



COMMUNITY HEALTH NEEDS ASSESSMENT

2017

Wayne County Hospital

166 Hospital St.
Monticello, KY 42633
(606)348-9343

www.waynehospital.org

This Community Health Needs Assessment (CHNA) Implementation Strategy was prepared for Wayne County Hospital by the Community and Economic Development Initiative of Kentucky (CEDIK) at the University of Kentucky.

CEDIK works with stakeholders to build engaged communities and vibrant economies. If you have questions about the assessment process, contact CEDIK:

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To the Residents of Wayne County,

Welcome to Wayne County Hospital!

I encourage you to review our 2017 Community Health Needs Assessment. The staff and I are honored to have the privilege of providing for your healthcare needs, and our goal is to make you as comfortable as possible when using our services.

Our mission is to provide quality healthcare with a personal touch, and I think you will be pleasantly surprised at the number and type of services that we offer in a community focused setting. At Wayne County Hospital you may have family or close friends in the community providing your care, and I think you will find that this is most comforting in a time of need.

I would encourage you, your family and your friends to read the information about this Community Health Needs Assessment. I would also encourage you to read the section regarding your rights as a patient while in our hospital. Should you feel that your needs are not being met when utilizing our services, please do not hesitate to speak with the Chief Nursing Officer or with me. The Chief Nursing Officer may be reached at 1-606-340-3218. The hospital staff will contact her for you after hours, or I may be reached by phone directly at 1-606-340-3283. We want to ensure that your needs are met in the most effective and efficient way possible, and look forward to helping you meet your health needs.



Sincerely,

Joe Murrell, MHA, FACHE
Chief Executive Officer

Introduction

Wayne County Hospital is a 25-bed Critical Access Hospital in Monticello, Kentucky. It is located just 20 minutes south of Somerset, Kentucky and about 8 miles from the shores of Lake Cumberland. Wayne County Hospital serves a five county region including residents of Wayne County, southern Pulaski County, McCreary County and Clinton County along the Commonwealth's southern border with Tennessee.

The hospital was built in 1971 and redesigned in 1996 to add 8,630 square feet, to expand the Emergency Department and Surgical Site. In 2003, a renovation and expansion project was completed to the patient wing, physical therapy, and rural health clinic. A conference room and new emergency department was also added.

Wayne County Hospital is fully accredited by the Healthcare Facilities Accreditation Program (HFAP). Wayne County Hospital has a College of American Pathology (CAP) approved laboratory, American College of Radiology (ACR) accredited mammography, wound care and the only pediatric speech therapist in the area.

Mission

The primary mission of Wayne County Hospital is to provide the patient and the community a system for the delivery of high quality healthcare regardless of economic status, sex, race or religion.

Wayne County Hospital will maintain high standards of quality in all aspects of care, and will strive to meet the patients' needs promptly and professionally with a friendly, caring attitude, and a personal approach in a safe environment.

Vision

Our vision is to strive to meet and exceed customer needs and be the healthcare provider of choice for Wayne County and surrounding area, in a safe environment.

Wayne County Hospital

- Rural Health Clinic
- Emergency Department
- Radiology
- Laboratory
- Surgery
- Physical therapy
- Occupational therapy
- Speech therapy
- Pharmacy
- Dietary services
- Swing Bed Program
- Health Information Management
- Insurance & Billing
- Environmental Services
- Wound care

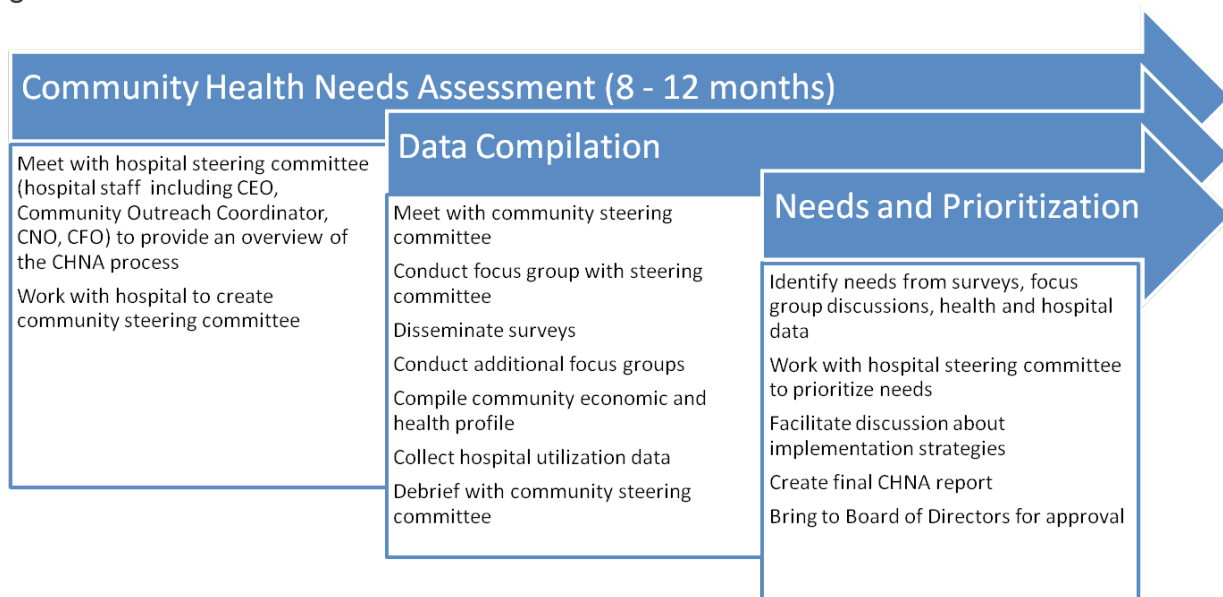


CHNA Background

Wayne County Hospital contracted with the Community and Economic Development Initiative of Kentucky (CEDIK) in the spring of 2016 to conduct a Community Health Needs Assessment (CHNA) in accordance with the Affordable Care Act (ACA). The Affordable Care Act (ACA), enacted March 23, 2010, added new requirements that hospital organizations must satisfy in order to be described in section 501(c)(3), as well as new reporting and excise taxes.

The IRS requires hospital organizations to complete a CHNA and adopt an implementation strategy at least once every three years. This CHNA was the second prepared by CEDIK for this organization; the first was completed in 2013.

Here is an overview of the CHNA process that CEDIK uses based on the IRS guidelines:



2013 COMMUNITY HEALTH NEEDS ASSESSMENT IMPLEMENTATION SUCCESS



**INCREASED
EDUCATIONAL
PROGRAMS
AND FREE
SCREENINGS**

**INCREASED
ACCESS TO
SPECIALISTS**

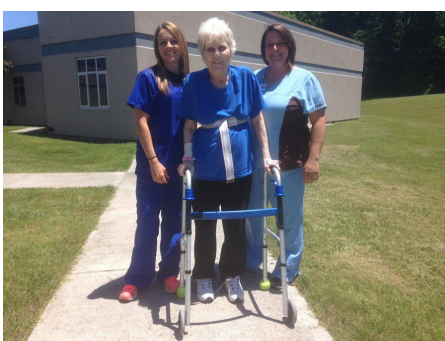
**INCREASED
PATIENT
EDUCATION
AND
FOLLOW-UP**

WAYNE COUNTY HOSPITAL

We are proud of the success our community hospital has accomplished since the 2013 CHNA conversations. We continued our popular Nutritional Fair, stop smoking classes, reduced cost mammography screenings, and men's health advertisements over Father's Day. We have added sleep study services and are exploring a cardiac rehabilitation program.

We have collaborated closely with community providers to streamline hospital admission and discharge processes. Each patient leaves our hospital with an Exit Care Packet with discharge summary, medication reconciliation and education sheets. Follow-up phone calls are made for inpatient, swing bed, and emergency department patients.

We're continuing to build on our successes and will always strive to be the chosen healthcare provide for Wayne County and the surrounding area.



www.waynehospital.org



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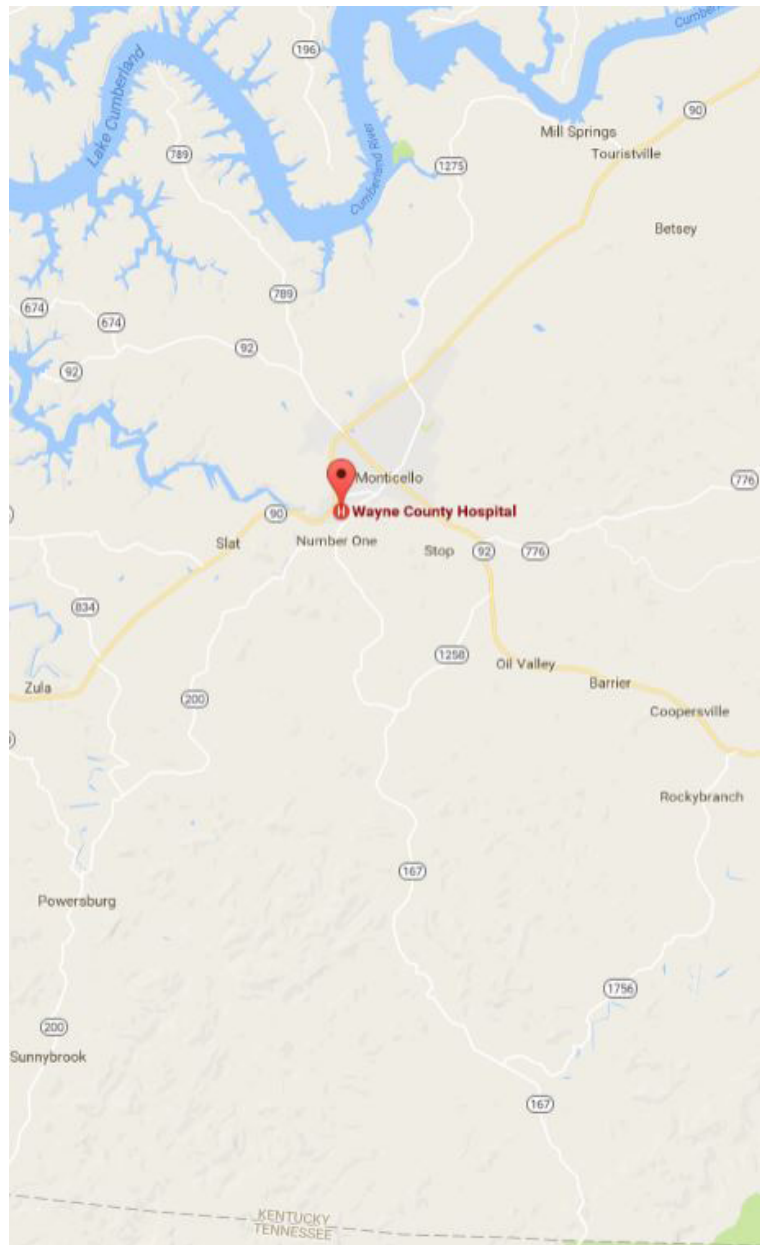
A Portrait of the Community Served by Wayne County Hospital

The city of Monticello, the county seat, is home to Wayne County Hospital. The county is nestled both in the Mississippian plateau and the Eastern Kentucky coal fields and shares its southern border with the Tennessee state line. Lake Cumberland defines the northern section of the county.

In 2010, Monticello hosted a population of 6,188 while Wayne County supported 20,813 persons. The Census Bureau estimates the 2016 Monticello population within 100 persons of the last national population count.

Farm operations account for 44% of the land use in Wayne Co. Most residents in the county hold jobs in production facilities or list their occupation as office and administrative support staff. Personal Care and Service was the fastest growing occupation in Wayne County showing a 20% growth from 2007-2012.

Lake Cumberland, Kentucky's largest body of water, provides natural areas for boating, camping, fishing, hiking and other outdoor activities.



Map created with Google Maps, 2017

Assessment Process

The assessment process included collecting secondary data related to the health of the community. Social and economic data as well as health outcomes data were collected from secondary sources to help provide context for the community (see below). In addition, CEDIK compiled hospital utilization data to better understand who was using the facility and for what services (next section). Finally, with the assistance of the Community Steering Committee, input from the community was collected through focus group discussions and surveys (see appendix for summary). First we present the demographic, social, economic and health outcomes data that were compiled through secondary sources. These data that follow were retrieved from County Health Rankings, August 2016. For data sources see appendix.

Demographics

Indicator (2014)	Wayne County	Kentucky	National Level
Total Population	20,486	4,413,457	311,536,594
Percent of Population under 18 years	21.5%	22.9%	23.7%
Percent of Population 65 year and older	18.1%	14.8%	13.4%
Percent of Population Non-Hispanic White	94%	85.4%	74.0%
Percent of Population Non-Hispanic African American	1.6%	8.0%	12.6%
Percent of Population Hispanic	2.7%	3.4%	16.6%
Percent of Population other Race	1.7%	1.8%	5.9%
Percent of the Population not Proficient in English*	0.9%	1.0%	n/a
Percent of the Population that are Female	50.5%	50.8%	50.8%
Percent of the Population that are Rural**	67.7%	41.6%	n/a

**2010-2014 5 year estimate*

***2010 Estimate*

Social and Economic Factors

	Indicator	Wayne County	Kentucky	National Benchmark*
	Median Household Income	\$30,619	\$42,914	\$52,250
	High School Graduation Rate	88	88	81
	Percent of Population with Some College Education	35.7%	58.6%	n/a
	Unemployment Rate	9.9%	6.5%	7.4%
	Percent of Children in Poverty	38%	25.9%	22.2%
	Percent of Children Eligible for Free Lunch	63%	48.0%	48.1%
	Percent of Children Living in a Single Parent Household	30%	34.4%	n/a
	Violent Crime Rate (per 100,000 population)	91	235	404.5

Health Behaviors

	Indicator	Wayne County	Kentucky	National Benchmark*
	Percent of Adults who Smoke Regularly	25%	26.2%	19.3%
	Percent of Adults who are Obese (BMI≥30)	35%	32.3%	27.4%
	Percent of Adults who are Physically Inactive During Leisure Time	35%	28.6%	25.4%
	Percent of Adults who Drink Excessively (Heavy or Binge)	10%	13.6%	n/a
	Motor Vehicle Crash Deaths (per 100,000 population)	20	18	n/a
	STDs: Chlamydia Rate (per 100,000 population)	202	391	456.1
	Teen Birth Rate (per 1,000 females ages 15-19)	74	47	26.5

**National Benchmarks indicate the 90th percentile at the national level. "N/a" denotes where national benchmarks were not made available by County Health Rankings.*

Health Outcomes

Indicator	Wayne County	Kentucky	National Benchmark*
Premature Death (Years of Potential Life Lost per 100,000 population)	8981	8,831	n/a
Percent of Adults Reporting Poor or Fair Health	26%	23.6%	15.9%
Average Poor Physical Health Days in Past 30 Days	5.4	5.0	3.6
Average Poor Mental Health Days in Past 30 Days	4.6	4.6	3.5
Percent of Babies Born with Low Birth-weight (<2500 grams)	8%	9.0%	8.0%
Percent of Adults with Diabetes	15%	11.9%	20.6%
HIV Prevalence Rate (per 100,000 population)	28	154	447.8
Premature Age-Adjusted Mortality	455	443	n/a
Child Mortality (per 100,000 population)	70	58.6	n/a
Infant Mortality (per 100,000 population)	n/a	6.9	n/a

Access to Care

Indicator	Wayne County	Kentucky
Percent Uninsured (< age 65 without health insurance)	20%	16.8%
Percent of Uninsured Adults	25%	20.8%
Percent of Uninsured Children	7%	6.5%
Ratio of Population to Primary Care Physicians	1477:1	1499:1
Ratio of Population to Dentists	3414:1	1615:1
Ratio of Population to Mental Health Providers	1463:1	560:1
Percent of Adults Reporting that They Could Not See a Doctor Due to Cost	n/a	16.9%
Rate of Preventable Hospital Stays (per 1,000 Medicare Enrollees)	107	85
Percent of Diabetics that Receive HbA1c Screening	85%	85.6%
Percent of Women Receiving Mammography Screening	52.0%	58.0%

Hospital Utilization Data

The Tables below provide an overview of Wayne County Hospital patients and in particular where they come from, how they pay, and why they visited.

Table: Hospital Inpatient Discharges, 1/1/14-12/31/14

	City of Origin	Discharges	Total Charges	Average Charges
	Wayne - KY	460	\$2,756,938.62	\$5,993.34
	Clinton - KY	19	\$111,502.11	\$5,868.53
	Pulaski - KY	12	\$40,176.35	\$3,348.03
	McCreary - KY	7	\$34,405.45	\$4,915.06

Table: Hospital Inpatient Payer Mix, 1/1/14-12/31/14

Payer	Discharges	Total Charges	Average Charges
Medicare (Excluding Medicare Managed Care)	258	\$1,489,659.18	\$5,773.87
Medicare Managed Care	70	\$432,095.06	\$6,172.79
Commercial - Other	63	\$338,437.79	\$5,372.03
Coventry Cares of KY Medicaid Managed Care	40	\$215,790.01	\$5,394.75
WellCare of Kentucky Medicaid Managed Care	24	\$120,711.54	\$5,029.65
Blue Cross Blue Shield	22	\$209,820.36	\$9,537.29
Passport Medicaid Managed Care	6	\$22,382.79	\$3,730.47
BCBS Medicaid Managed Care	4	\$10,245.96	\$2,561.49
Humana Medicaid Managed Care	4	\$33,919.67	\$8,479.92
In State Medicaid	4	\$32,051.55	\$8,012.89
Self Pay	3	\$9,343.84	\$3,114.61

Table: Hospital Outpatient Discharges, 1/1/14-12/31/14

County of Origin	Discharges	Total Charges	Average Charges
Wayne - KY	17,397	\$14,575,090.20	\$837.79
Pulaski - KY	606	\$647,826.50	\$1,069.02
McCreary - KY	489	\$399,520.52	\$817.02
Clinton - KY	456	\$541,700.06	\$1,187.94
Cumberland - KY	20	\$11,364.28	\$568.21
Russell - KY	17	\$21,594.48	\$1,270.26
Fayette - KY	14	\$10,396.24	\$742.59
Scott - TN	11	\$9,060.27	\$823.66
Hamilton - OH	11	\$5,711.30	\$519.21
Putnam - TN	10	\$4,210.80	\$421.08

Table: Hospital Outpatient Payer Mix, 1/1/14-12/31/14

Payer	Discharges	Total Charges	Average Charges
Medicare (Excluding Medicare Managed Care)	5,086	\$5,454,442.72	\$1,072.44
Coventry Cares of KY Medicaid Managed Care	4,131	\$2,668,286.26	\$645.92
WellCare of Kentucky Medicaid Managed Care	2,230	\$1,496,546.44	\$671.10
Blue Cross Blue Shield	2,077	\$1,811,346.14	\$872.10
Commercial - Other	1,860	\$1,659,830.61	\$892.38
Medicare Managed Care	1,399	\$1,507,397.20	\$1,077.48
Self Pay	897	\$549,514.58	\$612.61
Passport Medicaid Managed Care	391	\$287,908.46	\$736.34
Humana Medicaid Managed Care	321	\$221,577.09	\$690.27
BCBS Medicaid Managed Care	242	\$182,860.64	\$755.62
In State Medicaid	190	\$143,662.19	\$756.12

Table: Hospital Inpatient Diagnosis Related Group, 1/1/14-12/31/14

DRG Description (Top 10 for inpatient visits)	Discharges	Total Charges	Average Charges
Medicine - Pulmonary	195	\$1,238,102.07	\$6,349.24
Medicine - General	162	\$827,053.64	\$5,105.27
Medicine - Nephrology/Urology	46	\$220,138.15	\$4,785.61
Medicine - Cardiovascular Disease	33	\$184,874.17	\$5,602.25
Medical - Oncology	21	\$112,602.18	\$5,362.01
Surgery - General	14	\$163,085.31	\$11,648.95
Medicine - Neuro sciences	9	\$72,286.91	\$8,031.88
Surgery - Cardiovascular & Thoracic	7	\$52,994.19	\$7,570.60
Medicine - Orthopedics	7	\$44,956.70	\$6,422.39
Medicine - Otolaryngology	3	\$11,118.80	\$3,706.27

The Community Steering Committee

The Community Steering Committee is a vital part to the CHNA process.

These individuals represent organizations and agencies from the service area and in particular, the individuals who were willing to volunteer enabled the hospital to get input from populations that were often not engaged in conversations about their health needs. CEDIK provided a list of potential agencies and organizations that would facilitate broad input.

The Community Steering Committee met twice as a group and each time a hospital representative welcomed and thanked the individuals for assisting in the process and then excused themselves if focus group discussion was being conducted. CEDIK asked that hospital representatives not be present during any focus group discussions or debriefing with the Community Steering Committee.

Wayne County Hospital Community Steering Committee

Name	Organization
Mike Anderson	Wayne County Judge Executive
Jeffrey Edwards	Wayne County Mayor
Joe Tipton	First Christian Church Monticello
Tracy Aaron	Lake Cumberland District Health Department
Jamie Reagan	Monticello Banking Company
Gaye Hutchinson	University of Kentucky - Wayne County Cooperative Extension
Jodi Paver	University of Kentucky - Wayne County Cooperative Extension
T.J. Morgan	Kentucky Farm Bureau
Wayne Roberts	Wayne County Schools
Stephanie Sourthard	Wayne County Hospital Rural Health Clinic
Missy Jones	Adanta Behavioral Health System
Charles Peters	Monticello Chamber of Commerce
Tracy Patton	Protection and Permanency
Sherwin "Bubby" Corder	Wayne County EMS

Community Feedback

A total of thirty-four community members volunteered their time and ideas at three different focus group conversations in the spring of 2017. The meetings were conducted in Wayne County Hospital service area communities as separate meetings or in conjunction with other community meetings. The senior and under-served population were targeted as participants to ensure everyone had an opportunity to voice their opinions. Below is a list of ideas gathered from the focus groups.

Greatest health concerns in Wayne County

- Drugs/Substance Abuse
- Mental Health needs
- More Specialty Clinics offered in the county
- Obesity
- Lack of physical activity for adults and youth
- Lack of Federally Qualified Health Clinic, FQHC, in the county which offers sliding fee scales and lower co-pays

What can Wayne County Hospital do to meet the health needs of the community?

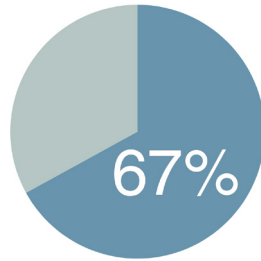
- Shape healthcare leadership in the county by participating in health coalitions, engage with schools and other community groups, and host health fairs in the community.
- Develop additional specialty clinics to decrease patient travel and expenses. Oncology, Orthopedics, Gynecology, and Diabetes were mentioned most often.
- Increase evening hours at the urgent care clinic to reduce expensive Emergency Department bills.
- Publish fee list for services such as lab work, screening tests, and mammography.
- Ensure customer service training for all physicians and staff, at both the hospital and clinics, to enhance communication of diagnosis, treatment, and respect to all patients and their caregivers.
- Establish protocols, referrals, and training for Emergency Department staff concerning mental health and substance abuse diagnosis.

Wayne County Hospital

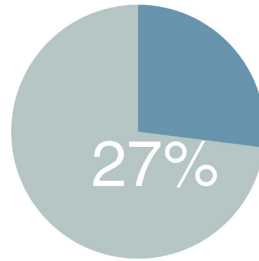
Winter 2016 Survey Results

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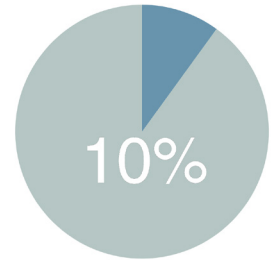
Respondents surveyed by hospital for their CHNA.



Households that used the services of a hospital in the past 24 months.

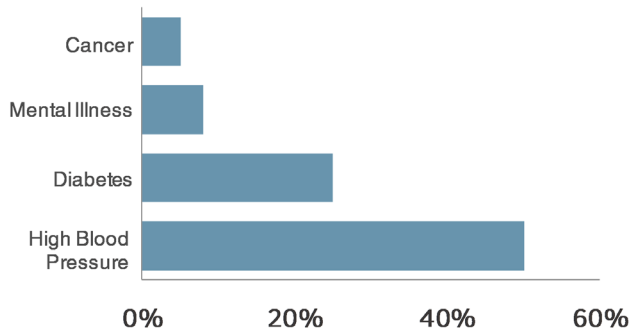


Households that delayed health care due to lack of money and/or insurance.



Households that are currently without health insurance.

Households with someone receiving treatment for:



Household eligibility:

Medicare	32%
Medicaid	26%
Public Housing Assistance	4%
SNAP (Food Stamp Program)	20%

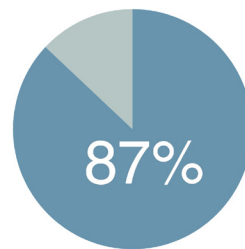
3.21 Average respondent satisfaction of experience with Wayne County Hospital.
Scale: 1=very dissatisfied to 4=very satisfied

How can Wayne County Hospital better meet the community's health needs?

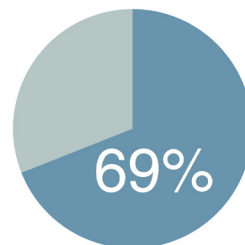
24 hour rural health clinic; more specialists; educational programs on healthy eating habits and exercise; diabetes prevention and management; bill insurance correctly; competitive prices; post cost of services; wellness programs; free health fairs and clinics; free flu shots.

What other healthcare services should be provided in your community?

Affordable workout center; cancer care; drug counseling/rehab; offer services for veterans; more pediatrics and children services; specialist to set bones; telemedicine to link with specialists, especially for routine follow ups.

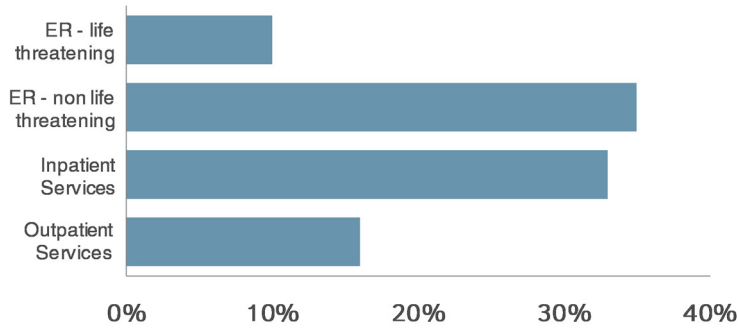


Respondents that have a family doctor.



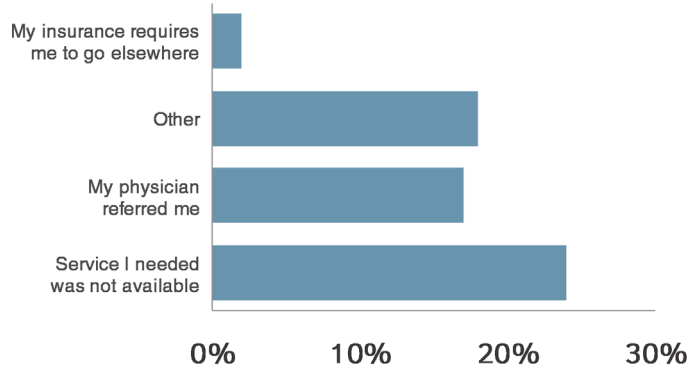
Respondents that regularly visit a physician for a check-up.

Of the 280 respondents who used hospital services in the last 24 months, services included:



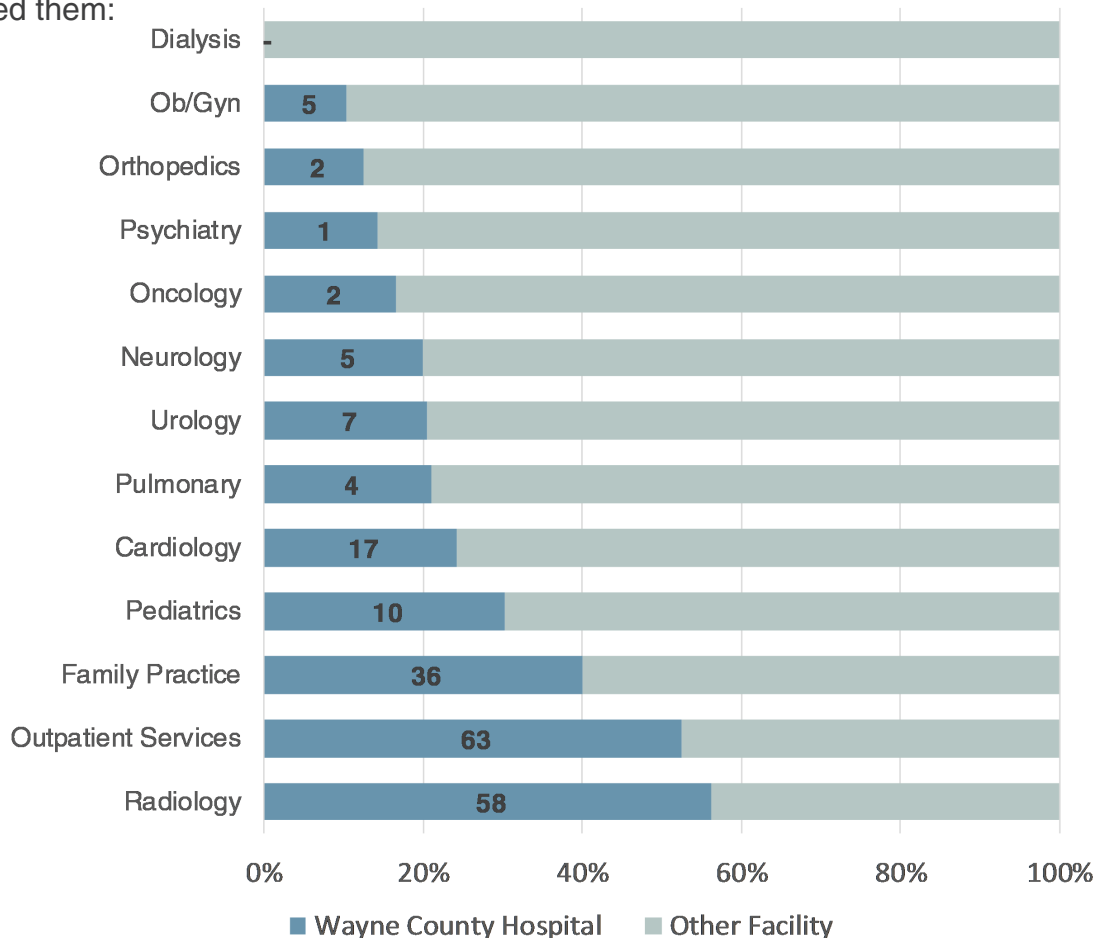
45% of households who used a hospital in the last 24 months used a hospital's emergency services.

Of the 195 respondents who used a hospital other than Wayne County Hospital, reasons included:



Lack of confidence to diagnose and treat due to prior experience; service was free; it was closer at the time; specialist location; referred to UK by ambulance; wait time; too small to get care needed.

Respondents who required specialty services in the last 24 months, and where they received them:



Prioritization of Identified Health Needs

To facilitate prioritization of identified health needs, a ranking process was used.

Health needs were ranked based on five factors:

- 1) The ability of Wayne County Hospital to evaluate and measure outcomes.
- 2) The number of people affected by the issue or size of the issue.
- 3) The consequences of not addressing this problem.
- 4) Prevalence of common themes.
- 5) The existence of hospital programs which respond to the identified need.

Health needs were then prioritized taking into account their overall ranking, the degree to which Wayne County Hospital can influence long-term change, and the impact of the identified health needs on overall health.

Wayne County Hospital developed the implementation strategy after priorities were discussed.

Wayne County Hospital will continue to work with the community to execute the implementation plan and realize the goals that have been positioned to build a healthier community – a healthier Kentucky.

Implementation Strategy

Hospital Specific Goals:

1. Increase drug and substance abuse education in our community, schools, and other programs.
 - Facilitate meeting with schools and identified action groups.
 - Assess need for additional education in other populations.
 - Explore cost and potential support for increased programs.
 - Community Partners: Wayne County Schools, Adanta, Wayne County Health Council, and Wayne County Health Coalition
2. Increase mental health services to the residents of our community.
 - Manage referral and placement of patients presenting to the Emergency Department with acute symptoms.
 - Community Partners: Adanta
3. Increase obesity and lack of physical activity education.
 - Collaborate with local school system and community agencies to assess the need for additional nutrition information.
 - Community Partners: Wayne County School System, Senior Citizen programs, Churches, Parks and Recreation Center
4. Establish conversation about increasing specialist access.
 - Explore feasibility of providing or expanding orthopedics, cardiology, urology, oncology and gynecology clinics.
 - Facilitate meeting with current and potential providers to determine physician interest.
 - Determine facility availability.
 - Marketing to both physicians and public if new clinics become available.
 - Assess usage after clinic expansion for system adjustment.
 - Community Partners: Community and Regional Physicians, Community and Regional Health Systems

Implementation Strategy, continued

Explanation of priorities that will not be addressed at this time.

- Add a Federally Qualified Health Clinic, FQHC, in the county.
- We will not pursue this recommendation as the hospital supports a certified Rural Health Clinic that provides services on our campus and an Emergency Room. There is no need to duplicate services on this campus.



Next Steps

This Implementation Strategy will be rolled out over the next three years, from Fiscal Year 2017 through the end of Fiscal Year 2019.

Wayne County Hospital will kick off the Implementation Strategy by initiating collaborative efforts with community leaders to address each health priority identified through the assessment process.

Periodic evaluation of goals/objectives for each identified priority will be conducted to assure that we are on track to complete our plan as described.

At the end of Fiscal Year 2019, Wayne County Hospital will review the Implementation Strategy and report on the success experienced through the collaborative efforts of improving the health of the community.



Appendix

Sources for all secondary data used in this report:

Demographics*

Indicator (2014)	Original Source	Year
Total Population	Census Population Estimates	2014
Percent of Population under 18 years	Census Population Estimates	2014
Percent of Population 65 year and older	Census Population Estimates	2014
Percent of Population Non-Hispanic White	Census Population Estimates	2014
Percent of Population Non-Hispanic African American	Census Population Estimates	2014
Percent of Population Hispanic	Census Population Estimates	2014
Percent of Population other Race	Census Population Estimates	2014
Percent of the Population not Proficient in English	American Community Survey 5-year Estimates	2010-2014
Percent of the Population that are Female	Census Population Estimates	2014
Percent of the Population that are Rural	Census Population Estimates	2010
All "National Level" Demographics*	U.S. Census QuickFacts	2011

Social and Economic Factors

Indicator	Original Source	Year
Median Household Income	Small Area Income and Poverty Estimates	2014
High School Graduation Rate	State sources and the National Center for Education Statistics	2012-2013 KY & WV
Percent of Population with Some College Education	American Community Survey 5-year Estimates	2010-2014
Unemployment Rate	Bureau of Labor Statistics	2014
Percent of Children in Poverty	Small Area Income and Poverty Estimates	2014

Social and Economic Factors, continued

Indicator	Original Source	Year
Percent of Children Eligible for Free Lunch	National Center for Education Statistics	2012-2013
Percent of Children Living in a Single Parent Household	American Community Survey 5-yr est.	2010-2014
Percent of Adults without Adequate Social Support	Behavioral Risk Factor Surveillance System	2005-2010
Percent of the Population Spending More Than 30% of Income on Housing Costs	American Community Survey 5-year Estimates	2007-2011
Violent Crime Rate (per 100,000 population)	Uniform Crime Reporting, Federal Bureau of Investigation	2010-2012

Health Behaviors

Indicator	Original Source	Year
Percent of Adults who Smoke Regularly	Behavioral Risk Factor Surveillance System	2014
Percent of Adults who are Obese (BMI \geq 30)	National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation	2012
Percent of Adults who are Physically Inactive	National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation	2012
Percent of Adults who Drink Excessively (Heavy or Binge)	Behavioral Risk Factor Surveillance System	2014
Motor Vehicle Crash Deaths (per 100,000 population)	National Center for Health Statistics	2007-2013
STDs: Chlamydia rate (per 100,000 population)	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2013
Teen Birth Rate (per 1,000 females ages 15-19)	National Center for Health Statistics	2007-2013

Health Outcomes

Indicator	Original Source	Year
Premature Death (Years of Potential Life Lost per 100,000 population)	National Center for Health Statistics	2011-2013
Percent of Adults Reporting Poor or Fair Health	Behavioral Risk Factor Surveillance System	2014
Average Poor Physical Health Days in Past 30 Days	Behavioral Risk Factor Surveillance System	2014
Average Poor Mental Health Days in Past 30 Days	Behavioral Risk Factor Surveillance System	2014
Percent of Babies Born with Low Birthweight (<2500 grams)	National Center for Health Statistics	2007-2013
Percent of Adults with Diabetes	National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation	2012
HIV Prevalence Rate (per 100,000 population)	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2012
Premature Age-adjusted Mortality	CDC WONDER mortality data	2011-2013
Child Mortality (per 100,000 population)	CDC WONDER mortality data	2010-2013
Infant Mortality (per 100,000 population)	CDC WONDER mortality data	2006-2012

Access to Care

Indicator	Original Source	Year
Percent Uninsured (< age 65 without health insurance)	Small Area Health Insurance Estimates	2013
Percent of Uninsured Adults	Small Area Health Insurance Estimates	2013
Percent of Uninsured Children	Small Area Health Insurance Estimates	2013
Ratio of Population to Primary Care Physicians	HRSA Area Resource File	2013
Ratio of Population to Dentists	HRSA Area Resource File	2014
Ratio of Population to Mental Health Providers	HRSA Area Resource File	2015
Percent of Adults Reporting that They Could Not See a Doctor Due to Cost	Behavioral Risk Factor Surveillance System	2006-2012
Rate of Preventable Hospital Stays (per 1,000 Medicare Enrollees)	Dartmouth Atlas of Health Care	2013
Percent of Diabetics that Receive HbA1c Screening	Dartmouth Atlas of Health Care	2013
Percent of Women Receiving Mammography Screening	Dartmouth Atlas of Health Care	2013



We want to better understand your health needs and how the hospital and its partners can better meet those needs. Please take just 3-5 minutes to fill out this survey. Please do not include your name anywhere, all responses will remain anonymous.

Please tell us your zip code _____

1. Do you have a family doctor?

- ☐ Yes
- ☐ No

2. Do you regularly visit your physician for a check-up?

- ☐ Yes
- ☐ No

3. Have you or someone in your household used the services of a hospital in the past 24 months?

- ☐ Yes
- ☐ No

4. Did you use the services of Wayne County Hospital?

- ☐ Yes
- ☐ No

5. Did you use the services of another hospital?

- ☐ Yes
- ☐ No

6. Which hospital did you use?

- ☐ Clinton County Hospital
- ☐ Lake Cumberland Regional Hospital
- ☐ Russell County Hospital
- ☐ Cumberland County Hospital
- ☐ St. Joseph London
- ☐ St. Joseph Lexington, KY (East or Main)
- ☐ Baptist Health Lexington
- ☐ UK Healthcare

7. What services did you use?

- ☐ Emergency Room for life-threatening issue
- ☐ Emergency Room for non-life threatening issue
- ☐ Outpatient Services
- ☐ Inpatient

8. Why did you or someone in your household go to a hospital other than Livingston Hospital?

- ☐ Service I needed was not available
- ☐ My doctor referred me to another hospital
- ☐ My insurance requires me to go somewhere else

Other (please explain) _____

9. If you received care at Wayne County Hospital how satisfied were you with your overall experience?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Dissatisfied
- ☐ Very Dissatisfied

10. While receiving care in a hospital, what is the most important to you? (Please mark three)

- ☐ Nursing Care
- ☐ Comfort of the Hospital/Environment
- ☐ Proximity to Family/Home
- ☐ Physician Interaction with Patients
- ☐ Explanation of Diagnosis
- ☐ Effective Treatment
- ☐ Other

11. Have you or someone in your household used any of the services below in the past 24 months?

Cardiology		
Obstetrics/Gynecology		
Radiology		
Neurology		
Psychiatry		
Oncology (Cancer Care)		
Urology		
Orthopedics		
Pulmonology (Lung Care)		
Pediatrics		
Dialysis		
Family Practice		
Outpatient Services		
(Please list the out patient service)		

12. Are you or anyone in your household without health insurance currently?

- ☐ Yes
- ☐ No

13. Have you or someone in your household delayed health care due to lack of money and/or insurance?

- ☐ Yes
- ☐ No

14. Do you or someone in your household receive treatment for any of the following conditions?

- ☐ Diabetes
- ☐ High blood pressure
- ☐ Cancer
- ☐ Mental Illness

15. Are you or members of your household currently eligible for:

- ☐ Medicare?
- ☐ Medicaid?
- ☐ Public Housing Assistance?
- ☐ SNAP (food stamp program)?

16. How would you rate the overall health of your community?

- ☐ very healthy
- ☐ healthy
- ☐ neither healthy nor unhealthy
- ☐ unhealthy
- ☐ very unhealthy

17. What could the hospital do to better meet the community's health needs (educational programs, after-hours access, outpatient services)?

18. What other healthcare services do you feel should be provided in your community?

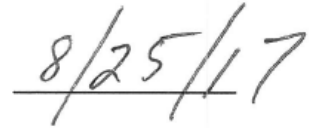
Thank you for your time, Wayne County Hospital appreciates your time and input!

Approval

The Wayne County Hospital Board of Directors supports the work of Wayne County Hospital to improve the health of the community. After reviewing the final report, we approve the recommendations outlined in the Wayne County Hospital Community Health Needs Assessment. We understand and support the hospital as it utilizes this document as a roadmap to collaborate with the community in addressing the priorities within, particularly for the most vulnerable.



Chair, Wayne County Hospital Board of Directors



Date

Kentucky County Economic Profiles

Wayne County - Overview

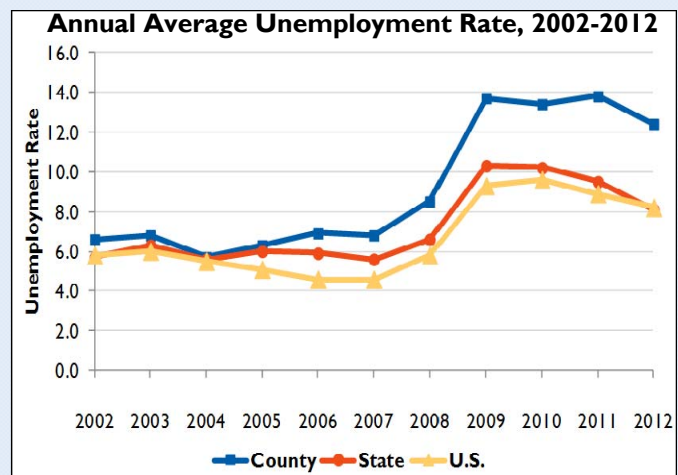
Fall 2013 Update

Demographics		Wayne County		Kentucky		United States	
Total Population, 2012 Estimate (Census)		20,824		4,380,415		313,914,040	
Percent Change in Total Population, 2000-2010 (Census)		0.1%		0.9%		1.7%	
Percent of the Population that is Non-white, 2010 (Census)		3.6%		11.4%		22.1%	
Percent of the Population that is Older than 64 years, 2010 (Census)		17.2%		14.0%		13.7%	
Percent of the Total Population in Poverty, 2011 Estimate (SAIPE)		31.7%		19.1%		15.9%	
Percent of the Total Population under 18 in Poverty, 2011 Estimate (SAIPE)		47.8%		27.2%		22.5%	
		Estimate	Reliability	Estimate	Reliability	Estimate	Reliability
Reliability ■ Very reliable (>95% C.I.) ▲ Somewhat reliable (90-95% C.I.) ● Not very reliable (<90% C.I.)	Percent of the Population 25 & Older that has a High School Diploma, GED, or more, 2007-2011 Estimate (ACS)	68.6%	■	81.7%	■	85.4%	■
	Percent of the Population 25 & Older that has a Bachelor's Degree or more, 2007-2011 Estimate (ACS)	9.6%	■	20.6%	■	28.2%	■
	Percent of Workers who Travel 30 minutes or more one way, to work, 2007-2011 Estimate (ACS)	0.2%	■	0.3%	■	—	—
	Unemployment Rate, 2012 Annual Average (BLS)	12.4%		8.2%		8.1%	
	Median Household Income, 2012 Estimate (SAIPE)	\$27,637		\$41,086		\$51,017	

Jobs Overview	Wayne County	Lake Cumberland ADD*	Kentucky
2002 Total Jobs	6,123	63,720	1,716,446
2012 Total Jobs	5,073	65,309	1,761,238
2022 Projected Jobs	5,094	75,682	1,975,115
2002-2012 Percent Change in Total Jobs	-17.0%	2.0%	3.0%
2012-2022 Projected Percent Change in Total Jobs	0.0%	16.0%	12.0%

*ADD = Area Development District

Source: EMSI 2013

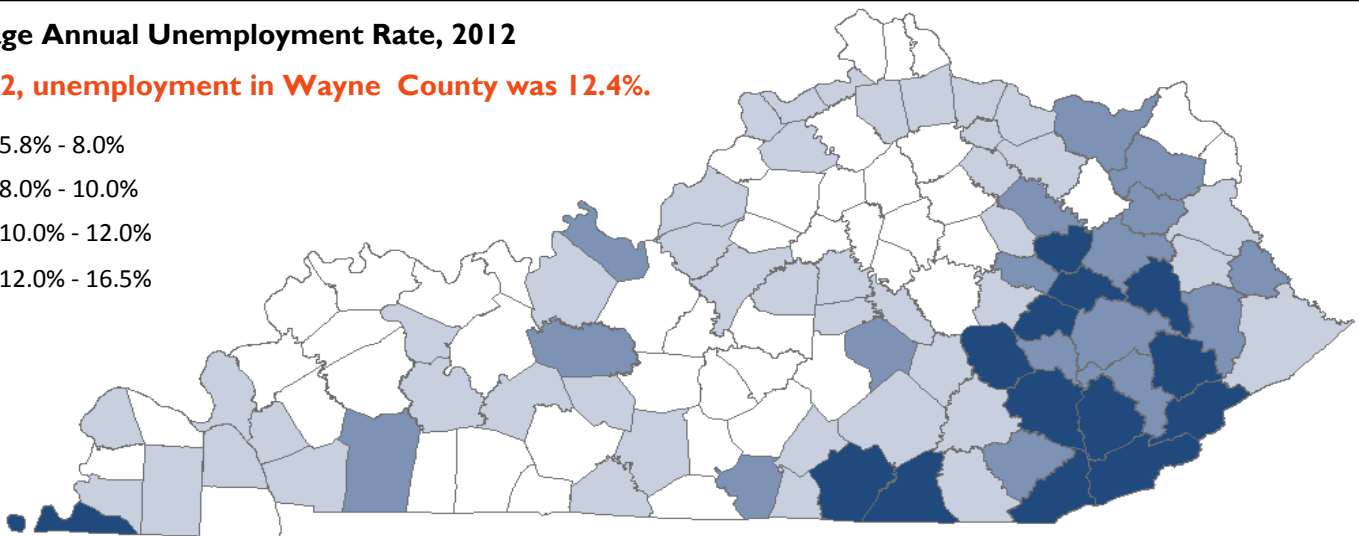


Source: Bureau of Labor Statistics 2013

Average Annual Unemployment Rate, 2012

In 2012, unemployment in Wayne County was 12.4%.

- 5.8% - 8.0%
- 8.0% - 10.0%
- 10.0% - 12.0%
- 12.0% - 16.5%



Source: Bureau of Labor Statistics 2013

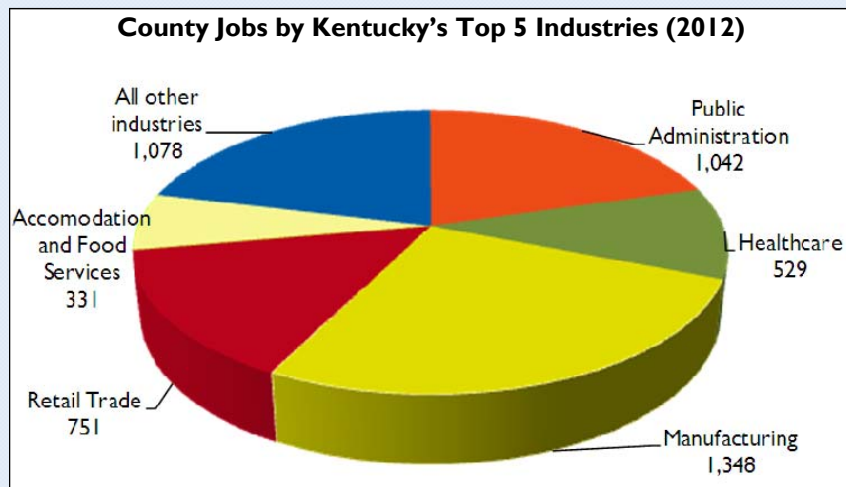
Wayne County - Jobs by Industry

Top 10 Industries by Employment (2012)

Industry Name (by 3-digit NAICS codes)	County Jobs
Local Government	844
Wood Product Manufacturing	745
Food Services & Drinking Places	316
General Merchandise Stores	300
Electrical Equipm., Appliance, & Component Manuf.	262
Textile Product Mills	243
State Government	162
Ambulatory Health Care Services	158
Hospitals (Private)	156
Professional, Scientific, & Technical Services	148
Total Top 10 industries	3,334

Source: EMSI 2013

This page divides the county's jobs into different industries, as defined by the North American Industry Classification System (NAICS).



Source: EMSI 2013

Industry Sector (by 2-digit NAICS codes)	Wayne County			Lake Cumberland ADD*		Kentucky	
	Percent Share of Total Jobs	2012 Jobs	2012 LQ [†]	2012 Jobs	2012 LQ [†]	2012 Jobs	2012 LQ [†]
Agriculture, Forestry, Fishing & Hunting	2.1%	105	2.3	172	0.3	7,508	0.5
Mining, Quarrying, & Oil & Gas Extraction	1.6%	80	n/a	290	0.7	20,309	1.9
Utilities	0.0%	0	n/a	350	1.3	6,559	0.9
Construction	1.1%	58	0.3	1,936	0.7	67,281	0.9
Manufacturing	26.6%	1,348	2.9	11,077	1.9	223,770	1.4
Wholesale Trade	1.3%	67	0.3	1,908	0.7	72,794	1.0
Retail Trade	14.8%	751	1.3	8,145	1.1	202,862	1.0
Transportation & Warehousing	0.3%	14	0.1	3,068	1.5	82,331	1.5
Information	2.3%	115	1.1	721	0.5	26,526	0.7
Finance & Insurance	3.3%	167	0.8	1,881	0.7	68,331	0.9
Real Estate & Rental & Leasing	0.0%	0	n/a	446	0.5	17,868	0.7
Professional, Scientific, & Technical Services	2.9%	148	0.5	1,366	0.3	67,533	0.6
Management of Companies & Enterprises	0.0%	0	0.0	230	0.2	20,055	0.8
Administrative & Waste Management Services	2.8%	140	0.5	3,046	0.8	104,557	1.0
Educational Services	0.0%	0	0.0	994	0.8	17,463	0.5
Health Care & Social Assistance	10.4%	529	0.8	10,734	1.3	226,618	1.0
Arts, Entertainment, & Recreation	1.6%	83	1.1	533	0.5	19,540	0.7
Accommodation & Food Services	6.5%	331	0.7	4,677	0.8	155,420	1.0
Other Services (except Public Administration)	1.4%	71	0.4	1,320	0.6	48,628	0.8
Public Administration	20.5%	1,042	1.3	12,415	1.2	305,286	1.1

*ADD = Area Development District

†LQ= National Location Quotient (see Insights for description)

Source: EMSI 2013

The data for this Profile were prepared by the Community & Economic Development Initiative of Kentucky (CEDIK) at the University of Kentucky. For questions on the data contained in this profile, contact James E. Allen IV, Research Director, at 859.218.4386 or james.allen4@uky.edu.

Special thanks to Simona Balazs and Georgette Owusu-Amankwah, CEDIK Research Assistants, for their work on this profile.

Kentucky County Economic Profiles

Insights for Data Interpretation

Prepared by: **Simona Balazs, CEDIK Research Assistant**

December 2013

CEDIK's Economic Profile is comprised of two parts. The first page contains an overview of demographics and employment in the county, while the second page offers a closer look at jobs by industry. In an effort to provide as much data as possible on two pages, precise definitions of some measures were not included. Thus, questions may arise including: What does this number represent exactly? How can I interpret this? This short overview provides additional clarification to the meaning of the selected measures in the profile.

Demographics and Employment

Page one of the profile starts with data on selected demographic variables, such as "percent change in total population", "percent of the total population in poverty", "unemployment rate", and "median household income". Numbers in the first table are provided for the county, Kentucky and the United States, allowing for comparison between the regions. In the second-part of the first table, estimates are provided along with a measure of "reliability". The "reliability" refers to the Margin of Error (MOE) for the estimates. The MOE relates to uncertainty associated with an estimate based on the fact that there might be differences between the population included in the survey (sample population) versus the entire population. Thus, a small MOE suggests that the estimates are more likely to reflect what is actually happening in the county (i.e., higher reliability), while a large MOE suggests that the estimate is potentially not reflecting reality. To indicate the reliability of the estimate we used three confidence intervals (C.I.): >95%, between 90-95% and <90%. In our table, the three C.I. are coded as ■ for C.I. >95%, ▲ for C.I. between 90-95% and ● for C.I. <90%. If an estimate in the table has a ■ for example, then the MOE is small and the estimate is very reliable. If the symbol is ●, then the MOE is higher and the estimate might not be very representative of the full population. Data on this table come from different sources, mainly the U.S. Census Bureau and the U.S. Bureau of Labor Statistics (BLS). The American Community Survey (ACS) is a survey administered by the Census Bureau that collects data on age, sex, education, income, etc. The Small Area Income and Poverty Estimates (SAIPE) is a program developed by the Census Bureau that provides "more current estimates of selected income and poverty statistics than those from the most recent decennial census" (Census/SAIPE description).

On the middle section of the page, there is a table that provides an overview of jobs (total jobs, percent change in jobs, projected number of jobs) for the county, the Area Development District (ADD) and the state. An ADD consists of a network of planning and development organizations from neighboring counties that work towards the development of that area. There are 15 ADDs in Kentucky and each county is part of one. This section also contains a graph with unemployment rates over time (2002-2012) by county, Kentucky and the United States. In general, if the county's unemployment rate is below that of Kentucky and the United States, the county is performing well economically. Note that Kentucky, the United States, and most counties saw a spike in unemployment between 2008 and 2009 as a result of the economic recession. Sources of data for this part are from Economic Modeling Specialist Inc. (EMSI) and the BLS.

On the bottom of the first page is a Kentucky map of the average annual unemployment rate for 2012 by county. As the unemployment rate increases, the color of a county becomes a darker shade of blue. A legend for the range of unemployment represented by each color and the county's actual unemployment rate is also provided in the figure. The data source for the unemployment rate is the BLS.

Jobs by Industry

Data on the second page provide more detailed information on number of jobs by industry, as categorized by the Northern American Industry Classification System (NAICS). NAICS is a standard used to classify the business establishments into various industries. Each firm is assigned a 6-digit number, and each digit after the first describes the firm in an increasing level of detail. For example, the code "11" describes jobs in "Agriculture, Forestry, Fishing, and Hunting", the code "112" (an extra digit) describes jobs within agriculture, forestry, fishing, and hunting that fall under "Animal Production", and the code "1123" (again, one more digit) describes jobs within animal production that belong to "Poultry and Egg Production." All of the tables on this page use NAICS to categorize employment by industry in the county. The source of data for this entire page is EMSI.

To start, the top-left table lists the number of county level jobs for the top 10 industries in that county, by 3-digit NAICS codes. To create this table, employment was examined for all 3-digit NAICS

industries in the county, and then sorted highest to lowest. These top 10 industries represent the major sources of employment in the county. One can easily compare total employment from these top 10 industries with Total Jobs from the previous page to learn what share of county employment comes from these top 10 industries. For many counties, over 50% of total county jobs come from these top 10 industries.

A second method of looking at jobs in the county is illustrated in the pie chart in the upper-right corner. For this chart, we look at county employment in Kentucky's five largest 2-digit NAICS industries, which are Public Administration, Healthcare, Manufacturing, Retail Trade and Accommodation and Food Services. For space, all the other 2-digit NAICS industries were aggregated as one. The data in the chart represent county employment for Kentucky's 5 largest industries. Because these are Kentucky's top 5 industries (and not necessarily the county's), employment numbers for the county can be very low, or in some cases, one of these 5 major industries might not be present in a county at all.

The large table on the remainder of the page is an overview of all industry groups by 2-digit NAICS codes for the county, ADD and Kentucky. This table contains data for the percent share of a particular industry in that county, the total number of jobs for an industry, and the national Location Quotient (LQ) value. The LQ is an indicator of how concentrated a particular estimate (in this case, employment by industry), is in the region (county, ADD or state) as compared with the nation. If the LQ is higher than 1.0, then employment in that industry is a larger share of total employment in the region than the national average. In other words, regional employment is more concentrated in that the industry than at the national average. is the larger the LQ, the higher the concentration. For example, Kentucky's LQ of 1.9 in the Mining industry suggests that more people are employed by the mining industry in Kentucky than across the country. Conversely, if the LQ is less than 1.0, then employment in this industry is less concentrated than it is nationally. For example, Kentucky's LQ of 0.5 in the Agriculture industry suggests that fewer people are employed by the agriculture industry than elsewhere in the United States. Data is provided for the county, the ADD, and Kentucky in order to allow for comparison of jobs and LQs.

References:

Bureau of Labor Statistics (BLS) for Unemployment Rate, retrieved from <http://www.bls.gov/home.htm>

Census for Population Estimates, retrieved from <http://www.census.gov/popest/data/index.html>

Census/ American Community Survey (ACS) for Education estimates, retrieved from https://www.census.gov/acs/www/about_the_survey/american_community_survey/

Census/Small Area Income and Poverty Estimates (SAIPE) for Population in Poverty estimates, retrieved from <http://www.census.gov/did/www/saipe/>

Economic Modeling Specialists Inc. (EMSI) for Employment Data, retrieved from <http://www.economicmodeling.com/>



If you have further questions regarding the data in this profile, please contact CEDIK Research Director James Allen at (859) 218-4386.

Kentucky County Economic Profiles online:

www.cedik.ca.uky.edu/data_profiles/economic



Kentucky County Healthcare Profiles

Wayne County—Health Indicators

Winter 2014 Update

In 2012, the employment share of the healthcare industry in Wayne County was 10.4%. Healthcare was the fourth largest industry employer in the county with 529 workers. Also in 2012, the healthcare industry brought in 6.0% (\$22,470,679) of the county's gross product.

Health Outcomes	Wayne County	Lake Cumberland ADD*	Kentucky
Premature death (years of potential life lost per 100,000 population)	8,228	9,244	8,768
Percent of adults reporting poor or fair health	30.6%	28.0%	21.4%
Average number of poor physical health days in the past 30 days	6	5	5
Average number of poor mental health days in the past 30 days	6	5	4
Percent of babies born with low birth weight (less than 2,500 grams)	7.7%	8.6%	9.1%
Percent of adults with Diabetes	12.5%	12.4%	11.6%
HIV prevalence rate (per 100,000 population)	n/a	38	140
Age-adjusted mortality (per 100,000 population, if under age 75)	387	464	445
Child mortality (per 100,000 population)	73	53	65
Infant mortality (per 100,000 population)	n/a	375	710
Health Behaviors			
Percent of adults who smoke regularly	29.1%	23.8%	26.4%
Percent of adults who are obese (BMI greater than or equal to 30)	33.3%	32.8%	32.9%
Percent of adults who are physically inactive	41.7%	35.6%	31.5%
Percent of adults who drink excessively (heavy or binge)	5.3%	7.9%	11.5%
Motor vehicle crash deaths (per 100,000 population)	21	28	20
STDs: Chlamydia rate (per 100,000 population)	159	215	377
Teen birth rate (per 1,000 females ages 15-19)	79	63	50
Access to Care			
Percent uninsured (under age 65 without health insurance)	22.2%	21.2%	17.5%
Percent of uninsured adults	27.8%	26.3%	21.8%
Percent of uninsured children	7.2%	7.8%	6.7%
Percent of adults reporting they could not see a doctor due to cost	20.2%	22.0%	17.0%
Rate of preventable hospital stays (per 1,000 Medicare enrollees)	114	130	103
Percent of diabetics that receive HbA1c screenings	87.5%	83.5%	83.8%
Percent of women receiving mammography screenings	56.7%	55.3%	61.7%
Physical Environment			
Pollution: Average daily measure of fine particulate matter (micrograms per cubic meter)	13	13	13
Drinking water safety: Percent of the population exposed to water exceeding a violation limit in the past year	0.0%	8.8%	10.9%
Rate of recreational facilities (per 100,000 population)	5	8	8
Percent of the population that lives within half a mile of a park	n/a	1.8%	24.0%

In your county:

12.5%

of adults have diabetes

29.1%

of adults are regular smokers

33.3%

of adults are obese

27.8%

of adults &

7.2%

of children are without health insurance

*Area Development District

Source: County Health Rankings, 2013. See Insights for specific years of each indicator.

Number of providers per 1,000 population:

Primary Care Physicians: 0.67

Dentists: 0.29

Mental Health Providers: 1.34

Supply of Physicians	22
Primary Care Physicians (PCP)	14
Specialist Physicians	8
Percent Physicians over 65	2.3%
Percent Kentucky trained	36.4%
Percent Foreign trained	22.7%
PCP who Accept Medicaid	11

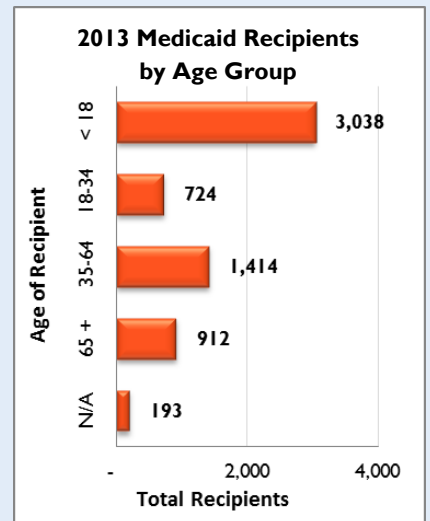
Healthcare Providers	2012			2017	
	Supply	Need	Gap	Need	Gap
Physicians	22	44	22	45	23
Physician Assistants	0	3	3	4	4
Nurse Practitioners	6	7	1	7	1
Registered Nurses	112	134	22	137	25
Licensed Practical Nurses	56	36	-20	36	-20
Nurse Aides	204	70	-134	71	-133
Dentists	6	8	2	8	2
Mental Health Providers	28	31	3	31	3
Optometrists	3	3	0	3	0

Source: KY Health Benefit Exchange & Deloitte, 2012

Source: KY Health Benefit Exchange & Deloitte, 2012

NAICS Health Sector	2008 Jobs	2013 Jobs	2023 Projected Jobs	2013 Establishments
Offices of Physicians	60	74	99	3
Offices of Dentists	23	29	39	6
Offices of Other Health Practitioners	23	25	40	5
Outpatient Care Centers	<10	<10	<10	1
Medical & Diagnostic Laboratories	0	0	0	0
Home Health Care Services	215	244	572	1
General Medical & Surgical Hospitals	196	149	142	1
Psychiatric & Substance Abuse Hospitals	0	0	0	0
Specialty Hospitals (not Psychiatric & Substance Abuse)	0	0	0	0
Average Earnings Per Worker (2013)	\$34,397			

Source: EMSI, 2013

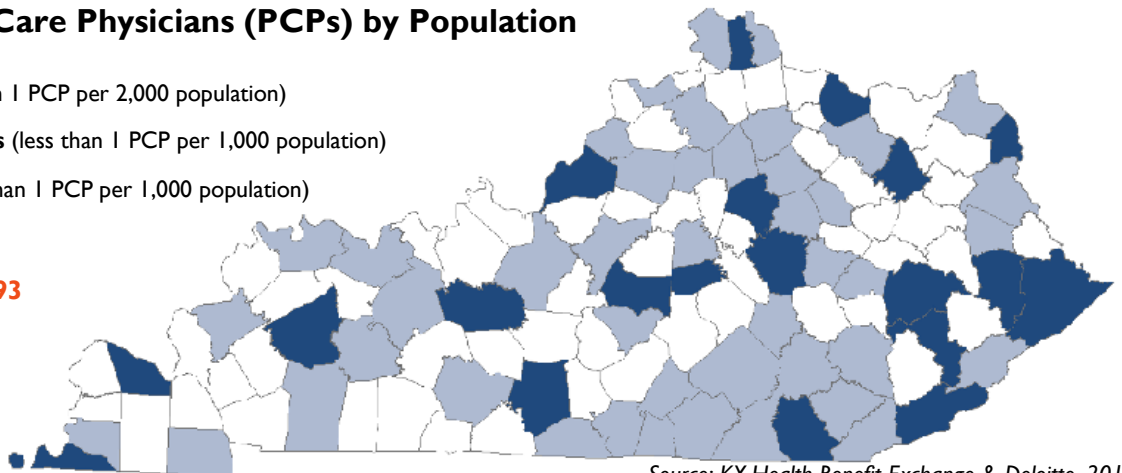


Source: KY Cabinet for Health and Family Services, 2013

Access to Primary Care Physicians (PCPs) by Population

- Low Access** (less than 1 PCP per 2,000 population)
- Intermediate Access** (less than 1 PCP per 1,000 population)
- High Access** (more than 1 PCP per 1,000 population)

In 2012, Kentucky had .93 primary care physicians per 1,000 population.



Source: KY Health Benefit Exchange & Deloitte, 2012

Kentucky County Healthcare Profiles

Insights for Data Interpretation

Prepared by: **Simona Balazs, CEDIK Research Assistant**

February 2014

CEDIK's Healthcare Profile is comprised of three major parts. The first page is an overview of selected Health Indicators, while the second page offers a closer look at the Healthcare Industry and Healthcare Access. This short overview provides additional clarification to the selected measures in the profile.

Health Indicators

The first page begins with a statement on the status of the Healthcare Industry in the county, based on three criteria: the share of total county employment share in the healthcare industry, the rank of the healthcare industry relative to all other industries in county based on employment, and the percent (and dollar amount) that the healthcare industry brings to the county's gross product. For most counties, the healthcare industry ranks in top five industries in that county. The source of data is Economic Modeling Specialists Inc. (EMSI).

The table on the first page provides data on selected health indicators grouped into four categories: Health Outcomes, Health Behaviors, Access to Care, and Physical Environment. Numbers are provided for the county, Area Development District (ADD), and Kentucky. The source of the data and description for the Health Indicators is County Health Rankings for the year 2013. However, individual indicators themselves come from different years (see County Health Rankings Sources table below).

First, the Health Outcomes indicators include variables such as premature death, age-adjusted mortality, and percent of adults with diabetes. The premature death is measured in the number of years of potential life lost before the age of 75. For example, if a person died at age 50, then that person contributes 25 years to a county's premature death number. Next, the age-adjusted mortality rate (for residents under 75 years old) is a standard way of reporting the mortality rate so that counties with a younger population can be compared to those with an older population more fairly. The age-adjusted mortality rate reports the average mortality rate if all Kentucky counties had the same age distribution in

their populations. Please note that premature death, HIV prevalence rate, age-adjusted mortality, child mortality and infant mortality are reported as a rate per 100,000 population. Of course, most counties have far less than 100,000 residents, but the data are reported this way because the amounts are very small.

Second, the measures under Health Behavior are important markers of risky health behaviors that affect the community and the healthcare system in a county, ADD, or the state. Each one of these indicators increases the risk of various diseases and of premature death. Third, Access to Care indicators include the percent of people, adults, and children that are uninsured, and the percent of adults that could not see a doctor due to cost. These measures indicate a barrier in accessing needed health care. Finally, the table reports indicators of the county's Physical Environment, which are important for promoting public health.

Industry Indicators

The top of the second page reports the number of healthcare providers in the county, including physicians, dentists, mental health providers, and six other professions. The data show the supply, need, and gap for 2012, and the projected need and gap for 2017. The gap of healthcare providers is calculated as the difference between need and supply. If for a given occupation the need is greater than the supply, then the gap is positive—the county requires more providers for that occupation than it currently has. Likewise, if the supply is greater than the need for a given occupations, then the gap is negative; in this case, the county has an excess of providers for that occupation given the size of its population.

To the left of the primary table, the 2012 supply of physicians is unpacked into number of primary care physicians (PCP) and specialist physicians. The percent of physicians over 65 and percent of physicians that are trained in Kentucky or abroad are also reported. The upper-left corner reports the number of providers for 1,000 people for PCPs, dentists, and mental health

providers. These three healthcare occupations are used to designate Health Professional Shortage Areas (HPSA) and medically underserved populations (MUPs) by the U.S. Department of Health and Human Resources. In 2013, there were approximately 5,800 PCP HPSAs, 4,600 Dental HPSA, and 3,700 Mental Health HPSAs in the United States. For both of these tables at the top of the second page, the data source is a study implemented by the Kentucky Health Benefit Exchange and Deloitte in 2012 called the “Kentucky Health Care Workforce Capacity Report,” which painstakingly verified data from the Kentucky Board of Medical Licensure and similar boards to ensure accuracy.

The left table in the middle section of the second page reports the total number of jobs for 2008, 2013, and projections for 2023. It also includes the number of health sector establishments and average earnings per worker in 2013 for the main healthcare subsectors. These subsectors are based on 4-digit codes of the North American Industry Classification System (NAICS) for the county. For information on NAICS, please see the Insights for CEDIK’s Economic Profile. The data source for this section is EMSI.

Healthcare Access

The bar graph on the right provides information about Medicaid recipients by age group for the county. Data come from the Kentucky Cabinet for Health and Family Services/Department of Medicaid Services as of July 2013. Whereas Medicare is a federally run insurance program for people over 65 and younger disabled and dialysis patients, Medicaid is a federal-state assistance program in which medical bills are paid from federal, state and local tax funds. In Kentucky as of 2014, children aged 0-1 are eligible for Medicaid if they live in a household below 195% of the federal poverty level (FPL), and other children aged 1-18 are eligible if below 159% of the FPL. Additionally, pregnant women are eligible for Medicaid if in a household below 195% of the FPL, while parents and other adults are eligible if below 133% of the FPL.

However, keep in mind that this figure shows Medicaid recipients in the county, and that there are likely others who are eligible but are not recipients.

Finally, the profile ends with a Kentucky map of Access to Primary Care Physicians (PCP) by population. The map was constructed using the same ratio provided in the upper-left corner of the number of PCPs per 1,000 population. A darker color on the map indicates higher access to PCPs. The 2012 rate of PCP per 1,000 people for the state of Kentucky is also provided on the map. All of the High Access counties have higher than average access to PCPs for the state, while all of the Low Access and most of the Intermediate Access have lower than average access to PCPs for the state.

References:

- County Health Rankings for Health Indicators, retrieved from <http://www.countyhealthrankings.org/app/kentucky/2013/rankings/outcomes/overall/by-rank>
- Economic Modeling Specialists Inc. (EMSI) for Employment Data, retrieved from <http://www.economicmodeling.com/>
- KY Cabinet for Health and Family Services/Department of Medicaid Services for Medicaid Data, retrieved from <http://chfs.ky.gov/dms/stats.htm>
- KY Health Benefit Exchange and Deloitte 2012 Report for Provider Data, retrieved from <http://healthbenefitexchange.ky.gov/Pages/Kentucky-Health-Care-Workforce-Capacity-Report.aspx>
- “What is the difference between Medicare and Medicaid?” US Department of Health & Human Services, retrieved from <http://answers.hhs.gov/questions/3094>
- “Medicaid and CHIP Eligibility Levels”, Center for Medicare & Medicaid Services, retrieved from <http://www.medicaid.gov/AffordableCareAct/Medicaid-Moving-Forward-2014/Medicaid-and-CHIP-Eligibility-Levels/medicaid-chip-eligibility-levels.html>

Data Sources:

(see table on next page)

Data retrieved from County Health Rankings at www.countyhealthrankings.org, a collaboration between Robert Wood Johnson Foundation and University of Wisconsin Population Health Institute

Health Outcomes	Original Source	Year
Premature death (years of potential life lost per 100,000 population)	National Center for Health Statistics	2008-2010
Percent of adults reporting poor or fair health	Behavioral Risk Factor Surveillance System	2005-2011
Average number of poor physical health days in the past 30 days	Behavioral Risk Factor Surveillance System	2005-2011
Average number of poor mental health days in the past 30 days	Behavioral Risk Factor Surveillance System	2005-2011
Percent of babies born w/ low birth weight (less than 2,500 grams)	National Center for Health Statistics	2004-2010
Percent of adults with diabetes	National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation	2009
HIV prevalence rate (per 100,000 population)	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2009
Age-adjusted mortality (per 100,000 population, if under age 75)	CDC WONDER mortality data	2008-2010
Child mortality (per 100,000 population)	CDC WONDER mortality data	2007-2010
Infant mortality (per 100,000 population)	CDC WONDER mortality data	2006-2010
Health Behaviors	Original Source	Year
Percent of adults who smoke regularly	Behavioral Risk Factor Surveillance System	2005-2011
Percent of adults who are obese (BMI greater than or equal to 30)	National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation	2009
Percent of adults who are physically inactive	National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation	2009
Percent of adults who drink excessively (heavy or binge)	Behavioral Risk Factor Surveillance System	2005-2011
Motor vehicle crash deaths (per 100,000 population)	National Center for Health Statistics	2004-2010
STDs: Chlamydia rate (per 100,000 population)	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2010
Teen birth rate (per 1,000 females ages 15-19)	National Center for Health Statistics	2004-2010
Access to Care	Original Source	Year
Percent uninsured (under age 65 without health insurance)	Small Area Health Insurance Estimates	2010
Percent of uninsured adults	Small Area Health Insurance Estimates	2010
Percent of uninsured children	Small Area Health Insurance Estimates	2010
Percent of adults that could not see a doctor due to cost	Behavioral Risk Factor Surveillance System	2005-2011
Rate of preventable hospital stays (per 1,000 Medicare enrollees)	Dartmouth Atlas of Health Care	2010
Percent of diabetics that receive HbA1c screenings	Dartmouth Atlas of Health Care	2010
Percent of women receiving mammography screenings	Dartmouth Atlas of Health Care	2010
Physical Environment	Original Source	Year
Pollution: Average daily measure of fine particulate matter (micrograms per cubic meter)	CDC WONDER Environmental data	2008
Drinking water safety: Percent of the population exposed to water exceeding violation limit in the past year	Safe Drinking Water Information System	2012
Rate of recreational facilities (per 100,000 population)	County Business Patterns	2010
Percent of the population that lives within half a mile of a park	Environmental Public Health Tracking Network	2010

Kentucky County Education Profiles

Wayne County - Education Overview

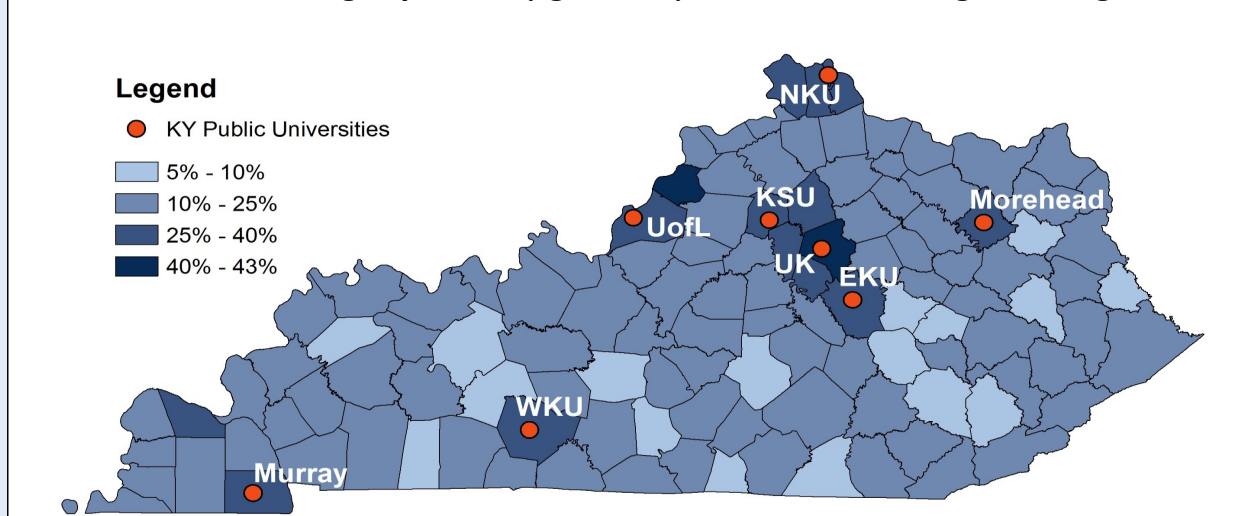
In Wayne County, in 2013, the percent of kids ready for kindergarten was 48.3%, the average high school GPA was 3.0, and the junior year ACT score was 17.6.

Education Demographics	Wayne County		Lake Cumberland ADD*		Kentucky	
	Estimate	Percent	Estimate	Percent	Estimate	Percent
SCHOOL ENROLLMENT						
Population Enrolled in School, 3 years and older	4,472	100.0%	47,028	100.0%	1,094,621	100.0%
Nursery School and Preschool	171	3.8%	2,312	4.9%	65,893	6.0%
Kindergarten	227	5.1%	2,566	5.5%	59,096	5.4%
Grades 1-8	2,136	47.8%	20,436	43.5%	454,133	41.5%
Grades 9-12	1,189	26.6%	11,032	23.5%	229,226	20.9%
College or Graduate School	749	16.7%	10,682	22.7%	361,888	26.2%
EDUCATIONAL ATTAINMENT						
Population, 25 years and older	14,513	100.0%	142,640	100.0%	2,902,296	100.0%
Less than High School	4,383	30.2%	35,488	24.9%	510,196	17.6%
High School Degree (includes equivalency)	5,457	37.6%	54,993	38.6%	988,008	34.0%
Some College or Associate's Degree	3,265	22.5%	34,453	24.2%	795,165	27.4%
Bachelor's Degree	711	4.9%	9,456	6.6%	361,888	12.5%
Graduate or Professional Degree	711	4.9%	8,198	5.7%	247,039	8.5%
High School Degree or More	10,145	69.9%	107,101	75.1%	2,392,100	82.4%
Bachelor's Degree or More	1,422	9.8%	17,654	12.4%	608,927	21.0%

*Area Development District (ADD)

Source: US Census/5-yr ACS, 2009-2013

Percent of Working Population (ages 18-64) with Bachelor's Degree or Higher



Source: US Census/5-yr ACS, 2009-2013

Educational Performance Measures	County	Kentucky
Percent of Kids Ready for Kindergarten, 2013	48.3%	49.0%
Average Junior Year ACT Composite Score (out of 36 points), 2013	17.6	19.4
Average High School GPA (out of 4.0), 2013	3.0	2.9
Percent of High School Graduates Enrolled in College, 2011-2012	50.6%	60.2%
Percent of High School Graduates Enrolled in In-State College	49.4%	55.4%
6-year College Graduation Rate, 2007 cohort	40.0%	54.2%

Source: KCEWS/County Profile Data, 2014-2015

For more information on test scores or school readiness go to KY Center for Education and Workforce Statistics (KCEWS) at <https://kcews.ky.gov/>. For more information on postsecondary education, go to KY Council on Postsecondary Education at <http://cpe.ky.gov/infol>.

In 2014, Wayne County had 921 jobs in the education industry.

The fastest growing educational occupation in the county was Special Education Teachers.

County Employment and Earnings by Type of Educational Institution

Educational Institution	2009 Jobs	2014 Jobs	5-yr Change 2009-2014	Average Annual Earnings
Elementary and Secondary Schools	641	568	-11.4%	\$49,709
Public	626	546	-12.8%	\$50,357
Private	15	22	46.7%	\$22,677
Colleges, Universities, and Professional Schools	n/a	n/a	n/a	n/a
Public	n/a	n/a	n/a	n/a
Private	n/a	n/a	n/a	n/a
All Other Schools and Educational Support Services	228	353	54.8%	\$21,305
Public	26	19	-26.9%	\$48,434
Private	202	334	65.3%	\$19,762

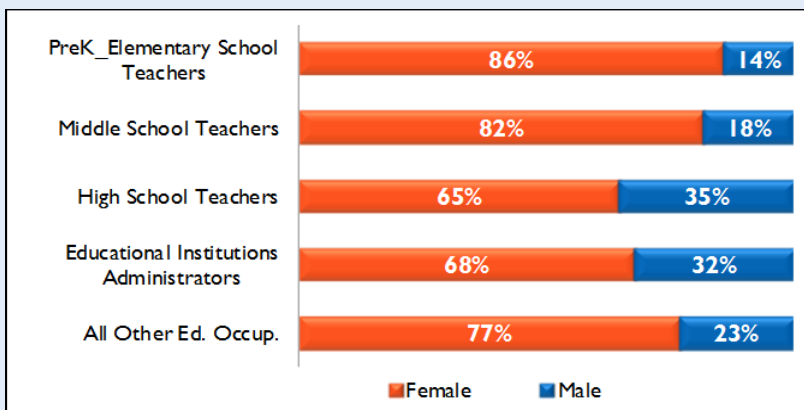
County Employment by Educational Occupation

Source: EMSI, 2014

Educational Occupation	2014 Jobs	Occupational Mix Effect	National Growth Effect	Competitive Effect	Median Hourly Earnings
Pre-K and Kindergarten Teachers	33	-2	2	6	\$20.45
Elementary School Teachers	100	-8	8	-10	\$25.18
Middle School Teachers	34	-3	3	-3	\$25.26
High School Teachers	55	-6	5	-6	\$25.71
Postsecondary Education Teachers	12	n/a	1	-5	\$28.01
Special Education Teachers	32	-4	3	-4	\$25.00
Teacher Assistants	93	-8	8	-5	\$11.29
School Counselors	12	-1	1	-1	\$28.27
Self-Enrichment Education Teachers	<10	n/a	1	-2	n/a
Educational Institutions Administrators	25	-2	2	-2	\$34.19
Education, Training and Library Occupations	20	-1	2	-3	\$19.61
Other Education Occupations	29	-2	3	-4	\$23.20

Source: EMSI, 2014

Percent of County Employment by Gender



Source: EMSI, 2014

Statewide Spending on Education

K-12 Education	KY Amounts
Total Revenues	\$443,314,000
State and local sources	\$398,688,000
Federal sources	\$44,626,000
Total Expenditures	\$492,400,000
4-year Public Universities	KY Averages
Average Annual In-State Tuition & Fees	\$8,543
Average Debt per Student	\$22,384

Source: TRF Policy Map, 2012

Kentucky County Education Profiles

Insights for Data Interpretation

June 2015

Prepared by: **Simona Balazs, CEDIK Research Associate** and **James E. Allen IV, Research Director**

CEDIK's Education Profile is comprised of two major parts. The first page is an overview of selected education indicators, while the second page offers a closer economic look at the education industry. In an effort to provide as much data as possible on two pages, precise definitions of some measures were not included. Thus, questions may arise including: What does this number represent exactly? How can I interpret this? This short overview provides additional clarification to the meaning of the selected measures in the profile.

Education Overview

The first page begins by highlighting three indicators of educational achievement in the county: the percent of kids ready for kindergarten, the average high school GPA and the junior year ACT score. The first indicator is important because the educational and environmental background in children pre-kindergarten differ widely. This allows schools to assess and understand how kids are prepared to start school. The high school GPA and the junior year ACT are two of the most important factors for acceptance into college. The high school GPA is out of 4.0 and the junior year ACT is out of 36 points. The average junior year ACT score for Kentucky is 19.4; the values at county level range between 16.5 and 22.7. For the average high school GPA, the state value is 2.9, while the counties range between 2.6 and 3.3 for an average GPA.

The table on the first page provides data on selected education indicators grouped into two categories: School Enrollment and Educational Attainment. Numbers are provided for the county, Area Development District (ADD), and Kentucky. School Enrollment data looks at population enrolled in school (3 years and over) and provides estimate and percent for variables such as kindergarten, grades 9-12 (high school) and college or graduate school. Educational Attainment data give an overview of population 25 years and over that graduated high school or has a bachelor's degree, for example. The source of data and description for these indicators is the US Census, 5-year ACS.

The midsection of the first page maps the percent of working population (ages 18-64) with bachelor's degree or higher for each Kentucky county. The darker the shade of blue, the higher the percent of that county's working population that has attained least a bachelor's degree. The location of the eight public universities in Kentucky is also mapped. It can be observed that there is a link between where the universities are located and the educational attainment of the working population. Data for this map also come from the US Census, 5-year ACS.

The page ends with a comparative table for some of the educational performance measures at the county and state level. Aside from the three indicators highlighted at the top of the page, this table also provides information on the percent of high school graduates enrolled in college and the 6-year college graduation rate. The college graduation rate for the county is the rate of students from that county that attended college, regardless of where they went to college. The source of data is Kentucky Center for Education and Workforce Statistics (KCEWS).

Industry Indicators

Data on the second page provide more detailed information on the employment in the education industry by type of educational institution and occupations. This page starts with a statement on the total number of jobs in the education industry for the county and the fastest growing educational occupation in 2014. One important note here is that the fastest growing occupation in the county is not necessarily the one with the highest employment; it is the occupation with the highest percent change from 2013.

The table on the top of the page looks at employment and earning for different types of educational institutions in the county. It features the number of jobs for 2009 and 2014, the 5-year change, and the average annual earnings for employees working at that institution. The total average annual earnings for a category (e.g., elementary and secondary schools) are an average of public and private annual earnings weighted by employment in each

subcategory. Thus, some categories report average annual earnings that are much closer to the average for the public educational institutions, while for other categories the average is closer to the private annual average earnings. Data in this table come from the Economic Modeling Specialists Inc. (EMSI).

The second table on this page looks at several county-level economic indicators for various education occupations, such as elementary or high school teachers, special education teachers, school counselor and educational institutions administrators. The table provides the number of jobs for that occupation, the occupational mix effect, the national growth effect, the competitive effect, the number of job postings and the median hourly earnings for 2014. The occupational mix effect represents the share of that education occupation's growth that is explained by the growth of this occupation at national level; in other words, the national growth rate for the entire economy is subtracted from the national growth rate of the occupation and then applied to the number of occupational jobs in the county. The national growth effect describes how much of the occupation's growth at the county level is explained by the overall growth of the national economy (i.e., if the nation's economy is growing, then there should be some positive change in the county's education occupation). Both of these indicators rely on the national growth. The occupational mix effect depends on national growth in that particular industry, whereas the national growth effect depends on the growth in the nation's economy as a whole. Of particular importance is the competitive effect because it explains how much of the change in the education occupation is due to a competitive advantage that the county has. Unlike the previously mentioned indicators, the competitive effect cannot be explained by the national trends, and it can be positive even if the county employment for the occupation declines. The competitive effect gives the difference between the expected change and the actual change for the education occupation in the county. A positive value indicates that the county's education occupation is outperforming national trends, while a negative effect means that the occupation is

underperforming compared to the national trends. The source of data for this table is Economic Modeling Specialists Inc. (EMSI).

The graph on the bottom-left section is a snapshot of the gender distribution for some education occupations. For most counties, the graph looks at gender for five or six occupations for the education industry. However, for some counties certain occupations are not represented or there was insufficient data; in these cases, the chart includes fewer than five categories. Again, the source for this data is Economic Modeling Specialists Inc. (EMSI).

In the bottom-right section of the page, the profile ends with an overview of some financial indicators for the education industry in the state. The table shows, in 2012, that almost 90% of the Kindergarten-12th Grade educational institutions' revenue came from state and local sources and only 10% from federal sources. It also shows that the average debt for a student from a 4-year public university is over \$22,000. These data were sourced from The Reinvestment Fund (TRF) Policy Map and are not available at the county level.

References:

1. Economic Modeling Specialists Inc. (EMSI), 2014, <http://www.economicmodeling.com/>;
2. KY Center for Education and Workforce Statistics (KCEWS)/ County Profile Reports, 2014, <https://kcews.ky.gov/#>;
3. U.S. Census/5-year ACS, retrieved from <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>;
4. The Reinvestment Fund (TRF) Policy Map, 2012 data, <http://www.policymap.com/>.

Still have questions?

If you have further questions regarding the data in this profile, please contact CEDIK Research Director James Allen IV at 859-218-4386.