



KentuckyOne Health®
Saint Joseph London

Community Health Needs Assessment FY 2017-19



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Introduction

Forward

During 2015-2016, Saint Joseph London conducted a community health needs assessment (CHNA) to support its mission to enhance the health of people in the communities it serves by identifying health needs in these communities and prioritizing the allocation of hospital resources to meet those needs. Additionally, the completion of this report and subsequent approval and adoption by the KentuckyOne Health Board of Directors complies with CHNA requirements mandated by the *Patient Protection and Affordable Care Act of 2010* and federal tax-exemption requirements. Special CHNA requirements from Catholic Health Initiatives (CHI) are also reflected in this report.

Executive Summary

The community health needs assessment process involved the following steps:

- The “community served” was defined utilizing inpatient data on patient county of residence.
- Secondary data in the form of population demographics and socioeconomic characteristics of the community was gathered and reported using various sources.
- Primary data was solicited from the following groups:
 - Laurel County Health Department
 - Residents of the community served by Saint Joseph London, including individuals representing the senior population and the medically-underserved
 - KentuckyOne Health Strategy and Business Development representatives
 - Comments on Saint Joseph London’s previous CHNA
- Health needs were prioritized according to a weighted ranking system using the aforementioned data sources.
- Saint Joseph London convened its leadership team to formally identify the priority health needs based on the data and hospital resources. These needs have been identified as:
 - Tobacco Use
 - Diet and Exercise
 - Alcohol and Drug Use
- An inventory of health care facilities and resources was prepared.
- These findings were presented to the KentuckyOne Health Board of Directors for approval and adoption for July 1, 2016-June 30, 2019 (FY 2017-19).
- This final report will be made public and widely-available on or before June 30, 2016.

Organization Description

In July of 1946, the Sisters of Charity of Nazareth, Kentucky purchased what was then called Pennington General Hospital in London, Kentucky and assumed its leadership. Renamed Marymount – Our Lady of the Mountain, the mission of the sisters was to extend the healing ministry of Christ bringing quality health care to the poor and underserved of rural Kentucky. In 1997, Marymount, along with seven other Kentucky facilities, became part of Catholic Health Initiatives (CHI) and in 2008 those same eight facilities formed Saint Joseph Health System. At that time the hospital name was changed to Saint Joseph – London.

In January 2012, Saint Joseph London became part of KentuckyOne Health, one of the largest health systems in Kentucky with more than 200 locations including hospitals, outpatient facilities and physician offices, and more than 3,100 licensed beds. An 18-member volunteer board of directors governs KentuckyOne Health, its facilities and operations, including Saint Joseph London, with this purpose:

- **Our Purpose:** To bring wellness, healing and hope to all, including the underserved.
- **Our Future:** To transform the health of communities, care delivery and health care professions so that individuals and families can enjoy the best of health and wellbeing.
- **Our Values:**
 - **Reverence:** Respecting those we serve and those who serve.
 - **Integrity:** Doing the right things in the right way for the right reason.
 - **Compassion:** Sharing in others' joys and sorrows.
 - **Excellence:** Living up to the highest standards.

Community Served by the Hospital

Defined Community

For the purposes of our community health needs assessment, the community served by Saint Joseph London is defined as the geographic area from which a significant number of the patients utilizing hospital services reside. Inpatient discharge data for Saint Joseph London from July 1, 2014-June 30, 2015 (the latest fiscal year available as of data collection for this writing) shows that Laurel County was the county of residence for the largest concentration of patients, with 48.3% of patients living in Laurel County. Therefore, the service area for this community health needs assessment is defined as Laurel County. The chart below shows residence information by county and zip code:

FY15 Inpatient Discharges County of Residence—Saint Joseph London				
<i>Zip Code</i>	<i>City</i>	<i>County, State</i>	<i>Discharges</i>	<i>Percent of Total</i>
40741	London	Laurel - KY	1,482	24.0%
40744	London	Laurel - KY	996	16.1%
40701	Corbin	Whitley - KY	477	7.7%
40962	Manchester	Clay - KY	448	7.2%
40729	East Bernstadt	Laurel - KY	356	5.8%
40769	Williamsburg	Whitley - KY	204	3.3%
40906	Barbourville	Knox - KY	202	3.3%
40402	Annville	Jackson - KY	184	3.0%
40740	Lily	Laurel - KY	154	2.5%
40447	McKee	Jackson - KY	152	2.5%
Other			1,525	24.7%
FY15 Total Discharges			6,180	100.0%

Identification and Description of Geographical Community

London is a relatively small rural community in Kentucky and is the county seat for Laurel County. Laurel County is located in southeastern Kentucky and is bordered by Clay, Jackson, Know, McCreary, Pulaski, Rockcastle and Whitley counties.

Laurel County Population Demographics

Understanding the population demographics of the community served by Saint Joseph London helped the hospital team understand characteristics unique to their community and can impact the identification of health needs. Laurel County demographics indicate that Laurel County is largely representative of Kentucky averages but does represent less ethnic and racial diversity than the state does.

2014 Laurel County Community Demographics			
	<i>Community Metric</i>	<i>Laurel County</i>	<i>Kentucky</i>
Population	Population, 2014 Estimate	60,015	4,413,457
	Population, Percent Change April 1, 2010 to July 1, 2014	2.0%	1.7%
Age	Persons under 5 Years	6.1%	6.3%
	Persons under 18 Years	23.6%	22.9%
	Persons 65 Years and Over	15.0%	14.8%
Gender	Female Persons	51.0%	50.8%
Race	White (alone)	97.1%	88.3%
	Black or African American (alone)	0.8%	8.2%
	American Indian and Alaska Native (alone)	0.3%	0.3%
	Asian (alone)	0.6%	1.4%
	Native Hawaiian and Other Pacific Islander (alone)	0.0%	0.1%
	Two or More Races	1.1%	1.8%
	Hispanic or Latino	1.4%	3.4%
Source: U.S. Census Bureau: State and County QuickFacts			

Health Data for Laurel County Residents

Health Outcomes

Health outcomes detail how healthy a community is and are measured by the Robert Wood Johnson Foundation *County Health Rankings* population health model as length of life (mortality) and quality of life (morbidity).

Mortality

Mortality is described in this county by two data sets: 1) the leading causes of death and 2) premature death.

1. Leading Causes of Death

The 2014 leading causes of death data for this community (the most recent year available as of this writing) shows that cancer and heart disease are the major causes of death in this community and outweigh the third leading cause of death by more than three times as many deaths.

Health Outcomes: Mortality			
Laurel County, KY Leading Causes of Death 2014			
#	Leading Causes of Death	Deaths	Crude Rate Per 100,000 Residents
1	Cancer	141	234.9
2	Diseases of the Heart	121	201.6
3	Accidents	39	65.0
4	Chronic Lower Respiratory Disease	36	60.0
5	Cerebrovascular Disease	27	45.0
6	Influenza and Pneumonia	19	Unreliable
7	Kidney Diseases	16	Unreliable
8	Diabetes	10	Unreliable
Source: Centers for Disease Control and Prevention, National Center for Health Statistics (2015)			

2. Premature Death

Premature death is another mortality measure, but more heavily reflects attention on preventable deaths by reviewing the years of potential life lost before age 75 (YPLL-75). For example, a death at age 50 contributes 25 years of life lost. The most recent data available for this measure is from 2010-2012 and is expressed as a rate per 100,000 Laurel County residents. The Laurel County rate shows that Laurel County residents have more years of life lost compared to Kentucky residents overall.

Health Outcomes: Mortality			
Premature Death			
<i>Years of Life Lost Before Age 75 Per 100,000 Residents (Data from 2010-2012)</i>	<i>Laurel County</i>	<i>Kentucky Average</i>	<i>Top U.S. Performer</i>
	9,915	8,900	5,200
Source: 2015 County Health Rankings and Roadmaps			

Morbidity

Morbidity is described in this county by two data sets: 1) the top ten diagnosis groups responsible for inpatient hospital discharges in Laurel County and 2) self-reported quality of health metrics.

1. Top Ten Diagnosis Groups Responsible for Inpatient Hospital Discharges

The 2014 Laurel County inpatient hospital discharges (the most recent year available as of this writing) show diagnoses related to respiratory and circulatory systems are the most common diagnosis groups responsible for making patients sick enough to be admitted to the hospital.

Health Outcomes: Morbidity			
Laurel County, KY Top Ten Diagnosis Groups Responsible for Inpatient Hospital Discharges			
#	Top Diagnosis Groups for Hospital Discharges	CY 2014 Discharges	Percent of Total
1	Circulatory System	870	12.92%
2	Respiratory System	761	11.30%
3	Digestive System	629	9.34%
4	Mental Diseases/Disorders	533	7.92%
5	Musculoskeletal System/ Connective Tissue	512	7.60%
6	Infectious and Parasitic Diseases	405	6.02%
7	Nervous System	353	5.24%
8	Kidney and Urinary Tract	306	4.54%
9	Hepatobiliary System and Pancreas	264	3.92%
10	Skin Subcutaneous Tissue and Breast	194	2.88%
Source: Kentucky Hospital Association InfoSuite CY2014 Discharges (excluding Normal Newborn)			

2. Self-Reported Quality of Health Metrics

The self-reported health metrics show the perception that Laurel County residents have about their own health. Laurel County residents perceive their own health to be worse than the general population perceives their health to be in Kentucky overall, especially in the number of poor physical health deaths they experience.

Health Outcomes: Morbidity			
Quality of Life Metrics			
Self-Reported Health Metric	Laurel County	Kentucky	Top U.S. Performers
Poor or Fair Health	27%	21%	10%
# of Poor Physical Health Days in 30 Days	5.7	4.8	2.5
# of Poor Mental Days in 30 Days	4.2	4.3	2.3
Source: County Health Rankings and Roadmaps (2015)			

Health Factors

Health factors influence the health of a community and are measured by four different factors: health behaviors, clinical care, social and economic factors, and the physical environment. Each of these factors encompasses several measures, all adding up to what is known as the social determinants of health. The World Health Organization defines social determinants of health as “the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.”

Health Behaviors

Health behaviors describe the individual choices community members make that impact their overall health. Behaviors related to tobacco use, diet and exercise, alcohol and drug use, and sexual activity are measured against Kentucky and national rates. Notable for Laurel County are low rates of sexually-transmitted infections and excessive drinking as compared to state averages. However, Laurel County shows worse health behavior over the state averages in the areas of adult smoking, physical inactivity, drug overdose deaths and obesity. *Health behaviors are responsible for 30% of overall health outcomes.*

Health Factors: Health Behaviors			
Health Behaviors Related to Alcohol and Drug Use			
Health Behaviors	Laurel County	Kentucky	Top U.S. Performers
Adult Smoking Rate ¹	30%	26%	14%
Excessive Drinking Rate ¹	9%	12%	10%
Drug Overdose Deaths Per 100,000 Residents ²	30	24.63	13.5
Health Behaviors Related to Sexual Activity			
Chlamydia Incidence Per 100,000 Residents ¹	175	394	138
Teen Births Per 1,000 Female Residents Ages 15-19 ¹	60	48	20
Health Behaviors Related to Diet and Exercise			
Physical Inactivity Rate ¹	32%	29%	20%
Adult Obesity Rate ¹	33%	32%	25%
Sources: County Health Rankings and Road (2015) ¹ and 2014 Overdose and Fatality Report ²			

Clinical Care

Clinical care refers to access to care (measured by the uninsured rate and the ratio of community residents to providers) and quality of care (measured by preventable hospital stays). The ratio of residents to primary care physicians in Laurel County is much higher than the state average, as is the ratio of residents to mental health providers, indicating an accessibility issue. *Clinical care factors are responsible for 20% of overall health outcomes.*

Health Factors: Clinical Care			
<i>Clinical Care Measures</i>	<i>Laurel County</i>	<i>Kentucky</i>	<i>Top U.S. Performers</i>
Uninsured Rate	19%	16%	11%
Preventable Hospital Stays Per 1,000 Medicare Enrollees	92	94	41
Ratio of Residents to One Primary Care Physician	2,202: 1	1,551: 1	1,045: 1
Ratio of Residents to One Mental Health Provider	2,482: 1	621: 1	386: 1
Source: County Health Rankings and Roadmaps (2015)			

Social and Economic Factors

Social and economic factors encompass education, employment, income, family and social support, and community safety. Notable for Laurel County is the low high school graduation rate, the high unemployment rate, and the high number of children living in poverty. There are also relatively low numbers of social associations in both Laurel County and in the state overall as compared to national benchmarks, which indicates the potential for low levels of social support among Laurel County residents. However, on a positive note, Laurel County does experience very low rates of violent crime. *Social and economic factors are responsible for 40% of overall health outcomes.*

Health Factors: Social and Economic Factors			
<i>Social and Economic Measures</i>	<i>Laurel County</i>	<i>Kentucky</i>	<i>Top U.S. Performers</i>
High School Graduation	79%	86%	NA
Some College	46.5%	58.1%	71%
Unemployment	9.2%	8.3%	4%
Children in Poverty	31%	26%	13%
Income Inequality (the ratio of household income at the 80th percentile to that at the 20th percentile)	4.8	5.1	3.7
Social Associations (the number of associations per 10,000 residents)	6.9	10.8	22.0
Violent Crimes Per 100,000 Residents	87	235	59
Source: County Health Rankings and Roadmaps (2015)			

Physical Environment

Physical environment factors include air and water quality, as well as housing and transit. Transportation is often not considered when measuring housing affordability, so it is included here to better understand the overall affordability of life in Laurel County. The lack of transit access in Laurel County indicates it is a car-dependent community and means that combined housing and transportation costs make living in Laurel County more expensive than the benchmark national metrics. As far as environmental conditions, particulate matter in Laurel County is at the state average. Drinking water violations are much lower here than the state average.

Physical environment factors account for 10% of overall health outcomes.

Health Factors: Physical Environment			
Physical Environment Measures	Laurel County	Kentucky	Top U.S. Performers
Air Pollution—Particulate Matter ¹	13.0	13.5	9.5
% of Residents Affected by Drinking Water Violations ¹	0	9%	0%
% of Residents with Severe Housing Problems ¹	11%	14%	9%
% of Household Income Spent on Housing and Transportation ²	72%	NA	≤45%
Transit Ridership % of Workers ²	1%	NA	NA
Transit Access ²	NA	NA	10
Source: County Health Rankings and Roadmaps (2015) ¹ , Housing and Transportation Affordability Index (2015) ²			

Community Input, Data Sources and Collaborators

Data Sources

Data sources used in this report include:

- Center for Neighborhood Technology
 - The *Housing and Affordability Transportation Index* was used to determine the potential impact of housing and transportation costs on the health outcomes in the community.
- Centers for Disease Control and Prevention
 - The *Community Health Status Indicators (CHSI 2015)* were used to provide comparative health data between this community and other like communities.
 - The *Underlying Causes of Death (2014)* were used to determine the mortality in the community served.
- Kentucky Cabinet for Health and Family Services
 - The *March 2016 Inventory of Health Facilities and Services* was used to identify other community resources potentially-available to address health needs.
- Kentucky Hospital Association
 - The *Top Ten Diagnostic Categories Responsible for Inpatient Hospitalizations (2014)* report was used to determine the morbidity in the community served.
- Kentucky Office of Drug Control Policy (Commonwealth of Kentucky Justice & Public Safety Cabinet)
 - The *2014 Overdose Fatality Report* was used to determine the effect of substance abuse on the community.
- Robert Wood Johnson Foundation
 - The *2015 County Health Rankings and Roadmaps* were used to determine the varying measures of health in the community served.
- United States Census Bureau
 - The *2014 Laurel County Quick Facts* report was used to illustrate community demographics.

Primary Data: Community and Organizational Input

- Community Input
 - Primary data from the community served by the hospital was solicited by the Laurel County Health Department (LCHD) in July 2015. A community survey was developed by the Laurel County Health in Motion Coalition and was distributed both electronically and by paper copy to individuals in the community. Approximately 1,000 surveys were collected. The survey asked questions regarding quality of life, health care, economic opportunity, safety, risky behaviors, and access to care. The Laurel County Health Department's community health assessment and community health improvement plan can be accessed here: <http://www.laurelcohealthdept.org/documents/2015LCCHA.pdf>.
 - Soliciting input from these groups satisfies the IRS requirement to take into account input from leaders, representatives, or members of medically-underserved populations in the community served by the hospital. Additionally, input from those representing the broad interests of the community was used to prioritize health needs, which complies with IRS requirements.

- Soliciting this input regarding community safety and soliciting input from those representing the senior population satisfies the CHI requirement to include this input.
- Laurel County Health Department (LCHD)
 - Primary data collection was completed in conjunction with the LCHD. Community needs were discussed with LCHD, and the needs in the aforementioned health department report were incorporated in this report.
 - Soliciting the LCHD's input satisfies the IRS requirement to take into account feedback from local health departments with expertise relevant to the needs of the community served by the hospital. Additionally, feedback from the LCHD further represents feedback from the underserved, including the senior population, in Laurel County due to the special knowledge of local health departments.
- Regional Strategy Representative
 - Michael Spine, Senior Vice President, Strategy and Business Development for KentuckyOne Health, provided feedback for this report in the form of prioritizing 13 health needs for each KentuckyOne Health hospital, including Saint Joseph London in January 2016. Mr. Spine considered county-level data in conjunction with each measure's potential link to KentuckyOne Health's strategic alignment and the likelihood of building sustainable strategies to address those efforts related to each health need.
 - Soliciting Mr. Spine's input satisfies the CHI requirement for a representative from KentuckyOne Health's regional strategy and business development department to be engaged in the CHNA process.

Third Party Collaboration

No third-party organizations were involved in the writing of this report outside of the collaborating parties, and their specific involvement efforts detailed on the lists above. KentuckyOne Health is wholly responsible for the data gathering and needs analysis in this report.

Information Gaps

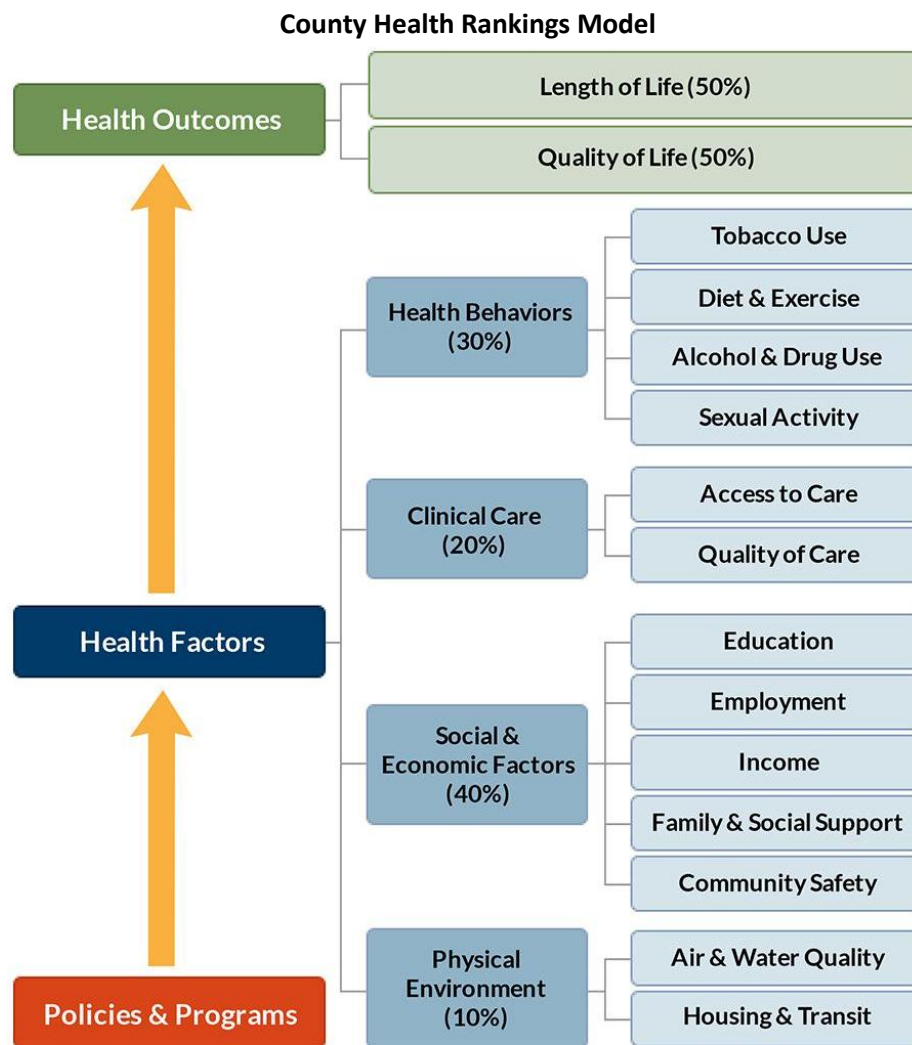
As is often the case with data collection, the data collected for this report contained some data that was two-four years old. In the interest of maintaining consistent reporting sources across all KentuckyOne Health hospitals for this CHNA process, some data, for example the uninsured rate reported by the *County Health Rankings* data, had multiple options for source material that may have reflected differently than the data we chose due to differences in those sources' reporting methods.

Community Health Needs Assessment Process

County Health Rankings Population Health Model

As described earlier in this report, our main data source, the *County Health Rankings*, is based on a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places. This model tells us that the vast majority of health outcomes—measured by both length of life and quality of life—are determined by the health factors in these categories: social and economic factors, health behaviors, clinical care and the physical environment.

These health factors represent what is commonly referred to as social determinants of health. The model shows that 40% of our health outcomes are determined by social and economic factors, 30% are determined by health behaviors, 20% are determined by clinical care, and 10% are determined by our physical environment. Each factor has multiple measures associated with it. A fifth set of health factors, genetics, is not included in these rankings because these variables cannot be impacted by community-level intervention.



County Health Rankings model © 2014 UWPHI

Purpose-Focused Prioritization of Health Needs

An analysis of various health outcomes and factors can illustrate opportunities for our hospitals to address our community's health needs. By prioritizing which opportunities to address health needs are the most effective and applicable for the hospital's resources, we best understand how to be a community leader who can actively participate in improving the community's habits, culture and environment. In our effort to address the most influential health factors that can be impacted by community-level intervention, we have included a weighted measure of the health needs to give additional emphasis to health needs that more heavily influence health outcomes. Using a ranking system to acknowledge this impact on health illustrates KentuckyOne Health's commitment to bringing wellness, healing and hope to all as we recognize the disproportionately negative impact of these social determinants on the health of the poor, vulnerable and underserved in our communities.

Process for Collecting and Analyzing Data

Data was collected between July 2015-March 2016 according to the descriptions in the "Data Sources" section, and website links to these resources can be found in the "References" section of this report.

In order to prioritize the health needs of our community, we developed a ranking system. Health needs were assessed on eight prioritization factors: magnitude, impact on mortality, impact on morbidity, trends, community input, strategic alignment, comparison to peer communities and common identification. Each factor received a score of zero to four, with a four indicating the greatest need possible for that particular factor. The total score is the sum of all prioritization factors for that particular measure, and the possible total score is 32.

Additionally, we included a weighted scale to account for the measure of influence of each set of health factors. The measure of influence is the percentage of effect that this category of health factors has on health outcomes. The weighted score was created by multiplying the total score for each health measure by the percentage of their influence on overall health. For example, tobacco use is a health behavior. If all eight categories added up to a total score of 21, we then multiplied this total score by 30%—the measure of influence for a health behavior according the *County Health Rankings* model. This weighted score was compared against the other categories. The factors with the highest weighted scores were identified as community health needs for the community served.

The descriptions on the following pages provide the methods used to score each health need according to the eight prioritization factors.

1. Magnitude: How many people are personally affected by this health need?

Rankings for this factor were based on the magnitude of the health need, or how many residents in the community served were personally affected by this health need. Each health need was correlated with a measurable health behavior or factor. The percentage of the population whose personal health was impacted by that behavior or factor was ranked according to the percent of the community personally affected.

A score of 0-4 was given to each of the 16 health measures as follows:

- 0= none of the residents in the community served are affected by health need
- 1= Health measure ranked thirteen-sixteen by number of residents affected
- 2= Health measure ranked nine-twelve by number of residents affected
- 3= Health measure ranked five-eight by number of residents affected
- 4= Health measure ranked one-four by number of residents affected

Percentage of Laurel County Residents Impacted by Health Needs				
<i>Ranking</i>	<i>Health Behavior/Factor</i>	<i>% of Population</i>	<i>Correlating Health Measure</i>	<i>Score</i>
1	Physical Inactivity ¹	32%	Diet and Exercise	4
2	Adult Smokers ¹	30%	Tobacco Use	4
3	Inadequate Social Support ⁴	22%	Family and Social Support	4
4	Did Not Graduate High School ¹	21%	Education	4
5	Living in Poverty ⁴	21%	Income	3
6	Uninsured ¹	19%	Access to Care	3
7	Preventable Hospital Stays ⁴	12.1%	Quality of Care	3
8	Severe Housing Problems ¹	11%	Housing and Transit	3
9	Unemployment Rate ¹	9.2%	Employment	2
10	Excessive Drinking ¹	9%	Alcohol and Drug Use	2
11	Do Not Live Close to Grocery Store ⁴	4.9%	Diet and Exercise	2
12	% of Deaths Due to Drug Use ²	3%	Alcohol and Drug Use	2
13	Transit Ridership % Workers ³	1%	Housing and Transit	1
14	Chlamydia Rate ¹	0.18%	Sexual Activity	1
15	Violent Crime ¹	0.09%	Community Safety	1
16	Drinking Water Violations ¹	0%	Air & Water Quality	0
Sources: County Health Rankings ¹ , 2014 Overdose Fatality Report ² , Housing and Transportation Affordability Index ³ , Centers for Disease Control and Prevention ⁴				

2. Impact on Mortality (Length of Life): How is this health need related to the leading causes of death in this community?

Rankings for this factor were based on risk of mortality associated with this health need by reviewing the Centers for Disease Control and Prevention's *15 Underlying Causes of Death* in the community for the most recent year available as of this writing (2014). The leading causes of death were ranked in order at the top of the chart and given an "X" as they related to the health measures listed on the side of the chart. For our purposes, a health measure was defined as being related to a leading cause of death if there is an established causal and/or correlating relationship between the two. The number of linkages to the leading causes of death (indicated by the number of "X's") was totaled for each health measure.

A score of 0-4 was given to each of the 13 health measures as follows:

- 0= health measure does not correlate to any leading causes of death
- 1= health measure correlates to one leading cause of death
- 2= health measure correlates to two leading causes of death
- 3= health measure correlates to three leading causes of death
- 4= health measure correlates to four or more leading causes of death

Leading Causes of Death: Laurel County (2014)									
Measures	#1: Cancer	#2: Diseases of the Heart	#3: Accidents	#4: Chronic Lower Respiratory Disease	#5: Cerebrovascular Disease	#6: Influenza and Pneumonia	#7: Kidney Disease	#8: Diabetes	Score
Tobacco Use	X	X	X	X		X	X		4
Diet and Exercise	X	X		X			X	X	4
Alcohol and Drug Use	X	X	X	X	X	X	X		4
Sexual Activity	X								1
Access to Care	X	X	X	X		X	X	X	4
Quality of Care		X	X	X		X	X	X	3
Education		X							1
Employment									0
Income	X	X	X			X	X		4
Family & Social Support		X							1
Community Safety					X				1
Air & Water Quality	X		X			X			3
Housing & Transit	X	X	X	X	X	X	X		4
Source: Centers for Disease Control and Prevention, National Center for Health Statistics (2015)									

Rankings for this factor were determined by the impact that this health need can have on quality of life by assessing underlying reasons for inpatient hospitalization in the community served. The Kentucky Hospital Association provided the top ten diagnosis groups responsible for all of Laurel County hospital discharges. The diagnosis groups are listed on the chart in the order of the greatest to least number of discharges. Each health measure was assessed for its relation to the diagnosis group. For our purposes, a health measure was defined as being related to a diagnosis group if there was an established causal and/or correlating relationship between the measure and the diagnosis group.

- 0= this health measure does not correlate with any diagnosis groups
- 1= this health measure directly correlates with the diagnosis group responsible for inpatient hospitalizations in the top four-ten diagnosis groups (#4-#10)
- 2= this health measure directly correlates with the diagnosis group responsible for the third-highest (#3) inpatient hospitalizations
- 3= this health measure directly correlates with the diagnosis group responsible for the second-highest (#2) inpatient hospitalizations
- 4= this health measure directly correlates with the diagnosis group responsible for the highest (#1) inpatient hospitalizations

Laurel County, KY Top Ten Diagnosis Groups Responsible for Inpatient Hospital Discharges (2014)											
Measures	#1: Circulatory System	#2: Respiratory System	#3: Digestive System	#4: Mental Disease/Disorders	#5: Musculoskeletal System/Connective Tissue	#6: Infectious and Parasitic Disease	#7: Nervous System	#8: Kidney and Urinary Tract	#9: Hepatobiliary System and Pancreas	#10: Skin Subcutaneous Tissue and Breast	Score
Tobacco Use	X	X								X	4
Diet and Exercise	X	X	X	X	X			X		X	4
Alcohol and Drug Use	X			X				X	X		4
Sexual Activity								X	X		1
Access to Care	X	X	X	X	X	X	X	X	X	X	4
Quality of Care	X	X	X	X	X	X	X	X	X	X	4
Education											0
Employment											0
Income	X	X	X	X	X	X	X	X	X	X	4
Family & Social Support				X							1
Community Safety					X						1
Air & Water Quality		X									3
Housing & Transit		X									3
Source: Kentucky Hospital Association InfoSuite CY2014 Discharges (excluding Normal Newborn)											

4. Trends: How does the measure of this need compare to previous years?

Rankings for this factor reflected the need to assess progress made toward improved community health since the previous CHNA. Data was collected from the Robert Wood Johnson Foundation *County Health Rankings* to compare the community's 2015 health rankings to its 2012 health rankings (when this community data was last gathered for the previous CHNA). Areas that are worsening, or are improving but are still comparatively unhealthy outcomes as compared to other communities (considered an "Area to Explore"), were recognized in the ranking of these measures.

A score of 0-4 was given to each of the 13 health measure as follows:

- 0= health measure is currently trending towards improved health
- 1= health measure is trending the same as in previous years
- 2= health measure is trending the same as or better than in previous years AND is an Area to Explore in the *County Health Rankings* (marked in red)
- 3= health measure is trending towards worse health
- 4= health measure is trending towards worse health AND is an Area to Explore in the *County Health Rankings* (marked in red)

Laurel County Health Trends: County Health Rankings Trends 2012 to 2015					
Measures	Data Used	2012 CHR Data	2015 CHR Data	Trend	Score
Tobacco Use	Adult Smoking ¹	27%	30%	Worse	4
Diet and Exercise	Physical Inactivity ¹	36%	32%	Better	2
Alcohol and Drug Use	Excessive Drinking ¹	6%	9%	Worse	3
Sexual Activity	Sexually-Transmitted Infections Per 100,000 Residents ¹	125	175	Worse	3
Access to Care	Uninsured ¹	20%	19%	Better	2
Quality of Care	Preventable Hospital Stays Per 1,000 Medicare Enrollees ¹	94	92	Better	2
Education	High School Graduation ¹	74%	79%	Better	2
Employment	Unemployment ¹	11.1%	9.2%	Better	2
Income	Children in Poverty ¹	33%	31%	Better	2
Family & Social Support	Inadequate Social Support ²	22%	22%	Same	1
Community Safety	Violent Crime Rate Per 100,000 Residents ¹	86	87	Worse	3
Air & Water Quality	Air Pollution—Particulate Matter ¹	12.7 (2013 data)	13.0	Worse	3
Housing & Transit	Severe Housing Problems ¹	11% (2014 data)	11%	Same	1
Source: County Health Rankings and Roadmaps (2015) ¹ , Centers for Disease Control and Prevention Community Health Status Indicators (2015) ²					

5. Importance to the Community: Was this need identified as a priority by the community served?

Rankings for this factor were based on the primary data collected for community input. In cases where communities were not asked to rate the specific health measures in this report, their responses were grouped as they related to the established measure. The total number of related responses applicable to that measure was summed and then each health need was ranked according to the number of responses.

A score of 0-4 was given to each of the 13 health measure as follows:

- 0= health need not identified as health need by the community
- 1= health need identified as a health need, but not in top ten community-identified health needs
- 2= health need identified as sixth through tenth most important community-identified health needs
- 3= health need identified as fourth or fifth most important community-identified health needs
- 4= health need identified in top three community-identified health needs

2015 Laurel County Community Input: Primary Data	
<i>Measures</i>	<i>Score</i>
Tobacco Use	0
Diet and Exercise	4
Alcohol and Drug Use	4
Sexual Activity	0
Access to Care	4
Quality of Care	1
Education	2
Employment	3
Income	2
Family & Social Support	3
Community Safety	2
Air & Water Quality	2
Housing & Transit	2
Source: primary data solicited by the Laurel County Health Department	

6. Alignment and Sustainability: How closely does this need match with state-wide strategic efforts by KentuckyOne Health?

Rankings for this factor were determined by representatives from KentuckyOne Health's strategy and business development team according to strategic vision. Michael Spine, Senior Vice President for Strategy and Business Development assigned these values to each of the health needs in January 2016.

A score of 0-4 was given to each of the 13 health measure as follows:

- 0= health need not aligned with strategic efforts
- 1= health need aligned with system strategic efforts, but not this hospital's strategic efforts
- 2= health need aligned with this hospital's local strategic efforts, but not system's strategic efforts
- 3= health need aligned with system and this hospital's strategic efforts
- 4= health need aligned with system and this hospital's strategic efforts AND has sustainability plan/option

Health Measures Related to Strategic Alignment	
<i>Measures</i>	<i>Score</i>
Tobacco Use	4
Diet and Exercise	4
Alcohol and Drug Use	4
Sexual Activity	4
Access to Care	4
Quality of Care	4
Education	0
Employment	4
Income	0
Family & Social Support	0
Community Safety	4
Air & Water Quality	0
Housing & Transit	0
Source: KentuckyOne Health Strategy	

7. Comparison to Peer Communities: What are the community's health needs compared to peer communities?

Rankings for this factor were determined by identifying how this community compares to peer communities elsewhere in Kentucky and the United States to provide a broader view of the health outcomes in this community. The Centers for Disease Control and Prevention's county-level Community Health Status Indicators (CHSIs) provided such a comparison. Each health measure has a related data point found in the CHSI and that metric is compared to the data point in other communities. The quartile this health measure fell into was described as better, moderate or worse as compared to other peer communities.

A score of 0-4 was given to each of the 13 health measure as follows:

- 0 = this health need is not identified with peer county values
- 1 = this health need is in the first quartile (the "Better" category as compared to peer communities)
- 2 = this health need is in the second quartile (the "Moderate" category as compared to peer communities)
- 3 = this health need is in the third quartile (the "Moderate" category as compared to peer communities)
- 4 = this health need is in the fourth quartile (the "Worse" category as compared to peer communities)

Laurel County Comparison to Peer United States Communities			
<i>Measures</i>	<i>Data Point from CHSI for Improving Community Health</i>	<i>Comparison to Peer Counties (Quartile)</i>	<i>Score</i>
Tobacco Use	Adult Smoking	Worse-Q4	4
Diet and Exercise	Limited Access to Healthy Foods	Better-Q1	1
Alcohol and Drug Use	Adult Binge Drinking	Better-Q1	1
Sexual Activity	Gonorrhea Rate	Better-Q1	1
Access to Care	Uninsured	Better-Q1	1
Quality of Care	Older Adult Preventable Hospitalizations	Worse-Q4	4
Education	No High School Diploma	Worse-Q4	4
Employment	Unemployment	Worse-Q4	4
Income	Poverty	Moderate-Q3	3
Family & Social Support	Inadequate Social Support	Moderate-Q3	3
Community Safety	Violent Crime	Better-Q1	1
Air & Water Quality	Annual Average PM2.5 Concentration	Worse-Q4	4
Housing & Transit	Housing Stress	Better-Q1	1
Source: Centers for Disease Control and Prevention			

8. Commonly Identified: How many data sources identified this as a need?

Ratings for this factor are based on the alignment of all major sources of data identifying this as a health need. A common alignment represents opportunities for synergistic efforts to address these needs. The scores for each health measure were listed with their score for each prioritization factor described on the previous pages of this report. These factors were then averaged and rounded, resulting in a final score 0 to 4.

A score of 0-4 was given to each of the 13 health measure as follows:

- 0= health need not identified in any of the sources of data
- 1= health need identified by few sources of data
- 2= health need identified by some sources of data
- 3= health need identified by most sources of data
- 4= health need identified by all sources of data

Commonly Identified Health Needs in Laurel County									
<i>Measures</i>	Identified in Magnitude	Identified in Mortality	Identified in Morbidity	Identified in Trends	Identified in Community Input	Identified in Alignment	Identified in Comparison	Average	Score
Tobacco Use	4	4	4	4	0	4	4	3.43	3
Diet and Exercise	4	4	4	2	4	4	1	3.29	3
Alcohol and Drug Use	2	4	4	3	4	4	1	3.14	3
Sexual Activity	1	1	1	3	0	4	1	1.57	2
Access to Care	3	4	4	2	4	4	1	3.14	3
Quality of Care	3	3	4	2	1	4	4	3.00	3
Education	4	1	0	2	2	0	4	1.86	2
Employment	2	0	0	2	3	4	4	2.14	2
Income	3	4	4	2	2	0	3	2.57	3
Family & Social Support	4	1	1	1	3	0	3	1.86	2
Community Safety	1	1	1	3	2	4	1	1.86	2
Air & Water Quality	0	3	3	3	2	0	4	2.14	2
Housing & Transit	3	4	3	1	2	0	1	2.00	2
Source: see original tables with data									

Prioritized Significant Community Health Needs

Prioritization of Community Health Needs According to Data

Below is the chart of each health measure's ranking according to each priority. The total score, as indicated on the previous charts, is listed here. The weighted score is the multiplication for the total score by the measure of influence on overall health outcomes, as described by the Robert Wood Johnson *County Health Rankings* model. A total score and a weighted score are both provided. The health needs with the top three highest weighted scores are highlighted in red.

Prioritization of Community Health Needs: St. Joseph London												
Community: Laurel County												
Health Factors	Measures	Prioritization Factors								Total Score	Measure of Influence	Weighted Score
		Magnitude	Mortality	Morbidity	Trend	Importance to the Community	Alignment	Comparison to Peers	Commonly Identified			
Health Behaviors	Tobacco Use	4	4	4	4	0	4	4	3	27	30%	8.1
	Diet and Exercise	4	4	4	2	4	4	1	3	26	30%	7.8
	Alcohol and Drug Use	2	4	4	3	4	4	1	3	25	30%	7.5
	Sexual Activity	1	1	1	3	0	4	1	2	13	30%	3.9
Clinical Care	Access to Care	3	4	4	2	4	4	1	3	25	20%	5
	Quality of Care	3	3	4	2	1	4	4	3	24	20%	4.8
Social and Economic Factors	Education	4	1	0	2	2	0	4	2	15	40%	6
	Employment	2	0	0	2	3	4	4	2	17	40%	6.8
	Income	3	4	4	2	2	0	3	3	21	40%	8.4
	Family & Social Support	4	1	1	1	3	0	3	2	8	40%	3.2
	Community Safety	1	1	1	3	2	4	1	2	15	40%	6
Physical Environment	Air & Water Quality	0	3	3	3	2	0	4	2	17	10%	1.7
	Housing & Transit	3	4	3	1	2	0	1	2	16	10%	1.6

Final Priorities Identified by Hospital Leadership

To achieve consistency across the KentuckyOne Health system and to identify opportunities for cross-hospital collaboration, we have chosen to identify our priorities as named in the Robert Wood Johnson *County Health Rankings* measures.

In March 2016, the leadership team at Saint Joseph London gathered to review the Laurel County data and the aforementioned prioritization chart. The team discussed each of the health measures in the chart and where they believed the hospital had the greatest capacity to make the most marked improvement. The areas below were chosen as the FY2017-2019 community health needs assessment priority areas with the consideration of a linking chronic disease education and disease management:

- **Tobacco Use**
 - The data in the health needs prioritization chart showed tobacco use to have the highest total score and the second highest weighted score of all health measures assessed. The leadership teams concluded that this issue continues to present itself as a major concern in the community and that the hospital had the capacity to address this health need.
- **Diet and Exercise**
 - The data in the health needs prioritization chart showed diet and exercise to have the second highest total score and the third highest weighted score of all the measures assessed. The leadership teams concluded that there were many opportunities to address this health need at various levels in the community and in the hospital.
- **Alcohol and Drug Use**
 - The data in the health needs prioritization chart showed alcohol and drug use to have third highest total score and fourth highest weighted score of all health measures assessed. As this issue continues to have increasing impact in Laurel County, the leadership team discussed the need to respond.

Needs Not Addressed

One health need appeared in the data analysis which the Saint Joseph London leadership team chose not to select as a priority area for this community health needs assessment:

- **Income**
 - The data in the health needs prioritization chart showed income to have the highest weighted score of all the health measures assessed. The leadership team chose not to address this area specifically in the Implementation Strategies report due to the lack of ability to impact this area beyond the hospital employees in the community.

Potentially Available Resources in Community

The availability of health care resources is critical to the health of a county's residents and addressing health needs, including those identified in this assessment. A limited supply of health resources, especially providers, results in poorer health status of the community. The sections below briefly describe potentially available resources to address the health needs of Saint Joseph London's community. The Kentucky Cabinet for Health and Family Services updates the list of these resources monthly in their report "Inventory of Kentucky Health Facilities, Health Services and Major Medical Equipment" at this link: <http://chfs.ky.gov/ohp/con/inventory.htm>.

Hospitals and Ambulatory Care Clinics

According to the Kentucky Hospital Association, the facilities below were licensed as hospitals and ambulatory care clinics in Laurel County as of March 2016:

- **Hospitals:** Saint Joseph London
- **Ambulatory Care Centers:** none

Other Licensed Facilities

According to the Kentucky Cabinet for Health and Family Services, the facilities below offered services to Laurel County residents as of March 2016:

- **Long-Term Care Beds:** Hillcrest Health & Rehabilitation Center, Laurel Heights Home for the Elderly
- **Home Health Services:** Professional Home Health Care Agency, VNA Health at Home
- **Hospice:** Mountain Community Hospice, Tri County Hospice
- **Adult Day Health Programs:** Friends and Companions
- **Rehabilitation Agencies:** Heartland Rehabilitation Services, Hillcrest Health & Outpatient Rehabilitation, PT Pros (2 locations), Saint Joseph London Outpatient Rehabilitation
- **Private Duty Nursing:** none
- **Limited-Service Clinics:** Baptist Express Care Clinic

Health Care Provider Ratios

According to the 2015 Robert Wood Johnson *County Health Rankings*, Laurel County had a higher ratio of residents to health care providers than the Kentucky state average, which suggests a potential issue of accessibility to these providers as compared to the state. Laurel County had 2,202 residents for every one primary care physician as compared to a state average of 1,551 residents to one primary care physician. Laurel County had 2,482 residents for every one mental health provider as compared to a Kentucky state average of 621 residents to one mental health provider.

Health Departments

The Laurel County Health Department (LCHD) is the local health department that serves Laurel County residents to provide health promotion and education. Saint Joseph London collaborated with the LCHD to conduct its community health needs assessment. The LCHD provides an array of services through these departments: clinical services, WIC,

school health, environmental services, health education and vital statistics. More information about the LCHD can be found here: <http://www.Laurelcountyhealthdept.org/Index.html> .

Evaluation of Impact

The following section describes the evaluation of impact of the previous community health needs assessment conducted by Saint Joseph London in 2013 to cover FY2014-16.

Needs Identified in 2013-2016 CHNA and Impact of Actions

The health needs addressed in Saint Joseph London's FY2014-2016 CHNA included: cancer, stroke/cardiovascular disease/obesity, and mental illness/addictions. The hospital's actions toward improving these health needs over the previous CHNA coverage period are described below.

- Cancer
 - Implemented a collaborative effort between the Kentucky Cancer Program, American Cancer Society, Laurel County Health Department and Saint Joseph London.
 - Participated in annual Relay for Life events.
 - Worked with collaborative partners to promote/provide cancer screenings in Laurel County annually.
 - Provided on-going Cooper/Clayton smoking cessation classes.
- Stroke/Cardiovascular Disease/Obesity
 - Facilitated a partnership with local agencies and healthcare providers to establish a cardiovascular coalition.
- Mental Illness/Addictions (Drug & Alcohol)
 - Established a coalition of mental health professionals, representatives from Comp Care, school personnel, and emergency department staff to address the behavioral health needs of patients and families in the community.
 - Aforementioned coalition invited NAMI's director to address group on requirements for forming a NAMI group in London.
 - Began a behavioral health support group.
 - Continued to focus on fatal/near fatal events for children 0-4 years of age and the impact of drug use by parents, specifically in reference to the identify of the offender, the influence of drugs/alcohol on the fatal/near fatal event, and the offender's age, sex, and relationship to the child.
 - In May 2015, began working with local jail and inmates in their recidivism program to address parenting issues using the Nurturing Parent Program.

Evaluation of Written Comments

Feedback on the most recently-conducted CHNA and implementation strategy was solicited via a link on the KentuckyOne Health website: <http://www.kentuckyonehealth.org/healthy-community-contact-us>. Although the link has been accessed, none of the information shared through this link have been related to the previous CHNA or Implementation Strategies reports. So, Saint Joseph London has solicited feedback with a readily-accessible tool, but has not received any written comments and thus has no opportunity to evaluate those comments.

Learning from Previous CHNA

This second cycle of the CHNA process lends itself as a learning opportunity to improve the CHNA process. Across the KentuckyOne Health system, discussions at the executive and hospital leadership levels indicated the need to

concentrate resources to most effectively address community health needs, which led to the conclusion that fewer priorities should be of focus in the 2017-2019 CHNAs.

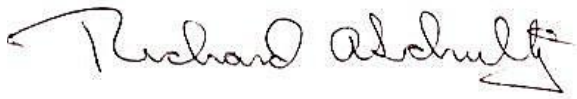
In the interest of further unifying our state-wide health system and leveraging system expertise, KentuckyOne Health decided to use consistent reporting resources across all hospital CHNAs and identify health needs with consistent naming conventions. This will allow for greater synergies among our hospitals and a greater potential to positively impact the health of citizens in our communities across the Commonwealth of Kentucky.

Next Steps

Saint Joseph London will use the findings in this community health needs assessment to guide the coordinated efforts in addressing the identified health priorities. This community health needs assessment will be made public and widely available no later than June 30, 2016. The efforts to address these identified health priorities will be described in an accompaniment to this document known as the Saint Joseph London's Implementation Strategies. This will be made public and widely available no later than November 15, 2016.

Adoption/Approval

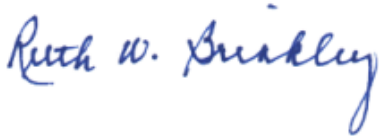
KentuckyOne Health's Board of Directors includes representation across the state and support the work that each facility completes to improve the health of their community. The Board of Directors approves Saint Joseph London's community health needs assessment and the methods used to identify priority areas of need in this hospital's community.



4/27/2016

Chair, KentuckyOne Health Board of Directors

Date



4/27/2016

President & Chief Executive Officer, KentuckyOne Health

Date

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