The background of the cover is a photograph of a desert landscape. In the foreground, there are several hot air balloons with various patterns and colors, including stripes and solid colors. The balloons are floating over a valley. In the background, there are rolling hills and mountains under a clear blue sky. The overall scene is bright and sunny.

# Nevada State Chronic Disease Prevention and Health Promotion Plan

*Aligning the Agenda to Reduce Chronic Disease in Nevada*

*Nevada State Health Division, Chronic Disease Prevention and Health Promotion Section*

*1/15/2013*

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## PREFACE

*Bill woke up one morning, and thought, “I’m tired of feeling sick all the time.”*

*It wasn’t always like this. When he was young, Bill was the star athlete in his high school. He spent his time outside of school in the outdoors, hunting and fishing. He used to weigh 165 pounds and could hike into the most rugged canyons carrying a 40 pound pack. He had an unlimited amount of energy.*

*This morning, all he could do was put his slippers on and walk down the hall to the kitchen. His feet were numb, he was feeling light-headed, and felt like he was carrying that 40 pound pack around again.*

*After high school, Bill went on to college and then served a four-year tour in the Navy as a Personnel Officer. He was motivated and quickly learned that he had the ability to be a good manager. He left the Navy, and landed a great job in management with the Lucky Prospector Hotel and Resort. He met a beautiful woman, got married, and had two kids.*

*As the years went by, he started to gain a little weight. It wasn’t too much at first, but by the time Bill was 35, his weight had increased to 215 pounds. He realized he was getting a little heavier, but he still felt pretty good, so he just chalked it up to “getting older.”*

*The morning of his 47<sup>th</sup> birthday, Bill was regretting not taking better care of himself. Two years ago, when he had been feeling “under the weather” for a month or so, he went to see the doctor. They weighed him in at 275 pounds, took his blood pressure (140/95), and took some blood to run some tests. When the results of the tests came back, the doctor came in and told him he had diabetes.*

*In trying to manage his diabetes, Bill started missing work. Even with his medical insurance, he was paying a significant amount of money out of pocket for medication and more frequent trips to the doctor. He started having problems with his teeth and gums. His feet were frequently in pain and it hurt to walk. This disease had taken a huge toll on his quality of life. The worst part was thinking about what the doctor had told him.*

*“With the proper attention to your health and lifestyle, this type of diabetes (Type 2 Diabetes Mellitus) is almost completely preventable.”*

## LETTER FROM STATE HEALTH OFFICER

***Dear Colleagues and Fellow Nevadans,***

Chronic disease affects everyone. We can all easily recall a family member, neighbor, or colleague who is afflicted with a chronic disease. Chronic disease is more prevalent now than ever in our state's history. Recent estimates show 6 out of 10 Nevadans live with some form of chronic disease. More Nevadans die each year from chronic disease than from all other causes of death ***combined***. In 2011, the estimated financial burden from chronic disease on the citizens of Nevada was in excess of \$20.3 billion. By 2023 this number is projected to increase to ***\$45.5 billion***.

The financial impact of chronic disease is alarming; however, financial impact is only part of the issue. The negative physical, psychological, and emotional impacts on Nevada's citizens heightens the problem to a near state of emergency. Perhaps the most upsetting issue relating to chronic disease is that most cases of illness and death are preventable! Everyone can do something to improve the health of Nevadans.

Seventy-five professionals working in the chronic disease field, from across the state, have volunteered their expertise, experience, and leadership to provide recommendations to decrease the burden of chronic disease in Nevada. The Fitness and Wellness Advisory Council, the Chronic Disease Leadership Team, and the Nevada State Health Division's Chronic Disease Prevention and Health Promotion Section are dedicated to addressing the burden of chronic disease through the implementation of this plan.

This plan includes recommendations for actions that everyone from policy makers (members of congress, state and local board members) and educators, to medical and dental personnel can do to help reduce, if not eliminate chronic disease in Nevada. I believe that with concentrated and cooperative efforts, and by following the recommendations in this plan, the burden of chronic disease in Nevada can be greatly reduced.

This plan, [\*Aligning the Agenda to Reduce Chronic Disease in Nevada\*](#), represents the dedication the Nevada State Health Division has for reducing the burden of chronic disease on Nevada's citizens. With this letter, I am pledging my service and support for this plan.

Sincerely,



**Tracey D. Green, MD**  
State Health Officer  
Nevada State Health Division

## THE STATE PLAN PROCESS

Significant changes were made over the past two years in the Chronic Disease Prevention and Health Promotion Section (CDPHP) at the Nevada State Health Division (NSHD). The merger of three cancer control programs and the loss of approximately 1.5 million dollars in funding, radically transformed the section. Additionally, as funding for chronic disease continues to shrink at the local level and public health priorities shift at the national level. It is critical for Nevada to rethink the way the state conducts business and develop a plan that embodies the changing financial situation and health priorities affecting chronic disease.

The CDPHP Section, Chronic Disease Leadership Team, and the Fitness and Wellness Advisory Council (FWAC) has spent the last six months working on building an integrated strategic state plan in an effort to enhance efficiency, and expand coordination and collaboration across the state. Between December 2011 and February 2012 several planning meetings and focus groups with the CDPHP Leadership team, community partners, staff, and administration were held. Five focus areas were identified in these meetings as core functions requiring attention in the state:

**1. Evaluation and Surveillance -**

Gather, analyze, and disseminate data and information. Conduct evaluations to inform, prioritize, deliver, and monitor programs and population health.

**2. Health Promotion -**

Use all available resources to educate and inform the citizens of Nevada about the best strategies for preventing the development of chronic disease, the best practices for chronic disease management and the reversal of the chronic disease process.

**3. Clinical and Health Systems -**

Ensure that communities support and clinics refer patients to programs that improve management of chronic conditions. Implement interventions that ensure those with, or at high risk for chronic diseases have access to quality community resources to best manage disease conditions and risk.

**4. Environmental and Systems Changes -**

Promote change within the physical, cultural, and institutional environments that advance health and reinforce healthful behaviors (statewide in schools, worksites, and communities).



### **5. Enhanced State Capacity -**

Enhance health settings and staff to improve the effective delivery of clinical and preventive services for the early detection of disease and to reduce or eliminate risk factors that propagate disease.

Moving forward, the state will use this plan to expand efforts in these focus areas. The NSHD CDPHP Section staff, Leadership Team, and FWAC will no longer focus efforts around a specific disease or program, but rather push for coordinated efforts that embrace integrated evidence-based strategies that address multiple risk factors and manifestations of chronic disease.

### **Challenges and Obstacles**

Working collaboratively towards coordination has its challenges, but with limited resources and funding, Nevada needs to embrace coordination. The “one agency-one program” model is ineffective. Further, by definition, systems change strategies require a more comprehensive and integrated approach. The following are some of the challenges and obstacles associated with the coordination path, and a brief description of the plan for overcoming obstacles:

#### *Lack of funding*

This problem is certainly not unique to chronic disease efforts, but is the largest obstacle faced. The return on investment (ROI) from programs that focus on prevention and health promotion has been well documented. Unfortunately for Nevada, state public health funding ranks 51<sup>st</sup> in the nation (Robert Wood Johnson Foundation, 2011). To subsidize the lack of state funding, the NSHD has been successful in obtaining a number of federal grants. Nonetheless, five million dollars in federal funding is not sufficient to target population based outcomes, thus we will continue to apply for various extramural funding opportunities as they arise.

#### *Reluctance of stakeholders to embrace a collaborative and coordinated approach*

Traditionally, CDPHP efforts have operated in “silos,” where entities have a singular focus (i.e. one disease, one program: diabetes prevention and management or heart disease prevention and management). To address these issues, the Chronic Disease Leadership Team, FWAC and the CDPHP Section staff will identify high level state partners to help champion and implement the integrated strategies in this plan.

### *Coordination of communication efforts*

Another major challenge is the communication of activities, successes, and failures among state and community partners. The coordination and collaboration model brings a significant number of organizations and stakeholders to the table. The Nevada CDPHP Section developed a Communication Plan to enhance the procedure in which entities communicate with each other. This document will be accessible through traditional internal and digital network platforms. Some strategies included in the plan are the development of social media and email networks/listservs that chronic disease personnel and stakeholders would have access to.

## CHRONIC DISEASE IN NEVADA

Chronic disease has a palpable impact on the State of Nevada, its people, and its resources. Chronic disease is sneaky, developing gradually, but once it becomes a noticeable condition, it is difficult to manage and can seriously limit patients lifestyles. Chronic disease not only leads to shorter life expectancy, but a decreased quality of life. People are now living shorter lives, and spending more years of their life unable to do the things they want to do. Some examples of chronic diseases are:

- Cardiovascular Diseases:
  - Congestive Heart Failure (CHF)
  - Acute Myocardial Infarction (Heart Attack)
  - Stroke
- Respiratory Diseases (Lung Disease):
  - Chronic Obstructive Pulmonary Disease (COPD)
  - Asthma
- Metabolic Diseases:
  - Type 1 Diabetes
  - Type 2 Diabetes
  - Thyroid Disease
- Various forms of Cancer :
  - Breast Cancer
  - Cervical Cancer
  - Colorectal Cancer
  - Oral Cancer

Nevada faces staggering financial costs associated with chronic disease despite the relatively low population density.

### NEVADA POPULATION = 2.7 MILLION

Economic Burden of Chronic Disease in Nevada	
Direct Cost (2011)	\$4.1 Billion
Indirect Cost (2011)	\$16.3 Billion
Total Cost (2011)*	\$20.3 Billion
Projected Cost (2023)	\$45.5 Billion

Source: Milken Institute, The Economic Burden of Chronic Disease on Nevada, 2007.

\*Rounding in Direct Cost (2011) and Indirect Cost (2011) accounts for the minor discrepancy in Total Cost (2011)



- 1.7 million (64%) of Nevadans live with some form of chronic disease (Office of Public Health Informatics and Epidemiology, 2012).
- Cardiovascular disease is the #1 cause of mortality in Nevada and has been since 1980 (Kung, Hoyert, Xu, Murphy, 2008).

In addition to the financial burden, chronic disease inhibits Nevada's citizens in other ways as well. Negative impacts on quality of life are not as easily measured as financial impacts, but are just as damaging to the health and well being of Nevadans.

### **Modifiable Risk Factors Approach**

Prevention is the most effective solution to any problem, chronic disease is no different. Six modifiable risk factors or behaviors that have been directly linked to chronic disease, these risk factors are:

- 1) Physical Inactivity
- 2) Overweight & obesity
- 3) Tobacco and nicotine use
- 4) Poor nutrition
- 5) Hypertension (high blood pressure)
- 6) Dyslipidemia (high cholesterol)

The coordination model is ideally suited to reducing chronic disease via the modifiable risk factors approach, as these risk factors are associated with multiple diseases. For example, smoking and tobacco use puts a person at a much greater risk for heart disease and cancer than non-smokers. Inadequate physical activity increases a person's risk for heart disease, diabetes, pulmonary disease, and some cancers. Inadequate nutrition puts a person at higher risk for developing arthritis, heart disease, cancer, and diabetes. These modifiable risk factors are components of multiple manifestations of chronic disease. By focusing on the modification of all risk factors, all chronic disease will be reduced.

### **Reduction of Chronic Disease – Everyone Can Help!**

The burden of chronic disease in the Silver State is alarming and frustrating. The "silver" lining is that chronic disease is largely preventable and everyone in the state can do something to reduce its negative impacts. This plan includes a detailed, comprehensive list of actions that all Nevadans (from individuals to organizations/businesses) can take to help reduce the prevalence chronic disease in the state (Page 35).

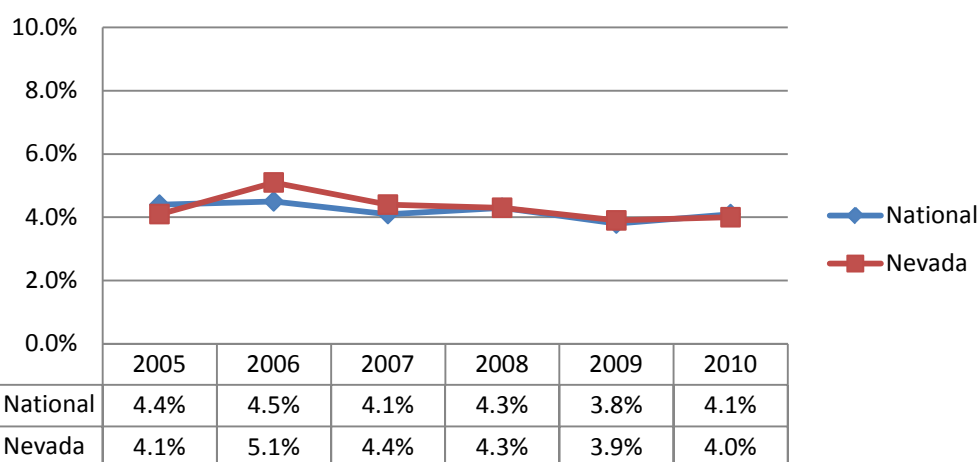
With a strong coordinated effort and participation from all Nevadans, the burden of chronic disease can be greatly reduced in our state. This plan, *Aligning the Agenda to Reduce Chronic Disease in Nevada*, is a major step towards realizing our goal.

## THE BURDEN OF CHRONIC DISEASE IN NEVADA

### Heart Disease

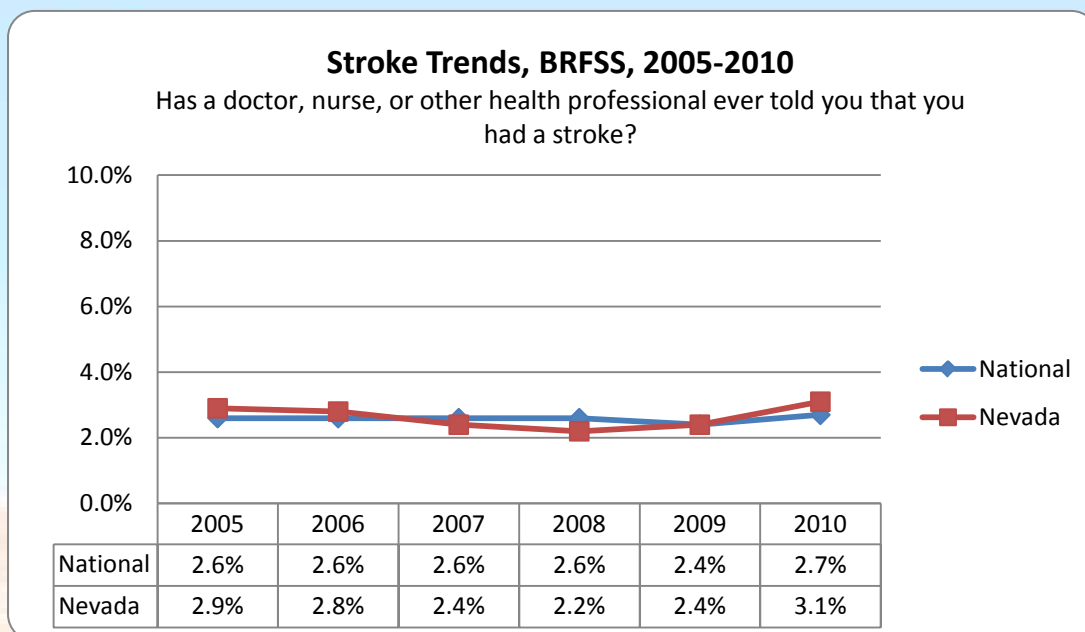
#### Heart Disease Trends, BRFSS, 2005-2010

Has a doctor, nurse, or other health professional ever told you that you had coronary heart disease?



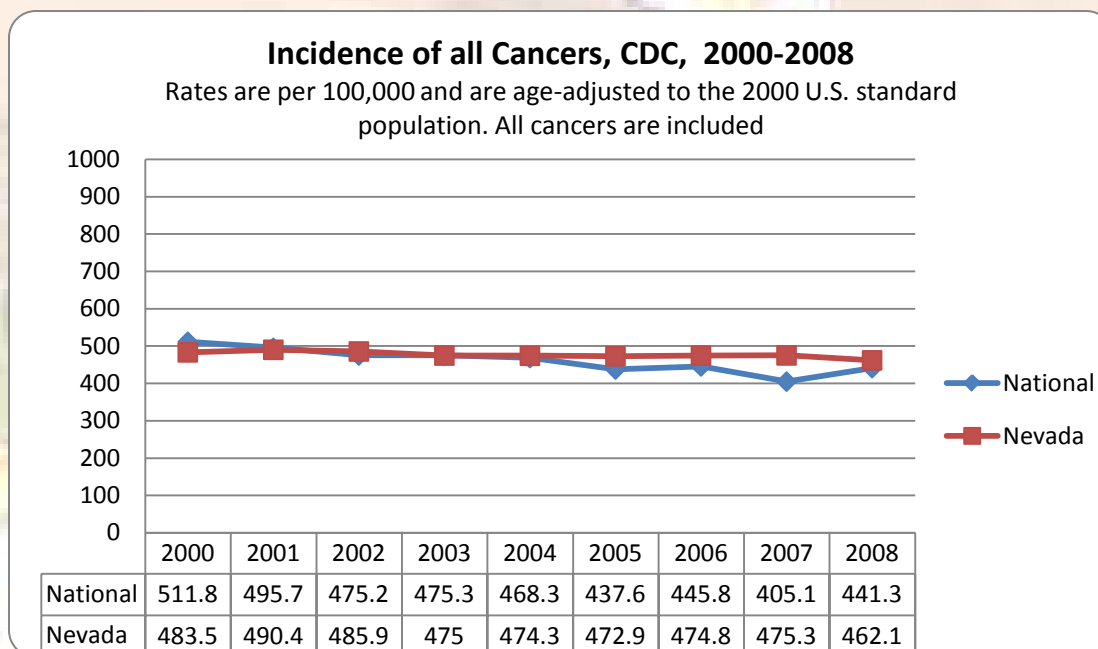
Although the prevalence of heart disease in Nevada and nationally hasn't varied dramatically from 2005 to 2010 (hovering at/or around 4%), heart disease remains to be one of the most deadly chronic diseases and number one cause of deaths in Nevada.

## Stroke



The prevalence trend for stroke in Nevada has not varied much from 2005 to 2010, hovering around 2.5%, however from 2009 to 2010 there has been a 22.6% increase in stroke prevalence.

## Cancer

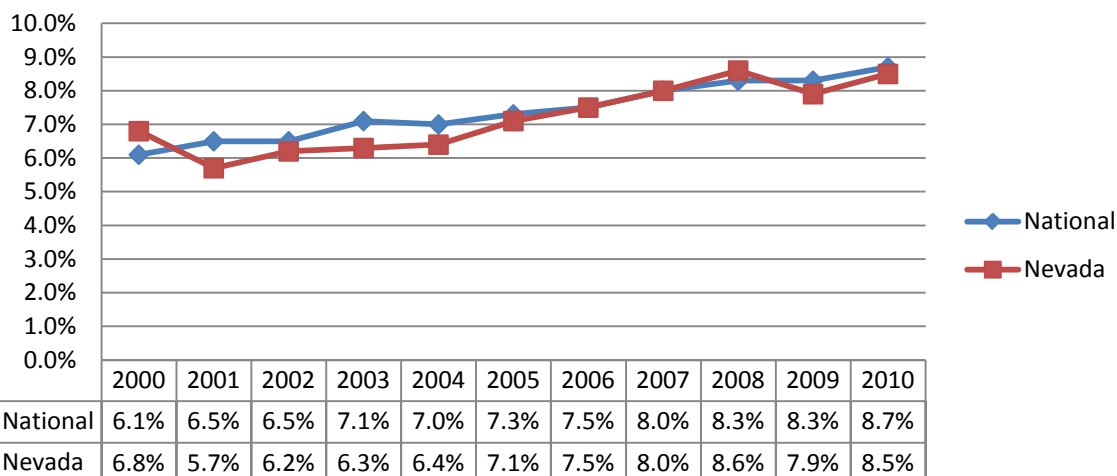


The incidence of all cancers in Nevada appears to be decreasing from 2000 to 2008. Nevada also appears to have a lower incidence of cancer than the nation.

## Diabetes

### Diabetes Trends, BRFSS, 2000-2010

Has a doctor, nurse, or other health professional ever told you that you did/did not have diabetes, had pre-diabetes, or borderline diabetes?

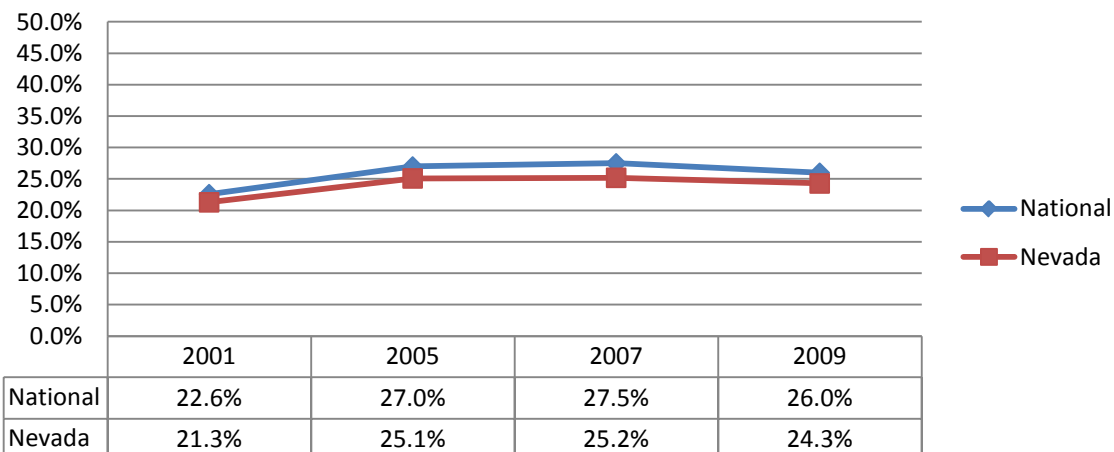


There is a steady increase in the prevalence of Diabetes both nationally and in Nevada from 2000 to 2010. From 2000 to 2010, the prevalence of Nevadans diagnosed with Diabetes has gone up 2% as compared to national prevalence which has gone up 3%.

## Arthritis

### Arthritis Trends, BRFSS, 2001-2009

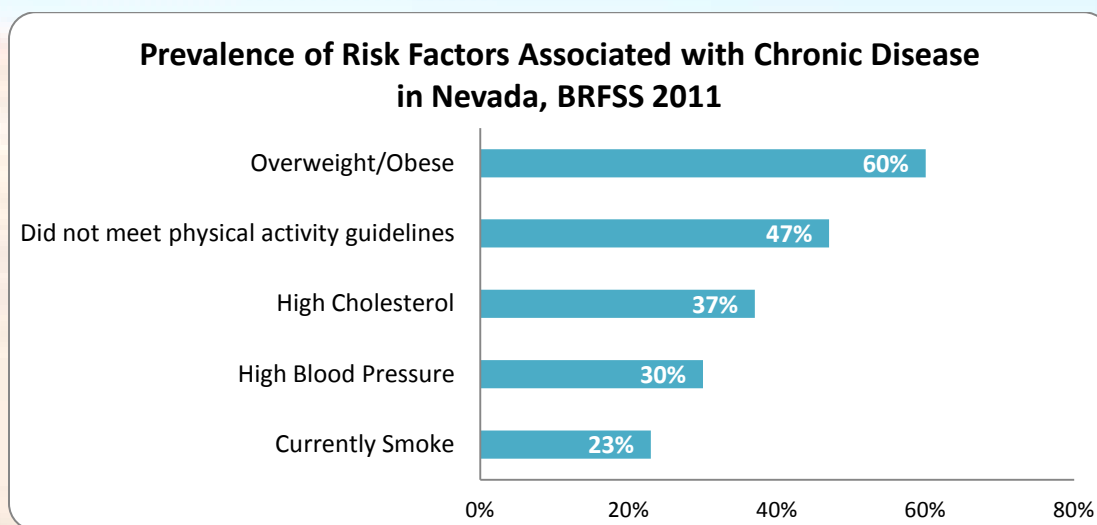
Has a doctor, nurse, or health professional ever told you that you have any form of arthritis, rheumatoid arthritis, gout, lupus or fibromyalgia?



Both nationally and in Nevada, the prevalence of arthritis has gone up 3% from 2001 to 2009. Mirroring national trends, arthritis is the most common cause of disability in Nevada. As the Nevada population ages and more individuals relocate to retire in Nevada, doctor-diagnosed arthritis patients are projected to increase 150% by 2030.

### Chronic Disease Risk Factors & Disparities

Modifiable risk factors are responsible for much of the illness, suffering, and early death related to chronic disease. The World Health Organization has estimated that if the major risk factors for chronic disease (listed below) were eliminated, at least 80% of all heart disease, stroke and type 2 diabetes would be prevented and more than 40% of cancer cases would be prevented (World Health Organization, 2005).



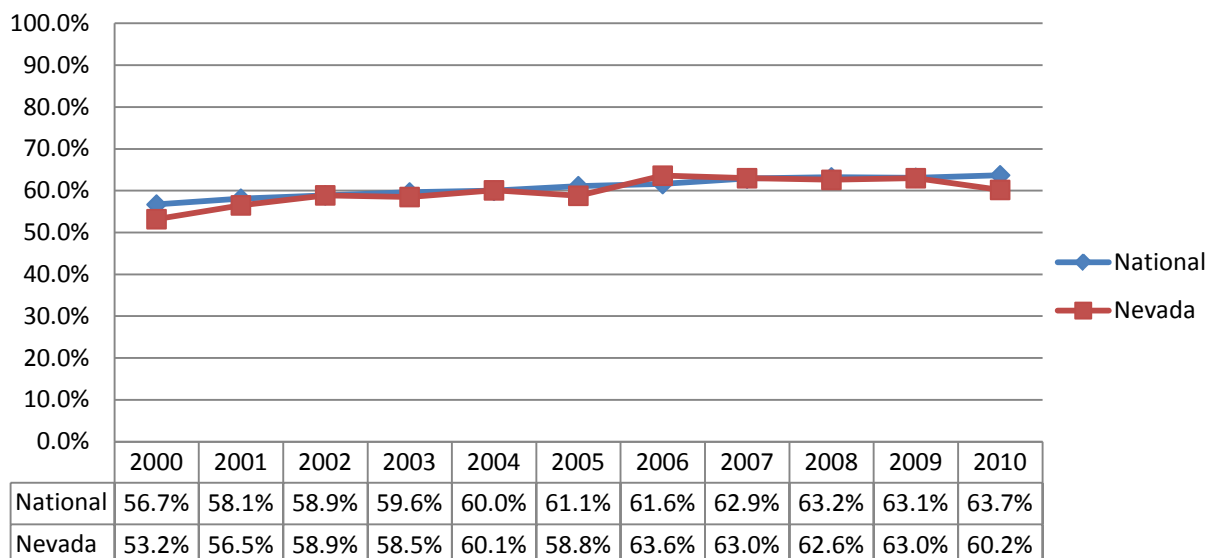
Health disparities are those differences in the incidence, prevalence, mortality or burden of disease that exist among specific populations groups. Health disparities can affect population groups based on gender, age, ethnicity, socioeconomic status, geography, sexual orientation, or disability and occur among groups who have persistently experienced historical trauma, social disadvantage or discrimination, and systemically experience worse health or greater health risks than more advantaged social groups (Hawaii State Department of Health, 2011). The following risk factors will include the most severe health disparities according to demographical analysis.



## Obesity

### Overweight & Obesity Trends, BRFSS, 2000-2010

The percent of adults classified as obese or overweight based on their BMI calculated from self-reported height and weight

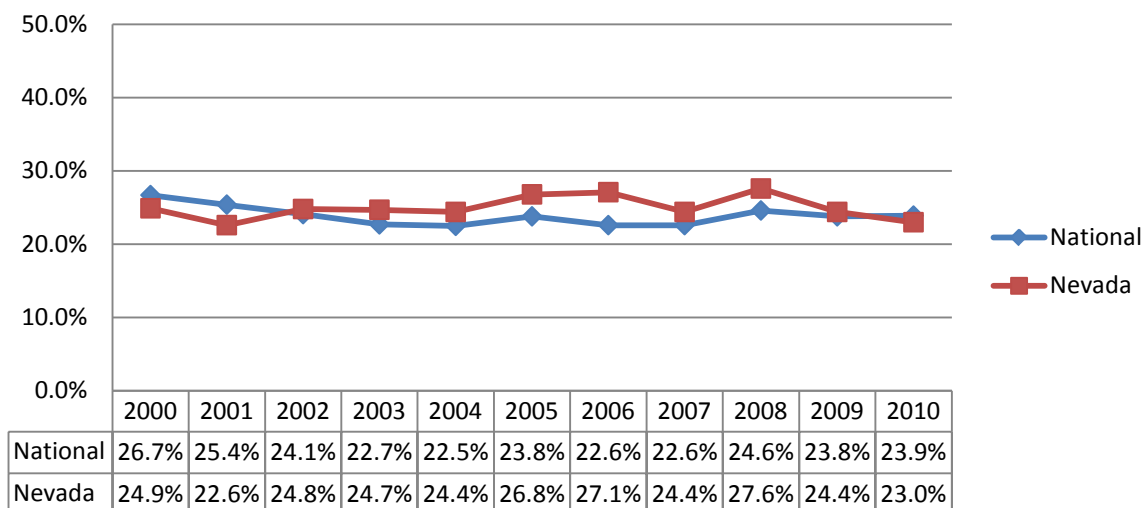


There has been a steady climb from 2000 to 2010 in overweight and obesity trends both nationally and in Nevada. The prevalence of Nevadans who are overweight and/or obese has rose 7% from 2000 to 2010. Nationally the prevalence of those who are overweight and/or obese also rose 7% from 2000 to 2010

## Physical Inactivity

### Lack of Physical Activity Trends, BRFSS, 2000-2010

Adults not participating in physical activity or exercise in the past 30 days, non-job related

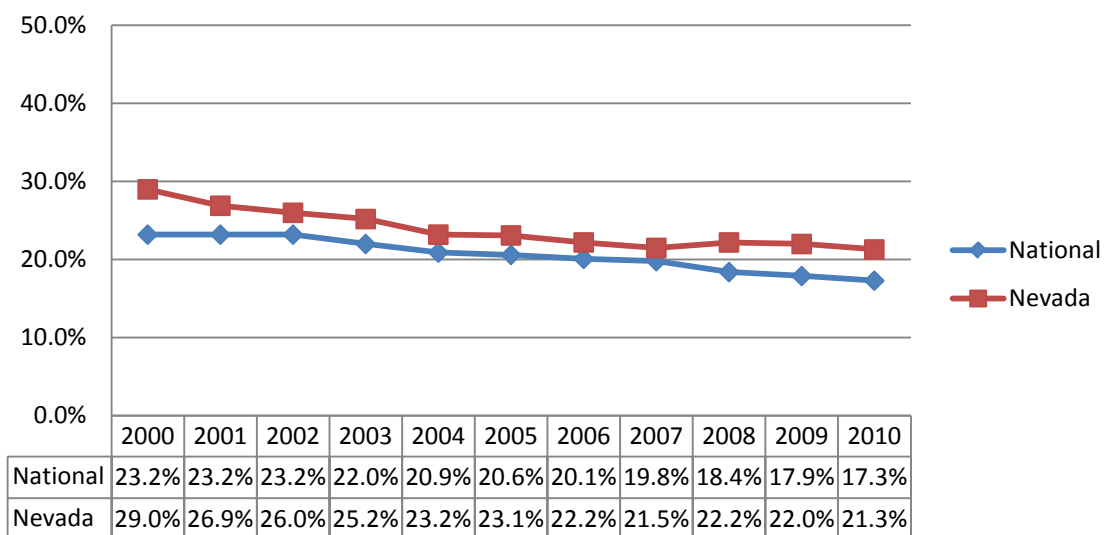


A risk factor associated with being overweight and/or obese is a lack of physical activity. In Nevada, more people have become physically active from 2000 to 2010 by 2%; however, in 2010, 23% of Nevadans did not participate in any physical activity or exercise in the past 30-days that was not job related which is in line with the national average (23%).

## Tobacco

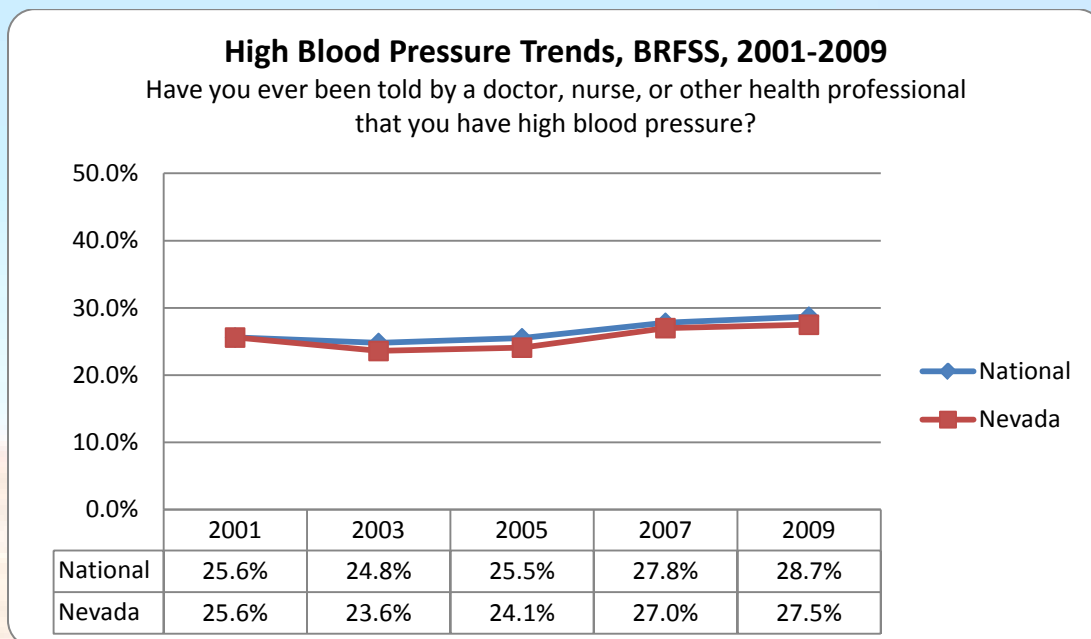
### Tobacco Use Trends, BRFSS, 2000-2010

Do you currently smoke, use chewing tobacco, snuf, or snus every day, some days, or not at all?



Tobacco prevalence nationally and among Nevadans has steadily decreased over the last decade; However, Nevada is still above the national average (21%). Tobacco use has decreased in Nevada 8% from 2000 to 2010 and nationally by 6%. Tobacco use is still considered by the Surgeon General as “the single most avoidable cause of disease, disability, and death in the United States” (CDC, 2007).

## Hypertension



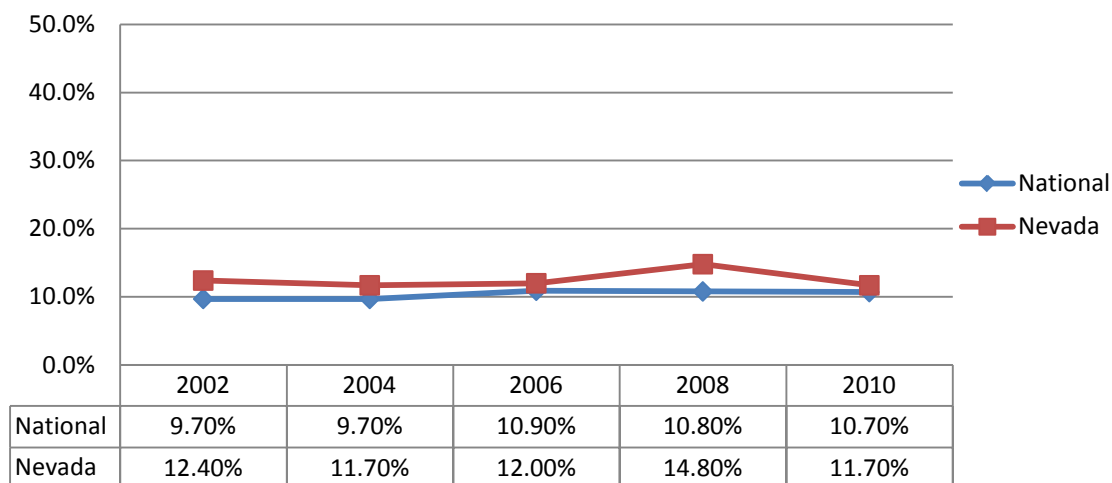
Prevalence of high blood pressure for Nevadans has gone up 2% from 2001 to 2009 which is slightly under the national average of 29%. There is a strong relationship between hypertension (High blood pressure), obesity, physical inactivity and smoking.

## Oral Health

Oral diseases are progressive and if left untreated become more complex and difficult to manage over time. Like other forms of chronic disease, the majority of oral diseases are preventable.

### Oral Conditions Trends, BRFSS, 2002-2010

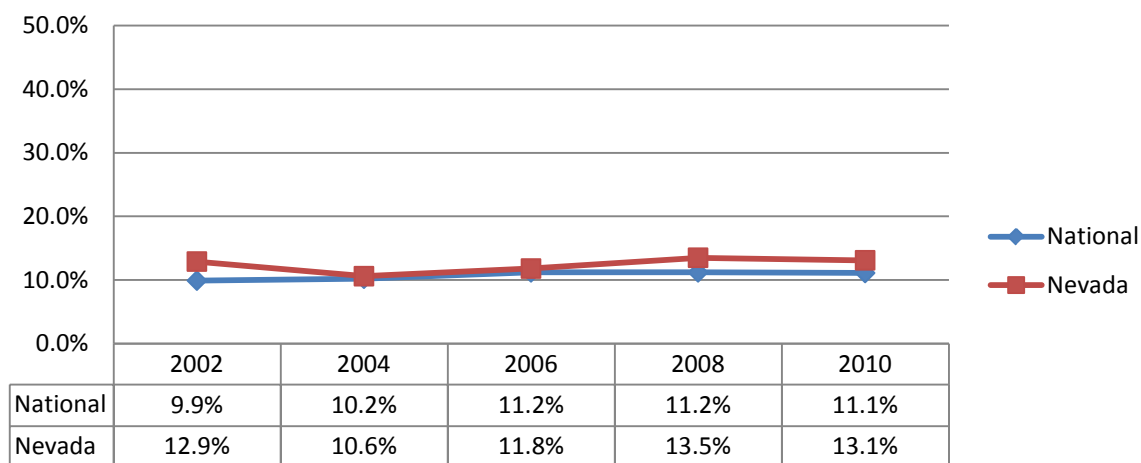
Have Never Seen A Dentist or Have Not Seen a Dentist/Dental Clinic in 5-Years or More



The prevalence of Nevadans who have not seen a dentist or dental clinic in the past 5-years or more has not varied much from 2002 to 2010, hovering around 12% which is higher than the national average.

### Oral Conditions Trends, BRFSS, 2002-2010

Have not had a Teeth Cleaning in 5 or More Years or Not at All

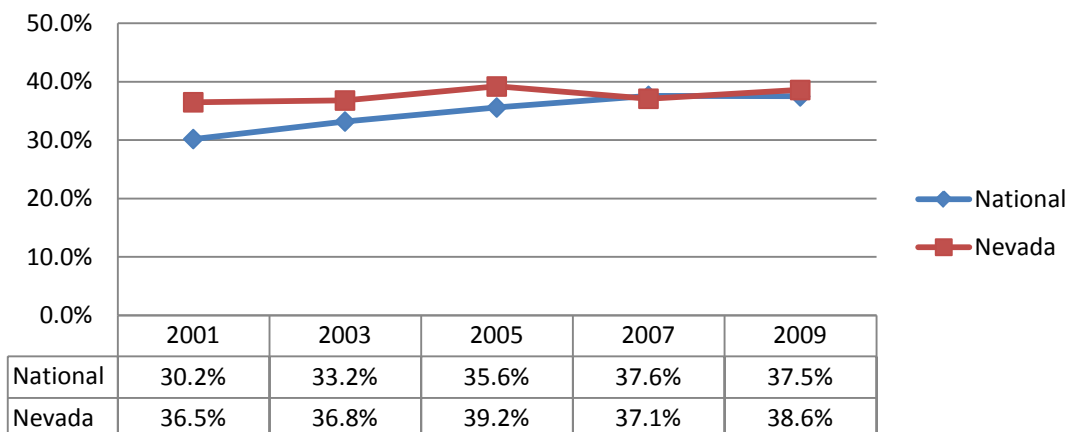


The prevalence of Nevadans who have not had a teeth cleaning in 5 or more years or not at all has remained relatively consistent from 2002 to 2010 at 13% which is above the national average.

## High Blood Cholesterol

### High Blood Cholesterol Trends, BRFSS, 2001-2009

Have you ever been told by a doctor, nurse, or other health professional that your blood cholesterol is high?

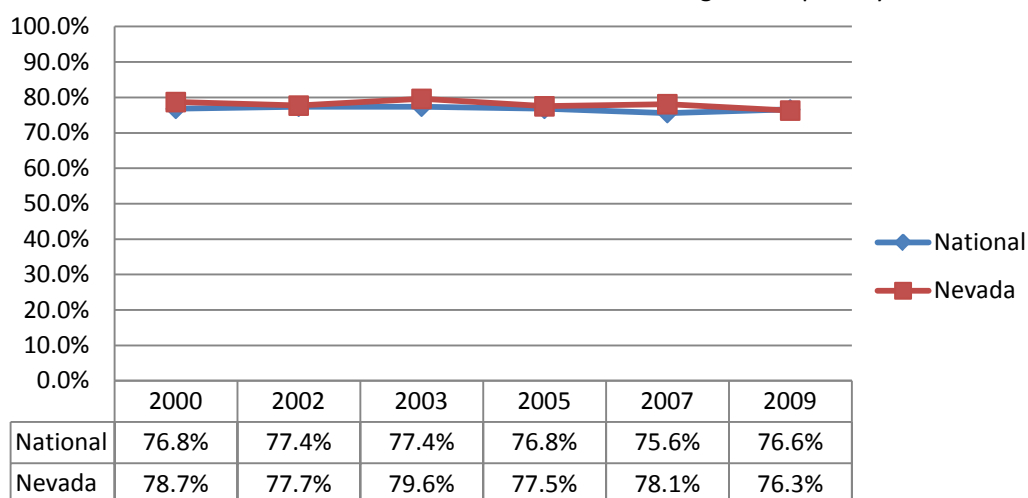


Nevadans who were diagnosed with high blood cholesterol have increased by 2% from 2001 to 2009 compared to national prevalence which was a steady increase, rising almost 8% from 2001 to 2009. The prevalence of high blood cholesterol in Nevada is slightly above the national average.

## Poor Nutrition

### Poor Nutrition Trends, BRFSS, 2000-2009

Adults who do not consume 5 or more fruits and vegetables per day



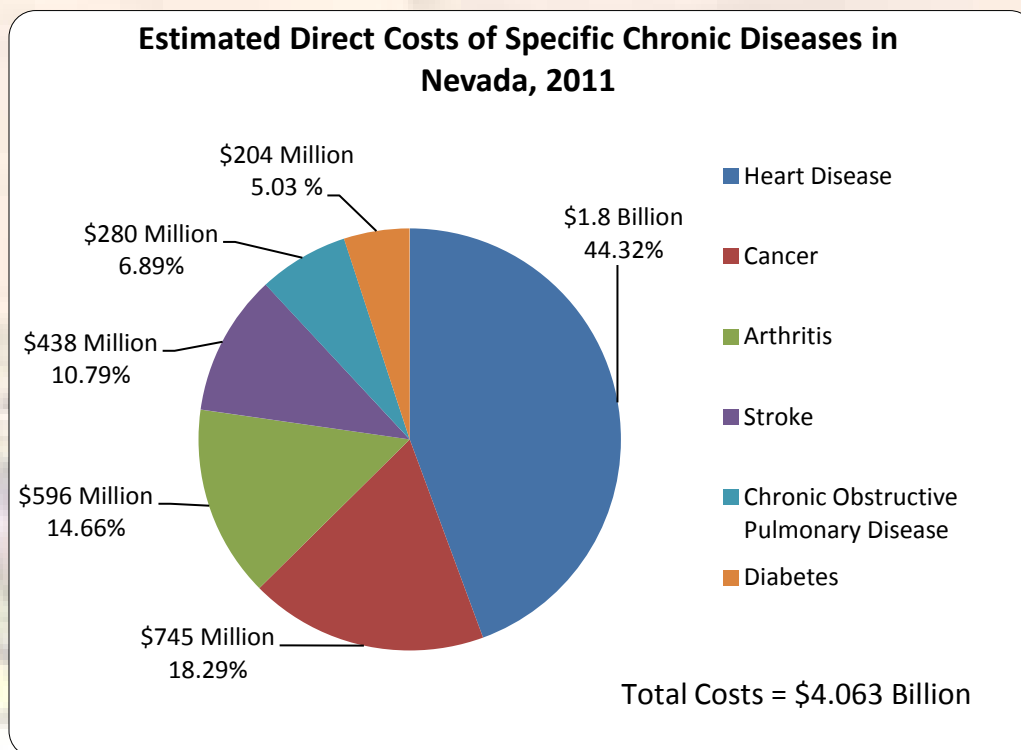


Although the prevalence of adults consuming the recommended daily portions of fruits and vegetables has increased by 3% from 2000 to 2009, 76% are still not getting the recommended portions, which is slightly below the national prevalence of 77%.

## The Economic Burden of Chronic Disease

The rising rate of chronic disease is a crucial but frequently ignored contributor to increasing medical expenditures. The health of Americans and the economy depend on our ability to focus our efforts to reduce the burden of disease. The human loss of life and economic toll of chronic disease on patients' families and society is enormous. Yet, while many studies have tried to estimate costs of illness, there has not been a significant focus on estimating the costs that could be avoided through efforts to reduce prevalence and burden of diseases. This section estimates the current and future treatment costs and loss of productivity for six major chronic conditions in Nevada— arthritis, combined cancers, chronic obstructive pulmonary disease, diabetes, heart disease, and stroke (DeVel, Ross, Bedroussain, 2007). These estimates are conservative in two ways: they focus only on the costs attributed directly to the treatment of each disease and exclude the costs of co-morbidities and secondary effects. Moreover, it excludes cost of related health conditions, as well as cost for individual in nursing homes, prisons and other institutions.

### Direct Costs

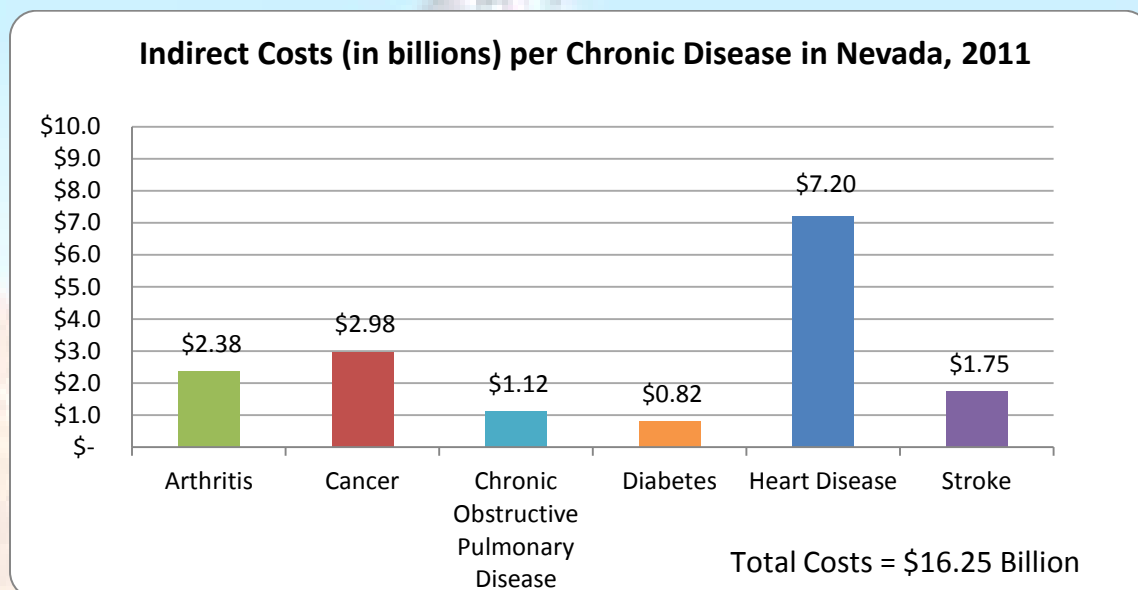


Source: Milken Institute, The Economic Burden of Chronic Disease on Nevada, 2007.

The direct costs associated with chronic disease are incurred from inpatient hospitalizations. Out of the \$2.240 billion associated with the direct cost of chronic disease, heart disease and stroke account for approximately 55% of the costs in the State of Nevada. Cancer is the 2<sup>nd</sup>

highest economic burden in direct medical costs, totaling \$745 million (18.3%) of the total burden. Diabetes contributes to over \$204 million in direct medical costs; while arthritis is a chronic condition you can live with, limited activity and decrease in quality of life are prevalent and are costing the state over \$596 million dollars annually in direct costs.

## Indirect Costs



Source: Milken Institute, The Economic Burden of Chronic Disease on Nevada, 2007.

Direct costs are not the only representation of economic burden that chronic diseases place on Nevada; indirect costs represent the productivity losses due to illness and premature death. Below is a chart depicting the estimated total economic burden – direct costs, indirect costs using four times direct costs, and the total cost - for Nevada and the projected total burden in 2023 if nothing is changed or implemented with respect to prevention efforts focused on chronic diseases (Milken). These numbers are estimated by DeVel, Ross and Bedroussian (2007) and used by the Milken Institute.

Total Economic Burden in Nevada			
	Direct Costs	Indirect Costs	Total Estimated Economic Burden
<b>2003</b>	\$1,900,000,000	\$7,500,000,000	\$9,400,000,000
<b>2011*</b>	\$4,062,820,904	\$16,251,283,616	\$20,314,104,520
<b>2023</b>	\$9,100,000,000	\$36,400,000,000	\$45,500,000,000

Source: Milken Institute, The Economic Burden of Chronic Disease on Nevada, 2007.

^Analysis used the Medical Expenditure Panel Survey (MEPS) data from 2003, the most recent year available at time of analysis.

\*Numbers calculated from Economic Burden of NV section

These numbers are staggering and should be an indication that previous chronic disease prevention and intervention efforts have not worked. The CDPHP Section is changing their approach to offset this economic burden. Through integrated efforts in clinical linkages, health promotion, and environmental change a new focus on prevention in chronic disease are emerging.

### ***Implications***

The greatest implication of chronic disease is that an individual's health is inextricably linked with their ability to be a productive member of society. An investment in health with the intent of decreasing the burden of chronic disease is an investment in Nevada's economic prosperity. Nevada's economic performance is closely tied to its ability to maintain the most-educated, highly trained, and healthiest work force. It is well understood among policy-makers that economic growth is dependent on investments in human capital, however; the importance of good health in maintaining a competitive work force is frequently overlooked. Better health leads to greater investments in education, resulting in higher levels of human capital – which in turn causes wealth to increase in a virtuous cycle of economic growth.

## GOALS, OBJECTIVES AND STRATEGIES

The FWAC and the CDPHP Section have identified the following goals to improve, manage, and prevent chronic disease in Nevada over the next five years. These goals are centered on the five core functions identified through our gap analysis:

1. Evaluation and Surveillance
2. Health Promotion and Marketing
3. Clinical and Health Services
4. Environmental and System Changes
5. Enhanced State Capacity

The CDPHP Section and its partners will incorporate clinical and preventive initiatives, environmental and system changes, health promotion, and surveillance efforts to eradicate the epidemic of chronic disease in Nevada. Since many reports tout the important role staff and leadership plays in ensuring the delivery of quality and culturally competent medical care and health promotion services, Nevada also seeks to foster training and capacity-building activities to support the infrastructure, development and sustainability of a strong and effective chronic disease workforce in Nevada.

Nevada will take a multipronged, comprehensive approach towards incorporating these five priorities into the state's healthcare systems following the successful examples of the states of California, New York, and Iowa. We believe these goals and strategies will have an impact across multiple chronic diseases and risk factors. For example, by enhancing clinical and health services we hope to increase access to services that are equitable for all Nevadans struggling with diabetes, arthritis and cancer (to name a few).

The success of these efforts will be evaluated utilizing multiple approaches: evaluation measures and surveillance activities that utilize location and national data sets such as Behavioral Risk Factor Surveillance System and Youth Risk Behavioral Surveillance System. The findings will be published and disseminated to community members utilizing the circulation strategies such as ListServes, social networks, and educational briefs. Moreover, Chronic Disease Prevention and Health Promotion staff will report quarterly to the FWAC for guidance. As our advisors and community champions, FWAC will ensure the state is moving forward in making progress towards these strategies.

## Evaluation and Surveillance

Goal	Objective	Strategy	Activity	Partners
<b>Evaluation and surveillance data and information are used by policy makers, decision makers and practitioners to address the burden of chronic disease in Nevada.</b>	<i>CDPHP will increase the number of surveillance and evaluation products that enhance statewide data driven reporting, programming, and community decision-making efforts to improve chronic disease.</i>	1. Establish, maintain, and/or enhance statewide chronic disease surveillance systems, including credible primary and secondary data sources such as BRFSS, YRBSS, and state Cancer and Stroke Registry.	<ul style="list-style-type: none"> <li>Strengthen internal and external protocols on the collection, analysis, and dissemination of chronic disease data</li> <li>Actively work with the Local Health Authorities, hospitals, and clinics on data efforts</li> <li>Identify funding for core surveillance and evaluation activities</li> <li>Publish annual data driven products such as burden reports, presentations, and policy briefs on tobacco, obesity, cancer, diabetes and oral health.</li> <li>Create a heart disease &amp; stroke registry</li> </ul>	<ul style="list-style-type: none"> <li>WCHD</li> <li>SNHD</li> <li>CCHHS</li> <li>UNLV</li> <li>UNR</li> </ul>
		2. Support the use of and access to electronic health records to achieve improved outcomes in patient engagement, care coordination, and population health with regards to chronic disease prevention and control.	<ul style="list-style-type: none"> <li>Engage Local Health Authorities to establish principles on data collection and dissemination</li> <li>Link with hospitals, clinics, and service providers to establish a plan for the use and dissemination of health data</li> </ul>	<ul style="list-style-type: none"> <li>WCHD</li> <li>SNHD</li> <li>CCHHS</li> </ul>
		3. Disseminate chronic disease information for use by key stakeholders to make the case for chronic disease.	<ul style="list-style-type: none"> <li>Create and disseminate chronic disease and risk factor burden reports (Oral Health, Diabetes, Cancer, etc)</li> <li>Create and disseminate reports for taking action on social determinants of health to address health equity</li> </ul>	<ul style="list-style-type: none"> <li>Bureau of Health Statistics, Planning, Epidemiology, and Response</li> <li>Bureau of Public Health and Clinical Nurses</li> </ul>



Health Promotion				
Goal	Objective	Strategy	Activity	Partners
<b>Nevada will see improvements in chronic disease risk factors (high blood pressure, obesity, smoking, caries, A1C, etc) by applying health education and promotion activities.</b>	<i>CDPHP will increase the number of health promotion communication strategies that promote evidence-based healthy lifestyle changes that help reduce the burden of chronic disease in Nevada.</i>	1. Translate surveillance, evaluation and research information into press releases, advocacy briefs, and publications that highlight chronic disease and key risk factors.	<ul style="list-style-type: none"> <li>Establish, maintain and/or enhance key chronic disease surveillance systems, including the BRFSS, YRBSS, and state Cancer and Stroke Registry</li> <li>Integrate surveillance and evaluation information into programmatic decision making to improve program performance</li> </ul>	<ul style="list-style-type: none"> <li>Centers for Disease Control</li> <li>WCHD</li> <li>SNHD</li> <li>CCHHS</li> <li>Great Basin Primary Care</li> <li>UNLV</li> <li>UNR</li> <li>AHA</li> </ul>
		2. Prioritize, integrate, and align health promotion tools and strategies into ongoing state activities to raise community awareness and build community demand for chronic disease action.	<ul style="list-style-type: none"> <li>Create a statewide chronic disease Listserve</li> <li>Engage in social media strategies such as Facebook, Twitter, etc.</li> <li>Design a wellness website to promote worksite wellness among businesses and health establishments</li> </ul>	<ul style="list-style-type: none"> <li>WCHD</li> <li>SNHD</li> <li>CCHHS</li> </ul>
		3. Prioritize, integrate, and align health promotion tools and strategies into ongoing state activities to raise community awareness and build community demand for chronic disease action.	<ul style="list-style-type: none"> <li>Create and disseminate a chronic disease and risk factor burden reports (oral health, cancer, diabetes, etc)</li> <li>Create and disseminate reports for taking action on social determinants of health to address healthy equity</li> </ul>	<ul style="list-style-type: none"> <li>Bureau of Health Statistics, Planning, Epidemiology, and Response</li> <li>Bureau of Public Health and Clinical Nurses</li> </ul>
		4. Invest in statewide television, radio, and social media to address and highlight the burden of key chronic disease risk factors such as tobacco and nutrition, and physical activity.	<ul style="list-style-type: none"> <li>Leverage resources and funding for health promotion activities such as sealants, physical activity, and nutrition</li> <li>Conduct media campaigns to promote the use of age-appropriate screening and early detection of tooth decay, breast, cervical, and colorectal cancer</li> <li>Conduct tobacco cessation media campaigns</li> <li>Conduct radio and television media campaigns that promote physical activity and nutrition</li> </ul>	<ul style="list-style-type: none"> <li>Nevada Broadcasters Association</li> <li>TBD</li> </ul>

Clinical and Health Services				
Goal	Objective	Strategy	Activity	Partners
<b>The provision and quality of clinical and health preventive services will become institutionalized with gold standards and best practices throughout the state.</b>	<i>CDPHP will Increase the number of screenings, care coordination, and self management models.</i>	1. Train community organizations and health entities to effectively recruit key population groups to receive clinical preventive services, including screening and early detection of breast, cervical and colorectal cancer, cessation counseling, diabetes, obesity, and oral screenings.	<ul style="list-style-type: none"> <li>Identify funding for quality health care and clinical preventive services</li> <li>Promote and provide resources on the provisions of coaching, self-help materials and nicotine replacement medications to smokers trying to quite through the Helpline</li> <li>Promote and fund age appropriate oral health screenings, and breast, cervical and colorectal cancer screening services</li> <li>Conduct trainings on gold standards, evidence base practices, and promising practices for the health care and clinical workforce</li> </ul>	<ul style="list-style-type: none"> <li>Great Basin Primary Care</li> <li>Nye Community Coalition</li> <li>St. Rose Dominican Health Foundation</li> <li>Statewide partners Diabetes Prevention</li> <li>UNR School of Medicine</li> <li>United Latino Community</li> <li>Nevada Tobacco Users' Helpline</li> <li>Access to Healthcare</li> </ul>
		2. Convene experts, state agencies, insurers, community organizations, advocates and stakeholders to identify a process to expand self management services and community peer to peer care coordination models.	<ul style="list-style-type: none"> <li>Improve communication, referrals, and collaboration among state and state-funded programs to facilitate the provision of the full range of preventive clinical and social services addressing chronic diseases</li> <li>Promote utilization of Chronic Disease Self Management Classes</li> <li>Develop a Quality &amp; Technical Assistance Center</li> <li>Establish School Based Health Centers</li> </ul>	<ul style="list-style-type: none"> <li>FWAC</li> <li>Medical Advisory Board for Colorectal Cancer and Breast and Cervical Early Detection</li> <li>Nevada Cancer Coalition</li> <li>Nevada Tobacco Prevention Coalition</li> <li>Diabetes Advisory Council</li> <li>Medicaid</li> <li>HCQC</li> </ul>
		3. Convene experts to identify a process to expand reimbursement mechanisms for disparate communities across Nevada		
		4. Promote policy, system and environmental change within	<ul style="list-style-type: none"> <li>Pursue policies that support coverage of chronic disease self</li> </ul>	<ul style="list-style-type: none"> <li>FWAC</li> </ul>

Clinical and Health Services				
Goal	Objective	Strategy	Activity	Partners
		the health care system, based on the chronic care model and the patient-centered medical home	<p>management programs</p> <ul style="list-style-type: none"> <li>• Pursue policies that clinician reimbursement for provisions of clinical and preventive services, including patient education and counseling</li> <li>• Engage in the adoption and use of electronic health records to achieve improved outcomes in patient engagement, care coordination, and population health with regards to chronic disease</li> </ul>	<ul style="list-style-type: none"> <li>• Oral Health Medical Advisory</li> <li>• Medical Advisory Board for Colorectal Cancer and Breast and Cervical Early Detection</li> <li>• Nevada Cancer Coalition</li> <li>• Nevada Tobacco Prevention Coalition</li> <li>• Diabetes Advisory Council</li> <li>• Medicaid</li> <li>• Nevada Hospital Association</li> <li>• Access to Health Care Network</li> <li>• Silver Exchange Industries</li> </ul>

Environmental and System Changes				
Goal	Objective	Strategy	Activity	Partners
<b>Nevada will work to improve, upgrade, or enhance the physical environments in which residents and visitors live, work, and play to support health-promoting behaviors that encourage healthy eating, physical activity and tobacco cessation.</b>	<i>Increase the number of regulations and policies that promote healthy and livable environments.</i>	1. Promote the development and effective implementation of comprehensive worksite wellness policies that include tobacco-free and breastfeeding-friendly environments, healthy food and beverage choices, and physical activity opportunities	<ul style="list-style-type: none"> <li>Fund community efforts pertaining to:                             <ul style="list-style-type: none"> <li>Worksite Wellness</li> <li>Tobacco free parks and housing</li> <li>Environments that promote physical activity</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>WCHD</li> <li>SNHD</li> <li>CCHHS</li> <li>St. Rose Hospital</li> <li>Statewide Coalition Partnership</li> <li>The Business Sector</li> <li>Department of Transportation</li> <li>Department of Education</li> </ul>
		2. Engage, convene, and provide resources and support to community members, policy and decision-makers, businesses, education leaders, health care leaders, and advocates to advance environmental and systematic efforts that affect chronic disease.	<ul style="list-style-type: none"> <li>Provide data driven information on risk factors and social determinants of chronic disease to key advisories and councils</li> <li>Provide training and resources that move forward evidence based and best practices on built environments                             <ul style="list-style-type: none"> <li>Community Gardens</li> <li>Walking and biking</li> <li>Fluoridated water facilities</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>WCHD</li> <li>SNHD</li> <li>CCHHS</li> <li>Early Child Care Providers Workgroups</li> <li>CDPHP Leadership Team</li> <li>FWAC</li> <li>Advisory Committee for Oral Health</li> <li>Medical Advisory Board for Colorectal Cancer &amp; Breast &amp; Cervical Early Detection</li> <li>Nevada Tobacco Prevention Coalition</li> </ul>
		3. Pursue the development or enhancement of state regulations and statutes that	<ul style="list-style-type: none"> <li>Provide funding and training to Early Child Care Centers as a means to improve regulations that</li> </ul>	<ul style="list-style-type: none"> <li>Board of Health</li> <li>State of Legislation</li> </ul>

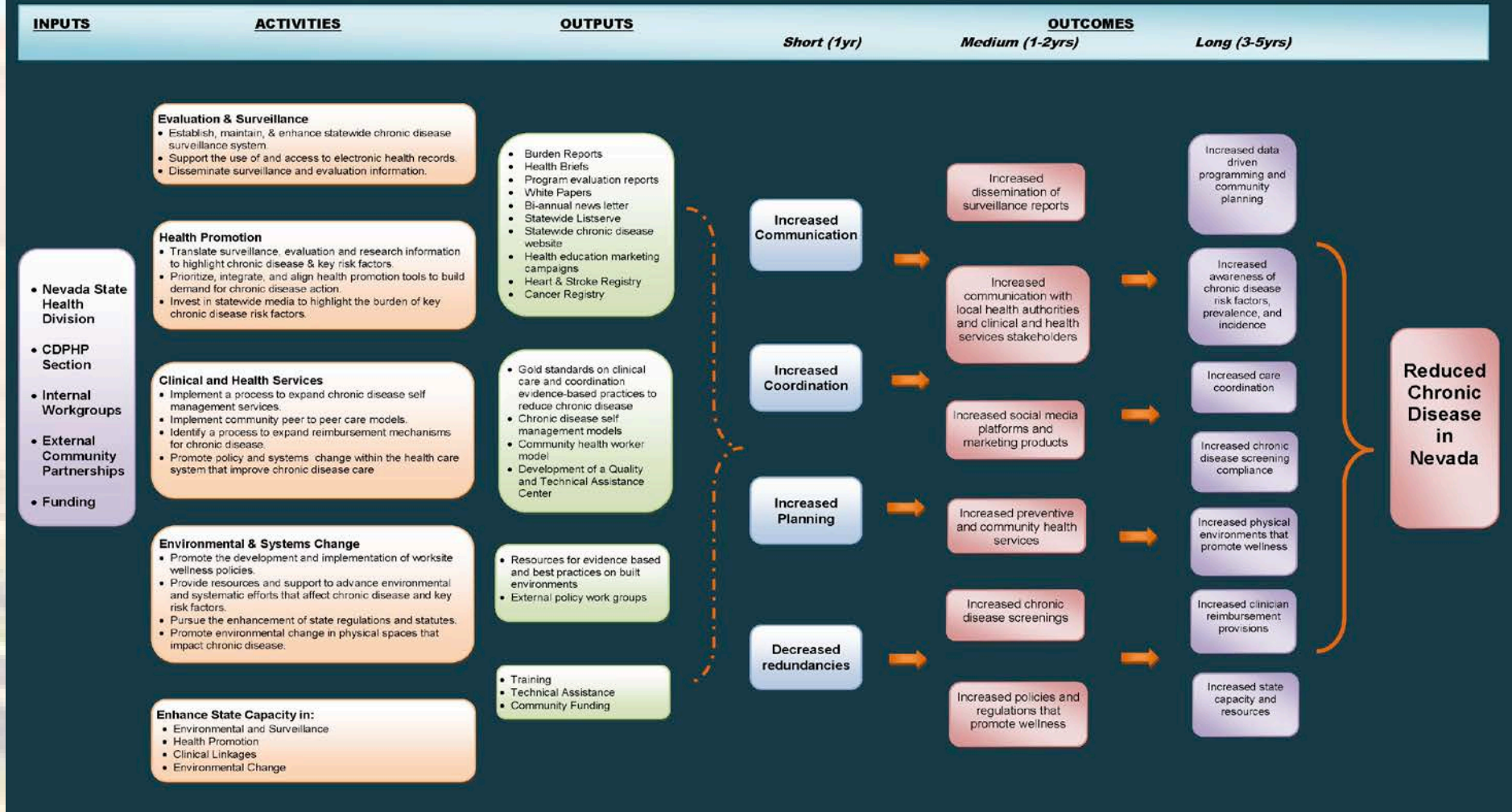
Environmental and System Changes				
Goal	Objective	Strategy	Activity	Partners
		impact physical environments and systems linked to chronic disease risk factors	<ul style="list-style-type: none"><li>increase physical activity and nutrition efforts</li><li>• Provide funding and training to schools as a means to improve regulations that increase physical activity and nutrition efforts</li><li>• Enhance policies to improve care coordination and the delivery of clinical health services</li><li>• Convince and educate the Board of Health and regulatory entities</li></ul>	<ul style="list-style-type: none"><li>• TBD</li><li>• Parks &amp; Recreation Department</li><li>• Department of Transportation</li><li>• Clinical &amp; Health Services Policy Workgroup</li></ul>

Enhance State Capacity				
Goal	Objective	Strategy	Activity	Partners
<b>Nevada will have the human resources, systems and infrastructure to support a highly productive and effective state chronic disease plan</b>	<i>Increase cross-cutting technical assistance activities, training and funding opportunities for chronic disease leaders in Nevada.</i>	<b>EXTERNAL:</b>  Build community capacity by providing funding, resources, training, and support to local health departments and high level community organizations.	<ul style="list-style-type: none"> <li>Establish bi-annual trainings (in-person or via webinar)</li> <li>Pursue funding opportunities on behalf of community partners</li> <li>Align community stakeholders with the integrated chronic disease work plan</li> </ul>	<ul style="list-style-type: none"> <li>Early Child Care Providers Workgroups</li> <li>CDPHP Leadership Team</li> <li>FWAC</li> <li>Advisory Committee for Oral Health</li> <li>NV Cancer Coalition</li> <li>NV Colon Cancer Partnership</li> <li>Medical Advisory Board</li> <li>Nevada Cancer Coalition</li> <li>Nevada Tobacco Prevention Coalition</li> <li>Diabetes Advisory Council</li> <li>Bureau of Public Health and Clinical Nurses</li> <li>HCQC</li> <li>Public Health Preparedness</li> <li>Southern Nevada Medical Coalition</li> </ul>
		<b>INTERNAL:</b>  Build internal capacity by providing staff training, resources, and enhancement of operations in the CDPHP Section.	<ul style="list-style-type: none"> <li>Align NSHD staff with the integrated work plan</li> <li>Establish quarterly trainings (in-person or via webinar)</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>



## Logic Model: Chronic Disease Prevention and Health Promotion

### Chronic Disease Prevention and Health Promotion State Plan





## CONCLUSIONS AND RECOMMENDATIONS

Chronic disease affects all Nevadans either directly or indirectly. These conditions are largely preventable, and can be significantly reduced if not eliminated completely. The physical, mental, and financial burden from these diseases is enormous. **Everyone** can do something to reduce the burden of chronic disease. Below is a list of the things different people and organizations can do to eliminate the burden of chronic disease in our state:

Individual	What you can do...
<b>Policy Maker</b> (publicly elected or appointed official)	Adopt policies that target: <ul style="list-style-type: none"> <li>• Increased infrastructure for physical activity (parks, recreation centers, sidewalks, bike lanes, etc.)</li> <li>• Increased venues that prohibit smoking</li> <li>• Decreased accessibility to tobacco</li> <li>• Easier access to healthy foods (e.g. subsidies to local farms?)</li> </ul>
<b>Medical Professional</b> (Physician, Dentist, etc)	<ul style="list-style-type: none"> <li>• Spend more time on health education and prevention based medicine</li> <li>• Refer patients to programs with an emphasis on prevention (i.e. smoking cessation classes and nutrition programs)</li> <li>• Increase health screenings (e.g. cancer)</li> <li>• Be sure your cancer cases are reported in a timely manner</li> <li>• Refer and provide access to clinical trials</li> <li>• Make earlier referrals to hospice for end of life care</li> </ul>
<b>Educator</b> (professor, school teacher, etc)	Incorporate lessons on: <ul style="list-style-type: none"> <li>• Various aspects of healthy living (physical activity, nutrition, sleep etc.)</li> <li>• Detriments of behaviors that are harmful (smoking, excess use of alcohol and drugs)</li> </ul>
<b>Parent</b>	<ul style="list-style-type: none"> <li>• Encourage your children to be active and be active with them.</li> <li>• Get them excited about eating fresh foods, fruits, and vegetables</li> <li>• Discourage smoking, drug, and alcohol use</li> </ul>
<b>Employee</b>	<ul style="list-style-type: none"> <li>• Exercise with co-workers</li> <li>• Encourage people you work with to stop smoking</li> <li>• Encourage better nutrition at lunchtime (avoid fast food, etc.)</li> <li>• Provide healthier food options in employee gathering areas and events</li> </ul>

<b>Nevada Citizen</b>	<ul style="list-style-type: none"> <li>• Avoid tobacco and secondhand smoke</li> <li>• Eat a nutritious and balanced diet and maintain a healthy weight</li> <li>• Increase your daily physical activity</li> <li>• Be knowledgeable on health screenings</li> </ul>
<b>Organizations/Groups</b>	
<b>Educational Institution</b>	<ul style="list-style-type: none"> <li>• Improve access to healthy foods</li> <li>• Remove access to “junk food”</li> <li>• Expand the amount of time dedicated to physical activity/education</li> <li>• Include cancer prevention messages in health classes</li> <li>• Provide healthy foods in vending machines and cafeterias</li> <li>• Make entire campus a tobacco-free environment</li> </ul>
<b>Insurance Company</b>	<p>Give financial incentives to individuals who:</p> <ul style="list-style-type: none"> <li>• Exercise regularly</li> <li>• Don’t smoke/use tobacco</li> <li>• Maintain a healthy weight</li> </ul> <p>And to work with businesses that</p> <ul style="list-style-type: none"> <li>• Have wellness/health promotion programs</li> </ul>
<b>Hospital/Medical/Dental Organization</b>	<ul style="list-style-type: none"> <li>• Prompt case reporting in a timely manner (e.g. cancer, oral health)</li> <li>• Provide meeting space for cancer support groups</li> <li>• Collaborate to sponsor community screening and education programs</li> <li>• Reward providers who provide preventive services to patients</li> <li>• Work with insurance companies/Medicare &amp; Medicaid to improve access to care</li> </ul>
<b>Employer</b>	<ul style="list-style-type: none"> <li>• Give incentives to employees who <ul style="list-style-type: none"> <li>▪ exercise regularly,</li> <li>▪ don’t smoke,</li> <li>▪ maintain a healthy weight</li> </ul> </li> <li>• Start a worksite wellness/health promotion program,</li> <li>• Allow employees extra time for exercise/physical activity</li> <li>• Establish a tobacco-free workplace policy</li> <li>• Provide healthy foods in vending machines and cafeterias</li> <li>• Collaborate with hospitals to host screening events</li> <li>• Provide health insurance coverage</li> </ul>

<b>Government agency/Local Public Health Department</b>	<ul style="list-style-type: none"><li>• Develop incentive programs for training/retaining qualified healthcare professionals, especially in rural Nevada</li><li>• Fund programs that support health promotion/disease prevention, increase/improve infrastructure</li><li>• Provide cancer awareness information and data to citizens and groups</li><li>• Collaborate in community-based coalitions.</li><li>• Work with physicians to promote screening programs and case reporting</li><li>• Provide space for community survivor support groups.</li><li>• Access community needs and implement policy and environmental changes to reduce cancer risks</li><li>• Assure access to care for uninsured and under insured</li></ul>
<b>Professional Organization</b>	<ul style="list-style-type: none"><li>• Provide continuing education credits on cancer topics</li><li>• Include clinical trials' information in meeting agendas</li><li>• Form speakers' bureaus to provide cancer education</li><li>• Train facilitators for survivor support groups</li></ul>
<b>Community-Based Organization</b>	<ul style="list-style-type: none"><li>• Provide cancer awareness information to constituents</li><li>• Promote cancer screening among clients</li><li>• Encourage participation in clinical trials</li><li>• Collaborate to provide community prevention programs</li></ul>

## COMMUNITY PARTNERS AND ASSOCIATES

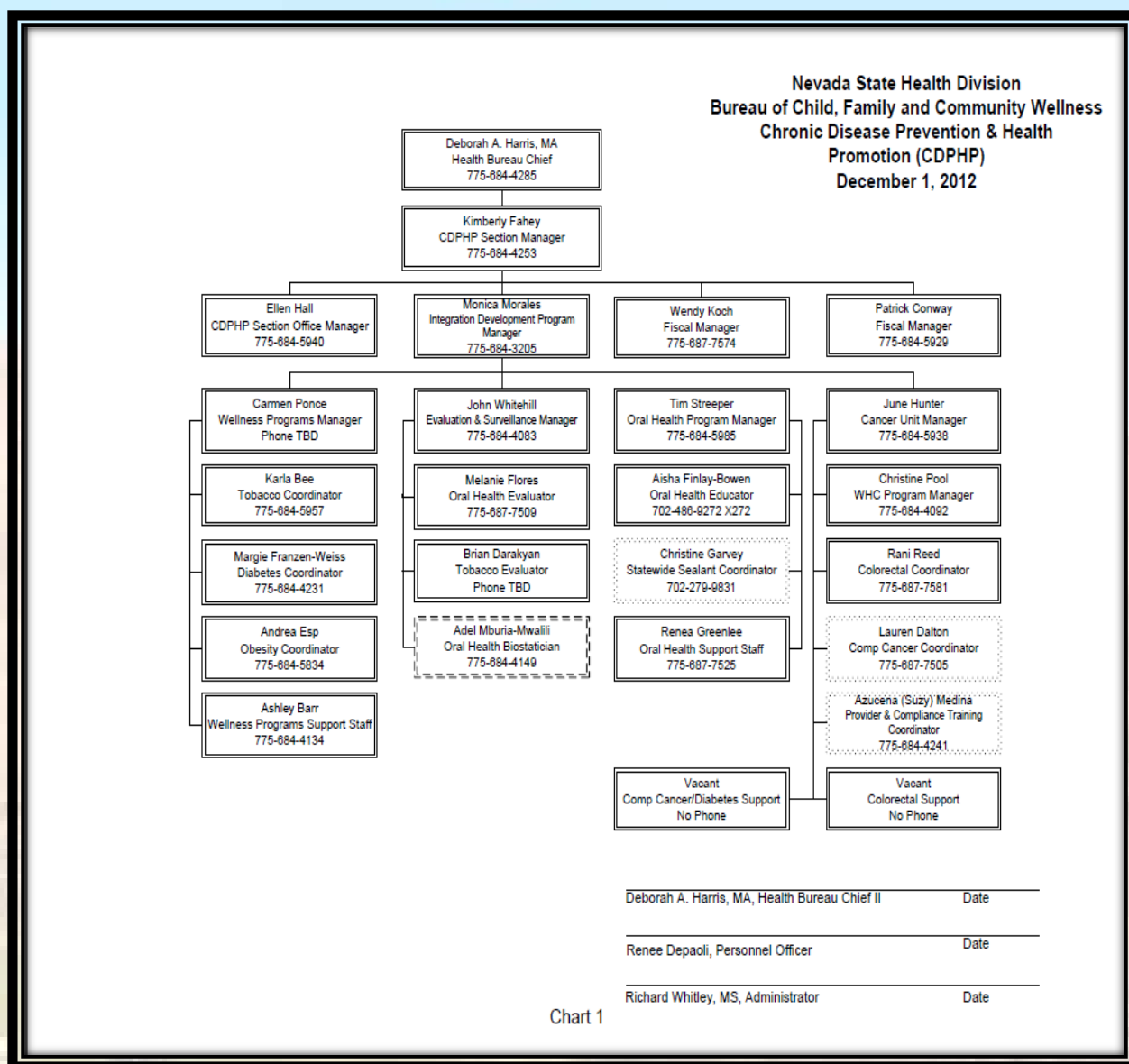
<p><b>Networks</b></p>	<p>Access To Healthcare Network  Alliance for Nevada Non-Profits  American Cancer Society  American Lung Association  Carson City Health District  HAWC Community Health Centers  Nevada Advisory Council – Diabetes  Nevada Advisory Council – Fitness &amp; Wellness  Nevada Advisory Council – Oral Health  Nevada Advisory Council – Stroke and Heart  Nevada Cancer Coalition  Nevada Cancer Institute  Nevada Coalition Partnership  Nevada Colon Cancer Partnership  Nevada Colorectal, Breast &amp; Cervical Cancer Medical Advisory Board  Nevada Tobacco Prevention Coalition  Northern Nevada Children’s Cancer Foundation  Reno Cancer Foundation  Renown Regional Medical Center  Rural Hospital Association  Southern Nevada Health District  St. Rose Dominican Hospitals  University Medical Center  Washoe County Health Department</p>
<p><b>Universities and Colleges</b></p>	<p>College of Southern Nevada  Desert Research Institute  Great Basin College  Nevada State College  Truckee Meadows Community College</p> <p>University of Nevada – Las Vegas</p> <ul style="list-style-type: none"> <li>• School of Community Health Sciences</li> <li>• School of Medicine</li> </ul> <p>University of Nevada – Reno</p> <ul style="list-style-type: none"> <li>• School of Community Health Sciences</li> <li>• School of Medicine</li> </ul>

<b>State of Nevada</b>	<p>Bureau of Health Statistics, Planning, Epidemiology and Response, Health Division Nevada State Board of Health Nevada Central Cancer Registry Nevada Environmental Health Services Nevada Health Care Quality and Compliance Nevada Medicaid and Nevada Checkup Nevada Women’s Infants and Children</p>
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- 8) Kung HC, Hoyert DL, Xu JQ, Murphy SL. (2008). *Deaths: final data for 2005*. National Vital Statistics Reports, 56, 10. Available from: [http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56\\_10.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf)
- 9) Milken Institute, *The Economic Burden of Chronic Disease on Nevada*, 2007.

## APPENDIX A- CDPHP SECTION ORG CHART

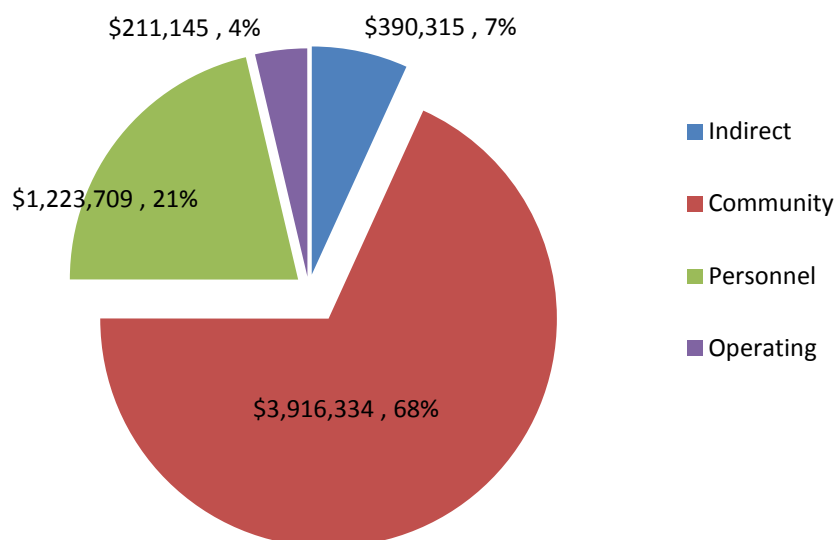




## APPENDIX B- CDPHP 2012-2013 Funding

The pie chart below provides a snapshot of where the financial resources the Chronic Disease Prevention and Health Promotion Section is designating towards these efforts. Total budget: \$5,741,503

**Nevada State Health Division  
Chronic Disease Prevention and Health Promotion Section  
2012-2013 Budget\***



*\*Based on current grant awards and grant parameters, as of 10/2012.*

The table below provides the breakdown of each Chronic Disease Prevention and Health Promotion Section grant, and how they support these efforts.

Grant	Operating	Personnel	Contractual (Community)	Indirect	Total
<b>Tobacco Control and Prevention</b>	\$ 40,589.39	\$160,743.49	\$ 1,008,907.01	\$ 24,388.11	<b>\$1,234,628.00</b>
<b>Comprehensive Cancer Control</b>	\$ 15,125.00	\$ 56,031.00	\$ 176,071.00	\$ 7,773.00	<b>\$255,000.00</b>
<b>Colorectal Cancer</b>	\$27,594.22	\$ 172,586.37	\$ 309,812.48	\$ 17,615.93	<b>\$527,609.00</b>
<b>Oral Health</b>	\$35,789.75	\$ 198,544.48	\$ 95,898.33	\$ 24,767.44	<b>\$355,000.00</b>
<b>Diabetes Prevention and Control Program</b>	\$26,694.63	\$163,584.88	\$ 130,133.12	\$ 24,028.00	<b>\$344,440.63</b>
<b>Women's Health Connection (Cancer Prevention and Control)</b>	\$42,479.00	\$211,999.59	\$ 1,866,493.41	\$ 235,664.00	<b>\$2,356,636.00</b>
<b>Public Health and Health Services</b>	\$4,055.00	\$ 8,286.30	\$ 269,302.00	\$ 31,293.70	<b>\$312,937.00</b>
<b>Coordinated Chronic Disease Prevention and Health Promotion</b>	\$24,291.86	\$ 247,873.14	\$ 58,302.00	\$ 24,785.00	<b>\$355,252.00</b>
<b>Total</b>	<b>\$ 216,618.85</b>	<b>\$ 1,219,649.25</b>	<b>\$ 3,914,919.35</b>	<b>\$ 390,315.18</b>	<b>\$5,741,502.63</b>