



**Indiana University Health Paoli Hospital  
Community Health Needs Assessment**

**2014-2015**





<b>1</b>	<b>INTRODUCTION</b>	<b>1</b>
1.1	Purpose	1
1.2	Objectives	1
<b>2</b>	<b>EXECUTIVE SUMMARY</b>	<b>2</b>
2.1	Primary Service Area	3
<b>3</b>	<b>STUDY METHODS</b>	<b>3</b>
3.1	Analytical Methods	3
3.2	Data Sources	3
3.3	Process for Determining Priorities	4
3.4	Information Gaps	4
3.5	Collaborating Organizations	5
<b>4</b>	<b>DEFINITION OF COMMUNITY ASSESSED</b>	<b>6</b>
<b>5</b>	<b>SECONDARY DATA ASSESSMENT</b>	<b>7</b>
5.1	Demographics	7
	Source: County Characteristics Datasets: Annual County Resident Population Estimates by	7
	Age, Sex, Race, and Hispanic Origin: April 1, 2010 to July 1, 2014	7
5.2	Economic Indicators	7
5.2.1	Employment	7
5.2.2	Household Income and People in Poverty	8
5.3	County Level Health Status and Access Indicators	10
5.3.1	County Health Rankings	10
5.3.2	Community Health Status Indicators	12
5.4	ZIP Code-Level Health Access Indicators	14
5.5	Medically Underserved Areas and Populations	15
5.6	Health Professional Shortage Areas	17
5.7	Description of Other Facilities and Resources Within the Community	18
<b>6</b>	<b>PRIMARY DATA ASSESSMENT</b>	<b>19</b>
6.1	Focus Group Findings	19
6.1.1	Identification of Persons Providing Input	19
6.1.2	Prioritization Process and Criteria	20
6.1.3	Description of Prioritized Needs	20
6.2	Community Survey Findings	22
6.2.1	Respondent Demographics	22
6.2.2	Greatest Health Needs and Social Issues	23
6.2.3	Perceptions of Health Issues	24
6.2.4	Health Education and Access	27
<b>7</b>	<b>IU HEALTH PAOLI ACTIVITIES ADDRESSING PRIORITY NEEDS</b>	<b>28</b>
<b>8</b>	<b>CONCLUSION</b>	<b>29</b>

## **IU Health Community Health Needs Assessment Team Members**

**Joyce M. Hertko, Ph.D.**

Director  
Community Outreach & Engagement  
Indiana University Health Methodist Hospital  
317.962.2189  
jhertko@iuhealth.org

**Stephanie Berry, MS**

Senior Project Manager  
Community Outreach and Engagement  
Indiana University Health Methodist Hospital  
317.962.6102  
sberry@iuhealth.org

**Anyah Land, MPH**

Community Benefit Project Manager  
Community Outreach and Engagement  
Indiana University Health Methodist Hospital

**Amber Blackmon, MPH**

Masters of Public Health Intern  
Community Outreach and Engagement  
Indiana University Health Methodist Hospital  
317.962.6010  
ablackmon@iuhealth.org

**Molly Witt**

Health Promotion Intern  
Community Outreach and Engagement  
Indiana University Health Methodist Hospital  
317.962.5766  
mwitt@iuhealth.org

**Larry Bailey**

President & CEO  
IU Health Paoli Hospital  
812.723.2811  
Lbailey5@iuhealth.org

**Sonya Zeller, DNP, MBA, RN**

Vice President/COO  
Chief Nursing Officer  
IU Health Paoli Hospital  
812.723.2811

**Melinda Lambdin**

Community Health & Education Manager  
IU Health Paoli Hospital  
812.723.2811  
mlambdin@IUHealth.org

# **1 INTRODUCTION**

## **1.1 Purpose**

This report provides an overview of findings from a community health needs assessment (CHNA) conducted on behalf of Indiana University Health (IU Health) Paoli Hospital (IU Health Paoli) in order to identify the leading health needs in Orange County, the area defined as the community served by the hospital, in order to develop an effective implementation strategy to address the top needs identified, and to respond to the regulatory requirements of the Patient Protection and Affordable Care Act of 2010 (PPACA), which requires that each tax-exempt hospital facility conduct an independent CHNA.

## **1.2 Objectives**

The 2015 IU Health Paoli CHNA has three main objectives:

- 1. Identify the priority health needs within Orange County, Indiana.**
- 2. To serve as a foundation for developing implementation strategies that can be implemented by healthcare providers, communities, and policy makers in order to improve the health status of residents of the Orange County community.**
- 3. Supply public access to the CHNA results in order to inform the community and provide assistance to those invested in the transformation to the community's healthcare network.**

## 2 EXECUTIVE SUMMARY

IU Health Paoli's entire community service area extends into six counties: Orange, Crawford, Lawrence, Washington, Dubois, and Martin. Poor social and economic factors may contribute to the poor lifestyle choices that are prevalent in the community, such as substance abuse, poor diet, and lack of physical activity.

### Top Community Health Needs

This assessment identified five priority needs across the entire community served by the hospital. These problems affect most of the community service area counties, but particularly apply to the PSA of Orange County.



**Mental Health**



**Access to Healthcare**



**Smoking and tobacco use**



**Obesity Prevention**



**Substance abuse**

To identify these needs, IU Health Paoli Hospital collected comments to the prior CHNA, surveyed residents of the county through an online portal and through paper surveys, conducted a focus group which included a public health official and representatives of medically underserved, and reviewed available resources about health status indicators. From these sources, the Hanlon Method was used to identify these priority needs.

Mental Health.  
Access to Healthcare.  
Smoking/Tobacco Use.  
Obesity Prevention.  
Substance Abuse.

IU Health Paoli Hospital is the only hospital in Orange County.

## 2.1 Primary Service Area

Orange County comprises the majority of the IU Health Paoli community. It accounts for all of the primary service area (PSA) population, and 80% of the inpatient discharge population of the total community service area.



Orange County has slightly higher rates of unemployment than the state of Indiana and the national average. The median household income of Orange County is below the Indiana state average and the national average. The county is adversely affected by a combination of chronic health conditions, increasing poverty levels, low educational attainment, and the low availability of higher paying jobs.

## 3 STUDY METHODS

### 3.1 Analytical Methods

In order to identify the community's health needs, both quantitative and qualitative data about the population's health and the factors that affect it were utilized. For this CHNA, quantitative analyses assessed the health needs of the population through data abstraction and analysis, and qualitative analyses were conducted by gathering input from community members through a survey and through a structured interview with community leaders in Orange County.

### 3.2 Data Sources

CHNAs seek to identify priority health needs and access issues for particular geographic areas and populations. Accordingly, the following topics and data are assessed:

- Demographics, e.g., population, age, sex, race
- Economic indicators, e.g., poverty and unemployment rates
- Health access indicators, e.g., insurance coverage, ambulatory care sensitive condition (ACSC) discharges
- Availability of healthcare facilities and resources

Data sets for quantitative analyses included:

- Dignity Health—Community Needs Index
- Centers for Disease Control and Prevention

- Centers for Medicare & Medicaid Services
- Community Health Status Indicators Project
- Indiana Department of Workforce Development
- Indiana Hospital Association Database
- Kaiser Family Foundation
- Robert Wood Johnson Foundation—County Health Rankings
- US Bureau of Labor Statistics
- US Census Bureau
- US Department of Commerce, Bureau of Economic Analysis
- US Health Resources and Services Administration

While quantitative data can provide insights into an area, these data need to be supplemented with qualitative information to develop a full picture of a community's health and health needs. For this CHNA, qualitative data were gathered from responses collected online to the prior Community Health Needs Assessment, through surveys of members of the public, and in a focus group with health leaders and public health experts.

### **3.3 Process for Determining Priorities**

The quantitative, secondary data sources identified health needs for which Indiana or Orange County is above or below average. Qualitative information from survey results, which included responses from under-served or underrepresented groups, supplemented the secondary data. Survey results and secondary data findings were shared with a focus group of community health leaders. This group prioritized leading health needs. The priorities from the focus groups, plus survey results and health indicator data were compiled. IU Health Paoli Hospital representatives used the Hanlon Method to identify the top five needs.

The Hanlon Method seeks ratings from 0 to 10 on three criteria: size of the health problem based on the percentage of the population affected, seriousness or magnitude of the health problem, and the effectiveness of potential interventions.<sup>1</sup> With the ratings compiled, analysts identify specific health problems that can feasibly be addressed by the community served. From that list, priority scores are calculated, where the seriousness of the problem is given the most weight. Ranks are assigned based on the priority scores.

### **3.4 Information Gaps**

To the best of our knowledge, no information gaps have affected IU Health Paoli Hospital's ability to reach reasonable conclusions regarding community health needs. While IU Health Paoli has worked to capture quantitative information on a wide variety of health conditions from a wide array of sources, IU Health Paoli realizes that it is not possible to capture every health need in the community and there will be gaps in the data captured.

To attempt to close the information gap qualitatively, IU Health Paoli conducted a focus group with public health experts and community health leaders, and used community surveys to gather input from general and underserved community members. However, it should be noted that there are

---

<sup>1</sup> The Hanlon Method is one of the possible prioritization methods presented in material from the National Association of County and City Health Officials. See <http://www.naccho.org/topics/infrastructure/accreditation/upload/Prioritization-Summaries-and-Examples.pdf> for more information.



limitations to these methods. If an organization from a specific group was not present during the focus group, such as seniors or injury prevention groups, then that need could potentially be underrepresented in the focus group. Due to the community survey's small sample size, extrapolation of these results to the entire community population is limited.

### **3.5 Collaborating Organizations**

The IU Health system collaborated with other organizations and agencies in conducting this needs assessment for the IU Health Paoli Hospital community. These collaborating organizations are as follows:

**DWA Healthcare Communications Group**

**French Lick Library**

**Hoosier Uplands**

**IU Health Paoli Hospital**

**Jubilee Clinic**

**Springs Valley Meadows (a health and rehabilitation center)**

**Purdue Extension**

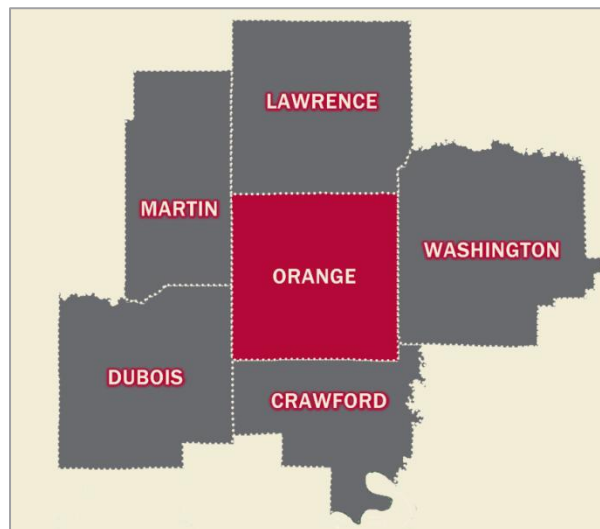
**Verité Healthcare Consulting, LLC**

## 4 DEFINITION OF COMMUNITY ASSESSED

This section identifies the community assessed by IU Health Paoli Hospital. The primary service area (PSA) of IU Health Paoli includes Orange County. The secondary service area (SSA) is comprised of five contiguous counties. The community definition is consistent with the inpatient discharges for 2013 as illustrated in **Figure 1** below.

In 2014, the IU Health Paoli PSA included 398 discharges and its SSA, 94 discharges. The community was defined based on the geographic origins of IU Health Paoli inpatients. Of the hospital's inpatient discharges, approximately 80% originated from the PSA and 19% from the SSA.

**Figure 1: Counties in the IU Health Paoli Hospital Service Area Community, 2015**



## 5 SECONDARY DATA ASSESSMENT

### 5.1 Demographics

IU Health Paoli Hospital is located in Orange County, in southern central Indiana. Orange County includes ZIP codes within the towns of French Lick, Orleans, Paoli, and West Baden Springs. Based on the most recent Census Bureau (2014) statistics, Orange County's population is 19,626 persons with approximately 51% being female and 49% male. The county's population estimates by race are 96.9% White, 1.1% Black, 1.3% Hispanic or Latino, 0.4% Asian, 0.4% American Indian or Alaska Native, and 1.2% persons reporting two or more races.

Orange County has relatively low levels of educational attainment. A high school degree is the level of education 44.3% of Orange County residents had achieved in 2013. An additional 23.4% of the residents had some college, but no degree or an associate's degree. As of 2013, 12.6% of the Orange County population had bachelor's degree or higher. In this county, 19.7% did not finish High School.

Within the entire service area, the total population for the PSA is 19,626 and the total population for surrounding counties is 136,785, as illustrated in **Table 1** below.

**Table 1: Service Area Population, 2014**

Service Area	County	Population	Percent of Total
Primary	Orange	19,626	12.5%
	<b>Subtotal</b>	<b>19,626</b>	<b>12.5%</b>
Secondary	Crawford	10,655	6.8%
	Lawrence	45,704	29.2%
	Washington	27,878	17.8%
	Dubois	42,345	27.1%
	Martin	10,203	6.5%
	<b>Subtotal</b>	<b>136,785</b>	<b>87.5%</b>
<b>Total Service Area</b>		<b>156,411</b>	<b>100.0%</b>

**Source:** County Characteristics Datasets: Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2010 to July 1, 2014

### 5.2 Economic Indicators

The following topics were assessed to examine various economic indicators with implications for health: (i) Employment, (ii) Household Income and People in Poverty and (iii) Uninsured.

#### 5.2.1 Employment

The share of jobs was greatest in the areas of accommodation and food services, manufacturing, health care and social assistance, construction, and retail trade. Orange County has a diverse group of major employers reported by the Indiana Department of Workforce Development, including: French Lick Springs Hotel, Paoli Incorporated, Layne Company, Wildwood Association Incorporated, Paoli Peaks, Wal-Mart Supercenter, IU Health Paoli Hospital, Throop Elementary School, and Pluto Corporation.

Orange County reported a slightly higher unemployment rate than the rate for the state of Indiana and the entire US. **Table 2** below summarizes unemployment rates at December 2013 and December 2014.

**Table 2: Unemployment Rates, December 2013 and December 2014**

Service Area	County	Dec-13	Dec-14	% Change from 2013-2014
<b>Primary</b>	Orange	8.4%	7.3%	-1.1%
<b>Secondary</b>	Crawford	8.5%	7.6%	-0.9%
	Lawrence	8.5%	7.4%	-1.1%
	Washington	7.0%	6.1%	-0.9%
	Dubois	4.3%	4.1%	-0.2%
	Martin	5.5%	5.3%	-0.2%
<b>Indiana</b>		6.3%	5.7%	-0.6%
<b>USA</b>		6.5%	5.4%	-1.1%

Source: US Bureau of Labor Statistics, 2015

### 5.2.2 Household Income and People in Poverty

Areas with higher poverty rates tend to have poorer access to healthcare, lower rates of preventive care, higher rates of preventable hospital admissions, and poorer health outcomes in general. According to the US Census, in 2013, the national poverty rate was at 14.8%, down from 15.0% in 2012. In Indiana, 15.8% of the state population lived in poverty, a 0.3% increase from the 2012 poverty rate (15.5%).

For Orange County, a poverty rate of 16.8% was reported in 2013, dropping from 17.4% in 2012 (-0.6%). Comparatively for Indiana, Hamilton County has the lowest poverty rate at 5.5% and Monroe County has the highest poverty rate at 24.0%. **Table 3** below illustrates the poverty rates by year between 2011 and 2013.

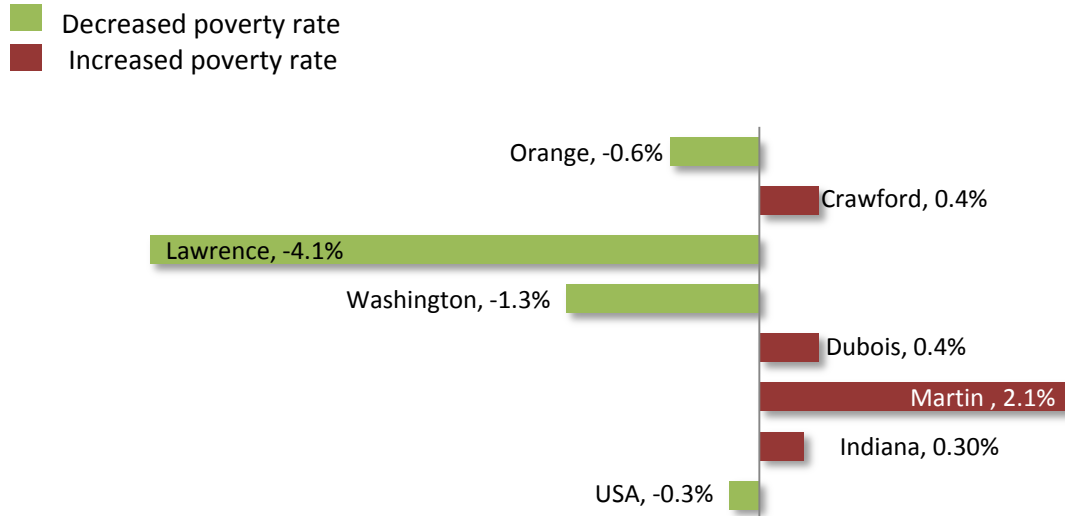
**Table 3: Percentage of People in Poverty, 2011-2013**

Service Area	County	2011	2012	2013	% Change from 2012-2013
<b>Primary</b>	Orange	17.1%	17.4%	16.8%	-0.6%
<b>Secondary</b>	Crawford	19.5%	18.9%	19.3%	0.4%
	Lawrence	15.4%	17.0%	12.9%	-4.1%
	Washington	15.2%	16.8%	15.5%	1.3%
	Dubois	8.3%	8.5%	8.9%	0.4%
	Martin	14.0%	12.8%	14.9%	2.1%
<b>Indiana</b>		15.8%	15.5%	15.8%	0.3%
<b>USA</b>		15.0%	15.0%	14.8%	-0.2%

Source: US Census Bureau, 2014

Lawrence County decreased in poverty rate (-4.1%) within the IU Health Paoli service area between 2012 and 2013. Comparisons of the poverty rates within the counties located in the service area, as well as those for the state of Indiana and the entire US are displayed in **Figure 2** below.

**Figure 2: Percentage Change In Poverty Rates between 2012 and 2013**



Source: US Census Bureau, 2014

Income level is an additional economic factor that has also been associated with the health status of a population. Based on the US Census Bureau (2013), Orange County's per capita personal income was estimated to be \$18,576, with a median household income of \$38,826, which are both below the state and US national rates. The Indiana state per capita income in 2013 was \$24,635 and median household income was around \$48,248. The US national per capita income was \$28,155 and median household income was \$53,046.

National statistics on health insurance indicate that 10% of the United States population is uninsured. Of the US population that is insured, 49% are insured through an employer, 6% through individual providers, 19% through Medicaid, 13% through Medicare and 2% through other public providers.

In Indiana, it is estimated that 11% of the population are uninsured. Of the Indiana residents who are insured, 17% residents are insured through Medicaid, 15% through Medicare, 51% through their employer, 5% through individual providers and 1% through other public providers.<sup>2</sup>

<sup>2</sup> Kaiser State Health Facts 2015, Kaiser Family Foundation. <http://www.statehealthfacts.org>.

### 5.3 County Level Health Status and Access Indicators

#### 5.3.1 County Health Rankings

The Robert Wood Johnson Foundation, along with the University of Wisconsin Population Health Institute, created County Health Rankings to assess the relative health of county residents within each state for all fifty states. These assessments are based on health measures of health outcomes, specifically length and quality of life indicators, as well as health factors, including indicators related to health behaviors, clinical care, economic status, and the physical environment.

**Table 4** summarizes County Health Ranking assessments for Orange County in Indiana; rankings for counties were converted into quartiles to indicate how each county ranks versus others in the state.

**Table 4: Relative Health Status Indicators for Orange County - Summary**

Indicator	Orange
Health Outcomes	82
Length of Life	62
Quality of Life	92
Health Factors	73
Health Behaviors	79
Clinical Care	64
Social and Economic Factors	68
Physical Environment	65

Source: County Health Rankings, 2015

With 92 counties in Indiana, a county may be ranked from 1 to 92, where 1 represents the highest ranking and 92 represents the lowest. Orange County fell within the bottom half for overall health outcomes, ranking 82th in the state. In preventable health factors, Orange County ranked 73th in terms of overall health-related factors (determinants of health). Individual scores are displayed in **Table 5** below to show more detail about the indicators contributing to Orange County's comparatively low scores.

Specific indicators that were ranked in the bottom 25th percentile for the state included quality of life (92nd), length of life (62nd), health behaviors (79th), clinical care (64th), social and economic factors (68th), and physical environment, which ranked 65th.

**Table 5: Relative Health Status Indicators for Orange County - Detail**

Indicator	Orange
<b>Health Outcomes</b>	82
Length of Life	62
Premature death per 100,000	8,222
<b>Quality of Life</b>	92
Poor or fair health	28%
Poor physical health days reported in the past 30 days	4.5

**Table 5: Continued**

<b>Indicator</b>	<b>Orange</b>
Poor mental health days reported in the past 30 days	6.2
Low birth weight (<2500 grams)	8.4%
<b>Health Factors</b>	<b>73</b>
<b>Health Behaviors</b>	<b>79</b>
Adult smoking	28%
Adult obesity (BMI of 30 or more)	32%
Food environment index 0 (worst) 10 (best)	7.5
Physical inactivity age 20 and over	36%
Access to exercise opportunities	67%
Excessive drinking	15%
Alcohol-impaired driving deaths	41%
Sexually transmitted infections (chlamydia) per 100,000	259
Teen female births ages 15-19 per 1,000	39
<b>Clinical Care</b>	<b>64</b>
Uninsured (under the age of 65)	17%
Primary care physicians ratio of population to primary care physicians	1,641 to 1
Dentists ratio of population to dentists	3,296 to 1
Mental health providers ratio of population to mental health providers	1,977 to 1
Preventable hospital stays per 1,000	79
Diabetic monitoring of Medicare enrollees ages 65-75 that receive HbA1c	80%
Mammography screening ages 67-69 of female Medicare enrollees	56.3%
<b>Social and Economic Factors</b>	<b>68</b>
High school graduation	91%
Some college ages 25-44	48.8%
Unemployment population ages 16 and older	8.2%
Children in poverty (under the age of 18)	28%
Income inequality ratio at the 80th percentile to income at the 20th percentile	4.3
Children in single-parent households	29%
Social associations per 10,000	16.8
Violent crime per 100,000*	
Injury deaths per 100,000	75

**Table 5: Continued**

<b>Indicator</b>	<b>Orange</b>
<b>Physical Environment</b>	65
Air pollution - particulate matter in micrograms per cubic meter (PM2.5)	13.8
Drinking water violations during the past year	0%
Severe housing problems with at least 1 of 4 problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities	13%
Driving alone to work	84%
Long commute - driving alone for more than 30 minutes	30%

\* Blank values reflect unreliable or missing data. Source: County Health Rankings, 2015

Across all IU Health Paoli service area Orange County, health outcomes, quality of life, and health behaviors indicators were ranked most consistently in the bottom quarter or bottom half of Indiana counties.

### **5.3.2 Community Health Status Indicators**

The Community Health Status Indicators (CHSI) Project of the US Department of Health and Human Services compares many health status and access indicators to both the median rates in the US and to rates in “peer counties” across the US. Counties are considered “peers” if they share common characteristics such as population size, poverty rate, average age, and population density.

Orange County has 47 designated “peer” counties in 14 states, including Jay, Parke, Pike, Sullivan, and Switzerland counties in Indiana, Bond, Cass, Clark, Clay, Edgar, Fayette, Lawrence, and Warren counties in Illinois, and Antrim and Benzie counties in Michigan. **Table 6** beginning on the next page demonstrates the analysis of CHSI health status indicators with highlighting in cells for topics on which Orange County compares favorably or unfavorably both to the US as a whole and its peer counties.

Orange County compared favorably to US and peer county benchmarks for mortality including female life expectancy, motor vehicle deaths, and unintentional injury deaths. Gonorrhea, HIV, older adult asthma, syphilis, primary care provider access, children in single-parent households, on time high school graduation, and poverty were also favorable. Unfavorable indicators for Orange County include diabetes deaths, adult overall health status, cost barrier to care, adult binge drinking, adult female routine pap tests, adult smoking, inadequate social support, annual average PM2.5 concentration, and living near highways.



**Table 6: Favorable and Unfavorable Health Status Indicators for Orange County**

Key	
Favorable	
Moderate	
Unfavorable	
<b>Indicator</b>	<b>Orange</b>
<b>Mortality</b>	
Alzheimer's Disease	
Diabetes	
Cancer	
Chronic Kidney Disease	
Chronic Lower Respiratory Disease	
Coronary Heart Disease	
Female Life Expectancy	
Male Life Expectancy	
Motor Vehicle	
Stroke	
Unintentional Injury (including motor vehicle)	
<b>Morbidity</b>	
Adult Diabetes	
Adult Obesity	
Adult Overall Health Status	
Alzheimer's Disease/Dementia	
Cancer	
Gonorrhea	
HIV	
Older Adult Asthma	
Older Adult Depression	
Preterm Births	
Syphilis	
<b>Health Care Access and Quality</b>	
Cost Barrier to Care	
Older Adult Preventable Hospitalization	
Primary Care Provider Access	
Uninsured	
<b>Health Behaviors</b>	
Adult Binge Drinking	
Adult Female Routine Pap Tests	
Adult Physical Inactivity	
Adult Smoking	
Teen Births	

Table 6 – Continued	
Indicator	Orange
<b>Social Factors</b>	
Children in Single-Parent Households	
High Housing Costs	
Inadequate Social Support	
On Time High School Graduation	
Poverty	
Unemployment	
Violent Crime*	
<b>Physical Environment</b>	
Access to Parks	
Annual Average PM2.5 Concentration	
Housing Stress	
Limited Access to Healthy Food	
Living Near Highways	

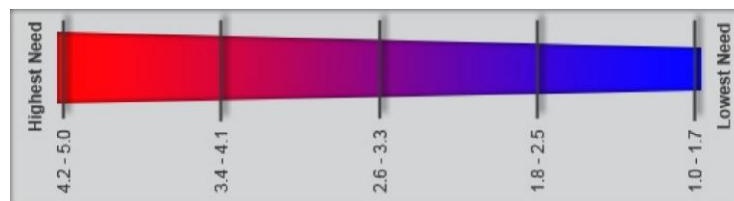
\* Blank values reflect unreliable or missing data

Source: Community Health Status Indicators Project, Department of Health and Human Services, 2015

#### 5.4 ZIP Code-Level Health Access Indicators

The Community Need Index (CNI) was created in 2005 by Catholic Healthcare West (now Dignity Health) in collaboration with Thomson Reuters. CNI identifies the severity of health disparities for ZIP codes in the United States. In addition to health indicators, CNI includes economic and structural indicators in its assessment of the overall health of a community. Scores are assigned on a scale of one to five with one indicating the least amount of community need and five indicating the most (see **Figure 3**). The CNI assessments illustrate correlations between high need/high scores and high hospital utilization in specific ZIP codes. **Table 7** summarizes the CNI for ZIP codes in Orange County.

**Figure 3: Community Need Index Rating Scale**



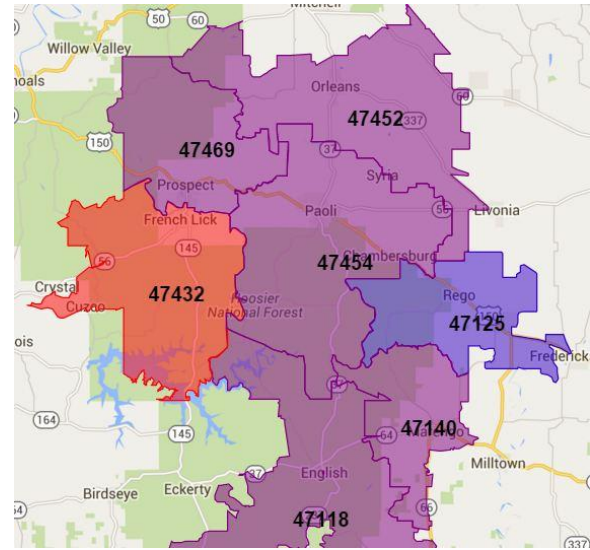
**Table 7: CNI Scores for Orange County**

PSA County	City	ZIP Code	Rank
Orange	French Lick	47432	4.2
	West Baden Springs	47469	3.2
	English*	47118	3.0
	Marengo*	47140	3.2
	Paoli	47454	3.0
	Orleans	47452	3.0
	Hardinsburg*	47125	2.4

Source: Community Need Index, 2015

\*Note that zip codes 47118 (English), 47125 (Hardinsburg), and 47140 (Marengo) are primarily within counties outside of Orange, but are included since a large portion of their ZIP code areas extend into Orange County.

**Figure 4: CNI Coding by ZIP Code within Orange County**



Within Orange County, CNI scores indicate needs in all ZIP Codes that are moderate to moderately-high.

## 5.5 Medically Underserved Areas and Populations

The Health Resources and Service Administration (HRSA) has calculated an Index of Medical Underservice (IMU) score for communities across the US. The IMU score calculation includes the ratio of primary medical care physicians per 1000 persons, the infant mortality rate, the percentage of the population with incomes below the poverty level, and the percentage of the population older than 64. IMU scores range from zero to 100 where 100 represents the least underserved and zero represents the most underserved.

Any area or population receiving an IMU score of 62.0 or below qualifies for Medically Underserved Area (MUA) or Medically Underserved Population (MUP) designation. Federally Qualified Health Centers (FQHCs) may be established to serve MUAs and MUPs. Populations receiving a MUP designation include groups within a geographic area with economic barriers or cultural and/or linguistic access barriers to receiving primary care. When a population group does not qualify for MUP status based on the IMU score, Public Law 99-280 allows MUP designation if “unusual local conditions which are a barrier to access to or the availability of personal health services exist and are documented, and if such a designation is recommended by the chief executive officer and local officials of the State where the requested population resides.”<sup>3</sup> **Table 8** on the next page illustrates the areas that have been designated as MUAs or MUPs in the IU Health Paoli community.

3. Guidelines for Medically Underserved Area and Population Designation. US Department of Health and Human Services, Health Resources and Services Administration. <http://bhpr.hrsa.gov/shortage/>.

**Table 8: MUAs and MUPs in the IU Health Paoli Hospital Community**

- County Does not contain an MUP or MUA designation; N/A Score not provided by source					
Service Area	County	MUA		MUP	
		IMU Score	Detail	IMU Score	Detail
Primary	Orange	N/A	Stampers Creek Service Area (Stampers Creek Township)	59.8	Low Income – Orange County
Secondary	Crawford	58.5	Crawford Service	-	-
	Lawrence	-	-	66.4	Low-income population, entire county
	Washington	58.33	Franklin/Gibson/Pierce Service Area (Franklin, Gibson, and Pierce Townships)	-	-
		-	-	61.5	Low Income – Salem (Brown, Jefferson, Washington, Monroe, Vernon, and Madison Townships)
		61.1	Posey Service Area (Posey Township)	-	-
	Dubois	-	-	-	-
Martin	57.0	Martin Service Area (Halbert, Lost River, and Mitcheltree Townships)	-	-	

Source: Health Resources and Services Administration, US Department of Health and Human Services, 2015

Orange, Crawford, Washington, and Martin counties contained areas designated as MUAs. The entire county of Lawrence was designated as a low-income MUP. Dubois County had neither MUA nor MUP.

## 5.6 Health Professional Shortage Areas

An area can receive a federal Health Professional Shortage Area (HPSA) designation if a shortage of primary care, dental care, or mental healthcare professionals is found to be present. HPSAs can be: (1) An urban or rural area (which need not conform to the geographic boundaries of a political subdivision and which is a rational area for the delivery of health services); (2) a population group; or (3) a public or nonprofit private medical facility.” **Table 9** below lists the HPSAs in the IU Health Paoli community.

**Table 9: HPSAs in the IU Health Paoli Hospital Community**

-				
County does not contain HPSA designation for category				
	County	Primary Care HPSA	Dental Care HPSA	Mental Health HPSA
<b>Primary</b>	Orange	Low-income population, entire county	-	Southern Indiana Catchment Area
	Crawford	Low-income population, entire county	-	Southern Indiana Catchment Area
<b>Secondary</b>	Lawrence	Low-income population, entire county	-	-
	Washington	Washington County	Washington County	-
	Dubois	-	-	Southern Indiana Catchment Area
	Martin	Low-income population, entire county	-	-

Source: Health Resources and Services Administration (HRSA), US Department of Health and Human Services, 2015

Southern Indiana Catchment Area is a term used by HRSA to identify counties in southern Indiana determined to have a shortage of mental health professionals. It includes Crawford, Dubois, Orange, Perry, and Spencer Counties, as shown in <http://bhpr.hrsa.gov/shortage/hpsas/updates/09012011mentalhpsas.pdf>

## 5.7 Description of Other Facilities and Resources Within the Community

The IU Health Paoli community contains a variety of resources that are available to meet the health needs identified through this CHNA. These resources include facilities designated as HPSAs, hospitals, FQHCs, public health departments, and other organizations. **Table 10** below lists the other facilities and resources in the IU Health Paoli community.

**Table 10: Resources in Orange County**

Service Area	County	Public Health Department
Primary	Orange	Orange County Health Department (Paoli, Indiana)
Secondary	Crawford	Crawford County Health Department (English, IN)
	Dubois	Dubois County Health Department (Jasper, IN)
	Lawrence	Lawrence County Health Department (Bedford, IN)
	Martin	Martin County Health Department (Shoals, IN)
	Washington	Washington County Health Department (Salem, IN)
Service Area	County	FQHC
Primary	Orange	N/A
Secondary	Crawford	N/A
	Dubois	N/A
	Lawrence	N/A
	Martin	N/A
	Washington	N/A
Service Area	County	Hospital
Primary	Orange	IU Health Paoli Hospital
Secondary	Crawford	N/A
	Dubois	Memorial Hospital and Health Care Center
	Lawrence	IU Health Bedford Hospital; St. Vincent Dunn Hospital Inc.
	Martin	N/A
	Washington	St. Vincent Salem Hospital Inc.

Sources: Health Resources and Services Administration, US Department of Health and Human Services, 2012; Indiana State Department of Health, Health Care Regulatory Services, 2015

## 6 PRIMARY DATA ASSESSMENT

IU Health Paoli Hospital's approach to gathering qualitative data for its CHNA consisted of multiple components used to identify and verify community health needs for the IU Health Paoli service area. This included the following:

1. Hosting one two-hour focus group with public health officials and community leaders in attendance to discuss the healthcare needs of the service area and what role IU Health Paoli could play in addressing the identified needs.
2. Surveying the community at large through the hospital's website, with special attention to gathering input from low income, uninsured, or minority groups.

### 6.1 Focus Group Findings

#### 6.1.1 Identification of Persons Providing Input

Local leaders with a stake in the community's health were invited to attend a focus group session held at IU Health Paoli Hospital. Attendees who participated in the focus group are listed in **Table 11** and include a representative of the Orange County Health Department.

**Table 11: Focus Group Participants**

Name	Subject Focus	Organization	Public Health Professional?
Ben Light	Operations	Adaptive Nursing & Healthcare Services	Yes
Missy Snider	Operations		Yes
Rex Williams	Retired	Community volunteer	No
Krista Land	Nurse Practitioner	Dakota Family Healthcare	Yes
Thomas McCracken	Public safety, Chief of Police	French Lick Police	No
Kelly Minton	Orange County Prosecutor	Indiana Prosecuting Attorneys Council	No
Jim O'Connell	Chaplain-Volunteer	IU Health Paoli	No
Kim Key	Navigator		Yes
Mendy Lambdin	Community Health Education		Yes
Larry Bailey	CEO/President		Yes
Sonya Zeller	COO/Chief Nursing Officer		Yes
Deana Davis	Nursing, Community Health Educator		Yes
Matthew Main	Medical	IU Health Paoli/SICHC	Yes
Joyce McCracken	Administrative	IU Health SIP – French Lick	Yes
Shalyn Lindsey	Healthcare	Medico Health & Rehabilitation	Yes
Imojean Dedrick	Executive	Orange County Community Foundation	No
Judy Grey	Executive	Orange County Economic Development Partnership	No
Lora Sanders	Public Health Nurse	Orange County Health Dept	Yes
Alan Friedman	Executive	Pluto Corporation	No
Ashley Roberts	Health Educator	Purdue Extension	Yes
Tanya Hall	Community development		No
Kim Howerton	Medical Assistant	Southern Indiana Community Healthcare	Yes
Nancy Radcliff	Administrator		Yes
Adam Poole	Community Relations	Southern Care (Hospice)	Yes
Josiah McSpadden	Manager	William Bros (Pharmacy)	Yes

### 6.1.2 *Prioritization Process and Criteria*

To obtain a more complete picture of the factors that play into the Orange County community's health, input from local health leaders was gathered through two separate focus group sessions. The first live group session lasted two hours and was held at IU Health Paoli Hospital and the second session was held via conference call. IU Health facilitators mailed letters and made follow-up telephone calls inviting public health officials and community leaders to attend the focus group discussion, paying special attention to including organizations that represent the interest of low-income, minority, and uninsured individuals. The goal of soliciting these leaders' feedback was to gather insights into the quantitative data that may not be easily identified from the secondary statistical data alone.

Upon arrival to the focus group, participants were asked to list their own top five prioritized health needs for the IU Health Paoli community. These responses were collected and aggregated into a comprehensive list of identified needs to be further discussed later in the session and ranked for severity of need within the community. IU Health facilitators then provided participants with a presentation featuring the mission of IU Health, current outreach priorities, and local health data, including demographics, insurance information, poverty rates, county health rankings, causes of death, physical activity, chronic conditions, preventive behaviors, and community needs index.

Upon completion of its data presentation, IU Health facilitated a discussion on the comprehensive list of identified needs from earlier in the session. The objective of this method was intended to inspire candid discussions prior to a second identification of five prioritized health needs by each participant. The votes on the five prioritized health needs were tallied and final input from the group was encouraged during this process in order to validate the previously identified needs. Following additional discussion, participants were also asked to address what they thought the role of IU Health Paoli could be in meeting the local health needs.

### 6.1.3 *Description of Prioritized Needs*

The focus group identified the following five needs as priorities for IU Health Paoli:

1. Access to healthcare.
2. Preventive healthcare/obesity.
3. Health education/literacy.
4. Mental health/addiction.
5. Chronic disease management.

These prioritized needs are discussed in more detail below.



**1. Access to healthcare**, corresponding with assistance programs, was the overwhelming concern and greatest need identified by community leaders. Orange County has one of the highest rates of individuals who qualify for Social Security but do not take it. It appears this is not because the citizens do not want the support, but because they do not have the resources to obtain the support. Based on the United Way of South Central Indiana's Community Impact Strategy Report in 2000, Orange County reported having a higher percent of households receiving additional income from social security, public assistance, and retirement income. In 2007, the percent of Orange County households receiving social security income increased from 32.1% to 34%. It should be noted that those statistics are based on reported data and that the critical problem are the individuals who have not been able to receive their eligible assistance; therefore, it is hypothesized that those percentages would in fact be much higher. Officials explained that since the social services building



burned down in the community, individuals have been struggling to arrange transportation to the neighboring county's facilities. Transportation in terms of access to care is also a corresponding need. Many individuals do not have any type of transportation and there are only two services in Orange County that offer transportation, which are often overbooked.

Access to health care also contained prescription drug costs, medical homes, access to specialists, and women's health. Many officials were concerned that there is no continuity of care in Orange County and that a medical home model could assist. Residents need to have one primary care physician who knows their history and can recommend treatment based on their individual circumstances. Along the same lines, residents also need to have access to specialists. Currently, specialist services are offered about once a month, but it is a different doctor each time. The hospital lacks stability of care in terms of specialists, which makes access to care and the medical home model even more complicated. While women's health and prescription drug costs were not discussed in detail, they were brought up as a key concern relating to access to care. Women's health incorporates teen pregnancy and women's health screenings.

Of note, the Emergency Department (ER) is the only option for Orange County residents for after-hours or Sunday care.



**2. Preventive healthcare and wellness** were linked together with obesity because many officials believed that without one you cannot have the other. For example, even if people are determined to exercise and better their health, they can run into many barriers such as gym memberships and costs. While the community does have some joint agreements with local establishments such as the schools, it is still very difficult for individuals to access wellness facilities. Orange County was also mentioned to have a phenomenal farmers market (which accepts SNAP) and Food Nutrition Program (FNP), but is in need of more programs within the community. While Orange County does have some resources, officials believe that there is still a gap IU Health could easily assist with, even if doing so is as simple as raising community awareness of places where individuals can take part in wellness activities, as many individuals do not know what exists (e.g., French Lick's walking paths).



**3. Health education and literacy** was considered the third community need. Focus group participants brought up that health literacy is often not about one's level of education, but with understanding the condition, (i.e., medication instructions and medical terms associated with conditions). Orange County, like many other counties, needs someone who can help with medication management and knowledge.



**4. Mental health and addiction** were originally thought to be separate concerns; however, as the focus group proceeded, leaders began to integrate them into one category as the fourth greatest need. Orange County does have Southern Hill's counseling program, which is an extensive inpatient and outpatient facility for coexisting mental health and substance abuse problems. However, more programs are needed to assist with this issue. Bedford has a part-time psychiatrist, which is the closest resource from which to receive mental health care. Substance abuse programs are basically nonexistent. The ones that do exist take place at the court house, and typically only court-ordered cases attend those meetings; therefore, it is hard to encourage people to go there.



**5. Chronic disease management** was the fifth greatest need identified, and encompasses a wide array of issues including: dental care, tobacco cessation, cancer, and diabetes. Dental care issues mostly entail the decreasing amount of dentists who are willing to accept state assistance programs such as Medicaid. Additionally, there are few options in general for residents in Orange

County in regards to dentists and few preventive measures are taken as a result. Dental care use is mostly for emergency care. It was noted that there is a large barrier in this area of health access and that it may have to do with the actual dentists not understanding the need at hand. While Mobile Dental occasionally comes around, a large gap remains. Other chronic health conditions discussed by community leaders included tobacco use, diabetes, and cancer. Focus group participants believe that many of the Orange County residents do smoke and assistance for the development of smoking cessation programs is needed in the community. Diabetes was discussed in a general manner; it is a concern in terms of education, programs, and lack of endocrinologists—dietitians often fill the role that endocrinologists would usually play.

Overall, people experiencing chronic disease/conditions lack the resources needed to help Orange County residents receive the education, prevention, and care they need. There are very few health screenings available to individuals because of budget cuts. The screenings that are offered have minimal data tracking available so providers and patients find it difficult to compare information.

## **6.2 Community Survey Findings**

IU Health also solicited responses from the general public regarding the health of the IU Health Paoli community through an online survey as well as paper versions of the survey. The survey consisted of approximately 20 multiple choice and open-ended questions that assessed the community members' feedback regarding healthcare issues and barriers to access.

A link was made available on the hospital's website via an electronic survey tool from December 2014 through June 2015. A paper version was distributed to local community centers, health clinics, community health fairs and events, as well as within some hospital patient waiting areas. Additionally, an estimated 5,000 surveys were e-mailed, direct-mailed, or sent via newsletter. In addition to disseminating directly to the general public of the community, the survey was also sent via e-mail to participants in the needs assessment focus groups to provide an opportunity for these community leaders to pass on to their local community members.

### **6.2.1 Respondent Demographics**

261 people from the IU Health Paoli community participated in the survey. The majority of respondents represented by the survey were White/Caucasian (99%), which is comparable to the census data for Orange County. The older adult population (defined as ages 45 to 64) represented a significant portion (44%) of the total respondents. The young adult age group (defined as ages 25 to 44) was also significantly represented as well within Orange County (41%).

253 of the 261 respondents reported their average household income. Of the 253 people, 30% had an average household income within \$25,000 - \$49,999. About 25% earned \$50,000 - \$74,999, whereas 15% earned \$75,000 - \$99,999. Roughly 13% of the respondents reported an average household income of below \$24,999.

Survey respondents were also asked to report how they pay for health needs. Over half of the respondents (53%) reported utilizing employer provided insurance. Private insurance was the second most reported payment for health needs (20%). A portion of the respondents (12%) also used Medicare to cover health needs.

Given the reported demographics above, care should be taken with interpreting the survey results. The reported age demographics of the survey sample versus Orange County's census data were disproportionate, with the reported young and older adult age groups being overrepresented.

## 6.2.2 Greatest Health Needs and Social Issues

Survey participants were asked to select the top five health needs in their community from a list of 12 options. By frequency of selected answer choices, Orange County's considered the top five health needs to be:

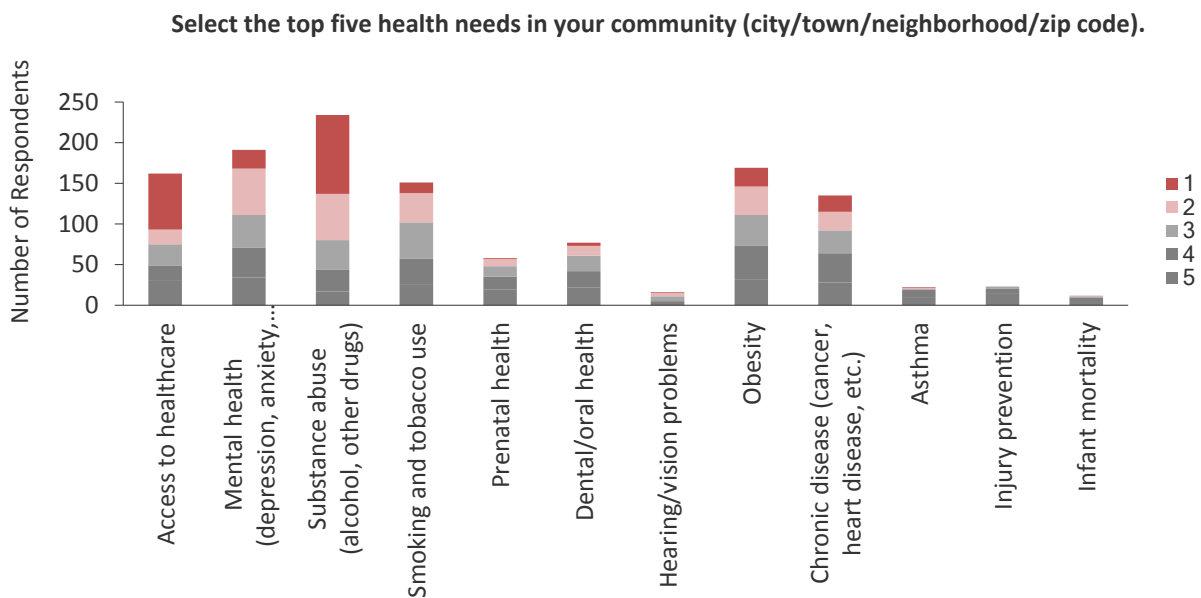
1. Substance abuse (18.7%)
2. Mental health (15.3%)
3. Obesity (13.5%)
4. Access to healthcare (13.0%)
5. Smoking and tobacco use (12.1%)

Respondents were also asked to select the top three social needs in their community. By frequency of selected answer choices, Orange County considered the top three social needs to be:

1. Poverty (25.6%)
2. Health (22.5%)
3. Education (12.9%)

The top five health needs (Question 3) and top three social needs (Question 2) results are summarized in **Figure 5** and **Figure 6** below.

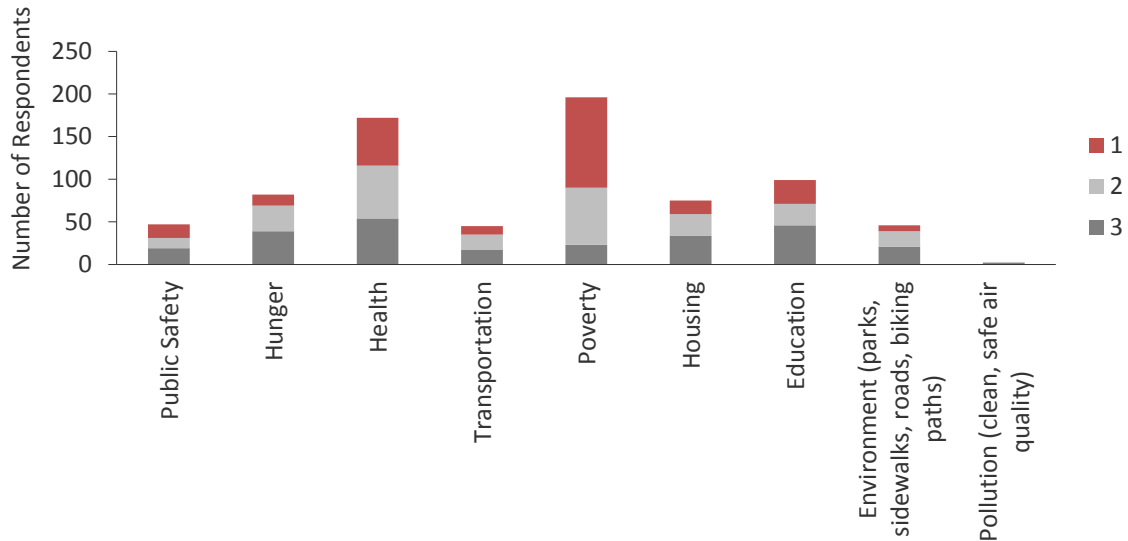
**Figure 5: Top Five Health Needs from Survey**



Source: IU Health Assessment 2015

**Figure 6: Top Three Social Issues from Survey**

Select the top three social issues in your community (city/town/neighborhood/zip code).



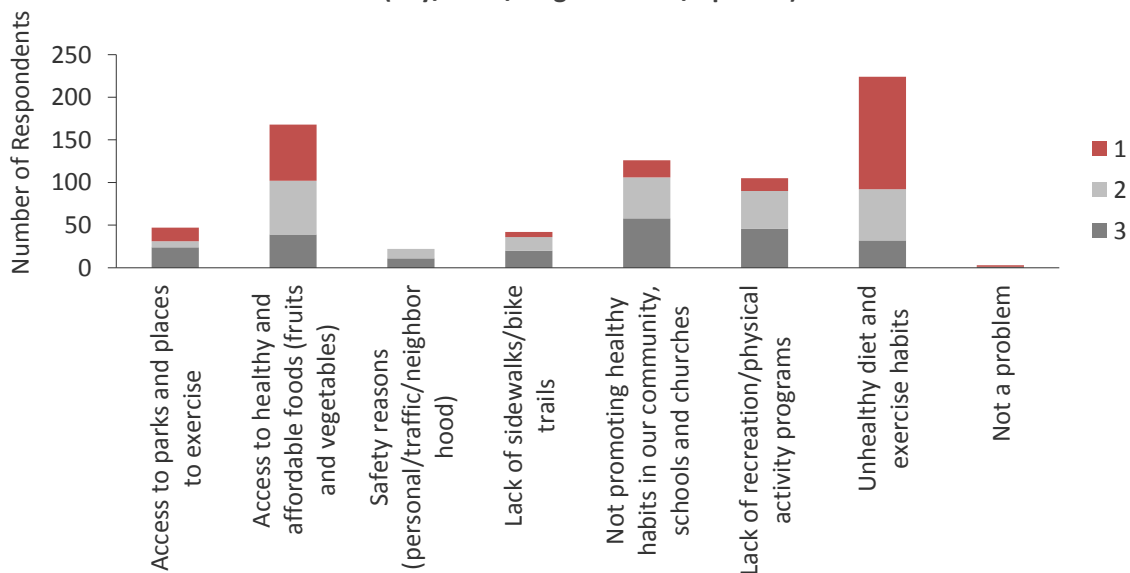
Source: IU Health Assessment 2015

### 6.2.3 Perceptions of Health Issues

The survey included several questions about obesity and mental health issues within respondents' communities. When asked to select the top three reasons why obesity is an issue in their community (Question 4), the three answer choices selected most often by respondents were as shown in **Figure 7**:

**Figure 7: Top Three Reasons Why Obesity is an Issue**

Select the top 3 reasons why obesity is an issue in your community (city/town/neighborhood/zip code).



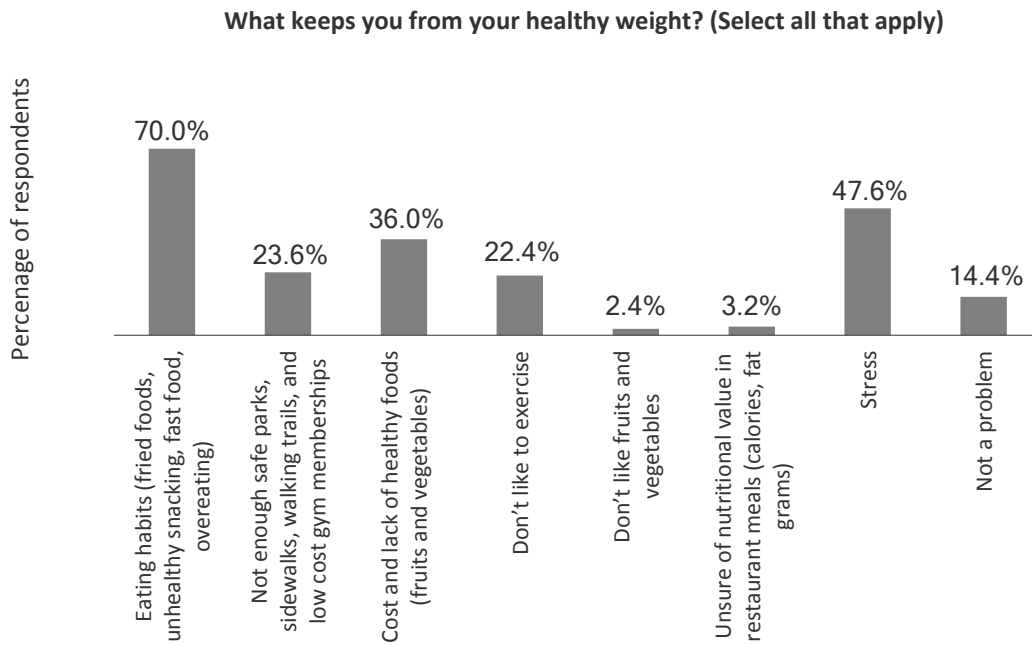
Source: IU Health Assessment 2015

The cumulative values show in Figure 7, expressed as percentages of individuals who identified the reason among their top three.

1. Unhealthy diet and exercise habits (30.4%)
2. Access to healthy and affordable foods (22.8%)
3. Not promoting healthy habits in community, schools, and churches (17.1%)

Respondents were also asked to select what reasons kept them from their healthy weight (Question 9) from a list of 8 options. About 70% of the respondents thought eating habits (fried foods, unhealthy snacking, fast food, overeating) kept them from a healthy weight. Almost 48% of respondents felt stress impacted weight, followed by about 36% attributing the cost and lack of healthy foods. Results are summarized in **Figure 8**.

**Figure 8: What Keeps You from a Healthy Weight?**

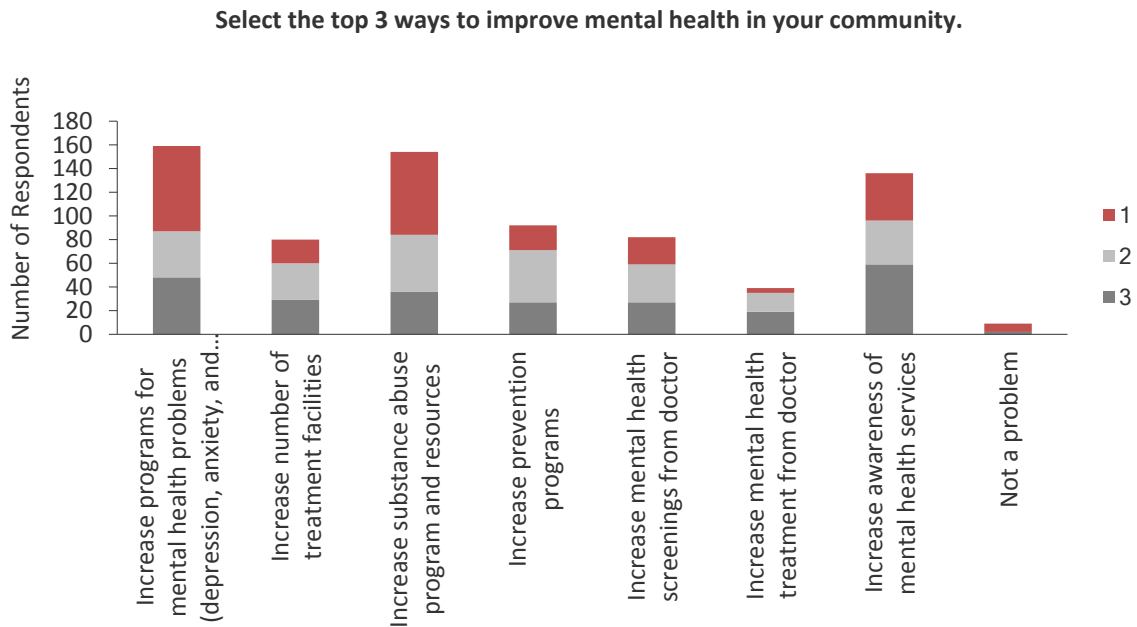


Source: IU Health Assessment 2015

When asked to select the top three ways to improve mental health in their community (Question 5), the three answer choices selected most often by respondents were (**Figure 9**):

1. Increase programs for mental health problems (21.2%)
2. Increase substance abuse programs and resources (20.5%)
3. Increase awareness of mental health services (18.1%)

**Figure 9: Top Three Ways to Improve Mental Health**

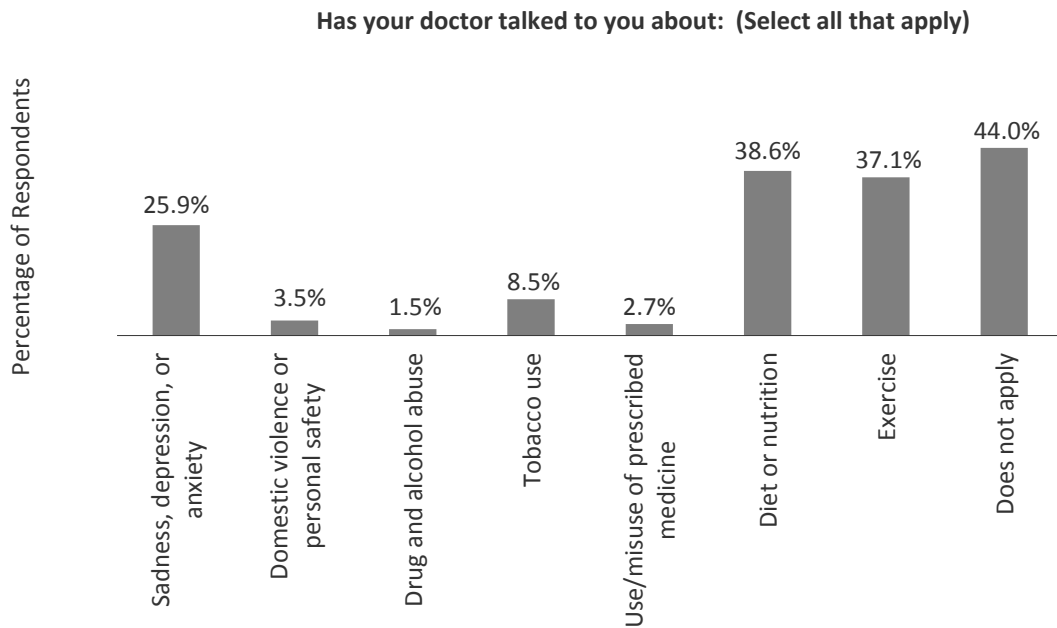


Source: IU Health Assessment 2015

### 6.2.4 Health Education and Access

A number of questions about health education and access to healthcare were asked in the survey. Question 10 asked to select all health topic doctors have discussed with them. About 39% of the respondents talked to doctors about diet or nutrition, while 37% discussed exercise. However, 44% thought the question did not apply. Question 10 is summarized in **Figure 10** below.

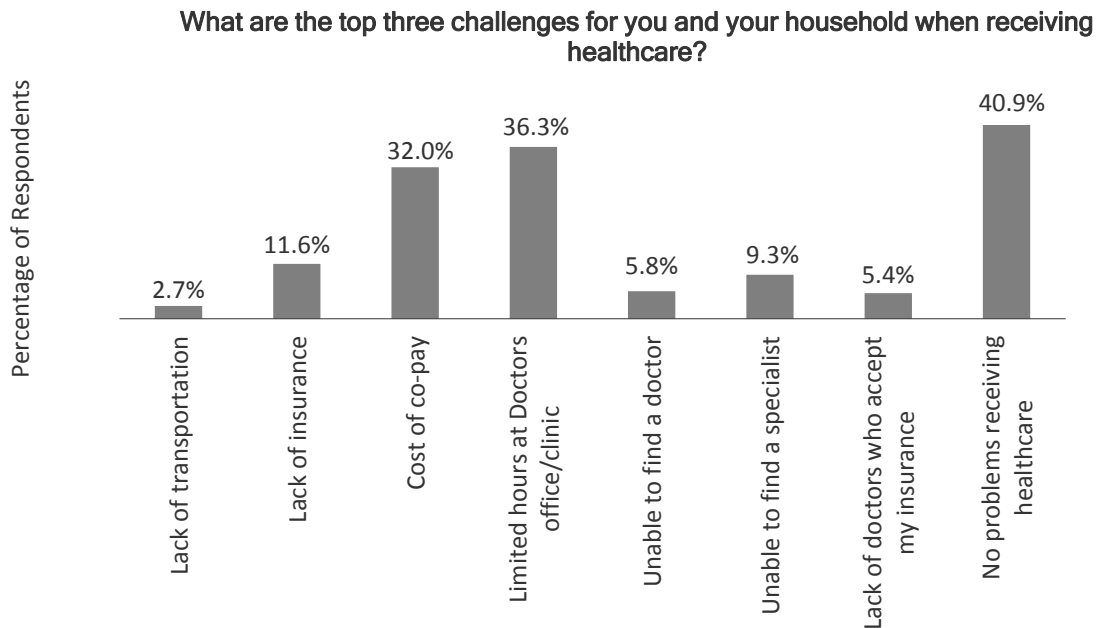
**Figure 10: Discussions with Physicians**



Source: IU Health Assessment 2015

When asked the top three challenges when receiving healthcare (Question 12), about 40% of the respondents reported not having problems receiving healthcare. However, 32% of respondents felt the cost of the co-pay was a challenge and 36% thought limited hours at the doctor's office. Question 12 is summarized in **Figure 11** below.

**Figure 11: Barriers to Care**



Source: IU Health Assessment 2015

## 7 IU HEALTH PAOLI ACTIVITIES ADDRESSING PRIORITY NEEDS

The priority needs being addressed by IU Health Paoli Hospital include; Nutrition and Active Living, Access to Healthcare, PreK-12 Education, Behavioral/Mental Health, and Chronic Disease. These needs are being addressed through the following programs and are not limited to:

- Backpacks of Blessings—provides vegetables for school children in Springs Valley, Paoli and Orleans.
- School Programs—Poison Prevention, Healthy Habits, Tobacco Education, Pedestrian/Bicycle Safety, Fire Safety, Hand Hygiene and more
- Diabetic Support Group
- Tobacco Cessation
- Safe Kids Worldwide (focusing on injury prevention and education)
- Permanent Car Seat Fitting Station
- Job Shadowing, Student Interns, Health Career Camp and Group Tours



- CPR/First Aid Training
- Speakers Bureau
- Free Prenatal and Breastfeeding Classes
- IU Health Day of Service
- SHIP/HIP (State Health Insurance Program) Assistance

## **8 CONCLUSION**

This study of Orange County assessed priority community health needs using quantitative data from numerous sources as well as survey responses from Orange County, plus qualitative information derived from the focus group. The focus group included Lora Sanders, a Public Health Nurse with the Orange County Health Department, in addition to representatives of local businesses, IU Health organizations, and community health groups such as Dakota Family Healthcare.

To set priorities after receiving and compiling qualitative and quantitative data, IU Health Paoli used the Hanlon method. The top five identified needs after utilizing this process are:

- Access to Healthcare.
- Preventive Healthcare/Obesity.
- Health Education/Literacy.
- Mental Health/Addiction.
- Chronic Disease Management.

Many of the concerns raised by focus group and in the survey stem from a need in the region for greater awareness and health education related to healthy choices for food and activity, ways to limit substance misuse (alcohol and tobacco), and access to care, both preventative and for chronic diseases or conditions. The county's comparatively high percentage of Social Security-eligible residents who do not receive the income is reportedly one barrier to care.

The study also identified a need for mental health awareness and services, including assessment and treatment for addictions. The one center in Orange County is insufficient for meeting all of the needs of area residents.

IU Health Paoli Hospital has services that address all of these needs, in part, and develops implementation strategies yearly as needs change and evolve.