Community Health Needs Assessment

November 26, 2018
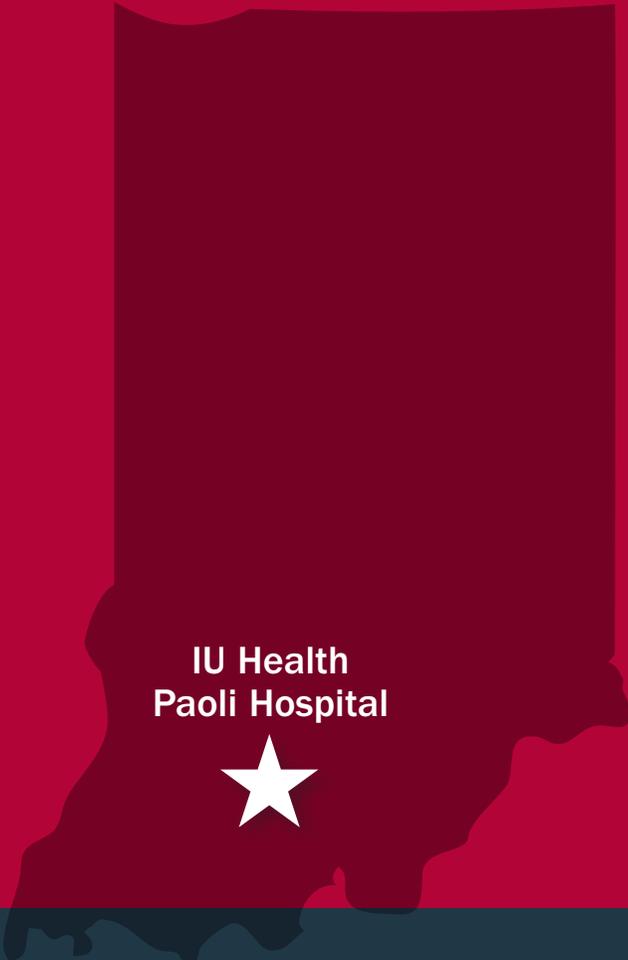
IU Health
Paoli Hospital

Paoli Hospital

_____
Dan Peterson
Chair
SCR Board Executive Committee

11/26/18
Date

Indiana University Health (IU Health) Community Health Needs Assessment Team Members

IU Health Team

Levi Brown
Associate
Community Outreach and Engagement

Brenda Chamness, M.S., MCHES®
Manager, Community Benefit/Mission
Community Outreach and Engagement

Kathy Chapuran, M.Ed., CHES®
Community Benefit Project Manager
Community Outreach and Engagement

Abby Church, MPH
Data Analysis Project Manager
Community Outreach and Engagement

Joyce M. Hertko, Ph.D.
Director
Community Outreach and Engagement

Mendy Lambdin, BSN, RN
Manager, Community Health and Volunteer Services
IU Health Paoli Hospital

Amanda Pabody
Community Benefit Project Manager
Community Outreach and Engagement

Lori Satterfield, MBA
Community Benefit Project Manager
Community Outreach and Engagement

Verité Healthcare Consulting

Keith Hearle, MBA
Founder and President

Patrick McMahon, MBA, CPA
Vice President

Alex Wallace, MPP
Senior Associate

For the 2018 Community Health Needs Assessment, Indiana University Health conducted the community survey data collection in collaboration with Indiana University, University of Evansville and an Indiana Hospital Collaborative, including Community Health Network, Franciscan Alliance, St. Vincent Health and other hospital partners.

Additional IU Health collaborators included:
- April Grudi, Deployment Leader-Expert, System Office of Transformation
- Adam Hillsamer, Deployment Leader, System Office of Transformation
- Dawn Parks, Senior Data Analyst-Business/Clinical Intelligence, Decision Support & Analytics
- Brian Reed, Transformation Officer, IU Health East Central Region Office of Transformation
- Sandra Ryder-Smith, Director, Market Analytics & Insight

TABLE OF CONTENTS

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Introduction

This Community Health Needs Assessment (CHNA) was conducted to identify significant community health needs and to inform development of an Implementation Strategy that addresses them.

Indiana University Health Paoli Hospital (IU Health Paoli Hospital or "the hospital") specializes in rural, community-based services to serve south central Indiana. IU Health Paoli Hospital includes a 24-hour emergency department with air transport availability, OB services, community outreach programs, physical/occupational/speech therapy, medical imaging, laboratory, outpatient surgery and visiting specialist services.

The hospital is part of Indiana University Health (IU Health), the largest and most comprehensive health system in the state of Indiana. IU Health, in partnership with Indiana University School of Medicine, one of the nation's leading medical schools, gives patients access to leading-edge medicine and treatment options that are available first, and often only, at IU Health. Additional information about IU Health is available at: https://iuhealth.org/.

Each IU Health hospital is dedicated to the community it serves. Each hospital conducts a CHNA to understand current community health needs and to inform strategies designed to improve community health, including initiatives designed to address social determinants of health. The CHNAs are conducted using widely accepted methodologies to identify the significant needs of a specific community. The assessments also are conducted to comply with federal laws and regulatory requirements that apply to tax-exempt hospitals.

IU Health invites community members to review the Community Health Needs Assessments and provide comments to communitybenefit@iuhealth.org.

For copies of each IU Health CHNA report and also for associated implementation strategies, visit: https://iuhealth.org/in-the-community. Updated implementation strategies for each IU Health hospital are scheduled to be published by May 15, 2019.

Community Definition

For purposes of this CHNA, IU Health Paoli Hospital's community is defined as Orange County, Indiana. This county accounts for over 81 percent of the hospital's inpatient cases in 2016. The total population of this community in 2015 was 19,516.

The following map portrays this community. The map shows county and ZIP code boundaries. Specific ZIP codes are included in analyses if any portion of the ZIP code overlaps with one or more counties.
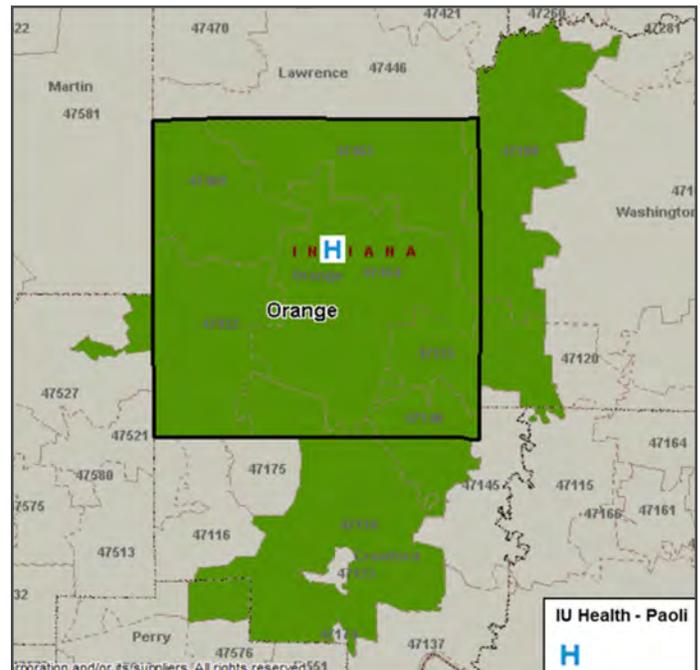
Source: Microsoft MapPoint and IU Health, 2018

Significant Community Health Needs

Identifying *significant* community health needs is an important element of CHNAs. Several data sources were assessed to identify those needs, including:

- Secondary data[1] including demographics, health status, and access to care indicators,
- Findings from other community health assessments of areas served by the hospital,
- Input obtained from individuals who participated in one or more community meetings,
- Input obtained from one or more key stakeholders who were interviewed, and
- A community survey conducted in collaboration with other Indiana health systems.

Based on the assessment of the above data sources, the following community health needs (listed in alphabetical order) have been identified as significant in the community served by IU Health Paoli Hospital. References are made below to exhibits and findings presented in this report.

[1] *"Secondary data" refers to data published by others, for example the U.S. Census and the Indiana State Department of Health.*

Access to Health Care Services
- Orange County has an under-supply of primary care providers, dentists, and mental health professionals compared to both Indiana and national rates (**Exhibit 24**).
- Primary Care, Dental, and Mental Health Care Health Professional Shortage Areas (HPSAs) are present in Orange County (**Exhibit 37**).
- Access to healthcare and an undersupply of all medical providers were both identified as primary concerns in community input (**Community Meetings, Interviews**).

Drug and Substance Abuse (Including Opioids)
- The opioid crises, other forms of drug and substance abuse, and alcohol use and abuse, were identified by community members as particularly significant (**Community Meetings, Community Survey, Interviews**).
- Drug and substance abuse also has been identified as a top concern in Orange County and across the region in other assessments, including Indiana's State Health Improvement Plan (**Other Assessments**).
- Orange County compared unfavorably in driving deaths with alcohol involvement (**Exhibits 24, 25**).

Mental Health
- Mental health status and access to mental health care were identified by community members as significant problems (**Community Meetings, Interviews, Other Assessments**).
- Orange County has an under-supply of mental health providers compared to both Indiana and national rates (**Exhibit 24**).
- Mortality rates for suicide are higher in Orange County than the Indiana average (**Exhibit 26**).
- Orange County has been designated as a Mental Health Care Health Professional Shortage Areas (HPSAs) (**Exhibit 37C**).

Obesity, Diabetes, and Physical Inactivity
- Individuals providing input identified obesity, a lack of physical activity, and a lack of access to exercise opportunities as primary concerns (**Community Meetings, Community Survey, Interviews**).
- The percent of adults who are obese, the percent that are physically inactive, and the percent without access to exercise opportunities in Orange County are comparatively high (**Exhibits 24, 25**).
- Mortality rates conditions related to obesity (such as heart disease) are comparatively high (**Exhibit 26**).

Social Determinants of Health
- The poverty rate in Orange County is higher than the Indiana average, and low income census tracts are present throughout the county (**Exhibits 18, 19**).
- The percent of children in poverty is higher in Orange County than Indiana and peer county averages (**Exhibits 24, 25**).

- Unemployment rates in Orange County have been above Indiana averages in recent years (**Exhibits 20, 24**).
- Orange County compares unfavorably in both high school graduation rates and college education (**Exhibits 16, 24, 25**).
- Community input identified issues such educational attainment, poverty, and unemployment as significant issues in Orange County (**Community Meetings, Interviews**).
- Other community assessments identified education, housing issues, homelessness, and unemployment as issues in the community (**Other Assessments**).

DATA AND ANALYSIS

Definition of Community Assessed

The community assessed by IU Health Paoli Hospital was defined by the geographic origins of patients discharged from the hospital, and on that basis was identified as Orange County, Indiana.

Residents from this county accounted for over 81 percent of the hospital's 2016 inpatient discharges (**Exhibit 1**).

Exhibit 1: IU Health Paoli Hospital Inpatient Discharges by County, 2016

County	Percent of Inpatients (2016)
Orange County	81%

Source: Analysis of Indiana University Health Discharge Data, 2016

The estimated, total population of these counties in 2015 was 19,516 persons (**Exhibit 2**).

Exhibit 2: Community Population, 2015

| County	Estimated Population 2015
Orange County	19,516

Source: State of Indiana by the Indiana Business Research Center, March 2018

The hospital is located in Orange County (City of Paoli, Indiana, ZIP code 47454).

Exhibit 3 portrays the community. The map shows county and ZIP code boundaries. Specific ZIP codes are included in the assessment if any portion of the ZIP code overlaps with one or more counties.

Exhibit 3: IU Health Paoli Hospital Community
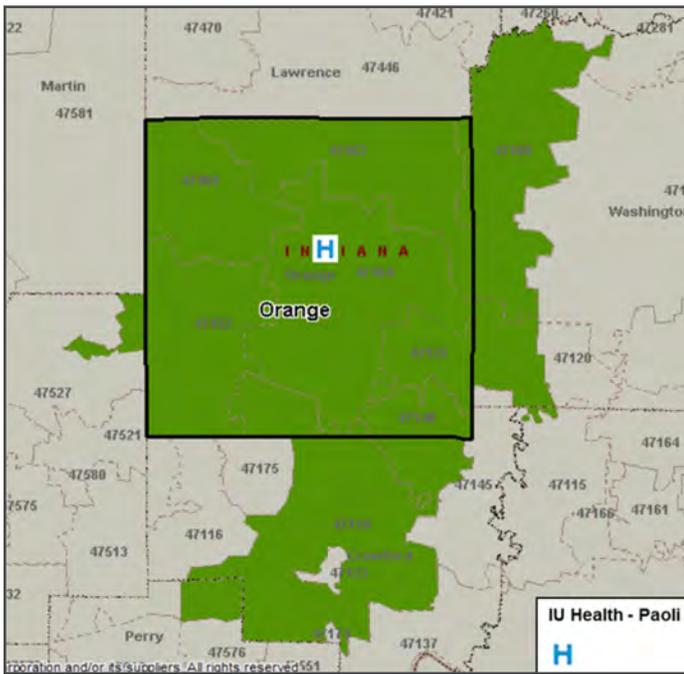
Source: Microsoft MapPoint and IU Health, 2018

Secondary Data Summary

The following section summarizes findings from the secondary data analysis. *See* Appendix B for more detailed information.

Demographics
Population characteristics and trends directly influence community health needs. The total population in the IU Health Paoli Hospital community is expected to decrease 0.6 percent from 2015 to 2020. Between 2016 and 2021, each of the eight ZIP codes in the IU Health Paoli Hospital community are projected to lose population.

While the total population is expected to decrease, the number of persons aged 65 years and older is projected to grow 9.9 percent. This should contribute to growing need for health services, since older individuals typically need and use more services than younger persons.

Economic Indicators
Many health needs have been associated with poverty. At 16.4 percent, Orange County's poverty rate has been above the Indiana average. The poverty rate for the Black population in Orange County is 36.4 percent, higher than the Indiana poverty rate for Black residents set at 30.9 percent, and the U.S. rate for Black residents, set at 26.2 percent. Low income census tracts are prevalent in IU Health Paoli Hospital's community.

Unemployment rates in the community have been consistently higher than Indiana averages.

The percentage of people uninsured has declined in recent years due to two primary factors:
- In recent years, unemployment rates have decreased significantly. Many receive health insurance coverage through their (or a family member's) employer.
- In 2010, the Patient Protection and Affordable Care Act (PPACA) was enacted, and Indiana was among the states that expanded Medicaid eligibility.

Local Health Status and Access Indicators
Indiana has 92 counties. In the 2018 *County Health Rankings* for overall health outcomes, Orange County ranked 76th.

Orange County had 32 out of 42 indicators ranked in the bottom half of Indiana counties. Of those, 20 were in the bottom quartile, including: health outcomes, health factors, length of life, premature death, quality of life, poor or fair health, poor physical health days, poor mental health days, health behaviors, adult obesity, food environment index, alcohol-impaired driving deaths, sexually transmitted infections, mammography screening, social and economic factors, high school graduation, some college, unemployment, children in poverty, and injury deaths.

In the 2018 *Community Health Status Indicators* (which compares community health indicators for each county with those for peers across the United States), the following indicators appear to be most problematic:
- Years of potential life lost rate
- Physically unhealthy days
- Percent obese
- Chlamydia rate
- Percent mammography screening
- Percent children in poverty
- Percent single-parent households

According to the Centers for Disease Control and Prevention (CDC), mortality rates in Orange County were worse than the Indiana average for 17 of 28 causes. Rates for Alzheimer's disease, intentional self-harm (suicide), influenza and pneumonia, hypertensive heart disease, essential hypertension, other diseases of the circulatory system, and all other external causes were particularly problematic.

Rates of communicable disease in Orange County were lower than Indiana averages for all communicable diseases.

Ambulatory Care Sensitive Conditions
Ambulatory Care Sensitive Conditions (ACSCs) include thirteen health conditions (also referred to as Preventative Quality Indicators, or "PQIs") "for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease."[2] Among these conditions are: angina without procedure, diabetes, perforated appendixes, chronic

---

[2] *Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.*

obstructive pulmonary disease (COPD), hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, and asthma.

The ACSC rate for chronic obstructive pulmonary disease (COPD), community-acquired pneumonia, and lower-extremity amputation among patients with diabetes in the IU Health Paoli Hospital community exceeded Indiana averages.

Community Need Index

Dignity Health, a California-based hospital system, developed and published a *Community Need Index™* (CNI) that measures barriers to health care access. The index is based on five social and economic indicators:

- The percentage of elders, children, and single parents living in poverty
- The percentage of adults over the age of 25 with limited English proficiency, and the percentage of the population that is non-White
- The percentage of the population without a high school diploma
- The percentage of uninsured and unemployed residents
- The percentage of the population renting houses

A CNI score is calculated for each ZIP code. Scores range from "Lowest Need" (1.0-1.7) to "Highest Need" (4.2-5.0).

The weighted average CNI score for Orange County was 3.4 – higher than the national median of 3.0.

Food Deserts

The U.S. Department of Agriculture's Economic Research Service identifies census tracts that are considered "food deserts" because they include lower-income persons without supermarkets or large grocery stores nearby.

No census tracts within the IU Health Paoli Hospital community have been designated as food deserts.

Medically Underserved Areas and Populations

Medically Underserved Areas and Populations (MUA/Ps) are designated by the Health Resources and Services Administration (HRSA) based on an "Index of Medical Underservice (Index)." The Index includes the following variables: ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over. Areas with a score of 62 or less are considered "medically underserved."

Low income populations of Orange County have been designated as medically underserved.

Health Professional Shortage Areas

A geographic area can receive a federal Health Professional Shortage Area (HPSA) designation if a shortage of primary medical care, dental care, or mental health care professionals is found to be present.

Areas throughout IU Health Paoli Hospital's community have been designated as Primary Care, Dental Care, and Mental Health HPSAs.

Relevant Findings of Other CHNAs

This CHNA also has considered the findings of other recent, available assessments conducted by other hospital facilities, local health departments (LHDs), and the State of Indiana. These other assessments consistently have identified the following needs as significant for the community served by IU Health Paoli Hospital.

- Access to mental health services
- Community engagement and building
- Drug/substance abuse
- Education
- Food insecurity
- Funding for health services
- Housing issues/homelessness
- Mental/behavioral health
- Transportation
- Unemployment

Significant Indicators

Exhibit 4 presents many of the indicators discussed in the above secondary data summary. An indicator is considered significant if it varies materially from a benchmark level (e.g., an average for Indiana or the United States). For example, while Indiana's percent poverty rate (percent of people at or below 100 percent of the Federal Poverty Level) was 15 percent, the rate in Orange County was 16.4 percent. For IU Health Paoli Hospital, the overall poverty rate is thus considered significant. The last column of **Exhibit 4** identifies where more information regarding the data sources can be found.

The benchmarks include Indiana averages, national averages, and in some cases averages for "peer counties" from across the United States. In the *Community Health Status Indicators* data source, peer counties are defined as being similar in terms of population density, household incomes, and related characteristics.

Exhibit 4: Significant Indicators

Indicator	Area	Value	Benchmark	Exhibit
65+ Population change, 2015-2020	Orange County	9.9%	-0.6% – Total Community Population	12
Population with a disability	Orange County	18.9%	13.6% – Indiana	16
Poverty rate, overall	Orange County	16.4%	15.0% Indiana	17
Poverty rate, Black, 2012-2016	Orange County	36.4%	16.1% – Orange County White	18
Poverty rate, Hispanic, 2012-2016	Orange County	39.6%	16.1% – Orange County White	18
Population without high school diploma	Orange County	16.6%	11.9% – Indiana	16
Percent unemployed	Orange County	3.9%	3.5% – Indiana	20
Percent of adults with some college education	Orange County	46.8%	65.0% – U.S.	24
Percent of children in poverty	Orange County	24.3%	19.1% – Indiana	24
Percent of children in single-parent households	Orange County	32.2%	26.5% – Peer counties	25
Community Needs Index	Orange County	3.4	3.0 – U.S. median	34
Years of potential life lost rate	Orange County	9,588	7,794 – Indiana	24
Percent adults obese	Orange County	35.6%	32.0% – Indiana	24
Percent adults physically inactive	Orange County	30.4%	26.8% – Indiana	24
Percent with adequate access to exercise opportunities	Orange County	65.4%	76.6% – Indiana	24
Percent driving deaths with alcohol involvement	Orange County	36.4%	22.4% – Indiana	24
Percent adults who smoke	Orange County	20.0%	18.7% – Peer counties	25
Percent mothers smoked during pregnancy	Orange County	27.0%	15.6% – Indiana	30
Teen birth rate (15-19)	Orange County	36.5	30.4 – Indiana	30
Population per primary care provider	Orange County	1,961	1,320 – U.S.	24
Population per dentist	Orange County	3,223	1,480 – U.S.	24
Population per mental health provider	Orange County	2,148	470 – U.S.	24
Mortality rate (Alzheimer's disease)	Orange County	74.2	34.9 – Indiana	26
Mortality rate (suicide)	Orange County	29.1	15.4 – Indiana	26
Mortality rate (heart disease)	Orange County	218.7	180.6 – Indiana	26
Mortality rate (cancer)	Orange County	197.7	172.5 – Indiana	26
Cancer incidence rate (all types)	Orange County	463.0	445.2 – Indiana	28
Chlamydia Rate	Orange County	336	230 – Peer counties	25

Source: Verité Analysis

Primary Data Summary

Primary data were gathered in three ways: Community Meetings, Key Stakeholder Interviews, and a Community Survey.

Community Meetings
On April 19, 2018, a meeting of community representatives was held at the Orange County Community Center in Paoli, the county seat of Orange County. The meeting was attended by 24 community members invited by IU Health because they represented important community organizations and sectors such as: local health departments, non-profit organizations, local business, health care providers, local policymakers, and schools.

Through this meeting, IU Health sought a breadth of perspectives on the community's health needs. The specific organizations represented at the meeting are listed below.

Organizations Represented at Community Meeting
- Backpacks of Blessings
- Hoosier Hills PACT, Tobacco
- Hoosier Uplands
- IU Health Paoli Hospital
- Mid-Southern Bank
- Orange County EMA
- Orange County Government
- Orange County Health Department
- Orange County Publishing
- Paoli Jr./Sr. High School
- Pluto Corporation
- Purdue Extension

- Southern Indiana Community Healthcare
- Women, Infants, and Children (WIC)

The meeting began with a presentation that discussed the goals and status of the CHNA process and the purpose of the community meeting. Then, secondary data were presented, along with a summary of the most unfavorable community health indicators. For the community served by IU Health Paoli Hospital, those indicators were (in alphabetical order):
- Educational attainment
- Mental health and access to mental health services
- Obesity and physical inactivity
- Poverty and unemployment
- Prevalence of chronic disease and associated mortality
- Smoking, including during pregnancy
- Substance abuse

Meeting participants then were asked to discuss whether the identified, unfavorable indicators accurately identified the most significant community health issues and were encouraged to add issues that they believed were significant. Several issues were added, such as: access to healthcare, sexually transmitted diseases, and behavioral health.

During the meeting, a range of other topics was discussed, including:
- Disparities in education, transportation, knowledge of resources
- Length of time for a new patient to get in to see a provider
- Inability for some to afford employer's insurance and prescription costs
- Lack of internet access
- Lack of access to transportation
- Individuals with sexually transmitted diseases (STDs) are often under-diagnosed due to lack of available services and treatment
- Not enough fire and EMS trained personnel
- Need to bring people back to the community with degrees
- Employee substance abuse
- Possible solutions, such as access to technology, increased awareness of Alcoholics Anonymous and Narcotics Anonymous, telehealth for mental health services, education campaigns, additional support groups, additional local providers, low cost interventions, grant opportunities, and ride-sharing

After discussing the needs identified through secondary data and adding others to the list, each participant was asked through a voting process to identify "three to five" they consider to be most significant. From this process, the group identified the following needs as most significant for the community served by IU Health Paoli Hospital:
- Behavioral health and substance abuse
- Educational attainment

- Poverty and unemployment
- Mental health and access to mental health services
- Obesity and physical activity
- Access to healthcare

Interviews
An interview also was conducted with a representative of the Orange County Health Department. The interview was conducted to assure that appropriate and additional input was received from a governmental public health official. The individual that was interviewed participated in the community meeting. Accordingly, the results of the community meeting were discussed and insights were sought regarding significant community health needs, why such needs are present, and how they can be addressed.

The interview was guided by a structured protocol that focused on opinions regarding significant community health needs, describing why such needs are present, and seeking ideas for how to address them.

- The interviewee confirmed that the top needs identified by the community meeting group were some of the most significant. These needs were:
  – Behavioral health and substance abuse
  – Educational attainment
  – Poverty and unemployment
  – Mental health and access to mental health services
  – Obesity and physical inactivity
  – Access to healthcare
- Substance abuse is a significant issue in the community, and there are few treatment options for addiction. For treatment options that are available in and nearby the county, long waiting lists exist for care.
  – Use of methamphetamine is particularly problematic, with high access in the area and generations of users in the same community and family units.
- Unemployment is also an issue, particularly because some residents cannot pass the required drug tests for employment. Chronic illness, disease, and issues with substance abuse all lead to people not working in the county.
- A lack of transportation options also contributes to poor health outcomes and to unemployment. While county transit exists, it is often limited. Additionally, Medicaid does not reimburse the same for transportation as before, so fewer residents are able to ensure travel to medical appointments.
- There is a lack of health services, particularly a lack of any urgent care facilities or low income clinics. Due to this shortage, many residents do not go to a medical professional except in emergency situations.
  – There is a lack of mental health facilities as well.
  – Dental care is also problematic, as many providers do not take Medicaid and there is not much education present about dental health.
  – Specialty care, in general, is difficult to find in the county.

- Preventive healthcare is not common among residents, largely due to financial reasons and also education around proper preventive health behaviors. In order words, residents may not know preventive measures to take that contribute to better health – i.e. exercising, healthy eating, proper teeth care, etc.
- A lack of access to exercise opportunities exists, particularly because there are few walking or bicycle paths for activities.
- Several populations were identified as vulnerable:
  - Children, especially due to a number of households experiencing substance abuse and neglect issues.
  - Elderly populations need assistance with medication management.
  - There is a large Hispanic population that largely lacks health insurance and has limited English proficiency, making it difficult to get this group health services.
- More resources around education for tobacco cessation, chronic disease management, and other common health issues are needed. Youth education programs are also necessary to try to break the cycle of poor health and welfare that many families experience.
- More incentives are needed to ensure providers come to the region, especially for behavioral health care, dental care, and urgent care facilities.
- Obesity and diabetes continue to be issues in the community.

- Chronic obstructive pulmonary disease (COPD) is a concern due to a long history of tobacco use in the region, in addition to manufacturing jobs leading to poor conditions.
- There is an increase in Hepatitis C incidences due to IV drug use.
- Transitional housing programs are needed in the community, particularly for chronic homeless populations and those leaving incarceration. More work training programs are also needed for these groups.

Community Survey

To inform the CHNA, a community survey was conducted by the Indiana Hospital Collaborative.[3]

Across Indiana, 9,161 completed questionnaires were received by all participating hospitals in the Indiana Hospital Collaborative, for an overall response rate of 11.6 percent; 5,030 questionnaires were received from the 17 Indiana counties served by one or more IU Health hospitals. For IU Health Paoli Hospital, surveys were received from 244 community households. According to the responses, these households included 483 adults.

Exhibit 5 portrays the community health needs considered most significant by survey respondents from IU Health Paoli Hospital's community.

Exhibit 5: Community Survey – Significant Health Needs

Community Health Need	IU Health Paoli Hospital Number of Responses	IU Health Paoli Hospital Percent of Respondents
Substance use or abuse	189	77.6%
Obesity	110	45.2%
Chronic diseases, like diabetes, cancer, and heart disease	110	45.1%
Poverty	108	44.2%
Alcohol use or abuse	97	39.7%
Child neglect and abuse	88	36.1%
Aging and older adult needs	84	34.6%
Tobacco use	66	27.0%
Food access, affordability, and safety	62	25.6%
Assault, violent crime, and domestic violence	48	19.7%
Disability needs	45	18.3%
Mental health	43	17.6%
Injuries and accidents	26	10.6%
Dental care	22	9.1%
Suicide	18	7.4%
Homelessness	17	7.0%
Infectious diseases, like HIV, STDs, and hepatitis	17	7.0%
Sexual violence, assault, rape, or human trafficking	12	5.0%
Environmental issues	11	4.6%
Reproductive health and family planning	10	3.9%
Infant mortality	0	0.0%

Source: Community Survey

[3] *For more information on the survey methodology, see Appendix A.*

The community survey indicates that substance abuse, obesity, chronic diseases, poverty, and alcohol use or abuse represent top concerns in the community served by IU Health Paoli Hospital.

Exhibit 6 arrays survey responses regarding health factors across demographic and socioeconomic characteristics. The exhibit includes findings from all adults living in homes where a survey questionnaire was returned in one of the 17 counties served by IU Health.

Exhibit 7 notes survey responses regarding health behaviors across demographic and socioeconomic characteristics. As frequently found in community health data, physical and mental health status (and tobacco use) tends to be worse for lower-income individuals and for those without a high school diploma. Opioid misuse also appears to be more prevalent in these populations.

Exhibit 6: Community Survey – Health Factors

Measure	Total	Female	Male	White	Black	Asian	Hispanic	$0 – $25k	$25 – $75k	$75k+	No High School Diploma
Total Number of Responses	8,885	5,694	3,137	8,487	133	111	148	1,480	3,659	3,328	329
Fair or Poor Health	16.6%	16.4%	16.8%	16.6%	33.1%	6.3%	18.2%	39.4%	16.7%	5.9%	39.2%
Physical Health – Fair or Poor	42.6%	42.8%	42.5%	42.7%	27.1%	60.4%	46.6%	17.4%	36.8%	60.8%	18.8%
Mental Health – Fair or Poor	8.2%	8.6%	7.5%	8.2%	18.0%	4.5%	5.4%	22.2%	8.0%	2.4%	20.4%
Social Well-being – Fair or Poor	61.2%	61.5%	61.2%	61.1%	52.6%	79.3%	62.2%	33.9%	57.8%	77.7%	37.4%
Are not satisfied with life	12.8%	12.3%	13.9%	12.6%	15.0%	23.4%	10.1%	19.0%	12.1%	11.2%	14.6%
Without Health Insurance	4.2%	4.2%	4.0%	4.1%	7.5%	0.9%	10.1%	6.6%	5.3%	2.1%	7.9%
Without Primary Care Physician	11.0%	10.5%	11.9%	10.9%	10.5%	20.7%	23.0%	11.2%	11.0%	12.0%	15.8%

Exhibit 7: Community Survey – Health Behaviors

Measure	Total	Female	Male	White	Black	Asian	Hispanic	$0 – $25k	$25 – $75k	$75k+	No High School Diploma
Total Number of Responses	8,885	5,694	3,137	8,487	133	111	148	1,480	3,659	3,328	329
Smoked cigarettes or used other tobacco	9.9%	8.8%	12.0%	9.9%	8.3%	1.8%	9.5%	17.9%	11.3%	5.6%	20.4%
Physically active on regular basis	52.9%	50.3%	57.9%	52.8%	45.1%	54.1%	52.7%	37.3%	51.0%	62.3%	37.7%
Ate a healthy balanced diet	57.5%	57.9%	57.0%	57.6%	41.4%	62.2%	59.5%	42.2%	54.7%	67.6%	34.0%
Got plenty of sleep	56.2%	55.5%	57.8%	56.8%	39.1%	36.9%	46.6%	46.8%	57.1%	59.7%	43.2%
Took an opioid or narcotic that was prescribed to me	8.3%	8.9%	7.4%	8.4%	7.5%	0.0%	2.7%	15.3%	9.0%	5.0%	12.8%

Exhibit 7: Community Survey – Health Behaviors (continued)

Measure	Total	Female	Male	White	Black	Asian	Hispanic	$0 – $25k	$25 – $75k	$75k+	No High School Diploma
Took an opioid or narcotic that was not prescribed to me	0.6%	0.6%	0.4%	0.5%	0.0%	0.9%	0.0%	1.2%	0.5%	0.4%	0.0%
Took a medication for anxiety, depression, or other mental health challenge that was prescribed to me	18.2%	22.9%	9.6%	18.4%	15.8%	4.5%	10.8%	26.4%	17.4%	16.0%	19.8%
Had blood pressure checked	48.0%	46.4%	50.9%	48.3%	38.3%	32.4%	31.8%	53.7%	52.1%	40.8%	52.0%
Drank alcohol to the point of intoxication	6.1%	4.8%	8.5%	6.1%	7.5%	1.8%	12.2%	2.9%	5.5%	8.9%	1.8%
Drove while under the influence of alcohol or drugs	1.0%	0.7%	1.6%	1.1%	0.0%	0.0%	0.7%	1.0%	1.1%	1.1%	0.3%
Took steps to reduce level of stress	27.9%	32.2%	20.2%	27.8%	33.8%	25.2%	27.7%	24.1%	24.1%	34.5%	20.4%

OTHER FACILITIES AND RESOURCES IN THE COMMUNITY

This section identifies other facilities and resources available in the community served by IU Health Paoli Hospital that are available to address community health needs.

Federally Qualified Health Centers

Federally Qualified Health Centers (FQHCs) are established to promote access to ambulatory care in areas designated as "medically underserved." These clinics provide primary care, mental health, and dental services for lower-income populations. FQHCs receive enhanced reimbursement for Medicaid and Medicare services and most also receive federal grant funds under Section 330 of the Public Health Service Act.

There currently are two FQHC sites operating in the IU Health Paoli Hospital community (**Exhibit 8**).

Exhibit 8: Federally Qualified Health Centers, 2018

County	Facility
Orange	Comprehensive Health Care (Paoli)
Orange	Valley Health (West Baden Springs)

Source: HRSA, 2018

Hospitals

One hospital (IU Health Paoli Hospital) is located in the community (**Exhibit 9**).

Exhibit 9: Hospitals, 2018

County	Facility
Orange	Indiana University Health Paoli Hospital (Paoli)

Source: Indiana State Department of Health, 2018

Local Health Departments (LHDs)

Exhibit 10 presents information on LHDs that provide services in the IU Health Paoli Hospital community.

Exhibit 10: Local Health Departments, 2018

County	Public Health Department
Orange	Orange County Health Department (Paoli)

Source: Indiana State Department of Health, 2018

Other Community Resources

A wide range of agencies, coalitions, and organizations that provide health and social services, is available in the region served by IU Health Paoli Hospital. Indiana 211 Partnership, Inc. is a nonprofit 501(c)(3) organization that provides the Indiana 2-1-1 information and referral service. By calling 2-1-1 or (866) 211-9966 (available 24/7), individuals receive referrals to service providers 24 hours a day. Individuals also can search for services using the organization's website, https://www.in211.org/.

The other organizations accessible through the Indiana 211 Partnership provide the following types of services and resources:

- Housing and utilities
- Food, clothing, and household items
- Summer food programs
- Health care and disability services
- Health insurance and expense assistance
- Mental health and counseling
- Substance abuse and other addictions
- Support groups
- Tax preparation assistance
- Legal, consumer, and financial management services
- Transportation
- Employment and income support
- Family support and parenting
- Holiday assistance
- Disaster services
- Government and community services
- Education, recreation, and the arts
- Donations and volunteering

APPENDIX A – OBJECTIVES AND METHODOLOGY

Regulatory Requirements

Federal law requires that tax-exempt hospital facilities conduct a CHNA every three years and adopt an Implementation Strategy that addresses significant community health needs.[4] In conducting a CHNA, each

[4] *Internal Revenue Code, Section 501(r).*

tax-exempt hospital facility must:
- Define the community it serves;
- Assess the health needs of that community;
- Solicit and take into account input from persons who represent the broad interests of that community, including those with special knowledge of or expertise in public health;
- Document the CHNA in a written report that is adopted for the hospital facility by an authorized body of the facility; and,
- Make the CHNA report widely available to the public.

The CHNA report must include certain information including, but not limited to:
- A description of the community and how it was defined,
- A description of the methodology used to determine the health needs of the community, and
- A prioritized list of the community's health needs.

Methodology

CHNAs seek to identify significant health needs for particular geographic areas and populations by focusing on the following questions:
- **Who** in the community is most vulnerable in terms of health status or access to care?
- **What** are the unique health status and/or access needs for these populations?
- **Where** do these people live in the community?
- **Why** are these problems present?

The focus on **who** is most vulnerable and **where** they live is important to identifying groups experiencing health inequities and disparities. Understanding **why** these issues are present is challenging, but is important to designing effective community health improvement initiatives. The question of **how** each hospital can address significant community health needs is the subject of the separate Implementation Strategy.

Federal regulations allow hospital facilities to define the community they serve based on "all of the relevant facts and circumstances," including the "geographic location" served by the hospital facility, "target populations served" (e.g., children, women, or the aged), and/or the hospital facility's principal functions (e.g., focus on a particular specialty area or targeted disease).[5]

This assessment was conducted by Verité Healthcare Consulting, LLC, in collaboration with IU Health. *See* Appendix E for consultant qualifications.

Data from multiple sources were gathered and assessed, including secondary data[6] published by others and

[5] *501(r) Final Rule, 2014.*
[6] *"Secondary data" refers to data published by others, for example the U.S. Census and the Indiana State Department of Health. "Primary data" refers to data observed or collected from first-hand experience, for example by conducting interviews.*

primary data obtained through community input. *See* Appendix B for an assessment of secondary data. Input from the community was received through key informant interviews, community meetings, and a community survey.

The informants participating in the community input process represented the broad interests of the community and included individuals with special knowledge of or expertise in public health. *See* Appendix C.

Considering a wide array of information is important when assessing community health needs to ensure the assessment captures a wide range of facts and perspectives and to increase confidence that significant community health needs have been identified accurately and objectively.

Certain community health needs were determined to be "significant" if they were identified as problematic in at least two of the following five data sources:

- Secondary data[7] including demographics, health status, and access to care indicators,
- Findings from other community health assessments of areas served by the hospital,
- Input obtained from individuals who participated in one or more community meetings,
- Input obtained from individuals who were interviewed, and
- A community survey conducted in collaboration with other Indiana health systems.

Collaborating Organizations

For this assessment, IU Health Paoli Hospital collaborated with all IU Health hospitals and also with other Indiana health systems on the community survey.

Data Sources

Community health needs were identified by collecting and analyzing data from multiple sources. Statistics for numerous community health status, health care access, and related indicators were analyzed, including data provided by local, state, and federal government agencies, local community service organizations, and Indiana University Health. Comparisons to benchmarks were made where possible. Findings from recent assessments of the community's health needs conducted by other organizations (e.g., local health departments) were reviewed as well.

Input from persons representing the broad interests of the community was taken into account through community meetings and key informant interviews. Participants included: individuals with special knowledge of or expertise in public health; local public health departments; agencies with current data or information about the health and social needs of the community; representatives of social service organizations; and leaders, representatives, and members of medically underserved, low-income, and minority populations.

---

[7] *"Secondary data" refers to data published by others, for example the U.S. Census and the Indiana State Department of Health.*

Community Survey Methodology

To inform the CHNA, a community survey was conducted. The survey was sponsored by a cooperative of Indiana hospital systems, under contract with the University of Evansville and the Indiana University School of Public Health-Bloomington. Researchers from Indiana University and University of Evansville contracted with the Center for Survey Research at Indiana University to administer the survey.

The survey was conducted in two phases, with Phase 1 conducted as a paper survey mailed to an address-based sample, and Phase 2 administered by some of the hospitals to a convenience sample they selected. IU Health participated in Phase 1.

A questionnaire was developed, with input provided by the Indiana hospital systems, and included a number of questions about general health status, access and utilization of services, personal behaviors, social determinants of health, and also respondent demographic information (e.g., ZIP code, income level, employment status, race and ethnicity, household size, gender, and age). The survey was mailed to approximately 82,000 households, and the "field period" was April 2, 2018 through June 29, 2018. The process included two mailings to each address; a postcard mailing also took place to encourage responses.

Overall, 9,161 completed questionnaires were received by all participating hospitals in the Indiana Hospital Collaborative, for an overall response rate of 11.6 percent; 5,030 questionnaires were received from the 17 Indiana counties served by one or more IU Health hospitals. A dataset was created from the IU Health survey responses, and the responses were adjusted for two factors:

- The number of adults in each household (i.e., a survey from a household with two adults received a base weight of "2" and a survey from a household with one adult received a base weight of "1").
- A post-stratification adjustment designed to make the results more representative of the population in each community (i.e., female and older adults were overrepresented among survey respondents when compared to census data, and the adjustment made corrections).

For IU Health Paoli Hospital, surveys were received from 244 community households. According to the responses, these households included 483 adults.

Information Gaps

This CHNA relies on multiple data sources and community input gathered between February 2018 and August 2018. Several data limitations should be recognized when interpreting results. For example, some data (e.g., County Health Rankings, Community Health Status Indicators, mortality data, and others) exist only at a county-wide level

of detail. Those data sources do not allow assessing health needs at a more granular level of detail, such as by ZIP code or census tract.

Secondary data upon which this assessment relies measure community health in prior years and may not reflect current conditions. The impacts of recent public policy developments, changes in the economy, and other community developments are not yet reflected in those data sets.

The findings of this CHNA may differ from those of others that assessed this community. Differences in data sources, geographic areas assessed (e.g., hospital service areas versus counties or cities), interview questions, and prioritization processes can contribute to differences in findings.

APPENDIX B – SECONDARY DATA ASSESSMENT

This section presents an assessment of secondary data regarding health needs in the IU Health Paoli Hospital community. IU Health Paoli Hospital's community is comprised of Orange County, Indiana.

Demographics

Exhibit 11A: Percent Change in Community Population by County, 2015-2020

County	Estimated Population 2015	Estimated Population 2020	Percent Change 2015-2020
Orange County	19,516	19,406	-0.6%
Indiana Total	6,612,768	6,738,573	1.9%

Source: State of Indiana by the Indiana Business Research Center, March 2018

Exhibit 11B: Percent Change in Community Population by ZIP Code, 2016-2021
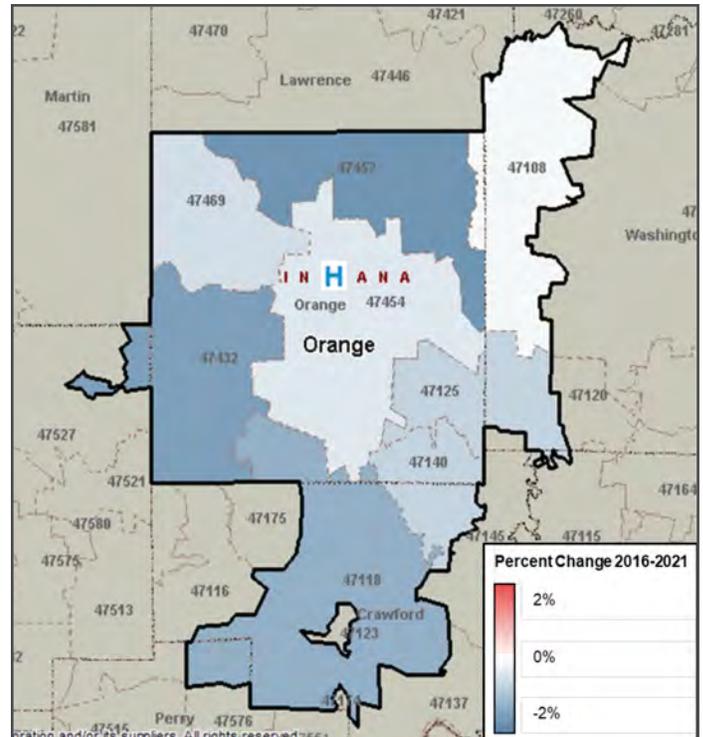
Healthcare Advisory Board, 2017

Description
Exhibit 11A shows the total population for each Community County in 2015 and projections to 2020. Exhibit 11B maps the percent change in population by ZIP code between 2016 and 2021 for each ZIP code in the community.

Observations
- A decrease in population is projected for Orange County between 2015 and 2020.

Exhibit 12: Percent Change in Population by Age/Sex Cohort, 2015-2020

Age/Sex Cohort	Estimated Population 2015	Projected Population 2020	Percent Change 2015-2020
Orange County	**19,516**	**19,406**	**-0.6%**
0-17	4,491	4,364	-2.8%
Male, 18-44	3,001	2,930	-2.4%
Female, 18-44	2,997	2,949	-1.6%
45-64	5,526	5,315	-3.8%
65+	3,501	3,848	9.9%
Indiana State	**6,612,768**	**6,738,573**	**1.9%**
0-17	1,578,079	1,571,356	-0.4%
Male, 18-44	1,178,486	1,187,607	0.8%
Female, 18-44	1,160,314	1,169,877	0.8%
45-64	1,729,765	1,695,267	-2.0%
65+	966,124	1,114,466	15.4%

Source: State of Indiana by the Indiana Business Research Center, March 2018

Description
Exhibit 12 shows the community's population for certain age and sex cohorts in 2015, with projections to 2020.

Observations
- The number of persons aged 65 years and older is projected to increase by 9.9 percent between 2015 and 2020. This growth rate is lower than that projected for Indiana as a whole (15.4 percent).
- The growth of older populations is likely to lead to growing need for health services, since on an overall per-capita basis, older individuals typically need and use more services than younger persons.

Exhibit 13: Percent of Population Aged 65+ by ZIP Code, 2015
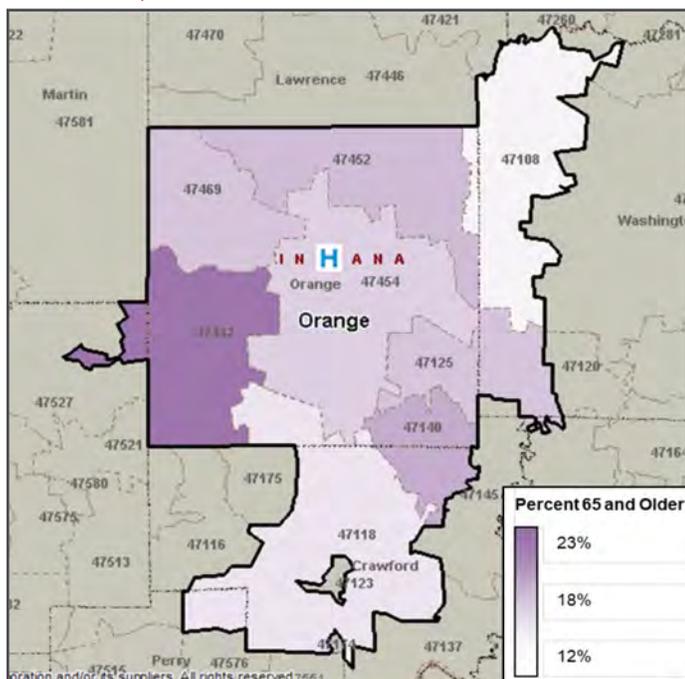
Source: U.S. Census ACS 2016 5-year estimates and Microsoft MapPoint

Description
Exhibit 13 portrays the percent of the population 65 years of age and older in the community by ZIP code.

Observations
- ZIP code 47432 has the highest proportion of the population aged 65 and older.

Exhibit 14: Percent of Population – Black, 2015
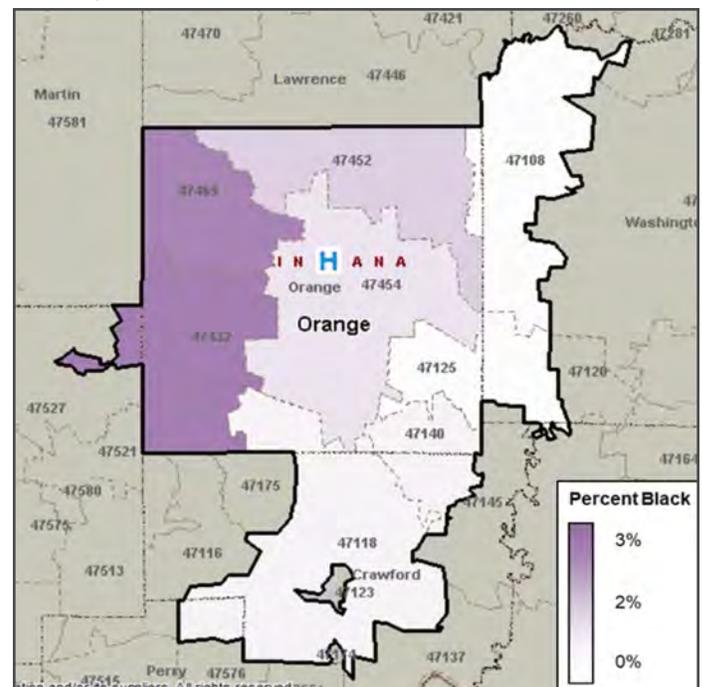
Source: U.S. Census ACS 2016 5-year estimates and Microsoft MapPoint

Description
Exhibit 14 portrays locations where the percentages of the population that are Black were highest in 2015.

Observations
- Nearly 3 percent of residents of ZIP code 47432 in 2015 were Black.
- In 2015, the percent of residents that were Black was under three percent in each of the community's ZIP codes.

Exhibit 15: Percent of Population – Hispanic (or Latino), 2015
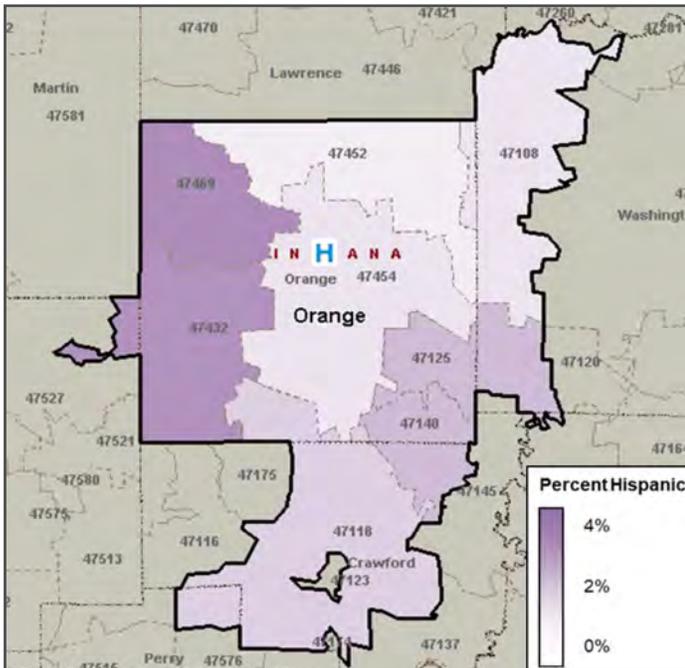
Source: U.S. Census ACS 2016 5-year estimates and Microsoft MapPoint

Description
Exhibit 15 portrays locations in the community where the percentages of the population that are Hispanic (or Latino) were highest in 2015. The diversity of the community is important to recognize given the presence of health disparities and barriers to health care access experienced by different racial and ethnic groups.

Observations
- The percentage of residents that are Hispanic (or Latino) was highest in ZIP codes 47469 (3.1%) and 47432 (3.0%).

Exhibit 16: Other Socioeconomic Indicators, 2012-2016

Measure	Orange County	Indiana	United States
Population 25+ without High School Diploma	16.6%	11.9%	13.0%
Population with a Disability	18.9%	13.6%	12.5%
Population Linguistically Isolated	0.3%	3.2%	8.5%

Source: U.S. Census, ACS 5-Year Estimates, 2017

Description
Exhibit 16 portrays the percent of the population (aged 25 years and above) without a high school diploma, with a disability, and linguistically isolated, by county.

Observations
- Orange County had a higher percentage of residents aged 25 years and older without a high school diploma than both the Indiana and the U.S. averages.
- Orange County had a higher percentage of the population with a disability compared to the Indiana and U.S. averages.
- Compared to Indiana and the U.S. averages, Orange County had a significantly lower proportion of the population that is linguistically isolated. Linguistic isolation is defined as residents who speak a language other than English and speak English less than "very well."

Economic Indicators

The following economic indicators with implications for health were assessed: (1) people in poverty; (2) unemployment rates; (3) insurance status; and (4) crime rates.

People in Poverty

Exhibit 17: Percent of People in Poverty, 2012-2016
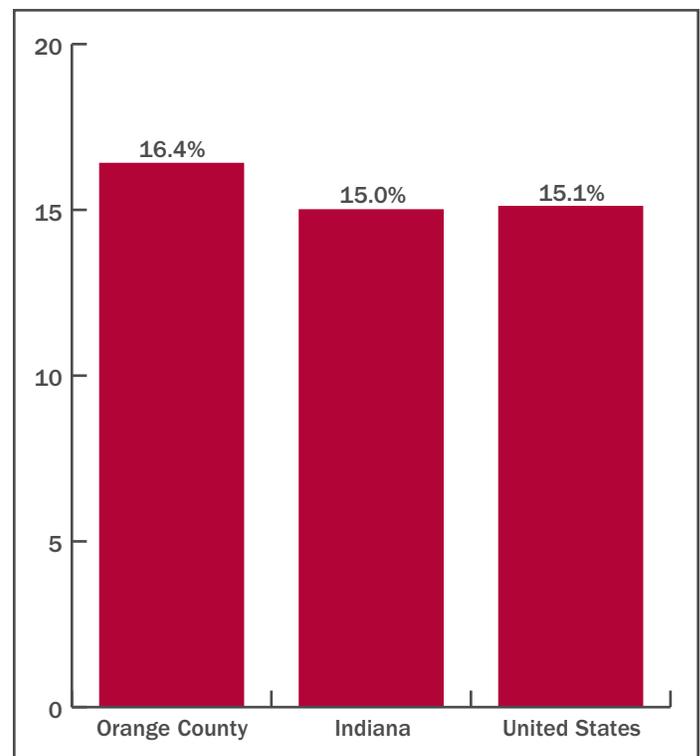
Source: U.S. Census, ACS 5-Year Estimates, 2017

Description
Exhibit 17 portrays poverty rates by county.

Observations
- The poverty rate in Orange County was well above Indiana and national averages from 2012-2016.

Exhibit 18: Poverty Rates by Race and Ethnicity, 2012-2016
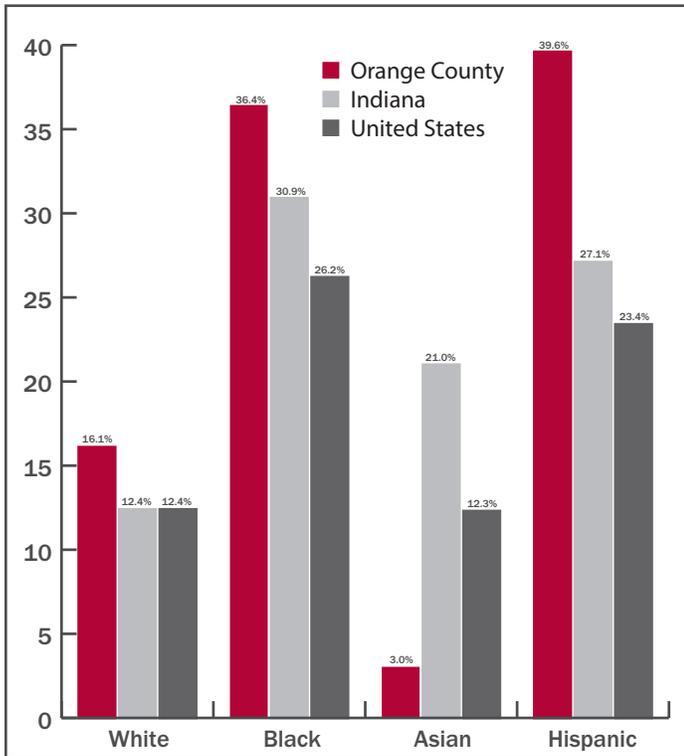
Source: U.S. Census, ACS 5-Year Estimates, 2017

Description
Exhibit 18 portrays poverty rates by race and ethnicity.

Observations
- Poverty rates in Orange County have been higher than national averages for all population cohorts except the Asian population.
- About two-fifths of Black and Hispanic (or Latino) residents of Orange County lived in poverty.

Exhibit 19: Low Income Census Tracts, 2017
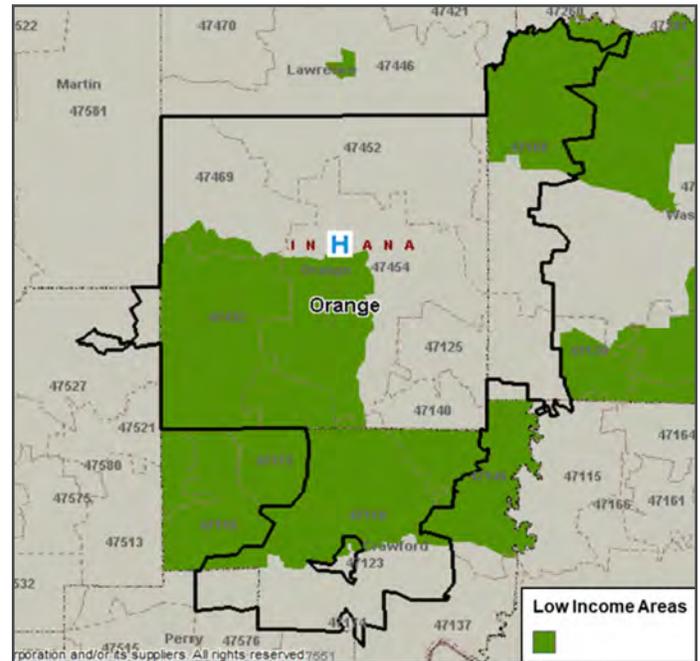
Source: US Department of Agriculture Economic Research Service, ESRI, 2017

Description
Exhibit 19 portrays the location of federally-designated low income census tracts.

Observations
- Low income census tracts have been prevalent throughout the community.

Unemployment

Exhibit 20: Unemployment Rates, 2013-2017
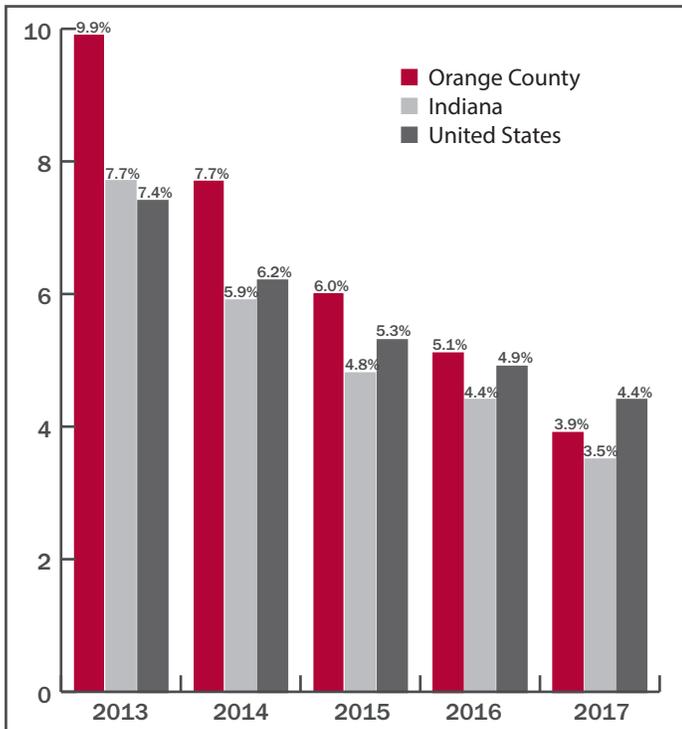
Source: Bureau of Labor Statistics, 2018

Description
Exhibit 20 shows unemployment rates for 2013 through 2017 for Orange County, with Indiana and national rates for comparison.

Observations
- Between 2013 and 2017, unemployment rates at the local, state, and national levels declined significantly.
- The unemployment rate in Orange County has been above the Indiana average, but below the U.S. average.

Insurance Status

Exhibit 21A: Percent of the Population without Health Insurance, 2015-2020

County	Population	Population Uninsured	Percent Uninsured
Orange County	19,329	2,119	11.0%
Indiana	6,490,256	747,942	11.5%
United States	313,576,137	36,700,246	11.7%

Source: U.S. Census, ACS 5-Year Estimates, 2017

Exhibit 21B: Percent of the Population without Health Insurance, 2015-2020
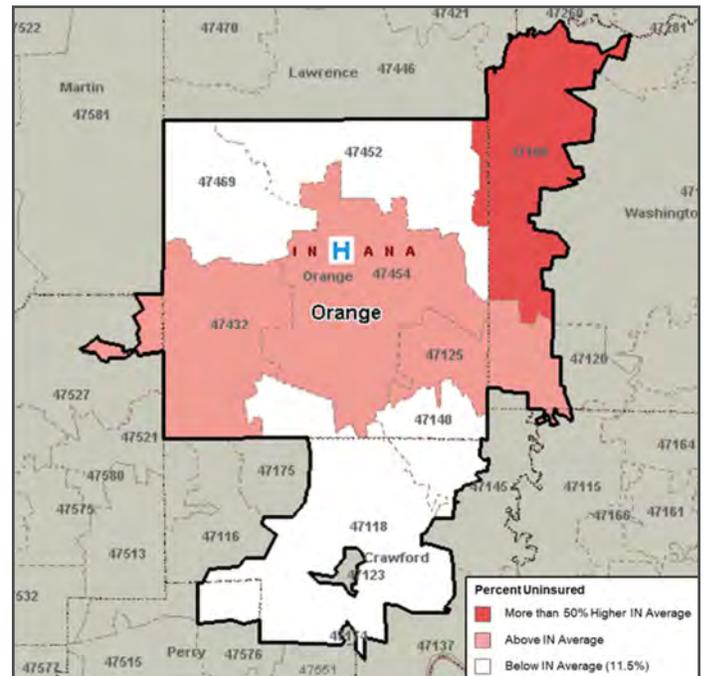
Source: U.S. Census, ACS 5-Year Estimates, 2017

Description
Exhibit 21A presents the estimated percent of people uninsured by county in 2015, with a projection to 2020. Exhibit 21B maps the 2015 uninsured rates by ZIP code.

Observations
- In 2015, the uninsured rates were 50 percent or more higher than the Indiana rate in ZIP code 47108.
- Subsequent to the Affordable Care Act's passage, a June 2012 Supreme Court ruling provided states with discretion regarding whether or not to expand Medicaid eligibility. Indiana was one of the states that expanded Medicaid. Across the United States, uninsured rates have fallen most in states that decided to expand Medicaid.[8]

[8] See: *http://hrms.urban.org/briefs/Increase-in-Medicaid-under-the-ACA-reduces-uninsurance.html*

Crime

Exhibit 22: Crime Rates by Type and Jurisdiction, Per 100,000, 2016

Indicator	Orange (Data N/A)	Indiana
Violent crime	–	407.4
Murder	–	6.7
Rape (revised definition)	–	38.0
Rape (legacy definition)	–	28.1
Robbery	–	111.2
Aggravated assault	–	251.5
Property crime	–	2,606.5
Burglary	–	517.4
Larceny – theft	–	1,865.5
Motorvehicle theft	–	223.5

Source: Federal Bureau of Investigation, 2017

Description
Exhibit 22 provides crime statistics. No data were available from the Federal Bureau of Investigation for Orange County.

Observations
- 2016 crime rates were unavailable for Orange County.

Local Health Status and Access Indicators

This section assesses health status and access indicators for the IU Health Paoli Hospital community. Data sources include: (1) County Health Rankings, (2) the Indiana State Department of Health, and (3) the CDC's Behavioral Risk Factor Surveillance System.

Throughout this section, data and cells are highlighted if indicators are unfavorable – because they exceed benchmarks (typically, Indiana averages). Where confidence interval data are available, cells are highlighted only if variances are unfavorable and statistically significant.

County Health Rankings

Exhibit 23: County Health Rankings, 2015 and 2018

Measure	Orange County 2015	Orange County 2018
Health Outcomes	82	76
Health Factors	73	75
Length of Life	62	81
Premature death	62	81
Quality of Life	92	75
Poor or fair health	92	72
Poor physical health days	72	84
Poor mental health days	88	73
Low birthweight	73	61
Health Behaviors	79	77
Adult smoking	75	51
Adult obesity	45	77
Food environment index	58	69
Physical inactivity	91	59
Access to exercise opportunities	39	48
Excessive drinking	39	39
Alcohol-impaired driving deaths	88	86
Sexually transmitted infections	53	68
Teen births	41	63
Clinical Care	64	36
Uninsured	58	53
Primary care physicians	23	34
Dentists	57	59
Mental health providers	55	59
Preventable hospital stays	59	10
Diabetes monitoring	86	52
Mammography screening	68	84
Social & Economic Factors	68	86
High school graduation	34	87
Some college	71	82
Unemployment	65	74
Children in poverty	79	79
Income inequality	69	47
Children in single-parent households	45	58
Social associations	26	28
Violent crime	N/A	N/A
Injury deaths	68	74
Physical Environment	65	9
Air pollution	76	3
Severe housing problems	67	64
Driving alone to work	43	15
Long commute – driving alone	40	43

Source: County Health Rankings, 2018

Description

Exhibit 23 presents *County Health Rankings*, a University of Wisconsin Population Health Institute initiative funded by the Robert Wood Johnson Foundation, which incorporates a variety of health status indicators into a system that ranks each county/city within each state in terms of "health factors" and "health outcomes." Indicators and composites are grouped into the following categories: health behaviors, clinical care,[9] social and economic factors, and physical environment.[10] *County Health Rankings* is updated annually. *County Health Rankings 2018* relies on data from 2006 to 2017, with most data from 2011 to 2016.

The exhibit presents 2015 and 2018 rankings for each available indicator category. Rankings indicate how the county ranked among all 92 counties in Indiana, with 1 indicating the highest (most favorable) ranking and 92 the lowest (least favorable).

Light grey shading indicates rankings in the bottom half of Indiana counties; dark grey shading indicates rankings in bottom quartile of Indiana counties.

Observations

- Orange County had 32 out of 42 indicators ranked in the bottom half of Indiana counties. Of those, 20 were in the bottom quartile, including: health outcomes, health factors, length of life, premature death, quality of life, poor or fair health, poor physical health days, poor mental health days, health behaviors, adult obesity, food environment index, alcohol-impaired driving deaths, sexually transmitted infections, mammography screening, social and economic factors, high school graduation, some college, unemployment, children in poverty, and injury deaths.

Exhibit 24: County Health Rankings Data Compared to Indiana and U.S. Averages, 2018

Indicator Category	Indicator	Orange County	Indiana	U.S.
	Health Outcomes			
Length of life	Years of potential life lost before age 75 per 100,000 population (age-adjusted)	9,588	7,794	6,700
Quality of life	Percentage of adults reporting fair or poor health (age-adjusted)	17.8	17.7	16.0
Quality of life	Average number of physically unhealthy days reported in past 30 days (age-adjusted)	4.2	3.9	3.7
Quality of life	Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	4.2	4.3	3.8
Quality of life	Percentage of live births with low birthweight (< 2500 grams)	7.9	8.0	8.0
	Health Factors			
Health Behaviors				
Adult smoking	Percentage of adults who are current smokers	20.0	21.1	17.0
Adult obesity	Percentage of adults that report a BMI of 30 or more	35.6	32.0	28.0
Food environment index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	7.6	7.0	7.7
Physical inactivity	Percentage of adults age 20 and over reporting no leisure-time physical activity	30.4	26.8	23.0
Access to exercise opportunities	Percentage of population with adequate access to locations for physical activity	65.4	76.6	83.0
Excessive drinking	Percentage of adults reporting binge or heavy drinking	17.3	18.6	18.0
Alcohol-impaired driving deaths	Percentage of driving deaths with alcohol involvement	36.4	22.4	29.0
Sexually transmitted infections	Number of newly diagnosed chlamydia cases per 100,000 population	336.3	437.9	478.8
Teen births	Number of births per 1,000 female population ages 15-19	36.8	30.5	27.0

---

9   *A composite measure of Access to Care, which includes the percent of the population without health insurance and ratio of population to primary care physicians, and of Quality of Care, which includes the hospitalization rate for ambulatory care sensitive conditions, whether diabetic Medicare patients are receiving HbA1C screening, and percent of chronically ill Medicare enrollees in hospice care in the last 8 months of life.*

10 *A composite measure that examines Environmental Quality, which includes the number of air pollution-particulate matter days and air pollution-ozone days, and Built Environment, which includes access to healthy food and recreational facilities and the percent of restaurants that are fast food.*

Exhibit 24: County Health Rankings Data Compared to Indiana and U.S. Averages, 2018 (continued)

Indicator Category	Indicator	Orange County	Indiana	U.S.
Clinical Care				
Uninsured	Percentage of population under age 65 without health insurance	11.4	**11.3**	11.0
Primary care physicians	Ratio of population to primary care physicians	1,961:1	**1,505:1**	1,320:1
Dentists	Ratio of population to dentists	3,223:1	**1,852:1**	1,480:1
Mental health providers	Ratio of population to mental health providers	2,148:1	**701:1**	470:1
Preventable hospital stays	Number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	43.4	**56.8**	49.0
Diabetes monitoring	Percentage of diabetic Medicare enrollees ages 65-75 that receive HbA1c monitoring	85.3	**84.7**	85.0
Mammography screening	Percentage of female Medicare enrollees ages 67-69 that receive mammography screening	51.9	**62.1**	63.0
Social and Economic Environment				
High school graduation	Percentage of ninth-grade cohort that graduates in four years	83.6	**87.2**	83.0
Some college	Percentage of adults ages 25-44 with some post-secondary education	46.8	**62.0**	65.0
Unemployment	Percentage of population ages 16 and older unemployed but seeking work	5.1	**4.4**	4.9
Children in poverty	Percentage of children under age 18 in poverty	24.3	**19.1**	20.0
Income inequality	Ratio of household income at the 80th percentile to income at the 20th percentile	3.9	**4.4**	5.0
Children in single-parent households	Percentage of children that live in a household headed by single parent	32.2	**33.7**	34.0
Social associations	Number of membership associations per 10,000 population	15.8	**12.3**	9.3
Violent crime	Number of reported violent crime offenses per 100,000 population	0.0	**356.2**	380.0
Injury deaths	Number of deaths due to injury per 100,000 population	85.7	**69.9**	65.0
Physical Environment				
Air pollution – particulate matter1	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)	10.5	**11.1**	8.7
Severe housing problems	Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities	13.0	**14.0**	19.0
Driving alone to work	Percentage of the workforce that drives alone to work	80.9	**83.0**	76.0
Long commute – driving alone	Among workers who commute in their car alone, the percentage that commute more than 30 minutes	32.4	**30.5**	35.0

Source: County Health Rankings, 2018

Description

Exhibit 24 provides data for each underlying indicator of the composite categories in the *County Health Rankings*.[11] The exhibit also includes Indiana and national averages. Light grey shading highlights indicators found to be worse than the Indiana average; dark grey shading highlights indicators more than 50 percent worse than the Indiana average.

Observations

- The following indicators (presented alphabetically) compared particularly unfavorably across the three counties in the community:
  - Percentage of driving deaths with alcohol involvement
  - Ratio of population to dentists
  - Ratio of population to mental health providers

---

[11] *County Health Rankings provides details about what each indicator measures, how it is defined, and data sources at*
http://www.countyhealthrankings.org/sites/default/files/resources/2013Measures_datasources_years.pdf

Exhibit 25: Community Health Status Indicators, 2018

Indicator	Orange County
Years of Potential Life Lost Rate	▓
% Fair/Poor Health	░
Physically Unhealthy Days	▓
Mentally Unhealthy Days	░
% Low Birth Weight	░
% Smokers	░
% Obese	▓
Food Environment Index	░
% Physically Inactive	░
% With Access to Exercise Opportunities	
% Excessive Drinking	
% Driving Deaths Alcohol-Impaired	░
Chlamydia Rate	▓
Teen Birth Rate	░
% Uninsured	
Primary Care Physicians Rate	
Dentist Rate	
Mental Health Professionals Rate	
Preventable Hosp. Rate	
% Receiving HbA1c Screening	
% Mammography Screening	▓
High School Graduation Rate	░
% Some College	░
% Unemployed	░
% Children in Poverty	▓
Income Ratio	
% Single-Parent Households	▓
Social Association Rate	
Violent Crime Rate	
Injury Death Rate	░
Average Daily PM2.5	░
% Severe Housing Problems	░
% Drive Alone to Work	░
% Long Commute – Drives Alone	

Source: County Health Rankings and Verité Analysis, 2018.

Description

County Health Rankings has organized community health data for all 3,143 counties in the United States. Following a methodology developed by the Centers for Disease Control's (CDC) *Community Health Status Indicators* Project (CHSI), County Health Rankings also publishes lists of "peer counties," so comparisons with peer counties in other states can be made. Each county in the U.S. is assigned 30 to 35 peer counties based on 19 variables including population size, population growth, population density, household income, unemployment, percent children, percent elderly, and poverty rates.

This *Community Health Status Indicators* analysis formerly was available from the CDC. Because comparisons with peer counties (rather than only counties in the same state) are meaningful, Verité Healthcare Consulting rebuilt the CHSI comparisons for this and other CHNAs.

Exhibit 25 compares Orange County to its respective peer counties and highlights community health issues found to rank in the bottom half and bottom quartile of the counties included in the analysis. Light grey shading indicates rankings in the bottom half of peer counties; dark grey shading indicates rankings in the bottom quartile of peer counties.

Observations

- Orange County ranked in the bottom quartile for seven (of 34) indicators; years of potential life lost rate, physically unhealthy days, percent obese, chlamydia rate, percent mammography screening, percent children in poverty, and percent single-parent households.

Exhibit 26: Selected Causes of Death, Age-Adjusted Rates per 100,000 Population, 2016

Indicator	Orange County	Indiana
Major cardiovascular diseases	299.6	237.4
Diseases of heart	218.7	180.6
Cancer	197.7	172.5
All other diseases	151.5	171.3
Ischemic heart diseases	126.3	102.2
Other diseases of heart	77.0	68.3
Chronic lower respiratory diseases	72.1	54.6
All other and unspecified accidents and adverse effects	49.1	40.1
Cerebrovascular diseases (stroke)	51.4	39.5
Alzheimer's disease	74.2	34.9
Diabetes mellitus	25.6	26.0
Nephritis, nephrotic syndrome and nephrosis (kidney disease)	21.9	18.4
Intentional self-harm (suicide)	29.1	15.4
Influenza and pneumonia	22.0	12.6
Motor vehicle accidents	5.1	12.4
Chronic liver disease and cirrhosis	11.3	11.2
Hypertensive heart disease with or without renal disease	15.4	10.2
Essential hypertension and hypertensive renal disease	15.4	10.0
Assault (homicide)	0.0	7.6
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (excluding SIDS)	3.1	6.2
Other diseases of circulatory system	14.1	6.2
Certain conditions originating in the perinatal period	0.0	4.9
Congenital malformations, deformations and chromosomal abnormalities	0.0	3.9
All other external causes	13.8	2.6
Atherosclerosis	0.0	1.1
Pregnancy, childbirth and the puerperium		0.8
Sudden infant death syndrome (SIDS)	0.0	0.7
Peptic ulcer	0.0	0.5

Source: Indiana State Department of Health, 2017

Description
Exhibit 26 provides age-adjusted mortality rates for selected causes of death in 2016. Light grey shading highlights indicators worse than the Indiana average; dark grey shading highlights any indicators more than 50 percent worse than the Indiana average.

Observations
- Several indicators were worse than the Indiana averages for Orange County. These are: mortality rates for major cardiovascular disease, diseases of the heart, cancer, ischemic heart disease, other disease of the heart, chronic lower respiratory disease, all other and unspecified accidents and adverse events, cerebrovascular diseases (stroke), nephritis, and chronic liver disease and cirrhosis.
- Orange County had several indicators that were more than 50 worse than the Indiana averages. These indicators were: Mortality rates for Alzheimer's disease, intentional self-harm (suicide), influenza and pneumonia, hypertensive heart disease, essential hypertension, other diseases of the circulatory system, and all other external causes.

Exhibit 27: Age-Adjusted Cancer Mortality Rates per 100,000 Population, 2016

Indicator	Orange County	Indiana
All Cancers	197.7	172.5
Stomach	0.0	2.7
Colon, rectum and anus	22.3	14.9
Pancreas	10.5	11.9
Trachea, bronchus and lung	51.0	49.2
Breast	10.5	11.6
Cervix uteri, corpus uteri and ovary	11.3	8.2
Prostate	12.4	7.6
Urinary tract	17.6	8.8
Non-Hodgkin's lymphoma	0.0	6.4
Leukemia	0.0	6.7
Other forms of cancer	62.2	44.6

Source: Indiana State Department of Health, 2017

Description
Exhibit 27 provides age-adjusted mortality rates for selected forms of cancer in 2016. Light grey shading highlights indicators worse than the Indiana average; dark grey shading highlights indicators more than 50 percent worse than the Indiana average.

Observations
- Cancer mortality rates for all cancers, lung, cervix uteri, and other forms of cancer were higher than the Indiana averages.
- Cancer mortality in Orange County was more than 50 percent worse than the Indiana averages for colon, prostate, and urinary tract cancers.

Exhibit 28: Age-Adjusted Cancer Incidence Rates per 100,000 Population, 2010-2014

Indicator	Orange County	Indiana
All cancers	463.0	445.2
Breast	121.9	120.1
Prostate	60.2	95.7
Lung and bronchus	75.2	72.8
Colon and rectum	61.0	43.2
Uterus	27.7	27.0
Bladder	24.4	21.0
non-Hodgkin lymphoma	14.0	19.0
Melanoma of the skin	21.2	17.8
Kidney and renal pelvis	25.5	13.2
Pancreas	11.9	12.7

Source: Centers for Disease Control and Prevention, 2014.

Description
Exhibit 28 presents age-adjusted cancer incidence rates in the community. Light grey shading highlights indicators worse than Indiana averages.

Observations
- In Orange County, incidence rates for all cancer types were above the Indiana averages except prostate, non-Hodgkin's lymphoma, and pancreas.

Exhibit 29: Communicable Disease Incidence Rates per 100,000 Population, 2016

Indicator	Orange County	Indiana
HIV/AIDS*	91.0	188.0
Chlamydia	348.4	465.0
Gonorrhea	25.6	142.5
Primary and Secondary Syphilis	0.0	5.0

*Note: Data from 2014
Source: Indiana State Department of Health, 2016.

Description
Exhibit 29 presents incidence rates for various communicable diseases.

Observations
- Communicable disease rates are below the Indiana averages for all disease types for Orange County.

Exhibit 30: Maternal and Child Health Indicators, 2011-2015

Indicator	Orange County	Indiana
Infant Mortality Rate (per 1,000 Live Births)	6.0	7.2
Low Birthweight Percent	7.5%	8.0%
Preterm Births Percent	8.1%	9.7%
Early Prenatal Care Percent	71.6%	68.1%
Smoked During Pregnancy Percent	27.0%	15.6%
Unmarried Mothers Percent	42.6%	43.2%
Breastfeeding Percent	75.4%	77.4%
Mother on Medicaid Percent	47.8%	44.3%
Teen Birth Rate (15-17)	18.0	13.6
Teen Birth Rate (15-19)	36.5	30.4

Source: Indiana Department of Health, 2016

Description
Exhibit 30 presents various maternal and infant health indicators. Light grey shading highlights indicators worse than Indiana averages; dark grey shading highlights indicators more than 50 percent worse than Indiana averages, if any.

Observations
- In Orange County the percentage of women who smoked during pregnancy was more than 50 percent worse than the Indiana average.
- The percentage of mothers who breastfeed, the percentage of mothers on Medicaid, and the teen birth rate are all above the Indiana averages for Orange County.

Behavioral Risk Factor Surveillance System

Exhibit 31A: Behavioral Risk Factor Surveillance System, Race/Ethnicity, 2016

Indicator	White	Black	Hispanic	Indiana
Current Smokers	21.0%	23.0%	17.8%	21.1%
Adults without Health Care Coverage	10.8%	17.1%	39.4%	13.6%
Obese (based on BMI)	32.1%	42.1%	26.8%	32.5%
Diabetes	11.4%	16.2%	8.8%	11.5%
Angina or Coronary Heart Disease	5.1%	4.2%	2.2%	4.9%
No Physical Activity in Past Month	26.3%	27.5%	32.9%	26.8%
Asthma	9.8%	15.9%	6.3%	10.2%

Source: Behavioral Risk Factor Surveillance System, 2016

Exhibit 31B: Behavioral Risk Factor Surveillance System, Income, 2016

Indicator	<$15,000	$15-$24,999	$25-$49,999	$50-$74,999	≥$75,000	No High School Diploma	Indiana
Current Smokers	38.5%	30.0%	25.3%	16.6%	10.3%	38.1%	21.1%
Adults without Health Care Coverage	23.7%	25.3%	16.3%	7.6%	3.6%	33.1%	13.6%
Obese (based on BMI)	36.5%	35.3%	34.1%	34.6%	28.7%	34.0%	32.5%
Diabetes	18.7%	17.4%	11.9%	9.3%	6.5%	15.4%	11.5%
Angina or Coronary Heart Disease	8.3%	6.5%	5.1%	3.0%	3.0%	6.3%	4.9%
No Physical Activity in Past Month	42.5%	38.0%	28.6%	20.8%	13.7%	41.2%	26.8%
Asthma	20.4%	12.6%	9.5%	7.5%	7.1%	15.6%	10.2%

Source: Behavioral Risk Factor Surveillance System, 2016

Description

The Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) gathers data through a telephone survey regarding health risk behaviors, healthcare access, and preventive health measures. Data are collected for the entire United States. Analysis of BRFSS data can identify localized health issues, trends, and health disparities, and can enable county, state, or nation-wide comparisons.

Exhibits 31A and 31B depict BRFSS data for the state of Indiana by race/ethnicity, income level, and for those without a high school diploma. Light grey shading highlights indicators worse than the Indiana average; dark grey shading highlights indicators more than 50 percent worse than the Indiana average.

Observations

- The BRFSS data indicate that on all but one measure presented, risk factors were higher for Black residents of Indiana than for Whites (and for lower-income residents than for those with higher incomes). Hispanic (or Latino) residents have experienced higher uninsured and physical inactivity rates.
- BRFSS indicators for residents without a high school diploma were worse than average for all indicators presented.

Ambulatory Care Sensitive Conditions (ACSC) also referred to as Preventative Quality Indicators (PQI)

Exhibit 32: PQI (ACSC) Rates per 100,000, 2017

County	Diabetes Short-Term Complications	Perforated Appendix	Diabetes Long-Term Complications	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults	Hypertension	Heart Failure	Low Birth Weight
Orange County	25.9	500.0	97.1	714.1	12.9	323.5	4,710.1
Indiana	59.0	632.7	110.2	664.1	63.3	434.8	6,174.2
United States	68.9	351.4	101.6	480.9	49.2	321.6	N/A

Source: IU Health, 2018 - Note: Rates are not age-sex adjusted

County	Dehydration	Community-Acquired Pneumonia	Urinary Tract Infection	Uncontrolled Diabetes	Asthma in Younger Adults	Lower-Extremity Amputation Among Patients with Diabetes
Orange County	58.2	252.3	97.1	32.4	–	95.5
Indiana	138.5	184.5	148.2	40.6	32.0	82.4
United States	130.1	249.7	155.6	13.2	41.1	17.2

Source: IU Health, 2018 - Note: Rates are not age-sex adjusted

Description

Exhibit 32 provides 2017 ACSC (PQI) rates (per 100,000 persons) for ZIP codes in the IU Health Paoli Hospital community – with comparisons to Indiana and US averages. Light grey shading highlights indicators worse than Indiana averages; dark grey shading highlights indicators more than 50 percent worse than Indiana averages.

ACSCs are health "conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease."[12] As such, rates of hospitalization for these conditions can "provide insight into the quality of the health care system outside of the hospital," including the accessibility and utilization of primary care, preventive care and health education. Among these conditions are: angina without procedure, diabetes, perforated appendixes, chronic obstructive pulmonary disease (COPD), hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, and asthma.

Disproportionately high rates of discharges for ACSC indicate potential problems with the availability or accessibility of ambulatory care and preventive services and can suggest areas for improvement in the health care system and ways to improve outcomes.

Observations

- For Orange County, the rates of admissions for ACSC exceeded Indiana averages for three of thirteen conditions: chronic obstructive pulmonary disease (COPD), community-acquired pneumonia, and lower-extremity amputation among patients with diabetes.

[12] *Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.*

Exhibit 33: Ratio of ACSC Rates for IU Health Paoli Hospital Community and Indiana, 2017

Indicator	Orange County	Indiana	Ratio: Orange/ Indiana
Community-Acquired Pneumonia	252.3	184.5	1.4
Lower-Extremity Amputation Among Patients with Diabetes	95.5	82.4	1.2
Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults	714.1	664.1	1.1
Diabetes Long-Term Complications	97.1	110.2	0.9
Uncontrolled Diabetes	32.4	40.6	0.8
Perforated Appendix	500.0	632.7	0.8
Low Birth Weight	4,710.1	6,174.2	0.8
Heart Failure	323.5	434.8	0.7
Urinary Tract Infection	97.1	148.2	0.7
Diabetes Short-Term Complications	25.9	59.0	0.4
Dehydration	58.2	138.5	0.4
Hypertension	12.9	63.3	0.2
Asthma in Younger Adults	–	32.0	–

Source: IU Health, 2018 - Note: Rates are not age-sex adjusted

Description

Exhibit 33 provides the ratio of Ambulatory Care Sensitive Conditions (ACSC) also referred to as Preventative Quality Indicators (PQI) rates in the IU Health Paoli Hospital community compared to the Indiana averages. Conditions where the ratios are highest (meaning that the PQI rates in the community are the most above average) are presented first.

Observations

- In the community, the ACSC rate for community-acquire pneumonia was 40 percent higher than the Indiana average.
- In the IU Health Paoli Hospital community, the ACSC rates for lower-extremity amputation among patients with diabetes were 20 percent higher than the Indiana average.

Community Need Index™ and Food Deserts

Dignity Health Community Need Index

Exhibit 34: Community Need Index, 2017

Source: Microsoft MapPoint and Dignity Health, 2017

Description

Exhibit 34 presents the *Community Need Index*™ (CNI) score for each ZIP code in the community. Higher scores (e.g., 4.2 to 5.0) indicate higher levels of community need.

Dignity Health, a California-based hospital system, developed and published the CNI as a way to assess barriers to health care access. The index, available for every ZIP code in the United States, is derived from five social and economic indicators:

- The percentage of elders, children, and single parents living in poverty;
- The percentage of adults over the age of 25 with limited English proficiency, and the percentage of the population that is non-White;
- The percentage of the population without a high school diploma;
- The percentage of uninsured and unemployed residents; and
- The percentage of the population renting houses.

CNI scores are grouped into "Lowest Need" (1.0-1.7) to "Highest Need" (4.2-5.0) categories

Observations

- Orange County scored a 3.4 on the CNI scale.
- All ZIP codes within the IU Health Paoli Hospital community scored in the moderate need category or worse.

Food Deserts

Exhibit 35: Food Deserts, 2017

Source: Microsoft MapPoint and U.S. Department of Agriculture, 2017

Description

Exhibit 35 shows the location of "food deserts" in the community.

The U.S. Department of Agriculture's Economic Research Service defines urban food deserts as low-income areas more than one mile from a supermarket or large grocery store and rural food deserts as more than 10 miles from a supermarket or large grocery store. Many government-led initiatives aim to increase the availability of nutritious and affordable foods to people living in these areas.

Observations
- There are no census tracts in the IU Health Paoli Hospital community that are designated as food deserts.

Medically Underserved Areas and Populations

Exhibit 36: Medically Underserved Areas, 2017

County	MUA/P Service Area Name	Designation Type
Orange	Low Income – Orange County	Medically Underserved Population

Source: Microsoft MapPoint and HRSA, 2017

Description
Exhibit 36 illustrates the location of Medically Underserved Areas (MUAs) in the community.

Medically Underserved Areas and Populations (MUA/Ps) are designated by the Health Resources and Services Administration (HRSA) based on an "Index of Medical Underservice." The index includes the following variables: ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over.[13] Areas with a score of 62 or less are considered "medically underserved."

Populations receiving MUP designation include groups within a geographic area with economic barriers or cultural and/or linguistic access barriers to receiving primary care. If 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."[14]

Observations
- Low income populations of Orange County have been designated as medically underserved.

Health Professional Shortage Areas (HPSA)

Exhibit 37A: Primary Care Health Professional Shortage Areas, 2018

County	HPSA Name	HPSA Type Description
Orange	Low Income – Orange County	HPSA Population
Orange	Southern Indiana Community Health Care, Inc.	Federally Qualified Health Center Look A Like

Source: Health Resources and Services Administration, 2018

Description
Exhibit 37A depicts the locations of federally-designated primary care HPSA areas.

A geographic area can receive a federal Health Professional Shortage Area (HPSA) designation if a shortage of primary medical care, dental care, or mental health care professionals is found to be present. In addition to areas and populations that can be designated as HPSAs, a health care facility can receive federal HPSA designation and an additional Medicare payment if it provides primary medical care services to an area or population group identified as having inadequate access to primary care, dental, or mental health services. 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."[15]

Observations
- Low income populations of Orange County have been designated as a Primary Care HPSA.
- Within the IU Health Paoli Hospital community, one Federally Qualified Health Center has been designated as a primary care HPSA.

Exhibit 37B: Dental Care Health Professional Shortage Areas, 2018

County	HPSA Name	HPSA Type Description
Orange	Southern Indiana Community Health Care, Inc.	Federally Qualified Health Center Look A Like

Source: Health Resources and Services Administration, 2018

Description
Exhibit 37B shows the locations of federally-designated dental care HPSA areas.

[13] *Heath Resources and Services Administration. See http://www.hrsa.gov/shortage/mua/index.html*
[14] *Ibid.*

[15] *U.S. Health Resources and Services Administration, Bureau of Health Professionals. (n.d.). Health Professional Shortage Area Designation Criteria. Retrieved 2012, from http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/index.html*

Observations
- Within the IU Health Paoli Hospital community, one Federally Qualified Health Center has been designated as a Dental Care HPSA.

Exhibit 37C: Mental Health Care Professional Shortage Areas, 2018

County	HPSA Name	HPSA Type Description
Orange	Southern Indiana Catchment Area	HPSA Geographic
Orange	Southern Indiana Community Health Care, Inc.	Federally Qualified Health Center Look A Like

Source: Health Resources and Services Administration, 2018

Description
Exhibit 37C lists the locations of federally-designated mental health care HPSA areas.

Observations
- Orange County has been designated as a Mental Health Care HPSA as a part of the Southern Indiana Catchment Area. Within the IU Health Paoli Hospital community, one Federally Qualified Health Center has been designated as a Mental Care HPSA.

Findings of Other Community Health Needs Assessments

Indiana State Health Assessment and Improvement Plan

A State Health Assessment and Improvement Plan (SHA) was published recently by the Indiana State Department of Health.[16] The SHA was conducted in collaboration with over 100 partner organizations, key informants, and health experts to identify and address Indiana's greatest health challenges.

The Indiana Health Improvement Partnership (IHIP), met three times during 2017 and early 2018 to develop key components of the SHA including values, forces of change analysis, and assessment of strengths, weaknesses, opportunities, and threats. The process involved five steps:

1. Conducting a community health status assessment;
2. Assessing and analyzing prior assessments;
3. Reviewing other agency and coalition plans;
4. Interviewing key informants and gathering qualitative data; and
5. Identifying health needs.

State Health Assessment. The SHA had the following conclusions regarding state health needs:
- After reviewing assessments from local health assessments around the state, ten needs were most often prioritized:
  - Access to care
  - Mental and behavioral health
  - Obesity
  - Substance abuse disorders
  - Nutrition and physical activity
  - Diabetes
  - Tobacco use
  - Heart disease
  - Cancer
  - Maternal and infant health
- The initial prioritization of health needs by the IHIP steering committee focused on the following areas:
  - Social determinants of health and health equity
  - Improving public health infrastructure (funding and culture/equality of public health practices)
  - Improving health and reducing health disparities, particularly in the areas of chronic disease, birth outcomes and infant mortality, reduced injury and death due to opioid exposure, and improved access to mental health services
- When asked about barriers to achieving optimal health in their communities, key informants indicated that low staffing levels, low funding levels, not being able to break cultural barriers, increases in drug use, poverty and apathy, lack of free clinics, unaffordable healthcare and medications, lack of available affordable housing, provider billing, and limited local resources as major limitations.
- Social determinants of health were recognized as a key component to achieving optimal health in Indiana, with a recognition to improve population health, "the public health system must expand to include non-traditional partners such as transportation, workforce development, and housing."
- Income inequality was identified as a social determinant of health need, with the top 20 percent of households in Indiana having an income 13.5 times higher than the bottom 20 percent.
- Indiana residents report different health status based on their location in the state, largely due to access to affordable healthcare. Mid-sized population areas report the lowest number of poor or fair health days, while rural areas report the highest.
- Indiana introduced expanded insurance options for lower income residents through the Healthy Indiana Plan (HIP) 2.0 in 2015. Over 1.4 million residents are enrolled in Medicaid in the state, with more than 20,000 of these enrollees being pregnant women.
- Language barriers and cultural competency of services were identified as major obstacles to receiving healthcare and social services in Indiana.

[16] Available at: https://www.in.gov/isdh/18888.htm

- Heart disease, cancer, and stroke were identified as the top causes of mortality in Indiana, and identified as significant needs in the community.
- Indiana was the tenth most obese state in the nation, with over two-thirds of adults being overweight and almost a third being obese. Obesity disproportionately affects low-income, rural, and African American populations.
- Poor nutrition contributed to four of the top ten causes of death in Indiana: cardiovascular disease, stroke, diabetes, and cancer.
- Over 21 percent of Indiana adults were current smokers, the tenth highest rate in the nation and contributing to five of the top ten leading causes of death (cardiovascular disease, stroke, diabetes, chronic lower respiratory disease, and cancer). Smoking rates are disproportionately high for low income adults, those with a high school education or less, and those identifying as LGBT.
- Infant mortality has been an Indiana health priority since 2014. The national rate of infant deaths is 5.9 deaths per 1,000 live births. In Indiana, this rate was 7.5 in 2016. Additionally, Healthy People 2020 established a goal of 6.0 deaths by 2020.
- Drug overdose and opioid-related deaths increased by 500 percent between 1999 and 2016. More than 1,500 residents died of drug overdoses in 2016, with 785 of these overdoses being from opioids. This increase in opioid-related deaths represents a 1,725 percent increase since 1999.

State Health Improvement Plan. After the finalization of the state health assessment, a state health improvement plan (SHIP) was drafted to address the final priorities. These priorities were:
- Improve birth outcomes and reduce infant mortality
- Address the opioid epidemic
- Reduce rates of chronic disease
- Improve the public health infrastructure

Exhibit 38: Significant Needs Identified in Other CHNAs

Prioritized Need	Frequency
Access to mental health services	1
Community engagement and building	1
Drug/substance abuse	1
Education	1
Food insecurity	1
Funding for health services	1
Housing issues/homelessness	1
Mental/behavioral health	1
Transportation	1
Unemployment	1

Source: Analysis of Other CHNA Reports by Verité, 2018

Description
Several other needs assessments conducted by hospital facilities were reviewed. Significant needs identified by these facilities are presented in Exhibit 38. The reviewed assessments include the following:
- Hoosier Uplands Community Needs Assessment

Observations
- The following indicators most often were identified as significant in other hospital CHNAs that assessed IU Health Paoli Hospital's community:
  – Access to basic and primary health care
  – Community engagement and building
  – Drug/substance abuse
  – Education
  – Food insecurity
  – Funding for health services
  – Housing issues/homelessness
  – Mental/behavioral health
  – Transportation
  – Unemployment

APPENDIX C – INTERVIEWEES AND COMMUNITY MEETING PARTICIPANTS

Individuals from a wide variety of organizations and communities participated in the interview process and/or community meetings (**Exhibit 39**).

Exhibit 39: Interviewee and Community Meeting Participant Organizational Affiliations
- Backpacks of Blessings
- Hoosier Hills PACT, Tobacco
- Hoosier Uplands
- IU Health Paoli Hospital
- Mid-Southern Bank
- Orange County EMA
- Orange County Government
- Orange County Health Department
- Orange County Publishing
- Paoli Jr./Sr. High School
- Pluto Corporation
- Purdue Extension
- Southern Indiana Community Healthcare
- Women, Infants, and Children (WIC)

APPENDIX D – IMPACT OF ACTIONS TAKEN SINCE THE PREVIOUS CHNA

This appendix discusses the impact of community health improvement actions taken by IU Health Paoli Hospital to address significant community health needs since its last CHNA report was conducted. The impacts (both expected and achieved) of each community health program are described below.

Nutrition and Active Living (Obesity Prevention)

- **Community Events Calendar.** IU Health Paoli Hospital publishes a monthly calendar in the local newspapers to promote healthy habits and events throughout the community and schools. Staff time is used creating the calendar and $5,000 is spent on advertisement in the newspaper. With the ability to reach over 2,000 residents, IU Health Paoli Hospital believes that the awareness and participation of community wellness events has increased.
- **Backpacks and Blessings.** By supporting this program each year, IU Health Paoli Hospital is able to support 300 nutritionally at-risk children in the Orange County school district with food and healthy snacks to take home for the weekends. IU Health Paoli Hospital has contributed $11,410 in support and staff time to help coordinate the program during 2016 and 2017.
- **Healthy Habits School Programs.** Through IU Health Paoli Hospital's community health outreach school programs, students have learned healthy habits including: physical activity they should get, healthy diets, and bicycle and pedestrian safety. From 2016-2017, 5,846 students participated in these programs. IU Health Paoli Hospital supported these programs through the time and expertise of staff members. Pre- and post- testing indicated an increase in knowledge after program presentations.
- **Promote Strong Schools (for Obesity Prevention).** The Strong Schools program provided funding to area schools for obesity prevention programming, such as fitness competitions. Over 450 students at Orleans Elementary School engaged in some type of physical activity programming supported by IU Health Paoli Hospital Strong Schools Grants of $1,500. IU Health Paoli Hospital believes that the increase in physical activity may have helped reduce childhood obesity rates compared to levels that would have occurred without the program.
- **Day of Service.** For the 2016 and 2017 IU Health Paoli Hospital Day of Service, the hospital partnered with local community schools to encourage students to incorporate 60 minutes of daily physical activity into the lifestyle.

This was accomplished by hosting play stations including activities such as hula hoop, dodge ball, and hop scotch. IU Health Paoli Hospital presented information on the amount of sugar in popular drinks. Shade structures were also installed on school playgrounds. With support from IU Health Community Outreach and Engagement, IU Health Paoli Hospital dedicated $18,898 and 499 employee volunteer hours towards the event. Nearly 1,600 school children were impacted by the Day of Service event, as well as 19,000 community members who now have access to shade at local elementary school playgrounds.

Behavioral Health

- **Orange County Health Coalition.** IU Health Paoli Hospital helped establish a formal collaborative to create partnerships among organizations and individuals to address local health disparities. Goals for 2017 included creating a radio broadcast for health awareness topics, attending farmer's markets to offer health screenings and health education, and identifying resources for addiction support groups and local recovery centers. IU Health Paoli Hospital has dedicated 182 staff hours during 2017 to chair and coordinate this coalition.
- **Perinatal Mood and Anxiety Disorders Support Group.** In an effort to address post-partum depression related to childbirth, IU Health Paoli Hospital created a program to screen OB/GYN patients. From 2016 through 2017, 208 women were screened and 36 individuals served through the Perinatal Mood and Anxiety Disorders Support Group. IU Health Paoli Hospital has dedicated staff time to training and implementation totaling $17,042 in expenses through 2017.
- **Safe2Talk Teen Texting Program.** IU Health Paoli Hospital partnered with IU Health Community Outreach and Engagement, Orange County Health Coalition and Mental Health America of Greater Indianapolis in a response to attempted suicides among teenagers. Through this collaboration, 346 students attending Orleans Jr./Sr. High School have access to text their crisis situations and receive a follow up response by trained personnel to talk or be referred to an additional local resource. As of 2017, three students have accessed the texting hotline on eight different occasions. IU Health Paoli Hospital dedicated staff time to help coordinate this project.
- **Pain Resource Nurse.** A committee within IU Health Paoli Hospital identifies patients with frequent ER visits. A Pain Resource Nurse follows up with identified patients to help resolve the barriers and challenges of getting the care needed. The goal of the Pain Resources Nurse is to assist patients with pain while not contributing to the overuse of narcotic pain medications as well as connect with resources to bridge identified gaps in the patients care. The Pain Resource nurse educates hospital staff on

the overuse of narcotic pain medications. IU Health Paoli Hospital believes that healthcare providers are better educated and are able to provide safe care to patients by not contributing to overuse of narcotic pain medications.

Smoking and Tobacco

- **Tobacco Cessation 1:1 Sessions.** IU Health Paoli Hospital offers tobacco cessation sessions including one on one coaching and nicotine replacement therapy, if needed. From 2015-2017, 30 community members participated in the tobacco cessation program. IU Health Paoli Hospital supported this program by donating staff time and spending $4,681 in supplies and other materials.
- **Baby and Me Tobacco Free Program.** In a collaboration with Hoosier Uplands, IU Health Paoli Hospital helped promote Baby and Me Tobacco Free in the community. This program is designed to reducing smoking in mothers and support persons during and after pregnancy by providing coaching, measured progress and free diapers as an award to continue to be tobacco free. Between September 2015 and December 2017, the program has received 91 referrals and 39 participants. IU Health Paoli Hospital contributed staff time to collaborate with local healthcare providers to promote the program.
- **Provider Training and Community Publicity.** IU Health Paoli Hospital provides training regarding tobacco interventions and the availability of 1-800-Quit-Now[17] resources. IU Health Paoli Hospital also widely publicizes these resources to patients and families, and provides handouts specific to certain populations, e.g. parents with newborns. These activities have increased awareness and utilization of 1-800-Quit-Now.

Access to Care

- **Insurance Eligibility Assistance.** The Hospital Presumptive Eligibility (HPE) program screens uninsured patients for eligibility for governmental insurance through HIP 2.0, Medicaid, or children's health insurance programs. In 2016 and 2017, IU Health Paoli Hospital screened 1,315 patients through a streamlined process. This program improved access to care for individuals found eligible for coverage.
- **Free Mammograms.** IU Health Paoli Hospital and the Orange County Community Foundation partnered together to offer vouchers for free mammograms to uninsured or underinsured women in Orange County. During 2016 and 2017, a total of 27 women utilized the mammogram vouchers to obtain free mammograms. Staff, facilities, equipment and supplies were covered by IU Health Paoli Hospital to offer the free and low-cost

mammograms. A total of $16,200 was provided for this program.
- **ISHIP and HIP Enrollment Assistance.** IU Health Paoli Hospital staff assisted community members in obtaining healthcare coverage through the state HIP and ISHIP programs. Over 12,000 community members have been serviced by this program between 2015 and 2016.
- **Farmer's Market Health Screenings.** IU Health Paoli Hospital supported the local Farmer's Market by hosting health screenings and educational booths during the market season. A total of 106 attendees utilized the services offered. IU Health Paoli Hospital dedicated staff expertise and time towards this initiative.
- **Williams Brother's Pharmacy Health Screenings.** In an effort to identify risks for chronic illnesses through prevention screening and education, IU Health Paoli Hospital partners with Williams Brothers pharmacy to host community health screenings. IU Health Paoli Hospital supported this event by supplying $4,065 in resources and nursing staff to conduct prevention screenings and education on blood pressure, glucose, cholesterol and A1C. Between 2015 and 2017, over 300 community members participated in the health screenings.
- **Physician Recruitment.** In an effort to address the Medically Underserved Area of Orange County, IU Health Paoli Hospital is dedicated to recruiting highly-qualified healthcare providers. Between January 1, 2016 and December 31, 2017, 76 hours have been invested and two physicians have been recruited. Staff time has been used towards this initiative.

APPENDIX E – CONSULTANT QUALIFICATIONS

Verité Healthcare Consulting, LLC (Verité) was founded in May 2006 and is located in Alexandria, Virginia. The firm serves clients throughout the United States as a resource that helps hospitals conduct Community Health Needs Assessments and develop Implementation Strategies to address significant health needs. Verité has conducted more than 60 needs assessments for hospitals, health systems, and community partnerships nationally since 2010.

The firm also helps hospitals, hospital associations, and policy makers with community benefit reporting, program infrastructure, compliance, and community benefit-related policy and guidelines development. Verité is a recognized national thought leader in community benefit and Community Health Needs Assessments.

---

[17] *Operated by the National Cancer Institute and supported by the Centers for Disease Control. See: https://www.cdc.gov/tobacco/ quit_smoking/cessation/pdfs/1800quitnow_faq.pdf*

Paoli Hospital