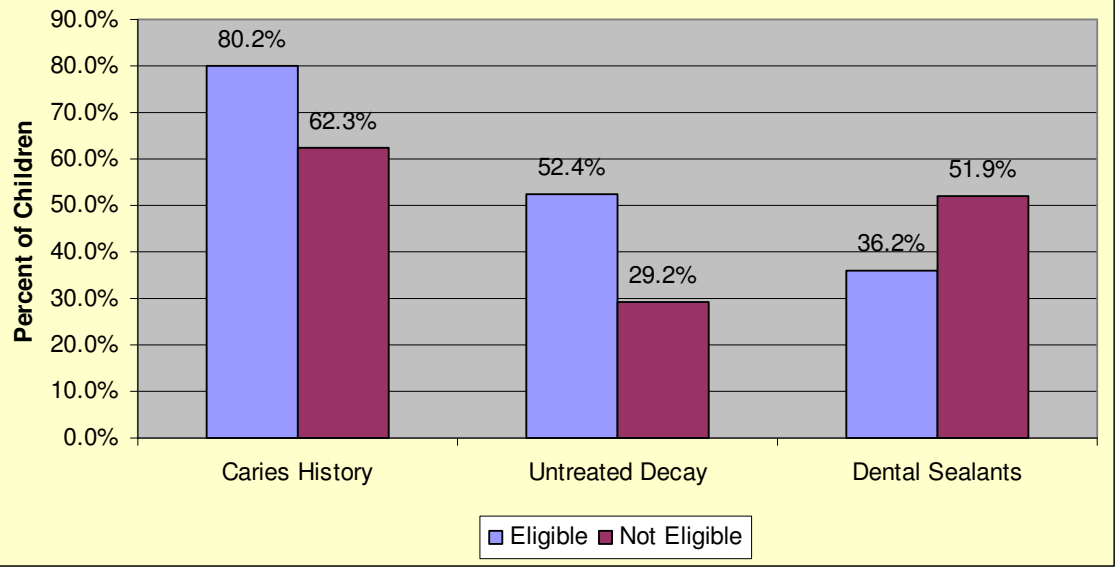
Socioeconomic Disparities

People living in low-income families bear a disproportionate burden from oral diseases and conditions. For example, despite progress in reducing dental caries in the United States, children and adolescents in families living below the poverty level experience more dental decay than do children who are economically better off. Furthermore, the caries seen in individuals of all ages from poor families is more likely to be untreated than caries in those living above the poverty level. Nationally, 50 percent of poor children aged two to 11 years have one or more untreated decayed primary teeth, compared with 31 percent of non-poor children [USDHHS 2000a]. Poor adolescents aged 12 to 17 years in each racial/ethnic group have a higher percentage of untreated decay in the permanent teeth than does the corresponding non-poor adolescent group. The pattern is similar in adults, with the proportion of untreated decayed teeth being higher among the poor than the non-poor. At every age, a higher proportion of those at the lowest income level than at the higher income levels have periodontitis. Adults with some college (15%) have two to two and a half times less destructive periodontal disease than do adults with high school (28%) or with less than high school (35%) levels of education [USDHHS 2000b]. Overall, a higher percentage of Americans living below the poverty level are edentulous (have lost all their natural teeth) than are those living above [USDHHS 2000a]. Among persons aged 65 years and older, 39 percent of persons with less than a high school education were edentulous in 1997, compared with 13 percent of persons with at least some college [USDHHS 2000b]. People living in rural areas also have a higher disease burden because of difficulties in accessing preventive and treatment services.

In Nevada's 2005-06 open-mouth screening of Nevada's third grade students, a question on the parent consent form asked "During the past twelve months, was there a time when your child needed dental care but could not get it at that time?" Over eighteen percent of parents responded "yes." Of these, 56.7 percent stated the primary reason was because they could not afford it, 18.9 percent could not get care because of no insurance and 5.6 percent because the dentist did not accept Medicaid.

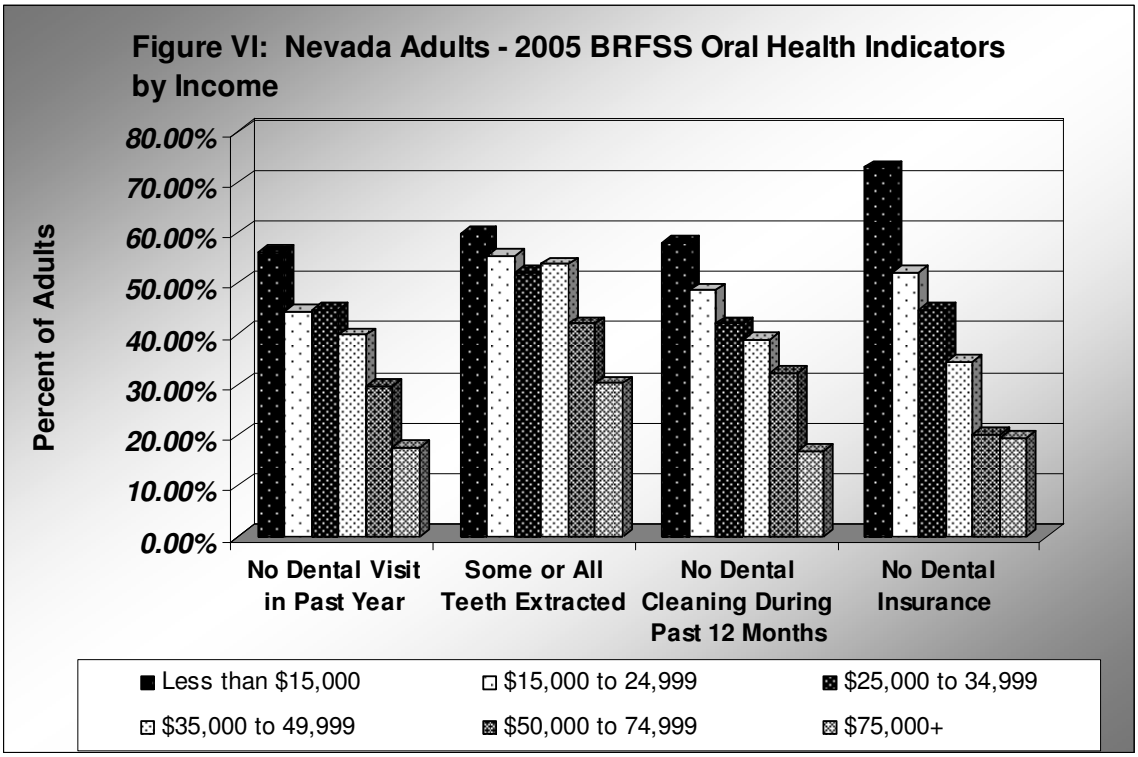
In reporting the results of Nevada's *2006 Healthy Smile Happy Child Oral Health Survey of Third Grade Students,* eligibility for the free and/or reduced price meal program was used as an indicator of overall socio-economic status. A significantly higher proportion of children eligible for the meal program, compared to those not eligible, had a history of caries (80% vs. 62%), had untreated dental decay (52% vs. 29%) , and had a need for urgent dental care because of pain or infection (7% vs. 3%). (See Figure V.) On average, children eligible for the free or reduced lunch program had twice as many teeth with untreated decay as children who were not eligible (1.6 teeth vs. 0.7 teeth).

Figure V: 2006 Nevada's Third Grade Students - Oral Health Status Stratified by Eligibility for the Free/Reduced Lunch Program



As shown in Figure VI, the 2005 Nevada BRFSS reported that adults in the lowest income group exhibit significantly more negative oral health indicators, than adults in the other income levels. Fifty-six percent (56%) of the adults with incomes less than $15,000 had not visited a dentist in the past year and seventy-three percent (73%) did not have any insurance that covered dental care. In contrast, Nevada adults in the highest income group ($75,000 or more) were more than three times as likely to have visited a dentist and nearly four times as likely to have dental insurance. Also, over fifty percent of adults in the two lowest income brackets reported the

primary reason they had not visited the dentist during the past year as "cost" or "cannot get to the dental office."



Societal Impact of Oral Disease

Social Impact

Oral health is related to well-being and quality of life as measured along functional, psychosocial, and economic dimensions. Diet, nutrition, sleep, psychological status, social interaction, school, and work are affected by impaired oral and craniofacial health. Oral and craniofacial diseases and conditions contribute to compromised ability to bite, chew, and swallow foods; limitations in food selection; and poor nutrition. These conditions include tooth loss, diminished salivary functions, oral-facial pain conditions such as temporomandibular disorders, alterations in taste, and functional limitations of prosthetic replacements. Oral-facial pain, as a symptom of untreated dental and oral problems and as a condition in and of itself, is a major source of diminished quality of life. It is associated with sleep deprivation, depression, and multiple adverse psychosocial outcomes.

More than any other body part, the face bears the stamp of individual identity. Attractiveness has an important effect on psychological development and social relationships. Considering the importance of the mouth and teeth in verbal and nonverbal communication, diseases that disrupt their functions are likely to damage self-image and alter the ability to sustain and build social relationships. The social functions of individuals encompass a variety of roles, from

intimate interpersonal contacts to participation in social or community activities, including employment. Dental diseases and disorders can interfere with these social roles at any or all levels. Perhaps due to social embarrassment or functional problems, people with oral conditions may avoid conversation or laughing, smiling, or other nonverbal expressions that show their mouth and teeth.

Economic Impact

Direct Costs of Oral Diseases

Expenditures for dental services in the United States in 2005 were $86.6 billion, 6.3 percent of the total spent on health care that year. A large proportion of dental care is paid out-of-pocket by patients. Nationally in 2005, 44 percent of dental care was paid out-of-pocket, 50 percent was paid by private dental insurance, and six percent was paid by federal or state government sources. In comparison, ten percent of physician and clinical services were paid out-of pocket, 48 percent were covered by private medical insurance, and 35 percent were paid by government sources (Centers for Medicare & Medicaid Services, 2005. See http://www.cms.hhs.gov/NationalHealthExpend/).

In addition, a review of 2005 data on Nevada hospital and emergency room use by patients for whom the primary diagnosis code was dental caries, gum disease or an abscessed tooth indicates that approximately 6,431 patients were seen for these basic dental services, which are more appropriately treated in a dental office or clinic. The estimated total cost of these emergency room visits was $3,963,519. Conditions such as cleft palate, oral cancer and disorders of the tempromandibular (jaw) joint were specifically excluded as these are conditions for which a hospital setting may be considered to be most appropriate. Out-patient data was also excluded from the request because very young children, medically compromised individuals, and individuals with special needs are frequently (and appropriately) treated in an out-patient hospital setting due to the fact that they may need to be under general anesthesia in order to undergo dental treatment.

Indirect Costs of Oral Diseases

Oral and craniofacial diseases and their treatment place a burden on society in the form of lost days and years of productive work. In 1996, the most recent year for which national data are available, U.S. schoolchildren missed a total of 1.6 million days of school as a result of acute dental conditions, which is more than three days for every 100 students [USDHHS 2000a]. Acute dental conditions were responsible for more than 2.4 million days of work loss and contributed to a range of problems for employed adults, including restricted activity and bed days. In addition, conditions such as oral and pharyngeal cancers contribute to premature death and can be measured by years of life lost.

Oral Disease and other Health Conditions

Oral health and general health are integral to each other. Many systemic diseases and conditions including diabetes, HIV, and nutritional deficiencies, have oral signs and symptoms, and these manifestations may be the initial sign of clinical disease and therefore may serve to inform health care providers and individuals of the need for further assessment. The oral cavity is a portal of entry as well as the site of disease for bacterial and viral infections that affect general health status. Recent research suggests that inflammation associated with periodontitis may increase the risk of heart disease and stroke, premature births in some women, difficulty in controlling blood sugar in persons with diabetes, and respiratory infection in susceptible individuals [Dasanayake 1998; Offenbacher et al. 2001; Davenport et al. 1998; Beck et al. 1998; Scannapieco et al. 2003; Taylor 2001]. More research is needed in these areas.

Diabetes and Oral Health

An extensive body of evidence supports diabetes as a risk factor in periodontal disease. Also indirect and direct evidence supports the concept that periodontal infection adversely affects glycemic (blood sugar) control in people with diabetes. Additional oral manifestations of diabetes include burning mouth syndrome, candidiasis, dental caries, gingivitis, salivary dysfunction and taste dysfunction. Approximately one-third of adults with diabetes in the United States are undiagnosed. Therefore, dental professionals can play an important role in diagnosing and managing patients with diabetes.

Diabetes prevalence rates increased in Nevada from 4.2 percent in 1996 to 6.4 percent of the population in 2004. The Nevada Diabetes Prevention and Control Program tracks diabetes care and management data to determine the progress in reducing the complications of diabetes. Current diabetes care and management recommendations include advice to get a dental exam two times each year to prevent gum disease and loss of teeth and to tell your dentist you have diabetes. (Nevada State Health Division, Bureau of Community Health, Chronic Disease Program, Diabetes Prevention and Control Program - http://health.nv.gov/index.php?option=com_content&task=view&id=180&Itemid=308)

Objective 5-15 of the national *Healthy People 2010* objectives is to increase the proportion of adults with diabetes who have an annual dental examination to at least 71 percent (71%). According to the 2005 BRFSS, for those adult Nevadans who have been told by a doctor that they have diabetes, excluding females told only during pregnancy, only 54 percent (54%) visited a dentist within the last 12 months.

Risk and Protective Factors Affecting Oral Diseases

The most common oral diseases and conditions can be prevented. Safe and effective measures are available to reduce the incidence of oral disease, reduce disparities, and increase quality of life.

Community Water Fluoridation

Community water fluoridation is the process of adjusting the natural fluoride concentration of a community's water supply to a level that is best for the prevention of dental caries. In the United States, community water fluoridation has been the basis for the primary prevention of dental caries for 60 years and has been recognized as one of ten great achievements in public health of the 20th century [CDC 1999]. It is an ideal public health method because it is effective, eminently safe, inexpensive, requires no behavior change by individuals, and does not depend on access or availability of professional services. Water fluoridation is equally effective in preventing dental caries among different socioeconomic, racial, and ethnic groups. Fluoridation helps to lower the cost of dental care and helps residents retain their teeth throughout life [USDHHS 2000a].

Recognizing the importance of community water fluoridation, *Healthy People 2010* Objective 21-9 is to "Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water to 75 percent." In the United States during 2002, approximately 170 million persons (67 percent of the population served by public water systems) received optimally fluoridated water [CDC 2004]. As of December 31, 2006, the CDC's National Water Fluoridation Reporting System (WRFRS) described Nevada's fluoridation status as approximately 1,740,898 Nevadans receiving optimally fluoridated water, representing 75.6% of the state's population.

Not only does community water fluoridation effectively prevent dental caries, it is one of very few public health prevention measures that offers significant cost savings to almost all communities [Griffin et al. 2001]. It has been estimated that for every one dollar invested in community water fluoridation there is a savings of approximately $38 in averted costs. The cost per person of instituting and maintaining a water fluoridation program in a community decreases with increasing population size. During SFY06 it is estimated that the cost of providing community water fluoridation in Clark County was $0.194 per person and the estimated savings in averted dental disease was nearly 13 million dollars.

Topical Fluorides and Fluoride Supplements

Because frequent exposure to small amounts of fluoride each day will best reduce the risk of dental caries in all age groups, all people should drink water with an optimal fluoride

concentration and brush their teeth twice daily with fluoride toothpaste [CDC 2001]. For communities that do not receive fluoridated water and persons at high risk of dental caries, additional fluoride measures might be needed. Community measures include fluoride mouth rinse or tablet programs, which typically are conducted in schools. Individual measures include professionally applied topical fluoride gels or varnish for persons at high risk of caries.

Several organizations and medical/dental professionals throughout Nevada are using fluoride varnish. Some of these are briefly listed below:

Medical:

- *Southern Nevada Health District Nurses* – Nurses see children and parents on home visits and in health clinics, perform an oral screening on the children, give oral health information to parents/guardians, and do a fluoride varnish up to four times per year.
- *Family Resource Centers of Northeastern Nevada* - This program involves nurses going into the schools through the Clinic on Wheels (COW) bus.
- *Community Health Nurse in Ely* in conjunction with Little People's Head Start does fluoride varnish on the children at least twice a year.
- *Orvis Health Center in Reno* – This clinic is affiliated with the University of Nevada, Reno and has started applying fluoride varnish on children.
- *Private Physician Offices* – Private practice physicians and health clinics perform fluoride varnish on at-risk children throughout the state.

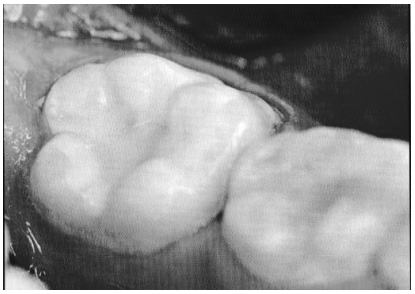
NOTE: 5,219 fluoride varnish applications were submitted for reimbursement to Nevada Medicaid and Nevada Check Up by non-dental providers for child recipients during SFY06.

Dental

- *Indian Health/Tribal Dental Clinics* – Clinics have been using fluoride varnish for over nine years.
- *Nevada Health Centers, Inc. Miles For Smiles Van* – This mobile dental clinic provides services at schools and community locations.
- *Dental and Dental Hygiene Schools* – The students are applying fluoride varnish in the dental/dental hygiene school clinics and in some community locations, like Head Start programs.
- *Private dental offices* – It is probable that most dental offices still use the conventional fluoride treatment (acidulated phosphate gel/foam). The private sector may convert to fluoride varnish over time.

Dental Sealants

Since the early 1970s, the incidence of childhood dental caries on smooth tooth surfaces (those without pits and fissures) has declined markedly because of widespread exposure to fluorides. Most decay among school age children now occurs on tooth surfaces with pits and fissures, particularly the molar teeth.



Pit-and-fissure dental sealants—plastic coatings bonded to

susceptible tooth surfaces—have been approved for use for many years and have been recommended by professional health associations and public health agencies. First permanent molars erupt into the mouth at about age six years. Placing sealants on these teeth shortly after their eruption protects them from the development of caries in areas of the teeth where food and bacteria are retained. If sealants were applied routinely to susceptible tooth surfaces in conjunction with the appropriate use of fluoride, most tooth decay in children could be prevented [USDHHS 2000b].

Second permanent molars erupt into the mouth at about age 12 to 13 years. Pit-and-fissure surfaces of these teeth are as susceptible to dental caries as the first permanent molars of younger children. Therefore, young teenagers need to receive dental sealants shortly after the eruption of their second permanent molars.

Targeting schools in which 50 percent or greater of the children enrolled are eligible for the federal free and reduced meal program (FRP) is considered an effective way to reach large numbers of at-risk children. During SFY06, sixty-eight schools in Nevada with a second grade were served by one of three school-based dental sealant programs. The majority of these schools, fifty-three of the sixty-eight, had 50 percent or greater eligibility for the FRP. In some rural areas, nearby schools which may have had less than 50 percent of their children enrolled in the FRP were added to increase the cost-effectiveness of the sealant team's visit. A total of 8,037 dental sealants were placed in the 2,189 second grade students treated by the three school-based sealant programs operating in Nevada during SFY06.

Racial and geographic disparities exist with regards to sealant prevalence in Nevada's children. Results of the third grade screening showed that while 68 percent of children in Washoe County and 56 percent of children in rural areas have at least one sealant, only 41 percent of children in Clark County have sealants. Adolescent rates show similar geographic trends with only 36 percent of students ages 12-18 in Clark County with sealants. In Washoe County, 66 percent and in the rural areas, 64 percent of the adolescents were found to have one or more dental sealants. In third grade children in Nevada, compared to white non-Hispanic children, a significantly lower proportion of African American and Hispanic children have dental sealants (60% vs. 40% and 36% respectively). Of non-Hispanic adolescents, 51 percent have sealants, while only 36 percent of Hispanics of the same age group have sealants.

Disparities in sealant prevalence in Nevada's third-grade students also exist between those children with dental insurance (49%) and those who are uninsured (27%). Uninsured adolescents (32%) also had significantly fewer dental sealants than those with dental insurance (55%). A comparison of sealant rates for third-grade children eligible for the FRP also shows an economic disparity between those eligible (36%) and their counterparts (52%).

A comparison of the data collected in 2006 and an earlier assessment conducted in 2003 shows that there has been improvement in statewide rates for sealants in third-grade children from 33 percent to 41 percent. Improvement was noted in every demographic group previously reported. For adolescents (ages 12-18) data collected in 2006 showed slight improvement in the prevalence of sealants statewide (48%) from data collected just one year earlier in 2005 (46%).

An exception to this improvement trend is a slight reduction in the prevalence of sealants in adolescents in Washoe County (67% to 66%) and rural areas (69% to 64%). Significantly more adolescents in Clark County had sealants in 2006 than in 2005 (36% vs. 27%).

The *Healthy People 2010* target for dental sealants on molars is 50 percent for eight-year-olds and 14-year-olds. The most recent estimates of the proportion of children with dental sealants on one or more molars are presented in Table VII.

Table VII. Percentage of Children in United States and Nevada with Dental Sealants on Molar Teeth, by Age and Selected Characteristics

Children, Selected Ages	Dental Sealants on Molars			
	21-8a. Aged 8 years		21-8b. Aged 14 years	
	United States, (8-year-olds)* (%)	Nevada, 3rd graders [d] (%)	United States* (%)	Nevada[d] (%)
***Healthy People 2010* Target**	**50**	**50**	**50**	**50**
Race or ethnicity				
American Indian or Alaska Native	63 [a]	DSU	46 [a]	55
Asian or Pacific Islander	DSU	DNA	DSU	39
Asian	DNC	46	DNC	DNA
Native Hawaiian or other Pacific Islander	20 [b]	64	---	DNA
Hispanic or Latino	DSU	36	DSU	36
Black or African American, not Hispanic or Latino	23	40	14	27
White, not Hispanic or Latino	35	60	16	59
Sex				
Female	31	39	12	47
Male	25	42	17	50
Select Populations				
3rd grade students	26 [c]	41	NA	NA
TOTAL	**28**	**41**	**14**	**48**

Table VII Sources:
Healthy People 2010, Progress Review, 2000. U.S. Department of Health and Human Services.
Available at www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.xls.
--- = Data not available
DNA = Data not analyzed
DNC = Data not collected
DSU = Data are statistically unreliable or do not meet criteria for confidentiality
NA = Not applicable
*National data are from NHANES 1999–2000 unless otherwise indicated.
[a] Data are for IHS service areas, 1999.
[b] Data are for Hawaii, 1999.
[c] Data are from NHANES III, 1988–1994.
[d]State Data Source(s):
8-year-olds data from *Healthy Smile Happy Child Oral Health Survey of Third Grade Children – Nevada 2006*
14-year-olds data from *Crackdown on Cancer Program*, School Year 2005-2006. (Includes data on youth 12-18.)

Preventive Visits

Maintaining good oral health takes repeated efforts on the part of the individual, caregivers, and health care providers. Daily oral hygiene routines and healthy lifestyle behaviors play an important role in preventing oral diseases. Regular preventive dental care can reduce the development of disease and facilitate early diagnosis and treatment. One measure of preventive care that is being tracked, as shown in Table VIII, is the percent of adults who had their teeth cleaned in the past year. Having one's teeth cleaned by a dentist or dental hygienist is indicative of preventive behaviors.

Table VIII. Percentage of Adults Aged 18 or Older Who Had Their Teeth Cleaned Within the Past Year

	Median % United States (%)	Nevada[a] Status (%)
Age		
18 – 24 years	70	69
25 – 34 years	66	59
35 – 44 years	69	61
45 – 54 years	71	68
55 – 64 years	73	66
65 + years	72	66
Race		
White	72	68
Black	62	51
Hispanic	65	56
Other	64	67
Multiracial	56	59
Sex		
Male	67	64
Female	72	65
Education Level		
Less than high school	47	48
High school or G.E.D.	65	60
Some post high school	72	67
College graduate	79	74
Income		
Less than $15,000	49	42
$15,000 – 24,999	56	53
$25,000 – 34,999	65	58
$35,000 – 49,999	72	61
$50,000+	81	DNA
$50,000 – 79,999	DNA	68
$75,000 +	DNA	83
Total	**69**	**64**

Table VIII Sources:
Division of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, *Behavioral Risk Factor Surveillance System Online Prevalence Data,* 1995–2004. Available at www.cdc.gov/brfss.
[a] State Data Source: *2005 Nevada BRFSS – Oral Health Module*

Screening for Oral Cancer

Oral cancer detection is accomplished by a thorough examination of the head and neck; an examination of the mouth including the tongue, the entire oral and pharyngeal mucosal tissues, and the lips; and palpation of the lymph nodes. Although the sensitivity and specificity of the oral cancer examination have not been established in clinical studies, most experts consider early detection and treatment of precancerous lesions and diagnosis of oral cancer at localized stages to be the major approaches for secondary prevention of these cancers [Silverman 1998; Johnson 1999; CDC 1998]. If suspicious tissues are detected during an examination, definitive diagnostic tests, such as biopsies, are needed to make a firm diagnosis.

Oral cancer is more common after the age of 60 years. Known risk factors include use of tobacco products and alcohol. The risk of oral cancer is increased six to 28 times in current smokers. Alcohol consumption is an independent risk factor and, when combined with the use of tobacco products, accounts for most cases of oral cancer in the United States and elsewhere [USDHHS 2004a]. Individuals should also be advised to avoid other potential carcinogens, such as exposure to sunlight (a risk factor for lip cancer) without protection (use of lip sunscreen and hats is recommended).

Recognizing the need for dental and medical providers to examine adults for oral and pharyngeal cancer, *Healthy People 2010* Objective 21-7 is to increase the proportion of adults who, in the past 12 months, report having had an examination to detect oral and pharyngeal cancers. Nationally, relatively few adults aged 40 years and older (13%) reported receiving an examination for oral and pharyngeal cancer, although the proportion varied by race/ethnicity (TABLE IX).

Table IX. Proportion[a] of Adults in the United States Who Were Examined for Oral and Pharyngeal Cancer in the Preceding 12 Months

Adults Aged 40 Years and Older	**United States (1998) (%)**
***Healthy People 2010* Target**	20
Race or ethnicity	
American Indian or Alaska Native	DSU[b]
Asian or Pacific Islander	12[b]
Asian	12[b]
Native Hawaiian and other Pacific Islander	DSU[b]
Black or African American only	7[b]
White only	14[b]
2 or more races	DNC
American Indian or Alaska Native; White	DNC
Black or African American; White	DNC
Hispanic or Latino	6

Table IX. Proportion[a] of Adults in the United States Who Were Examined for Oral and Pharyngeal Cancer in the Preceding 12 Months	
Adults Aged 40 Years and Older	**United States (1998) (%)**
Not Hispanic or Latino	14
Black or African American, not Hispanic or Latino	6 [b]
White, not Hispanic or Latino	15 [b]
Sex	
Female	14
Male	12
Education Level	
Less than high school	5
High school graduate	10
At least some college	19
TOTAL	**13**

Table IX Sources:
H*ealthy People 2010, Progress Review, 2000.* U.S. Department of Health and Human Services. Available at www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.xls.

DNC = Data not collected
DSU = Data are statistically unreliable or do not meet criteria for confidentiality
[a] Age adjusted to the year 2000 standard population.
[b] Persons reported only one race or reported more than one race and identified one race as best representing their race.

Tobacco Control

Tobacco use has a devastating effect on the health and well-being of the public. More than 400,000 Americans die each year as a direct result of cigarette smoking, making it the nation's leading preventable cause of premature mortality, and smoking causes over $150 billion in annual health-related economic losses [CDC 2002]. The effects of tobacco use on the public's oral health are also alarming. The use of any form of tobacco — including cigarettes, cigars, pipes, and smokeless tobacco — has been established as a major cause of oral and pharyngeal cancer [USDHHS 2004a]. The evidence is sufficient to consider smoking a causal factor for adult periodontitis [USDHHS 2004a]; one-half of the cases of periodontal disease in this country may be attributable to cigarette smoking [Tomar & Asma 2000]. Tobacco use substantially worsens the prognosis of periodontal therapy and dental implants, impairs oral wound healing, and increases the risk of a wide range of oral soft tissue changes [Christen et al. 1991; AAP 1999].

Comprehensive tobacco control would have a large impact on oral health status. The goal of comprehensive tobacco control programs, such as Nevada's Tobacco Prevention and Education Program is to reduce disease, disability, and death related to tobacco use by:

- Preventing the initiation of tobacco use among young people.
- Promoting quitting among young people and adults.
- Eliminating nonsmokers' exposure to secondhand tobacco smoke.
- Identifying and eliminating the disparities related to tobacco use and its effects among different population groups.

The dental office provides an excellent venue for providing tobacco intervention services. More than one-half of adult smokers see a dentist each year (Tomar et al. 1996) as do nearly three-quarters of adolescents (NCHS 2004). Dental patients are particularly receptive to health messages at periodic check-up visits, and oral effects of tobacco use provide visible evidence and a strong motivation for tobacco users to quit. Because dentists and dental hygienists can be effective in treating tobacco use and dependence, the identification, documentation, and treatment of every tobacco user they see needs to become a routine practice in every dental office and clinic (Fiore et al. 2000). However, national data from the early 1990s indicated that just 24 percent of smokers who had seen a dentist in the past year reported that their dentist advised them to quit, and only 18 percent of smokeless tobacco users reported that their dentist *ever* advised them to quit.

Data from the 2005 BRFSS show that in Nevada only 46 percent of smokers reported having a dental cleaning in the past year, compared to 70 percent of non-smokers. However, there is no data on whether any adults who saw a dentist were counseled on the negative effects of tobacco use on oral health. More smokers had some teeth extracted due to decay or gum disease (58%) than non-smokers (43%).

Table X. Cigarette Smoking among Adults aged 18 Years and Older

	United States [a] **(%)**	**Nevada** [b] **(%)**
***Healthy People 2010* Target:**	12	12
Race or Ethnicity		
American Indian or Alaska Native	35[c]	DNA
Asian or Pacific Islander	13[c]	DNA
Black or African American	21	DNA
White	21	23
Hispanic or Latino	19	19
Sex		
Female	19	21
Male	22	25
Total	**21**	**23**

Table X Sources:
BRFSS 2005 – Data available at http://apps.nccd.cdc.gov/brfss
[a, b] Age-adjusted to the Year 2000 standard population.
[c] H*ealthy People 2010*, 2nd Ed. U.S. Department of Health and Human Services, November 2000.

Table XI. Percentage of Students in High School (Aged 12–21 years) who Smoked Cigarettes or who Used Chewing Tobacco or Snuff One or More of the Past 30 Days				
	Cigarettes United States (%)	**Cigarettes Nevada (%)**	**Chew United States (%)**	**Chew Nevada (%)**
Race				
White	26	21	10	6
Black	13	11	2	8
Hispanic	22	15	5	4
Other	19	18	6	7
Sex				
Female	23	17	2	4
Male	23	20	14	8
Total	23	18	8	6

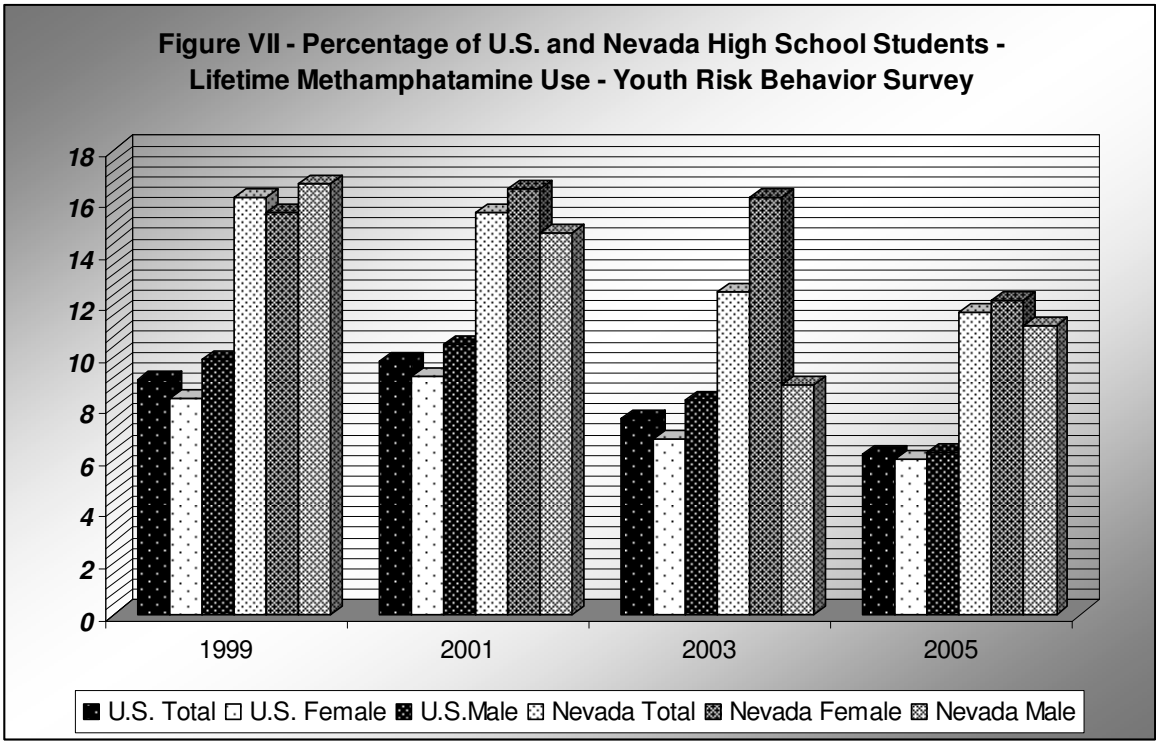
Table XI Sources:
Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System Online, Available at http://apps.nccd.cdc.gov/yrbss/SelQuestyear.asp?cat=2&desc=Tobacco%20Use&loc=XX. (2005 YRBS data used for both U.S. and Nevada statistics.)

During the 2005-2006 school year, 9,064 high school students throughout the state were offered educational presentations, oral screenings, oral hygiene instruction and individual counseling by the Crackdown on Cancer program. The program's surveys of this population determined that most students understand the health implications and the damaging effects of tobacco use. The results from recent screenings show that more tobacco users had untreated decay (39% vs. 30%) and filled teeth (49% vs. 43%) than non-users.

Methamphetamine Use and Oral Health

The oral effects of methamphetamine use can be devastating. Reports have described rampant caries that resembles early childhood caries and is being referred to as "meth mouth." The rampant caries associated with methamphetamine use is attributed to the following: the acidic nature of the drug, the drug's xerostomic (dry mouth) effect, its propensity to cause cravings for high calorie carbonated beverages, tooth grinding and clenching and its long duration of action leading to extended periods of poor oral hygiene.

According to the National Survey on Drug Use and Health (NSDUH), Nevada has the highest prevalence rates for methamphetamine use by persons aged 12 years or older in the United States. In their 2004 report, 10.2 percent of Nevadans surveyed reported ever using methamphetamine, more than 200 percent of the nationwide figure of 4.9 percent. Past year use reported by Nevadans was 2.2 percent and past month use of methamphetamine was 0.9 percent. The national figures were 0.6 percent for past year use and 0.2 percent for past month use. All of our neighboring states also reported higher usage rates than the national statistics.



According to the Youth Risk Behavior Survey (YRBS) for 1999, 2001, 2003 and 2005, Nevada high school students reported using methamphetamines one or more times during their lifetime at rates much higher than the national figures. In 2005, 6.2 percent of high school students surveyed nationally reported that they had used meth vs. 11.7 percent of Nevada's high school students. As reflected in Figure VII, in Nevada from 1999 to 2005 there has been a general reduction in total youth reporting any methamphetamine use. Unfortunately, 2003 to 2005 saw an increase from 8.9 percent to 11.2 percent of Nevada's male students reporting meth use. During the same time period there was a decrease in Nevada's female students reporting they had ever used meth, from 16.2 percent to 12.2, netting a small reduction of 12.5 to 11.7 for all Nevada high school students.

Numerous agencies and organizations in Nevada are working to address the statewide methamphetamine problem, including oral health stakeholders. The planning committee of Nevada's 2006 Statewide Oral Health Summit invited Dr. Mark Mallatt, State Dental Director in Indiana, to speak about Meth Mouth. Dr. Mallatt's presentation was very well received by summit attendees. Methamphetamine use has also been addressed by the regional oral health coalitions and coalition members have explored potential collaborations and activities for education and prevention.

Oral Health Education

Health education and promotion is an important piece of any public health initiative. Oral health education for the community is a process that informs, motivates, and helps people to adopt and maintain beneficial health practices and lifestyles; advocates environmental changes as needed to facilitate this goal; and conducts professional training and research to the same end [Kressin and DeSouza 2003]. Although health information or knowledge alone does not necessarily lead to desirable health behaviors, knowledge may help empower people and communities to take action to protect their health.

Many people do not understand the importance of seeking care or preventive services. Public knowledge, that dental caries is a transmissible disease caused by bacteria and that simple behavior changes can limit the risk of decay, is lacking. The Oral Health Program continues to offer courses relevant to the population concerning improving the oral health of Nevadans. These programs include the following:

Healthy Smile Happy Child
This presentation includes the definition, identification, risk factors, financial impact, and the treatment strategies of ECC. An *ECC Prevention Anticipatory Guidance Manual* with age-specific prevention objectives is included along with English and Spanish handouts. A *Fluoride Varnish Manual* is also provided with application protocol, ordering information, insurance billing information, handouts, and consent forms in English and Spanish. The PowerPoint presentation (short and long versions) and the text are available at http://health.nv.gov/index.php?option=com_content&task=view&id=351&Itemid=555 along with the brochures, *ECC Prevention* - English and Spanish, and *Cavities – Fix Them or Forget Them?* – English and Spanish. There is also an *ECC Prevention Presenter Manual*. This course continues to be presented to a variety of groups – parent groups, Family Resource Centers (staff and parents), health care professionals, Tribal and Indian Health Service, Head Start, Early Intervention Services, and school teachers and nurses. This program was presented to 27 people in SFY2006.

Prevent Abuse and Neglect through Dental Awareness (PANDA)
Prevent Abuse and Neglect through Dental Awareness (P.A.N.D.A.), currently available in 44 states and six countries, provides training courses and materials to dental professionals and others regarding how to recognize, report, and prevent suspected child abuse and neglect. *P.A.N.D.A.* information can be found at http://health2k.state.nv.us/oral/PandaBrocheure.pdf This is also an ongoing course and is presented to similar groups as listed above under Healthy Smile Happy Child, including the Pediatric Dental Residents at University of Nevada School of Medicine. This program was presented to 42 people in SFY2006. (Please note that some of this information is also included in the Oral Screening K-12 course for the school nurses and other health care providers.)

Oral Screening K-12
Due to the prevalence of oral disease in school age children in Nevada, the Nevada State Health Division Oral Health Program offers a free continuing education course, Oral Screening K-12, to school nurses and to other health care providers. The course includes the techniques of

performing an oral cancer screening and how to identify normal and abnormal hard and soft tissue in the mouth. This program was presented to 12 people in SFY2006.

Smiles for Seniors

A new oral health education presentation developed in 2006 is a revision of the "*Smiles for Seniors*" program from the Ohio Dental Association. The revision was developed in cooperation with the Alliance of the American Dental Association, the Community Coalition for Oral Health, the Nevada State Health Division Oral Health Program, and the UNLV SDM. The target audience includes caregivers in long-term care facilities. Between 1990 and 2000 the number of Nevadans age sixty-five and over increased nearly seventy-two percent (72%). In comparison during the same time period the United States saw a twelve percent (12%) increase in population aged sixty-five and over. According to U.S. Census projections, in the United States the population aged sixty-five and over is expected to grow 104% between 2000 and 2030. The U.S. population aged eighty-five and over is expected to grow 127%. During the same time period, Nevada is expected to experience an overall population growth of 114% (1,998,257 – 4,282,102) with a corresponding increase of 264% in those Nevadans aged sixty-five and over and an estimated increase of 386% in individuals aged eighty-five and over. (Source: www.census.gov/population/projections/SummaryTabB1.pdf)

Healthy Teeth for a Healthy Head Start

This is a PowerPoint presentation for Head Start staff and parents covering basic oral health education topics based on the single overriding communication objectives as identified by the Head Start subcommittee of the Community Coalition for Oral Health. All slides are in English and Spanish and there are presenter's notes in English and Spanish. During SFY06 approximately 100 people attended "*Healthy Teeth for a Healthy Head Start*" presentations given by the Oral Health Program's Health Educator. The PowerPoint is available at http://health2k.state.nv.us/oral/headstart/headstart.doc. It has been used independently by many organizations within Nevada and throughout the United States.

Miscellaneous Presentations

Additional oral health education programs have also been developed and presented for various groups including: high school students, tribal conferences, coalitions, dental and dental hygiene students, and Head Start students, parents, and staff.

Nevada's Oral Health Coalitions

Supporting optimal oral health is a complex effort involving many partners. In addition to a statewide Oral Health Advisory Committee (OHAC), Nevada has six regional oral health coalitions:

- Carson City and Douglas Counties' Oral Health Coalition (CDOHC)
- Churchill, Lyon, Pershing and Storey Counties' Regional Oral Health Coalition (CLPS ROHC)
- Clark County's Community Coalition for Oral Health (CCOH)
- Elko, Eureka, Humboldt, Lander, and White Pine Counties' Northeastern Coalition for Oral Health (NECOH)

- Esmeralda, Lincoln, Mineral & Nye Counties' Central Nevada Oral Health Coalition (CNOHC)
- Washoe County's Northern Nevada Dental Coalition for Underserved Populations (CUSP)

All six coalitions are being supported through technical assistance from the Nevada State Health Division Oral Health Program and participation of local oral health stakeholders. Each group shares activities and information with the other groups. Information on the individual coalitions can be obtained at http://www.nvoralhealth.org/.

Provision of Dental Services

Dental Workforce and Capacity

The oral health care workforce is critical to society's ability to deliver high-quality dental care in the United States. Effective health policies intended to expand access, improve quality, or constrain costs must take into consideration the supply, distribution, preparation, and utilization of the health workforce. According to the United States Health Workforce Profile (available at: http://bhpr.hrsa.gov/healthworkforce/), published October 2006, during 2004 the United States averaged 60 dentists, 54 dental hygienists and 92 dental assistants per 100,000 population. In Nevada during 2004 there were about 48 dentists, 56 dental hygienists, and 81 dental assistants per 100,000 population. Nevada saw a 19 percent (19%) increase in the number of dentists between 1991 and 2004. Some sources indicate a possible shortage of dentists but a greater problem may be the distribution of oral health professionals. Too few dentists care for publicly funded and special needs patients. In addition some people (e.g., those in rural and frontier areas) have very limited access to dental care, while others may have no difficulty obtaining oral health care.

Dental Workforce Diversity

One cause of oral health disparities is a lack of access to oral health services among under-represented minorities. Increasing the number of dental professionals from under-represented racial and ethnic groups is viewed as an integral part of the solution to improving access to care [USDHHS 2000b]. Data on the race/ethnicity of dental care providers were derived from surveys of professionally active dentists conducted by the American Dental Association [ADA 1999]. In 1997, 1.9 percent of active dentists in the United States identified themselves as black or African American, although that group constituted 12.1 percent of the U.S. population. Hispanic/Latino dentists made up 2.7 percent of U.S. dentists, compared with 10.9 percent of the U.S. population that was Hispanic/Latino. According to 2003-04 data from the United States Health Workforce Profile, only five percent of new dental (DDS, DMD) degree recipients were Black/African American and only five percent were Hispanic/Latino.

Nevada's Dental Educational Institutions

University of Nevada, Las Vegas School of Dental Medicine

UNLV SDM accepted its inaugural class of student doctors in August, 2002 and currently operates with a capacity of 300 student doctors. In 2004, a state-of-the-art clinical facility opened on the university's Shadow Lane Campus, containing electronic patient records, financial systems, and digital radiographic and photographic images. A contemporary simulation facility allows students to perform common dental procedures on mannequins, providing preclinical teaching and offering unique opportunities for continuing education. In its short history the school as developed a national reputation for innovation in its curriculum. Over 2,900 individuals applied for its inaugural class of 75 students. The inaugural class graduated in May, 2006.

In 2005 the SDM began offering a 24-month graduate program in orthodontics and dentofacial orthopedics to 16 highly-qualified dentists per year. A new 44,000-square-foot building, scheduled for completion in fall 2007, will house additional advanced education/specialty programs in endodontics, pediatric dentistry, oral/maxillofacial surgery and periodontics.

In addition to educating future dentists, the SDM also provides quality, oral health care to Southern Nevadans. For information submitted by the SDM on their clinical services, please see *Appendix A: State, County and Local Oral Health Program Profiles.*

University of Nevada School of Medicine (UNSOM)

Pediatric Dentistry Residency (PDR) Program – This 24 month program has three new positions each year for a total of six residents. The Residency Program in Pediatric Dentistry fulfills the requirements for advanced education in pediatric dentistry as approved by the ADA Commission on Accreditation. Upon completion of all requirement of the program, the university awards a Certificate in the Specialty of Pediatric Dentistry. Interaction occurs with pediatric medical residents while on hospital rotations, the emergency room and conference sessions. Residents provide extensive oral health services for infants, children and adolescents living in several Health Professional Shortage Areas. Specialty services are provided for children with physical or emotional disorders.
Dental General Practice Residency (GPR) – This is a one-year program with an optional second year offered for exceptional residents. Residents develop and refine the skills necessary to provide comprehensive dental care for all population groups in both clinical and hospital settings. Rotations in Family Medicine, Anesthesiology, Emergency Room and Level One Trauma Center are an essential component of the program.
Please see *Appendix A: State, County and Local Oral Health Program Profiles* for descriptions of dental services delivered during SFY06 by these programs.

College of Southern Nevada Dental Hygiene Program

The CSN program began in 1978 at the Cheyenne campus and is currently at the West Charleston Campus of CSN. Twenty-four Associate of Applied Science (AAS) students graduated from the program in May 2006. An additional thirteen students graduated from the Bachelor of Science (BS) degree completion program. CSN transitioned from an AAS degree to an Associate of Science (AS) degree and beginning in fall 2006 all students were working toward the AS degree.

Truckee Meadows Community College

The TMCC Dental Hygiene Program began in 1999. Each fall the program admits 12 students, per class into its two-year program. It has graduated six classes, averaging 11 students each. Students typically score in the top five percentile in the National Dental Hygiene Boards and all graduates have passed the Nevada State Boards. Many graduates have also chosen to take California and Western Regional Boards. The student population has been primarily female and Caucasian with a few female Hispanic, Asian and American Indian students. One male

student has graduated so far, with two more males currently enrolled. TMCC also has a dental assisting program which accepts 24 students per year into its nine-month program.

Both dental hygienist training programs offer services. For clinic information, please see *Appendix A: State, County and Local Oral Health Program Profiles.*

Western Interstate Commission for Higher Education (WICHE) - Health Care Access Program (HCAP)

The Western Interstate Commission for Higher Education (WICHE) is responsible for providing higher educational opportunities and sharing resources to enhance the workforce and economic development in Nevada. WICHE offers educational, financial, and professional assistance to Nevada citizens and provides highly trained, qualified professionals in areas of established need statewide. Through their Health Care Access Program (HCAP) Loan Repayment Program, which is unique to Nevada WICHE, after students have completed their education WICHE may assist them in paying back their school loans. Eligible professional fields for loan repayment are dentistry, mental health, and nursing. Professionals do not have to repay WICHE funds if they successfully complete a two-year service agreement with an underserved population. During the past ten years (1996 – 2006), through its traditional HCAP program, 50 WICHE dentists have provided services in 11 counties and 19 cities across Nevada. Thirteen individuals have completed their service obligation and 37 are currently providing services. An additional 28 dental students are in the pipeline. Program achievements during SFY06 include introduction of the Loan Repayment Program for dentistry in collaboration with the National Health Service Corps (NHSC), with an initial funding of three dentists to provide dental services for underserved individuals.

Use of Dental Services

General Population

Although appropriate home oral health care and population-based prevention are essential, professional care is also necessary to maintain optimal dental health. Regular dental visits provide an opportunity for the early diagnosis, prevention, and treatment of oral diseases and conditions for people of all ages, and for the assessment of self-care practices.

Adults who do not receive regular professional care can develop oral diseases that eventually require complex treatment and may lead to tooth loss and health problems. People who have lost all their natural teeth are less likely to seek periodic dental care than those with teeth, which, in turn, decreases the likelihood of early detection of oral cancer or soft tissue lesions from medications, medical conditions, and tobacco use, as well as from poor-fitting or poorly maintained dentures. Persons with visits to the dentist in the last 12 months are shown in Table XII.

Table XII. Proportion of Persons Aged 2 Years and Older Who Visited a Dentist in the Previous 12 Months[a]		
	Dental Visit in Previous Year	
	United States* (%)	Nevada (%)
Race and ethnicity		
American Indian or Alaska Native	41	DNC
Asian or Pacific Islander	36	DNC
Asian	DNA	DNC
Native Hawaiian or Other Pacific Islander	DNA	DNC
Black or African American	27	DNC
White	46	DNC
Hispanic or Latino	27	DNC
Not Hispanic or Latino	45	DNC
Black or African American, not Hispanic or Latino	28	DNC
White, not Hispanic or Latino	48	DNC
Sex		
Female	39	DNC
Male	46	DNC
Education Level (persons aged 25 years and over)		
Less than high school	24	45 [d,e]
High school graduate	41	61 [d,e]
At least some college	57	70 [d,e]
Disability Status		
Persons with disabilities	30	DNC
Persons without disabilities	43	DNC
Select populations		
Children aged 2 to 17 years	48	DNC
Children at first school experience (aged 5 years)	50 [b]	DNC
3rd grade students	55 [c]	58 [f]
Children, adolescents, and young adults aged 2 to 19 years <200% of poverty level	33	DNC
Adults aged 18 years and older	41	64[d]
Adults aged 65 years and older	40	60 [d]
Dentate adults aged 18 years and older	44	67 [d]
Edentate adults 18 and older	23	25 [d]
Adults aged 18 years and older with disabilities	DNA	61 [d]
TOTAL	**43**	**DNC**

Table XII Sources:
H*ealthy People 2010, Progress Review, 2000*. U.S. Department of Health and Human Services.
Available at http://www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.xls.
<These data are released annually. 2002 national data are available from the Medical Expenditure Panel Survey at http://www.meps.ahrq.gov/.>
DNA = Data not analyzed
DNC = Data not collected

* National data are for 2000.
[a] Age-adjusted to 2000 U.S. standard population.
[b] Data are for children aged 5–6 years.
[c] Data are for children aged 8–9 years.
[d] Source: *2005 Nevada BRFSS – Oral Health Module*
e Data are for adults 18 and older.
[f] 2006 data, reported in *Healthy Smile Happy Child Oral Health Survey of Nevada's Third Grade Students*, January 2006

Children with Special Health Care Needs

An estimated 11 percent of Nevada's children and youth ages 0-17 have special health care needs, defined as the presence of a chronic physical, developmental, behavioral, or emotional condition and a need for health care services beyond what is required by children in general. According to the 2001 National Survey of Children with Special Health Care Needs (CSHCN) dental care was identified by parents as the most frequently unmet health care need for CSHCN in the United States. Poorer children, uninsured children, children with lapses in insurance, and children with greater limitations attributable to disability had significantly greater odds of unmet dental care needs.

Pregnant Women

Studies documenting the effects of hormones on the oral health of pregnant women suggest that 25 percent to 100 percent of these women experience gingivitis and up to ten percent may develop more serious oral infections [Amar & Chung 1994; Mealey 1996]. Recent evidence suggests that oral infections such as periodontitis during pregnancy may increase the risk of preterm or low birth weight deliveries [Offenbacher et al. 2001]. Health education initiatives that target women tend to be more effective during pregnancy, because a woman may be particularly amenable to disease prevention and health promotion interventions that could enhance her health or that of her fetus [Gaffield et al. 2001].

Dental Medicaid and State Children's Health Insurance Program (SCHIP)

Medicaid is the primary source of health care for low-income families, the elderly and disabled persons in the United States. This program became law in 1965 and is jointly funded by the federal and state governments (including the District of Columbia and the Territories) to assist states in providing medical, dental, and long-term care assistance to people who meet certain eligibility criteria. Eligibility is determined on the basis of state and national criteria. Dental services are a required service for most Medicaid-eligible individuals under the age of 21 years, as a required component of the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit. Services for recipients under the age of 21 years must include, at a minimum, relief of pain and infections, restoration of teeth, and maintenance of dental health. Dental services may not be limited to emergency services for EPSDT recipients [Centers for Medicare and Medicaid, 2004].

Nationally, dental expenditures for Medicaid totaled $3.0 billion in 2004, or just over four percent of the $71.8 billion spent on dental services nationally [Centers for Medicare and Medicaid Services 2004]. According to the Nevada DHCFP Fact Book 2007, for FY06 dental provider payments totaled $14,871,312.80, approximately 1.2 percent of the state total provider payments.

In Nevada during 2006 it is estimated that 172,722 individuals or 6.6 percent of the population were enrolled in Medicaid and 27,542 children and youth were enrolled in SCHIP/Nevada Check Up. In Nevada, Medicaid dental coverage is dependent on the recipient's eligibility category. Medicaid covers full dental services for children and for adults services are limited to emergency and palliative care which includes partials and full dentures. SCHIP/Nevada Check Up provides low cost, comprehensive health insurance for low-income children from birth through age 19 who do not qualify for Medicaid and do not have private insurance. Dental services are covered through this program. During SFY06 the two programs covered approximately 114,465 dental services, primarily for children.

The Nevada Division of Health Care Financing and Policy (DHCFP) which oversees the Medicaid and SCHIP programs cites the following program achievements during the period of July 1, 2005 through June 30, 2006: increased the number of children who received sealants and fluoride treatments; HMOs expanded the number of dental providers to achieve increased access to dental care for recipients; extension of managed care dental to urban Washoe County included in new HMO contracts; additional dentists, including an orthodontist agreed to serve on the Dental Clinical Review Advisory Subcommittee. Program challenges currently faced are that relatively few dentists in the Nevada rural areas have been willing to see Medicaid recipients and dispelling the perception that Medicaid dental providers are buried in bureaucracy.

Community and Migrant Health Centers and other State, County and Local Agencies

Community Health Centers (CHCs) provide family-oriented primary and preventive health care services for people living in rural and urban medically underserved communities. CHCs exist in areas where economic, geographic, or cultural barriers limit access to primary health care. The Migrant Health Program (MHP) supports the delivery of migrant health services, serving more than 650,000 migrant and seasonal farm workers. Among other services provided, many CHCs and Migrant Health Centers provide dental care services.

Healthy People 2010 objective 21-14 is to "Increase the proportion of local health departments and community-based health centers, including community, migrant, and homeless health centers, that have an oral health component" [USDHHS 2000b]. In 2002, 61 percent of local jurisdictions and health centers had an oral health component [USDHHS 2004b]; the *Healthy People 2010* target is 75 percent.

Many organizations throughout the state are providing education, prevention and treatment services to improve the oral health of Nevada residents. These organizations and programs are essential to achieving the intermediate and long-term outcomes described in this report.

The following is a list of programs who have submitted a program profile of their oral health activities. The table below provides the program name, geographic area served and indicates what type of oral health services are provided and which populations each program primarily serves. *(For a complete description of an individual program, including contact information, please see Appendix A.)*

State, County and Local Oral Health Programs

Program Name:	Primary Geographic Service Area:	Types of Dental Services:					Primary Age Groups:			
		Prevention	Screening	Treatment / Restorative	Public Education	Other (See Appendix A for details)	Early Childhood (ages 0-5)	School-age children and youth (ages 6-18)	Non-senior adults (ages 19-59)	Seniors (ages 60 and over)
1DAY	Clark County			√			√	√		
Clinic On Wheels	Southern Nevada		√		√		√	√		
College of Southern Nevada – Dental Hygiene Program	Southern Nevada	√	√	√	√	√		√	√	√
Crackdown on Cancer	Statewide		√		√			√		
Family Resource Centers of Northeastern Nevada - Fluoride Varnish Program	Elko County	√	√				√	√		
Health Access Washoe County (HAWC), Inc.	Northern Nevada	√	√	√			√	√	√	√
Healthy Smiles Family Dentistry	Lyon County	√	√	√	√		√	√	√	√
Huntridge Teen Clinic Dental Clinic	Clark County	√	√	√	√			√		
KLVX Ready to Learn "Reading for Smiles"	Clark County				√		√	√		
Nevada Dental Association Foundation for Oral Health	Statewide	√	√	√	√		√	√	√	√
Nevada Health Centers, Inc. Miles for Smiles Program	Southern Nevada, North East and North Central Nevada	√	√	√	√		√	√	√	√
Northern Nevada Dental Health Program	Northern Nevada	√	√	√	√	√	√	√		
Paradise Park Children's Dental Clinic	Clark County (Las Vegas)	√	√	√	√		√	√		
ReachOut Healthcare America	Clark County	√		√	√			√		
Saint Mary's Dental Sealant Program	Northern Nevada (Limited)	√	√		√			√		

Program Name:	Primary Geographic Service Area:	Types of Dental Services:					Primary Age Groups:			
		Prevention	Screening	Treatment/ Restorative	Public Education	Other (See Appendix A for details)	Early Childhood (ages 0-5)	School-age children and youth (ages 6-18)	Non-senior adults (ages 19-59)	Seniors (ages 60 and over)
Saint Mary's Outpatient Oral Surgery Program	Northern Nevada	√	√	√			√	√		
Saint Mary's Restorative Dental Outreach	Washoe and Lyon Counties	√	√	√	√		√	√	√	√
Schurz Service Unit Dental Program	Ft. McDermitt, Pyramid Lake, Walker River, Fallon	√	√	√	√		√	√	√	√
Seal Nevada South	Southern Nevada	√	√		√			√		
Southern Nevada Health District	Clark County	√	√		√		√	√		
St. Rose Dominican Hospitals – Positive Impact Program	Clark County	√	√	√	√	√		√		
Truckee Meadows Community College – Dental Hygiene Program	Reno/Sparks	√	√				√	√	√	√
University of Nevada School of Medicine – Department of Dental Medicine, Dental General Residency (GPR) and Pediatric Dentistry Residency (PDR)	Clark County	√	√	√	√		√	√	√	√
UNLV SDM	Clark County	√	√	√	√		√	√	√	√
UNLV SDM – Orthodontic Residency Program	Clark County					√		√	√	
Walker River Dental Clinic	Schurz / Northern Nevada	√	√	√	√		√	√	√	√
Washoe Tribal Health Center	Douglas County	√	√	√	√		√	√	√	√
Yerington Paiute Tribal Dental Clinic	Yerington, Smith Valley, Mason, Silver Springs	√	√	√	√	√	√	√	√	√

Conclusions

Nevada's rapid population growth is severely impacting many organizations across the state, including public oral health care providers. Nevada's population has more than doubled since 1990 from 1,201,833 to 2,623,050 in 2006. According to U.S. Census projections, Nevada is expected to continue having record population growth including an extremely large increase in the population 65 and older. Currently dental services for adults, other than privately insured individuals, are extremely limited. While we have experienced a considerable increase in the number of dentists in Nevada in recent years, there are still significant numbers of our population that are underserved in our rural, frontier and urban communities.

Improving oral health disparities and increasing access to dental care in Nevada is dependant on many factors. We are continuously updating our surveillance and data collection systems to be able to measure the state's oral health needs. Changes in Nevada's Medicaid operations are intended to increase access to care for those with public insurance coverage. Expanding policies on fluoride varnish applications have opened the doors for utilization of and communication with other health care providers. Numerous opportunities exist for continued and new partnerships in improving the oral health of Nevadans. Examples of new alliances include resource sharing with other chronic care groups (i.e., diabetes patient educators, special needs advocates) and other state and local organizations that focus on prevention (i.e., tobacco control and methamphetamine prevention task forces).

Partnerships among dental providers, community health organizations, patient advocates, schools and others are providing many dental care services to local communities. These groups are filling necessary gaps in service and identifying needs for future interventions. 2005-06 was a year of exceptional accomplishment for many organizations around the state working to improve oral health in Nevada. A solid foundation has now been laid that can make a measurable difference in improving oral health if it can be sustained and further strengthened in the years to come.

To reach our vision that "*All Nevadans achieve optimal oral health,*" we must work to eliminate access-to-care issues and to increase and continue to support practices that have been proven to prevent oral diseases. Cost-effective measures exist that can improve the quality of life and the health of our residents.

Oral health is essential to general health and well-being and can be achieved.

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Appendix A: State, County and Local Oral Health Program Profiles

Many organizations throughout the state are providing outstanding education, prevention and treatment services to improve the oral health of Nevada residents. These organizations and programs are essential to achieving the intermediate and long-term outcomes described in this report.

This appendix contains a profile of each local oral health program identified by the state Oral Health Program (OHP), which responded to a request for information on their activities for the time period of July 1, 2005 – June 30, 2006. Each profile was prepared by a representative of the organization and program being described.

1DAY

Lead organization:	Southern Nevada Dental Society
Other partner organizations involved in the program:	Community Coalition for Oral Health UNLV School of Dental Medicine
Geographic area served:	Clark County
Primary contact person:	Robert Anderson
Address:	8863 W. Flamingo Rd. #101 Las Vegas, NV 89147
Phone number:	702-733-8700 702-733-6062 (fax)
Email address	S_nds@hotmail.com

Types of services provided related to oral health *(check all that apply)*:

- ☐ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☐ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☐ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Accept referrals from participating agencies, making appointments with volunteer dentists.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 556

Program achievements during the period July 1, 2005 – June 30, 2006:

Conducted two half-day clinics, treating a total of about 250 children, providing screening, radiology, prophy and restorative where needed. This was in addition to normal operations. The larger of the two events was held in February 2006 and was part of ADA's Give Kids A Smile nationwide event.

Challenges currently faced in conducting program activities:

Dependable, consistent funding.

Clinic On Wheels

Lead organization:	Clinic On Wheels
Other partner organizations involved in the program:	Classrooms On Wheels
Geographic area served:	Southern Nevada
Primary contact person:	Susan Brooks
Address:	2039 E. Lake Mead Blvd. North Las Vegas, NV 89030
Phone number:	702-870-0819

Types of services provided related to oral health *(check all that apply)*:

- ☐ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☐ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

***No additional details were provided by the program.*

College of Southern Nevada (CSN) - Dental Hygiene Program

Lead organization:	College of Southern Nevada
Other partner organizations involved in the program:	None
Geographic area served:	Southern Nevada
Primary contact person:	Doreen Craig, RDH, MA - Program Director
Address:	6375 W. Charleston Blvd., WlA Las Vegas, NV 89146
Phone number:	702-651-5593 702-651-7401 (fax)
Email address	doreen.craig@csn.edu

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☑ Other (Please specify): Tobacco cessation, Nutrition counseling

Primary age group(s) targeted by the program *(check all that apply)*:

- ☐ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

CSN Dental Hygiene students provide clinical services including: health assessment, radiographs, intra-oral and extra-oral assessment, periodontal and dental hygiene diagnosis, non-surgical periodontal therapy, preventive chemotherapeutics, tobacco cessation, nutritional counseling, oral health education, sealant and fluoride application, pain control including local anesthesia and nitrous oxide sedation, and appropriate medical and dental referrals. CSN DH students perform public health dental hygiene services with off-campus community partners such as: the State Women's Correctional Facility, Seal Nevada South, Miles For Smiles, the Tobacco Cessation bus, various long-term care facilities, Clark County School District, and numerous other programs for at-risk populations.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 1,500

Units of service:

1. Assessment and treatment planning ..... 1,500 patients
2. Periodontal therapy ..... 1,500 patients
3. Radiographic surveys ..... 3,240 BWX and/or FMX
4. Pit and fissure sealants ..... 600 sealants

Program achievements during the period July 1, 2005 – June 30, 2006:

Graduation of the first Bachelor's Degree in Dental Hygiene class from CSN in May, 2006. All CSN second year students passed National Boards; all but one passed WREB; all but two passed Nevada State Board. The first year class sent four students to ADHA to present an original research poster. Two full-time faculty members were hired.

Challenges currently faced in conducting program activities:

Although we have added two new full-time dental hygiene faculty (we were short three), we have lost two dentists, who retired; we lost one full-time position due to a hiring freeze. The Program Director's position was permanently filled; we have a new Department Chair and Dean. Adjusting to all the changes and losing one full-time position are our current challenges. Also, CSN has outgrown its technological capacity and we are dealing with computer problems almost daily.

Crackdown on Cancer

Lead organization:	UNLV School of Dental Medicine
Other partner organizations involved in the program:	Referral to community clinics or local dentists as well as cessation service referrals (Quitline)
Geographic area served:	Nevada (statewide), 16 of the 17 counties
Primary contact person:	Dr. Christina A Demopoulos, DDS
Address:	1001 Shadow Lane, M/S 7410 Las Vegas, NV 89106-4124
Phone number:	702-651-5587
Email address	demopoul@unlv.nevada.edu

Types of services provided related to oral health *(check all that apply)*:

- ☐ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☐ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☐ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Crackdown on Cancer provides tobacco education to students in high school and middle school. It also provides oral cancer screenings to high school students with parental consent as well as information on the self-exam process. Individual counseling is provided for students that use tobacco. Students at risk for juvenile diabetes are given supportive literature to share with family members. Referrals are also given for cessation services.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: ..... 9,452 screenings
..... 26,690 educated

Units of service:

1. Number of students at presentations 26,690
2. Number of presentations 633
3. Number of students counseled 1,043
4. Number of students screened 9,452

Program achievements during the period July 1, 2005 – June 30, 2006:

The program was offered to all ninety public high schools and 107 middle schools throughout the state of Nevada. Seventy-one high schools and twenty-nine middle schools participated along with several Boys & Girls Clubs and private schools. In addition to providing tobacco education and oral cancer screenings, both teams participated in health fairs and provided oral hygiene instruction to young kids. Crackdown on Cancer was successful in scheduling new schools along with a few new venues to provide its services.

Challenges currently faced in conducting program activities:

The main challenge in conducting program activities is scheduling the schools when there are other events either in the community or at the school. Creative scheduling and a flexible work schedule have helped us overcome this challenge.

Family Resource Centers of Northeastern Nevada – Fluoride Varnish Program

Lead organization:	Family Resource Centers of NEN
Other partner organizations involved in the program:	
Geographic area served:	Elko County
Primary contact person:	
Address:	1401 Ruby Vista Dr. Elko, NV 89801
Phone number:	775-753-7352 775-777-9102 (fax)
Email address	nursefrcnen@hotmail.com

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☐ Treatment/restorative services
- ☐ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Provide early detection of oral health disease and preventative measures (fluoride varnish) for preschool children in Elko County.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 412

Units of service:

1. Fluoride Varnish (unduplicated) 412
2. Fluoride Varnish (duplicated) 278
3. Referrals for Treatment 69
4. Total Screenings & fluoride Varnish ..... 690 (duplicated and unduplicated)

Program achievements during the period July 1, 2005 – June 30, 2006:

Outreach to remote locations such as Owhyee, Independence and Patan Ranch with small schools and no services.

Challenges currently faced in conducting program activities:

Will continue for 06-07

Health Access Washoe County (HAWC), Inc.

Lead organization:	HAWC, Inc.
Other partner organizations involved in the program:	
Geographic area served:	Northern Nevada
Primary contact person:	Diane Parigini
Address:	1055 S. Wells Ave., Suite 120 Reno, NV 89502
Phone number:	775-329-6300 x 113 775-348-3896 (fax)
Email address	dparigini@hawcinc.org

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☐ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Diagnostically: We do x-rays, perio checks and dental exams. Prevention: Cleanings, sealants and fluoride treatments. Oral Health Care: Instruction given in clinic, at health fairs and in schools. Restorative: Filling, Crowns and root canals. We also do extractions and dentures

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 6,671

Units of service:

1. Oral exams.....6,571
2. Prophylaxis 6,626
3. Sealants.....1,214
4. Fluoride Treatments.....5,889
5. Oral Surgery.....3,941
6. Rehab Services 2,007
7. Restorative Services.....4,188

Program achievements during the period July 1, 2005 – June 30, 2006:

Receipt of RWJ Foundation grant to begin Senior Dental Health Program and provided nearly 18,000 dental visits.

Challenges currently faced in conducting program activities:

Cost of overhead vs. reimbursement is a problem, costs exceed payments. Other foundations and grant support are needed to break even.

Healthy Smiles Family Dentistry

Lead organization:	Great Basin Primary Care Association
Other partner organizations involved in the program:	
Geographic area served:	Lyon County
Primary contact person:	Marlena Booth, Dental Director
Address:	120 Bovard St. Yerington, NV 89447
Phone number:	775-463-1800 775-463-4810 (fax)
Email address	Mbooth @gbpca.org

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues

☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Our clinic in Yerington is accepting Medicaid, Nevada Check-Up, and we have a sliding fee schedule for uninsured patients. We are doing oral health screenings in schools in Lyon County. We also do screenings in our local hospital (Long Term Care) and Assisted Living facility in Yerington.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 4,941
-Senior 252
-18 yrs. & under 616
-Medicaid 1,520
-Nevada Check-Up 497

Units of service:

1. Sealants applied 647
2. Cleanings and Fluoride applied 1,438
3. Restorative 1,836
4. Education Classes conducted 10
5. Patients Screened 253

Program achievements during the period July 1, 2005 – June 30, 2006:

Screenings at schools, Long Term Care-SLMC, and Assisted Living Facility in Yerington. We tripled the patients we served this past year. Education to parents, senior citizens, pregnant women on oral health issues. Our office is treating a lot of patients in Lyon County and surrounding counties. I believe that we are making a difference in a lot of people's lives by making it accessible to get oral health care.

Challenges currently faced in conducting program activities:

Outreach to rural areas with no Medicaid providers or low income areas. We want to reach out this next year to schools that have not had screenings or sealants performed on students in Lyon County. The biggest challenge still is getting permission slips signed and returned from parents. Access to oral health care still continues to be one of the number one problems in the rural areas.

Huntridge Teen Clinic Dental Clinic

Lead organization:	The Huntridge Teen Clinic, Inc.
Other partner organizations involved in the program:	none
Geographic area served:	Clark County
Primary contact person:	Steve Williams, Executive Director
Address:	2100 South Maryland Parkway, No. 1 Las Vegas, NV 89104
Phone number:	702-732-8776 702-732-8521 (fax)
Email address	vegaslincicomes@yahoo.com or huntridge@lvcoxmail.com

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☐ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

The Huntridge Teen Clinic's dental clinic was established in 1998. It serves youth 12-18 who are uninsured and ineligible for services at county agencies. Dental services include oral health screenings and education, preventive care (prophys, fluoride treatments, sealants), restorative services including fillings, root canal treatments, extractions and referrals to an oral surgeon, when appropriate.

The dental clinic requests a donation of $10 for each dental visit. There are no other charges for dental services. These are kids from families with meager financial resources, no insurance and few options. The Huntridge Teen Clinic represents, in most cases, their only hope for the basic dental care most people's kids take for granted.

The dental clinic has four fully-equipped dental operatories. A dental hygienist is employed by the Clinic and has been authorized by the Nevada Board of Dental Examiners to provide sealants as well as initial triage.

The hygienist also performs cleaning, scaling, polishing, fluoride treatment and oral health education and counseling.

For those procedures that require a licensed dentist, the Clinic relies on a pool of approximately 35 volunteer dentists. These individuals unselfishly donate their time and skills to serve disadvantaged teens at the Clinic, and occasionally at their business locations. The Clinic employs dental assistants to assist volunteer dentists chairside when they work at the Clinic.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 790

Units of service:

1. Oral Health Instruction (direct chairside) 650
2. Prophy/Fluoride Treatment 454
3. Fillings (surfaces) 516
4. Root Canal Treatments 30
5. Extractions 99
6. Sealants 687

Program achievements during the period July 1, 2005 – June 30, 2006:

The expansion and remodeling project provided through the Chamber of Commerce Leadership Las Vegas Team was completed. The remodeled facility has four dental treatment rooms, individual and panoramic x-ray capabilities, and is currently initiating a computerized appointment and patient data system. The program placed 2.5 times as many sealants as last year and provided over 2.5 times as many fillings as last year. In July 2005, the Nevada Board of Dental Examiners approved The Huntridge Teen Clinic as a continuing education provider for up to six hours of continuing education for volunteer dentists.

Challenges currently faced in conducting program activities:

Recruiting sufficient numbers of volunteer dentists to meet the extreme needs of at-risk teen patients is the most significant challenge to the program.

KLVX Ready to Learn "Reading for Smiles"

Lead organization:	Vegas PBS
Other partner organizations involved in the program:	Clark County School District COW Bus (Classroom on Wheels) Family to Family Parent Resource Centers
Geographic area served:	Clark County
Primary contact person:	Candace Thompson
Address:	4210 Channel 10 Dr. Las Vegas, NV 89119

Phone number:	702-799-1010 x5420 702-799-2960 (fax)
Email address	cthompson@klvx.org

Types of services provided related to oral health *(check all that apply)*:

- ☐ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☐ Screening for caries or other oral disease
- ☐ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

KLVX's Reading for Smiles program is designed to help educate children and their families about good dental hygiene. Workshops include interaction between parent/child, video clips, songs, books and activities. Participants receive a dental resource bag with a book, toothbrush, flossers, and more.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 2,397

Units of service:

1. Children reached..... 1,551
2. Teachers Trained 93
3. Parents Trained..... 753
4. Books, toothbrushes, flossers, and resource materials distributed 3,028

Program achievements during the period July 1, 2005 – June 30, 2006:

Collaborative partnership with CCOH (Community Coalition for Oral Health). Development of educational video for Give Kids A Smile Day in Las Vegas. Integration of dental health education into other workshops (i.e., Nutrition, Exercise, etc.).

Challenges currently faced in conducting program activities:

Spanish resource materials. Funding for staff/trainers.

Nevada Dental Association Foundation for Oral Health

Lead organization:	Nevada Dental Association
Other partner organizations involved in the program:	Southern Nevada Dental Society Northern Nevada Dental Society Northeast Nevada Dental Society
Geographic area served:	Nevada
Primary contact person:	Robert H. Talley, DDS
Address:	8863 W. Flamingo Rd. Ste. 102 Las Vegas, NV 89147
Phone number:	702-255-4211 702-255-3302 fax
Email address	nda@lasvegas.net

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Foundation that solicits funds from members and friends of the dental association that are used to support access to care programs, payment of dentists to work in underserved areas, and to support dental education.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: .....
(Not available as the exhibit has not arrived yet. ..... Est. 16,000)
(6,000 at museum and 10,000 at ADA convention)

Units of service:

1. Donation to the Lied Museum

Program achievements during the period July 1, 2005 – June 30, 2006:

Secured donation that will bring "Branches, Bristles, and Batteries" exhibit to the Lied Museum for three months.

Challenges currently faced in conducting program activities:

Fundraising

Nevada Health Center, Inc. Miles for Smiles Program

Lead organization:	Nevada Health Centers, Inc.
Other partner organizations involved in the program:	We partner with many agencies in many capacities.
Geographic area served:	Southern Nevada, North East and North Central Nevada
Primary contact person:	Tyree Davis, DDS, Dental Director
Address:	762 – 14th Street Elko, NV 89801
Phone number:	702-220-9937
Email address	tdavis@nvrhc.org

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

NVHC's Miles for Smiles program provides comprehensive primary care dentistry for children, adults and seniors. Services are provided thru a combination of fixed site facilities and mobile dental vans. Special programs include a senior dental outreach program, a school-based sealant program in the northeastern areas, and school-based dentistry in all service areas. The program accepts patients with insurance, Medicaid, Medicare, Nevada Check Up, self-pay patients and has a sliding fee schedule for uninsured patients with limited incomes. Payment plans are also available. The program also includes a strong educational component to help patients develop good oral hygiene and incorporate healthy habits. Staff also participate on a community level in health fairs, on advisory councils, etc.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served:
.....Clark County – Total Served: 1,446
.....Elko, White Pine and Other Counties – Total Served: 736

Units of service:

1. Patient Visits:.....Clark County – 3,229
.....Other Counties – 3,524
2. Oral Health Education: .....Clark County – 760
.....Other Counties - 976
3. Oral Health Preventative Treatments: .....Clark County – 6,341
.....Other Counties – 5,054
4. Oral Health Restorative Treatments: .....Clark County – 4,007
.....Other Counties – 3,279
5. Oral Health Sealants:.....Clark County – 1,903
.....Other Counties – 2,375

Program achievements during the period July 1, 2005 – June 30, 2006:

Opened a fixed-site dental facility in Elko, Nevada to serve residents in the area and act as the home base for the mobile. Provided oral health services in northeastern Nevada in Elko, Spring Creek, Carlin, Jackpot, Ely, Wells and Winnemucca. Provided oral health services in southern Nevada at five sites. Established adult services in southern and northeastern Nevada, including a senior dental program.

Challenges currently faced in conducting program activities:

The need often overwhelms our resources. We have a long waiting list for new adult patients in Las Vegas and for seniors wanting care on the grant program. We continually seek grant assistance to help us continue to treat the uninsured who are also unable to afford care. Another challenge is recruiting providers and staff for our rural operations

Northern Nevada Dental Health Program

Lead organization:	Northern Nevada Dental Society
Other partner organizations involved in the program:	Saint Mary's
Geographic area served:	Northern Nevada
Primary contact person:	Lupe Ryan
Address:	6770 South McCarran Blvd., Suite 102 Reno, NV 89519
Phone number:	775-770-6609 775-770-6375 (fax)
Email address	guadalupe.ryan@saintmarysreno.com

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☑ Other (Please specify): All dental specialty care

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Northern Nevada Dental Health Program provides and facilitates referrals to dentists for children who qualify because of Medicaid or income eligibility. Services include hard-to-find specialty care by pedodontists, orthodontists, oral and maxillofacial surgeons, periodontists, and endodontists.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 698

Units of service:

1. Assessed 620
2. Children referred 291

3. Number of patient visits..... 505
4. Number of dentists providing care..... 60
5. Fluoride varnish applications..... 78

Program achievements during the period July 1, 2005 – June 30, 2006:

Created the Stephen C. Vaughn, DDS Oral Health Program. This program was established to educate families in proper oral health and nutrition and to apply fluoride varnish to help reduce dental decay to underserved children. Increased contracted dental providers from 119 to 130. Integrated NNDHP with other Saint Mary's services. Children and families are referred to other appropriate areas such as Saint Mary's Clinics and the Restorative Dental and Saint Mary's WIC Programs. Assessed uninsured families for Medicaid and Nevada Check Up eligibility and assisted with the application process.

Challenges currently faced in conducting program activities:
The new Medicaid HMO in Washoe County requires each provider to complete a new credentialing process and procure a new Medicaid number. Most dental providers will not invest the time to complete a complex application process for a patient population that they do not serve. Medicaid billing will become more complex. Each patient visit will need to be billed under that provider's Medicaid number instead of the program's universal Medicaid number.

Paradise Park Children's Dental Clinic

Lead organization:	Children's Dental Care International
Other partner organizations involved in the program:	none
Geographic area served:	Las Vegas, NV
Primary contact person:	Dawn McClellan, DDS, MS
Address:	4770 Harrison Drive Las Vegas. MV 89121
Phone number:	702-432-3334
Email address	checkin@tinytooth.org

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Provide high quality, comprehensive pediatric dental care to the youngsters of Clark County's uninsured, under-insured and working poor.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 1,422

Program achievements during the period July 1, 2005 – June 30, 2006:

Increased hours of operation by 50% and doubled staff.

Challenges currently faced in conducting program activities:

Staffing, grant funding.

ReachOut Healthcare America

Lead organization:	ReachOut Healthcare America
Other partner organizations involved in the program:	One More Child Foundation Clark County School District
Geographic area served:	Clark County
Primary contact person:	Allen Hersh
Address:	1904 W Parkside Ln., Ste. 201 Phoenix, AZ 85027
Phone number:	800-409-2563 623-434-9358 (fax)
Email address	

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☐ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☐ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

School-based dental program which includes preventive and restorative services as well as oral hygiene instruction. Dentist visits several schools in Clark County on a regular basis to deliver services on school campuses with portable equipment.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 0
..... *(*Program began June 2006)*

***No additional details provided.*

Saint Mary's Dental Sealant Program

Lead organization:	Saint Mary's
Other partner organizations involved in the program:	Washoe County School District Carson City School District Lyon County School District Churchill County School District
Geographic area served:	Washoe, Lyon and Churchill Counties and Carson City
Primary contact person:	David Anderson
Address:	6770 South McCarran Blvd., Suite 102 Reno, NV 89519
Phone number:	775-770-3559
Email address	david.anderson@saintmarysreno.com

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☐ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☐ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

This free program provides oral health education, screening and sealants to second grade students who attend targeted, "at-risk" elementary schools. In 2006-2007, sixth grade students also will be served.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 1,180

Units of service:

1. Classroom Education.....3,539
2. Children Screened.....1,180
3. Children Receiving Sealants.....1,073
4. Sealants Placed.....3,337
5. Children Referred for Dental Care.....566

Program achievements during the period July 1, 2005 – June 30, 2006:

Received local recognition from Truckee Meadows Tomorrow for improving the quality of life and from CDC as a "best practices" program. Created a system that would capture revenue from sealants placed on Medicaid eligible children, thus enabling the program to work toward partial self-sufficiency. Assessed uninsured families for Medicaid and Nevada Check Up eligibility, and assisted with the application process to help ensure a dental "home."

Challenges currently faced in conducting program activities:

Aging equipment that is costly to repair or replace. Under the new Medicaid HMO, analysis is necessary to explore the obstacles to continued Medicaid reimbursement in a school-based sealant program.

Saint Mary's Outpatient Oral Surgery Program

Lead organization:	Saint Mary's
Other partner organizations involved in the program:	
Geographic area served:	Northern Nevada
Primary contact person:	David Anderson
Address:	6770 South McCarran Blvd., Suite 102 Reno, NV 89519
Phone number:	775-770-3559
Email address	david.anderson@saintmarysreno.com

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☐ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

This program improves access for children and handicapped adults who cannot be treated in a traditional dental setting. Preventive and restorative dental services are performed under general anesthesia in an outpatient surgery center.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 126

Units of service:

1. Diagnostic 767
2. Preventive care 311
3. Restorative care 960
4. Specialty care 626

Program achievements during the period July 1, 2005 – June 30, 2006:

Increased number of days of service from program inception in 2/05. Developed and received funding to pilot a nutrition education class which is mandatory prior to surgery with six month post-surgery follow-up.

Challenges currently faced in conducting program activities:

Educating a patient population, who traditionally have not accessed dental services, on the importance of regular preventive care for optimal health.

Saint Mary's Restorative Dental Outreach

Lead organization:	Saint Mary's
Other partner organizations involved in the program:	Washoe County School District Northern Nevada CSA Head Start
Geographic area served:	Washoe County and Lyon County
Primary contact person:	Monica Naranjo
Address:	6770 South McCarran Blvd., Suite 102 Reno, NV 89519
Phone number:	775-770-7888 775-770-6110 (fax)
Email address	Monica.Naranjo@saintmarysreno.com

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

The goal of the Mobile Restorative Dental Outreach is to improve access to dental care for the underserved and uninsured in Washoe and Lyon Counties. The Dental Outreach operates at ten community sites, offering a full range of preventive and restorative dental services.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 3,590

Units of service/Number of Procedures:

1. Preventive Care.....3,488
2. Restorative Care.....3,370
3. Specialty Care 2,933

Program achievements during the period July 1, 2005 – June 30, 2006:

Increased production (number of procedures) by 37% over prior year. Researched and developed a system to link the mobile unit to the main offices via wireless, which will allow staff to access patient schedule and billing information as well as to answer patient questions in real time. Integrated Restorative Program with other Saint Mary's services. Children and families are referred to other appropriate areas such as Saint Mary's Clinics and the NNDHP and Saint Mary's WIC Programs. Assessed uninsured families for Medicaid and Nevada Check Up eligibility and assisted with the application process.

Challenges currently faced in conducting program activities:

Medicaid changing to HMO in Washoe County. This will limit volunteer dentists and require additional staff time to process patient and claim billing. Educating patients on the importance to their oral health of keeping scheduled appointments as well as the fiscal/scheduling impact of "no show" or late appointments.

Schurz Service Unit Dental Program

Lead organization:	Indian Health Service
Other partner organizations involved in the program:	Saint Mary's Dental Mobile Van Truckee Meadows Dental Hygiene Program
Geographic area served:	Ft. McDermitt, Pyramid Lake, Walker River, Fallon
Primary contact person:	Tim Ricks, DMD, MPH
Address:	P.O. Box 227 Nixon, NV 89424

Phone number:	775-574-1018 x224 775-574-1028 (fax)
Email address	Tim.ricks@ihs.gov

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

General dentistry services, including diagnostics, preventive, endodontics, periodontal, oral surgery, restorative, and prosthodontic services.

Health promotion/disease prevention programs include water fluoridation, fluoride varnish applications in schools and clinics, early childhood caries parental education, hygiene treatment of diabetics with periodontal disease, clinic sealant program (primary and permanent dentition), athletic mouth guards, school oral hygiene presentations, etc.

Collaborations – Truckee Meadows Dental Hygiene Program, Saint Mary's Care-A-Van, UNLV, IHS Externship Program

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 2,069
(2.5 dentists)

Units of service:

1. Sealants applied.....3,868
2. Fluoride applications.....1,517
3. Total patient visits (estimated).....6,000

Program achievements during the period July 1, 2005 – June 30, 2006:

Achieved optimal water fluoridation at Ft. McDermitt for the fourth consecutive year. Hosted four dental student externs. Obtained 26 service days of free dental hygiene services through a collaboration with the TMCC Dental Hygiene Program.

Challenges currently faced in conducting program activities:

We currently have a dentist vacancy at the Fallon Clinic, and will be losing dentist services at Ft. McDermitt in October 2006.

Seal Nevada South

Lead organization:	CCSN Dental Hygiene Program
Other partner organizations involved in the program:	Nevada State Oral Health Program
Geographic area served:	Southern Nevada
Primary contact person:	Doreen Craig, RDH, MA CCSN Dental Hygiene Program Director
Address:	6375 W. Charleston Blvd., WlA Las Vegas, NV 89146
Phone number:	702-651-5593 702-651-7401 (fax)
Email address	doreen_craig@ccsn.edu

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☐ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☐ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Provide sealants and oral hygiene education to second grade children in the southern Nevada areas that meet the requirement of 50% or above on the Federal Free and Reduced Lunch Program. Program currently runs three days per week and takes dental hygiene students out on rotation in the spring semester. Seal Nevada will also be applying fluoride varnish in the 06-07 school year.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 1,165

Units of service:

1. Sealants 4,010
2. Screenings 1,251
3. Oral health education 2,828

Program achievements during the period July 1, 2005 – June 30, 2006:

Program achieved consistent and regular days at the elementary schools and was able to travel to several rural schools. This allowed many children to receive sealants and oral health education.

Challenges currently faced in conducting program activities:

Challenges faced by the program include being funded by a grant that currently only allows for three days per week of sealant placement. More funding would allow more sealant placement and a greater number of children to be served.

Southern Nevada Health District

Lead organization:	Southern Nevada Health District
Other partner organizations involved in the program:	
Geographic area served:	Clark County
Primary contact person:	Carole Mankey, RN, PHN Supervisor
Address:	625 Shadow Lane Las Vegas, NV 89106
Phone number:	702-759-0897 702-383-1446 (fax)
Email address	mankey@snhdmail.org

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☐ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Nursing Division: Provide screening for all children seen within the maternal child health program, satellite clinics, and Healthy Kids Exams (HKE's). Provide fluoride varnish to children with Medicaid. Provide education on oral health issues for parents and children in the MCH program satellite clinics and HKE's

Community Health Division: We do not provide direct service within the Office of Chronic Disease Prevention and Health Promotion for oral health issues. However, we do respond to oral health questions from time to time. We provide information under the FAQ section of our website. We are in the process of adding an oral health page to the CVH section of our website.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 9,635

Units of service:

1. Home visits..... 7,504
2. Satellite clinics 640
3. Healthy Kids Exams 1,143
4. Fluoride Varnish 348

Program achievements during the period July 1, 2005 – June 30, 2006:

9,635 children screened and educated on proper oral health. 348 Medicaid eligible children received fluoride varnish.

Challenges currently faced in conducting program activities:

Locating Medicaid eligible children for application of fluoride varnish.

St. Rose Dominican Hospitals – Positive Impact Program

Lead organization:	St. Rose Dominican Hospitals
Other partner organizations involved in the program:	Nevada Health Centers Miles for Smiles Clark County School District Private Dentists
Geographic area served:	79 participating schools in Clark County
Primary contact person:	Sandra Morel
Address:	102 E. Lake Mead Pkwy. Henderson, NV 89015
Phone number:	702-616-7525 702-616-4824 (fax)
Email address	sandra.morel@chw.edu

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☑ Other (Please specify): Prescription assistance

Primary age group(s) targeted by the program *(check all that apply)*:

- ☐ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☐ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Since 1988, St. Rose Dominican Hospitals Positive Impact Program has provided emergent and non-emergent dental treatment to the underserved population. School nurses of 79 participating Clark County schools identify the individual's need. Eligible families receive complete dental treatments for the identified child and all school aged siblings. The Miles for Smiles dental bus provides an average of two dental clinics per month, throughout the school year. Children in need of specialized dental services are referred to participating pediatric dentists within the program. Upon completion of treatment, children have noted improvement in oral hygiene habits, which establishes a foundation for continued oral health.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 277

Units of service:

1. Treatments 297
2. Screened Children 78
3. Education 200
4. Dental kits 277

Program achievements during the period July 1, 2005 – June 30, 2006:

77 children received dental treatment and prescription assistance. Provided Mega Smiles Oral Health Education Presentations and Oral Health Kits to 200 children in Clark County Schools. Assisted families in applying to Nevada Check Up.

Challenges currently faced in conducting program activities:

The program would like to increase number of families that apply to Nevada Check Up, unfortunately most program participants are undocumented and cannot enroll in this program. Would like to increase number of Mega Smiles Presentations.

Truckee Meadows Community College – Dental Hygiene Program

Lead organization:	Truckee Meadows Community College
Other partner organizations involved in the program:	
Geographic area served:	Reno / Sparks
Primary contact person:	Vickie Kimbrough RDH, MBA, Director
Address:	7000 Dandini Blvd. RDMT 417-H Reno, NV 89512
Phone number:	775-674-7554 775-673-8242 (fax)
Email address	vkimbrough@tmcc.edu

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☐ Treatment/restorative services
- ☐ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Dental hygiene education/services.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: ..... ≈1,500

Units of service:

Patient visits ..... ≈1,500

Program achievements during the period July 1, 2005 – June 30, 2006:

None noted.

Challenges currently faced in conducting program activities:

Supervising dentists/participation.

University of Nevada School of Medicine Department of Dental Medicine, Dental General Practice Residency (GPR) and Pediatric Dentistry Residency (PDR)

Lead organization:	University of Nevada School of Medicine
Other partner organizations involved in the program:	University Medical Center of Southern Nevada (UMCSN)
Geographic area served:	Clark County, Las Vegas

Primary contact person:	Shannon E. Mills, DDS
Address:	1707 W. Charleston Blvd., Suite 290 Las Vegas, NV 89102
Phone number:	702-671-5175
Email address	semills@unr.edu

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

The GPR provides comprehensive dental services to children, adults and seniors to include comprehensive examination, preventive services, restorative and reconstructive dentistry, oral surgery, periodontal therapy, endodontics, implants, dentures and limited orthodontic care. The GPR provides emergency on-call services for the University Medical Center Emergency Rooms (adult and pediatric) and provides consultation and treatment for UMCSN in-patients.

The PDR provides comprehensive preventive and restorative dental services for children including on-call services for Sunrise Hospital

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 1,726

Units of service:

1. Patients in active treatment.....1,726
2. Preventive Dentistry appointments1.....637

Program achievements during the period July 1, 2005 – June 30, 2006:

Participated in UMCSN Employee Health and Wellness Fair. Provided oral health education program to seniors at Sun City Summerlin. Participated in Southern Nevada Dental Society "Give Kids a Smile" Program.

Challenges currently faced in conducting program activities:

None.

University of Nevada Las Vegas (UNLV) School of Dental Medicine

Lead organization:	UNLV
Other partner organizations involved in the program:	Clark County School District Southern Nevada Dental Society (SNDS) Nevada Dental Hygienists' Association (NDHA) Student National Dental Association (SNDA) American Student Dental Association (ASDA) Colgate Crest Northern Nevada AHEC Local Chapter, American Association of Women Dentists
Geographic area served:	Clark County
Primary contact person:	Victor A. Sandoval, DDS, MPH
Address:	1001 Shadow Lane, MS 7410 Las Vegas, NV 89106-4124
Phone number:	702-774-2641
Email address	victor.sandoval@unlv.edu

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

The program provides a full range of oral health services for qualified recipients, including emergency care on a walk-in basis. Oral health education and disease prevention are primary goals of the program.

Other Services and Activities:

- Oral health, nutrition and prevention instruction (pre-school and "at risk" elementary schools, assisted-living centers, Alzheimer patients' care-givers, parent clubs).
- Screening for caries and other oral diseases (UNLV Clinics, Colgate "Bright Smiles/Bright Futures" Van, and local Health Fairs).
- Treatment/Restorative services ("Give Kids A Smile", "First Saturday", and "Smiles for Success" -- a program for residents of the local Women's Shelter)
- Public Education (local Health Fairs).

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 76,483

Units of service:

1. Diagnostic.....46,731
2. Preventive.....36,913
3. Restorative.....24,625
4. Endodontics.....2,097
5. Periodontics.....3,807
6. Removable Prosthodontics.....1,468
7. Fixed Prosthodontics.....449
8. Oral Surgery.....11,489
9. Orthodontics.....215
10. Adjunct Services.....3,308

Total Number of Procedures 131,102

Program achievements during the period July 1, 2005 – June 30, 2006:

Expanded outreach to more local "at-risk" elementary schools and Assisted Living Centers. Hosted local "Give Kids A Smile" activities (Children's Dental Health Month) at UNLV SDM clinics. Hosted "First Saturday" event (in conjunction with local "1-Day Program"). Hosted local "Smiles for Success" program (for residents of local Women's Shelter). Renewed partnership with Colgate "Bright Smiles/Bright Futures" Program. Partnered with Northern Nevada AHEC to establish clinical externship for six predoctoral students at the Elko, Nevada Community Health Center

Challenges currently faced in conducting program activities:

Impact on community access to care, due to consolidation of SDM Community Clinics from three sites to one site. SDM no longer the sole Medicaid provider for Clark County. Demand for services continues to exceed our capacity. Limited financial resources of local population to devote to oral health care. Identification of additional outreach / externship sites. Identification of additional referral sources for those lacking dental insurance or coverage by Medicaid or Nevada Check Up. Curriculum density can hinder dental student involvement in some community activities. Poor oral health of patient population. High no-show rate for scheduled appointments of local patient population. Transportation problems of local patient population affect their ability to make and keep appointments. Difficulty in contacting patients due to continual changes in addresses/phone numbers. Lack of patient awareness of issues related to maintenance of good oral health.

UNLV School of Dental Medicine Orthodontic Residency Program

Lead organization:	UNLV
Other partner organizations involved in the program:	
Geographic area served:	Clark County
Primary contact person:	Jaleh Pourhamid, DMD, MDSc
Address:	1001 Shadow Lane, MS 7410 Las Vegas, NV 89106
Phone number:	702-774-2664 702-774-2696 (fax)
Email address	jaleh.pourhamid@unlv.edu

Types of services provided related to oral health *(check all that apply)*:

- ☐ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☐ Screening for caries or other oral disease
- ☐ Treatment/restorative services
- ☐ Public education on oral health issues
- ☑ Other (Please specify): Orthodontics

Primary age group(s) targeted by the program *(check all that apply)*:

- ☐ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☐ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Orthodontics (Braces)

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: ..... ≈700

Units of service: *(No numbers not provided.)*

1. Number of patients seen
2. Number of treatments rendered
3. Academic classes
4. Access to care

Program achievements during the period July 1, 2005 – June 30, 2006:

First year program start-up (16 Residents, starting August 1st for a two- year program); completion of 11 months of academics and clinical care, including providing orthodontic care to patients of all ages and backgrounds.

Challenges currently faced in conducting program activities:

Funding and patient cooperation.

Walker River Dental Clinic

Lead organization:	Schurz Service Unit, Indian Health Services (IHS)
Other partner organizations involved in the program:	n/a
Geographic area served:	Schurz, Nevada / Northern Nevada
Primary contact person:	Dr. Susan Wellman
Address:	Drawer A Schurz, NV 89427
Phone number:	775-773-2005 x2245
Email address	susan.wellman@ihs.gov

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☐ Other (Please specify): _____

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Provide basic dental services to remote Native American population.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 1,152

Units of service:

1. Fluoride treatments 375
2. Sealants placed 917
3. Dentures delivered 28
4. Comprehensive exams 317

Program achievements during the period July 1, 2005 – June 30, 2006:

Provided highest number of services and service minutes in Schurz Service Unit (per provider).

Challenges currently faced in conducting program activities:

No budget from IHS for any program needs. No computer makes communication slow, ineffective.

Washoe Tribal Health Center

Lead organization:	Dental Department
Other partner organizations involved in the program:	Head Start Program
Geographic area served:	Douglas County
Primary contact person:	Dr. Douglas Moss, DDS (Chief Dental Officer)
Address:	759 Indian Trail Rd. Gardnerville, NV 89460
Phone number:	775-265-4215 775-265-4246 (fax)
Email address	douglas.moss@ihs.gov

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues

☐ Other (Please specify):
Primary age group(s) targeted by the program *(check all that apply)*: ☑ Early childhood (ages 0 to 5) ☑ School-age children and youth (ages 6 to 18) ☑ Non-senior adults (ages 19 to 59) ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

Emergency and routine exams, silver and composite fillings, crowns, bridges, partial and full dentures, veneers, root canals, all extractions including 3rd molars, simple or complicated, periodontal treatment, biopsies of soft tissue, cleanings, insurance, cash, Native Americans Medicaid patients, rural area, all patients seen.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 4,000

Units of service:

1. Patient visits / year 3,000

Program achievements during the period July 1, 2005 – June 30, 2006:

Hired 1 full-time hygienist. Hired another full-time assistant. Added one dental chair. Hiring another full-time hygienist.

Challenges currently faced in conducting program activities:

Lack of support by board of dentistry keeping dentists here. Giving IHS dentists licenses. Employee retention.

Yerington Paiute Tribal Dental Clinic

Lead organization:	Yerington Paiute Tribe
Other partner organizations involved in the program:	
Geographic area served:	Yerington, Smith Valley, mason, Silver Springs
Primary contact person:	Darrell Holloway, Health Director
Address:	171 Campbell Lane Yerington, NV 89447

Phone number:	775-463-3335 775-463-3390 (fax)
Email address	

Types of services provided related to oral health *(check all that apply)*:

- ☑ Prevention of oral disease (sealants, fluoride, prophylaxis, other)
- ☑ Screening for caries or other oral disease
- ☑ Treatment/restorative services
- ☑ Public education on oral health issues
- ☑ Other (Please specify): All other aspects of general dentistry and prevention

Primary age group(s) targeted by the program *(check all that apply)*:

- ☑ Early childhood (ages 0 to 5)
- ☑ School-age children and youth (ages 6 to 18)
- ☑ Non-senior adults (ages 19 to 59)
- ☑ Seniors (ages 60 and over)

Description of services provided and/or activities conducted:

We provide general dentistry, full restorations, crown and bridge work, dentures and partials, sealants, and giving oral hygiene instructions to make sure patients understand what their condition is. Also routine cleanings and follow-ups.

Summary of service levels for the period July 1, 2005 – June 30, 2006:

Total number of people served: 1,200

Program achievements during the period July 1, 2005 – June 30, 2006:

Starting seeing more non-native patients. More oral health education with kids and adults, stressing oral health care. More patients with periodontal disease under good control.

Challenges currently faced in conducting program activities:

No dentist. People keeping their appointments for what they need done.

Appendix B – Acronyms Used in This Report

AAP	American Academy of Periodontology
ADA	American Dental Association
AS	Associate of Science
BRFSS	Basic Risk Factor Surveillance System
BS	Bachelor of Science
BSS	Basic Screening Survey
CCOH	Community Coalition for Oral Health (Clark County)
CSN	College of Southern Nevada
CDC	Centers for Disease Control and Prevention
CDOHC	Carson Douglas Oral Health Coalition
CHC	Community Health Centers
CLPS ROHC	Churchill, Lyon, Pershing, and Storey Counties' Regional Oral Health Coalition
CNOHC	Central Nevada Oral Health Coalition (Esmeralda, Lincoln, Mineral & Nye Counties)
CUSP	Northern Nevada Coalition for Underserved Populations (Washoe County)
DDS	Doctor of Dental Surgery
DMD	Doctor of Dental Medicine
DNA	Data not available / Data not analyzed
DNC	Data not collected
DSU	Data statistically unreliable
ECC	Early Childhood Caries
EPSDT	Early Periodic Screening, Diagnosis and Treatment
FPL	Federal Poverty Level
FQHC	Federally Qualified Health Center
GPR	General Practice Residency
HAWC	Health Access Washoe County, Inc.
HCAP	Health Care Access Program
HP2010	Healthy People 2010
HPSA	Health Professional Shortage Areas
HRSA	Health Resources and Services Administration
IARC	International Agency for Research on Cancer
IHS	Indian Health Service
NCHS	National Center for Health Statistics
NECOH	Northeastern Coalition for Oral Health (Elko, Eureka, Humboldt, Lander, and White Pine Counties)
NHANES	National Health and Nutrition Examination Survey
NSBDE	Nevada State Board of Dental Examiners
NSDUH	National Survey on Drug Use and Health
OHAC	Oral Health Advisory Committee
PANDA	Prevent Abuse and Neglect through Dental Awareness
PDR	Pediatric Dentistry Residency
SCHIP	State Children's Health Insurance Program
SFY	State Fiscal Year
TMCC	Truckee Meadows Community College
UCCSN	University and Community College System of Nevada
UNLV	University of Nevada, Las Vegas

UNLV SDM	University of Nevada, Las Vegas, School of Dental Medicine
USDHHS	United States Department of Health and Human Services
WICHE	Western Interstate Commission for Higher Education
YRBS	Youth Risk Behavior Survey