



County Health Rankings & Roadmaps

A Healthier Nation, County by County

2013 *Rankings* **Missouri**



Robert Wood Johnson Foundation



UNIVERSITY OF WISCONSIN

Population Health Institute

Translating Research for 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. You can also take advantage of the Using the *Rankings* Data guide to help you explore the data and figure out more about what is driving your community's health. To learn about what you can do to improve health in your community, visit the *Roadmaps to Health* Action Center. Finally, you can learn what others are doing by reading Communities Stories and visiting the Project Showcase.

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.

The *County Health Roadmaps* 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 (RWJF) collaborates with the University of Wisconsin Population Health Institute (UWPHI) 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 guidance on strategies to improve health.

Roadmaps to Health Community Grants

The *Roadmaps to Health* Community Grants provide funding for 2 years to thirty 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

RWJF 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. As of February 2013, RWJF has awarded partner grants to United Way Worldwide, National Business Coalition on Health, and National Association of Counties.

RWJF Roadmaps to Health Prize

In February 2013, RWJF awarded the first *RWJF Roadmaps to Health* Prizes of \$25,000 to six communities that are working to become healthier places to live, learn, work and play. The *RWJF 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.



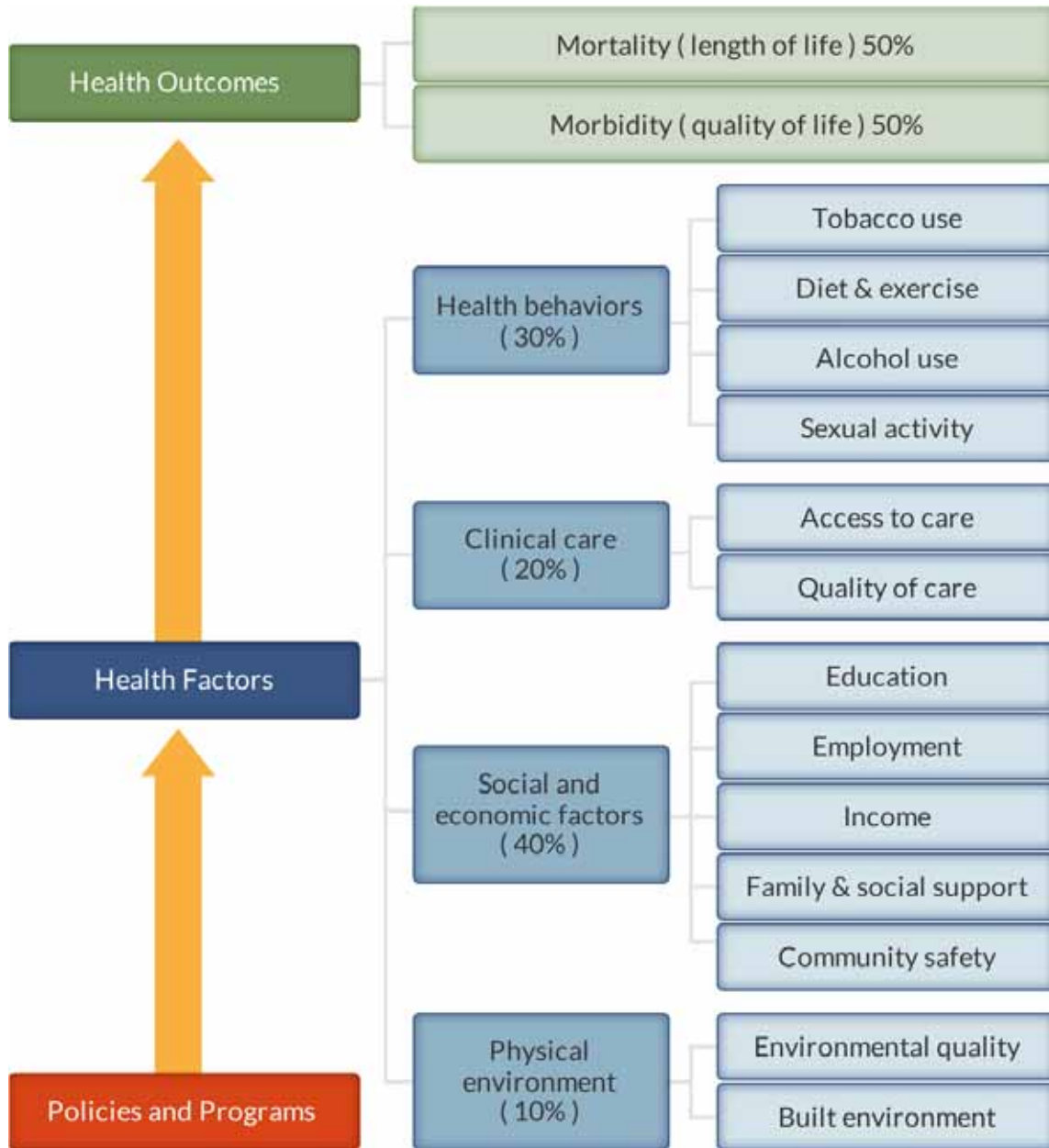
Roadmaps to Health Action Center

The *Roadmaps to Health* Action Center, based at UWPHI, provides tools and guidance to help groups working to make their communities healthier places. The Action Center website provides guidance on developing strategies and advocacy efforts to advance pro-health policies, opportunities for ongoing learning, and a searchable database of evidence-informed policies and programs focused on health improvement: *What Works for Health*. Action Center staff provide customized consultation via email and telephone to those seeking more information about how to improve health. Coaching, including possible on-site visits, is also available for 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 2013 *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.

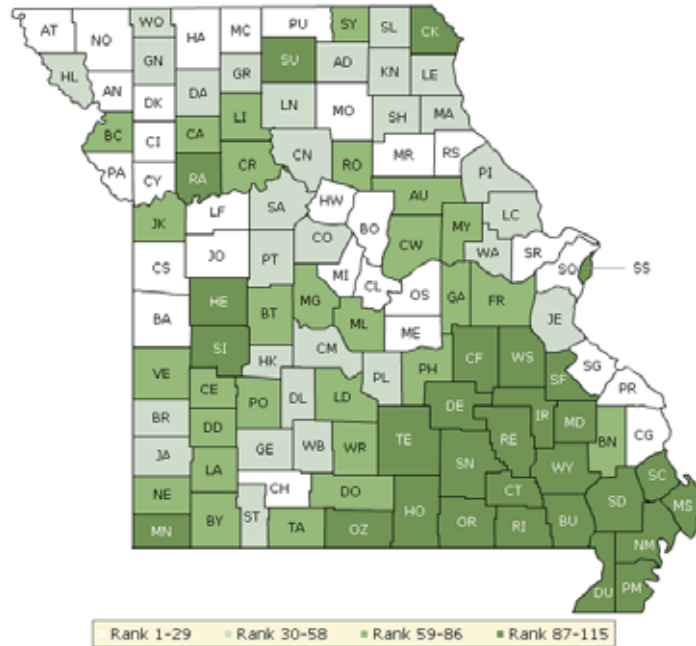


County Health Rankings model ©2012 UWPHI

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.

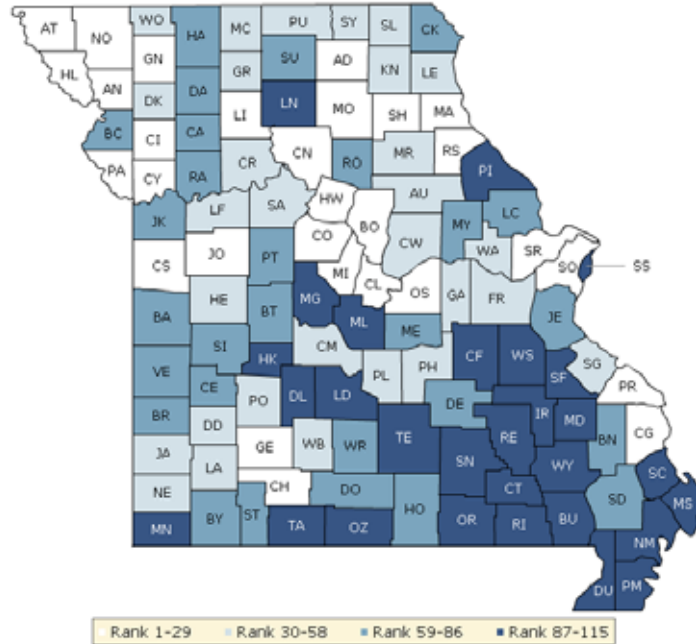
HEALTH OUTCOMES



County	Rank	County	Rank	County	Rank	County	Rank
Adair	40	Dallas	32	Livingston	61	Randolph	76
Andrew	2	Daviess	38	Macon	23	Ray	90
Atchison	10	DeKalb	8	Madison	99	Reynolds	102
Audrain	74	Dent	108	Maries	9	Ripley	112
Barry	83	Douglas	71	Marion	53	Saline	36
Barton	35	Dunklin	115	McDonald	97	Schuyler	77
Bates	27	Franklin	60	Mercer	15	Scotland	31
Benton	79	Gasconade	59	Miller	62	Scott	94
Bollinger	66	Gentry	39	Mississippi	107	Shannon	95
Boone	6	Greene	45	Moniteau	14	Shelby	56
Buchanan	70	Grundy	50	Monroe	21	St. Charles	1
Butler	109	Harrison	26	Montgomery	81	St. Clair	105
Caldwell	86	Henry	96	Morgan	84	St. Francois	98
Callaway	80	Hickory	58	New Madrid	113	St. Louis	20
Camden	46	Holt	47	Newton	64	St. Louis City	110
Cape Girardeau	24	Howard	12	Nodaway	3	Ste. Genevieve	19
Carroll	73	Howell	91	Oregon	93	Stoddard	92
Carter	111	Iron	100	Osage	18	Stone	52
Cass	17	Jackson	78	Ozark	104	Sullivan	89
Cedar	67	Jasper	43	Pemiscot	114	Taney	72
Chariton	33	Jefferson	44	Perry	22	Texas	101
Christian	5	Johnson	7	Pettis	54	Vernon	82
Clark	88	Knox	55	Phelps	69	Warren	30
Clay	13	Laclede	63	Pike	41	Washington	106

County	Rank	County	Rank	County	Rank	County	Rank
Clinton	28	Lafayette	11	Platte	4	Wayne	103
Cole	16	Lawrence	65	Polk	75	Webster	48
Cooper	37	Lewis	42	Pulaski	34	Worth	57
Crawford	87	Lincoln	49	Putnam	25	Wright	85
Dade	68	Linn	51	Ralls	29		

HEALTH FACTORS



County	Rank	County	Rank	County	Rank	County	Rank
Adair	18	Dallas	96	Livingston	23	Randolph	77
Andrew	16	Daviess	79	Macon	28	Ray	63
Atchison	12	DeKalb	40	Madison	92	Reynolds	110
Audrain	43	Dent	72	Maries	60	Ripley	108
Barry	59	Douglas	71	Marion	29	Saline	49
Barton	67	Dunklin	113	McDonald	94	Schuyler	48
Bates	83	Franklin	33	Mercer	34	Scotland	31
Benton	69	Gasconade	39	Miller	101	Scott	90
Bollinger	70	Gentry	26	Mississippi	109	Shannon	112
Boone	2	Greene	11	Moniteau	21	Shelby	20
Buchanan	73	Grundy	47	Monroe	55	St. Charles	1
Butler	102	Harrison	68	Montgomery	64	St. Clair	86
Caldwell	62	Henry	58	Morgan	89	St. Francois	91
Callaway	53	Hickory	97	New Madrid	105	St. Louis	6
Camden	45	Holt	19	Newton	41	St. Louis City	115
Cape Girardeau	10	Howard	24	Nodaway	5	Ste. Genevieve	54
Carroll	56	Howell	66	Oregon	99	Stoddard	75
Carter	107	Iron	98	Osage	9	Stone	80
Cass	17	Jackson	81	Ozark	100	Sullivan	74
Cedar	76	Jasper	52	Pemiscot	114	Taney	103
Chariton	15	Jefferson	61	Perry	14	Texas	106
Christian	4	Johnson	22	Pettis	65	Vernon	85
Clark	78	Knox	37	Phelps	44	Warren	32
Clay	7	Laclede	93	Pike	95	Washington	111

County	Rank	County	Rank	County	Rank	County	Rank
Clinton	25	Lafayette	30	Platte	3	Wayne	88
Cole	8	Lawrence	36	Polk	50	Webster	42
Cooper	27	Lewis	57	Pulaski	46	Worth	35
Crawford	87	Lincoln	82	Putnam	38	Wright	84
Dade	51	Linn	104	Ralls	13		

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	St. Charles
2	Andrew	2	Boone
3	Nodaway	3	Platte
4	Platte	4	Christian
5	Christian	5	Nodaway
6	Boone	6	St. Louis
7	Johnson	7	Clay
8	DeKalb	8	Cole
9	Maries	9	Osage
10	Atchison	10	Cape Girardeau
11	Lafayette	11	Greene
12	Howard	12	Atchison
13	Clay	13	Ralls
14	Moniteau	14	Perry
15	Mercer	15	Chariton
16	Cole	16	Andrew
17	Cass	17	Cass
18	Osage	18	Adair
19	Ste. Genevieve	19	Holt
20	St. Louis	20	Shelby
21	Monroe	21	Moniteau
22	Perry	22	Johnson
23	Macon	23	Livingston
24	Cape Girardeau	24	Howard
25	Putnam	25	Clinton
26	Harrison	26	Gentry
27	Bates	27	Cooper
28	Clinton	28	Macon
29	Ralls	29	Marion
30	Warren	30	Lafayette
31	Scotland	31	Scotland
32	Dallas	32	Warren
33	Chariton	33	Franklin
34	Pulaski	34	Mercer
35	Barton	35	Worth
36	Saline	36	Lawrence
37	Cooper	37	Knox
38	Daviess	38	Putnam
39	Gentry	39	Gasconade
40	Adair	40	DeKalb
41	Pike	41	Newton
42	Lewis	42	Webster

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

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

2013 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	2008-2010
Morbidity	Poor or fair health	Behavioral Risk Factor Surveillance System	2005-2011
	Poor physical health days	Behavioral Risk Factor Surveillance System	2005-2011
	Poor mental health days	Behavioral Risk Factor Surveillance System	2005-2011
	Low birthweight	National Center for Health Statistics	2004-2010
HEALTH FACTORS			
HEALTH BEHAVIORS			
Tobacco Use	Adult smoking	Behavioral Risk Factor Surveillance System	2005-2011
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	2005-2011
	Motor vehicle crash death rate	National Center for Health Statistics	2004-2010
Sexual Activity	Sexually transmitted infections	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB prevention	2010
	Teen birth rate	National Center for Health Statistics	2004-2010
CLINICAL CARE			
Access to Care	Uninsured	Small Area Health Insurance Estimates	2010
	Primary care physicians	HRSA Area Resource File	2011-2012
	Dentists	HRSA Area Resource File	2011-2012
Quality of Care	Preventable hospital stays	Medicare/Dartmouth Institute	2010
	Diabetic screening	Medicare/Dartmouth Institute	2010
	Mammography screening	Medicare/Dartmouth Institute	2010
SOCIAL AND ECONOMIC FACTORS			
Education	High school graduation	Primarily state-specific sources, supplemented with National Center for Education Statistics	State-specific
	Some college	American Community Survey	2007-2011
Employment	Unemployment	Bureau of Labor Statistics	2011
Income	Children in poverty	Small Area Income and Poverty Estimates	2011
Family and Social Support	Inadequate social support	Behavioral Risk Factor Surveillance System	2005-2010
	Children in single-parent households	American Community Survey	2007-2011
Community Safety	Violent crime rate	Federal Bureau of Investigation	2008-2010
PHYSICAL ENVIRONMENT			
Environmental Quality	Daily fine particulate matter ¹	CDC WONDER Environmental data	2008
	Drinking water safety	Safe Drinking Water Information System	FY 2012
Built Environment	Access to recreational facilities	Census County Business Patterns	2010
	Limited access to healthy foods	USDA Food Environment Atlas	2012
	Fast food restaurants	Census County Business Patterns	2010

¹ Not available for AK and HI.

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