



County Health Rankings

Mobilizing Action Toward Community Health

2011

Oklahoma



Robert Wood Johnson Foundation



UNIVERSITY OF WISCONSIN

Population Health Institute

Translating Research into Policy and Practice

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.

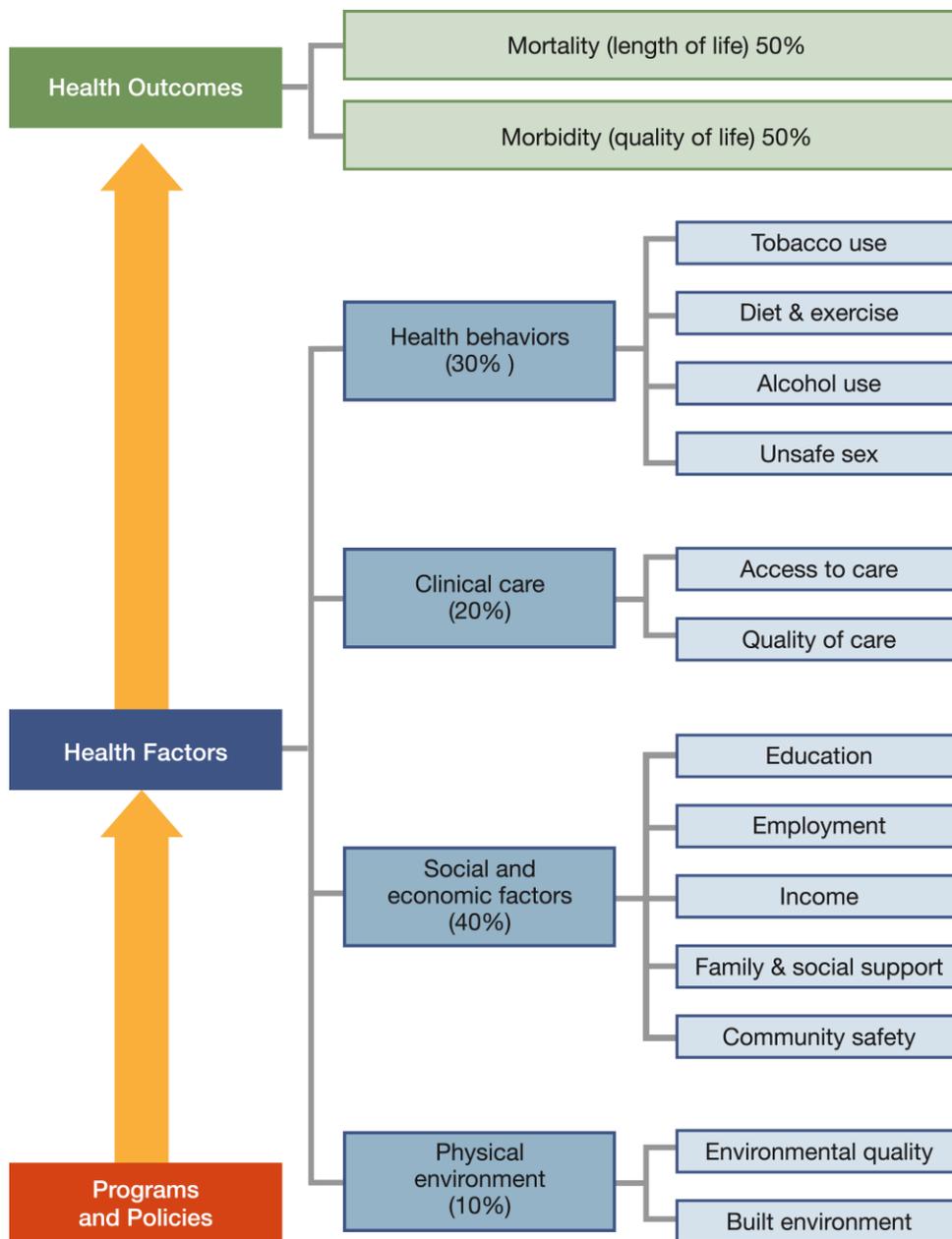
For a more detailed explanation of our approach, the methods used to compile the *Rankings*, information on the action steps communities can take to improve their health, and examples of communities in action, see www.countyhealthrankings.org



The Rankings

This report ranks Oklahoma 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.

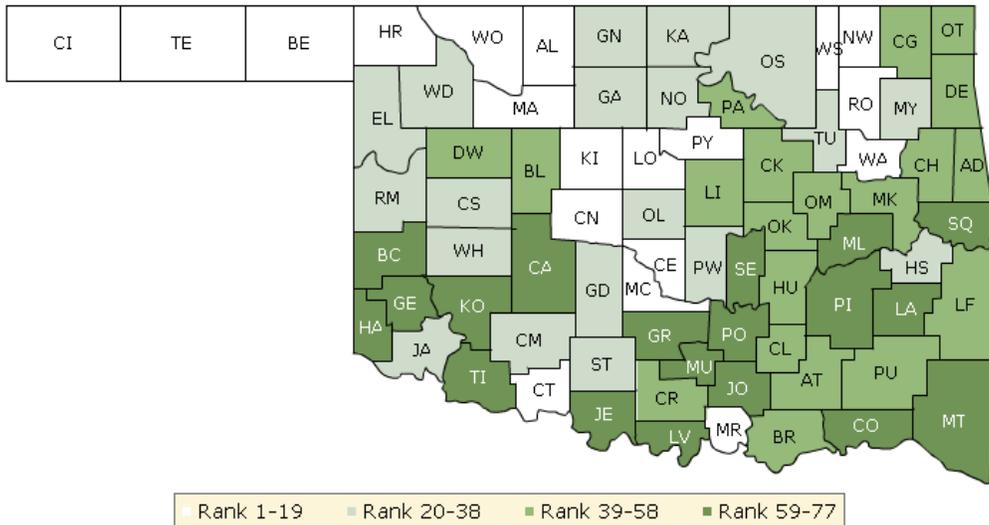


County Health Rankings model ©2010 UWPHI

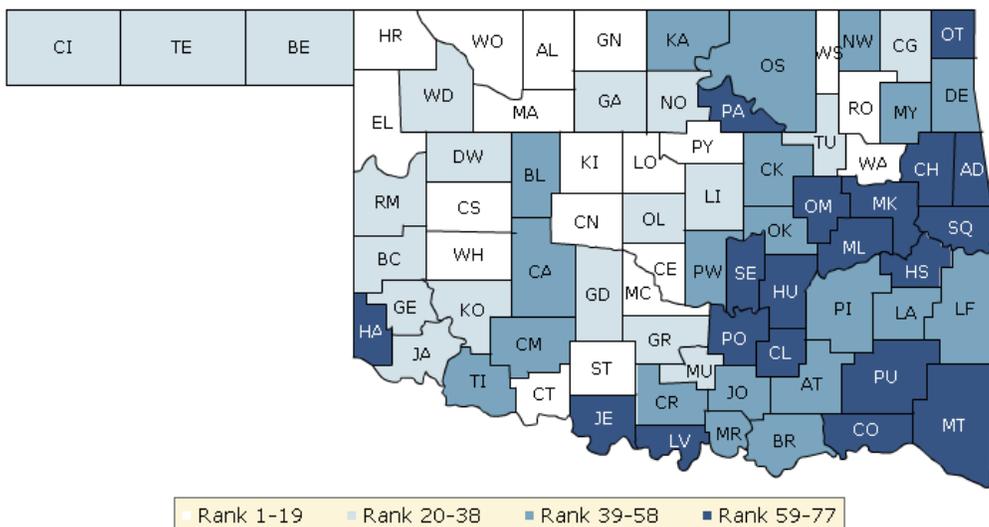
The maps on this page display Oklahoma's counties divided into groups by health rank. The lighter colors indicate better performance in the respective summary rankings. The green map shows the distribution of summary health outcomes. The blue displays the distribution of the summary rank for health factors.

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	Woods	1	Major
2	Texas	2	Grant
3	Cleveland	3	Cleveland
4	Beaver	4	Kingfisher
5	Canadian	5	McClain
6	Alfalfa	6	Canadian
7	Payne	7	Ellis
8	Logan	8	Woods
9	Nowata	9	Custer
10	Kingfisher	10	Washington
11	McClain	11	Payne
12	Rogers	12	Alfalfa
13	Wagoner	13	Stephens
14	Washington	14	Logan
15	Major	15	Harper
16	Cimarron	16	Rogers
17	Harper	17	Wagoner
18	Cotton	18	Cotton
19	Marshall	19	Washita
20	Noble	20	Dewey
21	Stephens	21	Roger Mills
22	Custer	22	Tulsa
23	Grant	23	Grady
24	Garfield	24	Jackson
25	Osage	25	Garfield
26	Washita	26	Woodward
27	Tulsa	27	Beaver
28	Grady	28	Cimarron
29	Woodward	29	Beckham
30	Oklahoma	30	Oklahoma
31	Jackson	31	Garvin
32	Pottawatomie	32	Greer
33	Ellis	33	Lincoln
34	Comanche	34	Kiowa
35	Roger Mills	35	Texas
36	Mayes	36	Murray
37	Kay	37	Noble
38	Haskell	38	Craig
39	Coal	39	Bryan
40	Dewey	40	Creek

Rank	Health Outcomes	Rank	Health Factors
41	Creek	41	Pittsburg
42	Lincoln	42	Osage
43	Le Flore	43	Nowata
44	Muskogee	44	Blaine
45	Cherokee	45	Carter
46	Craig	46	Pottawatomie
47	Delaware	47	Delaware
48	Bryan	48	Okfuskee
49	Blaine	49	Atoka
50	Hughes	50	Kay
51	Ottawa	51	Mayes
52	Okfuskee	52	Latimer
53	Atoka	53	Comanche
54	Okmulgee	54	Marshall
55	Pawnee	55	Caddo
56	Adair	56	Tillman
57	Pushmataha	57	Johnston
58	Carter	58	Le Flore
59	Tillman	59	Pontotoc
60	Beckham	60	Ottawa
61	Pontotoc	61	Love
62	Murray	62	Jefferson
63	Sequoyah	63	Coal
64	Garvin	64	Okmulgee
65	Caddo	65	Muskogee
66	Kiowa	66	Cherokee
67	Pittsburg	67	Haskell
68	Jefferson	68	Harmon
69	Love	69	McIntosh
70	Choctaw	70	McCurtain
71	McIntosh	71	Pawnee
72	Johnston	72	Choctaw
73	Latimer	73	Seminole
74	McCurtain	74	Hughes
75	Seminole	75	Adair
76	Greer	76	Pushmataha
77	Harmon	77	Sequoyah

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	Rank	Morbidity
1	Woods	1	Cimarron
2	Alfalfa	2	Dewey
3	Cleveland	3	Beaver
4	Canadian	4	Texas
5	Payne	5	Nowata
6	Texas	6	Harper
7	Major	7	Woods
8	Wagoner	8	Grant
9	Beaver	9	Noble
10	Logan	10	Cleveland
11	McClain	11	Canadian
12	Cotton	12	Payne
13	Marshall	13	Alfalfa
14	Kingfisher	14	Logan
15	Rogers	15	Kingfisher
16	Washington	16	Washington
17	Nowata	17	Rogers
18	Grady	18	Stephens
19	Garfield	19	McClain
20	Jackson	20	Washita
21	Osage	21	Custer
22	Custer	22	Coal
23	Harper	23	Garfield
24	Oklahoma	24	Tulsa
25	Comanche	25	Woodward
26	Stephens	26	Osage
27	Tulsa	27	Wagoner
28	Atoka	28	Cotton
29	Woodward	29	Ellis
30	Pottawatomie	30	Le Flore
31	Washita	31	Marshall
32	Noble	32	Okfuskee
33	Muskogee	33	Caddo
34	Mayes	34	Roger Mills
35	Haskell	35	Kay
36	Grant	36	Creek
37	Cimarron	37	Major
37	Ellis	38	Oklahoma
37	Roger Mills	39	Mayes
40	Kay	40	Grady

Rank	Mortality	Rank	Morbidity
41	Lincoln	41	Pottawatomie
42	Cherokee	42	Garvin
43	Pawnee	43	Bryan
44	Craig	44	Blaine
45	Creek	45	Okmulgee
46	Pushmataha	46	Haskell
47	Delaware	47	Beckham
48	Tillman	48	Delaware
49	Kiowa	49	Jackson
50	Sequoyah	50	Hughes
51	Hughes	51	Lincoln
52	Bryan	52	Ottawa
53	Blaine	53	Cherokee
54	Le Flore	54	Craig
55	Ottawa	55	Comanche
56	Coal	56	Adair
57	Murray	57	Carter
58	Adair	58	Muskogee
59	Okmulgee	59	McCurtain
60	Pontotoc	60	Pontotoc
61	Carter	61	Seminole
62	Love	62	Jefferson
63	Okfuskee	63	Pittsburg
64	Pittsburg	64	Pawnee
65	Beckham	65	Choctaw
66	Choctaw	66	McIntosh
67	McIntosh	67	Murray
68	Jefferson	68	Pushmataha
69	Garvin	69	Johnston
70	Johnston	70	Tillman
71	Latimer	71	Latimer
72	Dewey	72	Harmon
73	Caddo	73	Sequoyah
74	McCurtain	74	Greer
75	Seminole	75	Love
76	Greer	76	Kiowa
77	Harmon	77	Atoka

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	Major	1	Greer	1	Kingfisher	1	Murray
2	Grant	2	Tulsa	2	Major	2	Garvin
3	Washita	3	Oklahoma	3	Roger Mills	3	Custer
4	Cleveland	4	Ellis	4	Harper	4	Okmulgee
5	Tulsa	5	Washington	5	McClain	5	Latimer
6	McClain	6	Stephens	6	Ellis	6	Washington
7	Alfalfa	7	Pottawatomie	7	Canadian	7	Cherokee
8	Custer	8	Canadian	8	Woods	8	Seminole
9	Texas	9	Garfield	9	Beaver	9	Kingfisher
10	Woods	10	Cleveland	10	Dewey	9	Major
11	Stephens	11	Comanche	11	Cleveland	11	Craig
12	Payne	12	Grant	12	Cotton	12	Beckham
13	Canadian	13	Rogers	13	Grant	13	Muskogee
14	Kingfisher	14	Noble	14	Cimarron	14	Ellis
15	Cimarron	15	Pittsburg	15	Rogers	14	Woods
16	Wagoner	16	Kiowa	16	Payne	16	McClain
17	Oklahoma	17	Grady	17	Alfalfa	17	Stephens
18	Nowata	18	Wagoner	18	Murray	18	Carter
19	Logan	19	Kay	19	Logan	19	Bryan
20	Garvin	20	Craig	20	Washington	20	Payne
21	Marshall	21	Custer	21	Custer	21	Rogers
22	Washington	22	Logan	22	Jackson	22	Greer
23	Le Flore	23	Okfuskee	23	Beckham	23	Grady
24	Woodward	24	Beckham	24	Woodward	24	Cleveland
25	Harper	25	McClain	25	Washita	25	Garfield
26	Jackson	26	Woodward	26	Grady	26	Hughes
27	Jefferson	27	Creek	27	Wagoner	27	Pontotoc
28	Ellis	28	Lincoln	28	Garfield	28	Atoka
29	Kiowa	29	Muskogee	29	Lincoln	28	Harper
30	Dewey	30	Cotton	30	Texas	28	Texas
31	Lincoln	31	Jackson	31	Noble	31	Logan
32	Atoka	32	Kingfisher	32	Stephens	32	Marshall
33	Bryan	33	Okmulgee	33	Bryan	33	Pottawatomie
34	Osage	34	Pontotoc	34	Love	34	Blaine
35	Carter	35	Delaware	35	Garvin	34	McIntosh
36	Grady	36	Seminole	36	Pittsburg	36	Canadian
37	Coal	37	Carter	37	Creek	37	Okfuskee
38	Delaware	38	McCurtain	38	Craig	38	Delaware
39	Garfield	39	Mayes	39	Blaine	39	Kiowa
40	Harmon	40	McIntosh	40	Kiowa	40	McCurtain

Rank	Health Behaviors	Rank	Clinical Care	Rank	Social & Economic Factors	Rank	Physical Environment
41	Kay	41	Major	41	Pontotoc	41	Lincoln
42	Latimer	42	Ottawa	42	Atoka	42	Wagoner
43	Okfuskee	43	Nowata	43	Pottawatomie	43	Osage
44	Greer	44	Payne	44	Tulsa	44	Grant
45	Beaver	45	Alfalfa	45	Osage	45	Le Flore
46	McCurtain	46	Garvin	46	Greer	46	Creek
47	Cotton	47	Woods	47	Mayes	47	Caddo
48	Beckham	48	Pawnee	48	Oklahoma	48	Coal
49	Johnston	49	Blaine	49	Johnston	48	Harmon
50	Noble	50	Sequoyah	50	Comanche	48	Roger Mills
51	Caddo	51	Roger Mills	51	Tillman	51	Mayes
52	Haskell	52	Tillman	52	Caddo	52	Jackson
53	Creek	53	Osage	53	Ottawa	53	Ottawa
54	Roger Mills	54	Caddo	54	Cherokee	54	Nowata
55	Pittsburg	55	Dewey	55	Pawnee	55	Cimarron
56	Craig	56	Hughes	56	Carter	55	Pushmataha
57	Tillman	57	Bryan	57	Marshall	57	Washita
58	Rogers	58	Le Flore	58	Latimer	58	Alfalfa
59	Blaine	59	Latimer	59	Delaware	59	Beaver
60	Mayes	60	Jefferson	60	Okfuskee	59	Woodward
61	Muskogee	61	Cherokee	61	Kay	61	Comanche
62	Choctaw	62	Haskell	62	Harmon	62	Tillman
63	Love	63	Beaver	63	Nowata	63	Haskell
64	McIntosh	64	Murray	64	Haskell	64	Kay
65	Ottawa	65	Love	65	Coal	65	Choctaw
66	Okmulgee	66	Coal	66	Jefferson	66	Cotton
67	Comanche	67	Choctaw	67	Choctaw	67	Adair
68	Murray	68	Johnston	68	McIntosh	68	Pawnee
69	Cherokee	69	Washita	69	Seminole	69	Oklahoma
70	Pottawatomie	70	Harper	70	Okmulgee	70	Noble
71	Hughes	71	Adair	71	Le Flore	71	Dewey
72	Adair	72	Marshall	72	Muskogee	72	Sequoyah
73	Pushmataha	73	Texas	73	Pushmataha	73	Johnston
74	Pawnee	74	Pushmataha	74	Adair	74	Jefferson
75	Sequoyah	75	Harmon	75	Hughes	75	Pittsburg
76	Pontotoc	76	Atoka	76	Sequoyah	76	Love
77	Seminole	77	Cimarron	77	McCurtain	77	Tulsa

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

	Measure	Data Source	Years of Data
HEALTH OUTCOMES			
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 FACTORS			
Education	High school graduation	National Center for Education Statistics ¹	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 ²	Uniform Crime Reporting, Federal Bureau of Investigation	2006-2008
PHYSICAL ENVIRONMENT			
Air Quality ³	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

¹ State data sources for KY, NH, NC, PA, SC, and UT (2008-2009).

² 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.

³ Not available for AK and HI.

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