

# **Community Health Needs Assessment**

# South Lyon Medical Center / Yerington, Nevada

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## **Community Health Needs Assessment**

#### **South Lyon Medical Center**

#### Introduction

The Nevada Office of Rural Health (NORH) provided technical assistance to Nevada rural hospitals undertaking a comprehensive community health care needs assessment (CHNA). This technical assistance was supported by grant funding from the Medicare Rural Hospital Flexibility Program (Flex). This CHNA was undertaken South Lyon Medical Center with the assistance of the NORH, University Center for Economic Development (UCED), and Nevada NRHP.

This CHNA involved community 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 U.S. Census Information 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 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, SLHC, Inc. 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.

## **Demographic Profile of South Lyon County**

## **Medical Service Area of South Lyon Medical Center**

## Definition and Description of the Community Served by South Lyon Medical Center

The primary medical service area for South Lyon Medical Center consists of three zip code tabulation areas: 89430 (Smith Valley), 89444 (Wellington) and 89447 (Yerington). For Wellington, the portion of the zip code tabulation area within Douglas County was also included. See Figure 1 for a map of the primary medical service area considered in this report. This area is 1,098 square miles in size, larger than the state of Rhode Island (1,033).



Figure 1. Primary Medical Service Area of South Lyon Medical Center (Zip codes 89430, 89444, and 89447)

Source: ESRI Business Analyst On-line

## **Existing Health Care Resources and Facilities in South Lyon County**

South Lyon Medical Center (SLMC) is a 14-bed acute care non-profit Hospital with an attached 49-bed skilled nursing facility located in Yerington, Nevada. The hospital offers non-invasive cardiac monitoring, C-T and MRI services, as well as general medical and pediatric inpatient services. Physical therapy, laboratory, and social services are also offered. The nutritional services department serves approximately 5,200 meals monthly.

Four affiliated clinics serve the area. Three of these are in Yerington and one is in Smith Valley. Three are classified as rural health clinics: (1) Physicians Clinic, an outpatient clinic, with one PA (Physician's Assistant) and two APRN's (Advanced Practice Registered Nurse); (2) Barnett Clinic for walk-in patients with one Physician Assistant and additional backup available from the Emergency Room Physician; (3) Smith Valley Physicians Clinic, an outpatient clinic, with one physician and one PA (Physician Assistant.) The fourth clinic is a Visiting Physicians Clinic, supplying facilities for specialty care from scheduled rotating physicians.

There is one adult group care facility and one home health care agency that are not affiliated with SLMC.

## Total population and trend

According to the Census 2010 data, the population of the SLMC service area was 11,098. The population increased by 111 people or about 1% from the 2000 Census to the 2010 Census. This is in contrast to the overall Nevada growth rate of about 35% over the same period. Given the impacts of the recession and housing crisis on the state of Nevada, population growth throughout the state is projected to be modest over the next few years. The SLMC service area, however, may experience significant growth in the next few years if plans to open a nearby copper mine are carried out. Currently, this area is primarily agricultural.

## **Aging trends**

The proportion of south Lyon County population aged 65 years and older was 25% in the 2010 Census or 2,750 individuals. This is about twice the proportion of this age group in the national or state population. The ratio of people aged 65 and older compared to people aged 0 to 64 is one to three compared to the ratio of one to seven in Nevada. There is also a higher proportion of the 85 and older group in South Lyon area (3%) as compared to the Nevada population as a whole (1%). See Figure 2 for a comparison of the proportion of the population in each age group 55 and older in Census 2000 and Census 2010. Each of these older cohorts is a larger percentage of the population in 2010 than it was in 2000.

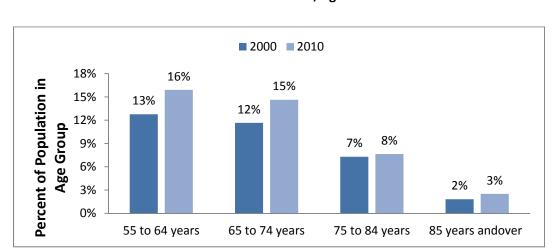


Figure 2. Percentage of Total Population by Age Group for SLMC Service Area, Census 2000 and Census 2010, Age 55 and Older

Despite the slow population growth in the SLMC service area, the population 65 and up grew 20% or by 468 individuals from 2000 to 2010. The proportion of individuals age 55 to 64 increased from 13% to 16% of the population in the SLMC service area over the ten years between Censuses. Given this large baby boomer population, the number of people in the area with Medicare coverage is very likely to continue to increase. If the copper mine opens, younger residents may also increase significantly.

## **Diversity**

Population diversity increased from year 2000 to 2010. The Hispanic population increased by 134 individuals between years 2000 and 2010. The proportion of Hispanics in the population increased from 16% to 17%. For comparison, the state of Nevada was 27% Hispanic in 2010. The Hispanic population was much younger on average than was the non-Hispanic white population. For example, 31% of the white non-Hispanic population is 65 or older, while only 6% of the Hispanic population is aged 65 or older (see Figure 3). The percentage of non-white population increased from 15% to 19% over the ten year period while 25% of the Nevada population reported being non-white or mixed race.

The SLMC service area is a slowly growing population with a large and growing proportion of older individuals. The population also became more diverse. The region's demographic composition is likely to change if the copper mine opening proceeds.

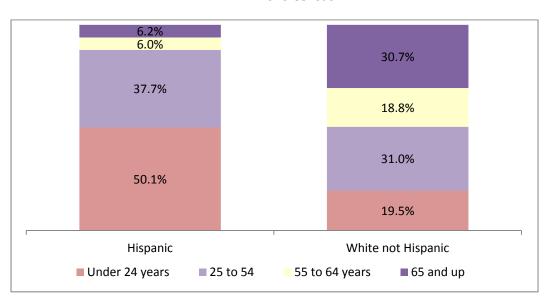


Figure 3. Comparison of SLMC Service Area Population by Age Group and Hispanic Ethnicity, 2010 Census

## Social and Economic Profile of SLMC Service Area

The proportion of the population aged 25 or older with high school degrees was comparable to state and national proportions at 84%. From the 2010 census, the proportion of the population aged 25 and older with a Bachelor's degree or higher, was about 13%, lower than Nevada's (21%) proportion and the United States' (28%) proportion. The United States Bureau of Labor Statistics estimated an unemployment rate of in Lyon County of 8.7% as of December 2015, higher than the national rate of 5.0% and the Nevada rate of 6.1%.

In summary, this service area has a large proportion of individuals 65 and older, which means health care planners are heavily affected by any changes in Medicare policy. Incomes are lower than average with a high proportion of households in the 100% to 200% of poverty level income range. The region has been slow growing but has become more diverse over the last decade. A planned mine opening may cause significant population

growth and bring in younger families as well as change other demographic, economic and social characteristics of the region.

## **Economic Impact of South Lyon Medical Center**

The presence of a hospital in southern Lyon County with 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 health care jobs and dollars re-circulating within the SLMC primary service area. Additional jobs within the region are associated with direct employment and purchases of SLMC. South Lyon Medical Center employs 161 full-time employee equivalents (FTEs) in 2015 with a payroll of \$6.5 million. The indirect effects of the hospital purchases from other businesses in the community as well as the effects of more payroll available to local households were associated with an additional 46 FTE and \$1.4 million in payroll in other businesses within south Lyon County area .

South Lyon Medical Center has an important economic role in addition to its role as health care provider.

## **Community Health Needs Assessment Project**

## **Primary Data Collection and Analysis**

This section describes the process that Nevada State Office of Rural Health (NSORH) utilized to solicit community input on local health and health care needs in Yerington and south Lyon County, Nevada.

NSORH staff met with administration and staff of SLMC in April 2015, to review the CHNA process. For the initial meeting with hospital personnel, NSORH outlined the process and phases of the CHNA and provided the hospital with a letter to send to community stakeholders and organizations.

## Collaboration with community organizations representing broad interests of the community

South Lyon Medical Center solicited input of membership of the many community organizations including Lyon County government, Lyon County School district, Yerington and Smith Valley Rotary and St. John's Catholic Church.

#### **Survey Development**

The survey instrument was developed by NSORH 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. NSORH designated core questions be included in each survey that would allow. Additional questions were subject to the approval of the administration and/or CHNA committee of the participating hospital. Like other CHNA surveys being developed by NSORH, 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). Surveys questions were finalized via teleconference with NSORH. An eighteen question community input survey was designed for the South Lyon Medical Center CHNA.

## **Survey Distribution**

1,750 surveys were distributed to local community business and groups, including Yerington and Smith Valley Schools. 480 Spanish surveys were provided to Yerington Elementary school in an attempt to reach out to non-English speaking community members. An online version of the survey with identical questions was made available on the South Lyon Medical Center website and Facebook page using Survey Monkey. 302 completed paper surveys were returned to NSORH (8 in Spanish) and 52 additional surveys were completed online. The University of Nevada Institutional Review Board did not require approval of this pilot project because the information was collected for a community health needs assessment rather than research purposes.

## **Survey Methodology & Measures**

Demographic questions were not included in the core questions provided by NORH to estimate the characteristics of the respondents. The rationale for not including demographic questions is three-fold. First NORH has prior survey administration experience 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). South Lyon Medical Center did not elect to add questions related to socio-demographic factors when given the opportunity to revise the survey questionnaire.

## **Community Health and Health Care Needs Focus**

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 to the health of the community (multiple choice), 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 the top health care challenges in the South Lyon 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 sources of health insurance coverage (multiple choice) and the length of time the coverage was in effect (multiple choice), primary source for medical information (multiple choice) and the towns or city where they receive the majority of care (multiple choice).

## **South Lyon Medical Center Utilization**

Survey respondents were asked whether they had used the services of South Lyon Medical Center (dichotomous), which services they had used at South Lyon Medical Center (multiple choice.) Participants were also asked whether they had used the services of another hospital or medical provider (dichotomous) and to select the reasons for doing so from a list of options (multiple choice).

## **Analyses**

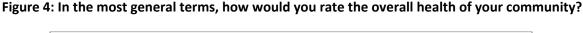
Assessment data were analyzed using SPSS (IBM Statistics 19) and thematic analysis. Paper surveys were scanned into an Excel database using AUTODATA Scannable Office. For the paper surveys, basic descriptive frequencies were calculated for close-ended questions surveys using SPSS. Data from the online survey (consisting of identical questions to the paper version) were hand entered into an Excel database and merged with data from the scanned surveys. Cumulative frequencies and percentages were then calculated in Excel for the merged datasets. Responses to open-ended questions for both versions of the survey were transcribed into Microsoft Word and thematic analysis was conducted to determine major issues and health needs.

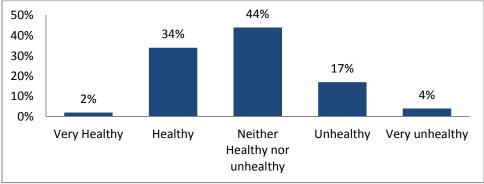
Questionnaire is at the end of the CHNA

#### **Community Health and Health Care Needs**

## **Survey Outcomes**

The survey's core questions addressed perceived community health and health care needs. While approximately one-third of the respondents (34%) rated the overall health of the community as "healthy," almost half (44%) chose the neutral response of "neither healthy nor unhealthy" (Figure 4). An additional seventeen percent rated the community as "unhealthy" with four percent selecting "very unhealthy."





Respondents rated the top health needs people in the community face as: Access to health care services (17%), Cost of health care (15%), Aging related problems, such as arthritis or hearing loss (8%), Obesity (7%) and Cancers (6%). Respondents cited the following factors as most important for a healthy community and improving the quality of life in the community: Access to health care (20%), Good jobs and a healthy economy (18%), Healthy behaviors and lifestyles (11%), Good place to raise children (8%), Strong family life (8%), Good schools (7%) and Low crime and safe neighborhoods (7%). Respondents identified their top concerns about health care in the south Lyon County community and surrounding area as:

- Quality of care considerations
- Lack of physicians
- Lack of specialists
- · Cost of health care

- Limited services for the elderly
- Need for education on disease prevention

#### **Individual Health and Health Care Needs**

The majority of respondents rated their overall health as "good" (76%) or "excellent" (10%) with 12% reporting "fair" health and only 2% designating their personal health as "poor." (Figure 5)

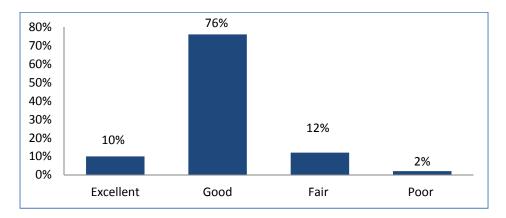


Figure 5: In general, how would you rate your personal health?

### **Health Care Utilization and Health Insurance Coverage**

Figure 6 highlights the distribution of health insurance coverage among respondents. Almost half of respondents (48%) indicated that they use a Preferred Provider Organization (PPO) as their primary source of health insurance or health coverage (Figure 6). Thirty eight percent indicated that their primary source of insurance or coverage was Medicare, five percent were covered by Medicaid and another four percent selected Other and Other Public respectively. An additional seven percent indicated they were not insured. Most respondents (77%) indicated they maintained continuous insurance coverage for more than 2 years. Of those surveyed:

- 75% have used hospital or clinic services provided by South Lyon Medical Center in the past year
- 69% received care from a hospital or medical provider other than South Lyon Medical Center in the past year

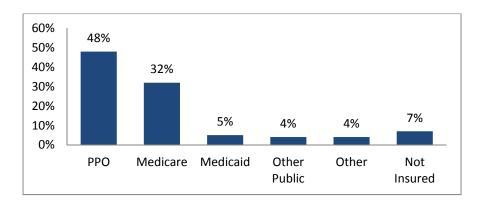


Figure 6: Primary Health Insurance/Health Coverage

The majority of respondents (54%) indicated that they use their family doctor as their primary source of information. Over one in four cited the Internet as their primary source for medical information (Figure 7).

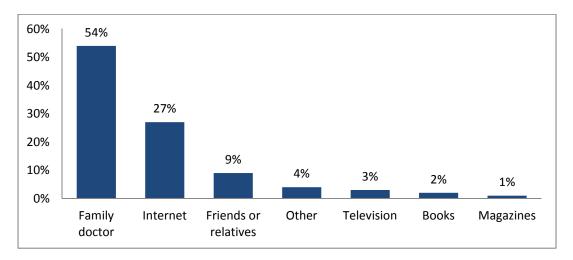


Figure 7: What is your primary source for medical information?

## **South Lyon Medical Center**

The forty-three percent of respondents had used hospital or clinic service provided by South Lyon Medical Center in the past year, followed by a tie between Carson City and Reno (21%) from Figure 8.

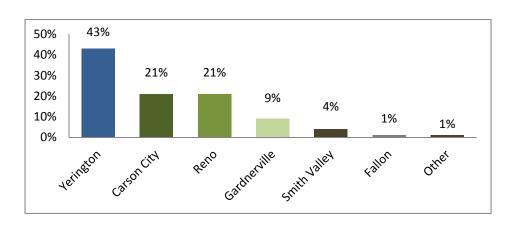


Figure 8: Which one of the following towns or cities do you primarily go to for your health care related needs?

Those who had visited South Lyon Medical Center accessed the following services: primary care clinic services - physician or nurse practitioner visit (34%), laboratory (18%), radiology – X-ray CT MRI (15%), emergency department (11%), flu shots (6%), radiology – mammography (6%), physician referral (5%.)

Figure 9 highlights that the majority of respondents were satisfied (49%) or very satisfied (15%) with the care they received at SLMC, while twenty-one percent were neither satisfied nor dissatisfied, and fifteen percent either dissatisfied (8%) or very dissatisfied (7%).

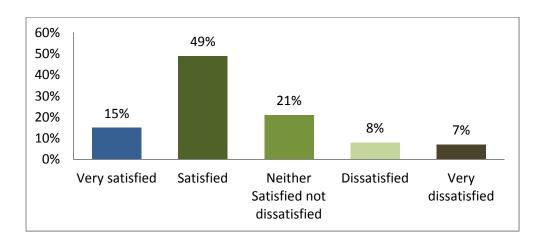


Figure 9: Satisfaction with the services received at South Lyon Medical Center

Over two-thirds of respondents (69%) had received care from a hospital or medical provider other than South Lyon Medical Center in the past year. Those individuals cited the following reasons for going elsewhere: hospital or specialty services were not available locally (34%), quality of care considerations (22%), referred to another hospital or medical provider by a local physician (15%), insurance coverage (6%), closer or more convenient (6%), hospital or medical provider was recommended by a friend or relative (5%), costs were lower (3%), confidentiality (3%), Out of town when the illness or injury occurred (2%) and other (5%). Less than one-fourth of respondents (23%) indicated that they would use pediatric care services in south Lyon.

#### **Secondary Data Collection and Analysis**

Secondary data was not collected by the organization performing this community health need assessment report. It was collected by Federal, State and private agencies and retrieved for this report through data set agreements or retrieved from public available sources, e.g. American Community Survey or the U.S. Census Bureau.

## South Lyon Medical Center Patient Utilization of Inpatient, Emergency Room and Outpatient Services

## Methodology

The number of inpatient stays, emergency room and outpatient services utilized at South Lyon Medical Center was summarized from the medical data submitted to the State of Nevada for the calendar year 2014. This data is from the Center for Health Information Analysis (CHIA), a research center at the University of Nevada Las Vegas (UNLV) within the School of Community Health Sciences. CHIA is contracted by the Nevada Department of Health and Human Services (DHHS), Division of Healthcare Financing and Policy (DHCFP).

Inpatient data summarized by the major diagnosis categories. The Major Diagnostic Categories (MDC) were created by dividing all possible principal diagnoses (from ICD-9 codes) into the top 25 mutually exclusive diagnosis categories. The diagnoses in each MDC correspond to a single organ system or etiology and in general are associated with a particular medical specialty. MDC 1 to MDC 23 are grouped according to principal diagnoses. Patients are assigned to MDC 24 (Multiple Significant Trauma) with at least two significant trauma diagnosis codes (either as principal or secondary) from different body site categories and MDC 25 is reserved for a patient with HIV. The major diagnosis categories used by the emergency room and outpatient services data is slightly different as the grouping is determined through the coding structure of the ICD-9 codes. Two data sets were used. One data set contained all activity based at South Lyon Medical Center. The second data set contained data of local residents' utilization at all Nevada hospital from the selected zip codes (zip codes 89430, 89444, 89447).

The South Lyon Medical Center data was divided into three sections: (1) inpatient stays; (2) emergency department visits; and (3) outpatient services. The vast majority of the patients treated at SLMC were from the defined medical service area. The balance of services utilized came from residents who were from outside of the Yerington, Wellington, and Smith Valley areas.

#### **South Lyon Medical Center Inpatient Stays**

Of the 1,126 inpatient stays from the South Lyon Medical Center service area, 6.7% were treated at South Lyon Medical Center and 93.3% were treated at out of area hospitals. The major diagnoses groups for the inpatient data at South Lyon Medical Center is summed in the Figure 9. The top three diagnosis groups were respiratory, circulatory, and endocrine comprising 45.3% of all cases. Respiratory diagnosis includes pneumonia, chronic obstruction pulmonary disease, and pulmonary embolism. Circulatory diagnosis includes heart failure, cardiac arrhythmia, and syncope. Endocrine, nutritional, and metabolic diagnosis includes thyroid, diabetes, nutritional deficiencies, and other metabolic disorders.

Figure 9. Inpatient Services Utilization at South Lyon Medical Center - 2014

Major Diagnosis Category	Total SLMC SLMC Patients Hospita  Service Area		SLMC Patients		
	Scribe Area	Number	Percent	Number	Percent
Respiratory	60	23	38.3	37	61.7
Circulatory	25	4	16.0	21	84.0
Endocrine, Nutritional & Metabolic	9	7	77.8	2	22.2
Other	1,032	41	4.0	991	96.0
Total	1,126	75	6.7	1,051	93.3

## **South Lyon Medical Center Emergency Department Visits**

The top three Emergency Department (ED) major diagnosis categories were symptoms and ill-defined conditions, injury and poisoning, and circulatory system. These three categories total were 52.3% of all cases.

Overall ED usage was 93.4% by local residents. Less than seven in one hundred visits were by persons not from the service area, a reminder that the hospital serves a more local community.

The top three categories were general in scope. The major diagnosis group listed is symptoms and ill-defined conditions, which is a broadly defined category for general complaints coming from any part of the body. It is not specific in nature and would be diagnosed at the time of the visit. Injuries and poisonings also include fractures, concussions, and sprains. Metabolic and immunity disorders cover thyroid, diabetes, nutritional deficiencies, and other metabolic disorders.

## **South Lyon Medical Center Outpatient Services Visits**

There was more diversity in the utilization of outpatient services and the top categories were expanded to include five major diagnosis group categories. These categories comprise 76.3% of the services used:

- specific procedures and aftercare
  - o includes follow up visits and continuing care
- metabolic and immunity disorders
  - o involves the thyroid, diabetes, nutritional deficiencies, obesity, immunity deficiencies (not AIDS-HIV), and various disturbances of the metabolism.
- circulatory
  - o includes rheumatic fever, heart disease, hypertension, and acute myocardial infarction
- symptoms and ill-defined conditions
  - o broadly defined category for general complaints coming from any part of the body.
- musculoskeletal system
  - o diagnoses involve arthritis, colitis, uric acid, diabetes, the spine, rheumatism, and bone conditions.

As for emergency department visits, most visits were diagnosed with general symptoms and ill-defined conditions. While this diagnosis is very general in scope, the diagnosis is preliminary in nature not a final diagnosis. Outpatient services diagnosis were more specific with the top four diagnosis groups being circulatory, musculoskeletal, metabolic and immunity disorders, followed with symptoms and ill-defined conditions.

#### **Summary of Community Health Needs in SLMC Service Area**

Local residents access their local hospital for basic care and the first stages of symptom diagnosis. The research data shows local residents going out of the area hospitals for a large percentage of care. The data presents an opportunity for South Lyon Medical Center to evaluate increasing their market share of primary and

maintenance health care. Further analysis would be needed to target and support specialty care and understand the scope and complexity of care needed by the population in the hospital medical service area.

# Information Gaps that Limit South Lyon Medical Center's Ability to Assess All of the Community's Health Needs

South Lyon County has a population of about 11,100 people. The South Lyon region is situated within a very large county of over 2000 square miles. The population of northern region of Lyon County is larger than that of the southern region and very different demographically. Because of this, county level data on proportion of uninsured does not adequately replace lower level estimates. CHIA data analyzed above includes only those individuals who did get treatment for their condition, not those who were unable to get treatment.

Other health indicator data such as cancer registries, vital statistics, BRFSS, county health rankings, Medicaid enrollment as well as some American Community Survey data that is available for larger populations or at the county level were also not available for Yerington, Wellington, and Smith Valley..

## **Community Needs and Implementation Strategies**

## Process for Identifying and Prioritizing Services to Meet the Community Health Needs in South Lyon County

The South Lyon Medical Center strategic plan addresses the following needs and implementation strategies.

Respondents of the Community Health Needs Assessment Survey identified as their top concerns: Access to Healthcare, Quality of Care, Cost of Care and More specialty Services Needed. In response, South Lyon Medical Center's CEO and her administrative team worked to develop a strategic plan that was reviewed and endorsed by both the facility's operating board.

The Strategic Objectives developed as a result of these planning meetings were ranked by priority and are as follows:

- 1) Access to Healthcare
- 2) Quality of Care
- 3) Cost of Care
- 4) More Specialty Services Needed

## Objective One - Access to Healthcare

The SLMC administrative team determined that the following strategies to improve access to healthcare: The facility will promote and increase the availability of same day clinic appointments. The facility has implemented "Wellness Wednesdays", every week where a core set of lab tests are done at substantially reduced costs. Also, Telemedicine services will be increased in the types of services provided and promotion of these services will be increased. Telemedicine education will be provided to all primary care providers.

## Objective Two - Quality of Care

Perception - The administrative team recognizes that the facility perception is not as positive as they would like. The facility has changed the hiring and staffing practice of the emergency room and now staffs with experienced emergency room physicians. These providers will be promoted through media sources and in person when possible. The facility participates in the CMS (Center for Medicare and Medicaid Services) HCAPS (Consumer Assessment of Healthcare Providers and Services) quality review. The facility will monitor those and implement identified areas of improvement. Additionally, administration recognizes the physical plant is in need of modernization and is working toward improvement in patient care areas. Finally, the facility implemented a zero tolerance for poor customer services and continues to work on improving the customer care culture. Employee annual evaluations now focus on customer service.

#### Objective Three - Cost of Care

The facility has added new discounts and is currently in the process of redoing its sliding fee application and requirements. We have added a cash clinic offering patients with no insurance an option to see a physician for a focused visit at a \$50 cost. Our cash clinic is available at all three clinics with all providers for focused visits only. A prompt pay discount was instituted which allows patients a 30% discount if charges are paid in full at the time of service for outpatient testing and 10 days after statement for emergency room charges. We have also revised our sliding fee discounts to be more generous and less restrictive. Additionally, the hospital has a certified enroller counselor on staff to help individuals obtain coverage through the Nevada Health Insurance Exchange.

## Objective Four - More Specialty Services Needed

Educate all our providers on the availability of telemedicine services through Renown for many specialty providers. Increase the advertising for our visiting provider calendar including a better internet presence and social media. South Lyon Medical Center, along with the Yerington Paiute Tribe and the South Lyon Health Center Foundation are working on bringing dialysis services to the district. These negotiations began in early 2015. With the assistance of Sanderling Dialysis Services, this may soon become a reality.

## South Lyon Medical Center's Final Implementation Plan

South Lyon Medical Center cannot address the following needs with the associated reasons.

The survey also identified services that the community would like to have available at South Lyon Medical Center. These services include: obstetrics and gynecology, pediatrics, cancer care, mental health and substance abuse services, and transportation to and from health care services. South Lyon Medical Center has reviewed the feasibility of providing each requested service. Through an association with University of Nevada School of Medicine, the facility now provides obstetrics and gynecology services on a limited basis through its specialty clinic.

Due to regulatory, construction, and reimbursement constraints, cancer care services have been prohibitive under current economic conditions. SLMC is working with Nevada Rural Hospital Partners to increase the availability of mental health services thru a grant supporting telemedicine opportunities. Should this become feasible in the future, South Lyon Medical Center will again review the potential of adding these services.

South Lyon Medical Center continues to promote and support mental health services in the area. Current barriers to mental health include availability and accessibly. As federal and state monies continue to see dramatic budget cuts, mental health services in rural areas become scarce.

## Strategy for Making the Community Health Needs Assessment Available to the Community

The planned dissemination of the CHNA report are the South Lyon Medical Center's website and printed copies available upon request from South Lyon Medical Center. Information has been previously presented in a public meeting held at the South Lyon Medical Center on Wednesday September 23<sup>rd</sup>, 2015.

## Evaluation of previous South Lyon Medical Center Community Health Needs Assessment.

The following Strategic Objectives were identified from the 2012 South Lyon Medical Center Community Health Needs Assessment:

## 1) Improve Community Confidence and Awareness

Actions taken - The hospital hired a half time equivalent FTE to concentrate on community outreach and oversee the hospital's Facebook and web page. Part of this responsibility includes participating in community events such as Relay for Life, many Job Fairs, Hoops for Heroes, Spring Fling, flu clinics at business locations - just to name a few.

### 2) Improve Customer and Staff Satisfaction

The hospital resurveyed the employees in March 2015 and has done a few market adjustments to wages. A new employee evaluation process was implemented in 2014 which focuses on customer service with a bonus given for providing exceptional customer service.

## 3) Improve Informational and Clinical Services

Actions taken - The facility implemented a hospital wide Electronic Health Records system (EHR) in 2012. With Electronic Health Records system information can be created and managed by authorized providers in a digital format capable of being shared with other providers across more than one health care organization. The facility subsequently implemented the EHR technology to all three Rural Hospital Clinics.

#### 4) Improve Efficiency and Manage Costs

Actions taken - The hospital reviewed expenses and may cuts resulting in a decrease in Operating Expenses of 7.0% from 2012 to 2015 from \$12.2M in 2012 to \$11.4M in 2015 in an environment of increasing costs. Additionally, Expenses for Salaries and wages were decreased by 12.3 % from 2012 to 2015 from \$7.3M in 2012 to \$6.5 in 2015.

## 5) Increase Revenue

Actions taken - The actions taken by the hospital resulted in an increase in Gross Patient Revenue of 17.5% from 2012 to 2015 from \$16.5M in 2012 to \$20.0M in 2015.

## 6) Improve Facilities and Grounds

Actions taken - The Hospital installed a Solar Panel field to help reduce the facility's energy costs and carbon footprint. Electronic door locks were installed to increase the safety and security of the patients and staff. A temperature monitoring program was developed and installed to assist staff with consistent monitoring of temperature sensitive materials and products. Repairs were made throughout the facility in order to maintain the integrity and functionality of the facility. The facility and its boards continue to focus on the improvement of the facility and grounds.

## **Appendices and Notes**

U.S. Bureau of Labor Statistics | Local Area Unemployment Statistics Information and Analysis,

http://data.bls.gov/map/MapToolServlet

Center for Health Information Analysis (Hospital Utilization Data.)

http://chia.unlv.edu/

South Lyon Medical Center. "South Lyon Medical Center website.

http://southlyonmedicalcenter.org

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

U.S. Census Bureau. (2000). Summary File 1. Washington, D.C.,

http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

U.S. Census Bureau. (2010). Summary File 1. Washington, D.C.,

http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

# Survey - 2015 – Community Needs Healthcare Assessment South Lyon Medical Center

This survey is designed to provide information to South Lyon Medical Center and local health decision makers about health services and the improvement of health care services in your community. We have a few questions to ask about your use of health services, community health care needs, and the quality of health care in Southern Lyon County.

1.	How would you rate the <u>overall health of our comm</u>	nunity?
	Very healthy	
	Healthy	
	Neither healthy nor unhealthy	
	Unhealthy	
	Very unhealthy	
	very difficating	
2.	From the following list and thinking about all of the communities – neighbors, friends, co-workers, famineeds people face? Please select only THREE responses	ly – what do you think are the <u>top THREE health</u>
	Access to health care services	Homicide
	Aging-related problems, such as arthritis or hearing loss	Immunizations for children
	Alcohol abuse	Inadequate services for seniors
	Cancers	Infectious diseases, such as hepatitis or TB
	Child abuse and neglect	Mental illness
	Cost of health care	Motor vehicle accidents
	Dental problems	Obesity
	Diabetes	Rape and sexual assault
	Domestic violence	Respiratory or lung disease
	Drug abuse	Sexually-transmitted diseases, including HIV/AIDS
	Exposure to environmental hazards	Suicide
	Food safety	Teenage pregnancy
	Firearm-related injuries	Tobacco use
	Heart disease and stroke	Youth/gang violence
	High blood pressure	Other

From the following list, what do you think are the <u>THREE most important factors for a healthy</u> community and improving the quality of life in your community? Please select only THREE respons			
Access to health care	Healthy behaviors and lifestyles		
Affordable housing	Low adult death and disease rates		
Arts and cultural events	Low infant deaths		
Clean Environment	Parks and recreation		
Good place to raise children	Religious and spiritual values		
Good schools	Strong family life		
Low crime and safe neighborhoods	Supportive services for seniors		
Emergency preparedness	Other:		
Good race and ethnic relations			
Good jobs and healthy economy			
	services provided by South Lyon Medical Center		
YesNo, if "No," please skip to Question 7	services provided by South Lyon Medical Center		
Yes No, if "No," please skip to Question 7			
YesNo, if "No," please skip to Question 7			
YesNo, if "No," please skip to Question 7  What services have you used at South Lyon Med	ical Center? Check all that apply.		
YesNo, if "No," please skip to Question 7  What services have you used at South Lyon MedBlood bank	ical Center? Check all that apply. Primary Care – Physician or nurse practitioner visitRadiology – Mammography		
YesNo, if "No," please skip to Question 7  What services have you used at South Lyon MedBlood bankClinic services	ical Center? Check all that apply. Primary Care – Physician or nurse practitioner visitRadiology – MammographyRadiology – Ultrasound		
YesNo, if "No," please skip to Question 7  What services have you used at South Lyon MedBlood bankClinic servicesEmergency department	lical Center? Check all that apply. Primary Care – Physician or nurse practitioner visitRadiology – MammographyRadiology – UltrasoundRadiology – CT		
YesNo, if "No," please skip to Question 7  What services have you used at South Lyon MedBlood bankClinic servicesEmergency departmentFlu shots	ical Center? Check all that apply. Primary Care – Physician or nurse practitioner visitRadiology – MammographyRadiology – Ultrasound		
YesNo, if "No," please skip to Question 7  What services have you used at South Lyon MedBlood bankClinic servicesEmergency departmentFlu shotsInpatient hospitalization	lical Center? Check all that apply. Primary Care – Physician or nurse practitioner visitRadiology – MammographyRadiology – UltrasoundRadiology – CT		
YesNo, if "No," please skip to Question 7  What services have you used at South Lyon MedBlood bankClinic servicesEmergency departmentFlu shotsInpatient hospitalizationIV therapyLaboratoryLong term care facility	ical Center? Check all that apply. Primary Care – Physician or nurse practitioner visitRadiology – MammographyRadiology – UltrasoundRadiology – CTRadiology – X-ray		
YesNo, if "No," please skip to Question 7  What services have you used at South Lyon MedBlood bankClinic servicesEmergency departmentFlu shotsInpatient hospitalizationIV therapyLaboratoryLong term care facilityPhysical therapy rehab services	lical Center? Check all that apply. Primary Care – Physician or nurse practitioner visitRadiology – MammographyRadiology – UltrasoundRadiology – CTRadiology – X-rayRadiology – MRI		
YesNo, if "No," please skip to Question 7  What services have you used at South Lyon MedBlood bankClinic servicesEmergency departmentFlu shotsInpatient hospitalizationIV therapyLaboratoryLong term care facility	ical Center? Check all that apply. Primary Care – Physician or nurse practitioner visitRadiology – MammographyRadiology – UltrasoundRadiology – CTRadiology – X-rayRadiology – MRIRespiratory therapy services		

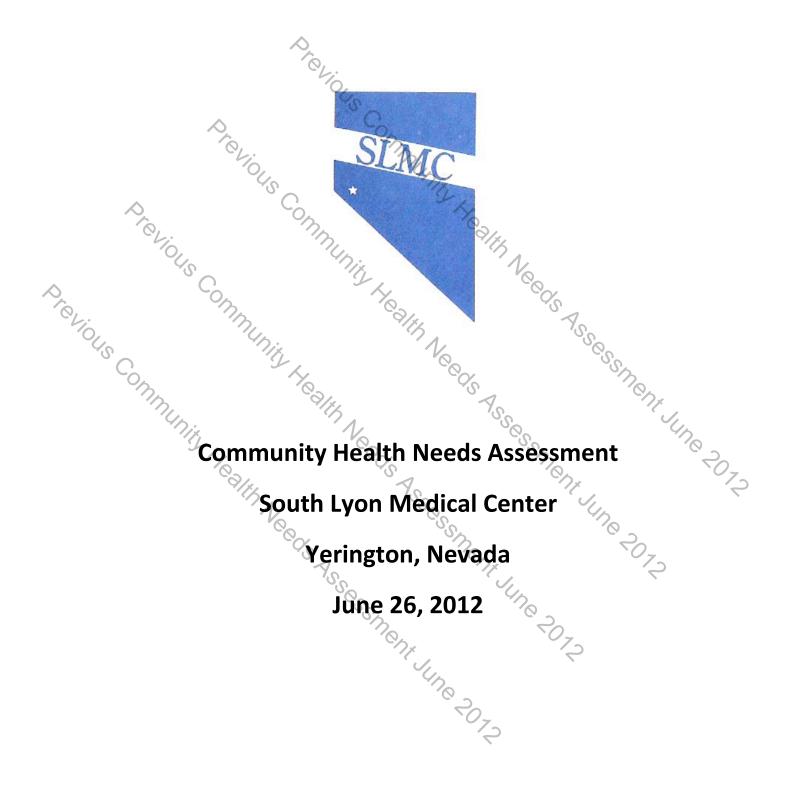
6.	How satisfied were you with the services you received at South Lyon Medical Center?
	Very satisfied
	Satisfied
	Neither satisfied nor unsatisfied
	Unsatisfied
	Very unsatisfied
7.	How would you rate your personal health?
	Excellent
	Very good
	Good
	Fair
	Poor
	Books Family doctor Friends or relatives Internet Magazines
	Newspapers
	Radio
	Television
	Other:
9.	Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMO's, or governmental plans such as Medicare?
	Yes
	No, if "No," skip to question 12
	Don't know / not sure
	Prefer not to answer

10.	what type of health insurance coverage do you have:
	Commercial or private plan
	Medicare
	Medicaid
	Other public coverage
	Other:
	N/A – I do not have health insurance
11.	For how long have you had a health insurance coverage without a lapse in coverage?
	Less than 6 months
	6 months to a year
	1 to 2 years
	More than 2 years
	N/A – I do not have health insurance
12.	Which of the following towns and cities do you primary go to for your health care? Please select only one response.
	Yerington
	Reno
	Carson City
	Gardnerville
	Fallon
	Other:
13.	In the past year, have you received care from a hospital or medical provider other than South Lyon Medical Center?
	Yes
	No, in "No," please skip to Question 15

14.	What was main reason you used medical services other than South Lyon Medical Center Check all that apply.
	Closer or more convenient
	Confidentiality
	Costs were lover
	Hospital or medical provider was recommended by a friend or relative
	Hospital or specialty services were not available locally
	Insurance coverage
	Out of town when the illness or injury occurred
	Quality of care considerations
	Referred to another hospital or medical provider by local physician
	Other:
15.	What is your current zip code of your residence?
	List zin codo
	List zip code
16.	Thinking back on the responses you have provided, what do you think is the top health of
	health care challenge facing our community?
	,
17.	What changes in health care services would you like to see in our community, if any?
18.	Is there anything else you would like us to know?

Thank you for participating in this community health needs assessment survey! The results of this survey will be presented at a community meeting in Yerington later this year.

If you have any questions about this survey or the community health needs assessment coordinated by the University of Nevada, Reno and the University Of Nevada School Of Medicine, please contact Dr. John Packham at 775-784-1235 or <a href="mailto:jpackham@medicine.nevada.edu">jpackham@medicine.nevada.edu</a>.



## **Community Health Needs Assessment**

## South Lyon Medical Center / Yerington, Nevada

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## **Community Health Needs Assessment**

## **South Lyon 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 preceding 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 South Lyon Medical Center 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 South Lyon Medical Center**

## Definition and Description of the Community Served by South Lyon Medical Center

The primary medical service area for South Lyon Medical Center consists of three zip code tabulation areas: 89430 (Smith Valley), 89444 (Wellington) and 89447 (Yerington). For Wellington, the portion of the zip code tabulation area within Douglas County was also included. See Figure 1 for a map of the primary medical service area considered in this report. This area is 1,098 square miles in size, larger than the state of Rhode Island (1,033).

Needs Assessment June 2012

Figure 1. Primary Medical Service Area of South Lyon Medical Center (Zip codes 89430, 89444, and 89447)

## Existing Health Care Resources and Facilities in South Lyon County

South Lyon Medical Center (SLMC) is a 14-bed acute care non-profit Critical Access Hospital with an attached 49-bed skilled nursing facility located in Yerington, Nevada. The hospital offers non-invasive cardiac monitoring, outpatient infusion and treatments, limited orthopedic and general surgery, ultrasound, C-T and MRI services, as well as general medical and pediatric inpatient services. Physical therapy, respiratory therapy, laboratory, and social services are also offered. The nutritional services department serves approximately 6,600 meals monthly.

Source: ESRI Business Analyst On-line

Four affiliated clinics serve the area. Three clinics are classified as rural health clinics. Two of these are in Yerington and one is in Smith Valley: (1) Physicians Clinic, an outpatient clinic, with three physicians and an APN (Advanced Practice Nurse); (2) Barnett Clinic for walk-in patients; (3) Smith Valley Physicians Clinic, an outpatient clinic, with one physician and APN. The fourth clinic is a Visiting Physicians Clinic, supplying specialty care from scheduled rotating physicians.

There are two adult group care facilities and one home health care agency that are not affiliated with SLMC.

## **Demographic Profile of South Lyon County**

#### Total population and trend

According to the Census 2010 data, the population of the SLMC service area was 11,098. The population increased by 111 people or about 1% from the 2000 Census to the 2010 Census. This is in contrast to the overall Nevada growth rate, about 35%, over the same period. Given the impacts of the recession and housing crisis on the state of Nevada, population growth throughout the state is projected to be modest over the next few years. The SLMC service area, however, may experience significant growth in the next few years if plans to reopen a nearby copper mine are carried out. Currently, this area is primarily agricultural.

## **Aging trends**

The proportion of south Lyon County population aged 65 years and older was 25% in the 2010 Census or 2,750 individuals. This is about twice the proportion of this age group in the national or state population. The ratio of people aged 65 and older compared to people aged 0 to 64 is one to three compared to the ratio of one to seven in Nevada. There is also a higher proportion of the 85 and older group in South Lyon area (3%) as compared to the Nevada population as a whole (1%). See Figure 2 for a comparison of the proportion of the population in each age group 55 and older in Census 2000 and Census 2010. Each of these older cohorts is a larger percentage of the population in 2010 than it was in 2000.

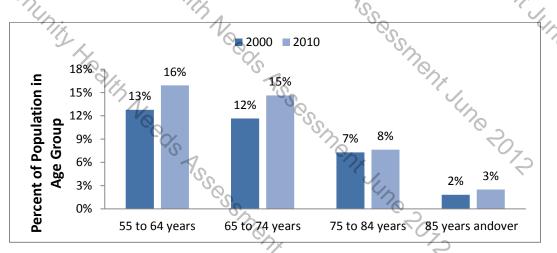


Figure 2. Percentage of Total Population by Age Group for SLMC Service Area, Census 2000 and Census 2010, Age 55 and Older

Despite the slow population growth in the SLMC service area, the population 65 and older grew 20%, 468 individuals, from 2000 to 2010. The proportion of individuals aged 55 to 64 increased from 13% to 16% of the population in the SLMC service area over the ten years between Censuses. Given this large baby boomer population, the number of people in the area with Medicare coverage is very likely to continue to increase. If the Anaconda mine reopens, younger cohorts may also increase significantly.

### **Diversity**

Population diversity increased from year 2000 to 2010. The Hispanic population increased by 134 individuals between years 2000 and 2010. The proportion of Hispanics in the population increased from 16% to 17%. For comparison, the state of Nevada was 27% Hispanic in 2010. The Hispanic population was much younger on average than was the non-Hispanic white population. For example, 31% of the white non-Hispanic population is 65 or older, while only 6% of the Hispanic population is aged 65 or older (see Figure 3). The percentage of non-white population increased from 15% to 19% over the ten year period while 25% of the Nevada population reported being non-white or mixed race.

SLMC service area is a slowly growing population with a large and growing proportion of older individuals. The population also became more diverse. The region's demographic composition is likely to change if the Anaconda mine re-opening proceeds.

6.2%
6.0%
30.7%

18.8%

31.0%

19.5%

White not Hispanic

Under 24 years ■ 25 to 54

\$55 to 64 years ■ 65 and up

Figure 3. Comparison of SLMC Service Area Population by Age Group and Hispanic Ethnicity,
2010 Census

## Social and Economic Profile of SLMC Service Area

The proportion of the population aged 25 and older with high school degrees was comparable to state and national proportions at 84%. From the 2010 census, the proportion of the population aged 25 and older with a Bachelor's degree or higher, was about 13%, lower than Nevada's (21%) proportion and the United States' (28%) proportion. Purchased economic estimates from ESRI indicated that the area households had a median household income about 30% lower than the Nevada median. Because of the older population, a larger proportion of income would be expected to come from non-wage income such as transfer payments (i.e. Social Security, medical benefits) and investments (pensions and retirement funds) as compared to the county as a whole. The percentage of the population living at or below poverty level is estimated to be lower than the national or state average at 10% as compared to Nevada (11%) and the nation (13%). The proportion of the population living between 100% and 200% of

poverty level was higher when compared to national and state proportions (see Figure 4). Almost 28% of population was estimated to have a family income between 100% and 200% of the Federal poverty level as compared to about 18% for Nevada as a whole. ESRI estimated an unemployment rate of 21% in 2010. Unemployment rate in Lyon County was 17.6% as of January 2012, higher than the national rate of 8.6% and the Nevada rate of 12.7%,

In summary, this service area has a large proportion of individuals 65 and older, which means health care planners are heavily affected by any changes in Medicare policy. Incomes are lower than average with a high proportion of households in the 100% to 200% of poverty level income range. The region has been slow growing but has become more diverse over the last decade. A planned mine opening may cause significant population growth and bring in younger families as well as change other demographic, economic and social characteristics of the region.

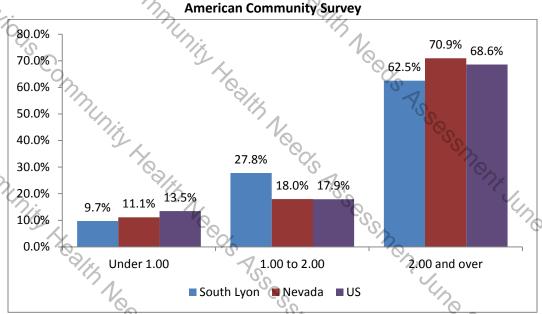


Figure 4. Population by Ratio of Income to Federal Poverty Level from 2005 to 2009

American Community Survey

## **Economic Impact of South Lyon Medical Center**

The presence of a hospital in southern Lyon County with 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 health care jobs and dollars re-circulating within the SLMC primary service area. Additional jobs within the region are associated with direct employment and purchases of SLMC. South Lyon Medical Center employs 171 full-time employee equivalents (FTEs) in 2010 with a payroll of \$7.2 million. The indirect effects of the hospital purchases from other businesses in the community as well as the effects of more payroll available to local households were associated with an additional 51 FTE and \$1.6 million in payroll in other businesses within south Lyon County area .

South Lyon Medical Center has an important economic role in addition to its role as health care 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 Yerington and south Lyon County, Nevada.

NORH staff met with administration and staff of SLMC to review the CHNA process and schedule the first community input meeting during August and September 2011. For the initial meeting with hospital personnel, NORH outlined the process and phases of the CHNA and provided the hospital with flyers advertising the community meetings, as well as a suggested list 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 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 twenty question community input survey was designed for the South Lyon Medical Center CHNA.

#### **Community Input Meeting 1**

An initial community input meeting for the SLMC CHNA was held on November 9, 2011 at the Lyon County Commissioners Office in Yerington, Nevada. The meeting consisted of a joint presentation by the hospital administration, NORH, and the University Center for Economic Development (UCED), followed by the distribution of community input questionnaires. The presentation included a summary of health care services and community benefits provided by SLMC, a demographic and economic profile of the community prepared by the University Center for Economic Development, a presentation of the economic impact of the participating hospital, and an overview of the CHNA process prepared by NORH staff.

## **Survey Distribution**

At the conclusion of the presentation, attendees received community input questionnaires and if the attendee was amendable to distributing questionnaires; they were given a stack of questionnaires, bundled in groups of 20, 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 December 16, 2011. Due to low response rates, this deadline was later extended to December 31<sup>st</sup>, 2011.

250 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. 105 completed paper surveys were returned to NORH and 31 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. The University of Nevada Institutional Review Board did not require approval of this pilot project because the information was collected for a community health needs assessment rather than research purposes.

## Community Input Meeting 2

The second community input meeting for SLMC was held on February 13, 2012 at the Lyon County Commissioners Office. Results of the community input survey were presented by NORH along with service area population health and hospital utilization data compiled by NORH and the UNR UCED. Following the presentation, Dr. John Packham, facilitated a discussion for prioritizing community health needs and services to meet those needs.

Due to low turnout on the part of the community members, the second meeting became the final community input meeting for the CHNA process. However, SLMC administration held a strategic planning meeting within one week of the second community meeting, incorporating the results of the CHNA and the prioritization of needs. NORH staff will be presenting the results of the CHNA survey and secondary analysis to the SLMC hospital board and Lyon County hospital district board of directors in March 2012 for their input on the prioritization of services needed to address gaps identified in the CHNA. NORH staff)will work with hospital administration to develop a final implementation plan.

## **Survey Methodology & Measures**

Demographic questions were not included in the core questions provided by NORH to estimate the characteristics of the respondents. The rationale for not including demographic questions is three-fold. First NORH has prior survey administration experience 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). South Lyon Medical Center did not elect to add questions related to socio-demographic factors when given the opportunity to revise the survey questionnaire. However, 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 scale), 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 South Lyon 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 primary source for medical information (multiple choice), primary and secondary sources of health insurance coverage (multiple choice), the towns or city where they receive the majority of care (multiple choice), and where they purchase prescription drugs (multiple choice).

## **South Lyon Medical Center Utilization**

Survey respondents were asked whether they had used the services of South Lyon Medical Center (dichotomous), which services they had used (multiple choice), to rate their satisfaction with the services delivered (Likert), and provide the reason(s) for the rating in an open-ended format. Participants were also asked whether they had used the services of another hospital or medical provider (dichotomous) and to select the reasons for doing so from a list of options (multiple choice). Respondents were also asked whether or not they would use pediatric care services in Yerington (dichotomous). Finally, respondents were asked to identify, after reviewing all of the services offered by South Lyon Medical Center and its clinics, any additional services they would like to see offered (openended).

## **Analyses**

Assessment data were analyzed using SPSS (IBM Statistics 19) 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 hand entered into an Excel database and merged with data from the scanned surveys. Cumulative frequencies and percentages were then calculated in Excel 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.

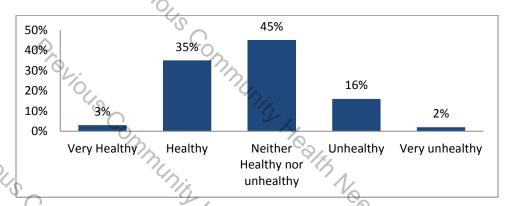
Questionnaire is in the Appendix.

#### **Survey Outcomes**

## **Community Health and Health Care Needs**

The survey's core questions addressed perceived community health and health care needs. While approximately one-third of the respondents (35%) rated the overall health of the community as "healthy," almost half (45%) chose the neutral response of "neither healthy nor unhealthy" (Figure 5). An additional sixteen percent rated the community as "unhealthy" with two percent selecting "very unhealthy."

Figure 5. In the most general terms, how would you rate the overall health of your community?



Characteristics of the south Lyon County community contributing to people's health and well-being in a negative way included:

- Distance from more comprehensive medical services and specialists
- Limited local health care services and resources
- Distance from shopping and urban centers
- Dust and wind, air quality
- · Chemicals used in farming and mining
- Quality of care concerns
- Depressed economy, unemployment
- Rural isolation, and the cost of living

Respondents cited the following characteristics of the south Lyon County community as contributing to people's health and well-being in a positive way included:

- Small town atmosphere
- Strong sense of community
- Clean air and water
- Open spaces with less congestion and traffic
- Less stress, safety, crime
- Peace and quiet
- Health care facilities, South Lyon Medical Center, doctors
- The weather
- The slow pace relative to urban areas

Respondents rated the top health needs people in the community face as: access to health care services (16%), cost of health care (16%), cancers (10%), aging related problems, such as arthritis or hearing loss (8%), and obesity (7%). Respondents cited the following factors as most important for a healthy community and improving the quality of life in the community: access to health care (19%), good jobs and a healthy economy (18%), healthy behaviors and lifestyles (10%), good place to raise children (8%), and strong family life (8%). Respondents identified their top concerns about health care in the south Lyon County community and surrounding area as:

- Limited services
- Lack of specialists
- Quality of care considerations
- Customer service
- Sustainability of South Lyon Medical Center
- Cost of health care

#### Individual Health and Health Care Needs

The majority of respondents rated their overall health as "good" (63%) or "excellent" (22%) with 13% reporting "fair" health, and only 1% designating their personal health as "poor." (Figure 6)

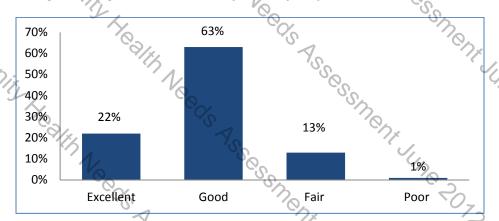


Figure 6. In general, how would you rate your personal health?

# **Health Care Utilization and Health Insurance Coverage**

Figure 7 highlights the distribution of health insurance coverage among respondents. Over half of respondents (52%) indicated that they use a Preferred Provider Organization (PPO) as their primary source of health insurance or health coverage (Figure 7). Fourteen percent indicated that their primary source of insurance or coverage was a Health Maintenance Organization (HMO), and another fourteen percent selected Medicare (Traditional fee for service). An additional eight percent selected Medicare HMO as their primary insurance plan. Eleven percent chose "Other." Of those surveyed:

• 87% have used hospital or clinic services provided by South Lyon Medical Center in the past year

- 66% received care from a hospital or medical provider other than South Lyon Medical Center in the past year
- 23% would use pediatric services in Yerington

60% 40% 20% 14% 14% 8% 11% 0% PPO HMO Medicare Medicare Other HMO

Figure 7. Primary Health Insurance/Health Coverage

When asked about their secondary source of insurance or supplemental insurance plan, approximately one-third of respondents indicated that secondary coverage did not apply. Twenty-one percent selected PPO, followed by Medicare HMO (8%), HMO (7%), only two percent selecting Medicare (Traditional fee for service). Approximately one-third selected "Other." (Figure 8)

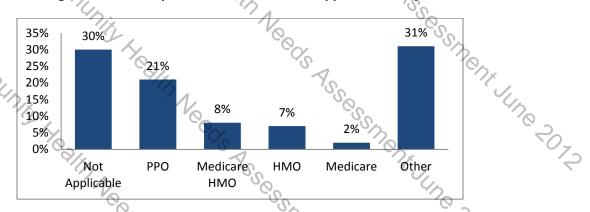


Figure 8. Secondary Source of Insurance or Supplemental Payment Plan

The majority of respondents (53%) indicated that they use their family doctor as their primary source of information. One in four cited the Internet as their primary source for medical information (Figure 9).

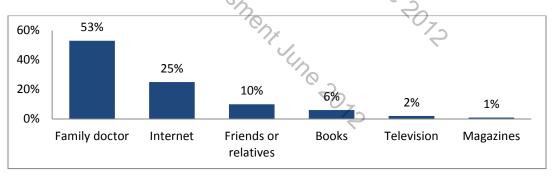
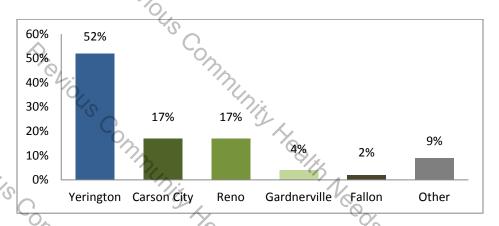


Figure 9. What is your primary source for medical information?

#### **South Lyon Medical Center**

The majority of respondents (52%) had used hospital or clinic services provided by South Lyon Medical Center in the past year, followed by a tie between Carson City and Reno (17%) from Figure 10.

Figure 10. Which one of the following towns or cities do you primarily go to for your health care related needs?



Those who had visited South Lyon Medical Center accessed the following services: laboratory (17%), clinic services (16%), primary care – physician or nurse practitioner visit (12%), emergency department (11%), flu shots (9%), radiology – X-ray (9%), radiology – mammography (6%), physician referral (4%), radiology – MRI (4%), radiology – CT (3%), physical therapy rehab services (2%), radiology – ultrasound (2%), and blood bank, inpatient hospitalization, IV therapy, respiratory therapy services, long term care, and social services (1%).

When asked if there were any additional services they would like to see at South Lyon Medical Center respondents cited the following:

- More specialty services
- Improved quality of existing services
- Improved customer services
- Obstetrics and gynecology services
- Dialysis
- Pediatrics
- Cancer care
- Mental health and substance abuse services
- Transportation to and from health care services

Figure 11 highlights that the majority of respondents were satisfied (44%) or very satisfied (32%) with the care they received at SLMC, while seventeen percent were neither satisfied or dissatisfied, and seven percent either dissatisfied (2%) or very dissatisfied (5%). Those who were satisfied with the care they received cited the following reasons for their satisfaction: prompt service, friendly, courteous staff, patient's need were met, good quality of care, caring, knowledgeable doctors, and the excellence of

care provided. Those who were dissatisfied cited: poor customer service, unhappiness with the quality of care provided, and the cost of care.

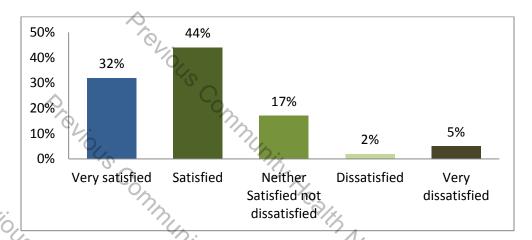


Figure 11. Satisfaction with the Services Received at South Lyon Medical Center

Two-thirds of respondents (66%) had received care from a hospital or medical provider other than South Lyon Medical Center in the past year. Those individuals cited the following reasons for going elsewhere: hospital or specialty services were not available locally (37%), quality of care considerations (18%), referred to another hospital or medical provider by a local physician (18%), confidentiality (6%), insurance coverage (6%), closer or more convenient (4%), out of town when the illness or injury occurred (3%), costs were lower (2%), hospital or medical provider was recommended by a friend or relative (1%), and other (5%). Less than one-fourth of respondents (23%) indicated that they would use pediatric care services in south Lyon County.

#### **Secondary Data Collection and Analysis**

Secondary was not collected by the organization performing this community health need assessment report. It was collected by Federal, State and private agencies and retrieved for this report through data set agreements or retrieved from public available sources, e.g. American Community Survey or the U.S. Census Bureau.

#### **Market Demand Methodology**

Market demand estimates for health care services and prescription drugs in 2010 were purchased from ESRI Business Analyst Online for the SLMC service area. These estimates were for the adult population 18 and older. ESRI used a national consumer survey and applied the results to target area by using the demographic composition of the region. Market demand was estimated from survey questions about actual visits to the doctor or purchases of prescription drugs. Estimates therefore do not include demand by individuals who could not get services or drugs because they did not have money or insurance to pay for them.

#### Results

ESRI computed a market potential index comparing the market demand for doctor's visits and prescription drugs across regions within the United States. A market potential index (MPI) of 100 indicates an average demand. The market potential index for the SLMC service area for doctor visits was almost the same as the national average. About 78% of the adult population was estimated to visit a doctor (any type) during the year or about 7,700 individuals. The MPI for certain types of specialists was estimated to be higher, especially for cardiologists (122) and chiropractors (126). Specifically for the prescription drug demand, the three highest MPI were for high blood pressure, high cholesterol and back-pain medications with the MPI 20% higher than the national average.

Figure 12. South Lyon County 2010 ESRI Estimated Demand for Doctor Visits

Visited Doctor in last 12 months	Estimated Number of Adults	Percent of Adult Pop	Market Potential Index
Any visit	7,701	78.9%	102
1-3 times	3,151	32.3%	7/95
4-7 times	2,402	24.6%	110
8+ times	2,148	22.0%	102

Higher than average demand for cardiologists, chiropractors, blood pressure, cholesterol and back pain medication are likely linked to the large senior population.

#### South Lyon Medical Center Patient Utilization of Inpatient, Emergency Room and Outpatient Services

This data is from the Center for Health Information Analysis (CHIA), a research center at the University of Nevada Las Vegas (UNLV) within the School of Community Health Sciences. CHIA is contracted by the Nevada Department of Health and Human Services (DHHS), Division of Healthcare Financing and Policy (DHCFP).

#### Methodology

Inpatient data was summarized by the major diagnosis categories. The major diagnostic categories (MDC) divided all possible principal diagnoses (from ICD-9 codes) into 25 mutually exclusive diagnosis categories. The diagnoses in each MDC correspond to a single organ system or etiology and in general are associated with a particular medical specialty. MDC 1 to MDC 23 codes are grouped according to principal diagnoses. Patients are assigned to MDC 24 (Multiple Significant Trauma) have at least two significant trauma diagnosis codes (either as principal or secondary) from different body site categories and MDC 25 is reserved for patients with HIV. The major diagnosis categories used for the emergency room and outpatient services data is slightly different as the grouping is determined through the coding structure of the ICD-9 codes.

The number of inpatient stays, emergency room, and outpatient services utilized at South Lyon Medical Center was summarized from the medical data submitted to the State of Nevada for the fiscal year period from July 1, 2010 to June 30, 2011. The South Lyon Medical Center data was divided into three sections: (1) inpatient stays; (2) emergency department visits; and (3) outpatient services. Over 90% of the patients at SLMC were from the defined medical service area. The balance of services utilized came from residents who were from outside of the Yerington, Wellington, and Smith Valley areas.

#### **South Lyon Medical Center Inpatient Stays**

Of the 200 inpatient stays, 93.0% were local residents. The major diagnoses groups for the inpatient data at South Lyon Medical Center is summed in Figure 13.

The top three diagnosis groups:

- Respiratory diagnosis
  - o Includes pneumonia, chronic obstruction pulmonary disease, and pulmonary embolism
- Circulatory diagnosis
  - o Includes rheumatic fever, heart disease, hypertension, acute myocardial infarction, heart failure, cardiac arrhythmia, and syncope
- Endocrine, nutritional, and metabolic diagnosis
  - o Includes thyroid, diabetes, nutritional deficiencies, and other metabolic disorders

The Medicare patient total in Figure 13 highlights the fact that people aged 65 and older were 75.0% of the South Lyon Medical Center inpatient cases. The top three Medicare patients diagnoses are ranked in the same order as the overall categories of respiratory, circulatory, and endocrine. The evenly divided cases between Medicare respiratory and circulatory cases may signal demand from an older population.

Major Diagnosis Category	Total	SLMC Service otal Area Residents		SLMC Se Area Me Reside	dicare	Out of Resid	
		Number	Percent	Number	Percent	Number	Percent
Respiratory	57	51	89.5	38	66.7	6	10.5
Circulatory	39	38	97.4	37	94.9	1	2.6
Endocrine, Nutritional & Metabolic	24	S 23	95.8	21 🛇 .	87.5	1	4.2
Other	80	74	92.5	54	67.5	6	7.5
Total	200	186	93.0	150	75.0	14	7.0

Figure 13. Inpatient Services Utilization at South Lyon Medical Center - 2011

#### South Lyon Medical Center Emergency Department Visits

The major diagnoses categories from the Emergency Department (ED) data at South Lyon Medical Center is presented in Figure 14. The top three major diagnosis categories total 2,343 and were 45.2% of all cases.

Overall ED usage by local residents was 85.3%. Only one in seven visits was by a person from out of the area; a reminder that the hospital serves a more local community.

The top three categories were general in scope:

- Symptoms and ill-defined conditions
  - o Broadly defined category for general complaints coming from any part of the body. It is not specific in nature and would be diagnosed at the time of the visit
- Injuries and poisonings
  - o Includes fractures, concussions, and sprains
- Metabolic and immunity disorders
  - Includes the thyroid, diabetes, nutritional deficiencies, obesity, immunity deficiencies (not AIDS-HIV), and various disturbances of the metabolism

Figure 14. Emergency Department Services Utilization at South Lyon Medical Center – 2011

Major Diagnosis Categories	Total	SLMC Service Area  Total Residents		Out of Resid	
O/D.	705	Number	Percent	Number	Percent
Symptoms and III-Defined Conditions	904	788	87.2	116	12.8
Injury and Poisoning	891	731	82.0	160	18.0
Metabolic and Immunity Disorders	548	463	84.5	85	15.5
Other	3,106	2,666	85.8	440	14.2
Total 4	5,449	4,645	85.3	801	14.7

# **South Lyon Medical Center Outpatient Services Visits**

There was more variation in the utilization of outpatient services and the top categories were expanded to include five major diagnosis group categories.

Figure 15. Outpatient Services Utilization at South Lyon Medical Center - 2011

Major Diagnosis Categories	$C_{-}$		$\mathcal{O}_{I}$		Area lents
	0.77	Number	Percent	Number	Percent
Specific Procedures and Aftercare	4,639	4,497	96.9	<b>7</b> 5142	3.1
Metabolic and Immunity Disorders	4,392	4,159	94.7	233	5.3
Circulatory System	4,112	3,977	96.7	135	3.3
Symptoms and III-Defined Conditions	3,499	3,273	93.5	226	6.5
Musculo Sys & Connective Tissue	1,939	1,833	94.5	106	5.5
Other	9,094	8,440	92.8	654	7.2
Total	27,675	26,179	94.6	1,496	5.4

The high utilization percentages, over 90%, support the benefit of local outpatient services.

- Specific procedures and aftercare
  - o Includes follow up visits and continuing care
- Metabolic and immunity disorders
  - o Involves the thyroid, diabetes, nutritional deficiencies, obesity, immunity deficiencies (not AIDS-HIV), and various disturbances of the metabolism
- Circulatory
  - o Includes rheumatic fever, heart disease, hypertension, and acute myocardial infarction
- Symptoms and ill-defined conditions
  - o Broadly defined category for general complaints coming from any part of the body.
- Musculoskeletal system
  - O Diagnoses involve arthritis, colitis, uric acid, diabetes, the spine, rheumatism, and bone conditions

The top three categories comprise 64.1% of the services used. Summarizing these activities in general major diagnosis groups point to ongoing care for an older local population, perhaps the data suggests that south Lyon County residents go to their local hospital first.

## Summary of South Lyon Medical Center Utilization

Figure 16 summarizes the utilization of offered services by department of service. A specific major diagnosis group of interest might be the 57 patients with a respiratory diagnosis, 89.5% from south Lyon County, in Figure 13. Of these 57 patients, the majority were Medicare as a payor source (66.7%) and 10.5% were patients from out of the area. The respiratory diagnoses include pneumonia, chronic obstruction pulmonary disease, and pulmonary embolism. Emergency Department visits and outpatient services show similar trends of the local hospital serving local residents.

Figure 16. South Lyon Medical Center Utilization by Department of Service – 2011

1/ <sub>0</sub> 0/ <sub>0</sub>		SON SO	outh Lyon M	edical Cent	er
Department of Service	Total	South Lyc Resid	n County dents		f Area dents
		Number	Percent	Number	Percent
Inpatient	200	186	93.0	14	7.0
Emergency Department Visits	5,449	4,648	85.3	801	14.7
Outpatient Services	27,675	26,179	94.6	1,496	5.4

#### SLMC Service Area Residents' Utilization of Inpatient, Emergency Room and Outpatient Services

The second set of findings concerns the travel pattern where the local residents go for their inpatient, emergency room, and outpatient care. The top three diagnosis groups of these people are different from patient major diagnosis groups utilized at SLMC.

#### Ranked Utilization:

South Lyon Medical Center

South Lyon County Service Area Population

1. Respiratory

1. Musculo-Skeletal System & Connective Tissue

2. Circulatory

- 2. Circulatory
- 3. Endocrine, Nutritional & Metabolic
- 3. Digestive

The data shows that SLMC may not meet the health care needs for:

- Musculoskeletal system diagnoses
  - o Includes arthritis, colitis, uric acid, diabetes, the spine, rheumatism, and bone conditions
- Digestive
  - o Includes colitis, cellulitis, esophagitis, ulcers, Crohn's disease

The data shows that SLMC may meet health care needs for the aging population with:

- Respiratory diagnosis
  - O Includes pneumonia, chronic obstruction pulmonary disease, and pulmonary embolism
- Circulatory diagnosis
  - Includes rheumatic fever, heart disease, hypertension, acute myocardial infarction, heart failure, cardiac arrhythmia, and syncope
- Endocrine, nutritional, and metabolic diagnosis
  - o Includes thyroid, diabetes, nutritional deficiencies, and other metabolic disorders

Most people (85.2%) went to an out of area hospital; this may be a sign that musculo-skeletal system and connective tissue services are unavailable at South Lyon Medical Center or the availability of service is not known by the community.

Figure 17. SLMC Service Area Residents Utilization of Inpatient Services - 2011

Major Diagnosis Groups	Total	South Lyon Medical Center		Out of Hosp	f Area	Hosp	f Area pitals Patients
	22 A	Number	Percent	Number	Percent	Number	Percent
Musculo Sys & Connective Tissue	209	10	4.8	199	95.2	91	45.7
Circulatory	187	S 38	20.3	149	79.7	84	56.4
Digestive	113	12	10.6	101	89.4	50	49.5
Other	748	126	16.8	622	83.2	228	36.7
Total	1,257	186	14.8	1,071	85.2	263	24.6

The high percentages of local residents using out of area hospitals can be viewed as a demand for care. The Medicare patient percentage (24.6%) contrasts with the overall local resident (85.2%) behavior pattern of accessing the local hospital for care. For the musculo-skeletal system and connective tissue, the highest ranked diagnoses, approximately one in two Medicare patients go to South Lyon Medical Center versus 95.2% of local population leaving for out of area hospitals. There are opportunities for

South Lyon Medical Center to examine this data in terms of market share and engage the community into conversations with the hospital about appropriateness and availability of local services.

As for Emergency Department visits and outpatient services, activities show similar trends. In Figure 18, the total emergency department visits by local residents were 8,583 of which 4,648 visits reflects the need for local and timely access to care. Over half of the local residents, 54.2%, went locally for their emergency care. This also points to hospital examination of market share and engaging the community in to conversation about locally supplied services.

Vio,		ny So	uth Lyon Coւ	ınty Resideı	nts
Department of Service	Total		on Medical nter	Out o	f Area oitals
Ch.	2/2	Number	Percent	Number	Percent
Inpatient Stays	1,257	186	14.8	1,071	85.2
Emergency Department Visits	8,583	4,648	54.2	3,935	45.9

26,179

60.7

16,940

39.9

Figure 18. South Lyon County Residents Accessing by Department of Service – 2011

Figure 18 shows that inpatient care is the only department where most of the south Lyon County residents left to go to an out of the area hospital. The highest utilization, outpatient visits (43,119), shows six of every ten locals, 60.7%, used SLMC. The population of the area is 11,098. This utilization appears good; however, the 16,940 members of the local population who went to other hospitals may signal a drain on South Lyon Medical Center's possible market share.

43,119

Emergency department visits, most often diagnosed with general symptoms and ill-defined conditions is one in two people. While this diagnosis is very general in scope, the diagnosis is preliminary in nature and not a final diagnosis. Outpatient services diagnosis were more specific with the top four diagnosis groups being circulatory, musculo-skeletal, metabolic and immunity disorders, followed with symptoms and ill-defined conditions.

#### Circulatory

**Outpatient Services** 

- o Includes rheumatic fever, heart disease, hypertension, and acute myocardial infarction
- Musculoskeletal system diagnoses
  - o Includes arthritis, colitis, uric acid, diabetes, the spine, rheumatism, and bone conditions.
- Metabolic and immunity disorders
  - o Involves the thyroid, diabetes, nutritional deficiencies, obesity, immunity deficiencies (not AIDS-HIV), and various disturbances of the metabolism.
- Symptoms and ill-defined conditions
  - o Broadly defined category for general complaints coming from any part of the body.

#### Summary of Community Health Needs in SLMC Service Area

Local residents utilize their local hospital for basic care and the first stages of symptom diagnosis. The research data shows local residents going to hospitals out of the area for the majority of inpatient services and half of the ED visits, a large percentage of care. The data presents an opportunity for South Lyon Medical Center to evaluate increasing their market share of primary and maintenance health care for feasibility of delivering additional lines of care. Further analysis would be needed to target and support specialty care and understand the scope and complexity of care needed by the population in the hospital medical service area.

#### Prioritized Community Health Needs Identified in the Assessment

Inpatient utilization at SLMC (Figure 17)

The top three diagnosis groups

- Circulatory diagnosis (20.3%, 38 cases)
  - o Includes rheumatic fever, heart disease, hypertension, acute myocardial infarction, heart failure, cardiac arrhythmia, and syncope
- Digestive (10.6%, 12 cases)
  - o Includes colitis, cellulitis, esophagitis, ulcers, Crohn's Disease
- Musculoskeletal system diagnoses (4.8%, <12 cases)</li>
  - o Includes arthritis, colitis, uric acid, diabetes, the spine, rheumatism, and bone conditions

Service area utilization at out of area hospitals

- Musculoskeletal system diagnoses (95.2%, 199 cases)
  - o Includes arthritis, colitis, uric acid, diabetes, the spine, rheumatism, and bone conditions
- Circulatory (79.7%, 149 cases)
  - o Includes rheumatic fever, heart disease, hypertension, and acute myocardial infarction
- Digestive (89.4%, 101 cases)
  - o Includes colitis, cellulitis, esophagitis, ulcers, Crohn's Disease

#### Chronic Disease Needs of the SLMC Service Area Population.

In referencing Figure 19, South Lyon Medical Center meets fifty percent or more of the general population needs for emergency and outpatient care. Figure 19 also shows the general population demand for specific types of services by major diagnosis codes. The varying percentages for inpatient care are signs of certain population needs are met and others go elsewhere perhaps due to complexity of illness, access to specialty care, or lack of knowledge of available local care. The high demand for specific procedures and after care shows the local resident utilization of outpatient services for follow-up care. Locals use their hospital. The hospital has an opportunity to increase utilization in other areas.

Figure 19. Chronic Disease Needs of SLMC Service Area Residents - 2011

		Local Residents				
Major Diagnosis Code	Total	South Lyon Medical Center		Out of Area Hospital		
C/	D.	Number	Percent	Number	Percent	
Inpatient	3					
Musculoskeletal System	209	10	4.8	199	95.2	
Circulatory System	187	38	20.3	149	79.7	
Respiratory	138	ク <sub>/×</sub> 51	37.0	87	63.0	
Emergency Department		4				
Symptoms and III-Defined Conditions	1,611	788	48.9	823	51.1	
Injury and Poisoning	1,266	731	57.7	535	42.3	
Circulatory System	931	470	50.5	461	49.5	
Outpatient Services	70.		3			
Metabolic and Immunity Disorders	6,668	4,159	62.4	2,509	37.6	
Circulatory System	6,159	3,977	64.6	2,182	35.4	
Specific Procedures and Aftercare	5,607	4,497	80.2	1,110	19.8	

# Chronic Disease Needs and Other Health Issues of Uninsured Persons, Low-Income Persons, and Minority Groups

Evaluating the uninsured, low-income persons, and minority population needs for health care was estimated from a subset of the CHIA Emergency Department data for the SLMC service area population (zip code 89430 (Smith Valley), 89444 (Wellington), and 89447 (Yerington). The criteria targeting this population was the UB04 payer codes for charity care, Hill-Burton Free Care, Nevada Medicaid, other Medicaid, self-pay, miscellaneous, county indigent referral, Nevada Medicaid HMO, section 1011 undocumented aliens, and unknown. Self-pay is also a proxy for the uninsured.

A low income population subset was approximated using payer codes defined by UB04 which are charity, Nevada Medicaid, other Medicaid, self-pay, miscellaneous, county indigent referral, Nevada Medicaid HMO, section 1011 undocumented aliens, and unknown. Two-thirds of the low income patient population has an insurance mix involving these categories and over eighty percent (82.2%) have no primary commercial or negotiated insurance.

Analyzing the low-income population subset of the emergency care data reflects that almost fifty percent (49.2%) go to South Lyon Medical Center for their care.

The low-income population primary diagnosis demand (56.8%)

• Symptoms, signs, and ill-defined conditions (20.4%)

- Signaled through the major diagnosis category of category
- Injury and poisonings (25.8%)
- Respiratory diagnosis (10.6%)
  - o Includes pneumonia, chronic obstruction pulmonary disease, and pulmonary embolism.

The patients aged less than 18 years vulnerable population demand is for primary care (68.7%)

- Symptoms, signs, and ill-defined conditions (36.9%)
- Injury and poisonings (18.7%)
- Respiratory diagnosis (13.1%)
  - o Includes pneumonia, chronic obstruction pulmonary disease, and pulmonary embolism.

The patients aged over 70 years vulnerable population is primary care (59.5%)

- Symptoms, signs, and ill-defined conditions (23.2%)
- Injury and poisonings (23.7%)
- Respiratory diagnosis (12.8%)
  - o Includes pneumonia, chronic obstruction pulmonary disease, and pulmonary embolism.

Minority groups play a factor in ED utilization. The patient activity at SLMC reflects these proportions as 20.5% of the ED patients were non-white.

SLMC may meet the majority demand for more specific diagnosis, such as endocrine (96.2% of patients), nervous (85.9% of patients). One in four patients is aged 70 years or older and one in ten patients are under the age of 18. Sixty percent go to SLMC for their care.

The low inpatient capture rate reflects issues of complex services and out of area factors.

# Information Gaps that Limit South Lyon Medical Center's Ability to Assess All of the Community's Health Needs

South Lyon County has a population of about 11,098 people. The south Lyon region is situated within a very large county of over 2000 square miles. The population of the northern region of Lyon County is larger than that of the southern region and very different demographically. Because of this, county level data on proportion of uninsured does not adequately replace lower level estimates. CHIA data analyzed above includes only those individuals who did receive treatment for their condition, not those who were unable to obtain treatment.

An estimate of the uninsured rate in south Lyon County was made using the State of Nevada uninsured rates for Hispanics and non-Hispanics by age group. This method gave an estimate of about 18% for south Lyon as compared with the state uninsured rate of about 23%. The chronic disease needs of the population of uninsured and Medicaid patients in south Lyon County are not known.

Other health indicator data such as cancer registries, vital statistics, BRFSS, county health rankings, Medicaid enrollment as well as some American Community Survey data that is available for larger populations or at the county level were also not available for Yerington, Wellington, and Smith Valley.

#### **Community Needs and Implementation Strategies**

# Process for Identifying and Prioritizing Services to Meet the Community Health Needs in South Lyon County

The South Lyon Medical Center strategic plan addresses the following needs and implementation strategies.

Respondents of the Community Health Needs Assessment Survey identified as their top concerns: limited services, lack of specialists, quality of care considerations, customer service, sustainability of South Lyon Medical Center and cost of health care. In response, South Lyon Medical Center's CEO and his administrative team worked to develop a strategic plan that was reviewed and endorsed by both the facility's operating board and medical staff.

The Strategic Objectives developed as a result of these planning meetings were ranked by priority and are as follows:

- 1) Improve Community Confidence and Awareness
- 2) Improve Customer and Staff Satisfaction
- 3) Improve Informational and Clinical Services
- 4) Improve Efficiency and Manage Costs
- 5) Increase Revenue
- 6) Improve Facilities and Grounds

## Objective One

The SLMC administrative team determined that internal and external marketing, along with community outreach, to be the modifiers improving objective number one. The facility intends to participate in more civic events and gain visibility as a partner in improving the overall health of the community through providing resources and educational opportunities upon request.

#### **Objective Two**

Refining objective number two began with a review of the facility's internal customer service skills. Departments were tasked with implementing a customer service survey to identify strengths and weaknesses. The survey results will be disseminated among hospital personnel promoting cultural changes focusing on the care and treatment of our patients, both socially and clinically. SLMC's CEO has implemented processes identifying areas of employee dissatisfaction. The CEO directed a wage scale review be conducted for possible wage adjustments for some positions whose wages are not competitive in the surrounding market area.

#### **Objective Three**

Objective number three has been embraced with the facility's conversion to electronic health records. This project is currently underway and will bring about the first actual record conversion to an electronic

format on August 1. Although this project is not expected to see completion for over a year, it will provide easier access to patient personal health information in both the informational and clinical settings.

Through the leadership and experience of the facility's CEO, South Lyon Medical Center has sincerely pursued the opportunities afforded through telemedicine. A relationship has been established with Renown Medical Center in Reno, Nevada, that will provide consultation and care from a wide array of specialty physicians. Currently the majority of these specialists are only available in the larger urban settings and gaining access to these services is a hardship for patients. South Lyon Medical Center is currently upgrading its electronic infrastructure to support electronic patient care access through the capabilities of videoconferencing, transmission of still images, e-health including patient portals, and the remote monitoring of vital signs.

# **Objective Four**

Improve efficiency and manage costs is part of the facility's overall financial management plan. The CEO, administrative team, and department supervisors are working to reduce risk, standardize purchasing, and utilization staffing efficiently. These actions, together with the facility's philosophy to "go green", is expected to see marked operational improvement.

# Objective Five

Align with objectives number three and four. Adding telemedicine services together with new radiology and laboratory diagnostic testing is expected to increase utilization and enhance services available to the area residents.

#### **Objective Six**

Target the improvement of the facility and grounds. The CEO and South Lyon County District Board developed a Facility Master Plan providing for the gradual improvement and upgrade of the facility buildings as funds are available. Recognizing that the original structure was built in the early 1950s, priorities are based on needed upgrades and improving energy efficiency.

## South Lyon Medical Center's Final Implementation Plan

South Lyon Medical Center cannot address the following needs with the associated reasons.

The survey also identified services that the community would like to have available at South Lyon Medical Center. These services include: obstetrics and gynecology, dialysis, pediatrics, cancer care, mental health and substance abuse services, and transportation to and from health care services. South Lyon Medical Center has reviewed the feasibility of providing each requested service. Through an association with Banner Churchill in Fallon, Nevada, the facility now provides obstetrics and gynecology services on a limited basis through its specialty clinic.

Due to regulatory, construction, and reimbursement constraints, dialysis and cancer care services have been prohibitive under current economic conditions. Should this become feasible in the future, South Lyon Medical Center will again review the potential of adding these services.

South Lyon Medical Center continues to promote and support mental health services in the area. Current barriers to mental health include availability and accessibly. As federal and state monies continue to see dramatic budget cuts, mental health services in rural areas become scarce.

# Strategy for Making the Community Health Needs Assessment Available to the Community

The planned dissemination of the CHNA report are the South Lyon Medical Center's website and printed copies available upon request from South Lyon Medical Center. Information has been previously presented in a public meeting held at the county offices on Wednesday February 13<sup>th</sup>, 2012. South Lyon Medical Center representatives have also personally presented the survey results to the hospital auxiliary board and the hospital foundation board.

### **Appendices and Notes**

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

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. <a href="http://bao.esri.com/">http://bao.esri.com/</a>

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

Keehan, S. C. (2011). <u>Assessing and Addressing Community Health Needs: Discussion Draft</u>. 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 <a href="https://www.implan.com">www.implan.com</a>

South Lyon Medical Center (2012). "South Lyon Medical Center website." Retrieved April 2012, from <a href="http://southlyonmedicalcenter.org/">http://southlyonmedicalcenter.org/</a>.

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

U.S. Census Bureau. (2000). Summary File 1. Washington, D.C., 2012. <a href="http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml">http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml</a>

U.S. Census Bureau. (2010). Summary File 1. Washington, D.C., 2012. <a href="http://factfinder2.census.gov/faces/nav/isf/pages/index.xhtml">http://factfinder2.census.gov/faces/nav/isf/pages/index.xhtml</a>

# South Lyon County Community Health Needs Assessment

D CO	
Q2. What is it about living here that contributes in a <u>nega</u>	tive way?
The state of the s	
3. How would you rate the overall health of your comm	unity?
10,	" (5 <sub>A</sub>
O Very healthy O Healthy O Neither healthy nor	O Unhealthy O Very unhealthy
unhealthy	0/2
n <sub>b</sub>	3
Q4. From the following list and thinking about all of the p neighbors, friends, co-workers, family – what do you thin	
ace? Please select only THREE responses.	Con
<u> </u>	Homicide Immunizations for children Inadequate services for seniors Infectious diseases, such as hepatitis or TB
O Access to health care services	Homicide
O Aging-related problems, such as arthritis or hearing loss O	Immunizations for children
O Alcohol abuse	Inadequate services for seniors
O Cancers O	Infectious diseases, such as hepatitis or TB
O Child abuse and neglect	Mental Illness
O Cost of health care	Motor vehicle accidents
O Dental problems	Obesity
O Diabetes O	Rape and sexual assault
O Domestic violence	Respiratory or lung disease
O Drug abuse	Sexually Transmitted diseases, including
O Exposure to environmental hazards	Suicide
O Food safety	Teenage pregnancy
O Firearm-related injuries	Tobacco use
O Heart disease and stroke	Youth/gang Violence
O High blood pressure	Other:

	Q5. From the following list, what do you thin	k are the THREE most important factors for a healthy
		n your community? Please select only THREE responses.
	O Access to health care	Good jobs and healthy economy
	O Affordable housing	Healthy behaviors and lifestyles
	O Arts and cultural events	Low adult death and disease rates
	O Clean environment	
	Good place to raise children	Low infant deaths     Parks and recreation
	O Good schools	
	Low crime and safe neighborhoods	/h
	Low level of child abuse	Strong family life Supportive services for seniors
^	Emergency preparedness	O Other:
	Excellent race and ethnic relations	Other.
	L: 2	9/4,
	Q6. In the past year, have you used the hospi	tal or clinic services provided by South Lyon Medical Center?
	S O No O No Island	
	O Yes O No, if "No" ple	ase skip to Question 8
0,	Q7. What services have you used at South Ly	on Medical Center? Check all that apply.
10,	7U,	
\(\sigma_{-1}\)	O Blood bank	O Primary Care – Physician or nurse practitioner visit
C	O Clinic services	O Radiology – Mammography
5	O Emergency department	O Radiology - Ultrasound
"/	O Flu shots	O Radiology - CT
	Inpatient hospitalization	O Radiology – x-ray
	O IV therapy	O Radiology – MRI
	O Laboratory	O Respiratory therapy services
	O Long term care facility	O Social services
	O Physical therapy rehab services	O Other
	O Physician referral	\(\frac{1}{2}\)
	0/2	70 P
	Q8. How satisfied were you with the services	you received at South Lyon Medical Center?
		her satisfied nor O Dissatisfied O Very dissatisfied atisfied
	Q9. Why were you satisfied or dissatisfied?	0
		200
	Ĭ	~ ~
		4/2
		(O)
	047	507

Q10. In general, how would you rate your persona	I health?
O Excellent O Good O	Fair O Poor
Q11. What is your <u>primary</u> source for medical info	rmation? Please select only ONE response.
O Books	O Newspaper
O Family Doctor	O Radio
O Friends or relatives	O Television
O Internet	O Other:
O Magazines	45:
30	<u> </u>
Q12. What is your primary insurance plan? Please	select only ONE response.
Ch: DD	
OPPO (Preferred Provider Organization)	O Medicaid HMO
O HMO (Health Maintenance Organization)	O Medicaid (Traditional fee for service)
O Medicare HMO	O Other:
O Medicare (Traditional fee for service)	
ny,	
013. What is your secondary source of insurance of	or supplemental payment plan? Check all that apply.
PPO (Preferred Provider Organization)	O Medicaid HMO
O HMO (Health Maintenance Organization)	Medicaid (Traditional fee for service)
O Medicare HMO	O Other:
Medicare (Traditional fee for service)	
	S O
	you primarily go to for your health care? Please select
only ONE response.	300
O Yerington	O Gardnerville
O Reno	O Fallon
O Carson City	O Other
	4/2
Q15. Where do you purchase most of your prescri	otion drugs? Please select only ONE.
	70-
O Rex O N	Nail/jri
O Scolari's	other (see below)
	*/ <sub>0</sub>

	Q16. Would you use Pediatric Care Services in Yeringt	con?
	Q17. In the past year, have you received care from a leading to the Medical Center?  Yes O No	
	Q18. Why did you choose the services of another hos Medical Center? Check all that apply.	pital or medical provider other than South Lyon
^		D,
$\sim$	O Closer or more convenient	O Insurance coverage
	Confidentiality	Out of town when the illness or injury occurred
	O Costs were lower	O Quality of care considerations
^	O Hospital or medical provider was recommended by a friend or relative	Referred to another hospital or medical provider by a local physician
~	O Hospital or specialty services were not available	O Other:
Chiolic Chi	Q19. What concerns you most about health care in th	e South Lyon Medical Center service area?
0.0	9	
0/		No.
	Q20. After reviewing all of the services offered by Sou services would you like to see offered?	uth Lyon Medical Center and its clinics, what other
	7/02/1/2 OS A.	none 20
	Thank you for participating in this community health will be discussed at the next community meeting in Ja	

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