



**Indiana University Health Ball Memorial Hospital  
Community Health Needs Assessment**

**2011-2012**



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# 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) Ball Memorial Hospital (IU Health Ball) in order to assess health needs in the county service areas served by the hospital. This assessment was initiated by IU Health Ball to identify the community's most important health issues, both overall and by county, in order to develop an effective implementation strategy to address such needs. It was also designed to identify key services where better integration of public health and healthcare can help overcome barriers to patient access, quality, and cost effectiveness. The hospital also has assessed community health needs 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.

IU Health Ball completed this assessment in order to set out the community needs and determine where to focus community outreach resources. The assessment will be the basis for creating an implementation strategy to focus on those needs. This report represents IU Health Ball's efforts to share knowledge that can lead to improved health and the quality of care available to their community residents while building upon and reinforcing IU Health Ball's existing foundation of healthcare services and providers.

## 1.2 Objectives

The 2011 IU Health Ball CHNA has four main objectives:

1. Develop a comprehensive profile of health status, quality of care, and care management indicators overall and by county for those residing within the IU Health Ball service area, specifically within the primary service area (PSA) of Delaware County, Indiana.
2. Identify the priority health needs (public health and healthcare) within the IU Health Ball PSA.
3. Serve as a foundation for developing subsequent detailed recommendations on implementation strategies that can be utilized by healthcare providers, communities, and policy makers in order to improve the health status of the IU Health Ball community.
4. Supply public access to the CHNA results in order to inform the community and provide assistance to those invested in the transformation of the community's healthcare network.

## 2 EXECUTIVE SUMMARY

### 2.1 Overall IU Health Ball Memorial Hospital Community

- Service Area Counties: Delaware, Randolph, Jay, Henry, Blackford, Grant, and Madison
- Service area population in 2010: 429,020
- 87% of the IU Health Ball inpatient discharge population resides in Delaware (68%), Randolph (7%), Jay (6%), Henry (6%) counties
- Of the seven service area counties, all are expected to decrease in population by 2015
- The 65+ population is projected to increase substantially by 2015 for all counties, and the 20-24-year-old college-age population is anticipated to increase for Jay, Henry, and Madison counties
- Similar to poverty rates for Indiana and the US, rates for all seven counties have increased from 2008 to 2009
- 20% of community discharges were for patients with Medicaid, 45% were for patients with Medicare, and 6% were for uninsured/self-pay patients

IU Health Ball's entire community service area extends into seven counties: Delaware, Randolph, Jay, Henry, Blackford, Grant, and Madison. 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

The needs listed below specify the health issues identified by the assessment as 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 Delaware County.



**Obesity and healthy lifestyle choices**



**Access to healthcare**



**Mental health and addiction**



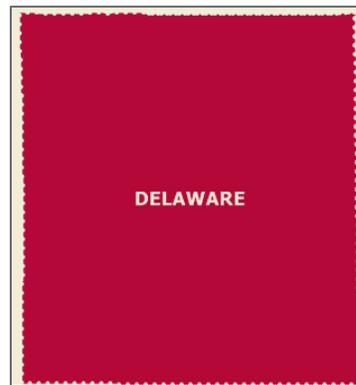
**Tobacco Use**



**Health education and literacy**

## 2.2 Primary Service Area

Delaware County comprises the majority of the IU Health Ball Memorial Hospital community. It accounts for most of the PSA total population, and 68% of the inpatient discharge population of the total community service area.



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

Other characteristics of Delaware County are as follows:

- Delaware County has seen a 0.92% increase in population since 2000, a rate lower than the average rate for the entire IU Health Ball service area (1.18%), the state of Indiana (6.6%), and the entire nation (10%)
- The senior population (65+) is projected to increase at a similar rate for Delaware County as the total IU Health Ball service area, but less than the entire state
- Approximately 7% of Delaware County community discharges were ambulatory care sensitive conditions (ACSC) in 2007, which was higher than the rate for all other service area counties
- Based on County Health Rankings, Delaware County ranked 85th out of 92 counties in the state of Indiana for overall health outcomes, and 47th out of 92 counties for overall health factors
- Delaware County compared unfavorably for many Community Health Status Indicators, and this was especially so for factors related to prenatal and infant care (eg, low birth weight, premature births, infant mortality, neonatal infant mortality, and post-neonatal infant mortality) and chronic/morbid health conditions (eg, cancer and coronary heart disease)
- Among the 10 ZIP code areas included within Delaware County, the city of Muncie has the highest community health needs based on CNI assessment of economic and structural health indicators; however, the need was scored as moderate
- 231 Delaware County community members responded to IU Health Ball's CHNA survey, and 74% rated their community as "Somewhat Unhealthy" or "Very Unhealthy"

## **3 STUDY METHODS**

### **3.1 Analytic Methods**

In order to provide an appropriate overarching view of the community's health needs, conducting a local health needs assessment requires the collection of both quantitative and qualitative data about the population's health and the factors that affect it. For this CHNA, quantitative analyses assessed the health needs of the population through data abstraction and analysis, and qualitative analyses were conducted through structured interviews and conversations with community leaders in areas served by IU Health Ball Memorial Hospital. The qualitative community orientation portion of the analysis was critically important to include in this assessment's methodology, as it provides an assessment of health needs from the view of the community rather than from the perspective of the health providers within the community.

### **3.2 Data Sources**

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

- Demographics, eg, population, age, sex, race
- Economic indicators, eg, poverty and unemployment rates, and impact of state budget changes
- Health status indicators, eg, causes of death, physical activity, chronic conditions, and preventive behaviors
- Health access indicators, eg, insurance coverage, ACSC discharges
- Availability of healthcare facilities and resources

Data sets for quantitative analyses included:

- Dignity Health (formerly Catholic Healthcare West)—Community Needs Index
- Centers for Disease Control and Prevention
- Centers for Medicare & Medicaid Services
- Community Health Status Indicators Project
- Dartmouth Atlas of Health Care
- Indiana Department of Workforce Development
- Indiana Hospital Association Database
- Kaiser Family Foundation
- National Research Corporation—Ticker
- Robert Wood Johnson Foundation—County Health Rankings
- STATS Indiana data—Indiana Business Research Center, IU Kelley School of Business
- Thomson Reuters Market Planner Plus and Market Expert
- 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 through surveys of members of the public, and a focus group with health leaders and public health experts.

### **3.3 Information Gaps**

To the best of our knowledge, no information gaps have affected IU Health Ball Memorial Hospital's ability to reach reasonable conclusions regarding community health needs. While IU Health Ball has worked to capture quantitative information on a wide variety of health conditions from a wide array of sources, IU Health Ball 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 Ball conducted community conversations and community input surveys. However, it should be noted that there are limitations to these methods. If an organization from a specific group was not present during the focus group conversations with community leaders (such as seniors or injury prevention groups), then that need could potentially be underrepresented during the conversation.

### **3.4 Collaborating Organizations**

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

**Delaware County Health Department**

**Delaware County Coordinating Council to  
Prevent Alcohol and Other Drug Abuse**

**DWA Healthcare Communications Group**

**IU Health Ball Memorial Hospital**

**Little Red Door**

**Meridian Services Corporation**

**Minority Health Coalition**

**Muncie Community Schools**

**Muncie-Delaware County Economic  
Development Alliance**

**TEAMwork for Quality of Living**

**Tobacco Free Coalition of Delaware County**

**United Way of Delaware County**

**Verité Healthcare Consulting, LLC**

## 4 DEFINITION OF COMMUNITY ASSESSED

This section identifies the community assessed by IU Health Ball Memorial Hospital. The PSA of IU Health Ball includes Delaware County. The secondary service area (SSA) is comprised of six contiguous counties. The community definition is consistent with the inpatient discharges for 2010, as illustrated in **Table 1** and **Figure 1** below.

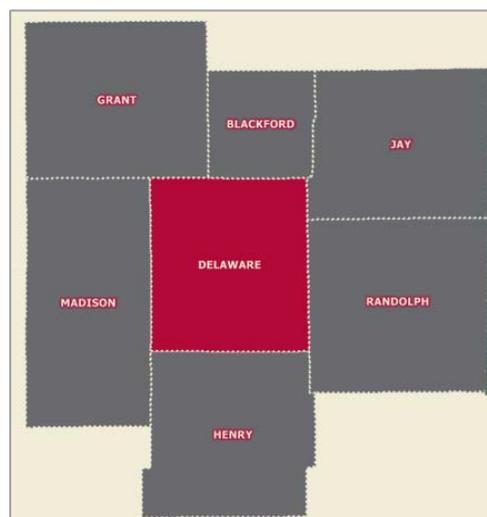
**Table 1**  
IU Health Ball Memorial Hospital Inpatient Discharges by County and Service Area, 2010

Discharge Area	County	Discharges	Percent of Total
Primary Service Area	Delaware	11,874	68.0%
	<b>Subtotal</b>	<b>11,874</b>	<b>68.0%</b>
Secondary Service Area	Randolph	1189	6.8%
	Jay	1042	6.0%
	Henry	1025	5.9%
	Blackford	889	5.1%
	Grant	556	3.2%
	Madison	506	2.9%
	<b>Subtotal</b>	<b>5207</b>	<b>29.8%</b>
All Other Areas	<b>Subtotal</b>	<b>391</b>	<b>2.2%</b>
<b>Total Discharge Population</b>		<b>17,472</b>	<b>100.0%</b>

Source: IHA Database, 2010.

In 2010, the IU Health Ball PSA included 15,130 discharges and its SSA, 1951 discharges. The community was defined based on the geographic origins of IU Health Ball inpatients. Of the hospital's inpatient discharges, approximately 87% originated from the PSA and 11% from the SSA (**Table 1**).

**Figure 1**  
Counties in the IU Health Ball Memorial Hospital Service Area Community, 2010



## 5 SECONDARY DATA ASSESSMENT

### 5.1 Demographics

IU Health Ball Memorial Hospital is located in Delaware County, a county located in central Indiana. Delaware County includes ZIP codes within the towns of Muncie, Eaton, Gaston, Selma, Albany, Daleville, and Yorktown. Based on the most recent Census Bureau (2010) statistics, Delaware County's population is 117,671 persons with approximately 52% being female and 48% male. The county's population estimates by race are 89.6% White, 1.8% Hispanic or Latino, 7.0% Black, 1.1% Asian, 0.3% American Indian or Alaska Native, and 2.0% persons reporting two or more races.

Delaware County has relatively low levels of educational attainment. A high school degree is the level of education most have achieved, and the percentage of those with a high school degree has dropped 1% from 2000 to 2010 (37% to 36%). An additional 20% had some college, but no degree. As of 2010, 19% of the population has an associate's or bachelor's degree, and only 10% hold a graduate or professional degree.

Within the entire service area, the total population for the PSA is 117,671 and the total population for surrounding counties is 311,349, as illustrated in *Table 2* below.

**Table 2**  
Service Area Population, 2010

Service Area	County	Population	Percent of Total
Primary	Delaware	117,671	27.4%
	<b>Subtotal</b>	<b>117,671</b>	<b>27.4%</b>
Secondary	Randolph	26,171	6.1%
	Jay	21,253	5.0%
	Henry	49,462	11.5%
	Blackford	12,766	3.0%
	Grant	70,061	16.3%
	Madison	131,636	30.7%
	<b>Subtotal</b>	<b>311,349</b>	<b>72.6%</b>
<b>Total Service Area</b>		<b>429,020</b>	<b>100.0%</b>

Source: US Census Bureau, 2012.

Population growth can help to explain changes in community characteristics related to health status, and thus plays a major role in determining the specific services that a community needs. The Delaware County population has decreased 0.92% since 2000 when the population was estimated to be 118,769 persons. Comparatively, Delaware County's population has decreased slower than the average population across the total service area, which decreased by approximately 1.89% from 2000 to 2010. Indiana's total 2010 population estimate of 6,483,802 was up by 6.6% from 2000, and population growth was up by 10% for the entire nation.

Delaware County's population is projected to decrease slightly (-0.38%) by 2015. Its population is expected to decline the most for persons aged 45-64 (-2.83%), followed by persons aged 5-19 (-2.65%).

At almost 10%, the 65+ population is expected to grow the fastest among all Delaware County age cohorts between 2010 and 2015. In general, an older population can produce increased demand for healthcare services and a potential increase in the prevalence of certain chronic conditions. The rate of population growth in Delaware County for persons 65+ is expected to increase more rapidly than the combined IU Health Ball service area (9.13%), but not more than the state of Indiana (15.4%) as illustrated in *Table 3* below.

**Table 3**  
Projected 2010-2015 Service Area Population Change

Service Area	County	Overall		Projected 2010-2015 Change by Age Cohort					
		2010 Total Population	Projected 2010-2015 Change	0-4	5-19	20-24	25-44	45-64	65+
Primary	Delaware	117,671	↓ -0.38%	-1.05%	-2.65%	-0.92%	-1.91%	-2.83%	9.80%
	<b>Subtotal</b>	<b>117,671</b>	<b>↓ -0.38%</b>	<b>-1.05%</b>	<b>-2.65%</b>	<b>-0.92%</b>	<b>-1.91%</b>	<b>-2.83%</b>	<b>9.80%</b>
Secondary	Randolph	26,171	↓ -2.11%	1.82%	-6.73%	-0.96%	-5.65%	-2.89%	7.93%
	Jay	21,253	↓ -0.98%	-2.89%	-4.09%	11.21%	-6.07%	-0.30%	6.86%
	Henry	49,462	↓ -1.77%	-2.05%	-5.14%	6.55%	-7.23%	-2.02%	8.56%
	Blackford	12,766	↓ -4.54%	-5.27%	-10.14%	-3.00%	-8.89%	-4.96%	7.63%
	Grant	70,061	↓ -2.05%	-0.32%	-5.88%	-0.95%	-4.16%	-4.65%	8.71%
	Madison	131,636	↓ -0.73%	-1.90%	-3.70%	3.01%	-3.32%	-2.71%	9.82%
	<b>Subtotal</b>	<b>311,349</b>	<b>↓ -1.48%</b>	<b>-1.49%</b>	<b>-4.97%</b>	<b>2.23%</b>	<b>-4.72%</b>	<b>-2.98%</b>	<b>8.90%</b>
<b>Total Service Area</b>		<b>429,020</b>	<b>↓ -1.18%</b>	<b>-1.38%</b>	<b>-4.32%</b>	<b>0.84%</b>	<b>-4.00%</b>	<b>-2.94%</b>	<b>9.13%</b>
<b>Indiana</b>		<b>6,483,802</b>	<b>↑ 3.00%</b>	<b>2.20%</b>	<b>0.10%</b>	<b>3.10%</b>	<b>0.30%</b>	<b>2.00%</b>	<b>15.40%</b>

Source: Indiana Business Research Center, IU Kelley School of Business, 2012 (based on US Census data for 2010).

## 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, (iii) Indiana State Budget, and (iv) Uninsurance.

### 5.2.1 Employment

In 2010, the share of jobs in Delaware County was highest within the areas of healthcare and social assistance, retail trade, accommodation and food service, manufacturing, and financial/insurance services. Delaware County has a diverse group of major employers reported by the Indiana Department of Workforce Development, including: Ball State University, IU Health Ball Memorial Hospital, Youth Opportunity Center, Meijer, Prestige Portraits, Walmart Supercenter, DIY Group, Inc., Maxon Corp., Saint-Gobain Containers, and First Merchants Bank.

Delaware County reported a relatively similar unemployment rate than the rates of most surrounding counties and national average rates, but had a slightly higher rate of unemployment

than the state of Indiana. **Table 4** summarizes unemployment rates at December 2010 and December 2011.

**Table 4**  
Unemployment Rates, December 2010 and December 2011

Service Area	County	December 2010	December 2011	% Change from 2010-2011
<b>Primary</b>	Delaware	10.1%	9.8%	↓ -0.3%
	<b>Secondary</b>			
	Randolph	10.7%	10.0%	↓ -0.7%
	Jay	8.3%	7.4%	↓ -0.9%
	Henry	11.8%	10.7%	↓ -1.1%
	Blackford	11.0%	10.8%	↓ -0.2%
	Grant	10.3%	10.1%	↓ -0.2%
	Madison	10.6%	10.1%	↓ -0.5%
<b>Indiana</b>		9.3%	8.9%	↓ -0.4%
<b>USA</b>		9.4%	8.5%	↓ -0.9%

Source: US Bureau of Labor Statistics, 2012.

### 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 2009 the national poverty rate was at 14.3%, increasing from 13.2% in 2008. In Indiana, 14.4% of the state population lived in poverty, which was a 1.9% increase from the 2008 poverty rate (12.9%).

For Delaware County, a poverty rate of 20.7% was reported in 2009, rising from 17.2% from 2008 (3.5%). Comparatively for Indiana, Hendricks County has the lowest poverty rate at 5.1% and Monroe County has the highest poverty rate at 21.9%. **Table 5** below illustrates the poverty rates by year between 2007 and 2009.

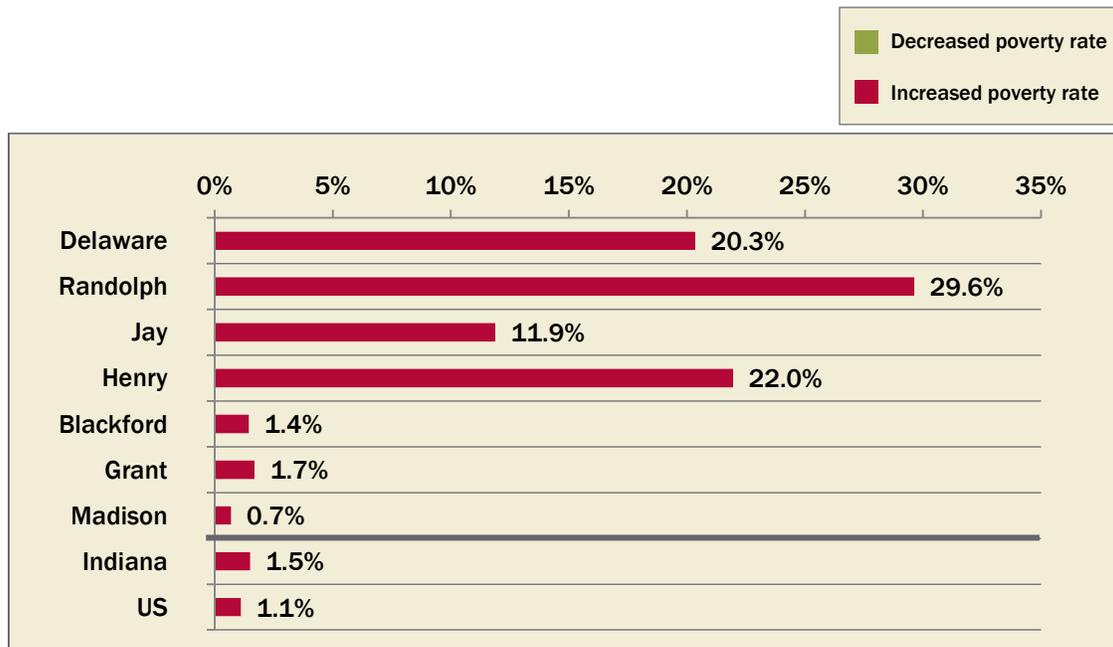
**Table 5**  
Percentage of People in Poverty, 2007-2009

Service Area	County	2007	2008	2009	% Change from 2008-2009
Primary	Delaware	18.0%	17.2%	20.7%	↑ 3.5%
	Secondary	Randolph	11.3%	13.5%	17.5%
	Jay	10.8%	14.3%	16.0%	↑ 1.7%
	Henry	10.3%	12.3%	15.0%	↑ 2.7%
	Blackford	12.6%	13.9%	14.1%	↑ 0.2%
	Grant	17.4%	17.8%	18.1%	↑ 0.3%
	Madison	13.6%	14.6%	14.7%	↑ 0.1%
Indiana		12.3%	12.9%	14.4%	↑ 1.9%
USA		13.0%	13.2%	14.3%	↑ 1.1%

Source: US Census Bureau, 2012.

Madison County had the lowest poverty rate increase in the IU Health Ball service area between 2008 and 2009 (0.7%), followed by Blackford County (0.2%) and Grant County (0.3%). Comparisons of each service area county's poverty rates, 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 2008 and 2009



Source: US Census Bureau, 2012.

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 (2009), Delaware County's per capita personal income was estimated to be \$29,565 with a median household income around \$35,935, which are both below the state rates. The rates are compared to the Indiana state average of per capita income of \$33,323 with a median household income around \$45,427, and the US national average of per capita income of \$38,846 with a median household income of \$50,221.

### 5.2.3 Insurance Coverage

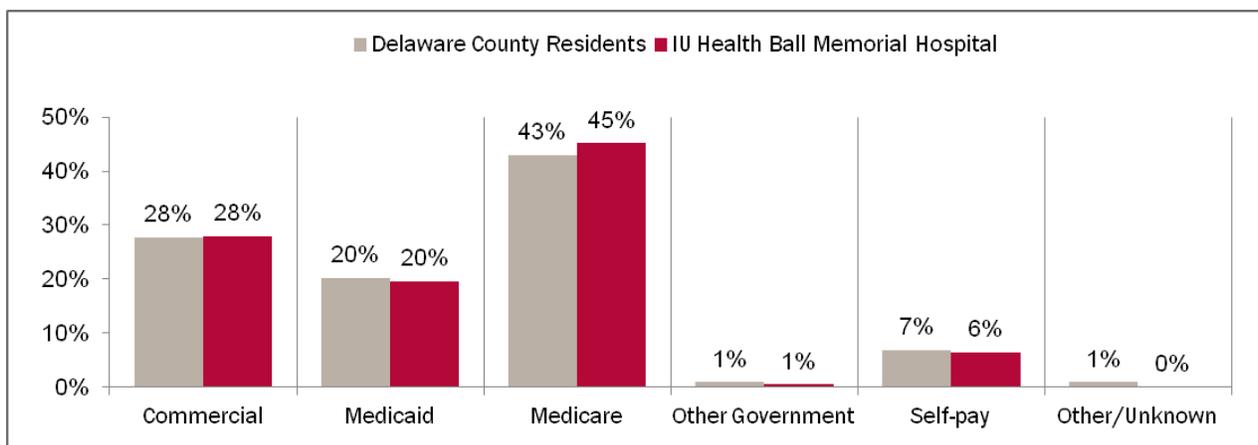
National statistics on health insurance indicate that 16% of the United States population is uninsured. Of the US population that is insured, 49% are insured through an employer, 5% through individual providers, 16% through Medicaid, 12% through Medicare, and 1% through other public providers.

In Indiana, it is estimated that 14% of the population are uninsured, 7% of which are children. Of the Indiana residents who are insured, 16% residents are insured through Medicaid, 14% through Medicare, 52% through their employer, 3% through individual providers, and 1% through other public providers.<sup>1</sup>

Based inpatient discharge data from the Indiana Hospital Association (IHA), 28% of Delaware County residents have commercial insurance, 20% are insured through Medicaid, 43% are insured through Medicare, 7% pay out of pocket (uninsured), and 2% have other government insurance or are unknown.

At IU Health Ball Memorial Hospital, it is estimated that 28% of discharged patients have commercial insurance, 20% are insured through Medicaid, 45% are insured through Medicare, 6% pay out of pocket (uninsured), and 1% have other government insurance or are unknown (see **Figure 3**).

**Figure 3**  
Insurance Coverage  
2009 Delaware County and IU Health Ball Memorial Hospital Inpatient Discharges



Source: IHA Discharge Database, 2010.

1. Kaiser State Health Facts 2009-2010, Kaiser Family Foundation. <http://www.statehealthfacts.org>.

### **5.2.4 Indiana State Budget**

The recent recession has had major implications not only for employment, but also for state budget resources devoted to health, public health, and social services. Outlined below are findings from the fiscal year (FY) 2010-2011 health service expenditures and achievements, as well as pertinent changes related to healthcare within the FY 2012-2013 biennium budget.

#### **Fiscal Year 2010-2011 Health Services**

- In FY 2010, Health and Welfare accounted for 38.9%, or \$10.2 billion, of expenses
  - The change in expenses from FY 2009 was a decrease of \$19.1 million, or 0.2%
  - Some of the major expenses were Medicaid assistance (\$6.0 billion), the US Department of Health and Human Services Fund (\$1.4 billion), and the federal food stamp program, \$1.5 billion
- The Medicaid Assistance Fund received \$4.5 billion in federal revenue in FY 2011, as compared to \$4.0 billion in FY 2010
  - The Fund distributed \$6.0 billion in Medicaid assistance during the year, which is an increase of \$598.3 million over FY 2010
  - The total change in the fund's balance was an increase of \$114.4 million from FY 2010 to FY 2011
- The US Department of Health and Human Services Fund is a new fund created during the 2011 fiscal year with the implementation of the new statewide accounting system to account for federal grants that are used to carry out health and human services programs
  - The fund received \$1.2 billion in federal grant revenues and expended \$1.4 billion
  - The change in fund balance from FY 2010 to FY 2011 was an increase of \$134.9 million
- The Children's Health Insurance Plan (CHIP) spent \$138.1 million in FY 2011
  - At the end of FY 2011, CHIP was serving 83,494 clients, an increase of 4.7% compared to the average number of clients served by CHIP in FY 2010
- From 2005 to 2011, the Department of Child Services (DCS) has increased the total number of filled Family Case Manager (FCM) positions in Indiana by 838, from 792 to 1630
- In January 2010, DCS established the Indiana Child Abuse and Neglect Hotline to serve as the central reporting center for all allegations of child abuse or neglect in Indiana; the Hotline is staffed with 62 FCMs, also known as Intake Specialists, who are specially trained to take reports of abuse and neglect

#### **Fiscal Year 2012-2013 Budget**

- Pension obligations are fully met and the Medicaid forecast is fully funded; this 2012-2013 budget increases funding in key areas such as K-12 education, student financial aid, Medicaid, and pensions
- The budget does not include any appropriations for the implementation of the Patient Protection Affordable Care Act (PPACA); however, it is projected that costs will begin to be incurred during this biennium, with General Fund appropriations needed in the FY 2014-2015 biennium budget

- The budget removes statutory restrictions that prevented the Family and Social Services Administration (FSSA) from reducing staffing levels at either the Evansville State Hospital or the Evansville Psychiatric Children’s Center, regardless of the number or type of patients being treated at each facility
- The budget eliminates the Indiana Tobacco Prevention and Cessation (ITPC) Board, and transferred its responsibilities to the Indiana State Department of Health (ISDH) on July 1, 2011; the ISDH totals include annual appropriations of \$8.1 million from the Tobacco Master Settlement Fund for tobacco prevention and cessation efforts
- The ISDH budget saw a 16.6% decrease in general fund appropriations for the FY 2012-2013 biennium budget
- The budget appropriates \$48.8 million annually for The Community and Home Options to Institutional Care for the Elderly and Disabled (C.H.O.I.C.E.) In-Home Services, one of very few programs to not be reduced compared to FY 2011 appropriation levels
- FY 2012 HHS divisional and program budgets that have been reduced as compared to FY 2011 appropriation levels include:
  - Division of Aging Administration (-33%)
  - Tobacco Use Prevention & Cessation Program (-25%)
  - Community Health Centers (-25%)
  - Department of Child Services (-24%)
  - Residential Care Assistance Program for the elderly, blind, disabled (-22%)
  - Child Psychiatric Services Fund (-17%)
  - Minority Health Initiative (-15%)
  - Prenatal Substance Abuse & Prevention (-15%)
  - Office of Women’s Health (-15%)
  - Children With Special Healthcare Needs (-15%)
  - Cancer Education & Diagnosis—Breast (-15%)
  - Cancer Education & Diagnosis—Prostate (-15%)
  - Disability and Rehabilitation Services (-11%)

### 5.3 Discharges for Ambulatory Care Sensitive Conditions

Ambulatory care sensitive conditions (ACSC) are health issues that, in theory, do not require hospitalizations if adequate ambulatory (primary) care resources are available and accessed. Methodologies for quantifying ACSC discharges have been well-tested for more than a decade. Disproportionately large numbers of ACSC discharges indicate potential problems with the availability or accessibility of ambulatory care services. *Table 6* illustrates the estimated percentage of 2007 ACSC discharges per Medicare enrollee for the IU Health Ball Memorial Hospital PSA, SSA, and the overall service area.

**Table 6**  
Percentage of ACSC Discharges Per Medicare Enrollee in 2007

Service Area	County	ACSC Discharges Per 1000
Primary	Delaware	77.4
	<b>Subtotal</b>	<b>77.4</b>
Secondary	Randolph	90.3
	Jay	94.7
	Henry	92.2
	Blackford	94.4
	Grant	85.2
	Madison	89.9
	<b>Subtotal</b>	<b>91.1</b>
<b>Total Service Area Average</b>		<b>89.1</b>
<b>Indiana</b>		<b>85.9</b>
<b>USA</b>		<b>76.0</b>

Source: Dartmouth Atlas of Health Care, 2007.

### 5.4 County Level Health Status and Access Indicators

#### 5.4.1 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, and health factors, including indicators related to health behaviors, clinical care, economic status, and the physical environment.

Based on the 92 counties in the state of Indiana, counties may be ranked from 1 to 92, where 1 represents the highest ranking and 92 represents the lowest. *Table 7* below summarizes County Health Ranking assessments for Delaware and surrounding counties in Indiana, rankings for counties were converted into quartiles to indicate how each county ranks versus others in the state. The table also illustrates whether a county's ranking worsened or improved from rankings in 2011.

**Table 7**  
Relative Health Status Indicators for Delaware County and Surrounding Counties

Key								
>75th Percentile								
50th to 74th Percentile								
25th to 49th Percentile								
<25th Percentile								
Ranking Worsened Between 2011 and 2012								↓
Indicator	Delaware	Randolph	Jay	Henry	Blackford	Grant	Madison	Average Ranking for Service Area
<b>Overall Health Outcomes</b>	85 ↓	48	58	73 ↓	78 ↓	79	75	71
<i>Mortality</i>	76	31	59	84 ↓	61 ↓	68	63 ↓	63
<i>Morbidity</i>	85 ↓	70 ↓	58	52 ↓	87 ↓	81	82	74
<b>Overall Health Factors</b>	47 ↓	71 ↓	65	56 ↓	83	73 ↓	91 ↓	69 ↓
<i>Health behaviors</i>	62	76 ↓	65 ↓	50	88 ↓	54	92	70 ↓
<i>Tobacco use</i>	51 ↓	28 ↓	33 ↓	68	89	73 ↓	85 ↓	61 ↓
<i>Diet and exercise</i>	71	90 ↓	85	52	73 ↓	43 ↓	92 ↓	72 ↓
<i>Alcohol use</i>	16	34 ↓	21 ↓	17	45	18 ↓	40 ↓	27 ↓
<i>Sexual activity</i>	80 ↓	73 ↓	63	61 ↓	79 ↓	69 ↓	87 ↓	73 ↓
<i>Clinical care</i>	8	62	75 ↓	33	54	28	43 ↓	43
<i>Access to care</i>	17 ↓	66	75 ↓	44 ↓	34 ↓	63	47 ↓	49 ↓
<i>Quality of care</i>	8	54 ↓	64 ↓	27	73	9	42 ↓	40
<i>Social and economic factors</i>	65 ↓	70 ↓	64	71 ↓	82	84 ↓	85 ↓	74 ↓
<i>Education</i>	8	53 ↓	71	70 ↓	73	74 ↓	86 ↓	62 ↓
<i>Employment</i>	61 ↓	71 ↓	29	89 ↓	88 ↓	67 ↓	66 ↓	67 ↓
<i>Income</i>	83 ↓	77 ↓	75	64 ↓	68	89	85 ↓	77 ↓
<i>Family and social support</i>	73 ↓	75 ↓	79 ↓	21	90 ↓	85	84	71
<i>Community safety</i>	83 ↓	25 ↓	29 ↓	7	22	44	67	40
<i>Physical environment</i>	33 ↓	3	6	20	32 ↓	39	60 ↓	28
<i>Environmental quality</i>	12	72	72	15	72	39	59	49
<i>Built environment</i>	54 ↓	1	3	24	15 ↓	33	65 ↓	28

Source: County Health Rankings, 2012.

Delaware County fell within the 25th percentile, ranking 85th in the state for overall health outcomes (length and quality of life), which is the lowest-ranking for health outcomes among the seven counties in the IU Health Ball service area. Comparatively, the overall service area average and the counties of Henry, Blackford, Grant, and Madison, all ranked below the 25th percentile as well.

In preventable health factors, Delaware County ranked 47th in terms of overall health related factors (determinants of health); individual scores are displayed in **Table 7** above. A little under half

of Delaware County's rankings fell within the top 50% of Indiana counties; however, many factors were ranked in the bottom 25%, and several indicator rankings decreased from 2011 to 2012. For Delaware County, the specific indicators ranked in the bottom 25% of Indiana counties were income (83rd), community safety (83rd), sexual activity (80th), family and social support (73rd), and diet and exercise (71st). In addition to the above, other indicators ranked in the bottom half of Indiana counties include overall social and economic factors (65th), overall health behaviors (62nd), employment (61st), built environment (54th), and tobacco use (51st).

Specific indicator rankings that fell between 2011 and 2012 include tobacco use, sexual activity, access to care, employment, income, family and social support, community safety, and built environment. However, despite the fall in the rankings for alcohol use and access to care, both were ranked higher than the overall service area across all seven counties. Delaware County ranked higher than the overall service area for many indicators, but especially for those of education (difference of 54), overall clinical care (difference of 35), access to care (difference of 32), quality of care (difference of 32), and alcohol use (difference of 11).

Among the other counties in the overall service area, Delaware County ranked the lowest on factors related to overall health outcomes and community safety. Additionally, many of Delaware County's individual health factor rankings were worse than the average across all seven counties in the IU Health Ball service area. Community safety, built environment, sexual activity, income, overall physical environment, and family and social support indicators for Delaware County all ranked worse than the overall service area average. Factor rankings for Delaware County that diverged the most from the overall service average across all seven counties in the IU Health Ball service area included community safety (difference of 43) and built environment (difference of 26).

Across all IU Health Ball service area counties, diet and exercise, sexual activity, overall social and economic factors, income, and family and social support indicators are ranked most consistently in the bottom quarter or bottom half of Indiana counties.

#### **5.4.2 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.

Delaware County has 39 designated "peer" counties in 22 states, including Madison and Monroe counties in Indiana, Clark and Richmond counties in Ohio, Champaign County in Illinois, and Fayette County in Kentucky. **Table 8** below highlights the analysis of CHSI health status indicators, with highlighting in cells that compare favorably or unfavorably both to the US as a whole and to peer counties. Indicators are found to be unfavorable for a county when its rates are higher than those of the entire nation and designated peer counties, and are considered favorable when the rates for the county are lower than those of the US or peer counties.

The indicators comparing unfavorably to US and peer counties across all seven of the counties within the IU Health Ball service area include low birth weight, infant mortality, white non-Hispanic infant mortality, and lung cancer.

**Table 8**  
Favorable and Unfavorable Health Status Indicators, Delaware and Surrounding Counties

Key							
Favorable health status indicator							
Neither favorable nor unfavorable indicator							
Unfavorable health status indicator							
Indicator	Delaware	Randolph	Jay	Henry	Blackford	Grant	Madison
Low Birth Weight							
Very Low Birth Weight							
Premature Births							
Births to Women Under 18							
Births to Women Age 40-54							
Births to Unmarried Women							
No Care in First Trimester							
Infant Mortality							
White Non-Hispanic Infant Mortality							
Black Non-Hispanic Infant Mortality							
Hispanic Infant Mortality							
Neonatal Infant Mortality							
Post-Neonatal Infant Mortality							
Breast Cancer (Female)							
Colon Cancer							
Lung Cancer							
Coronary Heart Disease							
Stroke							
Homicide							
Suicide							
Motor Vehicle Injuries							
Unintentional Injury							

Source: Community Health Status Indicators Project, Department of Health and Human Services, 2009.

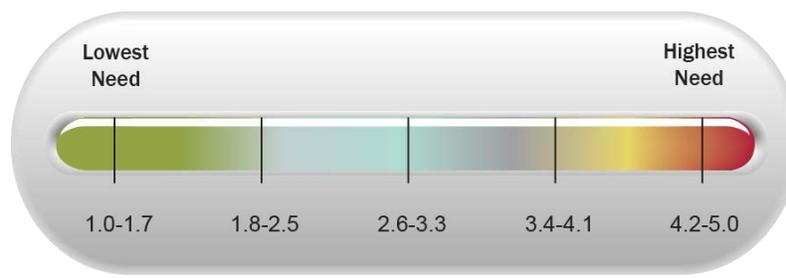
Delaware County compared unfavorably to US and peer county benchmarks for many chronic health conditions, including breast cancer (female), colon cancer, lung cancer, and coronary heart disease; however indicators for stroke were favorable in comparison to the US and other peer counties. Several indicators related to birth and infant care were unfavorable for Delaware County, including low birth weight, premature births, births to women under the age of 18, births to unmarried women, infant mortality, white non-Hispanic infant mortality, black non-Hispanic infant mortality, neonatal infant mortality, and post-neonatal infant mortality. Indicators related to suicide were also considered unfavorable for Delaware County. Other indicators for Delaware County that were considered favorable (where rates and percentages for the indicators in Delaware County are

lower than those for the entire nation or for peer counties) include indicators for very low birth weight, births to women age 40-54, and no care in the first trimester.

### 5.5 ZIP Code-Level Health Access Indicators

The Community Need Index (CNI) was created in 2005 by Dignity Health (formerly Catholic Healthcare West) in collaboration with Thomson Reuters. CNI identifies the severity of health disparities related to housing, English as a second language (ESL), and education level 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 4*). The CNI assessments illustrate correlations between high need/high scores and high hospital utilization in specific ZIP codes. *Table 9* summarizes the CNI for ZIP codes in Delaware County.

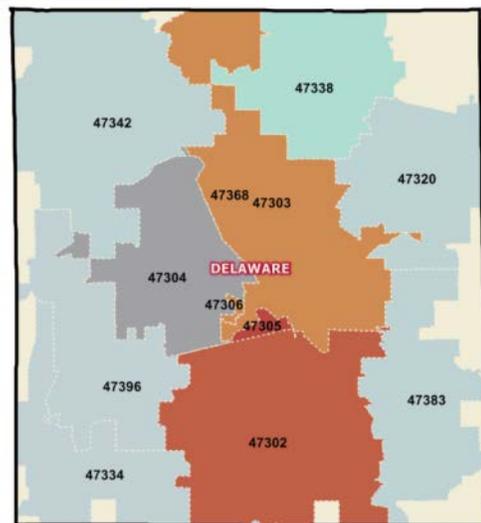
**Figure 4**  
Community Need Index Rating Scale



**Table 9**  
CNI Scores for Delaware County\*

PSA County	Town/City	ZIP Code	Rank
Delaware	Muncie	47305	4.8
		47302	4.2
		47303	4.0
		47304	3.0
	Eaton	47338	2.4
	Gaston	47342	2.2
	Selma	47383	2.2
	Albany	47320	2.2
	Daleville	47334	1.8
	Yorktown	47396	1.8

\*Note: CNI results for ZIP code 47306 (Muncie) were not available



Source: Community Need Index, 2011.

Within Delaware County, CNI scores indicate needs are greatest in ZIP codes 47305, 47302, and 47303 (all in Muncie), and community needs are relatively low in ZIP codes 47334 (Daleville) and 47396 (Yorktown).

## 5.6 Regional Chronic Conditions and Preventive Behaviors

The National Research Corporation, one of the largest online healthcare surveys in the US, measures health needs throughout the country. Its Ticker program provides a wide array of data that measure needs in communities, most notably its Chronic Conditions and Preventive Health Behaviors surveys. These surveys provide estimates of chronic conditions and related behaviors within a population of interest.

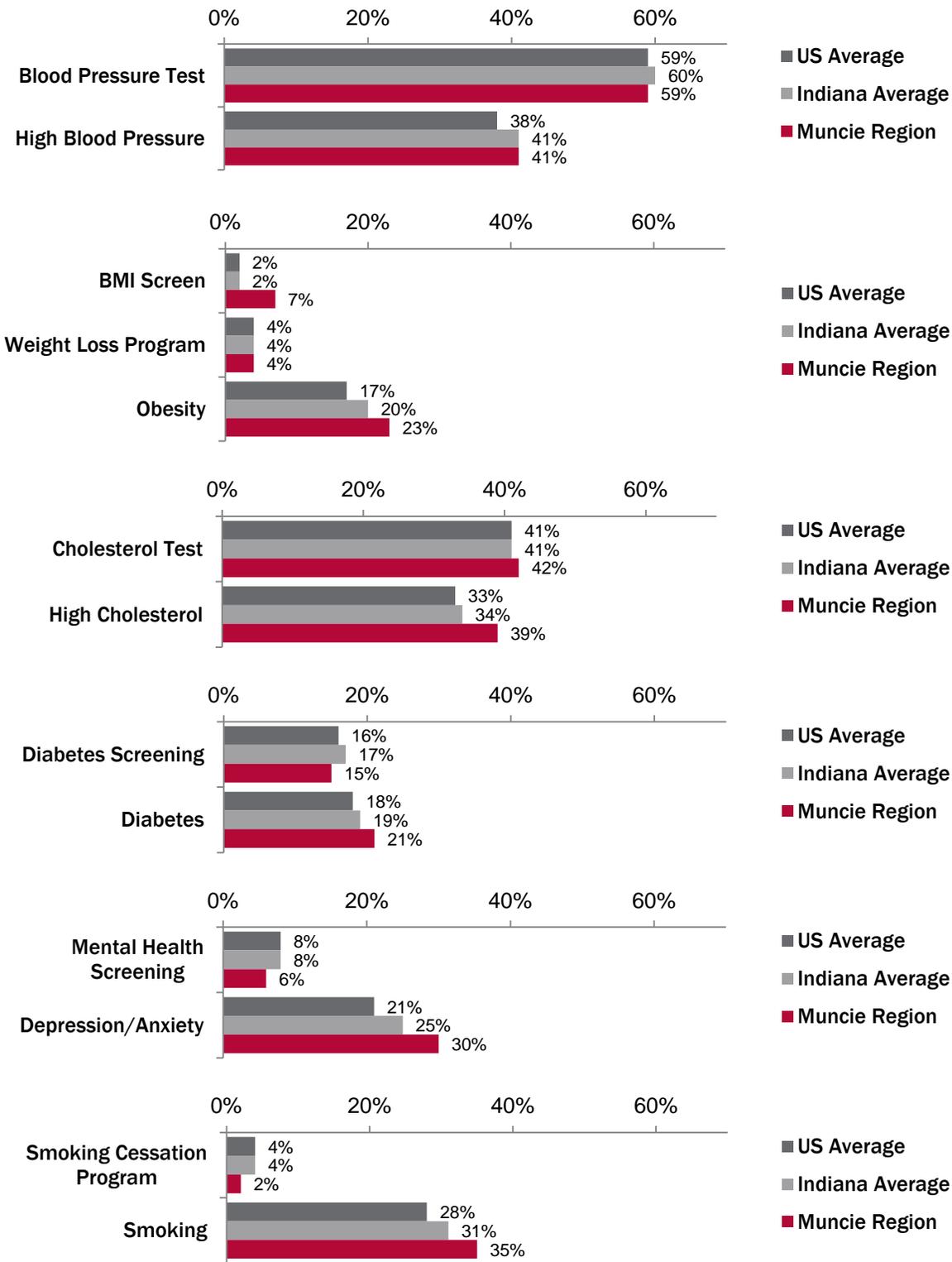
These estimates are based on a monthly internet survey of over 270,000 individuals across the country. For this CHNA, Ticker data utilized represent the “Muncie Regional Market.” These Ticker data identified the following top ten chronic conditions:

- High blood pressure
- High cholesterol
- Smoking
- Allergies—other
- Arthritis
- Depression/anxiety disorder
- Asthma
- Obesity/weight problems
- Allergies—hay fever
- Diabetes

Most chronic conditions and corresponding preventive behaviors of interest have been compared to the Indiana and US averages. These comparisons indicate that the Muncie Region experiences relatively higher percentages of high blood pressure, high cholesterol, and smoking; and relatively lower percentages of cancer (both skin and other), as well as heart disease. Diabetes and obesity/weight problems are consistent with state and national trends. The charts in **Figure 5** illustrate the chronic conditions and preventive behaviors for the Indiana University Health “Muncie Regional Market,” Indiana, and the entire nation.

**Figure 5**

**Chronic Conditions and Preventive Behaviors in the Indiana University Health “Muncie Regional Market”**



Source: Ticker, National Research Corporation, 2012.

## 5.7 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 an 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>2</sup> **Table 10** below illustrates the areas that have been designated as MUAs or MUPs in the IU Health Ball community.

**Table 10**  
MUAs and MUPs in the IU Health Ball Memorial Hospital Community

Key	
—	County does not contain an MUP or MUA designation

Service Area	County	Medically Underserved Areas		Medically Underserved Populations		
		IMU Score	Detail	IMU Score	Detail	
Primary	Delaware	—		57.8	Low-income population, entire county	
	Randolph	—		58.4	Low-income population, Union City Service Area - 1 census tract (CT)	
Secondary	Jay	—		61.9	Low-income population, entire county	
	Henry	—		59.3	Low-income population, entire county	
	Blackford	—		60	Low-income population, entire county	
	Grant	—		59.4	Low-income population, entire county	
	Madison		—		57.1	Low-income population, Anderson City Service Area - 10 CTs
			—		60.7	Low-income population, North Madison Service Area - 7 CTs

Source: Health Resources and Services Administration, US Department of Health and Human Services, 2012.

All seven counties in the community had service areas, if not the entire county, designated as a MUP. Those where the entire county was designated as a low-income MUP included Delaware, Jay,

2. 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>.

Henry, Blackford, and Grant counties. No counties in the IU Health Ball Memorial Hospital service area community included designated MUAs.

### 5.8 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 11** below lists the HPSAs in the IU Health Ball community.

**Table 11**  
HPSAs in the IU Health Ball Memorial Hospital Community

Key				
—		County does not contain HPSA designation for category		
Service Area	County	Primary Care HPSA	Dental Care HPSA	Mental Health HPSA
Primary	Delaware	Entire county	Low-income population, entire county	Low-income population, Mental Health Catchment Area 6
		2 health centers: Open Door Health Services, Inc. and Meridian MD - North Tillotson (FQHC Look-a-Like)	2 health centers: Open Door Health Services, Inc. and Meridian MD - North Tillotson (FQHC Look-a-Like)	2 health centers: Open Door Health Services, Inc. and Meridian MD - North Tillotson (FQHC Look-a-Like)
Secondary	Randolph	Low-income population, entire county	Entire county	East Central Mental Health Catchment Area 8
		4 health centers: Family and Occupational Medicine - Lynn, Family and Occupational Medical - Ridgeville, Family Health Center of Union City, and Family Health Center of Winchester		
	Jay	—	—	Low-income population, Mental Health Catchment Area 6
	Henry	New Castle Service Area, low-income population - 5 census tracts (CTs)	2 rural health clinics: New Castle Pediatrics and Knightstown Family Health Care	Low-income population, Mental Health Catchment Area 6
		2 rural health clinics: New Castle Pediatrics and Knightstown Family Health Care		2 rural health clinics: New Castle Pediatrics and Knightstown Family Health Care
	Blackford	Entire county	—	Grant/Blackford County Mental Health Catchment Area
	Grant	Low-income population, entire county	—	Grant/Blackford County Mental Health Catchment Area
Madison	Low-income population, entire county	1 health center: Madison County Community Health Center	2 health centers: Pendleton Correctional Facility and Madison County Community Health Center	
	1 health center: Madison County Community Health Center		Pendleton Correctional Facility	

Source: Health Resources and Services Administration, US Department of Health and Human Services, 2011.

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

The IU Health Ball Memorial Hospital 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 12** below lists the other facilities and resources in the IU Health Ball community.

**Table 12**  
Resources in Delaware and Surrounding Counties

Service Area	County	Public Health Department
Primary	Delaware	Delaware County Health Department (Muncie, Indiana)
	Randolph	Randolph County Health Department (Winchester, Indiana)
Secondary	Jay	Jay County Health Department (Portland, Indiana)
	Henry	Henry County Health Department (New Castle, Indiana)
	Blackford	Blackford County Health Department (Hartford City, Indiana)
	Grant	Grant County Health Department (Marion, Indiana)
	Madison	Madison County Health Department (Anderson, Indiana)

Service Area	County	Hospital	
Primary	Delaware	IU Health Ball Memorial Hospital	
	Randolph	St. Vincent Randolph Hospital	
	Jay	Jay County Hospital	
	Henry	Henry County Hospital	
Secondary	Blackford	IU Health Blackford Hospital	
	Grant	VA Northern Indiana Health Care System	Marion General Hospital
	Madison	Community Hospital Of Anderson and Madison County	St. John's Health System
		St. Vincent Mercy Hospital	

Service Area	County	FQHC	
Primary	Delaware	Gateway Health Center (Muncie, Indiana)	Open Door/BMH Health (Walnut Street, Muncie, Indiana)
		Meridian MD, North Tillotson (Muncie, Indiana)	Southway Urgent Care (Muncie, Indiana)
		Open Door Family Planning Clinic (Muncie, Indiana)	Suzanne Gresham Center Division of Meridian Services (Muncie, Indiana)
		Open Door/BMH Health (Madison Street, Muncie, Indiana)	
Secondary	Randolph	N/A	
	Jay	N/A	
	Henry	N/A	
	Blackford	N/A	
	Grant	Indiana Health Center at Marion (Marion, IN)	
	Madison	Madison County Community Health Center (Anderson, IN)	Open Door Family Planning Clinic (Anderson, IN)
		Northern Madison County Community Health Center (Elwood, IN)	

Sources: Health Resources and Services Administration, US Department of Health and Human Services, 2011; Indiana State Department of Health, Health Care Regulatory Services, 2011.

## **5.10 Review of Other Assessments of Health Needs**

### ***5.10.1 A Health Needs Assessment Study of the Minority Population in Delaware County by the Indiana Minority Health Coalition***

This report presents results of a community health needs assessment for minority populations in Delaware County, directed by the Indiana Minority Health Coalition with technical assistance from the Indiana University Bowen Research Center. Initial project planning activities began in 2003, with most of the data collected in 2004. Data for the health assessment were collected from existing data containing health indicators. Existing data from birth and death certificates, and hospitalizations that have health indicators were gathered and analyzed for minority groups.

Key conclusions were:

- Disparities exist by race and ethnic group
- Most rates needed to be improved to meet the Healthy People 2010 objective, with benchmarks provided by the US government
- The black population in Delaware County is disproportionately affected when comparing the health indicators among racial groups
  - There is room for improvement in low birth weight, very low birth weight, preterm births, early preterm births, pregnancy complications, Cesarean deliveries, first trimester prenatal care, births to single mothers, teenage pregnancy, low weight gain during pregnancy, and percentage of women receiving less than adequate prenatal care
  - The age-adjusted death rate for blacks in Delaware County was higher than the age-adjusted death rate for all deaths in Delaware County and higher than the age-adjusted death rate for all blacks in Indiana
  - Heart diseases were the leading cause of death for Blacks in Delaware County
- No comparisons could be made for Asian and Pacific Islanders (APIs) and American Indian and Alaska Natives (AIANs) in Delaware County because less than 20 incidents occurred in the study year among individuals in the specific minority group for the specific outcome of interest
- The age-adjusted death rate and cause of death for APIs, AIANs, and Hispanics in Delaware County could not be compared due to the small number of deaths

### ***5.10.2 Interlocal Community Action Program (ICAP) 2011 Community Needs Assessment***

Community Action Agencies (CAAs) across the state of Indiana assess the needs of their communities every three years. This is done through the analysis of state and county level data (i.e., Census Bureau and Bureau of Labor Statistics data), client data as reported to Community Services Block Grant (CSBG) Results Oriented Management Accountability (ROMA) system, and surveying a sampling of both CAA clients and stakeholders (community partners).

A client survey was randomly sent in September 2010 to those who had received services from ICAP in 2009. There were 13,772 surveys returned statewide, of which four hundred and sixty-one were from ICAP clients. The survey asked clients what their community needs were and what were the barriers to clients having those needs met.

Key conclusions were:

- The following were identified by ICAP's client survey respondents as top community needs:
  - Assistance to pay their electric/gas bills
  - Assistance to pay their rent or mortgage
  - Assistance to pay their water bills
  - Health insurance coverage
  - Affordable housing
- The following were identified by ICAP's client survey respondents as barriers to having their needs met:
  - Cost was a barrier for child care, health insurance, and transportation (price of gas)
  - The cost of utilities was a barrier to housing
  - Lack of jobs in their field was a barrier to work

### ***5.10.3 Delaware County Strategic Prevention Framework State Incentive Grant 2007 Local Epidemiological Report***

The Indiana State Epidemiological and Outcomes Workgroup (SEOW) rated Delaware County as a "High Need" community for addressing indicators of alcohol abuse. The Coalition has also seen both the early onset, and 30-day usage rate, of alcohol in the community reach levels that are higher than the state rates nearly across the board in the some of the schools surveyed.

An Indiana Prevention Resource Center (IPRC) Alcohol, Tobacco and Other Drugs (ATOD) survey was conducted with students in grades six through twelve in schools within the county in March and April 2005. The IPRC school survey results and the recent (2006) findings of the State Epidemiological and Outcomes Workgroup (SEOW) showed the county listed as "High Need" priority county for alcohol abuse prevention.

Key conclusions were:

- The community suffers from a high rate of alcohol related fatalities (30%)
- There is a dramatic increase of alcohol use from grade 7 to grade 9 and continues to grade 10
- 7th, 9th, and 10th graders have a higher monthly usage rate than the state
- Just under half of Ball State students reported doing something they later regretted as a result of their drinking
- There is a lack of understanding on the real harm of alcohol use among youth
- Conflicting messages about alcohol are seen from key social institutions within our community (eg, parties at Ball State University football games and social hours hosted by the Chamber of Commerce where alcohol is served as a main part of these social events)
- Education on the physical and psychological risks of using alcohol during the adolescent years may be necessary
- A thorough evaluation of what our youth are being taught about alcohol use, and to what degree, may help us to see gaps that need filled
- Community readiness is another area of concern; many key community leaders revealed that they are not personally involved, are not personally concerned, and are not aware of services

## 6 PRIMARY DATA ASSESSMENT

IU Health Ball Memorial Hospital’s approach to gathering qualitative data for its CHNA consisted of a multi-component approach to identify and verify community health needs for the IU Health Ball service area. This included the following components:

1. Hosting multiple one and a half to two hour community conversation focus groups with public health officials and community leaders in attendance to discuss the healthcare needs of the service area and what role IU Health Ball could play in addressing the identified needs.
2. Surveying the community at large through the hospital’s Web site, with special emphasis to garner 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 Ball Memorial Hospital. Attendees who participated in the focus group are listed in **Table 13** below.

**Table 13**  
Focus Group Participants

Name	Title, Affiliation	Expertise
Dr. Eric King	<i>Superintendent, Muncie Community Schools</i>	Dr. King is representative of a community perspective regarding children’s health and education. As Superintendent, he is knowledgeable in children’s health and well-being, as well as the community surrounding them.
Cecilia Williams	<i>Delaware County Coordinator, Tobacco Free Coalition of Delaware County</i>	Ms. Williams is representative of a community perspective regarding tobacco education and prevention. As an employee of the Tobacco Free Coalition, she is knowledgeable in the effects of smoking and the ways to educate the community of its consequences.
Austin Gerber	<i>Intern, Tobacco Free Coalition of Delaware County</i>	Ms. Gerber is representative of a community perspective regarding tobacco education and prevention. As an employee of the Tobacco Free Coalition, she is knowledgeable in the effects of smoking and the ways to educate the community of its consequences.
John Disher	<i>Administrator, Marketing, PR, and Community Benefit, IU Health Ball Memorial Hospital</i>	Mr. Disher is representative of a community perspective regarding general community health. As a community benefit and education coordinator at IU Ball Memorial Hospital, he is well-versed in the community’s needs and how they are being addressed.
Scott Smalstig	<i>Vice President, Meridian Services</i>	Mr. Smalstig is representative of a community perspective regarding behavioral health. As a VP of Meridian Services, he is familiar with behavioral and mental health issues in both adolescents and adults, as well as the resources in the community to assist them.
Molly Flodder	<i>TEAMwork for Quality Living</i>	Ms. Flodder is representative of a community perspective regarding underserved/low income populations. As an employee of TEAMwork, she understands the underserved community and their needs. TEAMwork’s mission is to provide opportunities for impoverished populations to become self-sufficient.

**Table 13 (cont.)**  
Focus Group Participants

Name	Title, Affiliation	Expertise
Kevin Woodget	<i>Pastor, Church of the Living God; Member, Health Coalition of Delaware County</i>	Pastor Woodget is representative of a community perspective towards minority health issues in Delaware County. As a church pastor and member of the Health Coalition of Delaware County, he is knowledgeable about the many factors affecting health in the local community.
Julie Hankins	<i>Executive Director, Cancer Services of East Central Indiana (ECI)</i>	Ms. Hankins is representative of a community perspective regarding health and financial issues related to cancer diagnosis and treatment. As Executive Director of Cancer Services of ECI, she is knowledgeable about the many support needs of persons with cancer.
Cheryl Mathews	<i>Director of Education and Client Services, Cancer Services of ECI</i>	Ms. Mathews is representative of a community perspective towards health education for adults and children, as well as issues related to cancer diagnosis and treatment. As Director of Education and Client services, she is familiar with health education needs of patients and their families.
Larry Strange	<i>Coordinator, Muncie Action Plan</i>	Mr. Strange is representative of a community coalition composed of concerned citizens actively seeking to improve Muncie through five key initiatives that include the linking of learning, health, and prosperity.
Judy Mays	<i>Program Coordinator, Minority Tobacco Free Coalition</i>	Ms. Mays is representative of a community perspective towards tobacco use among minority populations. As Program Coordinator and a health educator for the Minority Tobacco Free Coalition, she is knowledgeable about the effects of tobacco use, prevention, and cessation in the community.
Heidi Miller	<i>Open Door Health Services</i>	Ms. Miller is representative of a community perspective regarding the provision of health and dental services for the under- and uninsured populations of the community. As an employee of Open Door Health Services, she is knowledgeable about the populations served by this Federally Qualified Health Center.
Dr. Melanie Schreiner, MD	<i>Medical Director, Gateway Health Clinic; Physician, IU Health Ball Memorial Hospital</i>	Dr. Schreiner is representative of a community perspective related to healthcare services for the uninsured. As a family medicine physician and Medical Director of the Gateway Clinic, she is well-versed on the healthcare needs of the uninsured.
Andrea Bruno	<i>Executive Director, Gateway Health Clinic</i>	Ms. Bruno is representative of a community perspective regarding the provision of health and dental services for the uninsured populations of the community. As Executive Director of Gateway Health Clinic, she is knowledgeable about providing health care to the uninsured.
Joshua Williams	<i>Administrator, Delaware County Health Department</i>	Mr. Williams is representative of a community perspective related to public health. As an administrator of the local county health department, he is knowledgeable about a broad range of public health needs, including wellness initiatives and disease prevention.
Tamara White	<i>Community Health Coordinator, Delaware County Health Department</i>	Ms. White is representative of a community perspective regarding health promotion and disease prevention issues, including chronic disease, HIV/STI, other infectious diseases, injury, adolescent health, reproductive health, immunizations, tobacco use, primary care, and mental health.
Christiana Mann	<i>Environmental Coordinator, Delaware County Health Department</i>	Ms. Mann is representative of a community perspective related to community health initiatives. As the Environmental Coordinator for the local county health department, she is well-versed in environmental factors that promote human health and well-being, as well as those factors that foster a safe and healthy environment.

**Table 13 (cont.)**  
Focus Group Participants

Name	Title, Affiliation	Expertise
Maude Jennings	<i>Volunteer, Whitley Community Council</i>	Ms. Jennings is representative of a community perspective regarding the education and health initiatives within the minority community. As a member of the Whiteley Community Council, she understands many of the education and health needs of the Whiteley neighborhood.
Mary Dollison	<i>Volunteer, Roy C. Buley Center; Member, Whitley Community Council</i>	Ms. Dollison is representative of a community perspective regarding the education and wellness initiatives within the minority community. As a volunteer at the Roy C. Buley Center and member of the Whitley Community Council, she is well-versed in education and development programs for youth, and provides leadership for Whitley neighborhood improvements.
Rebecca Clock	<i>Director, Christian Ministries of Delaware County</i>	Ms. Clock is representative of a community perspective related to hunger issues within the area. As an employee of Christian Ministries of Delaware County, she is knowledgeable about resources in the community that assist persons in need of food and shelter.
Gary Chenault	<i>President/CEO, United Way of Delaware County</i>	Mr. Chenault is representative of a community perspective related to numerous community social service programs focused on the areas of education, income, and health. As President and CEO of the United Way of Delaware County, he is familiar with many of the core health, education, and financial needs of at-risk populations in the area.

**6.1.2 Prioritization Process and Criteria**

To obtain a more complete picture of the factors that play into the Delaware County community’s health, input from local health leaders was gathered through three separate focus group sessions. The first was a one and a half hour live group session at IU Health Ball Memorial Hospital, and the other two were each held as hour-long phone conferences for those who were not able to meet in person. IU Health Ball 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 believed five prioritized health needs for the IU Health Ball 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 Ball 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 Ball 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 the IU Health Ball Memorial Hospital community:

1. Obesity and healthy lifestyle choices.
2. Access to healthcare.
3. Mental health and addiction.
4. Tobacco use.
5. Health literacy and education.

These prioritized needs are discussed in more detail below.



**1. Obesity and healthy lifestyle choices** were overwhelmingly the most popular community health concerns expressed by leaders in Delaware County. Obesity was talked about in depth regarding the effect it has on overall wellness, chronic conditions, quality of life, and how it coexists with diabetes. Overall, leaders were concerned with the fact that statistical evidence shows that their county has not improved in health over the past decade, and in fact has become less healthy due to the prevalence of chronic conditions such as obesity.

While it was agreed to be something of a different category, Delaware County has trouble even getting residents to partake in wellness activities at all. Through the phone conference, one leader explained how Delaware County is lucky to have such an extensive resource as the Cardinal Greenway for wellness activities, but that it is rarely used compared to trails he has seen in other communities. The focus group discussed that there needs to be an overall increase in education toward the prevention of obesity, specifically oriented toward informing community members of overall wellness and proper nutrition.



**2. Access to healthcare** was a community need that was discussed in a variety of ways; however, the main concern was the cost of healthcare for Delaware County residents. It is very hard to find affordable insurance or even primary care physicians within the area. One leader expressed a great concern for the amount of poverty in the community and how that coexists with the lack of access to proper healthcare. She stated that many individuals cannot even access the most basic necessities such as shelter or food, which leaves very few that are able to pay for healthcare or wellness activities. Additionally, transportation for individuals to receive healthcare was discussed—if residents do not have a car or access to a car, it is nearly impossible to receive the care they require. Despite all of the barriers to access that were discussed, one group did mention that while there are gaps in the system for low cost healthcare in Delaware County, they have grown leaps and bounds over the past few years from where the community used to be.



**3. Mental health and addiction** was a concern that was generated from the access to healthcare conversation in most groups, but was then discovered to be a concern in and of itself. Mental health is partially an issue simply because there is not an inpatient drug treatment facility in the area, so residents with coexisting mental health and substance abuse problems must travel to Indianapolis for care. There is a great concern for mental health and substance abuse problems within Delaware County, and it was also mentioned that too often mental health is “swept under the rug” in this community and it needs to exist as a health need identity of its own so that it can begin to be solved openly and effectively.



**4. Tobacco use** was another main issue discussed within the focus groups. Every group in Delaware County talked openly about their dislike for the high rate of smoking that still exists within their

community. Leaders expressed a great desire for their community to go smoke free, but so far it has been hard to get anywhere with it. Until the whole community can go smoke free via legislation, leaders noted that they need any smoking cessation initiatives that could help. In addition, although smoking and tobacco is a large health concern for residents in the area, many groups like the Tobacco Free Coalition, TEAMwork for Quality Living, and The Buley Community Center are currently attempting to address this health issue and are doing their best to fight the ongoing battle.



**5. Health literacy and education** for the community was discussed in a variety of ways. One leader addressed the fact that he believes if individuals could understand health and the healthcare system more, they would be able to talk about what their needs are in a more informed manner, therefore making it easier for them to gain proper access to healthcare. Another leader mentioned that it would be great to be able to teach more nutritional and wellness programs within the schools. Outside of the specific topic of health education, it was mentioned that education in general was a concern given the high school dropout rates within the community.

## **6.2 Community Survey Findings**

IU Health also solicited responses from the general public regarding the health of the IU Health Ball community through an online survey. The survey consisted of approximately 15 close- 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 January 2012 through June 2012. 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 25,000 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 email to participants in the needs assessment focus groups to provide an opportunity for these community leaders to pass onto their local community members.

### ***Respondent Demographics***

231 respondents participated in the survey. All of the respondents were from the PSA (Delaware County). The survey sample was 89% Caucasian (White), and was fairly evenly distributed across age ranges, with the majority of respondents being 41-59 (54%) years of age, followed by 30-40 (21%), and 18-29 (16%) years of age.

The educational attainment of the sample was relatively high for the 170 individuals that reported it, with 59% of respondents indicating they had completed either a college undergraduate (45%) or graduate degree (14%). The remaining respondents had completed a high school degree/GED (27%), or vocational or technical schooling (16%).

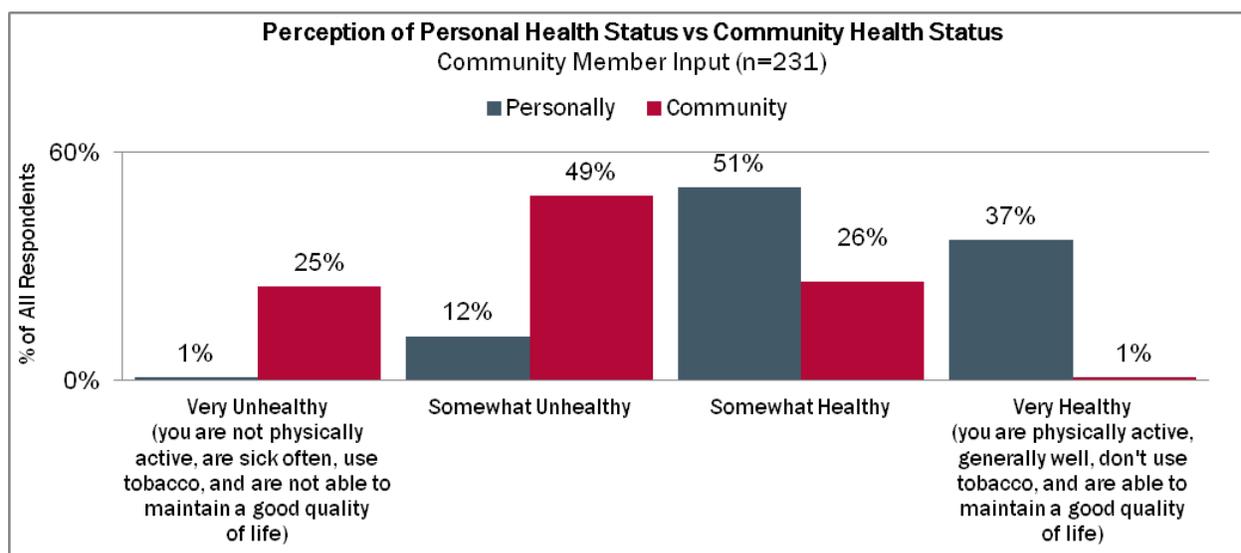
Reported household income of the sample was evenly distributed across income ranges defined in the survey. One-third of respondents reported a household income of \$67,051+. Approximately 19% reporting a household income range of \$44,701-\$67,051 and 28% reported \$22,351-\$44,700. The remaining thirty-six respondents (17%) reported a household income lower than \$22,350.

Survey respondents also were asked to report their insurance status. A majority of respondents had commercial/private insurance (91%) followed by a small percentage reported having uninsured/self-pay (5%), Medicare (2%) and Medicaid (2%).

## Perceptions of Personal and Community Health

Survey respondents were asked to assess both how healthy they thought they were personally, as well as how healthy they thought their overall community was. Four response options were presented, ranging from “Very Healthy (you/community members are physically active, generally well, don’t use tobacco, and are able to maintain a good quality of life)” to “Very Unhealthy (you/community members are not physically active, are sick often, use tobacco, and are not able to maintain a good quality of life).” Participant results are summarized in **Figure 6** below.

**Figure 6**  
Web-Based Survey Responses



Source: IU Health Ball Memorial Hospital Community Survey, 2012.

The majority of participants rated themselves as either “Somewhat Healthy” (51%) or “Very Healthy” (37%). Conversely, when asked to rate their overall community on the same scale, most participants rated their community’s health as “Somewhat Unhealthy” (49%) or “Very Unhealthy” (25%), as opposed to only 13% rating themselves as “Somewhat Unhealthy” or “Very Unhealthy”. Only 27% of participants rated their community as “Somewhat Healthy” (26%) or “Very Healthy” (1%).

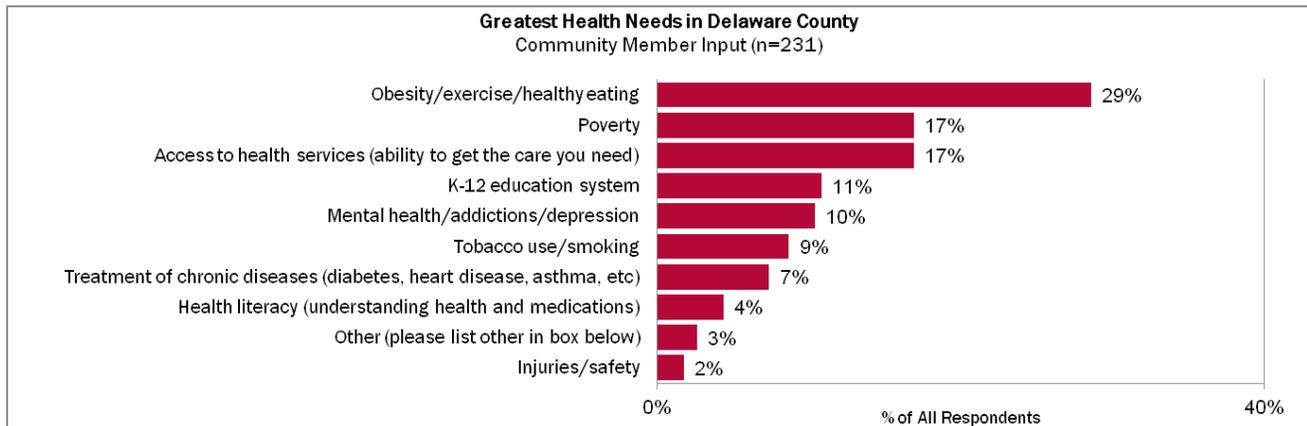
## Health Issues

When asked to rate the top health issues in their community on a scale of one to five, the five issues rated most often by respondents as the top need in their community included:

1. Obesity/exercise/healthy eating.
2. Poverty.
3. Access to health services (ability to get the care you need).
4. K-12 Education System.
5. Mental health/addictions/depression.

**Figure 7** below illustrates the health issues identified most frequently by respondents as the number one health need in the community.

**Figure 7**  
Web-Based Survey Responses

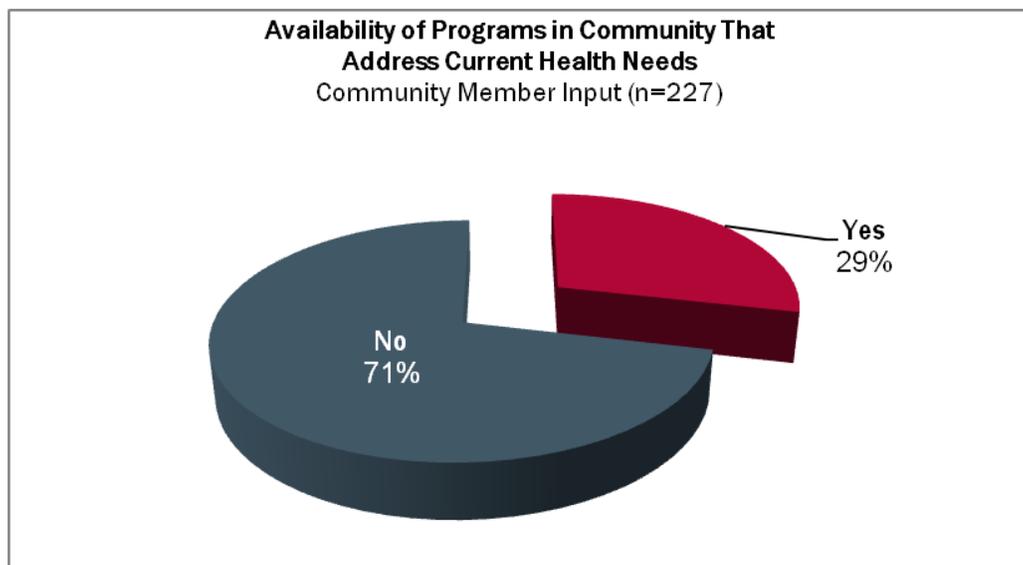


Source: IU Health Ball Memorial Hospital Community Survey, 2012.

### ***Community Health Needs***

A majority of respondents indicated that their community did not maintain enough programs to help with the identified key community health issues. **Figure 8** illustrates a detailed view of this feedback with regard to the question “*With the five needs you picked above, do you think there are enough programs in your community to help with these needs?*”

**Figure 8**  
Web-Based Survey Responses



Source: IU Health Ball Memorial Hospital Community Survey, 2012.

Of those that reported they did not feel like their community had adequate programs available to address current health needs, they listed the following needs as those they feel the IU Health Ball community should consider focusing on the most:

- **Programs to increase health literacy through patient health education, with a focus on healthy eating, nutrition, and diet with an overall goal of reducing high obesity rates**
- **Programs to reduce smoking rates through public education**
- **Accessible and affordable care for mental health and addiction issues**
- **Increased youth outreach and programs oriented towards recreational opportunities and other initiatives that promote healthy lifestyle behaviors**