County Health Rankings

Mobilizing Action Toward Community Health

2010

Oklahoma

Robert Wood Johnson Foundation

UNIVERSITY OF WISCONSIN

Population Health Institute

Translating Research into Policy and Practice

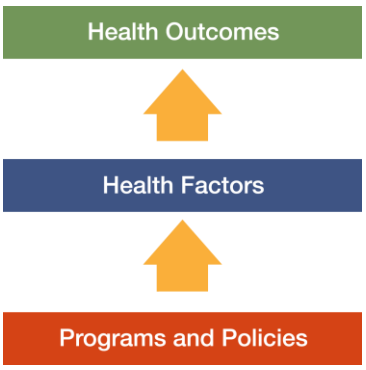
Introduction

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.

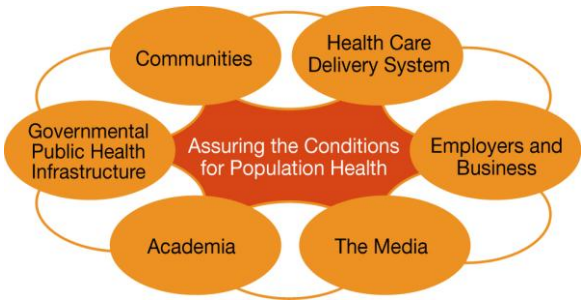
The problem is that there are big differences in health across communities, with some places being much healthier than others. And up to now, it has been hard to get a standard way to measure how healthy a county is and see where they can improve.

The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute are pleased to present the 2010 *County Health Rankings*, a collection of 50 reports that reflect the overall health of counties in every state across the country. For the first time, 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 will allow them 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.



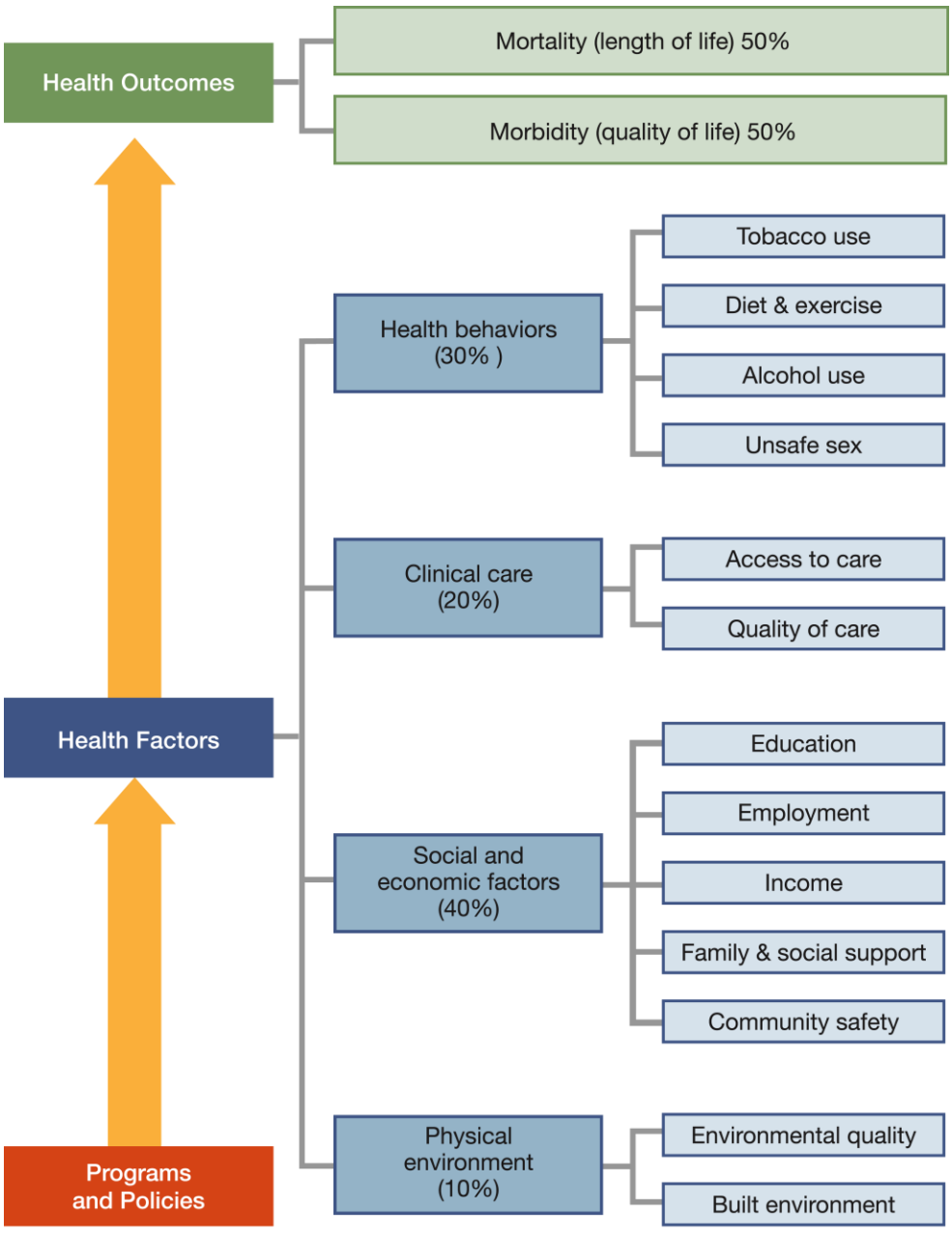
Institute of Medicine, 2002

To compile the *Rankings*, we built on our prior work in Wisconsin, worked closely with staff from the Centers for Disease Control and Prevention and Dartmouth College, and obtained input from a team of expert advisors. 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 the choice of measures, 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.

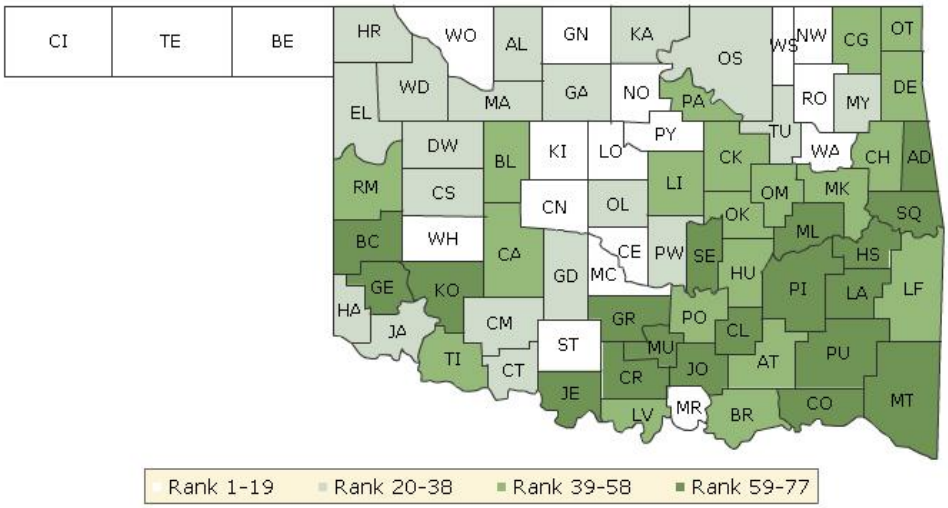


County Health Rankings model ©2010 UWPHI

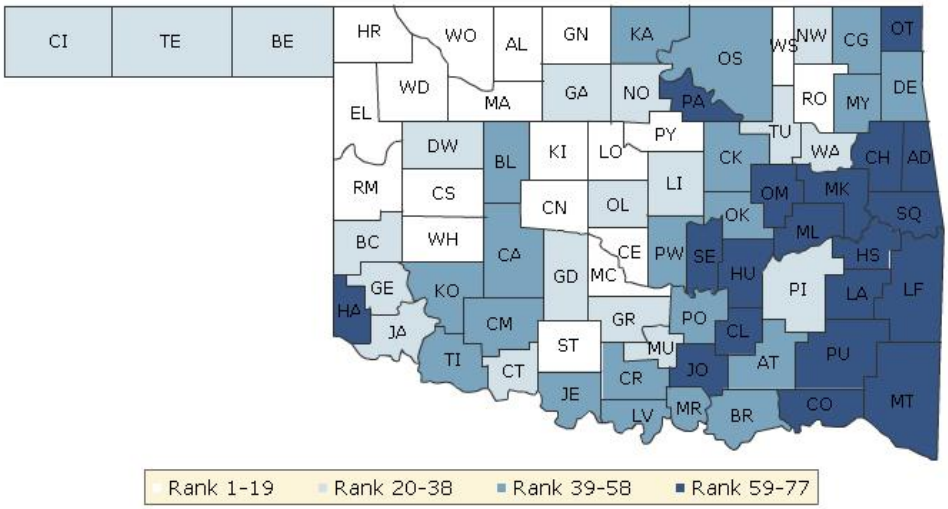
The maps on this page display Oklahoma's counties divided into groups by health rank. The lighter colors indicate better performance in the respective summary rankings. The green map shows the distribution of summary health outcomes. The blue displays the distribution of the summary rank for health factors.

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

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

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

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

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

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

2010 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	2004-2006
Morbidity	Poor or fair health	Behavioral Risk Factor Surveillance System	2002-2008
	Poor physical health days	Behavioral Risk Factor Surveillance System	2002-2008
	Poor mental health days	Behavioral Risk Factor Surveillance System	2002-2008
	Low birthweight	National Center for Health Statistics	2000-2006
HEALTH FACTORS			
HEALTH BEHAVIORS			
Tobacco	Adult smoking	Behavioral Risk Factor Surveillance System	2002-2008
Diet and Exercise	Adult obesity	National Center for Chronic Disease Prevention and Health Promotion	2006-2008
Alcohol Use	Binge drinking	Behavioral Risk Factor Surveillance System	2002-2008
	Motor vehicle crash death rate	National Center for Health Statistics	2000-2006
High Risk Sexual Behavior	Chlamydia rate	National Center for Health Statistics	2007
	Teen birth rate	National Center for Health Statistics	2000-2006
CLINICAL CARE			
Access to Care	Uninsured adults	Small Area Health Insurance Estimates, U.S. Census	2005
	Primary care provider rate	Health Resources & Services Administration	2006
Quality of Care	Preventable hospital stays	Medicare/Dartmouth Institute	2005-2006
	Diabetic screening	Medicare/Dartmouth Institute	2003-2006
	Hospice use	Medicare/Dartmouth Institute	2001-2005
SOCIOECONOMIC FACTORS			
Education	High school graduation	National Center for Education Statistics[1]	2005-2006
	College degrees	U.S. Census/American Community Survey	2000/2005-2007
Employment	Unemployment	Bureau of Labor Statistics	2008
Income	Children in poverty	Small Area Income and Poverty Estimates, U.S. Census	2007
	Income inequality	U.S. Census/American Community Survey[2]	2000/2005-2007
Family and Social Support	Inadequate social support	Behavioral Risk Factor Surveillance System	2005-2008
	Single-parent households	U.S. Census/American Community Survey	2000/2005-2007
Community Safety	Violent crime[3]	Uniform Crime Reporting, Federal Bureau of Investigation	2005-2007
PHYSICAL ENVIRONMENT			
Air Quality[4]	Air pollution-particulate matter days	U.S. Environmental Protection Agency / Centers for Disease Control and Prevention	2005
	Air pollution-ozone days	U.S. Environmental Protection Agency / Centers for Disease Control and Prevention	2005
Built Environment	Access to healthy foods	Census Zip Code Business Patterns	2006
	Liquor store density	Census County Business Patterns	2006

[1] State data sources for KY, NH, NC, PA, SC, and UT (2007-2008).

[2] Income inequality estimates for 2000 were calculated by Mark L. Burkey, North Carolina Agricultural & Technical State University, www.ncat.edu/~burkeym/Gini.htm.

[3] Homicide rate (2000-2006) 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.

[4] Not available for AK and HI.

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