

# 2011 **Kentucky**





### Introduction

Where we live matters to our health. The health of a community depends on many different factors, including quality of health care, individual behavior, education and jobs, and the environment. We can improve a community's health through programs and policies. For example, people who live in communities with ample park and recreation space are more likely to exercise, which reduces heart disease risk. People who live in communities with smoke-free laws are less likely to smoke or to be exposed to second-hand smoke, which reduces lung cancer risk.

The problem is that there are big differences in health across communities, with some places being much healthier than others. And up to now, it has been hard to get a standard way to measure how healthy a county is and see where they can improve.

The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute are pleased to present the 2011 *County Health Rankings*, a collection of 50 reports that reflect the overall health of counties in every state across the country. For the second year in a row, counties can get a snapshot of how healthy their residents are by comparing their overall health and the factors that influence their health with other counties in their state. This allows communities to see county-to-county where they are doing well and where they need to improve.

Everyone has a stake in community health. We all need to work together to find solutions. The *County Health Rankings* serve as both a call to action and a needed tool in this effort.



All of the *County Health Rankings* are based upon this model of population health improvement:



In this model, health outcomes are measures that describe the current health status of a county. These health outcomes are influenced by a set of health factors. These health factors and their outcomes may also be affected by community-based programs and policies designed to alter their distribution in the community. Counties can improve health outcomes by addressing all health factors with effective, evidence-based programs and policies.

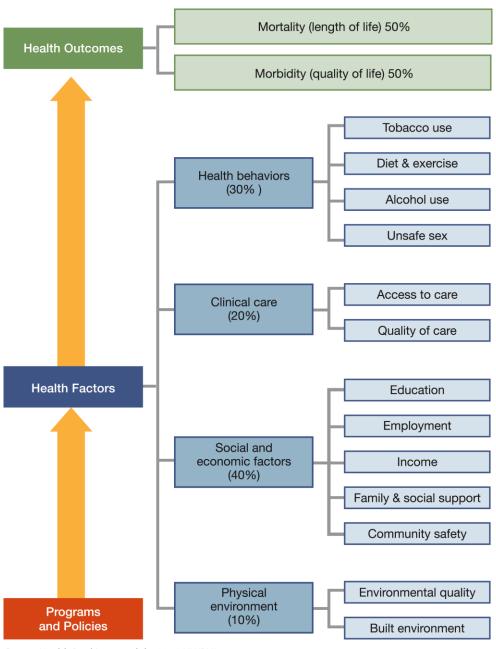
To compile the *Rankings*, we built on our prior work in Wisconsin, obtained input from a team of expert advisors, and worked closely with staff from the National Center for Health Statistics. Together we selected a number of population health measures based on scientific relevance, importance, and availability of data at the county level.

For a more detailed explanation of our approach, the methods used to compile the *Rankings*, information on the action steps communities can take to improve their health, and examples of communities in action, see <a href="https://www.countyhealthrankings.org">www.countyhealthrankings.org</a>

### The Rankings

This report ranks Kentucky counties according to their summary measures of health outcomes and health factors, as well as the components used to create each summary measure. The figure below depicts the structure of the Rankings model. Counties receive a rank for each population health component; those having high ranks (e.g., 1 or 2) are estimated to be the "healthiest."

Our summary health outcomes rankings are based on an equal weighting of mortality and morbidity measures. The summary health factors rankings are based on weighted scores of four types of factors: behavioral, clinical, social and economic, and environmental. The weights for the factors (shown in parentheses in the figure) are based upon a review of the literature and expert input, but represent just one way of combining these factors.

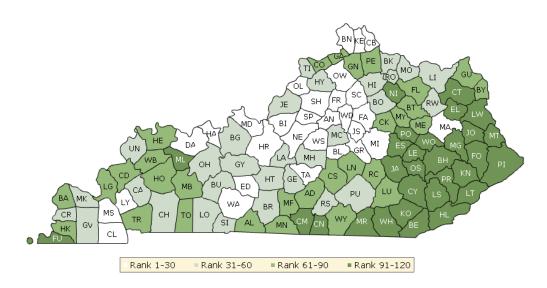


County Health Rankings model ©2010 UWPHI

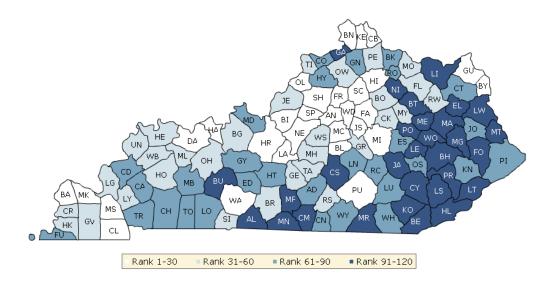
The maps on this page display Kentucky's counties divided into groups by health rank. The lighter colors indicate better performance in the respective summary rankings. The green map shows the distribution of summary health outcomes. The blue displays the distribution of the summary rank for health factors.

Maps help locate the healthiest and least healthy counties in the state. The health factors map appears similar to the health outcomes map, showing how health factors and health outcomes are closely related.

### **HEALTH OUTCOMES**



### **HEALTH FACTORS**



# **Summary Health Outcomes & Health Factors Rankings**

Counties receive two summary ranks:

- Health Outcomes
- **Health Factors**

Each of these ranks represents a weighted summary of a number of measures.

Health outcomes represent how healthy a county is while health factors are what influences the health of the county.

Rank	Health Outcomes	Rank	Health Factors
1	Boone	1	Woodford
2	Oldham	2	Boone
3	Calloway	3	Fayette
4	Woodford	4	Oldham
5	Scott	5	Madison
6	Lyon	6	Kenton
7	Washington	7	Scott
8	Owen	8	Jessamine
9	Franklin	9	Campbell
10	Fayette	10	Calloway
11	Spencer	11	McCracken
12	Shelby	12	Daviess
13	Anderson	13	Franklin
14	Hardin	14	Spencer
15	Hancock	15	Hancock
16	Meade	16	Anderson
17	Bullitt	17	Shelby
18	Daviess	18	Warren
19	Jessamine	19	Hardin
20	Taylor	20	Boyle
21	Campbell	21	Marshall
22	Kenton	22	Ballard
23	Morgan	23	Boyd
24	Boyle	24	Greenup
25	Nelson	25	Nelson
26	Madison	26	Bullitt
27	Warren	27	Harrison
28	Edmonson	28	Larue
29	Marshall	29	Pulaski
30	Garrard	30	Mercer
31	Hart	31	Barren
32	Larue	32	Mason
33	Jefferson	33	Taylor
34	Bourbon	34	Lyon
35	Barren	35	Rowan
36	Graves	36	Carlisle
37	Rowan	37	Hopkins
38	Russell	38	Livingston
39	Trimble	39	Clark
40	Green	40	Bourbon
-		-	

Rank	Health Outcomes	Rank	Health Factors
41	Harrison	41	Garrard
42	Simpson	42	Green
43	Henry	43	Washington
44	Mercer	44	McLean
45	McCracken	45	Ohio
46	Christian	46	Marion
47	Logan	47	Montgomery
48	Caldwell	48	Simpson
49	Union	49	Graves
50	Mason	50	Trimble
51	Carlisle	51	Henderson
52	Bracken	52	Owen
53	Marion	53	Fleming
54	Butler	54	Union
55	Lewis	55	Russell
56	Grayson	56	Webster
57	Breckinridge	57	Jefferson
58	Pulaski	58	Hickman
59	Ohio	59	Pendleton
60	Robertson	60	Breckinridge
61	Allen	61	Whitley
62	Wayne	62	Robertson
63	Adair	63	Logan
64	Rockcastle	64	Clinton
65	Carroll	65	Laurel
66	Fleming	66	Caldwell
67	Webster	67	Muhlenberg
68	Muhlenberg	68	Meade
69	Monroe	69	Fulton
70	Trigg	70	Trigg
71	Hopkins	71	Grant
72	Montgomery	72	Henry
73	Greenup	73	Todd
74	Henderson	74	Johnson
75	Gallatin	75	Wayne
76	Hickman	76	Crittenden
77	Laurel	77	Rockcastle
78	Bath	78	Grayson
79	Menifee	79	Carroll
80	Boyd	80	Estill
81	Lincoln	81	Lincoln
82	Todd	82	Hart
83	Ballard	83	Bracken
84	Grant	84	Carter
85	Pendleton	85	Knott
86	Livingston	86	Pike
87	Clark	87	Edmonson
88	Casey	88	Owsley

Rank	Health Outcomes	Rank	Health Factors
89	Crittenden	89	Christian
90	Metcalfe	90	Adair
91	Carter	91	Casey
92	Estill	92	Butler
93	Clinton	93	Perry
94	McLean	94	Harlan
95	McCreary	95	Nicholas
96	Leslie	96	Gallatin
97	Cumberland	97	Floyd
98	Powell	98	Allen
99	Johnson	99	Letcher
100	Whitley	100	Bell
101	Lee	101	Lawrence
102	Bell	102	Cumberland
103	Elliott	103	Monroe
104	Breathitt	104	Metcalfe
105	Lawrence	105	Elliott
106	Nicholas	106	Morgan
107	Knox	107	Lee
108	Jackson	108	Lewis
109	Clay	109	Knox
110	Floyd	110	Powell
111	Knott	111	Martin
112	Letcher	112	Bath
113	Harlan	113	Wolfe
114	Pike	114	Leslie
115	Perry	115	Menifee
116	Magoffin	116	Magoffin
117	Fulton	117	Breathitt
118	Wolfe	118	Jackson
119	Martin	119	Clay
120	Owsley	120	McCreary

## **Health Outcomes Rankings**

The summary health outcomes ranking is based on measures of mortality and morbidity. Each county's ranks for mortality and morbidity are displayed here. The mortality rank, representing length of life, is based on a measure of premature death: the years of potential life lost prior to age 75.

The morbidity rank is based on measures that represent health-related quality of life and birth outcomes. We combine four morbidity measures: self-reported fair or poor health, poor physical health days, poor mental health days, and the percent of births with low birthweight.

Rank	Mortality	Morbidity
1	Oldham	Washington
2	Boone	Lyon
3	Scott	Hancock
4	Calloway	Woodford
5	Garrard	Calloway
6	Owen	Boone
7	Shelby	Anderson
8	Franklin	Taylor
9	Bullitt	Spencer
10	Hardin	Larue
11	Edmonson	Meade
12	Fayette	Jessamine
13	Woodford	Oldham
14	Madison	Fayette
15	Spencer	Henry
16	Morgan	Rowan
17	Meade	Kenton
18	Warren	Owen
19	Anderson	Hart
20	Daviess	Scott
21	Boyle	Daviess
22	Green	Campbell
23	Union	Logan
24	Campbell	Butler
25	Nelson	Hardin
26	Adair	Franklin
27	Marshall	Nelson
28	Lyon	Simpson
29	Jessamine	Shelby
30	Russell	Harrison
31	Bourbon	Boyle
32	Jefferson	Trimble
33	Kenton	Mason
34	Barren	Marshall
35	Carlisle	Graves
36	Taylor	Rockcastle
37	Graves	Morgan
38	Trigg	Jefferson
39	Hart	Warren
40	McCracken	Barren
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Rank	Mortality	Morbidity
41	Marion	Robertson
42	Hancock	Bourbon
43	Washington	Crittenden
44	Wayne	Bullitt
45	Mercer	Carroll
46	Bracken	Madison
47	Trimble	Pulaski
48	Lewis	Ohio
49	Gallatin	Christian
50	Christian	Monroe
51	Allen	Mercer
52	Lincoln	Caldwell
53	Grant	Fleming
54	Caldwell	Grayson
55	Boyd	McCracken
56	Montgomery	Breckinridge
57	Harrison	Russell
58	Larue	Estill
59	Clark	Bracken
60	Breckinridge	Lewis
61	Greenup	Muhlenberg
62	Simpson	Edmonson
63	Grayson	Allen
64	Henderson	Bath
65	Pulaski	Webster
66	Ohio	Marion
67	Rowan	Green
68	Webster	Hopkins
69	Hopkins	Clinton
70	Muhlenberg	Carlisle
71	Robertson	Hickman
72	Mason	Wayne
73	Laurel	Ballard
74	Todd	Laurel
75	Menifee	Breathitt
76	Hickman	Powell
77	Henry	Garrard
78	Fleming	Casey
79	Logan	Carter
80	Carroll	Menifee
81	Pendleton	Union
82	Livingston	Henderson
83	Butler	Montgomery
84	Rockcastle	Greenup
85	Monroe	Pendleton
86	Ballard	Livingston
87	Bath	Todd
88	Leslie	Adair

Rank	Mortality	Morbidity
89	McCreary	Trigg
90	Clay	Gallatin
91	Metcalfe	Cumberland
92	Casey	Metcalfe
93	Lawrence	Lee
94	McLean	Boyd
95	Carter	Lincoln
96	Johnson	Grant
97	Jackson	Bell
98	Whitley	McLean
99	Elliott	Knox
100	Clinton	Clark
101	Crittenden	Nicholas
102	Bell	Wolfe
103	Cumberland	Knott
104	Floyd	Whitley
105	Estill	Elliott
106	Magoffin	Johnson
107	Lee	McCreary
108	Nicholas	Leslie
109	Knox	Harlan
110	Letcher	Perry
111	Powell	Letcher
112	Knott	Floyd
113	Pike	Fulton
114	Harlan	Pike
115	Breathitt	Owsley
116	Perry	Jackson
117	Martin	Lawrence
118	Fulton	Martin
119	Wolfe	Magoffin
120	Owsley	Clay

## **Health Factors Rankings**

The summary health factors ranking is based on four factors: health behaviors, clinical care, social and economic, and physical environment factors. In turn, each of these factors is based on several measures. Health behaviors include measures of smoking, diet and exercise, alcohol use, and risky sex behavior. Clinical

care includes measures of access to care and quality of care. Social and economic factors include measures of education, employment, income, family and social support, and community safety. The physical environment includes measures of environmental quality and the built environment.

Rank	Health Behaviors	Rank	Clinical Care	Rank	Social & Economic Factors	Rank	Physical Environment
1	Oldham	1	Jefferson	1	Oldham	1	Montgomery
2	Woodford	2	Fayette	2	Boone	2	Taylor
3	Fayette	3	Boyd	3	Woodford	3	Anderson
4	Boone	4	Mason	4	Calloway	4	Boone
5	Hancock	5	Kenton	5	Madison	5	Madison
6	Madison	6	Barren	6	Spencer	6	Clark
7	Barren	7	Bourbon	7	Scott	7	Marshall
8	Campbell	8	Hopkins	8	Shelby	8	Franklin
9	Lyon	9	Daviess	9	Fayette	9	Russell
10	Jessamine	10	Campbell	10	Carlisle	10	Harrison
11	Boyle	11	Boone	11	Daviess	10	Wayne
12	Warren	12	Pulaski	12	Kenton	12	Pulaski
13	Calloway	13	Boyle	13	Franklin	13	Union
14	McCracken	14	Woodford	14	Greenup	14	Monroe
15	Scott	15	Lee	15	Ballard	15	Woodford
16	Hardin	16	Whitley	16	Jessamine	16	Fleming
17	Fulton	17	McCracken	17	Anderson	16	Wolfe
18	Nelson	18	Taylor	18	McCracken	18	Carroll
19	Green	19	Jessamine	19	Boyd	19	Jessamine
20	Washington	20	Fulton	20	Campbell	20	Nelson
21	Clinton	21	Rowan	21	Warren	21	Washington
22	Kenton	22	Montgomery	22	Hardin	22	Shelby
23	Larue	23	Clark	23	Webster	23	Clinton
24	Livingston	24	Oldham	24	Marshall	24	Pendleton
25	Greenup	25	Harrison	25	Bullitt	25	Crittenden
26	Garrard	26	Scott	26	Hancock	25	Fulton
27	Ballard	27	Franklin	27	Harrison	25	Mercer
28	Pulaski	28	Caldwell	28	Larue	25	Robertson
29	Bullitt	29	Hancock	29	Mercer	25	Trimble
30	Daviess	30	Owsley	30	Graves	30	Lincoln
31	McLean	31	Laurel	31	Union	31	Whitley
32	Owen	32	Greenup	32	Nelson	32	Marion
33	Marshall	33	Madison	33	Rowan	33	Fayette
34	Owsley	34	Simpson	34	Bourbon	34	Larue
35	Anderson	35	Pike	35	Meade	35	Grant
36	Spencer	36	Marion	36	Henderson	36	Green
37	Taylor	37	Grayson	37	Livingston	36	Rowan
38	Franklin	38	Spencer	38	Ohio	38	Boyle
39	Breckinridge	39	Elliott	39	Clark	39	Mason
40	Simpson	40	Anderson	40	Owen	40	Livingston

Rank	Health Behaviors	Rank	Clinical Care	Rank	Social & Economic Factors	Rank	Physical Environment
41	Russell	41	Perry	41	Caldwell	41	Caldwell
42	Trimble	42	Hardin	42	McLean	42	Scott
43	Carlisle	43	Russell	43	Mason	43	Logan
44	Metcalfe	44	Floyd	44	Lyon	44	Spencer
45	Jefferson	45	Shelby	45	Hopkins	45	Carter
46	Marion	46	Bullitt	46	Green	46	Bourbon
47	Fleming	47	Garrard	47	Pendleton	47	Bell
48	Mercer	48	Carter	48	Hickman	48	Hart
49	Estill	49	Mercer	49	Bracken	49	Hopkins
50	Shelby	50	Powell	50	Boyle	50	Kenton
51	Grayson	51	Estill	51	Logan	51	Grayson
52	Hickman	52	Marshall	52	Trimble	52	Simpson
53	Henderson	53	Menifee	53	Todd	53	Martin
54	Edmonson	54	Knox	54	Garrard	54	Ballard
55	Ohio	55	Henderson	55	Pulaski	54	Gallatin
56	Pendleton	56	Warren	56	Fleming	54	Powell
57	Trigg	57	Lincoln	57	Taylor	57	Muhlenberg
58	Harrison	58	Rockcastle	58	Henry	58	Casey
59	Harlan	59	Washington	59	Robertson	59	Warren
60	Wayne	60	Ballard	60	Muhlenberg	60	Bath
61	Rockcastle	61	Calloway	61	Laurel	60	Lewis
62	Christian	62	Nelson	62	Breckinridge	62	Pike
63	Boyd	63	Bell	63	Grant	63	Allen
64	Rowan	64	Ohio	64	Marion	64	Calloway
65	Cumberland	65	Johnson	65	Johnson	65	Laurel
66	Graves	66	Robertson	66	Simpson	66	Morgan
67	Henry	67	Wayne	67	Jefferson	67	Bullitt
68	Mason	68	Breckinridge	68	Trigg	68	Barren
69	Monroe	69	Letcher	69	Crittenden	69	Bracken
70	Robertson	70	Muhlenberg	70	Clinton	69	Cumberland
71	Todd	71	Union	71	Montgomery	69	Elliott
72	Hopkins	72	Graves	72	Washington	69	Estill
73	Muhlenberg	73	Fleming	73	Pike	69	Garrard
74	Knott	74	Knott	74	Hart	69	Hickman
75	Adair	75	Wolfe	75	Whitley	69	Jackson
76	Grant	76	Trigg	76	Carroll	69	Lee
77	Magoffin	77	Breathitt	77	Russell	69	Lyon
78	Montgomery	78	Carroll	78	Lincoln	69	McCreary
79	Casey	79	Clay	79	Perry	69	Menifee
80	Johnson	80	Hart	80	Letcher	69	Nicholas
81	Logan	81	Lyon	81	Nicholas	69	Owen
82	Crittenden	82	Harlan	82	Barren	69	Rockcastle
83	Webster	83	Meade	83	Butler	83	Campbell
84	Gallatin	84	McLean	84	Casey	84	Harlan
85	Whitley	85	Larue	85	Adair	85	Floyd
86	Clark	86	Logan	86	Christian	86	Adair
87	Nicholas	87	Henry	87	Edmonson	86	Todd
88	Carroll	88	Lawrence	88	Rockcastle	88	Daviess

Rank	Health Behaviors	Rank	Clinical Care	Rank	Social & Economic Factors	Rank	Physical Environment
89	Bell	89	Trimble	89	Knott	89	Ohio
90	Hart	90	Butler	90	Carter	90	McLean
91	Laurel	91	Grant	91	Allen	91	Perry
92	Knox	92	Lewis	92	Floyd	92	Graves
93	Clay	93	Livingston	93	Wayne	93	Breckinridge
94	Allen	94	Hickman	94	Lawrence	93	Carlisle
95	Bath	95	Christian	95	Gallatin	93	Magoffin
96	Butler	96	Martin	96	Lewis	96	Meade
97	Morgan	97	Carlisle	97	Cumberland	97	Webster
98	Union	98	Bath	98	Estill	98	Henry
99	Menifee	99	Leslie	99	Monroe	99	McCracken
100	Carter	100	Jackson	100	Grayson	100	Trigg
101	Meade	101	Green	101	Morgan	101	Leslie
102	Elliott	102	Edmonson	102	Leslie	102	Breathitt
103	Lawrence	103	Webster	103	Martin	102	Clay
104	Bourbon	104	Crittenden	104	Harlan	102	Lawrence
105	Lincoln	105	Allen	105	Breathitt	105	Butler
106	Powell	106	Owen	106	Bell	105	Metcalfe
107	Wolfe	107	Pendleton	107	Metcalfe	105	Owsley
108	Bracken	108	Morgan	108	Fulton	108	Letcher
109	Lee	109	Gallatin	109	Elliott	109	Edmonson
110	Floyd	110	McCreary	110	Owsley	110	Hardin
111	Jackson	111	Adair	111	Bath	111	Knott
112	McCreary	112	Todd	112	Knox	111	Knox
113	Letcher	113	Magoffin	113	Lee	113	Boyd
114	Caldwell	114	Metcalfe	114	Powell	114	Johnson
115	Martin	115	Nicholas	115	Jackson	115	Christian
116	Pike	116	Bracken	116	Wolfe	116	Henderson
117	Perry	117	Casey	117	Magoffin	117	Greenup
118	Leslie	118	Clinton	118	McCreary	118	Hancock
119	Lewis	119	Cumberland	119	Menifee	119	Jefferson
120	Breathitt	120	Monroe	120	Clay	120	Oldham

# 2011 County Health Rankings: Measures, Data Sources, and Years of Data

	Measure	Data Source	Years of Data
HEALTH OUTCOMES	i e		
Mortality	Premature death	National Center for Health Statistics	2005-2007
Morbidity	Poor or fair health	Behavioral Risk Factor Surveillance System	2003-2009
	Poor physical health days	Behavioral Risk Factor Surveillance System	2003-2009
	Poor mental health days	Behavioral Risk Factor Surveillance System	2003-2009
	Low birthweight	National Center for Health Statistics	2001-2007
HEALTH FACTORS			
HEALTH BEHAVIORS			
Tobacco	Adult smoking	Behavioral Risk Factor Surveillance System	2003-2009
Diet and Exercise	Adult obesity	National Center for Chronic Disease Prevention and Health Promotion	2008
Alcohol Use	Excessive drinking	Behavioral Risk Factor Surveillance System	2003-2009
	Motor vehicle crash death rate	National Center for Health Statistics	2001-2007
High Risk Sexual Behavior	Sexually transmitted infections	National Center for Hepatitis, HIV, STD and TB Prevention	2008
	Teen birth rate	National Center for Health Statistics	2001-2007
CLINICAL CARE			
Access to Care	Uninsured adults	Small Area Health Insurance Estimates, U.S. Census	2007
	Primary care providers	Health Resources & Services Administration	2008
Quality of Care	Preventable hospital stays	Medicare/Dartmouth Institute	2006-2007
	Diabetic screening	Medicare/Dartmouth Institute	2006-2007
	Mammography screening	Medicare/Dartmouth Institute	2006-2007
SOCIOECONOMIC FAC	TORS		
Education	High school graduation	National Center for Education Statistics <sup>1</sup>	2006-2007
	Some college	American Community Survey	2005-2009
Employment	Unemployment	Bureau of Labor Statistics	2009
Income	Children in poverty	Small Area Income and Poverty Estimates, U.S. Census	2008
Family and Social Support	Inadequate social support	Behavioral Risk Factor Surveillance System	2005-2009
	Single-parent households	American Community Survey	2005-2009
Community Safety	Violent crime <sup>2</sup>	Uniform Crime Reporting, Federal Bureau of Investigation	2006-2008
PHYSICAL ENVIRONME	NT		
Air Quality <sup>3</sup>	Air pollution-particulate matter days	U.S. Environmental Protection Agency / Centers for Disease Control and Prevention	2006
	Air pollution-ozone days	U.S. Environmental Protection Agency / Centers for Disease Control and Prevention	2006
Built Environment	Access to healthy foods	Census Zip Code Business Patterns	2008
	Access to recreational facilities	Census County Business Patterns	2008

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<sup>&</sup>lt;sup>1</sup> State data sources for KY, NH, NC, PA, SC, and UT (2008-2009).

Homicide rate (2001-2007) from National Center for Health Statistics for AK, AZ, AR, CO, CT, GA, ID, IN, IA, KS, KY, LA, MN, MS, MT, NE, NH, NM, NC, ND, OH, SD, UT, and WV. State data source for IL.

<sup>&</sup>lt;sup>3</sup> Not available for AK and HI.

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