Formerly known as Owensboro Medical Health System

Community Health Needs Assessment

Daviess County
2012-2013

Produced by Healthy Communities Institute January 9, 2013

The Owensboro Health Board of Directors approved this Tax Year 2012 Daviess County Community Health Needs Assessment on January 28, 2013

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1. Introduction

1.1 About Owensboro Health

Owensboro Medical Health System, which changed its name to Owensboro Health, January 1, 2013, is a community-based, not-for-profit hospital serving an eleven county region in Western Kentucky and Southern Indiana, operating with a mission to health the sick and improve the health of the community. Our vision is to become a regional center of excellence by actively listening and partnering to meet the individual healthcare needs of those we serve. Owensboro Health was established in 1995 as the result of a merger between two local hospitals-Owensboro Daviess County Hospital and Mercy Hospital-combining over 150 years of caring tradition in an effort to consolidate and invest in new services, eliminate duplication, reduce costs to patients and improve quality of care.

The hospital is licensed for 447 beds. Owensboro Health cares for an annual average of over 18,000 inpatients, treats 18,000 surgical patients, delivers 1,800 babies and provides care for more than 63,000 patients in the emergency department. Owensboro Health is the largest employer in Western Kentucky, with a workforce that has grown from 2,000 when merged with Mercy Hospital in 1995 merger to nearly 3,400. Owensboro Health is a full-service hospital with a medical staff of 200 physicians and major service lines that include cancer care, cardiac care, emergency care, home care, occupational health, post-acute care services, surgery and women's services, and a full range of outpatient services.

Owensboro Health has a long history of working with community partners and giving back to the community in many ways. The recent requirement of the Affordable Care Act which mandated a community health needs assessment and implementation strategy from all not-for-profit hospitals will serve to strengthen our efforts to improve the health of the community by becoming even more strategic in working with community partners to address priority health issues in unprecedented ways.

Internal hospital team members have been working with community stakeholders including superintendents of all school systems, local mental health centers, the public health department, United Way, the area development district, centers serving disabled individuals, community members, local governments, community development officials, representatives from Head Start and senior services from the early planning stages in order to conduct the community health needs assessment.

In 2011, a series of meetings took place involving key partners that led to the engagement of Healthy Communities Institute (HCI). From this engagement, the Daviess County dashboard of health indicators was developed and collaborative work began. It was determined that Owensboro Health would support and partner in the health department's efforts and utilize information they gathered through data collection, consumer and community perception surveys. This information would be combined with additional analysis using HCI's assistance to fully develop the community health needs assessment and draft the hospital implementation strategy. The most recent community health needs assessment was conducted in 1999 and though community health report cards have been developed, our community has not had the rich information and planning available in the past that we have achieved through our collaborative efforts.

1.2 About Healthy Communities Institute

Owensboro Health commissioned Healthy Communities Institute to conduct the 2012-2013 (2012 Tax Year) Daviess County Community Health Needs Assessment and author this report.

The Healthy Communities Institute (HCI) offers a web-based dashboard system that allows data to be easily visualized and comprehended by its users. This allows community stakeholders to understand the variety of data, and to be able to take concrete action and improve target areas of interest. HCI has over 100 implementations of its dashboard for clients in 40+ states.

The HCI mission is to improve the health, environmental sustainability and economic vitality of cities, counties and communities worldwide. The company is rooted in work started in 2002 in concert with the Healthy Cities Movement at the University of California at Berkeley. HCI staff are experts in managing and presenting data with extensive experience in data visualization and data mapping.

To learn more about Healthy Communities Institute please visit www.HealthyCommunitiesInstitute.com.

For information about the authors, please see Appendix 5.

2. Executive Summary

Owensboro Health is pleased to present the 2012-2013 (2012 Tax Year) Daviess County Community Health Needs Assessment (CHNA). This CHNA report provides an overview of the health needs and priorities in Daviess County. The goal of this report is to equip readers with a deeper understanding of the health needs in their community, as well as help guide the hospital in its community benefit planning efforts and development of an implementation strategy to address prioritized needs. The Owensboro Health Board of Directors approved this CHNA on January 28th, 2013.

2.1 Key Findings

2.1.1 Demographics

Defined community: Daviess County, KY.
2012 Population: 97,836
Population under 18 years: 24,334

A review of 2012 demographics reveals that Daviess County has:

- A similar age and race composition as the state of Kentucky
- A small minority population, with African American (4.9%) representing the largest minority group
- A slightly lower proportion of people in poverty compared to the state of Kentucky, but none-the-less high poverty among children (22.3%)
- A higher proportion of individuals with a high school degree, but lower proportion of individuals with a bachelors degree compared to state of Kentucky
- On average, 1-1.5% lower unemployment rates compared to the state of Kentucky, January through September 2012

2.1.2 Secondary Data

An analysis of approximately 140 community indicators on health and quality of life from over 20 different data sources revealed community needs in the following areas:

- Access to Health Services (including Transportation and Hospital Utilization)
- Cancer
- Diabetes, Exercise, Nutrition, & Weight (including Built Environment)
- Heart Disease & Stroke
- Immunization & Infectious Diseases
- Maternal, Fetal & Infant Health/Family Planning
- Mental Health & Mental Disorders
- Older Adults & Aging
- Prevention & Safety
- Respiratory Diseases
- Substance Abuse
- Economy: Poverty
- Public Safety

2.1.3 Primary Data

In-depth interviews with nine key community informants supported secondary data findings and emphasized the issues of Mental Health, Obesity, Substance Abuse, and Access to Health Services, especially among the uninsured and underserved, as prominent community concerns.

2.1.4 Areas of Need Prioritized by Community

Daviess County prioritized the following areas of community need through the community-wide Mobilizing for Action through Planning and Partnerships (MAPP) process led by the Green River District Health Department:

1. Substance Abuse (ATOD: Alcohol, Tobacco and other Drugs)
2. Obesity
3. Access to Health Services

2.1.5 Additional Areas of Identified Need

Additional community needs were identified from the secondary and primary data analysis but not selected as community priorities for Daviess County. Because many of the areas of need are interrelated and influence one another, these additional areas are provided to offer a more complete picture of community needs in Daviess County. It is the hope that reviewing these needs will allow the reader to make more informed decisions when developing strategies and planning activities to address community priorities. This is especially pertinent to the area of “Access to Health Services” as it affects and is affected by many of the needs listed below.

Additional areas of identified need include:

- Cancer
- Heart Disease & Stroke
- Immunization & Infectious Diseases
- Maternal, Fetal & Infant Health/Family Planning
- Mental Health & Mental Disorders
- Older Adults & Aging
- Prevention & Safety
- Respiratory Diseases
- Economy: Poverty
- Public Safety

3. Purpose and Background

The purpose of a Community Health Needs Assessment (CHNA) is to understand health needs and priorities in a given community, with the goal of addressing those needs through the development of an implementation strategy. As a requirement of the Affordable Care Act (ACA), Owensboro Health, a not-for-profit 501(c)(3) hospital facility, is required to conduct and document a community health needs assessment (CHNA) and develop and adopt an implementation strategy to address the identified needs. In order to help meet the specified requirements outlined in IRS Form 990 - SCHEDULE H (see Table 1), and to expand and complement existing community improvement efforts, Owensboro Health has partnered with Healthy Communities Institute (HCI) to conduct a comprehensive community health needs assessment of their community, Daviess County. The results are meant to guide Owensboro Health in the development of an implementation strategy and to help direct overall community benefit efforts. The Owensboro Health Board of Directors approved this CHNA on January 28th, 2013.

3.1 CHNA Report Objectives

In compliance with the IRS Form 990 - SCHEDULE H, this report provides (1) a description of the community and demographics served, (2) a description of how the report's data was obtained including information gaps that limit the Owensboro Health's ability to assess all of the community's health needs, (3) the health needs in the community, including the primary and chronic disease needs and other health issues of uninsured persons, low-income persons, and minority groups, (4) the process for identifying and prioritizing community health needs and services to meet the community health needs, and (5) a description of how the hospital took into account input from persons who represent the broad interests of the community served.

Table 1. Community Health Needs Assessment Requirements - SCHEDULE H (Form 990)

Community Health Needs Assessment Requirements - SCHEDULE H (Form 990) http://www.irs.gov/pub/irs-pdf/f990sh.pdf
• The definition of the community served by the hospital facility • Demographics of the community • Existing health care facilities and resources within the community that are available to respond to the health needs of the community • How data was obtained • The health needs of the community, including the primary and chronic disease needs and other health issues of uninsured persons, low-income persons, and minority groups • The process for identifying and prioritizing community health needs and services to meet the community health needs • The process for consulting with persons representing the community's interests • Information gaps that limit the hospital facility's ability to assess all of the community's health needs • Make CHNA widely available to the public

3.2 Current Efforts In Community

The findings in this report are meant to complement and expand on the existing community health assessment and improvement efforts currently underway in Daviess County and the surrounding area. In 2011 the Green River District Health Department (GRDHD), which includes the counties of Daviess, Hancock, Henderson, McLean, Ohio, Union, and Webster, began a community-wide process to analyze community health needs and identify the health priorities for the region. The Community Health Assessment, or CHA, is a federal requisite for obtaining public health accreditation.

GRDHD utilized the strategic planning framework known as Mobilizing for Action through Planning and Partnerships, or MAPP, developed by the National Association of County & City Health Officials (NACCHO). For additional information go to http://www.healthdepartment.org/

The initial planning phases of the MAPP process began in late 2011 and initiated in January 2012. By June 2012 the MAPP process had yielded the three priority health issues to be addressed by the GRDHD in Daviess County. The assessments and information collected by the GRDHD included a secondary data assessment, an on-line and in-person survey, and community forums to obtain information and collaborate with stakeholders, all of which informed the identification of key community health issues.

The secondary data assessment conducted by the GRDHD utilized the Owensboro Health's online Community Dashboard (www.omhs.org/healthassessment). After review of the secondary data, the GRDHD found that in Daviess County there was:

- High Teen Birth Rate
- High Prevalence of Smoking
- High Rate of Lung Cancer Deaths
- High Rate of STD's – Chlamydia
- Hospitalizations & ER Rates due to Alcohol Abuse

A community perception survey assessment was made available online and in-person at each of the seven health clinics throughout the region. Approximately 500 people completed the survey, and those involved with the data collection and analysis said that the survey targeted the underserved population. The survey results grouped by question were:

Top Issues identified in the community perception survey:

- Obesity (24%)
- Access to Care (21%)
- Mental Health (18%)
- Diabetes (17%)
- Heart Disease (16%)
- Also: Cancer, Smoking, Drug Abuse, Dental Health (4%)

Risks identified in the community perception survey:

- Lack of Services for Low Income Population (40%)
- Lack of Healthcare/Affordable Food (27%)
- Unemployment (22%)

- Substance Abuse (11%)

Health Related Threats as a Result of Changes in Community identified in the community perception survey:

- Loss of Health Insurance/Increased Insurance Costs (63%)
- Job Loss (29%)
- Moving the Hospital - Impact on Access (5%)
- Cuts in Funding (3%)

Additionally, the GRDHD facilitated two community forums held in the first half of 2012 to engage with community stakeholders and collect their input. The community forums were attended by between 75 and 100 community members representing a diverse group of non-governmental organizations, businesses, healthcare insurers and providers, and government agencies.

The first forum was designed to identify health needs as well as identify all resources currently available to meet those needs, and was titled Community Health Forum. Participants were asked, "What do you think are the problems in Daviess County?" Based on stakeholder input the following information was collected at the first community forum:

Health Status Concerns

- Smoking/Tobacco
- Overweight/Obesity/No Physical Activity
- Teen Pregnancy
- Crime/Substance Abuse
- Stroke/Hypertension

Community Risks

- Lack of services (healthcare, mental health, healthy food)
- Unemployment
- Built environment issues – lights at Greenbelt, sidewalks, bike friendly streets
- Lifestyle choices – eating habits, substance abuse, alcohol use, tobacco use

Community Threats

- Unknown impact of Medicaid Managed Care and Healthcare Legislation
- Impact of funding cuts on services and unemployment on access
- Lifestyle changes – impact on health and family

Participants were also asked "What resources do we have available to meet healthcare needs in Daviess County?" The public health system was defined to ensure that services provided beyond the health department and the local hospital were included. Please see Appendix 4 (Daviess County-Local Public Health System) for a list of community resources that are available to respond to the health needs of the community, as identified by Community Health Forum participants.

At the second community forum, stakeholders were presented complete results of the secondary data analysis, the community survey, and the stakeholder input form the Community Health Forum. They were asked to discuss and prioritize by dot method the greatest community health issues

based on the analysis, community perception survey, and stakeholder input. The outcome of this meeting was the selection of the top three health issues in Daviess County:

1. Substance Abuse (ATOD: Alcohol, Tobacco, and Other Drugs)
2. Obesity
3. Access to Health Services

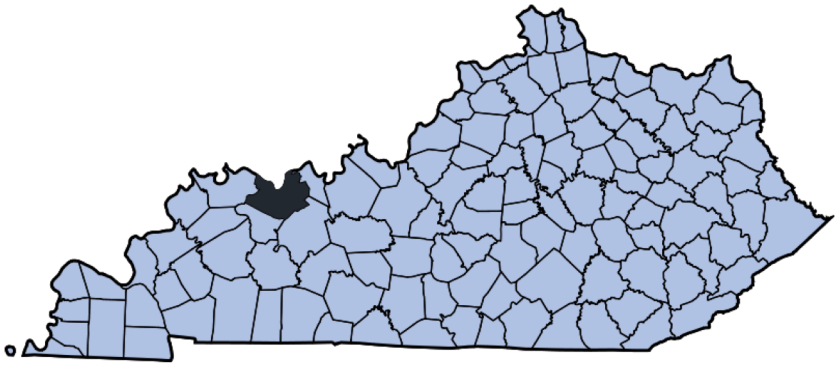
Owensboro Health was a participant throughout the MAPP process, and supports the outcomes of the CHA conducted by the GRDHD.

3.3 Data Used in Report

Both primary and secondary data was used in this analysis. The secondary data was derived from Owensboro Health's HCI-CHNA System, http://www.omhs.org/healthassessment. The system includes the most up-to-date publicly available data for approximately 140 community indicators from over 20 sources, covering over 20 topics in the areas of health, determinants of health, and quality of life. The primary data consisted of in-depth phone interviews with nine community informants including a public health expert, physician, public servant, and healthcare and social service providers with expertise and special knowledge regarding the needs in the community. A full list of secondary data sources and key community informants is available in Appendix 1 and Appendix 2.

3.4 Community Service Area: Daviess County

For the purposes of this assessment, Owensboro Health has chosen to define community as its primary service area that encompasses the geographical boundary of Daviess County, Kentucky. Daviess County will serve as the unit of analysis for this Community Health Needs Assessment, hence the health needs discussed in this assessment will pertain to individuals living within Daviess County.



Map: Daviess County, KY[1]

3.5 Community Health Needs Assessment Methodology

3.5.1 Available Secondary Data

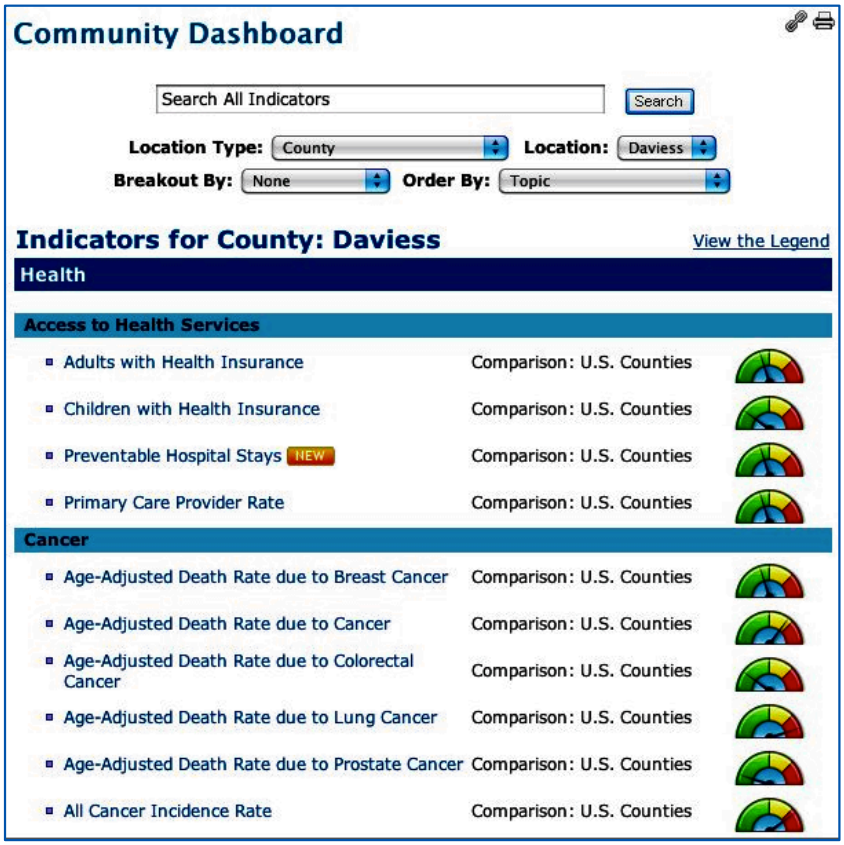
The first step for conducting the community needs assessment was a comprehensive collection and review of secondary health and quality of life data. The data was collected and analyzed through the

[1] Image extracted from http://en.wikipedia.org/w/index.php?title=File:Map_of_Kentucky_highlighting_Daviess_County.svg&page=1

use of the HCI-CHNA system, a web-based community health data platform developed by Healthy Communities Institute (see Figure 1). Owensboro Health's hospital website hosts the system at following address: www.omhs.org/healthassessment. It includes a comprehensive dashboard of approximately 140 community indicators from over 20 sources, covering over 20 topics in the areas of health, determinants of health, and quality of life.

The data is primarily derived from state and national public secondary data sources. It also includes preventable hospitalization and emergency room visit information, derived from data collected by the Kentucky Hospital Association. (For a full list of indicators and sources included in this analysis, please see Appendix 1. For more information on the indicator/data and topic selection process, please see Appendix 2.)

Figure 1: Owensboro Health HCI-CHNA System



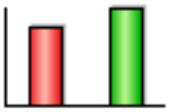
Rankings- Value is in:
Bottom 25% of KY or US Counties
Between 25%-50% of Bottom KY or US Counties
Top 50%-100% of KY or US Counties

3.5.2 Methodology: Secondary Data Analysis

For ease of interpretation, indicator data is visually represented as a red-yellow-green gauge, a trend arrow, or bar graph, showing how Daviess County is fairing against a distribution of counties in Kentucky or United States, or against the KY state or US national value, and/or against the national Healthy People 2020 goals. Healthy People 2020 goals are national objectives for improving the health of the nation set by Department of Health and Human Services' (DHHS) Healthy People Initiative (for more information please see Appendix 2).

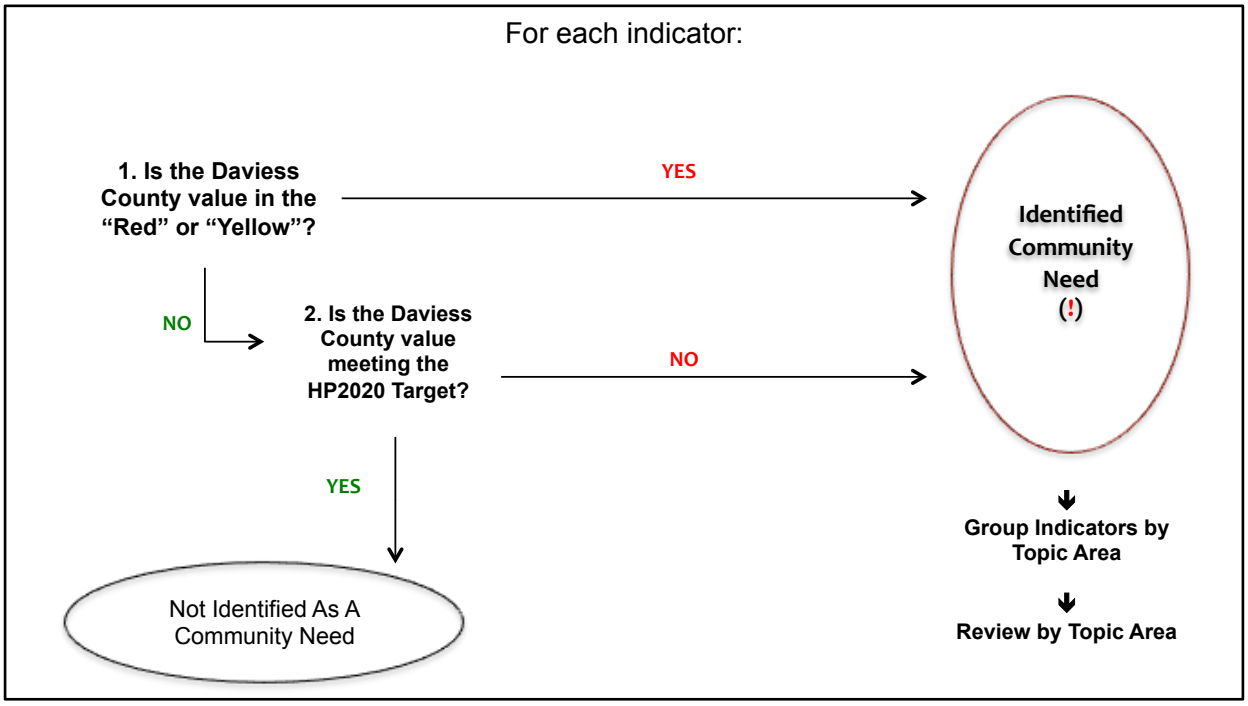
An indicator represented by a needle pointing to the green section signifies that Daviess County is in the better performing half (or top 50th percentile) of all Kentucky or US counties, yellow signifies that Daviess County is performing somewhere between the bottom 25th and 50th percentile, and red signifies that Daviess County is in the worst performing quartile (or bottom 25th percentile) of all Kentucky or US counties. Throughout this report, values will be highlighted in red, yellow, and green, and are representative of the gauges on the dashboard (see Table 2).

Table 2: Visual Representation of Indicator Data

	The colored gauge gives a visual representation of how your community is doing in comparison to other communities. The three-colored dial represents the distribution of values from the reporting regions (e.g. counties in the state) ordered from those doing the best to those doing the worst (sometimes lower values are better and in other cases higher values are better). From that distribution, the green represents the top 50th percentile, the yellow represents the bottom 25th to 50th percentile, and the red represents the "worst" quartile.
	This gauge shows how the Daviess County value compares with the median or mean value for all counties in the state, or for all counties in the US. The gauge is blue and white when being higher or lower is not necessarily good or bad and is multi-colored when being higher or lower is good or bad.
	This gauge shows whether the Daviess County value is increasing or decreasing over time. A green arrow means the value is improving and a red arrow means the value is getting worse. The = (equal) sign means that there is not a significant increase or decrease since the last measurement.
	This gauge shows whether or not the Daviess County value meets a specific target. The Daviess County value is represented by the left bar and the target value by the right bar.

3.5.3 Secondary Data: Identifying Community Needs

Figure 2: Identifying Community Health Needs Using HCI-CHNA System



In order to determine additional potential community needs, each of the approximately 140 available indicators were analyzed on the following criteria: (1) How does Daviess County perform compared to other counties in the state or nation, and (2) Does Daviess County meet national Healthy People 2020 goals (see Figure 2). Hence, if the indicator was in the yellow or red (meaning in the worst performing half of US or Kentucky counties, or did not meet the Healthy People 2020 national goal) it was identified as a community need.

Approximately 50 indicators met the community needs criteria from the secondary data analysis. Once the high need indicators were identified, they were grouped and examined by topic area. Historic data as well and gender and racial data was examined as available. Other supporting indicators were examined topically to provide context for the community need indicators. Topic areas containing indicators meeting the "community need" criteria (!) were as follows:

- Access to Health Services (including Transportation and Hospital Utilization)
- Cancer
- Diabetes, Exercise, Nutrition, & Weight (including Built Environment)
- Heart Disease & Stroke
- Immunization & Infectious Diseases
- Maternal, Fetal & Infant Health/Family Planning
- Mental Health & Mental Disorders
- Older Adults & Aging
- Prevention & Safety
- Respiratory Diseases
- Substance Abuse
- Economy: Poverty
- Public Safety

3.5.4 Primary Data Collection

In an effort to affirm and expand on the findings from the Green River Green River District Health Department's MAPP process, in the October 2012 Owensboro Health staff compiled a list of over 40 individuals with a range of expertise including public health officials, educators, public servants, and physicians — all considered experts in their field and able to speak on behalf of the community's interest.

Out of the 40 individuals, 10 community informants were selected and invited to interview. Of the 10 key informants selected for an interview, nine completed the interview. Each interview was conducted over the phone and lasted 30-45 minutes. The results from the secondary data analysis guided this selection. Each informant's area of expertise represented at least one of the areas of need that arose out of the secondary data analysis. Informants had, on average, over 20 years of experience in their field. (For a list of selected informants, their respective areas of expertise, and the interview guide, please see Appendix 2.)

The goal of the interviews was to (1) verify secondary results and make sure the findings were reflective of the experiences of the Daviess County community (2) identify any information gaps that may limit Owensboro Health's ability to assess all of the community's health needs, and (3) expand on secondary data findings with the goal of coming to a better understanding of the health issues of uninsured persons, low-income persons, and minority groups in the community.

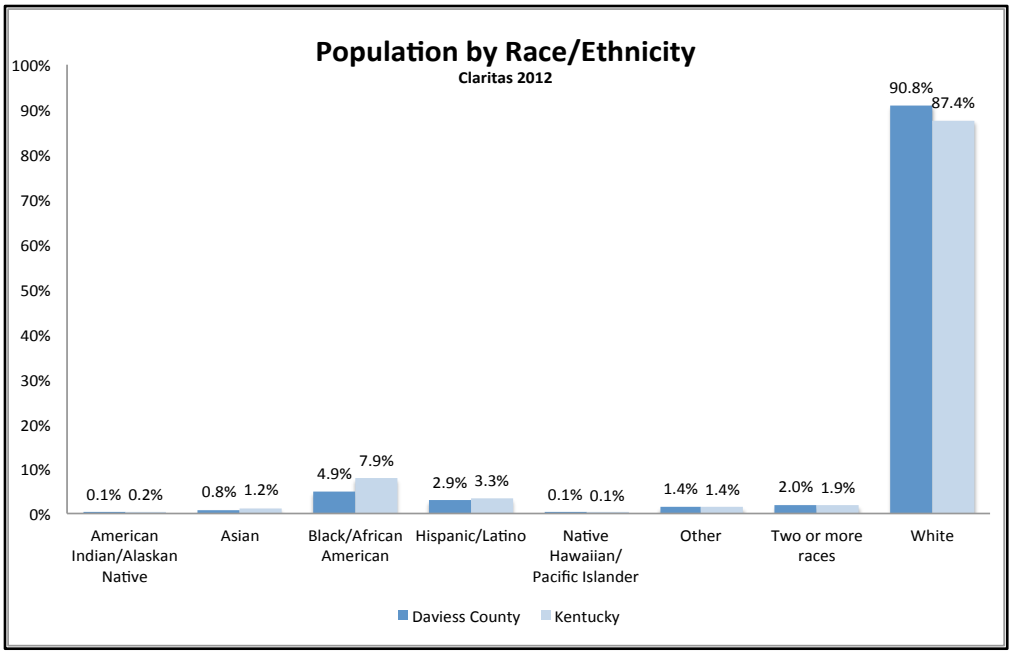
4. A Closer Look at Community Needs Assessment Findings

4.1 Demographics

As previously stated, Daviess County, Kentucky serves as the unit of analysis for this Community Health Needs Assessment, hence the health needs discussed in this assessment will pertain to residents living within Daviess County.

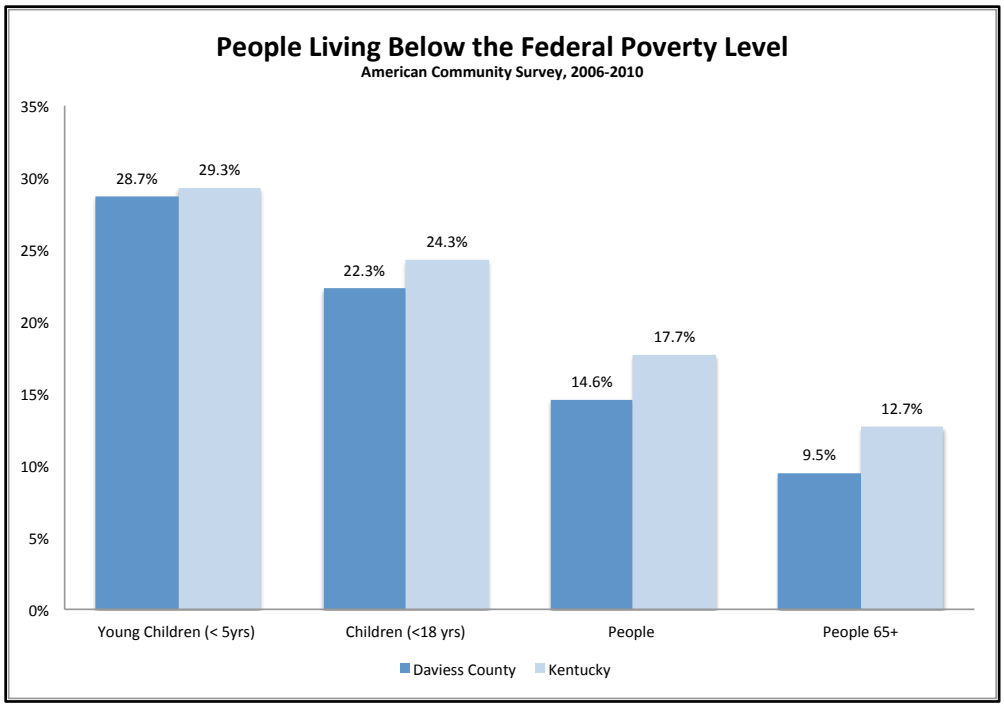
4.1.1 Population

In 2012, the Daviess County population was estimated to be 97,836 people, with 24,334 under age 18. The age distribution is very similar to Kentucky state with 7.2% under 5 years, 17.7% between 5-17 years, 60.5% between 18-65 years, and 14.6% over 65 years. Approximately 48.4% of the population is male, and 51.6% is female. At 90.8%, White individuals represent the majority of Daviess County residents, with African-Americans being the largest minority group, representing 4.9% of the population.



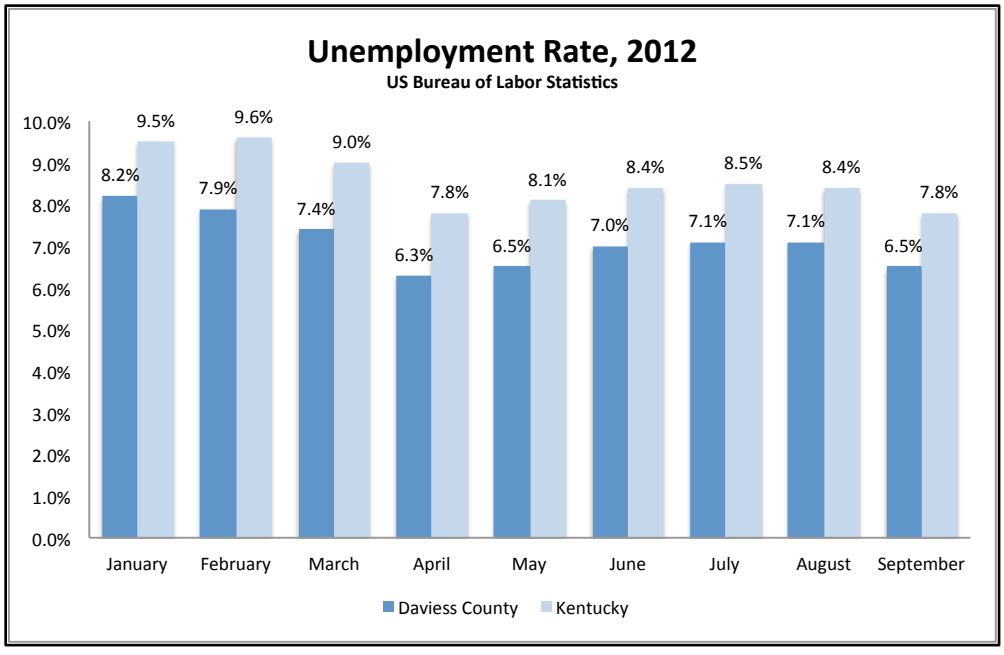
4.1.2 Economy

In 2012, the per capita income was $21,637 and the median household income was $41,946, both very similar to the state of Kentucky with $21,686 and $40,092 respectively. Daviess County had a higher proportion of individuals with a high school degree (87.8%) compared to Kentucky (81.4%), but a lower proportion of individuals with a bachelor's degree (17.6%) compared to Kentucky (20.7%). Only 7% of African Americans 25 years and older have a bachelors degree. Although the Daviess 2006-2010 poverty rate (14.6%) was slightly lower compared to Kentucky (17.7%), the poverty rates for children under 18 and young children under five were high at 22.3% and 28.7% respectively.



4.1.3 Unemployment

Overall, from January to September 2012, Daviess County held a 1-1.5% lower unemployment rate compared to the Kentucky average. The Daviess County unemployment rate followed a similar pattern to Kentucky with the lowest unemployment rate seen in April (6.3%) and then a slow, gradual climb to a peak in August (7.1%).



4.2 Exploring Community Needs

4.2.1 Overview

Findings from the secondary data revealed that Daviess County has a spectrum of community needs that affect individuals in all stages of life. Areas of community need included issues affecting the elderly, such as isolation, injury, immunization, and respiratory disease, as well as contributors to high mortality, such as cancer and heart disease. Other needs included chronic diseases related to obesity and inactivity, mental health, substance abuse, and access to health services. The community also has needs related to prenatal care and spread of sexually transmitted infections, as well as needs in the area of quality of life, such poverty and public safety. Findings also showed that there were health disparities among the African American population. African Americans had higher poverty rates, lower educational attainment, and higher Emergency Room and Hospitalization Visit Rates due to Asthma, Congestive Heart Failure, and Bacterial Pneumonia. However given the small population of minorities in Daviess County, it is recommended that disparity findings be interpreted with caution.

Secondary data findings were largely corroborated by the outcomes from the Green River District Health Department's MAPP process, as well as corroborated and expanded upon by insights from key community informants. Informants tended to agree that African Americans disproportionately suffer from high poverty, substance abuse, and chronic diseases but that was difficult to confirm with certainty because minorities represent a small number of Daviess County residents. Many informants believed that poverty and lack of affordable health care was a major community concern that affected many uninsured, underserved, and low-income people of all races.

Figure 3: "What are the major health issues in Daviess County?"
Key Themes from Community Informants

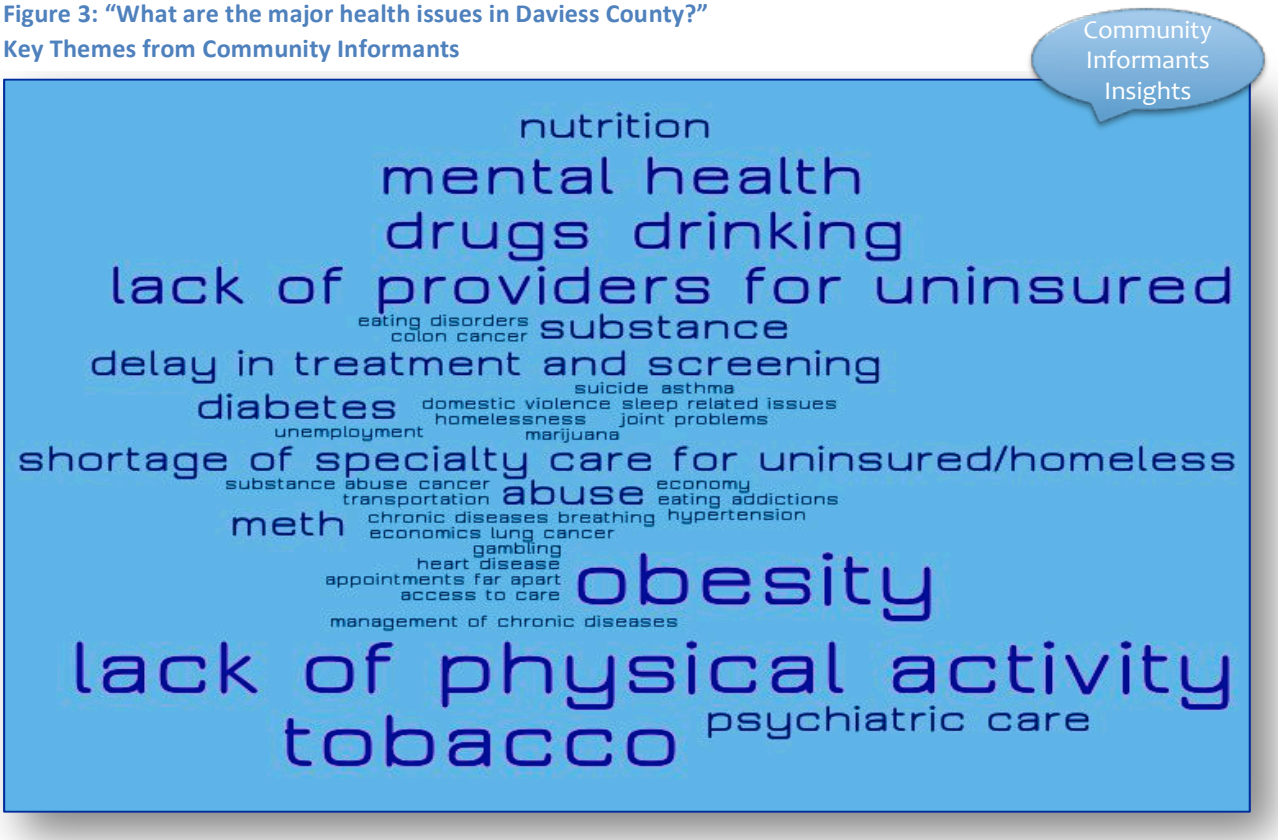


Figure 3 represents a 'word cloud'[2] of community informant responses to the question "What are the major health issues in Daviess?" The size of the word/phrase/ theme corresponds to the frequency of that particular word or theme as a response. As seen in Figure 3, mental health, obesity/ inactivity, substance abuse, and access to health services were some of the strongest vocalized issues by the community informants.

4.2.2 Notes and Limitations

Please note that insights provided by community informants are *opinions* about their observations of the community health needs of Daviess County residents. Although the informants were selected as representatives of the community and to speak on behalf of the community's interests, given small sample size of individuals, insights provided are not necessarily representative of the population as a whole. In addition, although this analysis is extensive, additional indicators, trend data, and demographics are available for review on the HCI-Owensboro Health dashboard. The reader is encouraged to visit www.omhs.org/healthassessment and explore the additional information.

Also note that the most recent period of measure was used for all secondary data presented in this report (as publicly available on 11/26/12). More information on the sources, years, and benchmarks can be found in the appendix and on http://www.omhs.org/healthassessment, which will continue to publish updates to data as they become available. Please also note that all rates are age-adjusted unless otherwise specified.

4.3 Areas of Community Need

4.3.1 Daviess County Community Priorities

The following is an in-depth review of community health needs that were identified from the secondary and primary data analysis, and *selected as community priorities* for Daviess County through the Green River District Health Department MAPP process.

1. Substance Abuse (ATOD: Alcohol, Tobacco and other Drugs)
2. Obesity
3. Access to Health Services

4.3.2 Additional Areas of Identified Need

Below is a snapshot of community needs that were identified from the secondary and primary data analysis but not selected as community priorities for Daviess County. Because many of the areas of need are interrelated and influence one another, the goal of this review is to provide the reader with a more complete picture of community needs in Daviess County. It is the hope that reviewing these additional needs will allow the reader to make more informed decisions when developing strategies and planning activities to address community priorities. This is especially pertinent to the area of "Access to Health Services" as it affects and is affected by many of the needs listed below.

[2] The word cloud was developed through http://worditout.com/

Additional areas of identified need include:

- Cancer
- Heart Disease & Stroke
- Immunization & Infectious Diseases
- Maternal, Fetal & Infant Health/Family Planning
- Mental Health & Mental Disorders
- Older Adults & Aging
- Prevention & Safety
- Respiratory Diseases
- Economy: Poverty
- Public Safety

4.4 Daviess County Community Priorities

Indicators Related to Substance Abuse	Community Needs	HP 2020	Daviess Value	Year	Comparison	Unit	Male	Female
Smoking								
Adults who Smoke	!	12	24	2008-2010	KY Counties	percent	_	_
Mothers who Smoked During Pregnancy	!	1.4	26	2006	KY Counties	percent	_	_
Cancer								
Age-Adjusted Death Rate due to Lung Cancer	!	45.5	74.6	2005-2009	US Counties	deaths/100,000 population	106.1	54
Lung and Bronchus Cancer Incidence Rate	!		106.5	2005-2009	US Counties	cases/100,000 population	133.8	89.4
Oral Cavity and Pharynx Cancer Incidence Rate	!		13.2	2005-2009	US Counties	cases/100,000 population	18.2	8.4
Alcohol								
Adults who Binge Drink	!	24.3	15.2	2008-2010	KY Counties	percent	_	_
Age-Adjusted ER Rate due to Alcohol Abuse	!		35.2	2009-2011	KY Counties	ER visits/10,000 population 18+ years	55.9	15.3
Age-Adjusted Hospitalization Rate due to Alcohol Abuse	!		14	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years	22.9	5.6
Liquor Store Density	!		12.4	2010	US Counties	stores/100,000 population		

Rankings- Value is in:	Notes:
Bottom 25% of KY or US Counties	**Met Healthy People 2020 goal**, **Did Not Meet Healthy People 2020 goal**
Between 25%-50% of Bottom KY or US Counties	~ Daviess value is compared to the KY state value, US value or the median value
Top 50%-100% of KY or US Counties	of US counties, not a distribution of counties.

4.4.1 Substance Abuse (ATOD: Alcohol, Tobacco, and Other Drugs) - Daviess County Community Priority

Smoking

Twenty-four percent of Daviess County adults smoke cigarettes (2008-2010), a percentage twice as high as the national Healthy People 2020 target of 12.0%. Despite this high percentage of smokers, Daviess still fairs in the top 50th percentile of all counties in Kentucky. In addition, 26% of Daviess County mothers smoke during pregnancy (2006), a percentage far above the national goal of 1.4%.

Why this is important[3]*:* Tobacco is the agent most responsible for avoidable illness and death in America today. Tobacco use brings premature death to almost half a million Americans each year, and it contributes to profound disability and pain in many others. Approximately one-third of all tobacco users in this country will die prematurely because of their dependence on tobacco. Areas with a high smoking prevalence will also have greater exposure to secondhand smoke for non-smokers, which can cause or exacerbate a wide range of adverse health effects, including cancer, respiratory infections, and asthma.

[3] All 'Why this is important' sections are shortened/summarized versions of text found on the HCI web-based community platform. For the full text and additional information on the public health importance of various health indicators, please visit www.omhs.org/healthassessment and navigate to the indicator of interest.

Smoking during pregnancy poses risks for both mother and fetus. A baby born to a mother who has smoked during her pregnancy is more likely to have less developed lungs and a lower birth weight, and is more likely to be born prematurely. It is estimated that smoking during pregnancy causes up to ten percent of all infant deaths. Even after a baby is born, secondhand smoking can contribute to SIDS (Sudden Infant Death Syndrome), asthma onset, and stunted growth.

Community Informants Insights

Insights on Substance Abuse in Daviess

There was strong consensus among the community informants that substance abuse is a major and persistent issue in Daviess County, especially tobacco use, methamphetamines, and alcohol abuse.

Smoking is believed to be deeply rooted in the culture and history of the Kentucky. Some informants stated that although there has been some success in the past, it is difficult to change tobacco use in a tobacco state.

Several informants believed that some forms of substance abuse were closely related to mental health needs, explaining that individuals abuse substances in order to escape the pain of reality. One informant suggested that there is need for more focused, specialized treatment to address the reasons behind the abuse, adding that while there are more drug problems, funding for drug abuse treatment is being cut, and that there is lack of adequate, timely transition from detox to treatment which contributes to relapse.

Lung and Oral Cancer

The Healthy People 2020 national target is to reduce the lung cancer death rate to 45.5 deaths per 100,000 population. With 74.6 deaths/100,00 population (2005-2009), Daviess County has a much higher lung cancer death rate compared to other counties in the nation (bottom 25th percentile) and is not meeting the national goal. Rates are much higher for males (106.1 deaths/100,000 males) compared to females (54.0 deaths/ 100,000 females). Daviess County also has a much higher lung and bronchus cancer incidence rate (106.5 cases/100,00 population) compared to other counties in the nation (bottom 25th percentile). Rates are higher for males (133.8 cases/ 100,000 males) compared to females (89.4 cases/ 100,000 females). In addition, with a rate of 13.2 cases/100,000 population for oral cavity and pharynx cancer incidence, Daviess County is between the bottom 50th and 25th percentile of the worst performing counties in the nation. Once again, rates are much higher for males (18.2 cases/ 100,000 males) compared to females (8.4 cases/ 100,000 females).

Why this is important: Substance abuse is one of the largest risk factors for lung and oral cancer. The greatest risk factor for lung cancer is duration and quantity of smoking. According to the American Lung Association, more people die from lung cancer annually than any other type of cancer, exceeding the total deaths caused by breast cancer, colorectal cancer, and prostate cancer combined. While the mortality rate due to lung cancer among men has reached a plateau, the mortality rate due to lung cancer among women continues to increase.

Oral cancer forms in tissues of the oral cavity (the mouth) or the oropharynx (the part of the throat at the back of the mouth). People who use tobacco, drink alcohol, or have a personal history of head and neck cancer are more likely than others to develop oral cancers.

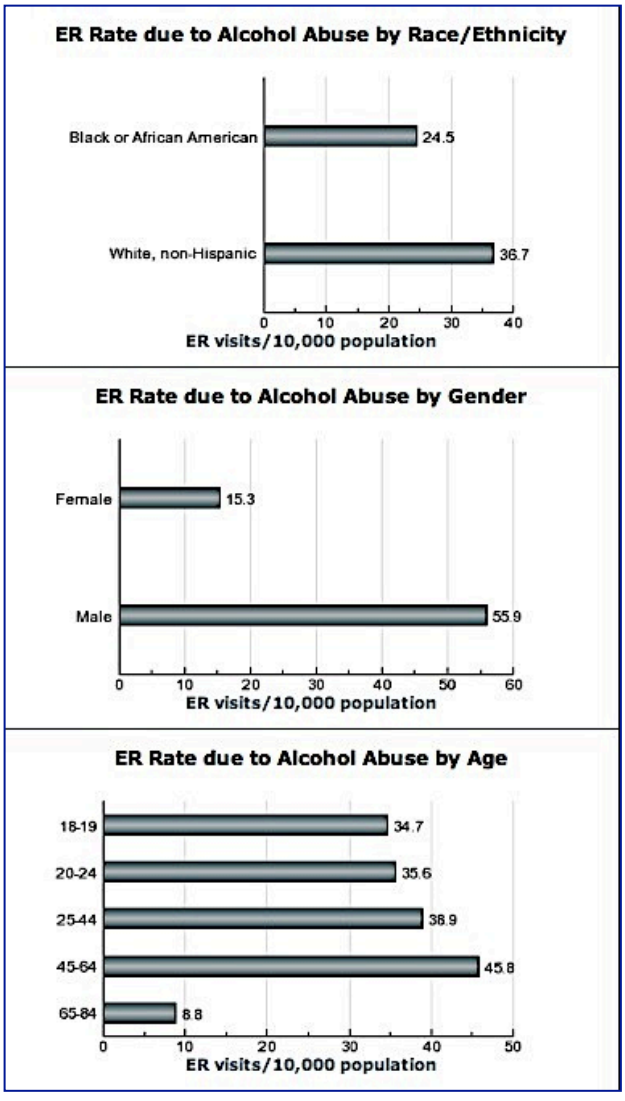
Binge Drinking

The Healthy People 2020 national target is to reduce the proportion of adults engaging in binge drinking to 24.3%. Binge drinking is defined as the percentage of adults who reported binge drinking at least once during the 30 days prior to the survey. Male binge drinking is defined as five or more

drinks on one occasion, and female binge drinking is four or more drinks on one occasion. With 15.2% (2008-2010), Daviess County has a higher percentage of adults who binge drink compared to other counties in Kentucky, placing the County in bottom 25th percentile. However, Daviess County is meeting the national goal.

There are a high number of preventable hospitalizations related to alcohol abuse in the Daviess County. Alcohol abuse includes alcohol dependence syndrome, nondependent alcohol abuse, alcoholic psychoses, excessive blood level of alcohol, and fetal alcohol syndrome. With 35.2 ER visits/10,000 population 18+ years and 14.0 hospitalizations/10,000 population 18+ years (2009-2011) due to acute or chronic alcohol abuse, Daviess County is ranked in the bottom 25th percentile of Kentucky counties. Rates are higher for males (55.9 ER visits/10,000 males 18+; 22.9 hospitalizations/10,000 males 18+) compared to females (15.3 ER visits/10,000 females 18+; 5.6 hospitalizations/10,000 females 18+). In addition, Daviess has a high liquor store density compared to other counties in the nation (12.4 stores/1,000 population) (2010).

Why this is important: Binge drinking is a common pattern of excessive alcohol use in the United States. It can be very dangerous and may result in vomiting, loss of sensory perception, and blackouts. Alcohol abuse is associated with a variety of negative health and safety outcomes including alcohol-related traffic accidents and other injuries, employment problems, legal difficulties, financial loss, family disputes and other interpersonal problems.



Neighborhoods with a high density of alcohol outlets are associated with higher rates of violence, regardless of other community characteristics such as poverty and age of residents. High alcohol outlet density has been shown to be related to increased rates of drinking and driving, motor vehicle-related pedestrian injuries, and child abuse and neglect. In addition, liquor stores frequently sell food and other goods that are unhealthy and expensive. Setting rules that mandate minimum distances between alcohol outlets, limiting the number of new licenses in areas that already have a high number of outlets, and closing down outlets that repeatedly violate liquor laws can all help control and reduce liquor store density.

Indicators Related to Obesity	Community Needs	HP 2020 Goals	Daviess Value	Year	Comparison	Unit
Adult Fruit and Vegetable Consumption	!		15.9	2005-2009	KY Counties	percent
Adults who are Obese		30.6	26.6	2008-2010	KY Counties	percent
Adults who are Overweight or Obese			64.7	2008-2010	KY Counties	percent
Adults who are Sedentary		32.6	24.8	2008-2010	KY Counties	percent
Low-Income Preschool Obesity	!		15.6	2008-2010	US Counties	percent
Workers who Walk to Work	!	3.1	1.5	2006-2010	US Counties	percent
Age-Adjusted Death Rate due to Diabetes	!		30.3	2007-2009	US Counties	deaths/100,000 population
Built Environment						
Farmers Market Density	!		0.01~	2011	US Median Value	markets/1,000 population
Fast Food Restaurant Density	!		0.78	2009	US Counties	restaurants/1,000 population
Grocery Store Density	!		0.15	2009	US Counties	stores/1,000 population
Physical Environment Ranking	!		100	2012	KY Counties	Rank

4.4.2 Obesity - Daviess County Community Priority

Nutrition and Obesity

Only 15.9% Daviess County adults consume five or more servings of fruits and vegetables per day (2005-2009), placing Daviess County in the bottom 25th to 50th percentile of Kentucky counties. Daviess also has a low percent of individuals who walk to work, (1.5% in 2006-2010), not meeting the national Healthy People goal of 3.1%.

Community Informants Insights

Insights on Obesity in Daviess

There was strong consensus that obesity and lack of physical activity was an important and growing concern not only in Daviess County, but also in the surrounding area. Obesity was believed to be a major contributor to many of the growing health concerns of individuals in the community, especially the rise of chronic diseases and cancers.

Informants suggested that the availability of unhealthy food, lack of physical activity as part of daily routine, and a general unhealthy lifestyle were all contributors to the growing obesity problem.

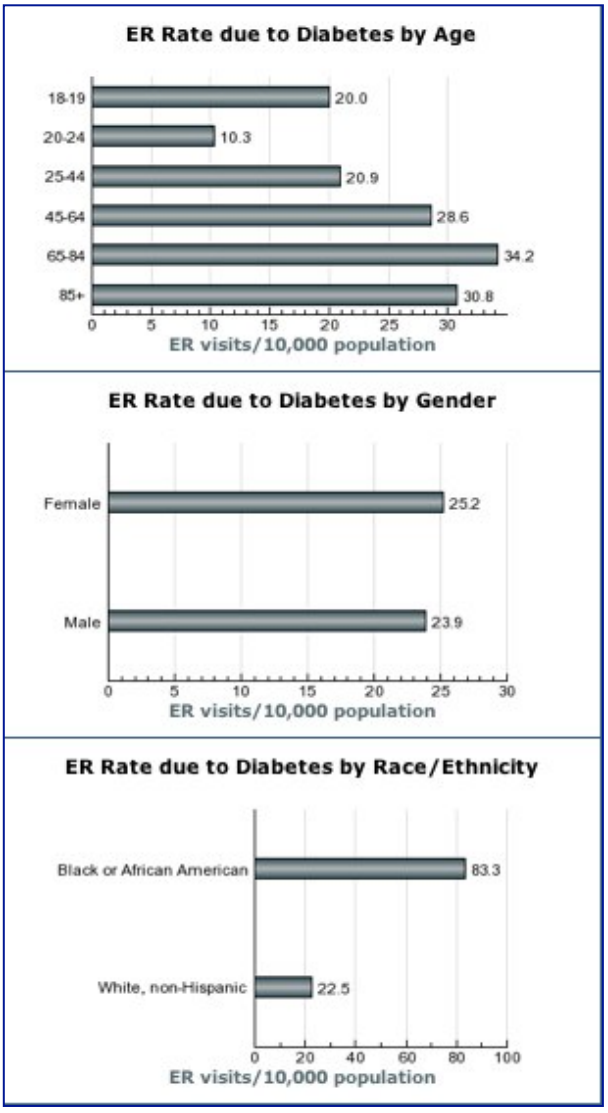
Daviess County has a high percentage (15.6%) of low income, obese children aged 2-4 (those living in households with an income less than 200% of the federal poverty level), placing it in the bottom 25th to 50th percentile of counties in the nation (2008-2010). Please note that for children aged 2-4 years, obesity is defined as BMI-for-age above 95th percentile.

Although Daviess County also has a high percentage of adults who are obese (26.6%) and sedentary (24.8%), the County is still performing better than the majority of other counties in Kentucky and is meeting the Healthy People 2020 national goal to reduce the proportion of adults aged 20 and older who are obese to 30.6% and adults who are sedentary to 32.6%. The reader is cautioned against drawing the conclusion that obesity is not a community concern in Daviess County. Instead, it is recommended that Daviess County develop a benchmark/target that is more appropriate for the community. One recommendation is for Daviess to strive to reduce the obese

population to 20%, which is the percentage of obese adults in the least obese county (Oldham) in Kentucky.

Why this is important: Obesity is often an indicator of the overall health and lifestyle of a community and carries significant economic costs due to increased healthcare spending and lost earnings. Childhood obesity has both immediate and long-term health impacts. Children and adolescents who are obese are at greater risk for bone and joint problems, sleep apnea, and are more likely than normal weight peers to be teased and stigmatized which can lead to poor self-esteem. Moreover, obese youth are more likely to have risk factors for cardiovascular disease, such as high cholesterol or high blood pressure. Finally, overweight and obese youth are more likely than normal weight peers to be overweight or obese adults and are therefore at risk for the associated adult health problems, including heart disease, type 2 diabetes, stroke, several types of cancer, and osteoarthritis.

Losing weight and maintaining a healthy weight helps to prevent and control these diseases. It is essential to eat a fresh, healthy and balanced diet in order to maintain a healthy weight and prevent chronic disease. Numerous studies have shown a clear link between the amount and variety of fruits and vegetables consumed and rates of chronic diseases, especially cancer. According to the World Cancer Research Fund International, about 35 percent of all cancers can be prevented through increased fruit and vegetable consumption. The USDA currently recommends four and one-half cups (nine servings) of fruits and vegetables daily for a 2,000-calorie diet, with higher or lower amounts depending on the caloric level.



Diabetes

With 30.3 deaths/100,000 population (2007-2009), Daviess County has a higher diabetes death rate compared to other counties in the nation, placing Daviess between the bottom 25th and 50th percentile. Rates are higher for males (38.2 deaths/ 10,000 males) compared to females (25.6 deaths/ 10,000 females). With a rate of 16.1 hospitalizations/10,000 population 18+ and 24.4 ER visits/10,000 population 18+ due to diabetes (2009-2011), Daviess County is performing in the top 50th percentile of all Kentucky counties. However, hospitalization and emergency room visit rates are high among African Americans (43.9 hospitalizations/10,000 population 18+; 83.3 ER visits/10,000 population 18+).

Why this is important: Diabetes can have a harmful effect on most organ systems in the human body. It is a frequent cause of renal disease and lower-extremity amputation, and a leading cause of blindness among working age adults. Persons with diabetes are also at increased risk for ischemic heart disease, neuropathy, and stroke. According to the Centers for Disease and Control, the prevalence of diagnosed type 2 diabetes increased six-fold in the latter half of the last century. Diabetes risk factors such as obesity and physical inactivity have played a major role in this dramatic increase. The CDC estimates the direct economic cost of diabetes in the United States to be about $100 billion per year. This figure does not take into account the indirect economic costs attributable to potential work time lost to diabetes-related illness or premature death.

Physical Environment

With a rank of 100 out of 120 Kentucky counties (2012), Daviess County is ranked in the bottom quartile of Kentucky counties for physical environment. There are few farmers markets (0.01 markets/1,000 population, 2011) and supermarkets and grocery stores (0.15 stores/1,000 population, 2009), but a high density of fast food restaurants (0.78 restaurants/1,000 population, 2009) and liquor stores (12.4 stores/1,000 population, 2010).

Why this is important: When addressing obesity and nutrition, it is important to evaluate a community's built/physical environment and examine whether it fosters a healthy lifestyle. The physical environment includes all of the parts of where one lives and works (e.g., homes, buildings, streets, and parks). It influences a person's level of physical activity and ability to have healthy lifestyle behaviors. For example, inaccessible or nonexistent sidewalks or walking paths increase sedentary habits. These habits contribute to obesity, cardiovascular disease, and diabetes. Other factors that contribute to healthy lifestyle behaviors are access to grocery stores and farmer's markets, recreation facilities, and the presence of a clean and safe physical environment.
There are strong correlations between the density of grocery stores in a neighborhood and the nutrition and diet of its residents. The availability and affordability of healthy and varied food options in the community increase the likelihood that residents will have a balanced and nutritious diet. Farmers markets provide a way for community members to buy fresh and affordable agricultural products while supporting local farmers. They often emphasize good nutrition and support consumers to cook healthier meals and maintain good eating habits.

2009-2011: Hospital Utilization- Preventable Causes of Admission (ER visits/10,000 pop 18+ and Hospitalizations/10,000 pop 18+)								
		Daviess	42301	42303	42355	42366	42376	42378
	Population (2012)	97,836	43,171	39,412	1,809	5,977	5,527	3,299
DIABETES								
ER Rates	Diabetes	**24.4**	26.7	24	26.4	10.7	16.1	
	Long-Term Complications of Diabetes	**8.7**	10.5	7.4			8.2	
	Uncontrolled Diabetes	**2.8**	3.3	2.6				
Hosp. Rates	Diabetes	**16.1**	18.6	14.2	29.4		12.2	
	Long-Term Complications of Diabetes	**8**	10.4	5.9				
	Short-Term Complications of Diabetes	**4.9**	5	5				
	Uncontrolled Diabetes	**3**	2.9	3.3				
HEART DISEASE								
ER Rates	Congestive Heart Failure	**10.5**	11.1	11.3				
Hosp. Rates	Congestive Heart Failure	**45.6**	49.6	43.1	37.1	31.8	41.9	30.2
IMMUNIZATION & INFECTIOUS DISEASES								
ER Rates	Bacterial Pneumonia	**28.4**	31.9	27.7	29.2	9.4	21.8	13.4
Hosp. Rates	Bacterial Pneumonia	**34.1**	36	31.3	36.5	25.3	32.8	30.9
	Hepatitis	**1.2**	1.3	1.2				
OTHER CONDITIONS								
ER Rates	Dehydration	**17.6**	17.8	17.5		12.8	21.6	
	Urinary Tract Infections	**101.3**	107.4	101.1	94.4	66.6	88.2	35.8
Hosp. Rates	Dehydration	**8.8**	10.8	7.8			6.7	
	Urinary Tract Infections	**14.6**	15.1	13.8		19.5	8.9	
RESPIRATORY DISEASES								
ER Rates	Adult Asthma	**49.2**	58.3	45	26.3	20.5	35.5	16.2
	Asthma (ER visits/10,000 pop)	**49.5**	56.4	47.3	23.4	20.9	34.8	19.8
	COPD	**64**	77.6	58.6	49.6	24.9	39.7	24.4
Hosp. Rates	Adult Asthma	**9.9**	11.4	8.3		7.8	10.7	
	Asthma (ER visits/10,000 pop)	**11.3**	12.4	9		10.1	16.4	
	COPD	**29.7**	32	25.7	21.6	22.8	26.7	33
SUBSTANCE ABUSE								
ER Rates	Alcohol Abuse	**35.2**	34.4	41		12.1	21.8	14.9
Hosp. Rates	Alcohol Abuse	**14**	12.9	16.9		9.5		

ZIP codes excluded due to lack of data: 42302; 42304; 42334; 42356; 42375; 42377

Additional Indicators Related to Access to Health Services						
	Needs	HP 2020	Daviess Value	Year	Comparison	Unit
Adults with Health Insurance	!	100	82.8	2011	US Counties	percent
Children with Health Insurance	!	100	93.9	2011	US Counties	percent
Primary Care Provider Rate			64	2009	US Counties	providers/100,000 population
Preventable Hospital Stays			72	2009	US Counties	discharges/1,000 Medicare enrollees
Unemployed Workers in Civilian Labor Force			6.5	Sep-12	US Counties	percent
Households without a Vehicle	!		7.4	2006-2010	US Counties	percent
Workers Commuting by Public Transportation	!	5.5	0.3	2006-2010	US Counties	percent

4.4.3 Access to Health Services - Daviess County Community Priority

Preventable Hospitalizations

The table above shows emergency room and hospital admissions rates for preventable causes of admission including diabetes, heart disease, respiratory diseases, alcohol abuse, and other conditions in Daviess County and ZIP Codes within. Zip Code 42301 has some of the highest rates across multiple conditions (2009-2011). The reader is encouraged to review the “Additional

Community Needs" to learn more about the various conditions and sub-populations with the greatest needs.

Barriers to Accessing Care

- Insurance: With only 93.9% of children 0-17 years who have health insurance coverage (2011), Daviess County in is the bottom 25th-50th percentile of all the counties in the nation with populations of 65,000 or more. The Healthy People 2020 national health target is to increase the proportion of people with health insurance to 100%. Daviess County is not meeting this ambitious goal for either children or adults (82.8%). While 92.6% of adults aged 55-64 years have insurance coverage, only 73.0% of young adults 18-24 have coverage.
- Transportation: At 7.4%, Daviess County has a high percentage of households without a vehicle (2006-2010). In addition, only 0.3% of workers are commuting to work by public transportation.
- Unemployment: From January to September 2012, Daviess saw the highest unemployment rate in January (8.5%) and the lowest in April (6.3%).

Why this is important: The measure of preventable hospitalizations in a community indicates the quality and accessibility of primary health care services available. If the quality of care in the outpatient setting is poor, then people may be more likely to overuse the hospital as a main source of care and be hospitalized unnecessarily.

Lack of health insurance is a major barrier to accessing health care services. High, rising medical costs in the United States make it difficult for people without health insurance to afford medical treatment and prescription drugs. Without health insurance individuals are less likely to get routine checkups and screenings and may not seek treatment until the condition is more advanced and therefore more difficult and costly to treat.

Community Informants Insights

Insights on Access to Health Services in Daviess

There was strong consensus among community informants that greater access to health services is a top community health need, especially among the low income and uninsured. There was concern that many individuals had lost their homes or were unemployed and lacked insurance causing them to wait to seek care until their health issues escalated, hence contributing to high rates of long term illness and utilization of the emergency room.

The community's free clinic was described as experiencing staff shortages and ever increasing demand. One informant explained that some appointments are spaced two to four months apart, which makes management of disease very difficult and can result in delayed detection of cancer, diabetes, and other conditions.

There was a concern that the community is experiencing a lack of providers and specialist for the uninsured. One informant mentioned an existing program, Kentucky Physicians Care (KPC) Program that addresses some of these needs by connecting specialists with uninsured patients.

It was also noted that refugees from Myanmar will be settling in Daviess in the coming year, and lack of translators will likely arise as an obstacle in providing quality care.

Unemployment is also closely related to access to health services as many individuals receive health insurance through their employer. However, many small businesses are unable to offer health insurance to employees due to rising health insurance premiums. In addition, a high unemployment rate places strain on a communities support systems and community clinics.

Access to transportation is another barrier to accessing care. In general, people living in a household without a car make fewer than half the number of journeys compared to those with a car. This limits their access to essential local services such as supermarkets, post offices, doctors' offices and hospitals. Most households with above-average incomes have a car while only half of low-income households do. Public transportation offers mobility to individuals, particularly people without cars. Transit can help bridge the spatial divide between people and their access to needed services.

4.5 Additional Community Needs

The following are community needs that were identified from the secondary and primary data analysis but not selected as community priorities for Daviess County by the Green River District Health Department Community Health Assessment MAPP Process.

Additional Indicators of Community Need (!)					
Cancer Mortality	**HP 2020**	**Daviess Value**	**Year**	**Comparison**	**Unit**
Age-Adjusted Death Rate due to Breast Cancer	20.6	22.4	2005-2009	US Counties	deaths/100,000 females
Age-Adjusted Death Rate due to Cancer	160.6	203.6	2005-2009	US Counties	deaths/100,000 population
Age-Adjusted Death Rate due to Lung Cancer	45.5	74.6	2005-2009	US Counties	deaths/100,000 population
Cancer Incidence					
All Cancer Incidence Rate		505	2005-2009	US Counties	cases/100,000 population
Breast Cancer Incidence Rate		121.3	2005-2009	US Counties	cases/100,000 females
Colorectal Cancer Incidence Rate	38.6	46.8	2005-2009	US Counties	cases/100,000 population
Lung and Bronchus Cancer Incidence Rate		106.5	2005-2009	US Counties	cases/100,000 population
Oral Cavity and Pharynx Cancer Incidence Rate		13.2	2005-2009	US Counties	cases/100,000 population
Prostate Cancer Incidence Rate		158.6	2005-2009	US Counties	cases/100,000 males
Heart Disease & Stroke					
Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke)	33.8	41.7	2007-2009	US Counties	deaths/100,000 population
Age-Adjusted Death Rate due to Coronary Heart Disease	100.8	105.9	2007-2009	US Counties	deaths/100,000 population
Age-Adjusted Hospitalization Rate due to Congestive Heart Failure		45.6	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years

4.5.1 Cancer

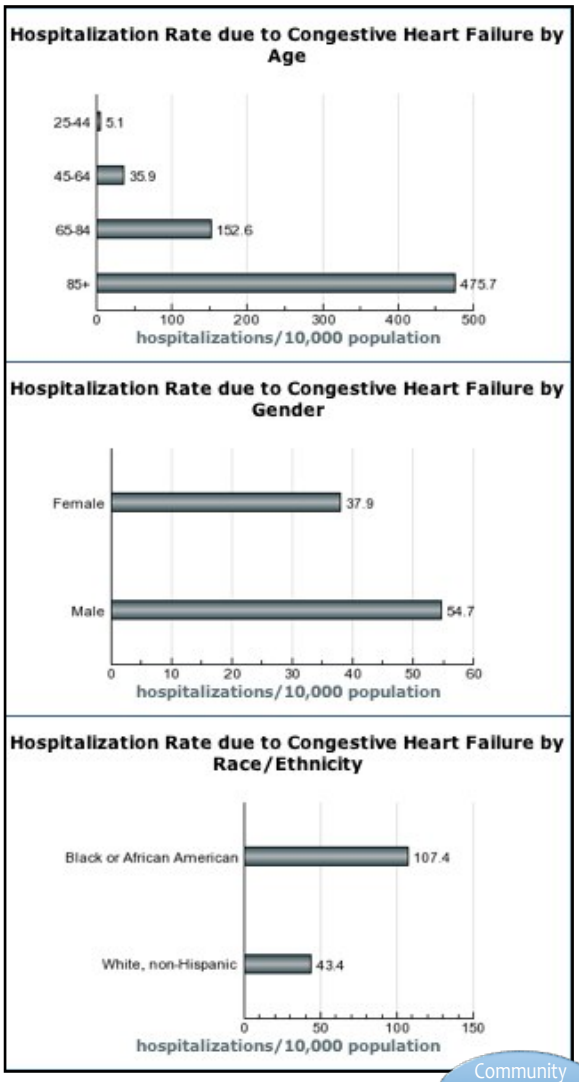
Cancer and heart disease are the leading causes of death in Daviess County. Daviess County is not meeting national Healthy People 2020 health targets for breast, lung, and overall cancer death rates. The lung cancer death rate is especially high compared to other counties in the nation. At 260.2 deaths/100,000 males (2005-2009), males have higher age-adjusted cancer death rates (all sites) than females (167.5 deaths/100,000 females).

Daviess County also has a high overall cancer incidence rate and lung cancer compared to other counties in the nation. There is also a higher rate of breast, oral and prostate cancer incidence. At 615.5 cases/100,000 males (2005-2009) males have higher overall cancer incidence rates compared to females (431.9 cases/100,000 females, 2005-2009).

4.5.2 Heart Disease and Stroke

Although Daviess County is performing in the top 50th percentile of counties in the nation for death rates due to coronary heart disease and stroke, it is not meeting the Healthy People national targets for either (2007-2009). At 140.4 deaths/100,000, males have higher coronary heart disease death rates compared to females (82.7 deaths/100,000 females).

At 45.6 hospitalizations/10,000 population 18+ (2009-2011), Daviess County has a higher hospitalization rates due to congestive heart failure compared to other Kentucky counties. Hospitalization and emergency room visit rates due to congestive heart failure are especially high among African Americans (107.4 hospitalizations/10,000 population 18+; 40.9 ER visits/10,000 population 18+), males (54.7 hospitalizations/10,000 males 18+; 14.5 ER visits/10,000 males 18+), seniors (152.6 hospitalizations/10,000 population 65-84; 29.9 ER visits/10,000 population 65-84), and the very elderly (475.7 hospitalizations/10,000 population 85+; 59.9 ER visits/10,000 population 85+).



Community Informants Insights

Insights on Cancer and Heart Disease in Daviess

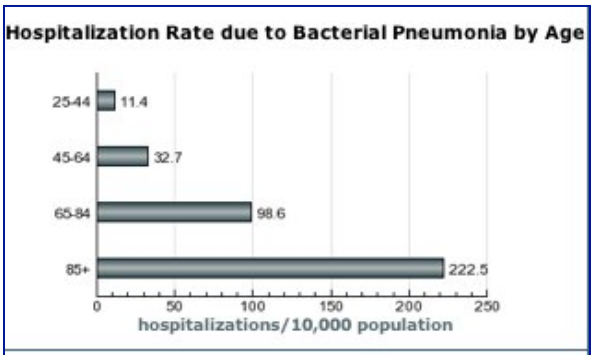
Several community informants attributed the high cancer incidence and mortality rates to the lifestyle of individuals living in "rural Kentucky." There was strong consensus that there is a culture of heavy drinking, smoking, and eating because Owensboro is part of the tobacco belt.

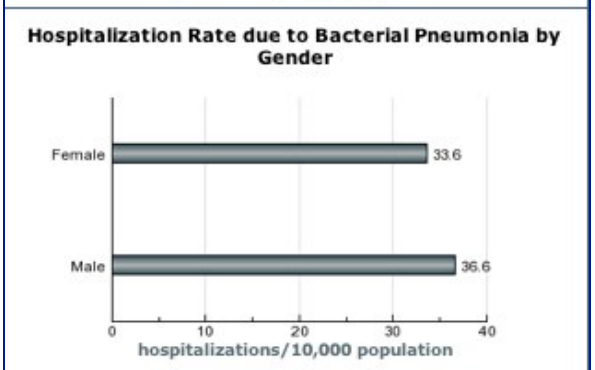
Lung and oral cancer was seen primarily as a tobacco related problem and there was consensus that this is major problem not only in Daviess but also throughout Kentucky. Several informants spoke about the importance of screening and the barriers to accessing care. For example, one informant explained that screening for colon cancer is costly and requires a specialist. However, there is opportunity and capacity for more breast cancer screening as only two-thirds of screened women return annually to receive further screening. Another community informant found the high prostate cancer incidence rate surprising, as prostate cancer incidence rates didn't appear that high in community.

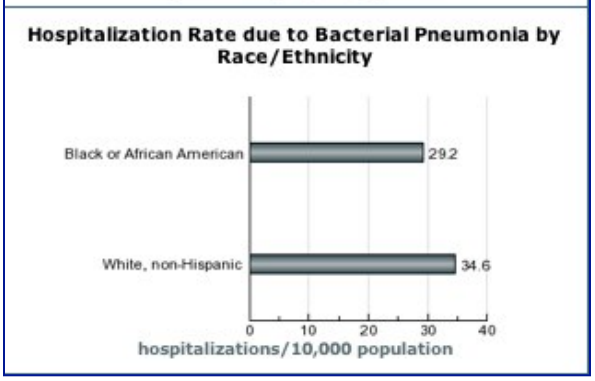
Poor outcomes related to heart disease were also attributed to the unhealthy lifestyles of Daviess County residents including high tobacco use, lack of check ups, and lack of exercise. In addition to high admission rates, coronary heart failure was described as one of the top reasons for hospital readmissions.

Additional Indicators of Community Need (!)					
Immunizations & Infectious Diseases	**HP 2020**	**Daviess Value**	**Year**	**Comparison**	**Unit**
Adults with Influenza Vaccination		37.6	2008-2010	KY Counties	percent
Age-Adjusted Death Rate due to Influenza and Pneumonia		21.8	2007-2009	US Counties	deaths/100,000 population
Chlamydia Incidence Rate		337.9	2009	KY Counties	cases/100,000 population
Maternal, Fetal & Infant Health/ Family Planning					
Babies with Low Birth Weight	7.8	8.6	2003-2007	KY Counties	percent
Infant Mortality Rate	6	6.5	2003-2007	KY Counties	deaths/1,000 live births
Mothers who Smoked During Pregnancy	1.4	26	2006	KY Counties	percent
Mental Health & Mental Disorders					
Age-Adjusted Death Rate due to Suicide	10.2	17.5	2007-2009	US Counties	deaths/100,000 population

4.5.3 Immunization







In 2008-2010, only 37.6% of adults received an influenza vaccination in the past year, placing Daviess between the bottom 50th and 25th percentile of the worst performing counties in Kentucky. A rate of 21.8 deaths/100,000 population due to influenza and pneumonia (2007-2009), placed Daviess between the 50th and 25th percentile of the worst performing counties in the nation. The County's highest hospitalization rate due to bacterial pneumonia was among the elderly, 222.5 hospitalizations/10,000 population 85 years and older (2009-2011).

4.5.4 Maternal, Fetal & Infant Health/Family Planning & Infectious Disease

Daviess County is performing in the top 50th percentile of all Kentucky counties on several maternal child health and family planning measures such as: low birth weight (8.6% of babies were born with low birth weight, 2003-2007), infant mortality (6.5 deaths/1,000 live births for infants within their first year of life, 2003-2007), prenatal care (93% of mothers received adequate care, 2007), and smoking during pregnancy (26% of births were to mothers who smoked and/or used tobacco during pregnancy, 2006). Although Daviess is performing better than other counties in Kentucky, it is not meeting the national Healthy People 2020 national targets for low birth weight, infant mortality rate, and smoking during pregnancy. The percentage of mothers who smoke during pregnancy (26%) is especially high compared to the national goal of 1.4%. In addition, although Daviess County has a lower teen birth rate compared to other counties in Kentucky (value is in the

top 50th percentile of Kentucky counties), the teen birth rate is fairly high at 54.9 live births/1,000 females aged 15-19 (2003-2007). Also, a high chlamydia incidence rate of 337.9 cases/100,000 population (2009) placed Daviess County in the bottom quartile of all Kentucky counties.

4.5.5 Mental Health

With 17.5 deaths/100,000 population due to suicide (2007-2009), Daviess County is in the worst performing quartile of counties in the nation. It is not meeting the Healthy People 2020 national target to reduce the suicide rate to 10.2 deaths/100,000 population.

Insights on Suicide and Mental Health Needs in Daviess

Community Informants Insights

Several community informants suggested that the elevated suicide rate might be attributed to a lack of mental health resources and depressed economic circumstances. Others suggested further exploring the link between suicide and compulsive gambling and eating disorders in the community.

A common concern was a rise in demand of service with a lack of providers and specialists to meet the needs. Due to lack of mental health providers for low income and uninsured individuals, nurse practitioners and providers in free clinics are called upon to fill in the gaps. Law enforcement is also encountering increasing numbers of individuals who are mentally and emotionally unstable.

4.5.6 Older Adults & Aging

A rate of 41.2 deaths/100,000 population due to Alzheimer's Disease (2007-2009) placed Daviess County in the bottom 25th percentile of the worst performing counties in the nation. With 31.6%, Daviess was also in the bottom quartile for the percentage of people 65 and over living alone (2006-2010). In addition, of those who were 65 and older, 9.5% lived below the poverty level (2006-2010), 10.4% had a cognitive difficulty, 10.5% had a self-care difficulty, 18.5% had an independent living difficulty, 22.3% had an ambulatory difficulty, and 38.1% had any type of disability (2011).

Additional Indicators of Community Need (!)					
Older Adults & Aging	**HP 2020**	**Daviess Value**	**Year**	**Comparison**	**Unit**
Age-Adjusted Death Rate due to Alzheimer's Disease		41.2	2007-2009	US Counties	deaths/100,000 population
People 65+ Living Alone		31.6	2006-2010	US Counties	percent
Prevention & Safety					
Age-Adjusted Death Rate due to Unintentional Injuries	36	47.9	2007-2009	US Counties	deaths/100,000 population
Respiratory Diseases					
Age-Adjusted ER Rate due to Adult Asthma		49.2	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted ER Rate due to Asthma		49.5	2009-2011	KY Counties	ER visits/10,000 population
Age-Adjusted ER Rate due to COPD		64	2009-2011	KY Counties	ER visits/10,000 population 18+ years

Community Informants Insights

Insights on Aging, Safety, and Respiratory Issues in Daviess

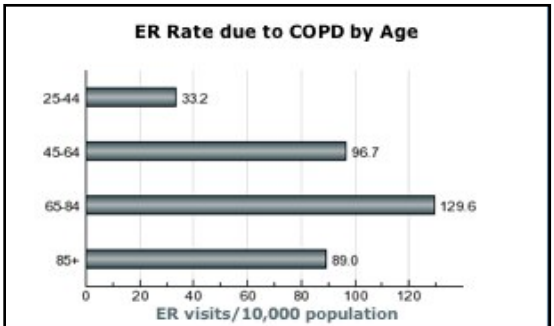
One community informant noted that of the seniors living alone, many were elderly widowed women. Falls among the elderly were also noted as a concern, as was COPD, which was commonly seen in nursing homes.

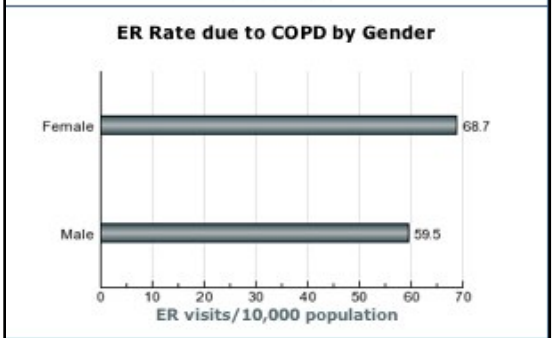
Another informant suggested that in addition to high admission rates, pneumonia is one of the top readmission sources for the elderly at OMHS. Despite the availability of influenza vaccines, people are not getting vaccinated.

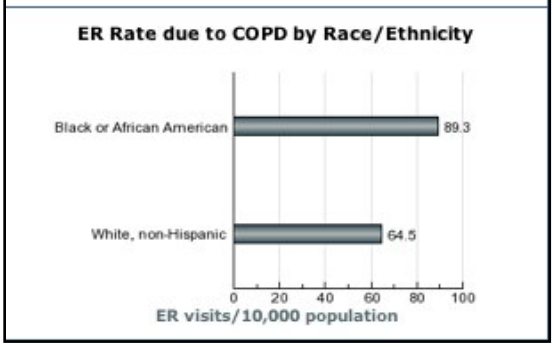
Some of the major contributors for respiratory issues mentioned include smoking, exposure to chemicals and dust, obesity, and heart problems. One informant noted that Daviess was once a major coal-producing region and although it is hard to directly link coal mining to respiratory issues these days, many of the older residents did work in the coalmines.

4.5.7 Prevention & Safety

Although Daviess County is performing in the top 50th percentile of counties in the nation, with a death rate of 47.9 deaths/100,000 population (2007-2009) it is not meeting the Healthy People 2020 national target for unintentional injuries. Male have a higher unintentional injury death rate (61.7 deaths/100,000 males) compared to females (37.3 deaths/100,000 females).

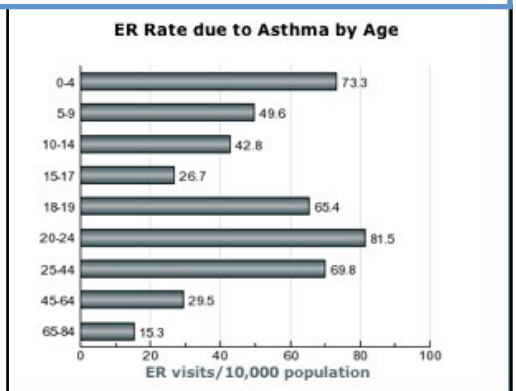


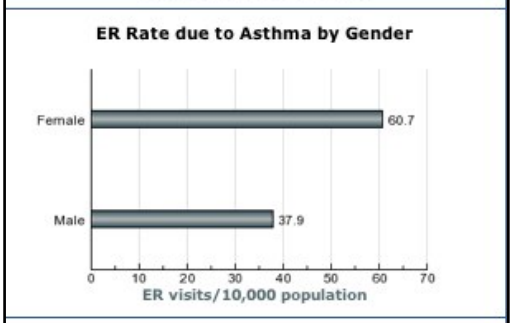


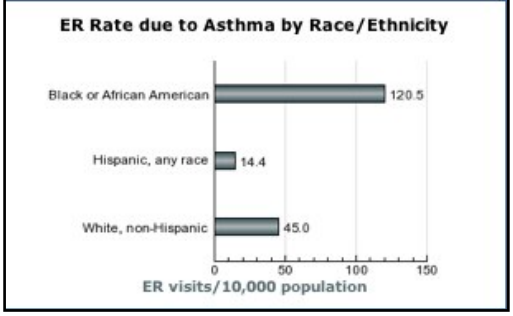


4.5.8 Respiratory Diseases

Daviess County is performing in the bottom quartile of all Kentucky counties for emergency room visits due to asthma (49.5 ER visits/ 10,000 population) as well as for adult asthma (49.2 ER visits/ 10,000 population 18+)(2009-2011). Asthma emergency room visit rates are especially high among African Americans (120.5 ER visits/10,000 population), females (60.7 ER visits/10,000 females), young children (73.3 ER visits/10,000 population 0-4 years), and young adults (81.5 ER visits/10,000 population 20-24 years) (2009-2011).







With an rate of 64.0 ER visits/10,000 population 18+, Daviess County is between the bottom 50th and 25th percentile of the worst performing counties in Kentucky for emergency room visits due to chronic obstructive pulmonary disease (COPD) (2009-2011). COPD emergency room visit rates are high among African Americans (89.3 ER visits/10,000 population 18+), females (68.7 ER visits/10,000 females 18+), and especially high among seniors (129.6 ER visits/10,000 population 65-84 years)(2009-2011).

Additional Indicators of Community Need (!)					
Economy/Poverty	**HP 2020**	**Daviess Value**	**Year**	**Comparison**	**Unit**
Children Living Below Poverty Level		22.3	2006-2010	US Counties	percent
Families Living Below Poverty Level		10.9	2006-2010	US Counties	percent
Households with Cash Public Assistance Income		2.1	2006-2010	US Counties	percent
Students Eligible for the Free Lunch Program		45	2009	US Counties	percent
Other					
Single-Parent Households		35.5	2006-2010	US Counties	percent
Student-to-Teacher Ratio		15.4	2010-2011	US Counties	students/teacher
Public Safety					
Child Victims of Substantiated Abuse		527	2010	Prior Value	cases
Drug Arrest Rate		2085	2009	KY Counties	arrests/100,000 population
Violent Crime Rate		1.6	2009	KY Counties	crimes/1,000 population

4.5.9 Quality of Life: Economy, Poverty and Public Safety

Economy

Daviess County has a high percentage of poverty among children (22.3%) and families (10.9%), placing Daviess County between the bottom 50th and 25th percentile of the highest need counties in nation for these economic measures (2006-2010). African Americans families have especially high poverty rates, with 35.7% of families 55.5% of children living below the poverty level. There are a high percentage of single-parents households (35.5%, 2006-2010) and students eligible for free lunch program (45%, 2009). The average number of public school students per teacher (15.4 students/teacher) is higher compared to other counties in the nation (2010-2011).

Community Informants Insights

Insights on the Social Environment in Daviess

Lack of opportunity in the community was seen as a contributor to poor health. One community informant explained that because there are mostly low-paying services jobs and very little other opportunities in the community, this leads to frustration, depression, substance abuse, and hence prevents people from attending to their health needs and engaging in preventative care.

Another community informant suggested that a high drug arrest rate might also be an indicator of a community that is engaged and willing to report crimes and a law enforcement community that is aggressive in pursuing criminals.

Other community social concerns voiced included domestic violence and homelessness. Homelessness was partially attributed to substance abuse and an economic downturn in the community and believed to be more prominent in urban Owensboro. Domestic violence was partially attributed to substance abuse.

Public Safety

In the past few years, Daviess County experienced an increase in the number of child abuse cases. In 2010 there were 527 cases of confirmed abuse or neglect, over 100 more cases compare to 2008 (421 cases). Daviess County also has a higher drug arrest rate (2085 arrests/100,000 population) and violent crime rate (1.6 crimes/1,000 population) compared to other Kentucky counties (2009).

5. Community Resources

5.1 Daviess County Local Public Health System

During the Green River District Health Department MAPP Community Health Forum in Daviess County, participants identified resources that were part of the local public health system available to respond to the health needs in Daviess County. The list of resources by topic area can be found in Appendix 4.

5.2 Resources Highlighted During Key Community Informant Interviews

During the course of the key community informant interviews, participants were asked to highlight existing resources, services, and initiatives that addressed health needs in Daviess County. Below is a selection of the key informant identified resources that address high priority needs in Daviess County, sorted by topic area.

Access to Health Services

McAuley Clinic
The McAuley clinic is a free primary care clinic funded by Owensboro Health that provides care for chronic diseases, physicals, and referrals to specialists for residents of Owensboro and Daviess County.
819 East 9th Street Owensboro, KY 42303
(270) 926-6575

Kentucky Physicians Program (KPC)
KPC is a collaborative between Kentucky public and private providers that delivers free healthcare and prescription medication to eligible low-income individuals.
(270)-687-7278

Cancer

Kentucky Cancer Program
The Kentucky Cancer Program is a statewide program that seeks to increase cancer awareness, improve access to early detection and cancer screenings, and expand access to cancer care resources for Kentucky residents.
http://www.kycancerprogram.org/regional-offices/owensboro.html
(270) 683-2560

Diabetes, Exercise, Nutrition, & Weight

Owensboro Family YMCA

The Owensboro Family YMCA provides a fitness center, personal training and youth programs and is part of the national Pioneering Healthier Communities movement, a program that provides local residents with healthy foods and exercise guidance.
(270) 926-9622

Owensboro Health HealthPark Health & Fitness Center
The Owensboro Health HealthPark is a medically- based fitness center that provides integrated wellness services which includes fitness, personal training, nutrition counseling, aquatics, therapeutic and disease management programs for youth and adults, community education, health promotion and EAP/Outpatient services.
(270) 688-5433

H.L. Neblett Community Center
The H.L. Neblett Community Center provides after-school care, fitness programs, and career counseling for young residents of Daviess County.
(270) 685-3197

Mental Health, Mental Disorders, & Substance Abuse

RiverValley Behavioral Health & Affiliates
RiverValley Behavioral Health is the primary behavioral health provider in the Green River Region and offers counseling both in inpatient and outpatient facilities.
(270) 689-6500

Owensboro Regional Recovery
Owensboro Regional Recovery is a facility for men who are struggling with substance abuse and homelessness.
(270) 689-0905

Economy, Poverty

Boulware Mission, Inc.
The Boulware Mission provides housing, case management, and emergency supplies for homeless individuals and families in Daviess County.
(270) 683-8267

The resources mentioned above may not represent an inclusive or fully descriptive listing of all available resources in Daviess County; the provision of links to directories will provide the reader access to a greater listing of available resources. Please see the Owensboro-Daviess County Social Services Directory, 2012 for more information (see Section 5.3).

5.3 Owensboro-Daviess County Social Services Directory, 2012

The Owensboro-Daviess County Social Services Directory, 2012, an annual publication compiled by River Valley Behavioral Health Crisis and Information Line, provides a comprehensive list of health and quality of life resources available to Daviess County residents. The directory is organized by subject and contains entries for services and programs ranging from maternal and fetal care to job training.

Many of the resources listed in the directory are not available online, making the directory an invaluable reference for Daviess County residents. The full directory can be downloaded as a PDF at

http://odcdrugfree.org/_documents/Owensboro-Daviess_County_Social_Services_Directory.pdf or to purchase a directory you may call 1-800-433-7291 or 270-684-9466.

Additional resources for drug and alcohol abuse can be found in the Alliance for a Drug-Free Owensboro/Daviess County Resource Guide available at http://www.odcdrugfree.org.

5.4 Medicaid Approved Providers in Daviess County

Medicaid provides funding for medical and health-related services for individuals who are low-income, children, or have certain disabilities. Connecting individuals who are covered by Medicaid with enrolled providers is a key step in improving access to care for those who need it most. The list of providers is collected through the Centers for Medicare and Medicaid Services (CMS) Regional Office in Atlanta, GA. Please visit http://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/NonIdentifiableDataFiles/ProviderofServicesFile.html to obtain a list of providers that are enrolled as Medicaid providers in Daviess County.

6. Next Steps: Implementation Action Plan Development

Owensboro Health convened a group of community stakeholders and partners in 2010 when initial planning for a Community Health Needs Assessment (CHNA) began. Concurrently, the Green River District Health Department was planning their Mobilizing for Action through Planning and Partnerships (MAPP) process. Hospital and health department staff collectively began meeting to gain feedback on a collaborative process to not only meet all regulatory requirements but also to determine how to truly engage community partners throughout the assessment, implementation and evaluation processes. These community stakeholders have provided insight throughout the assessment process and continue to do so.

In addition, Owensboro Health has formed an internal implementation strategy team comprised of staff members across the organization including representatives of the following departments: Administration; Cancer Services; Cardiac Care; Respiratory care; Physician Recruiting; Community Health and Wellness; Behavioral Health; Nursing; Quality; Information Systems; Medical Staff; Finance; Strategic Planning; the HealthPark; Governmental, Community and Legislative Affairs; and Community Benefit. The Implementation Strategy Team's purpose is to develop an implementation strategy identifying; how the hospital will address priority health issues as determined by the CHNA; how the hospital plans to monitor the strategy's progress; and, recommendations on the direction of the strategy. The team will provide ongoing evaluation of the hospital's strategy as the next Community Health Needs Assessment is developed in 2016.

In addition to work being conducted internally as part of the hospital CHNA, Owensboro Health staff members are serving on, and in some cases, co-facilitating local health council's task forces formed from the Community Health Improvement Plan priorities developed as part of the MAPP. Work with these community stakeholders will continue.

With completion of the hospital's CHNA and the community MAPP process (which is incorporated into the hospital CHNA) the implementation strategy teams' work plan has now been developed.

Strategy One:
Identification and inventory of existing activities and programs addressing targeted indicators

The Owensboro Health CHNA Implementation strategy team will choose to address specific health indicators based on the findings from the community MAPP process and hospital CHNA. The team and staff will inventory all hospital activities, programs (including grants allocated to community organizations) and strategies presently used to address those priorities and make decisions on evidenced based best practices or those which are deemed promising practices to implement to address priority issues.

Strategy Two:
Identification of gaps in activities and programs addressing targeted indicators

Strategy Three:
Development of a written action plan for addressing targeting indicators
A written plan of action for the hospital implementation strategy will be developed with clear, measurable objectives and a method for evaluation. The plan will take into account successful existing programs as well as indicator areas that need activity and program development. This plan will be posted along with the CHNA on the hospital website. Owensboro Health will work to use

available resources within its abilities in addition to maintaining (and developing where needed) community partnerships to implement needed strategies to impact community health issues and prevent chronic disease.

Strategy Four:
Ongoing evaluation, development and refinement
While an evaluation of the plan will be conducted at the end of the first three year assessment period, we are committed to utilizing resources to maintain the Healthy Communities Institute Community Dashboard to monitor change throughout the process. The data contained within the dashboard (both for the health indicators and hospital inpatient and emergency room data) are updated as soon as data sources are updated with the hospital data updated annually. Any community reports that provide additional information will also be used to assist with implementation of the plan.

As we near the time for the next CHNA (completion due date May 31, 2016) we will be evaluating the hospital implementation plan and community strategies implemented for impact and strategy effectiveness.

Appendix 1: Indicators and Sources Used for Report

HEALTH							
Access to Health Services	**HP 2020**	**Daviess Value**	**Red Cutoff**	**Green Cutoff**	**Year**	**Comparison**	**Unit**
Adults with Health Insurance	100	82.8	75.3	81.1	2011	US Counties	percent
Children with Health Insurance	100	93.9	91	94.2	2011	US Counties	percent
Preventable Hospital Stays		72	94	75	2009	US Counties	discharges/1,000 Medicare enrollees
Primary Care Provider Rate		64	33	52	2009	US Counties	providers/100,000 population
Cancer Mortality							
Age-Adjusted Death Rate due to Breast Cancer	20.6	22.4	26.5	23.4	2005-2009	US Counties	deaths/100,000 females
Age-Adjusted Death Rate due to Cancer	160.6	203.6	206.2	189	2005-2009	US Counties	deaths/100,000 population
Age-Adjusted Death Rate due to Colorectal Cancer	14.5	14.1	20.9	17.9	2005-2009	US Counties	deaths/100,000 population
Age-Adjusted Death Rate due to Lung Cancer	45.5	74.6	66.6	57.3	2005-2009	US Counties	deaths/100,000 population
Age-Adjusted Death Rate due to Prostate Cancer	21.2	17	29.4	24.9	2005-2009	US Counties	deaths/100,000 males
Cancer Incidence							
All Cancer Incidence Rate		505	495.8	466	2005-2009	US Counties	cases/100,000 population
Breast Cancer Incidence Rate		121.3	128.1	116.7	2005-2009	US Counties	cases/100,000 females
Cervical Cancer Incidence Rate		7.1	10.2	8.6	2004-2008	US Counties	cases/100,000 females
Colorectal Cancer Incidence Rate	38.6	46.8	54.8	48.5	2005-2009	US Counties	cases/100,000 population
Lung and Bronchus Cancer Incidence Rate		106.5	85.4	74.6	2005-2009	US Counties	cases/100,000 population
Oral Cavity and Pharynx Cancer Incidence Rate		13.2	13.6	11.6	2005-2009	US Counties	cases/100,000 population
Prostate Cancer Incidence Rate		158.6	167.1	145.6	2005-2009	US Counties	cases/100,000 males
Cancer Screening							
Mammography Screening: Medicare Population		76	59.1	64.8	2009	US Counties	percent
County Health Rankings							
Clinical Care Ranking		10	90	60	2012	KY Counties	Rank
Health Behaviors Ranking		15	90	60	2012	KY Counties	Rank
Morbidity Ranking		22	90	60	2012	KY Counties	Rank
Mortality Ranking		25	90	60	2012	KY Counties	Rank
Physical Environment Ranking		100	90	60	2012	KY Counties	Rank
Social and Economic Factors Ranking		11	90	60	2012	KY Counties	Rank
Diabetes							
Adults with Diabetes		10.2	14.1	10.8	2008-2010	KY Counties	percent
Age-Adjusted Death Rate due to Diabetes		30.3	31.7	24.7	2007-2009	US Counties	deaths/100,000 population
Age-Adjusted ER Rate due to Diabetes		24.4	36.3	27.1	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted ER Rate due to Long-Term Complications of Diabetes		8.7	16.9	12.8	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted ER Rate due to Short-Term Complications of Diabetes		0.5	4.3	2.9	2008-2010	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted ER Rate due to Uncontrolled Diabetes		2.8	6.3	3.6	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Diabetes		16.1	28.6	20.5	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Long-Term Complications of Diabetes		8	14.3	9.4	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Short-Term Complications of Diabetes		4.9	10.2	7.4	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Uncontrolled Diabetes		3	6.4	3	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years

HEALTH							
Disabilities	**HP 2020**	**Daviess Value**	**Red Cutoff**	**Green Cutoff**	**Year**	**Comparison**	**Unit**
Adults with an Independent Living Difficulty		8.5~		5.8	2011	US Value	percent
Persons with a Cognitive Difficulty		5.9~		4.9	2011	US Value	percent
Persons with a Disability		14.7~		12.1	2011	US Value	percent
Persons with a Self-Care Difficulty		4.0~		2.7	2011	US Value	percent
Persons with an Ambulatory Difficulty		8.3~		6.9	2011	US Value	percent
Exercise, Nutrition, & Weight							
Adult Fruit and Vegetable Consumption		15.9	14.6	17.4	2005-2009	KY Counties	percent
Adults who are Obese	30.6	26.6	36.7	33.1	2008-2010	KY Counties	percent
Adults who are Overweight or Obese		64.7	73	69.1	2008-2010	KY Counties	percent
Adults who are Sedentary	32.6	24.8	37.5	34	2008-2010	KY Counties	percent
Low-Income Preschool Obesity		15.6	16.1	14	2008-2010	US Counties	percent
Heart Disease & Stroke							
Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke)	33.8	41.7	53.5	45.3	2007-2009	US Counties	deaths/100,000 population
Age-Adjusted Death Rate due to Coronary Heart Disease	100.8	105.9	160.6	133.7	2007-2009	US Counties	deaths/100,000 population
Age-Adjusted ER Rate due to Congestive Heart Failure		10.5	23.1	14.1	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Congestive Heart Failure		45.6	53	40.5	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years
Immunizations & Infectious Diseases							
Adults with Influenza Vaccination		37.6	32.6	38.2	2008-2010	KY Counties	percent
Age-Adjusted Death Rate due to Influenza and Pneumonia		21.8	23.1	18.2	2007-2009	US Counties	deaths/100,000 population
Age-Adjusted ER Rate due to Bacterial Pneumonia		28.4	50.7	36.7	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted ER Rate due to Hepatitis		0.6	3.4	1.7	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Bacterial Pneumonia		34.1	86.7	62	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Hepatitis		1.2	3.5	2.5	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years
Chlamydia Incidence Rate		337.9	265.5	182.3	2009	KY Counties	cases/100,000 population
Immunization Status of 19 to 35-Month-Old Children	80	87.4	77.1	80.8	2007	KY Counties	percent
Tuberculosis Cases		4			2009-2011	Prior Value	cases
Maternal, Fetal & Infant Health/ Family Planning							
Babies with Low Birth Weight	7.8	8.6	10.1	9.1	2003-2007	KY Counties	percent
Infant Mortality Rate	6	6.5	8.3	6.8	2003-2007	KY Counties	deaths/1,000 live births
Mothers who Received Adequate Prenatal Care		93	82	86	2007	KY Counties	percent
Mothers who Smoked During Pregnancy	1.4	26	38	32	2006	KY Counties	percent
Teen Birth Rate		54.9	67.4	55.8	2003-2007	KY Counties	live births/1,000 females aged 15-19
Mental Health & Mental Disorders							
Age-Adjusted Death Rate due to Suicide	10.2	17.5	16.4	13.3	2007-2009	US Counties	deaths/100,000 population
Older Adults & Aging							
Age-Adjusted Death Rate due to Alzheimer's Disease		41.2	35.1	27.9	2007-2009	US Counties	deaths/100,000 population
People 65+ Living Alone		31.6	30.9	28	2006-2010	US Counties	percent
Oral Health							
Adults with Major Tooth Loss		19.2	34.7	28.8	2006-2010	KY Counties	percent
Dentist Rate		58	19	30	2007	US Counties	dentists/100,000 population

HEALTH

Prevention & Safety	HP 2020	Daviess Value	Red Cutoff	Green Cutoff	Year	Comparison	Unit
Age-Adjusted Death Rate due to Unintentional Injuries	36	47.9	63.1	49.6	2007-2009	US Counties	deaths/100,000 population
Respiratory Diseases							
Adults with Asthma		14.8	18.2	15.1	2008-2010	KY Counties	percent
Age-Adjusted ER Rate due to Adult Asthma		49.2	38.5	29.4	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted ER Rate due to Asthma		49.5	47.5	38	2009-2011	KY Counties	ER visits/10,000 population
Age-Adjusted ER Rate due to COPD		64	82.4	52.4	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Adult Asthma		9.9	17	11.3	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Asthma		11.3	18.3	12.5	2009-2011	KY Counties	hospitalizations/10,000 population
Age-Adjusted Hospitalization Rate due to COPD		29.7	84.3	55.6	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years
Substance Abuse							
Adults who Binge Drink	24.3	15.2	13.2	9.6	2008-2010	KY Counties	percent
Adults who Smoke	12	24	31.4	26.6	2008-2010	KY Counties	percent
Age-Adjusted ER Rate due to Alcohol Abuse		35.2	22.2	15.3	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Alcohol Abuse		14	9.3	6.4	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years
Wellness & Lifestyle/Other							
Self-Reported General Health Assessment: Poor or Fair		17.4	31	25.7	2008-2010	KY Counties	percent
Age-Adjusted ER Rate due to Dehydration		17.6	27.3	19.6	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted ER Rate due to Urinary Tract Infections		101.3	186.4	148	2009-2011	KY Counties	ER visits/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Dehydration		8.8	20.5	12.8	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years
Age-Adjusted Hospitalization Rate due to Urinary Tract Infections		14.6	37.5	27.6	2009-2011	KY Counties	hospitalizations/10,000 population 18+ years

QUALITY OF LIFE

Economy: Poverty	HP 2020	Daviess Value	Red Cutoff	Green Cutoff	Year	Comparison	Unit
Children Living Below Poverty Level		22.3	26.8	20.4	2006-2010	US Counties	percent
Families Living Below Poverty Level		10.9	14.1	10.4	2006-2010	US Counties	percent
Households with Cash Public Assistance Income		2.1	2.9	2	2006-2010	US Counties	percent
Median Household Income		42821	36948	42445	2006-2010	US Counties	dollars
Low-Income Persons who are SNAP Participants		43.5	21.9	31.5	2007	US Counties	percent
People 65+ Living Below Poverty Level		9.5	13.6	10	2006-2010	US Counties	percent
People Living 200% Above Poverty Level		66.2	56.5	63.4	2006-2010	US Counties	percent
People Living Below Poverty Level		14.6	19	14.7	2006-2010	US Counties	percent
Students Eligible for the Free Lunch Program		45	50.7	39.9	2009	US Counties	percent
Per Capita Income		22064	18786	21512	2006-2010	US Counties	dollars
Unemployed Workers in Civilian Labor Force		6.5	7.5	9.2	Sep-12	US Counties	percent
Economy: Housing							
Renters Spending 30% or More of Household Income on Rent		42.3	51.2	46	2006-2010	US Counties	percent
Foreclosure Rate		3.4	6.2	4.8	2008	US Counties	percent
Homeownership		63.2	55.8	61.5	2006-2010	US Counties	percent

QUALITY OF LIFE

Education	HP 2020	Daviess Value	Red Cutoff	Green Cutoff	Year	Comparison	Unit
4th Grade Students Proficient in Math		79~		74.7	2010-2011	KY State	percent
4th Grade Students Proficient in Reading		84.4~		73.5	2010-2011	KY State	percent
8th Grade Students Proficient in Math		63~		59.7	2010-2011	KY State	percent
8th Grade Students Proficient in Reading		78~		71.4	2010-2011	KY State	percent
Student-to-Teacher Ratio		15.4	16	14.5	2010-2011	US Counties	students/teacher
People 25+ with a Bachelor's Degree or Higher		18.2	13.1	16.9	2006-2010	US Counties	percent
High School Graduation	82.4	84.6~		76.7	2010-2011	KY State	percent
Environment							
Annual Ozone Air Quality		2	3	2	2008-2010	Rank	
Annual Particle Pollution		1	3	2	2008-2010	Rank	
Recognized Carcinogens Released into Air		61797			2010	US Counties	pounds
PBT Released		12651			2010	Prior Value	pounds
Public Safety							
Child Victims of Substantiated Abuse		527			2010	Prior Value	cases
Age-Adjusted Death Rate due to Motor Vehicle Collisions	12.4	11.8	25.1	17.4	2007-2009	US Counties	deaths/100,000 population
Drug Arrest Rate		2085	1769.9	1325.8	2009	KY Counties	arrests/100,000 population
Violent Crime Rate		1.6	1.9	1.3	2009	KY Counties	crimes/1,000 population
Social Environment							
Single-Parent Households		35.5	35.8	29.5	2006-2010	US Counties	percent
Voter Turnout		68.1	54	61.3	2008	KY Counties	percent
Transportation & Built Environment							
Built Environment							
Farmers Market Density		0.01~		0.02	2011	US Median Value	markets/1,000 population
Fast Food Restaurant Density		0.78	0.71	0.57	2009	US Counties	restaurants/1,000 population
Grocery Store Density		0.15	0.15	0.21	2009	US Counties	stores/1,000 population
Liquor Store Density		12.4	17.6	10.4	2010	US Counties	stores/100,000 population
Low-Income and >1 Mile from a Grocery Store		9.4	30.7	22.4	2006	US Counties	percent
Recreation and Fitness Facilities		0.09~		0.07	2009	US Median Value	facilities/1,000 population
SNAP Certified Stores		1.1	0.7	0.9	2010	US Counties	stores/1,000 population
Transportation							
Workers Commuting by Public Transportation	5.5	0.3	0.1	0.3	2006-2010	US Counties	percent
Households without a Vehicle		7.4	7.6	5.7	2006-2010	US Counties	percent
Workers who Walk to Work	3.1	1.5	1.5	2.6	2006-2010	US Counties	percent

Sources Used	Most Recent Year	URL
American Community Survey	2011	http://www.census.gov/acs/www/
American Community Survey- 5 Year Estimates	2006-2010	http://www.census.gov/acs/www/
American Lung Association	2008-2010	http://www.lungusa.org/
Annie E. Casey Foundation	2010	http://datacenter.kidscount.org/
Centers for Disease Control and Prevention	2007-2009	http://www.cdc.gov/
County Health Rankings	2012	http://www.countyhealthrankings.org/
Kentucky Cabinet for Health and Family Services	2009-2011	http://chfs.ky.gov
Kentucky Department of Education	2010-2011	http://www.education.ky.gov/KDE/
Kentucky Health Facts	2008-2010	http://www.kentuckyhealthfacts.org
Kentucky Hospital Association Data and Information Services	2009-2011	http://www.kyha.com
Kentucky Justice and Public Safety Cabinet	2009	http://justice.ky.gov/default.htm
Kentucky State Board of Elections	2008	http://www.elect.ky.gov/
National Cancer Institute	2005-2009	http://www.cancer.gov
National Center for Education Statistics	2010-2011	http://nces.ed.gov/
The Nielsen Company (US), LLC Pop-Facts	2012	http://www.omhs.org/community-wellness/health-needs-assessment/?hcn=Indicators
U.S. Bureau of Labor Statistics	Sep-12	http://www.bls.gov/
U.S. Census - County Business Patterns	2010	http://www.census.gov/econ/cbp/index.html
U.S. Department of Agriculture - Food Environment Atlas	2011	http://www.ers.usda.gov/FoodAtlas/
U.S. Department of Housing and Urban Development	2008	http://www.huduser.org/portal/
U.S. Environmental Protection Agency	2010	http://www.epa.gov/

www.omhs.org/healthassessment
retrieved 11/26/2012

KEY

Rankings- Value is in:	Notes:
Bottom 25% of KY or US Counties	**Met Healthy People 2020 goal**, **Did Not Meet Healthy People 2020 goal**
Between 25%-50% of Bottom KY or US Counties	~ Daviess value is compared to the KY state value, US value or the median value of US counties, not a distribution of counties.
Top 50%-100% of KY or US Counties	

Appendix 2: HCI Provided Data

About HCI Provided Data

Healthy Communities Institute (HCI) provides demographic and secondary data on health, health determinants, and quality of life topics. Data is typically presented in comparison to the distribution of counties, state average, national average, or Healthy People 2020 targets. Data is primarily derived from state and national public health sources. HCI also provides a database of promising practices from a variety of sources, including the Centers for Disease Control and Prevention.

All of the HCI content is presented in a public web platform that also serves as a publishing tool for components of Community Health Needs Assessments.

Framework for Indicator/Data and Topic Selection

The framework for indicator selection within the Health category is based on the Department of Health and Human Services (DHHS) Healthy People initiative. Healthy People establishes science-based national objectives for improving the health of the nation. The initiative establishes benchmarks every ten years and tracks progress toward these achievable goals. This framework encourages collaboration across sectors and allows communities to track important health and quality of life indicators focusing on general health status, health-related quality of life and well-being, determinants of health and disparities

The Health subcategories are based on the Healthy People framework, and multiple indicators across the health sub-topics that correspond with Healthy People targets have been chosen (based on data availability, reliability and validity from the source).

Hospital utilization indicators are based on the Agency for Healthcare Research and Quality (AHRQ)'s Prevention Quality Indicators (PQIs), which are a set of definitions for preventable causes of admission. These measures can be used with hospital inpatient discharge data to identify quality of care for "ambulatory care sensitive conditions." These indicators are important for communities to identify where prevention needs to be focused and can help lead to evidence-based community benefit planning. Ambulatory care sensitive conditions are also tracked by Healthy People.

Indicators in the other categories were selected according to national consensus and feedback from a wide set of advisors, public health officials, health departments, and local stakeholders from various sectors in the community. For example, the education indicators are based on the National Center for Health Research and Statistics and United Way of America, and the standards and goals they set forth to help track educational attainment in the U.S. Economic indicators were selected in conjunction with economic development and chamber of commerce input. All of the selected indicators have gone through a vetting process where HCI's advisory board, as well as stakeholders in communities who have implemented HCI systems, provide feedback to refine the core indicators in order to best reflect local priorities.

The indicator selection process evolves over time with changing health priorities, new research models and national benchmarks. HCI continues to incorporate models and standards from nationally recognized institutions such HHS's Healthy People, AHRQ's PQI's, EPA Air Quality standards, National Center for Education Research and Statistics' priorities, United Way, and United States Department of Agriculture's Food Atlas, among many others.

Health and Quality of Life Topic Areas included in Owensboro Health's HCI-CHNA System

Health	Quality of Life
Access to Health Services Cancer Diabetes Disabilities Exercise, Nutrition, & Weight Food Safety Heart Disease & Stroke Immunization & Infectious Diseases Maternal, Fetal & Infant Health/Family Planning Mental Health & Mental Disorders Older Adults & Aging Oral Health Prevention & Safety Respiratory Diseases Substance Abuse Wellness & Lifestyle/Other	Economy: Poverty Economy: Housing Education Environment Social Environment Public Safety Transportation & Built Environment

Appendix 3: Selected Community Informants & Interview Guide

Community Informants

The individuals below were selected by Owensboro Health to speak on behalf of the community's interest. The insights provided are **opinions** about their observations of community health needs of Daviess County residents, and thus should be interpreted as such.

Community Key Informants

Name	Title	Organization/Affiliation	Topic Area
Mary Danhauer, ARNP	Nurse Practitioner	McAuley Clinic	Access to Health Services, Uninsured
Bonnie Roberts	Director of Cancer Services	Owensboro Medical Health System	Cancer
Mike Flaherty	Counselor and President of Owensboro Suicide Prevention Coalition	Owensboro Suicide Prevention Coalition	Mental Health/Suicide Prevention
Vivian McNatton	Associate Director for Social Services	Green River ADD	Older Adults & Aging
Deborah Fillman, MS, RD, LD, CDE	Public Health Director	Green River District Health Department	Public Health, Access to Health Services
Keith Cain	Sheriff	Daviess County Sheriff's Department	Public Safety
Angela Flener, APRN	Nurse Practitioner	Pennyrile Pulmonary Critical Care	Respiratory Diseases
Greg Black	Director	H.L. Neblett Center	Social Environment
Ronsonlyn S. Clark, PsyD, NCC, MAC, ICADC, CADC, CCGC	Senior Director for Substance Abuse Services	River Valley Behavioral Health	Substance Abuse

Primary Data Collection Interview Guide

Interviewer:
Hello, thank you so much for taking the time to speak with me today. My name is [insert interviewer name] and I'm joined by [insert note-taker name] who will be taking notes today. I'm/we are with Healthy Communities Institute, our organization is helping Owensboro Health conduct a Community Health Needs Assessment. As you probably read in the email, you've been selected to participate in this interview because the hospital staff felt that you were an individual who represents the community's interest and could provide some valuable insights into the community's health needs.

Before we get started, I want to be sure I let you know that although I'll be taking notes on your responses, your name will not be associated with any direct quotes. We will, however, list your name at the end of the document (CHNA report) as a participant in the interviews. If there's anything you'd like to say that you'd like to be off the record, please let me know. Also, please keep in mind that for the purposes of this assessment we'll be focusing on the health needs of Daviess County residents. Do you have any questions before we begin?

List of Questions:

- Q1: Please tell me a little bit about yourself, your background, and your organization.
- Q2: What are the major health issues you see in the community, specifically in Daviess County?

- Q3: In your opinion, are there health issues in Daviess County that are especially prominent among low income, underserved/uninsured persons?
- Q4: Are there health issues that are especially prominent among minority groups?
- Q5: You were selected for this interview because of your expertise [insert topic area]. We've taken a look at the secondary data in these areas and would like to get your feedback on our findings. [Insert secondary data findings]
- Q6: Could you tell me about some of the resources/services/initiatives/programs that address some of these needs in Daviess County?
- Q7: What advice do you have for a group developing a community health improvement plan to address these needs?
- Q8: Is there anything else you'd like us to note?

Appendix 4: Daviess County Local Public Health System

Resources By Topic	
Access to Care	**Obesity/Physical Fitness**
Audubon Area Community Services	Audubon Area Head Start
Audubon Area Head Start	Bicycle Owensboro
Care Net	Boys & Girls Club
Community Dental Clinic	Daviess County Extension Office
Daviess County Public Schools	Daviess County Parks/City Parks and Recreation
Daviess County Senior Services	Daviess County Public Schools
GRADD	GRADD
GRDHD	GRDHD
DC-CAP	Greater Owensboro Economic Development Center
H.L. Neblett Center	H.L. Neblett Center
Hager Foundation	Healthy Horizons
KCP	OMHS
Lions club	YMCA
Mathew 25	
McAuley Clinic	
Munday Center	
OCTC	
OMHS/Health Park	
Pro-care Home Health	
Public Life Foundation	
Susan G. Komen	
U of L Nursing Program	
UK Dental Program	
United Way	
Wellcare	
Wendall Foster Center	
West AHEC	
Women's Pavilion	
Mental Health/Substance Abuse	**Diabetes**
Daviess County Public Schools	DCDC
Girl Incorporated	GRDHD
River Valley Behavioral Health	Healthy Horizons
Wendall Foster	OMHS
	Wellcare

Appendix 5: About the Authors

Yelena Nedelko Meisel, MPH
Director of Consulting Services, Healthy Communities Institute
Served as Research Manager and principal author of Community Health Needs Assessment.

As Director of Consulting Services, Yelena Nedelko Meisel provides public health expertise to clients as well as to the research, technology, client services, and business development teams at Healthy Communities Institute. Ms. Meisel previously served as Manager of Research, overseeing the daily operations of the research department and working closely with hospitals and other health organizations to identify community health data and build dashboards of health and quality of life indicators customized for each community.

Prior to joining Healthy Communities Institute, Ms. Meisel worked in mental health, education, and legal advocacy and aided several nonprofits with planning, implementation and evaluation. Her multi-disciplinary background has given her the skills and expertise needed to work effectively with clients to build customized web-based data tools, conduct community health needs assessments, and provide technical assistance to individuals looking to improve community health. Ms. Meisel holds a Bachelor of Arts degree in Psychology from Loyola Marymount University in Los Angeles, California, and a Master of Public Health degree from University of California, Los Angeles.

Will Douglas
Manager of Client Services, Healthy Communities Institute
Served as Project Manager and contributing author of Community Health Needs Assessment.

As Manager of Client Services, Will Douglas oversees the implementation and utilization of Healthy Communities Institute's products with a diverse group of clients, representing hospitals, public health agencies, and community coalitions from around the country. He has worked with different communities to develop a framework for the identification of community needs and assets through the collection and analysis of primary and secondary data.

Mr. Douglas has more than five years of experience with meeting facilitation, group collaboration, and strategic communications, and has worked in a variety of sectors including public health, information technology, regional planning, and emergency management. He received a Bachelor of Arts in International Relations from University of California, Davis. He has also studied at Lund University in Sweden, and University of Barcelona in Spain.

Aaron Scheffler
Researcher, Healthy Communities Institute
Served as contributing Researcher and author of Community Health Needs Assessment.

As a Researcher at the Healthy Communities Institute, Aaron Scheffler develops and maintains data for client websites as well as providing research support to the client services and consulting services teams. Mr. Scheffler holds a Bachelor of the Arts degree in Biochemistry from Columbia University.