



Lane County Community Health Needs Assessment

Brian Sarpy, MHA
Chief Executive Officer
T: 620.397.5321 E: bsarpy@lchospital.org

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Introduction

To help form future decisions and strategic planning, Lane County Hospital in Dighton, Kansas conducted a Community Health Needs Assessment (CHNA).

The CHNA is a systematic, data-driven approach to determining the health status, behaviors, and needs of residents. The assessment provides information so that communities may identify issues of greatest concern and decide to commit resources to those areas, thereby making the greatest possible impact on community health status.

I invite your response to this report. As you read, please think about how to help us improve health and medical services in our area. We all live in, work in, and enjoy this wonderful community together. Together, we can make our community healthier for every one of us.



Brian Sarpy, MHA
Chief Executive Officer
Lane County Hospital

Lane County Hospital

Lane County Hospital (LCH) is a 25-bed Critical Access Hospital committed to improving the quality of life for all members of our community and will continue to strive to set the standard in the 21st century by providing innovative care, unprecedented levels of service and responding to changing customer needs.

Founded in 1959 with the primary purpose of administering health care in its most complete form to the Lane County residents, Lane County Hospital has since grown by offering an array of services to include radiology, laboratory, physical therapy, occupational therapy, emergency and skilled nursing care. Additionally, we offer mobile sonography, MRI, and Mammography. Monthly consultation services include podiatry. Lane County Hospital also operates a Rural Health Clinic that is open to serve the community Monday – Friday.

From an economic perspective, Lane County Hospital has a significant impact on the economy in the county. Based on the recently released Kansas Hospital Association Economic Impact report, the health care sector within Lane County accounted for an estimated 7.5 percent of Lane County's total employment, or about 115 jobs, in 2016. Further, the study's authors calculated economic multipliers for 13 health care sectors and estimated that health care directly and indirectly accounted for 139 jobs throughout the county economy. They go on to estimate that these same sectors accounted for more than \$6,347,000 in total county income and about \$487,000 in county retail sales. See Attachment A for a complete copy of the Economic Impact Report.

Assessment Methodology

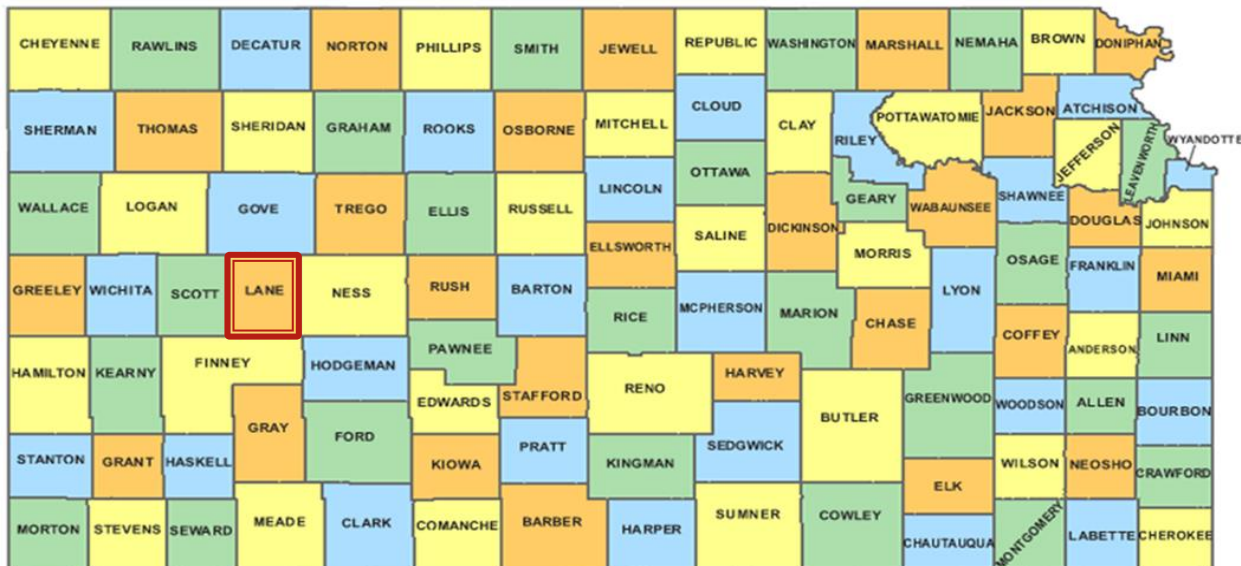
The CHNA report incorporates data from both quantitative and qualitative sources. Quantitative data input includes primary research (the Lane County Hospital Survey) and secondary research (vital statistics and other existing health-related data); these quantitative components allow for trending and comparison to benchmark data at the state and national levels.

While this assessment is quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community's health needs.

Service Area

Lane County Hospital primarily serves Lane County residents in zip codes 67839 and 67850. This service area is defined based on the location of the medical facilities, the geographic distance to other hospitals, and the history of usage by consumers. Located in the hospital's service are the communities of Dighton and Healy.

Figure 1: SERVICE AREA FOR LANE COUNTY HOSPITAL



Demographics

The demographic makeup of the Lane County Hospital service area is as follows:

	Lane County	Kansas
POPULATION		
Population estimates, July 1, 2017	1,559	2,913,123
Population estimates, July 1, 2016	1,636	2,907,289
Population, percent change - April 1, 2010 (estimates base) to July 1, 2017	-10.90%	2.10%
Population, percent change - April 1, 2010 (estimates base) to July 1, 2016	-6.50%	1.90%
AGE and SEX		
Persons under 5 years, percent, July 1, 2016	6.70%	6.70%
Persons under 18 years, percent, July 1, 2016	22.60%	24.60%
Persons 65 years and over, percent, July 1, 2016	23.00%	15.00%
Female persons, percent, July 1, 2016	50.70%	50.20%
Male persons, percent, July 1, 2016	49.30%	50.40%
RACE		
White alone, percent, July 1, 2016	94.10%	86.60%
Black or African American alone, percent, July 1, 2016	1.10%	6.20%
American Indian and Alaska Native alone, percent, July 1, 2016	1.40%	1.20%
Asian alone, percent, July 1, 2016	0.20%	3.00%
Native Hawaiian and Other Pacific Islander alone, percent, July 1, 2016	0.10%	0.10%
Two or More Races, percent, July 1, 2016	3.10%	2.90%
Hispanic or Latino, percent, July 1, 2016	7.60%	11.60%
EDUCATION		
High school graduate or higher, percent of persons age 25 years+, 2012-2016	93.10%	90.30%
Bachelor's degree or higher, percent of persons age 25 years+, 2012-2016	21.30%	31.60%
HEALTH		
With a disability, under age 65 years, percent, 2012-2016	11.30%	8.70%
Persons without health insurance, under age 65 years, percent	12.20%	10.60%
INCOME & POVERTY		
Median household income (in 2016 dollars), 2012-2016	\$58,077	\$53,571
Per capita income in past 12 months (in 2016 dollars), 2012-2016	\$31,329	\$28,478
Persons in poverty, percent	10.10%	12.10%

Source: U.S. Census Bureau

Primary & Secondary Data

Lane County Hospital published a survey for community members to complete regarding the quality of local health care services and an opportunity to provide additional comments. In addition to receiving feedback from the written survey, hospital leadership conducted formal and informal individual and focus group sessions with people within the community. From the written survey and feedback, opportunities for improvement were identified.

Written Survey

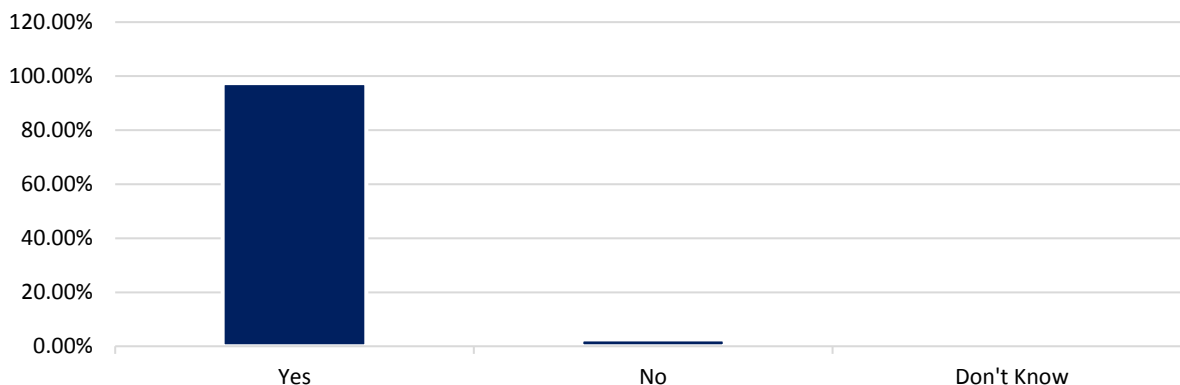
Within this section are the results of the written survey that was available from January – March 2018. Comments for open ended questions follow that specific question.

Q1: What is your home zip code?

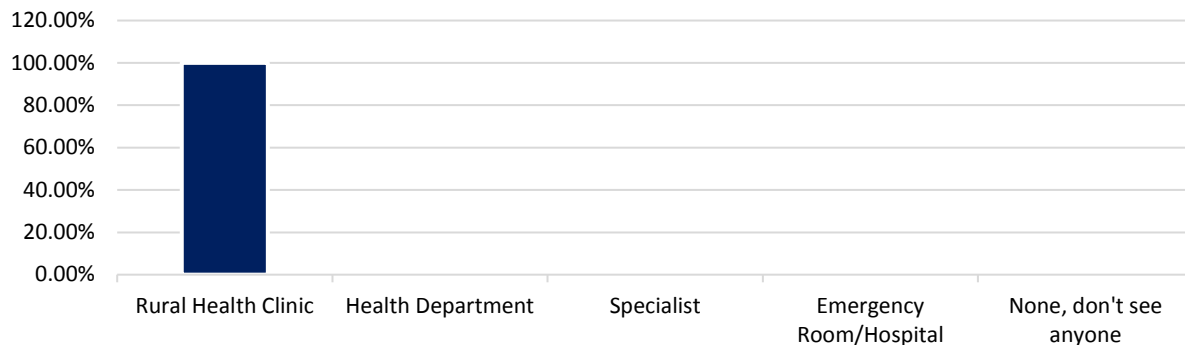


All respondents that answered this question indicated their zip code was 67839.

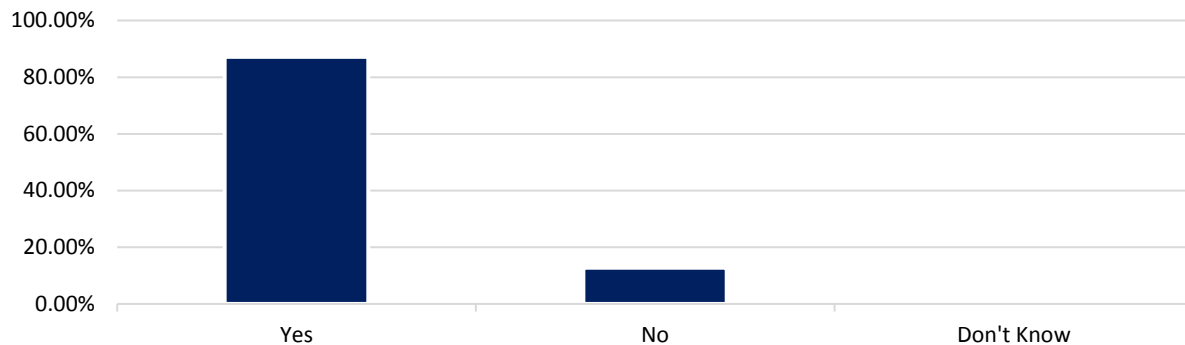
Q2: Do you use a family doctor for most of your routine healthcare?



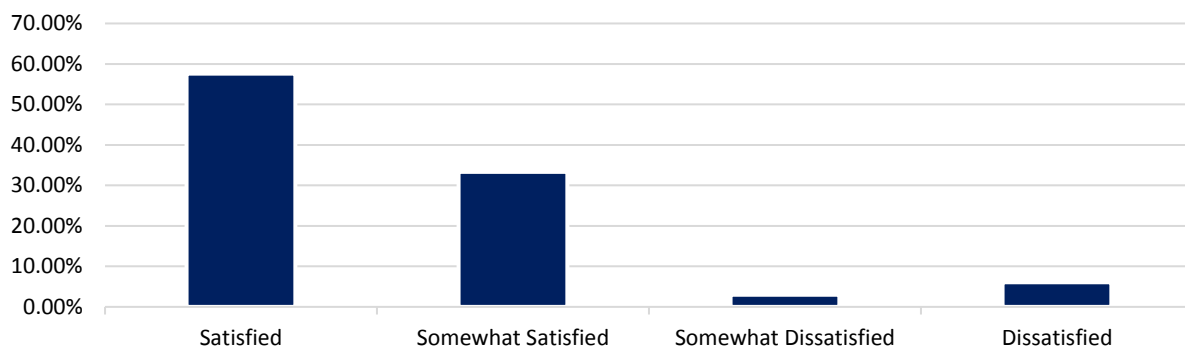
Q3: If no, then what kind of medical provider do you use for routine health care?



Q4: Have you or someone else in your household been to a family doctor in the Lane County service area?



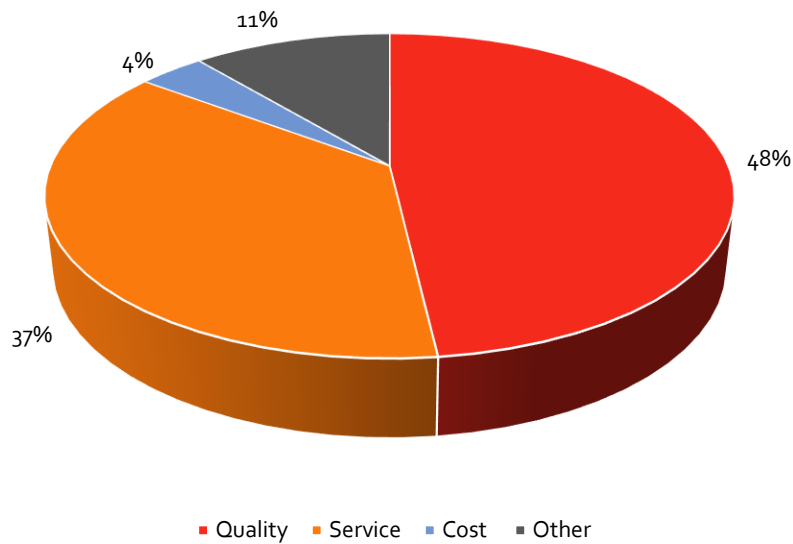
Q5: If yes, how would you describe your satisfaction with the quality of care by the doctor?



Q6: Why were you satisfied/dissatisfied?

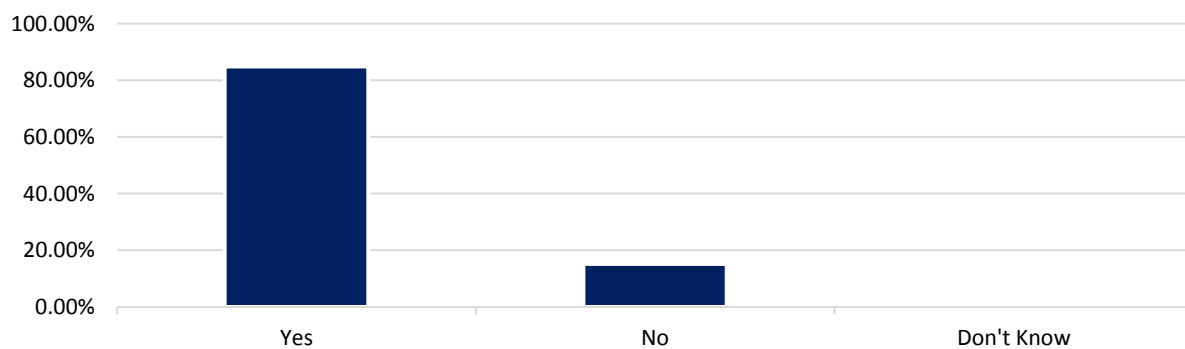


Question 6 Comments Categorized

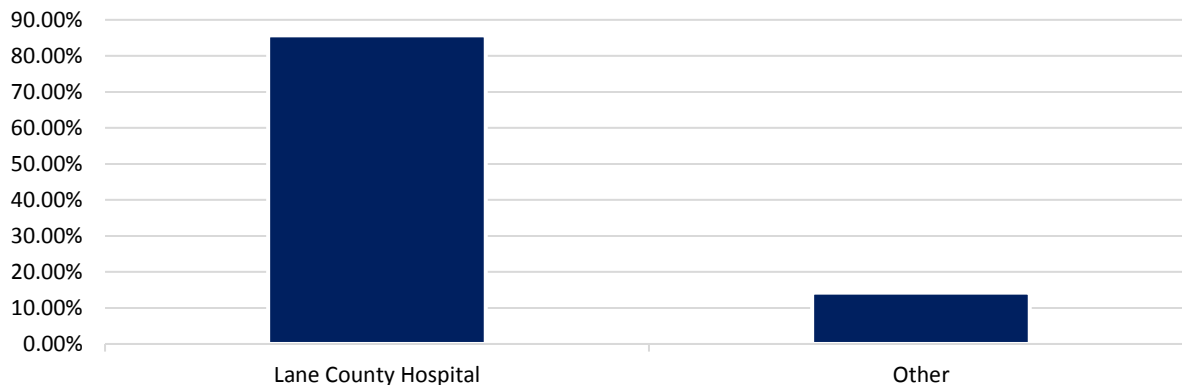


Some comments provided fell into one or more categories.

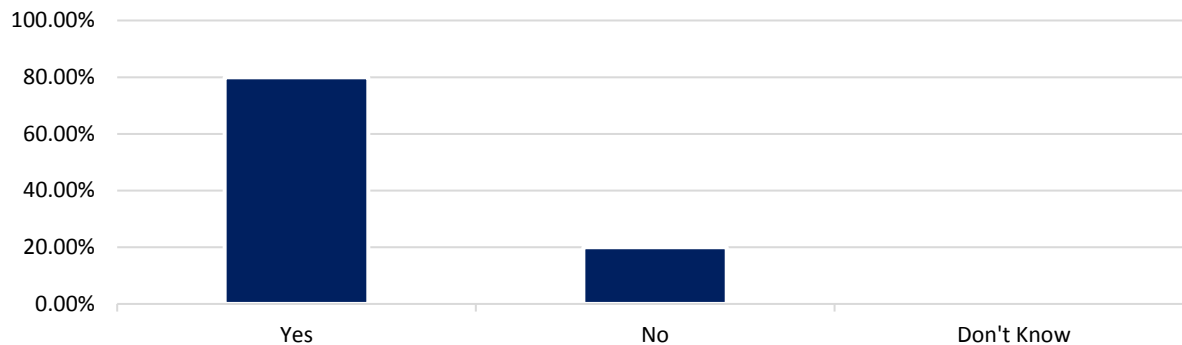
Q7: Have you or someone in your household used the services of a hospital in the past 24 months?



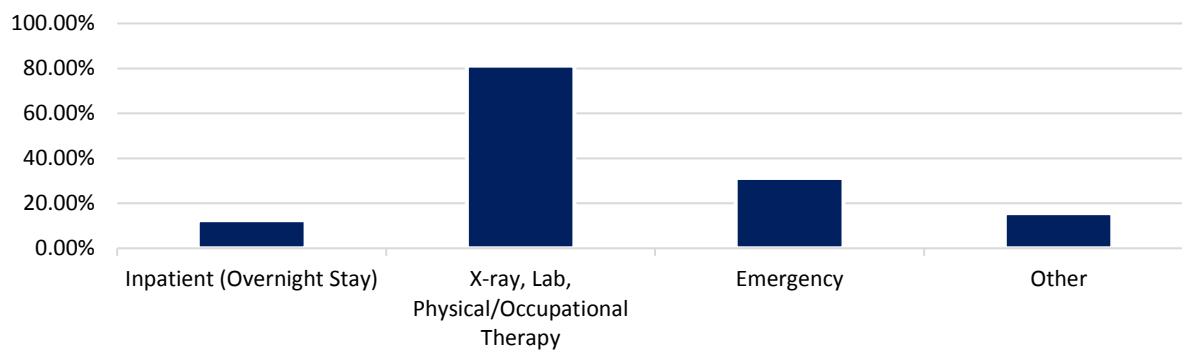
Q8: At which hospital(s) were services received?



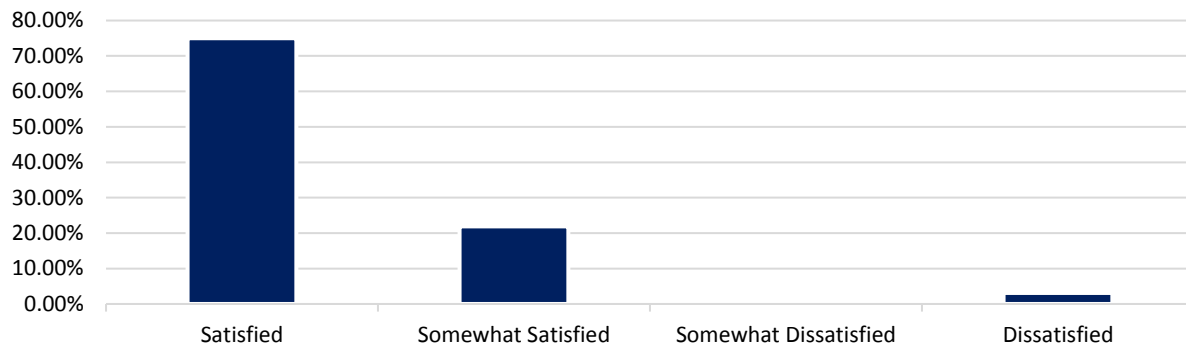
Q9: Have you or any members of your household ever used the services of Lane County Hospital?



Q10: Recalling the most recent visit to the Lane County Hospital, what type of service was obtained?



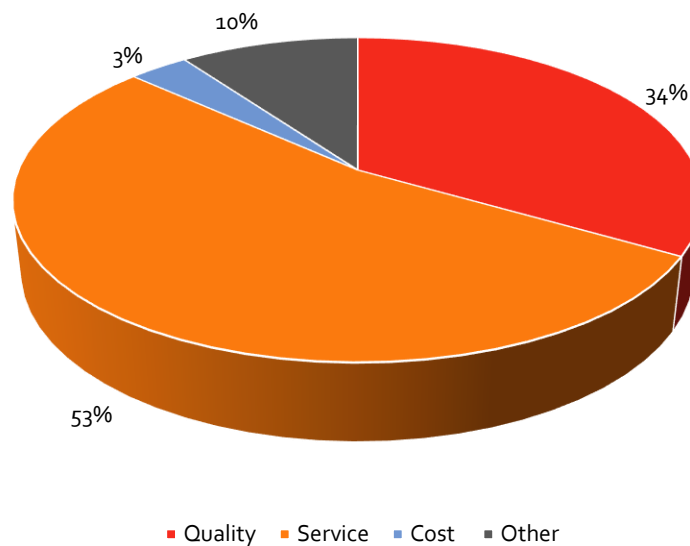
Q11: How would you describe your satisfaction with your last Lane County Hospital experience?



Q12: Why were you satisfied / dissatisfied?



Question 12 Comments Categorized

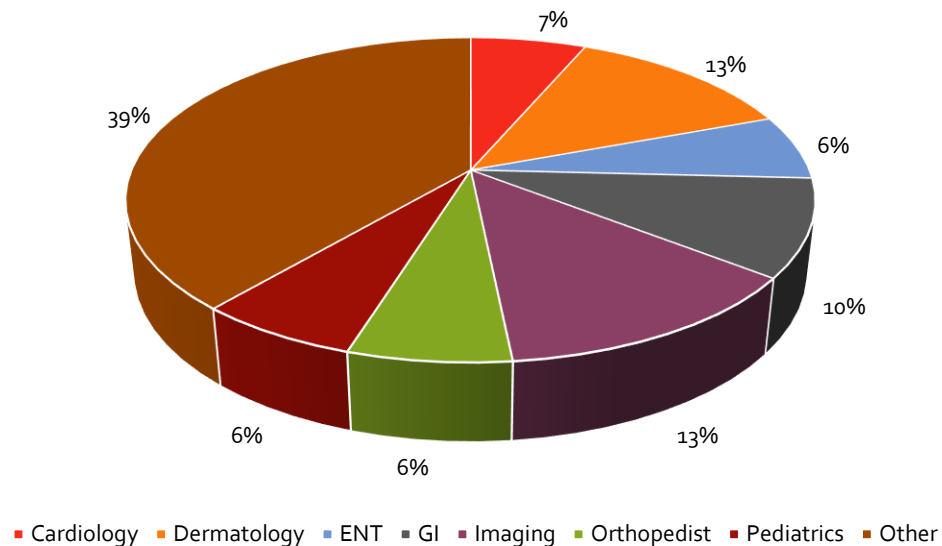


Some comments provided fell into one or more categories.

Q13: In the past 24 months, what type of medical specialist services have you or someone in your household used and where was that service provided?

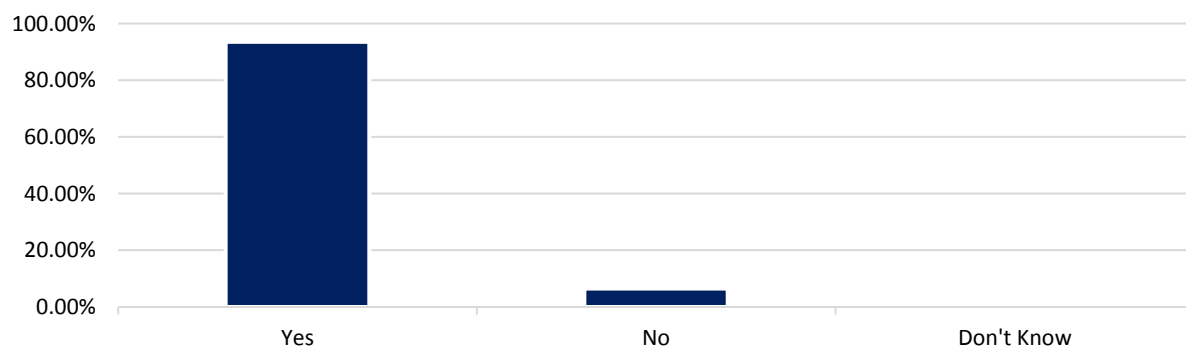


Question 13 Comments Categorized



Some comments provided fell into one or more categories.

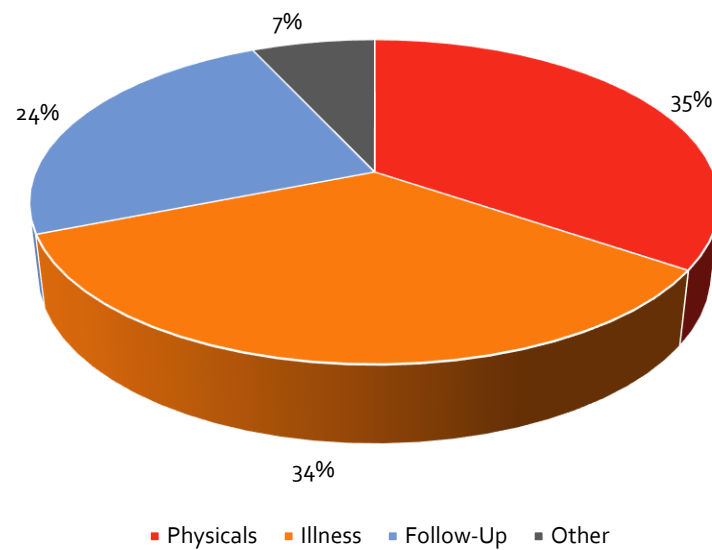
Q14: Have you or any members of your household ever used the services of the Lane County Clinic?



Q15: If yes, what type of services was obtained?

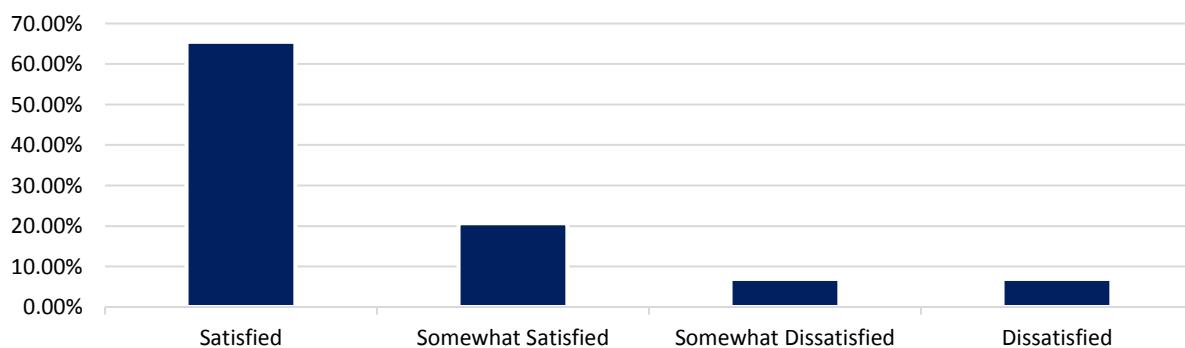


Question 15 Comments Categorized



Some comments provided fell into one or more categories.

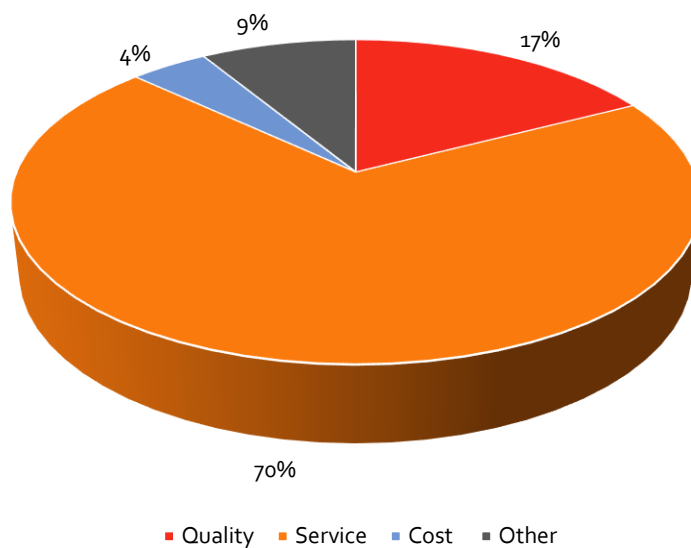
Q16: How would you describe your satisfaction with your Lane County Clinic experience?



Q17: Why were you satisfied / dissatisfied?



Question 17 Comments Categorized

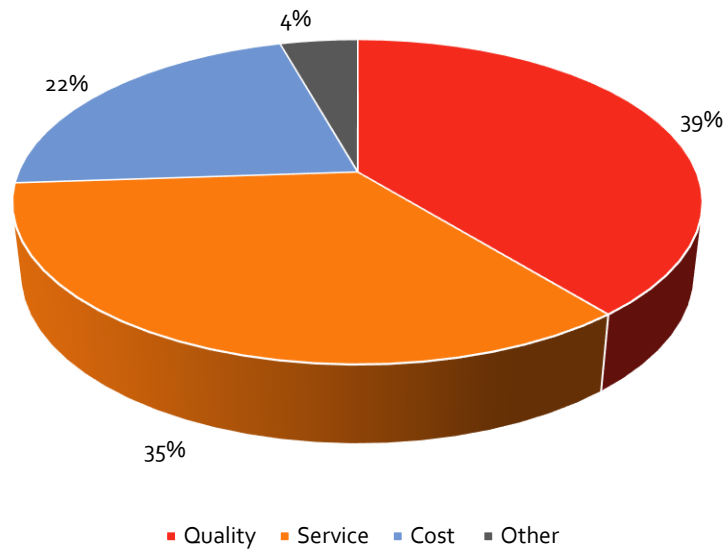


Some comments provided fell into one or more categories.

Q18: Please indicate any general concerns you have about health care in Lane County ?



Question 18 Comments Categorized



Some comments provided fell into one or more categories.

Focus Groups

Lane County leadership conducted three focus group sessions in the community. Topics included health related problems within the community, general health needs of the community, local health care delivery concerns, and suggestions on how the hospital can improve health and quality in the community. Below is feedback from these focus groups.

Health Related Problems in Community

- Elderly support (i.e. Meals on Wheels, Home Healthcare).
- More outreach services to support illnesses.
- Mental Health.
- Substance Abuse.
- Assistance for single parents.
- Safe daycare.

Health Care Needs in the Community

- Additional health advancements for lab, cancer treatment, etc.
- Mental Health and Substance Abuse education and treatment
- New physician
- Elderly support
- Education programs for community and schools
- Specialists (Neurologist, Rheumatology, Dermatologist, Urologist, Cardiology)

Overall Perception of Hospital and Community Program

- Pleased.
- Provider turnover, we need long term doctors and PA's.

How Can Hospital Improve Community Health and Quality

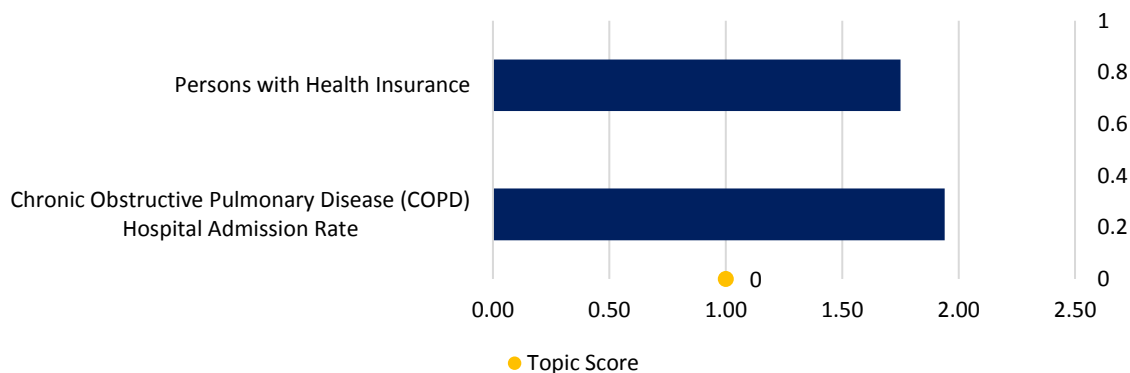
- Get involved and be visible in community. Be Proactive.
- Get a physician.
- Education.
- Need Health Fairs.

Health Related Information

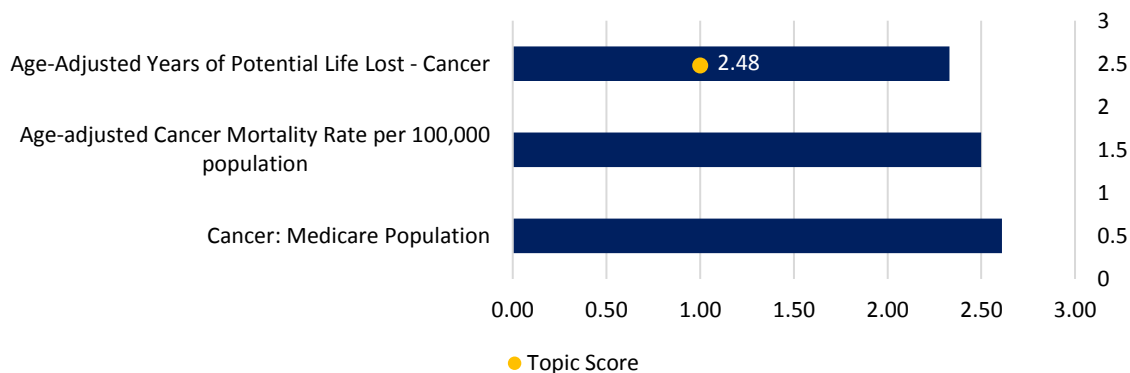
The health indicators and statistics provide information from which Lane County residents may infer several things about local health care needs. While some items provide an indication of need by type of service, other items suggest the amount and source of resources available to pay for health services. Health care planners can use this information as well as information gathered from interviews and surveys to evaluate overall community health needs.

For each indicator, retrieved from Kansas Rural Health Works, Lane County was assigned a score based on its comparison to other communities, whether health targets have been met, and the trend of the indicator value over time. These scores range from 0-3, where 0 indicates the best outcome and 3 the worst. For example, "Poverty Status by School Environment" has an indicator score of .17 out of 3.0, which means the outcome is positive. Whereas "Food Environment Index" has an indicator score of 2.61 out of 3.0, which means there are some concerns with this indicator. The topic scores shown on the graphs is a compilation score based on all indicators within that specific topic.

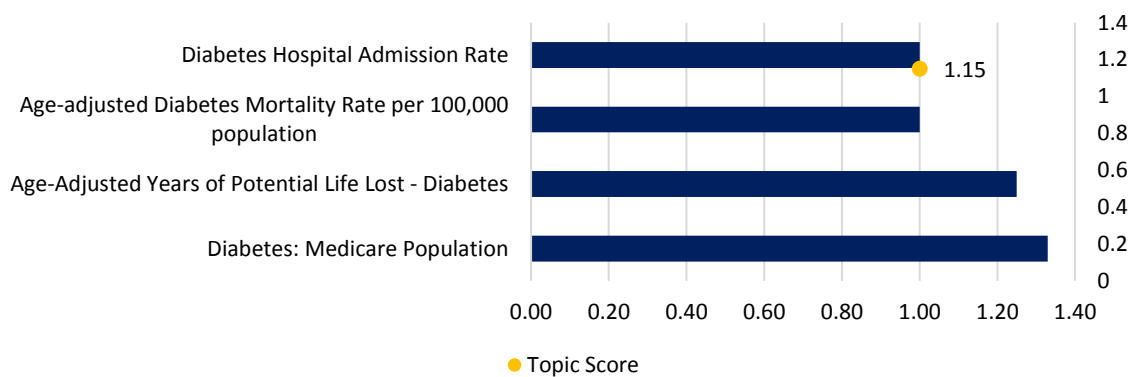
Access to Health Services



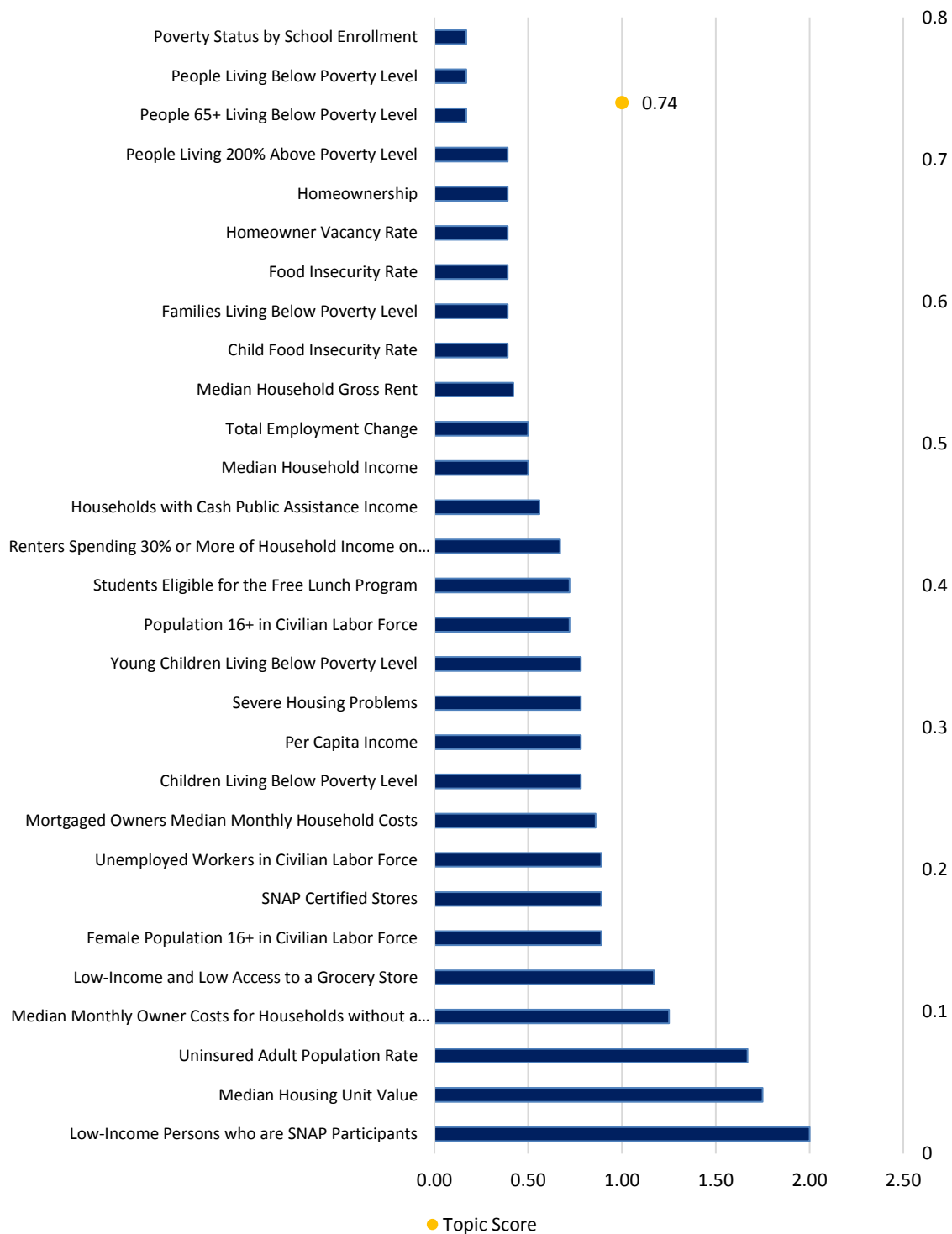
Cancer



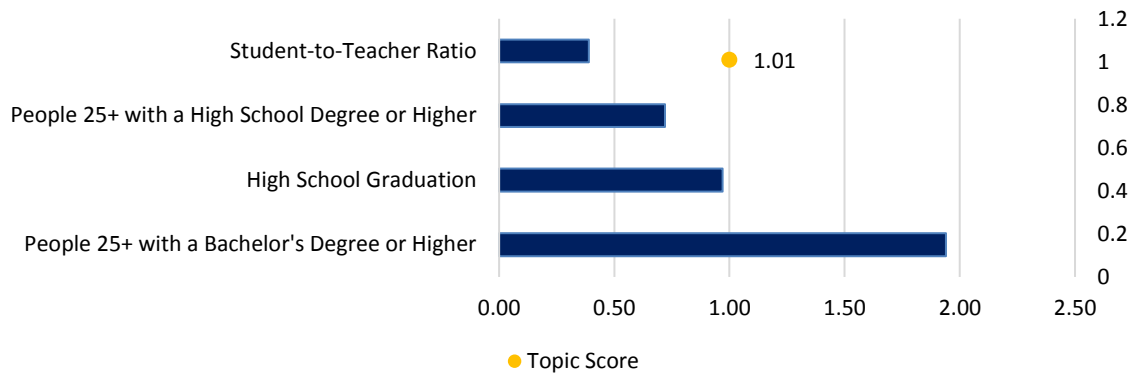
Diabetes



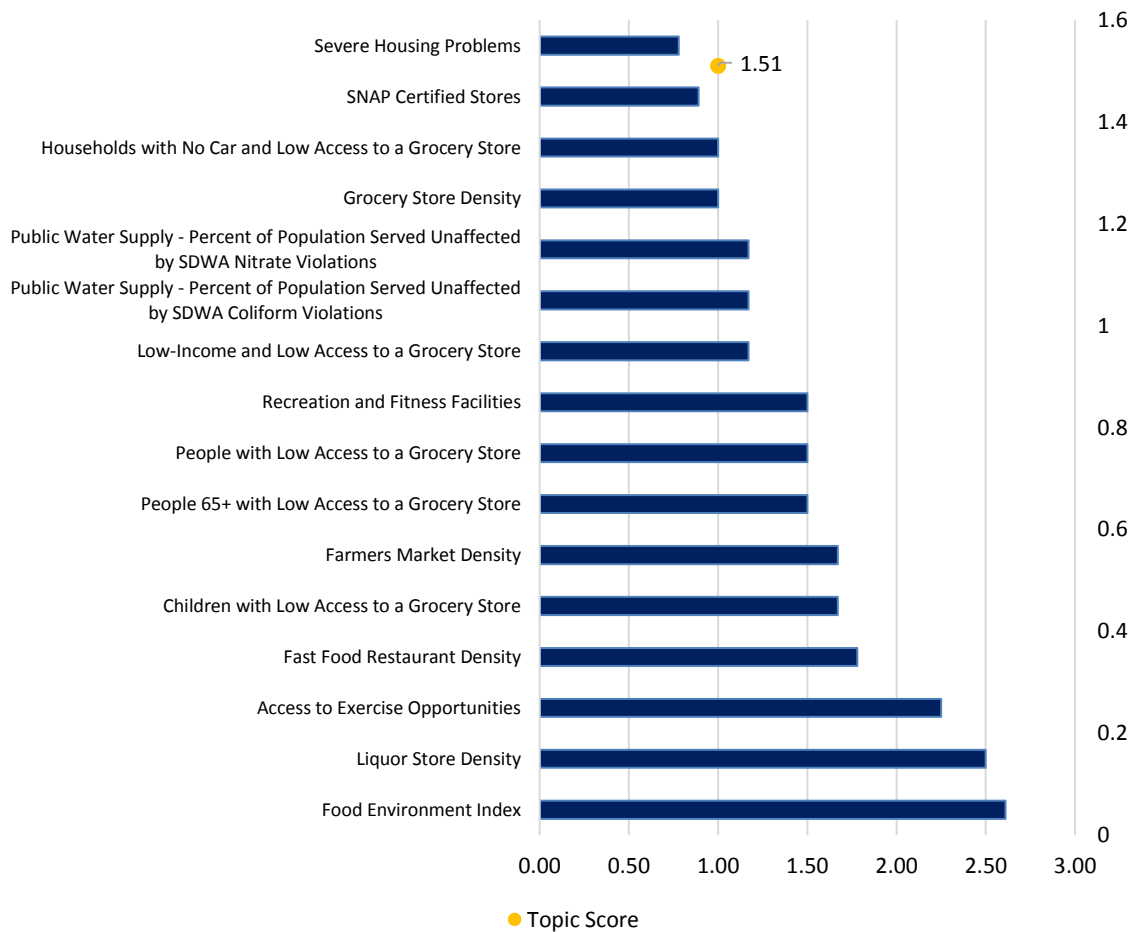
Economy



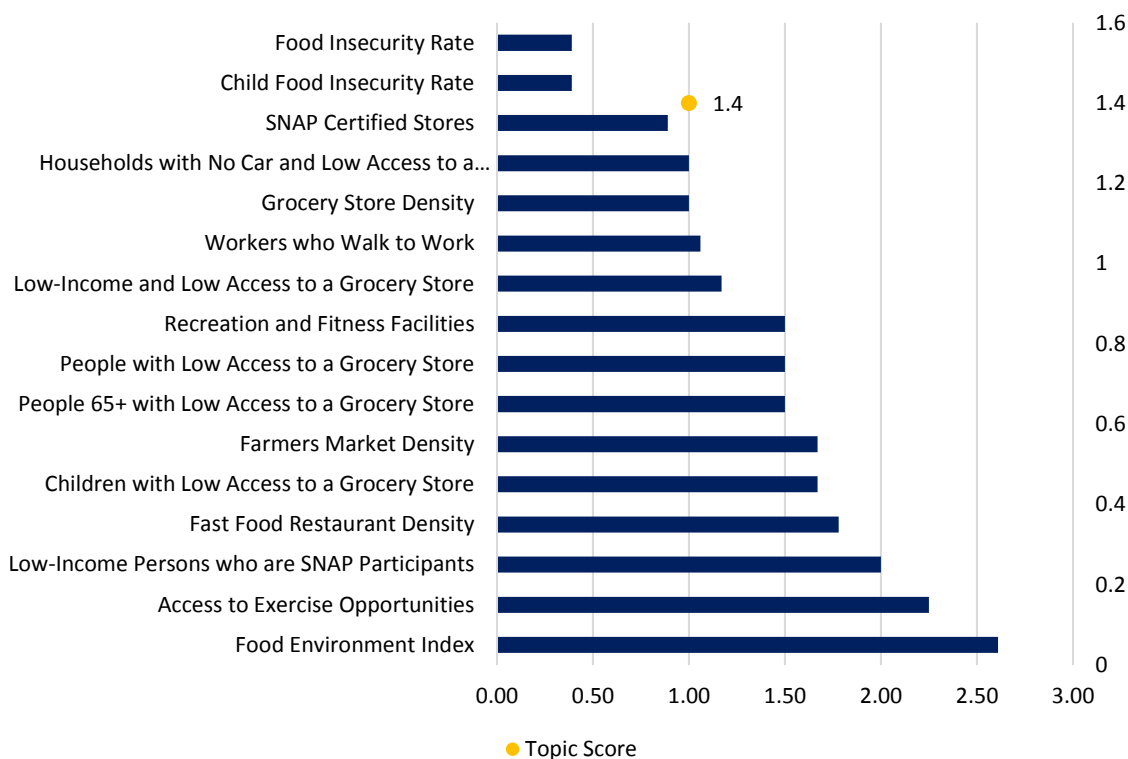
Education



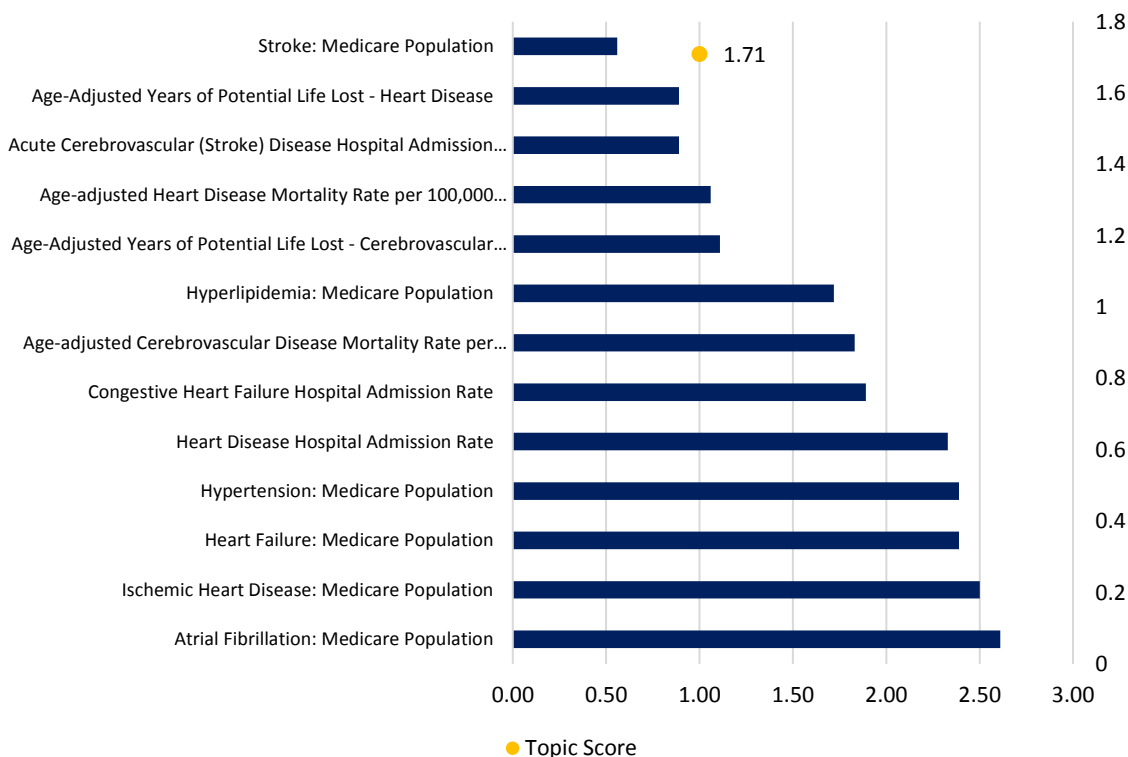
Environment



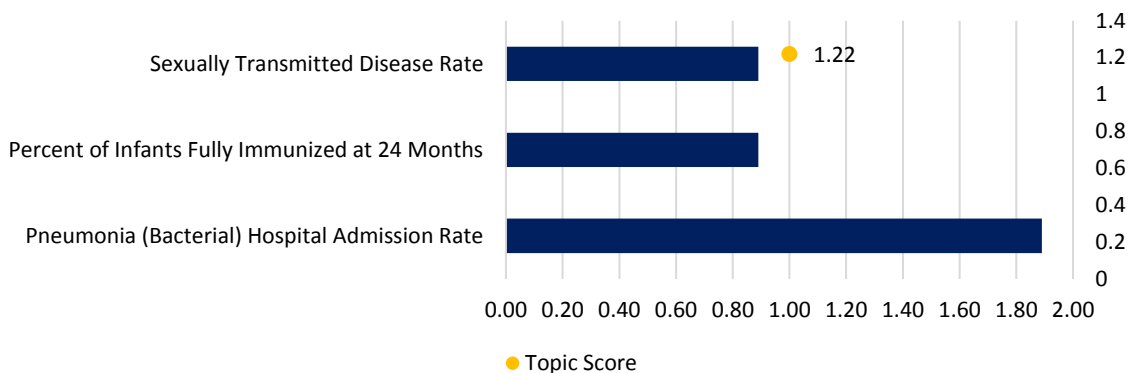
Exercise Nutrition & Weight



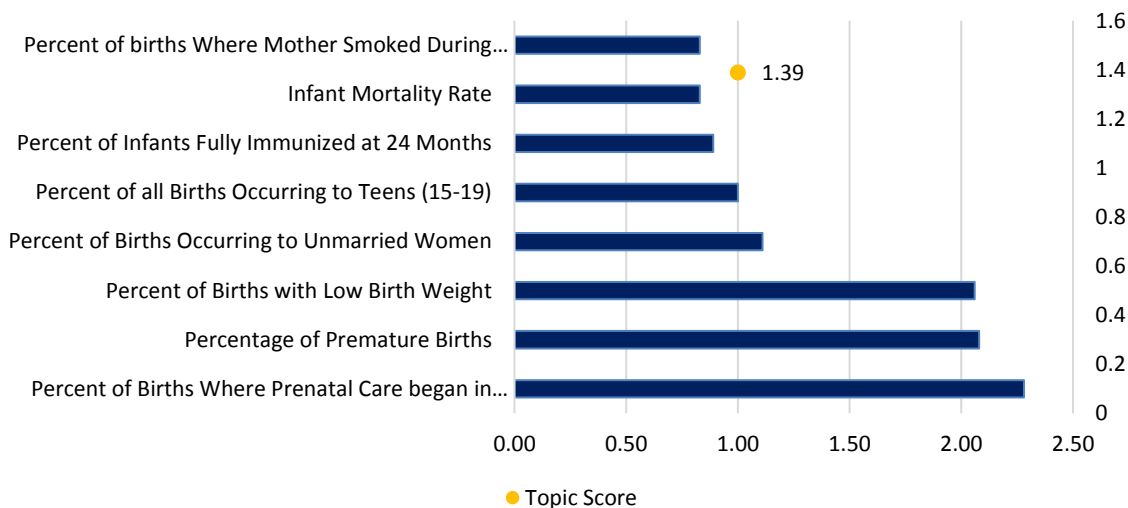
Heart Disease & Stroke



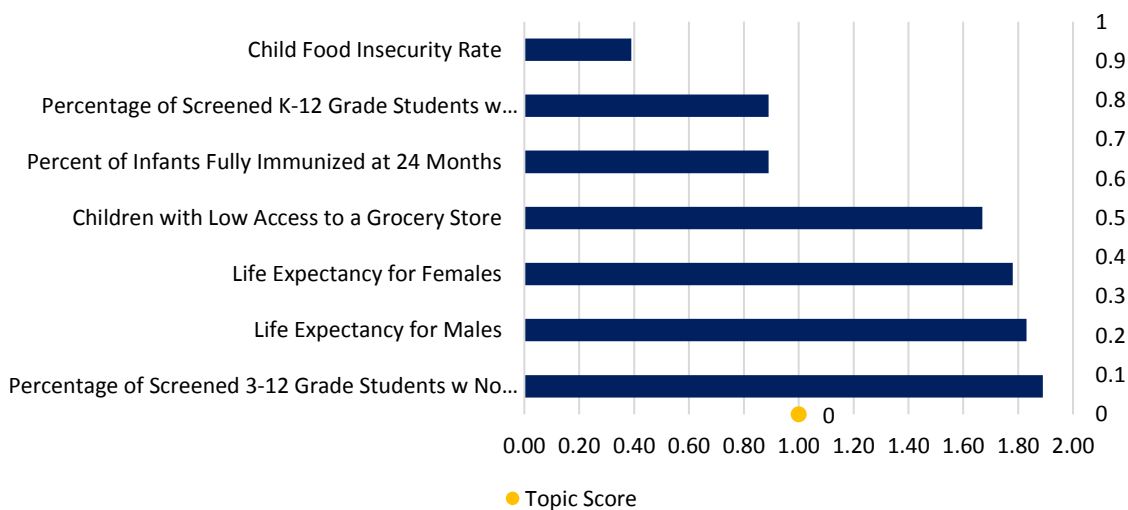
Immunizations & Infectious Disease



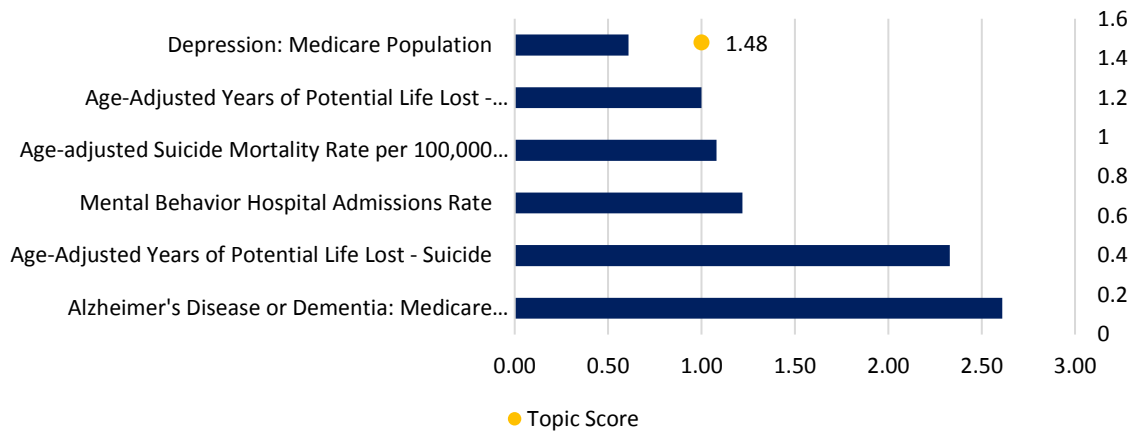
Maternal, Fetal & Infant Health



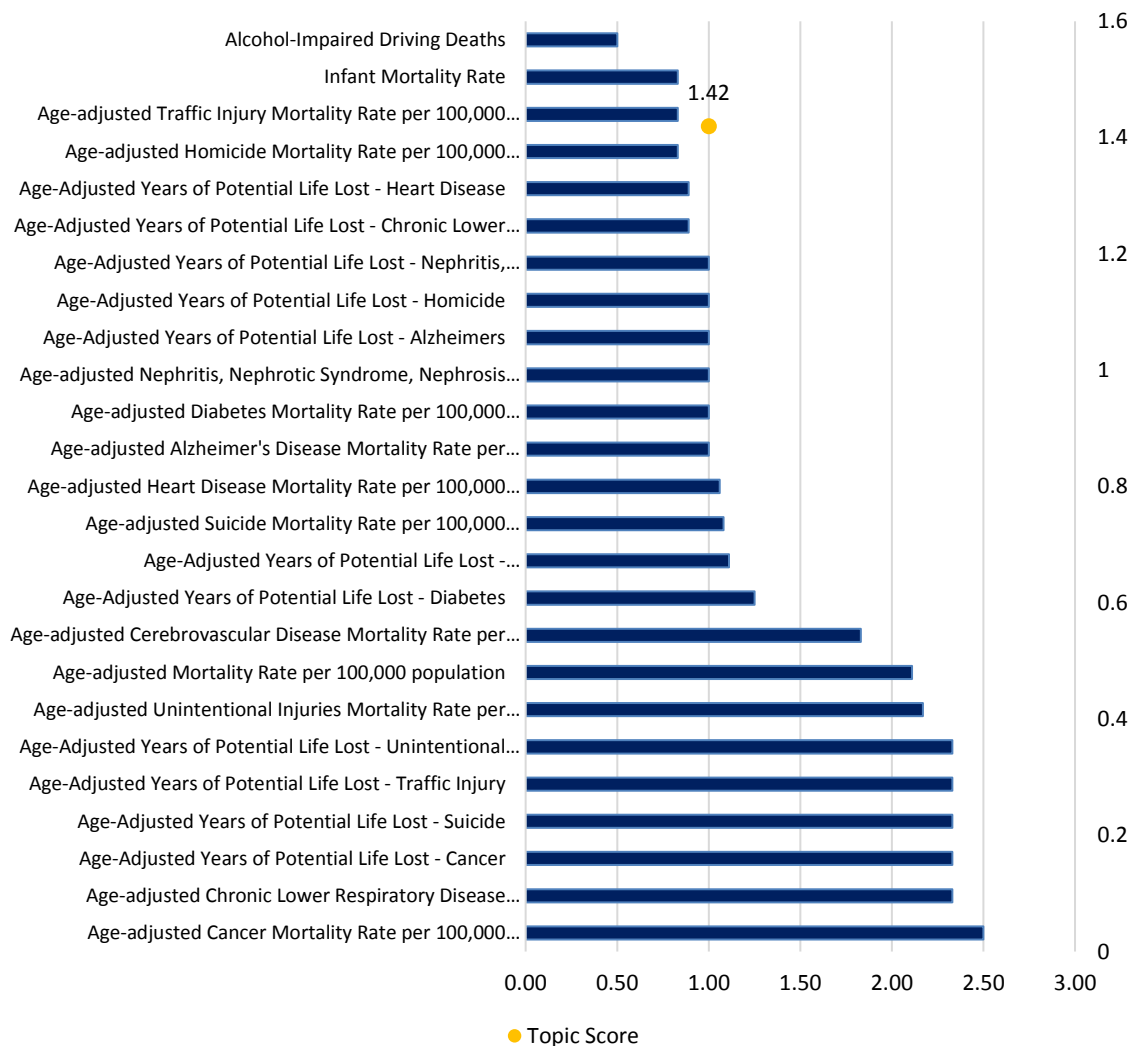
Mens, Womens & Childrens Health



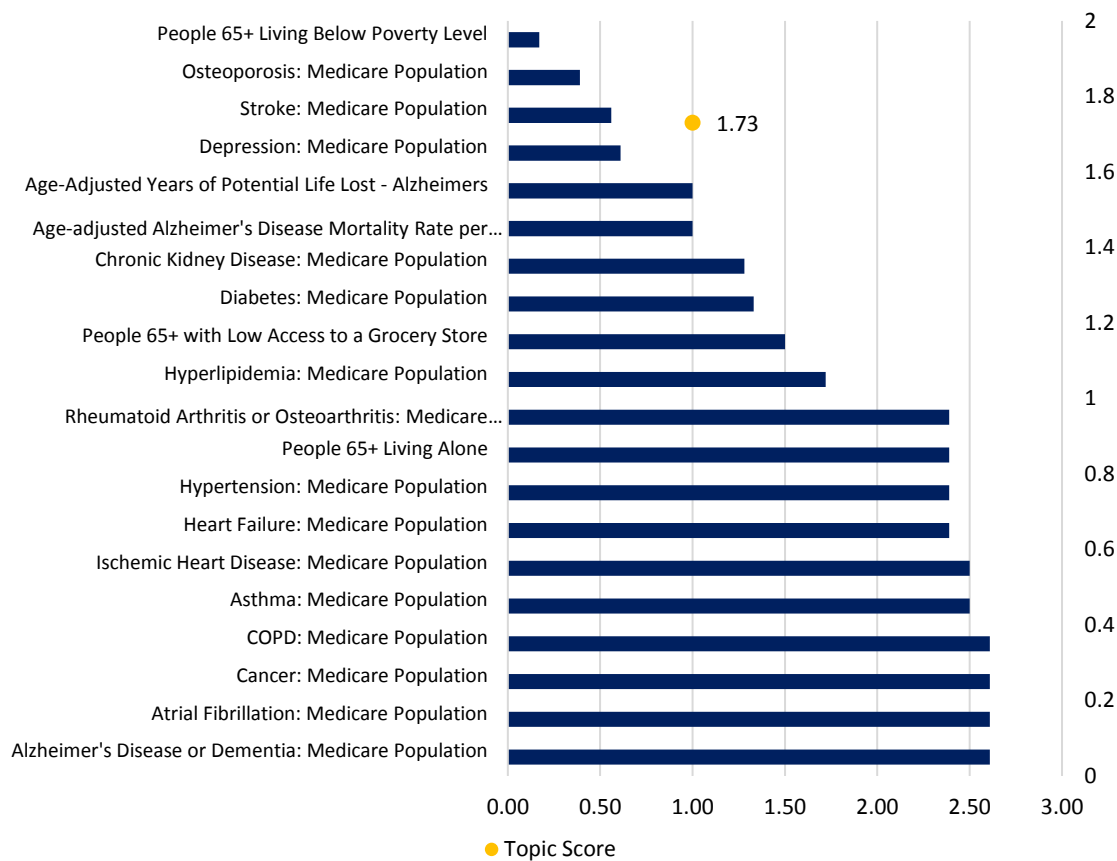
Mental Health & Mental Disorders



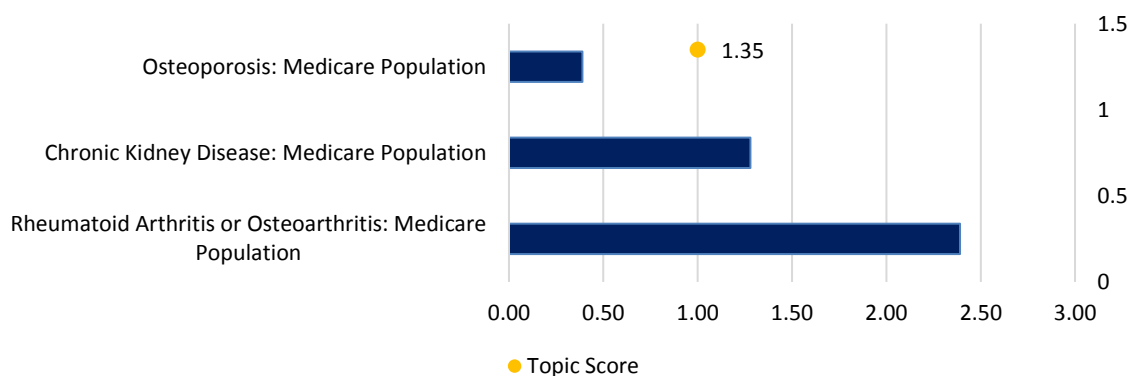
Mortality



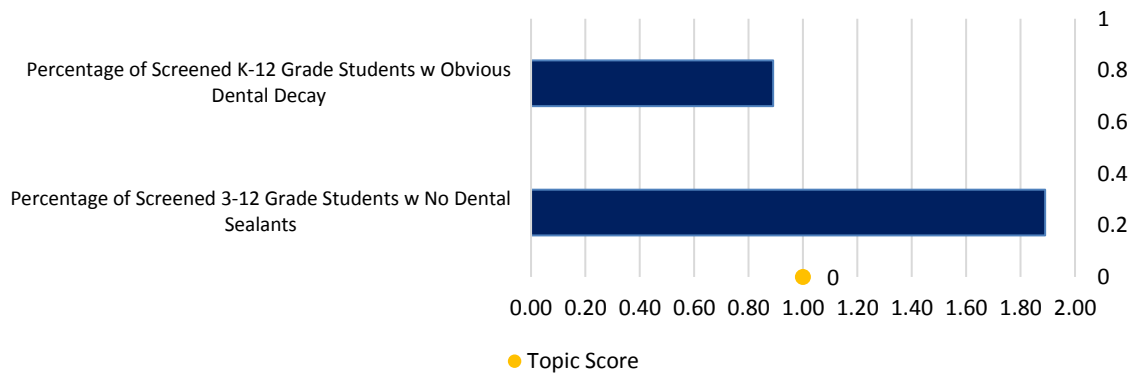
Older Adults & Aging



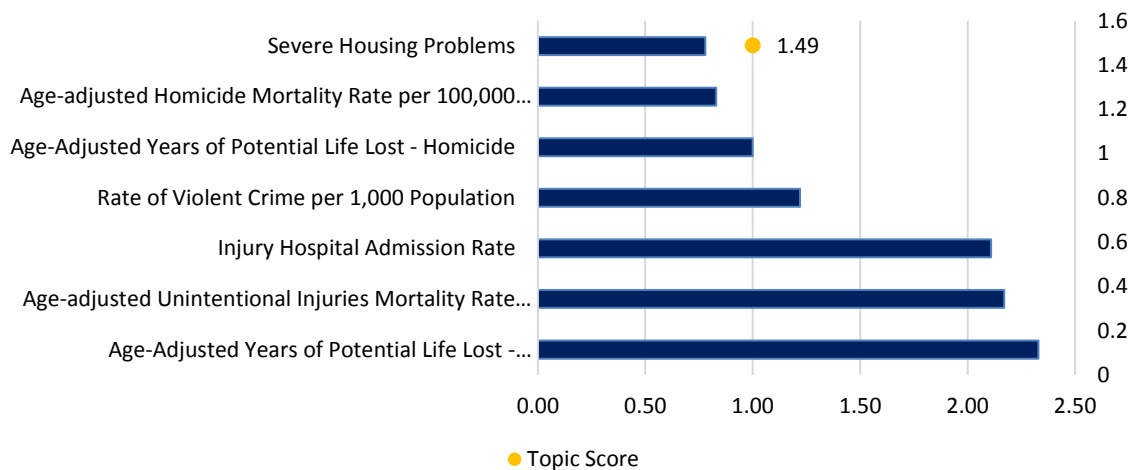
Other Chronic Diseases



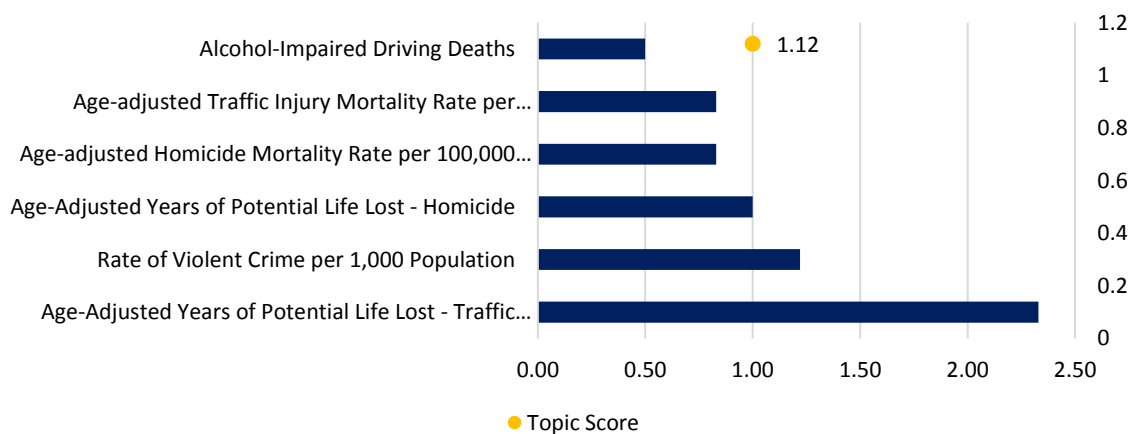
Oral Health



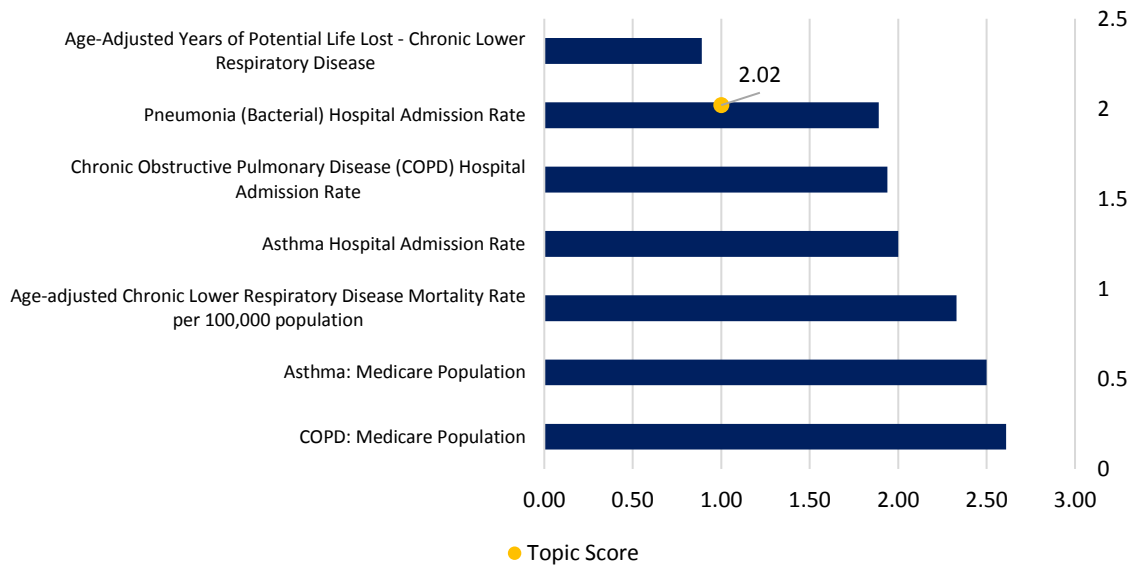
Prevention & Safety



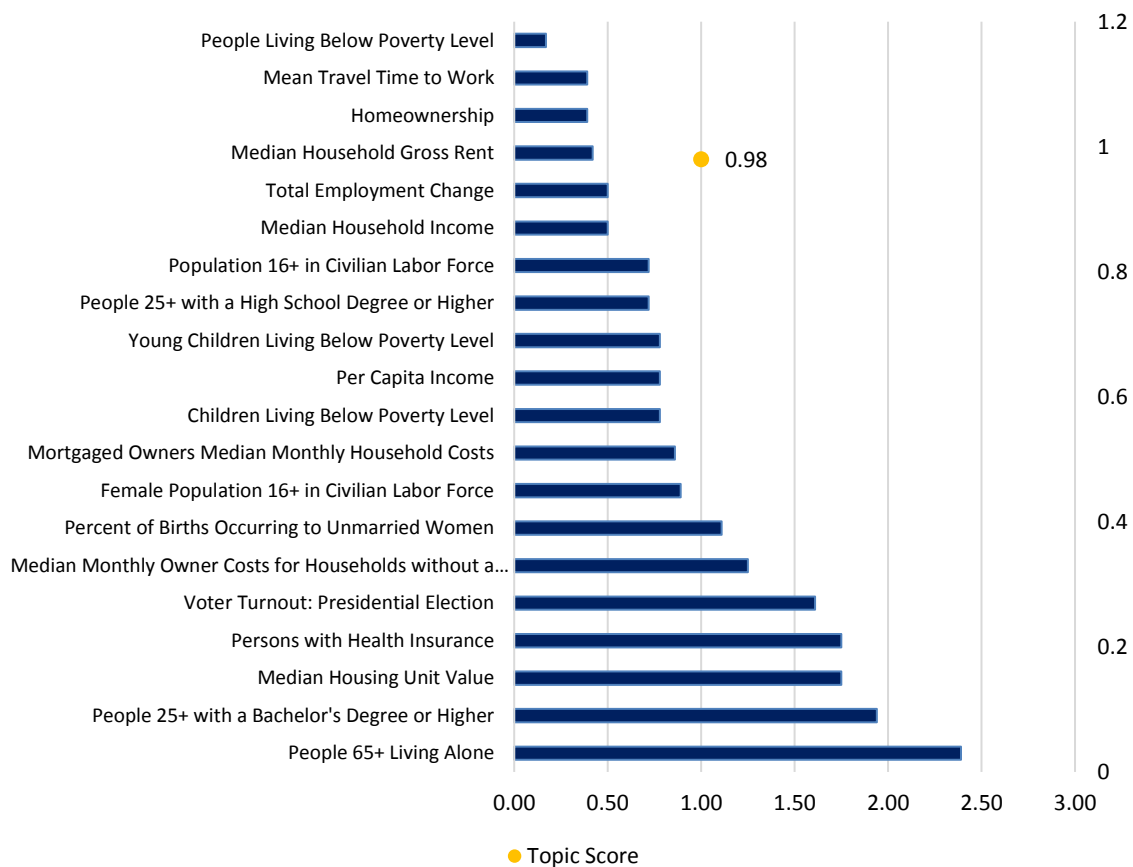
Public Safety



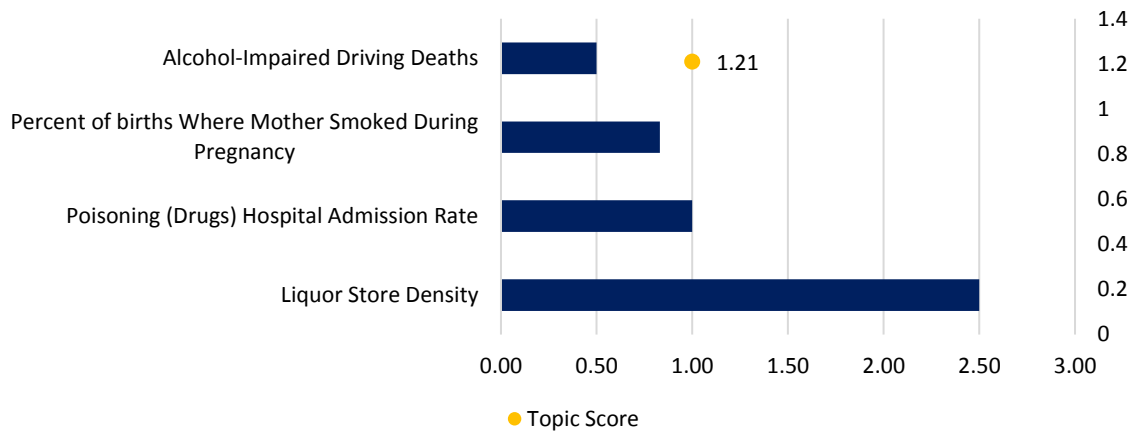
Respiratory Diseases



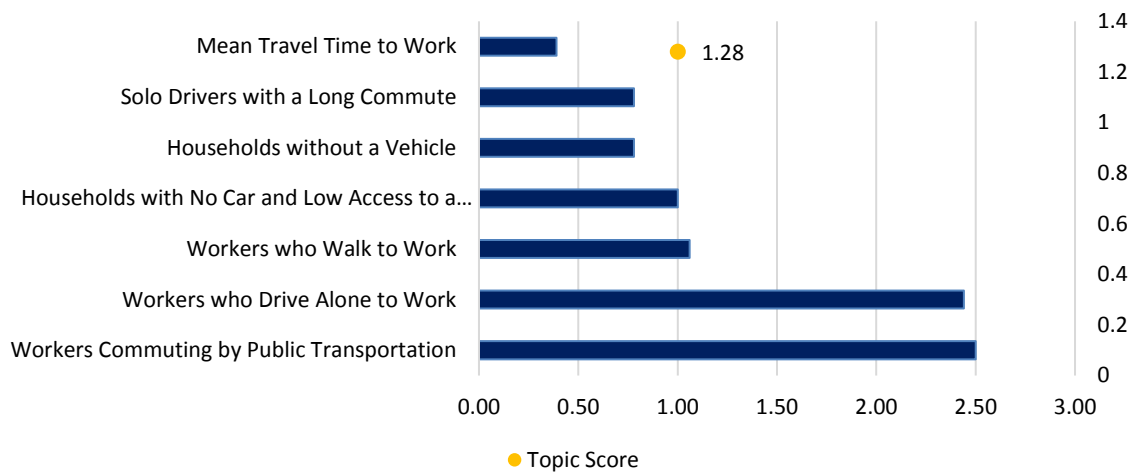
Social Environment



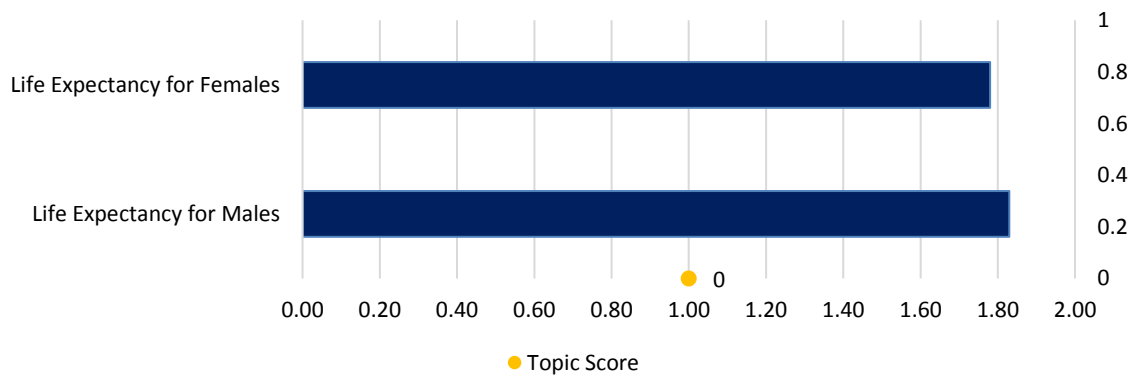
Substance Abuse



Transportation



Wellness & Lifestyle



Health Needs and Priorities

Following a review of the primary and secondary data the below categories are what we feel are the priority health needs for Lane County.

Priority 1 is a need that the hospital will solely focus on where as Priorities 2 and 3 will require that the hospital take the lead and partner with other county organizations in forming a coalition to address approaches on how to satisfy the identified. The projected outcomes for each priority are listed below the priority.

Priority 1: Health/Wellness/Prevention/Chronic Disease Prevention

- Improve hospital and clinic representation in the community.
- Enhance clinical (i.e. Ortho services, etc.) and non-clinical (i.e. education, health fairs, community organization membership, etc.) outreach services within the county.
- Continue ongoing efforts to recruit quality providers.

Priority 2: Behavioral Health / Substance Abuse

- Develop education, awareness events and programming in the community.
- Develop solutions to increase availability of counseling services within the county.

Priority 3: Elder Care Services

- Ensure that elderly residents can access a full range of assistance needed to meet health and household needs.
- Consider current status of home and community-based assistance and strengthen programs as needed.
- Consider the needs of the elderly living alone and meager financial resources.



The Importance of the Health Care Sector to the Economy of Lane County

Kansas Hospital Association
October 2017

Funding for this report provided by the Kansas Hospital Association



This report prepared by the Office of Local Government
Luke Willis, *Research Assistant*
Rebecca Bishop, *Extension Associate*
John Leatherman, *Director*

The Economics of Rural Health Care

The organization and delivery of health care services have undergone rapid evolution in recent years. For many Americans, the cost of services and access to care are important issues. This certainly is true in many rural areas where communities have struggled to maintain affordable, quality health care systems. As economic forces and technical advances continue to change health care, it is more important than ever for rural community leaders and health care providers to work together to ensure affordable, sustainable health care systems.

In an effort to provide useful information resources to rural community and health care leaders, the Kansas Hospital Association (KHA) has teamed with the Office of Local Government, a unit of the Department of Agricultural Economics and K-State Research and Extension, to develop this report as a component of the *Kansas Rural Health Works* program.

The purpose of this report is to provide information resources that may be used to communicate to community leaders and concerned citizens the relative importance of health care to the local economy.

Much of this information draws on the national Rural Health Works program sponsored by the Office of Rural Health Policy, an initiative led by Cooperative Extension Service specialists at Oklahoma State University. Many persons knowledgeable about the Kansas health care system also contributed to this report, including specialists at the Kansas Hospital Association, the Office of Local and Rural Health, and hospital administrators from across the state who cooperated in the development of these resources.

Additional information relating to local demographic characteristics and health indicators is available from the **Kansas Health Matters** Website at www.kansashealthmatters.org. Kansas Health Matters is a one stop source of non-biased data and information about community health in Kansas. It is intended to help hospitals, health departments, policy makers, community planners and members learn about issues, identify improvements and collaborate for positive change. At this site, you can compare your Kansas county's health with other Kansas counties, the nation, and 2020 targets with a variety of health indicators. Create your own reports in the report assistant. Learn about promising practices on a variety of topics that affect community health.

The Office of Local Government welcomes any questions, comments or suggestions about this report or any of their other services. Contact your county Extension office or:

Dr. John Leatherman
Office of Local Government
Department of Agricultural Economics
K-State Research and Extension
Manhattan, KS 66506-3415

Phone: 785-532-2643
10E Umberger Hall
Fax: 785-532-3093
E-mail: jleather@ksu.edu

The Economic Contribution of the Health Care Sector In Lane County, Kansas

Introduction

The rapidly changing delivery of health services in rural counties has the potential to greatly impact the availability of health care services in the future. These changes include:

- Insufficient Medicare and Medicaid payments to hospitals and providers may force a reduction in the provision of health care services.
- Although Kansas rural health networks are already fairly strong, creation of provider networks may substantially change the delivery of, and access to, local health care services.
- Use of telemedicine could increase access to primary, consultative and specialty health care services at the county level.
- Development of critical access hospitals could help health care services remain in rural counties. Kansas currently has over 80 critical access hospitals.

As a result, the health care sector can have a large impact on the local economy. All of these changes make it imperative that decision makers in Lane County become proactive in maintaining high quality local health care services.

Health care facilities such as hospitals and nursing homes provide jobs and income to people in the community. As these employees spend their income in the community, a ripple spreads throughout the economy, creating additional jobs and income in other economic sectors. To help understand this important connection between the health sector and the local economy, this report will:

- Discuss the role of the health sector in rural development.
- Measure the employment, income, and retail sales impact of the health sector on the Lane County economy.

This report will not make any recommendations.

Health Care Changes and Their Effects on Rural Communities

The changes occurring in the health care sector have had a substantial impact on many rural communities. Many people have found it more difficult to get health care coverage, insurance premiums have increased, and rural health care providers have been reimbursed at rates less than their urban counterparts for doing the same work. Concurrently, changes in urban health systems have had impact on rural health care delivery with the result that some rural communities have lost their ability to make decisions about their local health care.

Job creation represents an important goal for most local economic development programs. National employment in health care services increased by 90 percent from 1990 to 2015, and by approximately 400 percent since 1970. In rural areas, in particular, employment in health-related services often accounts for 10 to 15 percent of total employment. This reflects the fact that the hospital is often the second largest employer in a rural community (local government including schools typically being the largest employer).

Another important factor is the growth of the health sector. Health services, as a share of gross domestic product (GDP), have increased substantially over time. As shown in Table 1, Americans spent \$74.9 billion on health care in 1970, which accounted for 7.0 percent of the GDP. In 2015, health care costs increased to nearly \$3.2 trillion, or 18.0 percent of the GDP. If current trends continue, projections indicate that Americans will spend 19.9 percent of GDP on health care by 2025. Capturing a share of this economic growth can only help a community.

Typically, rural community residents pay little attention to their local health care system until it is needed. Consequently, many rural people have little idea of the overall importance of the health care sector to their community's economy, such as the number of jobs it currently provides and its potential to provide more jobs. To ensure that health care services remain available locally, rural communities need to understand these economic relationships. First, rural communities need to learn about their own local health care needs and take stock of their local health care system. While the emphasis at the national level is on controlling costs and eliminating duplication and overcapacity in the system (de-licensing unused hospital beds, for example), the issues are very different in rural communities.

One of the issues that underlies differences between health care systems in rural and urban areas is demographics. In rural areas, there are proportionately more elderly, more children living in poverty, higher unemployment and lower incomes. Rural people report poorer health and have more chronic health conditions. Rural people are more likely to be uninsured and have fewer health services available in the town where they live. Finally, people in rural communities are more likely to derive part of their income from the health care industry (either directly or indirectly).

Another issue that underlies the differences between urban and rural health care is the structure of the systems. In general, there are fewer providers and hospitals in rural areas, and they operate on very thin profit margins. In fact, many rural hospitals operate at a loss, with too few patients to cover daily costs. Also, until recently, most rural health care systems had been locally operated and controlled.

Table 1. United States Health Expenditure and Employment Data for 1970-2015; Projected for 2016, 2020 & 2025

	Total Health Expenditures (\$ billions)	Per Capita Health Expenditures (\$)	Health as % of GDP (%)	Health Sector Employment (thousands)	Avg. Annual Increase in Employment (%)	
1970	\$75	\$355	6.9%	3,052		Employment Based on SIC ¹
1980	\$255	\$1,108	8.9%	5,278	7.3%	
1990	\$721	\$2,843	12.1%	7,814	4.8%	
2000	\$1,370	\$4,857	13.3%	10,103	2.9%	
2001	\$1,487	\$5,220	14.0%	10,381	2.8%	
2002	\$1,629	\$5,668	14.8%	10,673	2.8%	
2003	\$1,768	\$6,098	15.4%	11,816	N/A	Employment Based on NAICS ²
2004	\$1,896	\$6,481	15.4%	12,056	2.0%	
2005	\$2,024	\$6,855	15.5%	12,314	2.1%	
2006	\$2,157	\$7,233	15.6%	12,602	2.3%	
2007	\$2,296	\$7,628	15.9%	12,946	2.7%	
2008	\$2,399	\$7,897	16.3%	13,289	2.6%	
2009	\$2,495	\$8,141	17.3%	13,542	1.9%	
2010	\$2,596	\$8,404	17.4%	13,778	1.7%	
2011	\$2,688	\$8,638	17.4%	14,027	1.8%	
2012	\$2,795	\$8,915	17.4%	14,281	1.8%	
2013	\$2,878	\$9,110	17.4%	14,490	1.5%	
2014	\$3,029	\$9,515	17.7%	14,675	1.3%	
2015	\$3,206	\$9,990	18.0%	15,041	2.5%	
2016				15,420	2.5%	
Projections						
2016	\$3,558	\$10,345	19.2%			
2020	\$4,197	\$12,490	18.8%			
2025	\$5,549	\$16,032	19.9%			

Sources: Bureau of Labor Statistics; U.S. Department of Labor; Employment, Hours, and Earnings www.bls.gov/webapps/legacy/cesbtab1.htm and the Center for Medicare & Medicaid Services, National Health Expenditures 1970-2015 and National Health Expenditure Projections 2016-2025, website: <http://cms.hhs.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/index.html>, updated 12/06/16.

¹ Based on Standard Industrial Classification (SIC) codes for health sector employment.

² Based on North American Industry Classification System (NAICS) for health sector employment.

Pressures outside of the health care system also come into play in rural communities, creating stresses not applicable to urban systems. Cyclical commodity prices cause a periodic farm financial crisis, undermining the financial viability of family farms and business, such as farm implement manufacturers and dealers. Businesses located in rural areas tend to be small, often do not provide health insurance, and are highly vulnerable to changing economic conditions. Although these stresses can lead to mental and physical health problems, many people do not seek help for their health problems. Some will say they have too little time to seek out health care services, especially if they are working two jobs to make ends meet. For others, the strong sense of pride and self-reliance inherent among rural people may preclude many from seeking care, especially if they cannot afford it. What is the ultimate impact of these changes and

stresses on rural communities? Will it be a net gain or net loss, or will it all balance out in the end?

On the positive side, urban-based specialists may set up periodic office hours in rural clinics, health centers and hospitals; an urgent care center may open; and air medivac helicopters and other emergency medical services may be strategically located in a rural community. These services, while provided by many urban health systems, are convenient for rural residents, and otherwise would not be available to rural communities.

On the negative side, ties with financially strong urban health care providers can be detrimental to rural providers if the rural providers lose decision-making ability. Rural providers may also find themselves aligned with an organization that does not share their mission and values, or the rural provider may be unable to meet the expectations of the larger provider.

Anecdotal evidence suggests that the downsides can be significant and potentially devastating for a rural community. In some instances, urban or other outside interests have purchased rural clinics and hospitals and then closed them because they did not provide sufficient profit. Employers have signed contracts with insurance plans that push patients to the city for their health care, bypassing local, more convenient services. Emergency medical service providers have changed their service areas or closed their doors. When urban health organizations encourage insured rural residents to spend their health care dollars in the city rather than to purchase equivalent services locally, it can have a significant negative economic impact and result in a loss of health dollars within the local community. In addition, out of town trips to obtain health care naturally offer opportunities to spend dollars out of town that may have been spent locally. These out-migrated dollars are missed opportunities and can significantly impact the local economic base.

Rural communities need to overcome inertia and take stock of local health care. Rural providers should be challenged to organize, whether through formal or informal mechanisms, so that they can compete with urban systems. In general, regional strategies will probably work better than local ones. Providers must be willing to take risks and coordinate services.

Well-positioned rural health systems can meet these challenges. Fragmentation is a big problem in health systems, but smaller, independent rural systems have more opportunity to create linkages. The scarce resources available to rural health services have engendered innovation and efficiencies as a matter of survival. Strong local leadership helps sustain these systems. Many rural health organizations are committed to fiscal accountability, expressed as quality health care at low cost. It should not be too difficult to remind rural residents of the long-term commitment these rural providers have made in the communities they serve. In time, rural providers need to offer sustainable health care services that best meet community need.

Success in meeting these challenges can be measured in terms of increased local services, more spending on locally-available health care, local control of health resources, negotiation of good reimbursement rates for providers, and high levels of community satisfaction with local health care.

If rural health providers do not act, they will face the prospect of losing jobs; rural communities could lose health care services; and everybody may lose local control of their health care.

Health Services and Rural Development

Though the connections between health care services and rural development are often overlooked, at least three primary areas of commonality exist. A strong health care system can help attract and maintain business and industry growth, attract and retain retirees, and also create jobs in the local area.

Health Services and Community Industry

Studies have found that quality of life factors play a dramatic role in business and industry location decisions. Health care services represent some of the most significant quality of life factors for at least three reasons. First, good health and education services are imperative to industrial and business leaders as they select a community for location. Employees and participating management may offer strong resistance if they are asked to move into a community with substandard or inconvenient health services. Secondly, when a business or industry makes a location decision, it wants to ensure that the local labor force will be productive, and a key productivity factor is good health. Thus, investments in health care services can be expected to yield dividends in the form of increased labor productivity. The third factor that business and industry consider in location decisions is cost of health care services. A 1990 site selection survey concluded that corporations looked carefully at health care costs, and sites that provided health care services at a low cost sometimes received priority. In fact, 17 percent of the respondents indicated that their companies used health care costs as a tie-breaking factor between comparable sites (Lyne, 1990).

Health Services and Retirees

A strong and convenient health care system is important to retirees, a special group of residents whose spending and purchasing can provide a significant source of income for the local economy. Many rural areas have environments (for example, moderate climate and outdoor activities) that enable them to attract and retain retirees. Retirees represent a substantial amount of spending, including the purchasing power associated with pensions, investments, Social Security, Medicare and other transfer payments. Additionally, middle and upper income retirees often have substantial net worth. Although the data are limited, several studies suggest health services may be a critical variable that influences the location decision of retirees. For example, one study found that four items were the best predictors of retirement locations: safety, recreational facilities, dwelling units, and health care. Another study found that nearly 60 percent of potential retirees said health services were in the “must have” category when considering a retirement community. Only protective services were mentioned more often than health services as a “must have” service.

Health Services and Job Growth

Job creation represents an important goal for most rural economic development programs. National employment in health care services increased 92 percent from 1990 to 2015. In rural areas, employment in health-related services often accounts for 10 to 15 percent of total employment. This reflects the fact that the hospital is often the second largest employer in a rural community (local government including schools typically being the largest employer).

Another important factor is the growth of the health sector. Health services, as a share of gross domestic product (GDP), has increased over time. In 1990, Americans spent \$1.1 trillion on health care (2015\$), which accounted for 12.1 percent of the GDP. In 2015 health care costs increased to \$3.2 trillion, or 18.0 percent of the GDP. If current trends continue, projections indicate that Americans will spend 19.9 percent of GDP on health care by 2025. Capturing a share of this economic growth can only help a rural community.

Understanding Today's Health Care Impacts and Tomorrow's Health Care Needs

A strong health care system represents an important part of a community's vitality and sustainability. Thus, a good understanding of the community's health care system can help leaders and citizens fully appreciate the role and contributions of the health care system in maintaining community economic viability. In addition, a community should also examine the future health care needs of its residents in order to position itself so that it can respond to those needs. This report is designed to provide the kind of information that a community can use to understand its health care system and some possible indicators of current and future health care needs of its residents. The report begins with an examination of demographic, economic and health indicators and culminates with an illustration of the full economic impact of the health care sector in the county's economy.

The Economic Impact of the Health Care Sector

An Overview of the Lane County Economy, Highlighting Health Care

Table 2 presents employment, income and sales data for Lane County for 2015. Using an alternative data source, health services employment was updated to 2016. Health care income and sales data were estimated using state average data. Data for all other economic sectors come from various government statistics and published data sources.

Table 2. Direct Employment, Income and Sales by Economic Sector and Health Services Relative Shares Compared to the State and U.S., 2015 (\$thousands)

Sector	Employment	Total Sales (thousands)	Labor Income (thousands)	Total Income (thousands)
Agriculture	464	\$147,409	\$60,960	\$37,938
Mining	83	\$7,576	\$1,562	\$2,108
Construction	47	\$6,215	\$900	\$1,213
Manufacturing	5	\$494	\$27	\$38
TIPU ¹	43	\$19,986	\$2,262	\$5,275
Trade	200	\$30,882	\$9,030	\$17,735
Services	419	\$45,823	\$11,104	\$19,335
Health Services ²	115	\$11,728	\$5,698	\$6,396
Heath and Personal Care Stores	3	\$270	\$139	\$177
Veterinary Services	0	\$0	\$0	\$0
Offices of Physicians	0	\$0	\$0	\$0
Offices of Dentists	0	\$0	\$0	\$0
Offices of Other Health Practitioners	26	\$724	\$43	\$66
Outpatient Care Centers	0	\$0	\$0	\$0
Medical and Diagnostic Laboratories	0	\$0	\$0	\$0
Home Health Care Services	0	\$0	\$0	\$0
Other Ambulatory Health Care	0	\$0	\$0	\$0
Hospitals	59	\$9,097	\$4,664	\$5,205
Nursing and Community Care	27	\$1,637	\$852	\$948
Residential Treatment Facilities	0	\$0	\$0	\$0
Fitness Centers	0	\$0	\$0	\$0
Government	258	\$14,191	\$10,341	\$12,946
Total³	1,519	\$272,576	\$96,185	\$96,588
Health Services as a Percent of Total				
County	7.5	4.3	5.9	6.6
State	11.3	7.4	13.0	9.4
Nation	10.0	6.4	10.7	7.3

¹ TIPU is Transportation, Information and Public Utilities.

² In some Kansas Counties, various health services are consolidated within a single entity in the classification system shown here. For example, the hospital may have a long-term care unit. In such cases, it may not be possible to break out employment, income or sales information. If you have questions regarding the organization of health care services in your county, contact your local hospital administrator.

³ Due to rounding error, numbers may not sum to match total.

Source: IMPLAN Group.

The table aggregates the economic sectors into broad categories, and the employment numbers indicate “average” jobs in each sector, including full- and part-time employment. Labor income represents local wages and proprietary income. Total income is the broadest measure of income generated within the local economy, and includes labor income plus dividend, interest, rents, corporate profits, etc.

The health sector is detailed in Table 2. The numbers for each sector include not only the professionals in the sector (the doctors, dentists, etc.) but also support staff (assistants, clerks, receptionists, etc.) employed by the business. In the health sector, the Health and Personal Care Stores category includes pharmacies. We are able to separately account for Offices of Physicians and Dentists. Other Health Practitioners category includes chiropractors, optometrists, physical therapists, and other health care practitioners. Outpatient Care Centers include mental health, kidney dialysis, and other ambulatory surgical and emergency care centers. Other Ambulatory Health Care Services includes services such as ambulance services, blood banks, and other miscellaneous ambulatory health care services. We are now able to separate Residential Treatment Facilities (intellectual and developmental disabilities, inpatient mental health and substance abuse facilities) from Nursing and Residential Care. Also removed from Nursing and Residential Care are facilities that provide largely non-medical custodial care. What remains are nursing homes and assisted living facilities.

Health Services employs 115 people, 7.5 percent of all job holders in the county. Health Services for the state of Kansas employs 11.3 percent of all job holders, while 10.0 percent of all job holders in the United States work in Health Services. Health Services in the county has a number 5 ranking in terms of employment (Figure 1). Health Services is number 4 among payers of wages to employees (Figure 2) and number 5 in terms of total income (Figure 3). As with most rural areas, the health sector plays an important role in the economy.

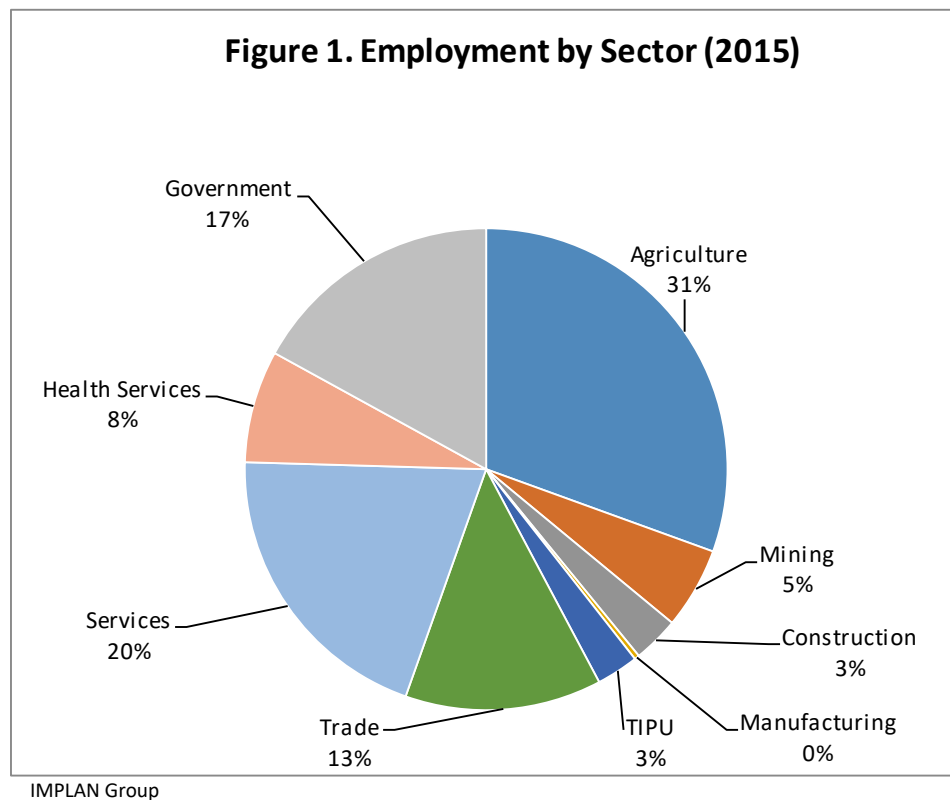
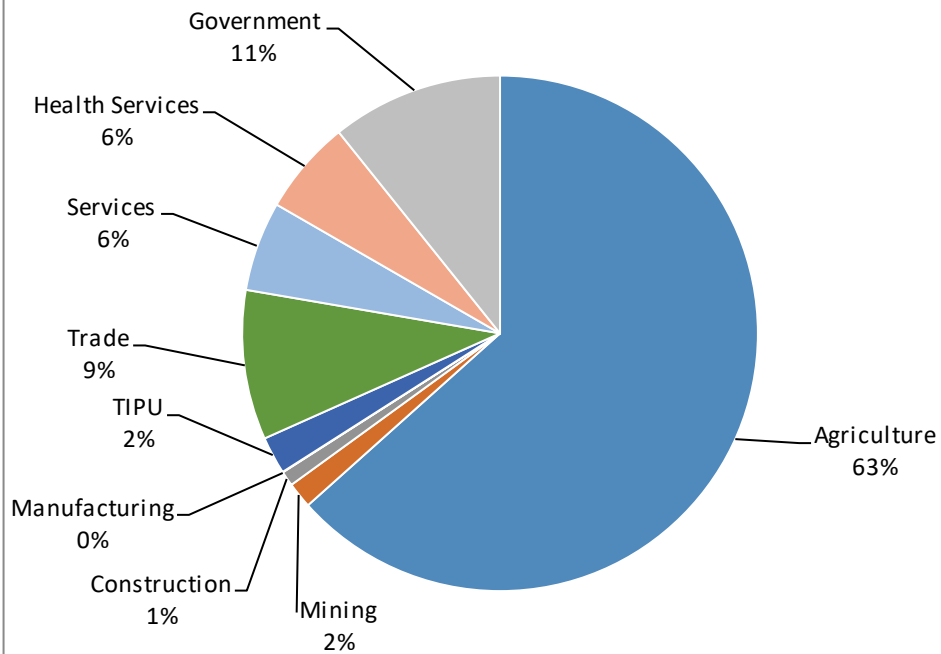
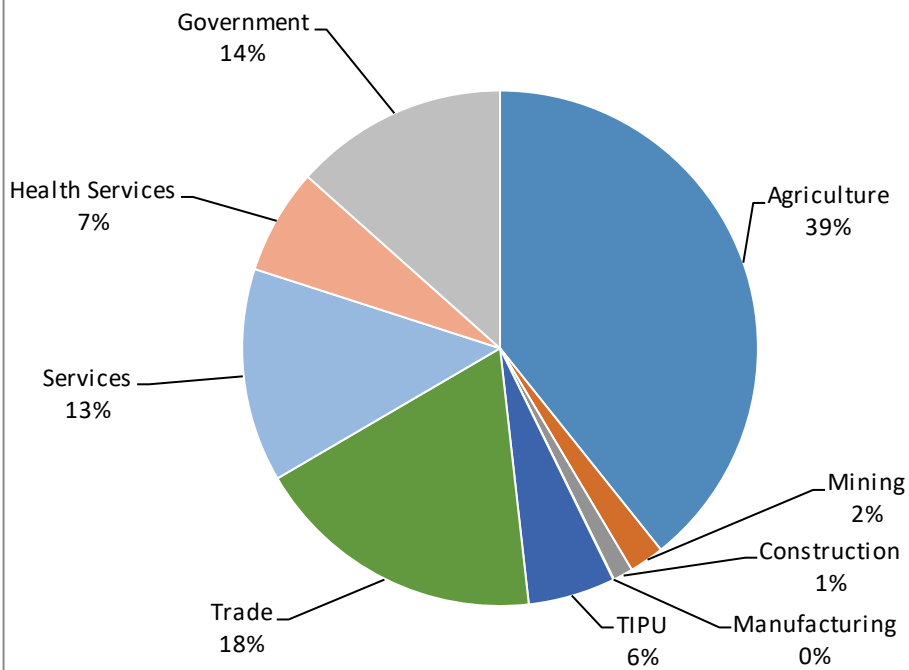


Figure 2. Labor Income by Sector (2015)



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Figure 3. Total Income by Sector (2015)



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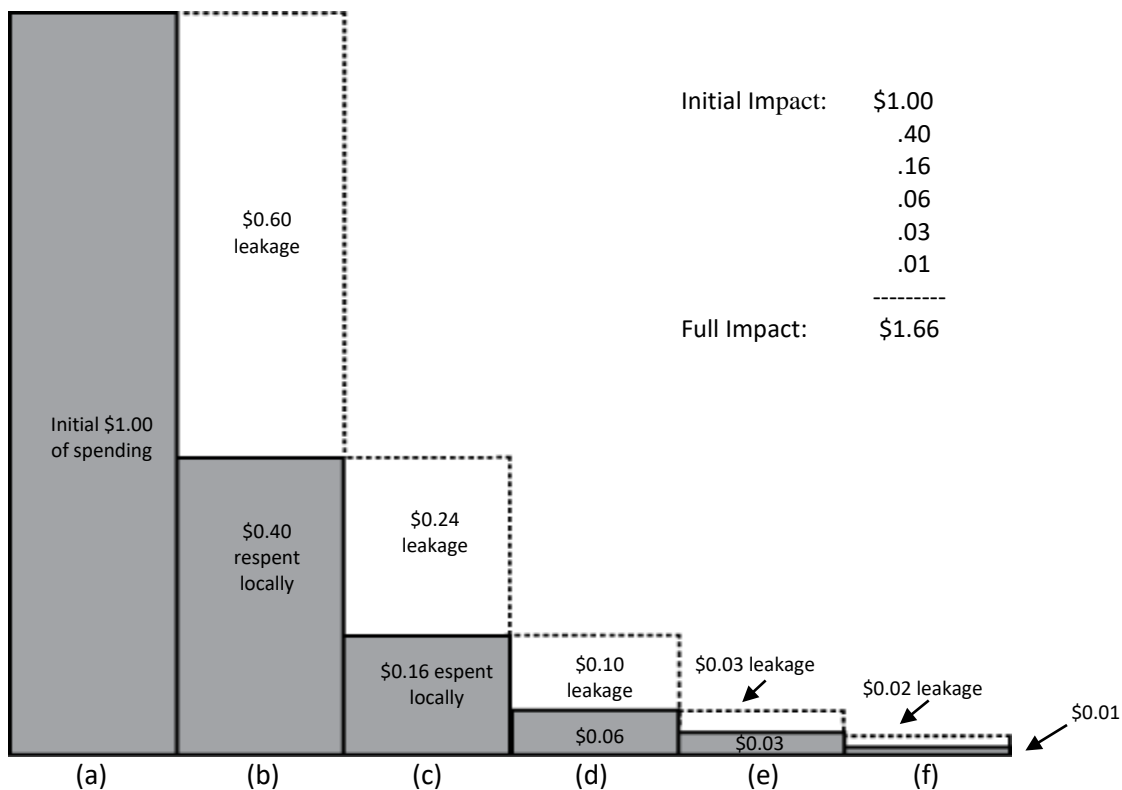
Health Sector Impact and Economic Multipliers

The previous section detailed the direct contributions of the Health Services sector within the Lane County economy, but the full impact of the sector goes beyond the number of people employed and the wages they receive. The employment and income levels in the health sector have a significant impact on employment and income throughout other industries in the market area. This secondary impact or “ripple effect” comes from local businesses buying and selling to each other and from area workers spending their income for household goods and services; the ripple effect spreads the economic impact of the health sector throughout the community economy.

As dollars are spent locally, they are, in turn, re-spent for other goods and services. Some of these goods are produced locally while others are imports (the portion of the dollar spent on imports leaves the community as leakage). This spending and re-spending occurs over multiple rounds until it is finally exhausted.

Graphically, we can illustrate the round-by-round relationships modeled as shown in Figure 4. The direct effect of spending is shown in the far left-hand side of the figure (the first bar (a)). For simplification, the direct effects of a \$1.00 change in the level of spending plus the indirect effects spill over into other sectors and create an additional 66 cents of activity. In this example, the multiplier is 1.66. A variety of multipliers can be calculated using these analysis techniques.

Figure 4. Multipliers and the round-by-round impacts



Tables 3 and 4 illustrate the ripple effect in the county. As an example, Table 3 shows that the hospital sector employs 59 people and has an employment multiplier of 1.33. This means that for each job created in the hospital sector, another 0.33 jobs are created in other businesses and industries in the county's economy. The direct impact of the 59 hospital employees results in an indirect impact of 19 jobs ($59 \times 0.33 = 19$) throughout all businesses and industries in the market area. Thus, the hospital sector employment had a total impact on area employment of 78 jobs ($59 \times 1.33 = 78$).

Table 3. Health Sector Impact on Employment, 2015

Health Sectors	Direct Employment	Economic Multiplier	Total Employment
Heath and Personal Care Stores	3	1.18	4
Veterinary Services	0	0.00	0
Offices of Physicians	0	0.00	0
Offices of Dentists	0	0.00	0
Offices of Other Health Practitioners	26	1.07	28
Outpatient Care Centers	0	0.00	0
Medical and Diagnostic Laboratories	0	0.00	0
Home Health Care Services	0	0.00	0
Other Ambulatory Health Care	0	0.00	0
Hospitals	59	1.33	78
Nursing and Community Care	27	1.11	30
Residential Treatment Facilities	0	0.00	0
Fitness Centers	0	0.00	0
Total	115		139

Note: Most data obtained from secondary sources; some data unavailable or extrapolated
IMPLAN Group

Similarly, multiplier analysis can estimate the total impact of the estimated \$4,664,000 direct income for hospital employees shown in Table 4. The hospital sector had an income multiplier of 1.11, which indicates that for every one dollar of income generated in the hospital sector, another \$0.11 is generated in other businesses and industries in the county's economy. Thus, the hospital sector had an estimated total impact on income throughout all businesses and industries of \$5,180,000 ($\$4,664,000 \times 1.11 = \$5,180,000$ (discrepancies are due to rounding)).

Table 4. Health Sector Impact on Income, 2015 (\$thousands)

Health Sectors	Direct Income (thousands)	Economic Multiplier	Total Impact (thousands)
Heath and Personal Care Stores	\$139	1.10	\$152
Veterinary Services	\$0	0.00	\$0
Offices of Physicians	\$0	0.00	\$0
Offices of Dentists	\$0	0.00	\$0
Offices of Other Health Practitioners	\$43	1.98	\$85
Outpatient Care Centers	\$0	0.00	\$0
Medical and Diagnostic Laboratories	\$0	0.00	\$0
Home Health Care Services	\$0	0.00	\$0
Other Ambulatory Health Care	\$0	0.00	\$0
Hospitals	\$4,664	1.11	\$5,180
Nursing and Community Care	\$852	1.09	\$929
Residential Treatment Facilities	\$0	0.00	\$0
Fitness Centers	\$0	0.00	\$0
Total	\$5,698		\$6,347

Note: Most data obtained from secondary sources; some data unavailable or extrapolated.
IMPLAN Group

In this manner, the total employment and income impacts of all the health services sectors can be estimated. In Table 3, the total employment impact of the health services sector results in an estimated 139 jobs in the local economy. In Table 4, the total income impact of health services results in an estimated \$6,347,000 for the economy.

Table 5 shows the retail sales that the health sector helps to generate. To estimate this, this study incorporates a retail sales capture ratio (retail sales to total personal income). Lane County had retail sales of \$11,122,000 and \$144,833,000 in total personal income. Thus, the estimated retail sales capture ratio equals 7.7 percent. Using this as the retail sales capture ratio for the county, this says that people spent 7.7 percent of their income on retail goods and services within the market. By taking all the household income associated with health sector activities and multiplying by the retail sales capture ratio, we can estimate the impacts of the health sector on area retail sales. Thus, the total retail sales generated by the retail sector equals \$487,000 ($\$6,347,000 \times 7.7\% = \$487,000$ (discrepancies are due to rounding)). This is a conservative estimate, as this method does not consider the impact of any local purchases made by the health services businesses.

Finally, the last column shows the county sales tax collections associated with the retail sales. This includes only county sales tax collection. It does not include state or other local municipal sales taxes. If the county did not levy a sales tax, the amount is zero. If the county sales tax rate changed in 2015, the rate applied was the blended rate reflecting the proportion of the year each rate applied. The point of this calculation is to show how local health sectors also contribute to the public finances supporting essential public services.

Table 5. Health Sector Impact on Retail Sales and County Sales Taxes, 2015 (\$thousands)

Health Sectors	Total Impact (thousands)	Retail Sales (thousands)	Sales Tax (thousands)
Heath and Personal Care Stores	\$152	\$12	\$0
Veterinary Services	\$0	\$0	\$0
Offices of Physicians	\$0	\$0	\$0
Offices of Dentists	\$0	\$0	\$0
Offices of Other Health Practitioners	\$85	\$7	\$0
Outpatient Care Centers	\$0	\$0	\$0
Medical and Diagnostic Laboratories	\$0	\$0	\$0
Home Health Care Services	\$0	\$0	\$0
Other Ambulatory Health Care	\$0	\$0	\$0
Hospitals	\$5,180	\$398	\$4
Nursing and Community Care	\$929	\$71	\$1
Residential Treatment Facilities	\$0	\$0	\$0
Fitness Centers	\$0	\$0	\$0
Total	\$6,347	\$487	\$5

Summary and Conclusions

The Health Services sector of Lane County, Kansas, plays a large role in the area's economy. Health Services represents one of the largest employers in the area and also serves as one of the largest contributors to income. Additionally, the health sector has indirect impacts on the local economy, creating additional jobs and income in other sectors. The health sector also contributes substantially to retail sales in the region. All of this demonstrates the importance of the health care sector to the local economy.

While the estimates of economic impact are themselves substantial, they are only a partial accounting of the benefits to the county. Health care industries in rural counties help to preserve the population base, invigorating the communities and school systems. Similarly, many hospitals and nursing care facilities have active community outreach programs that enhance community services and the quality of life for community residents.

A vigorous and sustainable health care system is essential not only for the health and welfare of community residents, but to enhance economic opportunity as well. Health-related sectors are among the fastest growing in economy. Given demographic trends, this growth is likely to continue. The attraction and retention of new business and retirees also depends on access to adequate health care services.

While industry trends related to health care are positive overall, many rural communities have significant challenges. The economics of health care are rapidly changing. As health care costs escalate and government funding becomes tighter, rural markets may become less attractive to many providers. This will lead to the continued restructuring of rural health care services in many areas.

If a community wants to maintain the benefits associated with accessible and affordable health care, it must actively work to meet these challenges. The challenges cannot be met by those directly responsible for health care administration alone. They require a community-wide response involving government, business and civic leaders, and they frequently incorporate outside assistance from professional resources providers, such as the Kansas Hospital Association, the Office of Local and Rural Health, the Kansas Department of Health and Environment, and others.

In meeting current and future challenges, health care and community leaders can engage in an ongoing process of strategic health planning. This is continuous effort to maintain and enhance the community's health care situation. The strategic health planning process helps local communities identify their health care needs; examine the social, economic, and political realities affecting the local delivery of health care; determine what is wanted and what realistically can be achieved to meet their identified health care needs; and develop and mobilize an action plan based on their analysis and planning.

Strategic health planning involves cooperation among people and organizations to pursue common goals. The process is designed to answer three questions:

- (1) Where is the community now?
- (2) Where does the community want to go?
- (3) How will the community get there?

For the strategic health planning process to be most effective, it must be based in the community and driven by the community. Local residents and their leaders must participate; a current knowledge of the health care industry is not necessary. This process is about local people solving local problems. The local hospital and health care providers should have input into the decision-making and should support and trust the outcomes, but, the community must provide the energy and commitment.

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Glossary of Terms

Employment: annual average number of full and part-time jobs, including self-employed for a given economic sector.

Employment Economic Multiplier: indicates the total jobs in the economy closely tied, in this case, to one job in the health sector.

Employee Compensation: total payroll (wages, salaries and certain benefits) paid by local employers.

Government Sector: includes all federal, state and local government enterprises; federal, state and local electric utilities; state and local government passenger transit; state and local government education and non-education; and federal military and non-military.

Gross Domestic Product (GDP): the total value of output of goods and services produced by labor and capital investment in the United States.

Health and Personal Care Stores: includes pharmacies.

Income Economic Multiplier: indicates total income generated in the economy due to one dollar of income, in this case, in the health sector.

Indirect Business Taxes: sales, excise fees, licenses and other taxes paid during normal operation. All payments to the government except for income taxes.

Labor Income: employee compensation (wages, salaries, and certain fringe benefits) plus proprietary income.

Multipliers: Its calculation is based on the structure of the local economy. All of the buying and selling relationships between businesses and consumers are charted in an economic transactions table. When a dollar is spent in one area of the economy, all of the economic interconnections are stimulated as the effect “ripples” to other areas of the economy. The effect is caused by businesses buying and selling goods or services to each other and by local labor who use their income to purchase household goods and services. Over successive rounds of spending and re-spending, the effect of the original dollar is multiplied to some new, larger level of activity. Eventually, the economic “leakages” associated with the purchase of imported goods and non-local taxes and investments causes the ripple effect to finally run out. Multipliers are derived through algebraic calculations of the economic transactions table of the local economy.

Nursing and Community Care: provides inpatient nursing and rehabilitative services. The care is generally provided for an extended period of time to individuals requiring nursing care. This group also includes establishments providing a range of residential and personal care services with on-site nursing care facilities for (1) the elderly and other persons who are unable to fully care for themselves and/or (2) the elderly and other persons who do not desire to live independently.

Offices of Doctors, Dentists, and Other Health Practitioners: includes physicians, dentists, chiropractors, optometrists, other health care professionals, and all support staff employed by these professionals.

Other Ambulatory Health Care Services: provides ambulatory health care services (except offices of physicians, dentists, and other health practitioners; outpatient care centers; medical laboratories and diagnostic imaging centers; and home health care providers).

Other Property Income: corporate income, rental income, interest and corporate transfer payments.

Proprietor Income: income from self-employment (farmers and business proprietors, for example).

Personal Income: income received by individuals from all sources (employment, Social Security, et cetera).

Residential Treatment Facilities: providing residential care (but not licensed hospital care) to people with intellectual and developmental disabilities, mental illness, or substance abuse problems.

Total Income: labor income plus other property income (dividends, rents, corporate profits, etc.) plus indirect business taxes.

Total Sales: total industry production for a given year (industry output).

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