Freeman Neosho Hospital

Community Health Needs Assessment

March 2013

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Consultant's Report

Mr. Steve Graddy
Chief Financial Officer
Freeman Health System
1102 West 32nd Street
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On behalf of Freeman Neosho Hospital, (Freeman) we have assisted in conducting a Community Health Needs Assessment (CHNA) consistent with the scope of services outlined in our engagement letter dated April 12, 2012. The purpose of our engagement was to assist the System in meeting the requirements of Internal Revenue Code §501(r)(3). We relied on the guidance contained in IRS Notice 2011-52 when preparing your report. We also relied on certain information provided by Freeman, specifically certain utilization data and existing community health care resources.

Based upon the assessment procedures performed, it appears Freeman is in compliance with the provisions of §501(r)(3). Please note that, we were not engaged to, and did not, conduct an examination, the objective of which would be the expression of an opinion on compliance with the specified requirements. Accordingly, we do not express such an opinion.

We used and relied upon information furnished by the Organization, its employees and representatives and on information available from generally recognized public sources. We are not responsible for the accuracy and completeness of the information and are not responsible to investigate or verify it.

These findings and recommendations are based on the facts as stated and existing laws and regulations as of the date of this report. Our assessment could change as a result of changes in the applicable laws and regulations. We are under no obligation to update this report if such changes occur. Regulatory authorities may interpret circumstances differently than we do. Our services do not include interpretation of legal matters.

BKD, LLP

March 29, 2013

Introduction

IRC Section 501(r) requires health care organizations to assess the health needs of their communities and adopt implementation strategies to address identified needs. Per IRC Section 501(r), a byproduct of the *Affordable Care Act*, to comply with federal tax-exemption requirements, a tax-exempt hospital facility must:

- Conduct a community health needs assessment every three years.
- Adopt an implementation strategy to meet the community health needs identified through the assessment.
- Report how it is addressing the needs identified in the community health needs assessment and a description of needs that are not being addressed with the reasons why such needs are not being addressed.

The community health needs assessment must take into account input from persons who represent the broad interest of the community served by the hospital facility, including those with special knowledge of or expertise in public health. The hospital facility must make the community health needs assessment widely available to the public.

This community health needs assessment, which describes both a process and a document, is intended to document Freeman Neosho Hospital's compliance with IRC Section 501(r). Health needs of the community have been identified and prioritized so that Freeman Neosho Hospital (Hospital) may adopt an implementation strategy to address specific needs of the community.

The process involved:

- Collection and analysis of a large range of data, including demographic, socioeconomic and health statistics, health care resources and patient use rates.
- Interviews with key informants who represent a) broad interests of the community, b) populations of need or c) persons with specialized knowledge in public health.
- Circulation of a Community Health Input Questionnaire that gathered a wide range of information which was widely distributed to members of the community.

This document is a summary of all the available evidence collected during the initial cycle of community health needs assessments required by the IRS. It will serve as a compliance document as well as a resource until the next assessment cycle.

Both the process and document serve as the basis for prioritizing the community's health needs and will aid in planning to meet those needs.

Summary of Community Health Needs Assessment

The Hospital engaged **BKD, LLP** to conduct a formal community health needs assessment. **BKD, LLP** is one of the largest CPA and advisory firms in the United States, with approximately 2,000 partners and employees in 30 offices. BKD serves more than 900 hospitals and health care systems across the country. The community health needs assessment was conducted from April 2012 through March 2013.

Based on current literature and other guidance from the treasury and the IRS, the following steps were conducted as part of the Hospital's community health needs assessment:

- The "community" served by the Hospital was defined by utilizing inpatient and outpatient data regarding patient origin. This process is further described in Community Served by the Hospital.
- Population demographics and socioeconomic characteristics of the community were gathered and reported utilizing various third parties (see references in Appendices). The health status of the community was then reviewed. Information on the leading causes of death and morbidity information was analyzed in conjunction with health outcomes and factors reported for the community by CountyHealthrankings.org. Health factors with significant opportunity for improvement were noted.
- An inventory of health care facilities and resources was prepared and estimated a demand for physician and hospital services was estimated. Both were evaluated for unmet needs.
- Community input was provided through key informant interviews of 14 stakeholders and a community health input questionnaire was widely distributed. The Community Health Input Questionnaire was completed by 219 individuals. Results and findings are described in the Key Informant and Community Health Input Questionnaire sections of this report.
- Information gathered in the above steps was analyzed and reviewed to identify health issues of uninsured persons, low-income persons and minority groups and the community as a whole. Health needs were ranked utilizing a weighting method that considers 1) the ability to evaluate and measure outcomes, 2) the size of the problem, 3) the seriousness of the problem and 4) the prevalence of common themes.

  Health needs were then prioritized taking into account the perceived degree of influence the Hospital has to impact the need and the health needs impact the overall health of the community. Information gaps were identified during the prioritization process and are also reported.
- Recommendations based on this assessment have been communicated to Hospital management.

General Description of Hospital

The Hospital is a Missouri, nonprofit organization, located in Neosho, Missouri. A board of directors governs the Hospital and ensures that medical services are available to the residents of Neosho and surrounding areas.

The parent corporation of the Hospital, Freeman Health System (Freeman), is a 517-bed, three-hospital system providing comprehensive healthcare and behavioral health services to an area that includes more than 450,000 from Missouri, Arkansas, Oklahoma and Kansas. The health system includes the entity listed above as well as Freeman East Hospital, Freeman West Hospital and Ozark Center, the behavioral health division. The medical team, which includes more than 300 physicians representing 60 specialties, uses the latest techniques, best practices and technologies to give life-saving care. As the only locally owned, not-for-profit health system in the area, Freeman focuses on meeting the health and wellness needs of those they serve as well as the needs of future generations. Since the May 22, 2011, tornado Freeman has responded to increased patient volumes by enhancing their current services and opening new facilities to stay ahead of the needs of the community. At Freeman Neosho the Gary Duncan Women's Pavilion opened in November 2011 bringing the latest in digital mammography and ultrasound technologies to that patient population. Freeman Neosho also expanded emergency services by adding

more rooms in the Emergency Room. At Freeman West, in 2012, the 5th and 6th floors of Gary & Donna Hall Tower at the Hospital opened, adding 59 private patient rooms with advanced medical capabilities. The Cardiac/Medical Unit on the 5th floor, as well as Freeman Infusion Center, opened in March 2012. The Transitional Care Unit/Surgical Intensive Care unit, on the 6th floor, opened in October 2012. In addition, the Freeman Laboratory recently received a $1.3 million investment in new lab equipment. The new equipment reduces wait times for patients who need test results. Freeman East recently acquired a stationary PET/CT scanner, the only in-house unit in the area. This allows physicians to view highly detailed images of the body to help diagnose cancer, cardiac conditions and neurological disorders. Also at Freeman East, 20 new adult psychiatric beds opened in January 2012 to meet an increased need for care. Other renovations are underway. A $100,000 renovation in July 2012 added three exam rooms and six new infusion chairs for patients receiving nonchemotherapy IV treatments at Freeman Cancer Institute. In March 2012, Freeman Rehabilitation & Sports Center opened on East 32nd Street in Joplin, providing comprehensive therapy services including physical, occupational, speech, hand, aquatic and lymphedema therapies, as well as sports performance evaluations.

The 2011 Joplin tornado was a catastrophic EF5 multiple-vortex tornado that stuck May 22, 2011. It rapidly intensified and tracked eastward across the city, and then continued eastward across I-44 into rural portions of Jasper and Newton counties, effecting many residents in the Neosho area as well. There were 161 people killed by the tornado and as many as 1,000 injured. 10-20% of Joplin was destroyed, with roughly 2,000 buildings destroyed, including St. John's Regional Medical Center (newly reopened as Mercy Hospital Joplin). 75% of Joplin was damaged. In total, nearly 7,000 houses were destroyed (most of which were flattened or blown away) and over 850 others were damaged. Total damage is estimated at $1 billion to $3 billion. In the aftermath of this devastating event, various health needs across the board will be in higher demand throughout the next several years. Mental health services to assist with drug and alcohol abuse, depression and coping with loss; affordability of care due to possible loss of employment; accessibility to care as one of the major competing health care facilities was greatly damaged in the event; and other various socioeconomic factors are examples of community health issues impacted. Several of the health statistics in the following exhibits were gathered prior to the tornado. Hence, they do not reflect the true need generated by this catastrophe.

Community Served by the Hospital

The Hospital is located in the city of Neosho, Missouri. Neosho is approximately 23 minutes southeast of Joplin, Missouri, 1.5 hours southwest of Springfield, Missouri, and 2 hours northeast of Tulsa, Oklahoma. Neosho and the surrounding geographic area are not close to any metropolitan area. Neosho is only accessible by interstate and other secondary roads.

Defined Community

A community is defined as the geographic area from which a significant number of the patients utilizing hospital services reside. While the community health needs assessment considers other types of health care providers, the utilization of the Hospital provides the clearest definition of the community. The criteria established to define the community is as follows:

- A zip code area must represent two percent or more of the Hospital's total discharges and outpatient visits.

- The Hospital's market share in the zip code area must be greater than or equal to 20 percent.
- The area is contiguous to the geographical area encompassing the Hospital.

Based on the patient origin of acute care discharges for fiscal year 2012, management has identified the community to include the zip codes listed in *Exhibit 1*. *Exhibit 1* presents the Hospital's patient origin and charges for each of the top seven zip code areas in its community. Following is a detailed map of the Hospital's geographical location and the footprint of the community identified in *Exhibit 1*. The map displays the Hospital's geographic relationship to surrounding counties, significant roads and highways, and identifies the seven zip codes that comprise the Hospital's community.

When specific information is not available for zip codes, the community health needs assessment relies on information for specific counties. The geographic area of the defined community based on the identified zip codes for the community covers the majority of Newton and McDonald counties. The community health needs assessment utilizes the counties' corresponding information since it is more readily available.

Exhibit 1
Freeman Hospital Neosho
Summary of Inpatient Discharges by Zip Code (Descending Order)
FY2012

Zip Code	City	Discharges	Percent of Total Discharges	Cumulative Percent
64850	Neosho	867	52.0%	52.0%
64831	Anderson	169	10.1%	62.1%
64844	Granby	121	7.3%	69.4%
64843	Goodman	90	5.4%	74.8%
64854	Noel	65	3.9%	78.7%
64865	Seneca	57	3.4%	82.1%
64856	Pineville	56	3.4%	85.4%
	All Other	243	14.6%	100.0%
	Total	1,668	100.0%	

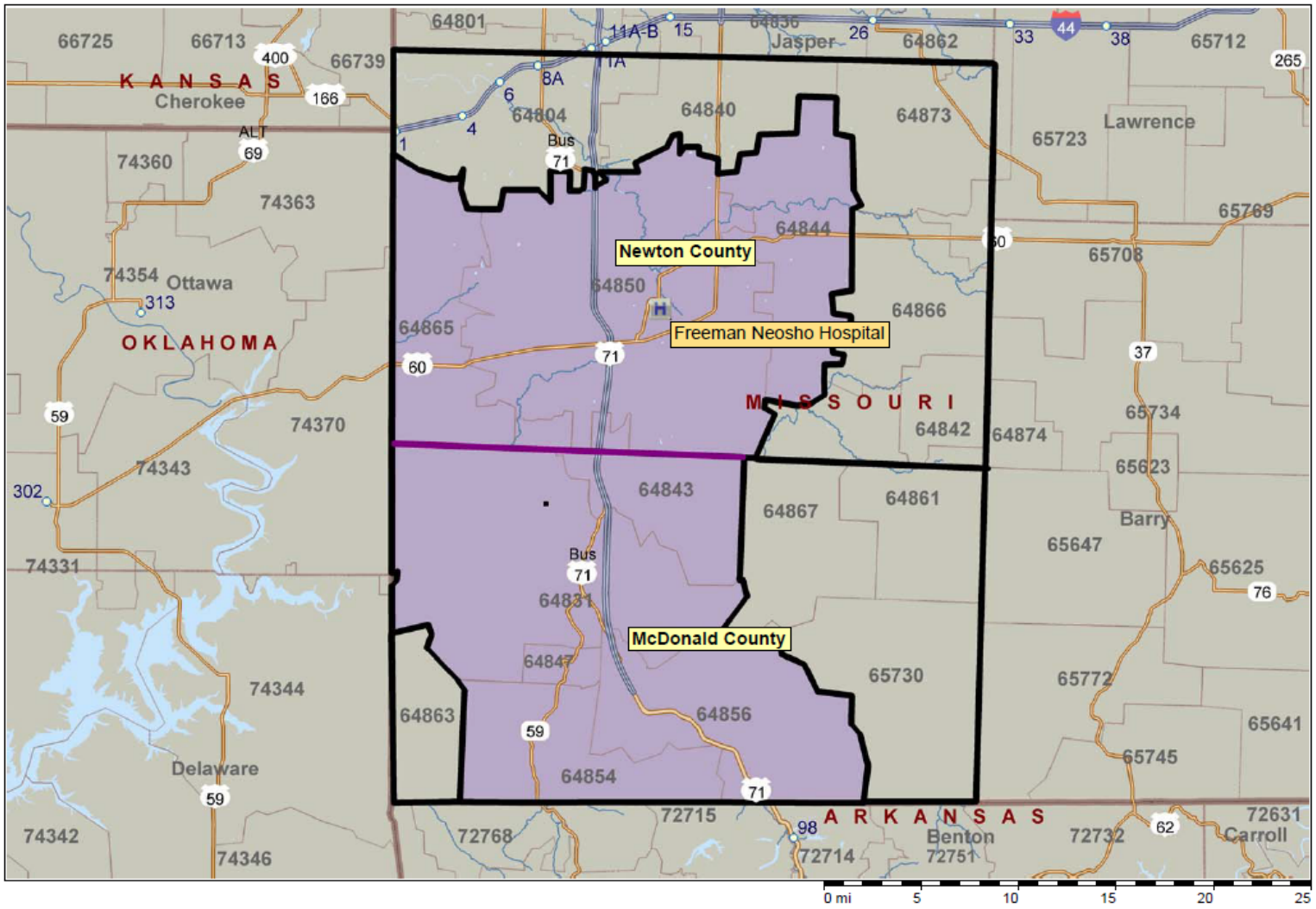
Source: Freeman Health System

Community Details

Identification and Description of Geographical Community

The following map geographically illustrates the Hospital's location and community by showing the community zip codes shaded. The bulk of the community's population is concentrated equally in Newton and McDonald counties.

Freeman Neosho Hospital Zip Code Defined Community



Community Population and Demographics

The U.S. Bureau of Census has compiled population and demographic data based on the 2010 census. The Nielsen Company, a firm specializing in the analysis of demographic data, has extrapolated this data by zip code to estimate population trends from 2012 through 2017.

Exhibit 2 illustrates that the overall population is projected to increase over the five-year period from 52,615 to 54,798. The age category that utilizes health care services the most, 65 years and over, is projected to increase from 6,971 to 8,200. The projected change to the composition of the total community, between male and female, is projected to remain approximately the same over the five-year period.

Exhibit 2
Freeman Hospital Neosho Community Zip Codes
Estimated 2012 Population and Projected 2017 Population

Zip Code	City	Under 18 years	18-44 years	45-64 years	65 years and over	Total	Male	Female
				Estimated 2012 Population				
64850	Neosho	6,484	8,327	6,084	3,340	24,235	11,918	12,317
64831	Anderson	2,015	2,366	1,704	870	6,955	3,492	3,463
64844	Granby	1,257	1,568	1,212	645	4,682	2,305	2,377
64843	Goodman	753	982	736	371	2,842	1,455	1,387
64854	Noel	1,121	1,395	902	392	3,810	1,983	1,827
64865	Seneca	1,477	2,003	1,609	843	5,932	2,912	3,020
64856	Pineville	1,126	1,403	1,120	510	4,159	2,100	2,059
PROVIDER SERVICE AREA		14,233	18,044	13,367	6,971	52,615	26,165	26,450
				Projected 2017 Population				
64850	Neosho	6,606	8,588	6,252	3,929	25,375	12,481	12,894
64831	Anderson	2,073	2,355	1,717	1,021	7,166	3,585	3,581
64844	Granby	1,233	1,606	1,201	769	4,809	2,372	2,437
64843	Goodman	757	1,008	749	434	2,948	1,503	1,445
64854	Noel	1,157	1,360	972	447	3,936	2,039	1,897
64865	Seneca	1,483	2,103	1,671	994	6,251	3,069	3,182
64856	Pineville	1,142	1,386	1,179	606	4,313	2,177	2,136
PROVIDER SERVICE AREA		14,451	18,406	13,741	8,200	54,798	27,226	27,572

Source: The Nielsen Company

Exhibit 2.1 provides the percent difference for each zip code from estimated 2012 to projected 2017 as well as the ability to compare the percent difference to the states of Missouri and the United States for comparison purposes. *Exhibit 2.1* illustrates that the overall population is projected to increase by 4.1 percent over the five-year period compared to projected overall increases for Missouri 3.3 percent and the United States at 3.9 percent. Granby, Noel and Pineville zip codes show population decreases in certain age categories. Note that the age category that utilizes health care services the most, 65 years and over, is projected to increase 17.6 percent, with the highest increases coming from Granby and Pineville zip codes. Every zip code in this age category is projected to have a very large increase, ranging from 14% to 19.2%, over the five year period. This increase in the 65 year and over category will have a dramatic impact on both the amount and type of services required by the community.

Exhibit 2.1

Freeman Hospital Neosho Community Zip Codes

Estimated 2012 Population vs Projected 2017 Population Percent Difference

Zip Code	City	Under 18 years	18-44 years	45-64 years	65 years and over	Total	Male	Female
				Percent Difference				
64850	Neosho	1.9%	3.1%	2.8%	17.6%	4.7%	4.7%	4.7%
64831	Anderson	2.9%	-0.5%	0.8%	17.4%	3.0%	2.7%	3.4%
64844	Granby	-1.9%	2.4%	-0.9%	19.2%	2.7%	2.9%	2.5%
64843	Goodman	0.5%	2.6%	1.8%	17.0%	3.7%	3.3%	4.2%
64854	Noel	3.2%	-2.5%	7.8%	14.0%	3.3%	2.8%	3.8%
64865	Seneca	0.4%	5.0%	3.9%	17.9%	5.4%	5.4%	5.4%
64856	Pineville	1.4%	-1.2%	5.3%	18.8%	3.7%	3.7%	3.7%
PROVIDER SERVICE AREA		1.5%	2.0%	2.8%	17.6%	4.1%	4.1%	4.2%
MO 2012 Estimated (1,000s)		1,197	2,421	1,607	832	6,057	2,962	3,095
MO 2017 Projected (1,000s)		1,237	2,422	1,651	949	6,259	3,064	3,195
PERCENT DIFFERENCE		3.3%	0.0%	2.7%	14.1%	3.3%	3.4%	3.2%
U.S. 2012 Estimated (1,000s)		63,291	128,312	81,242	40,251	313,096	154,450	158,646
U.S. 2017 Projected (1,000s)		65,816	127,615	85,317	46,509	325,257	160,511	164,746
PERCENT DIFFERENCE		4.0%	-0.5%	5.0%	15.5%	3.9%	3.9%	3.8%

Source: The Nielsen Company

The following is an analysis of the age distribution of the population for the community. The analysis is provided by zip code and provides a comparison to Missouri and the United States.

Exhibit 2.2
Freeman Hospital Neosho Community Zip Codes
Estimated 2012 Population vs Projected 2017 Population with Percent Totals

Zip Code	City	Under 18 years	18-44 years	45-64 years	65 years and over	Total	Male	Female
			Estimated 2012 Population					
64850	Neosho	26.8%	34.4%	25.1%	13.8%	100.0%	49.2%	50.8%
64831	Anderson	29.0%	34.0%	24.5%	12.5%	100.0%	50.2%	49.8%
64844	Granby	26.8%	33.5%	25.9%	13.8%	100.0%	49.2%	50.8%
64843	Goodman	26.5%	34.6%	25.9%	13.1%	100.0%	51.2%	48.8%
64854	Noel	29.4%	36.6%	23.7%	10.3%	100.0%	52.0%	48.0%
64865	Seneca	24.9%	33.8%	27.1%	14.2%	100.0%	49.1%	50.9%
64856	Pineville	27.1%	33.7%	26.9%	12.3%	100.0%	50.5%	49.5%
TOTAL PROVIDER SERVICE AREA		27.1%	34.3%	25.4%	13.2%	100.0%	49.7%	50.3%
			Projected 2017 Population					
64850	Neosho	26.0%	33.8%	24.6%	15.5%	100.0%	49.2%	50.8%
64831	Anderson	28.9%	32.9%	24.0%	14.2%	100.0%	50.0%	50.0%
64844	Granby	25.6%	33.4%	25.0%	16.0%	100.0%	49.3%	50.7%
64843	Goodman	25.7%	34.2%	25.4%	14.7%	100.0%	51.0%	49.0%
64854	Noel	29.4%	34.6%	24.7%	11.4%	100.0%	51.8%	48.2%
64865	Seneca	23.7%	33.6%	26.7%	15.9%	100.0%	49.1%	50.9%
64856	Pineville	26.5%	32.1%	27.3%	14.1%	100.0%	50.5%	49.5%
TOTAL PROVIDER SERVICE AREA		26.4%	33.6%	25.1%	15.0%	100.0%	49.7%	50.3%
ESTIMATED 2012		27.1%	34.3%	25.4%	13.2%	100.0%	48.9%	51.1%
PROJECTED 2017 POPULATION		26.4%	33.6%	25.1%	15.0%	100.0%	49.0%	51.0%
MISSOURI 2012		20.2%	41.0%	25.9%	12.9%	100.0%	49.3%	50.7%
UNITED STATES 2012		20.2%	39.2%	26.2%	14.3%	100.0%	49.3%	50.7%

Source: The Nielsen Company

Very similar to the 17.6 percent growth seen in the overall number of people in the 65 year and over category in *Exhibit 2.1*, *Exhibit 2.2* indicates that as a percent of total population for the community, the 65 year and over category will make up almost 15 percent of the total population in 2017 compared to 13.2 percent in 2012. Granby zip code is showing a projected increase from 13.8% to 16.0% in the 65 years and older category.

While the relative age of the community population can impact community health needs, so can the ethnicity and race of a population. *Exhibit 3* shows the population of the community by ethnicity by illustrating the Hispanic versus non-Hispanic residents. In total, the projected 2017 population breakdown shows the community has a higher percentage Hispanic population than the state of Missouri, but a lower percentage than the United States. A review of the specific zip code areas shows a larger percentage of Hispanic residents in the Noel zip code compared to the other zip codes at 34.3%.

Exhibit 3
Freeman Hospital Neosho Community Zip Codes
Estimated 2012 Population vs Projected 2017 Population with Percent Difference

		Estimated 2012			Projected 2017			% Difference		% Total	
Zip Code	City	Hispanic	Non-Hispanic	Total	Hispanic	Non-Hispanic	Total	Hispanic	Non-Hispanic	Hispanic	Non-Hispanic
64850	Neosho	1,902	22,333	24,235	2,436	22,939	25,375	28.1%	2.7%	9.6%	90.4%
64831	Anderson	309	6,646	6,955	335	6,831	7,166	8.4%	2.8%	4.7%	95.3%
64844	Granby	91	4,591	4,682	109	4,700	4,809	19.8%	2.4%	2.3%	97.7%
64843	Goodman	103	2,739	2,842	127	2,821	2,948	23.3%	3.0%	4.3%	95.7%
64854	Noel	1,280	2,530	3,810	1,349	2,587	3,936	5.4%	2.3%	34.3%	65.7%
64865	Seneca	121	5,811	5,932	154	6,097	6,251	27.3%	4.9%	2.5%	97.5%
64856	Pineville	175	3,984	4,159	228	4,085	4,313	30.3%	2.5%	5.3%	94.7%
PROVIDER SERVICE AREA		3,981	48,634	52,615	4,738	50,060	54,798	19.0%	2.9%	8.6%	91.4%
Missouri (1,000s)		229	5,827	6,056	277	5,981	6,258	21.0%	2.6%	4.4%	95.6%
U.S. (1,000s)		53,183	259,912	313,095	60,902	264,355	325,257	14.5%	1.7%	18.7%	81.3%

Source: The Nielsen Company

Exhibit 4 shows the population of the community by race by illustrating three different categories, white, black and other residents. In total, the population breakdown for the community shows a higher concentration of white residents than the state of Missouri and the United States. A review of the specific zip code areas shows a larger percentage of black residents in the Noel zip code compared to other zip codes at 3.7%.

Exhibit 4
Freeman Hospital Neosho Community Zip Codes
Estimated 2012 Population vs Projected 2017 Population with Percent Difference

		Estimated 2012				Projected 2017				Percent Difference				Percent Total		
Zip Code	City	White	Black	Other	Total	White	Black	Other	Total	White	Black	Other	Total	White	Black	Other
64850	Neosho	20,903	186	3,146	24,235	21,306	213	3,856	25,375	1.9%	14.5%	22.6%	4.7%	84.0%	0.8%	15.2%
64831	Anderson	6,218	20	717	6,955	6,377	23	766	7,166	2.6%	15.0%	6.8%	3.0%	89.0%	0.3%	10.7%
64844	Granby	4,280	16	386	4,682	4,326	19	464	4,809	1.1%	18.8%	20.2%	2.7%	90.0%	0.4%	9.6%
64843	Goodman	2,522	9	311	2,842	2,599	10	339	2,948	3.1%	11.1%	9.0%	3.7%	88.2%	0.3%	11.5%
64854	Noel	2,492	102	1,216	3,810	2,428	145	1,363	3,936	-2.6%	42.2%	12.1%	3.3%	61.7%	3.7%	34.6%
64865	Seneca	5,179	26	727	5,932	5,395	34	822	6,251	4.2%	30.8%	13.1%	5.4%	86.3%	0.5%	13.1%
64856	Pineville	3,863	7	289	4,159	3,986	8	319	4,313	3.2%	14.3%	10.4%	3.7%	92.4%	0.2%	7.4%
PROVIDER SERVICE AREA		45,457	366	6,792	52,615	46,417	452	7,929	54,798	2.1%	23.5%	16.7%	4.1%	84.7%	0.8%	14.5%
Missouri (1,000s)		4,993	707	357	6,057	5,097	743	418	6,258	2.1%	5.1%	17.1%	3.3%	81.4%	11.9%	6.7%
U.S. (1,000s)		224,843	39,675	48,577	313,095	228,281	41,779	55,198	325,258	1.5%	5.3%	13.6%	3.9%	70.2%	12.8%	17.0%

Source: The Nielsen Company

Socioeconomic Characteristics of the Community

The socioeconomic characteristics of a geographic area influence the way residents access health care services and perceive the need for health care services within society. The economic status of an area may be assessed by examining multiple variables within the community. The following exhibits are a compilation of data that includes household income, labor force, employees by types of industry, employment rates, educational attainment and poverty for the community served by the Hospital. These standard measures will be used to compare the socioeconomic status of the community to the state of Missouri and to the United States.

Income and Employment

Exhibit 5 presents the average, median and per capita income for households in each zip code. Average income is projected to increase between 1.4% and 3.7% between 2012 and 2017, while the median income is projected to increase between 2.4% and 3.6%. The average per capita is projected to increase between 2.8% and 4.7%.

Exhibit 5
Freeman Hospital Neosho Community Zip Codes
Estimated Family Income for 2012 and 2017 with Percent Difference

		Estimated 2012			Projected 2017			Percent Difference		
Zip Code	City	Avg. Household Income	Median Household Income	Avg. Per Capita Income	Avg. Household Income	Median Household Income	Avg. Per Capita Income	Avg. Household Income	Median Household Income	Avg. Per Capita Income
64850	Neosho	$ 48,969	$ 39,778	$ 18,935	$ 50,338	$ 40,680	$ 19,514	2.8%	2.3%	3.1%
64831	Anderson	$ 43,535	$ 34,607	$ 16,366	$ 44,945	$ 35,683	$ 17,129	3.2%	3.1%	4.7%
64844	Granby	$ 41,437	$ 36,609	$ 15,796	$ 42,681	$ 37,487	$ 16,245	3.0%	2.4%	2.8%
64843	Goodman	$ 37,816	$ 31,448	$ 14,088	$ 39,160	$ 32,217	$ 14,599	3.6%	2.4%	3.6%
64854	Noel	$ 43,746	$ 36,038	$ 15,451	$ 45,157	$ 37,337	$ 16,288	3.2%	3.6%	5.4%
64865	Seneca	$ 50,479	$ 40,514	$ 19,096	$ 51,669	$ 41,514	$ 19,891	2.4%	2.5%	4.2%
64856	Pineville	$ 44,977	$ 36,469	$ 16,847	$ 46,893	$ 37,682	$ 17,613	4.3%	3.3%	4.5%
	Missouri	$ 58,652	$ 44,915	$ 23,756	$ 60,123	$ 45,874	$ 24,454	2.5%	2.1%	2.9%
	United States	$ 67,315	$ 49,581	$ 25,919	$ 69,219	$ 50,850	$ 26,693	2.8%	2.6%	3.0%

Source: The Nielsen Company

Exhibit 6 presents the average annual unemployment rates for Newton and McDonald counties, Missouri and the United States. *Exhibit 6* illustrates unemployment rates have risen in recent years except 2011 where all rates showed a small decline.

Exhibit 6
Freeman Hospital Neosho Community
Unemployment Rates (%)
2006-2010

County	2007	2008	2009	2010	2011
Newton County	4.7	5.4	8.2	8.6	7.9
McDonald County	4.1	4.7	7.9	8.9	7.7
Missouri	5.1	5.9	9.4	9.4	8.6
United States	4.6	5.8	9.3	9.6	9.0

Source: FDIC

Newton and McDonald counties are supported by several major industries including education and health services, manufacturing and local government. *Exhibit 7* summarizes employment by major industry for the two counties.

Exhibit 7
Freeman Hospital Neosho Community
Employment by Major Industry
2010

Major Industries	Newton County	%	McDonald County	%	Total	%	US %
Goods-producing	4,420	22.7%	3,208	47.3%	7,628	29.1%	14.7%
Natural Resources and Mining	152	0.8%	295	4.4%	447	1.7%	1.4%
Construction	724	3.7%	189	2.8%	913	3.5%	4.3%
Manufacturing	3,544	18.2%	2,724	40.2%	6,268	23.9%	9.0%
Service-providing	12,429	63.8%	2,545	37.5%	14,974	57.0%	68.4%
Trade, Transportation and Utilities	3,100	15.9%	1,411	20.8%	4,511	17.2%	19.1%
Information	335	1.7%	28	0.4%	363	1.4%	2.1%
Financial Activities	663	3.4%	156	2.3%	819	3.1%	5.8%
Professional and Business Services	900	4.6%	326	4.8%	1,226	4.7%	13.1%
Education and Health Services	4,854	24.9%	240	3.5%	5,094	19.4%	14.6%
Leisure and Hospitality	2,063	10.6%	288	4.2%	2,351	9.0%	10.2%
Other Services	514	2.6%	96	1.4%	610	2.3%	3.4%
Federal Government	168	0.9%	99	1.5%	267	1.0%	2.3%
State Government	126	0.6%	58	0.9%	184	0.7%	3.6%
Local Government	2,330	12.0%	871	12.8%	3,201	12.2%	11.0%
Total Employment	19,473	100.0%	6,781	100.0%	26,254	100.0%	100.0%

Source: U.S. Department of Census

Major employers by county (more than 50 employees) include the following:

Exhibit 8
Freeman Hospital Neosho Community
Employment by Top Employers (> 50 Employees)

Top Employers	County Newton	County McDonald
La-Z-Boy Midwest	1,150	
Neosho School District	550	
Eastern Shawnee Tribal Office	500	
Scholastic Book Clubs, Inc.	500	
Twin River Foods, Inc.	500	
Talbot Industries, Inc.	300	
Freeman Neosho Hospital	267	
Crowder College LRC	200	
J T Sports	200	
Tyson Foods, Inc.		1,600
Simmons Foods, Inc.		1,100
Hunte Kennel Systems		290
Mid-Tec, Inc.		175
Gallery Graphics		90
McDonald County School District		80
Golden Living Center		78
Noel Schools		75
Agile Manufacturing Company		70

Source: Missouri Partnership

Poverty

Exhibit 9 presents the percentage of total population in poverty (including under age 18) and median household income for households in each county versus the state of Missouri and the United States.

Exhibit 9
Freeman Hospital Neosho Community
Poverty Estimate: Percentage of Total Population in Poverty and Median Household Income
2010 and 2011

County	2010 All Persons	2010 Under Age 18	2010 Median Household Income	2011 All Persons	2011 Under Age 18	2011 Median Household Income
Newton County	14.3%	21.5%	$ 40,954	14.8%	23.1%	$ 41,262
McDonald County	17.0%	24.1%	$ 35,935	19.2%	25.6%	$ 38,585
Missouri	14.5%	20.2%	$ 45,829	15.2%	21.3%	$ 46,123
United States	14.4%	20.1%	$ 51,222	15.2%	21.4%	$ 51,484

Source: U.S. Census Bureau, 2008-2010 American Community Survey 3-Year Estimates

Low-income residents often postpone seeking medical attention until health problems become aggravated, creating a greater demand on a given community's medical resources. This includes reliance upon emergency room services for otherwise routine primary care. Often uninsured, the low-income demographic's inability to pay for services further strains the medical network. Low-income residents are also less mobile, requiring medical services in localized population centers, placing additional pressure on those providers already in high demand. Understanding the extent of poverty within the population, therefore, helps determine an accurate picture of demand. Newton County ranked favorably when compared to Missouri's and national averages in both years. McDonald County ranked unfavorably for both years.

Uninsured

Exhibit 10 presents health insurance coverage status by age (under 65 years) and income (below 400 percent) of poverty for each county versus the state of Missouri and the United States.

Exhibit 10
Freeman Hospital Neosho Community
Health Insurance Coverage Status by Age (Under 65 years) and Income (Below 400%) of Poverty
2009-2011 3-year Estimates

	All Income Levels				Below 400% of FPL			
County	Under 65 Uninsured	Percent Uninsured	Under 65 Insured	Percent Insured	Under 65 Uninsured	Percent Uninsured	Under 65 Insured	Percent Insured
Newton County	8,926	18.4%	39,572	81.6%	7,772	21.4%	28,500	78.6%
McDonald County	4,316	21.5%	15,746	78.5%	3,820	23.0%	12,798	77.0%
Missouri	771,174	15.4%	4,223,302	84.6%	697,310	20.6%	2,688,522	79.4%
United States	45,640,406	17.5%	215,786,240	82.5%	40,138,822	23.9%	127,905,808	76.1%

Source: U.S. Census Bureau, 2009-2011 American Community Survey 3-Year Estimates

When compared to the United States as well as the state of Missouri, for all income levels, both Newton and McDonald counties have higher percentages of uninsured population under 65 years of age. When isolating income levels to below 400% of the federal poverty level, Newton and McDonald counties have higher percentages of uninsured population than the state of Missouri average percentage.

Education

Exhibit 11 presents educational attainment by age cohort for individuals in each county versus the state of Missouri.

Exhibit 11
Freeman Hospital Neosho Community
Educational Attainment by Age - Total Population
2011

State/ County	Age Cohort 18-24	25-34	35-44	45-64	65+
Completing High School					
Newton County	85.4%	85.0%	86.1%	90.3%	72.9%
McDonald County	61.1%	64.8%	81.1%	82.2%	72.7%
Missouri	83.9%	89.5%	89.7%	89.5%	78.1%
Bachelor's Degree or More					
Newton County	6.5%	15.3%	21.4%	19.6%	15.0%
McDonald County	2.9%	10.6%	11.0%	8.9%	10.1%
Missouri	9.2%	30.8%	29.5%	25.7%	17.2%
Graduate or Professional Degree (Population 25 and over)					
Newton County	6.7%				
McDonald County	2.0%				
Missouri	9.6%				

Source: U.S. Census Bureau, 2009-2011 American Community Survey 3-year estimates

Education levels obtained by community residents may impact the local economy. Higher levels of education generally lead to higher wages, less unemployment and job stability. These factors may indirectly influence community health. Persons aged 25 and older have fewer graduate or professional degrees than the state as a whole. All counties compare unfavorably to Missouri for all age categories in obtaining a bachelor's degree or higher. McDonald County is consistently lower across all age groups compared to the state of Missouri for those completing high school.

Health Status of the Community

This section of the assessment reviews the health status of Newton and McDonald County residents, with comparisons to the states of Missouri. This in-depth assessment of the mortality and morbidity data, health outcomes, health factors and mental health indicators of the county residents that make up the community will enable the Hospital to identify priority health issues related to the health status of its residents.

Good health can be defined as a state of physical, mental and social well-being, rather than the absence of disease or infirmity. According to *Healthy People 2020*, the national health objectives released by the U.S. Department of Health and Human Services, individual health is closely linked to community health. Community health, which includes both the physical and social environment in which individuals live, work and play, is profoundly affected by the collective behaviors, attitudes and beliefs of everyone who lives in the community. Healthy people are among a community's most essential resources.

Numerous factors have a significant impact on an individual's health status: lifestyle and behavior, human biology, environmental and socioeconomic conditions, as well as access to adequate and appropriate health care and medical services. Studies by the American Society of Internal Medicine conclude that up to 70 percent of an individual's health status is directly attributable to personal lifestyle decisions and attitudes. Persons who do not smoke, who drink in moderation (if at all), use automobile seat belts (car seats for infants and small children), maintain a nutritious low-fat, high-fiber diet, reduce excess stress in daily living and exercise regularly have a significantly greater potential of avoiding debilitating diseases, infirmities and premature death.

The interrelationship among lifestyle/behavior, personal health attitude and poor health status is gaining recognition and acceptance by both the general public and health care providers. Some examples of lifestyle/behavior and related health care problems include the following:

Lifestyle	***Primary Disease Factor***
Smoking	Lung cancer Cardiovascular disease Emphysema Chronic bronchitis
Alcohol/drug abuse	Cirrhosis of liver Motor vehicle crashes Unintentional injuries Malnutrition Suicide Homicide Mental illness
Poor nutrition	Obesity Digestive disease Depression
Driving at excessive speeds	Trauma Motor vehicle crashes

Lifestyle	Primary Disease Factor
Lack of exercise	Cardiovascular disease Depression
Overstressed	Mental illness Alcohol/drug abuse Cardiovascular disease

Health problems should be examined in terms of morbidity as well as mortality. Morbidity is defined as the incidence of illness or injury and mortality is defined as the incidence of death. However, law does not require reporting the incidence of a particular disease, except when the public health is potentially endangered. More than 50 infectious diseases in Missouri must be reported to county health departments. Except for Acquired Immune Deficiency Syndrome (AIDS), most of these reportable diseases currently result in comparatively few deaths.

Due to limited morbidity data, this health status report relies heavily on death and death rate statistics for leading causes in death in Newton and McDonald counties and the state Missouri. Such information provides useful indicators of health status trends and permits an assessment of the impact of changes in health services on a resident population during an established period of time. Community attention and health care resources may then be directed to those areas of greatest impact and concern.

Leading Causes of Death

Exhibit 12 reflects the leading causes of death for Newton and McDonald County residents and compares the rates, per hundred thousand, to the state of Missouri average rates, per hundred thousand. Overall rates of death for each county are higher than the overall rate for the state of Missouri.

Exhibit 12
Freeman Hospital Neosho Community
Selected Causes of Resident Deaths: Number and Rate (2009 10 year trend)

	Newton		McDonald		Missouri	
	Number	Rate	Number	Rate	Number	Rate
Total Deaths, All Causes	5,918	896.2	2,193	981.7	602,631	871.5
Heart Disease	1,720	257.9	559	254.1	172,202	245.6
All Cancers (Malignant Neoplasms)	1,340	200.3	510	221.2	135,732	197.7
Smoking-Attributable	1,059	157.8	426	184.7	105,354	152.2
All Injuries and Poisonings	420	70.9	237	98.6	43,403	67.0
Lung Cancer	399	59.4	186	79.4	42,092	61.4
Stroke/Other Cerebrovascular Disease	397	59.7	106	49.8	38,628	54.9
Chronic Lower Respiratory Disease	341	51.2	130	58.1	33,585	48.7
Total Unintentional Injuries	298	50.3	163	68.5	29,386	45.0
Diabetes Mellitus	129	19.3	47	20.5	16,393	23.8
Pneumonia and Influenza	237	35.3	81	38.6	16,373	23.1

Source: Missouri Department of Health & Senior Services

Exhibit 13 compares the number of deaths for Newton County residents, with U.S. Crude Rates and identifies causes of death that statistically differ from U.S. rates.

Exhibit 13
Freeman Hospital Neosho Community
Comparison of Rates for Selected Causes of Death: Rate per 1,000 Residents: Newton County
2009 10 year trend

Selected Cause of Death	Number of Deaths	County Adjusted Rate	MO Adjusted Rate	2010 US Adjusted Rate	Percent Difference from US
Total Deaths, All Causes	5,918	896.2	981.7	798.7	12.2%
Heart Disease	1,720	257.9	245.6	192.9	33.7%
All Cancers (Malignant Neoplasms)	1,340	200.3	197.7	185.9	7.7%
Smoking-Attributable	1,059	157.8	152.2	N/A	N/A
All Injuries and Poisonings	420	70.9	67.0	N/A	N/A
Stroke/Other Cerebrovascular Disease	399	59.4	54.9	41.8	42.1%
Lung Cancer	397	59.7	61.4	51.2	16.6%
Chronic Lower Respiratory Disease	341	51.2	48.7	44.6	14.8%
Total Unintentional Injuries	298	50.3	45.0	38.2	31.7%
Diabetes Mellitus	237	35.3	23.8	22.3	58.3%
Pneumonia and Influenza	150	25.6	23.1	16.2	58.0%

Source: Missouri Department of Health & Senior Services

Exhibit 13.1 compares the number of deaths for McDonald County residents, with U.S. Crude Rates and identifies causes of death that statistically differ from U.S. rates. Motor vehicle accidents are particularly higher compared to U.S. rates for this county.

Exhibit 13.1
Freeman Hospital Neosho Community
Comparison of Rates for Selected Causes of Death: Rate per 1,000 Residents: McDonald County
2009 10 year trend

Selected Cause of Death	Number of Deaths	County Adjusted Rate	MO Adjusted Rate	2010 US Adjusted Rate	Percent Difference from US
Total Deaths, All Causes	146	860.5	920.5	798.7	7.7%
Heart Disease	559	254.1	245.6	192.9	31.7%
All Cancers (Malignant Neoplasms)	510	221.2	197.7	185.9	19.0%
Smoking-Attributable	426	184.7	152.2	N/A	N/A
All Injuries and Poisonings	237	98.6	67.0	N/A	N/A
Lung Cancer	186	79.4	61.4	51.2	55.1%
Total Unintentional Injuries	163	68.5	45.0	38.2	79.3%
Chronic Lower Respiratory Disease	130	58.1	48.7	44.6	30.3%
Stroke/Other Cerebrovascular Disease	106	49.8	54.9	41.8	19.1%
Motor Vehicle Accidents	94	39.1	18.6	11.4	243.0%
Alzheimer's Disease	92	46.6	21.9	27.0	72.6%

Source: Missouri Department of Health & Senior Services

Health Outcomes and Factors

An analysis of various health outcomes and factors for a particular community can, if improved, help make that community a healthier place to live, learn, work and play. A better understanding of the factors that affect the health of the community will assist with how to improve the community's habits, culture and environment. This portion of the community health needs assessment utilizes information from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

The County Health Rankings model is grounded in the belief that programs and policies implemented at the local, state and federal levels have an impact on the variety of factors that, in turn, determine the health outcomes for communities across the nation. The model provides a ranking method that ranks all 50 states and the counties within each state, based on the measurement of two types of health outcomes for each county: how long people live (mortality) and how healthy people feel (morbidity). These outcomes are the result of a collection of health factors and are influenced by programs and policies at the local, state and federal levels.

Counties in each of the 50 states are ranked according to summaries of a variety of health measures. Those having high ranks, *e.g.* 1 or 2, are considered to be the "healthiest." Counties are ranked relative to the health of other counties in the same state on the following summary measures:

- Health Outcomes--rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures.
- Health Factors--rankings are based on weighted scores of four types of factors:
    - Health behaviors (six measures)
    - Clinical care (five measures)
    - Social and economic (seven measures)
    - Physical environment (four measures)

A more detailed discussion about the ranking system, data sources and measures, data quality and calculating scores and ranks can be found at the website for County Health Rankings (www.countyhealthrankings.org).

As part of the analysis of the needs assessment for the community, the two counties that comprise the majority of the community will be used to compare the relative health status of each county to the state of Missouri as well as to a national benchmark. A better understanding of the factors that affect the health of the community will assist with how to improve the community's habits, culture and environment.

The following tables, from County Health Rankings, summarize the 2012 health outcomes for the two counties that comprise the majority of the community for Freeman Hospital Neosho. Each measure is described and includes a confidence interval or error margin surrounding it – if a measure is above the state average and the state average is beyond the error margin for the county, then further investigation is recommended.

Health Outcomes--rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures. *Exhibit 14* shows Newton County mortality measure was much higher than the state of Missouri, however, morbidity factors were mostly favorable in comparison (ranking 46 on mortality and 40 on morbidity out of 115 counties). *Exhibit 15* shows McDonald County health outcomes ranking 94th on mortality and 71st on morbidity. Each measure for each county was below national benchmarks with opportunities for improvement.

Newton County

Exhibit 14
Freeman Hospital Neosho Community
Newton County Health Rankings - Health Outcomes (2012)

	Newton County	Error Margin	National Benchmark	MO	Rank (of 115)
Mortality					
Premature death - Years of potential life lost before age 75 per 100,000 population (age-adjusted)	8,219	7,374-9,064	5,466	7,981	**46**
Morbidity					
Poor or fair health - Percent of adults reporting fair or poor health (age-adjusted)	16%	12-20%	10%	16%	**40**
Poor physical health days - Average number of physically unhealthy days reported in past 30 days (age-adjusted)	3.7	2.7-4.8	2.6	3.6	
Poor mental health days - Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	3.6	2.5-4.8	2.3	3.7	
Low birth weight - Percent of live births with low birth weight (<2500 grams)	7.2%	6.5-7.8%	6%	8.1%	

Source: Countyhealthrankings.org

A number of different health factors shape a community's health outcomes. The County Health Rankings model includes four types of health factors: health behaviors, clinical care, social and economic and the physical environment.

Exhibit 14.1 summarize the health factors for Newton County. Areas for improvement include:

- Health Behavior/Teen Birth Rate
- Health Behavior/Adult Obesity
- Clinical Care/Uninsured Adults
- Clinical Care/Primary Care Physicians
- Social & Economic Factors/Post-Secondary Education

Exhibit 14.1
Freeman Hospital Neosho Community
Newton County Health Rankings - Health Factors (2012)

	Newton County	Error Margin	National Benchmark	MO	Rank (of 115)
Health Behaviors					36
Adult smoking - Percent of adults that report smoking at least 100 cigarettes and that they currently smoke	20%	14-26%	14%	24%	
Adult obesity - Percent of adults that report a BMI >= 30	33%	26-39%	25%	31%	
Excessive drinking - Percent of adults that report excessive drinking in the past 30 days	10%	6-17%	8%	17%	
Motor vehicle crash death rate - Motor vehicle deaths per 100K population	25	20-30	12	19	
Sexually transmitted infections - Chlamydia rate per 100K population	244		84	438	
Teen birth rate - Per 1,000 female population, ages 15-19	57	53-61	22	44	
Clinical Care					56
Uninsured adults - Percent of population under age 65 without health insurance	18%	16-19%	11%	15%	
Primary care physicians - Ratio of population to primary care physicians	5,598:1		631:1	1,274:1	
Preventable hospital stays - Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	76	70-81	49	75	
Diabetic screening - Percent of diabetic Medicare enrollees that receive HbA1c screening	85%	80-90%	89%	84%	
Mammography screening - Percent of female Medicare enrollees that receive mammography screening	63%	57-68%	74%	65%	
Social & Economic Factors					45
High school graduation - Percent of ninth grade cohort that graduates in 4 years	87%			86%	
Some college - Percent of adults aged 25-44 years with some post-secondary education	54%	50-59%	68%	61%	
Children in poverty - Percent of children under age 18 in poverty	24%	18-30%	13%	21%	
Inadequate social support - Percent of adults without social/emotional support	18%	12-25%	14%	19%	
Children in single-parent households - Percent of children that live in household headed by single parent	27%	22-32%	20%	32%	
Violent crime rate - Violent crimes per 100,000 population (age-adjusted)	263		73	518	
Physical Environment					95
Air pollution-particulate matter days - Annual number of unhealthy air quality days due to fine particulate matter	-		-	-	
Air pollution-ozone days - Annual number of unhealthy air quality days due to ozone	1		-	7	
Access to healthy foods - Healthy food outlets include grocery stores and produce stands/farmers' markets	27%		0%	8%	
Access to recreational facilities - Rate of recreational facilities per 100,000 population	7		16	10	
Fast food restaurants - Percent of all restaurants that are fast food establishments	48%		25%	47%	

Source: Countyhealthrankings.org

McDonald County

Exhibit 15
Freeman Hospital Neosho Community
McDonald County Health Rankings - Health Outcomes (2012)

	McDonald County	Error Margin	National Benchmark	MO	Rank (of 115)
Mortality					
Premature death - Years of potential life lost before age 75 per 100,000 population (age-adjusted)	10,509	9,062-11,957	5,466	7,981	**94**
Morbidity					
Poor or fair health - Percent of adults reporting fair or poor health (age-adjusted)	18%	13-26%	10%	16%	**71**
Poor physical health days - Average number of physically unhealthy days reported in past 30 days (age-adjusted)	4.4	2.9-6.0	2.6	3.6	
Poor mental health days - Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	3.8	2.3-5.3	2.3	3.7	
Low birth weight - Percent of live births with low birth weight (<2500 grams)	7.8%	6.7-8.8%	6%	8.1%	

Source: Countyhealthrankings.org

The following table summarizes the health factors for McDonald County and shows McDonald County has significant room for improvement in the following areas:

- Health Behavior/Teen Birth Rate
- Health Behavior/Adult Obesity
- Health Behavior/Motor Vehicle Crash Death Rate
- Clinical Care/Uninsured Adults
- Clinical Care/Primary Care Physicians
- Clinical Care/Preventable Hospital Stays
- Clinical Care/Diabetic Screening
- Social & Economic Factors/Post-Secondary Education
- Social & Economic Factors/Children in Poverty

Exhibit 15.1
Freeman Hospital Neosho Community
McDonald County Health Rankings - Health Factors (2012)

	McDonald County	Error Margin	National Benchmark	MO	Rank (of 115)
Health Behaviors					**78**
Adult smoking - Percent of adults that report smoking at least 100 cigarettes and that they currently smoke	N/A	N/A	14%	24%	
Adult obesity - Percent of adults that report a BMI >= 30	32%	25-40%	25%	31%	
Excessive drinking - Percent of adults that report excessive drinking in the past 30 days	9%	5-18%	8%	17%	
Motor vehicle crash death rate - Motor vehicle deaths per 100K population	36	27-46	12	19	
Sexually transmitted infections - Chlamydia rate per 100K population	176		84	438	
Teen birth rate - Per 1,000 female population, ages 15-19	83	76-91	22	44	
Clinical Care					**106**
Uninsured adults - Percent of population under age 65 without health insurance	21%	19-24%	11%	15%	
Primary care physicians - Ratio of population to primary care physicians	22,873:1		631:1	1,274:1	
Preventable hospital stays - Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	84	69-99	49	75	
Diabetic screening - Percent of diabetic Medicare enrollees that receive HbA1c screening	76%	63-89%	89%	84%	
Mammography screening - Percent of female Medicare enrollees that receive mammography screening	59%	46-70%	74%	65%	
Social & Economic Factors					**77**
High school graduation - Percent of ninth grade cohort that graduates in 4 years	89%			86%	
Some college - Percent of adults aged 25-44 years with some post-secondary education	41%	35-47%	68%	61%	
Children in poverty - Percent of children under age 18 in poverty	30%	21-39%	13%	21%	
Inadequate social support - Percent of adults without social/emotional support	18%	10-29%	14%	19%	
Children in single-parent households - Percent of children that live in household headed by single parent	31%	23-38%	20%	32%	
Violent crime rate - Violent crimes per 100,000 population (age-adjusted)	409		73	518	
Physical Environment					**98**
Air pollution-particulate matter days - Annual number of unhealthy air quality days due to fine particulate matter	-		-	-	
Air pollution-ozone days - Annual number of unhealthy air quality days due to ozone	1		-	7	
Access to healthy foods - Healthy food outlets include grocery stores and produce stands/farmers' markets	41%		0%	8%	
Access to recreational facilities - Rate of recreational facilities per 100,000 population	4		16	10	
Fast food restaurants - Percent of all restaurants that are fast food establishments	31%		25%	47%	

Source: Countyhealthrankings.org

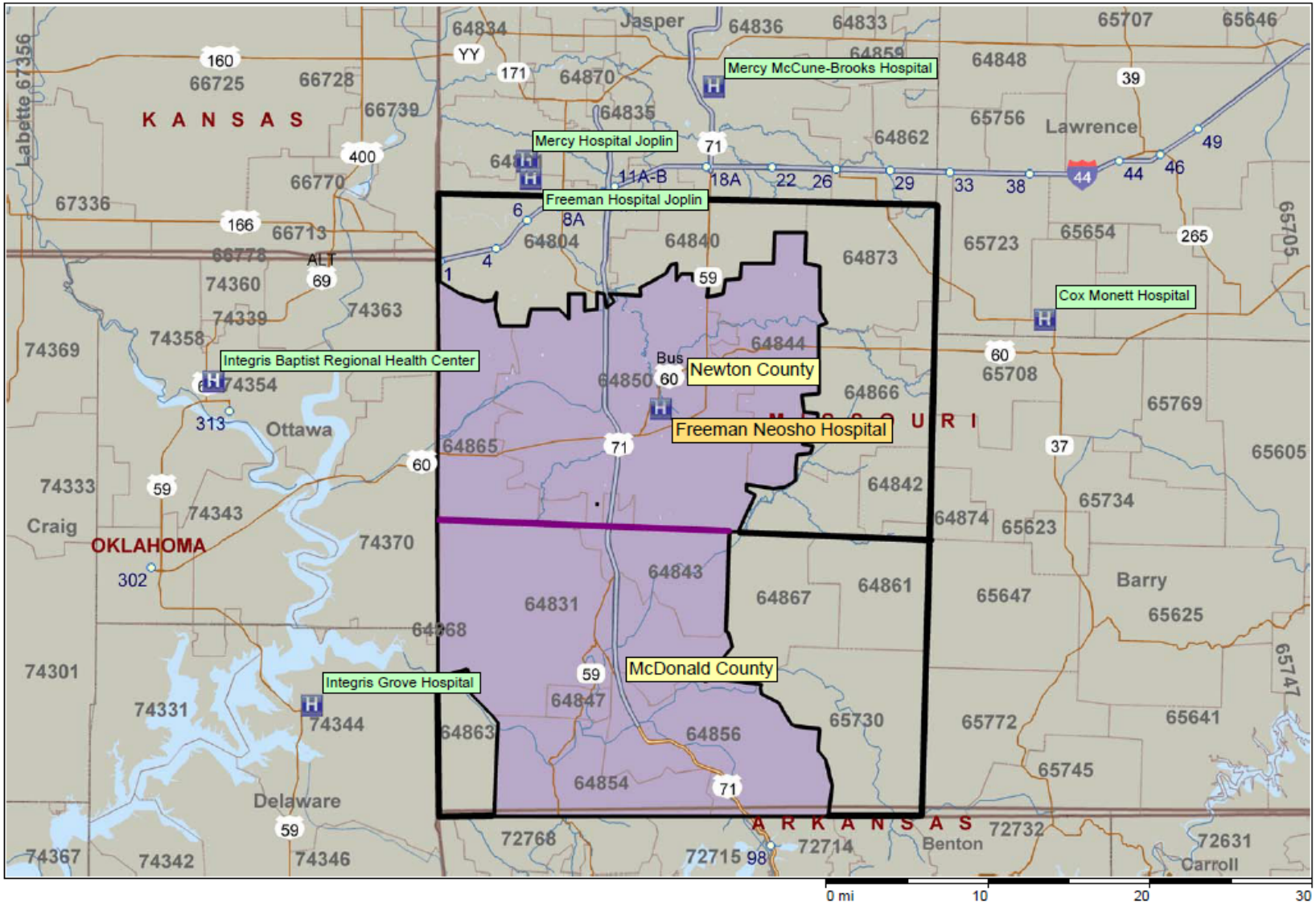
Newton County Health Synopsis: Newton County has favorable rates of low birth weight, excessive drinking, sexually transmitted diseases, adult smoking, diabetic screenings, high school graduates and violent crime. Overall, the mortality and morbidity factors are favorable when compared to the state, being in the upper 40%. The county is challenged though by higher-than desirable rates of premature death and population to primary care physician ratio. Also, there is a higher than desirable rate of fast food restaurants compared to total restaurants in the area. Each of the top 10 causes of death, with the exception of lung cancer, for this county have higher rates than the state as well as national benchmarks. Increased exercise and improved nutrition can lower the risk of cardiovascular disease, diabetes, cancer and other health conditions.

McDonald County Health Synopsis: McDonald County faces some serious health challenges. Despite these problems, the county has strengths that indicate the potential for reducing health risks and saving lives. The county has comparatively low rates of low birth weight, excessive drinking, sexually transmitted diseases, high school graduates, children in single-parent homes, violent crime and fast food restaurants (although not favorable when compared to national benchmarks). Challenges that can effectively be addressed at the community level include poor mental health, motor vehicle crash death rates (which are triple the national benchmark), teen birth rates (which are nearly four times the national benchmark), post-secondary education and children in poverty. Other health problems for which the county has some of the state's highest rates are all clinical care factors, with the group overall earning a rank of 106 out of 115, one of the worst in the state. All of the county's top 10 causes of death rates are above state averages with the exception of stroke and other cerebrovascular diseases. Improved nutrition and increased physical activity will help reduce obesity and the risk for diabetes, cardiovascular and other diseases. Increasing physicians and regular primary care visits and screenings can reduce the risks of breast, colorectal, prostate and other forms of cancer.

Health Care Resources

The availability of health resources is a critical component to the health of a community and a measure of the soundness of the area's health care delivery system. An adequate number of health care facilities and health care providers is vital for sustaining a community's health status. Fewer health care facilities and health care providers can impact the timely delivery of services. A limited supply of health resources, especially providers, results in the limited capacity of the health care delivery system to absorb charity and indigent care as there are fewer providers upon which to distribute the burden of indigent care. This section will address the availability of health care resources to the residents of Newton and McDonald counties. The following is a map showing a geographical representation of the area facilities within a 30 mile radius from the Hospital in relation to the defined zip code population.

Area Facilities in 30 Mile Radius of Freeman Neosho Hospital



Hospitals and Health Centers

The Hospital has 25 acute beds and is the only hospital located in Newton County. Residents of the community also take advantage of services provided by hospitals in neighboring counties. *Exhibit 16* summarizes hospital services 2010 data reported to Medicare that was available to the residents of Newton and McDonald counties per-tornado:

Exhibit 16
Freeman Hospital Neosho Community
Summary of Acute Care Hospitals (2010 Cost Report Data)

		Facility Type	Miles from Regional	Bed Size	Annual Discharges	Annual Patient Revenue (000's)
Freeman Neosho Hospital	113 West Hickory St., Neosho, MO 64850	Critical Access	0	25	1,396	$ 75,486,542
Freeman Hospital Joplin	1102 W. 32nd St., Joplin, MO 64804	Short Term Acute	20.4	292	16,231	$ 1,060,413,314
Mercy Hospital Joplin	2727 McClelland Blvd., Joplin, MO 64804	Short Term Acute	20.7	337	15,103	$ 804,792,533
Mercy McCune-Brooks Hospital	3125 Dr Russell Smith Way, Carthage, MO 64836	Critical Access	22.4	25	1,378	$ 87,470,947
Cox Monett Hospital	801 Lincoln Ave., Monett, MO 65708	Critical Access	28	25	797	$ 64,610,352
Integris Grove Hospital	1310 South Main, Grove, OK 73433	Short Term Acute	39.8	68	2,654	$ 111,445,274
Integris Baptist Reg. Health Ctr.	200 2nd Ave. SW, Miami, OK 74354	Short Term Acute	35.3	94	3,281	$ 123,016,549

Source: Costreportdata.com

The following is a brief description of the health care services available at each of these facilities:

Freeman Hospital Joplin – Located in Joplin, Missouri, Freeman Hospital Joplin is part of a 517-bed, three hospital system providing comprehensive healthcare and behavioral health services to an area that includes more than 450,000 from Missouri, Arkansas, Oklahoma and Kansas.

Mercy Hospital Joplin – Located in Joplin, Missouri, Mercy Hospital is newly opened after the May 2011 tornado. Mercy Hospital Joplin is only a two minute drive from Freeman Hospital West. The facility includes an emergency department, a heart and vascular department, a radiology wing, surgical rooms, pediatric rooms and a labor and delivery department, including a nursery and labor and delivery suites.

Mercy McCune-Brooks Hospital – McCune-Brooks Regional Hospital, MBRH is located in Carthage, Missouri, less than a half hour north of Freeman Neosho Hospital. As of January 1, 2012, MBRH became part of the Mercy health care system. MBRH provides general medical and surgical care for inpatient, outpatient and emergency room patients.

Cox Monett Hospital – Located in Monett, Missouri, Cox Monett is a not-for-profit community based hospital purchased by CoxHealth System in 1993. Services range from maternity care to sleep studies to diabetes services.

Integris Grove Hospital – Located in Grove, Oklahoma, Integris Grove General Hospital includes an intensive care unit, private medical/surgical rooms, a women's health center, a cardiac catheterization lab, a radiology department and other surgery rooms.

Integris Baptist Regional Health Center – Located in Miami, Oklahoma, Integris Baptist Regional Health Center includes services such as a heart hospital, rehabilitation center, transplant institute, cerebrovascular and storke center, cancer institute and fertility institute.

Hospital Market Share

Hospital competition in the area is mainly between the two major health systems, Freeman Health System and Mercy Health System. Both systems offer comparable services in the major healthcare service lines. Freeman Health System does operate the area's only NeoNatal ICU. Freeman has two hospitals in Joplin and one in Neosho. Mercy has hospitals in Carthage, Joplin, and Columbus, Kansas. Other competition to both health systems does exist in the form of independently owned surgery centers, imaging centers and ancillary providers of physical therapy, speech therapy, occupational therapy, home health, durable medical equipment providers, pharmacy providers and mental health services.

The market share of a hospital relative to that of its competitors may be based largely on the services required by patients and the availability of those services at each facility. For this study, the market share of the Hospital was considered based on the type of services required by those patients in the community. The ability to attain a certain relative market share (percentage) of the community varies based on a number of factors, including the services provided, geographical location and accessibility of each competing facility. *Exhibit 17* presents the relative market share of hospitals that had discharges of residents from the counties of Newton and McDonald. This information provides a pre-tornado summary of market share information as well as the outmigration of patients from the community. Market share may have shifted post-tornado.

Exhibit 17
Freeman Hospital Neosho Community
Discharges by Hospital, by County 2010

Hospital	Newton County	%	McDonald County	%
Freeman Neosho Hospital	864	11.6%	389	13.1%
Freeman Hospital Joplin	3,768	50.8%	1,355	45.6%
Mercy Hospital Joplin	2,086	28.1%	468	15.7%
Mercy McCune-Brooks Hospital	89	1.2%	15	0.5%
Cox Monett Hospital	38	0.5%	10	0.3%
Integris Grove Hospital	-	0.0%	-	0.0%
Integris Baptist Reg. Health Ctr.	-	0.0%	-	0.0%
All Other	576	7.8%	735	24.7%
Total	7,421	100.0%	2,972	100.0%

Source: HIDI

Other Health Care Facilities and Providers

Access Family Care – Access Family Care has a combined dental, medical, and pediatric clinic at the larger Joplin clinic site. There is also a small clinic housed in the Ozark Center serving Ozark Center patients. In Anderson, Missouri, Access has a combined dental and medical facility, and right now Cassville, Missouri, location only has medical, but a new clinic is in the process of being constructed and once completed, will have dental services as well. The administrative office is located in Neosho, Missouri. These federally qualified health centers offer obstetrics/gynecology, prenatal, pediatrics, well-child visits, vaccines for children, adolescent health, family practice, internal medicine, geriatrics, family dental care, chronic illness treatment, laboratory services, referral for mental health services, nutrition care, pregnancy testing, social services, cancer screenings, Spanish interpreting and 340B pharmacy discounts.

Community Health Center of Southeast Kansas – Located in Baxter Springs and Columbus within Cherokee County, Kansas, these federally qualified health centers provide long-term facility nursing visits, women's health, men's health, pediatrics, mental health, pharmacy, dental, laboratory and community outreach services. Other locations include Pittsburg, Coffeyville and Iola, Kansas.

Preferred Family Healthcare – Numerous locations throughout include Joplin, Missouri. Preferred Family Healthcare is a comprehensive behavioral health non-profit organization providing substance abuse treatment/prevention and mental health services.

Fresenius Medical Care North America – Numerous locations include Joplin, Missouri. Fresenius Medical Care provides in-center dialysis, home dialysis, as well as transplant support.

Health Departments – Area health departments include: Joplin Health Department, Newton County Health Department, Jasper County Health Department and Economic Security Corporation of Southwest Area.

Imaging Centers – Area imaging centers include: Joplin 3D & 4D imaging Center and Thousand Oaks Imaging Center.

Estimated Demand for Physician Office Visits and Hospital Services

In order to define existing services and develop future plans that may affect the operations of the Hospital, this study includes an analysis of estimated demand for physician office visits, hospital emergency room visits and hospital discharges using national averages and population estimates. Current and future unmet need can be evaluated based on the changes in the size of the market for certain services as determined by applying these national average use rates to the population of the community. *Exhibit 18* summarizes estimated 2012 and projected 2017 physician office visits, emergency department visits and hospital discharges using 2009 national average use rates from the National Center for Health Statistics.

Exhibit 18
Freeman Hospital Neosho Community
Physician Office Visits, Emergency Department Visits, and Discharges

Estimated 2012

Age	2012 Community Population	Physician Office Visits per Person	Estimated Physician Office Visits	Emergency Department Visits per Person	Estimated Emergency Department Visits	Hospital Discharges per Person	Estimated Hospital Discharges
0-18	14,233	2.47	35,156	0.45	6,405	0.0342	487
18-44	18,044	2.34	42,223	0.49	8,842	0.0886	1,599
45-64	13,367	4.01	53,602	0.37	4,946	0.1210	1,617
65+	6,971	7.37	51,376	0.52	3,625	0.3549	2,474
Total	52,615		182,356		23,817		6,177
Primary Care Visits		55.9%	101,937				
Specialty Care Visits		44.1%	80,419				
Total			182,356				

Projected 2017

Age	2017 Community Population	Physician Office Visits per Person	Projected Physician Office Visits	Emergency Department Visits per Person	Projected Emergency Department Visits	Hospital Discharges per Person	Projected Hospital Discharges
0-18	14,451	2.47	35,694	0.45	6,503	0.0342	494
18-44	18,406	2.34	43,070	0.49	9,019	0.0886	1,631
45-64	13,741	4.01	55,101	0.37	5,084	0.1210	1,663
65+	8,200	7.37	60,434	0.52	4,264	0.3549	2,910
Total	54,798		194,299		24,870		6,698
Primary Care Visits		55.9%	108,613				
Specialty Care Visits		44.1%	85,686				
Total			194,299				

Source: www.cdc.gov, community populations from The Nielsen Company

Examination of the population demographics suggests that the aging of the "baby boom" population will actually slightly increase the overall utilization of hospital and primary care services within the community. For example, the projected change in the age category 65+ shows a significant increase.

While the age category 65+ is projected to increase 17.6 percent from 2012 to 2017, the overall population of the community is projected to increase by only 4.1%.

Exhibit 19 illustrates the percentage change in the calculated utilization from *Exhibit 18* as an estimated percentage increase in utilization from 2012 to 2017.

Exhibit 19
Freeman Hospital Neosho Community
Estimated Difference in Utilization: Physician Office Visits, Emergency Room Visits and Hospital Discharges
Estimated 2012 and Projected 2017

	Estimated 2012	Estimated 2012 Projected 2017	Percent Difference
Primary Care Physician Office Visits	101,937	108,613	6.5%
Specialty Care Physician Office Visits	80,419	85,686	6.5%
Total Estimated Physician Office Visits	182,356	194,299	6.5%
Emergency Department Visits	23,817	24,870	4.4%
Hospital Discharges	6,177	6,698	8.4%

Exhibits 20 and *21* provide detailed analysis of estimated acute care discharges, ambulatory procedures, hospital outpatient department visits and physician office visits. These exhibits categorize the utilization for estimated 2012 and projected 2017 by different age categories to assess possible growth areas. A review of each of the charts indicates the category for highest percentage increase is procedures relating to the cardiovascular system and respiratory. Potential market growth exists in many other acute care areas.

Exhibit 20
Freeman Hospital Neosho Community
Estimated and Projected Number of Ambulatory Surgery Procedures by Procedure Category and Age: Provider Service Area

Procedure Category	Estimated 2012 Total	Under 15 years	15-44 years	45-64 years	65 years and over	Projected 2017 Total	Under 15 years	15-44 years	45-64 years	65 years and over	Market Difference Percent
Total Provider Service Area Population	**52,615**	**14,233**	**18,044**	**13,367**	**6,971**	**54,798**	**14,451**	**18,406**	**13,741**	**8,200**	
All procedures	7,672	440	2,117	2,166	2,949	8,301	447	2,159	2,226	3,469	8.2%
Operations on the nervous system	213	44	48	56	64	228	45	49	58	76	6.8%
Operations on the eye	14	2	3	3	6	15	2	3	4	7	8.5%
Operations on the ear	8	5	1	0	1	8	5	1	0	1	4.1%
Operations on the nose, mouth and pharynx	46	13	13	11	10	48	13	13	11	11	5.3%
Operations on the respiratory system	184	0	22	63	99	204	0	23	65	116	10.6%
Operations on the cardiovascular system	1,193	0	105	440	649	1,322	0	107	452	763	10.8%
Operations on the digestive system	953	52	179	305	417	1,039	53	183	313	491	9.1%
Operations on the urinary system	173	6	31	61	75	189	6	31	62	89	9.1%
Operations on the male genital organs	42	5	3	16	19	46	5	3	16	22	9.3%
Operations on the female genital organs	283	3	148	97	36	295	3	151	99	43	4.3%
Operations on the musculoskeletal system	747	34	133	271	310	813	34	136	278	364	8.7%
Operations on the integumentary system	237	0	67	89	80	254	0	69	92	94	7.6%
Miscellaneous diagnostic and therapeutic procedures	2,392	182	346	715	1,149	2,624	185	353	735	1,352	9.7%
Obstetrical procedures	1,011	3	1,006	2	0	1,031	3	1,026	2	0	2.0%

Source: CDC - National Health Statistic Report #29, October 26, 2010

Exhibit 21
Freeman Hospital Neosho Community
Estimated and Projected Number of Acute Care Discharges by Medical Diagnostic Category and Age: Provider Service Area

Procedure Category	Estimated 2012 Total	Under 15 years	15-44 years	45-64 years	65 years and over	Projected 2017 Total	Under 15 years	15-44 years	45-64 years	65 years and over	Market Difference Percent
Total Provider Service Area Population	**52,615**	**11,844**	**20,433**	**13,367**	**6,971**	**54,798**	**12,054**	**20,803**	**13,741**	**8,200**	
All Conditions	6,046	424	1,726	1,529	2,367	6,545	432	1,757	1,572	2,784	8.3%
Infectious and paristic diseases	217	25	37	51	104	238	26	37	53	122	9.6%
Neoplasms	283	7	39	113	123	309	7	40	117	145	9.1%
Endocrine, nutritional and metabolic diseases and immunity disorders	323	30	59	95	139	352	30	61	98	163	8.9%
Diseases of the blood and blood-forming organs	83	0	21	20	42	91	0	21	21	49	10.0%
Mental Disorders	408	29	204	130	45	424	29	208	133	53	3.9%
Diseases of the nervous system and sense organs	142	20	28	39	54	153	20	29	40	64	8.1%
Diseases of the circulatory system	1,058	6	71	316	665	1,186	6	72	325	782	12.0%
Diseases of the respiratory system	599	106	54	136	302	659	108	55	140	355	10.0%
Diseases of the digestive system	581	39	134	182	226	629	40	136	187	266	8.3%
Diseases of the genitourinary system	370	14	85	96	174	405	14	87	99	205	9.5%
Complications of pregnancy, childbirth and puerperium	80	0	80	0	0	81	0	81	0	0	1.8%
Diseases of the skin and subcutaneous tissue	133	16	31	42	43	143	17	32	43	51	7.3%
Diseases of the musculoskeletal system and connective tissue	334	6	44	123	162	367	6	45	126	190	9.8%
Congenital anomalies	12	0	5	5	3	13	0	5	5	3	5.6%
Certain conditions originating in the perinatal period	33	33	0	0	0	34	34	0	0	0	1.8%
Symptoms, signs and ill defined conditions	34	9	9	8	9	36	9	9	8	10	6.0%
Injury and poisoning	504	37	130	134	203	546	38	132	138	238	8.4%
Supplementary classifications	818	13	693	38	74	844	13	706	39	87	3.3%

Source: CDC - National Health Statistic Report #29, October 26, 2010

Estimated Demand for Physician Services

Physician needs assessment data has become increasingly important to hospitals developing strategic physician recruitment plans and seeking to comply with federal recruiting regulations. There are several methodologies for estimating physician needs within a community using physician-to-population ratios. These methodologies have been applied to the population of the community to assist with the determination of future need for additional primary care and/or specialty care physicians.

Exhibit 22 provides four different need methodologies widely recognized in the health care industry. These rates serve as a useful starting point in assessing community need for physicians, but alone they should not constitute the basis for a comprehensive medical staff plan. While the rates of the four methodologies offer a general range of physicians needed per 100,000 population, they reflect national numbers.

- GMENAC (Graduate Medical Education National Advisory Committee) was a one-time, ad hoc committee of health care experts convened by Congress to assess U.S. health care manpower needs. In 1980, GMENAC issued estimates of the number of physicians needed per 100,000 population. The GMENAC numbers are over 30 years old and are considered dated by many.

- Writing in the December 11, 1996, issue of JAMA, David Goodman, MD, et al, projected needs based on three different types of service populations: the patient panel of a large HMO, the population of a community with a high level of managed care and the population of a mostly fee-for-service community. The numbers in this group of rates reflect a mostly fee-for-service community.

- Writing in an 1989 edition of the Journal of Health Care Management, Hicks and Glenn, projected needs based on the current rate of patient visits generated to particular specialists as determined by the Department of Health and Human Services' National Ambulatory Healthcare Administration report divided by the number of patient visits physicians typically handle, as determined by the Medical Group Management Association.

- Solucient is a health care consulting firm. Its numbers are based on a 2003 study and are, therefore, the most current of the figures provided. Solucient employed a methodology similar to Hicks & Glenn which analyzed National Ambulatory Health Care Administration patient/physician visits data, Medical Group Management Association physician productivity data and private and public claims data showing patient/physician visit rates by age.

An average of all four methodologies was calculated and applied to the Hospital's estimated 2012 and projected 2017 community population to estimate the specific physician needs for the area. Aiding in calculating the estimated need populations, recommendations were taken from the Healthcare Strategy Group (HGS) Advanced Manpower Planning guide. Most physician to population methodologies do not consider technological advancements over time nor do they consider the differing healthcare needs of the local populations. Medicated stents and new imaging procedures are examples of advancements that have greatly impacted the demand for physician services, but are unaccounted for under the four provided models. HGS recommended making technology adjustments to the following specialties: cardiology, cardiac surgery, neurology, neurosurgery and orthopedics. These recommendations are built into the estimated need calculations that generate the numbers shown in *Exhibit 22*. In additional to technology adjustments, HGS also recommended making adjustments to models based on mortality rate variances by contrasting national and local mortality rates. Refer to the contrasts for Freeman Hospital Neosho

Community at *Exhibit 13*. HGS recommended adjusting for 80% of the variance after the first 10% that recognizes potential annual fluctuations of community need that could be supported by the current complement of physicians in the community. The calculated average estimated need from the four methodologies after adjustments for mortality and technological advances was then compared to current physician supply estimates and an incremental difference was derived.

In rural and small metropolitan areas, general and family practice physicians often have internal medicine specialties. These physicians also may see children within their individual practices. Evaluation of potential need and supply for these physicians becomes more complicated to statistically measure since Internal Medicine and Pediatric physician needs are often served by the General and Family Practice physicians. Therefore, the statistical analysis of General and Family Practice, Internal Medicine and Pediatrics physician groups are presented individually as well as in combination to reflect the nature of these practices.

Exhibit 22 is organized among physician groups, defined by the four physician studies. The physician studies originally grouped OB/GYN and Psychiatry in the medical specialty grouping. These were moved into the primary care grouping to provide a more comprehensive definition of primary care for this report. Medical specialties include: allergy/immunology, cardiology, dermatology, gastroenterology, hematology/oncology, neurology, pulmonology and other medical specialties. Surgical specialties include: general surgery, neurosurgery, ophthalmology, orthopedic surgery, plastic surgery, urology and other surgical specialties. Hospital-based includes: emergency, anesthesiology, radiology and pathology. Pediatric subspecialties include: pediatric cardiology, pediatric psychiatry and other pediatric subspecialties.

Exhibit 22

Summary of Physician Need by Specialty: Provider Service Area

Freeman Hospital Neosho Community

	4 Studies Physician Need per 100,000 Population					Estimated Supply based on Health Resources & Svcs Admin. Average & National Supply of Total Active Physicians		Estimated Need based on Average Physician Need, Mortality, and Technological Advances		Physician Shortage (Excess)	
Physician Group	GNEMAC	Goodman	Hicks & Glenn	Solucient	Average	2012	2017	2012	2017	2012	2017
Primary Care											
General and Family Practice	25.2	-	16.2	22.5	21.3	12.0	12.5	11.2	11.6	(0.8)	(0.9)
Internal Medicine	28.8	-	11.3	19.0	19.7	2.0	2.1	10.3	10.8	8.3	8.7
Pediatrics	12.8	-	7.6	13.9	11.4	2.0	2.1	6.0	6.2	4.0	4.1
	66.8	-	35.1	55.4	52.4	16.1	16.8	27.5	28.6	11.4	11.8
OB/GYN	9.9	8.4	8.0	10.2	9.1	1.4	1.4	4.8	5.0	3.4	3.6
Psychiatry	15.9	7.2	3.9	5.7	8.2	-	-	4.3	4.5	4.3	4.5
Medical Specialties											
Allergy/Immunology	0.8	1.3	-	1.7	1.3	0.0	0.0	0.7	0.7	0.7	0.7
Cardiology	3.2	3.6	2.6	4.2	3.4	0.1	0.1	1.8	1.9	1.7	1.8
Dermatology	2.9	1.4	2.1	3.1	2.4	0.0	0.0	1.3	1.3	1.3	1.3
Endocrinology	0.8	-	-	-	0.8	-	-	0.4	0.4	0.4	0.4
Gastroenterology	2.7	1.3	-	3.5	2.5	0.0	0.0	1.3	1.4	1.3	1.4
Hematology/Oncology	3.7	1.2	-	1.1	2.0	0.0	0.0	1.0	1.1	1.0	1.1
Infectious Disease	0.9	-	-	-	0.9	-	-	0.5	0.5	0.5	0.5
Nephrology	1.1	-	-	0.7	0.9	-	-	0.5	0.5	0.5	0.5
Neurology	2.3	2.1	1.4	1.8	1.9	0.0	0.0	1.0	1.0	1.0	1.0
Pulmonology	1.5	1.4	-	1.3	1.4	0.0	0.0	0.7	0.8	0.7	0.8
Rheumatology	0.7	0.4	-	1.3	0.8	-	-	0.4	0.4	0.4	0.4
Other Medical Specialties	-	-	-	2.0	2.0	0.2	0.2	1.1	1.1	0.9	0.9

Exhibit 22 (continued)

Summary of Physician Need by Specialty: Provider Service Area

Freeman Hospital Neosho Community

	4 Studies Physician Need per 100,000 Population					Estimated Supply based on Health Resources & Svcs Admin. Average & National Supply of Total Active Physicians		Estimated Need based on Average Physician Need, Mortality, and Technological Advances		Physician Shortage (Excess)	
Physician Group	**GNEMAC**	**Goodman**	**Hicks & Glenn**	**Solucient**	**Average**	**2012**	**2017**	**2012**	**2017**	**2012**	**2017**
Surgical Specialties											
General Surgery	9.7	9.7	4.1	6.0	7.4	2.0	2.1	3.9	4.0	1.9	1.9
Neurosurgery	1.1	0.7	-	-	0.9	0.0	0.0	0.5	0.5	0.5	0.5
Ophthalmology	4.8	3.5	3.2	4.7	4.1	0.0	0.0	2.1	2.2	2.1	2.2
Orthopedic Surgery	6.2	5.9	4.2	6.1	5.6	0.1	0.1	2.9	3.1	2.8	3.0
Plastic Surgery	1.1	1.1	2.3	2.2	1.7	0.0	0.0	0.9	0.9	0.9	0.9
Urology	3.2	2.6	1.9	2.9	2.6	0.0	0.0	1.4	1.4	1.4	1.4
Other Surgical Specialties	-	-	-	2.2	2.2	0.1	0.1	1.2	1.2	1.1	1.1
Total	26.1	23.5	15.7	24.1	22.36	2.2	2.3	12.9	13.3	10.7	11.0
Hospital-Based											
Emergency	8.5	2.7	-	12.4	7.9	0.1	0.1	4.1	4.3	4.0	4.2
Anesthesiology	8.3	7.0	-	-	7.7	0.1	0.1	4.0	4.2	3.9	4.1
Radiology	8.9	8.0	-	-	8.5	0.1	0.1	4.4	4.6	4.3	4.5
Pathology	5.6	4.1	-	-	4.9	0.0	0.1	2.5	2.7	2.5	2.6
Total	31.3	21.8	-	12.4	16.4	0.3	0.3	15.0	15.8	14.7	15.5
Pediatric Subspecialties											
Pediatric Cardiology	-	-	-	0.2	0.2	0.0	0.0	0.1	0.1	0.1	0.1
Pediatric Neurology	-	-	-	0.1	0.1	-	-	0.1	0.1	0.1	0.1
Pediatric Psychiatry	-	-	-	0.5	0.5	0.0	0.0	0.2	0.2	0.2	0.2
Other Pediatric Subspecialties	-	-	-	0.9	0.9	0.0	0.0	0.5	0.5	0.5	0.5
Total	**-**	**-**	**-**	1.7	1.7	0.1	0.1	0.9	0.9	0.8	0.8
Total Physicians	170.6	73.6	68.8	130.3	125.2	20.4	21.3	76.1	79.2	55.7	57.9

Observations

Based on the statistical analysis of physician need presented in *Exhibit 22,* physician shortages appear to exist in every physician group classification. Most notable are the physician shortages in the primary care and hospital-based groups. While the statistical analysis does show a calculated excess of approximately one general and family practice physician, the corresponding demand for physicians in the internal medicine and pediatric areas more than offsets that excess. The analysis of primary care physician groups appears to suggest that general and family practice physicians are attempting to satisfy current demand for internal medicine and pediatric physicians; with the overall demand for primary care physicians still unmet. A significant opportunity to meet unmet need appears to exist within the psychiatry physician group with an unmet need of more than four full-time equivalents and current supply of zero physicians. Emergency and radiology physicians appear to have the highest unmet needs in the hospital-based physician group, each needing approximately four physicians.

Additionally, *Exhibits 14.1 and 15.1* support the observation of a physician shortage for their respective counties with physician-to-population ratios of 5,598:1 for Newton County and 22,873:1 for McDonald County.

These observations agree with *Exhibit 23,* which identifies shortage of physicians as one of the community's top ranking health needs. The following are resources or programs Freeman Joplin has that may help address this need:

- To help ensure that the community has enough physicians to serve its needs, Freeman invests $1 million per year to recruit physicians and help them start their practices.
- Through the Annual Medical Staff Development Plan, Freeman analyzes demographic information and compares it to national benchmarks to ensure the health system has an adequate number of physicians to meet community needs.
- Many people don't have a primary care physician. Freeman Urgent Care offers patients without a doctor access to treatment by board-certified physicians, X-rays, referrals and other services through convenient walk-in clinics, open seven days a week.

Key Informant Interviews

Interviewing key informants (community stakeholders that represent the broad interests of the community with knowledge of or expertise in public health) is a technique employed to assess public perceptions of the county's health status and unmet needs. These interviews are intended to ascertain opinions among individuals likely to be knowledgeable about the community and influential over the opinions of others about health concerns in the community.

Methodology

Interviews with 14 key informants were conducted over nine dates in July, August and September 2012. Informants were determined based on their a) specialized knowledge or expertise in public health, b) their affiliation with local government, schools and industry or c) their involvement with underserved and minority populations.

A representative from the Hospital contacted all individuals nominated for interviewing. If the respective key informant agreed to an interview, an interview time and place was scheduled. Most of the interviews were conducted at Freeman Hospital Neosho. In some instances, interviews were conducted over the phone.

All interviews were conducted using a standard questionnaire. A copy of the interview instrument is included in the Appendices. A summary of their opinions is reported without judging the truthfulness or accuracy of their remarks. Community leaders provided comments on the following issues:

- Health and quality of life for residents of the community
- Barriers to improving health and quality of life for residents of the community
- Opinions regarding the important health issues that affect Newton and McDonald County residents and the types of services that are important for addressing these issues
- Delineation of the most important health care issues or services discussed and actions necessary for addressing those issues

Interview data was initially recorded in narrative form. Themes in the data were identified and representative quotes have been drawn from the data to illustrate the themes. Informants were assured that personal identifiers such as name or organizational affiliations would not be connected in any way to the information presented in this report. Therefore, quotes included in the report may have been altered slightly to preserve confidentiality.

This technique does not provide a quantitative analysis of the leaders' opinions, but reveals community input for some of the factors affecting the views and sentiments about overall health and quality of life within the community.

Key Informant Profiles

Key informants from the community (see the Appendices for a list of key informants) worked for the following types of organizations and agencies:

- Social service agencies
- Local school system and community college
- Local city and county government
- Public health agencies
- Industry
- Faith community
- Medical providers

Key Informant Interview Results

The interview questions for each key informant were identical. The questions on the interview instrument are grouped into four major categories for discussion:

1. General opinions regarding health and quality of life in the community
2. Underserved populations and communities of need
3. Barriers
4. Most important health and quality of life issues

A summary of the leaders' responses by each of these categories follows. Paraphrased quotes are included to reflect some commonly held opinions and direct quotes are employed to emphasize strong feelings associated with the statements. This section of the report summarizes what the key informants said without assessing the credibility of their comments.

1. General Opinions Regarding Health and Quality of Life in the Community

The key informants were asked to rate the health and quality of life in their respective county. They were also asked to provide their opinion whether the health and quality of life had improved, declined or stayed the same over the past few years. Lastly, key informants were asked to provide support for their answers.

Most of the key informants rated the health and quality of life in their county as "good", "fair" or "5 or 6 on scale of 1 to 10." One informant gave a "4 out of 10" rating, and another rated the community as between average and unhealthy. Even though the key informants consistently reported the health and quality of life was average, interviewees repeatedly noted that there were extreme diversities in health and quality of life for certain residents within the community with lack of preventative care and healthy habits being the biggest issues. In the rebound from a major catastrophic event that was the tornado in May 2011, mental health has become an emerging urgent need. Economic circumstances and culture are seen to contribute largely to the dichotomy between the healthy and unhealthy.

When asked whether the health and quality of life had improved, declined or stayed the same, there was a very mixed response. Six key informants noted that health and quality of life had declined over the last few years, five noted it had improved and three noted either no change or only a very slight change in either direction.

Those that noted a decline stated the May 2011 tornado, culture, difficulty in access/affordability/insurance and lack of health education as reasons. Those that noted an increase listed an improved economy, various programs put in place or starting in the near future, new clinics and The Health Collaboration as reasons for improvement.

Overall, key informants value the Hospital's impact on community health and recognize the Hospital as an asset to the community. The regional culture/upbringing, geography and cost of healthcare were generally seen as the reasons behind poor health and poor quality of life. Lack of access was seen as an issue for certain populations as there is no hospital in McDonald County. There were some negative and positive comments regarding the overall health and community life.

"Most of the younger generation doesn't have the knowledge to take care of themselves. Many families eat on the go, to and from activities. Families no longer sit down to eat together."

"There is better technology and healthcare available today than in the past, with more physicians in the area."

"Health education is difficult in the county. People do not understand the impact that their decisions have on themselves. Fast food has a negative impact as it is the only option in the county."

2. Underserved Populations and Communities of Need

Key informants were asked to provide their opinions regarding specific populations or groups of people whose health or quality of life may not be as good as others. We also asked the key informants to provide their opinions as to why they thought these populations were underserved or in need. We asked each key informant to consider the specific populations they serve or those with which they usually work. They identified primarily the rural population and the lower income populations as having the largest needs.

Respondents identified three main areas of need: preventative care and associated education, health habits and associated education and mental health. A high concentration in a population of elderly people contributes to the rise in health care costs. This in turn causes economic strain for the community, and especially the elderly that need the increased care. When the elderly and others like those in the "laboring" class have to choose between eating and paying for their care, this adds to the poverty population and puts more demand on local charities and community centers. These people in rural areas have another layer of complexity with a transportation need to get the medical care they need. With limited resources, and the high demand of needs from the elderly, it increases the difficulty of providing quality care to the population as a whole. Those that avoid their health problems because of these issues and only seek care in emergent situations increase the strain on medical facilities.

The key informants were asked what could improve the health and quality of life in the area. The main responses were based on ideas for education and providing the community with ways to improve their healthy habits. The following were included:

- Educating the population on the importance of eating well, seeing a physician regularly and diet and exercise
- Incentives for people to become motivated to improve their habits
- Battle the marketing of fast food chains and convenience foods

- Provide more parks and trails to provide recreation opportunities for the community
- Education about free health programs, reduced cost programs and OATS transportation available for the community
- Make it easier to get in to see a doctor for preventative care

"Certain financial barriers prevent indigent from seeking care when needed other than through the ED. As the indigent either aren't going to pay or are on Medicaid, there isn't any incentive for them to schedule a physician office visit vs. presenting to the ED."

"The younger unskilled laborers do not generally participate in the insurance plan as they need the extra $20-$30/week for living expenses."

"Youth seem to continue into the same life cycle as their parents."

"We need to engage employees in improving their health after the screening and identification of their health issues. They generally don't make significant changes until serious life events force the changes."

"…at the Ronald McDonald house…had to explain the effects of adding sugar and other additives to the baby's bottle. The mother was unaware of the outcome."

3. Barriers

The key informants were asked what barriers or problems keep community residents from obtaining necessary health services in their community. Responses from key informants included education, culture, access to care, lack of specialists in the area and affordability of care.

Lack of education and communication surrounding health issues and the availability of health resources is seen as a primary barrier to health services. Education surrounding access to health services for the newly uninsured or underinsured persons is also identified as a community need. The overall perception is that people do not understand how to access services but also may not be motivated to make the necessary changes to improve their lives. There is also a sense that health agencies do not cooperate and work together in offering such services, although that there has been a perceived change regarding that after the tornado. Several respondents feel another community need would be to provide more outlets for exercise and healthy community activities.

Some respondents believe that access to care due to living in a rural community shouldn't be a deterrent if people were told about the OATS bus. OATS is public transportation in rural areas. Those interviewed believe it is difficult to reach out to isolated or marginalized people in the community.

As previously noted, people's attitudes and culture, surrounding health and lifestyle choices, are seen as a barrier. Bad habits are passed down from generation to generation and there are not enough resources or motivation to bring about a change. Issues are only dealt with as a "last resort" situation.

"We have attempted many times to bring in a smoking cessation program. Many quit the class in the first week, although the seed has been planted. There have been continued opportunities to quit."

"Peoples' attitudes are a barrier. Employers and providers can't motivate people. People must motivate themselves."

"There is a lack of education both on healthy living and services available to indigent. People need encouragement to become physically active and improve their quality of life."

"It has been noticed that the ambulance district is picking up patients that are just sick that want to be taken to the hospital rather than have a medical emergency. Many times, these tend to be indigent."

"Parts of Newton/McDonald county are rural and many people have issues with transportation. Many aren't aware that the OATS bus is public transportation in rural areas."

4. Most Important Health and Quality of Life Issues

Key informants were asked to provide their opinion as to the most critical health and quality of life issues facing the community. The issues identified most frequently were:

1. Health education (access and healthy living/preventative care)
2. Obesity and lack of physical activity
3. Drug abuse and smoking

Other issues that were reported are a lack of after-hours urgent care facilities and a lack of mental health providers. Teenage pregnancy and transportation were also mentioned as concerns impacting the community.

Key Findings

A summary of themes and key findings provided by the key informants follows:

- Information and education on health issues is a problem. There is a significant need to inform, educate and counsel specific categories of the community.
- There is a lack of access for mental health services.
- Drug and alcohol abuse are seen as a health and quality of life issue.
- Transportation may be an issue for low income and rural residents.
- Abuse of prescription drugs through excess prescribing and fraudulent activities has become a problem.
- There is a significant need for after hour nonemergent care.
- Overuse of emergency room services is a problem, which is related to a large portion of the population not seeking preventative care. This could be due to affordability, lack of motivation, lack of education, lack of transportation and other variables.

Community Health Input Questionnaire

The Hospital circulated community health input questionnaires in order to gather broad community input regarding health issues. The input process was launched on July 2012 and was closed on November 20, 2012.

The Community Health Questionnaire broad survey was intended to gather information regarding the overall health of the community. The results are intended to provide information on different health and community factors. Requested community input included demographics and socioeconomic characteristics, behavioral risk factors, health conditions and access to health resources.

Methodology

A web-based tool, Question Pro, was utilized to conduct the community input process. Electronic questionnaires were circulated to the residents of the primary community. Results from the questionnaires were used for analysis in both this report as well as the Freeman Hospital Joplin Community Health Needs Assessment report.

There were 219 questionnaires completed and returned. Sociodemographic characteristics such as age, education, income and employment status were fairly comparable to the most recent census data. Over 75 percent of the respondents were female which is more than the 50 percent of the population that is female in the community. Additionally, representation of those individuals 66 and older is less than that reported in the latest census data.

Community Health Input Questionnaire

The instrument used for this input process was based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as various other public health surveys and customized questions. The final instrument was developed by Freeman Health System representatives in conjunction with BKD.

Community Health Input Results

The questionnaire was quite detailed in nature, including many specific questions regarding general health, satisfaction with specific and general providers and demographic information. A compilation of the actual results are included in the Appendices to allow for a detailed analysis. Health needs indicated by include:

- ***Assessment of Personal Health***

  When asked to assess their personal health status, 26.7 percent of the respondents described their health as being "excellent," while 63.6 percent stated that their overall health was "good."

  When asked to rate their community as a "healthy community," less than 10 percent of the respondents indicated their community was healthy or very healthy. More than 36 percent of the respondents indicated their community was unhealthy or very unhealthy.

- ***Health Care Access Issues***

  Over 42 percent of the respondents reported having health insurance with over 88 percent of health insurance being provided through the employer. Health care access issues are primarily related to cost. Respondents noted the following reasons for not receiving medical care:

  1. Deductible or co-pay was too high
  2. The health care provider's hours did not fit their schedule
  3. Their health insurance did not cover, approve or pay for what they needed

  Nearly 16 percent of respondents noted they did not receive medical care because they were unable to schedule an appointment when needed.

- ***Lifestyle Behavioral Risk Factors***

  Proper diet and nutrition seem to be a challenge as only 7.96 percent of the respondents report eating the daily recommended servings of fruits and vegetables; 25.36 percent of the respondents report that they never exercise. However, 12.87 percent report exercising at least 30 minutes five days per week. Nearly 9 percent of the respondents always smoke cigarettes. Use of seat belts is high (over 86 percent) and when applicable, respondents' children use seat belts and/or child safety seats.

- ***Social and Mental Health***

  Nearly 14 percent of the respondents reported always being stressed out, with over 78 percent responding that they were sometimes stressed out. Over 32 percent of the respondents rated their stress level as High or Very High. Over 17 percent of the respondents reported that they did less than they would like because of mental health or emotional issues.

  Nearly 30 percent of respondents reported that their current employment is stressful, while over 24 percent reported that finances are stressful. Nearly 58 percent of the respondents worry about losing their job.

What do Citizens say about the Health of their Community?

The five most important "health problems:"

1. Obesity (adult)
2. Heart disease and stroke
3. Obesity (child)
4. Cancer and Diabetes
5. High blood pressure

The three most "risky behaviors:"

1. Drug abuse
2. Tobacco use/second hand smoke
3. Alcohol use and Poor eating habits

The five most important factors for a "healthy community:"

1. Affordable and available health care
2. Clean and safe environment
3. Healthy behaviors and lifestyles
4. Good schools
5. Affordable and available healthy food sources

Prioritization of Identified Health Needs

The Hospital has accomplished much over the past several years and continues to work on the development and implementation of programs and initiatives that work toward the improvement of community health and wellness. Primary and secondary data from this assessment process will be a valuable resource for future planning. The community input findings obtained through interviews and the community input questionnaire should be especially useful in understanding residents' health needs. The findings provide the Hospital a lot of information to act on. In order to facilitate prioritization of identified health needs, a ranking and prioritization process was used and is described in the below section.

Analysis of community health information, key informant interviews and the community health input questionnaire were all used to assess the health needs of the community in *Exhibit 23*:

Exhibit 23
Freeman Neosho Hospital
Ranking of Community Health Needs

Health Problem	Ability to evaluate and measure outcomes based on data	How many people are affected by the issue?	What are the consequences of not addressing the problem?	Prevelence of common themes	Sub Total	Ability of the Hospital to Impact Change	Total Score
Diseases of the Heart	**4**	**4**	**4**	**4**	**16**	**12**	**28**
Obesity	**4**	**4**	**4**	**4**	**16**	**12**	**28**
Cancer	**4**	**4**	**3**	**3**	**14**	**12**	**26**
Shortage of Physicians	**3**	**4**	**3**	**3**	**13**	**12**	**25**
Tobacco Use	4	4	3	4	15	9	24
Uninsured Residents	3	3	3	3	12	12	24
Substance Abuse	4	3	3	4	14	9	23
Children in Poverty	4	4	3	2	13	9	22
Mental Health	4	2	3	2	11	9	20
Motor Vehicle Crashes	4	4	4	4	16	3	19
Access to Healthy Foods	2	4	3	3	12	6	18
Diabetes	4	3	3	2	12	6	18
Respiratory	4	3	3	2	12	6	18
Access to Recreational Facilities/Limited Physical Activity	2	3	3	3	11	6	17
Access to Specialists	3	4	2	2	11	6	17
Affordable Healthcare	3	4	3	3	13	3	16
Diabetic Screening	3	2	2	1	8	6	14
Teen Birth Rate	3	3	3	1	10	3	13
Low Birth Weight	3	2	1	1	7	6	13
Sexually Transmitted Disease	4	2	2	1	9	3	12
Transportation	2	4	2	1	9	3	12
Dental Health	2	2	2	1	7	3	10

Health needs were ranked based on four factors:

1. The ability of the Hospital to evaluate and measure outcomes.
2. How many people are affected by the issue or size of the issue?
3. What are the consequences of not addressing this problem?
4. Prevalence of common themes.
5. The Hospital's ability to impact change.

Health needs were then prioritized and charted on *Exhibit 24* taking into account their overall ranking, the degree to which the Hospital can influence long-term change and the identified health needs impact on overall health.

Utilizing the statistical value (10) as the horizontal axis, the overall ranking based on subtotal score was plotted on *Exhibit 24*. Next, each identified health was assigned a value by Hospital management between 1 and 12 representing the perceived degree of impact the Hospital has on changing health outcomes related to the identified health need. Utilizing the statistical value (13) as the vertical axis, this value was charted.

Lastly, each health need was evaluated and assigned a rating between 1 and 4 regarding the health needs consequences on not being addressed. Those health needs receiving the highest rating are represented by the largest spheres.

The graphical representation included on *Exhibit 24* is intended to aid in identifying health priorities for the organization. By addressing those needs in the upper right quadrant, overall community health will likely improve as these needs have the greatest impact on overall health and the Hospital is more likely to influence a positive impact on these needs. Items to the right of the vertical access, yet not in the upper right quadrant were identified as high needs in the community, but the Hospital does not have enough ability to impact long lasting change. These items include motor vehicle crashes, tobacco use, substance abuse, children in poverty and affordable healthcare. Freeman Ambulance Service covers the entire 540-mile McDonald County area, averaging more than 60,000 miles per year per ambulance. Recently acquiring two new ambulances, Freeman Ambulance Service provides reliable, safe and comfortable equipment to serve patients, particularly on the often difficult, rural roads of McDonald County.

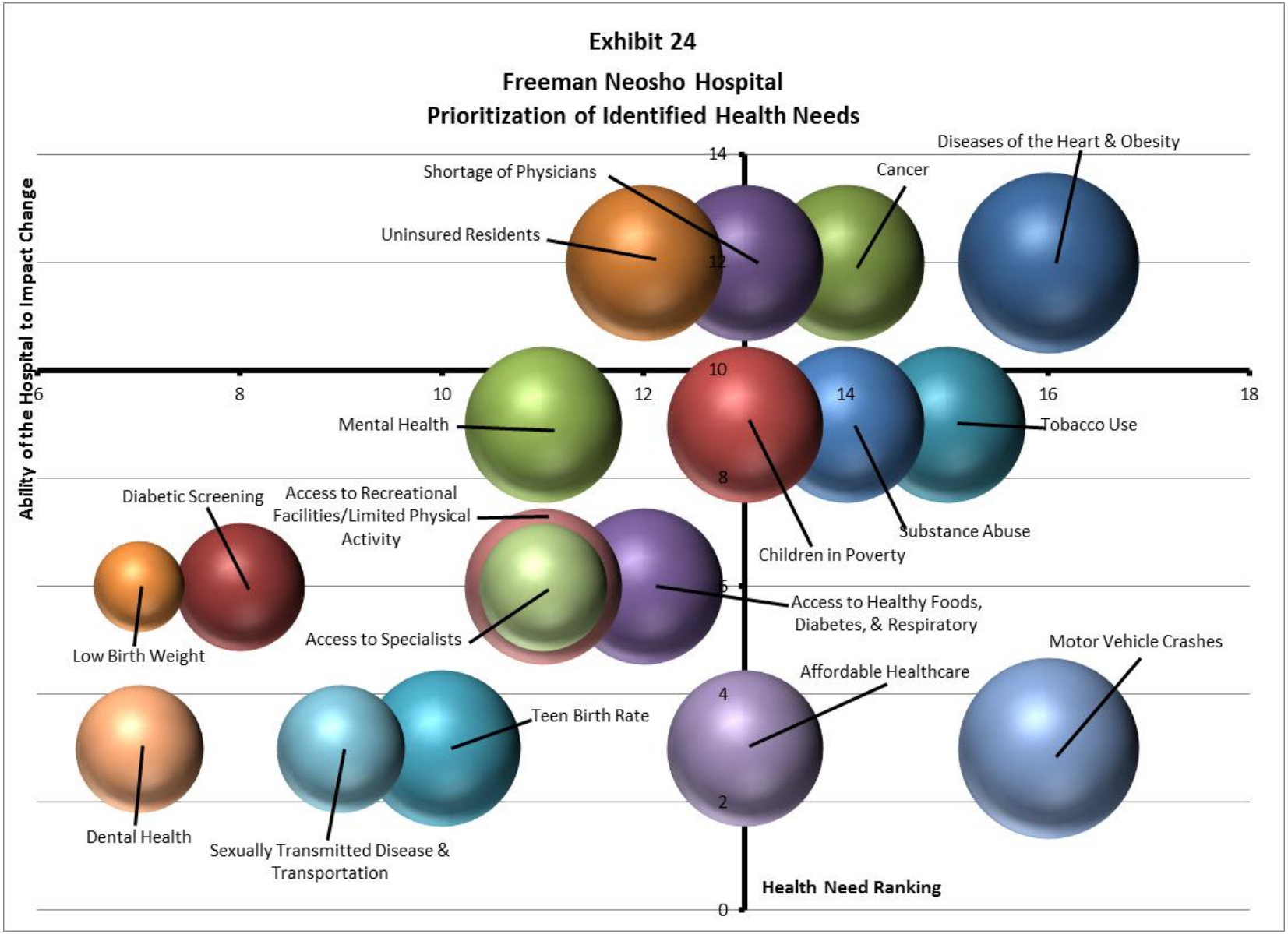


Exhibit 24
Freeman Neosho Hospital
Prioritization of Identified Health Needs
Ability of the Hospital to Impact Change
Health Need Ranking
0
2
4
6
8
10
12
14
6
8
10
12
14
16
18
Shortage of Physicians
Uninsured Residents
Cancer
Diseases of the Heart & Obesity
Mental Health
Tobacco Use
Substance Abuse
Children in Poverty
Diabetic Screening
Low Birth Weight
Access to Recreational Facilities/Limited Physical Activity
Access to Specialists
Access to Healthy Foods, Diabetes, & Respiratory
Affordable Healthcare
Motor Vehicle Crashes
Teen Birth Rate
Dental Health
Sexually Transmitted Disease & Transportation

Considerations for Meeting Identified Health Needs

After compiling and analyzing all of the data in this assessment, we recommend that management consider the following benchmarking, targets, ideas and strategies in its implementation strategy plans. Some of the strategies will address multiple needs. These lists are not intended to be exhaustive and do not imply there is only one way to address the identified health needs.

Diseases of the Heart

Diseases of the heart is the highest ranked health need in the community. Changes in this area can have a high impact to the overall health of the community.

Hypertension prevention includes following a healthy eating pattern, reducing salt and sodium in the diet, maintaining a healthy weight, being physically active, limiting alcohol intake and quitting smoking if a smoker. Research has shown that following a healthy eating plan can both reduce the risk of developing high blood pressure and lower an already elevated blood pressure. To reduce salt and sodium in the diet, it is best to reduce intake to the recommendation of less than 2.4 grams (2,400 milligrams) of sodium a day. Being overweight increases the risk of developing high blood pressure. Blood pressure rises as body weight increases. Lack of physical activity, poor dietary choices and obesity are linked with the increased risk of several medical conditions in addition to diseases of the heart. Physical activity can help reduce blood pressure as well as reduce the risk of other types of heart disease.

Exhibit 25
Freeman Neosho Hospital
Diseases of the Heart
Leading Health Indicators

County Health Rankings		Healthy
Freeman Neosho Community	US Benchmark	People 2020 Targets
		Reduce coronary heart disease deaths per 100,000 persons
County	**Cause of Death Rates**	
Newton County	257.9	192.9	100.8
McDonald County	254.1	192.9	100.8
		Increase the proportion of adults with hypertension whose blood pressure is under control
County		
	N/A	N/A	61.2%
		Increase proportion of adults who have had their blood cholesterol checked within the preceding 5 years
County		
	N/A	N/A	82.1%

Community and US Benchmark Source: County Health Rankings

Strategies that address this priority area should consider the following:

- A community-wide fitness initiative led by the Hospital focusing on fitness, nutrition and physical activity.
- Community education about the available options for outdoor physical fitness.
- Education on nutrition and cooking for health hearts.

Freeman Neosho has the following resources or programs that may help address this need:

- Freeman Heart & Vascular Institute provides the people of southwest Missouri, southeast Kansas, northeast Oklahoma and northwest Arkansas with lifesaving care close to home. The Institute continually examines the latest medical studies to provide patients the most up to date information and research in clinical trials. Patients benefit by gaining access to new research treatments and therapies before they become widely available to the mass market.
- Freeman is looking into the purchase of a mobile stress test unit, improving wellness by making it more convenient for people to obtain prevention and detection services.
- Freeman Screen Team offers many free or low-cost health screenings throughout the year that can detect a wide range of conditions, including heart disease and vascular problems.

Obesity

Adult obesity is ranked among the highest health needs in the community. Changes in this area can have a high impact to the overall health of the community.

Diet and body weight are related to health status. Good nutrition is important to the growth and development of children. A healthful diet also helps Americans reduce their risks for many health conditions. Lack of physical activity, poor dietary choices and obesity are linked with the increased risk of several medical conditions.

Exhibit 26
Freeman Neosho Hospital
Obesity
Leading Health Indicators

	County Health Rankings		Healthy
	Freeman Neosho Community	US Benchmark	People 2020 Targets
County	**Adult Obesity**		**Reduce the proportion of adults who are obese**
Newton County	33.00%	25.00%	30.5%
McDonald County	32.00%	25.00%	30.5%
County			**Reduce the proporiton of children and adolescents aged 2 to 19 years who are considered obese**
	N/A	N/A	14.5%
County			**Increase the contribution of total vegetables to the diets of the population aged 2 years and older**
	N/A	N/A	1.1 cup equivalent per 1000 calories

Community and US Benchmark Source: County Health Rankings

Recommendations to improve the obesity rate are as follows:

- A community-wide fitness initiative led by the Hospital focusing on fitness, nutrition and physical activity.
- Engaging local park boards for more community activities.

Freeman Neosho has the following resources or programs that may help address this need:

- To promote fitness for families and individuals, Freeman provides ongoing support to the Southwest Family YMCA Neosho. The facility opened in 2001 on land owned by Freeman.
- Lack of access to fresh fruits and vegetables has been cited as a risk factor for obesity. From June through October each year, Freeman Farmers Market provides the community access to fresh, locally grown foods. At a market location at Freeman Neosho, people can find a wide variety of nutritious produce in their own neighborhood.
- Freeman Screen Team travel throughout the communities served by the health system, offering many free or low-cost health screenings throughout the year that can detect a wide range of conditions, including obesity and diabetes.

Cancer

Cancer as a leading cause of death is only 2nd to Heart Disease in all counties of the defined community for the Hospital. The most common risk factors for cancer are growing older, tobacco use, sunlight, ionizing radiation, certain chemicals and other substances, some viruses and bacteria, certain hormones, family history of cancer, alcohol use, poor diet, lack of physical activity and being overweight. Although cancer may strike at any age, it is more commonly a disease of middle and older age. In 2008, 12,497 Missouri residents died from cancer, accounting for 22.2 percent of all deaths in Missouri.

Many cancers are preventable by reducing risk factors. Other cancers can be prevented by getting vaccinated against human papillomavirus and hepatitis B virus. Screening is effective in identifying some types of cancers including breast cancer, cervical cancer and colorectal cancer. It is critical to assess whether people understand and remember the information they receive about cancer screening. Research shows that a recommendation from a health care provider is the most important reason patients cite for having cancer screening tests.

Exhibit 27
Freeman Neosho Hospital
Cancer
Leading Health Indicators

	County Health Rankings		Healthy
	Freeman Neosho	US	People
	Community	Benchmarks	2020 Targets
County	**Cancer Death Rate**		**Reduce the overall cancer death rate**
Newton County	200.3	185.9	160.6
McDonald County	221.2	185.9	160.6
County			**Increase the proportion of adults who receive a colorectal cancer screening based on the most recent guidelines**
	N/A	N/A	70.5%
County			**Increase the proportion of women who receive a breast cancer screening based on the most recent guidelines**
	N/A	N/A	81.1%

Community and US Benchmark Source: County Health Rankings

Strategies that address this priority area should consider the following:

- Provision of increased clinical preventive services
- Logistical factors such as transportation
- The challenges faced by the elderly population should be considered

Freeman Neosho has the following resources or programs that may help address this need:

- Gary Duncan Women's Pavilion in Neosho offers digital mammography technology to provide patients with the best breast cancer detection services available.
- To help curb lung cancer, Freeman has a tobacco-free policy that it enforces on all campuses.

Health Issues of Uninsured Persons, Low-Income Persons and Minority Groups

Certain key informants were selected due to their positions working with low-income and uninsured populations. Several key informants were selected due to their work with minority populations. Based on information obtained through key informant interviews and the community health input questionnaire, the following chronic diseases and health issues were identified:

- Uninsured/low income population
  - ✓ Access to specialists
  - ✓ Dental care
  - ✓ Mental and emotional health
  - ✓ Substance abuse
- Hispanic population
  - ✓ Dental care
  - ✓ Prenatal care
  - ✓ Access to care due to not having legal status
  - ✓ Health insurance coverage

Freeman Neosho has the following resources or programs that may help address the needs of uninsured residents as well as children in poverty:

- Freeman offers patients without insurance a 30 percent discount on hospital services.
- Through US Bank, Freeman offers low-interest payment plans to help patients meet their financial obligations.
- Following denial of any available government assistance program, patients may qualify for Freeman Financial Assistance. Based on the patient's ability to pay, this program reduces hospital bills on a sliding scale, in some cases, all the way down to zero.
- Freeman financial counselors help patients apply for Medicaid benefits.
- Freeman Family Christmas provides gifts and food for families in need during the holidays. Freeman organizes the event each year, and last year Freeman employees donated $10,000 and contributed thousands more in gifts and food, helping 96 families.
- Bill & Virginia Leffen Center for Autism provides scholarship assistance to families with limited financial resources.

APPENDICES

Acknowledgements

The project Steering Committee was the convening body for this project. Many other individuals including community residents, key informants and community-based organizations contributed to this community health needs assessment.

Project Steering Committee

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Steve Graddy, Chief Financial Officer
Mike Leone, Controller
Anne Windsor, Director of Accounting
Wes Braman, VP of Business Development
Brooke Haneborg, Director of Marketing

Key Informants

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Dan Pekarek, Director, Joplin Health Department
Page Behm, McDonald County Health Department
Jim Armstrong, VP/Chief Lending Officer, Cornerstone Bank
Kathy Coates, Executive Director, McDonald County Chamber of Commerce
Linda Hathaway, General Manager/Agent, Cornerstone Insurance
Mike Ross, Director, Freeman Ambulance

KEY INFORMANT INTERVIEW PROTOCOL

KEY INFORMANT INTERVIEW

Community Health Needs Assessment for:

Freeman Health System

Interviewer's Initials: _____

Date: _____ Start Time: _____ End Time: _____

Name: _____ Title: _____

Agency/Organization: _____

# of years living in _____ County: _ # of years in current position: _

E-mail address: _____

Introduction: Good morning/afternoon. My name is **[Andy Williams]**. Thank you for taking time out of your busy day to speak with me. I'll try to keep our time to approximately 40 minutes, but we may find that we run over – up to 50 minutes total - once we get into the interview. **(Check to see if this is okay).**

[Freeman Health] is gathering local data as part of developing a plan to improve health and quality of life in Newton/MacDonald County. Community input is essential to this process. A combination of surveys and key informant interviews are being used to engage community members. You have been selected for a key informant interview because of your knowledge, insight, and familiarity with the community. The themes that emerge from these interviews will be summarized and made available to the public; however, individual interviews will be kept strictly confidential.

To get us started, can you tell me briefly about the work that you and your organization do in the community?

Thank you. Next I'll be asking you a series of questions about health and quality of life in Newton/MacDonald County. As you consider these questions, keep in mind the broad definition of health adopted by the World Health Organization: 'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity,' while sharing the local perspectives you have from your current position and from experiences in this community.

Questions:

1. In general, how would you rate health and quality of life in Newton/MacDonald County?

2. In your opinion, has health and quality of life in Newton/MacDonald County improved,
stayed the same, or declined over the past few years?

3. Why do you think it has (based on answer from previous question: improved, declined, or stayed the same)?

4. What other factors have contributed to the (based on answer to question 2: improvement, decline or to health and quality of life staying the same)?

5. Are there people or groups of people in Newton/MacDonald County whose health or quality
of life may not be as good as others?

a. Who are these persons or groups (whose health or quality of life is not as good as others)?

b. Why do you think their health/quality of life is not as good as others?

6. What barriers, if any, exist to improving health and quality of life in Newton/MacDonald County?

7. In your opinion, what are the most critical health and quality of life issues in Newton/MacDonald County?

8. What needs to be done to address these issues?

9. In your opinion, what else will improve health and quality of life in Newton/MacDonald County?

10. Is there someone (who) you would recommend as a "key informant" for this assessment?

11. In your opinion, what is the biggest asset of the community?

12. Do you have any thoughts on environmental issues which may impact the community health?

Close: Thanks so much for sharing your concerns and perspectives on these issues. The information you have provided will contribute to develop a better understanding about factors impacting health and quality of life in Newton/MacDonald County. Before we conclude the interview,

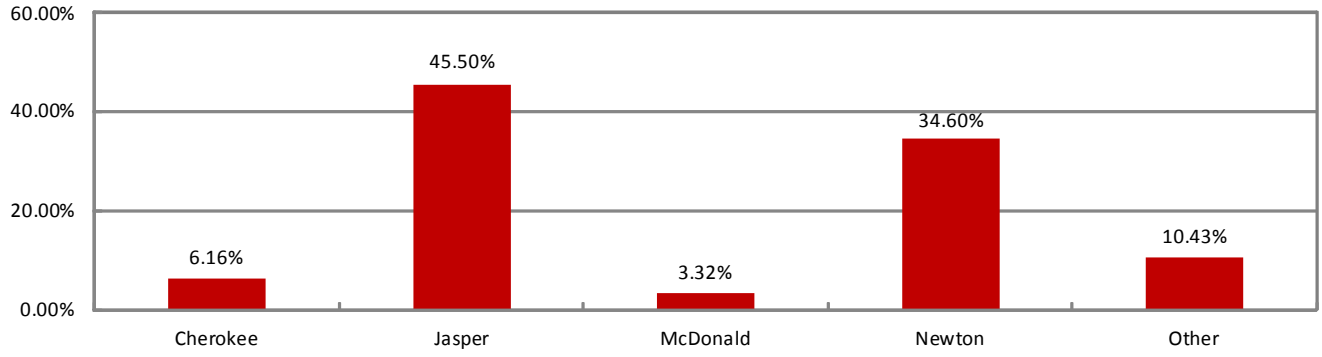
Is there anything you would like to add?

As a reminder, summary results will be made available by the **Freeman Health** and used to develop a community-wide health improvement plan. Should you have any questions, please feel free to contact _Mike Leone, Controller_ at **Freeman Health**. Thanks once more for your time. It's been a pleasure to meet you.

COMMUNITY HEALTH INPUT QUESTIONNAIRE DETAIL RESULTS

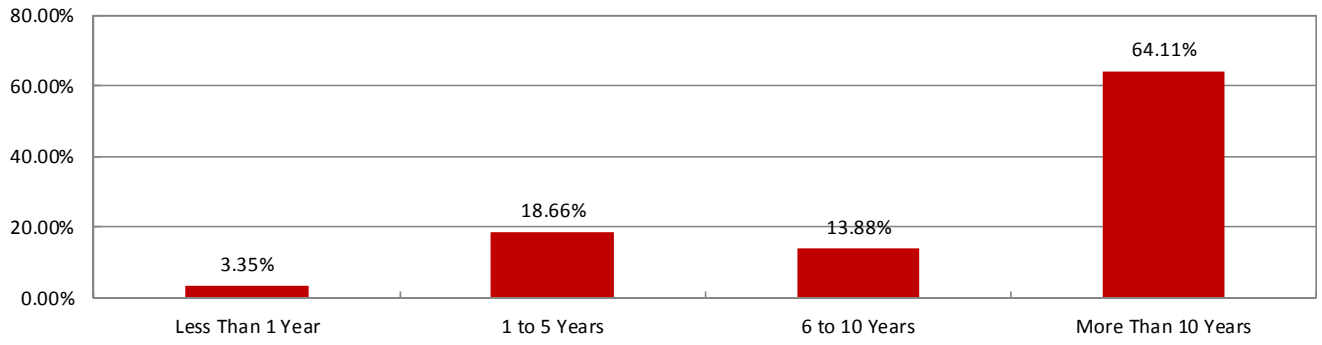
1. Select the county in which you live:

(211 Responses)



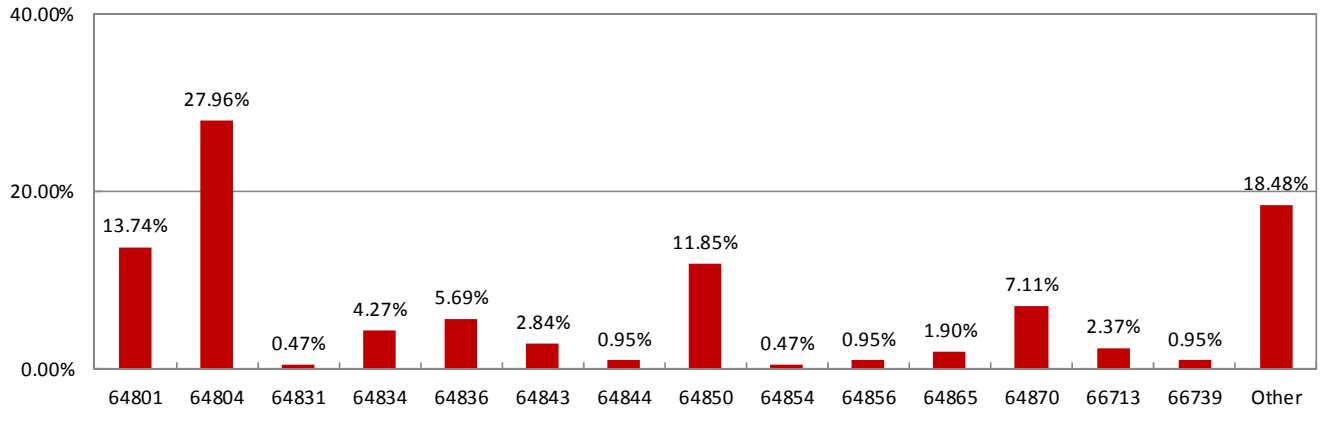
2. Length of time you have been a resident in your current municipality:

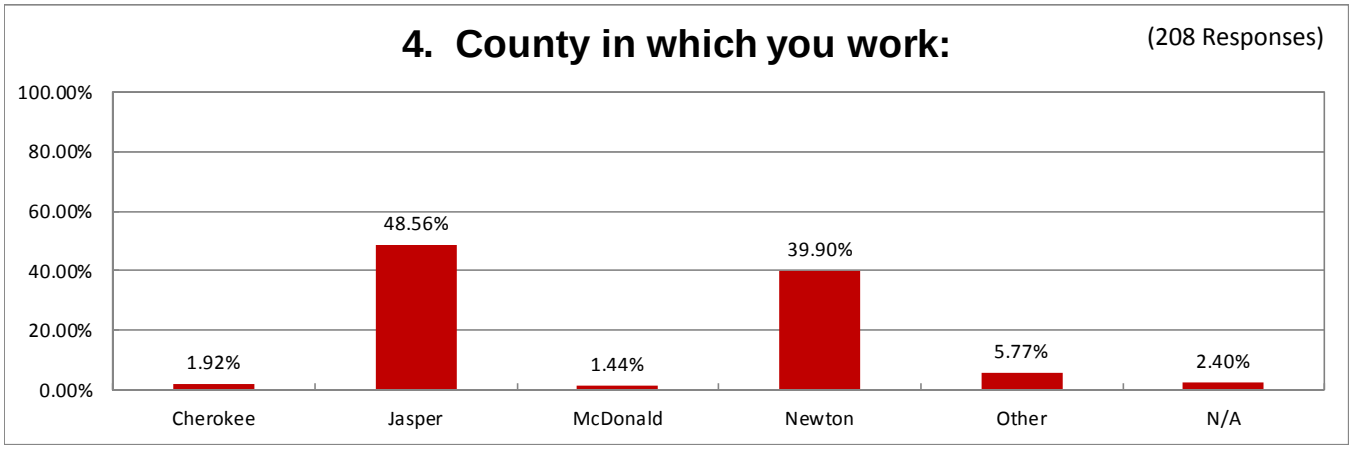
(209 Responses)

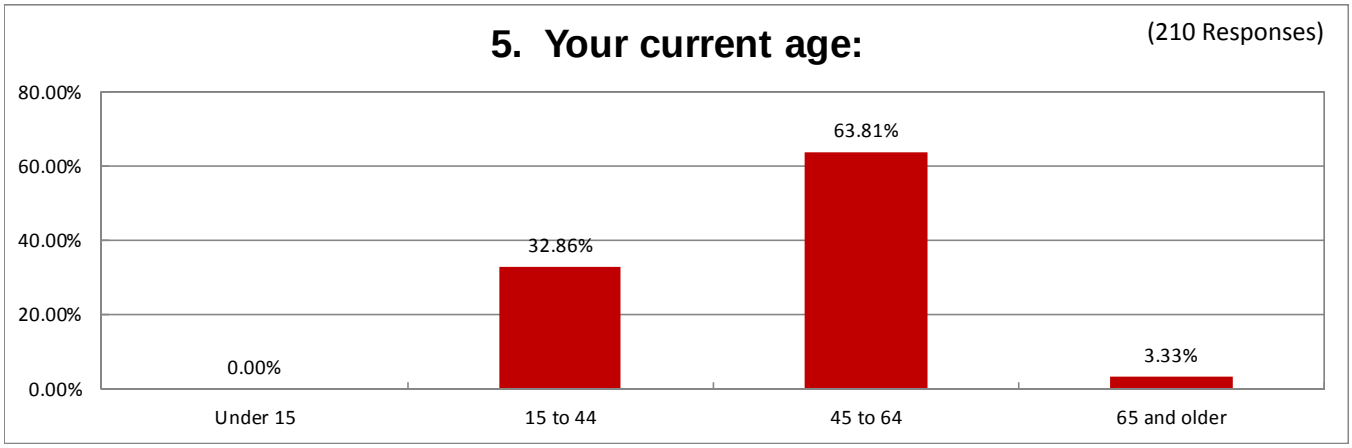


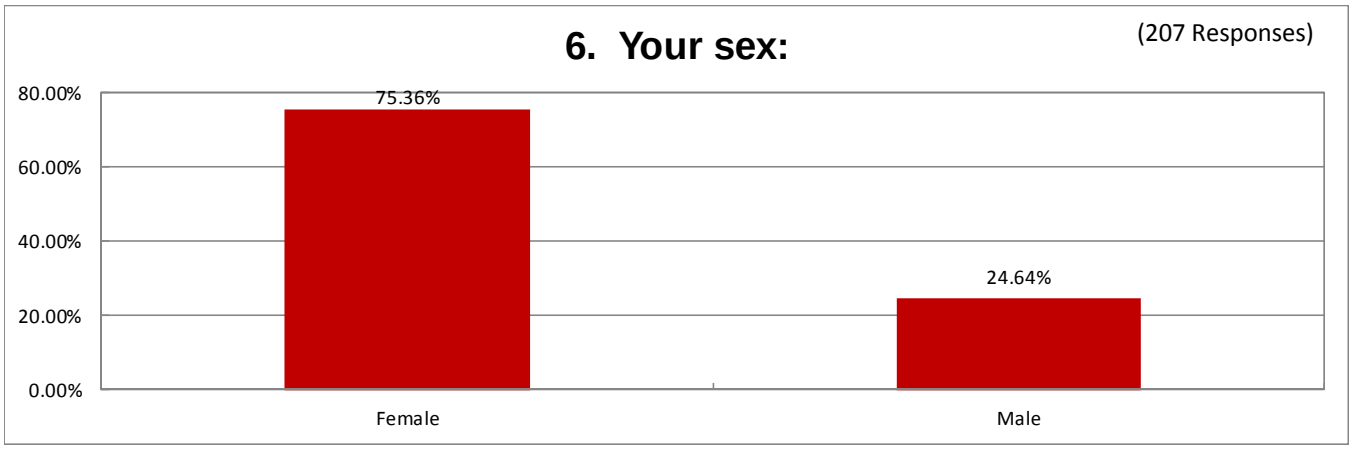
3. Your 5 digit zip code:

(211 Responses)



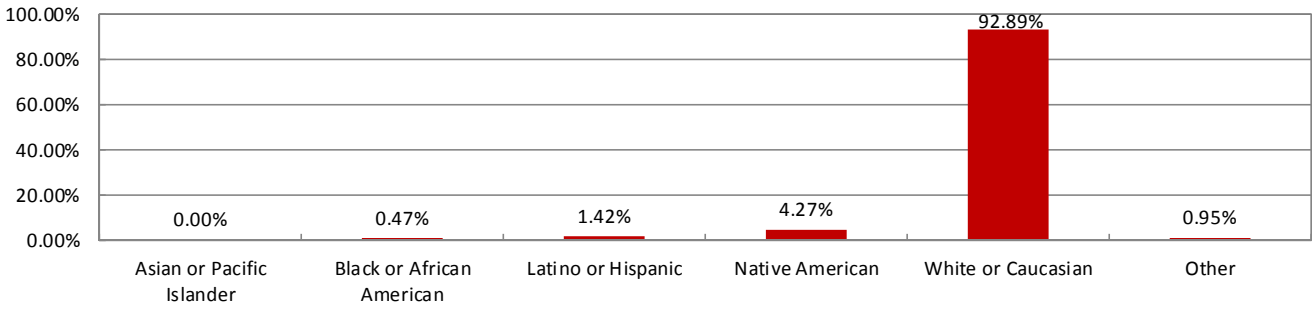

4. County in which you work:
(208 Responses)
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
1.92%
48.56%
1.44%
39.90%
5.77%
2.40%
Cherokee
Jasper
McDonald
Newton
Other
N/A


5. Your current age:
(210 Responses)
80.00%
60.00%
40.00%
20.00%
0.00%
0.00%
32.86%
63.81%
3.33%
Under 15
15 to 44
45 to 64
65 and older


6. Your sex:
(207 Responses)
80.00%
60.00%
40.00%
20.00%
0.00%
75.36%
24.64%
Female
Male

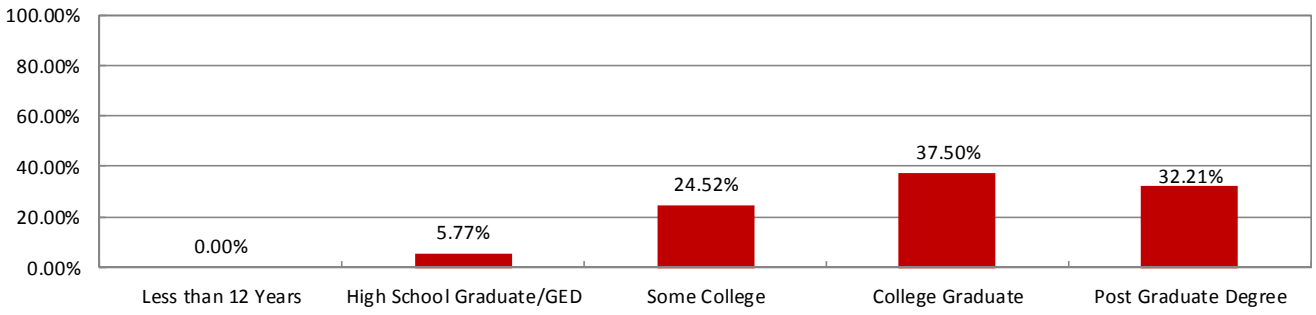
7. Your racial/ethnic identification (check all that apply):

(211 Responses)



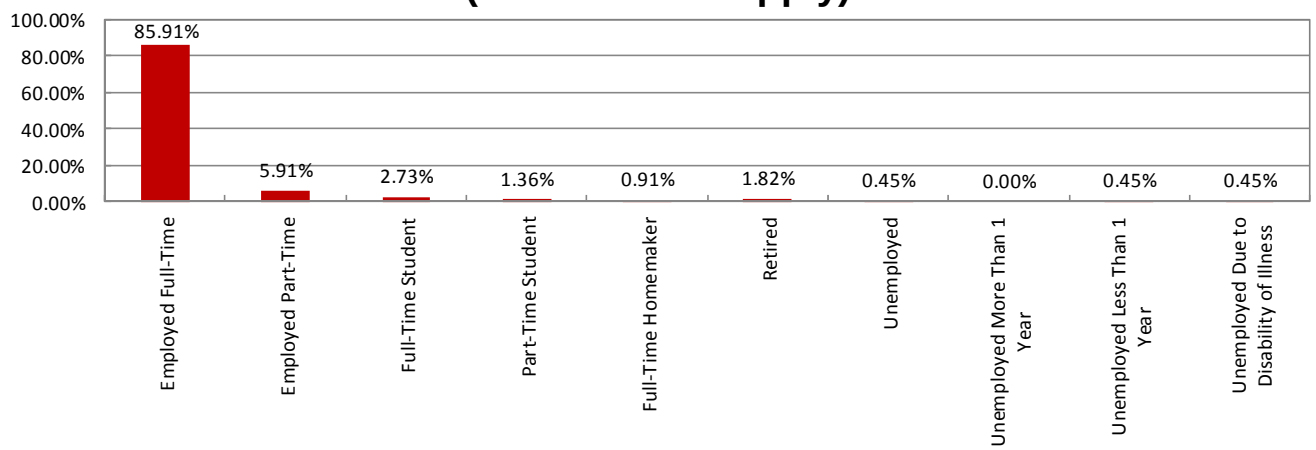
8. Your highest level of education completed (check one):

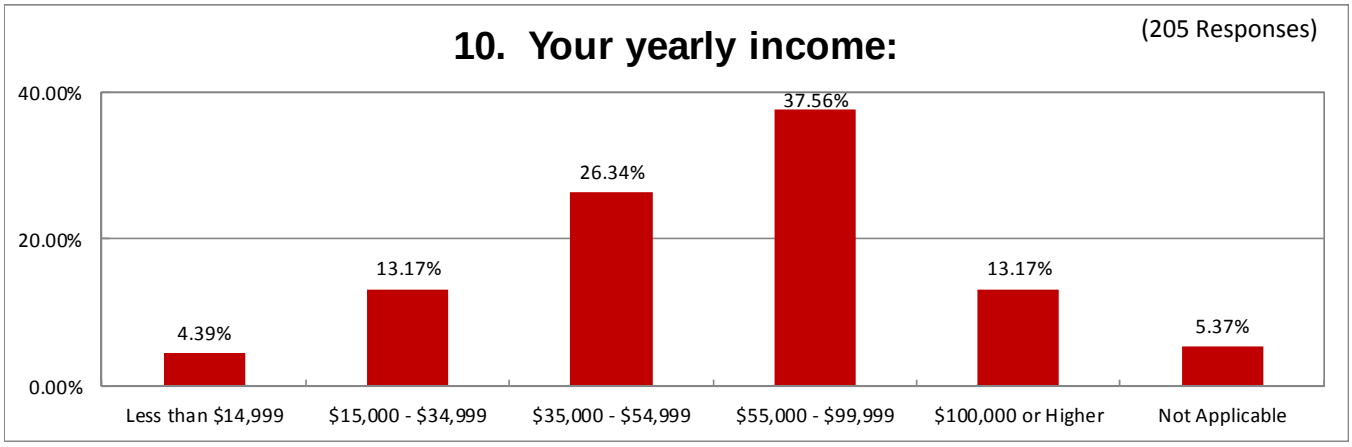
(208 Responses)

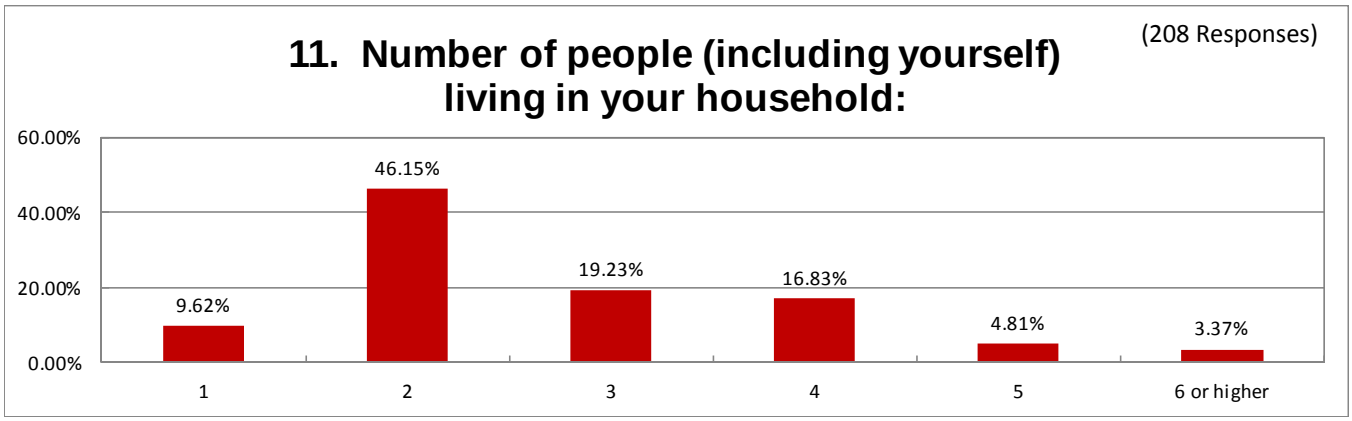


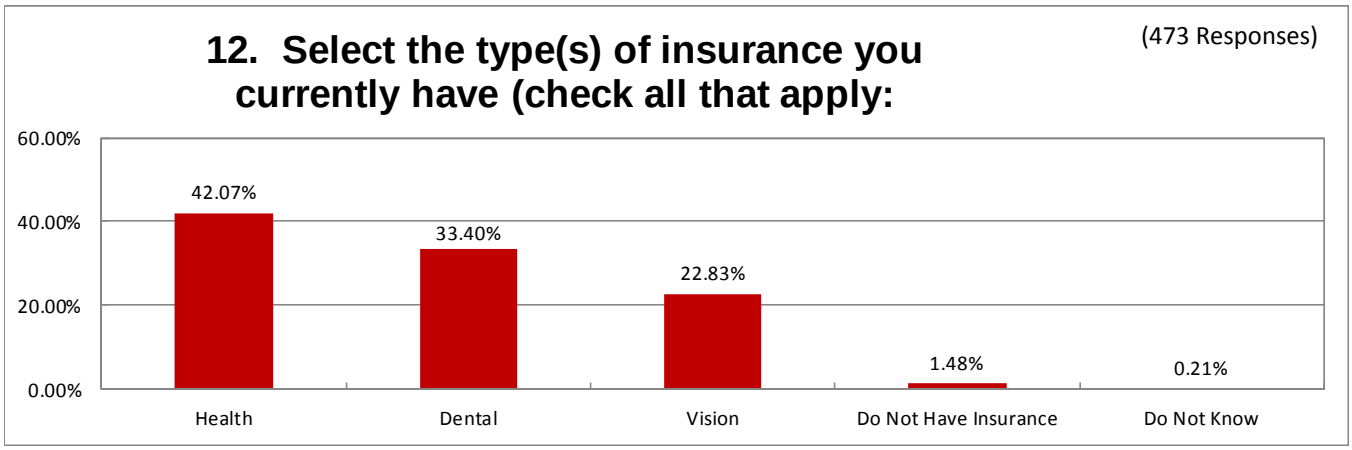
9. Your employment status (check all that apply):

(220 Responses)

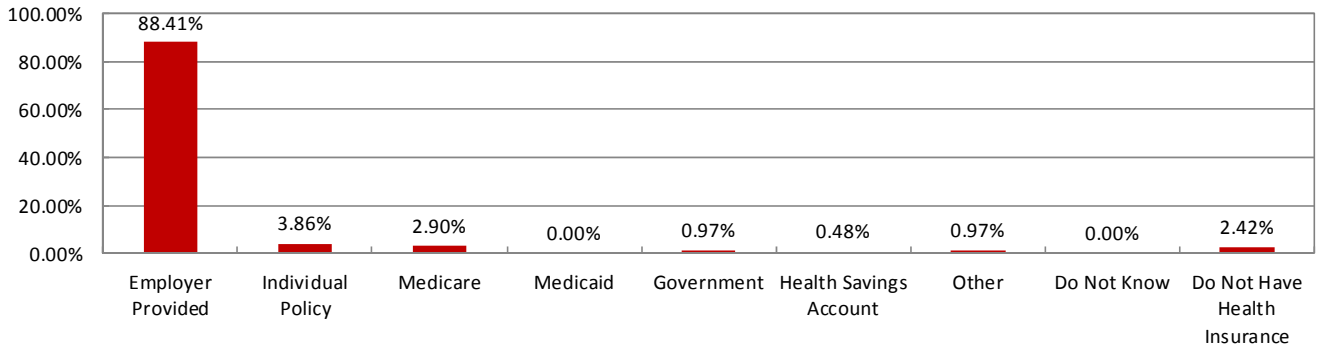



10. Your yearly income:
(205 Responses)
40.00%
20.00%
0.00%
4.39%
13.17%
26.34%
37.56%
13.17%
5.37%
Less than $14,999
$15,000 - $34,999
$35,000 - $54,999
$55,000 - $99,999
$100,000 or Higher
Not Applicable

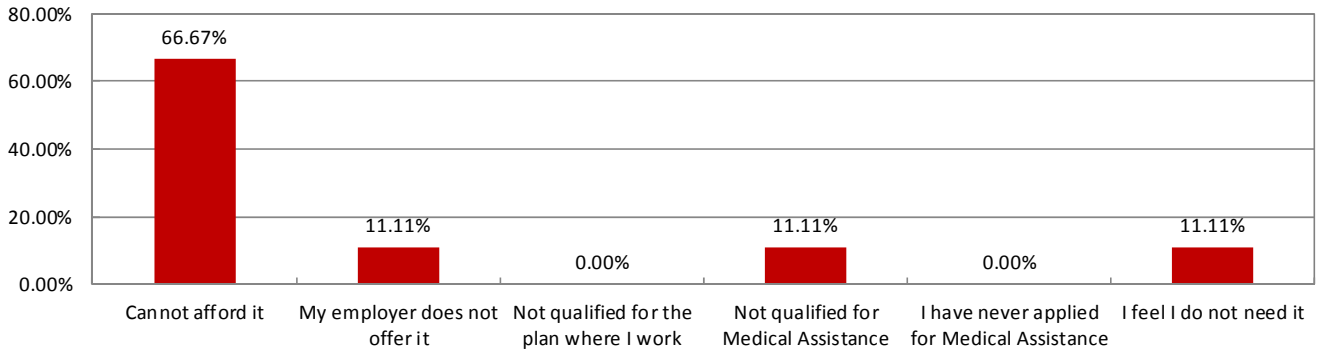

11. Number of people (including yourself) living in your household:
(208 Responses)
60.00%
40.00%
20.00%
0.00%
9.62%
46.15%
19.23%
16.83%
4.81%
3.37%
1
2
3
4
5
6 or higher


12. Select the type(s) of insurance you currently have (check all that apply:
(473 Responses)
60.00%
40.00%
20.00%
0.00%
42.07%
33.40%
22.83%
1.48%
0.21%
Health
Dental
Vision
Do Not Have Insurance
Do Not Know

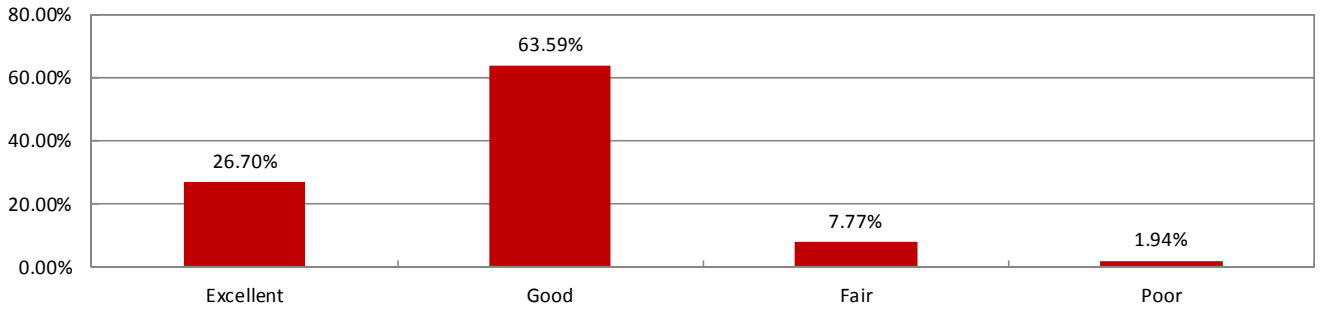
13. Select your current source of health insurance: (207 Responses)



14. If you do not have health insurance, why not? (9 Responses)

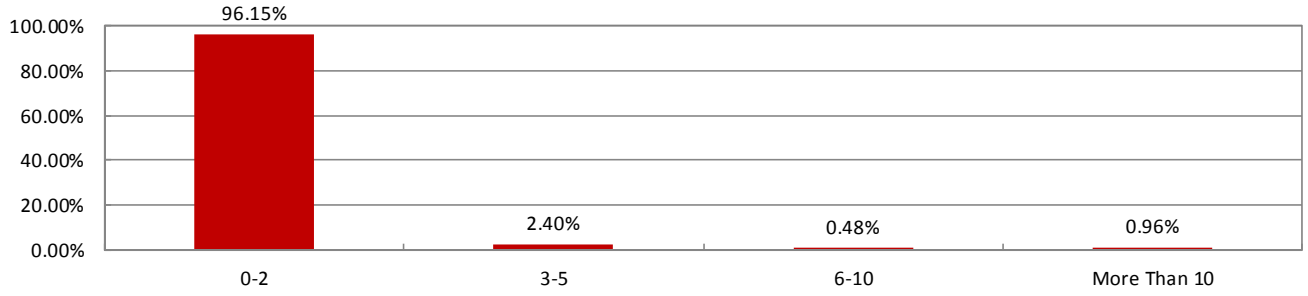


15. In general, how would you rate your current health status? (206 Responses)



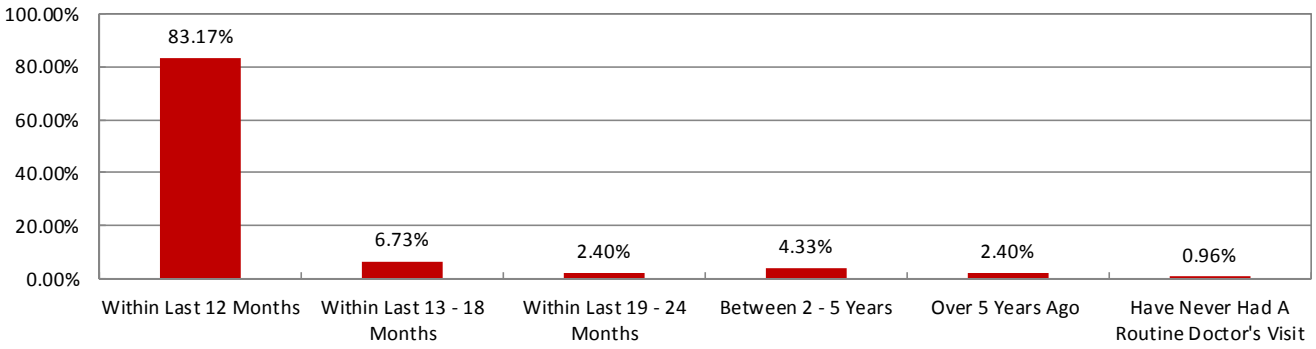
16. Number of days you have been too sick to work or carry out your usual activities during the past 30 days:

(208 Responses)



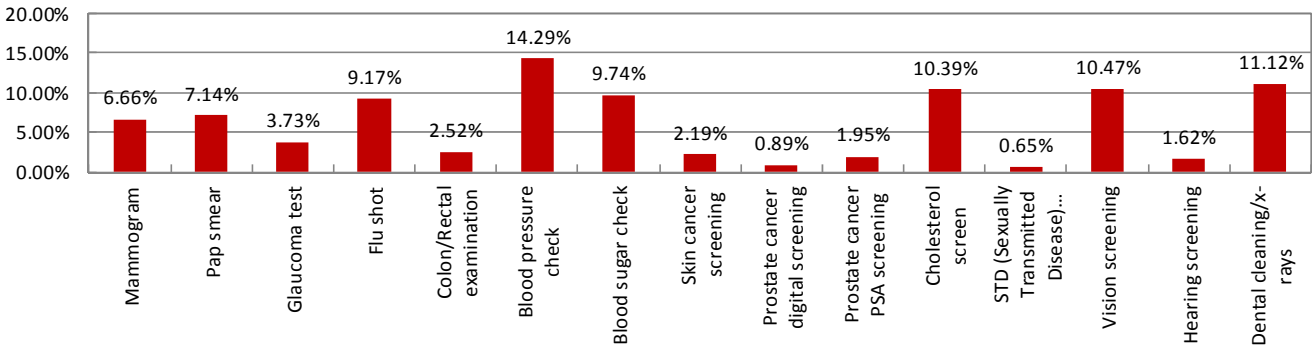
17. Your last routine doctor's visit was:

(208 Responses)



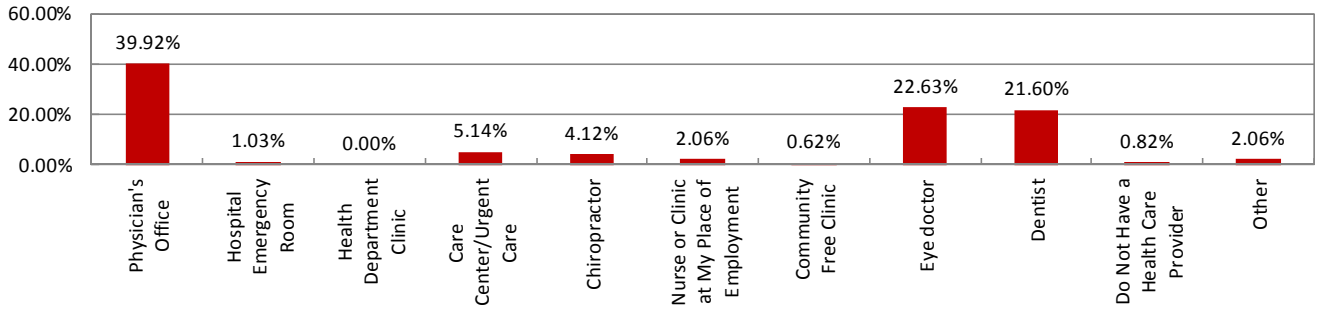
18. Select any of the following preventive procedures you have had in the last year (check all that apply):

(1232 Responses)



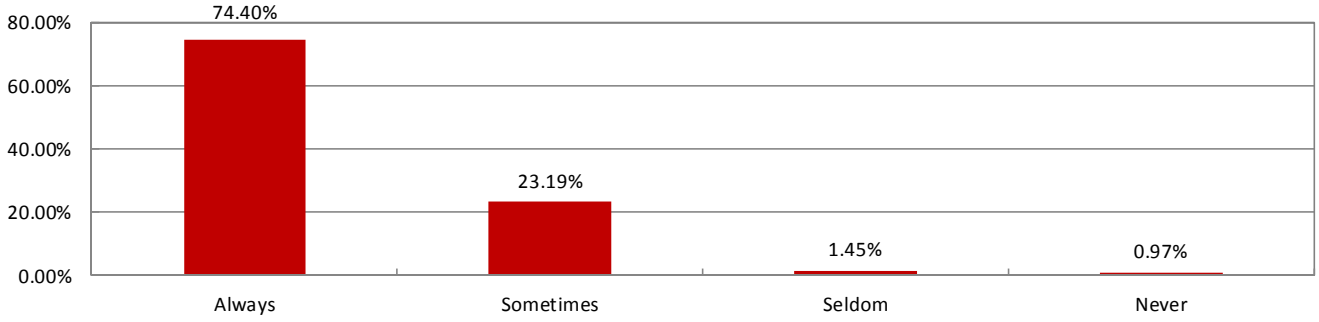
19. Where you go for routine health care (check all that apply):

(486 Responses)



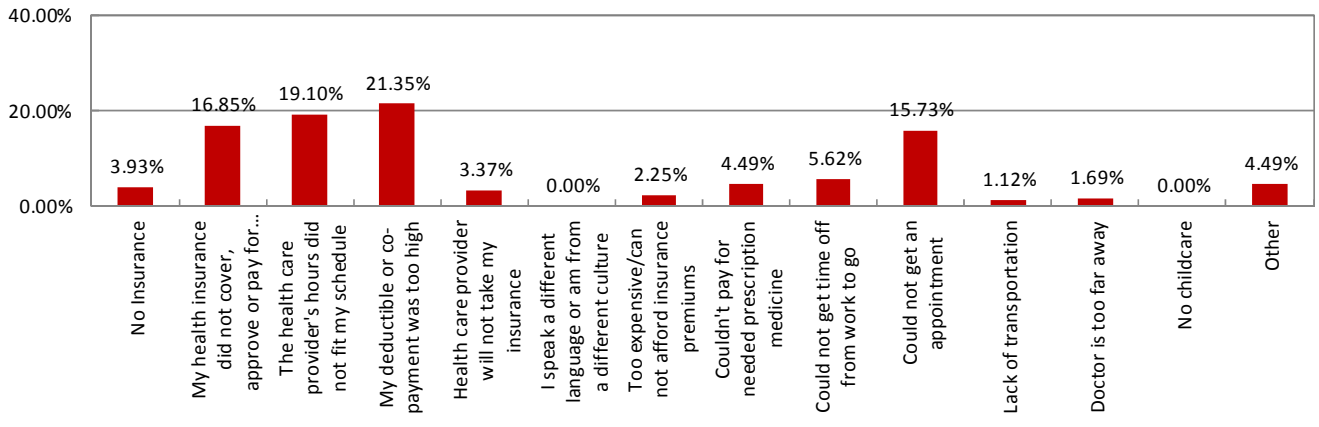
20. Are you able to visit a doctor/health care provider when needed?

(207 Responses)



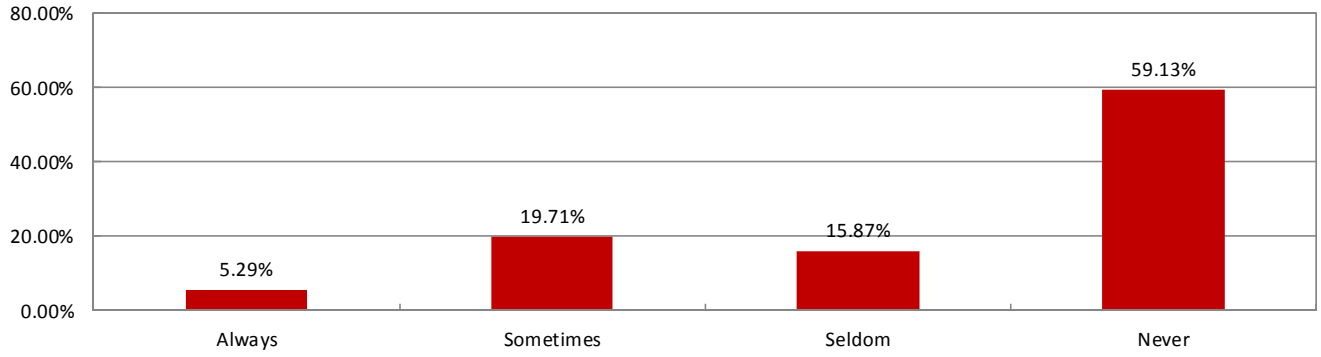
21. The following have stopped you from getting the health care you need (check all that apply):

(178 Responses)



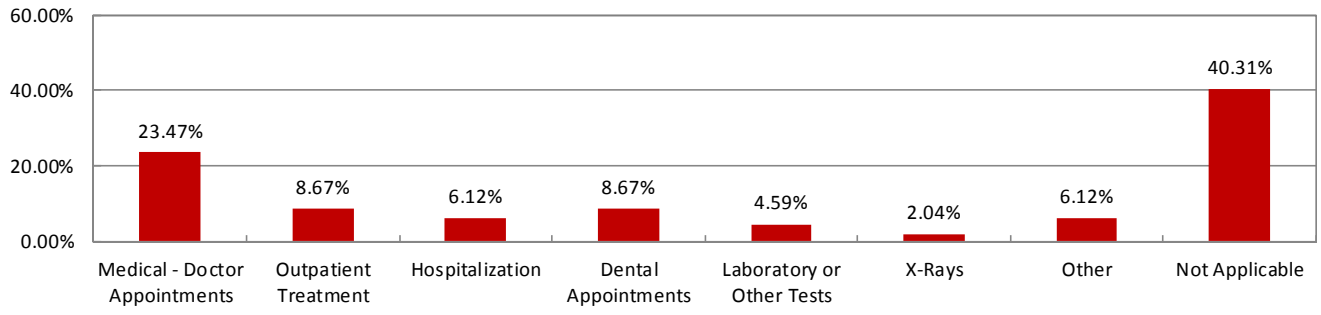
22. You travel outside of area for medical care:

(208 Responses)



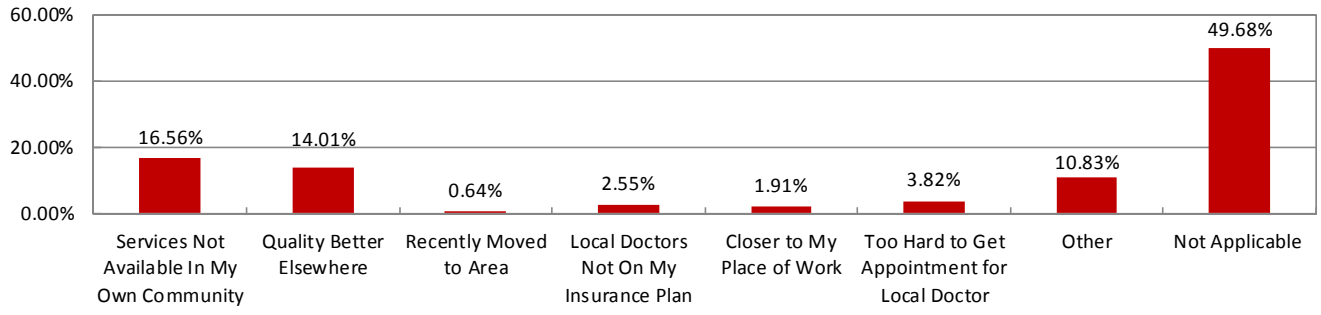
23. If you travel outside of area for medical care, select the service you seek (check all that apply):

(196 Responses)



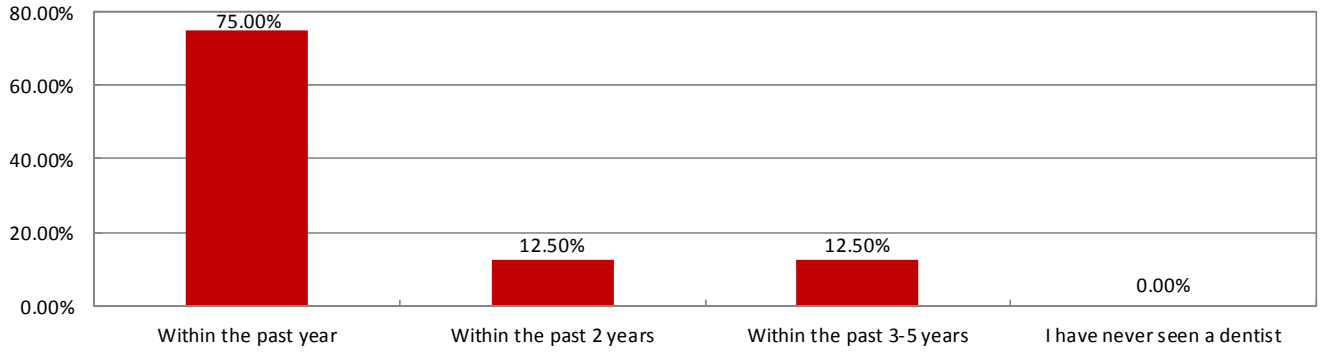
24. What is the primary reason why you travel outside the area for medical care?

(157 Responses)



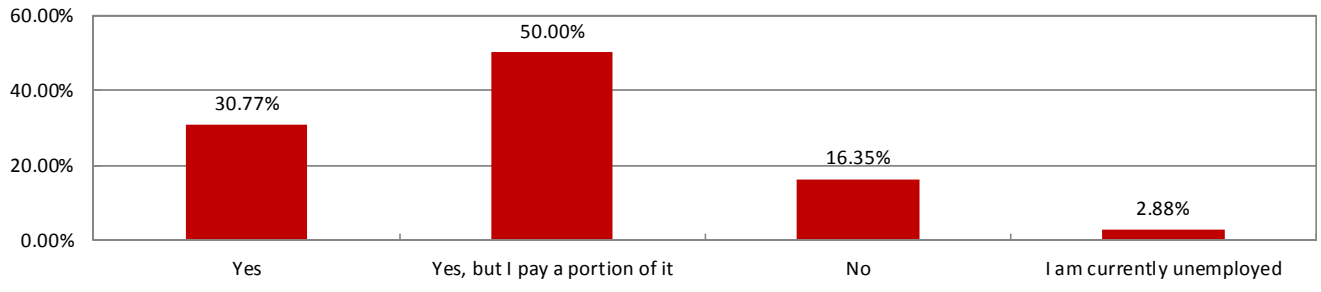
25. The last time you have seen a dentist was:

(208 Responses)



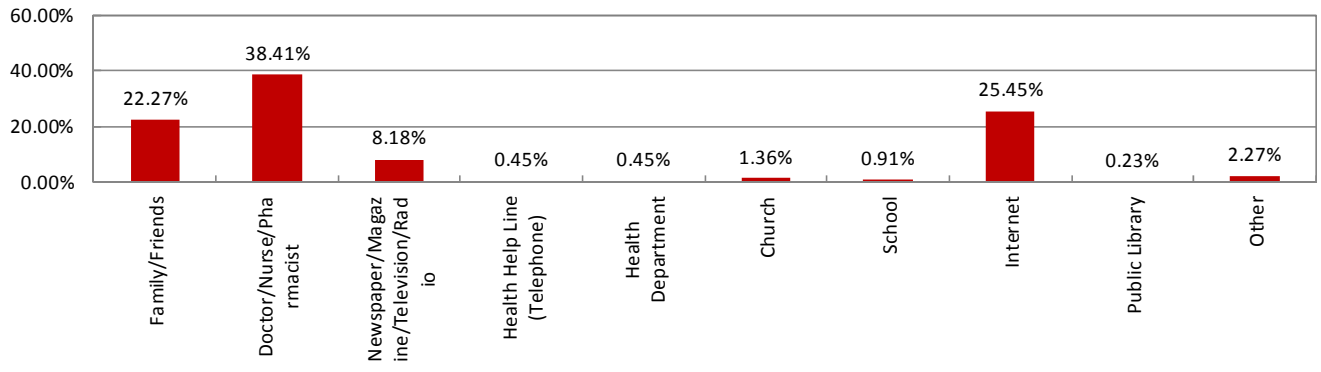
26. Your employer provides you dental health insurance:

(208 Responses)



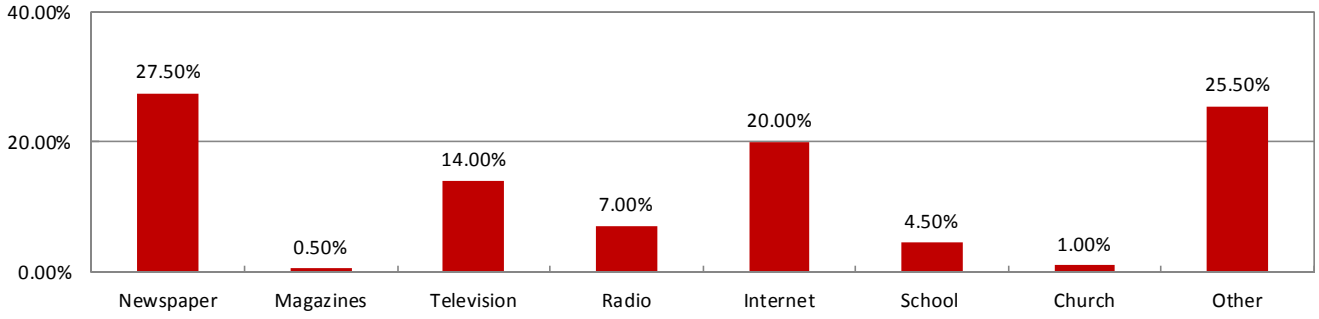
27. Sources where you obtain most health-related information (check all that apply):

(440 Responses)



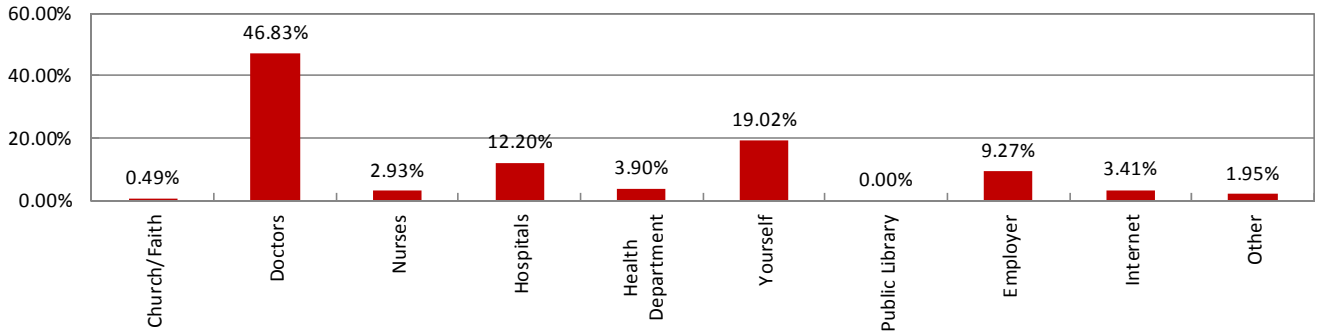
28. What is the source where you obtain information concerning LOCAL health events such as health and wellness, education events, screenings, health and dental services, and support groups?

(200 Responses)



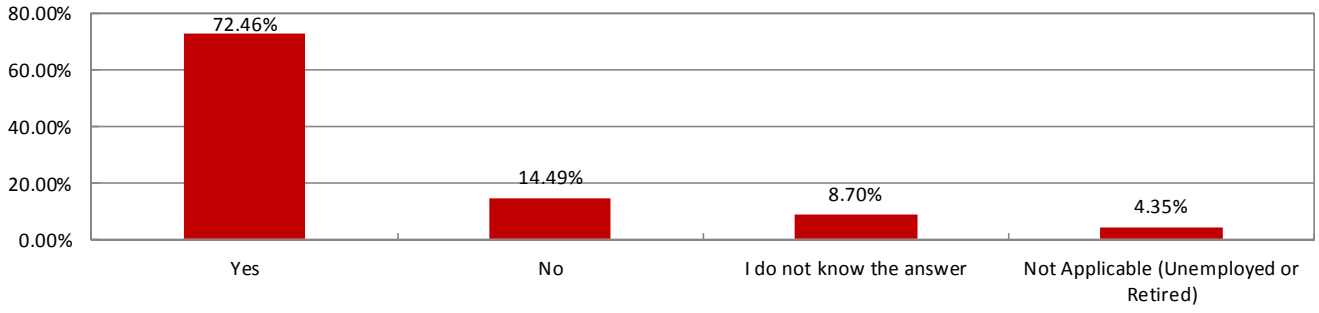
29. Person or entity you feel is most responsible for providing health information (check one):

(205 Responses)

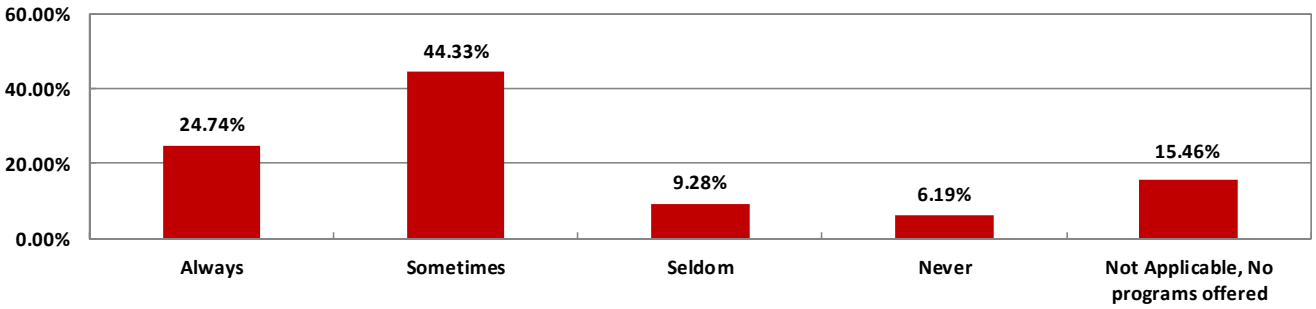


30. Your employer offers health promotion/ wellness programs:

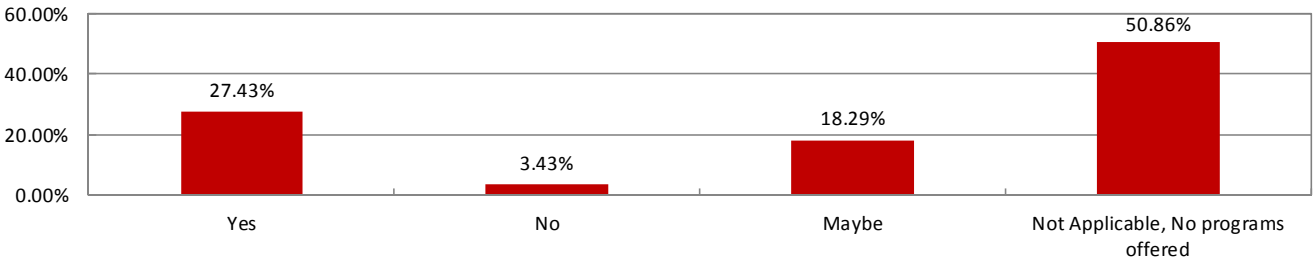
(207 Responses)



31. If your employer offers health promotion/ wellness programs, you participate: (194 Responses)

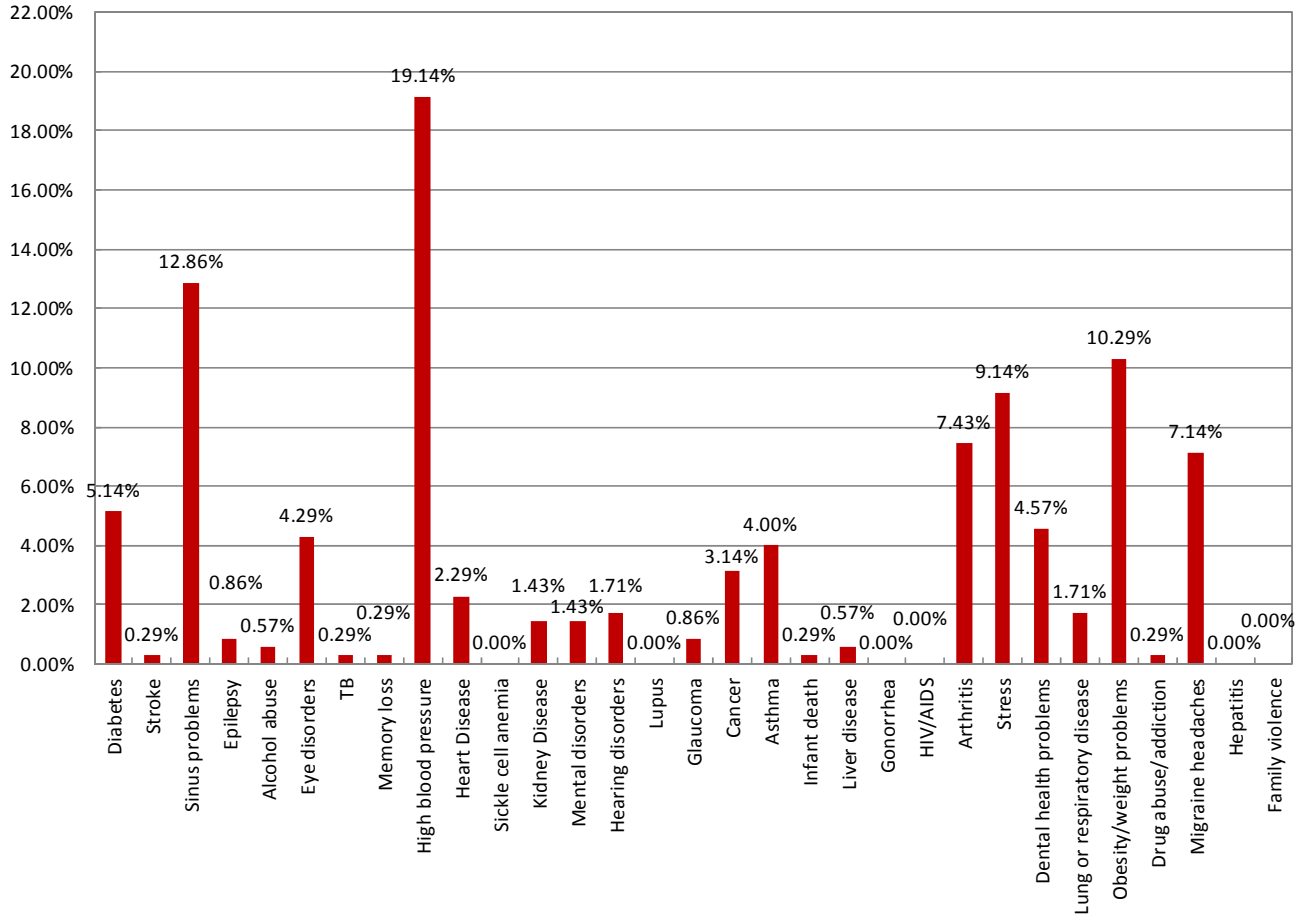


32. If your employer does not currently offer health promotion/wellness programs, but will offer them in the future, will you participate? (175 Responses)



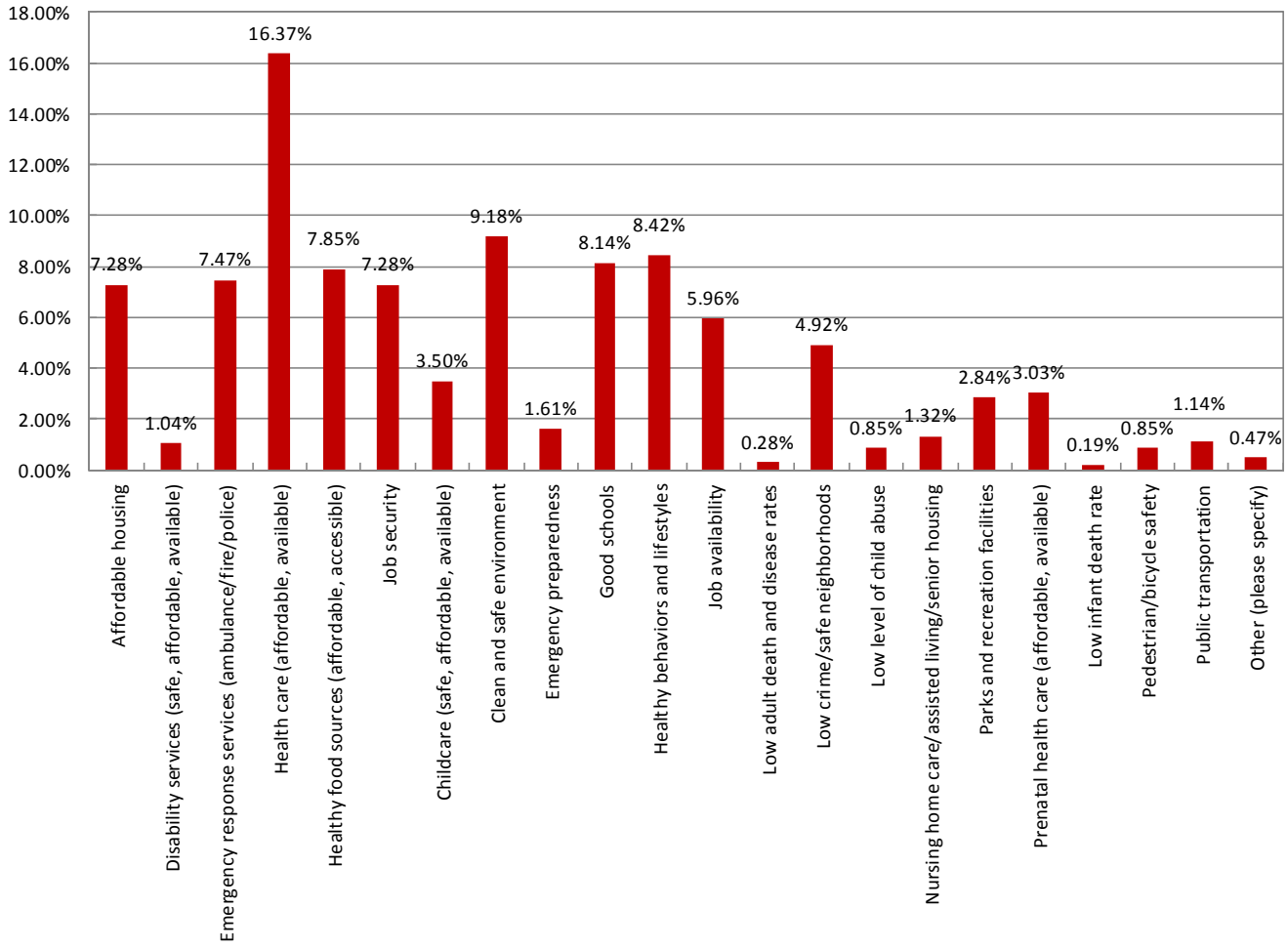
33. Please check if you have been diagnosed by a doctor with any of the following (check all that apply):

(350 Responses)

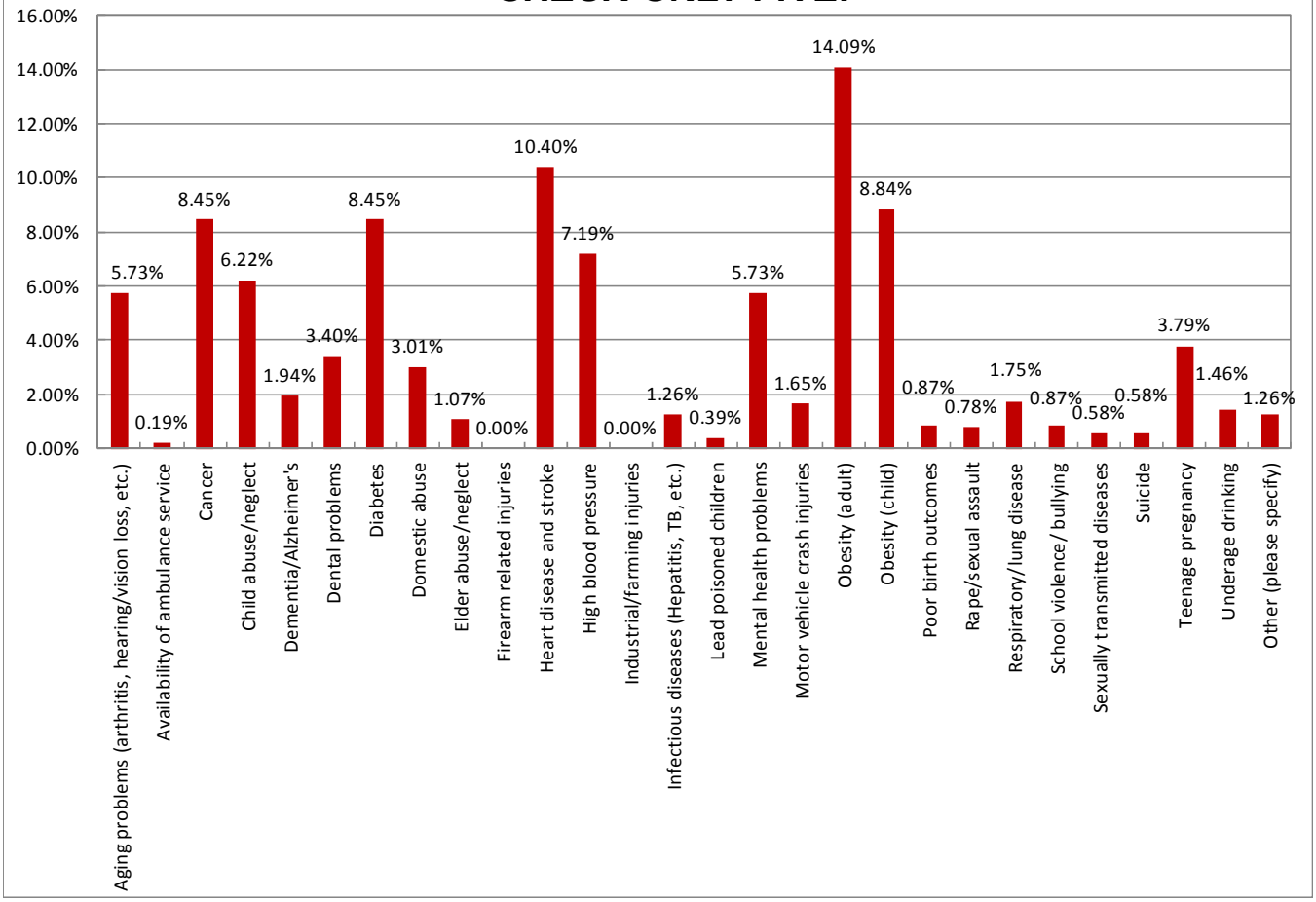


34. In the following list, please mark what you think are the FIVE MOST IMPORTANT FACTORS FOR A "HEALTHY COMMUNITY". (Those factors that most improve the quality of life in a community). CHECK ONLY FIVE:

(1057 Responses)

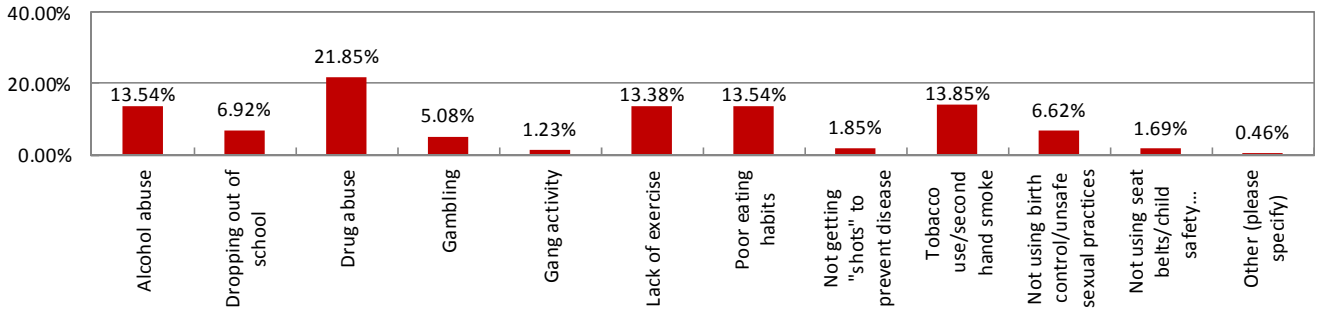


35. In the following list, please mark what you think are the FIVE MOST IMPORTANT "HEALTH PROBLEMS" in our community. (Those problems which have the greatest impact on overall community health). CHECK ONLY FIVE: (1029 Responses)



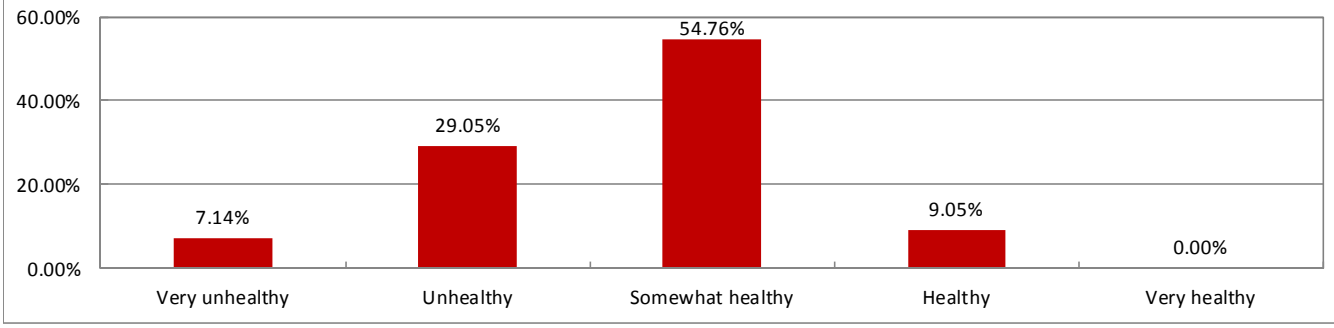
36. In the following list, please mark what you think are the THREE MOST IMPORTANT "RISKY BEHAVIORS" in our community. (Those behaviors which have the greatest impact on overall community health). CHECK ONLY THREE (3):

(650 Responses)



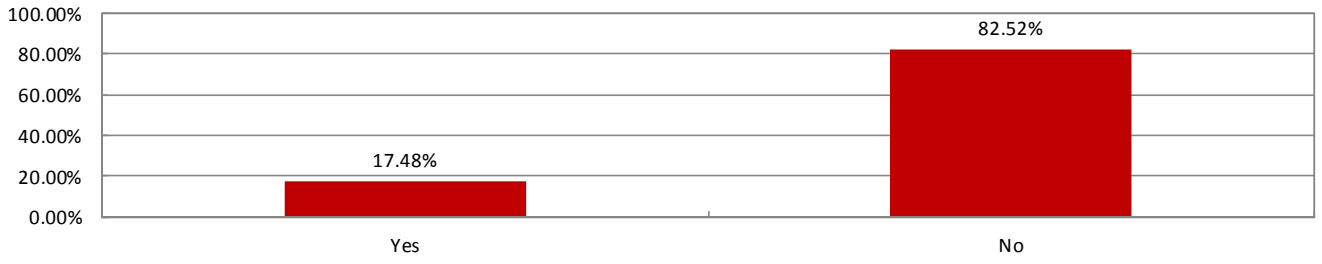
37. Please mark how you would rate your community as a "Healthy Community":

(210 Responses)



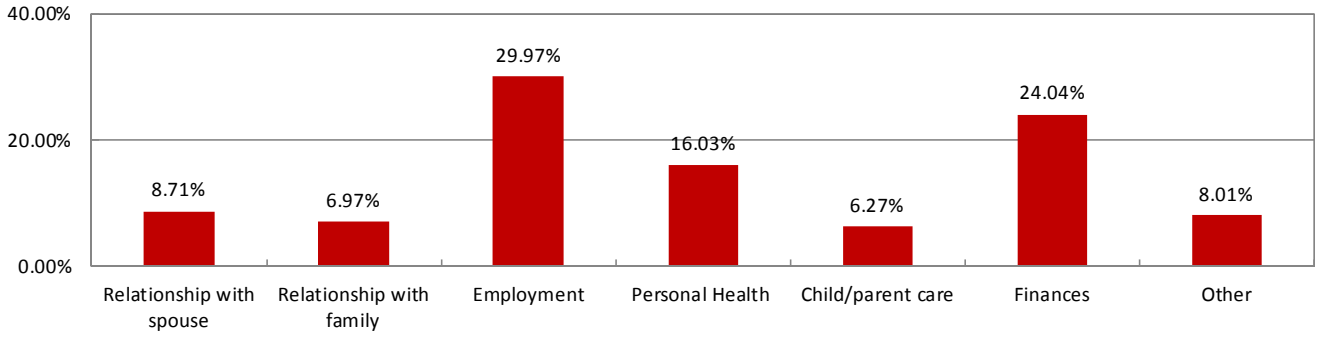
38. Please think about your daily activities during the past 4 weeks. You did less than you would have liked to due to mental or emotional problems:

(206 Responses)



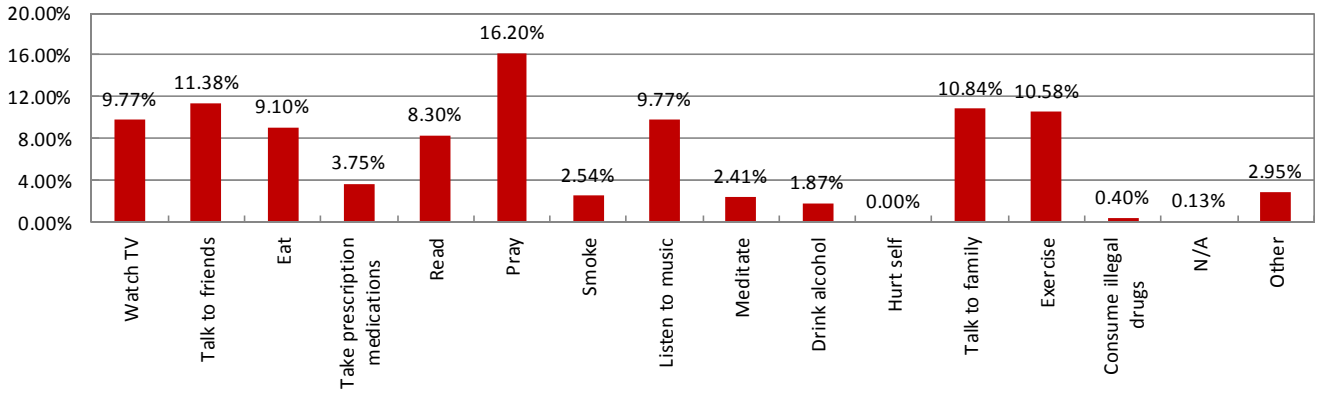
39. The following aspects of my life are really stressful right now(check all that apply):

(287 Responses)



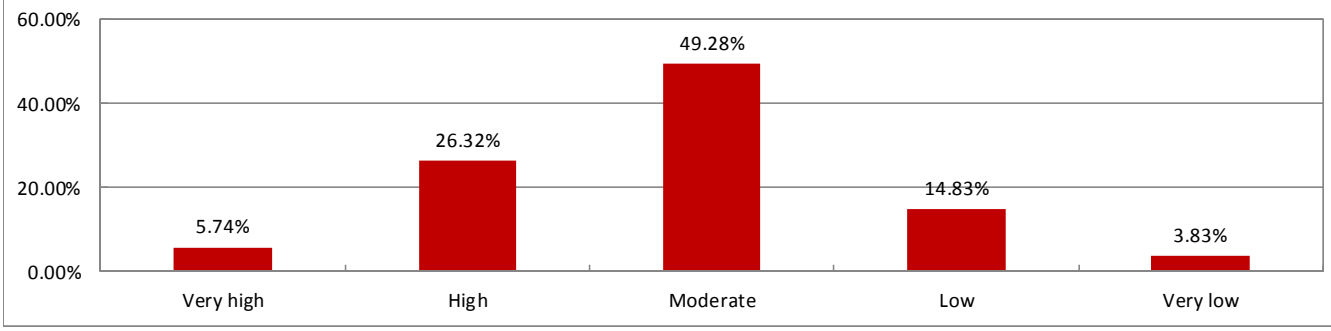
40. Please mark how you cope with stress (check all that apply):

(747 Responses)



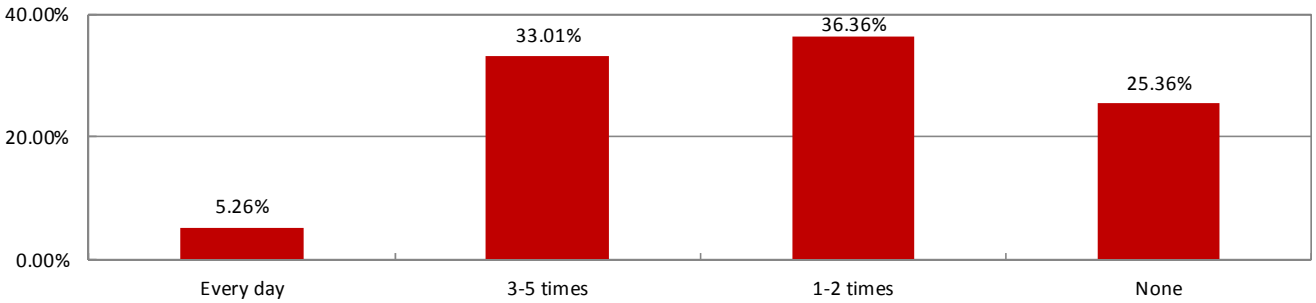
41. On a typical day, you would rate your level of stress as:

(209 Responses)



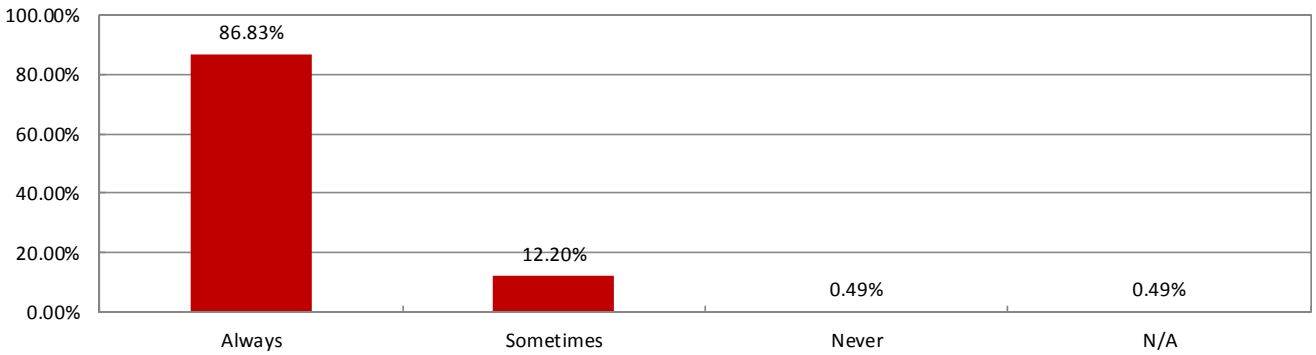
42. On average, how many times per week do you exercise?

(209 Responses)



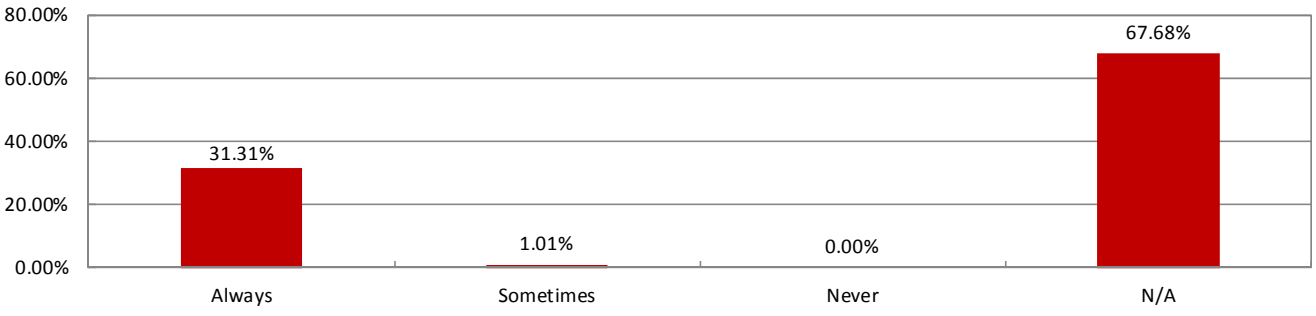
43. You wear a seat belt:

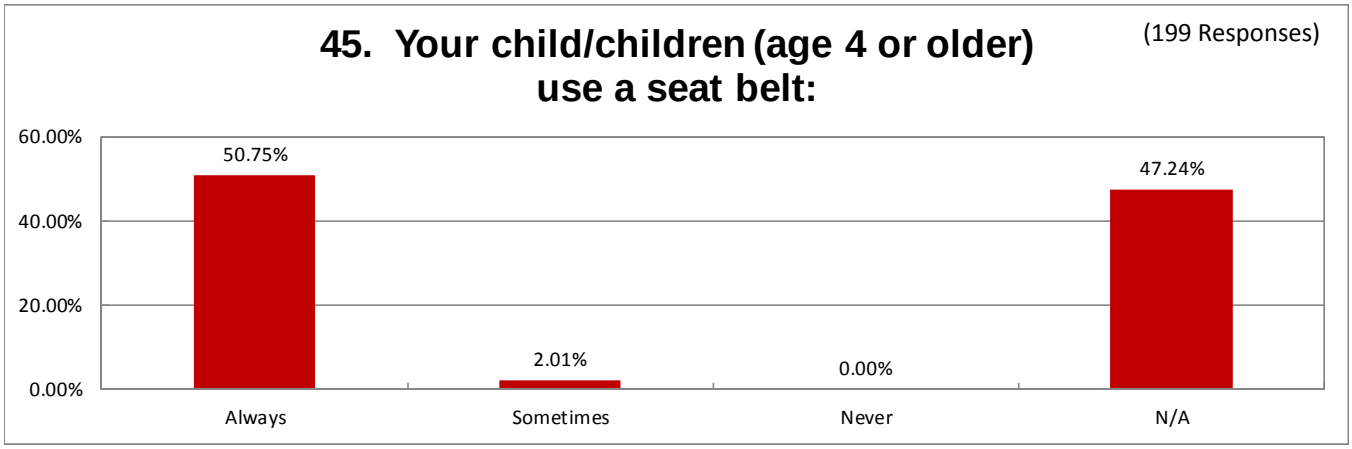
(205 Responses)

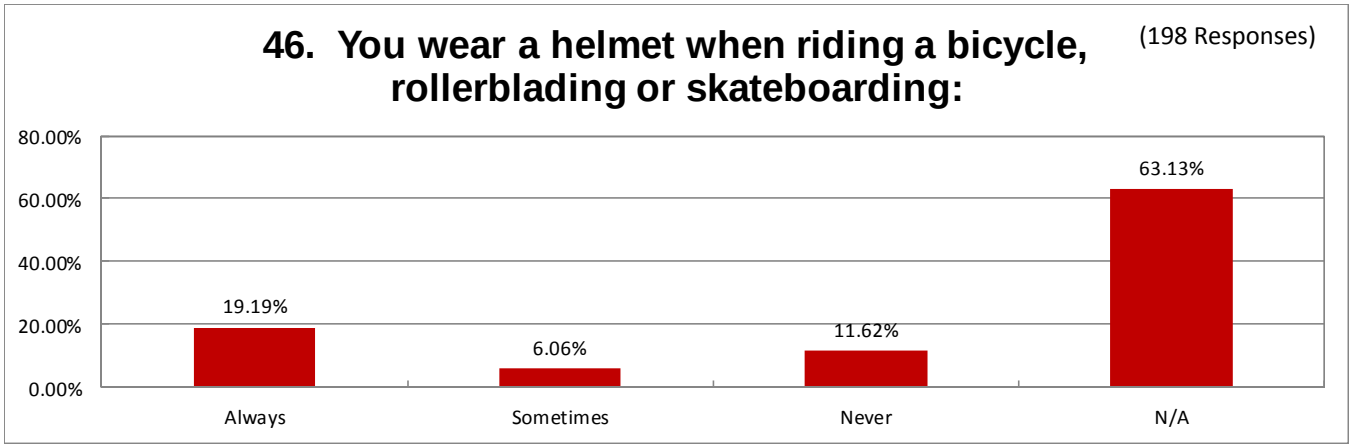


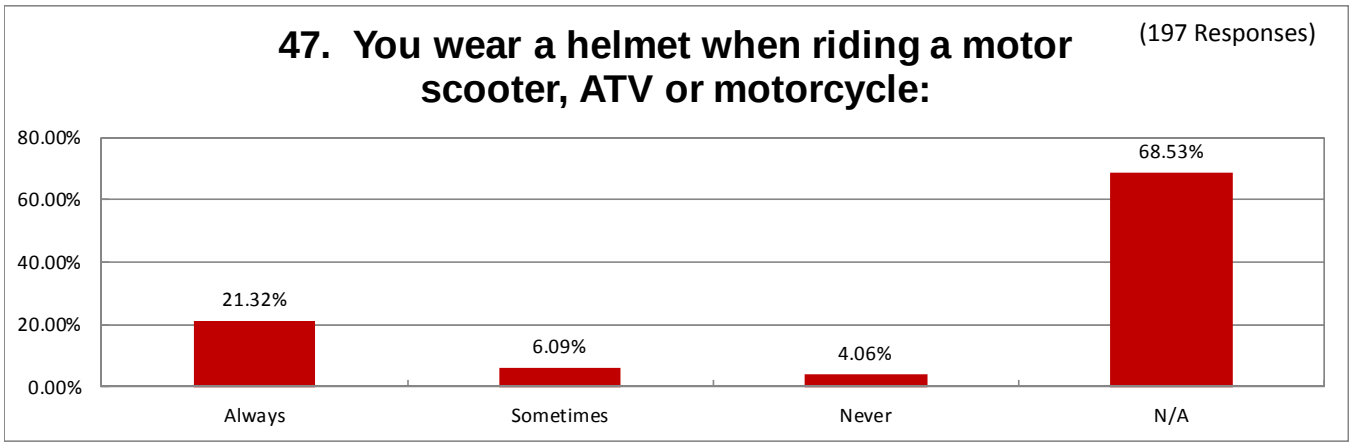
44. Your child/children (under age 4) use a child seat:

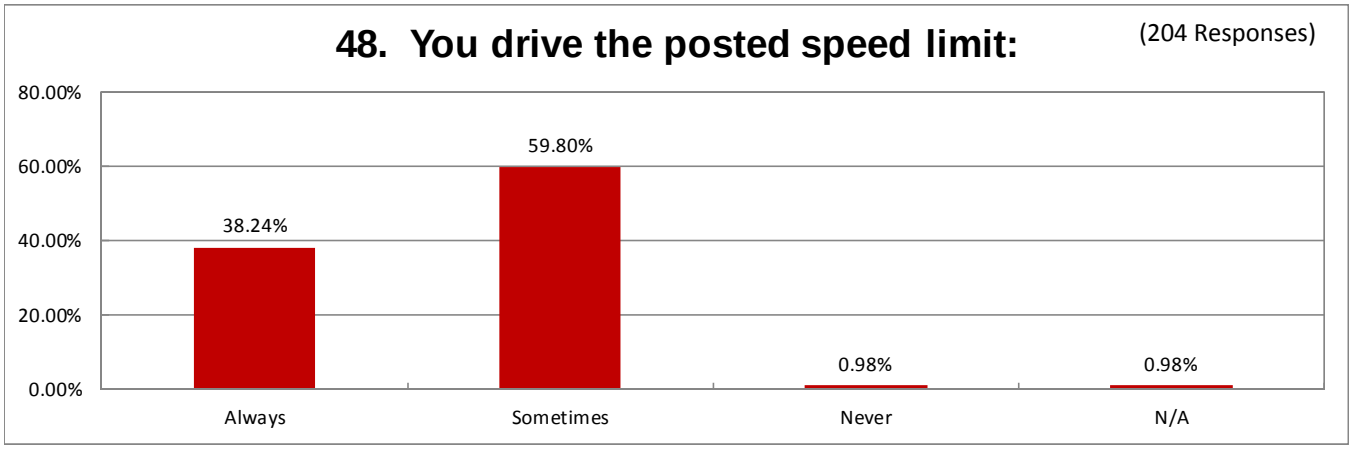
(198 Responses)

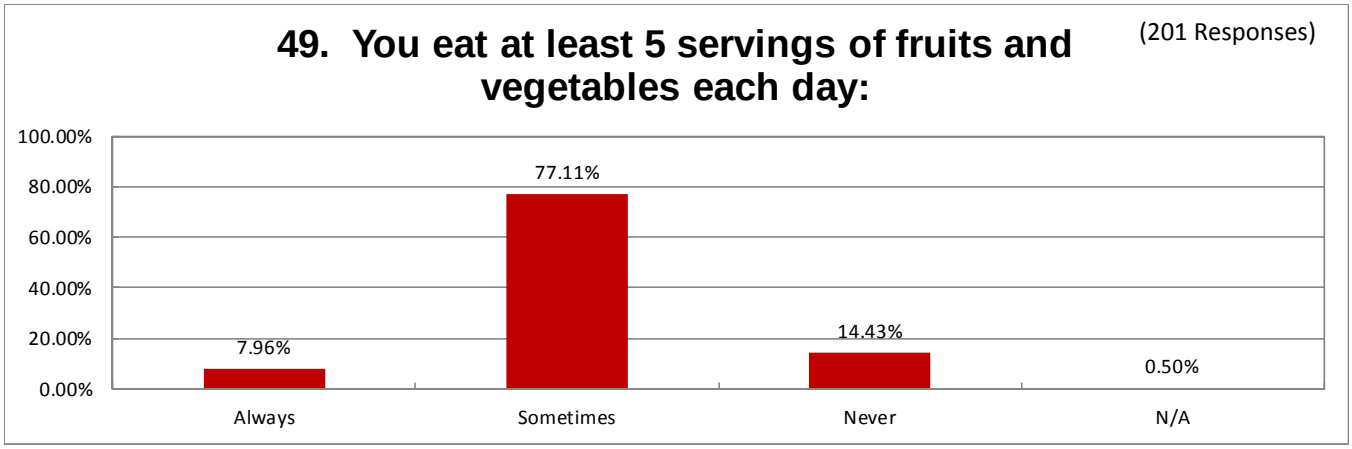


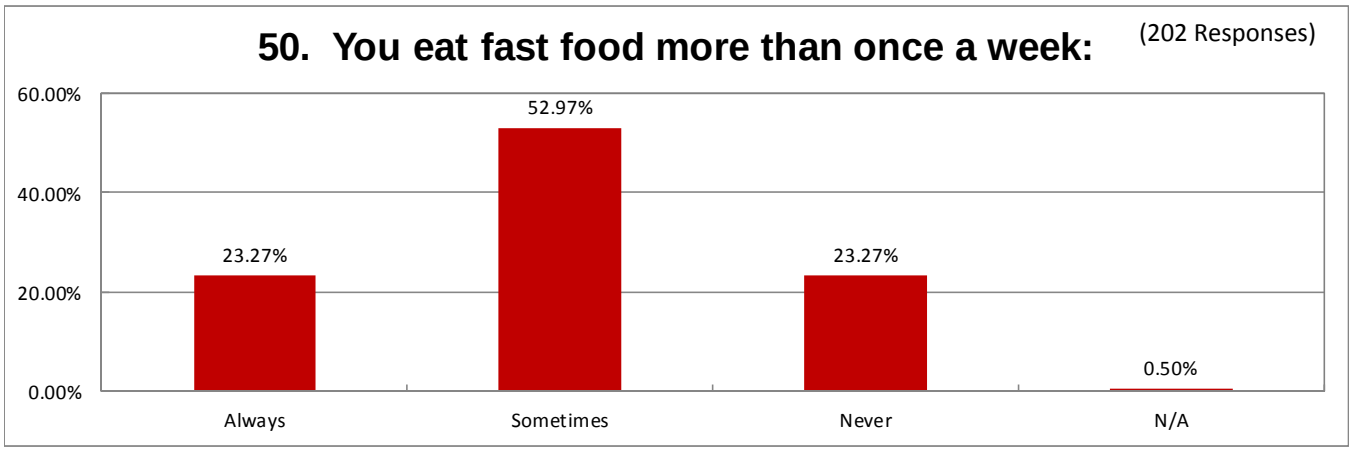

45. Your child/children (age 4 or older) use a seat belt:
(199 Responses)
60.00%
40.00%
20.00%
0.00%
50.75%
2.01%
0.00%
47.24%
Always
Sometimes
Never
N/A


46. You wear a helmet when riding a bicycle, rollerblading or skateboarding:
(198 Responses)
80.00%
60.00%
40.00%
20.00%
0.00%
19.19%
6.06%
11.62%
63.13%
Always
Sometimes
Never
N/A


47. You wear a helmet when riding a motor scooter, ATV or motorcycle:
(197 Responses)
80.00%
60.00%
40.00%
20.00%
0.00%
21.32%
6.09%
4.06%
68.53%
Always
Sometimes
Never
N/A

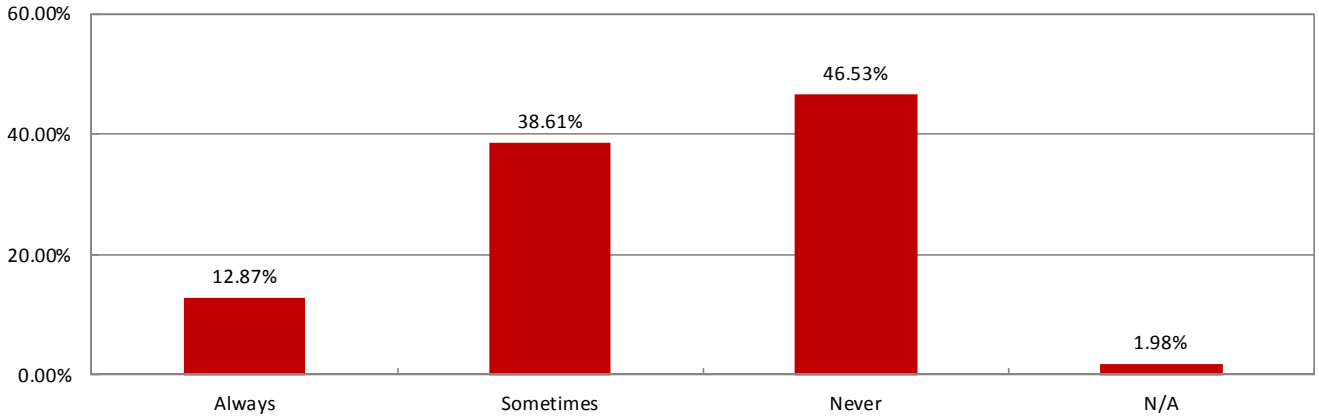

48. You drive the posted speed limit:
(204 Responses)
80.00%
60.00%
40.00%
20.00%
0.00%
38.24%
59.80%
0.98%
0.98%
Always
Sometimes
Never
N/A


49. You eat at least 5 servings of fruits and vegetables each day:
(201 Responses)
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
7.96%
77.11%
14.43%
0.50%
Always
Sometimes
Never
N/A


50. You eat fast food more than once a week:
(202 Responses)
60.00%
40.00%
20.00%
0.00%
23.27%
52.97%
23.27%
0.50%
Always
Sometimes
Never
N/A

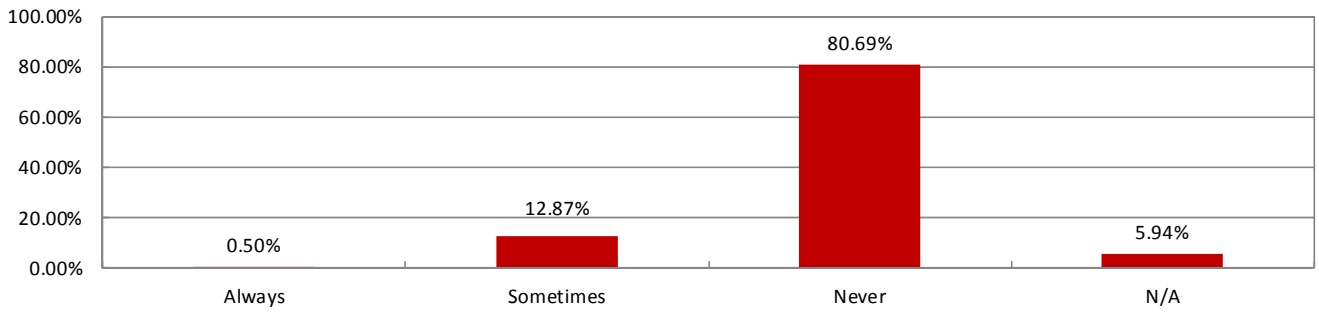
51. You exercise at a moderate pace at least 30 minutes per day, 5 days per week:

(202 Responses)



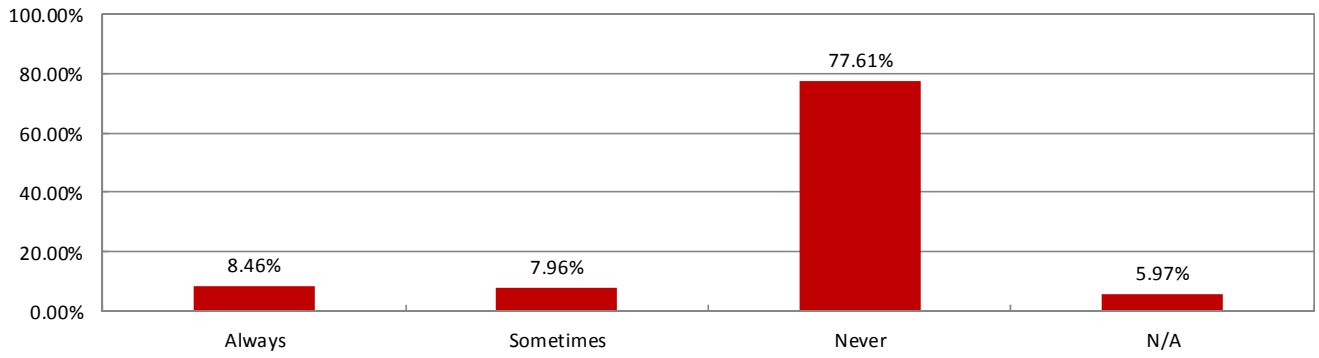
52. You consume more than 3 alcoholic drinks per day (female) or more than 5 per day (male):

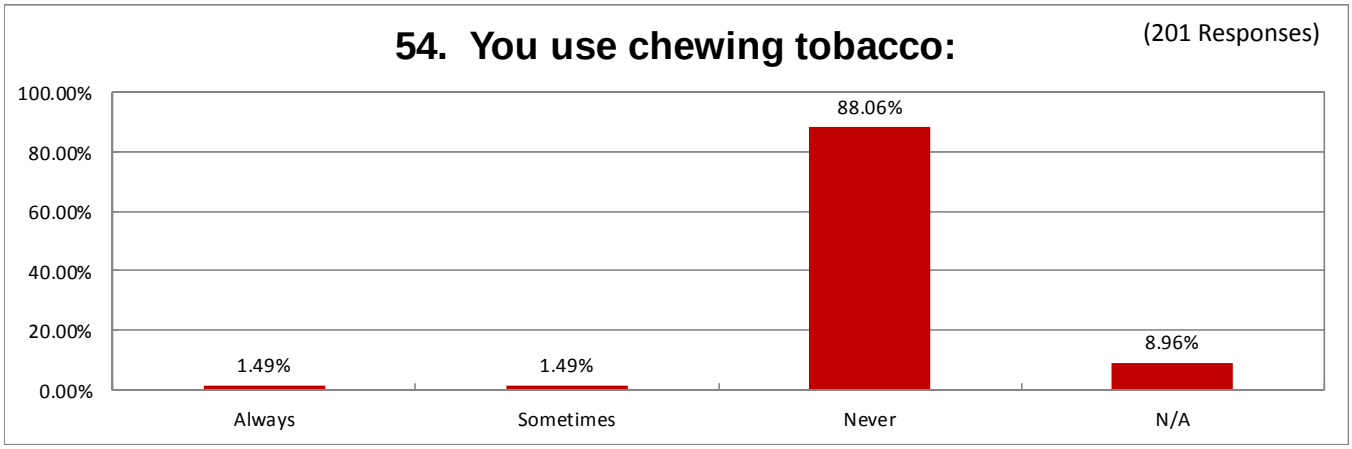
(202 Responses)

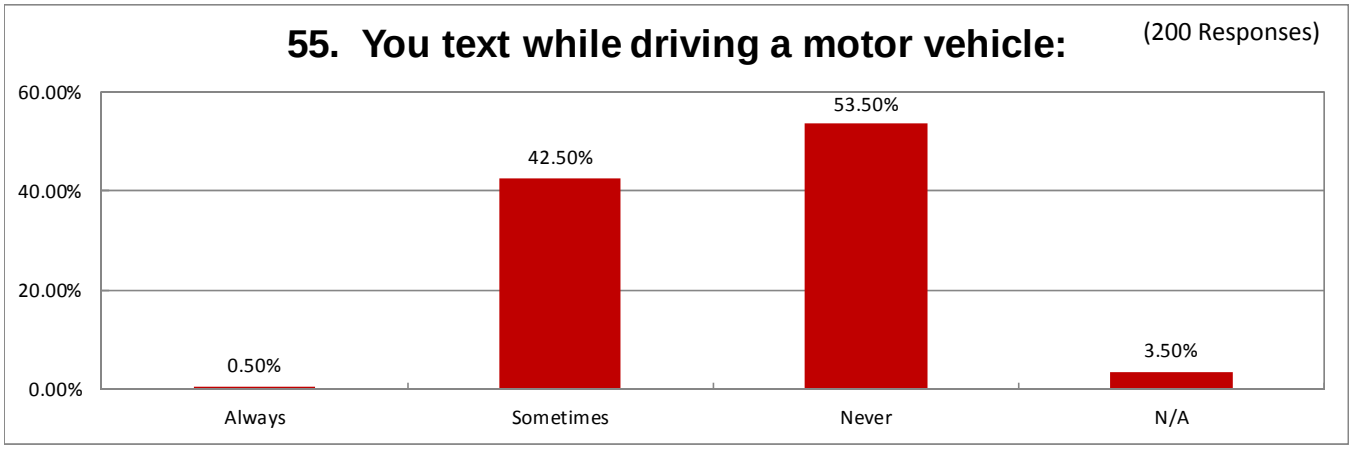


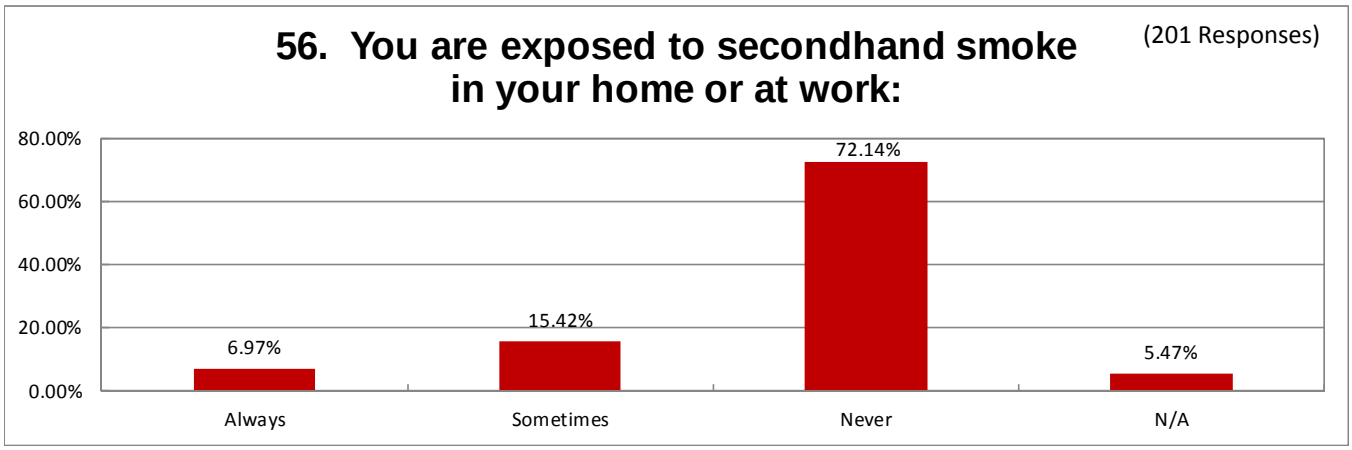
53. You smoke cigarettes:

(201Responses)



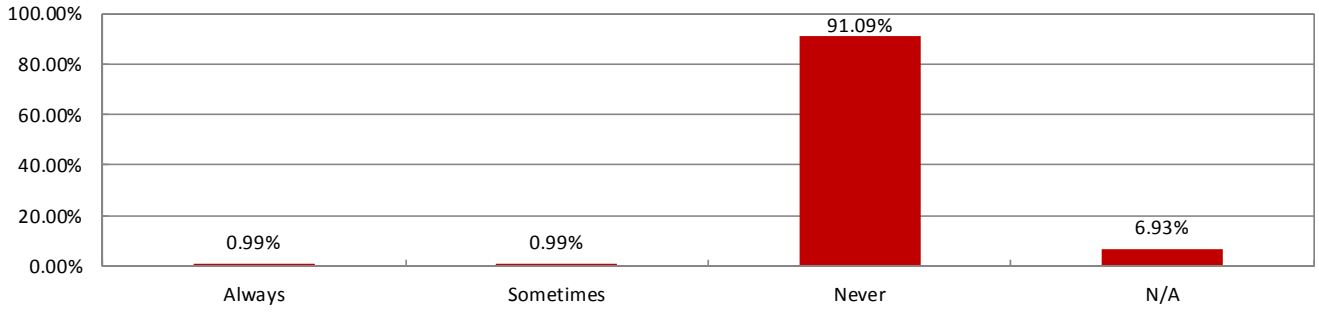

54. You use chewing tobacco:
(201 Responses)
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
1.49%
1.49%
88.06%
8.96%
Always
Sometimes
Never
N/A


55. You text while driving a motor vehicle:
(200 Responses)
60.00%
40.00%
20.00%
0.00%
0.50%
42.50%
53.50%
3.50%
Always
Sometimes
Never
N/A


56. You are exposed to secondhand smoke in your home or at work:
(201 Responses)
80.00%
60.00%
40.00%
20.00%
0.00%
6.97%
15.42%
72.14%
5.47%
Always
Sometimes
Never
N/A

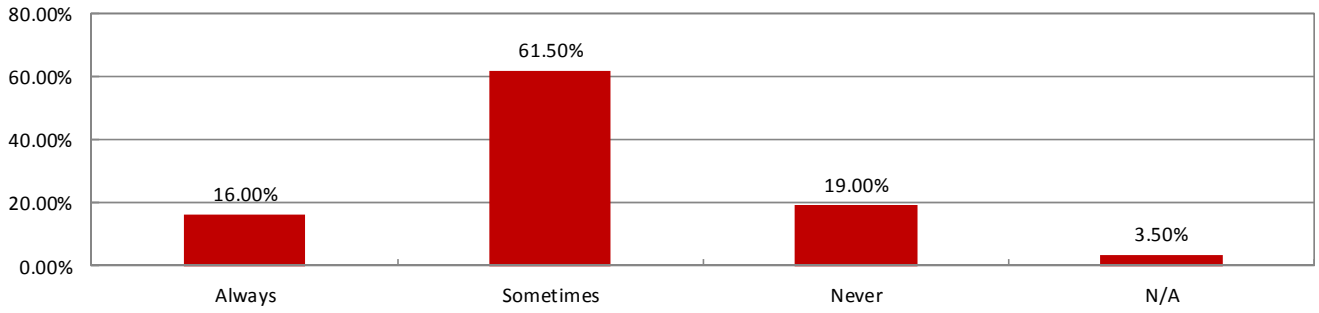
57. You use illegal drugs (marijuana, cocaine, methamphetamine, etc.):

(202 Responses)



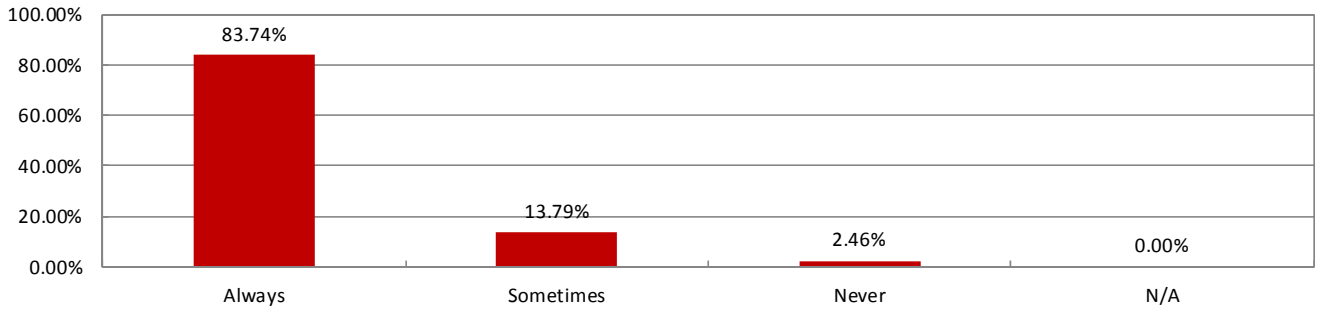
58. You perform self-exams for cancer (breast or testicular):

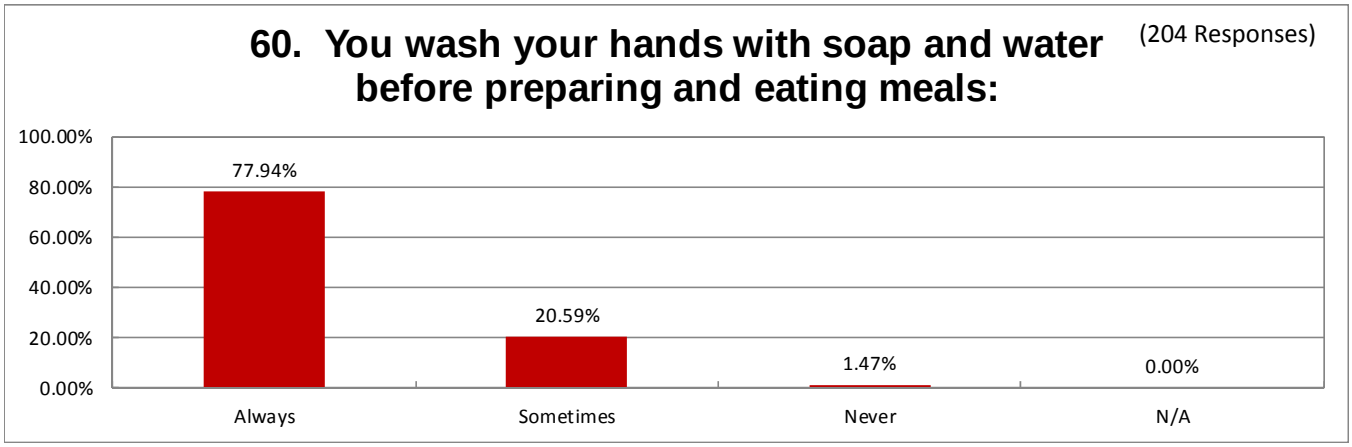
(202 Responses)

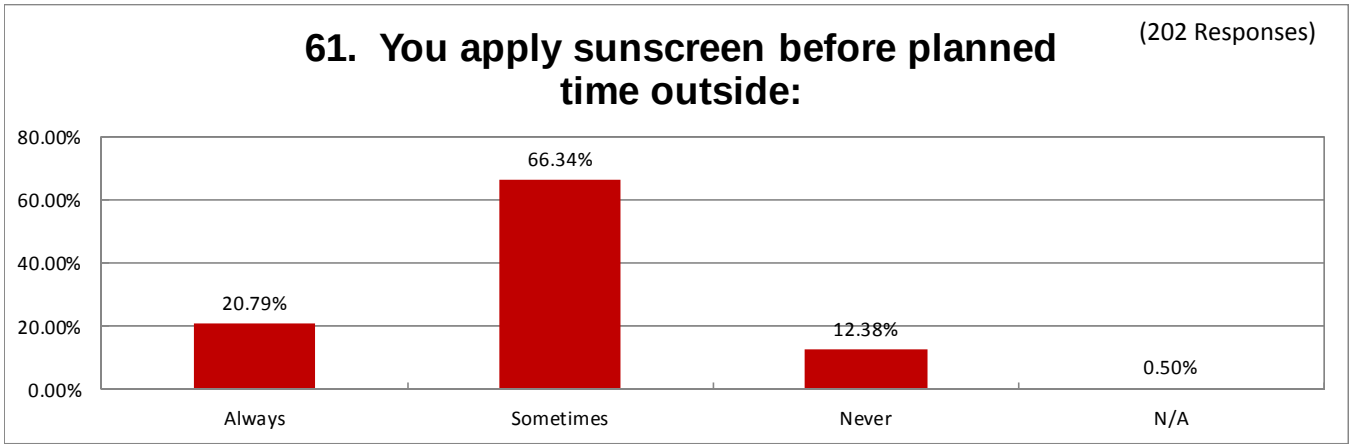


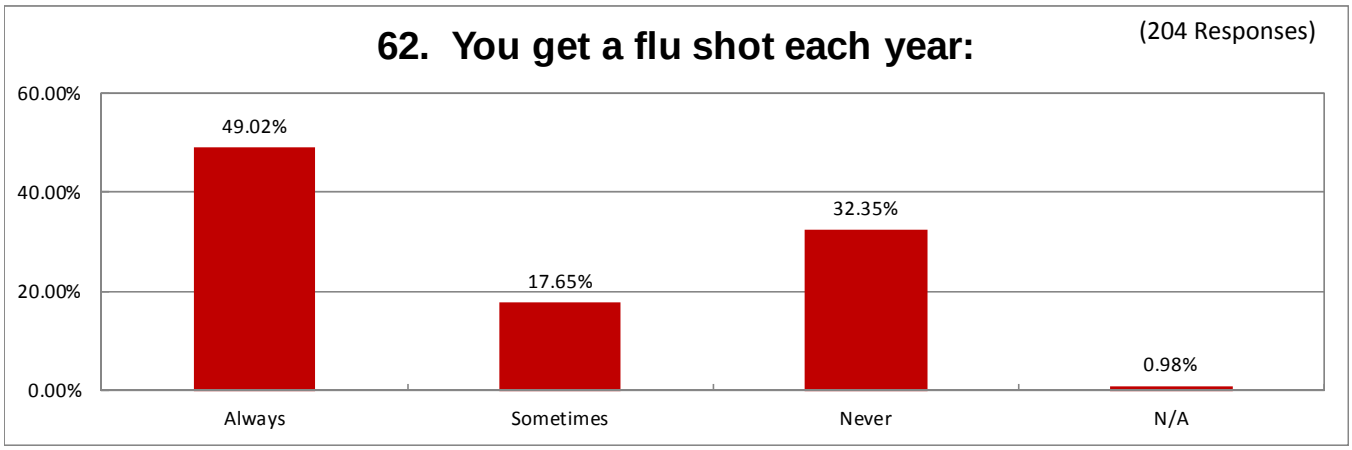
59. You wash your hands with soap and water after using the restroom:

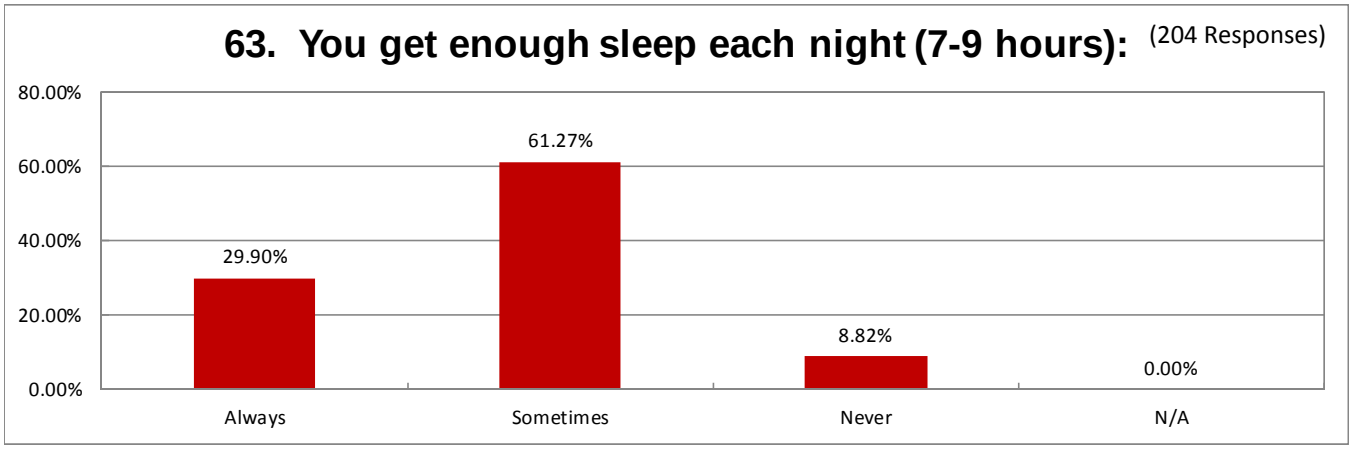
(203 Responses)

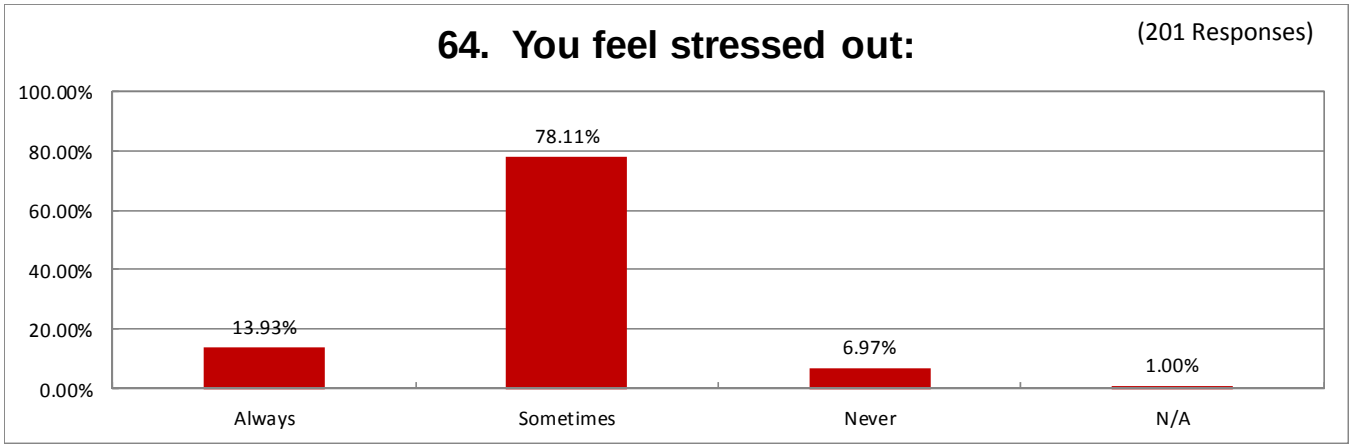


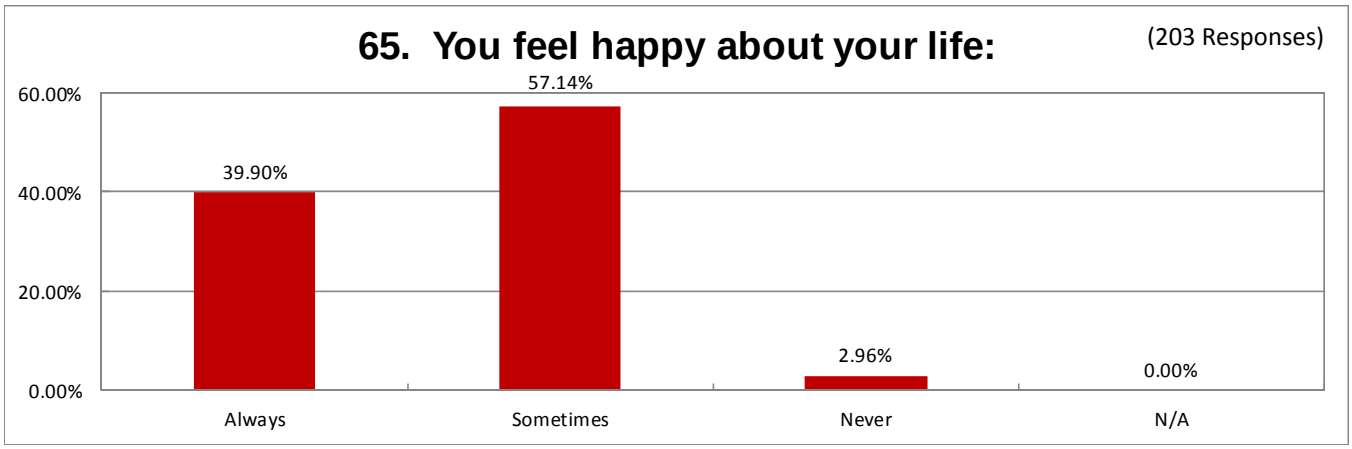

60. You wash your hands with soap and water before preparing and eating meals:
(204 Responses)
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
77.94%
20.59%
1.47%
0.00%
Always
Sometimes
Never
N/A

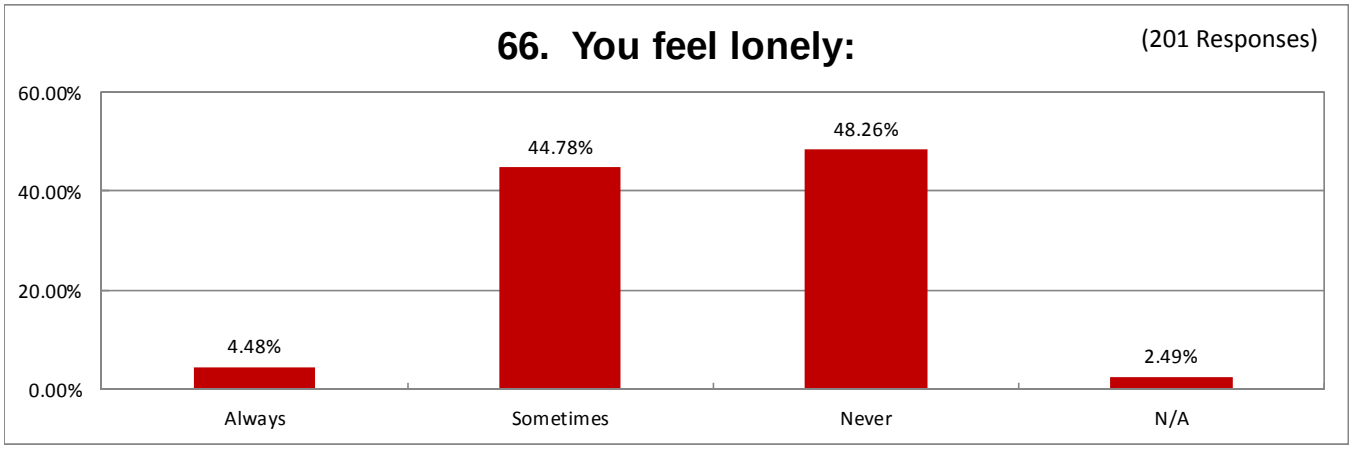

61. You apply sunscreen before planned time outside:
(202 Responses)
80.00%
60.00%
40.00%
20.00%
0.00%
20.79%
66.34%
12.38%
0.50%
Always
Sometimes
Never
N/A

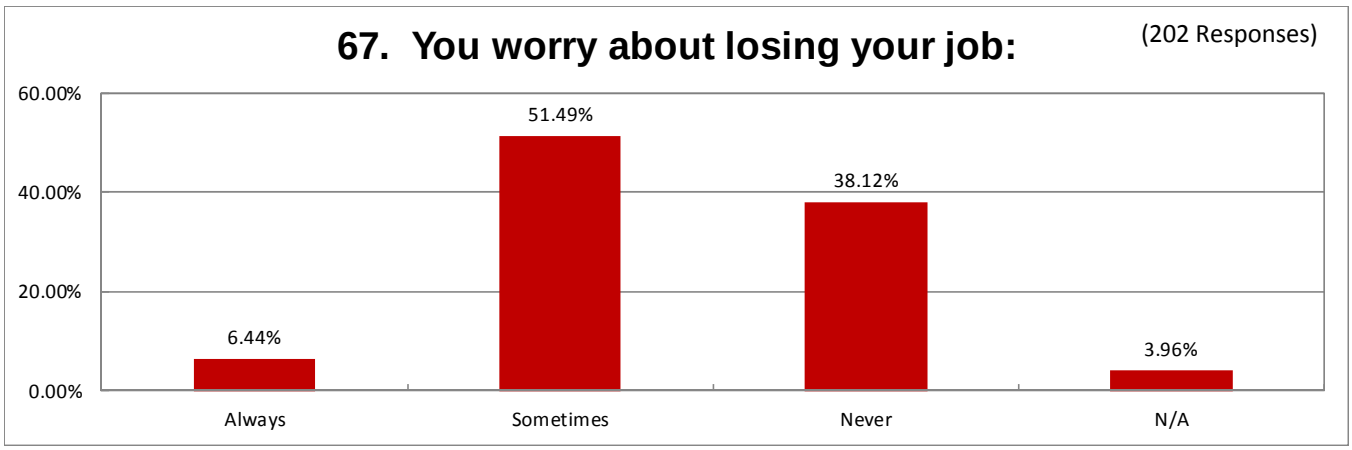

62. You get a flu shot each year:
(204 Responses)
60.00%
40.00%
20.00%
0.00%
49.02%
17.65%
32.35%
0.98%
Always
Sometimes
Never
N/A

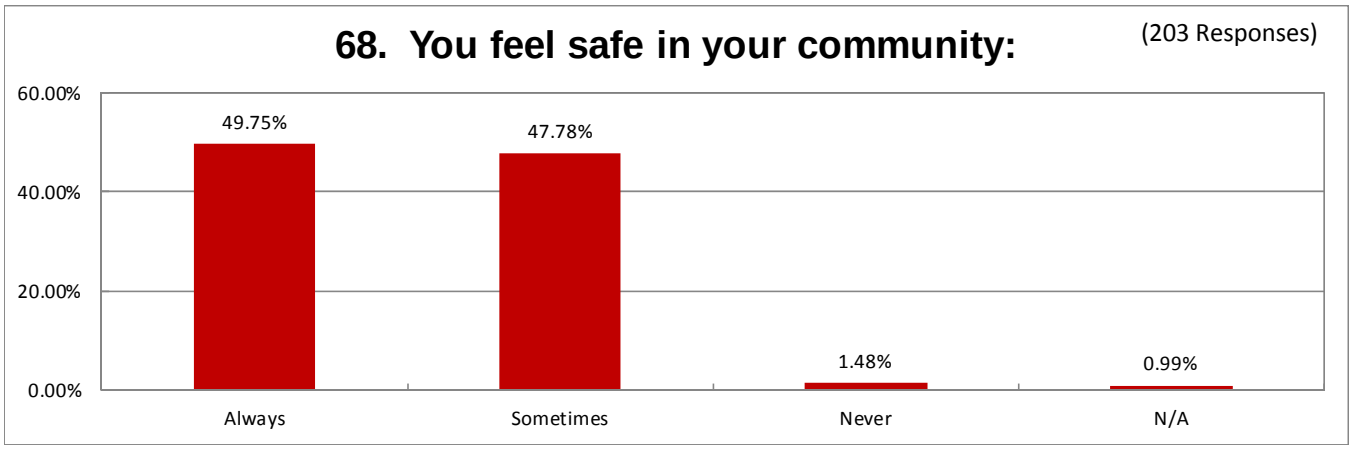

63. You get enough sleep each night (7-9 hours):
(204 Responses)
80.00%
60.00%
40.00%
20.00%
0.00%
29.90%
61.27%
8.82%
0.00%
Always
Sometimes
Never
N/A

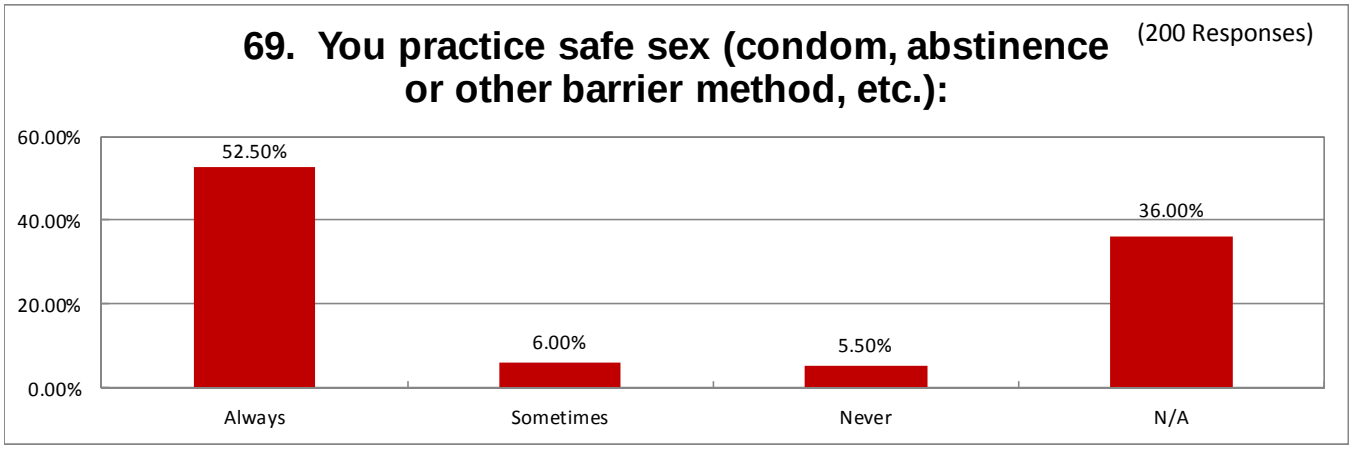

64. You feel stressed out:
(201 Responses)
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
13.93%
78.11%
6.97%
1.00%
Always
Sometimes
Never
N/A

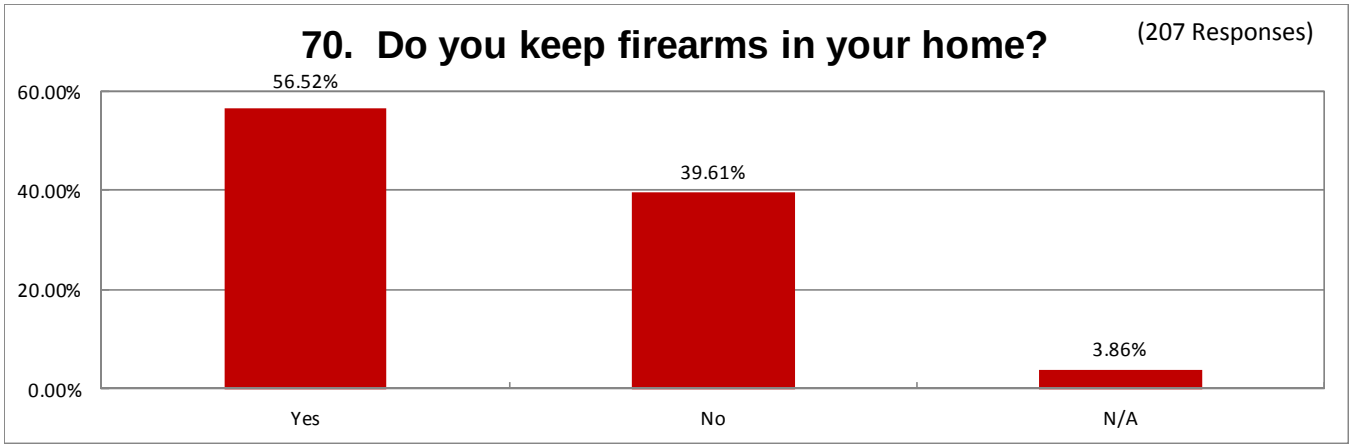

65. You feel happy about your life:
(203 Responses)
60.00%
40.00%
20.00%
0.00%
39.90%
57.14%
2.96%
0.00%
Always
Sometimes
Never
N/A

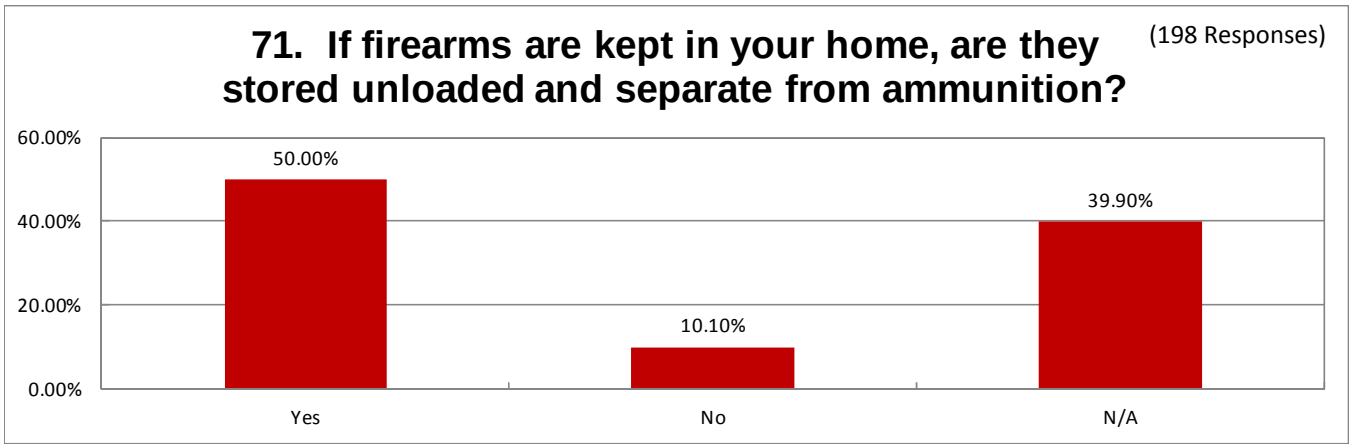

66. You feel lonely:
(201 Responses)
60.00%
40.00%
20.00%
0.00%
4.48%
44.78%
48.26%
2.49%
Always
Sometimes
Never
N/A

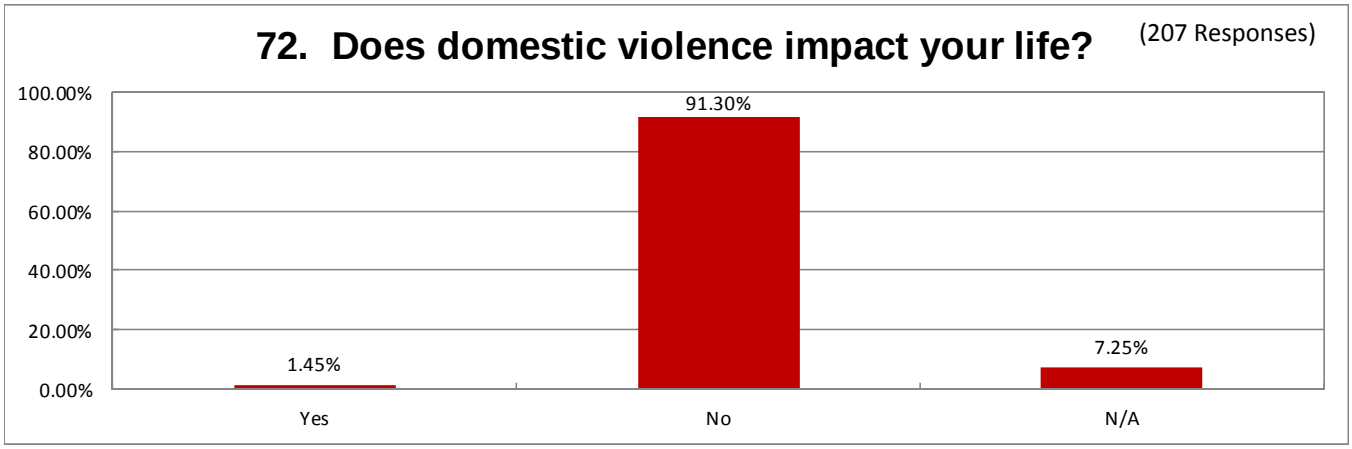

67. You worry about losing your job:
(202 Responses)
60.00%
40.00%
20.00%
0.00%
6.44%
51.49%
38.12%
3.96%
Always
Sometimes
Never
N/A

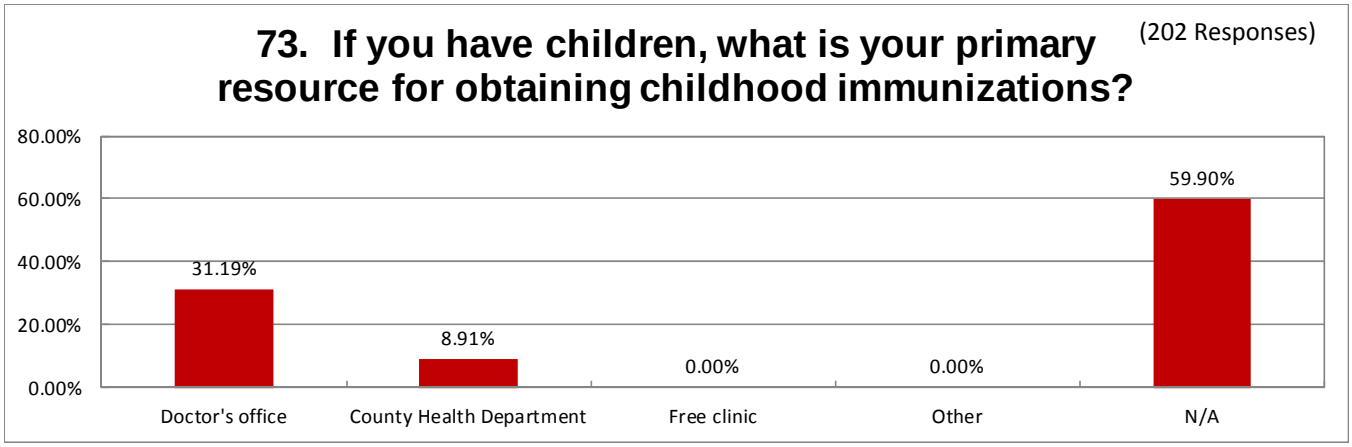

68. You feel safe in your community:
(203 Responses)
60.00%
40.00%
20.00%
0.00%
49.75%
47.78%
1.48%
0.99%
Always
Sometimes
Never
N/A


69. You practice safe sex (condom, abstinence or other barrier method, etc.):
(200 Responses)
60.00%
40.00%
20.00%
0.00%
52.50%
6.00%
5.50%
36.00%
Always
Sometimes
Never
N/A


70. Do you keep firearms in your home?
(207 Responses)
60.00%
40.00%
20.00%
0.00%
56.52%
39.61%
3.86%
Yes
No
N/A


71. If firearms are kept in your home, are they stored unloaded and separate from ammunition?
(198 Responses)
60.00%
40.00%
20.00%
0.00%
50.00%
10.10%
39.90%
Yes
No
N/A


72. Does domestic violence impact your life?
(207 Responses)
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
1.45%
91.30%
7.25%
Yes
No
N/A


73. If you have children, what is your primary resource for obtaining childhood immunizations?
(202 Responses)
80.00%
60.00%
40.00%
20.00%
0.00%
31.19%
8.91%
0.00%
0.00%
59.90%
Doctor's office
County Health Department
Free clinic
Other
N/A

SOURCES

Sources

2011.1 Nielson Demographic Update, The Nielson Company, April 2011

Regional Economic Conditions (RECON). 2006-2010, Federal Deposit Insurance Corporation, 8 Dec. 2011 < http://www2.fdic.gov/recon/index.asp>

United States Department of Labor: Bureau of Labor Statistics. 2010. U.S. Department of Census. 8 Nov. 2011 <http://www.bls.gov/cew/>.

2010 Poverty and Median Income Estimates – Counties, U.S. Census Bureau, Small Areas Estimate Branch, November 2011.

2009 Poverty and Median Income Estimates – Counties, U.S. Census Bureau, Small Areas Estimate Branch, December 2010.

2008 Poverty and Median Income Estimates – Counties, U.S. Census Bureau, Small Areas Estimate Branch, November 2009.

2007 Poverty and Median Income Estimates – Counties, U.S. Census Bureau, Small Areas Estimate Branch, December 2008.

2009 Health Insurance Coverage Status for Counties and States: Interactive Tables. U.S. Census Bureau, Small Area Health Insurance Estimates. 13 Jan. 2012 <http://www.census.gov/did/www/sahie/data/2009/tables.html>.

County Health Rankings: Mobilizing Action Toward Community Health. 2011. Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. 30 Nov. 2011 <http://www.countyhealthrankings.org>.

Community Health Status Indicators: CHSI 2009. U.S. Department of Health & Human Services. 8 Nov. 2011 <http://communityhealth.hhs.gov/>.

HealthyPeople.gov. 2011. U.S. Department of Health and Human Services. 30 Nov. 2011 <http://www.healthypeople.gov/>.

Missouri Department of Health and Senior Services. Death MICA. Retrieved April 20, 2010, from www.dhss.mo.gov/data/mica/DeathMICA

http://www.missouripartnership.com/Rgions/Southwest-Region. Retrieved 10/5/2012.

National Vital Statistics Reports, Volume 60, Number 4 & Report #29. www.cdc.gov. Deaths: Preliminary Data for 2010. Table 2. Estimated and Projected Number of Ambulatory Surgery Procedures by Procedure Category and Age. Estimated and Projected Number of Acute Care Discharges by Medical Diagnostic Category and Age.

www.costreportdata.com

Hospital Industry Data Institute. The Data Company of the Missouri Hospital Association. Discharges by Hospital, Age, and Major Service. PO103E – 2010.

Health Resources County Comparison Tool. http://www.arf.hrsa.gov/arfwebtool/Counties _search.asp. Retrieved 12/5/2012.

Merritt Hawkins an AMN Healthcare Company. A Review of Physician-To-Population Ratios. http://www.merritthawkins.com/pdf/a-review-of-physician-to-population-ratios.pdf. Retrieved 10/18/2012.

Healthcare Strategy Group. Advanced Manpower Planning. http://www.healthcarestrategygroup.com/newsletters/article.php?show=advanced_manpower. Retrieved 10/18/2012.