

Community Health Needs Assessment

Carson Valley Medical Center

Gardnerville, Nevada

May 27, 2013

Community Health Needs Assessment

Carson Valley Medical Center / Gardnerville, Nevada

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Community Health Needs Assessment

Carson Valley Medical Center

Introduction

Under the recently passed Patient Protection and Affordable Care Act (ACA), nonprofit, tax-exempt hospitals are required to conduct a community health needs assessment (CHNA) every three years that takes into account the broad interests of the community served by the hospital and must include individuals with expertise in public health. The community needs assessment process must be made widely available to the public and produce an action plan developed by the hospital that identifies how the assessment findings are being implemented in a strategic plan (or documentation why assessment findings are not being addressed at this time). Requirements are met only if the organization has conducted community needs assessment in the taxable year starting after March 23, 2010 or the two taxable years immediately proceeding the current taxable year.

In order to assist nonprofit CAHs and rural hospitals in Nevada meet these new requirements, the Nevada Office of Rural Health (NORH) and Nevada Rural Hospital Partners (NRHP) will be providing technical assistance to any rural hospital in Nevada interested in undertaking a comprehensive community health care needs assessment. This technical assistance will be supported by grant funding from the Medicare Rural Hospital Flexibility Program (Flex). This CHNA was undertaken by Boulder City Hospital with the assistance of the NORH, University Center for Economic Development (UCED), and NRHP.

This CHNA involved community focus group sessions and key informant interviews. Primary data collection included the community health survey administration and reports. Secondary data included county-level and sub-county-level community health profiles generated from the 2011 edition of the Nevada Rural and Frontier Health Data Book, Environmental Systems Research Institute (ESRI), NRHP and Center for Health Information Analysis (CHIA), a research center at the University of Nevada Las Vegas. The final report was developed from community health needs assessment findings, recommendations and action plans.

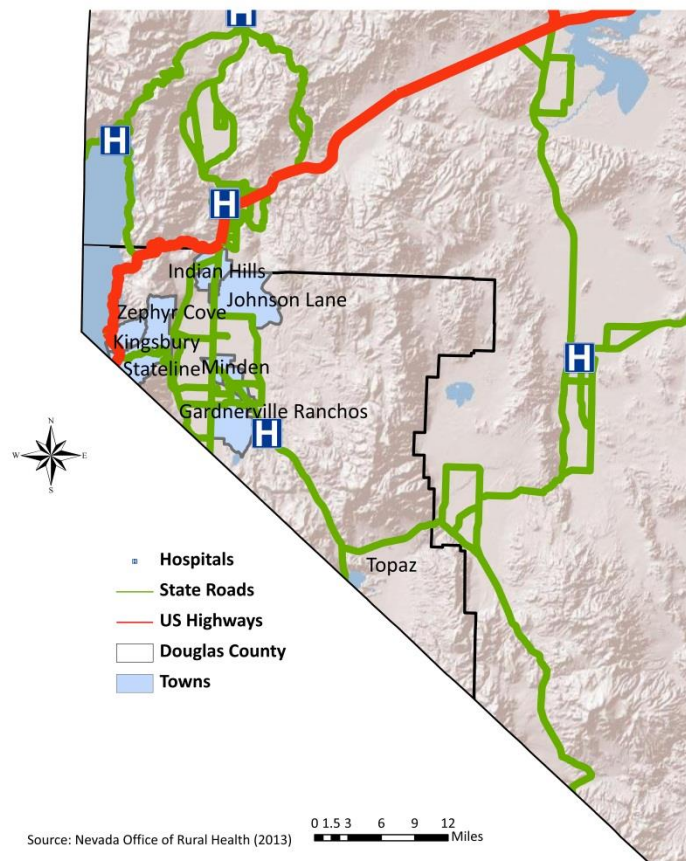
The post-assessment action planning and implementation technical assistance facilitated community focus group sessions and post-assessment community outreach. The dissemination of community health needs assessment results occurred with community residents and rural health care stakeholders. Strategic planning was ongoing with hospital administration and boards along with financial feasibility assessments of new and existing (expanded/modified) service lines for any requesting facility. These financial and technical feasibility assessments may involve any new telehealth services for any requesting facility.

The primary facilitator is John Packham, PhD, Nevada Rural Hospital Flexibility Program, Nevada Office of Rural Health, Director of the Office of Health Workforce Research and Analysis at the University of Nevada School of Medicine.

Medical Service Area of Carson Valley Medical Center

Definition and Description of the Community Served by Carson Valley Medical Center

The primary medical service area Carson Valley Medical Center consists of seven zip code tabulation areas: 89410(Topaz Lake, Dresslerville), 89411(Genoa), 89423 (Minden), 89448 (Lake Tahoe towns), 89449 (Lakeridge), 89460 (Gardnerville), 89705 (south Carson City). This area is 710 square miles in size, more than two thirds the size of the state of Rhode Island (1,033).



Existing Health Care Resources and Facilities in Douglas County

Carson Valley Medical Center is a 23-bed acute care non-profit Critical Access Hospital with medical-surgical services located in Gardnerville, Nevada. The hospital offers laboratory and imaging services, physical, respiratory, occupational, and speech therapy services, and general and orthopedic surgery. There are inpatient care and outpatient services including infusion therapy, wound clinic, and three outpatient clinics in Gardnerville, Minden, and Topaz.

Carson Valley Medical Center performs other services and community outreach, e.g. cardiac telemetry, telemedicine consultations, health fairs, health promotions and screenings. flu shots, sleep disorder center, breast cancer resource center, senior mental health wellness center, and community education program.

Douglas County also has three adult group care homes, an ambulatory surgery center, a dialysis clinic, three licensed laboratories, a mental health clinic, a young mental health facility, three senior centers, a tribal clinic and two skilled nursing facilities.

Demographic Profile of Douglas County

The population of Douglas County is 47,223. The population increased by 13.3% between the 2000 and 2010 census. Recent population growth, while exceeding 10%, was slower than in other rural counties and the entire state. The net influx of people is approximately 550 people annually from the Nevada State Demographer's Office estimations. This is the annual estimate since the 2000 Census and is unlikely to change in the projections for the next five years.

Table 1: Population in Douglas County - 2000 to 2012

Region	2000	2012	Percent Change
Douglas County	41,674	47,223	13.3
Rural Counties	233,809	283,173	21.1
Nevada	2,023,394	2,750,307	35.9

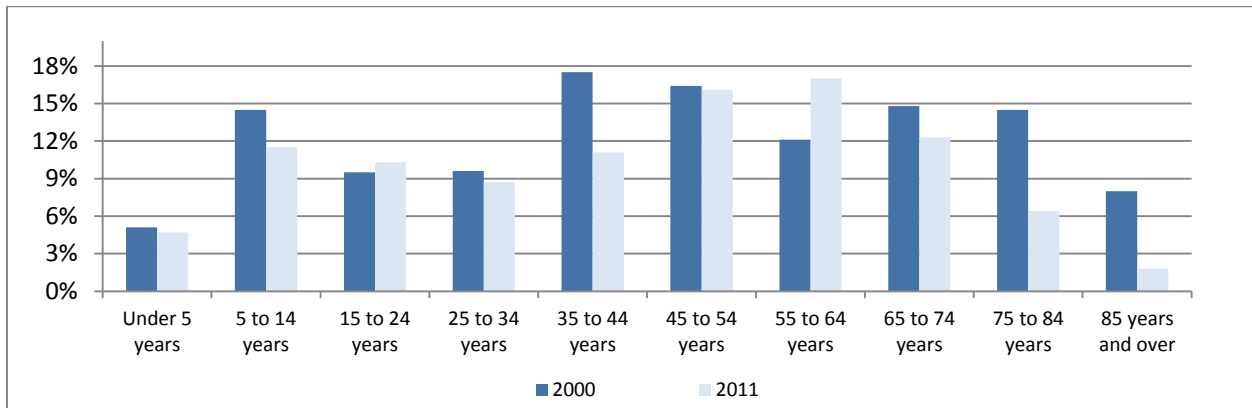
Future population growth is similar to past growth. Projected growth in Douglas County appears to not be affected by economic disturbances such as the recent recession.

Table 2: Projected Population in Douglas County - 2012 to 2017

Region	2012	2017	Percent Change
Douglas County	47,223	49,945	5.8
Rural Counties	283,314	315,611	11.4
Nevada	2,750,285	2,985,141	8.5

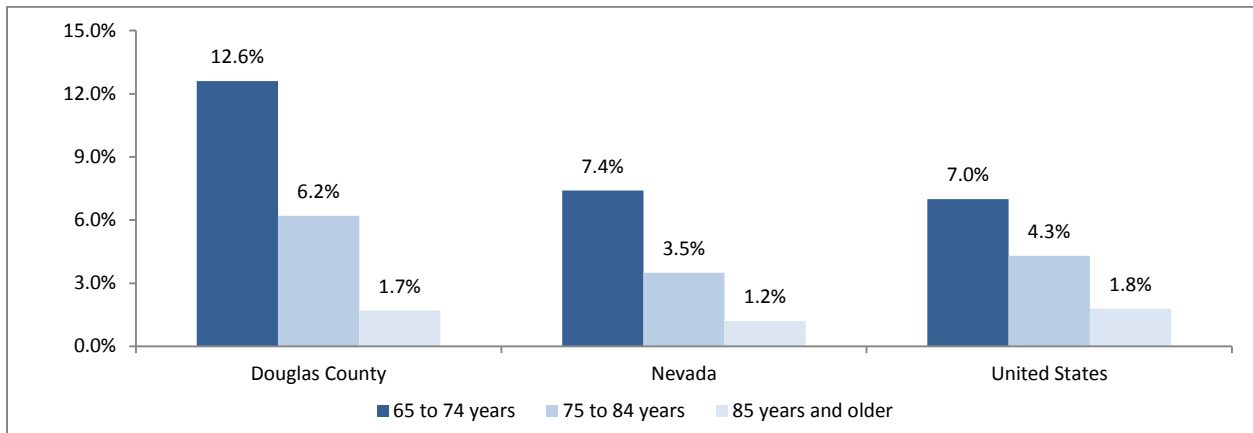
The shift by age groups (cohorts of 10 years) from 2000 to 2011 shows fewer children under the age of fourteen and more adults aged 55 to 64. The median age in 2000 was 36.1 and in 2011 was 46.9 supporting this population aging trend.

Table 3: Population by Age in Douglas County - 2000 and 2011



The proportion of Douglas County residents aged 65 and older was 20.3% of the total population or 9,932 individuals. There was almost a doubling of the percentage of people aged 65 and older in Douglas County (12.6%) when compared to the state (7.4%) and the US (7.0%). Douglas County has the third largest proportion of seniors (20.3%) in Nevada following Storey (22.0%) and Nye (23.3%) counties. If the aging trend continues, the larger percentage of 75 to 84 year old residents may roll into the next cohort of 85 years and older, a cohort which currently is similar to the US percentages.

Table 4: Population Aged 65 and Older in Douglas County - 2011



Past population growth was very high, with approximately 350 new residents annually. The projection drops to 80 new residents annually, 16.1% over the next five years. This rate of growth is lower than the state rate (17.1%), and the rural county averages (16.8%).

Table 5: Projected Population Aged 65 and Older in Douglas County - 2012 to 2017

Region	2012	2017	Percent Change
Douglas County	9,932	11,531	16.1
Rural Counties	49,271	54,122	16.8
Nevada	347,158	403,090	17.1

Hispanic population growth in Douglas over the last two decades was only exceeded by Lyon, Nye, and the three urban counties. Since 2000, the growth was comparable to Carson City, an urban county. The projected growth for the next five years drops to the rate to one of the lowest counties at 7.8%.

Table 6: Hispanic Population in Douglas County - 1990 to 2010

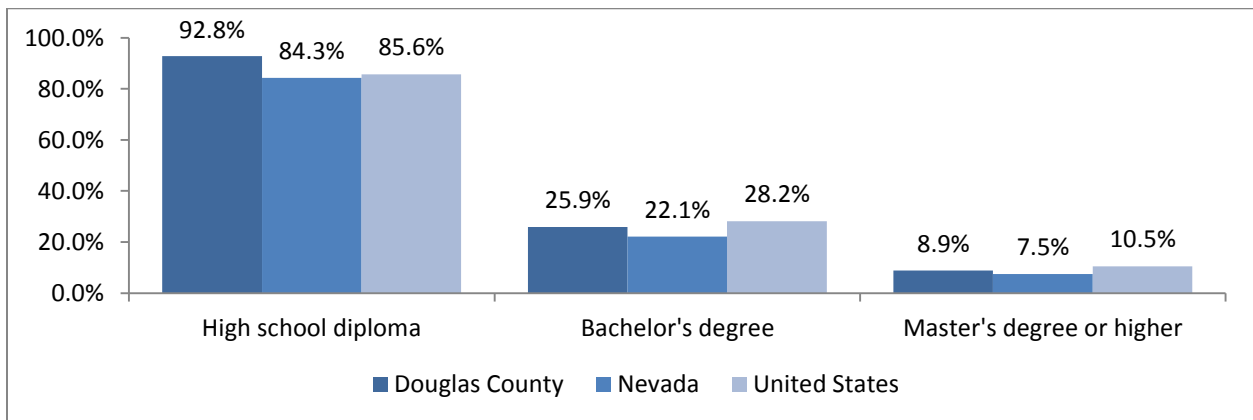
Region	1990	2010	Percent Change
Douglas County	1,652	5,103	208.9
Rural Counties	15,446	42,356	174.2
Nevada	124,419	716,501	475.9

Social and Economic Profile of Douglas County

The proportion of the population age 25 and older with high school degrees (92.8%) is 8.5% higher than the state and 7.2% higher than the national percentage. The percentage of the population with a bachelor's degree (25.9%) is 3.8% higher than the state (22.1%) and lower than the national percentage (28.2%). These percentages hold for the advanced degrees with Douglas County 1.4% points higher than the state but 1.6% points lower than the national rate.

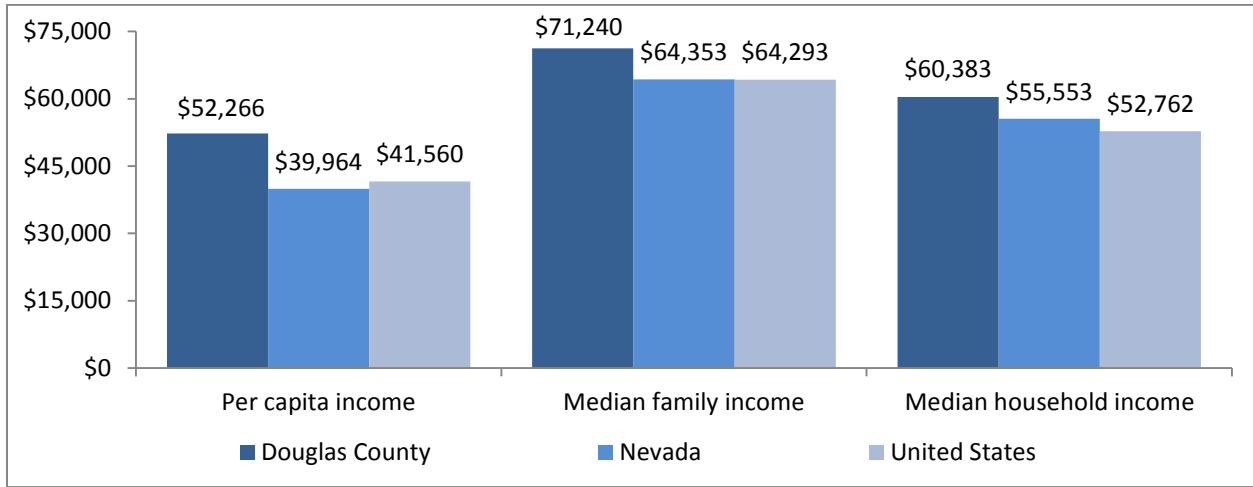
Table 7: Educational Attainment - 2000 to 2011

Percent of Population Aged 25 Years and Older



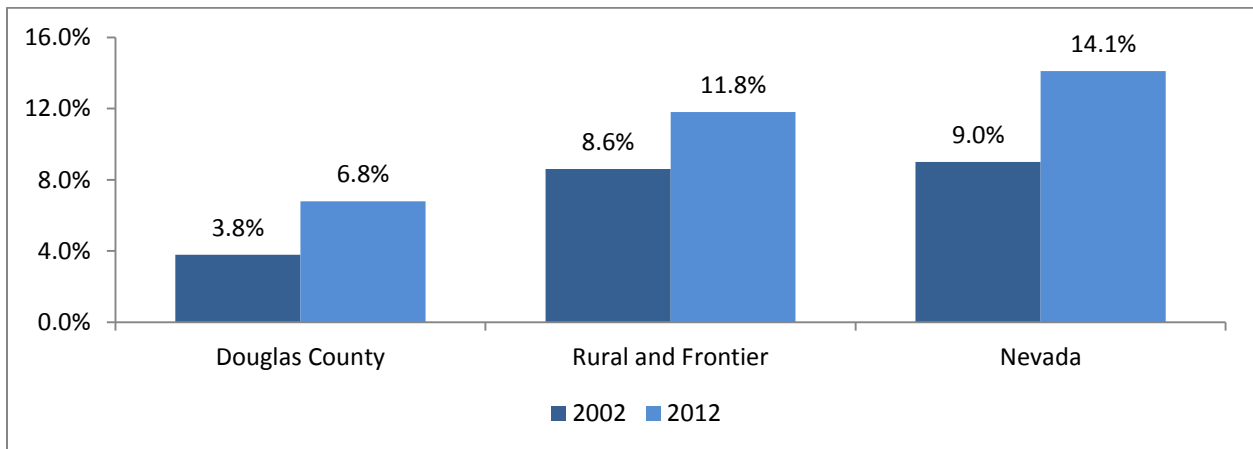
The highest per capita income in Nevada is in Douglas County. The 30% increase over the state per capita reflects this concentration of wealth. While the per capita number includes the entire population, the household and family income reflects smaller groupings of people with greater income, e.g. two or more incomes. The 10.7% increase of median family income and the 8.6% increase in median household income show the true differential of wealth between the county, the state and national levels of wealth.

Table 8: Per Capita, Family, and Household Income in Douglas County - 2012



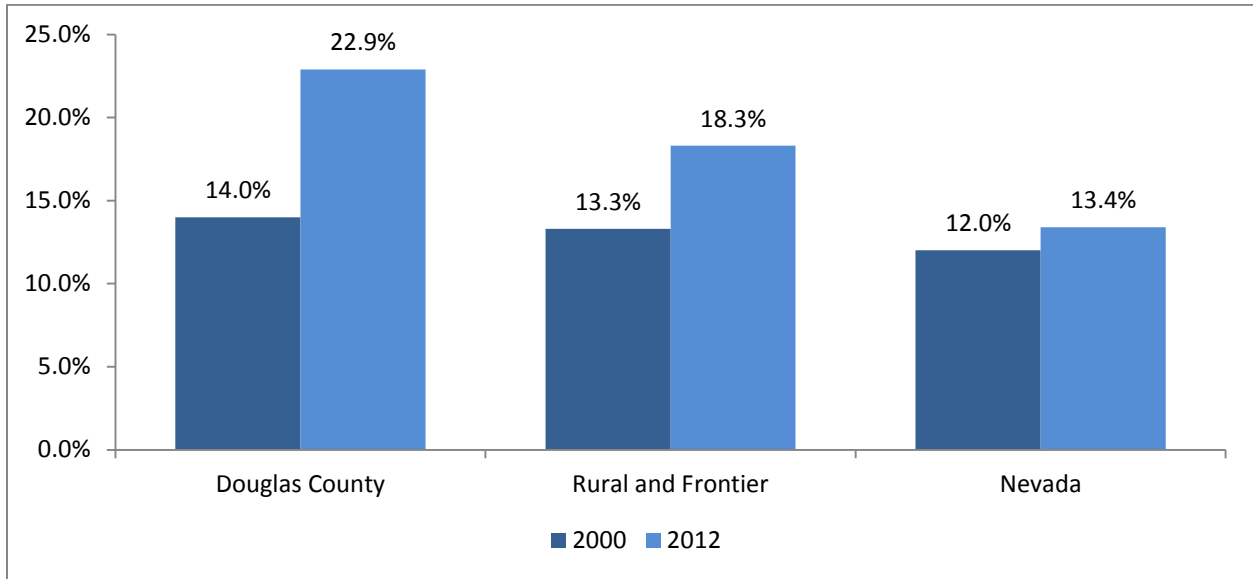
Looking at the recession in terms of Medicaid (state insurance), Douglas County had twice the negative impact with a 78% growth in Medicaid enrollees when compared to the other rural and frontier counties (37%) or the state change (56.7%). Douglas County had a smaller base of enrollees in 2002 and while the actual number enrolled almost doubled (90.7%), the impact on county resources was third highest in the state with only Lyon and Clarke having a larger impact of the increased enrollment.

Table 9: Percent of Population Enrolled in Medicaid - 2002 to 2012



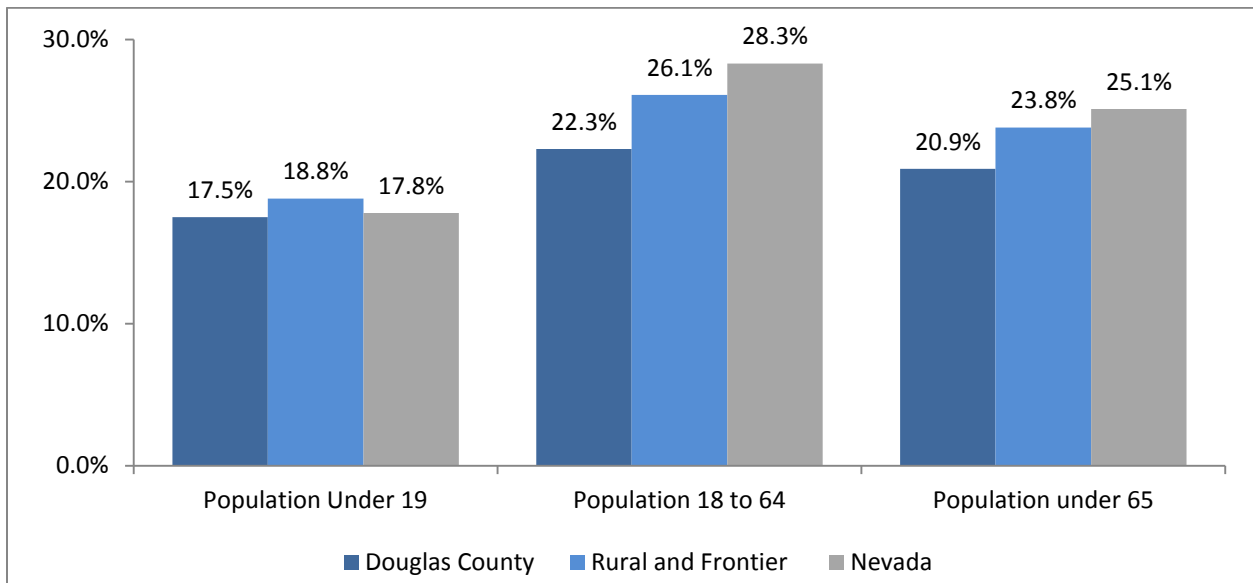
Growth in the aged 65 and older sector was 54.4% since the 2000 Census. The percent change enrolled in Medicare was 63.6% reflecting an increased Medicare insurance pool.

Table 10: Percent of Population Enrolled in Medicare - 2000 to 2012



The uninsured population in Douglas County is the lowest in the state at 20.9% of the population, less than in the rural and frontier counties and the state as a whole. As most children under the age of 18 can participate in the state’s children health insurance program (SCHIP), this graph tells the story of the under insured working population not qualifying for Medicaid.

Table 11: Percent of Population Uninsured by Age Group – 2012



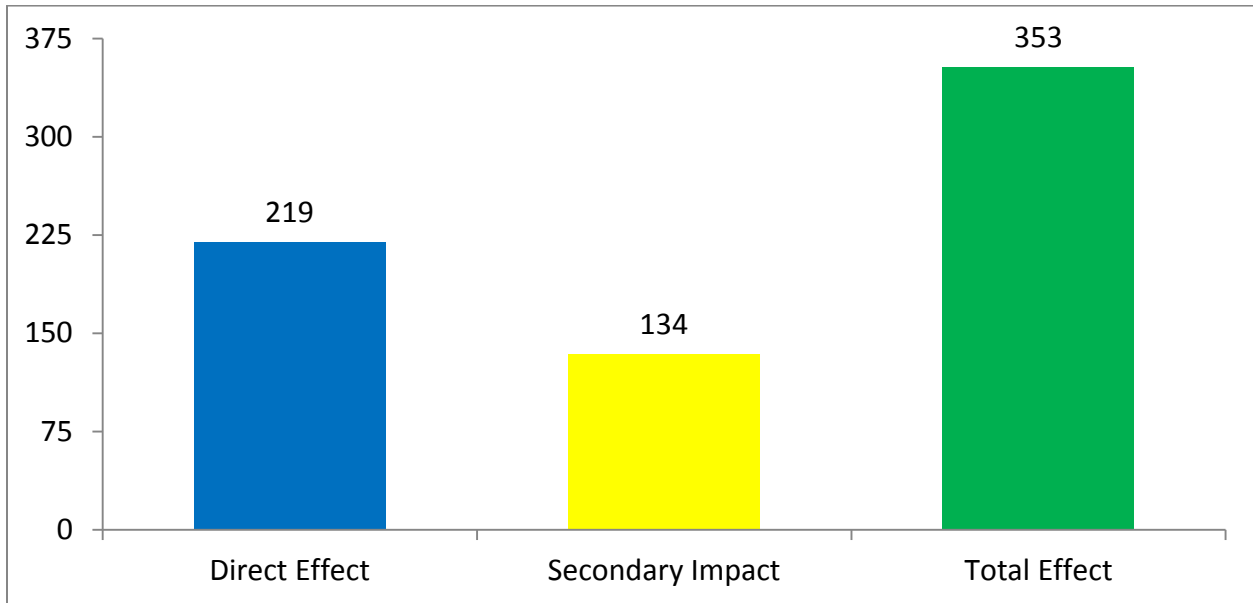
In summary, Douglas County has a large proportion of residents aged 65 and older, which means healthy care planners are heavily affected by changes in Medicare policy. Incomes are higher than average, however an increasing number of residents have been adversely affected by economic conditions.

Economic Impact of Carson Valley Medical Center (CVMC)

The presence of a hospital in Douglas County with its convenient health services and its close-by emergency services are assets in attracting new businesses to the community as well as in retaining and attracting retirees. The hospital keeps healthcare jobs and dollars re-circulating within the CVMC primary service area. Additional jobs within the region are associated with direct employment and purchases of CVMC. Carson Valley Medical Center employs 219 full-time employee equivalents (FTEs) in 2011 with a payroll of \$13.6 million. The indirect effects of the hospital purchases from other businesses in the community as well as the effects of payroll available to local households were associated with an additional 134 full-time equivalent positions and \$3.5 million in payroll in other businesses within Douglas County.

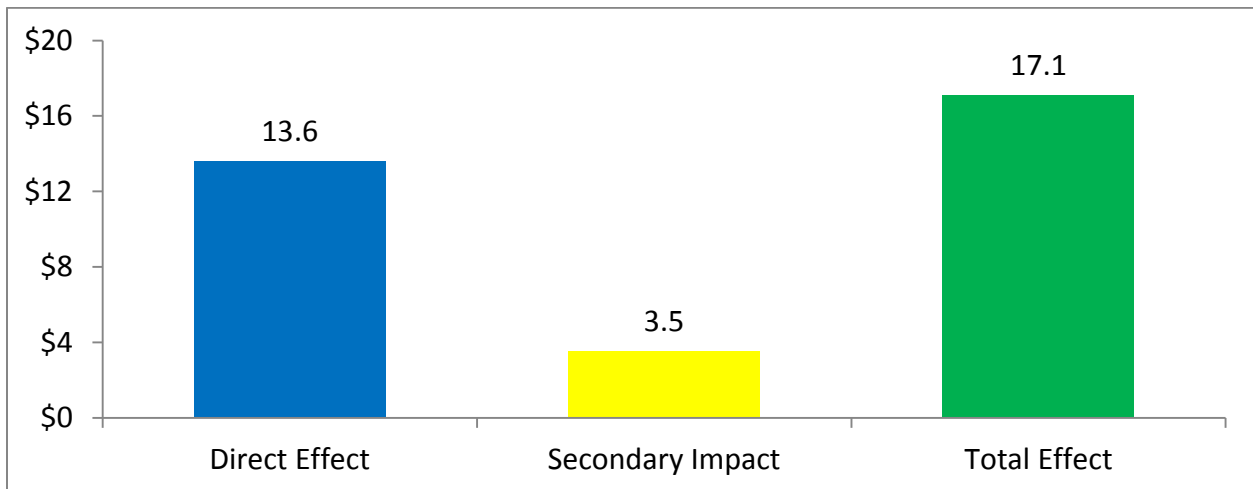
The employment impact of the 219 Carson Valley Medical Center (CVMC) employees means an additional 134 jobs have been created in the community as a ripple effect of CVMC business.

Table 12: Employment Impact of Carson Valley Medical Center – 2011
Number of FTES



The ripple of CVMC payroll expenditures generated an additional 3.5 million dollars of activity in the community from CVMC and employees expenditures on goods and services.

Table 13: Payroll Impact of Carson Valley Medical Center - 2011
\$ Millions



Carson Valley Medical Center has an important economic role in addition to its role as healthcare provider.

Community Health Needs Assessment Project

Primary Data Collection and Analysis

This section describes the process that the Nevada Office of Rural Health (NORH) staff utilized to solicit community input on local health and health care needs in Douglas County, Nevada.

NORH staff met with administration and staff of CVMC to review the CHNA process and schedule the first community input meeting during February and April 2013. For the initial meeting with hospital personnel, NORH outlined the process and phases of the project and facilitated the discussion of community stakeholders and organizations to contact.

Survey Development

The survey instrument was developed by NORH using models from the Catholic Health Care Association of the United States and the National Center for Rural Health Works. A preliminary draft of the survey was presented to administration for input. NORH designated core questions to be included in each survey that would address IRS requirements. Additional questions were subject to the approval of the administration and/or the CHNA committee of the participating hospital. Like other CHNA surveys being developed by NORH, hospital administration was given the opportunity to include questions that addressed unique concerns of the hospital (e.g., utilization of local versus non-local retail pharmacies, whether or not respondents would use pediatric services if available locally). Survey questions were finalized via teleconference with NORH. A sixteen question community input survey was designed for the Carson Valley Medical Center CHNA.

Community Input Meeting 1

An initial community input meeting for the CVMC CHNA was held on February 28, 2013 at the Carson Valley Inn in Minden, Nevada. The meeting consisted of a joint presentation by the hospital administration and the NORH staff, followed by the distribution of community input questionnaires. The presentation included a summary of health care services and community benefits provided by CVMC, a demographic and economic profile of the community, a presentation of the economic impact of the participating hospital, and an overview of the CHNA process prepared by NORH.

Survey Distribution

At the conclusion of the presentation, attendees received community input questionnaires and if amendable, were given stacks of questionnaires, bundled in groups of 10, to distribute to additional community members or organizations. A link to an identical online version of the survey was also provided. Confidentiality was assured and each paper survey had a corresponding postage-paid envelope addressed to the NORH office. The deadline for the completion and return of both online and paper surveys was April 4th, 2013.

Five hundred surveys were distributed at the first community input meeting for the CHNA and an online version of the survey with identical questions was made available using Survey Monkey. An additional 600 surveys were distributed by hospital staff to various agencies. 108 completed paper surveys were returned to NORH and 250 additional surveys were completed online. Respondents consisted of community members in attendance at the initial community input meetings for the CHNA, as well as additional community members who received a copy of the paper survey or were provided with the link to the online version of the survey. Approval by the University of Nevada Institutional Review Board was not required for this pilot project because the information was not for research purposes.

Community Input Meeting 2

The second community input meeting for CVMC was held on April 16, 2013 at the Carson Valley Inn. Results of the community input survey; area population health and hospital utilization data were presented by NORH. Following the presentation, John Packham, PhD, facilitated a discussion for prioritizing community health needs and services to meet those needs.

Survey Methodology & Measures

Demographic questions were not included in the community input survey for the following three reasons. First, it was determined by NORH that the inclusion of socio-demographic questions might inhibit potential participants from completing the survey. Second, demographic information was available from other sources. Third, the purpose of the CHNA process was to report on community health needs, not to undertake a bi or multivariate analysis (e.g. socio-demographics and self-report data). A summary of the demographics for the community at large was developed using secondary data from state and federal data sources. This secondary data was presented at the initial community meeting and is included in the final CHNA report.

Community Health and Health Care Needs

The survey's core questions addressed perceived community health and health care needs. Specific questions addressed the overall health of the participating community (Likert), factors that contribute either negatively or positively to the health of the community (open-ended), the top health needs of the community (multiple choice), and factors that promote community health more generally (multiple choice). Toward the end of the survey participants were asked to identify their top concerns about health care in the Carson Valley Medical Center service area in an open-ended format.

Individual Health and Health Care

Survey respondents were asked to rate their personal health (Likert). They were also asked to list their the towns or city where they receive the majority of care (multiple choice) - ADD more info here

Carson Valley Medical Center Utilization

Survey respondents were asked where they primarily went for their health care related needs. Participants were also asked whether they had used the services of another hospital or medical provider and to select the reasons for doing so from a list of options (multiple choice). Respondents were also asked any additional services they would like to see offered (open-ended).

Analyses

Assessment data were analyzed using SPSS (IBM Statistics 21) and thematic analysis. Paper surveys were scanned into an Excel database using AUTODATA Scannable Office. For the paper surveys, basic descriptive frequencies were calculated for close-ended questions surveys using SPSS. Data from the online survey (consisting of identical questions to the paper version) were retrieved into an Excel database and merged with data from the scanned surveys. Cumulative frequencies and percentages were then calculated in SPSS for the merged datasets. Responses to open-ended questions for both versions of the survey were transcribed into Microsoft Word 2010 and thematic analysis was conducted to determine major issues and health needs.

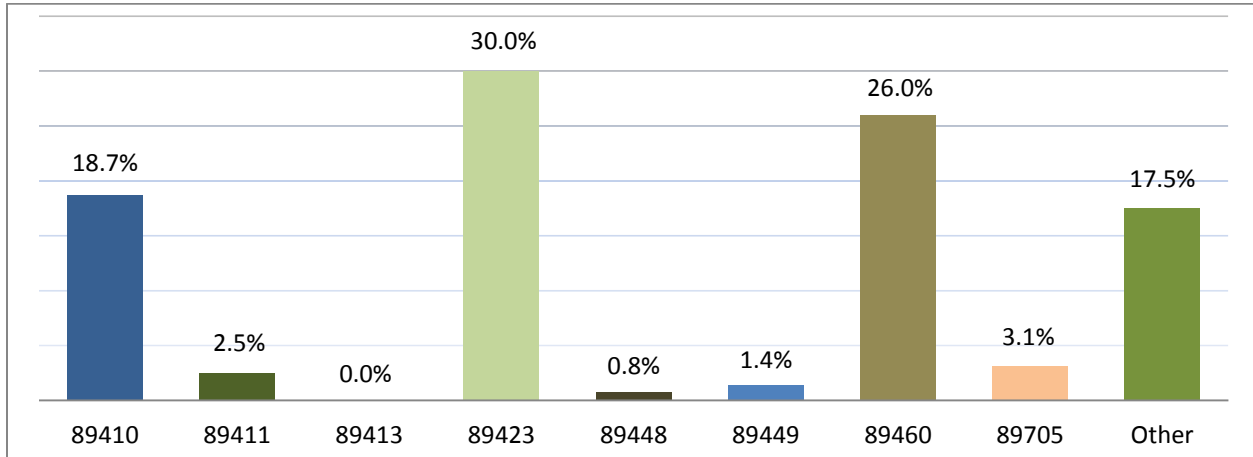
Questionnaire is in the Appendix.

Survey Outcomes

Community Health and Health Care Needs

The survey's core questions addressed perceived community health and health care needs. The survey respondents were from most areas of Douglas County. The largest group was from Minden (30.0%), Gardnerville (26.0%), Topaz and Dresserville (18.7%), and other areas such as south Carson (17.5%).

Table 14: What is the zip code where you reside? (Q15)



Characteristics of the Douglas County area contributing to people's health and well-being in a negative way were concerns about smoking and the behaviors associated with the 24 hour lifestyle and casinos. The weather and environment were third, followed by cost of living were the top five concerns.

Table 15: What contributes to people's health and well-being in a negative way? (Q1)

Item	Percent	Item	Percent
Smoking/tobacco use	12.8	Allergies	5.8
Casinos/24hr lifestyle	12.8	Access to health care	4.0
Environmental factors (elevation, wind, cold, dust, water quality)	9.5	Alcohol	4.6
Drug abuse	8.3	Lack of physicians and specialists	3.4
Cost of living (housing, health insurance, health care)	7.5	Obesity	3.4

N=327

Respondents rated the top health needs people in the community face as: cost of health care (44.8%), obesity (24.6%), access to health care (24.1%) and drug abuse (24.1%). While obesity may be related to an aging population, drug abuse, mental illness and alcohol abuse are behaviorally related.

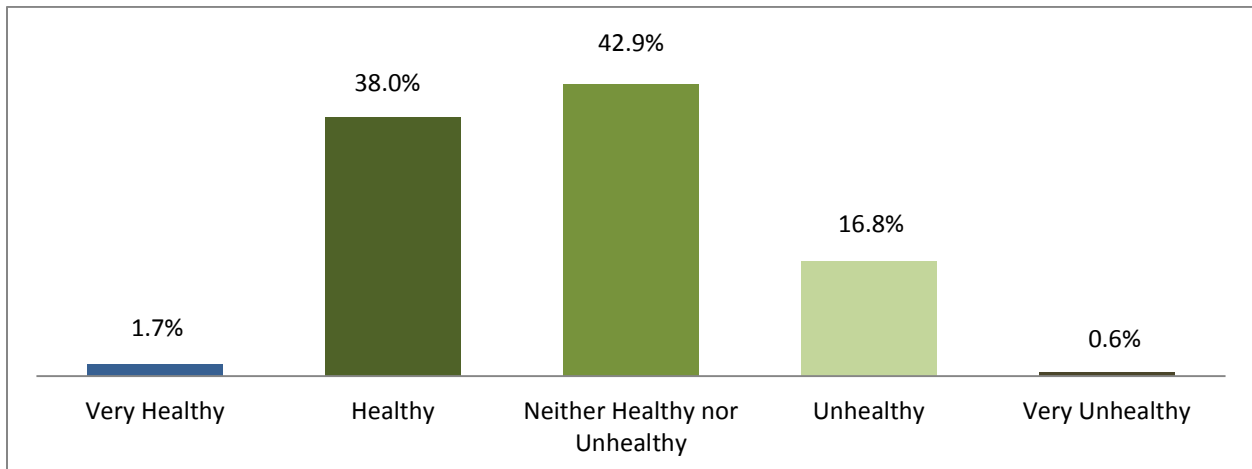
Table 16: What are the top three health needs people in our community face? (Q2)

Item	Percent	Item	Percent
Cost of health care	44.8	Inadequate care for seniors	12.6
Obesity	24.6	Suicide	12.0
Access to health care	24.1	Aging related issues	11.2
Drug abuse	24.1	Dental problems	8.4
Mental illness	23.5	Auto accidents	7.6
Alcohol abuse	19.9	Child abuse and neglect	6.2
Cancers	12.9	High blood pressure	5.6
Tobacco use	12.6	Diabetes	5.0
Heart disease and stroke	12.6		

N=357

The survey’s core questions addressed perceived community health and health care needs. While approximately one-third of the respondents (38%) rated the overall health of the community as “healthy,” almost half (42.9%) chose the neutral response of “neither healthy nor unhealthy” (Figure 5). An additional 16.8 % rated the community as “unhealthy” with a very small 0.6% selecting “very unhealthy.”

Table 17: In the most general terms, how would you rate the overall health of our community? (Q3)



Most respondents cited the following characteristics of the Douglas County community as contributing to people’s health and well-being in a positive way included:

- Outdoors and recreation
- Air quality
- Sense of community
- Access to quality care
- Environment
- Sunshine
- Water quality

Table 18: What contributes to people's health and well-being in a positive way? (Q4)

Item	Percent	Item	Percent
Outdoors and recreation	44.7	Environment	4.4
Air quality	21.2	Sunshine	2.4
Sense of community	12.6	Water quality	1.8
Access to quality care	5.9	Other	7.1

N=340

Respondents cited the following factors as most important for a healthy community and improving the quality of life in the community: good jobs and a healthy economy (45.8%), low crime and safe neighborhoods (30.6%), access to health care (29.2%), clean environment (28.7%), and strong family life (25.3%). Affordability of health care, insurance, and housing were not as important such as a good place to raise children (19.1%).

Table 19: Factors for a healthy community and improving the quality of life in our community? (Q5)

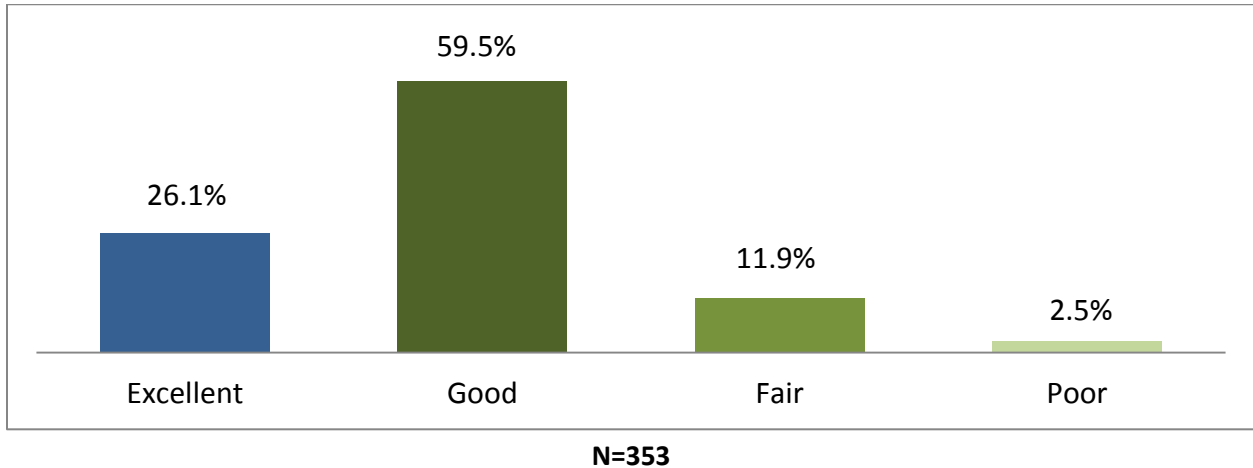
Item	Percent	Item	Percent
Good jobs and healthy economy	45.8	Good place to raise children	19.1
Low crime and safe neighborhoods	30.6	Affordable health care	17.4
Access to health care	29.2	Affordable health insurance	15.4
Clean environment	28.7	Parks and recreation	11.5
Strong family life	25.3	Affordable housing	10.7
Good schools	19.7	Services for seniors	10.1

N=356

Individual Health and Health Care Needs

The majority of respondents rated their overall health as “good” (59.5%) or “excellent” (26.1%) with 11.9% reporting “fair” health, and 2.5% designating their personal health as “poor.” (Table 20)

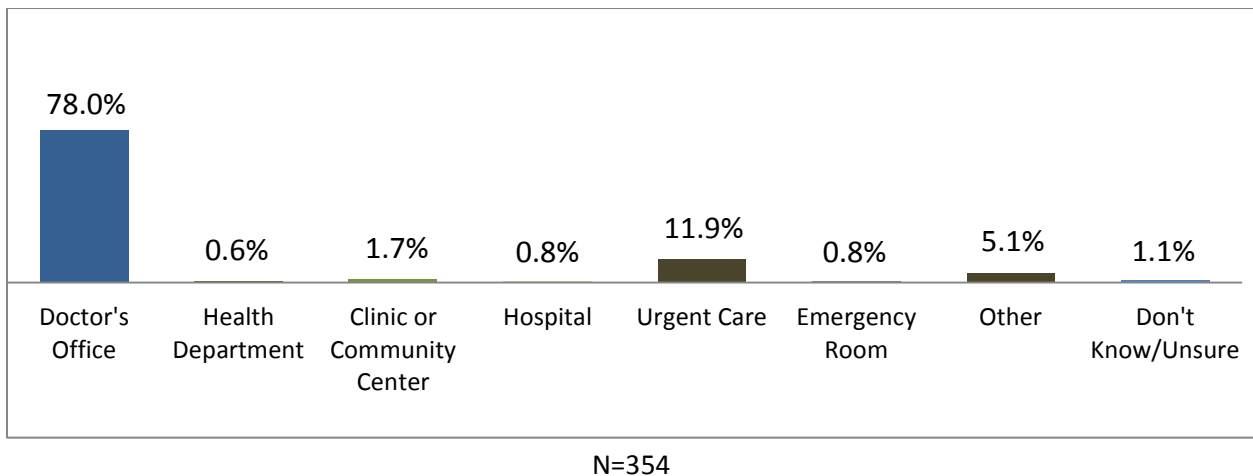
Table 20: How would you rate your personal health? (Q6)



Health Care Utilization

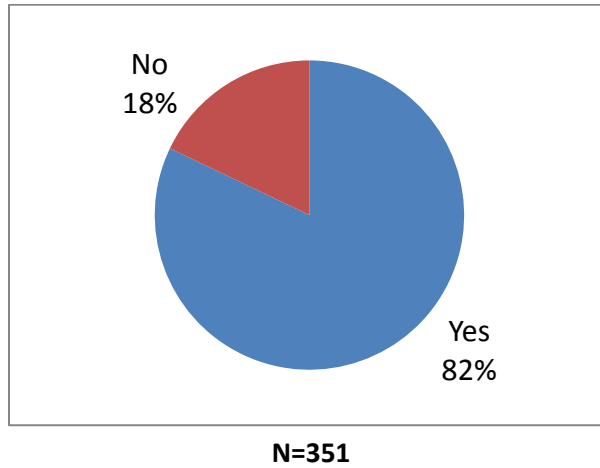
The majority of respondents (78.0%) indicated that they use their family doctor as their primary source of information.

Table 21: Where do you go most often for your medical care? (Q8)



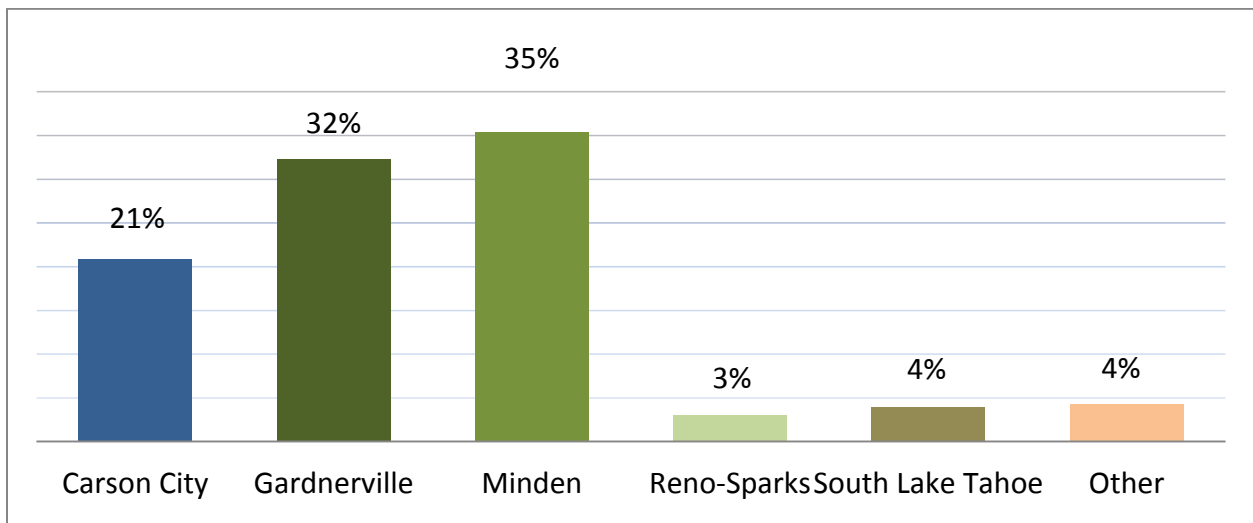
82% have at least one person they think of as their personal doctor or health care provider

Table 22: Do you have at least one person you think of as your personal doctor or health care provider? (Q7)



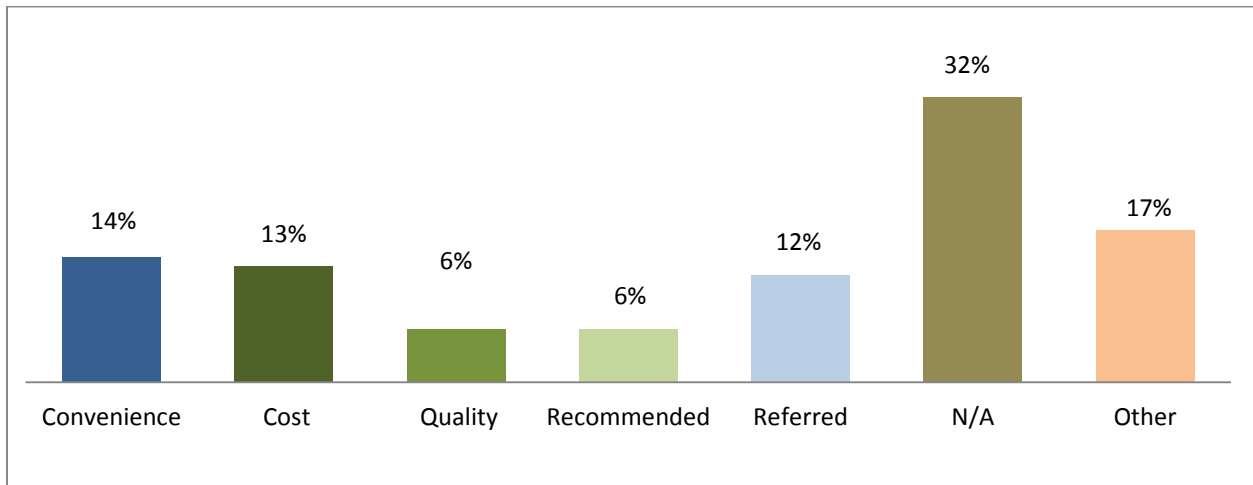
The majority of respondents used health care related services in Gardnerville and Minden (67%). One in five goes to Carson City.

Table 23: Where do you primarily go to for your health care related needs? (Q9)



Two-thirds of respondents (68%) had received care from a hospital or medical provider other than Carson Valley Medical Center in the past year. Those individuals cited the following reasons for going elsewhere: convenience (14%), cost (13%), referred to another hospital or medical provider by a local physician (12%), quality (6%), hospital or medical provider was recommended by a friend or relative (6%), and other (17%).

Table 24: In the past year, if you received medical care anywhere other than Carson Valley Medical Center, if yes why? (Q10)



Only 21% reported that there was a time in the past 12 months when they needed to see a doctor, but could not because of the cost

Table 25: Time in the past 12 months when you needed to see a doctor but could not because of the cost? (Q11)

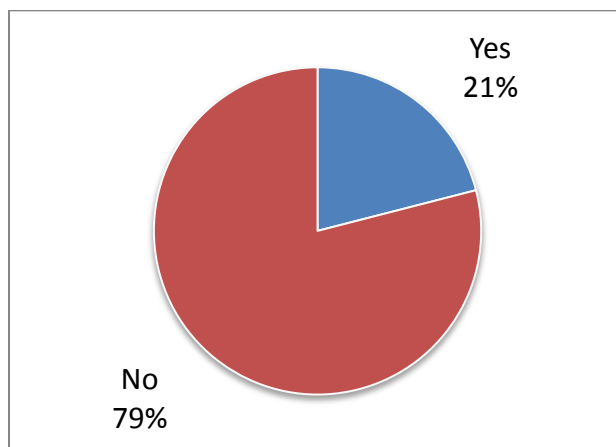
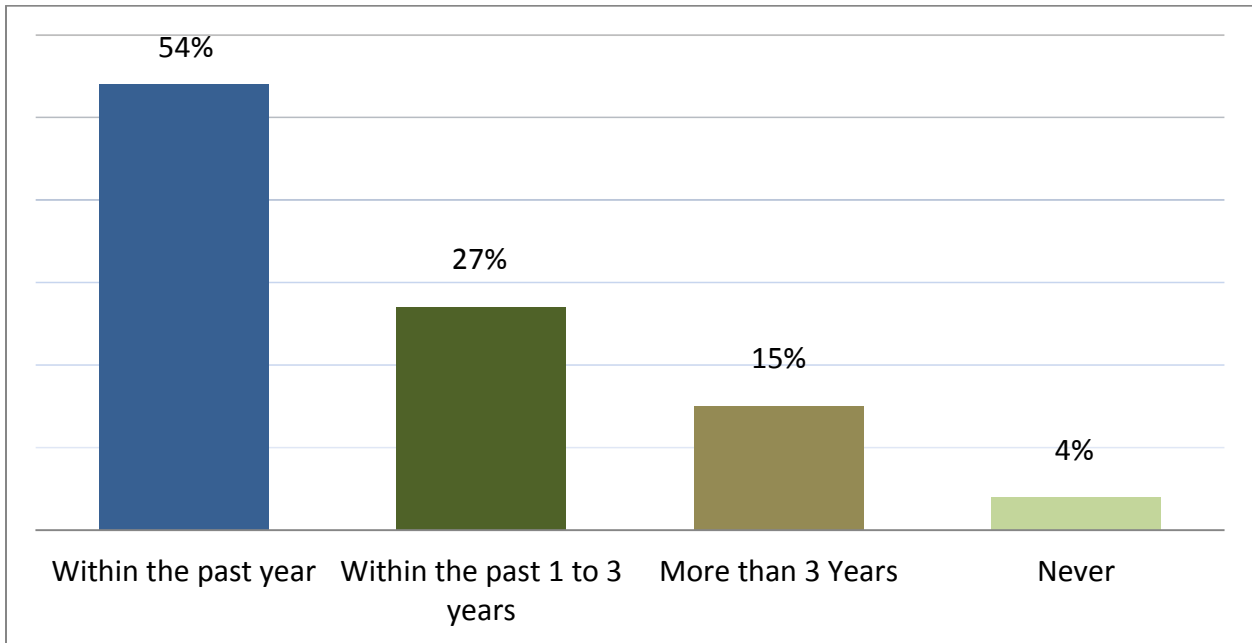


Table 26: How long has it been since you last visited a doctor for a routine checkup? (Q12)



Principal barrier you face in accessing health care in our community? (Q13) N=320

- Finding a place that takes my insurance (21.3%)
- Finding a place open when I'm not working (19.7%)
- Finding free or low cost services (15.3%)
- Ability to take off work without losing pay (6.3%)
- Finding a place where they speak my language (1.9%)
- Lack of transportation (1.6%)
- Other (33.0%)
- Lack of quality care locally, including specialists
- Cost of care and insurance deductibles
- Appointment availability
- "No barrier" or "Not applicable"

What concerns you most about health care in the Carson Valley Community and surrounding area?
(Q.14) N=301

- Affordable medical services (25.9%)
- Lack of access to specialists/specialty care (15.3%)
- Access barriers related to lack of insurance (10.6%)
- Services for vulnerable populations such as seniors, children, under/uninsured (9.3%)
- Quality of physicians and care (9.0%)
- Substance abuse (5.3%)
- The effect of health care reform (5.0%)
- Other (19.6%)
- Nothing, N/A
- Transportation

What additional services you would like to see at Carson Valley Medical Center? (Q.16) N=178

- Free or low-cost services (15.7%)
- Improve current services at CVMC (15.2%)
 - Expanded urgent care services
 - Diabetes
 - Cardiac services including surgery
 - Extended hours of operation
 - Accept more forms of insurance
- Education and preventative medicine services (12.4%)
 - Diabetes education
 - Weight management
 - Disease screening
 - Health fairs
- Pediatrics and child delivery services (9.0%)

- Advanced surgical options (6.2%)
- Mental health services (4.5%)
- Other (30.5%)
 - Dental (3.9%)
 - Alternative medicine (2.8%)
 - OBGYN (2.2%)
 - Diabetes (1.7%)
 - “None” or “Not applicable” (19.1%)

Service Area Population Health Data

Secondary Data Sources

- Behavioral Risk Factor Surveillance Survey (BRFSS)
- Nevada Healthcare Quarterly Reports (NHQR), Center for Health Information Analysis (CHIA)
- Nevada State Health Division

Population Health in Douglas County

This section discusses secondary data about mortality rates, places Douglas County residents go for hospital care, and major diagnosis categories of care. Vital Statistics on Mortality were supplied by the Nevada State Health Division. Information about hospital utilization was developed for two different year groupings, 2009 and 2011. The behavioral risk factor surveillance data discussing self-reported information about health care and personal behavior patterns.

The residents have a higher mortality rate from accidents, Alzheimer’s disease, chronic liver disease and cirrhosis, and diabetes mellitus than the state or the national rate. The county is lower for the major diseases of the heart, malignant neoplasms (Cancer), cerebrovascular diseases, and chronic lower respiratory diseases.

Table 27: Age-Adjusted Mortality Rates - 2011

Cause of Death	Age-Adjusted Number of Deaths per 100,000 Population		
	Douglas County	Nevada	US
Accidents	54.1	41.2	38.0
Alzheimer’s Disease	23.7	15.8	24.6
Cerebrovascular Diseases (Strokes)	33.5	35.6	37.9
Chronic Liver Disease and Cirrhosis	21.9	10.8	9.7
Chronic Lower Respiratory Diseases	32.7	49.5	42.7
Diabetes Mellitus	20.9	15.1	21.5
Diseases of the Heart	132.2	194.9	173.7
Malignant Neoplasms (Cancer)	156.2	169.0	168.6
Total	682.0	791.9	740.6

The admissions pattern for Douglas County residents in 2011 should more than half go to Carson-Tahoe Medical Center.

Table 28: Inpatient Admissions of Douglas County residents - 2011

Diagnosis Related Group	Admissions	
	Number	Percent
Carson-Tahoe Regional Medical Center	2,262	58.1
Carson Valley Medical Center	601	15.4
Renown Regional Medical Center	523	13.4
Sierra Surgery Hospital	203	5.2
Saint Mary’s Regional Medical Center	130	3.3
Carson Tahoe Continuing Care	55	1.4
Renown Rehabilitation Hospital	41	1.1
Renown South Meadows Medical Center	26	0.7
Northern Nevada Medical Center	25	0.6
Other Hospitals	24	0.6
Total Admissions Douglas County Residents to Other Hospitals	3,890	100.0

Due to privacy issues, diagnosis less than 10 admissions are suppressed and placed into a category named other DRGs, 58.0%, of the Admissions. The percentages in the table 29 were calculated from the 340 identified admissions.

The 15.4% of Douglas County residents who utilized Carson Valley Medical Center for their care, one in four were diagnosed with respiratory issues (27.6%), one in six with musculoskeletal system (17.1%), one in seven with digestive issues (14.1%), and one in eight with factors influencing health status (12.4%) which are usually complaint driven prior to a diagnosis.

Table 29: Carson Valley Medical Center Inpatient Admissions - 2011

Diagnosis Related Group Categories	Admissions	
	Number	Percent
Respiratory System	94	27.6
Musculoskeletal System and Connective Tissue	58	17.1
Digestive System	48	14.1
Factors Influencing Health Status	42	12.4
Circulatory System	38	11.2
Hepatobiliary System and Pancreas	25	7.4
Skin, Subcutaneous Tissue and Breast	23	6.8
Infectious and Parasitic Diseases	12	3.5
Subtotal	340	100.0
Other Admissions with counts less than 10	459	58.0
Total CVMC Inpatient Admissions*	809	100.0

The website Nevada Compare Care uses data from 2009 which may help inform about residents' hospital utilization. In 2009, the highest number of admissions was for musculoskeletal issues, 15.4%, and the proportion of CVMC admissions was 15.0%. The second largest diagnostic group was for circulatory system issues and the general percent of the population in the category was 12.4% and 10.9% of the admissions at CVMC were for this disease, lower than the general population rate. In these terms in most of the major diagnostic categories CVMC admissions were greater than the general utilization percentages.

Table 30: Douglas County Inpatient Admissions - 2009

Major Diagnostic Category	Admissions			CVMC	
	Number	Rate of Discharge per 1,000 Population	Percent	Admissions	Percent
Musculoskeletal System and Connective Tissue	598	12.4	15.4	121	15.0
Circulatory System	481	10.0	12.4	88	10.9
Digestive System	428	8.9	11.0	135	16.7
Respiratory System	413	8.6	10.6	169	20.9
Nervous System	243	5.0	6.2	29	3.6
Kidney & Urinary Tract	144	3.0	3.7	25	3.1
Hepatobiliary System and Pancreas	129	2.7	3.3	55	6.8
Factors Influencing Health Status	118	2.4	3	44	5.5
Infectious and Parasitic Diseases	110	2.3	2.8	26	3.2
Endocrine, Nutritional & Metabolic	109	2.3	2.8	31	3.8
Skin, Subcutaneous Tissue and Breast	73	1.5	1.9	31	3.8
Injuries, Poisonings & Toxic Effects of Drugs	73	1.5	1.2	17	2.1
Ear, Nose, Mouth & Throat	46	1.0	1.2	13	1.6
Other Major Diagnostic Categories	744		0.3		2.9
Total Douglas County Inpatient Admissions*	3,889	80.5	---	807	100

The following four charts discuss the Behavioral Risk Factor Survey results for Douglas County residents. The tables are percentage based and comparisons can be made between Douglas County, Washoe County, the state, and the US as the survey methodology is has a standardized methodology from the Centers for Disease Control.

The conditions are split for residents having certain health conditions. The residents have lower percentage rates for diabetes, heart attack, and asthma. There are higher rates for heart disease or angina, stroke, cholesterol, and blood pressure.

Table 31: Behavioral Risk Factors - 2011

Risk Factor – Ever been told by a Doctor that ...	Percent of Target Population			
	Douglas County	Washoe	Nevada	US
You have diabetes	8.8	9.7	10.3	9.5
You had heart disease or angina	4.8	4.4	4.1	4.1
You had a heart attack	4.2	8.5	8.1	9.1
You had a stroke	4.5	2.9	3.2	2.9
You have high cholesterol	38.7	36.1	37.3	38.4
Your blood pressure was high	33.1	30.2	30.8	30.8
You have asthma	6.1	13.2	13.8	13.6

The data suggests there is room for improving residents' utilization of preventive services. When comparing the regions on the table, Douglas County residents only utilize pneumonia shots more than other areas as part of the preventive services.

Table 32: Use of Preventive Service - 2011

Risk Factor	Percent of Target Population			
	Douglas County	Washoe	Nevada	US
Mammogram in past 2 years (Age 40+)	65.6	70.6	67.2	75.2
Mammogram ever (Age 40+)	87.4	93.1	90.5	91.9
Pap test within past year	40.6	57.8	54.2	56.2
Sigmoidoscopy (Age 50+)	69.1	69.8	61.5	65.2
Flu shot within past year (Age 65+)	44.6	53.9	53.7	61.3
Flu shot within past year (Age 18+)	30.8	31.1	27.5	38.2
Pneumonia shot (Age 65+)	81.3	74.1	68.9	70.0
Pneumonia Shot ever (Age 18+)	44.0	31.0	29.4	31.3
Tested for HIV (Age 18+)	27.1	37.3	41.2	34.5
6+ permanent teeth removed (Age 18+)	15.6	11.5	14.4	14.7
Visited dentist within past year (Age 18+)	67.9	72.4	67.2	69.7

There are many less current smokers than in other areas as well as more former smokers. Binge drinking is lower but heavy drinking is similar to Washoe County known for its heavy drinking. Obesity appears to be lower than most while the physical activity of the last 30 days is more.

Table 33: Behavioral Risk Factors for Health - 2011

Risk Factor (Adults Aged 18+)	Percent of Target Population			
	Douglas County	Washoe	Nevada	US
Current smokers	13.9	22.3	22.9	21.2
Former smokers	39.0	26.5	24.6	25.1
Heavy drinkers	8.6	8.6	6.8	6.6
Binge drinkers	13.8	19.3	18.6	18.3
Overweight or obese	57.9	59.7	60.2	63.8
Obese	23.4	23.2	24.5	27.8
Report physical activity past 30 days	82.2	81.2	75.7	73.8
Eat fruits and vegetables	80.9	82.0	82.6	84.3

A group of general questions were asked about life. Most people have health insurance, 85%; three of four people reported good or very good health (77.1%), over 90% report to be satisfied with life. One in four is limited by physical, mental or emotional problems and less than 10% are required to use special equipment.

Table 34: Insurance, Health, Life Satisfaction, Seatbelts

Risk Factor (Adults Age 18+)	Percent of Target Population			
	Douglas County	Washoe	Nevada	US
No health insurance of any kind	15.0	25.5	27.3	17.9
Reported “poor” to “fair” health	23.1	19.6	20.2	17.2
Reported “dissatisfied” or “very dissatisfied” with life	7.2	6.5	7.3	6.2
Limited by physical, mental, or emotional problems	22.7	23.2	23.1	24.3
Required to use special equipment (e.g., cane, wheelchair, special bed)	6.2	7.4	7.9	7.9
Reported “always” or “almost always” use seatbelts	87.3	89.2	87.3	86.0

Community Health Needs Assessment

CVMC IMPLEMENTATION PLAN

This section provides a summary of the significant health needs and concerns identified in the Community Health Needs Assessment, taking into account the primary data collected from survey respondents and the secondary data available regarding health risk factors and behaviors for the population served by CVMC. Of the top five issues, four could be reasonably addressed by CVMC. The remaining issue – drug abuse – is not an issue that can be directly addressed by CVMC given our current scope and resources. However, as a community-minded organization, we recognize the opportunity to increase support to the Partnership of Community Resources, a local agency whose mission is to monitor and increase awareness and prevention programs for substance abuse in our community.

HEALTH CONCERNS

The top five health concerns in our community were perceived to be: Cost of healthcare, obesity, access to healthcare, drug abuse, and mental illness.

Priority Issue One: Cost of Healthcare

Over 44% of survey respondents listed cost of healthcare as a concern, and 21% of respondents indicated that there was a time in the past 12 months that they needed to see a doctor, but could not due to cost.

CVMC Action Plan:

- Provide education and information about healthcare costs and options for community.
- Expand providers to provide alternate options for low cost healthcare for uninsured and underinsured.
- Expand community wellness/preventative services within the community.
- Continue efforts to control costs of providing healthcare, which will include utilizing Health Information Exchange, increasing efficiencies and properly using advancing healthcare technologies.

Priority Issues Two: Obesity

Nearly one quarter of survey respondents listed obesity as a top health concern for the community.

CVMC Action Plan:

- Expand outpatient nutritional services and create a nutrition-based community wellness program to be offered in various community locations, including the Carson Valley Senior/Community Center.
- Offer a nutrition-based segment of workplace wellness program.

Priority Issue Three: Access to Healthcare

Access to healthcare was a concern for 24.1% of survey respondents. In addition to access barriers related to cost (see above), respondents also noted barriers due to insurance, limited operating hours, and lack of access to specialists.

CVMC Action Plan:

- Establish urgent care services in community, to offer extended hours and additional providers.
- Continue to pursue additional insurance contracts to increase utilization at CVMC facilities.
- Expand Workplace Wellness program to bring more services to large employers within our community.
- Offer varied healthcare services at the Douglas County Senior/Community Center.
- Expand telemedicine services to increase access to specialists.

Priority Issue Four: Drug Abuse

Drug Abuse in the community was a concern for 24.1% of respondents.

CVMC Action Plan

- Collaborate with local agency Partnership of Community Resources, to identify addiction trends and facilitate services.

Priority Issue Five: Mental Illness:

Mental illness in the community was a concern for 23.5% of survey respondents.

CVMC Action Plan:

- Expand senior mental health wellness program to other groups in the community.
- Collaborate with VA to expand senior wellness program.

OPPORTUNITIES TO IMPROVE HEALTH AND WELLNESS

According to the secondary data gathered in the Community Health Needs Assessment process, it was noted that Douglas County residents have higher rates of high blood pressure, high cholesterol, stroke, and heart disease than state and national averages. Douglas County residents also have lower rates of preventative mammography and flu vaccinations than state and national averages.

This data presents an opportunity for CVMC to increase community wellness services and programs targeting healthy heart and nutrition as well as increase promotion and education of early detection through mammography and population wellness through annual influenza vaccinations.

Appendices and Notes

Carson Valley Medical Center (2012). " Carson Valley Medical Center website."

American Community Survey, US Census Bureau. 5-year Estimates, 2005-2009. Washington, D.C.: US Census Bureau; 2011. Accessed Sept. 2011. Available at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Census 2010 and Census 2000. U.S. Census Bureau. Summary File 1. Washington, D.C., 2012. <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Center for Health Information Analysis (2012). Hospital Utilization Data. <http://chia.unlv.edu/>

Doeksen, G., C. St. Clair and V. Schott (2011). Template for Community Health Needs Assessment. National Center for Rural Health Works. Stillwater, OK, Oklahoma State University.

ESRI 2011. Business Analyst Online: Release 10. Redlands, CA: Environmental Systems Research Institute. <http://bao.esri.com/>

IBM SPSS (2011). IBM SPSS Statistics 19. IBM. Armonk, N.Y.

Keehan DC, S. C. (2011). Assessing and Addressing Community Health Needs: Discussion Draft. Washington, D.C.

Minnesota IMPLAN Group (2010). IMPLAN Version 3.0 User's Guide. Hudson, WI, Minnesota IMPLAN Group, Inc.

Minnesota IMPLAN Group, I. M. (2011). "Unpublished economic data and models ". from www.implan.com

Survey Monkey LLC (2011). Survey Monkey. Palo Alto, CA.

APPENDIX 1 – QUESTIONNAIRE USED FOR COMMUNITY INPUT