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## WASHOE COUNTY Community Health Needs Assessment



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#### Introduction

The Washoe County Health District (WCHD) and Renown Health partnered with individuals and organizations in the region to conduct this community health needs assessment (CHNA). The CHNA is a comprehensive health needs overview that informs development of a Washoe County Community Health Improvement Plan and Renown's Community Benefit plans. Additionally it is hopeful this resource document will be utilized by many organizations working in social and human services capacities to address the health needs of individuals in the community.

Several existing assessments and data sources were used to develop this report, focus groups of residents and input from nonprofit and social service leaders. Each provided additional insight into the health needs of our residents, as well as the social circumstances impacting health in our region.

Non-profit hospitals are required to conduct a community health needs assessment every three years and adopt a strategy to meet the health needs identified through the CHNA.<sup>1</sup> While Renown serves a broad area, including nearly 80,000 square miles across the northern two-thirds of Nevada, the majority of patients come from Washoe County and the immediate areas. For both brevity and focus, the health needs of residents in Washoe County are included in the scope of this document.

A Fundamental Review of the Washoe County Health District by the Public Health Foundation recommended that the District Board of Health provide direction to implement a community health needs assessment.<sup>2,3</sup> Similarly, local and state health departments nationwide are conducting community health needs assessments in accordance with public health department accreditation standards.<sup>4,5</sup>

The two entities determined there was an opportunity to collaborate and produce one singular document to identify the health needs and service gaps in Washoe County — they began collaborating near the end of 2013. The CHNA took place from May 2014 through September 2014 and was developed in coordination with the planning committee for the 2015 Truckee Meadows Healthy Communities Conference. The subcommittee, which guided the CHNA process, included Northern Nevada Medical Center, Saint Mary's Hospital, Renown Health, Washoe County Health District and a private citizen. This document was produced with funding provided to the Nevada Public Health Foundation (NPHF) from Renown, Washoe County, the Washoe County Health District, and a grant from Charles Schwab Bank.

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#### **CHNA Executive Summary**

Summarizing the large quantity of work that has gone into this Community Health Needs Assessment (CHNA) is no small feat — the amount of data can be overwhelming. We nonetheless encourage you to take time to read the full report.

If, however, you read only one section of the report, we encourage you to read this Executive Summary. It looks beyond the charts and tables presented in the CHNA to the compelling human stories that give the data life and context — children in our community who don't have enough to eat, homeless veterans who have no shelter, and families with health needs and little understanding of how to access the care they need.

This summary highlights these and other critical health issues specific to Washoe County.

The findings are organized into these broad categories:

- Health outcomes, health behaviors and historic trends
- Demographic and socioeconomic overview with comments on key populations
  - Seniors
  - Hispanics
  - Children
- Access to health care
- Health care disparities
- Education

The hope is that this CHNA will serve as a resource to explore and improve the health of our community. The narrative and more than a dozen other reference documents are available on the Renown Health website at www.renown.org, and on the Washoe County Health District site at washoecounty.us/health.

By working together, we can and will make a difference in the health of the Truckee Meadows.

Phyllis Freyer Vice President Renown Health Kevin Dick Health Officer Washoe County Health District

#### Health outcomes, health behaviors and historic trends

#### Health outcomes

The top three causes of death in Washoe County are heart disease, cancer and chronic lower respiratory disease respectively. This trend holds true for Nevada and the United States. Washoe County rates, however, are higher, which means residents in our community die more often from those diseases than the average person in Nevada and the United States. The economic impact of these diseases is significant — communities and families must shoulder the resulting increase in medical costs, reduced productivity, and lower quality of life.

#### Health behaviors

- As of 2013, less than a third of adults in Washoe County meet daily physical activity recommendations, which mirrors the national trend. The majority of adults in Washoe County are overweight or obese.
- Washoe County has higher rates of alcohol consumption than Nevada and the rest of the nation.
- In 2012, about 15% of Washoe County's population was considered to have inadequate food each day. This translates to about 60,000 persons per day who need food support. The proportion of the population enrolled in SNAP (formerly known as the food stamp program) has increased since 2008. According to a 2012 national study, the majority of food distribution sites in Washoe County experienced a year-over-year increase in clients. A third of those distribution sites did not have enough food to meet demands.
- In 2010, Washoe County residents reported undergoing preventive cancer screenings for cervical and colorectal cancers more often than residents of Nevada and the United States. Reported rates of breast cancer screenings were lower among adult females than national rates. In 2011, rates for newly diagnosed cervical and colorectal cancers were lower in Washoe County than the United States, while rates of diagnosed breast and prostate cancers were higher.
- Adults in Washoe County have a much higher suicide rate (22.3 per 100,000 population) than both Nevada and the United States. Washoe County males reported higher rates than females at nearly 40 per 100,000 population.



#### Historic trends

A county health summary written a decade ago would have had a much greater emphasis on smoking and teenage pregnancy. Although work in these areas remains, our community focus on teen smoking and pregnancy has improved overall health.

The following story about a local woman illustrates the physical, emotional and financial impact that so often results from health issues.

At age 36, Reno resident Christina Goyette was on top of the world — making great money, in the best shape of her life, and enjoying dirt biking and water sports with her new boat.

On April 17, 2013, after a regular day at work and the gym, her former boyfriend, a Reno firefighter, found her non-responsive at home and knew immediately to call 911. Christina had a stroke, which left her paralyzed for eight weeks.

Undaunted, she has worked relentlessly to regain 90 percent of her physical function so far.

Christina lifts weights every day at the gym determined to gain full dexterity of her left side. And at home she is learning to type again — a skill to help her get back in the work force full time.

Overcoming physical limitations is only one part of Christina's recovery — the stroke dramatically affected her finances. She couldn't function at her lucrative job and found herself unemployed. Even with health insurance, she has drained her savings and is burdened with outstanding debt due to medical expenses. Christina managed to work a seasonal job this summer to make ends meet, but continues to diligently apply for full-time employment.

"My goal is to find another great job and to fill that part of my self-worth that I'm missing right now. I'm working continually on my left arm and just trying to give 110%.

"A self-proclaimed fighter from the Midwest, Christina is not slowing down. "I know I will be back. I'll be on top of the world again."



#### **Demographic and Socioeconomic Trends**

An analysis of county wage data shows that the majority of workers in Washoe County earn less than the median wage of \$16 an hour. Because there is such a strong link between poverty and health, increasing this median wage is essential to having healthy citizens and a thriving community. Washoe County has had tremendous population growth over the past few decades. During the recent recession, the county, along with the rest of Nevada, experienced high unemployment. The economy now is showing signs of recovery, and thanks to successful economic development initiatives at the state and regional levels, the outlook for the future is encouraging. Going forward the economy is likely to experience growth much faster than originally expected—stemming from industries such as advanced manufacturing and robotics whose average wage is much higher than the service industries Washoe County has historically relied upon.

With the announcement of the new Tesla factory and the UAV (unmanned aerial vehicles) designation by the federal government, the County may offer significantly more high-paying jobs over the next five years — such that meeting labor requirements may prove a challenge. At this time, it is unclear how this rapid growth will impact low- and moderate-income populations.

When looking at the county's social and demographic trends, a few specific populations stand out and deserve our attention: children, seniors and Hispanics/Latinos. The CHNA doesn't break out the data according to these populations, but all of the information presented here about these groups comes from the report itself or the data contained in the attachments.



#### Children

Children deserve to live in communities that provide social and academic support and opportunities to develop healthy habits. Ultimately, the experiences of young people in our community will have a huge impact on the future health of Washoe County. We've seen progress toward a healthier community our children — immunization rates and high school graduation rates have increased. However, there is still room for improvement.

- Even with recent improvements only 61% of toddlers receive recommended vaccinations — more than 10% below national levels.
- More than 26,000 children in Washoe County are food insecure. This means that 1 out of 4 children in Washoe County regularly deal with hunger and often rely on cheap and unhealthy food.
- More than 2,500 students in Washoe County School
  District experienced homelessness last year. Three
  hundred lived on their own either couch surfing or
  on the street.
- A third of the children in our community are growing up in the four highest-need zip codes. These areas have increased poverty rates, lack of affordable housing, educational barriers, and little access to affordable healthcare. Even families with Medicaid experience difficulty finding physicians who accept the coverage.
- Washoe County's teen attempted suicide rate is well above the national average in 2013 21% of high schoolers considered suicide, and 14% attempted suicide. A critical shortage of mental health professionals means these young people don't have access to the care they need.
- Education levels tie to income levels and our K-12 education system is chronically under-resourced.
   Children who are English Language Learners (ELL) have particular difficulty succeeding in our schools.
- There is a significant issue with dental services for children, and although it is not illustrated in the CHNA, it was repeated by numerous non-profit leaders serving children.







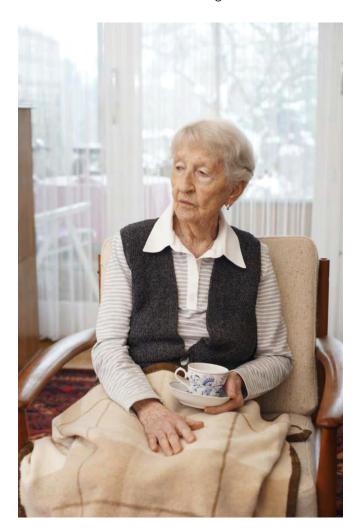
There can be no keener revelation of a society's soul than the way in which it treats its children.

Nelson Mandela

#### <u>Seniors</u>

In 2010 there were 76,000 people over the age of 60, in 2020 there are projected to be around 100,000 and by 2030 130,000. Why is this significant? Because today seniors over 65 represent about 12 to 13% of the population but they comprise more than 40% of hospitalizations. As the numbers of seniors grow, health care needs increase dramatically. Given that seniors need social services and other support, their growth in number demands attention and careful planning.

Some of the concerns particular to elders in our community include social isolation, the ability to age in place, and a lack of transportation services and affordable housing. These issues especially impact low-income seniors and those over the age of 80.



Seniors face a myriad of other challenges:

- One out of four seniors has difficulty with daily functions such as lifting and carrying heavy items, climbing stairs, or walking a quarter mile.
- More than 20,000 seniors are socially isolated, particularly low-income seniors and those over the age of 80. Dementia and other aging issues can be exacerbated by isolation.
- More than 25% of seniors currently experience poor health and a reduced auality of life.
- More than 21,000 seniors have unaffordable housing costs.
- The number of adults aged 65+ who report having received an annual flu shot is lower than rates for Nevada and the U.S. However, Washoe County pneumonia vaccination rates among that same group 74.1% exceed those of Nevada and the U.S.
- There are provider access issues for persons on Medicare, but they are not as pronounced as the access issues with Medicaid.
- Affordable oral health care for adults and particularly seniors is a serious issue that further exacerbates chronic diseases.

#### **Hispanics**

Every year, Washoe County becomes a more diverse community. The Hispanic community in particular continues to grow rapidly and now represents nearly 25% of the overall population. And although we all benefit from the Hispanic community's rich and diverse cultural heritage, now more than ever, there are significant socioeconomic factors to consider in relation to the Hispanic population. These findings provide a more inclusive picture of health in Washoe County.



- The Hispanic population is concentrated in highneed zip codes in Reno and Sparks (89502, 89512, and 89433) where there are increased poverty rates, lack of affordable housing, educational barriers, and little access to affordable healthcare.
- Only 53% of all Hispanics in Washoe County have a high school diploma, compared to 86% of all Washoe County residents. Higher education levels correlate with better health status.
- In 2013, just over half of Hispanic adults reported having some kind of healthcare coverage or a personal healthcare provider. Many more people are now covered by Medicaid under the Affordable Care Act (ACA), but many in our community still lack insurance.
- This lack of coverage is likely a contributing factor to the fact that in Nevada, 40% of Hispanic women over 40 have not had a clinical breast exam in more than 5 years.

Hispanics when compared to Washoe County overall:

#### Socio-economic factors

- Have lower levels of education
- o Have a 10% lower HS graduation rate
- o Have a lower per capita income compared to non-Hispanics
- Have a 10% higher poverty rate
- o Are less likely to have health coverage (-25%)
- o Are less likely to have a healthcare provider (-17%)

#### Health outcomes

- o Are 10% more likely to be overweight or obese
- o Have a higher alcohol use in high school (+4%)
- o Are less likely to perceive themselves as healthy (-20%)

#### **Access to Healthcare**

Health care access can mean many things. Here are some of the primary concerns in our community:

- Acute shortage of primary and specialty physicians accepting the growing Medicaid population
- Acute shortage of mental health providers
- Health care literacy and general navigation issues when accessing health care and other services.
- Acute shortage of affordable dental services for low and moderate income persons that leads to numerous health complications.

Acute shortage of primary and specialty physicians accepting the growing Medicaid population

As of late 2014, 1 in 5 residents in Washoe County were enrolled in Medicaid. Despite the increase in healthcare coverage, the number of physicians accepting Medicaid doesn't meet the needs of the population. This trend was repeatedly reported as we researched even though hard, substantial data is

difficult to come by. Many of those interviewed as part of the CHNA data collection effort expressed how challenging it is to find a provider who accepts Medicaid. Even if Medicaid patients know where to go for care, they experience long delays in scheduling an appointment. Physician shortages exist, but there is also a reimbursement component that complicates the issue. Based on the perceived inadequate reimbursement, many physicians are accepting Medicaid patients in the hospital as required by hospital bylaws, but do not accept patients in their private practices. This is an issue in both primary and specialty care.

One-third of Washoe County's population lives in a primary provider shortage area and. Also, one-third of residents live in a dental provider shortage area. The shortage of physicians available to see Medicaid patients is not confined to primary care — the shortage presents across all specialties.

The parent survey conducted by the Washoe County School District for the school-based clinic project found significant issues with healthcare access among parents and students in the Wooster "vertical." (The Wooster vertical includes Wooster High School as well as the elementary and middle schools that feed into it)



#### Acute shortage of mental health providers

Perhaps the most serious medical specialty shortage in our region relates to the significant lack of mental health providers. According to a recent report, we would need to double the number of providers in Nevada to be near the average number of providers available nationwide. There are simply not enough psychiatrists, psychologists, clinical social workers or therapists to treat those in need. Additionally, most counties surrounding Washoe, including those in Northern California and Southern Oregon, are also federally defined mental health shortage areas. So the practitioners in Reno are also overburdened with residents of rural surrounding areas seeking care in Washoe County.

Exacerbating the shortage is the fact that since 2008 Washoe County reports higher rates of suicide than both Nevada and the United States, and that rate increased over the past year. In 2011, approximately 61% of male detainees in the Washoe County jail had a history of mental illness. Of those served in mental health court in Washoe County:

- Nearly 65% were homeless
- 85% had a co-occurring disorder of substance abuse

Unfortunately, our community mental health concerns also translate to our youth:

- Washoe County high school students reported having felt sad/hopeless more often than youth across the rest of the nation.
- In 2013, approximately 14% of Washoe County high school students reported they had attempted suicide, which is nearly double national rates.

#### Healthcare navigation issues when accessing healthcare and other services

A common thread throughout the CHNA was the concept of literacy — or understanding how to navigate to needed services. Even when there are resources available to those in need, many may not know where they are, who to ask or how to best access them. The issue of finding what you need extends beyond health care to numerous other community support services. The system of care we have created as a community is difficult for our neighbors to navigate. On top of a complicated system of care, some low income families and seniors deal with critical transportation issues. The options for public transportation vary significantly depending on where you live in the region.

"One of our biggest challenges is providing mental health needs for kids in our community. We recently had a young patient who experienced a psychotic break in his home, creating an unsafe environment for the rest of his family. His mother made many phone calls trying to find help and was unsuccessful so she brought the child to the emergency room. I can only imagine what it is like for this family, to have a child in such desperate need and not be able to find care in such a stressful and serious situation."

Hospital nurse describing a recent incident

#### Meet Jerry

Jerry is a 55-year-old African American male who is HIV and Hepatitis-C (HCV) positive. Jerry has suffered from HIV for about 15 years and was diagnosed with HCV about 7 years ago. Jerry is intermittently housed, spending a majority of the year living on the streets and sometimes scraping up enough money to stay in a motel room. Jerry receives Social Security Disability Insurance (SSDI), but his \$660-per-month checks are not enough for him to afford permanent housing. Jerry often uses substances to cope with untreated mental health issues and therefore is not considered "appropriate" for HCV treatment. Jerry is not adherent to his HIV meds due to a variety of factors including difficulty storing his medications and difficulty remembering to take his medications — both of which are related to his housing and mental health status. Jerry does not have transportation or a phone and as a result often misses appointments with his provider. Jerry does have Medicaid that pays for his medical visits and medications. For the last year, however, when Jerry attempts to fill his prescriptions the insurance provider denies the claim requesting that the provider prescribe a different medication regimen.

About six months ago, Jerry was admitted to the hospital with an HIV related infection. A provider told him that he would not recover and should prepare to enter hospice. Jerry can be stubborn and stated that he was not ready to die, that he wanted to be put back on his HIV medications. Reluctantly the provider put him back on his meds and Jerry was discharged from the hospital within 24 hours, back to the streets where the cycle began all over again. He would attempt to take his medications for a while, and then his mental health and substance use would impact his ability once again. Jerry disappears often, with his case manager unable to track him down.

Jerry's story is not uncommon among low-income and homeless residents in Washoe County. Many individuals have untreated mental health and/or substance use issues that impact their ability to effectively engage in their healthcare treatment. The barriers that individuals like Jerry experience include lack of affordable housing, insurance and co-pays, and no access to transportation. These challenges impact Jerry's ability make it to doctor appointments, stay on his medication and willingly engage in mental health treatment. They also reinforce his need for substance use as a way to cope.

#### Disparities based on geography

#### **Areas with Higher Needs**

Five Washoe County ZIP codes have the greatest needs. Like other urban areas, the majority of these high-needs neighborhoods are located in the inner city, downtown areas.

- Approximately 30% of the county's population lives in these five ZIP codes. However, these residents disproportionately represent 42% of hospital inpatient visits and 54% of emergency room visits.
- All five ZIP codes have higher mortality rates for cancer, COPD and accidents than overall rates for Washoe County

#### Residents of these ZIP codes:

- are more likely to be of a minority race/ethnicity.
- have limited English proficiency.
- have lower educational levels.
- have lower median annual earnings.
- have higher unemployment rates.
- have higher rates of poverty.
- are much more likely to rent their home.



Socioeconomic factors have a direct effect on health and health outcomes. Those who live in ZIP codes where there are lower levels of education and higher rates of poverty also experience higher rates of hospitalization and death. The Community Needs Index\* (CNI) summary chart below is not in the body of the report because the data are slightly dated, but it's still useful to explain the health issues affecting these five ZIP codes.

		Red indicates higher than Washoe County average for specified indicator (2008-2010)					010)				
Hospitalization Rates, cases per 10,000 (age-adjusted)			Mortality Rates, cases per 10,000								
Average CNI	ZIP Code	Asthma COPD Hypertension Stroke   Heart Disease   Cancer COPD Accidents Ma					Total Mortality Rates	Infant Death Rates			
5.0	89512	75.5	197.2	390.9	22.8	20.3	18.6	7.2	6.3	84.1	12.4
4.7	89502	59	165.1	337.7	44.8	22.3	18.2	5.8	5.4	85.5	7.3
4.5	89431	63.6	161.6	338.9	65.1	21.9	18.9	6.1	4.7	90.1	9.9
4.2	89501	96.3	345.1	563.9	60.7	36.8	25.1	5.5	7.8	141.1	N/A
3.9	89433	56	191.8	320.2	58.4	14.9	17	5.9	4	65.2	12.5
	County avg	49.3	115.1	272.5	46.6	17.6	16.9	4.7	3.9	73.5	6.8
	Source: Packham et al (2013). Northern Nevada Community Health Needs Assessment										

\*The CNI identifies the severity of health disparity for every zip code in the United States and demonstrates the link between community need, access to care, and preventable ZIP. The ability to pinpoint neighborhoods with significant barriers to health care access is an important advancement for public health advocates and care providers. Because the CNI considers multiple factors that limit health care access, the tool may be more accurate than other existing needs-assessment methods.

- From the Dignity Health Website.

#### The Importance of Education: Impact on Other Socioeconomic Factors

There is a relationship between health and education.

The Washoe County high school graduation rate reached a high of 73% in 2014, but still needs improvement —especially among certain subgroups. African Americans, Native Americans, Hispanics and English Language Learners (ELL) and students with disabilities have among the lowest graduation rates in Washoe County. These students represent a growing population within the Washoe County School District, and the two facts combined deserve our attention. If as a community we can help to improve graduation rates in our schools, our citizens have a great chance to get better jobs and a more promising future. Higher education levels are correlated with better health status of the population.

It is also important to point out how critical parental involvement is to student success. The engagement of parents is something that varies from school to school throughout the district.

Compared to people who have had some college, college graduates in Washoe County reported:

- better perceived general health status
- fewer poor mental health days
- less likely to be overweight or obese
- less likely to smoke cigarettes
- less likely to be unemployed
- more likely to be insured
- have higher rates of immunization
- earn a higher annual income

Similarly, persons who have had some college are better off compared to those who have not graduated from high school or earned a GED.

#### **Concluding Statements**

This Executive Summary highlights numerous health improvement opportunities for Washoe County. It is not intended to be an exhaustive list, and many important health and social needs do not appear in this summary but are available in the full CHNA. This Executive Summary identifies health issues that are most important based on the number of individuals, the seriousness of the impact on quality of life or a combination of both. Following are the pressing issues we are facing in terms of overall community health:

**Healthy behaviors**: Washoe County citizens suffer from debilitating chronic medical conditions such as type II diabetes, heart disease, chronic stress, depression, obesity and cancers. In fact, these conditions contribute to the top causes of death in our community and in communities around the nation. If we are to move upstream and impact the future incidence of these diseases, we need to collaborate regarding healthy behaviors, including:

- Adequate physical exercise
- A nutritious and balanced diet
  - o Access to healthy food remains an issue in some low-income populations
  - o There is perceived (or real) higher cost of healthy food.
  - There are still many citizens, children and adults, who do not know where their next meal will come from.

**Healthcare access**: A local shortage of willing providers coupled with the inability for many residents to understand and navigate our complex system of delivering healthcare highlight the need for:

- Medicaid providers particularly primary care but specialty care, too
- Mental health services for adults and children
- Navigation/coordination assistance
  - o Assistance with navigating services beyond health care is also an identified need.
  - o Transportation to access healthcare and other services is also a need in the community.

#### Preventive care and early detection:

- Child and senior adult immunizations adult flu and childhood immunizations are below national benchmarks
- Routine cancer screenings with attention to breast exams for low-income women
- Dental screening and care for children and seniors

Focus on three populations: Three populations within the county deserve focused attention.

- **Senior citizens**, as a percentage of the population, are growing rapidly as baby boomers age. In addition, seniors disproportionately require more health care. This is already increasing demand on overtaxed healthcare delivery and social services networks.
- Children have special health issues that also need laser focus. Many of the needs of children in our community tie directly to their social circumstances. Both health and social issues can and often do carry over into adulthood. If we want to impact our future as a community, we need to pay special attention to the needs of our children.
  - There is so much that could be written about the education system and its importance to community health. Credit should be given to the Washoe County School District for what has already been accomplished to improve graduation rates. However, we must continue to support the schools in their efforts to improve graduation rates especially with growing ELL groups.
- Our fast-growing Hispanic/Latino community also requires special focus given the poorer overall health outcomes of this group. Attention to social determinants of health is critical in improving outcomes with this group.

**Geographic areas of need**: While we have pockets throughout the county where our health outcomes are less than optimal, we would be remiss if we did not call out the five contiguous ZIP codes that straddle both Reno and Sparks — 89501, 89502, 89512, 89431, 89433. The CNI data presented earlier makes a strong case for inner city interventions.

If the CHNA shows nothing else, it brings clarity to the fact that education, income and living conditions are among many factors that contribute to the health and vibrancy of our community. Addressing the complex social and health issues will require a cross-sector collaboration of organizations and agencies with different strengths, missions and capacities. Our mutual efforts will need to be coordinated and complementary in order to make a difference.

As a next step, the Washoe County Health District will engage the community in the development of a Community Health Improvement Plan. Similarly, Renown Health will participate with the Health District on their efforts and use the CHNA to identify projects as part of its Community Benefit Planning. The implementation of both of these plans will be tracked and evaluated, and progress against goals will be transparent. In addition, both organizations will be helping and supporting a pilot cross-sector project in the 89502 ZIP code that is a result of the Healthy Communities Conference.

In three years, the Health District and Renown intend to conduct an update to Community Health Needs Assessment to highlight the progress made for our community health priorities and explore where we have not been able to move the needle.

We want to close by saying we hope you will get involved in the 89502 collaborative community project and the Washoe County Health District's Community Health Improvement Plan (CHIP). Join us in the effort to improve health and offer the best possible future for the children of Washoe County. Thank you in advance for your involvement and engagement in the process.

#### Washoe County Overview: Geography, Population, & **Demographics**

Defining a population in terms of size, growth and demographics provides a clear picture of the community and essential information in determining current and future public health needs and where to allocate resources to meet those needs.

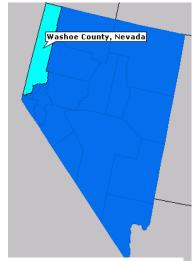
#### Washoe County Overview

Washoe County is the second most populous county in Nevada. And while the county encompasses approximately 6,302 square land miles, more than 90% of the population resides in the Reno-Sparks metropolitan area. The county, along with the rest of the state, experienced tremendous population growth over the past few decades, which slowed during the recession. The elderly population (55-74 year olds) has been steadily increasing and is estimated to comprise approximately 20% of the population. Minority populations, primarily Hispanics, account for nearly 25% of the population and have been experiencing a steady increase in recent years. Issues related to the health of these two growing subpopulations are important considerations when planning the future healthcare needs of the community.

#### **Geography**

Washoe County is located in the northwestern part of the state along the east side of the Sierra Nevada; it shares

borders with California to the west and Oregon to the north. Washoe County is home to two incorporated cities — Reno and Sparks and several smaller towns. Reno, the thirdlargest city in Nevada, serves as the county seat; Sparks is a smaller city, just east of Reno. While this assessment focuses primarily on the Reno-Sparks area, the rural parts of the county experience unique health-related issues,



Map1.1: Washoe County

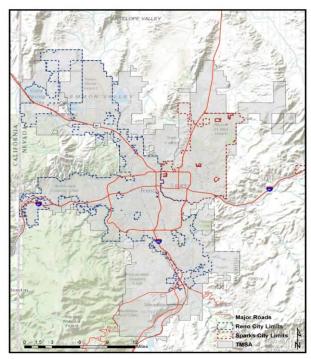
such as limited access to various types of healthcare services.

Table 1.1 Comparative Geographic Summary, 2013						
	Nevada	Washoe County	Clark County	All other counties		
Projected population, 2013*	2,775,216	431,035	2,008,315	335,866		
Square land miles †	109,781	6,302	7,891	95,588		
Population Density (persons per square mile)	25.3	68.4	254.5	3.5		
% of State Population	-	16%	72%	12%		

Source: \*Nevada State Demographer's Office, Nevada County Age, Sex, Race and Hispanic Origin Estimates and Projections 2000 to 2032 Estimates from 2000 to 2012 and Projections from 2013 to 2032 Source: †United States Census Bureau Factsheet

#### Populations & Demographics

The community focus of this assessment is the Reno-Sparks urban-suburban region of the county, commonly referred to as the Truckee Meadows Service Area (TMSA) an "area within which municipal services and infrastructure will be provided. It is divided into iurisdictional areas and includes Washoe County and the cities of Reno and Sparks." 6 The TMSA comprises 312 miles<sup>7</sup> and, according to 2010 census estimates, represents 94.8% of Washoe County's total population.



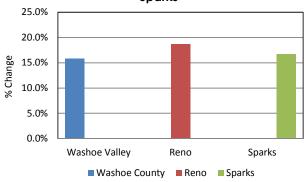
Map1.2: Truckee Meadows Service Area (TMSA) Source: Truckee Meadows Regional Planning Agency (2013). 2013 Regional Map

Nevada is the only state in the U.S. that has experienced a growth rate exceeding 25% for the past three decades and has remained the fastest-growing state for the past five decades. 6 While the U.S growth rate increased 9.7% from 2000-2010. Nevada saw an increase of 35.1% during the same time period.<sup>6</sup> And although Las Vegas was responsible for the majority of the state's population boom with an 81.9% increase, Washoe County experienced tremendous growth over the past decade as well (Figure 1.1).6

The two subgroups that have seen the most growth over the past decade are the elderly populations, those 55-74 years old, and minority populations, most notably Hispanics. The elderly population grew from 15.7% of the total population in 2003 to 19.7% in 2013, while ethnic groups, which represented 18.8% of the population in 2003, increased to 23.6% by 2013 [Table 1.2]



Figure 1. 1: Population Percent Growth, 2003-2013, Washoe County, Reno & Sparks



Source: \*Nevada State Demographer's Office, Nevada County Age, Sex, Race and Hispanic Origin Estimates and Projections 2000 to 2032

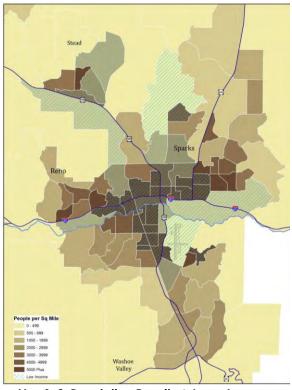
Estimates from 2000-2012 and Projections from 2013-2032 Source: † United States Census Bureau Factsheet

Table 1. 2: Washoe County Population Demographics:							
2003, 2008 & 2013							
Gender	200	13	200	18	2013		
Male	187,809	50.7%	207,606	50.7%	217,683	50.5%	
Female	182,397	49.3%	202,195	49.3%	213,352,	49.5%	
Age							
0 to 4 years	25,946	7.0%	29,452	7.2%	27,623	6.4%	
5 to 14 years	51,273	13.8%	54,594	13.3%	58,331	13.5%	
15 to 24 years	54,703	14.8%	60,801	14.8%	61,145	14.2%	
25 to 34 years	52,444	14.2%	58,189	14.2%	63,695	14.8%	
45 to 54 years	53,816	14.5%	59,765	14.6%	59,056	13.7%	
65 to 74 years	21,624	5.8%	25,789	6.3%	32,154	7.5%	
75+ years	16,624	4.5%	18,251	4.5%	19,509	4.5%	
Race							
Native American/ Alaska Native (AI)	7,036	1.9%	7,092	1.9%	8,318	1.9%	
African American (AA)	8,086	2.2%	9,106	2.2%	9,748	2.3%	
Asian/ Pacific Islander (A/PI)	20,763	5.6%	24,878	6.1%	27,222	6.3%	
Hispanic	69,637	18.8%	89,196	21.8%	101,719	23.6%	
White	264,685	71.5%	278,719	68.0%	284,028	65.9%	
Total	370,207		409,801		431,035		
Source: Nevada State Demographer's Office, Nevada County Age, Sex, Race, and Hispanic Origin Estimates and Projections 2000 to 2032 Estimates from 2000 to 2012 and Projections from 2013 to 2032							

#### Where People Live

Washoe County census data from the American Community Survey five-year estimates (2008-2012) were used to determine which census tracts (smaller areas than ZIP codes) were low-income, and which census tracts had primarily one racial or ethnic group residing in the tract. Map 1.3 indicates the population density (people per square mile) and low-income census tracts. Map 1.4 indicates low-income census tracts which are

Table 1.3: Primary Race/Ethnicity of Census Tact					
	# of People (% of				
Primary Race/Ethnicity of	Population Shown on				
Census Tract	Maps 1.3 & 1.4) living in				
	Census Tract				
Hispanic	19,179 (5.1%)				
White	229,488 (61.8%)				
Mixed Race/Ethnicity	122,251 (32.9%)				
Reno-Sparks Area					
Population Total (2010	370,918				
census data)					



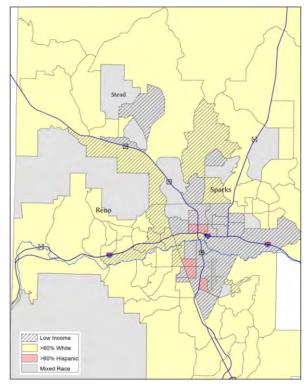
Map1. 3: Population Density & Low - Income

primarily one racial or ethnic group.

A low-income census tract was defined as one where 20% or more of the population live at or below the poverty line, or the median household income is 80% of the Washoe County median household income. A census tract is designated as a primary race or ethnic group if 60% or more of the population comprises one racial or ethnic group. Tracts with no primary group (> 60%) are identified as a mixed race/ethnicity tract. Not all tracts in Washoe County are shown in these maps.



There are a few outlying census tracts with higher population density, but most people live in the central region of the Reno-Sparks area. This reflects growth within the TMSA boundaries, which are partially defined by geography, as there are several mountain ranges surrounding Reno-Sparks that limit urban sprawl and development of infrastructure. Most of the low-income census tracts follow the highways and major roads, including the downtown area. Reno's western neighborhoods in close proximity to the Sierra Nevada are typically more affluent, while those to the east of the city are middle- to low-income. Most people live in primarily white census tracts, followed by mixed race/ethnicity. There are five census tracts which are primarily Hispanic, all of which are low-income. There is a census tract primarily Native American, which is part of the Pyramid Lake Paiute Tribe whose main reservation is



Map1.4: Primary Race/Ethnicity & Low - Income

located about 45 minutes northeast of Reno (not shown on map).

#### Washoe County Overview Summary

Washoe County has been growing rapidly over the past few decades and is expected to continue to grow given recent economic developments. While assessing the health needs of all residents is important, there are two subgroups, the elderly and Hispanics, which require special consideration, especially since both populations have higher rates of poor health outcomes compared to the general population.



#### Socioeconomic Status

Socioeconomic status (SES) is measured by education, occupation and income, which are all directly linked to health outcomes. The effects of SES on quality of life are interrelated and challenging to measure independent of one another.

Those with a higher SES are more likely to be more educated, earn more, report lower levels of stress, and have better access to healthcare and preventive services. <sup>8,9, 10</sup> People of lower SES are more likely to engage in unhealthy behaviors such as smoking and physical inactivity, and they often live in low-income neighborhoods with fewer resources. Persons with a lower SES experience poorer health outcomes such as obesity, stroke, cardiovascular disease, depression and diabetes. <sup>11,12,13,14</sup>

SES levels are strongly associated with race and ethnicity; those with higher SES levels are disproportionately white and Asian, while lower SES levels are disproportionately African American and Hispanic.<sup>8, 3, 11,15</sup>

#### Education

Those with less education are more likely to have poor heath and live shorter lives. The relationship between education and quality of life is apparent worldwide; however, the relationship is much more pronounced in the United States.<sup>8,12,13,16</sup>

#### Washoe County Education Highlights

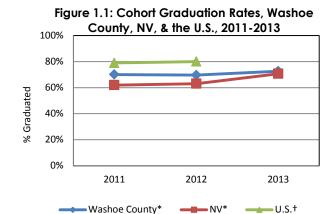
Washoe County's graduation rates have increased recently. However, certain groups continue to have very low graduation rates, especially, African Americans, Hispanics, English language learners (ELL) and students with disabilities (SWD). Washoe County School District (WCSD), much like the rest of Nevada, spends less per student than the United States' average, and funding sources are shifting away from local (county) revenue and are more dependent on federal and state financial resources.

The education level in Washoe County parallels that of the United States population. However, within the county, education levels do vary by race and ethnicity. For example, nearly half of the Hispanic population does not have a high school diploma or GED equivalent

#### **Cohort Graduation Rates**

Four-year cohort graduation rates measure how many students graduate from high school with a regular high school diploma within four years. Cohort graduation rates in Washoe County are higher than the state rate and have increased from 55% in 2007 to 72.6% in 2013.<sup>17</sup> Although Washoe County's cohort graduation rate surpasses that of the state, rates are still lower than the U.S. national average (Figure 1.1). High school dropout rates in Washoe County have also decreased from a high

in 2006 of 13% to 4% in both 2011 and 2012. These improvements, however, may reflect changes in how student movement is tracked.<sup>17</sup>



Source: \* NV DOE, Nevada Report Card, Cohort Graduation Rates Query Source: † US DOE, Pub. No. NCES 2014-391

#### Educational Attainment

Because educational attainment — the highest level of education a person has completed — influences an individual's job qualifications and earning potential, it is highly correlated with SES. Educational attainment data, which is collected by the U.S. Census for persons 25 years and older, is indicative of the education level of the general population and the types of people attracted to a specific geographic area.

Washoe County reports higher levels of education compared to the rest of Nevada but is similar to that of the U.S. population (Table 1.1). According to the U.S. Census Bureau American Community Survey, 13.5% of those living in Washoe County from 2008 to 2012 had not graduated from high school (GED or equivalent), and 34.4% had an associate's degree or higher, compared to Nevada at 15.6% and 29.5% respectively.<sup>18</sup>

Table 1.1: Educational Attainment, Population 25 years and over

	Washoe County	Nevada	United States
< 9th grade	5.6%	6.3%	6.0%
9th to 12th grade, no diploma	7.9%	9.3%	8.2%
High School Graduate	24.6%	28.7%	28.2%
Some college, no degree	27.5%	26.1%	21.3%
Associate's Degree	7.6%	7.3%	7.7%

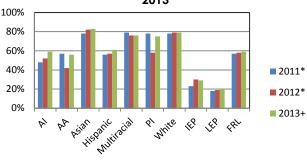
Bachelor's	17.1%	14.8%	17.9%
Degree	.,, .		, , ,
Graduate or			
Professional	9.7%	7.4%	10.6%
Degree			

Source: American Community Survey, 2008-2012, 5 year estimates, Educational Attainment

#### Disparities in Education

Overall graduation rates have increased in Washoe County in recent years. But some groups still reflect low graduation rates including those with limited English proficiency (LEP) — also known as English language learners (ELL) — and students with disabilities (SWD) who often require an individualized education program (IEP) (Figure 1.2).

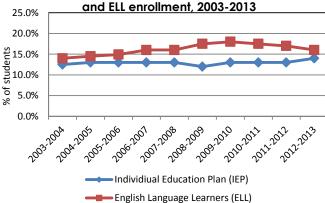
Figure 1.2: High School Graduation Rates, Washoe County, by Student Group, 2011-2013



Source: \*WCSD Snapshot, Sept 2012 Source: †2013 Washoe K-16 Data Profile

Students who require an IEP or qualify as an ELL contribute to an annual average of 29% of the total WCSD student population. Although the proportion of students on an IEP has remained fairly stable over the past decade (~13%), the number of ELLs increased from 2005 to 2006 and as of the 2012-13 school year represent 16% of the student population (Figure 1.3).

Figure 1.3: Washoe County School District, IEP



Source: NV DOE, Nevada Report Card, Student Demographics Query

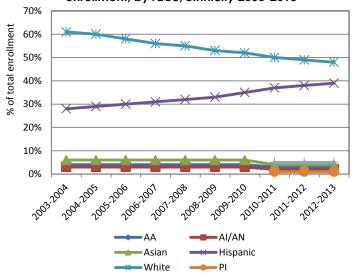
#### **ELL** and IEP Assessment

WCSD recently assessed services for ELLs and SWDs and found that although the District was moving forward in a proactive manner regarding student achievement, there are insufficient personnel resources to support ELL and those on an IEP. Additionally, the application of culturally relevant instruction is limited and hindered by negative stigmas. More collaboration between general and special education instructors is necessary to improve the services for SWDs and ELLs.<sup>19</sup>

#### Washoe County Enrollment Growth

Hispanic student enrollment in WCSD has steadily increased over the past 10 school years, as has enrollment among those who identify as being of two or more races. The proportion of White student enrollment has steadily decreased — 2010-11 school year data reflect that, for the first time, this race no longer comprises the student body majority.

Figure 1.4: Washoe County School District enrollment, by race/ethnicity 2003-2013

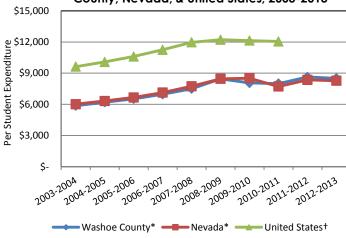


Source: NV DOE, Nevada Report Card, Student Demographics

# Washoe County School District Funding Although funding has increased over the past 10 school years from \$6,025 per student in the 2003-04 school year to \$8,635 in 2012-13, expenditures have totaled \$4,000 less per student than the U.S. average [Figure 1.5]. Federal and state funding for WCSD has increased, while the share of county funds to support the education system has decreased [Figure 1.6].

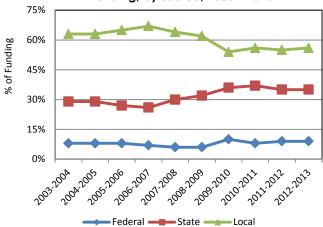


Figure 1.5: Per Student Expenditure, Washoe County, Nevada, & United States, 2003-2013



Source:\* NV DOE, Nevada Report Card, Fiscal Information Query Source:†US DOE, Pub. No. NCES 2014-015

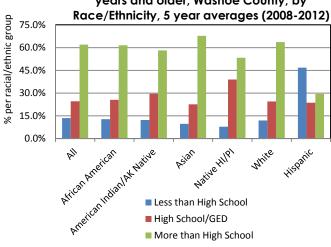
Figure 1.6: Washoe County School District Funding, by source, 2003 - 2013



Source: NV DOE, Nevada Report Card, Fiscal Information Query

Racial & Ethnic Disparities in Educational Attainment Figure 1.7 illustrates educational attainment data from the American Community Survey, showing five-year averages from 2008 through 2012. Hispanics present the lowest levels of education compared to all other races and ethnicities, while Asians have the highest.

Figure 1.7: Educational Attainment of those 25 years and older, Washoe County, by



Source: American Community Survey, 2008-2012, 5 year estimates, Educational Attainment

#### **Education Summary**

Education strongly correlates with lifestyle, health outcomes, and life expectancy. Although WCSD has improved upon cohort graduation rates overall, the low levels of educational attainment among a growing population of Hispanics indicate an expanding area of unmet need. Washoe County's per-student expenditure has been and is currently much lower than that of the rest of the nation — the district and teachers are forced to do more with less.

Thoughts from a WCSD elementary school teacher: "Teachers are required to teach common core state standards and common rules of civility, nutrition and behavior. Students show up ill prepared to learn due to poor health, unstable home lives and a general disadvantage based on their parents' lack of knowledge of childhood development."

#### **Economy**

The economy of a region directly impacts the types of business and jobs available and ultimately the prosperity of the people and families living in an area.

#### Nevada's Historic Economy

In 1975 nearly half of Nevada's state budget was funded through gaming-based tax revenue. However, in 2013, gaming was only contributing 23% to the state budget. This trend is echoed locally — Washoe County experienced a 45% decrease in gaming, tax-based revenue from 2013 to 2014. This reduction calls for alternative taxable services to generate funds to support the needs of the community including schools, parks and roads.



Table 1.2: Washoe County Growing and Declining Industries, by Jobs. 2004-2014

Industry	Change in Jobs (2004- 2014)			
General Warehousing and Storage	1,771			
Limited-Service Restaurants	1,612			
Miscellaneous Intermediation	1,523			
New Single-Family Housing	-1,654			
Drywall and Insulation Contractors	-1,830			
Casino Hotels	-5,729			
Source: 2014 Washoe County Economic Overview (Fig. 1.9)				

Despite recent struggles with a declining gaming industry and a poor economy nationwide, Northern Nevada has some notable aspects that make it attractive to businesses. There are also some recent developments that point towards a much improved economic future in the region.

The Appealing Geographic Logistics and Tax Structure Reno-Sparks is a central hub for the 11 Western states, with Interstate-80 running east-west, US Route 395 running north-south, an extensive railway, an international airport, and 24-hour customs.<sup>23</sup>

#### **Nevada's Tax Structure**

No Corporate Income Tax
No Personal State Income Tax
No Inventory Tax
No Unitary Tax
No Estate and/or Gift Taxes
No Franchise Tax
No Inheritance Tax
No Special Intangible Tax

Nevada is one of seven states without personal income tax and one of four states without a corporate income tax.<sup>23,24</sup> Additionally, Sparks is home to Federal Trade Zone (FTZ) No. 126 — one of the largest in the United States (7,500 acres). Companies that operate in an FTZ can defer, reduce or eliminate customs duties, entry procedures and federal excise taxes on foreign products admitted into the area for storage, exhibition, assembly, manufacturing and processing.<sup>25, 26</sup>

Several national and international corporations have large manufacturing and shipping warehouses located in the Reno-Sparks area, largely due to the pro-business tax

structure in Nevada and the desirable geographic location of Reno-Sparks.<sup>23</sup>

Recent Unique Economic Developments In 2014, Tesla Motors announced a large industrial park outside Reno as the official location for its lithium-ion battery Gigafactory, which once complete will be the largest battery plant in the world. It's estimated the factory will create more than 6,000 jobs over the next six years and generate \$1.95 billion in new direct and indirect tax revenues over the next 20 years.

Nevada was also one of six sites recently selected for Unmanned Aircraft Systems (UAS) research by the Federal Aviation Administration. Nevada's project objectives focus on UAS standards and operations, and certification requirements. The University of Nevada, Reno (UNR) has a leading role in this project along with the Desert Research Institute (DRI).<sup>27,28</sup> Both of these are positive developments in the local business climate.

#### A University Town

UNR will be expanding south into the downtown area and incorporating current businesses that already exist in the mixed-use zone. Plans include improving pedestrian and bike accessibility, building affordable student housing, and encouraging public-private partnerships to improve the inner-city neighborhoods in the area.<sup>29,30</sup>

#### **Economic Summary**

There has been a shift away from the gaming industry toward other types high paying industry which will support the region in many ways.

#### <u>Housing</u>

Housing quality includes structural safety and coderelated factors that can impact an individual's health. Affordable housing is defined as a monthly rent or mortgage less than 30% of the household's monthly income. An unaffordable monthly payment can produce chronic stress and impede the ability to pay for other basic needs such as food, transportation and healthcare.<sup>31</sup>

#### Housing in Washoe County

The housing market prior to the recession was strong in the Reno-Sparks area, largely due to in-migration and buyers, including retirees from California; a steadily growing construction industry; strong employment growth; and low interest rates. In September of 2005 the median price of existing homes was \$315,800 and approximately 62.7% of occupied houses were owned.<sup>32</sup> Home prices rose 27% greater than the national average during this decade in Washoe County, and thus fell harder than most parts of the country.<sup>33</sup> By 2012 existing homes were selling at an average of \$210,200, and only 56.8% of homes were owner occupied.<sup>34</sup> Washoe County's foreclosure rate peaked at 5.8% in December of



2010, and as of November 2012 Washoe County was ranked 49<sup>th</sup> in the nation for proportion of mortgages at risk for foreclosure.<sup>33</sup>

From 2007 to 2012 the number of renter-occupied, single-family homes increased by 50%, although there were fewer single-family units being built during that time period. 35,36,37 Currently more people in Reno-Sparks are renting than before the recession, yet almost half are paying an unaffordable monthly rate [Table 1.3]. In 2014 Reno-Sparks was ranked 191 out of 225 metro areas nationwide for affordability, with only 55.2% of houses "affordable" given the area's median income. 38

Table 1.3: Washoe County Housing Comparison	2007	2013
Housing Units	177,577	185,321
Occupied Units	88.6%	88.8%
Owner-occupied	60.9%	56.0%
Single Unit Housing (attached & detached)	62.7%	63.2%
Housing in Mobile Home Units	6.9%	5.9%
Median Household Value	\$344,800	\$201,700
Unaffordable Mortgage, ≥ 30% of household income	37.5%	33.4%
Unaffordable Rent, ≥30% of household income	44.1%	49%

Source: : American Community Survey, 2007 & 2013, 1 year estimates,
Selected Housing Characteristics
Source: American Community Survey, 2007 & 2013, 1 year estimates,
Median Value (Dollars)

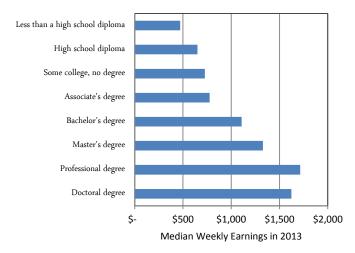
#### **Housing Summary**

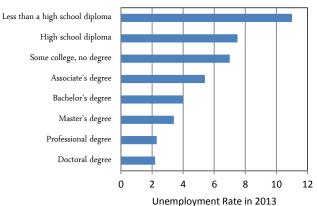
The housing market and the economy are gaining momentum. However, residents are still impacted by unaffordable housing rates relative to the area's median income.

#### Income, Occupation and Wage

Income touches nearly all aspects of health, with low-income levels directly related to poor health outcomes. Having enough money, which is heavily influenced by education level, reduces stress and provides access to amenities needed to live a healthier lifestyle and afford basic necessities — food, clothing, housing, transportation. <sup>39,40</sup> The types of occupations and associated wages also influence the types of people attracted to an area.

Figure 1.8: National Earnings and Unemplyment Rates by Educational Attainment



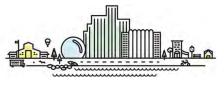


Source: Current Population Survey, U.S. Bureau of Labor Statistics, U.S. Department of Labor

Occupation, Wages and Income Highlights Many Reno-Sparks residents earn below the livable wage, 41,42,43 with women and minority households disproportionately impacted by lower incomes. The median household income in Washoe County has steadily decreased since the recession, but saw its first increase in 2013 and is now estimated at higher than the U.S. median household income.

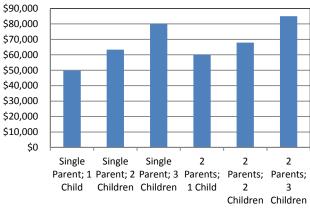
#### Occupation and Wages

Minimum wage in Washoe County is currently \$7.25 for those who receive health benefits from employers and \$8.25 for those not provided health benefits. This means an adult working full-time making minimum wage earns \$15,000 to \$17,000 a year. According to the MIT living wage calculator for Washoe County, a single adult living alone needs to make \$9.11/hour. The livable wage in the Reno-Sparks area for an adult supporting one child is



estimated at \$20 to \$25/hour, yet the majority of residents — 62.3% — earn below \$16/hour.<sup>42,43</sup>

Figure 1.10: Reno-Sparks Estimated Annual Income Needed to Support a Family, by Family Type, 2013



Source: Economic Policy Institute, Family Budget Calculator

Table 1.4: Top 10 Employers in Washoe County, 2014 **Employer Industry** Size Name Elementary & Washoe 8500 to 8999 Secondary (K-County School employees 12) Schools District 4000 to 4499 Colleges & University of Universities Nevada, Reno employees General Renown 2500 to 2999 Medical & Regional Medical Surgical employees Hospitals Center Executive & Washoe Leaislative 2500 to 2999 County Offices employees Comptroller Combined Peppermill 2000 to 2499 Casino Hotel Hotel Casino employees International Other 1500 to 1999 Game Miscellaneous Technology employees Manufacturing (IGT) 1500 to 1999 Silver Legacy Casino Hotel Resort Casino employees Atlantis Casino 1500 to 1999 Casino Hotel Resort employees Grand Sierra 1500 to 1999 Casino Hotel Resort & employees Casino General Medical & 1000 to 1499 Saint Mary's Surgical employees Hospitals

Source: NV DETR, Washoe County's Largest Employers 2<sup>nd</sup> Quarter

The Reno-Sparks median hourly wage (MHW) from the 22 major occupational groups during 2013 averaged \$16.09.<sup>41</sup> The majority (62.6%) of those employed in Reno-Sparks worked in an occupational group where the median wage was below \$16.09/hour [Table 2.5]. This mirrors the distribution nationwide, as a majority of people make less than median wage. However, nationally the hourly median wage ranked higher in 2013 at \$16.87.<sup>41</sup> The top five occupations by number of people employed in Reno-Sparks during 2013 included:

- Office and administrative support: supervisors, gaming cage workers, payroll and bookkeeping, customer service representatives, hotel/motel desk concierge, human resources, postal services, dispatchers
- Food preparation and service industry: servers, hostesses, cooks, bartenders
- Sales: cashiers, retail, wholesale, telemarketers
- Transportation and materials moving: pilots, bus drivers, truck drivers, warehouse packers, stockers
- Education, training and library occupations: teachers K-12, postsecondary, librarians
- Education, training and library occupations: includes teachers K-12, postsecondary and librarians

The top two occupation types employ 27.9% of the working population in Washoe County. Combined, the top five categories account for 51.9% of the working population (Table 1.5).

The other 17 major occupational groups each employ between .7% and 5.3% of workers (Table 1.6).

Table 1.5: Top Five Occupation Types, Reno-Sparks, 2013, by number employed

Rank	Occupation Type	Total Employed Number (%)		
1	Office and Administrative Support Occupations	33,020 (17.2%)		
2	Food Preparation and Serving Related Occupations	20,550 (10.7%)		
3	Sales and Related Occupations	20,450 (10.7%)		
4	Transportation and Material Moving Occupations	15,000 (7.8%)		
5	Education, Training, and Library Occupations	10,550 (5.5%)		
Source: US Department of Labor, OES May 2013				

Table 1.6: Total Number & Percent Employed & Median Hourly Wage per Occupation, Reno-Sparks Metropolitan Area, 2013, by the 22 Major Occupational Groups

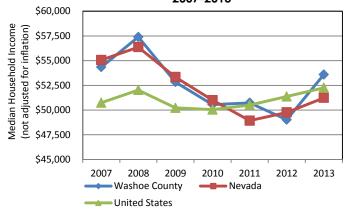
Occupation	Total Employed (N)	% of employed population	Median Hourly Wage
Food Preparation & Serving Related Occupations	20,550	10.7%	\$9.06
Personal Care & Service Occupations	8,290	4.3%	\$9.72
Building and Grounds Cleaning & Maintenance Occupations	8,710	4.5%	\$10.44
Sales & Related Occupations	20,450	10.7%	\$12.63
Production Occupations	9,450	4.9%	\$13.81
Healthcare Support Occupations	4,520	2.4%	\$14.22
Transportation & Material Moving Occupations	15,000	7.8%	\$15.17
Farming, Fishing, & Forestry Occupations	100	0.1%	\$15.25
Office & Administrative Support Occupations	33,020	17.2%	\$15.27
Subtotal for Occupations BELOW median hourly wage	120,090	62.6%	_
	DIAN HOURLY WA	GE \$16.09	
Protective Service Occupations	4,360	2.3%	\$16.41
Installation, Maintenance, & Repair Occupations	7,750	4.0%	\$20.08
Construction & Extraction Occupations	7,670	4.0%	\$20.60
Arts, Design, Entertainment, Sports, & Media Occupations	2,220	1.2%	\$21.07
Community & Social Service Occupations	2,380	1.2%	\$22.04
Education, Training, & Library Occupations	10,550	5.5%	\$22.44
Life, Physical, & Social Science Occupations	2,420	1.3%	\$24.78
Business &Financial Operations Occupations	7,940	4.1%	\$27.48
Computer & Mathematical Occupations	3,350	1.7%	\$30.87

Architecture & Engineering Occupations	2,160	1.1%	\$32.89
Healthcare Practitioners & Technical Occupations	9,420	4.9%	\$34.25
Legal Occupations	1,380	0.7%	\$35.28
Management Occupations	10,250	5.3%	\$40.40
Subtotal for Occupations ABOVE median hourly wage	71,850	37.4%	_
Total for All Occupations	191,930	100.0%	\$16.09
Source: <b>US D</b> e	epartment of La	bor, OES May 2013	

#### Income

Median household income is less influenced by outliers (those who make much more or less than the typical worker) and reflects the total income of all persons considered to be living within a given household. It does not provide details on the number of people working for income or the number of people reliant on the earned household income.

Figure 1.11: Median Household Income, Washoe County, Nevada, & the United States, 2007-2013



Source: American Community Survey, 2007 through 2013, 1 year estimates, Median Household Income

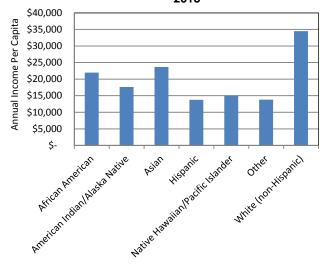
#### Income Disparities

During 2013 females realized only 66% of males' median annual earnings of \$32,096, which greatly impacts single-parent households, most of which are headed by a female.  $^{44,45}$ 

The difference in average income per person varies significantly depending on race and ethnicity. Those who identified as white, non-Hispanic made more than twice as much per year as those who identified as Hispanic, Native Hawaiian/Pacific Islander or as "other" (Figure 1.12).



Figure 1.12: Washoe County Average Annual Income, by Race/Ethnicity, 2011-2013



Source:American Community Survey, 2011-2013, 3 year estimates, Per Capita Income in the Past 12 Months

Occupation, Wages, & Income Summary
Large disparities exist between earned income among
males and females, and various racial and ethnic groups
in Washoe County. Most household incomes were greatly
impacted by the recession, and although income levels
have started to increase, there are some occupations
that still do not pay enough to support a family
compared to the cost of living in the area.

#### <u>Unemployment</u>

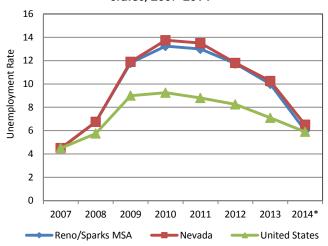
Reno-Sparks was marked by one of the nation's highest unemployment rates post-recession, peaking at 13.1% in 2010. Although progress has been made, rates have not yet returned to pre-recession levels. Construction, tourism, trade, transportation and utilities industries saw the largest decline in jobs during the recession and have more recently started to experience an increase.

#### Washoe County Unemployment

Although unemployment was notoriously high in Washoe County and Nevada during the recession, there has been a noted recovery. And as of October 2014, unemployment levels in Reno-Sparks were estimated at 6.1%. The most recent unemployment estimate is not seasonally adjusted at the county level and is likely to increase after the New Year, as many people are laid off after the holiday retail and product shipping season has ended. The reduction in unemployment rates may also be attributed to persons exiting the workforce due to moving, abandoning the job search and entering into retirement.

The types of occupations that saw the largest decline in employment were construction, trade, transportation and utilities, as well as jobs in the leisure and hospitality sector—including the casino industry. Government and manufacturing jobs experienced a moderate decrease. Professionals and business were the quickest to recover, while information and financial activities remained relatively stable throughout the recession (Figure 1.19). The availability of education and health services jobs increased slowly through the recession, while resources and jobs decreased in nearly every other sector.<sup>47</sup> Occupations in finance and real estate saw the largest overall growth in Washoe County from 2004 to 2014 (Figure 1.13).

Figure 1.13: Unemployment Rates, Reno/Sparks MSA, Nevada, & the United States, 2007-2014\*



Source: US Department of Labor, Local Area Unemployment Statistics

Table 1.7: Washoe County Occupation Changes, 2004-2014

Occupation	Change in Jobs (2004-2014)			
Personal Financial Advisors	2,852			
Real Estate Sales Agents	2,396			
Securities, Commodities, and Financial Services Sales Agents	1,573			
Construction Laborers	-711			
Gaming Dealers	-782			
Carpenters	-1,215			
Source: 2014 Washoe County Economic Overview (Fig. 1.9)				

#### Unemployment Summary

Washoe County unemployment rates reached a high in 2010, but have since decreased since. The non-gaming industry, specifically jobs in the education and health



services sectors, experienced the least loss, while gaming, tourism and construction jobs were hugely impacted by the recession and have yet to recover.

#### Poverty

Poverty is one of the strongest predictors of negative health outcomes such as higher blood pressure, increased obesity rates, higher prevalence of depression and other mental health illnesses, and ultimately a lower life expectancy.<sup>50</sup> Research has shown that the effect of poverty on mortality is comparable to smoking cigarettes.51

#### Poverty Highlights

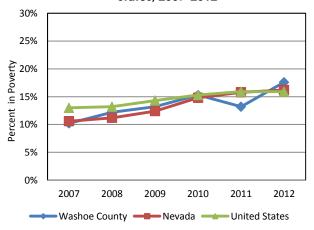
The poverty rates in Washoe County have increased and mirror the poverty rates in Nevada and the United States. Hispanics, Native Americans and African Americans in Washoe County are more likely to live in poverty as compared to whites and Asians.

#### Washoe County Poverty Levels

The Department of Health and Human Services establishes poverty guidelines, termed the Federal Poverty Level (FPL). The U.S. Census annually updates the poverty thresholds (Appendix B), which are a more complex version of the guidelines and typically used for statistical purposes.52,53,54 Asset poverty measures household security and indicates a household with sufficient net worth to support itself at FPL for three months in the absence of income. A household is considered to be asset poor if it does not have enough savings or wealth to provide for basic needs in the event a working member were to lose their job. 10

The proportion of the population living in poverty in Washoe County, Nevada and the U.S. steadily increased from 2007 to 2012, with the exception of a slight decrease in Washoe County during 2011 [Figure 1.14].

Figure 1.14: Percent of Population in Poverty, Washoe County, Nevada & United States, 2007-2012



Source: US Census Bureau, Poverty & Median Income Estimates-Counties 2007-2012

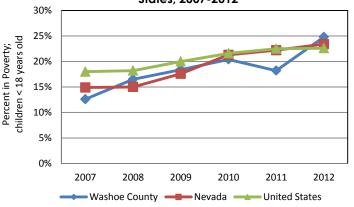
Table 1.6: Percent Living at or below Poverty, 2013 Washoe **United** Nevada County **States** Percent of 15.1% 15.8% 15.8% population in poverty\* <18 years 19.2% 22.7% 22.2% old\* 65 + years 7.3% 8.7% 9.6% old†

Source: American Community Survey, 5 year estimates, 2008-2012

Poverty Disparities

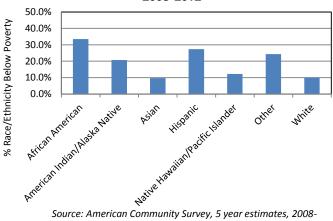
Disparities among Washoe County residents, according to the Assets and Opportunity Profile, found more than half of single-parent households (51%) were asset poor.<sup>10</sup> Hispanic families in Washoe County were four times as likely to live in poverty as white families, and African American families were five times more likely than whites.10

Figure 1.15: Percent of Children (Under Age 18) in Poverty, Washoe County, Nevada & United States, 2007-2012



Source: US Census Bureau, Poverty & Median Income Estimates-Counties 2007-2012

Figure 1.16: Percent of Population Living Below Poverty, by Race/Ethnicity, Washoe County, 2008-2012



Source: American Community Survey, 5 year estimates, 2008-2012



#### Transportation and Traffic Safety

Creating safe alternatives to motor vehicles as a primary source of transportation carries health benefits. Driving less and walking or biking more increases a population's physical activity and fitness, and improves mental health by reducing the stress and anxiety associated with driving and vehicle maintenance. 55,56,57,58 It also reduces traffic fatalities and vehicle emissions. Public transportation provides mobility and accessibility for those who are physically or economically disadvantaged. Improving access to affordable transportation alternatives for lower-income individuals increases social capital and allows this population the opportunity to engage and integrate with the community.55

#### **Highlights**

Most people in Washoe County rely on personal automobiles for commuting, while few utilize alternative methods of transportation. Seniors, a growing population in Washoe County, are greatly impacted by limited access to safe sidewalks and public transportation. Improvements, such as transforming streets to Complete Streets, has greatly reduced crashes and increased accessibility for active transport options by widening sidewalks and providing bike lanes.

Motor vehicle death rates and the proportion of fatalities involving an intoxicated (BAC > .08) driver have not changed much since 2008 but remain lower than rates for Nevada and the United States. Pedestrian fatalities, however, have increased in Washoe County. Washoe County high school students reported engaging in risky behaviors, such as drinking and driving or riding in cars with intoxicated drivers, more often than youth nationwide.

#### Washoe County Transportation

The past few decades have seen a growth in automobile-reliant suburban housing and subdivisions due to land prices; development trends; housing affordability; and federal investments, programs and regulations.<sup>59</sup> Regional Transportation Commission (RTC) oversees roads and transportation in Washoe County and provides options for public transit with RTC RIDE, RTC RAPID, RTC INTERCITY and RTC SIERRA SPIRIT bus system (Appendix C).

According to a 2012 RTC survey, 60% of the RTC public transportation riders are adults [Figure 1.1], and 46% use the bus system to commute [Figure 1.2]. In 2013 RTC

served 8 million passengers with an average of 22,182 rides each day.<sup>40</sup>

Youth, 11%

Adults, 60%

Figure 1.1: RTC Transit Customers, by Type, 2012

Source: RTC, 2035 Regional Transportation Plan

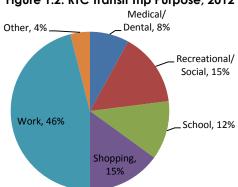


Figure 1.2: RTC Transit Trip Purpose, 2012

Source: RTC, 2035 Regional Transportation Plan

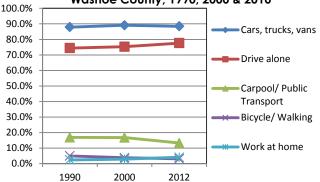
The vision for transit identified in the 2035 Regional Transportation Plan includes expanding service areas and increasing service hours. Strong support exists for the expansion. But because funds are limited, in 2014 RTC convened a Blue Ribbon Committee on Transit to explore the role of transit in the community and source sustainable funding for improvements.

#### Commuting to Work

In 2012, commute time in Washoe County averaged 21 minutes; 88.4% of Washoe County residents drove motor vehicles while only 10.8% carpooled.<sup>62</sup> Proportionately fewer people have relied on public transportation to get to and from work in recent years, and the majority (77.6%) drive alone [Figure 1.3]. An RTC survey revealed a shift in the employment status of riders from 2007 to 2012, largely due to the recession [Figure 1.4].

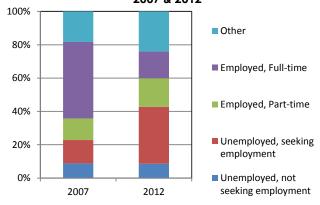


Figure 1.3: Method of Commuting to Work, Washoe County, 1990, 2000 & 2010



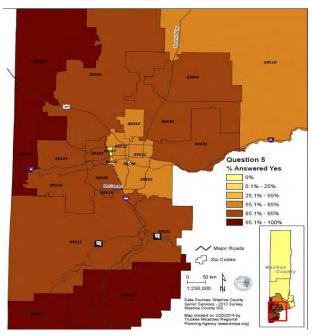
Source: US Census Bureau, Census Explorer, 2012

Figure 1.4: Washoe County RTC Transit Passenger Survey, by Employment Status, 2007 & 2012



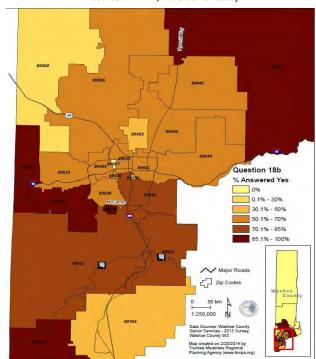
Source: RTC, 4th Street/Prater Way RTC RAPID Transit Project, 2012 Citation

Seniors and Transportation: Mobility, Walking and Falls
Research shows that 46% of the Reno-Sparks population
ages 65 to 79 will experience poor transit access in 2015.<sup>59</sup>
A recent Washoe County assessment of seniors found
that 67% were aware of RTC's ACCESS program, a doorto-door paratransit service for people with disabilities.
Although in recent years ACCESS ridership has declined
(RTC ACCESS report), RTC projects the demand for
ACCESS will increase by 46% among the general
population and 142% among seniors between 2013 and
2035.<sup>61</sup> The Truckee Meadows Regional Planning Agency
surveyed 600 seniors in Washoe County to help determine
needs specific to this population. Targeted questions
regarding transportation provided the context for
information presented in Maps1.1-1.3.63



Map 1.1: TMRPA Seniors Study; Do you drive yourself to where you want or need to go?

Source: TMRPA, 2013 Senior Study

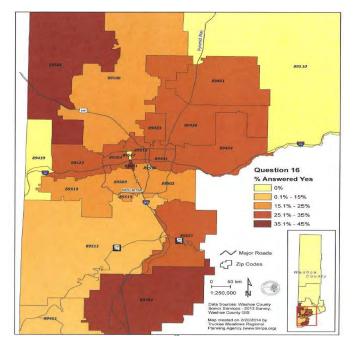


Map 1.2: TMRPA Seniors Study: Do you go on walks at least once or twice a week?

Source: TMRPA, 2013 Senior Study

Participants in the CHNA seniors focus group highly value their mobility. Once mobility deteriorates, they believe overall health quickly follows. They emphasized the importance of walking as a form of transportation — a





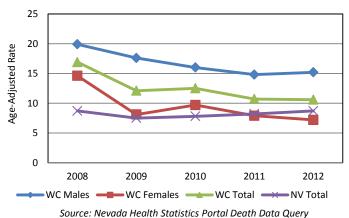
Map 1.3: TMRPA Seniors Study: In the past year, have you fallen?

Source: TMRPA, 2013 Senior Study

free, healthy, low-impact physical activity that helps maintain stability and balance. In order to walk safely, however, sidewalks and pathways should be in good condition, free from obstacles and debris.

One of the leading causes of death and disability among the elderly is falls. Participants indicated a need for adequate sidewalks, curbs and crosswalks to increase

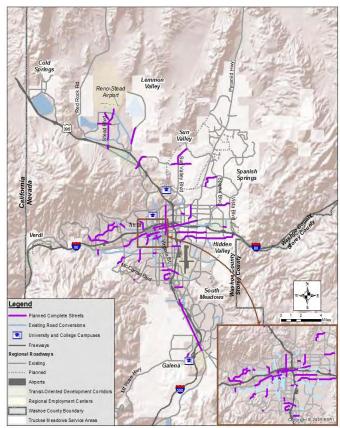
Figure 1.5: Deaths due to falls, Washoe County, by Sex & Nevada totals 2008-2012



safe walkability. This information mirrors nationwide studies that have found a walkable community is significant for elderly populations.<sup>64</sup>

#### <u>Improvement Plans and Complete Streets</u>

The Regional Transportation Plan includes increasing accessibility for people with disabilities by upgrading sidewalks, crosswalks and curb ramps; improving the bicycle and pedestrian network; replacing traffic signals; and preserving pavement. RTC has begun converting some Reno-Sparks streets into Complete Streets, which offer multiple benefits for all users including bicyclists and



Map 1.4: RTC Planned and Existing Complete Streets
Source: RTC, Planned & Existing Complete Streets, data request

pedestrians. Complete Streets have proven to reduce traffic accidents and fatalities while promoting active transportation activities like walking, jogging and biking. 65,66

A Complete Street requires reducing the number of traffic lanes usually to one lane in each direction, slowing traffic speeds, increasing sidewalk space and providing bike lanes [Figure 1.6]. Complete Streets in Washoe County have reduced crashes up to 46%, and reduced traffic volume and vehicle speeds [Table 1.1].<sup>61,67,68</sup>





Figure 1.6: Diagram of a Complete Street Source: UNR, Wells Avenue Traffic Study, 2008

Table 1.1: Reduced % Change in Traffic Crashes After Conversion to Complete Street

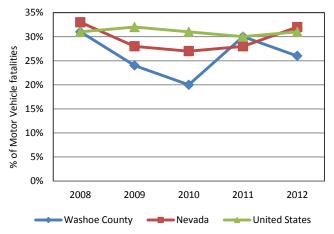
		•			
	Wells	California/	Arlington	Mill	
	Ave.	Mayberry	Ave.	Street	
Traffic Crashes	-31%	-42%	-46%	-43%	

Source: UNR, Wells Avenue Traffic Study, 2008 Source: UNR, Road Diet Study, 2012

#### Motor Vehicle Accident Fatalities

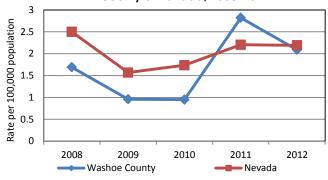
From 2008 to 2012, 20% to 30% of fatal accidents in Washoe County involved at least one driver with bloodalcohol content (BAC) over the legal limit of .08.<sup>69</sup> The hospital charges for those involved in an accident when the driver was under the influence (DUI) average \$83,959. This is \$8,194 more than those charges when the driver was not impaired by any substance.<sup>70</sup>

Figure 1.7: Percent of Motor Vehicle Fatalities BAC 0.8 or Higher, Washoe County, Nevada, & U.S., 2008-2012



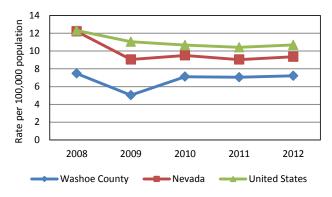
Source: US Department of Transportation, NHTSA, Traffic Safety Facts, Washoe County, 2008-2012

Figure 1.8: Pedestrian Fatilities, Washoe County & Nevada, 2008-2012



Source: US Department of Transportation, NHTSA, Traffic Safety Facts, Washoe County, 2008-2012

Figure 1.9: Total Motor Vehicle Fatality Rates, Washoe County, Nevada, & U.S., 2008-2012



Source: US Department of Transportation, NHTSA, Traffic Safety Facts, Washoe County, 2008-2012

Youth Risk Behaviors Contributing to Traffic Safety
In the 2013 Youth Risk Behavior Survey (YRBS), Washoe
County high school students reported higher rates of risky
behavior related to motor vehicle safety with the
exception of texting while driving—possibly impacted by
the hand-held cellphone ban in Nevada —and the use
of helmets. Their responses to the survey related to traffic
safety are compared to national levels in Table 1.3.
Differences between race and ethnicities are shown, only
for Washoe County, when available.



Table 1.3: Youth Risk Behavior Survey, 2013 Data, Washoe County
Analysis, Selected
Traffic Safety Related Questions

Risk Behavior	Washoe	United
Rarely/Never Wore Helmet While Riding a	County 80.4%	States 87.9%
Bicycle		07.7/0
Female	80.9%	
Male	79.9%	_
Native American/Alaskan Native	_	_
African American	_	_
Asian	58.7%	_
Hispanic	90.6%	_
White	72.6%	_
Other/multiple races	85.4%	_
Rarely/Never Wore Seatbelt	8.4%	7.6%
Female	7.1%	_
Male	9.7%	_
Native American/Alaskan Native	36.8%	_
African American	29.0%	_
Asian	_	_
Hispanic	8.7%	_
White	6.1%	_
Other/multiple races	_	_
Rode in car with driver who had been drinking alcohol	24.7%	21.9%
Female	27.5%	_
Male	21.8%	_
Native American/Alaskan Native	32.9%	_
African American	28.8%	_
Asian	_	_
Hispanic	32.2%	_
White	19.8%	_
Other/multiple races	17.7%	_
Drove when they had been drinking alcohol	11.7%	10.0%
Female	10.7%	_
Male	12.6%	_
Native American/Alaskan Native	_	_
African American	24.3%	_
Asian	_	_

Hispanic	14.6%	_
White	9.2%	_
Other/multiple races	_	_
Texted or emailed while driving	36.9%	41.4%
Female	37.2%	_
Male	36.6%	_
Native American/Alaskan Native	_	_
African American	32.4%	_
Asian	_	_
Hispanic	36.4%	_
White	40.3%	_
Other/multiple races	28.3%	_
Source: 2013 Nevada YRBS: Washoe Cour	nty Analysis	

# <u>Injury Prevention Policy</u>

Table 1.4 provides an overview on policies that aim to prevent injury and death due to motor vehicle accidents.<sup>71</sup>

Table 1.4: Nevada Traffic Safety Policy Highlights

-		_
Motor Vehicle Safety	U.S. + D.C.	Nevada
Primary seatbelt laws: Police can stop a driver and issue a citation for not wearing a seatbelt, no other violation need be witnessed.	32 states + D.C.	×
Driving under the influence: Mandatory ignition interlocks for all drivers convicted of a DUI, including first-time offenders.	17 states	<b>X</b>
†Driving under the influence: Sobriety checkpoints/DUI checkpoints.	38 states + D.C.	
Motorcycle helmets: Universal law for all riders.	19 states + D.C.	
*Child car seats and booster seats: Require that children ride in a car seat or booster seat until the age of 8.	33 states + D.C.	<b>(X)</b>
Bicycle helmets: Required for all children.	21 states + D.C.	×
†Distracted driving: Universal ban on handheld cell-phone use while driving.	13 states + D.C.	
Source: Trust for America's Het *Meets National Highway Traffic Safety Admini Academy of Pediatrics stan †Not an indicator used for scoring in the State- Policy Report	istration and th	



## <u>Summary</u>

Most residents are reliant on a personal automobile for transportation. But if RTC continues to increase accessibility and improve roadways for alternative modes of transit, there may be potential to shift trends in the future. There has been little change in the rate of motor vehicle deaths including those where a driver was intoxicated, while pedestrian fatalities have increased since 2008. In 2013 youth in Washoe County reported higher rates of traffic safety-related risk behaviors, except for helmet use and texting while driving.



#### Air Pollution

The Environmental Protection Agency (EPA) reports that air pollution can lead to a host of health problems including respiratory and cardiovascular disease and decreased lung function. Poor air quality can also increase the frequency and severity of respiratory symptoms such as difficulty breathing, coughing and susceptibility to respiratory infections. It can also adversely affect the nervous system — including the brain — which impacts learning ability, memory and behavior. In extreme instances, air pollution contributes to the development of some cancers and can even cause premature death.

### **Air Quality Highlights**

Because Washoe County sits on the lee side of the Sierra Nevada, the air quality is generally favorable; and winds typical of the area work to clear air pollutants. There are some seasonal periods during which air quality decreases, most notably during summer due to smoke from wildfires and in winter when temperature inversions occur.

### Washoe County Air Quality

The EPA established the National Ambient Air Quality Standards (NAAQS) — the regulatory levels at which air is considered unhealthy. The Clean Air Act requires the EPA to monitor six primary air pollutants including carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>) and sulfur dioxide (SO<sub>2</sub>).

When any of the six monitored air pollutants exceed the NAAQS, it is considered unhealthy exposure.

#### Air Quality Index

The Air Quality Index (AQI) reports daily air quality and the potential health issues that might manifest within hours or days after breathing polluted air. The EPA calculates the AQI for five major air pollutants regulated by the Clean Air Act: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide and nitrogen dioxide. Ground-level ozone and airborne particles pose the greatest health threat to residents in Washoe County.

# Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that impedes the delivery of oxygen to the body's tissues and organs, including the heart and brain. Exposure to CO can cause blurred vision, reduced manual dexterity, nausea, dizziness, headaches, confusion, vomiting, shortness of breath and difficulty performing complex tasks. Carbon monoxide poisoning can lead to serious tissue damage and even death. Fortunately carbon monoxide has not been an ambient air quality problem in Washoe County since the early 1990s.

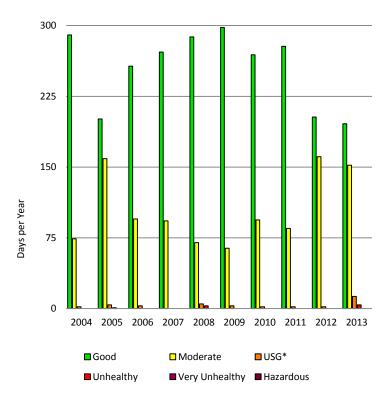
#### Nitrogen Dioxide

Short-term nitrogen dioxide (NO<sub>2</sub>) exposure — 30 minutes to 24 hours — is linked to respiratory issues including airway inflammation in healthy people and increased respiratory difficulties in those with asthma. Statistics also show a connection between breathing elevated short-term NO<sub>2</sub> concentrations and increased emergency rooms visits and hospital admissions for respiratory issues, especially asthma. The Air Quality Management District (AQMD) has monitored NO<sub>2</sub>since 2009, and it has not been a concern for Washoe County.

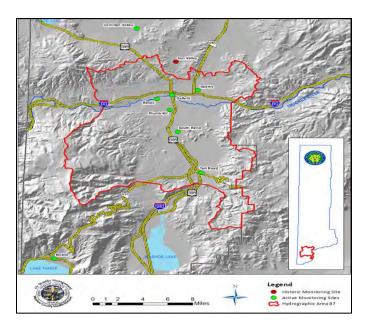
#### Ozone

Ground-level ozone impedes the ability to breathe deeply (epa.gov). Breathing ground-level ozone contributes to a variety of respiratory issues such as chest pain, coughing and throat irritation. But for individuals with preexisting respiratory conditions, ingestion of ozone can be extremely dangerous, further exacerbating breathing issues (epa.gov). Ozone levels for Washoe County hover near the ambient air quality standards but have occasionally reached the Unhealthy for Sensitive Groups AQI since the 2008 standard was implemented.









Map1. 2 Washoe County Ambient Air Monitoring Sites (2004-2013)

#### Particulate Matter

Particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>) comprises exceptionally small particles and liquid droplets containing acids, organic chemicals, metals, and soil and dust particles.

Particulate matter adversely affects the heart, decreases lung function and aggravates asthma. It can also cause chronic bronchitis, produce irregular heartbeat, trigger nonfatal heart attacks, and contribute to premature death in people with preexisting heart or lung disease.

Unhealthy for Sensitive Groups and Unhealthy AQI levels of PM happen during calm, cold wintertime inversions and wildfire episodes. Regulations related to use of woodstoves, street maintenance and industry have helped decrease particulate pollution in Washoe County.

## Air Quality Summar

Overall Washoe County's ambient air quality is favorable with more than 250 days on average per year in the Good range. There are, however, some seasonal episodes when air quality varies and sometimes reaches unhealthy levels — typically in the summer when wildfires occur or winter during temperature inversions. Winds typical of the Washoe County area work to clear pollutants, and the location on the lee side of the Sierra Nevada serves to shelter the cities from some pollutants. Washoe County is currently meeting all air quality standards set by the EPA, but changes in standards could alter that status. For more information and to check the current air quality, visit www.OurCleanAir.com.



<sup>&</sup>lt;sup>1</sup>Pending approval of the "Redesignation Request and Maintenance Plan for the Truckee Meadows 24-Hour PM10 Non-Attainment Area."

#### **Water Safety**

#### Water Safety Highlights

Reno-Sparks community has access to clean safe water. And while there are naturally occurring minerals in the groundwater, these are closely monitored and do not normally exceed regulatory limits. People who live outside the Truckee Meadows Service Areas also have access to clean safe well water; however, they should be regularly testing their water supply to ensure safety. There is a historic underground contamination in downtown Reno due to spills and improper disposal of dry-cleaning byproducts. This contaminant does not affect the public's drinking water and has been remediated over the past years.

#### Washoe County Water Sources

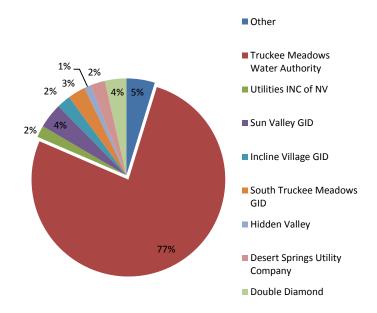
From 1998 to 2010 the U.S. Geological Survey (USGS) conducted a National Water-Quality Assessment (NAWQA) where changes in the concentrations of chloride or dissolved solids were monitored to provide insight into possible sources of contaminants.<sup>72</sup> The system providing water for the Reno-Sparks area, the Nevada Basin and Range aqueduct was tested from 1995 through 2003. The NAWQA found no significant changes in chloride, dissolved solids or nitrate levels.<sup>72</sup>

<u>Truckee Meadows Water Authority</u> (TMWA) oversees the city water supply for 77% of the Reno-Sparks population, and is required to monitor and meet regulatory standards for more than 100 water contaminants.<sup>73, 74</sup> More than 85% of the drinking water serviced by the TMWA comes from the Truckee River, which originates at Lake Tahoe and is fed by snow melt and rain throughout the Tahoe and Truckee River basins in the Sierra Nevada. The remaining 15% comes from more than 30 wells drilled in deep-water aquifers located within TMWA's service area.<sup>75</sup>

There is a historic source of groundwater contamination beneath the Reno downtown area — a plume of perchloroethylene resulting from spills and improper waste disposal decades ago. <sup>76,77</sup> Perchloroethylene (also known as Tetrachloroethylene, PERC or PCE) is a solvent widely used in dry cleaning and degreasing products. PCE does not currently affect those on municipal water, and those on well water are too far from the downtown area to be effected by PCE. <sup>78</sup> There are monitoring and cleanup efforts under way for areas in the Reno downtown region for sources of PCE.

\*Water Systems that serve the same people year-round (e.g., in homes or businesses)

# Percentage of Washoe County's Population Served per Community Water System, 2014



## Water Safety Summary

Washoe County's groundwater is safe, but it contains naturally occurring minerals that may affect the taste of the water. Residents reliant on well water are encouraged to test their water for potential unknown sources of groundwater contamination. Residents who receive their water through the municipal water supply have access to clean, regulated and frequently tested water.



#### **Food Safety**

The Centers for Disease Control and Prevention (CDC) estimates each year approximately one in six people in the United States becomes sick due to foodborne illness, with severe cases resulting in hospitalization and even death.<sup>79</sup>

#### Food Safety Highlights

Washoe County Health District's Environmental Health program grants permits for establishments to handle, distribute and sell food within the county, and conducts inspections regularly. Incidence of foodborne illness has increased but is still relatively low. Not all foodborne illnesses are traced back to a confirmed source, and as with all reportable conditions, there are limitations due to underreporting. A foodborne illness outbreak is not necessarily a reflection of local food handling. A larger regional or national food recall could be the cause.

# Food Safety

The United States Department of Agriculture (UDSA), the U.S. Department of Health & Human Services, the U.S Food and Drug Administration (FDA), The Centers for Disease Control (CDC) and the National Institutes of Health (NIH) work together to ensure the nation has access to safe food by setting and enforcing safety standards and codes.<sup>80</sup>

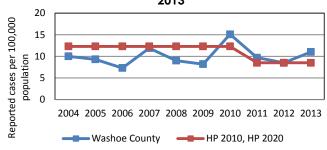
# Washoe County Data Interpretation

The data presented for Washoe County are not isolated to foodborne illness or outbreaks. Some pathogens were spread from human-to-human contact and human contact with animals or through contaminated water — both recreational and natural sources. All data and charts are sourced from the 2013 Annual Communicable Disease Summary, the most current data for Washoe County.

# Cambylobacteriosis

Campylobacter is one of the most common causes of diarrheal illness in the United States, typically associated with handling and eating raw or undercooked poultry.<sup>81,82</sup> Individuals experience diarrhea, cramping, abdominal pain and fever usually two to five days after exposure to the organism.<sup>81</sup> The Healthy People 2020 target is 8.5 cases per 100,000 population. Washoe County reported 11.0 cases per 100,000 population in 2013 [Figure 1.1].<sup>82,83</sup>

Figure 1.1: Rates of Reported Cases\* of Campylobacteriosis, Washoe County, 2004-2013



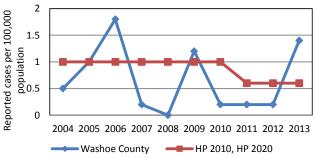
\*Effective in 2009, probable cases became reportable in Washoe County Source: Washoe County 2013 Annual Communicable Disease Summary

Escherichia coli 0157:H7 (Shiga toxin-producing E.coli 0157 = STEC 0157)

While many Escherichia coli (E. coli) are harmless, infection from some strains can result in death. The E. coli that cause disease are those that produce a toxin known as Shiga toxin E. coli or STEC, and most reported outbreaks of E. coli are due to STEC 0157.84 Symptoms include stomach cramps, diarrhea (usually bloody) and hemolytic uremic syndrome (HUS).84.85 The most common sources of infection are consumption of undercooked contaminated beef and unpasteurized raw milk or contact with the feces of an infected human.82,84

The Healthy People 2020 target for STEC O157 is 0.6 cases per 100,000 population. Washoe County reported 1.4 cases per 100,000 population in 2013, up from 0.2 in 2012 [Figure 1.2].  $^{82,83}$ 

Figure 1.2: Rates of Reported Cases\* of STEC 0157 Infection, Washoe County, 2004-2013



\*Effective in 2009, probable cases became reportable in Washoe County Source: Washoe County 2013 Annual Communicable Disease Summary

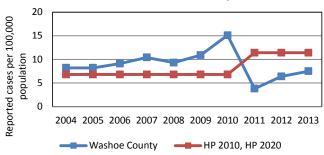
#### Salmonellosis

Salmonellosis, caused by the bacteria *Salmonella*, is one of the most common foodborne infections. Symptoms including diarrhea, fever and abdominal cramps occur within 12 to 72 hours after infection and last for about a week. Most people recover without treatment. <sup>86</sup> Food contamination usually occurs through fecal contact. Cooking meats thoroughly typically kills *Salmonella*. <sup>82,86</sup>



The Healthy People 2020 target is 11.4 cases per 100,000 population. Washoe County reported 7.5 cases per 100,000 population in 2013.<sup>82, 83</sup>

Figure 1.3: Rates of Reported Cases\* of Salmonellosis, Washoe County, 2004-2013



<sup>\*</sup>Effective in 2009, probable cases become reportable in Washoe County Source: Washoe County 2013 Annual Communicable Disease Summary

#### Food Safety Summary

Foodborne illnesses are often underreported and are not all traceable to a particular restaurant or food handler. Illness may be a result of a food recall. While rates of foodborne illness in Washoe County have increased since 2013, this can be due to a variety of reasons and may not be a reflection of local food production or handling practices.

#### Food Security and Access

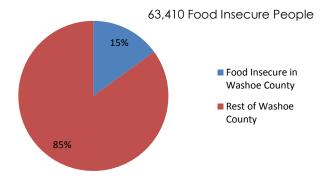
As the rate of people who are overweight and obese increases, the number of people reliant on federal nutrition supports and public assistance to obtain an adequate supply of food has reached an all-time high, both nationwide and in Washoe County.<sup>87,88</sup> This trend is attributed to various factors including the weak economic recovery and the abundance and accessibility of cheap, unhealthy food.<sup>88,89</sup> Similar to overall health outcomes, access to healthy and affordable food can vary greatly based on income, neighborhood and race/ethnicity.<sup>89,90,91,92,93,94</sup>

# Food Security and Insecurity

Food security is defined as having access to enough food to live an active and healthy life. Food insecurity denotes reduced quality, variety or desirability of diet; disrupted eating patterns; or reduced food intake. 5 About 15% of the population and more than a quarter of the children in Washoe County are food insecure. Nearly 26% of children live in households that cannot reliably provide three nutritious meals every day. Among those who are food insecure, nearly one-third do not qualify for federal food programs. Ninety-two percent of people who obtain food through a food assistance program cope with personal food shortages by purchasing inexpensive unhealthy food. More than half have reported eating

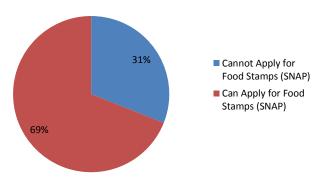
food past the expiration date or selling personal property to be able to afford enough food.<sup>87</sup>

Figure 1.4: Food Insecurity Rates, Washoe County, Total Population, 2012



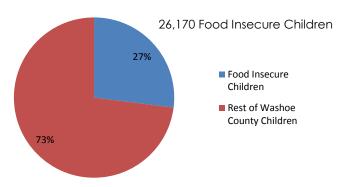
Source: Washoe County Chronic Disease Report Card 2014, Food Bank of Northern Nevada data

Figure 1.5: Food-Insecure Eligible for Federal Food Aid, Washoe County, 2012



Source: Washoe County Chronic Disease Report Card 2014, Food Bank of Northern Nevada data

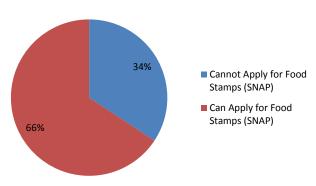
Figure 1.6: Food Insecurity Among Children, Washoe County, 2012



Source: Washoe County Chronic Disease Report Card 2014, Food Bank of Northern Nevada data



Figure 1.7: Food-Insecure Children Eligible for Federal Food Aid, Washoe County, 2012

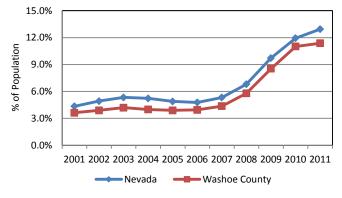


Source: Washoe County Chronic Disease Report Card 2014, Food Bank of Northern Nevada data

Supplemental Nutrition Assistance Program
The Supplemental Nutrition Assistance Program (SNAP),
also known as food stamps, is a federally funded program
that provides resources to eligible, low-income individuals
and families. Households are provided a SNAP electronic
benefit transfer (EBT) card, which works like a debit card.
The cost of eligible food items is deducted from the
household's monthly nutrition allowance.<sup>96</sup>

As of 2011, only 69% of *eligible* Nevadans were enrolled in SNAP benefits, 61% of which were working poor. 97 In 2011 approximately 11.4% of the Washoe County population was enrolled in SNAP, a dramatic increase compared to pre-recession rates. Nationally 87% of those using SNAP benefits are seniors, children and the disabled.

Figure 1.6: Percent of Population Enrolled in SNAP, Washoe County & Nevada, 2001-2011



Source: US Census Bureau, Small Area Estimates Branch, County SNAP Benefits Table

National School Lunch and Breakfast Programs
The UDSA federally funded National School Lunch and
Breakfast Programs (NSLP and SBP) provide free and
reduced-priced meals to eligible children every school

day. The National School Lunch Program cost \$11.6 billion in FY 2012 and served more than 31.6 million children each school day across the United States. 98 Free or reduced-price lunch program eligibility is based on household size and income levels. For the 2014-15 school year, a family of four must be making less than \$44,123 annual combined income to be eligible for reduced-price meals, and less than \$23,850 to be eligible for free meals. If the family is receiving SNAP benefits, children automatically qualify for free meals through the school lunch program. 99

In Washoe County, 47.2% of children were eligible for free and reduced-price meals during the 2013-2014 school year. But only two-thirds of those eligible were participating in the lunch program and even fewer were participating in the breakfast program.<sup>100</sup>

Hunger in America: The Food Bank of Northern Nevada and Partner Agencies

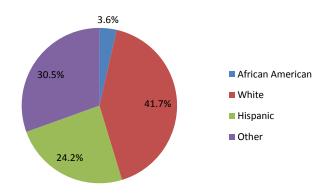
The Food Bank of Northern Nevada (FBNN) is a regional food distribution center providing food to more than 130 partner agencies including food pantries, soup kitchens, shelters, youth and other organizations. FBNN has seven direct service programs including mobile food pantries, senior food boxes, child meal programs and SNAP outreach covering more than 90,000 square miles. In 2013, FBNN provided 68% of all food distributed by its partners in Washoe County and served 71,000.87,101 The national study, Hunger in America, takes place every four years and surveys food bank partner agencies and their clients. Additional data from FBNN partner agencies and Washoe County client surveys are presented below.

While originally conceived as emergency food assistance, use of food pantries and other such resources has now become a regular strategy for an alarming number of families and individuals. Most food assistance programs are housed within organizations already providing some type of service to the low-income population and are assumed to be accessible for those subgroups. Schools (25%), churches (21%), and parks (12.9%) constitute the majority of food assistance locations in the Reno-Sparks area. Sixty-two percent of food distribution partner agencies saw an increase in clients compared to the prior year, and about one-third of agencies reported having less food than they needed during 2012.87

According to FBNN partner agency client surveys, 69.6% of people participating in food assistance programs in Washoe County had a high school diploma/GED equivalent or less and about half were 50 years or older [Figure 1.7-1.9]. Thirty-six percent of clients were veterans, 26.5% were living in a temporary housing unit and nearly 20% of client households did not have access to a refrigerator. Although 89% of clients were eligible for SNAP, only 48.7% were receiving those benefits.<sup>87</sup>

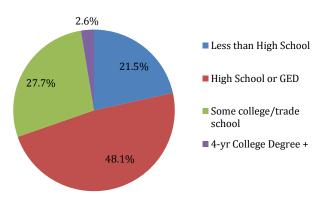


Figure 1.7: Washoe County Food Assistance Program Client Participants, by Race/Ethnicity 2012



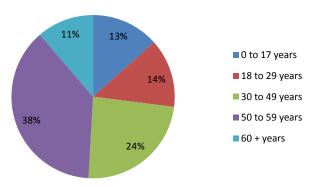
Source: Hunger in America, Washoe County Excerpts, 2012

Figure 1.8: Washoe County Food Assistance Program Client Participants, by Educational Attainment, 2012



Source: Hunger in America, Washoe County Excerpts, 2012

Figure 1.9: Washoe County Food Assistance Program Client Participants, by Age, 2012



Source: Hunger in America, Washoe County Excerpts, 2012

#### Food Access Maps

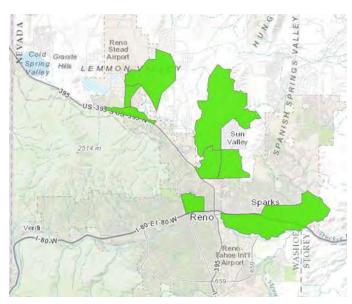
The following full-page maps show the disproportionate number of unhealthy food options relative to healthy food sources in the Reno-Sparks area (see Appendix D for methodology). These maps indicate "food swamps" where unhealthy, processed, prepackaged foods are readily available, and "food deserts," which are areas with low access to healthy food sources. A fresh food map shows where producers and distributors of locally grown fresh food are located.

#### Food Swamps

A food swamp is an area where there is an overabundance of unhealthy food choices, especially in comparison to healthy food outlets. 102,103 The food swamp map includes gas stations, convenience stores, and fast food outlets, which are concentrated along the borders of highways and major roads where low-income tracts are often located. See Map 1.3 for food swamps in Washoe County.

#### **Food Deserts**

Food deserts were originally defined by the USDA and mapped down to the census tract level for the entire United States. The USDA's qualification for a census tract to be counted as a food desert requires the tract to meet low-income and low-access thresholds.<sup>104</sup> The map below shows USDA qualified food desert census tracts (shown in green) in Washoe County.



Map 1.2: USDA Original Food Desert Census Tracts for Reno-Sparks

Map 1.4 shows food deserts in Washoe County and includes grocery stores that carry fresh fruits and vegetables, as well as food assistance locations. Stores like CVS and Walgreens are classified as convenience



stores and placed on the food swamp map since grocery products in those locations are limited to processed and prepackaged foods. Food assistance locations include food pantries, mobile food pantries, commodity supplemental food programs for seniors, and after-school or summer food programs for children. Because most food assistance locations only provide food some days of the week or month they are not considered a regular source of food for all populations. Map 1.5 illustrates a general concept of people who are a quarter-mile distance from a healthy food source — grocery stores. A quarter-mile radius to the nearest grocery store has been set for other food swamp maps and is more realistic for a single parent walking to and from the store with children, which is common among low-income families.<sup>89</sup>

In Map 1.5, all food swamp locations were collapsed into one category and are indicated on the map by a pink dot. The half-mile radius to a grocery store is provided to serve as a contrast to the quarter-mile food desert map and is shown as a light circle. There are a handful of densely populated low-income census tracts with no grocery store nearby, but nearly all have at least one source of unhealthy food.

#### Fresh Food

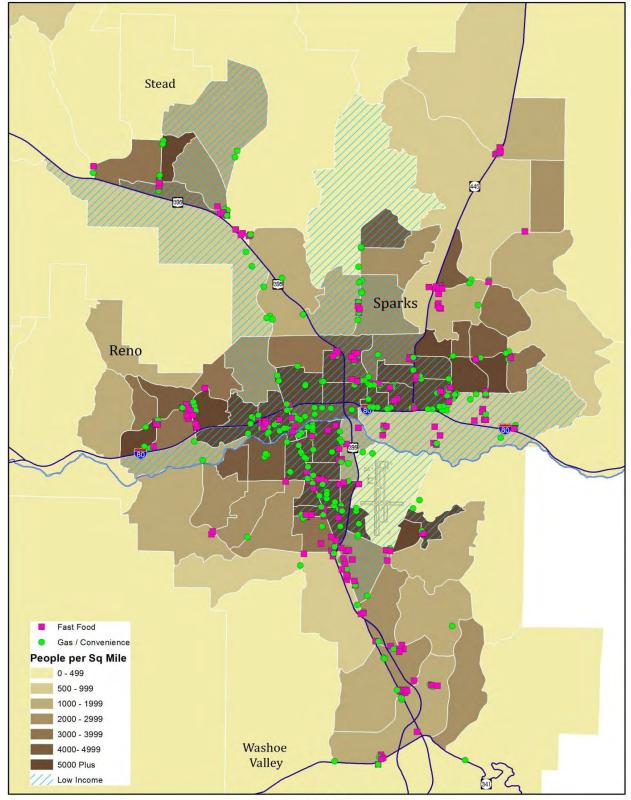
There is no consensus on the term "local food," although the Food, Conservation and Energy Act of 2008 determined a local or regional food product as "one 400 miles from its origin, or within the state where it is produced." This creates a challenge in the West where states are much larger than those in the East or South. Additionally, California borders the west side of Nevada and is the largest producer of agriculture in the U.S., growing almost half of the country's grown fruits, vegetables and nuts. 106 Using the 2008 Food Act parameters, nearly anything grown in California would be considered local to Nevada.

In Map 1.6, the only farms and certified growers included are those located within Washoe County boundaries, again with a focus on the Reno-Sparks region. There are several farm locations in the valleys to the south and east of Washoe County, which this map does not depict. Most farms denoted on the map do not sell directly to individuals; instead their products are available through farmers markets or the Great Basin Community Food Coop. The Great Basin Food Co-op is the only local food coop in the area, and EBT cards are accepted. Additionally there are community supported agriculture (CSA) farms in northern Nevada and Northern California. CSAs provide boxes/baskets of seasonally available foods for a set price directly to the customer. 107

# Food Security and Access Summary

While there is a strong network of food distribution and assistance in Washoe County, there are a growing number of people reliant on federal nutrition programs

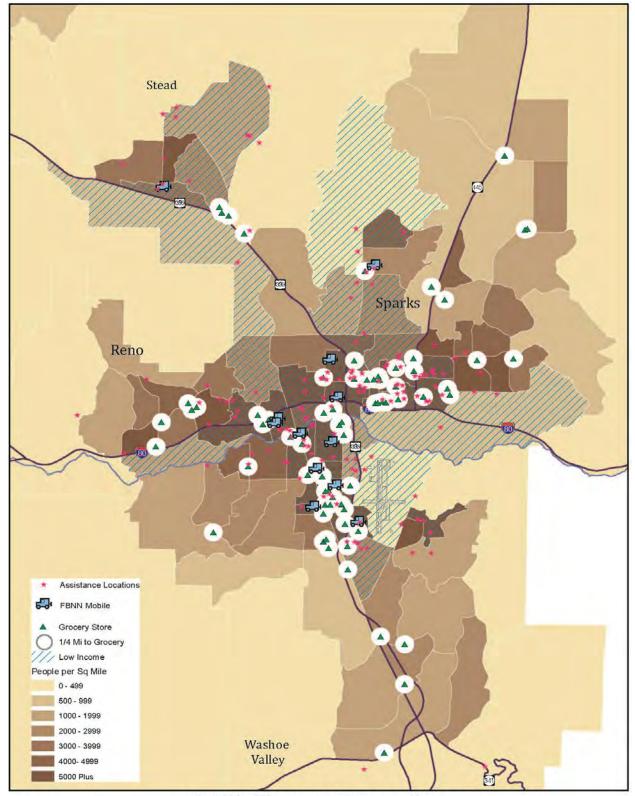
and charity to obtain adequate food. Those in need of food assistance often decide each month between paying for food or other needs such as medication, utilities and housing. Limited resources coupled with increasing demand could leave more families and children with fewer meals in the future. The physical layout of the Reno-Sparks community relative to the major highways, which transect the city, bring sources of unhealthy food into the areas where many low-income people live.



**Food Swamp** 

Map 1.3: Washoe County Food Swamps

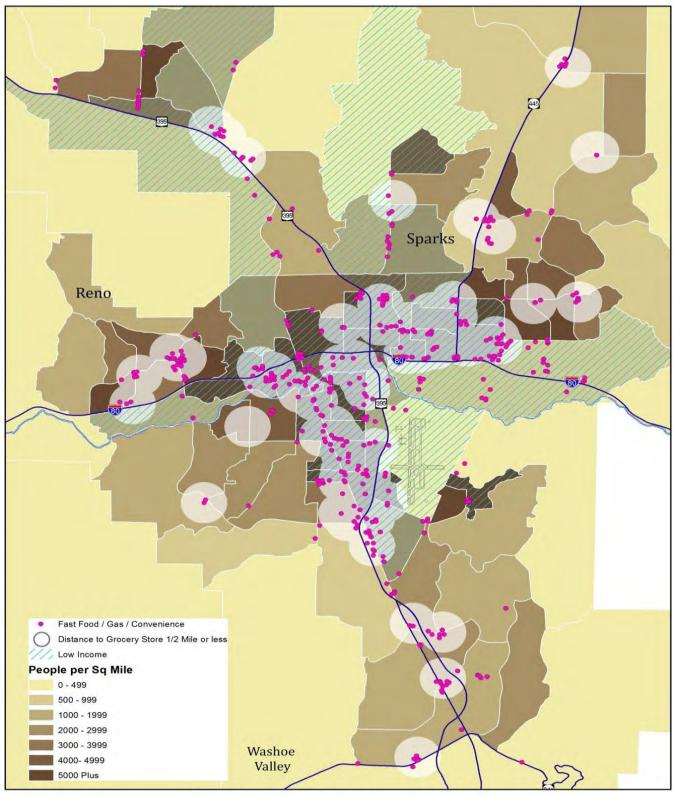




1/4 Mile Distance to Grocery Store

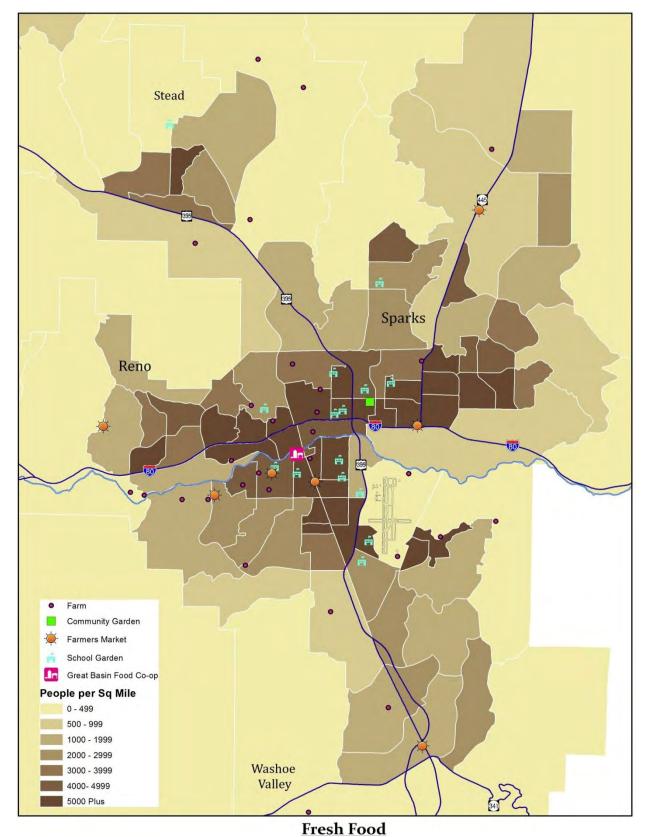
Map 1.4: Washoe County Food Deserts, 1/4
Mile Distance to Grocery Store





# Food Desert vs Food Swamp

Map 1.5: Food Deserts vs. Food Swamps (1/2 mile distance to grocery store)



Map 1.6: Washoe County Fresh Food Sources



#### **Health Resources Availability & Access**

Barriers to healthcare in the United States include the affordability of services, access to health insurance, and the availability of both services and healthcare providers. Knowing how to navigate the system is equally important for preventive care services and the treatment of acute illnesses. 108, 109, 110, 111

#### Washoe County Healthcare Access Highlights

Historically Washoe County, like Nevada, has maintained a large population of uninsured residents who cannot afford healthcare. Since the passing of the Affordable Care Act (ACA) the numbers of uninsured have decreased dramatically. There exists, however, a shortage of available practitioners. One in five residents in Washoe County are enrolled in Medicaid, and many have experienced difficulty in finding providers who accept Medicaid and providers who are accepting new Medicaid patients. Approximately, one-third of Washoe County residents live in a primary care provider or a dental care provider shortage area. All residents in Washoe County are living in a mental health provider shortage area.

# The Cost of Healthcare

In 2012 healthcare expenditures in the United States totaled \$2.8 trillion — an estimated 17.2% of the country's economic spending. Approximately 28% of those monies were paid for by individual households, 26% by the federal government, 21% through private businesses, with the remaining 18% paid for by state and local governments. 112 The average per-person expense for healthcare in 2012 is estimated at \$8,915. 112

The amount of money spent on healthcare in the United States has rapidly increased since the 1980s and is much greater than that of other developed nations. The U.S., however, still reports higher percentages of poor health outcomes across the board. 113,114,115 The extreme cost of healthcare in the U.S. has been attributed to various factors including increasing obesity rates and the unavailability of advanced technology. 115 Over the past four decades, the growing cost of healthcare has outpaced the increase in income, leaving more people unable to afford healthcare each year. 108

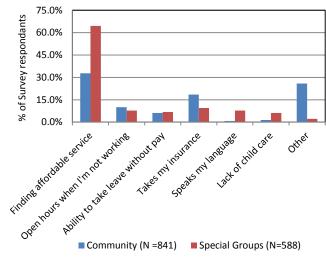
A survey of Washoe County community members indicates various barriers in accessing healthcare in the Reno-Sparks area, most notably finding affordable healthcare [Figure 1.1].<sup>116</sup>

#### The Consequences of Being Uninsured

In 2013 the number of uninsured people in the U.S., a population comprising mainly minorities and those with less education and income, totaled nearly 55.4 million.<sup>117</sup>

Impacts on Individuals and Families
Uninsured adults receive fewer preventive and screening

Figure 1.1: Main barrier you face in accessing health care in our community.



Source: \* TMRPA, 2013 Senior Study

services. They are less likely to seek out medical care, often waiting until a condition has reached an advanced stage that decreases the likelihood of successful treatment or full recovery. 109,111,118 Uninsured children are developmentally affected without access to key preventive services early in life. 111 Being uninsured individuals can impact entire families, half of all individual bankruptcy filings in the United States are due to unpaid medical bills. 110

# Impacts on the Community

Communities experience reductions in healthcare capacity when ERs and hospitals are overburdened by uninsured patients, services to the public are cut, and public health programs lose funding. 110,111 Insured adults living in communities with a large uninsured population often have difficulties finding quality healthcare services. 119 Spread of communicable disease increases as there are more unvaccinated individuals, fewer healthcare providers, and reduced local capacity to monitor and respond effectively in the delivery of health services. 110

#### Impact on the Economy

The local economy bears the financial burden of treating the uninsured. The cost for healthcare services and insurance rates increase to cover the medical expenses incurred but not paid for by the uninsured population. Workplace productivity is also affected due to disability or premature death of employees, the rates of which increase as a result of poor health over time. It is 2003, the economic savings of continual health coverage for all Americans was estimated between \$65-130 billion each year.



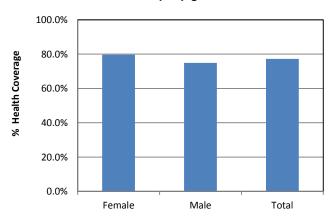
#### Affordable Care Act

Since the ACA passed in 2010, the availability of affordable individual health insurance plans has increased. Under the ACA, individuals are required to purchase insurance if their employers do not offer a plan. Failure to do so results in a tax penalty that increases each year until a person obtains coverage. <sup>120</sup> According to the National Center for Health Statistics, by March 2014 the rates of uninsured adults ages 18 to 64 had decreased from 20.4% in 2013 to 18.4%. <sup>117</sup>

#### Washoe County Health Insurance Coverage

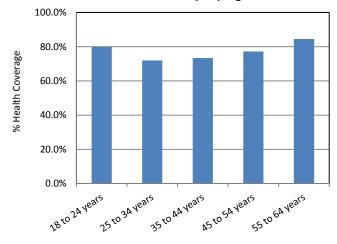
Among those Washoe County residents who reported an annual income of less than \$15,000, only 44.5% had any kind of health coverage. The majority of uninsured individuals at this income level could qualify for Medicaid.

Figure 1.2: Percent of Adults, 18-64 years, who have some type of health coverage, Washoe County, by gender, 2013



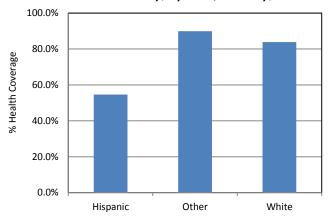
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.3: Percent of Adults, 18-64 years, who have some type of health coverage, Washoe County, by age, 2013



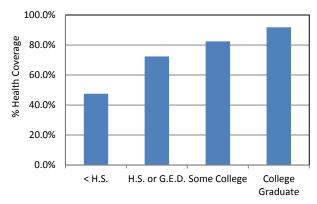
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.4: Percent of Adults, 18-64 years, who have some type of health coverage, Washoe County, by race/ethnicity, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.5: Percent of Adults, 18-64 years, who have some type of health coverage, Washoe County, by education, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

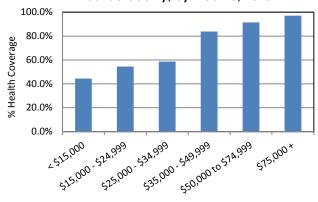
#### Medicaid

Medicaid is a federally funded program that pays for healthcare services for low-income individuals in the United States. AMERIGROUP Community Care and Health Plan of Nevada are the managed care organizations that contract with Medicaid providers in the state.

Under ACA provisions, Nevada is one of the 26 states that elected to expand the Medicaid program, making individuals who earn up to 133% of the federal poverty level eligible for services. <sup>121</sup> Early 2014 saw an increase in the number of insured adults ages 18 to 64 due to the expansion. <sup>117</sup>



Figure 1.6: Percent of Adults, 18-64 years, who have some type of health coverage, Washoe County, by income, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

In 2012, 13.2% of Washoe County residents were enrolled in Medicaid — an 84% increase from the prior decade (2002).<sup>122</sup> Since the ACA Medicaid expansion went into effect, enrollment in Washoe County has increased by an additional 83.4%. And as of August 2014, 1 in 5 residents in Washoe County were enrolled in Medicaid [Table 1.1].<sup>123</sup> Many individuals struggle to find providers who not only accept Medicaid, but who are also accepting new Medicaid patients.<sup>121</sup>

Table 1.1: Washoe County & Nevada Medicaid Enrollment Changes, 2013-2014 (includes Managed Care, Fee-For-Service & Retroactive Enrollment)

	Sept 2013	Aug 2014	% Growth (Sept 2013 – Aug 2014)	% of Population* Enrolled (Aug 2014)
Washoe County	49,399	90,620	83.4%	20.7%
Nevada	330,623	601,781	82%	21.4%

Source: \*Population estimate for 2014, from State Demographer's Office population projection

### Medicare

Medicare provides federally funded health insurance for people over 65 and those under 65 who suffer from specific disabilities. In 2012 approximately 14.6% of Washoe County residents were enrolled in Medicare — a 54.6% increase from the prior decade (2002). 122 The baby boomer generation began turning 65 in 2011. By 2029, all baby boomers will be 65 and older and comprise nearly 20% of the population. 124

## Nevada Checkup

Nevada Checkup is Nevada's Children Health Insurance Program (CHIP), which offers low-cost healthcare coverage for children up to 18 years of age who are not covered by private insurance or Medicaid. From 2002 to 2012, Nevada Checkup enrollment in Washoe County declined by 6.9%. A little less than 5% of the 0-18 population was enrolled in 2012.<sup>122</sup>

## <u>Availability of Services and Providers</u>

Challenges accessing healthcare remain even for the insured. Having insurance and ongoing services from a primary care provider are often interrelated because people who have partial health coverage or intermittent coverage are less likely to establish a relationship with a regular provider. 109,110

## Primary Care Providers

Primary care providers typically include general practitioners, family medicine, general pediatrics, or general internal medicine doctors; other providers include physician assistants and nurse practitioners. 125,126 Having a higher number of primary care providers per capita increases population health for various health indicators. Countries with well-developed primary care systems have more affordable healthcare costs, better health outcomes and greater satisfaction with the quality of care. 127,128

People without a primary care provider do not regularly access the healthcare system and often wait until a health concern becomes so serious they seek emergency services. With regular primary care, however, patients receive annual checkups and health screenings, which helps prevent chronic conditions and the progression of disease to late stages.<sup>109</sup>

#### **Provider Access**

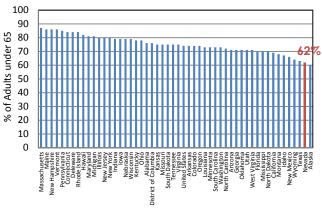
When determining the number of individuals nationwide with a consistent source of primary care, Nevada has historically ranked at the bottom of the list. In 2012, only 62% of adults under age 65 indicated they had access to a primary provider [Figure 1.7].

Finding a regular primary provider who was part of the health insurance network of providers was one of the most often cited barriers to accessing healthcare for Washoe County residents (Figure 1.1].<sup>116</sup>

The Healthy People 2020 target for the number of people who have a usual primary care provider is 83.9%. There are only two subgroups that reached this target level in Washoe County: individuals who are 65 years and older at 91.7%, likely due to their age-eligibility for Medicare, and those who earn more than \$75,000 per year at 84.5% [Figure 1.9]. 129

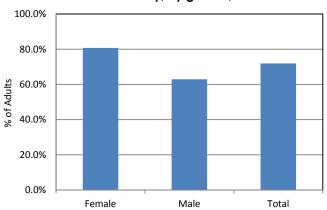


Figure 1.7: Percent of Adults under Age 65 with a Usual Source of Care, by State, 2012



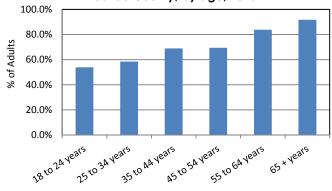
Source: 2012 Behavioral Risk Factor Surveillance System (BRFSS)

Figure 1.8: Percentage of Adults (18 + years) Who Have a Personal Healthcare Provider, Washoe County, by gender, 2013



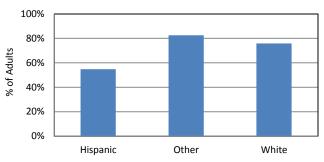
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.9: Percentage of Adults (18 + years) Who Have Personal Healthcare Provider, Washoe County, by age, 2013



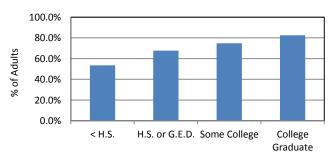
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.10: Percentage of Adults (18+ years) Who Have Personal Healthcare Provider, Washoe County, by race/ethnicity, 2013



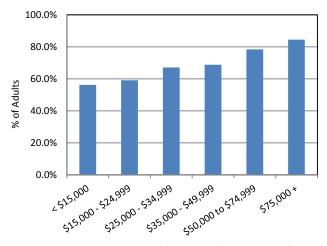
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.11: Percentage of Adults (18 + years) Who Have Personal Healthcare Provider, Washoe County, by education,



Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.12: Percentage of Adults (18 + years) Who Have Personal Healthcare Provider, Washoe County, by income, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis



<u>Health Resources and Services Administration (HRSA)</u>
Designated Shortage Areas and Populations

Medically underserved areas and populations are federally defined using a combination of criteria to determine shortages for primary, dental and mental health providers relative to the number of people who live in a given geographic location.<sup>130</sup>

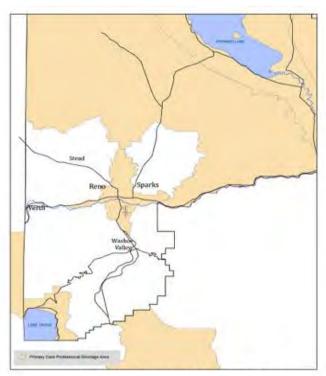
Medically Underserved Area (MUA) Designations:

- Have a low primary care-to-population ratio (1:3,500)
- Have a high infant mortality rate
- Have a high percentage of the population living below the federal poverty level (FPL)
- High percentage of the population 65 years and older

Medically Underserved Populations (MUP) are similar to underserved areas. This designation, however, recognizes that some geographical areas (counties, groups of counties or urban census tracts) may have exceptional difficulties accessing healthcare or have a higher-thannormal negative health status, but do not meet the MUA threshold.<sup>131</sup>

# Primary Care Provider Shortages

There is a documented shortage of primary care physicians across the country. The top projected drivers of the shortage are population growth, the aging population, and insurance expansion. <sup>132</sup> By having an additional primary care provider for every 10,000 people,



Map 1.2: Primary Care Provider Health Shortages Areas

an estimated 45 fewer deaths would occur at the county levels, with even greater reductions in mortality rates among rural and minority populations. 127

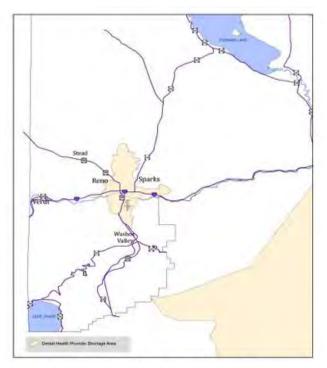
Approximately 32.2% of Washoe County's population lives in a primary care professional shortage area (1 physician for every 3,500 people) [Map 1.2]. Areas not highlighted are sparsely populated. 123,131

#### **Dental Providers**

Oral health is more than having healthy teeth. It's the absence of oral or facial pain, and having healthy gums and healthy tissues in the facial region. Good oral health offers protection against microbial infections. Research links oral health status to nutritional deficiencies, heart and lung diseases, stroke, low-birth weight, and premature birth. Poor diet and tobacco use negatively impact oral health. 133

Research indicates there is a relationship between having health insurance, specifically dental health insurance, and visiting the dentist for recommended annual or biannual cleanings and exams. Similar to general health, those without insurance often do not seek dental care due to high costs and inability to afford services. 133

In 2012, 32.9% of the population of Washoe County lived in a dental health care professional shortage area (1 dentist for every 5,000 people) [Map 1.3]. Areas not highlighted are sparsely populated. 122,131



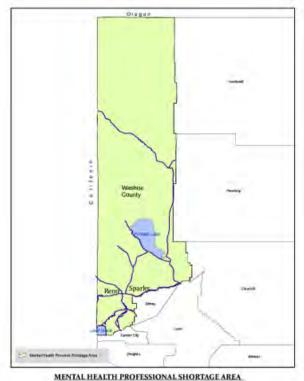
Map 1.3: Dental Health Provider Shortage Area



#### Mental Health Care Providers

Mental health providers include psychiatrists (M.D. or D.O), clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists.

All of northern Nevada, including Washoe County, is considered to be a mental health professional shortage area (1 psychiatrist for every 30,000 people) [Map 1.4]. 131



Map 1.4: Mental Health Provider Shortage Area

<u>Improving Access to Healthcare in Washoe County</u> The initiatives, programs, and agencies highlighted below have improved access to health services for thousands of low- to moderate-income Washoe County residents over the past years.

Reducing Inappropriate Use of Healthcare Resources Those who are uninsured are more likely to use emergency services and are more likely to be hospitalized for conditions that, if caught earlier, would not have progressed to terminal stages.<sup>111</sup> In an effort to break this cycle, REMSA implemented Community Health Programs (CHP) to more appropriately utilize emergency responders, including a 24/7-nurse health line, the Community Paramedicine Program, and Ambulance Transport Alternatives. 134

The nurse health line provides individuals in the community 24-hour access to an experienced registered

nurse who assesses a person's needs, provides clinical education, and makes referrals to appropriate care. This program, initiated in October 2013, fields about 2,000 calls per month and as of June 2014 prevented more than 1,000 unnecessary ER visits (REMSA-preliminary outcomes).

The Community Paramedicine Program, initiated in June 2013, helps frequent users of emergency services avoid readmission by providing regular in-home visits, improving care coordination, and offering point-of-care lab work among other services.

The Ambulance Transport Alternatives program provides more options when individuals call 911 for non-lifethreatening, non-emergent medical conditions that can be safely treated outside the ER. This program, implemented in December 2012, has proven to be a safe and reliable way to decrease costs and help patients access appropriate care. It has helped avoid 550 unnecessary ER visits. 134

Alternative treatment options and appropriate access to healthcare services benefit both the patient and the system. These CHPs have made more than 43,000 contacts with patients, helped avoid more than 1,500 unnecessary ER visits, and saved the healthcare system, the community and individuals millions of dollars in medical costs in a relatively short period of time.

## Access to Healthcare Network (AHN)

AHN provides low-income individuals, families and undocumented immigrants with access to medical treatment at greatly reduced prices with its Medical Discount Program. AHN also offers free preventive care including mammograms, pap smears, colon cancer screenings — to low-income individuals and families through its Women's Health Connection program and other grant funding. Recently AHN opened a children's hematology oncology practice, Sierra Pediatric Blood and Cancer Specialists, for the children of northern Nevada.

# Federally Qualified Health Centers (FQHC)

FQHCs work to increase primary care services in underserved urban and rural communities. They must offer a sliding fee scale, provide comprehensive services, and maintain ongoing quality assurance programs. These health centers receive grants from the federal government and enhanced reimbursement from Medicare and Medicaid along with other benefits. 130 The following healthcare providers are the only two FQHCs in Washoe County. 135

## Community Health Alliance (CHA)

Two former healthcare providers in the area combined to form Community Health Alliance (CHA) in 2012. CHA has four health centers and four mobile units in the Reno-



Sparks area offering primary care, women's healthcare, chronic disease management, behavioral health, WIC, labs/x-rays, and dental care. CHA accepts most insurance plans including Medicaid, Nevada Check Up and Medicare. The uninsured pay for visits on an incomebased sliding fee.

Since the ACA passed, CHA has experienced patient enrollment growth, and looks to extend days and hours of operation to meet the needs of its clients. There have been huge reductions in the numbers of uninsured patients served, and large increases among those insured by Medicare [Table 1.2].

Table 1.2: Community Health Alliance Enrollment Changes, by Insurance Type, 2012-2014\*

	Uninsured	Medicaid	Medicare	Private Insurance	Total Enrollment
2012	60.0%	33.0%	4.0%	2.5%	25,072
2013	44.0%	41.0%	5.0%	11.0%	26,302
2014	18.0%	76.0%	-	6.0%	30,807
Source: Community Health Alliance, data current as of 2014					

# Northern Nevada Hopes (NN HOPES)

NN HOPES, founded in 1997, is an integrated community health center located in downtown Reno offering a range of comprehensive services including primary care, chronic disease management, women's health services, harm reduction and outreach, behavioral health, social services, and an on-site pharmacy and nutritionist. NN HOPES accepts most insurance plans including Medicaid and Medicare and serves uninsured patients. <sup>136</sup> NN HOPES is also expanding the clinic site to meet the needs of its growing client numbers. Similar to CHA, the number of uninsured patients has decreased, while the proportion of those who are covered by Medicaid has increased.

Table 1.3: Northern Nevada HOPES, Enrollment Changes, by Insurance Type, 2012-2014\*

	Uninsured	Medicaid	Medicare	Private Insurance	Total Enrollment
2012	48.5%	20.3%	15.7%	15.6%	1,432
2013	29.7%	35.1%	17.5%	17.6%	1,893
2014	29.4%	43.6%	14.2%	12.7%	2,867
Source: Northern Nevada HOPES, data current as of September 2014					

### Access to Healthcare Summary

While ACA provisions and local organizations aim to increase the numbers of people who have affordable health insurance, this does not necessarily ensure people will have access to the healthcare they need. The current and projected shortages of primary care physicians are concerning given the increase in the elderly population, continued population growth in the region, and increased number of people acquiring health insurance.

Accessing services is especially challenging for those covered by Medicare, Medicaid and other health plans that do not reimburse providers at equal amounts as do private insurers. Medicaid enrollees in Washoe County

have cited the inability to find local providers who are accepting Medicaid patients. Even with ample providers, there are still problems getting people to access services in an appropriate manner. Those who are recently insured may not know alternative routes of access and continue to rely on emergency care providers, reducing the efficiency of the emergency care system, and further increasing the cost of health services.



#### Violence, Crime and Perceived Safety

The victims of violence and those exposed to violent acts can experience serious health concerns beyond bodily harm. <sup>137</sup> Long-term health effects of violence can include psychological and behavioral changes such as chronic stress, depression, anxiety and sleep disturbances. Survivors of violence sometimes develop unhealthy coping mechanisms such as substance use. They are likely to be repeat victims of violence and have increased risk for adopting violent behavior. Those who commit violence are likely to continue engaging in violent acts. <sup>137,138</sup>

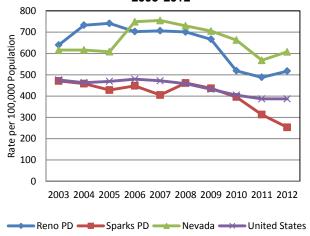
#### Violence, Crime and Perceived Safety Highlights

Overall, violent crime, including homicide, has decreased in Washoe County as have property crimes. While there has been little improvement in aggravated assault over the past decade, crime rates in Washoe County are still higher than those for the United States. Drugs, theft and gangs are the most cited perceived concerns of residents in the Reno-Sparks area. High school students report higher rates of violent-related risk behavior than those across the rest of the United States.

#### Violent Crime and Property Crime

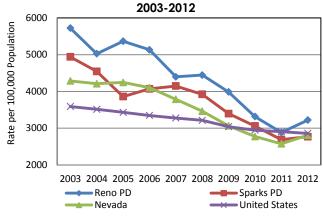
Violent crimes include murder, non-negligent manslaughter, forcible rape, robbery, and aggravated assault.<sup>139</sup> Burglary, larceny-theft, motor vehicle theft, and arson without force or threat to the victims of the crime are captured under property crimes.<sup>140</sup> The Reno and Sparks Police Departments report violent and property crime rates have decreased over the past 10 years. However, the Reno Police Department reports a slight increase in violent crime and aggravated assault rates, which mirrors trends in Nevada overall in 2012 (Figures 1.1-1.4).

Figure 1.1: Violent Crime Rate, Reno PD, Sparks PD, Nevada & the United States, 2003-2012



Source: US Department of Justice, FBI, Uniform Crime Reporting Statistics Query

Figure 1.2: Property Crime Rate, Reno PD, Sparks PD, Nevada & the United States,



Source: US Department of Justice, FBI, Uniform Crime Reporting Statistics Query

Figure 1.3: Aggravated Assault Rates, RPD, SPD, Nevada & the United States, 2003-2012

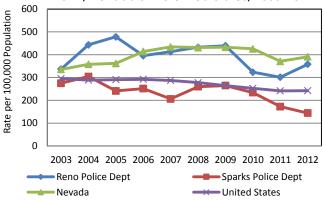
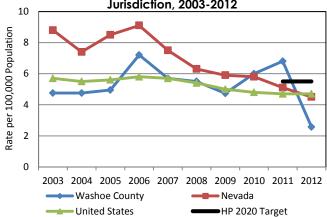


Figure 1.4: Homicide Death Rates, by Jurisdiction, 2003-2012



Source: US Department of Justice, FBI, Uniform Crime Reporting Statistics Query



#### Perceived Safety and Property Crime

The Reno Police Department Annual Report 2013 data show the top-three crime concerns for each region of the Reno-Sparks area [Table 1.1]. Additionally, survey respondents were asked to identify the perceived No. 1 crime problem in downtown Reno. Twenty-five percent of those surveys indicated drugs, 24% reported homeless/panhandling and another 13% stated violent crime.<sup>141</sup>

Table 1.1: Top Three Crime Concerns Neighborhoods in

				кепо			
	NE	NW	North Valley	SE	SW	Central	Far South
1	Drugs	Drugs	Theft	Drugs	Drugs	Drugs	Drugs
2	Theft	Theft	Drugs	Theft	Gangs	Theft	Gangs
3	Graffiti	Robbery	Gangs	Gangs	Theft	Pan- handling	Theft

Source: RPD Annual Report 2013

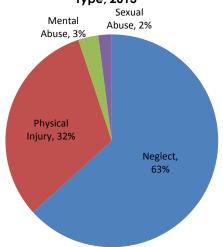
## Other Safety-Related Perceptions

Many parents in focus groups indicated they were concerned for their children's safety in school. The prevalence of drugs and alcohol are a concern in Reno-Sparks given the casino nightlife and the 24/7 accessibility to alcohol.

# Violence toward Children

Child abuse and neglect includes physical or mental injury, sexual abuse/exploitation or maltreatment. Child Protective Services (CPS) investigates reports of suspected child abuse and neglect, most of which (~60%) do not produce proof of maltreatment [Table 1.2]. Of those children found to be victims and moved to alternative care, more than half are males and most are younger than age. 141,142

Figure 1.5: Washoe County CPS Injury Type, 2013



Source: Washoe County Social Services, Child Protective Services, data request

Table 1.2: Washoe County CPS Report Referral Findings

			_
	2011	2012	2013
Unproven	63%	60%	60%
Maltreatment Proven	24%	27%	28%
Assessment Performed	13%	14%	13%
Total Number of Referrals	7,517	7,451	7,101

Source: Washoe County Social Services, Child Protective Services, data request

## Youth Risk Behaviors that Contribute to Violence

Washoe County high school students report higher rates of violent behavior or threats of violent behavior than do youth nationwide. Their responses to the 2013 Youth Risk Behaviors Survey (YRBS) related to violent risk behaviors are compared to national levels in Table 1.3. Differences between race and ethnicities are shown only for Washoe County when available. Males reported risk more often than females in every category other than electronic bullying.

Table 1.3: Washoe County Youth Risk Behavior Survey, 2013 Data, Behaviors that Contribute to Violence

ZOTO DUIU, BEHUVIOIS IIIUI	COIIIIDOIE IO	VIOLETICE
	Washoe	United
	County	States
Carried a Weapon* (past 30 days)	20.3%	17.9%
Females	11.7%	
Males	29.0%	
Native American/Alaskan Native (AI)	_	
African American	23.5%	
Asian	_	
Hispanic	17.0%	
White	22.4%	
Other/multiple races	29.0%	
Carried a Gun* (past 30 days)	6.3%	5.5%
Females	2.9%	
Males	9.7%	
Native American/Al	_	
African American	_	
Asian	_	
White	6.1%	
Hispanic	5.8%	
Other/multiple races	6.8%	



Tuble 1.2 Coulous d	Washoe	United
Table 1.3 Continued	County	States
Threatened or injured w/ weapon at school (past year)	8.7%	6.9%
Females	6.6%	
Males	10.9%	
Native American/Al	_	
African American	_	
Asian	_	
White	8.0%	
Hispanic	9.7%	
Other/multiple races	8.3%	
In a Physical Fight (past year)	28.8%	24.7%
Females	24.7%	
Males	32.8%	
Native American/Al	45.1%	
African American	49.2%	
Asian	_	
White	26.0%	
Hispanic	31.1%	
Other/multiple races	31.8%	
Injured in Fight (past year)	5.0%	3.1%
Females	3.1%	
Males	6.8%	
Native American/Al	_	
African American	17.8%	
Asian	_	
White	3.1%	
Hispanic	6.0%	
Other/multiple races	8.3%	
Electronically Bullied (past year)	16.9%	14.8%
Females	23.8%	
Males	10.1%	
Native American/Al	_	
African American	20.8%	
Asian	_	
White	21.2%	
Hispanic	11.6%	
Other/multiple races Source: 2013 Nevada YRBS: W	18.6% ashoe County Ana	lysis

Violence, Crime and Perceived Safety Summary
On average, crime is still more prevalent in Washoe
County than the rest of the United States. The violent
crime and property crimes rates have declined in
Washoe County, while the rate of aggravated assault has
remained stable. The decrease in violence could be due
to changes in reporting or documentation of crimes.
According to the Reno Police Department the residents in
most regions of the Reno-Sparks area perceive drugs to
be the No. 1 crime issue in their neighborhoods. Other
community members reported concerns with their
children's safety in schools. Youth in Washoe County
have witnessed and experienced higher rates of violent
behaviors than youth across the rest of the nation.



#### **Health Behaviors Data Caveat**

Most of the data presented in this section are from the Youth Risk Behavior Survey (YRBS) and the Behavioral Risk Factor Surveillance System (BRFSS).

The YRBS survey data is annually collected from high school students and more recently middle school students. For the purpose of this assessment only data from high school students are presented.

#### **Health Behaviors**

There are four health-related behaviors responsible for nearly 70% of deaths in the United States — lack of physical activity, unhealthy diet, smoking tobacco and excessive alcohol consumption. 143, 144 Research shows by reducing or eliminating these four risk factors, anywhere from 40% to 80% of premature deaths related to heart disease, cancer and cardiovascular disease could be prevented. 145, 146, 147

## Physical Activity, Nutrition and Obesity Highlights

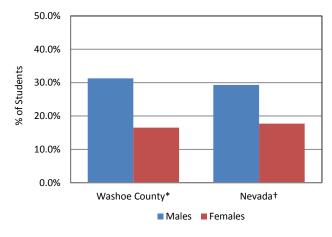
Much like the rest of the United States, Washoe County residents do not engage in physical activity often enough and they do not have healthy eating habits, which leads to a growing overweight and obese population. Less than 25% of adolescents and adults are getting the recommended daily amount of physical activity. And less than 30% of adolescents are receiving the recommended intake of fruits or vegetables each day. The percentage of persons who are overweight and obese is comparable to the rest of the nation and rising.

# **Physical Activity**

Over the past decade the average physical activity levels have decreased and people are living more sedentary lifestyles — not only at home, but also in the workplace. In the 1960s nearly half of the jobs in private industry required moderate-intensity physical activity. However, today less than 20% of jobs require physical activity demands at that level. 148 Without engaging in physical activity after work, most adults do not get nearly enough exercise each day, which leads to the growing obesity epidemic.

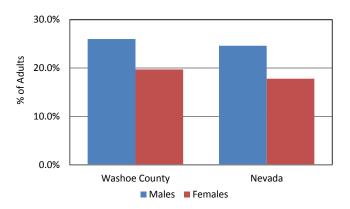
Washoe County high school students reported being physically active more than students in Nevada overall, but less often than high school students across the United States. Less than one in four adults met the recommended physical activity levels in Washoe County during 2010, and across all groups males reported being more physically active than females.

Figure 1.1: Percentage of High School Students Who Were Physically Active for 60 mins/day for Past 7 Days, Washoe County & Nevada, 2013



Source: \*2013 NV YRBS: Washoe County Analysis Source: †2013 NV YRBS

Figure 1.2: Percentage of Adults that Met the Recommended Physical Activity Guidelines, by Gender, Washoe County & Nevada, 2010



Source: Washoe County Chronic Disease Report Card, 2014

# <u>Nutrition</u>

Food consumed each day affects health and how a person feels, now and in the future. Maintaining a balanced diet is key to providing the fuel the body needs to function properly.

An American's portion size and overall caloric consumption has increased in recent decades. In 2000, the average person consumed about 500 more calories a day than in the 1970s, mostly due to foods containing more refined processed grains, fats, oils and sugars. 149 During the same time period, the nation's per-person meat consumption increased by 41% and cheese consumption increased by 287%. However, fruit intake



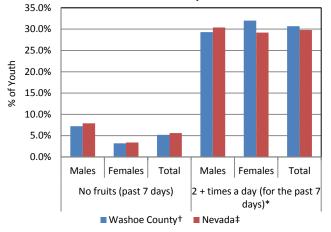
only increased by 12% and vegetable increased 23%, largely due to an increase in the consumption of french fries (potatoes). 149

#### Nutrition in Washoe County

The only county-wide assessment of nutrition available to illustrate consumption of healthy foods is based on YRBS data. An asterisk (\*) indicates when youth in Washoe County were possibly meeting the recommended nutrition guidelines — about 2 cups of fruit and 3 cups of vegetables per day.

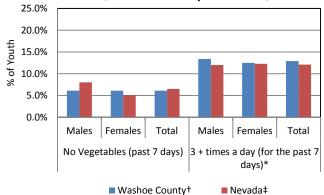
Overall youth in Washoe County consumed more fruits and vegetables than youth in Nevada. Only 30.7% of youth could have met recommended dietary guidelines for servings of fruit and only 12.9% —1 in 10 — could have met the recommended intake for vegetables over the course of the previous week [Figures 1.3-1.4].

Figure 1.3: Number of Times Fruits Were Consumed per Day, by High School Students, Washoe County & Nevada, 2013



<sup>\*</sup>Possibly met recommended number of servings per day Source: †2013 Nevada YRBS: Washoe County Analysis Source: ‡2013 Nevada YRBS

Figure 1.4: Number of Times Vegetables Were Consumed per Day, by High School Students, Washoe County & Nevada, 2013



\*Possibly met recommended number of servings per day Source: †NV YRBS, Washoe County Analysis Source: ‡2013 Nevada YRBS

#### Overweight and Obese

The increase in recent years of the number of people who are overweight or obese is a result of changes in the food culture, reduced physical activity, and the increase of sedentary lifestyles. Obesity may be the single largest threat in the country, not only to public health, but the economy as well. <sup>150, 151</sup> Two in every three adults and one in every three children in the U.S. are currently overweight or obese, a health issue not as prevalent 50 years ago. <sup>152</sup> In 1960, only 13.4% of Americans were obese, compared to the 35.3% of adults today. <sup>153, 154</sup> Currently 41 states have obesity rates above 25%. <sup>151</sup>

#### Cost of Obesity

Obese individuals spend approximately 36% more on healthcare-related costs than a person of healthy weight<sup>153</sup>, 15% more than daily smokers and 14% more than heavy drinkers on general health services.<sup>153</sup>

According to CDC estimates, medical care for obesity-related illness in the U.S. in 2008 amounted to \$147 billion. <sup>155, 156</sup> In 2011, more than 3,000 Washoe County residents were hospitalized with a billing code noting they were overweight or obese, their healthcare totaling an estimated \$168.5 million. <sup>157</sup>

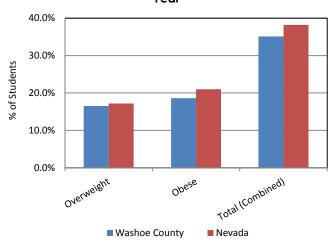
Overweight and Obese in Washoe County
Although Washoe County's adult obesity rate is slightly
lower than that of Nevada and the U.S., rates are still high
and continue to rise. Unhealthy weight affects people
regardless of gender, age, race, ethnicity, education,
and income. Some subgroups experience higher rates of
obesity than others, a disparity that is linked to various
negative health outcomes and ultimately higher rates of
premature death.

There is a strong correlation between weight and education attainment among adults in Washoe County. The same cannot be said for income levels and their relationship with weight status, as nearly 60% of all adults at every income level were overweight or obese, with the exception of those earning more than \$75,000 (55%).

For more-detailed information regarding obesity in the community across age, gender, race, income and education, refer to Figures 1.5-1.11.

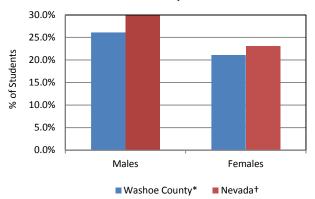


Figure 1.5: Percent of Fourth, Seventh and Tenth Graders Combined, Washoe County & Nevada, by weight group, 2012-2013 School Year



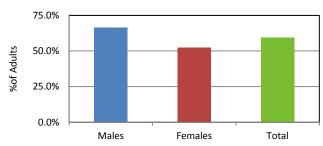
Source: OPHIE, 2014

Figure 1.6: High School Students Who Were Overweight or Obese, Washoe County & Nevada, by Gender, 2013



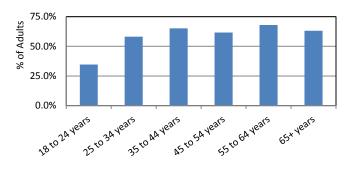
Source: \*2013 NV YRBS: Washoe County Analysis Source: †2013 Nevada YRBS

Figure 1.7: Adults Overweight/Obese, Washoe County, by Gender, 2013



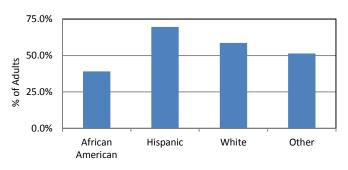
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.8: Adults Overweight/Obese, Washoe County, by Age Group, 2013



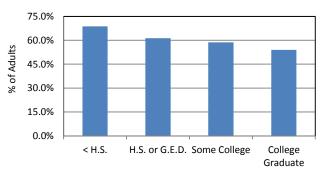
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.9: Adults Overweight/Obese, Washoe County, by Race/Ethnicity, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

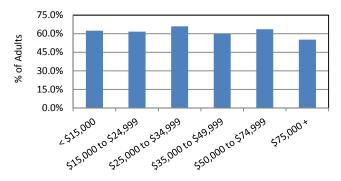
Figure 1.10: Adults Overweight/Obese, Washoe County, by Educational Attainment, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis



Figure 1.11: Adults Overweight/Obese, Washoe County, by Income, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

Physical Activity, Nutrition and Obesity Summary

Washoe County residents appear to be on par with the rest of the country in terms of physical activity, nutrition and the prevalence of obesity. Because the majority of people spend their days at work or school, putting policy in place that encourages people to be active throughout their day can help promote physical activity and reduced habitual sedentary lifestyles. Efforts to change sedentary lifestyles, increase daily physical activity and improve nutrition habits can pay big dividends in reducing obesity and improving health in Washoe County.

# <u>Substance Use and Abuse</u>

About one in three Americans use substances in a manner potentially threatening to their health and safety. Substance use and abuse places an unnecessary burden on emergency responders and the hospital system. Patients under the influence of alcohol or drugs accounted for roughly one-third of the emergency room visits in Washoe County during 2013. 159

## Substance Use and Abuse Highlights

Nevada has been long known for its gaming and casino industry, which allows indoor smoking and encourages alcohol consumption. About one in five residents report that they smoked cigarettes during 2013 — comparable to rates for the rest of the United States. Tobacco use among teens has remained stable over the past decade, although in 2013 fewer teens report having ever tried cigarettes.

Nearly 9% of adults are estimated to be heavy drinkers — higher than Nevada overall and the U.S. — and can be attributed to the high rates of alcohol consumption among the white, non-Hispanic population in the county. The rate of alcohol consumption among high school students in Washoe County has decreased over the past decade.

Washoe County drug overdose rates have been higher than the rest of Nevada since 2007, and continued to climb through 2011. Nearly half of all drug overdose deaths in Washoe County from 2008 to 2012 were due to prescription drugs. About one in five high school students have taken prescription drugs that were not prescribed to them.

#### Tobacco

Tobacco products account for one in every five deaths each year and are one of the leading causes of preventable deaths in the U.S. <sup>160</sup> Cigarette smokers are proven to have a higher risk for developing various cancers including lung, liver and colorectal; chronic obstructive pulmonary disease (COPD); stroke; pneumonia; diabetes; and heart disease. <sup>160</sup> Not only does smoking affect nearly every organ in the body, it also causes inflammation and reduces the immune system's ability to function properly, adding to the body's stress when sick. <sup>160</sup> The annual cost of direct medical care for conditions related to smoking is estimated at more than \$130 billion. <sup>160</sup> Hospitalizations for tobacco-related illnesses in Washoe County alone cost an estimated \$266 million dollars in 2012. <sup>161</sup>

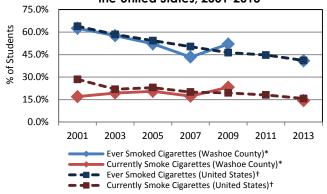
Smoking tobacco exposes others to second-hand smoke, increasing their risk for asthma attacks, respiratory infections such as bronchitis and pneumonia, and sudden infant death syndrome (SIDS). People exposed to second-hand smoke increase their risk for heart disease and lung cancer 25 to 30% and risk for stroke 20 to 30%. 160

## Tobacco Use in Washoe County

Forty-three percent of cancers and 21.7% of deaths were due to tobacco-related illnesses in Washoe County from 2006 to 2010. 161 Although fewer teens report having ever tried cigarettes, the rates of current smokers have remained stable in Washoe County [Figure 1.12]. Smoking rates among adults in Washoe County have decreased since 2011. And in 2013 only 15.4% of adults indicated they were current somokers, which was lower than rates for both Nevada and the U.S. For more-detailed information regarding tobacco use in the community refer to Figures 1.12-1.18.

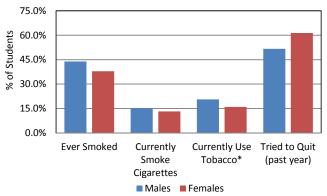


Figure 1.12: High School Students, Tobacco Use, Ever and Past Month, Washoe County & the United States, 2001-2013



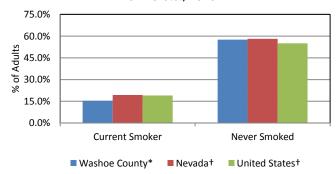
Source: 2001-2011 WCSD YRBS Results; 2013 data = \*2013 Nevada YRBS: Washoe County Analysis Source: †CDC YRBS High School Data

Figure 1.13: Tobaco Use, Ever & Current Use, Washoe County High School Students, 2013



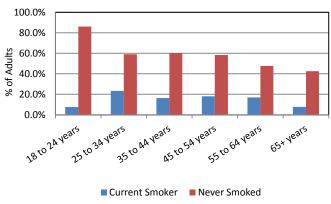
\*Includes cigars and smokeless tobacco products Source: 2013 Nevada YRBS: Washoe County Analysis

Figure 1.14: Percentage of Adults, Smoking Current & Never, Washoe County, Nevada, & the U.S., 2013



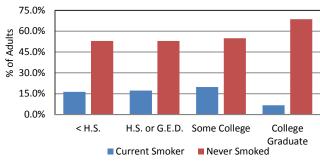
Source: \*2013 Nevada BRFSS: Washoe County Analysis Source: †CDC BRFSS Prevalence & Trends Data

Figure 1.15: Percentage of Adults, Current Smokers v Never Smoked, Washoe County, by Age, 2013



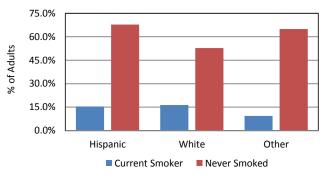
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.16: Percentage of Adults, Current Smokers v Never Smoked, Washoe County, by Education Level, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

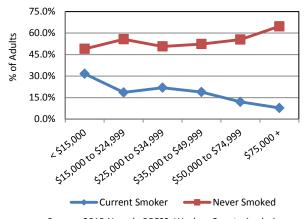
Figure 1.17: Percentage of Adults, Current Smokers v Never Smoked, Washoe County, by Race/Ethnicity, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis



Figure 1.18: Percentage of Adults, Current Smokers v Never Smoked, Washoe County, by Income Level, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

#### Alcohol

The short-term effects of alcohol consumption are many. It impairs brain function, which delays reaction times, impairs coordination and memory, and alters a person's mood or behavior. Fetal alcohol syndrome and other fetal malformations or fetal death can occur if a woman consumes alcohol while pregnant. Long-term alcohol consumption increases potential for chemical dependence and risk for stroke; high blood pressure; fatty liver; cirrhosis; and various cancers such as mouth, throat, liver and breast.

#### Alcohol Use in Washoe County

Most recent data indicate that 71% of high school students in Washoe County have consumed alcohol at least once, and females are more likely to do so than males. <sup>162</sup> Rates of binge drinking among adults were higher in Washoe County than Nevada and the United States in 2013.

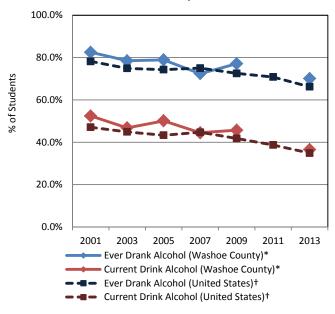
#### **Defining Excessive Alcohol Consumption**

**Heavy drinking:** More than one drink per day for females and more than two drinks per day for males.

**Binge drinking**: Consuming five or more drinks on the same occasion at least one day in the past month.

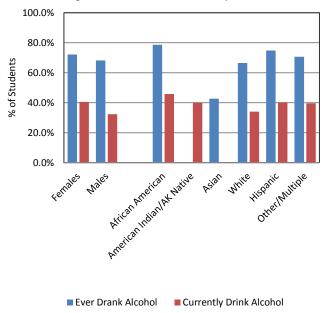
For more-detailed information regarding alcohol use in the community refer to Figures 1.19-1.26.

Figure 1.19: Past and Current Alcohol Use, High School Students, Washoe County & the United States, 2001-2013



Source: 2001-2011 WCSD YRBS Results; 2013 Data = \*2013 Nevada YRBS: Washoe County Analysis Source: †CDC YRBS High School Data Query

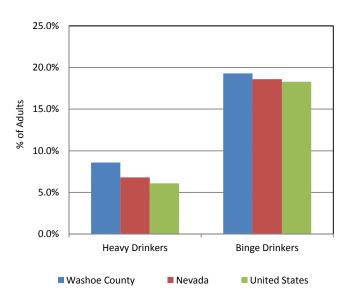
Figure 1.20: Alcohol Past and Current Use, Washoe County High School Students, by gender and race/ethinicity, 2013



Source: 2013 Nevada YRBS: Washoe County Analysis

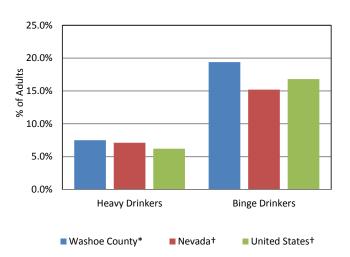


Figure 1.21: Adult Alcohol Use by Type, Washoe County, Nevada & the US, 2011



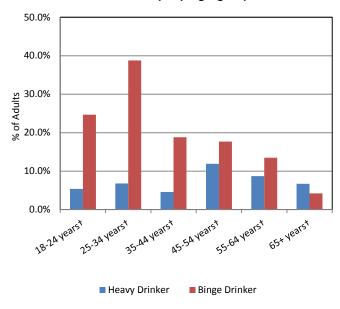
Source: 2011 Nevada BRFSS

Figure 1.22: Adult Alcohol Use by Type, Washoe County, Nevada, & the U.S., 2013



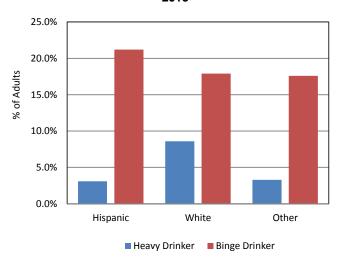
Source: \*2013 Nevada BRFSS: Washoe County Data Analysis Source: †CDC BRFSS Prevalance and Trends Data

Figure 1.23: Heavy and Binge Drinking, Washoe County, by age group, 2013



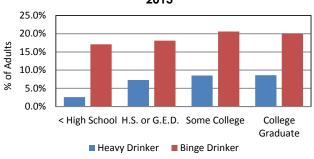
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.24: Heavy & Binge Drinking Among Adults, Washoe County, by Race/Ethnivity, 2013



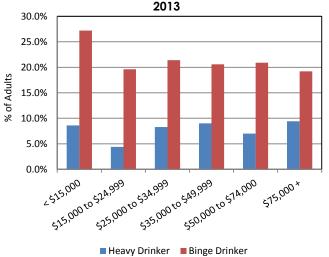
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.25: Heavy & Binge Drinking Among Adults, Wahoe County, by Education Level, 2013



Source: 2013 Nevada BRFSS Washoe County Analysis

Figure 1.26: Heavy & Binge Drinking Among Adults, Washoe County, by Income Level,



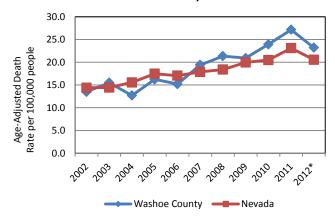
Source: 2013 Nevada BRFSS: Washoe County Analysis

## Drugs

Drug use has increased across the United States — legal drugs due to the abuse of prescription (RX) medications, illegal drugs due in large part to an increase in the use of marijuana. Drug overdose deaths have steadily increased in Washoe County and Nevada since 2002 [Figure 1.27].

Prescription drugs have contributed to an increase in drug overdose deaths. Prescription drugs used for purposes other than prescribed for can include antidepressants, sedatives or anesthetics, and stimulants such as Adderall and Ritalin. Opioids prescribed for chronic pain relief are often abused — medications like Valium, Codeine, Oxycodone, and various forms of morphine. 164, 165

Figure 1.27: Drug Overdose Death Rate, Washoe County & Nevada



\*Counts are not final and subject to change Source: OPHIE, 2014 data request

Recent legislation has passed in Washington, Colorado, Oregon, Alaska, and Washington D.C. that allows adults 21 and older to legally purchase, use, and grow marijuana for recreational purposes. Data are being collected in those states to determine the potential effects of legalization on both health and the economy. Another 23 states, including Nevada, have passed laws allowing marijuana use for treatment of certain medical conditions. 165, 166

No notable change in the use of illegal drugs including cocaine, heroin, methamphetamine (meth), and hallucinogens has been observed in the U.S.<sup>165</sup> These drugs can cause anxiety, confusion, insomnia and unhealthy weight loss. Users may also experience a reduction in motor skills, impaired memory, decreased appetite, increased blood pressure and heart rate, and dental problems. These drugs are also known to cause mood changes including violent behavior and psychosis; visual and auditory hallucinations; paranoia; and increased risks for chemical dependence — even with one-time use.<sup>167,168,169</sup>

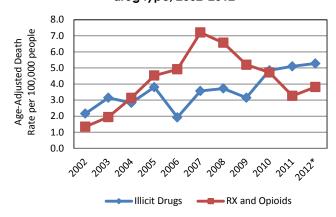
# Drug Use in Washoe County

Death rates due to prescription drugs (RX) and opioids were higher than illegal drug overdose death rates from 2004 through 2009. Illicit drug deaths, however, have increased since 2010 [Figure 1.28].

Although there are limited data available on adult drug use and abuse at the county level, there is extensive county-level data for young adults, specifically high school students. This information is important since most people try drugs as teenagers, and drug use is highest among people in their late teens and twenties.<sup>170</sup>

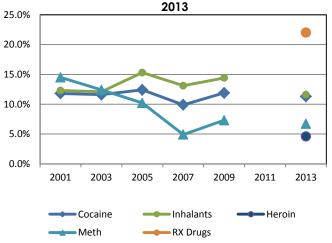


Figure 1.28: Drug Overdose Death Rate, by drug type, 2002-2012



\*Counts are not final and subject to change Source: OPHIE, 2014 data request

Figure 1.29: Washoe County High School Students, Drug Use (ever), by type, 2001-



Source: 2001-2011 WCSD YRBS Results; 2013 Data = \*2013 Nevada YRBS: Washoe County Analysis

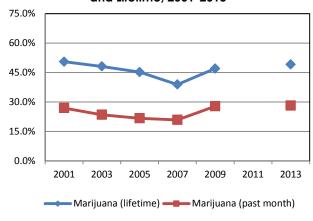
Since 2007, reported use of marijuana by high school students increased from 38.9% to 49.1%. Most recent YRBS data show that in 2013, 28.2% of students had smoked marijuana in the past month [Figure 1.30].

## Substance Use and Abuse Summary

Washoe County high school students reported using tobacco and drinking alcohol more often than students in Nevada. Washoe County students also indicated currently using alcohol more than average youth nationwide.

Adult smoking prevalence has declined since 2011 and as of 2013 was lower than rates for Nevada and the U.S. Adult alcohol use, binge drinking and heavy drinking

Figure 1.30: Washoe County High School Students, Reported Marijuana Use, Ever and Lifetime, 2001-2013



Source: 2001-2011 WCSD YRBS Results; 2013 Data = \*2013 Nevada YRBS: Washoe County Analysis

rates ranked higher during 2013 in Washoe County than both Nevada and the United States.

Drug use among youth in Washoe County has not seen much of a decrease over the past decade, and some data indicate it may be rising — especially marijuana use. Overall drug overdose death rates have increased, although prescription drug deaths have fallen since 2007.

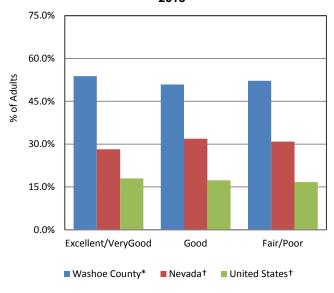
#### Perceived General Health Status

Studies indicate self-reported health status is a good proxy indicator for monitoring population health; the categories of health range from excellent to poor and have strong correlations with socioeconomic indicators such as education level and income.<sup>171</sup>

Perceived General Health in Washoe County
Six percent more people indicated their perceived health status was excellent or very good from 2011 to 2013 in
Washoe County. Females reporting having excellent/very good health status less often than males, and there is a positive correlation between having a higher level of education and higher annual income and reporting an excellent/very good health status. For more-detailed information regarding perceived general health status in the community refer to Figures 1.31-1.36.

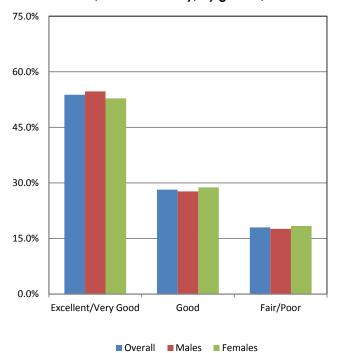


Figure 1.31: Adults Perceived General Health Status, Washoe County, Nevada, & the U.S., 2013



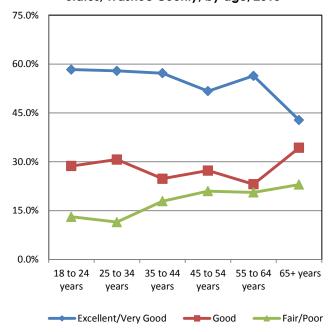
Source: \*2013 Nevada BRFSS: Washoe County Analysis Source: †CDC BRFSS Prevelance & Trends Data

Figure 1.32: Adult Perceived General Health Status, Washoe County, by gender, 2013



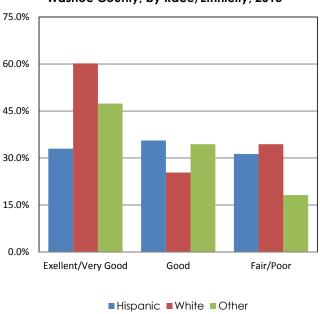
Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.33: Adult Perceived General Health Status, Washoe County, by age, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

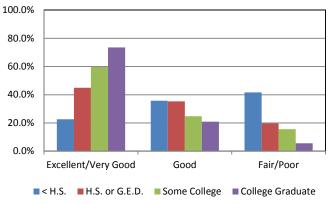
Figure 1.34: Perceived General Health Status, Washoe County, by Race/Ethnicity, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

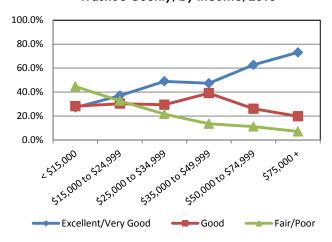


Figure 1.35: Perceived General Health Status, Washoe County, by Educational Attainment, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.36: Perceived General Health Status, Washoe County, by Income, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

# Mental Health

Mental health is the leading cause of disability in the U.S. for people ages 15 to 44. And although nearly one in five adults in the U.S. experience a mental illness in any given year, there is still stigma surrounding mental health issues. This stigma creates barriers for people needing help—they are reluctant to come forward and talk about their needs with others or seek professional help.

## Mental Health Highlights

More high school adolescents in Washoe County experience depression and sadness than youth nationwide. Adults reported similar rates of poor mental health days as adults in Nevada and the rest of the United States. Attempted and completed suicides among all age groups are much higher in Washoe County than the United States. Although suicide rates

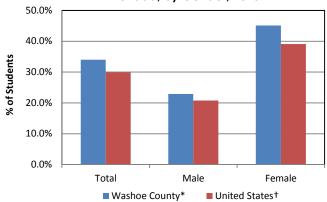
were on a slight downward trend nationwide, Washoe County rates increased in 2013.

Additional barriers to treatment exist due to limited mental health resources. For example, all of Washoe County is an HRSA-designated mental health professional shortage area. In Nevada from 2008 to 2012, only 31.9% of adults over the age of 18 who were suffering from any mental illness received mental health treatment or counseling.<sup>173</sup>

#### Depression

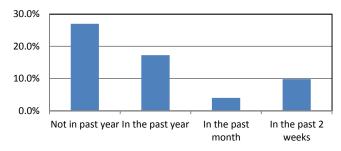
Causes of depression differ among all individuals and may be due to a combination of life experiences, genetics, age, brain chemistry, hormonal imbalance, substance use, gender, social or perceived isolation, chronic pain, anxiety and others. <sup>174,175,176</sup> By the age of 18 about 11% of adolescents will have a depressive disorder. Females are more likely to experience depression than males, and the risk only increases with age. <sup>177</sup> For moredetailed information regarding depression in the community refer to Figure 1.37-1.41.

Figure 1.37: High School Students Who Felt Sad/Hopeless for 2 Weeks in a Row, Affecting Usual Activities, Washoe County & Nevada, by Gender, 2013



Source: \*2013 Nevada YRBS: Washoe County Analysis Source: \*CDC YRBS High School Data Query

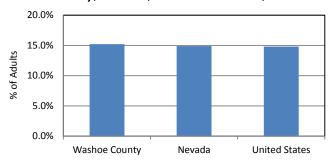
Figure 1.38: Univerity of Nevada, Reno Students, Spring 2014, "Have you ever felt so depressed that it was difficult to function?" Percent Answered "Yes"



Source: NCHA: UNR Spring 2014 data

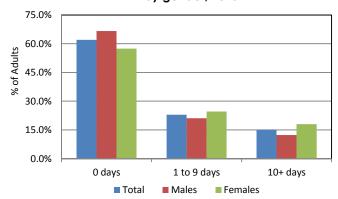


Figure 1.39: Adults Experiencing 10+ Poor Mental Health Days, Past Month, Washoe County, Nevada, & the United States, 2011



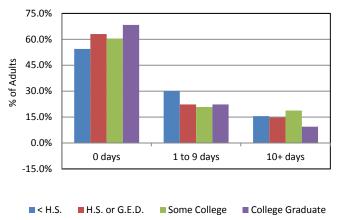
Source: 2011 Nevada BRFSS

Figure 1.40: Adults in Washoe County: Days with Poor Mental Health, (within past month), by gender, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

Figure 1.41: Adults in Washoe County: Days with Poor Mental Health, (within past month), by educational attainment, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis

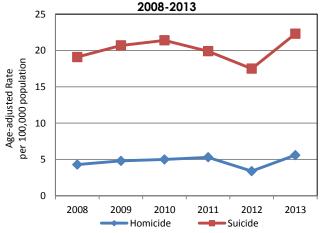
#### Suicide

In 2012, suicide was the 10<sup>th</sup>-leading cause of death in the U.S., and suicide rates are higher in the western United States, including Alaska, than the rest of the country. <sup>144</sup> Risk factors for committing suicide include depression, substance abuse, prior suicide attempts, family history of suicide or mental illness, family violence, and intimate partner problems. Having guns or firearms in the home, experiencing social/perceived isolation, having been incarcerated, and exposure to others' suicidal behavior, friends or family can also contribute to risk. <sup>174,175,178,179</sup>

# Washoe County Suicide Rates

In 2012, suicide was the second-leading cause of death for persons 15 to 44 years old in Washoe County, just behind unintentional injuries. Suicide rates among Washoe County residents parallel those of the rest of Nevada, Both are much higher than overall U.S. rates. More than 400 people in Washoe County committed suicide from 2008 to 2012, which is four times the number of deaths due to homicide [Figure 1.42]. 180, 181

Figure 1.42: Comparision of Homicide & Suicide Rates, Washoe County, all residents,

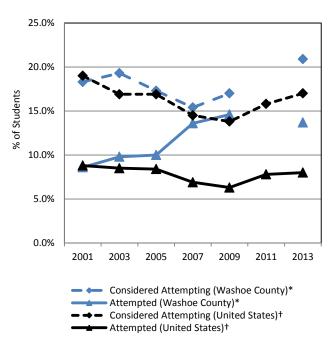


Source: Nevada Health Statistics Portal Data Query

Washoe County suicide rates remained fairly stable from 2008 through 2012. However, in 2013, there was an increase in rates for both males and females. Although females attempt suicide more often, males use more deadly methods such as firearms or suffocation, and thus complete suicide more often than females. 178,179,180,181 It is also important to note that the percentage of high school students in Washoe County who considered and/or attempted suicide in 2013 was considerably higher than the national average [Figure 1.43]. The following charts explore health disparities related to suicide in our community.

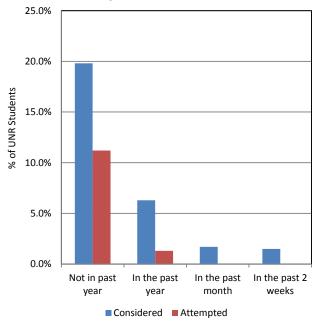


Figure 1.43: Percent of High School Students: Considered & Attempted Suicide, Washoe County & the United States, 2001-2013



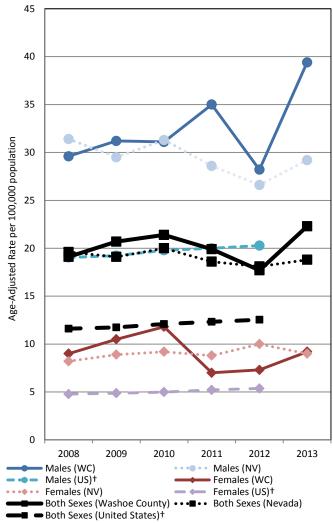
Source: 2001-2011 WCSD YRBS Results; 2013 Data = \*2013 Nevada YRBS: Washoe County Analysis Source: †CDC YRBS High School Data Query

Figure 1.44: Univerity of Nevada, Reno Students, Spring 2014, Suicide Considered and Attempted, Percent Answered "Yes"



Source: NCHA: UNR Spring 2014 data

Figure 1.45: Age-Adjusted Suicide Rates, Washoe County, Nevada, & the US, 2008-2013, by Sex



Source: Neavda Health Statistics Portal Death Data Query Source: +CDC WISQARS Data Query

## Mental Health Summary

While most data available at the county level represent only two mental health issues, depression and suicide, there are several more stressors contributing to every day mental health. Depression, sadness and poor mental health is reported most often among females; however, Washoe County males have some of the highest rates of suicide compared to Nevada and the rest of the U.S. Suicide among all ages is much higher in Washoe County than the rest of the country. Often people may not need to be evaluated by a clinical psychologist or even receive medication to treat their symptoms, but reducing social isolation and stigma may increase individuals' capacity to better recognize and address potential mental health issues.



#### Sexual Health

Sexual health is an important component of health. When youths are misinformed or uneducated about the potential mental, emotional and physical consequences of sex, it can result in negative health outcomes.

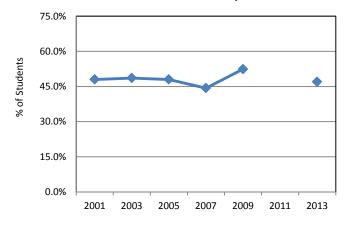
#### Sexual Health Highlights

Nevada is ranked second out of all 50 states with some of the highest rates of sexual violence, including rape and stalking, in the nation. High school students in Washoe County are no exception, with higher reported rates among youth nationwide for penetration, physical dating violence and unwanted sexual touching.

Rates of chlamydia, gonorrhea, and HIV are lower in Washoe County than the rest of Nevada and the U.S. However, Washoe County has recently seen a huge increase in the number of syphilis cases, especially among men who have sex with men. These data could be a reflection of testing habits of residents, or laboratory and physician reporting to the county's communicable disease epidemiologists.

Washoe County Adolescent Sexual Behavior In 2013, nearly half of high school students in Washoe County reported they had sexual intercourse in their lifetime, which has not changed much since 2001 [Figure 1.46]. According to college students at the University of Nevada, Reno, approximately 75% reported they had sexual intercourse in their lifetime, and 53.9% reported they were sexually active within the past 30 days.<sup>182</sup>

Figure 1.46: Percentage of high school students reporting they had ever had sexual intercourse, Washoe County, 2001-2013



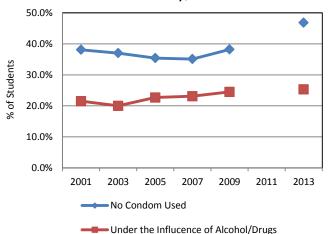
Source: 2001-2011 WCSD YRBS Results; 2013 Data = \*2013 Nevada YRBS: Washoe County Analysis

With the introduction of alternative methods of pregnancy prevention, there are fewer reports of condom use. In 2013, 18.7% of high school students reported not having used any form of birth control to

prevent pregnancy, which is higher than the national rate of 13.7%. 183, 184 Condoms (male and female) are the only forms of birth control that also prevent the spread of sexually transmitted diseases and infections.

According to college students, 62.1% used some type of method to prevent pregnancy at last sexual intercourse (past 30 days); slightly more than a quarter (26.1%) reported using some protective barrier during vaginal intercourse most or all of the time within the past 30 days. 182

Figure 1.47: Percentage of high school students indicating specified sexual risk behaviors at last sexual intercourse\*, Washoe County, 2001-2013



\*Of those sexually active within the past 3 months Source: 2001-2011 WCSD YRBS Results; 2013 Data = 2013 Nevada YRBS: Washoe County Analysis

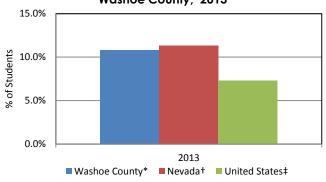
#### Sexual Violence

According to the 2010 National Intimate Partner and Sexual Violence Survey (NIPSVS), nearly one in five women in the United States has been raped at some point in her lifetime — 78% before the age of 25. Another 43.9% of women experience sexual violence other than rape during their lifetimes. 185 In Nevada those numbers are even higher. An estimated 26.1% of women had been raped and 48% had experienced sexual violence. 185 The NIPSVS ranked Nevada second in the nation, just behind Oklahoma, in the proportion of women who experience rape, physical violence, and/or stalking by an intimate partner. 185

In 2013, 12.8% of Washoe County high school students were hit, slapped or physically hurt on purpose by their boyfriend or girlfriend in the past year, which is higher than the U.S. rate of 10.3%. Another 13.3% of high school students in Washoe County experienced sexual dating violence in the form of unwanted kissing, touching or sexual intercourse within the past year, higher than the U.S. rate of 10.4%. <sup>186,187</sup>



Figure 1.48: Percent of high school students reporting they had been physically forced to have sex, when they did not want to,
Washoe County, 2013



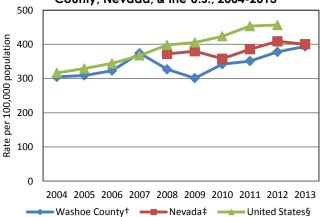
Source: \*2013 Nevada YRBS: Washoe County Analysis Source: †2013 Nevada YRBS Source: ‡CDC YRBS High School Data Query

Sexually Transmitted Diseases and Infections
Although most common sexually transmitted diseases are treatable, not all people experience symptoms and may go years without being tested. If left undiagnosed and untreated, there may be serious health implications for both males and females, including infertility and infant death.

#### Chlamydia

Chlamydia is the most frequently reported sexually transmitted bacterial infection in the United States. <sup>188,189</sup> An estimated 2.86 million people are infected with chlamydia each year in the U.S., and it's most commonly reported among sexually active people, ages 14 to 24. Chlamydia spreads through unprotected sexual contact with the penis, vagina, mouth or anus of an infected person, or from a mother to her baby during childbirth. <sup>188,189</sup>

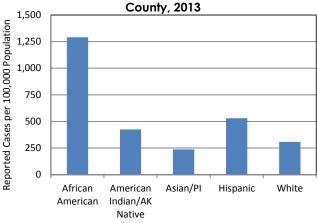
Figure 1.49: Rate of Chlamydia, Washoe County, Nevada, & the U.S., 2004-2013



Source: †2013 WCHD, Communicable Disease Team Source: ‡CDC, Sexually Transmitted Disease Surveillance, 2012 Source: ‡OPHIE, STD Prevention & Control Program, 2013 STD Fast Facts

Source: §CDC, Sexually Transmitted Disease Surveillance, 2012

Figure 1.50: Rate of Reported Cases of Chlamydia, by Race/Ethnicity, Washoe

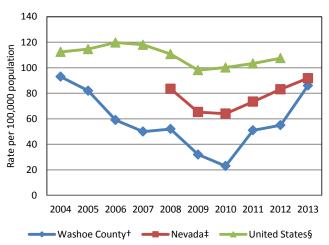


Source: 2013 WCHD, Communicable Disease Team

#### Gonorrhea

Gonorrhea is the second-most-reported sexually transmitted bacterial infection in the United States. 189, 190 An estimated 820,000 people are infected with gonorrhea each year in the U.S., and it's most commonly reported among sexually active young people ages 15 to 24. Gonorrhea is spread through unprotected sexual contact with infected person, and babies can potentially become infected during childbirth from an infected mother. 189,190

Figure 1.51: Rate of Gonorrhea, Washoe County, Nevada & the U.S., 2004-2013

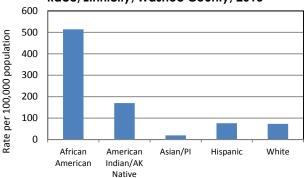


Source: †2013 WCHD, Communicable Disease Team Source: ‡CDC, Sexually Transmitted Disease Surveillance, 2012 Source: ‡OPHIE, STD Prevention & Control Program, 2013 STD Fast Facts

Source: §CDC, Sexually Transmitted Disease Surveillance, 2012



Figure 1.52: Rate of Gonorrhea, by Race/Ethnicity, Washoe County, 2013



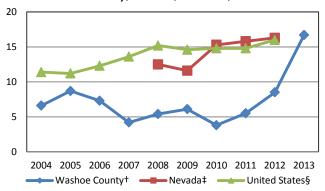
Source: 2013 WCHD, Communicable Disease Team

## Syphilis

An estimated 55,400 people are infected each year with syphilis in the U.S.<sup>189,191</sup> Syphilis is transmitted when there is direct contact with a chancre (open sore). Syphilis can also be spread through childbirth from an infected mother to her baby.<sup>189,191</sup> There are multiple stages of syphilis — the primary and secondary are the stages at which syphilis is most easily transmitted. Men who have sex with men (MSM) accounted for 75% of all primary and secondary syphilis infections during 2012 in the U.S.<sup>191</sup>

Since 2012 Washoe County has experienced an outbreak of syphilis as indicated by an increase in primary- and secondary-stage syphilis diagnoses, with rates nearly doubling from 2011 [Figure 1.54]. Eighty-two percent of primary and secondary cases in 2013 occurred among males, 52% occurred among MSM and 36% were tested positive for HIV. 189 Rates for all stages of syphilis combined have increased in Washoe County since 2010 [Figure 1.53].

Figure 1.53: Rate of Syphilis (All Stages Combined), Washoe County, Nevada, & the U.S., 2004-2013

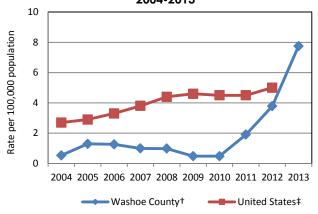


Source: ‡2013 WCHD, Communicable Disease Team Source: ‡CDC, Sexually Transmitted Disease Surveillance,

Source: ‡OPHIE, STD Prevention & Control Program, 2013 STD Fast Facts

Source: §CDC, Sexually Transmitted Disease Surveillance, 2012

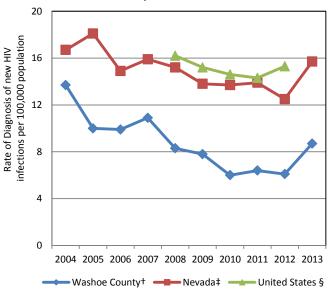
Figure 1.54: Rate of Primary & Secondary Stage Syphilis, Washoe County & the U.S., 2004-2013



Source: †2013 WCHD, Communicable Disease Team Source: ‡CDC, Sexually Transmitted Disease Surveillance, 2012

Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome (AIDS)
The rate of newly diagnosed HIV infections in Washoe County has increased from 2012 to 2013, similar to the rest of the state. Data for newly diagnosed HIV infections in the United States dating from 2012 are not yet available [Figure 1.55].

Figure 1.55: Rate of Newly Diagnosed HIV Infection, Washoe County, Nevada, & the U.S., 2004-2013



Source: †2013 WCHD, Communicable Disease Team
Source: †OPHIE, HIV/AIDS Surveillance Program, 2012 Update
Source: ‡OPHIE, HIV/AIDS Surveillance Program, NV 2013
HIV/AIDS Fast Facts

Source: §CDC, HIV Surveillance Report, 2012



## Sexual Health Summary

Youth in Washoe County experience higher rates of intimate partner abuse, sexual contact and sexual penetration than youth nationwide. These rates correlate with findings from a 2011 national study that ranked Nevada as the second-worst state for sexual violence — especially against women.

The sexually transmitted diseases highlighted have all seen an increase in 2013; and chlamydia, gonorrhea and syphilis have seen increases since 2010. Rates tend to be disproportionately higher among African Americans. However, as with all reportable conditions, the increase in rates among all races and ethnicities may be a result of several factors — an increase in the number of people who get screened, improved case reporting from laboratories and providers, or a true reflection in the number of infections.

## Preventive Health Behaviors

Recommended cancer screenings and immunizations are preventive health behaviors that reduce disease prevalence and severity for the general population.

## Cancer Screenings and Diagnosis

Technological advancements in medicine have improved the ability to screen effectively for several cancers, which is vital in the early detection of potentially life-threatening health conditions related to cancer. Health costs are reduced, treatments are more successful and full recovery is much more likely when certain cancers are caught in their early stages. <sup>192</sup> Despite these advances, since 2008 cancer has been the second-leading cause of death behind heart disease for Washoe County, Nevada, and the U.S. <sup>144,180</sup>

Washoe County has higher rates of breast and prostate cancer than Nevada and the U.S., but lower incidence of colorectal cancer. Residents reported better screening rates for colon and cervical cancer than Nevada and the U.S., but lower rates of breast cancer screening than the U.S. Despite having lower breast cancer screening rates, the majority of Washoe County residents are diagnosed with breast cancer in its early stages, which greatly improves chance of survival.

Figure 1.56: Reported Cancer Screenings, Washoe County, Nevada % the U.S., 2010

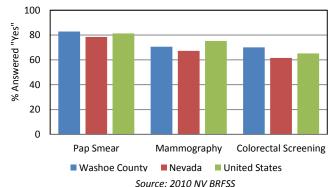


Table 1.1: Cancer Diagnosis of Early and Late stage diagnoses of cervical, breast, prostate and colorectal cancers, and incidence, 2011

cancers, and incidence, 2011						
	Washoe	Washoe County		Nevada		
Cervical Cancer	Age- Adjusted Rate*	% of Total	Age- Adjusted Rate*	% of Total	Age- Adjusted Rate*	
Early cervical cancer diagnosis	er 1.5	30.0%	0.7	17.8%	-	
Late stage cervical cancer diagnosis	2.2	45.0%	1.4	40.6%	-	
Localized cervical cancer diagnosed	0.7	15.0%	1.3	33.7%	-	
Incidence of cervic cancer	al 7.1		6		7.5	
<b>Breast Cancer</b>						
Early breast cance diagnosis	r 62.7	69.3%	47.2	66.3%	-	
Late stage breast cancer diagnosis	25.3	27.9%	19.8	28.0%	-	
Incidence of breas cancer	t 141.5		111.7		121.9	
<b>Prostate Cancer</b>						
Early prostate cancer diagnosis	48.3	78.0%	48.4	82.7%	-	
Late stage prostate cancer diagnosis	8.3	14.6%	5.7	10.0%	-	
Incidence of prostate cancer	135.5		125.5		128.2	
<b>Colorectal Cancer</b>						
Early colorectal cancer diagnosis	15.3	36.1%	14.4	33.6%	-	
Late stage colorectal cancer diagnosis	18.3	47.5%	20.4	48.5%	-	
Incidence of colorectal cancer	39.1		41.9		39.9	
4						

<sup>\*</sup>Age-adjusted to the 2000 US Census Standard Population, rate per 100,000 Population

Source: OPHIE, Nevada State Cancer Registry, data request Source: †National Cancer Institute, State Cancer Profiles Query

#### **Immunizations**

A century ago people in the United States were primarily dying due to infectious diseases; this is no longer true, largely in part to antibiotics and widespread vaccination. Administering each birth cohort the proper vaccinations at the appropriate time is estimated to save 33,000 lives and prevent 14 million cases of disease. 193 Vaccinations are a cost-effective treatment, as they reduce direct healthcare costs by \$9.9 billion and indirect costs by \$33.4 billion.<sup>193</sup> Influenza and pneumonia are vaccinepreventable acute respiratory infections that threaten life at all ages — though typically fatal only for the elderly, the very young or those who are immunocompromised. Acute respiratory infections are the eighth-leading cause of death in the nation, accounting for 56,000 deaths annually. 193 On average, influenza leads to more than 200,000 hospitalizations and 36,000 deaths each year. 193



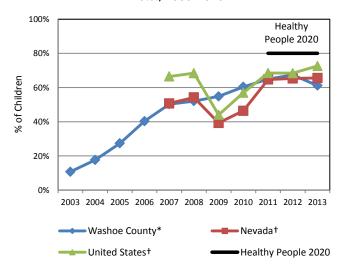
#### Immunizations Highlights

Childhood immunization rates have increased in Washoe County since 2003, but remain nearly 10% lower than national levels. The number of adults age 65 and older who report having received an annual flu shot is lower than rates for Nevada and the U.S. However, Washoe County pneumonia vaccination rates exceed those of Nevada and the U.S.

#### Washoe County Immunization Rates

The number of children ages 19 months to 35 months who have received the complete childhood vaccination series of DTap, polio, MMR, Hib, Hep-B, varicella and pneumococcal conjugate vaccine in Washoe County has increased since mandatory reporting took effect in 2009. The Healthy People 2020 (HP 2020) target for complete childhood vaccination series is 80%. Although Washoe County, Nevada, and the nation have seen improvement since 2010, vaccination rates are still below the HP 2020 target [Figure 1.57].

Figure 1.57: Percentage of Children, 19 to 35 months, Receiving Recommended Doses of Vaccine, Washoe County, Nevada & the U.S., 2003-2013



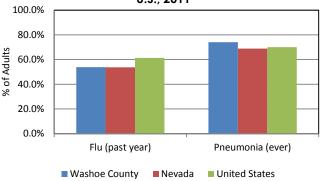
Source: NCHA: UNR Spring 2014 data Source: Nevada State Immunization Program, data request Source: CDC, National Immunization Survey, 2007-2013

In 2011, the number of adults age 65+ in Washoe County who received a flu shot was slightly lower at 53.9% than Nevada and the U.S. However, vaccine coverage was higher in Washoe County among adults 65+ who had received a pneumonia vaccination at 74.1% [Figure 1.58].

Also, individuals aged 55+ years reported receiving a flu vaccine in the past 12 months more often than younger

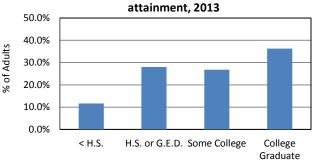
individuals. There has been a gradual increase in the number of people who report receiving an annual flu vaccine as education and income levels increase. [Figures 1.58-1.61].

Figure 1.58: Immunizations Among Adults 65+ years, Washoe County, Nevada & the U.S., 2011



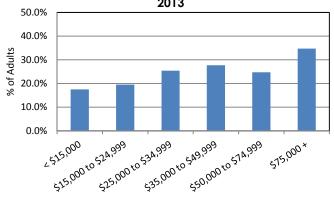
Source: 2011 Nevada BRFSS

Figure 1.59: Flu Shot Past 12 Months, Washoe County, Adults over 18 years, by educational



Source: 2013 Nevada BRFSS: Washoe County Analysis

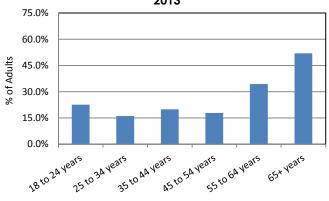
Figure 1.60: Flu Shot Past 12 Months, Washoe County, Adults over 18 years, by income,



Source: 2013 Nevada BRFSS: Washoe County Analysis



Figure 1.61: Flu Shot Past 12 Months, Washoe County, Adults over 18 years, by age group, 2013



Source: 2013 Nevada BRFSS: Washoe County Analysis



#### Maternal, Infant, and Child Health

The current health and well-being of mothers and their children speaks to the health and economic status of individuals in years to come, as behaviors, medical issues and complications during pregnancy and childbirth can have long-lasting repercussions. An infant born with poor health, for example, may experience various difficulties throughout life such as learning disabilities; lower rates of employment and health insurance coverage; and increased instances of asthma, hypertension, diabetes and heart disease. 194,195,196

These outcomes are not etched in stone. Access to healthcare services and resources such as Medicaid/SCHIP; Head Start; the Special Supplemental Nutrition Program for Women; and Women, Infants and Children (WIC) support families and allay potential health and social issues for mothers and their children.

#### **Highlights**

The birth rate in Washoe County has dropped over the past five years due to the large decrease in births among Hispanic women. There has also been a decline in teen pregnancy and abortion rates, and more women are receiving prenatal care in their first trimester. WIC data indicates more Caucasian, non-Hispanic and 30- to 34-year-old women are enrolling in WIC services. And there has been an increase in WIC enrollment among women with incomes of less than 50 percent of the Federal Poverty Level (FPL).

#### Maternal, Infant and Child Health Ranking

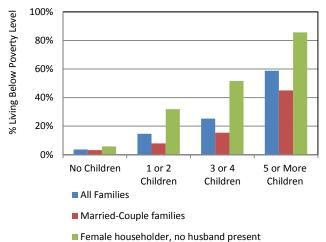
KIDS COUNT advocates for children in all 50 states. Each year since 1990, the organization has released a report highlighting state-by-state data and statistics surrounding child health. Currently there are 16 measures used to determine a state's rank for economic well-being, education, and family and community as they relate to child health.

Nevada ranked 48 out of 50 states overall in 2014, with the state's lowest scores in economic well-being and family and community, for which many of the indicators are based on the poverty rate and the proportion of children being raised in single-parent households.<sup>197</sup>

## Cost of Raising Children

The United States Department of Agriculture released a study that estimated the average cost of raising a child is about \$245,000 dollars from birth through age 17. Planning family size is important, as families living at or below poverty are financially impacted by the number of children they have. 198 In Washoe County, 4 percent of families with no children are living in poverty, compared to 25 percent of those with 3 to 4 children and 59 percent of those with 5 or more children (Figure 1.1). 199

Figure 1.1: Families Living Below Poverty Level, Washoe County, 2008-2012



Source: US Census Bureau, 5 year estimates, 2008-2012

#### <u>Preconception</u>

It is estimated that 50 percent of all pregnancies are unintended.<sup>200,201</sup> This means that one in two children conceived are potentially at risk for various complications later in life due to the lack of mental, physical, social and financial preparation on the part of mothers and fathers to care for and raise a child.<sup>201</sup>

Assessing maternal health prior to conception is a key prevention strategy in reducing poor birth outcomes. The American College of Obstetricians and Gynecologists recommends preconception maternal health checkups that include physical exams focusing on drug use, obesity and genetic carrier traits; risk screenings for sexually transmitted infections; vaccination updates; and counseling to help manage any chronic disease and adverse lifestyle behaviors prior to and during pregnancy. Potential mothers are also instructed regarding the benefits of taking a folic acid supplement beginning at least one month before conception, which decreases fatal neural tube defects by 50 percent to 70 percent. Potential mothers are also instructed regarding the benefits of taking a folic acid supplement beginning at least one month before conception, which

#### Washoe County Pregnancy Rate

Childbearing age for women is measured from ages 15 to 44. The pregnancy rate for Washoe County has historically been lower than Nevada as a whole, and both have seen a decline from 2008-2012. Nevada's rate has decreased from nearly 90 births per 1,000 women to just below 80, while Washoe County's rate has decreased from 80 to roughly 70 births per 1,000 females.<sup>205</sup>

## Prenatal Care

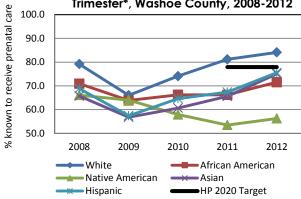
The benefits of adequate prenatal care are many—improved birth weight, decreased risk of preterm delivery, reduced infant mortality. <sup>206</sup> Of the 4 million births that occur nationally each year, nearly 30 percent of those pregnancies are plagued with complications, and the risk



of complications increases exponentially for women who do not receive proper prenatal care.<sup>206,207</sup> The mothers least likely to receive prenatal care are generally younger, low-income and/or uninsured.<sup>208</sup>

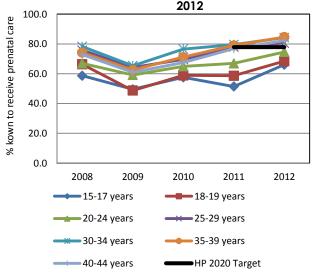
The Healthy People 2020 target for the number of pregnant women receiving prenatal care in the first trimester is 77.9 percent. Although the number of women receiving prenatal care in the first trimester has increased, that increase does not extend to Native American women [Figure 1.2]; women under the age of 25; and teen mothers, ages 15 to 19 [Figure 1.3].

Figure 1.2: Received Prenatal Care in 1st Trimester\*, Washoe County, 2008-2012



Source: OPHIE, data request

Figure 1.3: Received Prenatal Care in 1st Trimester, Washoe County, by age, 2008-

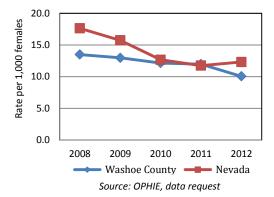


Source: OPHIE, data request

#### Abortion Rate

Roughly 40 percent of unintended pregnancies results in abortion — 20 percent of all pregnancies. <sup>200,209</sup> During 2010, women younger than 30 accounted for 57.4 percent of all abortions in the United States. <sup>210</sup> The rate of abortions has declined both nationally and locally. <sup>205,210</sup>

Figure 1.4: Abortion Rate, Washoe County & Nevada, females ages 15-44, 2008-2012

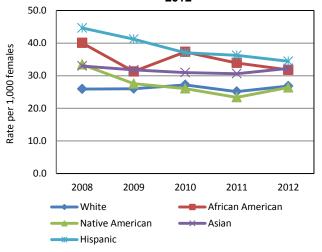


Birth Rates

Overall, the birth rates in both Washoe County and Nevada declined from 2008 to 2012, and Washoe County birth rates have remained slightly lower than the state — the current rate is roughly 30 births per 1,000 women. The birth rate varies, however, among women of different ages and those of differing racial and ethnic groups. From 2008 to 2012, women ages 25 to 29 had the highest birth rates in Washoe County. In 2010, birth rates for those ages 30 to 34 surpassed the rates for those ages 20 to 24 — a strong indicator that women in Washoe County are having children at a slightly later age. 205

Birth rates among Hispanic and African American women were the highest in Washoe County from 2008 to 2012, and birth rates among Caucasian and Native American women were the lowest. The declining birth rates among Hispanic and Native American women likely contributed to the overall decline during the same time period [Figure 1.51.<sup>205</sup>

Figure 1.5: Birth Rates, Washoe County, females ages 15-44, by Race/Ethnicity, 2008-2012



Source: OPHIE, data request



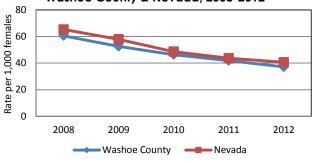
#### Teen Birth Rates

Pregnant adolescent females, ages 15 to 19, carry the highest risk for negative health outcomes related to birth. They are more likely to be unmarried and end pregnancy in abortion, and are less likely to enroll in prenatal care. <sup>208,211</sup> Half of women who give birth during their teen years do not receive a high school diploma by the age of 22 and are likely to be of low-income status or live in poverty. <sup>208,212</sup>

Infants of teen mothers are more susceptible to premature birth, low birth weight and early developmental issues.<sup>213</sup> Children of teen mothers are more likely to drop out of high school, live in poverty in a single-parent home, become incarcerated and also give birth as a teenager. As adults these individuals may experience higher unemployment rates and lower incomes and, as a result, experience more health issues through all stages of life.<sup>209,213</sup>

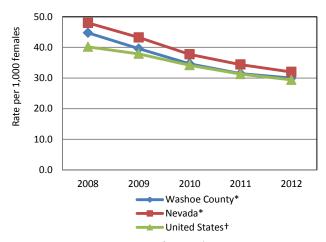
Teen birth rates in Washoe County decreased overall from 2008 to 2012, with African American teens experiencing the least decline (-18.6 percent). Asian teens saw the greatest decrease (-57 percent).<sup>205</sup>

Figure 1.6: Teen (age 15-19) Pregnancy rate, Washoe County & Nevada, 2008-2012



Source: OPHIE, data request

Figure 1.7: Teen (age 15-19) Birth Rate, Washoe County, Nevada & the U.S., 2008-2012



Sources: \*OPHIE, data request † CDC, Births: Final Data for 2012

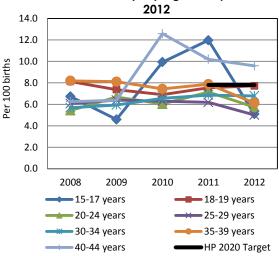
#### Low Birth Weight

Infants born weighing less than 5.5 pounds are considered to be of low birth weight. Low-birth-weight infants are 24 times more likely to die in the first year of life compared to those of normal birth weight. Low-birth-weight infants are also at increased risk for short- and long-term health issues such as infections, heart problems and chronic lung disorders. 196,214,215

Mothers with infections, diabetes or hypertension; that are pregnant with multiples; or have cervical or uterine irregularities are more likely to deliver a low-birth-weight infant.<sup>214,215</sup> Maternal age is also a factor — the babies of mothers younger than 17 or older than 40 are at greater risk.<sup>205,208,214</sup> And there are behavioral risk factors that contribute to low birth weight such as smoking, alcohol consumption, illicit drug use, compromised prenatal care and obesity.<sup>214,215</sup>

The youngest (15 to 17 years) and oldest (40 to 44 years) mothers gave birth to more low-birth-weight babies during 2010 and 2011 than women aged 18 to 39 years.<sup>205</sup>

Figure 1.8: Low Birth Weight Rate, Washoe County, by Age Group, 2008-



Source: OPHIE, data request

#### **WIC Overview**

Women, Infants and Children (WIC) is a federally funded grant program that provides supplemental nutritious foods; nutrition education and counseling; screenings; and referrals to other health, welfare and social services for women and children. To participate in WIC, an individual must fall into one of the target population groups, have a gross income below 185 percent of the FPL guidelines and meet nutritional-risk requirements.<sup>216</sup>

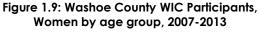


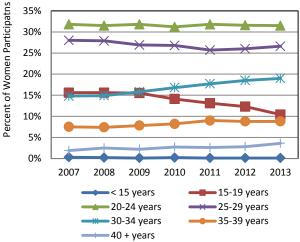
The WIC target population comprises low-income, nutritionally at-risk pregnant women up to six weeks after giving birth and breastfeeding women up to the nursing infant's first birthday. It also includes non-breastfeeding women up to six months after birth of an infant; women with infants up to 1 year old and those with children up to their fifth birthday.

During the fiscal year 2013, an average of 8.6 million women, infants and children participated in WIC each month. <sup>216</sup> Enrollment in WIC has been shown to increase pregnancy duration, decrease the number of premature births, lower the infant mortality rate, increase likelihood of receiving prenatal care, improve diet and related outcomes, and increase breastfeeding duration. <sup>217,218</sup>

## Washoe County WIC Data

There are three agencies that provide <u>WIC services in Washoe County</u> — the Washoe County Health District; Community Health Alliance, a local non-profit; and the Inter-Tribal Council of Nevada. Overall WIC enrollment has remained fairly stable since 2007; the number of children born in Washoe County has increased by about 3,000 since that year.<sup>205</sup>



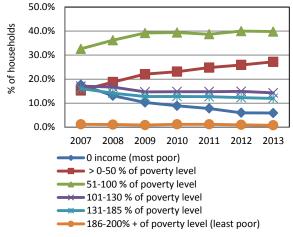


Source: OPHIE, data request

The ages of women enrolled in WIC remained stable from 2007 to 2013, the exception being 2010 wherein enrollment for teen mothers declined as enrollment for women ages 30 to 34 increased [Figure 1.9]. Also, the numbers of Hispanic women participating in WIC declined during those same years from more than 60 percent to roughly 50 percent, while the percentage of non-Hispanic women increased more than 10 percent.<sup>205</sup>

The income level among participants in Washoe County's WIC programs declined in 2013 with 66 percent of participants living at or below the FPL [Figure 1.10].

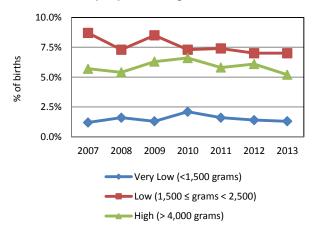
Figure 1.10: Households Participating in WIC, Washoe County, by income, 2007-2013



Source: OPHIE, data request

Fewer low-birth-weight infants were born from 2007 to 2013, but rates for infants born with very low birth weight and high birth weight shifted little for the same time period [Figure 1.19]. In 2013, roughly 5 percent of children younger than age 2 participating in WIC were obese, which represents a slow decline from 2007.<sup>205</sup> In 2013, among children ages 2 to 5, 11 percent were considered overweight and 14 percent were considered obese—again indicating a slight decline from 2007.<sup>205</sup>

Figure 1.11: WIC Participants, Washoe County, by birth weight, 2007-2013



Source: OPHIE, data request



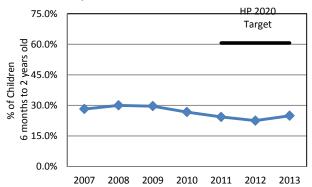
Breastfeeding is known to reduce neonatal mortality and infection-related infant deaths. It also decreases instances of diarrhea and respiratory infections early in life, and can potentially reduce onset of chronic disease — hypertension, diabetes, cardiovascular disease — later in life.<sup>219,220</sup> The World Health Organization, American Academy of Pediatrics and the Surgeon General all recommend exclusive breastfeeding for infants from birth to 6 months.

Breastfeeding among WIC participants in Washoe County remained relatively stable from 2007 to 2013 for all three measures of breastfeeding — breastfed at 6 months, breastfed at age 1 and ever breastfed [Figures 1.12-1.14]. Breastfeeding levels are still below the HP 2020 targets.

#### Maternal, Infant and Child Health Summary

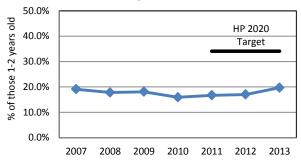
There have been decreases in the overall birth rate and exponential decreases in teenage pregnancy and the resulting birth rate. More mothers-to-be are receiving prenatal care in the first trimester, improving health and outcomes for both mother and baby. WIC data indicates that the income level of participants has decreased. Fewer Hispanics and more Caucasian, non-Hispanic families have enrolled over the past six years. Improvements in maternal child health include fewer low-birth-weight infants and a decrease in obesity among children who are enrolled in WIC.

Figure 1.12: WIC Participants, Washoe County, Breastfed at 6 months, 2007-2013



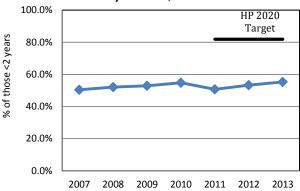
Source: OPHIE, data request

Figure 1.13: WIC Participants, Washoe County, Breastfed at 1 year, Among those 1-2 years old, 2007-2013



Source: OPHIE, data request

Figure 1.14: WIC Participants, Washoe County, Ever Breastfed, Among those < 2 years old, 2007-2013



Source: OPHIE, data request



#### **Communicable Diseases**

Communicable, or infectious, diseases affect people regardless of gender, age, race/ethnicity, income or background. These diseases can cause acute illness, become chronic conditions, and in some cases even lead to death. Communicable diseases are closely monitored by hospitals and governmental health agencies in order to mitigate potential outbreaks. The Washoe County Health District's Communicable Disease team tracks several reportable conditions including food borne illness, sexually transmitted diseases, vaccine-preventable diseases and vector-borne diseases. The conditions highlighted in this section are among those most commonly experienced by people living in Washoe County.

#### **Hepatitis**

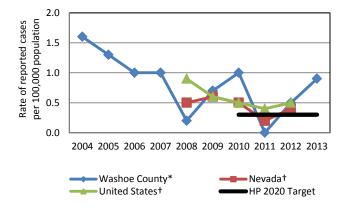
Hepatitis A (HAV), hepatitis B (HBV) and hepatitis C (HCV) are the most common types of hepatitis found in the United States. These viral infections are the leading cause of liver cancer and the most common cause for liver transplants.<sup>221</sup> While there are vaccinations for HAV and HAB, a vaccine to protect against HCV has not yet been developed.<sup>221,222,223,224</sup>

#### Hepatitis A (HAV)

HAV is transmitted via fecal-oral transmission. 222.225
Symptoms can include fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, clay-colored bowel movements, joint pain and jaundice.
Typically symptoms last less than two months, but in 10% to 15% of cases symptoms can last up to six months. 222
Some infected persons do not experience any symptoms.

Since the HAV vaccine was introduced in 1995, occurrences of the disease have decreased by 95%. As of July 1, 2002, Washoe County School District (WCSD) requires the HAV vaccine, and it is recommended for anyone travelling internationally.<sup>222,225</sup>

Figure 1.1: Viral Hepatitis A (HAV) Reported Cases, Washoe County, Nevada & the U.S., 2004-2013



Source:\*Washoe County 2013 Annual Communicable Disease Summary

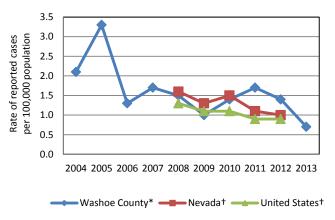
Source: †CDC, Viral Hepatitis Surveillance, United States, 2012

## Viral Hepatitis B (HBV)

HBV is transmitted from person to person when bodily fluids of an infected person come into contact with percutaneous or mucous membranes of a non-infected person. Symptoms mirror HAV symptoms and generally present 60 to 150 days after exposure and last for several weeks.

WCSD requires the HBV vaccine as of July 1, 2002, and it is recommended for anyone travelling internationally — especially to areas known to have high rates of HBV.<sup>223,225</sup>

Figure 1.2: Acute Viral Hepatitis B (HBV)
Reported Cases, Washoe County, Nevada &
the U.S., 2004-2013



Source: \*Washoe County 2013 Annual Communicable
Disease Summary
Source: †CDC, Viral Hepatitis Surveillance, United States,
2012

# Viral Hepatitis C (HCV)

HCV is the most common chronic blood-borne infection in the United States with an estimated 3.2 million people currently living with the disease.<sup>224</sup> HCV is transmissible via blood. And because the blood supply was not screened for HCV until July 1992, having had a blood transfusion or a solid organ transplant prior to that date increases risk of infection. Post July 1992 those at the greatest risk include intravenous drug users, people with HIV, children born to HCV-positive mothers and chronic hemodialysis patients.<sup>226</sup>

Testing for HCV is recommended for those born between 1945 and 1965; anyone who has ever shared needles for injecting drugs, hormones or tattoos; recipients of blood transfusions or solid organ transplants prior to 1992; people with signs of liver disease; and those with HIV infection.<sup>224</sup>

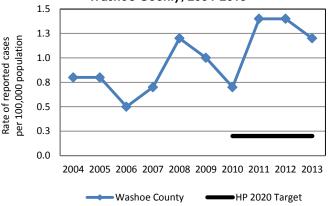
Approximately 20% to 30% of HCV cases experience symptoms. And while there is no HCV vaccine currently



available, there are new treatment guidelines that have proven effective.<sup>224</sup>

From May 1, 2002, through December 31, 2012, the Communicable Disease Control Program conducted enhanced HCV surveillance in order to characterize the infected population in Washoe County. In 2013, however, the Program discontinued chart review, and HCV surveillance is now limited to a laboratory test registry [Figure 1.4].<sup>225</sup>

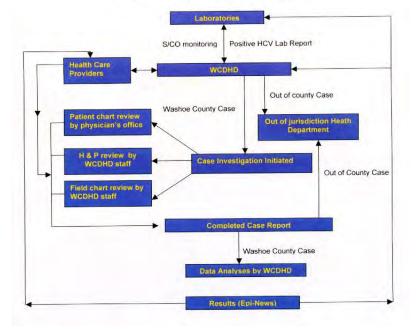
Figure 1.3: Reported Cases of Acute HCV, Washoe County, 2004-2013



Source: Washoe County 2013 Annual Communicable Disease
Summary

Figure 1.4: Washoe County HCV Surveillance Process

Hepatitis C Surveillance in Washoe County

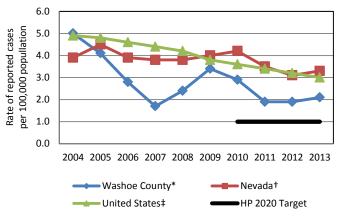


#### Tuberculosis (TB)

TB is caused by the bacterium *Mycobacterium tuberculosis*, which usually affects the lungs but can also attack the kidneys, spine and brain.<sup>227</sup> TB is one of the world's deadliest diseases — in 2012, nearly 9 million people contracted TB worldwide and another 1.3 million died of the disease. TB in the United States is not nearly as common as it once was, with about 3 cases per 100,000 people reported in 2013, compared to 5.1 in 2003 and 10.2 in 1983.<sup>230</sup> Cases in the U.S., Nevada and Washoe County often occur among newly arrived immigrants and close contacts of those persons.<sup>225,228,229,230</sup>

TB spreads from person to person through the air when an infected person coughs, sneezes, speaks or sings and others inhale the bacteria. 225,227 Some people develop active TB within weeks of exposure while others may take years to develop the disease; some persons exposed to the bacteria may never develop active TB. Symptoms include a severe cough lasting more than three weeks, chest pain, coughing up blood or sputum (mucous), weakness, loss of appetite, fatigue, weight loss, chills, fever, and night sweats. 227 Treatment for active TB involves strict adherence to a prescription drug regime lasting six to nine months. 231

Figure 1.5: Tuberculosis, Rate of Reported Cases, Washoe County, Nevada & the U.S., 2004-2013



Source: \*Washoe County 2013 Annual Communicable Disease Summary †Nevada State Health Division, Tuberculosis Fast Facts, 2004-2008 & 2009-2014

‡CDC, TB Incidence in the United States, 1953-2013

## Pertussis (whooping cough)

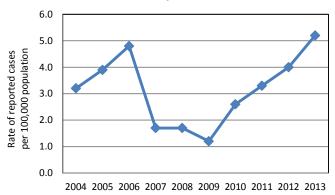
Pertussis, more commonly known as whooping cough, is a contagious respiratory disease caused by the bacterium *Bordetella pertussis*. <sup>225,232</sup> It begins with a mild cough and fever, with the cough increasing in severity and lasting weeks or months. The violent coughing can cause apnea, vomiting and exhaustion. Pertussis can cause serious respiratory complications in infants and



young children including pneumonia, convulsions, slowed or stopped breathing, and possibly death. 12,233

Those inoculated with the pertussis vaccine are still susceptible to the disease, although the infection is usually less severe in vaccinated individuals.<sup>234</sup> Still, staying current with vaccinations is the most effective way to guard against whooping cough.<sup>235</sup>

Figure 1.6: Rate of Reported Pertussis, Washoe County, 2004-2013



Source: Washoe County 2013 Annual Communicable Disease Summary



#### **Community Needs Index**

The Community Needs Index (CNI) is a standardized tool that ranks the health needs of a community by ZIP code. Scores ranging from 1 (lowest need) to 5 (highest need) are calculated by examining five socioeconomic health indicators: income, culture/language, education level, housing status and medical insurance coverage. Research shows that residents in communities with the highest CNI scores are twice as likely to be hospitalized for preventable conditions as compared to those with the lowest CNI scores.<sup>236</sup> This disparity underscores the need to consider socioeconomic factors when evaluating community health across ZIP codes.

Overall, Washoe County has an average CNI score of 3.3, indicating that the county falls in the middle of the spectrum between high need and low need. However, there is a wide range of scores among the different zip codes in Washoe County. Some areas of the community, such as Caughlin Ranch (89519) on the west side of Reno, have very low scores, indicating positive socioeconomic factors that lead to a healthier community. On the opposite side of the spectrum, the northeast side of Reno (89512) scores a 5 out 5 indicating considerable socioeconomic challenges in that area. The CNI scores of all zip codes in Washoe County can be seen below.

CNI was developed using the following nine questions to evaluate barriers to health and healthcare (1).

#### **Income Barriers**

- What percentage of the population is elderly and in poverty?
- What percentage of the population comprises children in poverty?
- What percentage of the population comprises single-parent households in poverty?

#### **Cultural/Language Barriers**

- What percentage of the population is of minority status?
- What percentage of the population has limited Englishspeaking proficiency?

#### **Educational Barriers**

What percentage of the population lacks a high school diploma?

#### **Insurance Barriers**

- What percentage of the population lacks health insurance?
- What percentage of the population is unemployed?

#### **Housing Barriers**

 What percentage of the population rents their homes (house or apartment)?

Table 1.1: CNI Scores, Zip Codes in Washoe County, 2014

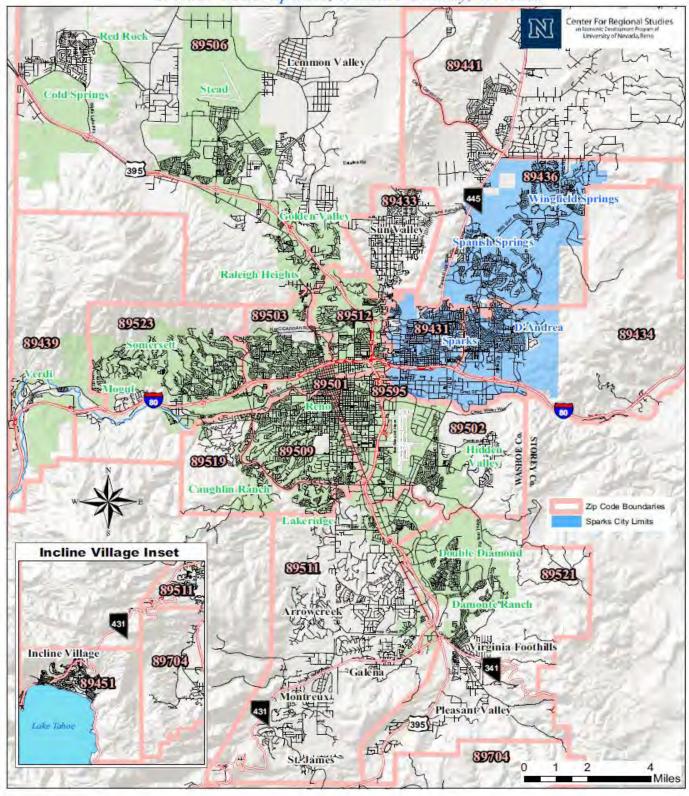
Zip	City	2014 Pop	2014 CNI Score	Poverty 65+	Poverty Children	Poverty Single w/kids	Limited English	% Minority	No HS Diploma	Unemployed	Uninsured	Renting
89405	Empire	331	4.0	10.08%	18.18%	33.33%	2.24%	19.34%	18.72%	7.26%	14.84%	58.57%
89412	Gerlach	162	3.8	10.00%	25.00%	40.00%	2.61%	18.52%	19.33%	7.78%	13.60%	59.42%
89451	Incline Vil	9,237	2.6	9.78%	7.74%	7.69%	5.33%	22.59%	9.77%	7.30%	7.07%	33.62%
89424	Nixon	350	4.0	17.50%	32.61%	33.33%	0.63%	81.71%	13.66%	23.64%	21.74%	32.35%
89501	Reno	4,326	4.2	31.40%	31.85%	35.00%	3.12%	24.69%	17.09%	15.47%	25.98%	86.30%
89502	Reno	44,164	4.8	18.14%	32.47%	47.12%	11.42%	58.49%	26.13%	13.09%	19.98%	62.97%
89503	Reno	26,997	3.8	11.13%	15.17%	29.97%	2.26%	27.88%	13.57%	9.86%	17.66%	55.52%
89506	Reno	41,319	3.6	7.41%	9.54%	14.17%	2.73%	42.49%	15.63%	14.48%	8.97%	27.74%
89508	Reno	12,542	2.4	10.60%	8.04%	28.53%	2.16%	23.70%	10.68%	6.85%	8.97%	10.66%
89509	Reno	32,743	3.4	9.05%	15.23%	29.77%	3.76%	24.92%	10.59%	10.48%	13.58%	48.28%
89510	Reno	2,028	2.8	6.96%	16.07%	37.88%	1.31%	27.91%	8.07%	10.34%	12.36%	14.21%
89511	Reno	25,727	2.2	5.31%	6.21%	26.01%	1.85%	16.15%	4.73%	7.20%	7.54%	24.11%
89512	Reno	26,240	5.0	20.81%	36.05%	57.80%	10.84%	59.24%	27.19%	17.27%	23.73%	68.82%
89519	Reno	8,363	1.8	4.80%	4.43%	14.63%	0.47%	14.64%	2.52%	4.11%	6.48%	20.69%
89521	Reno	28,506	2.6	6.16%	6.97%	13.69%	1.81%	25.26%	6.32%	7.68%	8.96%	28.42%
89523	Reno	35,012	3.0	7.48%	9.54%	27.01%	0.74%	27.46%	6.80%	7.88%	10.04%	45.22%
89431	Sparks	35,643	4.8	16.52%	24.84%	43.22%	9.31%	55.96%	26.37%	14.99%	18.81%	54.96%
89434	Sparks	26,708	3.8	13.56%	13.81%	32.92%	3.11%	33.98%	10.94%	11.30%	12.31%	41.27%
89436	Sparks	39,943	2.2	4.02%	5.45%	21.44%	1.45%	28.27%	6.71%	7.93%	5.17%	22.04%
89441	Sparks	12,171	2.4	4.72%	6.47%	29.84%	0.96%	20.02%	8.35%	14.36%	5.84%	12.36%
89433	Sun Valley	20,406	4.0	13.77%	16.65%	27.87%	6.54%	48.65%	24.96%	15.99%	12.67%	29.21%
89442	Wadsworth	921	4.0	17.56%	28.33%	27.78%	0.48%	81.98%	14.19%	23.36%	22.28%	32.49%
89704	Washoe Val	4,132	2.4	7.12%	8.89%	36.71%	0.78%	9.80%	8.15%	8.60%	8.21%	12.54%

Source: Truven Health Analytics Inc. (2014). Community Needs Index
Zip codes with highest need are highlighted in Red, those with lowest need are in Green



# **Zip Code Boundaries**

Greater Reno-Sparks, Washoe County, Nevada



## High Need ZIP Code Analysis

Although only 30 % of Washoe County's population lives in the five zip codes with highest need, this population accounted for 42.1 % of hospital inpatient visits and 54 % of ER visits during 2013 [Table 1.2]. All of these ZIP codes report higher than average hospitalization rates for chronic obstructive pulmonary disease (COPD), as well as higher than average mortality rates due to cancer, and accidents when compared to Washoe County averages.<sup>237</sup> Higher proportions of the residents in these communities live in poverty, including children (<18 years) and seniors (65+ years), and more than a quarter of the population has not graduated from high school (GED or equivalent), with the exception of 89501.

Table 1.2: 5 Highest Need ZIP Codes, Ranked by CNI Scores, 2014

Zip Code	2014 CNI Scores §	% of Washoe County*	% of Hospital Inpatient Visits†	% of Emergency Room Visits†
89512	5.0	6.0	8.7	12.7
89502	4.8	10.3	14.3	17.7
89431	4.8	8.5	11.8	12.5
89501	4.2	1.0	1.7	5.3
89433	4.0	4.8	5.6	5.8

Source: § Truven Health Analytics Inc. (2014). Community Needs Index Source: \*U.S. Census Bureau, 2010 Census Source: † All 2013 Washoe County hospital data, author's analysis



Map 1.2: 5 Highest Need Zip Codes, Washoe County, 2014

Table 1.3: Top 5 ZIP codes, selected socioeconomic status indicators						
ZIP Code (CNI Rank)	89512 (1)	89502 (2)	89431 (3)	89501 (4)	89433 (5)	Washoe County
Median annual earnings	\$22,421	\$23,100	\$23,564	\$22,543	\$27,107	\$32,091
Unemployment, population 16+ years	16.1%	12.1%	13.7%	19.5%	14.6%	10.6%
<b>Household Factors</b>						
% of occupied houses that are unaffordable (≥ 30% of monthly income)	50.6%	48.8%	49.1%	52.8%	42.9%	43.2%
Mobile home	1,063 (9.8%)	1,250 (6.3%)	578 (3.8%)	12 (0.4%)	3,673 (51.8%)	11,481 (6.2%)
Vacant housing units	1,357 (15.3%)	2,200 (11.1%)	1,506 (9.9%)	742 (25.8%)	645 (9.1%)	22,540 (12.2%)
Vehicles Available (NONE)	1,598 (17.5%)	2,727 (15.5%)	1,715 (12.5%)	899 (42.1%)	222 (3.4%)	12,813 (7.9%)
Source: United States Census Bureau. American Community Survey, 2008-2012, 5-year estimates						



#### 89512: Northeast Reno

2014 CNI score 5.0, Ranked 1.

Residents in 89512 make up 6% of the Washoe County population, but they accounted for 8.7% of hospital inpatient visits and 12.7% of ER visits in 2013. They had higher mortality rates for heart disease, cancer, COPD and accidents, and a higher infant mortality rate than Washoe County on average from 2008-2010.<sup>237</sup>

Roughly 20% of the population speaks English with limited proficiency; more than 25% of the population does not hold a high school diploma and 69% of residents rent their homes. <sup>238</sup> Nearly 30% of the population lives at or below the poverty line, including 20% of seniors, 30% of all children, and 58% of children living in a household with a single mother. <sup>238</sup> Half of the residents live in affordable housing, and 17.5% of households are without a vehicle.



#### 89502: Southeast Reno

2014 CNI score 4.8, Ranked 2.

Residents in 89502 make up 10% of the Washoe County population, but they accounted for 14.3% of hospital inpatient visits and 17.7% of ER visits in 2013. They had higher mortality rates for heart disease, cancer, COPD and accidents, and a higher infant mortality rate than Washoe County on average from 2008-2010.<sup>237</sup>

Nearly 21% of the population speaks English with limited proficiency; more than 25% of the population does not hold a high school diploma and 63% of residents rent their homes. Almost 30% of the population lives at or below the poverty line, including 17% of seniors, 30% of all children, and 47% of children living in a household with a single mother. Half of the residents live in unaffordable housing, and nearly 16% of households are without a vehicle.



#### 89431: Sparks

#### 2014 CNI score 4.8, Ranked 3

Residents in 89431 make up 8.4% of the Washoe County population, but they accounted for 11.8% of hospital inpatient visits and 12.5% of ER visits in 2013. They had higher mortality rates for heart disease, cancer, COPD and accidents, and a higher infant mortality rate than Washoe County on average from 2008-2010.<sup>237</sup>

Nearly 20% of the population speaks English with limited proficiency; more than 25% of the population does not hold a high school diploma and 55% of residents rent their homes. More than 30% of all children live at or below the poverty line, and 43% of children living in a household with a single mother live at or below the poverty line. Nearly 50% of residents live in affordable housing, and 12.5% of households are without a vehicle.

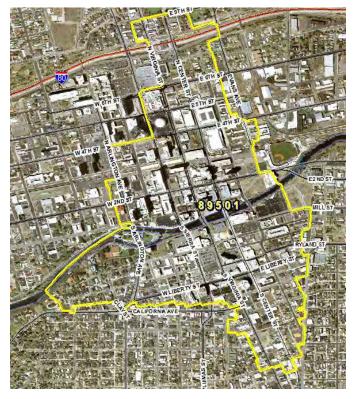


#### 89501: Downtown Reno

#### 2014 CNI Score 4.2, Ranked 4

Residents in 89501 make up 1% of the Washoe County population, but they accounted 1.7% of inpatient visits and more than 5% of ER visits in 2013. More than 61% of ER visits were drug or alcohol related. This ZIP code has higher mortality rates for heart disease, cancer, COPD, and accidents than Washoe County averages.<sup>237</sup>

This ZIP code has a higher population of elderly, white men than the other four low-ranking ZIP codes. And though the education level among the population is higher — nearly 30% of individuals have a college degree — the residents are still earning low to median annual incomes, more than half are residing in affordable housing and 42% do not own a vehicle. 238 More than 30% of all children live at or below the poverty line, and 35% of children living in a household with a single mother live at or below the poverty line. 238

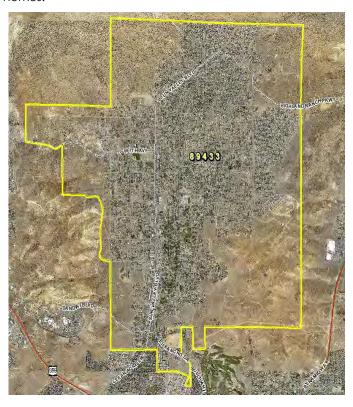


#### 89433: Sun Valley

#### 2014 CNI score 4.0, Ranked 5

Residents in 89433 make up 4.8% of the Washoe County population, but they accounted for 5.6 % of hospital inpatient visits and 5.8 % of emergency room visits in Washoe County during 2013. They had higher mortality rates for cancer, COPD and accidents, and a higher infant mortality rate than Washoe County averages from 2008 to 2010.<sup>237</sup>

Nearly 25 % of the population does not hold a high school diploma.<sup>238</sup> More than 30 % of all children live at or below the poverty line, and 28 % of children who live in a household with a single mother live at or below poverty line. Half of the houses in this ZIP code are mobile homes.238



## <u>Summary</u>

Socioeconomic factors that influence lifestyle behaviors and choices have a direct effect on health outcomes. Those who live in ZIP codes with higher rates of poverty and a less-educated population experience higher rates of hospitalization and death. Differences in health outcomes can also be seen across racial and ethnic groups. Minorities often earn less income — typically a result of their level of education — which impacts the ability to afford basic needs such as food, shelter and transportation.

There are neighborhoods with surprisingly high rates of poverty given the population's income and education. Though impoverished, however, residents do not experience poor health outcomes at the levels expected. This is attributed to the neighborhood and community assets that can boost community cohesiveness, collaboration and trust. People know their neighbors, and safety is not the primary concern.<sup>239</sup> Addressing what works and does not work in a community is key to improving the health of all people, regardless of income and education.

#### Mortality

Mortality rates provide a foundation for formulating health plans and policies to prevent or reduce premature mortality and improve quality of life. They describe the characteristics of those dying and provide a standardized measurement to compare deaths by certain causes and between population groups. With this data officials can assess and monitor health levels within a specific population, and identify and quantify public health problems.

## **Highlights**

Mortality rates in Washoe County are higher than both state and national rates, and show a gender disparity with a disadvantage for males. The top two causes of death, heart disease and cancer, are substantial economic burdens to the state.

In recent years infant mortality rates in Washoe County have decreased, but have remained above state and national rates. The three leading causes of infant mortality in Washoe County account for almost half of all infant deaths. The number one cause of child mortality continues to be unintentional accidents and injuries.

## National, State and Local Mortality Rates

In 2011 the United States estimated age-adjusted death rate was 740.6 per 100,000 population.<sup>240</sup> The rate in Nevada was slightly higher at 789.6.<sup>240</sup> Washoe County's age-adjusted death rate the same year surpassed state and national rates at 938.7.<sup>241</sup>

Below are the top causes of death in 2011 for the United States, Nevada and Washoe County, with the top three causes the same at all levels.

Table 1.1: Top 10 Causes of Death, United States, 2011

Table 1.1. Top 10 Causes of	Death, United States, 2011
Cause of Death	Age-Adjusted Death Rate per 100,000 Population
Heart Disease	173.7
Cancer	168.6
Chronic lower respiratory disease	42.7
Cerebrovascular Disease	37.9
Accidents (unintentional injuries)	38
Alzheimer's disease	24.6
Diabetes mellitus	21.5
Influenza & Pneumonia	15.7
Nephritis, nephritic syndrome & nephrosis	13.4
Intentional self-harm (suicide)	12

Source: National Vital Statistics Reports, 2012

Table 1.2: Top 10 Causes of Death, Nevada, 2011 Age-Adjusted Death Rate Cause of Death per 100,000 population Heart Disease 197.5 Cancer 169.0 Chronic lower respiratory 50 disease Accidents (unintentional 41 injuries) Cerebrovascular diseases 36.4

20.1

18

16.8

16.1

Diabetes mellitus 15
Source: Nevada Health Statistics Portal Death Data Query

Influenza & Pneumonia

Intentional self-harm

Nephritis, nephrotic

Alzheimer's disease

syndrome & nephrosis

(suicide)

Table 1.3: Top 10 Causes	of Death,	Washoe	County,	2011

Cause of Death	Age-Adjusted Death Rate per 100,000 population
Heart Disease	262.9
Cancer	177.3
Chronic lower respiratory disease	61.3
Accidents (unintentional injuries)	43.6
Alzheimer's disease	34.9
Cerebrovascular diseases	34.1
Influenza & Pneumonia	22.9
Diabetes mellitus	19.4
Intentional self-harm (suicide)	18.5
Chronic liver disease & cirrhosis	12.3

Source: Nevada Health Statistics Portal Death Data Query

Chronic diseases comprise the majority of the top 10 causes of death at the national, state and local levels. They are the leading cause of death and disability in the United States, <sup>242</sup> accounting for 70% of all deaths nationwide. <sup>243</sup> In 2010 heart disease and cancer alone accounted for nearly 48% of all deaths in the U.S. <sup>242</sup>Annually, chronic diseases cost the nation an estimated \$20.3 billion <sup>243</sup> and their impact extends beyond the economics of direct expenditures. Communities suffer from reduced productivity due to loss of life and the premature deaths from chronic disease. <sup>244</sup>

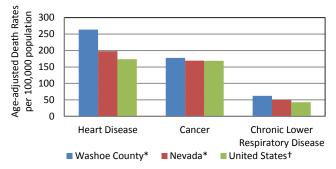
## Top 3 Causes of Mortality

Heart disease is the No. 1 cause of death in the United States, Nevada and Washoe County. In 2011 it accounted for 25% of all deaths in Nevada. Heart disease cost the state approximately \$1.8 billion in direct expenditures—44.4% of the total economic burden to



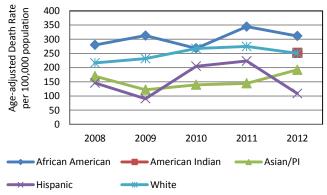
the state.<sup>240,243</sup> In 2012, heart disease caused 33.6% of deaths in Washoe County with an age-adjusted death rate of 258.3 per 100,000 population.<sup>241</sup> In that same year the CDC reported that coronary heart disease was the most common heart disease in 2010 and cost the U.S. an estimated \$108.9 billion.<sup>242</sup>

Figure 1.1: Top 3 Causes of Mortality, Washoe County, Nevada & the United States, 2011



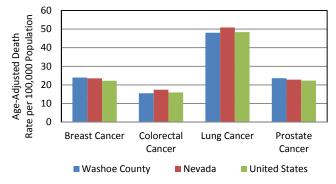
Source: \*Nevada Health Statistics Portal Death Data Query
Source: †National Vital Statistics Report, Deaths Preliminary Data
for 2011

Figure 1.2: Heart Disease Death Rates, Washoe County, by race/ethnicity, 2008-2012



Source: Nevada Health Statistics Portal Death Data Query

Figure 1.3: Select Cancer Death Rates, Washoe County, Nevada, & the United States, 2007-2011 Averages



Source: National Cancer Institute, State Cancer Profiles
Ouery

Cancer is the second-leading cause of death in the United States, Nevada and Washoe County. One in every four deaths nationwide are cancer-related.<sup>243</sup> Prostate, breast and lung are the most common cancers. In 2011 the direct medical expenditures of cancer cost the state approximately \$745 million — 18.3 % of the total economic burden to the state.<sup>240</sup> Cancer accounted for 27.3% of deaths in Washoe County in 2012 with an ageadjusted death rate of 191.4 per 100,000 population.<sup>242</sup> Chronic lower respiratory disease is the third-leading cause of death in the United States, Nevada and Washoe County. In 2011 chronic lower respiratory disease accounted for 6% of all deaths in Nevada and cost the state approximately \$280 million in direct medical expenditures.<sup>240,243</sup> In 2012 chronic lower respiratory disease accounted for 7.3% of deaths in Washoe County with an age-adjusted death rate of 58.3 per 100,000 population.<sup>242</sup>

## <u>Infant Mortality</u>

The U.S. infant mortality rates have improved over the last century due to the availability of prenatal care. More than 75% of women now enter prenatal care in their first trimester of pregnancy. <sup>245</sup> In 2011 the U.S. saw an infant mortality rate was 6.05 infant deaths per 1,000 live births. <sup>240</sup> The three leading causes of infant mortality — congenital malformations, low birth weight and sudden infant death syndrome (SIDS) —accounted for 46% of infant deaths. <sup>242</sup>

Neonatal (<28 days) deaths are usually due to short gestation and low birth weight, while post-neonatal (28 days to 1 year) deaths are due to Sudden Infant Death Syndrome (SIDS).<sup>242</sup> Marital status strongly correlates with infant death rates, as infants of single mothers have a 77% increased chance of dying compared to infants of married mothers.<sup>242</sup> Death rates for infants whose mothers were born in the U.S. were 38% higher than infants whose mothers had been born elsewhere.<sup>242</sup>

The top-10 causes of infant mortality in the United States:

- 1. Congenital malformations, deformations and chromosomal abnormalities
- 2. Disorders related to short gestation and low birth weight, not elsewhere classified
- 3. Sudden Infant Death Syndrome (SIDS)
- 4. Newborn affected by maternal complications of pregnancy
- 5. Accidents (unintentional injuries)
- Newborn affected by complications of placenta, cord and membranes
- 7. Bacterial sepsis of newborn
- 8. Respiratory distress of newborn
- 9. Diseases of the circulatory system



#### 10. Neonatal hemorrhage

In 2007 Nevada ranked 12th in the U.S. with 5.9 deaths per 1,000 live births,<sup>245</sup>a rate that decreased to 5.3 by 2012.<sup>246</sup> The infant mortality rate in Washoe County is among the highest in the state with a rate of 6.0 infant deaths per 1,000 live births in 2012.<sup>246</sup> Neonatal mortality trends indicate a reduction in rates since 2009 [Figure 1.4]. However, post-neonatal mortality trends are unclear as rates have fluctuated each year from 2008 to 2012 [Figure 1.5].

Figure 1.4: Neonatal (<28 days) Mortality Rate per 1,000 births Women ages 15-44 years, Washoe County & Nevada, 2008-2012

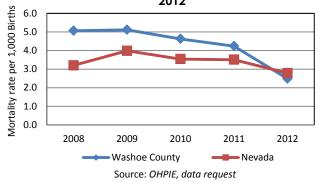
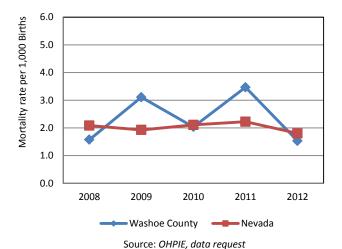


Figure 1.5: Post Neonatal Mortality rate (28 days-1 year) per 1,000 births to Women ages 15-44, Washoe County & Nevada, 2008-2012

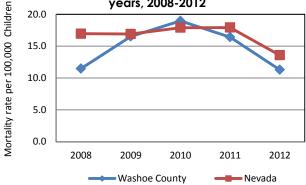


## Child Mortality Rate

Children ages 1 to 14 are at greatest risk of death from unintentional injury or accidents including drowning, automobile accidents, suffocation, falls and poisonings. Many deaths can be avoided or reduced by following general safety precautions.<sup>242</sup> The child mortality rate for

Washoe County increased from 2008 to 2010, then declined through 2012 [Figure 1.6].

Figure 1.6: Child Mortality Rate, Washoe County & Nevada, Children ages 1-14 years, 2008-2012



Source: OHPIE, data request

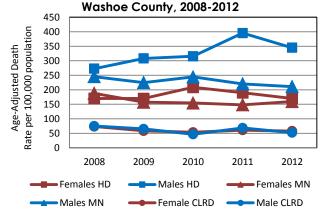
## **Gender Disparities**

In 2010 the U.S. age-adjusted mortality rate for males was 887.1 per 100,000 population — much higher than that of females at 634.9 per 100,000 population.<sup>247</sup>

This gender disparity holds true in Nevada and is even more pronounced in Washoe County. The 2012 male age-adjusted mortality rate was 1,255.2 per 100,000 population — 453.3 more deaths than females.<sup>241</sup> Females born in Washoe County in 2012 have an average life expectancy of 76 years, approximately four years longer than males born in Washoe County the same year.<sup>240,243</sup> Washoe County females, however, are likely to live five years less than other Nevada females.<sup>248</sup> Similarly, Washoe County males are likely to live approximately four years less than other Nevada males.<sup>248</sup>

The graph below depicts the gender disparities that exist across the top-three causes of mortality in Washoe

Figure 1.7: Deaths Due to Heart Disease, Malignant Neoplasms, and CLRD by Sex,



Source: Nevada Heath Statistics Portal Death Data Query



County. Heart disease carries the largest male disadvantage followed by cancer. There is little disparity between male and female chronic lower respiratory disease death rates.

#### Mortality Summary

Washoe County death rates are higher than state and national death rates. This is also true for the three leading causes of death across the nation, which have higher rates in Washoe County than those observed at the state and national levels. The top two causes of death, heart disease and cancer, are serious issues for Nevada economically and account for almost two-thirds of the total economic burden to the state.

While infant mortality rates in Washoe County have decreased in recent years, they remain above state and national rates. The three leading causes of infant mortality — congenital malformations, low birth weight and SIDS — account for almost half of all infant deaths. Unintentional accidents and injuries remain the number one cause of child mortality. A large mortality gender disparity exists in Washoe County where females continue to live much longer than males.



#### Community Input

An important task of this assessment was to engage diverse community members in dialogue about community health needs and health drivers in Washoe County. These community members included low-income clients/patients of various non-profit organizations, staff and leaders from the non-profit and public sector, as well as various other community leaders (detailed demographic data of the community members who participated in this process can be found in the appendix). The goal of this outreach was to learn what the community sees as their most pressing concerns and to ensure that as many voices as possible were brought to the table.

Approximately 130 people who live and work in Washoe County participated in focus groups, discussion panels and community meetings. Participants were asked about health needs and key issues to be addressed to better the health of the community. Additionally, social service agency leaders were asked to share their perspective on the challenges, strengths, and opportunities that exist in areas such as education, mental health services, and housing (more demographic information about the focus group can be found in Appendix A).

What follows are the key findings from this community engagement. Commonly voiced concerns included the caliber and availability of mental health services, financial stress on families and the number of people with unmet basic needs. Participants want the public school systems improved, opportunities for adult education, healthy active lifestyle opportunities, and an emphasis on reducing substance use and abuse (cigarette smoking, alcohol, and drugs). There was an expressed need for more affordable healthcare and more opportunities for people to engage with one another to build community pride and increase positive human interactions.

## Community Member Focus Groups

In order to gain the perspective of low-income community members, 59 underserved residents took part in one of six, hour-long focus groups. Focus group participants were recruited by organizations serving the low-to-moderate income population in Reno-Sparks including: Northern Nevada HOPES; Access to Healthcare Network; Community Health Alliance; Women, Infants and Children (WIC); Crossroads; Senior Services; and the Children's Cabinet Independent Living program.

Participants were all asked the same set of questions, and data were analyzed to determine the most important issues and concerns among all of the groups

When asked what comprises an ideal neighborhood, the top response was positive interactions with neighbors and involvement in activities together. People want safe neighborhoods and safe places to be active including parks and trails/paths for running, walking and biking.

Residents also want clean, aesthetically pleasing neighborhoods with no trash or graffiti, but plenty of trees and well-kept front lawns. Finally, residents want access to these services in their communities: health clinics, schools, inexpensive childcare and healthy affordable food.

## Community Barriers

Lack of cleanliness presented as the number one barrier to a healthy community with participants citing the presence of dilapidated houses, homes with trash/junk in the yards, graffiti and abandoned cars.

Lack of human interaction and/or having negative interactions with people in and around the community were cited as impediments, as well as the lack interaction between neighbors

Violence in the community and schools were of concern, especially for those living in or near the downtown area. Participants with school-aged children were specifically concerned with violent behavior and mental health resources in the schools, often citing the recent Sparks Middle School shooting.

The use and abuse of tobacco, alcohol and drugs surfaced as a common theme, together with the 24/7 availability of alcohol and the presence of gambling and casinos. Participants voiced equal concern over the lack of community money, services and resources including clothing, healthy and affordable food, and the insufficient number of healthcare providers and affordable healthcare options.

Participants cited traffic safety as a concern, especially speeding traffic and drivers' unwillingness to look and stop for pedestrians. Participants noted that these safety concerns prevented them from biking and walking as a means of transportation.



Two Additional barriers to having a healthier community were, residents have little knowledge or awareness of available resources including public services, and there is a lack of educational resources for parents and adults.

## Community Assets

Having outdoor space for physical activity was most important, including parks, trails, paths and open space. Assets also included neighbors and people who keep their spaces and community clean — picking up trash and keeping their own yards and streets clean. Participants took note of sidewalk and crosswalk conditions, and were appreciative of those areas where improvements had been made.

#### Community Needs

Responses touched on making information about community resources and programs more readily available. People indicated they would like knowledge about assistance programs they might qualify, basic community information and opportunities for adult education. Mental health services and support are a growing area of concern and an important community need.

Participants expressed that community cohesiveness and human interaction would help instill local pride and respect. Families engaging in activities together, people acquainting with neighbors, block parties and other localized social gatherings were mentioned as potential solutions.

The need for activities for people of all ages was identified. Participants also see a need for recreation centers, more parks and affordable recreational opportunities for all seasons. Inexpensive childcare services should be made available for parents.

Safety and security are of great concern — specifically holding people accountable for breaking laws, even simple traffic violations. Participants are frustrated with the lack of traffic enforcement in the interest of pedestrians.

Commonly cited was the need for built infrastructure for general safety, including improving sidewalk conditions and light in poorly lit neighborhoods — most often expressed by residents in Sun Valley. There were mentions of traffic safety features including speed bumps and

blinking pedestrian crossings — especially in front of the WIC office in Sun Valley.

#### Health Information

Participants noted most often seeking out medical professionals, case managers, health clinics or nurse hotlines for health information. They use the internet, but expressed concern about how to evaluate the quality of information; other media including television, newspapers, brochures, books and magazines are sources for answers to medical questions. Participants vet healthcare professionals and get answers to general health questions through word of mouth via family, friends and coworkers.

#### Health Concerns

Behavioral health presented as the most prominent health concern, primarily the use and abuse of injection drugs, alcohol and tobacco.

Chronic diseases were cited as major issues, most notably obesity and diabetes, followed by cancer.

Concerns about mental health were raised in relation to violent behavior on an individual level and in the schools, including the lack of counseling and therapy services for individuals with mental health issues.

## Focus Group Summary

The need for human interaction surfaced across nearly all major themes — its presence or absence — with participants noting that it can help eliminate other concerns. Knowing who is supposed to be in and around the neighborhood could improve safety, for example. It also provides a ready-made framework providing childcare. Additionally, feeling integral to a community can instill a sense of pride and accountability, resulting in better-maintained neighborhoods and residents who are more apt to advocate on behalf of their neighbors.

#### Panel Discussions

In order to gain the perspectives of professionals engaged in community work, chief executive officers and executive directors of local nonprofit, for-profit and governmental agencies/organizations were tapped to participate in one of three, 1.5-hour panel discussions. Twenty-three participants representing 22 different agencies answered questions related to community health.

Discussion Panel Questions



- 1) If you had a magic wand and could change one thing related to health, what would it be?
- 2) Based on your experience and your organizational view, what kinds of things drive the health of an individual?
- 3) What are the drivers of community health?
- 4) On a scale of 1 to 10, what would you rate the overall health of Reno-Sparks area?

## Discussion Panel Highlights

The discussion revealed that most of the agencies provide clinical care, offer resource referrals, and address mental health and health behaviors.

The overarching theme from all three panels revolved around public health resources — how to find, access and utilize them. Responses pointed to accessibility of affordable healthcare — primary, dental and mental — as the top drivers of Northern Nevada's overall poor health.

The converse was expressed as sourcing good health—access to affordable healthcare services and resources, and an educated population.

A number of topics that influence community health were cited, ranging from policy and economics to the importance of personal choices. All panels illuminated the need for implementing systemic cross-sector, collaborative changes to improve the health of the community.

Individuals whose basic needs are unmet were another major concern. Many suffer from a lack of resources including food, adequate and affordable housing, and jobs that pay livable wages.

## **Community Meetings**

In order to gain the perspective of community leaders from various sectors in our community, roughly 30 participants in a community advisory board meeting for Renown Regional Medical Center and 20 individuals in a regional job creation network meeting took part in a brainstorming session regarding healthy communities: What is a healthy community? What does it takes to create and maintain a healthy community? And what barriers currently exist for supporting a healthier Reno-Sparks.

Participants identified a healthy community as an active community with paths for biking and walking and plenty of open space. It provides a strong public education system; adequate employment opportunities; and access to affordable healthcare, including mental health services. A healthy community offers activities for all ages — especially health-promoting youth activities. And there is a sense of pride that promotes engagement with the community, cohesion and advocacy.

The lack of a strong education system impedes the development of a healthy Reno-Sparks, as does tobacco use, the 24/7 availability of alcohol and the 24/7 lifestyle. Neighborhood crime is a barrier to a healthy community along with a lack of money and other resources, and the supply of cheap, unhealthy food.

## <u>Agency Leader Perceptions</u>

Finally, agency leaders were asked to describe the big picture of various service areas in Washoe County. They were asked to describe the challenges, strengths, and opportunities that exist in our community. The following narratives focus on education, disability services, senior services, mental/behavioral health, children and family services, housing/homeless services, healthcare, food/nutrition, and substance abuse. The narratives were either written by the agency leaders themselves or compiled from key informant interviews.

#### Education

Public and Higher Education:

The Washoe County School District (WCSD), which comprises 93 schools and approximately 62,400 students, faces some serious hurdles in terms of strengthening public education. Graduation rates rank among the lowest in the nation, and the student-teacher ratio is one of the most unbalanced in the country. A lack of resources is to blame for many of these challenges.

As a result, the WCSD recently initiated a concerted effort to increase academic rigor for all students and eliminate achievement gaps. This strategic plan, termed Envision WCSD 2015 – Investing In Our Future, focuses on accountability and demonstrable results, student achievement, accessibility for families and the community, and alignment of departmental support. Since its implementation in 2010, WCSD has seen greater student achievement signified by an increase in graduation and proficiency rates, and more students taking advanced classes. In fact, in terms of college readiness the county has risen from bottom rankings to No. 31 nationally.

Organizations such as the Boys and Girls Club of Truckee Meadows, The Children's Cabinet, and Communities in



Schools provide valuable academic and social support to many Washoe County students. The Education Alliance of Washoe County focuses on advocacy by building partnerships to generate resources to strengthen the education system. There are also several Head Start early childhood education programs throughout the county.

There are two public higher education institutions in Washoe County. The University of Nevada, Reno (UNR) serves more than 20,000 students, offers more than 140 degree programs — including a part-time MBA program ranked in the top 25 in the United States by Businessweek Magazine. UNR houses the Nevada Small Business Development Center — a statewide business assistance outreach program.

Truckee Meadows Community College (TMCC) is a comprehensive community college located in Reno and is part of the Nevada System of Higher Education. With five satelite sites and more than 20 community locations, TMCC serves more than 20,000 students each year in state-supported programs and another 12,000 students in non-credit workforce development classes.

## Adult Education Opportunities:

Job Connect and Sierra Nevada Job Corp are two of the larger organizations in Reno-Sparks providing adult education opportunities, including GED preparation and job training. The Career College of Northern Nevada also provides extensive professional career training and education. The Northern Nevada Literacy Council offers an English as Second Language program for adult learners and GED preparation among other adult education classes.

#### Disabilities

There are varied services available to individuals with various disabilities — cognitive, developmental, medical and physical — and their family members and caretakers. The biggest challenges people with disabilities face in Washoe County involve employment, transportation and affordable access to specialty medical care.

The following is a brief overview of services available in Washoe County and initiatives to address the gaps in disability services, with information provided by staff at the Nevada Center for Excellence in Disabilities.

#### Children with Disabilities:

WCSD and the state of Nevada provide the majority of services and support available to children with disabilities and their families. These include educational, behavioral health, mental health and medical supports. The Nevada Early Intervention Services is a state agency that works with children from birth to age 3 and their families to address a child's disability as soon as possible. The services WCSD and the state provide to youth with disabilities are generally available to individuals up to age 21.

There are also several nonprofits working to support youth with disabilities and their families. Nevada PEP is a parent training initiative that focuses on self-advocacy. R.A.V.E provides respite for families and caretakers of children with disabilities. Family TIES provides support for children with special health needs and helps families navigate their options and the system. The lack of both specialty healthcare providers and providers who accept Medicaid continues to be a huge hurdle for both children and adults living with disabilities.

## Adults with Disabilities:

Services for adults with disabilities are more fragmented than for children and youth. Today the vast majority of services are community-based, and strive to help adults with disabilities live as independently as possible. Organizations such as People First empower adults with disabilities to be strong self-advocates when accessing the available behavioral/mental health, medical, employment and transportation services. Finding and maintaining gainful employment is a big challenge. The Sierra Regional Center and Vocational Rehabilitation are state-run agencies that provide job training and placement to adults with disabilities.

Services are largely shifting from public agencies to private nonprofits that receive state or federal funding. One of largest of these organizations is HSI/WARC, a community training center that provides employment for adults with disabilities in a workshop setting. In recent years the trend has moved from community training centers to customized or supportive employment wherein adults with disabilities work for mainstream employers. This approach offers a less restrictive work environment, but finding appropriate work and providing job training has proved a challenge.



Public transportation is problematic for adults with disabilities, and currently the services available in Washoe County cannot meet their needs. The Regional Transit Commission and several nonprofits have partnered to find solutions that will close this gap in services.

## Senior Services

Washoe County Senior Services is a public agency that plays a large role in providing services to the evergrowing senior population. Other significant organizations serving the senior community include the Sanford Center for Aging, the Assistance League, Kids to Senior Corner, Senior Outreach Services (SOS), Senior Bridges and Seniors in Service.

Low-income, unmarried seniors over the age of 80 who live alone are particularly vulnerable to the challenges faced by the elderly community — social isolation, the ability to age in place, and a lack of transportation services and affordable housing. These difficulties can impact access to social services, healthcare and even basic needs. Subsidized senior housing, for example, is often located in low-income areas inconvenient to grocery stores or public transportation routes. Vulnerable seniors require greater support and coordinated efforts to address their needs.

Providing social and medical services for seniors has long been a challenge in Washoe County due to lack of public resources, including social service and healthcare outreach. The Aging and Disability Resource Center currently provides information and resources for seniors and caregivers, but those services require expansion to meet the growing community need. Additionally, seniors from rural counties that travel to Washoe County to receive services further drain already limited resources and place greater strain on the senior service system.

But as the senior population continues to grow in Washoe County, so does community awareness. There is a growing collaboration between public and private agencies — more than 20 different organizations were involved in Washoe County Senior Service 2014 Master Plan, which identifies senior needs and works to fill those needs. It is hoped that this type of unified effort will foster a stronger volunteer system and increase availability of home- and community-based services

## Mental and Behavioral Health

Various facilities, clinics and private practitioners provide mental and behavioral health services in Washoe County. Northern Nevada Adult Mental Health Service (NNAMHS) in Sparks, one of the most prominent publicly funded facilities, offers inpatient services for adults with mental illness and co-occurring disorders. Its outpatient services include a medication clinic and psychosocial rehabilitation groups. The facility also provides walk-in assessments and up to 72 hours of crisis intervention; its Rapid Stabilization Unit provides beds for 10 patients and another 20 for inpatient psychiatric care. NNAMHS team members assist in case management at the community level.

West Care Community Triage Center provides temporary housing for members of the uninsured population in need of medically supervised substance abuse detoxification or brief mental health crisis stabilization.

Renown Regional Medical Center's Behavioral Health Services provides outpatient assessment and a variety of treatment modalities. The Partial Hospitalization Program serves as an alternative to inpatient care. Its nurses provide case management, group and individual counseling, detoxification and addiction rehabilitation services, as well as psychiatric medication management for stabilization of mental health and co-occurring disorders. Intensive Outpatient Programs serve adults who need mental health education, coping skills or addiction rehabilitation treatment.

Two clinic locations offer traditional outpatient behavioral healthcare such as individual therapy, marriage and family therapy, medication management, and psychological testing in addition to child and adolescent services. Renown Behavioral Health's professionals provide consultations 24/7 at Renown's two emergency rooms, Main and South Meadows, to help determine inpatient referral or follow-up care for those presenting with mental health needs or addiction.

Senior Bridges, located in Northern Nevada Medical Center, provides inpatient and outpatient care for adults age 50 and older. West Hills Hospital is a freestanding psychiatric facility providing assessment and both inpatient and outpatient psychiatric care to children, adolescents and adults. The hospital also provides detoxification inpatient and outpatient chemical dependency rehabilitation services. Veterans may receive inpatient and outpatient mental health services at the VA Medical Center, including outreach and case management programs for homeless veterans in need of psychiatric and substance abuse services.



The biggest challenges Washoe County faces in regard to mental and behavioral health services are a lack of resources and access to appropriate care. Hospital emergency departments serve as a care provider for mental/behavioral health patients, which contributes to overcrowding as patients wait for services not readily available in the ER. The emergency departments in Washoe County experience long wait times for moving psychiatric patients to inpatient levels of care, with only 10 rapid stabilization beds available at NNAMHS.

Community Health Alliance, Northern Nevada HOPES and Mojave Mental Health also face challenges in providing sufficient mental and behavioral health services to meet the needs of their low-income patients, which stems from a lack of funding and mental/behavioral healthcare providers.

Providers are getting creative with the resources available in both the public and private sectors. REMSA and law enforcement, for example, have both developed community outreach programs with missions to build relationships, reduce unnecessary ER admissions, and connect those with mental health needs with appropriate services.

The Mobile Outreach Safety Team (MOST) comprises law enforcement and social workers and is dispatched during the weekdays for triage and crisis intervention. REMSA has a community paramedic program that provides triage and pre-hospital care and collaborates with other providers such as NNAMHS and West Care Community Triage to transport directly to non-emergency room resources. UNR's Counseling Services Department holds an annual meeting of emergency services providers for Behavioral Health Care in order to continue to strengthen collaboration.

## Children and Families

The access and availability of services to families in need in Washoe County has improved over the last several years. As services have increased, however, so has demand. Children and families in the community are facing multi-faceted, complex issues like never before.

#### Mental Health Services

Overall services are lacking in this area. Because mental health issues often remain undiagnosed, health clinics must be prepared to help identify needs in this area — even during basic health assessments. The availability of

mental health services on school campuses can help determine problems early on and potentially prevent long-term issues. Nevada's suicide rate is almost double the national average — the adolescent suicide rate is the third-highest in the country and the third-leading cause of death among youth ages 10 to 24.

## Housing and Income

Families face rising rental costs and stagnant incomes, which have created a sizable gap between people in need of affordable housing and the number of affordable units available. Forty-one percent of Washoe County homeowners and 52% of renters spend more than 30% of their total household income on housing and are considered cost-burdened by Department of Housing and Urban Development guidelines. Many low-income families end up living in weekly rentals due to a lack of affordable housing in the area.

## Nonprofit Support

Several major nonprofits in Washoe County serve children and families including The Children's Cabinet, Boys and Girls Club of Truckee Meadows, and Community Services Agency. Public agencies like Washoe County School District and Washoe County Social Services also play a large role in supporting families. The organizations face certain challenges to providing services:

<u>Funding</u>: The availability of consistent funding that allows organizations to remain true to their mission, while also filling gaps in services, is lacking. In order to continue offering quality services to families, organizations must be funded appropriately and be able to rely upon those funding sources continually.

Iracking Community Trends: Organizations serving youth and families lack a concrete method for tracking trends in the work they do. Currently organizations simply receive calls and talk with clients about needs. However, a centralized system wherein all agencies made entries would facilitate tracking trends and enable needs to be addressed more readily.

In response, collaboration has become a key element for all service providers in recent years. New partnerships have formed between nonprofits and between nonprofits and public agencies. These organizations and partnerships collaborate on grant proposals; discuss client



needs; review broad community needs; and determine methods to provide more extensive, user-friendly services for families.

## **Housing and Homelessness**

Lack of affordable housing is a pressing concern in Washoe County. More than one-third of homeowners and more than half of all renters are cost-burdened—they spend more than 30% of their income on a mortgage or rent. High housing costs put considerable financial strain on individuals and families and make it difficult to afford other necessities such as transportation, food and healthcare.

Reno Housing Authority, Community Services Agency, Northern Nevada Community Housing Resource Board and Silver Sage Manor lead the development of affordable housing in Washoe County. Despite their efforts, affordable housing development has not kept pace with the increase of cost-burdened residents. There are more than 180,000 housing units in the county, but less than 6,000 are affordable housing units that receive federal assistance.

A transient population is connected to the Washoe County housing climate as well — people moving to the area for jobs in the boom-or-bust gaming and construction industries, as well as the 24-hour lifestyle that thrives in the casino environment. Many of these individuals and families live in weekly motels close to downtown Reno, while others end up in chronic street homelessness. Chronic mental illness and substance abuse also create a barrier to people moving beyond homelessness.

Two major service gaps exist for individuals and families experiencing homelessness. One is a lack of mental and behavioral health services. Homeless individuals living with a chronic mental illness face serious challenges in obtaining stable employment and housing, especially if the illness is not managed through supportive social and health services. There is a need for more funding and more mental/behavioral health providers for the homeless population. Without these resources, many people are trapped in chronic street homelessness.

The other service gap is a lack of supportive permanent and transitional housing. Several smaller organizations provide supportive housing services, but these organizations are at capacity and unable to meet the need that exists in the community. Without these

supportive services, many homeless individuals and families face challenges transitioning out of a shelter and into stable housing. Again, this service gap can create a cycle of homelessness that is difficult to escape.

Several public and private agencies formed the Reno Area Alliance for the Homeless, a coalition that has collaborated on several issues including funding, prevention and strategic planning. Improving the homeless situation in Washoe County will require greater cooperation between housing and mental health services, adoption of the "Housing First" model that is changing what homeless services look like, and better data collection. Currently a pilot project utilizing the Clarity Card system is in effect, which allows for better tracking and coordination of resources for clients among different agencies.

#### Healthcare

Washoe County is home to the majority of healthcare providers serving Northern Nevada and northeastern California. Provider Renown Health is a not-for-profit healthcare network with three acute-care hospitals, as well as a large network of medical groups and urgent care centers throughout the Truckee Meadows. There are two other hospitals in the area — Northern Nevada Medical Center, a 108-bed acute-care hospital in Sparks, and Saint Mary's Regional Medical Center, a 308-bed acute-care hospital in downtown Reno.

Community Health Alliance and Northern Nevada HOPES are Federally Qualified Healthcare Centers (FQHC) that provide primary medical care to all patients regardless of health insurance coverage. Both FQHCs have reached maximum capacity due to increases in patient enrollment and are looking to expand their clinics in terms of size and number of providers.

The most pressing challenge Washoe County healthcare providers are currently facing is providing services to the newly insured Washoe County residents as a result of Medicaid expansion. There are simply not enough providers in Washoe County who accept Medicaid or new Medicaid patients. Those providers who do accept Medicaid are being inundated with new patients.

There is also a challenge for the uninsured and Medicaid patients accessing specialty medical care. Along with the hospitals and FQHCs, other organizations are working to increase access to appropriate care for all residents in



Washoe County. Access to Healthcare offers a medical discount program providing access to individuals and families who do not qualify for Medicaid and are still without insurance.

REMSA has an innovative and successful Community Health Program in place. It's aimed at improving access to appropriate care and decreasing overall healthcare costs by training community paramedics, transporting patients to alternative care sites instead of the ER and encouraging people to utilize a nurse hotline to determine appropriate entry in to the medical system.

In addition, lack of mental health services in the county creates a challenge for healthcare providers. It is very difficult to meet the health needs of individuals living with chronic mental illness or substance abuse if those individuals are not receiving other support. This population often over utilizes the ER for non-acute conditions, which puts a strain on the healthcare system — the most costly and least-effective way to provide primary care is through the ER. To address this healthcare service gap, more resources and collaboration need to be allocated to preventive mental health services and interventions.

## Food Security

In Washoe County, more than 1 in 7 people are foodinsecure, meaning they do not have access to enough food to lead an active, healthy life. Food insecurity is even more pressing for children in Washoe County where more than 1 out of 4 children are food-insecure. Fortunately, the county is served by one of the premier food banks in the country: the Food Bank of Northern Nevada. The Food Bank, which was honored as the 2013 Food Bank of the Year by Feeding America, and its extensive network of partner agencies distribute more than 1 million meals every month to thousands of foodinsecure residents in northern Nevada. More than half of those partner agencies are located in Washoe County and include churches, social services agencies, and school-based programs. These agencies distribute meals through emergency pantries, after school and summer meal programs, and mobile pantries for distribution of healthy foods and produce.

The Food Bank and its partner agencies provide a tremendous amount of support to families experiencing hunger and food insecurity, but the numbers of individuals and families in need continue to increase.

Over the past six years, the amount of food distributed by the food bank has quadrupled. Along with the increase in the amount of food, there has been an increase in the number of families consistently in need of food assistance. Pantries are no longer an emergency measure for many individuals and families — they have become a regular source of food for those who are struggling. More than half of families who receive support from food pantries have to regularly make decisions between buying food and paying for housing, healthcare, utilities and transportation. This new normal clearly points to the connection between food insecurity and poverty. The community needs more well-paying, full-time jobs; affordable housing; and opportunity for educational attainment to effectively address food insecurity.

There are some current community efforts and collaborations aimed at addressing the bigger picture of poverty and food-insecurity in the county. Bridges to a Thriving Nevada is a community initiative that partners with other community organizations, individuals, businesses and educational institutions. They use the Bridges out of Poverty constructs in order to: 1) better train service providers, employers and educators on how to work with and support people living in poverty, and 2) train and support people living in poverty as they move toward greater economic stability and mobility. The goal of the initiative is to change individual thinking, improve institutional effectiveness, and make systemic and policy changes that help reduce barriers to family and individual economic stability.

The Food Bank and its partners are also engaged in advocacy and community outreach in order to strengthen the current food system in Nevada. In the past, Nevada has seen low participation in supplemental federal nutrition programs such as SNAP, WIC and School Meals. These programs working effectively with each other and in collaboration with local food pantries would go a long way toward improving food insecurity and reducing hunger in the county. In order to increase participation in SNAP, the Food Bank conducts outreach and has helped more than 35,000 households secure nutrition program benefits over the past 6 years. This equates to 4.2 million meals available to families every year. Advocacy efforts are aimed at more effective public policies that increase access to and utilization of supplemental nutrition programs. The state of Nevada has also identified food security as a top priority. Last



year, the Office of Food Security was created within the Department of Health and Human Services to implement a food security strategic plan developed in 2012. More recently, Governor Sandoval issued an Executive Order to establish the Governor's Council on Food Security to help implement the goals of the strategic plan.

## Substance Abuse

In Washoe County, there are currently three pressing substance abuse issues: 1) prescription drug and heroin abuse, 2) the increase of marijuana as an accepted drug that is "harmless," 3) mental health issues that intersect with alcohol and other drug abuse. The existing private substance abuse treatment facilities can be effective, but the public programs are underfunded for the current community demand. As a result there are several service gaps, the largest of which is insufficient outpatient capacity and beds for the demand. Other existing needs include the lack of sober living options for those in early sobriety; a lack of information sharing and meaningful integration between primary care, mental health services, and substance abuse prevention/treatment providers; and a general lack of mental health wellness and illness prevention.

Several organizations are working and collaborating to address these concerns, including Join Together Northern Nevada (JTNN). This nonprofit substance abuse coalition works with agencies and community members to address substance abuse-related issues in Washoe County. JTNN recently identified a gap in service for those who want to explore other tools for managing chronic pain and implemented a chronic pain support group. Those who struggle with opiate abuse are in great need of services — currently there is no specific prescription drug abuse treatment program to help clients detax from the meds. Over the past 14 years, JTNN has donated millions of dollars to support prevention and intervention programming throughout the county. JTNN currently supports programs offered through ACCEPT, Big Brothers Big Sisters, Boys and Girls Club of Truckee Meadows, Children's Cabinet, Quest Counseling and Consulting, University of Nevada Reno, and Washoe County School District Family Resource Center.

Several other successful partnerships are working to address substance abuse in the county. The Reno Police Department, Sparks Police Department, Washoe County Sherriff's Office, DEA, Waste Management and several pharmacies have partners in prescription drug round-up programs — take-back days and drop-off boxes — that have collected almost 1.5 million prescription pills in Washoe County to date. JTNN has collaborated with RPD and the University of Nevada's School of Medicine to develop CME presentations to educate prescribers about opiates and other potential substitutes when managing pain. Finally, Washoe County Social Services and Catholic Charities of Northern Nevada have been proactive in managing serial inebriants through the Crossroads program. The program provides housing and substance abuse/mental health services for those who would otherwise revolve through the County jail and court system.

## Community Input Summary

The focus group participants and community meeting participants agreed on four major areas of need. These topics were not often mentioned by agency leader, panel discussion participants.

- 1) The need and want for all-age events and activities.
- 2) The need and want for safe places for teens to gather and engage in healthy activities.
- The need and want for safer neighborhoods, including reducing crime and increasing traffic safety for pedestrians.
- 4) The need and want for more community cohesiveness, getting to know your neighbors, creating neighborhood pride, and better quality human interaction.

There were areas all participant groups mentioned frequently. These include the following:

- The need for a built environment that encourages healthy, active lifestyles — bike paths, running trails, better parks, and more recreational opportunities for all ages and seasons.
- A stronger public school system and a more educated general public, including increased adult learning opportunities and knowledge of healthy behaviors.
- 3) Access to affordable healthcare for all people, not just those who are low to moderate income.
- 4) There is a lack of money and resources in the community highlighted by the growing number of working poor who are reliant on agencies and federal resources to afford basic needs such as housing, clothing and food. There is also a growing class of families who are making just enough to be excluded from outside support, yet



- do not make enough to achieve financial stability, often living month to month.
- 5) There is a shortage of mental health services including counselors in schools, culturally competent providers and providers for those suffering from serious mental illnesses. Children have few outlets to safely talk about issues going on at home, and parents are too often left experiencing high levels of stress due to financial strain.

The mental health issues are exacerbated by the problem substance use and abuse. All participant groups voiced concerns that the casino and gaming lifestyle is unhealthy for the community. The 24/7 nightlife and constant availability of alcohol was cited as problematic for improving perceived community health.



# Food/Hunger Assistance

The organizations listed below provide food assistance services to the community. All of these organizations provide either direct access to food and/or information about how to get assistance to better afford food. Most of these are either a food pantry or food bank, some of which are mobile sites open on specific days of the week. For hours and eligibility for several locations listed please refer to the Food Bank of Northern Nevada's list of Washoe County food pantries HERE

<u>Assistance League</u>	775-329-1584	Kid to Seniors Korner	775-858-5250
Bethel AME Church Food Pantry	775-355-9030	Libby Booth ES	775-333-5140
Calvary Chapel Northwest Reno/Sunrise	775-746-4567	Living Waters Christian	775-287-9457
<u>Church</u> Capitol Hill Veteran's	7,67.16.166	<u>Fellowship</u>	, , , , 20, ,
Outreach	775-324-6600	Northern Nevada HOPES	775-786-4673
Catholic Charities of Northern Nevada	775- 329-5363	Nancy Gomes ES	775-677-5440
Children's Cabinet Sinclair St.	775-352-8090	Neil Road Rec Center	775-689-8484
Children's Cabinet South Rock Blvd.	775- 856-6200	Nevada Urban Indians	775-788-7600
Church of Jesus Christ Spirit Filled	775-358-2842	New Believers Christian Fellowship	775-379-3850
Community Food Pantry	775-391-0482	New Life Assembly of God Church	775-972-1088
Cottonwood Village Apartments	775-825-4999	O'Brien MS	775-677-5420
Desert Springs Baptist Church	775-746-0692	Our Savior Lutheran Church	775-358-0743
Destiny Christian Center	775-376-8304	Project Solution Center	775-229-9538
<u>Division of Welfare &amp; Supportive Services</u> (DWSS)	775-684-7200	Rehoboth Holy Temple	775-823-9711
<u>Donald W. Reynolds</u> <u>Facility</u>	775-331-3605	Reno-Sparks Gospel Mission, Inc.	775- 323-0386
E.L. Wiegand Youth Center	775-322-9030	Reno-Sparks SDA Spanish Church	775-327-4545
Echo Loder Elementary	775-689-2540	Salvation Army	775-688-4555
El Cordero de Dios	775-338-4345	Sister Carmen's Ministry to the Needy and the Poor	775-329-0904
Faith Alive Christian Center	775-225-1309	Sparks Christian Fellowship	775-331-2303
Faith Lutheran Church	775-747-3246	Sparks Senior Center	775-353-3110
First Samoan Full Gospel Church	775-359-1956	Sparks Seventh Day Adventist Church	775 331-4332
<u>First United Methodist</u> <u>Church</u>	775-322-4565	St. Paul's Episcopal Church	775-358-4474
<u>Food Bank of Northern</u> <u>Nevada</u>	775-331-3663	St. Peters Canisius	775-673-6800
Gate of Life Christian Center	775-674-3777	The Bridge Church	775-323-7141
Golden Apartments	775-826-6563	<u>The Friar's Pantry</u>	775-329-2571
Grace Tabernacle Church of God in Christ	775-331-1404	Traner Middle School	775-333-5130
Greater New Hope Baptist Church	775-329-6260	<u>University Family Fellowship</u>	775-359-2222
Hands of Hope Food Bank / Operation Feedback	775-284-8878	Valley View Christian Fellowship	775-772-7873
Hope Church of the Nazarene	775-673-2700	Voice in the Wilderness	775-329-2511
Hug High School	775-333-5300	Washoe County Senior Citizen's Center	775-328-2590
Inter-Tribal Council of Nevada (ITCN)	775-355-0600	Washoe Valley Christian Church	775-849-3932
Joseph's Inn	775-322-2290	William N. Pennington Facility	775-331-5437



#### Medical services

The medical services organizations listed below provide various low cost or free medical services and medical supplies for individuals and families who meet income eligibility. These organizations offer access to health services for people who would not otherwise be able to access these services due to limited resources or lack of health insurance.

Agency	Phone Number	Medical Services	Dental Services	Medical Supplies
CARE Chest of Sierra Nevada	775-829-2273			X
CHA Mobile Dental Health Program	775-870-4300		X	
Circle of Life Community Hospice	775-827-2298	Χ		
Community Health Alliance	775-870-4333	X	X	
Nevada Diabetes Association	775- 856-3839			X
Nevada Urban Indians, Inc.	775-788-7600	X		
Northern Nevada HOPES	775- 786-4673	X		
Reno-Sparks Indian Tribal Health Center	775-329-5162	X	X	
St. Mary's Low Cost Clinic	775-770-7664	Χ		
The Healthcare Center	775- 982-5000	X		
TMCC Dental Clinic	775-673-8247		Χ	

#### <u>Special Populations Services</u>

These organizations serve special populations and provide services that are specific to the needs of each population that they serve. Special populations include immigrants, people who speak English as a second language, Veterans, and Native Americans.

Agency	Phone Number	Immigration Assistance	Language Learning	Population Served
Catholic Charities of Northern Nevada	775- 322-7073 ext 240	X		All
English as a Second Language Services	775-673-7139	775-673-7139 X		All
Bureau of Citizenship and Immigration Services	1-800-375-5283	X		All
Language Services Connection	775- 323-7883		X	All
Northern Nevada Literacy Council	775-356-1007		X	All
Women & Children's Center of the Sierra	775-825-7395		X	Women & Children
Inter-Tribal Council of Nevada (ITCN)	775-355-0600			Native American Services
Healthcare for Homeless Veterans Services	775-786-7200 ext 1803			Veterans
US Veterans Services Outreach Center	775-323-1294			Veterans
Hands of Hope Food Bank / Operation Feedback	775-284-8878	84-8878 V		Veterans
<u>Veterans Services Upward Bound</u>	775-829-9007			Veterans Educational Services



## <u>Substance Abuse and Abuse Recovery</u>

These organizations offer a variety of substance abuse services. These services include counseling, clinical treatment, rehabilitation, and support for substance users.

Agency	Phone Number	Accept Children & Teens	Community Support Group	Counseling or Therapy	Clinical Treatment	Inpatient or Transitional Housing
Alcoholics Anonymous Information Center	775-355-1151		X			
Alliance Family Services	775-337-2394	Χ		Χ	X	
American Comprehensive Counseling Services	775-356-0371					
Behavioral Health at Renown	775-982-5318	Χ		Χ	Χ	
Bristlecone Family Resources	775-954-1400				Χ	
Center for Behavioral Health Nevada	775-829-4472			Χ	Χ	
Family Counseling Service	775-329-0623			Χ		
Footprints Counseling Service	775-322-3668			Χ	Χ	Housing
<u>Human Behavior Institute</u>	775- 324-1600				Χ	
<u>Join Together Northern</u> <u>Nevada</u>	775- 324-7557	Χ	X	Χ		
Life Change Center	775-355-7734				Χ	Inpatient
Nevada Urban Indians, Inc.	775-788-7600	Χ		Χ		
Northern Nevada HOPES	775- 786-4673			Χ		
<u>Project ReStart, Inc.</u>	775-324-2622	Χ		Χ	Χ	
Quest Counseling	775-786-6880	Males ages 13- 17 ONLY		Χ		Housing
Reno Community Triage Center	775-348-8811				Χ	Inpatient
Reno Sparks Indian Colony Social Services	775-329-5071			Χ		
Reno Triangle Club	775-324-7977		Χ			
Reno-Sparks Gospel Mission, Inc.	775- 323-0386		Χ	Χ		Inpatient & Housing
<u>Ridge House</u>	775-322-8941		Χ	Χ		Housing
Safe Harbors of Nevada	775-337-6777		Χ	Χ		Housing
Salvation Army	775-688-4555		X	Χ		
Step 1	775-329-9830			X		Housing
<u>STEP 2</u> -	775- 787-9411	Χ		X		Housing
West Hills Hospital	775-323-0478	Χ		Χ	Χ	Inpatient
Willow Springs	775-858-3303	Χ		X	Χ	Inpatient



#### Mental Health Services

These mental health organizations provide mental health services as well as information about mental health. Many of these organizations are non-profit and provide low-cost mental health services. Some of these agencies offer both counseling and medical evaluation as well as treatment for serious mental illness.

Agency	Phone Number	Accept Children & Teens	Counseling or Therapy	Clinical Treatment	Inpatient or Transitional Housing
A Safe Embrace	775- 322-3466	Х	Х		Housing
American Comprehensive Counseling Services	775-356-0371		X		
Behavioral Health at Renown	775-982-5318	Χ	Χ	Χ	
Bristlecone Family Resources		Χ	Χ	X	Inpatient & Housing
Center for Hope of the Sierras	866-690-7242		Χ	X	Inpatient
CEP (Counseling and Educational Psychology) Downing Counseling Clinic	775-682-5515		X		
Child Adolescent and Family Counseling Center	775-826-1002	X	X	X	
Committee to Aid Abused Women [CAAW]	775-329-4150	Χ	Χ		Housing
Mojave Adult, Child and Family Services	775- 334-3033	Χ	Χ	Χ	
Northern Nevada Adult Mental Health Services (NNAMHS)	775-688-2001		Χ	X	Inpatient
<u>Project ReStart, Inc.</u>	775-324-2622	Χ	Χ	Χ	
Quest Counseling	775-786-6880	Males ages 13-17 ONLY	Χ		Housing
Reno Community Triage Center	775-348-8811			Χ	Inpatient
Ridge House	775-322-8941		X		Housing
<u>Suicide Prevention Hotline</u>	775-784-8090		X		
West Hills Hospital	800-242-0478	X	Х	Χ	Inpatient
Vestige Project Community Based Mental Health Services	775-825-3043		X	X	



#### **Behavioral Health Services**

These organizations offer a variety of behavior based health services. These services include support for domestic violence, sexual health, and youth.

Agency	Phone Number	Accept Children & Teens	Domestic Violence	Sexual Health	Housing
ACCEPT	775- 786-5886	Χ		Χ	
<u>Casa de Vida</u>	775-329-1070				Χ
Children's Cabinet	775- 856-6200	Χ	Χ	Χ	
Crisis Pregnancy Center	775-826-5144			Χ	
Family Counseling Service	775-329-0623			Χ	
Inter-Tribal Council of Nevada (ITCN)	775-355-0600		Χ	Χ	
McGee Center	775- 856-4600	Χ		Χ	
Northern Nevada Adult Mental Health Services (NNAMHS)	775-688-2001				
Northern Nevada Outreach Team		Χ		Χ	
<u>Planned Parenthood 5th Street Clinic</u>	775- 688-5555	Χ		Χ	
Pregnancy Connection (WCHD)	775-328-2470	Χ		Χ	
Renown Pregnancy Center	775-982-5640	Χ		Χ	
STEP 2	775- 787-9411	Χ	Χ		Χ
Teen Health Mall (WCHD)	775-328-2470	Χ		Χ	
<u>Victims of Crime Treatment Center</u>	775-682-8680	Χ	Χ		
<u>Victims of Violent Crime</u>	775-688-2900	Χ	Χ		

## **Special Interest Services**

The organizations listed below provide specialty services that cater to people with specific diseases and ailments, for further detail click on the weblink.

Agency	Phone Number
ALS of Nevada	(702) 777-0500
Alzheimer's Association - Northern California and Northern Nevada Chapter	775- 786-8061
American Cancer Society	775- 329-0609
American Heart Association	775- 322-7065
American Lung Association	775- 829-5864
March of Dimes	775- 826-2166
Nevada Diabetes Association	775- 856-3839
Northern Nevada Muscular Dystrophy Association	775-333-6789



#### **Education Services**

The organizations listed below provide public education based services. These services provide assistance in the form of education and include job training, health education, credit recovery, GED, life skills training, and pre-school programs.

Agency	Phone Number	Community Health Education	GED/Credit Recovery	GED/Job Training	Head Start Program	Life Skills/Job Training	Population Served
ACCEPT	775- 786-5886	X			riogiani	Halling	All
Agnes Risley Elementary School (CSA)	775- 786-6023				Х		Youth
American Red Cross	775- 856-1000	Χ					All
Bernice Mathews Elementary (CSA)	775- 786-6023				Χ		Youth
Catholic Charities of Northern Nevada - Holy Child Early Learning Center	775- 329-2979				Χ		Youth
<u>Child Assault</u> <u>Prevention (CAP)</u> <u>Project</u>	775-348-0600	Χ					
<u>Children's Cabinet</u>	775- 856-6200		Χ				Youth
Community Services Agency (CSA)	775- 786-6023				Χ		Youth
Cyesis Program	775-333-5150		Χ				Pregnant Youth
<u>Desert Heights</u> <u>Elementary School</u> (CSA)	775-786-6023				X		Youth
Early Head Start (UNR)	775-327-5100				Χ		Youth
Echo Loder Elementary (CSA)	775- 786-6023				Χ		Youth
<u>Healthcare for</u> <u>Homeless Veterans</u>	775-786-7200 ext 1803					Χ	Veterans
Hungry Valley Head Start	775- 329-2936				Χ		Youth
Inter-Tribal Council of Nevada (ITCN)	775-355-0600				Χ		Native Americans
Job Connect	775-336-5437			X			Adults
McGee Center	775- 856-4600		Χ				Young Adults
Men's Drop in Center	775-329-4141					Χ	Males
Nevada Center for Excellence in Disabilities	775-784-4921	Χ					People with disabilities
Nevada Diabetes Association	775- 856-3839	Χ					Children with diabetes
Nevada Urban Indians, Inc.	775-788-7600	X					Native Americans
Northern Nevada Literacy Council	775-356-1007			X		Χ	All



Northern Nevada Teen Challenge International	775-424-6777	Х				Males 12-17 years ONLY
Reno Rodeo Foundation	775-636-3373		Х			All
Reno-Sparks Indian Colony	775- 329-2936			Χ		Native Americans
Ridge House	775-322-8941		Χ			Former Offenders
Sierra Nevada Job Corp	775-789-1000	X				Young adults ages 16-24 years
Smithridge Elementary School (CSA)	775- 786-6023			Χ		Youth
Sun Valley Recreation Center (CSA)	775- 786-6023			Χ		Youth
The Early Learning Program at the E. L. Wiegand Youth Center	775- 322-9030			Х		Children ages 6 weeks- Kindergarten
Washoe High School	775-333-5020		X			Youth
Women & Children's Center of the Sierra	775-825-7395	Х	Х		Χ	Women & Children
Wooster High School	775- 786-6023			Χ		Youth



#### Children & Teen Services

These organizations offer services for including a variety of medical treatment and supplies, mental health evaluation and treatment, behavioral health services, disability services, counseling, abuse prevention, educational services, and day care. Reno Youth Network is an easy to use, recently launched website which allows youth 12 to 24 to search for various local resources.

Agency	Phone Number	Educational/ Recreational	Medical / Dental	Mental or Behavioral Health	Specialty: Disability	Specialty: Other
Advanced Pediatric Therapies, LLC	775-825-4744				X	
Big Brothers Big Sisters of Northern Nevada	775-352-3202	Χ				Youth Mentoring
Boys & Girls Club - Donner Springs ES Site	775- 200-8899	X				
Boys & Girls Club - Bernice  Matthews ES Site	775-331-5437	Χ				
Boys & Girls Club - Donald W. Reynolds Facility	775-331-3605	Χ				
Boys & Girls Club - Hidden Valley ES Site	775-815-2703	Χ				
Boys & Girls Club - Hug High	775- 324-0234	Χ				
Boys & Girls Club - Joe Mitchell Community Center	775- 622-0040	Χ				
Boys & Girls Club - Larry D. Johnson Community Center	775- 360-2426	Χ				
Boys & Girls Club - Lois Allen ES Site	775- 673-4188	Χ				
Boys & Girls Club - Neil Road Youth Site	775- 828-3940	Χ				
Boys & Girls Club - Rollan Melton ES Site	775- 787-5626	Χ				
Boys & Girls Club - Sun Valley ES Site	775-673-3307	Χ				
Boys & Girls Club - Sun Valley Teen Center	775- 673-3307	Χ				
Boys & Girls Club - Verdi ES Site	775- 762-5972	Χ				
Boys & Girls Club - William N. Pennington Facility	775-331-3605	Χ				
Boys & Girls Club at Project Solution Community Complex	775- 229-9538	Χ				
BrightStar Care of Reno	775-236-5670					Flexible sick-day childcare
Catholic Charities of Northern Nevada	775-858-5251					Social services, Health assessments
Child Assault Prevention (CAP) Project	775-348-0600					Child Abuse
Children In Transition (WCSD)	775-353-6938					Homeless youth
Children's Cabinet	775-352-8090			X		Mentoring/case management
Division of Welfare & Supportive Services (DWSS)	775-684-7200		X	X	X	Referrals, financial assistance
Family Counseling	775-329-0623			Χ		



Service/Northern Nevada Inc.						
Family Ties of Nevada	775-823-9500				Χ	
For Kids Foundation	775-741-5231					Financial assistance
<u>Kids First Family Services</u>	775-348-9047			Χ		
Nevada Parents Encouraging Parents (PEP)	775-448-9950				Χ	
Nevada Diabetes Association	775- 856-3839	Χ	Χ		Χ	Diabetes education/cam ps
Nevada Early Intervention Services	775-688-1341			X		
Nevada Youth Empowerment Project	775-747-2073					Homeless teens
No Child Left Behind, Behavioral Healthcare Services	775-331-6252			Χ		
Northern Nevada Child & Adolescent Services	775- 688-1600			X		
Northern Nevada Dental Health Program	775-870-4305		Χ			
Northern Nevada Teen Challenge International	775-424-6777			Χ		Males 12-17 years only
RAVE: Respite & Volunteer Experiences of Northern Nevada	775-787-3520				X	
Reno Enrichment Center	775-657-4644	Χ				
Safe Talk for Teens	775-823-2700					Counseling, unmet needs, referrals
SAFF: Sierra Association of Foster Families	775-338-7596	Χ				
Salvation Army	775-688-4555					Youth Summer Programs
<u>Small Smiles Dental Clinic</u>	775-329-5437		Χ			
Solace Tree				X		Grief/ loss counseling
The Continuum	775-829-4700		Χ		Χ	
<u>Victims of Crime Treatment</u> <u>Center</u>	775-682-8680			X		
Willow Springs				Χ		
Women, Infants & Children (WIC)	775-828-6600			Χ		



## Seniors Services

The organizations listed below offer a variety of services for seniors including behavioral and mental health services, medical services, and specialized assistance.

Agency	Phone Number	Behavioral/Mental Health	Medical	Specialized Assistance
Alliance Family Services	775-337-2394	X		
BrightStar Care of Reno	775-236-5670		Χ	
CARE Chest of Sierra Nevada	775-829-2273		X	
Catholic Charities of Northern Nevada	775-858-5251	Χ		X
Circle of Life Community Hospice	775-827-2298		Χ	
Comfort Keepers	775-770-2000		Χ	
<u>Division of Aging Services</u> <u>Elder Protective Services</u>	775-688-2964	Χ	X	X
Foster Grandparent Program	775-686-5872			X
Inter-Tribal Council of Nevada (ITCN)	775-355-0600			X
Sanford Center for Aging	775-784-7506		Χ	Χ
<u>Senior Bridges</u>	775-356-1279	Χ	Χ	
Senior Citizens Center	775-328-2590			X
Senior Community Service	775-323-2243			Χ
Senior Companion Program	775-358-2322			X
Senior Law Center	775-328-2592			Χ
The Continuum	775-829-4700		Χ	
<u>Vida Senior Resource</u>	775.828.6420		Χ	



## **Disability Services**

These organizations provide services for individuals with either cognitive or physical disabilities and their families. These organizations provide services for children or adults with disabilities, including medical assistance, specialty assistance, and transportation.

Agency	Phone Number	Children/Family	Medical	Specialty Assistance	Transportation
Advanced Pediatric Therapies, LLC	775-825-4744	X			
<u>CitiCare</u>	775-332-2164				X
Client Assistance Program (CAP)	775-333-7878		Χ		
Community Care Associates	775- 786-8288	X			
<u>Disability Resources, Inc.</u>	775- 329-1126				X
Family Ties of Nevada	775-823-9500	X			
More to Life Adult Day Health Center	775-358-1988			X	
Nevada Parents Encouraging Parents (PEP)	775-448-9950	Χ			
Nevada Bureau of Vocational Rehab	775-823-8100			Х	
Nevada Center for Excellence in Disabilities	775-784-4921	Χ			
Nevada Disability Advocates	775-333-7878			X	
Nevada Early Intervention Services	775-688-1341	X	X		
Northern Nevada Center of Independent Living	775-353-3599		X		
RAVE: Respite & Volunteer  Experiences of Northern Nevada	775-787-3520	X			
Regional Transportation Commission (RTC ACCESS)	775-348-0477				X
The Continuum	775-829-4700	X			
Washoe County Social Services	775-785-4006	X	Χ	Χ	



## **Housing Services**

The organizations listed below provide direct housing, transitional housing, or housing assistance for low income and/or homeless people.

Agency	Phone Number	Affordable Housing or Housing Support	Transitional Housing	Population Served
A Safe Embrace	775- 322-3466		X	Victims of Domestic Violence & their Children
<u>Casa de Vida</u>	775-329-1070		Χ	Pregnant Women
Children in Transition (WCSD)	775-353-6938	Χ		Children/Teens
Committee to Aid Abused Women (CAAW)	775-329-4150	Χ		All
Community Assistance Center	775-657-4675	Χ		All
Community Services Agency	775- 786-6023	Χ	Χ	All
Crossroads (CCNN & WCSS)	775- 771-9155	Χ	Χ	Adults, recovering from substance use
Footprints Counseling Service	775-322-3668	Χ	Χ	All
Healthcare for Homeless Veterans	775-786-7200 ext 1803	X	Χ	Veterans
Inter-Tribal Council of Nevada (ITCN)	775-355-0600	Χ		Native Americans
Nevada Youth Empowerment Project	775-747-2073	Χ	Χ	Older Teens
Northern Nevada HOPES	775- 786-4673	Χ		All
Northern Nevada Community Housing Resource Board	775-337-9155	X		All
Project ReStart, Inc.	775-324-2622	Χ		All
Quest House	775-786-6880		X	Males 13-17 years only
Reno Housing Authority	775- 329-3630	Χ		All
Reno-Sparks Gospel Mission, Inc.	775- 323-0386	X	Χ	All
Reno-Sparks Indian Colony Housing Department	775-785-1300	Χ		Native Americans
<u>Ridge House</u>	775-322-8941	Χ	Χ	Former Offenders
Safe Harbors of Nevada	775-337-6777	Χ	Χ	Former Offenders
Salvation Army	775-688-4555		Χ	Veterans
Sierra Regional Center	775-688-1930	Χ		All
St. Vincent's Resource Network (CCNN)	775- 322-7073 ext. 221	X		All
Step 1	775-329-9830		X	Adult Men Only
The Eddy House	775-737-9479		X	Young Adult Men, aged out of foster care
The Park House (CCNN & WCSS)	775- 771-9155		X	Adults, recovering from substance use
Veterans Center	775-323-1294	Χ		Veterans
Volunteers of America	75-322-9574	Χ	Χ	All
Washoe Legal Services	775-329-2727	Χ		All



## <u>Professional Services</u>

These organizations provide professional services to assist people in searching for and acquiring jobs. Some of these organizations also provide financial or legal aid.

Agency	Phone Number	Employment	Financial	Legal
A Spear Workforce	775-742-0449	Х		
Casual Labor Office	775-687-6899	Χ		
Client Assistance Program (CAP)	775-333-7878			Χ
Community Services Agency	775- 786- 6023		Χ	
Family Consumer Credit Counseling	775-329-0623		Χ	
Inter-Tribal Council of Nevada (ITCN)	775-355-0600			X
Job Connect	775-336-5437	Χ		
Job Opportunities in Nevada (JOIN)	775-336-4450	Χ		
<u>Labor Finders</u>	775-331-1677	Χ		
<u>Labor Ready</u>	775-827-1316	Χ		
Manpower	775-322-2000	Χ		
Nevada Bureau of Vocational Rehab	775-823-8100	Χ		
Nevada Center for Excellence in Disabilities	775-784-4921			Χ
Nevada Disability Advocates	775-333-7878			X
Nevada Job Connect	775-284-9600	Χ		
Nevada Legal Services	775-284-3491			X
Reno Cancer Foundation	775-329-1970		Χ	
Reno Rodeo Foundation	775-636-3373		Χ	
Senior Community Service	775-323-2243	Χ		
Senior Law Center	775-328-2592			Χ
The Eddy House	775-737-9479	Χ		
TMCC Workforce Development	775-829-9010	Χ		
Victims of Violent Crime	775-688-2900		Χ	
Washoe Legal Services	775-329-2727			Χ



## **Community Initiatives**

This list of resources include local movements aiming to improve on an area, neighborhood, or organizations which provide education on an issue related to health in the Reno-Sparks communities.

Agency	Issue	Website	Phone Number
360 Blueprint	School Adoption Community Initiative	http://www.360blueprint.org/	775-324-2583
ACTIONN	Faith-Based Community Organizing	http://www.actionn.org/	775-453-6137
Awaken	Sex Trafficking	http://www.awakenreno.org	775-393-9183
Bridges to a Thriving Nevada Initiative	Bridges Out of Poverty - Community Initiative	http://bridgestoathrivingnevada.org	775-225-1392
Child Assault Prevention (CAP) Project	abuse (CHILDREN) prevention	http://www.childassaultprevention.org	775-348-0600
Creative Coalition of Midtown	Local Business/Art/ Community Building	http://creativecoalitionreno.com	
Great Basin Community Food Co-Op	Local Food System Initiative	http://www.greatbasinfood.coop	775-324-6133
Human Services Network	Human Services Collaboration and Advocacy	http://humanservicesnetwork.org/index.php	775-847-9311, x102
Immunize Nevada	Immunization	http://www.immunizenevada.org/	775-624-7117
Join Together Northern Nevada	Substance abuse prevention and intervention	http://www.jtnn.org	775-324-7557
Northern Nevada Outreach Team	sexual health, harm reduction	http://www.nnot.org/about/	
Progressive Leadership Alliance of Nevada (PLAN)	Broad-Based Community Organizing	http://www.planevada.org/	775.348.7557
REMSA Community Health Program	Nurse Hotline, Transport Alternatives, Community Paramedic	http://www.nursehealthline.com/partner/	775-858-5700
Reno Area Alliance for the Homeless	Homelessness prevention and reduction	http://raahnevada.org/	
Reno Bike Project	Alternate Transportation / Bike Safety	http://www.renobikeproject.com/	775-323-4488
RENOvate	Multi-sector community improvement initiative	http://renorenovate.com/	
The Reno Initiative for Shelter & Equality	Community Building / Homeless Outreach	http://www.renoinitiative.org/	775-525-0048
The Renossance Project	Downtown development initiative	http://www.3rock.biz/project- renossance.html	
West of Wells	Neighborhood Group / Improvement Initiative	http://www.westofwells.com/	775-544-6744



#### <u>Information and Referral Services</u>

The organizations listed below provide information and referral services for a variety of community services. These organizations connect people with services and resources they need or qualify to receive including income assistance, human services, medical services, social services, mental health, and substance abuse services.

Agency	Phone Number	Human Service Referrals	Medical Service Referrals	Mental Health Referrals	Social Service Referrals	Substance Abuse Referrals
Access to Healthcare Network	775-284-8989		Х			
Alcoholics Anonymous Information Center	775- 355-1151					X
American Red Cross	775- 856-1000	X	X			
Central Reno Family Resource Center	775-321-3185	X			X	
Crisis Call Center	775-784-8090			X		X
<u>Division of Welfare &amp; Supportive</u> <u>Services (DWSS)</u>	775-684-7200	X				X
Family Ties of Nevada	775-823-9500	X			X	
Nevada 2-1-1	211	X	X	X	X	X
Nevada Check Up	775-684-7200		X			
North Valleys Family Resource Center	775-677-5437	X				
Northeast Reno Family Resource Center	775-337-9979	X				
Northern Nevada Evaluation Center	775-329-5006					X
Reno Sparks Indian Colony Human Services	775-329-5071	X				
Salvation Army	775-688-4555	X	X	X	X	X
Sparks Family Resource Center	775-353-5733	Χ				
St Vincent's Resource Center	322-7073 ext. 221	X	X	X	X	X
Sun Valley Family Resource Center	775-674-4411	X				
Washoe County Human Services	775-785-4006	Χ			Χ	
Women's Health Connection	775-684-5931		Χ			



#### **Gathering Places**

The locations listed below are all places the public has access to for events, socializing, and gathering. Some of these locations are public parks and others are public community centers. For detailed park and trail descriptions and amenities follow the links to <u>City of Reno Parks and Trails</u> or <u>City of Sparks Parks and Facilities</u>

Name	Location	Name	Location
Aimone Park	55 Queen Way	Church Park	1850 1st St.
Alf Sorensen Community Center	1400 Baring Blvd.	City Recreation Center	98 Richards Way
Ambrose Park	River Lane at Rainshadow Lane	Cold Springs Park	3355 White Lake Parkway
Anderson Park	Del Monte Lane near Davis Lane	Comstock Park	1650 Carat Dr
Antelope Ridge Park	1900 Primio Way	Cottonwood Park	777 Spice Islands Way
Ardmore Park	1200 12th St.	Coyote Springs Park	1375 Vista Del Rancho Pkwy.
ArrowCreek Park	2950 Arrowcreek Parkway	Crissie Caughlin Park	3415 Idlewild Dr
Bailey Creek Park	14770 Granite Mine Court	Crystal Lake Park	1190 Country Estates Cir
Bandstand Park	1519 Victorian Ave.	Crystal Peak Park	Old Highway 40
Barbara Bennett Park	400 Island Ave	Damonte Ranch Park	1950 Steamboat Parkway
Bartley Ranch Regional Park	6000 Bartley Ranch Road	Davis Creek Slide Mountain District Regional Park	25 Davis Creek Road
Betsy Caughlin Donnelly Park	3295 Mayberry Drive	Deer Park	1700 Prater Way
Bicentennial Park	10 Ralston St	Del Cobre Park	7990 Via Del Cobre Ave.
Bitterbrush Park	3650 Lepus Dr.	Depoali Middle School	9300 Wilbur May Pkwy
Bodega Park	5350 Caldera Dr.	Desert Winds Park	105 Ember Drive
Bowers Mansion	4005 U.S. 395	Dick Taylor Park	1140 Beach St
Bowers Mansion Regional Park	4005 U.S. 395	Donald W. Reynolds Facility	2680 E. Ninth Street
Boys & Girls Club at Project Solution Community Complex	1090 Bresson Ave.	Dorostkar Park	Mayberry Drive and the Truckee River
Brodhead Park	5 South Park St	Dorothy McAlinden	12000 Mt Charleston
Burgess Park	1605 Pyramid Way	Double Diamond Park	9100 Wilbur May Pkwy
Canyon Creek Park	1485 Robb Dr	Eagle Canyon Park	400 Eagle Canyon Drive
Canyon Hills Park	4900 Los Altos Pkwy.	Elizabeth Lenz school Park	2500 Homeland Drive



Center Creek Park	1595 Wilbur May Pkwy	Jacinto Park	7805 Jacinto Ave.
Ellen's Park	12450 Creek Crest Drive	Jack Tighe Ballfields	325 Burris Lane
Evans Park	200 East 9th St	Jamaica Park	1000 Jamaica Ave
Evergreen Park	9555A Evergreen St	Joe Mitchell Community Center	325 Patrician Way
Fisherman's Park	555 Galetti Way	John Champion Park	957 Kuenzli St
Fisherman's Park #1	495 Galetti Way	Kestrel Park	5611 Cathedral Peak Dr.
Fisherman's Park #2	5 Kietzke Lane	Kuenzli River Belt Pathway	Truckee River Path, Sutro to Champion
Forest Park	Forest Park Drive	Lake Park	40 Coleman Dr
Galena Creek Regional Park	18350 Mt. Rose Highway	Larry D. Johnson Community Center	1200 12th St.
Galena Schoolhouse	16000 Callahan Ranch Road	Las Brisas Park	5350 Las Brisas Blvd
Gandolfo Rodeo Arena	2200 Loop Rd.	Lazy 5 Regional Park	7100 Pyramid Lake Highway
Gateway Park	2101 Greg St.	Lemmon Valley Horseman's Arena	11400 Deodar Way
Gator Swamp Park	255 Egyptian Drive	Lemmon Valley Park	325 Patrician Drive
Gepford Park	5350 Leon Drive	Les Hicks Jr. Park	3650 Oakridge Dr.
Gerlach Community Park	360 Short Street	Lillard Park	965 Victorian Ave.
Gerlach Water Tower Park	400 Main St.	Longford Park	250 E. Greenbrae Dr.
Glendale Park	399 Coney Island Dr.	Maldonado Park	2150 Canyon Pkwy.
Golden Eagle Regional Park	6400 Vista Blvd.	Manzanita Park	630 Manzanita Lane
Golden Valley Park	7490 Hillview Drive	Martin Luther King Jr Memorial Park	305 Coretta Way
Governor's Bowl	1498 East 7th St	Mary Gojack Park	3100 Skyline Blvd
Great Basin Adventure Park	1595 N. Sierra St.	May Arboretum and Botanical Garden	1595 N. Sierra St.
Harrah's/DiLoreto Pathway	Truckee River Path, Wells to Sutro	May Museum	1595 N. Sierra St.
Hidden Valley Regional Park	4740 Parkway Drive	Mayberry Park	688 White Fir St.
Highland Ranch Park	1200 Highland Ranch Parkway	Mayor's Park	12000 Mt Charleston
Hilltop Park	3950 Buckingham Pl	McKinley Park & Arts/Culture Center	925 Riverside Dr
Horizon View Park	9675 Wilbur May Pkwy	Melio Gaspari Water Play Park	7100 Pyramid Lake Highway
Horseman's Park	2800 Pioneer Dr	Melody Lane Park	2370 Scottsdale Dr
Huffaker Mountain Trail	1160 East Huffaker Dr	Mira Loma Park	3000 South McCarran Blvd

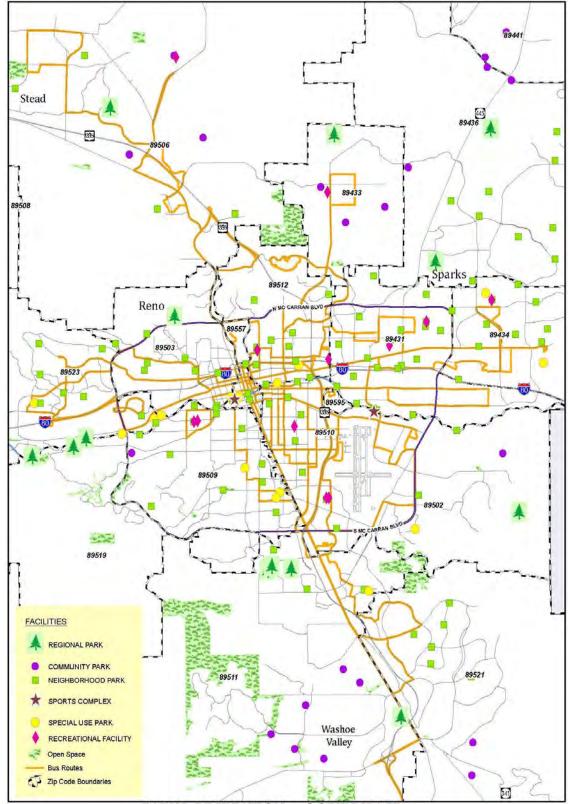


Huffaker Park	1160 East Huffaker Dr	Idlewild Park	2055 Idlewild Dr	
Moana Pool & Park	240 W Moana Lane	Recreation Park	98 Richards Way	
Moana Stadium	240 West Moana Lane	Red Hawk Park	3215 Poco Rey Dr.	
Mogul Park	110 Mogul Mountain Drive	Reggie Road Exercise Area	Reggie Road	
Neil Road Recreation Center	3925 Neil Road	Reno Enrichment Center	1301 Valley Road	
Neil Road Youth Site	3905 Neil Road	Reno Sports Complex	2975 North Virginia St	
New Washoe City Park	2400 Lakeshore Drive	Reno Tennis Center	2601 Plumas St	
Newlands Park	700 California Ave	Reno Triangle Club	635 S. Wells Ave	
North Valleys Regional Park	8085 Silver Lake Road	Rivermount Park	1755 Daniel Webster Drive	
Northgate Park	6450 Moonridge Terrace	Riverside Drive	650 Riverside Dr	
Northwest Pool & Park	2775 Apollo Way	Rock Park	1515 S. Rock Blvd.	
Northwest Trails	Various	Rose Garden Park	6195 Wingfield Springs Rd.	
Oppio Park	2355 18th St.	Saddlehorn Park	4183 Saddlehorn Drive	
Oxbow Nature Study Area	3100 Dickerson Road	SAFF: Sierra Association of Foster Families	1301 Cordone Avenue, Suite 212	
Pagni Ranch Park	1000 Festa Way	Sage Canyon Park	5195 Vista Heights Dr.	
Pah Rah Mountain Park	1750 Shadow Ln.	Sage Street Park	790 Sage Street	
Panther Valley Park	850 Link Lane	Salvation Army	1931 Sutro St	
Pat Baker Park	1910 Bishop St	Schiappacasse Park	3945 Riverhaven Dr	
Peavine Fields	825 Wyoming St	Shadow Mountain Sports  Complex	3300 Sparks Blvd.	
Pelican Park	2665 Pride Dr.	Shelly Park	2901 N. Truckee Ln.	
Phillip and Annie Callahan Park	15960 Callahan Ranch Road	Sierra Rock Park	17770 Sweet Gum Drive	
Pickett Park	250 Kirman Ave	Silver Knolls Park	11300 W. Silver Knolls Blvd.	
Pleasant Valley Park	West Laramie Road	Silver Lake Park	8755 Red Baron Blvd	
Plumas Park	575 Munroe St	Silverton Shores Future Park	2799 Silverton Way	
Poulakidas Park	530 4th St.	Sky Country Park	3290 Snake River Dr	
Project Solution - Afterschool & Summer Facility	1090 Bresson Avenue	Sky Ranch Park	8900 La Posada Drive	
Rainbow Ridge Park	1355 Rainbow Ridge Dr	Sky Tavern	21130 Mt Rose Highway	
Raleigh Heights Park				



Rancho San Rafael Regional Park	1595 N. Sierra St.	South Valleys Regional Sports Complex	15650 Wedge Parkway
Sparks Memorial Park	241 Pyramid Way	Sparks Marina Park	300 Howard Dr.
Sparks Senior Center		Village Center Park	18755 Village Center Drive
Stewart Park	400 Stewart St	Village Green Park	849 Lepori Way
Summit Ridge Park	4650 Summit Ridge Dr	Virginia Foothills Park	13400 Rim Rock Drive
Sun Valley Community Park	115 W. Sixth Ave.	Virginia Lake Park	1980 Lakeside Dr
Sun Valley Regional Park	North end of Sidehill Drive	Vista View Park	2201 N. D'Andrea Pkwy.
Sun Valley Teen Center	115 W. Sixth Ave.	Water's Edge	200 Booth St
Swan Lake Nature Study Area	East end of Lear Boulevard off Military Road	Wheatland Park	990 Wheatland Rd
Teglia's Paradise Park	2700 Paradise Dr	Whitaker Park	550 University Terrace
Terrace Sports Complex	2525 Robb Drive	Whites Creek Park	Telluride Drive at Killington Circle
The Club at the Larry D. Johnson Community Center	12th and Oddie Blvd.	Whitewater Park at Rock	1515 S. Rock Blvd.
The Early Learning Program at the E. L. Wiegand Youth Center	1270 Foster Drive	Wildcreek Park	3900 El Rancho Dr.
Thomas Creek Park	12875 Thomas Creek Road	Wilkinson Park	1201 East Taylor St
Traner MS and Pool	1700 Carville Dr	William N. Pennington Facility	1300 Foster Drive
Tumbleweed Trails Park	7575 Bareback Dr.	Willowcreek Park	1250 E. Prater Way
University Ridge Park	990 South University Park Loop	Wilson Commons Park	4970 Susan Lee Circle
Valleywood Park	6555 Valley Wood Dr	Wingfield Park	2 South Arlington Ave
Van Meter Park	1300 O'Callaghan Dr.	Woodtrail Park	1730 Golden Spike Dr.
Verdi School Park/Historic Verdi Schoolhouse	Bridge Street	Yori Park	2800 Yori Ave





PARKS, RECREATION and OPEN SPACE



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## Appendix A: Focus Group Demographics

## Please fill this out, but DO NOT write your name anywhere on this paper. Thank you!

Gender				
Male	Female	C	Other:	_
Current Age				
18 or younger		35-44 years old		65 years or older
19-24 years old		45-54 years old		
25-34 years old		55-64 years old		
Race/Ethnicity				
White (Not Hispanic)		African American	(Not	Native American/Alaskan
Hispanic/Latino/Latina (of		Hispanic)		Native (Not Hispanic)
any origin)		Asian/Pacific Islan Hispanic)	der (Not	Multiple races/ethnicities
				Other:
Current Employment Status				
Full-time job		Unemployed (6 m more)	onths or	Disabled
One or more part-time jobs		Homemaker		Other:
Student				
Unemployed (less than 6		Self-Employed		
months)		Retired		
Highest education level reached	I			
Did not graduate high school	ol		Indian Health Serv	rice
Graduated high school (GE	D or equivaler	nt)	Other	
Some college				
Graduated college (Associa degree)	ate's or Bache	lor's		
Master's degree/PhD or high	ner			
Please write the 5 digit zip code v	where you <u>prir</u>	<u>marily</u>		
If you currently work, please write where you primarily WORK:	e the 5 digit zij	p code 		
What type of health insurance do	you currently	/ have?		
None				
Medicare				
Private (through an employe	er)			
Nevada Health Link (self-pur	chased)			
Medicaid				
Veterans/Military				

Figure 1.1: Focus Group Participants by Gender & Age Group

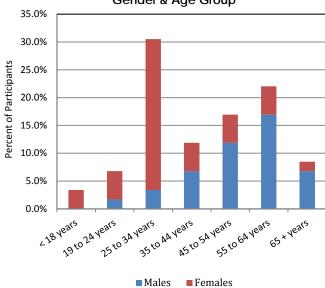


Figure 1.2: Focus Group Participants by Race/Ethnicity

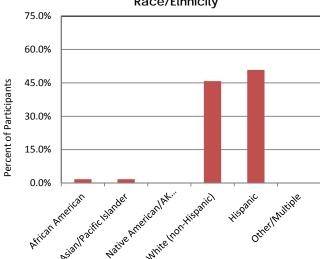


Figure 1.3: Focus Group Participants, by Level of Education

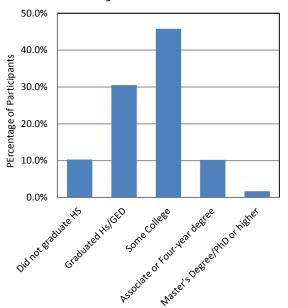
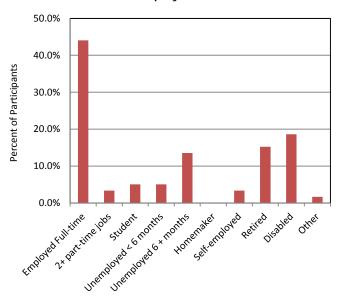


Figure 1.4: Focus Group Participants by Employment Status



\*Participants could indicate more than one, i.e. student & employed full-time

Figure 1.5: Focus Group Participants, by Health Insurance Status

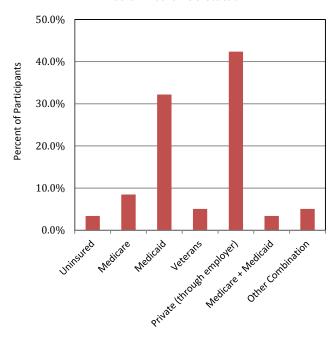


Figure 1.6: Focus Group Participants, by City/Town of Residence

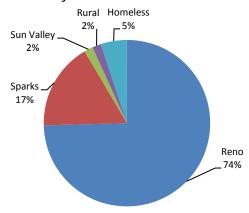


Figure 1.8: Panel Discussion Participants, by Gender Sex and Age of Focus Group

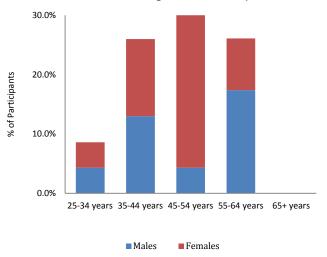


Figure 1.9: Panel Discussion Participants, by Race/Ethnicity

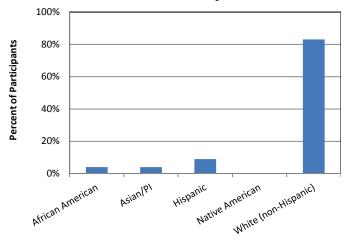


Figure 1.10: Panel discussion Participants, by Educational Attainment

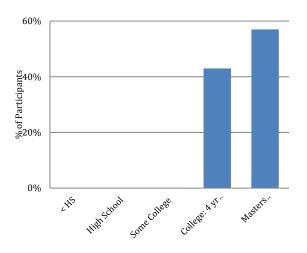


Figure 1.11: Populations Served

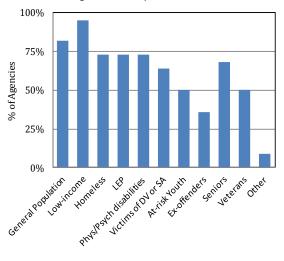
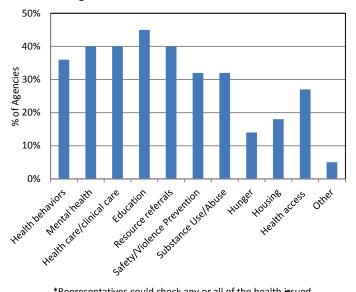


Figure 1.12: Health Issues Addressed\*



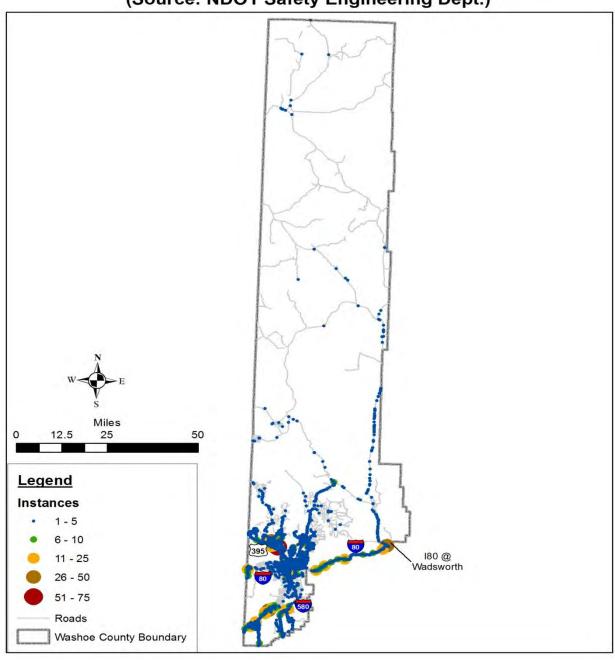
\*Representatives could check any or all of the health issued their agency addresses

Appendix B: Poverty Thresholds for 2013 by Size of Family and Number of Related Children Under 18 Years

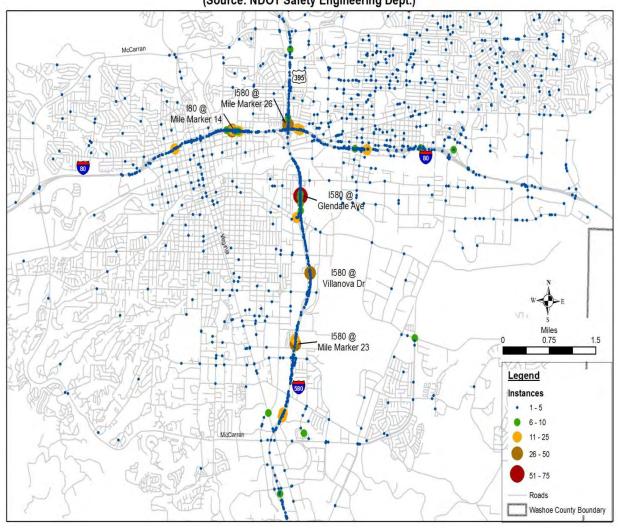
	Related children under 18 years								
Size of family unit	None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual)									
Under 65 years									
*									
65 years and over	11,173								
Two people									
Householder under 65 years		16,057							
Householder 65 years and over	14,081	15,996							
Three people	18,222	18,751	18,769						
Four people		24,421	23,624	23,707					
Five people	28,977	29,398	28,498	27,801	27,376				
Six people		33,461	32,771	32,110	31,128	30,545			
Seven people		38,588	37,763	37,187	36,115	34,865	33,493		
Eight people	42,890	43,269	42,490	41,807	40,839	39,610	38,331	38,006	
	-				· ·				45 O27
Nine people or more	51,594	51,844	51,154	50,575	49,625	48,317	47,134	46,842	45,037

Source: U.S. Census Bureau.

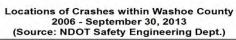
## Locations of Crashes within Washoe County 2006 - September 30, 2013 (Source: NDOT Safety Engineering Dept.)

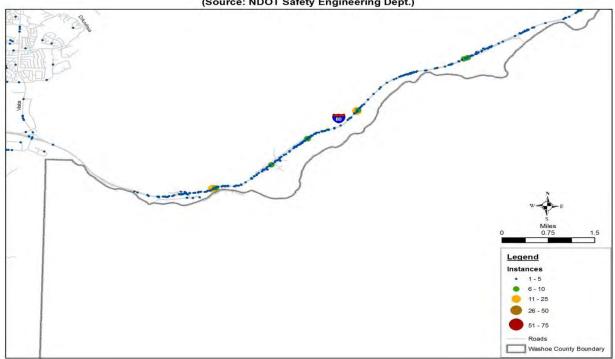


## **Central Reno**

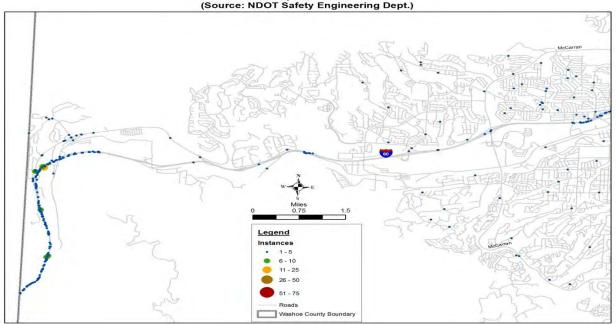


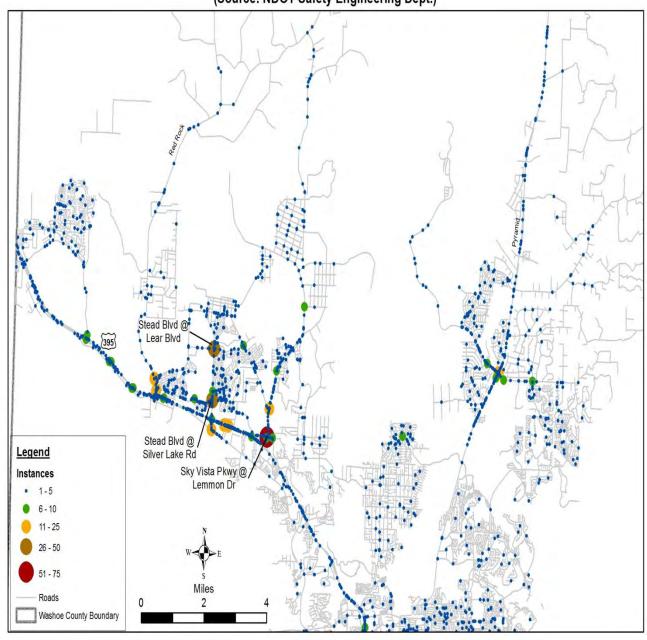
### **East Interstate-80**

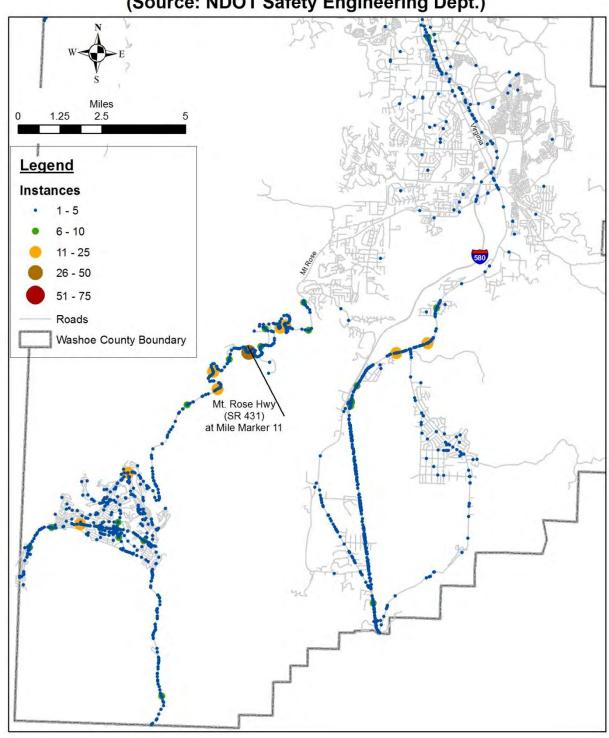




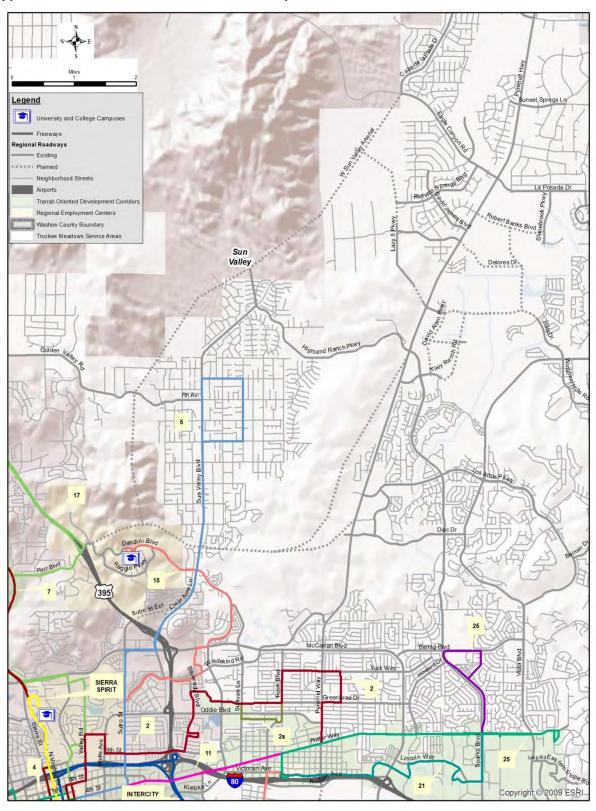
## West Interstate-80



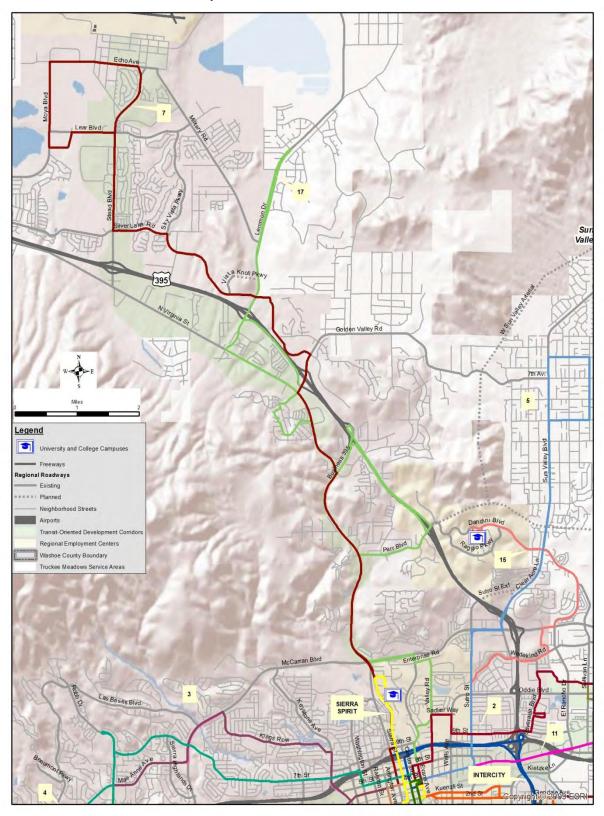




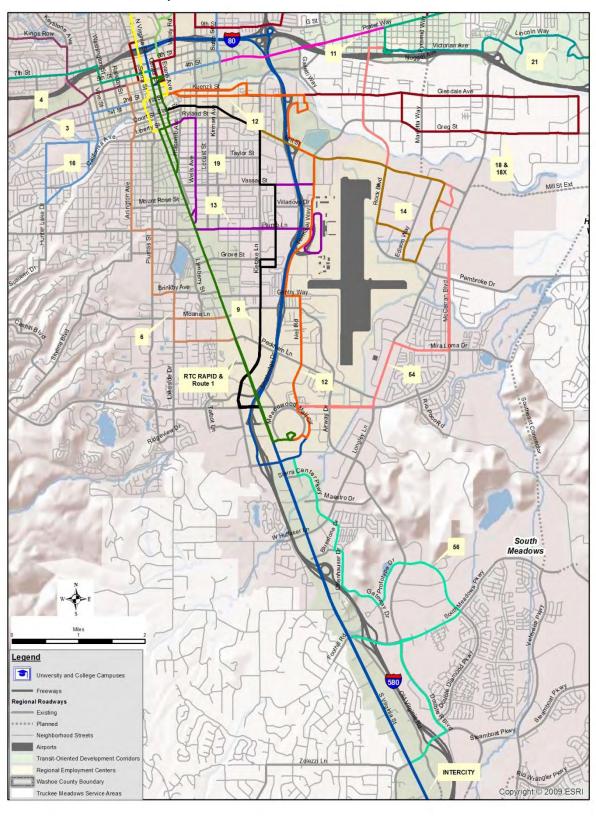
**Appendix C: RTC RIDE Routes, Northeast Reno-Sparks** 



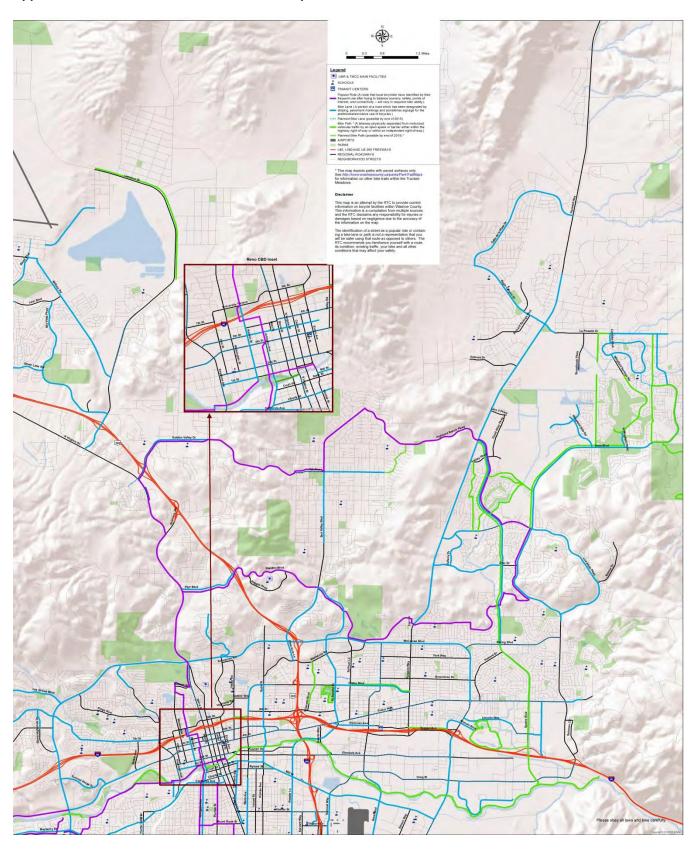
# **RTC RIDE Routes-Northwest Reno-Sparks**



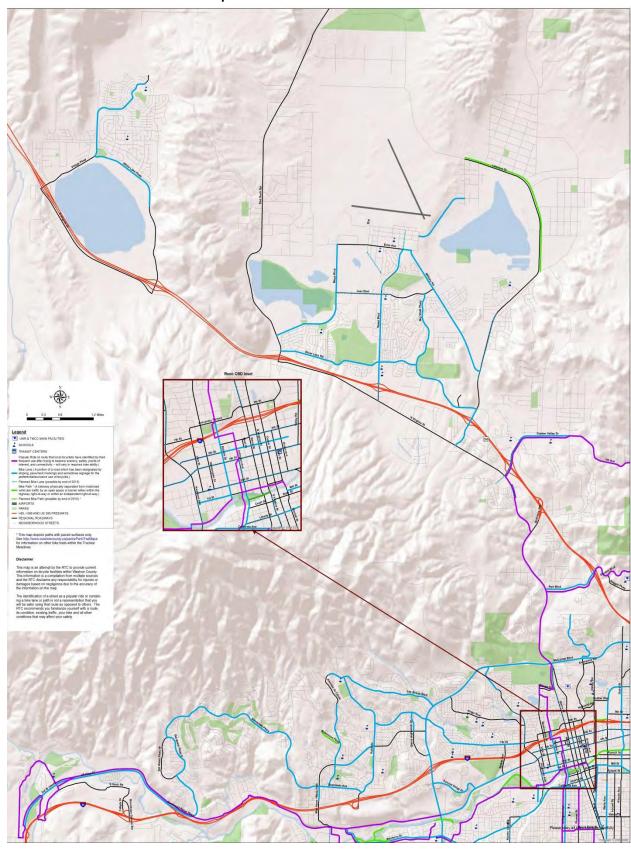
## **RTC RIDE Route-South Reno-Sparks**



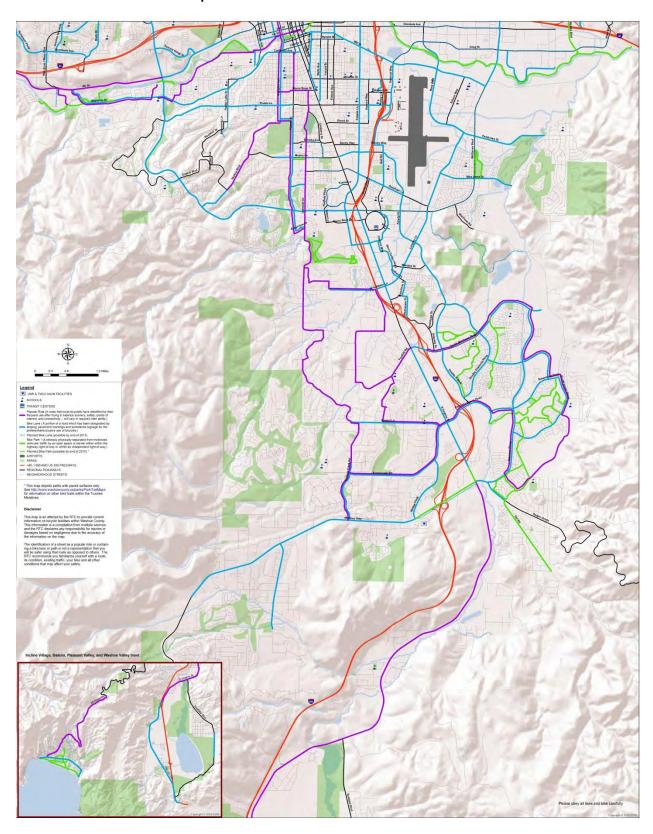
Appendix X: RTC Bike Routes-Northeast Reno-Sparks

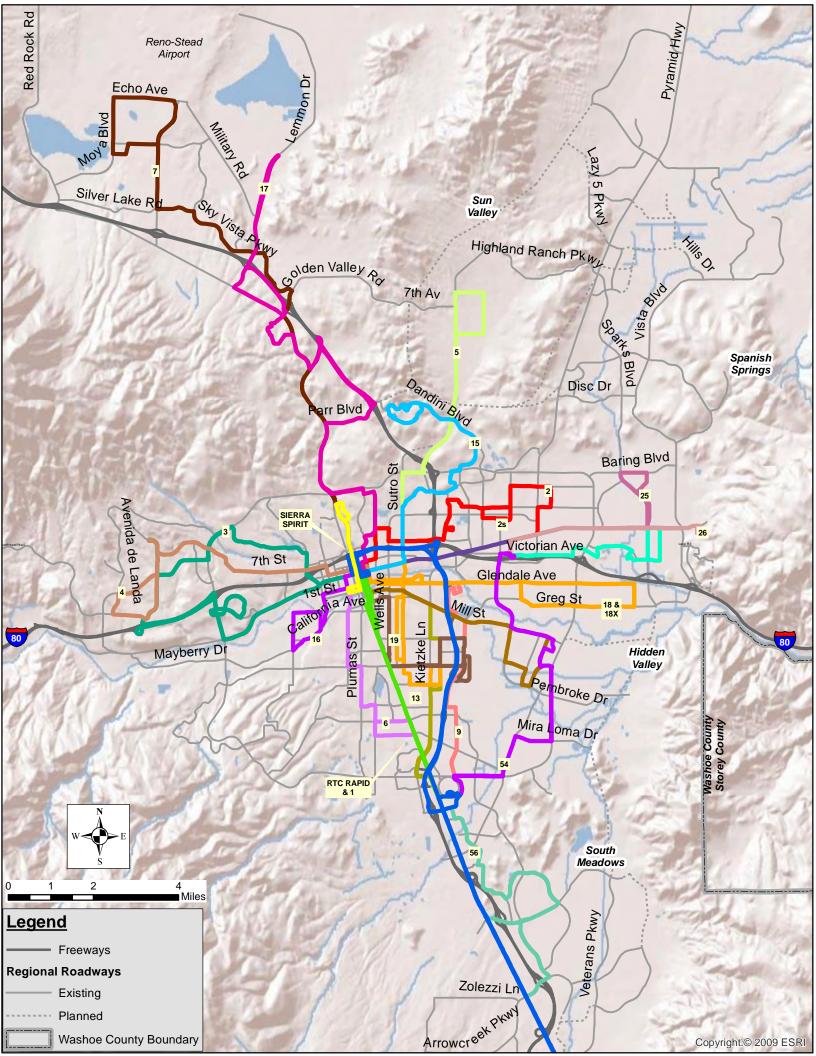


RTC Bike Routes-Northwest Reno-Sparks



# RTC Bike Routes-South Reno-Sparks





### Appendix D: Food Security & Access, Methodology and Limitations

### Methodology

All locations with a food or beverage permit, issued by the Environmental Health Division of the Washoe County Health District were queried. Locations excluded from all food maps were bakeries, bars, cottage foods (individuals who prepare specialty food items), mobile food trucks, sit down restaurants, liquor stores (alcohol only), casino buffets, food manufacturing locations, candy shops, vending machines, and food warehouses. As of October 2014, there were 416 locations permitted as a grocery store type facility, meaning they sell food, but do not prepare food onsite. Only about 18% (n=76) were found to be a regular source of uncanned (fresh) fruits and vegetables, while 69% (n=288) were gas stations or convenience stores (sold processed packaged foods) and the remaining 12.5% (n=52) locations were in the rural parts of the county, did not have an active permit or were specialty stores (candy, olive oil etc.).

In order to determine if a store was a grocery store, a match was done using North American Industry Classification System (NAICS) codes equal to 445110 which were provided by the Truckee Meadows Regional Planning Agency. NAICS code 445110 is defined as an industry which "comprises establishments generally known as supermarkets and grocery stores primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish, and poultry. Included in this industry are delicatessen-type establishments primarily engaged in retailing a general line of food." These locations were matched by address and again by name, and matches were hand-reviewed to ensure consistency. A total of 61 matches were identified.

The food swamp map includes gas stations, convenience stores, and fast food outlets. These types of stores primarily sell snack foods, candy, chips, soda, flavored sports drinks, beer, and/or liquor. Fast food chains were limited to national and regional chains recognized as primarily selling food "to-go", usually ordered at a counter. Local fast food chains were included if they have 2 or more locations in Washoe County. Gas stations and convenience stores were included if they did not sell fresh produce (uncanned fruits and vegetables). Several gas stations and convenience stores reported selling apples, bananas, and limes, but only some of the time and very few locations sold one or two types of vegetables, usually limited to onions and occasionally (<4) jalapenos.

Food deserts were determined by creating a ¼ and ½ mile radius around grocery stores in the Reno-Sparks area and coupling those data with low-income census tract data. Vehicle ownership was not considered since most residents have access to a vehicle (ERS, 2012-USDA; census-ACS); however, there is no mention of number of people who share a vehicle or the working condition of the vehicle. Access to public transportation was not considered since only 15% of Reno-Sparks public transit users in 2012 indicated their trip purpose was for shopping, and did not delineate which type of shopping, grocery or other (RTC PLAN).

The fresh food map inclusion criteria differed since the Environmental Health department is not the responsible party for permitting these sites. The fresh food locations were provided by the Nevada

Department of Agriculture's certified producers and organic farmers' lists. The term "local food" is loosely defined and in some cases includes locations 200-400 miles away or anywhere within a state (Martinez, 2010). For the purpose of this explorative map series, only those within Washoe County boundaries were included, which is hugely limiting since several growers exist in valleys to the east and south of Washoe County as well as parts of northern California and are sources of fresh local foods often available at farmers' markets in the Reno-Sparks area. The important factor to note is few producers sell directly to the consumer, so although they may be left off this map, it may not impact access to that particular food source.

Local seasonal and year-round farmers' markets were found using various resources online and verified with local food policy advocates. There is only one community garden with a formal plot renting scheme, again found online and verified with local food policy advocates. There is only one food co-op in Washoe County, and they partner with local growers and restaurants to facilitate consumer access to fresh, locally grown food products.

A list of permitted school gardens was made available through the Nevada Department of Agriculture, current as of August, 2014.

### Limitations

The decision to include a location in the food desert map (grocery store and food pantries) or the food swamp map (gas station, convenience store, fast food) after matching against the NAICS codes, was made based on location familiarity and/or phone calls to those businesses. Without going into each location and using validated survey instruments to verify the proportion and types of fruits, vegetables, milk and other products are being sold, the map location lists are likely to contain errors.

The maps are not directly comparable to USDA's original food deserts since distance from a grocery store was not measured at the individual level; therefore, "low-access" as defined by the USDA was not taken into consideration.

Not all of Washoe County was mapped, for the purpose of defining a food desert, there are exceptions for rural areas; this additional level of information was excluded since there are only three other towns in Washoe County, Empire, Gerlach, and Incline Village. Incline Village is involved with a separate community health needs assessment while Empire and Gerlach are both rural and outside of the focus of this community health needs assessment.