





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.



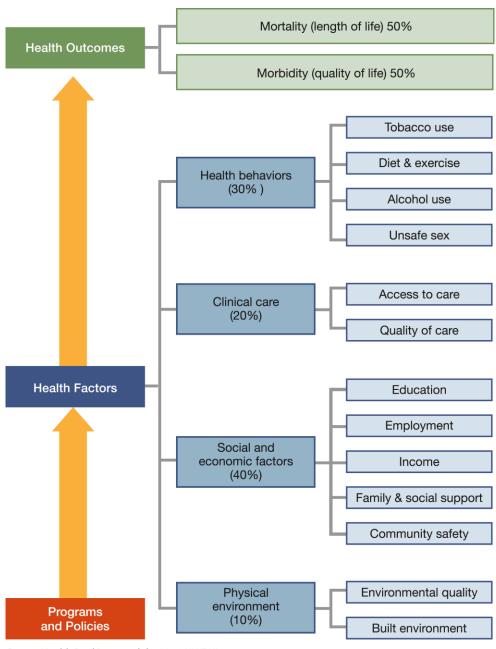
Institute of Medicine, 2002

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 lowa 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.

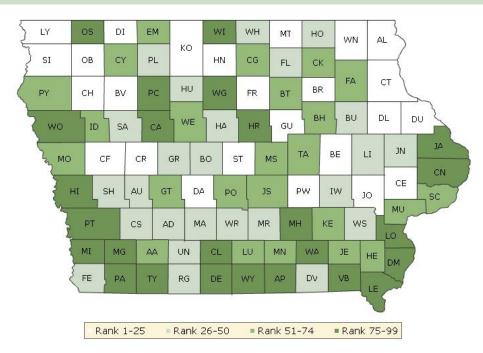


County Health Rankings model ©2010 UWPHI

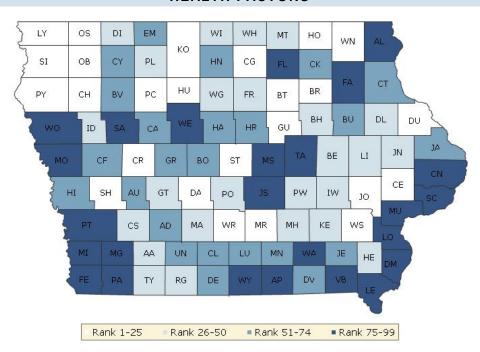
The maps on this page display lowa's counties divided into groups by health rank. The lighter colors indicate better performance in the respective summary rankings. The green map shows the distribution of summary health outcomes. The blue displays the distribution of the summary rank for health factors.

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	Sioux	1	Johnson
2	Winneshiek	2	Story
3	Bremer	3	Sioux
4	Lyon	4	Dallas
5	Delaware	5	Bremer
6	Story	6	Winneshiek
7	Johnson	7	Lyon
8	Mitchell	8	Grundy
9	Cherokee	9	Carroll
10	O'Brien	10	Shelby
11	Dickinson	11	Cedar
12	Carroll	12	Cherokee
13	Cedar	13	Dubuque
14	Buena Vista	14	Butler
15	Kossuth	15	Marion
16	Poweshiek	16	Cerro Gordo
17	Benton	17	Howard
18	Franklin	18	Osceola
19	Dubuque	19	Plymouth
20	Allamakee	20	Humboldt
21	Crawford	21	Warren
22	Hancock	22	O'Brien
23	Dallas	23	Pocahontas
24	Clayton	24	Washington
25	Grundy	25	Kossuth
26	Madison	26	Wright
27	Audubon	27	Winnebago
28	Marion	28	Iowa
29	Shelby	29	Guthrie
30	Jones	30	Poweshiek
31	Washington	31	Dickinson
32	Howard	32	Franklin
33	Hamilton	33	Linn
34	Ringgold	34	Polk
35	Linn	35	Benton
36	Iowa	36	Mitchell
37	Warren	37	Mahaska
38	Davis	38	Keokuk
39	Humboldt	39	Delaware
40	Union	40	Taylor

Rank	Health Outcomes	Rank	Health Factors
41	Fremont	41	Palo Alto
42	Greene	42	Henry
43	Palo Alto	43	Cass
44	Cass	44	Adams
45	Floyd	45	Jones
46	Buchanan	46	Madison
47	Adair	47	Black Hawk
48	Boone	48	Ida
49	Sac	49	Ringgold
50	Worth	50	Worth
51	Plymouth	51	Decatur
52	Fayette	52	Hardin
53	Lucas	53	Crawford
54	Tama	54	Clay
55	Clay	55	Emmet
56	Chickasaw	56	Lucas
57	Muscatine	57	Jackson
58	Marshall	58	Greene
59	Henry	59	Buchanan
	,	60	Calhoun
60 61	Jasper Monona	61	Audubon
62	Cerro Gordo	62	Union
		_	
63	Adams Polk	63 64	Boone
64			Buena Vista
65	Scott	65	Jefferson
66	Jefferson	66	Monroe
67	Ida	67	Hancock
68	Emmet	68	Harrison
69	Keokuk	69	Clarke
70	Guthrie	70	Adair
71	Black Hawk	71	Chickasaw
72	Monroe	72	Davis
73	Butler	73	Clayton
74	Webster	74	Hamilton
75	Page	75	Mills
76	Montgomery	76	Scott
77	Pocahontas	77	Muscatine
78	Woodbury	78	Sac
79	Wright	79	Floyd
80	Winnebago	80	Marshall
81	Decatur	81	Wapello
82	Osceola	82	Monona
83	Jackson	83	Woodbury
84	Taylor	84	Tama
85	Louisa	85	Webster
86	Hardin	86	Jasper
87	Calhoun	87	Wayne
88	Des Moines	88	Clinton
89	Clarke	89	Fremont
90	Mahaska	90	Fayette

Rank	Health Outcomes	Rank	Health Factors
91	Mills	91	Montgomery
92	Pottawattamie	92	Van Buren
93	Clinton	93	Allamakee
94	Harrison	94	Lee
95	Wapello	95	Louisa
96	Lee	96	Appanoose
97	Van Buren	97	Page
98	Wayne	98	Des Moines
99	Appanoose	99	Pottawattamie

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	Johnson	1	O'Brien
2	Sioux	2	Lyon
3	Winneshiek	3	Adair
4	Mitchell	4	Sioux
5	Bremer	5	Winneshiek
6	Kossuth	6	Bremer
7	Delaware	7	Pocahontas
8	Story	8	Story
9	Dickinson	9	Delaware
10	Carroll	10	Audubon
11	Cherokee	11	Cherokee
12	Madison	12	Clarke
13	Franklin	13	Dubuque
14	Jones	14	Mitchell
15	Hancock	15	Allamakee
16	Grundy	16	Plymouth
17	Buena Vista	17	Cedar
18	Dallas	18	Clayton
19	Lyon	19	Johnson
20	Poweshiek	20	Osceola
21	Cedar	21	Benton
22	Crawford	22	Calhoun
23	Fremont	23	Fayette
24	Benton	24	Dickinson
25	Ida	25	Poweshiek
26	Floyd	26	Buena Vista
27	Shelby	27	Webster
28	Washington	28	Greene
29	Marion	29	Ringgold
30	Hamilton	30	Jefferson
31	Iowa	31	Carroll
32	Warren	32	Howard
33	Allamakee	33	Humboldt
34	Dubuque	34	Davis
35	Union	35	Crawford
36	Linn	36	Cass
37	Clayton	37	Marion
38	Page	38	Guthrie
39	Palo Alto	39	Emmet
40	Black Hawk	40	Monona

Rank	Mortality	Rank	Morbidity
41	Jasper	41	Wright
42	Louisa	42	Boone
43	Tama	43	Worth
44	Howard	44	Cerro Gordo
45	Montgomery	45	Clay
46	Buchanan	46	Buchanan
47	Sac	47	Franklin
48	O'Brien	48	Dallas
49	Davis	49	Linn
50	Muscatine	50	Henry
51	Adams	51	Shelby
51	Ringgold	52	Keokuk
51	Taylor	53	Palo Alto
54	Boone	54	Sac
55	Butler	55	Chickasaw
56	Lucas	56	Marshall
57	Humboldt	57	Washington
58	Monroe	58	Lucas
59	Cass	59	Hancock
60	Worth	60	Hamilton
61	Polk	61	Kossuth
62	Chickasaw	62	Iowa
63	Marshall	63	Warren
64	Greene	64	Scott
65	Decatur	65	Union
66	Audubon	66	Muscatine
67	Henry	67	Winnebago
68	Scott	68	Mills
69	Woodbury	69	Grundy
70	Clay	70	Hardin
71	Cerro Gordo	71	Polk
72	Monona	72	Tama
73	Fayette	73	Mahaska
74	Keokuk	74	Adams
75	Winnebago	75	Jasper
76	Emmet	76	Madison
77	Jackson	77	Jackson
78	Plymouth	78	Des Moines
79	Guthrie	79	Woodbury
80	Jefferson	80	Floyd
81	Wright	81	Fremont
82	Des Moines	82	Jones
83	Clinton	83	Van Buren
84	Webster	84	Monroe
85	Hardin	85	Butler
86	Pottawattamie	86	Decatur
87	Harrison	87	Montgomery
88	Adair	88	Black Hawk
88	Mahaska	89	Lee
90	Wapello	90	Page

Rank	Mortality	Rank	Morbidity
91	Osceola	91	Pottawattamie
92	Lee	92	Harrison
93	Pocahontas	93	Wapello
94	Mills	94	Taylor
95	Appanoose	95	Ida
96	Calhoun	96	Clinton
97	Wayne	97	Louisa
98	Clarke	98	Wayne
99	Van Buren	99	Appanoose

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.

	Lloolth.		Clinical		Casial & Fasnamia		Dhysical
Rank	Health Behaviors	Rank	Clinical Care	Rank	Social & Economic Factors	Rank	Physical Environment
1	Johnson	1	Johnson	1	Story	1	Monroe
2	Sioux	2	Cerro Gordo	2	Johnson	2	Sac
3	Ringgold	3	Black Hawk	3	Lyon	3	Grundy
4	Story	4	Linn	4	Sioux	4	Adair
5	Butler	5	Dubuque	5	Bremer	4	Ida
6	Winneshiek	6	Winnebago	6	Cedar	6	Poweshiek
7	Howard	7	Howard	7	Dallas	7	Cass
8	Lyon	8	Cass	8	Grundy	8	Audubon
9	Grundy	9	Dallas	9	Warren	8	Clarke
10	Cherokee	10	Mahaska	10	Winneshiek	10	Pocahontas
11	Shelby	11	Bremer	11	Carroll	11	Wright
12	Guthrie	12	Polk	12	Shelby	12	Calhoun
13	Dubuque	13	Muscatine	13	Osceola	12	Shelby
14	Dallas	14	Poweshiek	14	Plymouth	14	Howard
15	Cerro Gordo	15	Scott	15	O'Brien	15	Van Buren
16	Henry	16	Woodbury	16	Pocahontas	16	Taylor
17	Bremer	17	Marshall	17	Marion	16	Wapello
18	Mitchell	18	Clinton	18	Cherokee	18	Chickasaw
19	Keokuk	19	Marion	19	Iowa	19	Lee
20	Decatur	20	Floyd	20	Crawford	20	Marion
21	Carroll	21	Warren	21	Benton	21	Adams
22	Kossuth	22	Wright	22	Humboldt	21	Decatur
23	Franklin	23	Wapello	23	lda	23	Winnebago
24	Winnebago	24	Cedar	24	Dickinson	24	Boone
25	Osceola	25	Carroll	25	Palo Alto	25	Plymouth
26	Dickinson	26	Iowa	26	Delaware	26	Appanoose
27	Davis	27	Boone	27	Kossuth	26	Guthrie
28	Monona	28	Winneshiek	28	Calhoun	28	Buchanan
29	Madison	29	Plymouth	29	Boone	29	Louisa
30	Humboldt	30	Henry	30	Harrison	30	O'Brien
31	Palo Alto	31	Adams	31	Linn	31	Allamakee
32	Jackson	32	Jackson	32	Washington	32	Washington
33	Washington	33	Delaware	33	Hamilton	33	Davis
34	Polk	34	Union	34	Taylor	33	Henry
35	Clayton	35	Des Moines	35	Dubuque	33	Lucas
36	Pocahontas	36	Jasper	36	Butler	36	Butler
37	Wright	37	Hancock	37	Guthrie	36	Jasper
38	Mahaska	38	Worth	38	Greene	38	Woodbury
39	Black Hawk	39	Humboldt	39	Hardin	39	Jefferson
40	Jefferson	40	Cherokee	40	Clay	40	Black Hawk

Rank	Health Behaviors	Rank	Clinical Care	Rank	Social & Economic Factors	Rank	Physical Environment
41	Union	41	Franklin	41	Buena Vista	41	Cedar
42	Buena Vista	42	Jones	42	Wright	41	Lyon
43	Marion	43	Clay	43	Mitchell	43	Emmet
44	Cedar	44	Lucas	44	Mills	44	Union
45	Buchanan	45	Emmet	45	Poweshiek	45	Worth
46	Taylor	46	O'Brien	46	Franklin	46	Mahaska
47	Scott	47	Washington	47	Polk	47	Keokuk
48	Jones	48	Sioux	48	Jones	48	Carroll
49	Van Buren	49	Grundy	49	Adams	49	Benton
50	Monroe	50	Monroe	50	Keokuk	50	Dallas
51	Iowa	51	Greene	51	Sac	51	Madison
52	Poweshiek	52	Mills	52	Madison	52	Mills
53	Lucas	53	Appanoose	53	Audubon	53	Hancock
54	Worth	54	Kossuth	54	Worth	54	Webster
55	Emmet	55	Lee	55	Buchanan	55	Warren
56	O'Brien	56	Pottawattamie	56	Emmet	56	Story
57	Benton	57	Tama	57	Adair	57	Crawford
58	Linn	58	Dickinson	58	Chickasaw	58	Winneshiek
59	Ida	59	Hardin	59	Mahaska	59	Tama
60	Cass	60	Osceola	60	Lucas	60	Hardin
61	Hardin	61	Decatur	61	Hancock	61	Wayne
62	Audubon	62	Chickasaw	62	Clarke	62	Sioux
63	Delaware	63	Benton	63	Davis	63	Page
64	Clarke	64	Story	64	Jackson	64	Mitchell
65	Adams	65	Taylor	65	Cass	65	Floyd
66	Clay	66	Fayette	66	Fremont	66	Montgomery
67	Greene	67	Page	67	Jefferson	67	Monona
68	Calhoun	68	Jefferson	68	Winnebago	68	Cerro Gordo
69	Plymouth	69	Shelby	69	Wayne	69	Fayette
70	Wapello	70	Buchanan	70	Howard	70	Humboldt
71	Floyd	71	Keokuk	71	Union	71	Bremer
72	Muscatine	72	Harrison	72	Scott	72	Pottawattamie
73	Montgomery	73	Butler	73	Clayton	73	Fremont
74	Crawford	74	Mitchell	74	Clinton	74	Clayton
75	Adair	75	Pocahontas	75	Ringgold	75	Marshall
76	Wayne	76	Audubon	76	Decatur	76	Des Moines
77	Webster	77	Webster	77	Henry	77	Jones
78	Hancock	78	Clayton	78	Woodbury	78	Dubuque
79	Sac	79	Monona	79	Cerro Gordo	79	Greene
80	Tama	80	Madison	80	Black Hawk	80	Franklin
81	Warren	81	Palo Alto	81	Webster	81	Delaware
82	Allamakee	82	Montgomery	82	Monroe	82	Johnson
83	Harrison	83	Adair	83	Tama	83	Clay
84	Lee	84	Clarke	84	Louisa	84	Buena Vista
85	Hamilton	85	Crawford	85	Muscatine	85	Cherokee
86	Marshall	86	Allamakee	86	Fayette	86	Hamilton
87	Fremont	87	Hamilton	87	Jasper	87	Palo Alto
88	Des Moines	88	Lyon	88	Marshall	88	Muscatine
89	Chickasaw	89	Guthrie	89	Page	89	Harrison
90	Clinton	90	Buena Vista	90	Allamakee	90	Ringgold

Rank	Health Behaviors	Rank	Clinical Care	Rank	Social & Economic Factors	Rank	Physical Environment
91	Appanoose	91	Ringgold	91	Montgomery	91	Jackson
92	Jasper	92	Louisa	92	Floyd	92	Kossuth
93	Fayette	93	Calhoun	93	Monona	93	Polk
94	Mills	94	Wayne	94	Van Buren	94	Osceola
95	Louisa	95	Ida	95	Wapello	95	Linn
96	Page	96	Van Buren	96	Pottawattamie	96	Iowa
97	Boone	97	Fremont	97	Appanoose	97	Dickinson
98	Woodbury	98	Davis	98	Lee	98	Clinton
99	Pottawattamie	99	Sac	99	Des Moines	99	Scott

2010 County Health Rankings: Measures, Data Sources, and Years of Data

	Measure	Data Source	Years of Data
HEALTH OUTCOMES	S		
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	Chlamydia rate	National Center for Health Statistics	2007
Behavior	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 FAC	TORS		
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 ENVIRONME	ENT		
Air Quality⁴	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

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