County Health Rankings & Roadmaps

A Healthier Nation, County by County

2012 *Rankings*

Missouri

Robert Wood Johnson Foundation

UNIVERSITY OF WISCONSIN

Population Health Institute

Translating Research into Policy and Practice

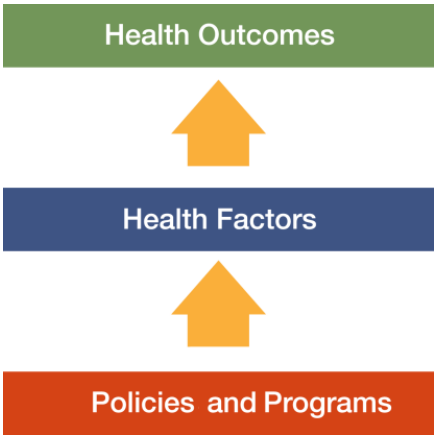
Introduction

Where we live matters to our health. The health of a community depends on many different factors, including the environment, education and jobs, access to and quality of healthcare, and individual behaviors. We can improve a community's health by implementing effective policies and programs. For example, 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. In addition, people who live in communities with safe and accessible park and recreation space are more likely to exercise, which reduces heart disease risk.

However, health varies greatly across communities, with some places being much healthier than others. And, until now, there has been no standard method to illustrate what we know about what makes people sick or healthy or a central resource to identify what we can do to create healthier places to live, learn, work and play.

We know that much of what influences our health happens outside of the doctor's office – in our schools, workplaces and neighborhoods. The *County Health Rankings & Roadmaps* program provides information on the overall health of your community and provides the tools necessary to create community-based, evidence-informed solutions. Ranking the health of nearly every county across the nation, the *County Health Rankings* illustrate **what we know** when it comes to what is making communities sick or healthy. The *County Health Roadmaps* show **what we can do** to create healthier places to live, learn, work and play. The Robert Wood Johnson Foundation collaborates with the University of Wisconsin Population Health Institute to bring this groundbreaking program to counties and states across the nation.

The *County Health Rankings & Roadmaps* program includes the *County Health Rankings* project, launched in 2010, and the newer *Roadmaps* project that mobilizes local communities, national partners and leaders across all sectors to improve health. The program is based on 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. Counties can improve health outcomes by addressing all health factors with effective, evidence-informed policies and programs.

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

Guide to Our Web Site

To compile the *Rankings*, we selected measures that reflect important aspects of population health that can be improved and are available at the county level across the nation. Visit www.countyhealthrankings.org to learn more.

To get started and see data, enter your county or state name in the search box. Click on the name of a county or measure to see more details. You can: Compare Counties; Download data for your state; Print one or more county snapshots; or Share information with others via Facebook, Twitter, or Google+. To understand our methods, click on Learn about the Data and Methods. To learn about steps that you can take to improve health in your community, click on the *Roadmaps* tab. The *Roadmaps to Health* Action Center provides tools and resources to help groups working together to create healthier places. The Opportunities section provides information on funding, recognition, and partnership opportunities. The Connections section helps you learn what others are doing.

County Health Roadmaps

The *Rankings* illustrate **what we know** when it comes to making people sick or healthy. The *County Health Rankings* confirm the critical role that factors such as education, jobs, income and the environment play in how healthy people are and how long we live.

This report introduces the *County Health Roadmaps*, a new partnership that mobilizes local communities, national partners and leaders across all sectors to improve health. The *County Health Roadmaps* show **what we can do** to create healthier places to live, learn, work and play. The Robert Wood Johnson Foundation collaborates with the University of Wisconsin Population Health Institute to bring this groundbreaking project to cities, counties and states across the nation.

The *Roadmaps* project includes grants to local coalitions and partnerships among policymakers, business, education, public health, health care, and community organizations; grants to national organizations working to improve health; recognition of communities whose promising efforts have led to better health; and customized technical assistance on strategies to improve health.

Roadmaps to Health **Community Grants**
The *Roadmaps to Health* Community Grants provide funding for 2 years to state and local efforts among policymakers, business, education, healthcare, public health and community organizations working to create positive policy or systems changes that address the social and economic factors that influence the health of people in their community.

Roadmaps to Health **Partner Grants**
The Robert Wood Johnson Foundation is awarding *Roadmaps to Health* Partner Grants to national organizations that are experienced at engaging local partners and leaders and are able to deliver high-quality training and technical assistance, and committed to making communities healthier places to live, learn, work and play. Partner grantees increase awareness about the *County Health Rankings & Roadmaps* to their members, affiliates and allies. The first Partner Grant was awarded to United Way Worldwide (UWW) in July 2011.

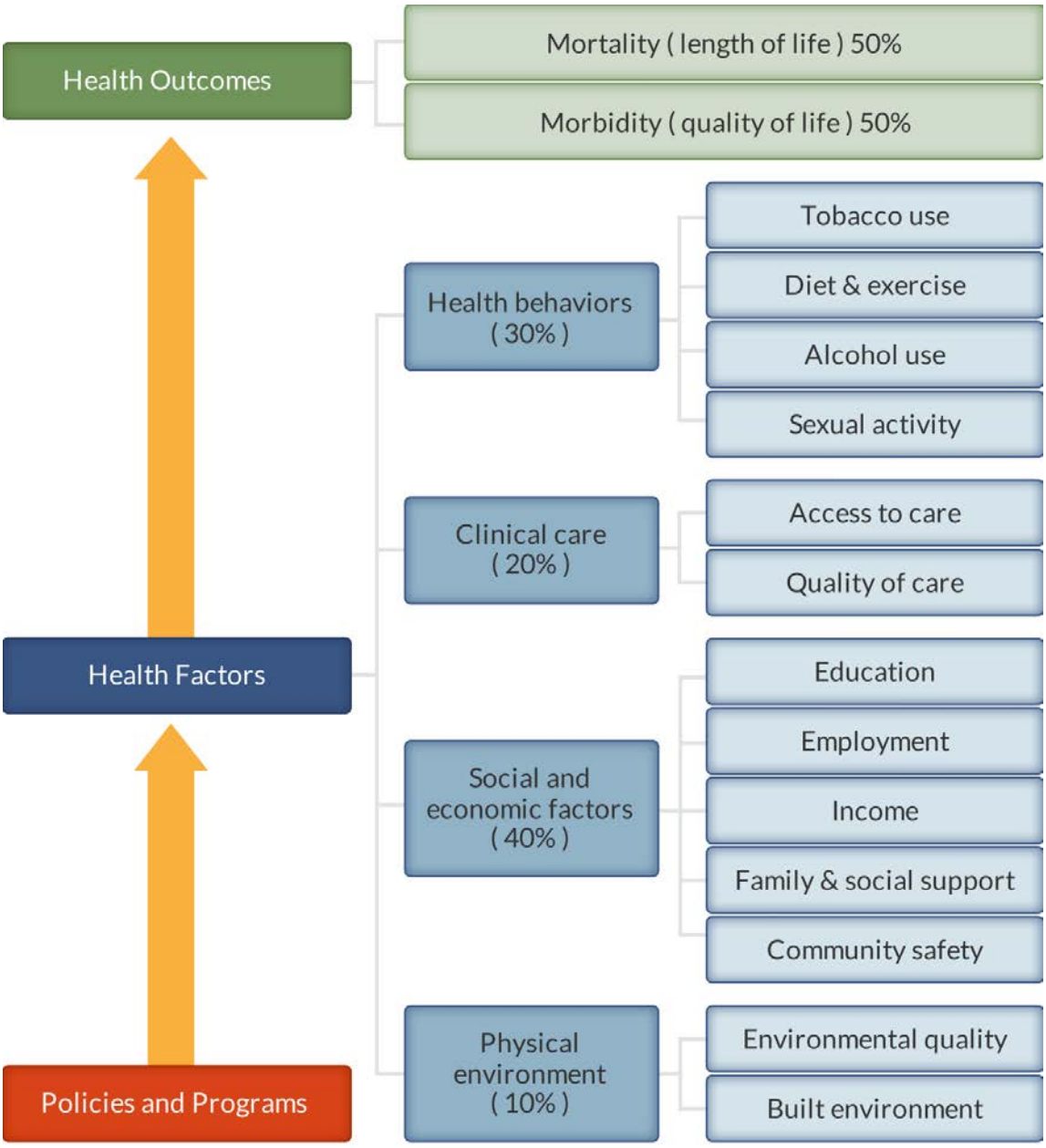
Roadmaps to Health **Prize**
The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute will award *Roadmaps to Health* Prizes of $25,000 to up to six communities that are working to become healthier places to live, learn, work and play. The *Roadmaps to Health* Prize is intended not only to honor successful efforts, but also to inspire and stimulate similar activities in other U.S. communities.

Roadmaps to Health **Action Center**
The *Roadmaps to Health* Action Center, based at the University of Wisconsin Population Health Institute, provides tools and resources to help groups working to make their communities healthier places. The new Action Center will provide guidance on developing strategies and advocacy efforts to advance pro-health policies, offer opportunities for ongoing learning, and in the summer of 2012, host a searchable database of evidence-informed policies and programs focused on health improvement. Experts provide customized consultation to local communities who have demonstrated the willingness and capacity to address factors that we know influence how healthy a person is, such as education, income and family connectedness.

County Health Rankings

The 2012 *County Health Rankings* report ranks Missouri counties according to their summary measures of **health outcomes** and **health factors**. Counties also receive a rank for mortality, morbidity, health behaviors, clinical care, social and economic factors, and the physical environment. The figure below depicts the structure of the *Rankings* model; those having high ranks (e.g., 1 or 2) are estimated to be the "healthiest."

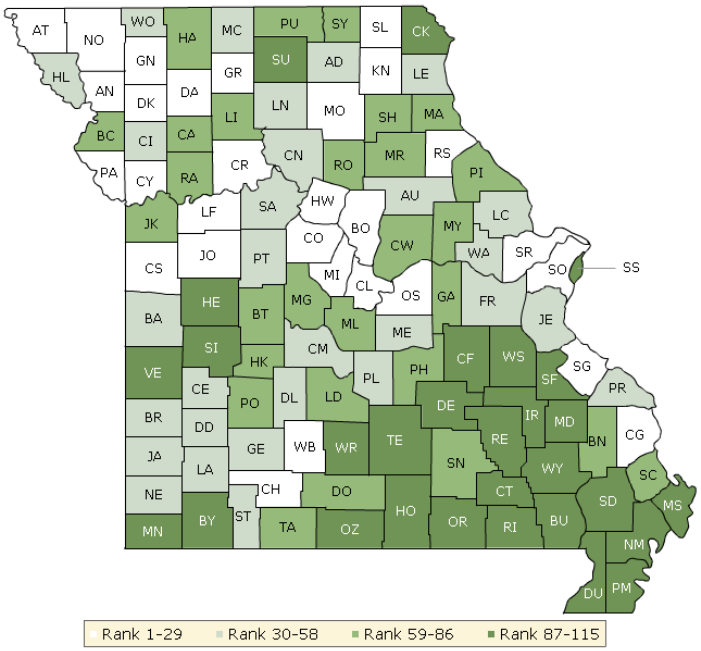
Our summary **health outcomes** rankings are based on an equal weighting of mortality and morbidity measures. The summary **health factors** rankings are based on weighted scores of four types of factors: behavioral, clinical, social and economic, and environmental. The weights for the factors (shown 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 ©2012 UWPHI

The maps on this page and the next display Missouri's counties divided into groups by health rank. Maps help locate the healthiest and least healthy counties in the state. 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.

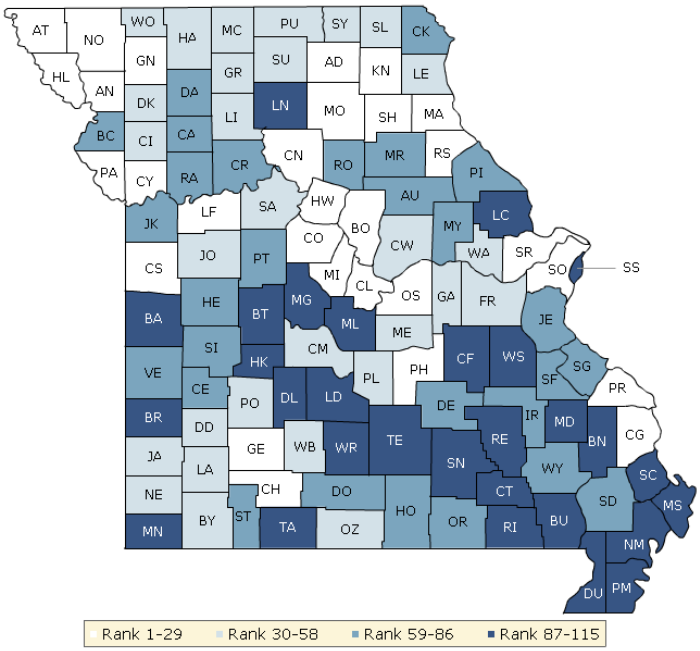
HEALTH OUTCOMES



County	Rank	County	Rank	County	Rank	County	Rank
Adair	58	Dallas	32	Livingston	78	Randolph	81
Andrew	13	Daviess	16	Macon	28	Ray	66
Atchison	4	DeKalb	12	Madison	101	Reynolds	108
Audrain	43	Dent	103	Maries	33	Ripley	114
Barry	96	Douglas	84	Marion	75	Saline	50
Barton	46	Dunklin	111	McDonald	89	Schuyler	73
Bates	31	Franklin	36	Mercer	51	Scotland	5
Benton	74	Gasconade	59	Miller	85	Scott	82
Bollinger	70	Gentry	22	Mississippi	104	Shannon	86
Boone	9	Greene	38	Moniteau	14	Shelby	61
Buchanan	62	Grundy	21	Monroe	80	St. Charles	1
Butler	110	Harrison	63	Montgomery	83	St. Clair	105
Caldwell	69	Henry	90	Morgan	79	St. Francois	87
Callaway	76	Hickory	64	New Madrid	113	St. Louis	20
Camden	40	Holt	45	Newton	44	St. Louis City	106
Cape Girardeau	24	Howard	29	Nodaway	18	Ste. Genevieve	15
Carroll	26	Howell	98	Oregon	91	Stoddard	92
Carter	100	Iron	109	Osage	6	Stone	53
Cass	17	Jackson	71	Ozark	94	Sullivan	102
Cedar	56	Jasper	41	Pemiscot	115	Taney	65
Chariton	48	Jefferson	35	Perry	37	Texas	99
Christian	3	Johnson	7	Pettis	49	Vernon	88
Clark	95	Knox	19	Phelps	77	Warren	30
Clay	10	Laclede	68	Pike	67	Washington	112

County	Rank	County	Rank	County	Rank	County	Rank
Clinton	39	Lafayette	23	Platte	2	Wayne	107
Cole	11	Lawrence	57	Polk	60	Webster	27
Cooper	25	Lewis	54	Pulaski	52	Worth	47
Crawford	97	Lincoln	34	Putnam	72	Wright	93
Dade	55	Linn	42	Ralls	8		

HEALTH FACTORS



County	Rank	County	Rank	County	Rank	County	Rank
Adair	14	Dallas	100	Livingston	37	Randolph	82
Andrew	12	Daviess	66	Macon	21	Ray	80
Atchison	16	DeKalb	42	Madison	101	Reynolds	108
Audrain	59	Dent	73	Maries	46	Ripley	111
Barry	52	Douglas	72	Marion	29	Saline	47
Barton	88	Dunklin	113	McDonald	98	Schuyler	41
Bates	92	Franklin	35	Mercer	32	Scotland	34
Benton	91	Gasconade	43	Miller	106	Scott	96
Bollinger	87	Gentry	17	Mississippi	109	Shannon	110
Boone	1	Greene	15	Moniteau	28	Shelby	23
Buchanan	79	Grundy	50	Monroe	63	St. Charles	2
Butler	97	Harrison	58	Montgomery	65	St. Clair	85
Caldwell	64	Henry	62	Morgan	93	St. Francois	81
Callaway	57	Hickory	99	New Madrid	107	St. Louis	6
Camden	31	Holt	18	Newton	39	St. Louis City	115
Cape Girardeau	9	Howard	25	Nodaway	3	Ste. Genevieve	60
Carroll	71	Howell	75	Oregon	78	Stoddard	83
Carter	105	Iron	86	Osage	7	Stone	67
Cass	22	Jackson	84	Ozark	54	Sullivan	36
Cedar	69	Jasper	56	Pemiscot	114	Taney	89
Chariton	10	Jefferson	68	Perry	20	Texas	104
Christian	5	Johnson	30	Pettis	61	Vernon	77
Clark	76	Knox	24	Phelps	27	Warren	38
Clay	**13**	**Laclede**	**95**	**Pike**	**74**	**Washington**	**112**

County	Rank	County	Rank	County	Rank	County	Rank
Clinton	33	Lafayette	26	Platte	4	Wayne	70
Cole	8	Lawrence	45	Polk	49	Webster	55
Cooper	19	Lewis	53	Pulaski	48	Worth	40
Crawford	103	Lincoln	90	Putnam	44	Wright	94
Dade	51	Linn	102	Ralls	11		

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 represent what influences the health of the county.

Rank	Health Outcomes	Rank	Health Factors
1	St. Charles	1	Boone
2	Platte	2	St. Charles
3	Christian	3	Nodaway
4	Atchison	4	Platte
5	Scotland	5	Christian
6	Osage	6	St. Louis
7	Johnson	7	Osage
8	Ralls	8	Cole
9	Boone	9	Cape Girardeau
10	Clay	10	Chariton
11	Cole	11	Ralls
12	DeKalb	12	Andrew
13	Andrew	13	Clay
14	Moniteau	14	Adair
15	Ste. Genevieve	15	Greene
16	Daviess	16	Atchison
17	Cass	17	Gentry
18	Nodaway	18	Holt
19	Knox	19	Cooper
20	St. Louis	20	Perry
21	Grundy	21	Macon
22	Gentry	22	Cass
23	Lafayette	23	Shelby
24	Cape Girardeau	24	Knox
25	Cooper	25	Howard
26	Carroll	26	Lafayette
27	Webster	27	Phelps
28	Macon	28	Moniteau
29	Howard	29	Marion
30	Warren	30	Johnson
31	Bates	31	Camden
32	Dallas	32	Mercer
33	Maries	33	Clinton
34	Lincoln	34	Scotland
35	Jefferson	35	Franklin
36	Franklin	36	Sullivan
37	Perry	37	Livingston
38	Greene	38	Warren
39	Clinton	39	Newton
40	Camden	40	Worth
41	Jasper	41	Schuyler
42	Linn	42	DeKalb

Rank	Health Outcomes	Rank	Health Factors
43	Audrain	43	Gasconade
44	Newton	44	Putnam
45	Holt	45	Lawrence
46	Barton	46	Maries
47	Worth	47	Saline
48	Chariton	48	Pulaski
49	Pettis	49	Polk
50	Saline	50	Grundy
51	Mercer	51	Dade
52	Pulaski	52	Barry
53	Stone	53	Lewis
54	Lewis	54	Ozark
55	Dade	55	Webster
56	Cedar	56	Jasper
57	Lawrence	57	Callaway
58	Adair	58	Harrison
59	Gasconade	59	Audrain
60	Polk	60	Ste. Genevieve
61	Shelby	61	Pettis
62	Buchanan	62	Henry
63	Harrison	63	Monroe
64	Hickory	64	Caldwell
65	Taney	65	Montgomery
66	Ray	66	Daviess
67	Pike	67	Stone
68	Laclede	68	Jefferson
69	Caldwell	69	Cedar
70	Bollinger	70	Wayne
71	Jackson	71	Carroll
72	Putnam	72	Douglas
73	Schuyler	73	Dent
74	Benton	74	Pike
75	Marion	75	Howell
76	Callaway	76	Clark
77	Phelps	77	Vernon
78	Livingston	78	Oregon
79	Morgan	79	Buchanan
80	Monroe	80	Ray
81	Randolph	81	St. Francois
82	Scott	82	Randolph
83	Montgomery	83	Stoddard
84	Douglas	84	Jackson
85	Miller	85	St. Clair
86	Shannon	86	Iron
87	St. Francois	87	Bollinger
88	Vernon	88	Barton
89	McDonald	89	Taney
90	Henry	90	Lincoln

Rank	Health Outcomes	Rank	Health Factors
91	Oregon	91	Benton
92	Stoddard	92	Bates
93	Wright	93	Morgan
94	Ozark	94	Wright
95	Clark	95	Laclede
96	Barry	96	Scott
97	Crawford	97	Butler
98	Howell	98	McDonald
99	Texas	99	Hickory
100	Carter	100	Dallas
101	Madison	101	Madison
102	Sullivan	102	Linn
103	Dent	103	Crawford
104	Mississippi	104	Texas
105	St. Clair	105	Carter
106	St. Louis City	106	Miller
107	Wayne	107	New Madrid
108	Reynolds	108	Reynolds
109	Iron	109	Mississippi
110	Butler	110	Shannon
111	Dunklin	111	Ripley
112	Washington	112	Washington
113	New Madrid	113	Dunklin
114	Ripley	114	Pemiscot
115	Pemiscot	115	St. Louis City

2012 *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	2006-2008
Morbidity	Poor or fair health	Behavioral Risk Factor Surveillance System	2004-2010
	Poor physical health days	Behavioral Risk Factor Surveillance System	2004-2010
	Poor mental health days	Behavioral Risk Factor Surveillance System	2004-2010
	Low birthweight	National Center for Health Statistics	2002-2008
HEALTH FACTORS			
HEALTH BEHAVIORS			
Tobacco Use	Adult smoking	Behavioral Risk Factor Surveillance System	2004-2010
Diet and Exercise	Adult obesity	National Center for Chronic Disease Prevention and Health Promotion	2009
	Physical inactivity	National Center for Chronic Disease Prevention and Health Promotion	2009
Alcohol Use	Excessive drinking	Behavioral Risk Factor Surveillance System	2004-2010
	Motor vehicle crash death rate	National Center for Health Statistics	2002-2008
Sexual Activity	Sexually transmitted infections	National Center for Hepatitis, HIV, STD and TB Prevention	2009
	Teen birth rate	National Center for Health Statistics	2002-2008
CLINICAL CARE			
Access to Care	Uninsured	Small Area Health Insurance Estimates	2009
	Primary care physicians	Health Resources & Services Administration	2009
Quality of Care	Preventable hospital stays	Medicare/Dartmouth Institute	2009
	Diabetic screening	Medicare/Dartmouth Institute	2009
	Mammography screening	Medicare/Dartmouth Institute	2009
SOCIAL AND ECONOMIC FACTORS			
Education	High school graduation	National Center for Education Statistics and state-specific sources[1]	2008-2010
	Some college	American Community Survey	2006-2010
Employment	Unemployment	Bureau of Labor Statistics	2010
Income	Children in poverty	Small Area Income and Poverty Estimates	2010
Family and Social Support	Inadequate social support	Behavioral Risk Factor Surveillance System	2006-2010
	Children in single-parent households	American Community Survey	2006-2010
Community Safety	Violent crime rate[2]	Federal Bureau of Investigation	2007-2009
PHYSICAL ENVIRONMENT			
Environmental Quality[3]	Air pollution-particulate matter days	U.S. Environmental Protection Agency	2007
	Air pollution-ozone days	U.S. Environmental Protection Agency	2007
Built Environment	Access to recreational facilities	Census County Business Patterns	2009
	Limited access to healthy foods[4]	U.S. Department of Agriculture	2006
	Fast food restaurants	Census County Business Patterns	2009

[1] NCES used for AK, AL, AR, CA, CT, FL, HI, ID, KY, MT, ND, NJ, OK, SD and TN

[2] State data source for IL.

[3] Not available for AK and HI.

[4] Access to Healthy Foods (2009) from Census Zip Code Business Patterns for AK and HI.

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