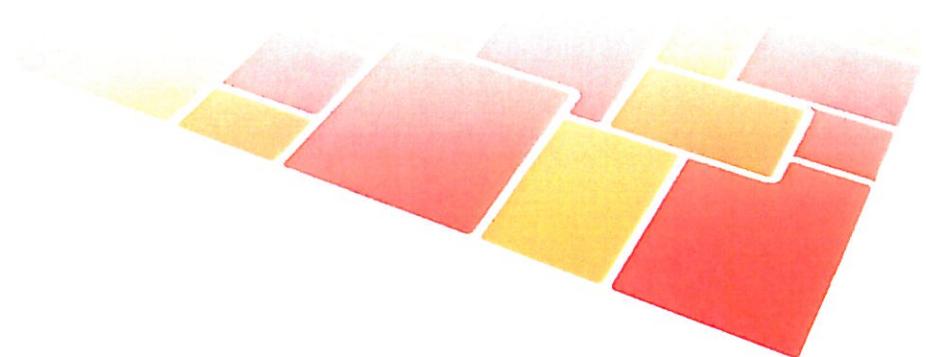


# County Health Rankings

Mobilizing Action Toward Community Health

2010  
**Washington**



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.



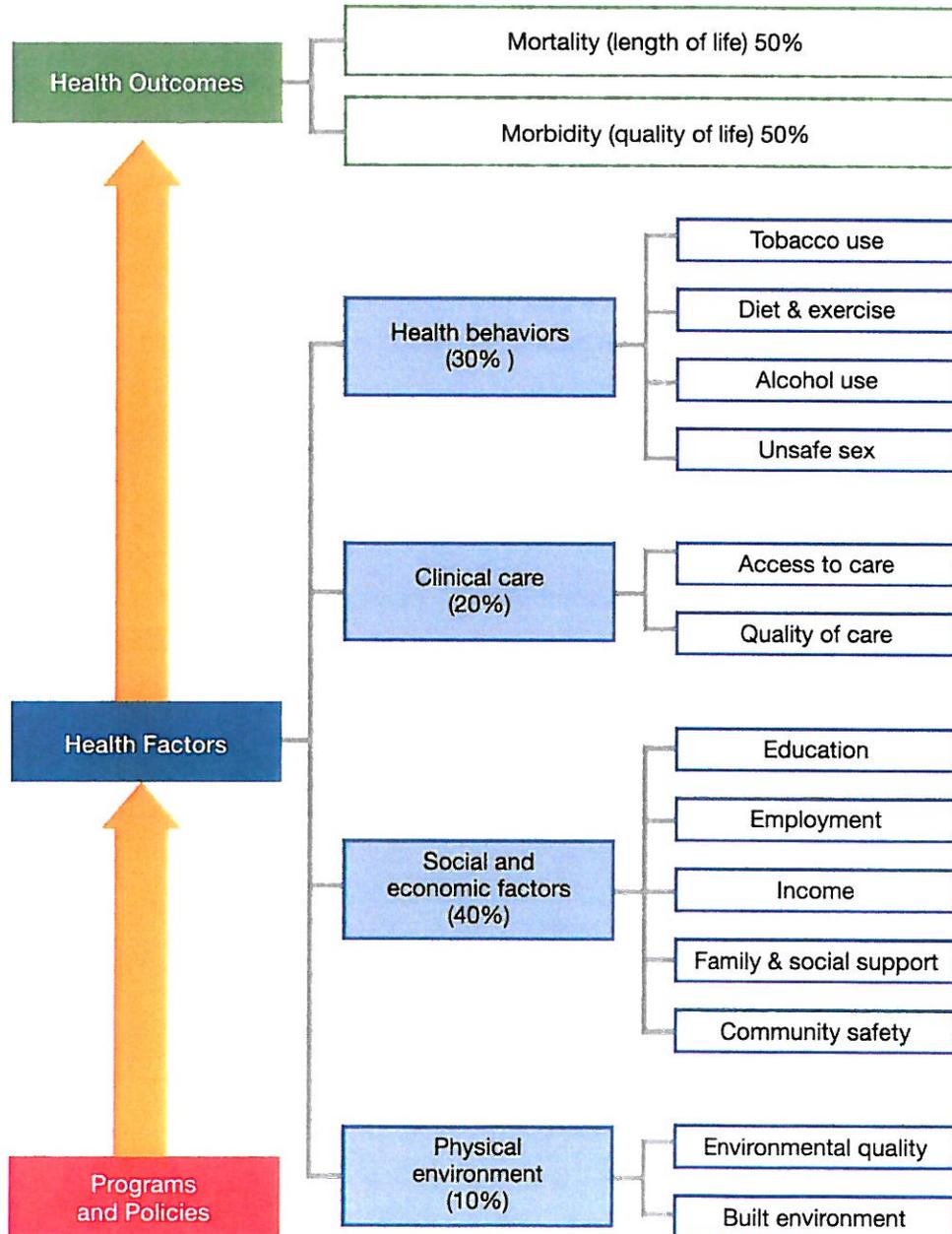
Institute of Medicine, 2002

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](http://www.countyhealthrankings.org).

## The Rankings

This report ranks Washington 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.

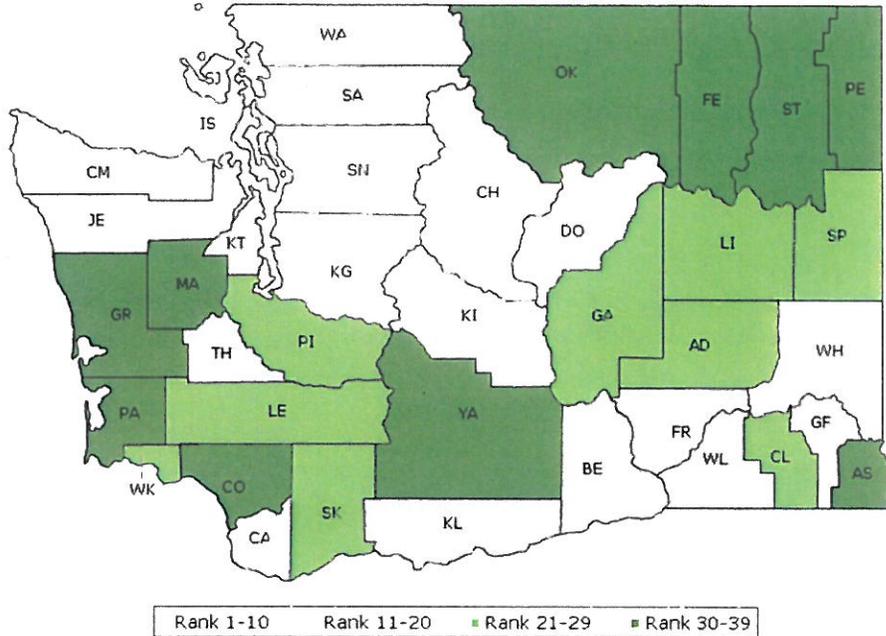


County Health Rankings model ©2010 UWPHI

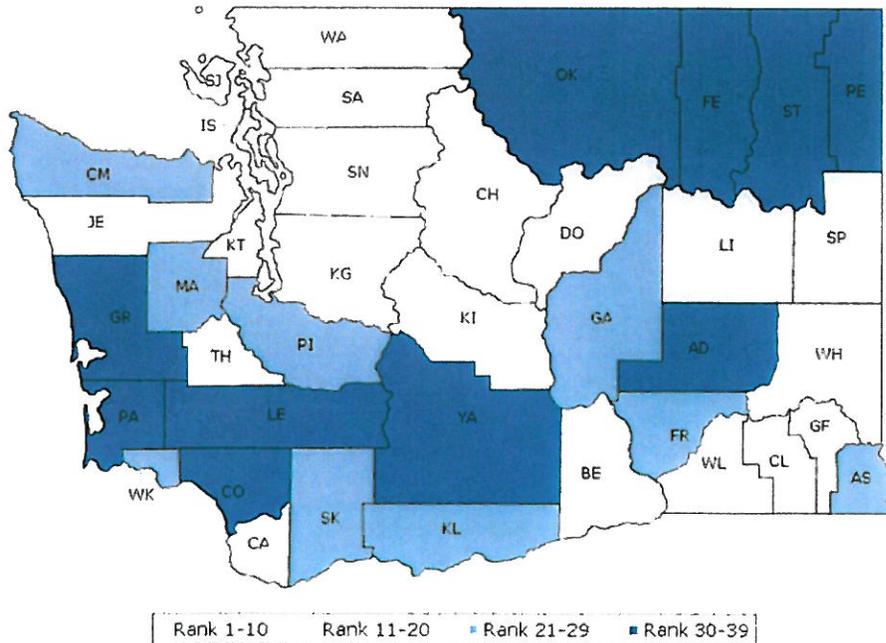
The maps on this page display Washington's counties divided into groups by health rank. The lighter colors indicate better performance in the respective summary rankings. The green map shows the distribution of summary health outcomes. The blue displays the distribution of the summary rank for health 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	San Juan	1	San Juan
2	Douglas	2	King
3	Whitman	3	Whatcom
4	Kittitas	4	Kittitas
5	Island	5	Walla Walla
6	King	6	Chelan
7	Whatcom	7	Snohomish
8	Clark	8	Jefferson
9	Chelan	9	Thurston
10	Snohomish	10	Whitman
11	Jefferson	11	Island
12	Thurston	12	Benton
13	Benton	13	Garfield
14	Kitsap	14	Columbia
15	Franklin	15	Kitsap
16	Skagit	16	Douglas
17	Clallam	17	Spokane
18	Garfield	18	Clark
19	Walla Walla	19	Skagit
20	Klickitat	20	Lincoln
21	Columbia	21	Clallam
22	Adams	22	Wahkiakum
23	Spokane	23	Klickitat
24	Wahkiakum	24	Asotin
25	Pierce	25	Franklin
26	Lincoln	26	Pierce
27	Skamania	27	Skamania
28	Grant	28	Grant
29	Lewis	29	Mason
30	Pacific	30	Lewis
31	Pend Oreille	31	Pend Oreille
32	Yakima	32	Stevens
33	Grays Harbor	33	Adams
34	Cowlitz	34	Yakima
35	Asotin	35	Okanogan
36	Stevens	36	Cowlitz
37	Mason	37	Pacific
38	Okanogan	38	Grays Harbor
39	Ferry	39	Ferry

## 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	Whitman	1	San Juan
2	San Juan	2	Douglas
3	King	3	Kittitas
4	Island	4	Jefferson
5	Chelan	5	Clallam
6	Whatcom	6	Island
7	Snohomish	7	Clark
8	Franklin	8	Whatcom
9	Benton	9	Garfield
10	Kitsap	10	King
11	Clark	11	Whitman
12	Douglas	12	Chelan
13	Kittitas	13	Skamania
14	Thurston	14	Thurston
15	Walla Walla	15	Pacific
16	Skagit	16	Snohomish
17	Adams	17	Skagit
18	Klickitat	18	Columbia
19	Spokane	19	Benton
20	Pierce	20	Kitsap
21	Columbia	21	Klickitat
21	Garfield	22	Lincoln
21	Wahkiakum	23	Franklin
24	Jefferson	24	Walla Walla
25	Clallam	25	Lewis
26	Yakima	26	Wahkiakum
27	Lincoln	27	Grant
28	Grant	28	Adams
29	Pend Oreille	29	Spokane
30	Lewis	30	Pierce
31	Asotin	31	Grays Harbor
32	Cowlitz	32	Pend Oreille
33	Skamania	33	Cowlitz
34	Grays Harbor	34	Yakima
35	Mason	35	Stevens
36	Pacific	36	Okanogan
37	Stevens	37	Mason
38	Okanogan	38	Ferry
39	Ferry	39	Asotin

## 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	San Juan	1	King	1	Whitman	1	Garfield
2	King	2	Cowlitz	2	San Juan	2	Pend Oreille
3	Jefferson	3	Walla Walla	3	King	2	Skamania
4	Chelan	4	Thurston	4	Lincoln	4	Benton
5	Walla Walla	5	Spokane	5	Jefferson	5	Yakima
6	Whatcom	6	Chelan	6	Island	6	Lewis
7	Whitman	7	Snohomish	7	Snohomish	7	Grant
8	Kittitas	8	Skagit	8	Thurston	8	Snohomish
9	Columbia	9	Whatcom	9	Garfield	9	Skagit
10	Island	10	Clallam	10	Benton	10	Douglas
11	Klickitat	11	Clark	11	Kittitas	11	Lincoln
12	Franklin	12	Pierce	12	Kitsap	12	Columbia
13	Douglas	13	Kitsap	13	Whatcom	13	Clallam
14	Wahkiakum	14	Kittitas	14	Clark	14	Kittitas
15	Clallam	15	Benton	15	Walla Walla	15	Wahkiakum
16	Clark	16	San Juan	16	Columbia	16	Cowlitz
17	Snohomish	17	Douglas	17	Douglas	17	Franklin
18	Garfield	18	Jefferson	18	Spokane	18	Thurston
19	Benton	19	Island	19	Chelan	19	Klickitat
20	Thurston	20	Asotin	20	Asotin	20	Kitsap
21	Kitsap	21	Okanogan	21	Wahkiakum	21	Chelan
22	Spokane	22	Lewis	22	Skagit	22	Whatcom
23	Skagit	23	Klickitat	23	Mason	23	Mason
24	Lincoln	24	Yakima	24	Skamania	24	Island
25	Asotin	25	Columbia	25	Clallam	25	Okanogan
26	Yakima	26	Franklin	26	Pierce	26	Asotin
27	Okanogan	27	Pend Oreille	27	Grant	27	Spokane
28	Skamania	28	Mason	28	Stevens	28	Stevens
29	Pierce	29	Stevens	29	Klickitat	29	Pacific
30	Grant	30	Adams	30	Pacific	30	Pierce
31	Adams	31	Grant	31	Adams	31	Grays Harbor
32	Pend Oreille	32	Grays Harbor	32	Lewis	32	Adams
33	Pacific	33	Garfield	33	Pend Oreille	33	Walla Walla
34	Stevens	34	Wahkiakum	34	Franklin	34	Clark
35	Lewis	35	Skamania	35	Grays Harbor	35	Ferry
36	Ferry	36	Lincoln	36	Ferry	36	King
37	Mason	37	Pacific	37	Cowlitz	37	Whitman
38	Cowlitz	38	Ferry	38	Okanogan	38	San Juan
39	Grays Harbor	39	Whitman	39	Yakima	39	Jefferson

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

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

<sup>1</sup> State data sources for KY, NH, NC, PA, SC, and UT (2007-2008).

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

<sup>3</sup> 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.

<sup>4</sup> Not available for AK and HI.

## CREDITS

### **Report Editors**

University of Wisconsin-Madison  
School of Medicine and Public Health  
Population Health Institute  
Bridget Booske, PhD, MHSA  
Jessica Athens, MS  
Patrick Remington, MD, MPH

This publication would not have been possible without the following contributions:

### **Conceptual Development**

David Kindig, MD, PhD  
Paul Peppard, PhD  
Patrick Remington, MD, MPH

### **Technical Advisors**

Amy Bernstein, ScD, Centers for Disease Control and Prevention  
Michele Bohm, MPH, Centers for Disease Control and Prevention  
Vickie Boothe, MPH, Centers for Disease Control and Prevention  
Ethan Burke, MD, MPH, Dartmouth Institute for Health Policy and Clinical Practice

### **Research Assistance**

Clare O'Connor  
Karen Odegaard  
Hyojun Park  
Matthew Rodock

### **Production and Editing**

Chuck Alexander  
Alex Field  
Joan Fischer  
Irene Golembiewski  
Jennifer Robinson

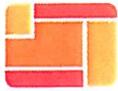
### **Design**

Forum One, Alexandria, VA  
Media Solutions, UW School of Medicine and Public Health

### **Metrics Advisory Group**

Yukiko Asada, PhD, Associate Professor, Community Health and Epidemiology, Dalhousie University, Halifax, Nova Scotia  
Tom Eckstein, MBA, Principal, Arundel Street Consulting Inc, St. Paul, MN  
Elliott Fisher, MD, MPH, Director, Center for Population Health, Dartmouth Institute for Health Policy and Clinical Practice, and  
Professor of Medicine and Community and Family Medicine, Dartmouth Medical School, Lebanon, NH  
Howard Frumkin, MD, MPH, Dr. PH, Director of the National Center for Environmental Health, ATSDR, CDC, Atlanta, GA  
Thomas Kottke, MD, MSPH, Medical Director for Evidence-Based Health, HealthPartners, Minneapolis, MN  
Ali Mokdad, PhD, Professor of Global Health, Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA  
Roy Gibson Parrish, MD, Consultant in Population Health Information Systems, Peacham, VT  
Robert M. (Bobby) Pestronk, MPH, Executive Director, National Association of County and City Health Officials (NACCHO),  
Washington, DC  
Tom Ricketts, PhD, Professor of Health Policy and Administration, University of North Carolina  
Steven Teutsch, MD, MPH, Chief Science Officer, Los Angeles County Public Health, Los Angeles, CA  
Julie Willems Van Dijk, PhD, RN, former Marathon County, WI Health Officer

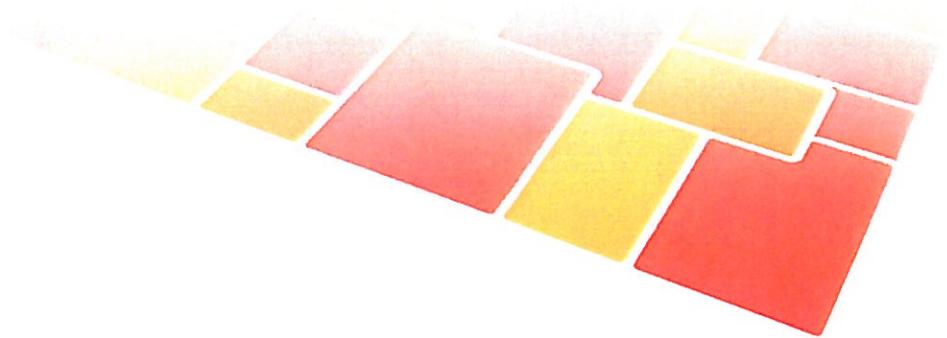
Suggested citation: University of Wisconsin Population Health Institute. *County Health Rankings 2010*.



# County Health Rankings

Mobilizing Action Toward Community Health

[countyhealthrankings.org](http://countyhealthrankings.org)





1 | [More](#)

## Overall Rankings

Rank	Health Outcomes	Rank	Health Factors
1	<a href="#">San Juan</a>	1	<a href="#">San Juan</a>
2	<a href="#">Douglas</a>	2	<a href="#">King</a>
3	<a href="#">Whitman</a>	3	<a href="#">Whatcom</a>
4	<a href="#">Kittitas</a>	4	<a href="#">Kittitas</a>
5	<a href="#">Island</a>	5	<a href="#">Walla Walla</a>
6	<a href="#">King</a>	6	<a href="#">Chelan</a>
7	<a href="#">Whatcom</a>	7	<a href="#">Snohomish</a>
8	<a href="#">Clark</a>	8	<a href="#">Jefferson</a>
9	<a href="#">Chelan</a>	9	<a href="#">Thurston</a>
10	<a href="#">Snohomish</a>	10	<a href="#">Whitman</a>
11	<a href="#">Jefferson</a>	11	<a href="#">Island</a>
12	<a href="#">Thurston</a>	12	<a href="#">Benton</a>
13	<a href="#">Benton</a>	13	<a href="#">Garfield</a>
14	<a href="#">Kitsap</a>	14	<a href="#">Columbia</a>
15	<a href="#">Franklin</a>	15	<a href="#">Kitsap</a>
16	<a href="#">Skagit</a>	16	<a href="#">Douglas</a>
17	<a href="#">Clallam</a>	17	<a href="#">Spokane</a>
18	<a href="#">Garfield</a>	18	<a href="#">Clark</a>
19	<a href="#">Walla Walla</a>	19	<a href="#">Skagit</a>
20	<a href="#">Klickitat</a>	20	<a href="#">Lincoln</a>
21	<a href="#">Columbia</a>	21	<a href="#">Clallam</a>
22	<a href="#">Adams</a>	22	<a href="#">Wahkiakum</a>
23	<a href="#">Spokane</a>	23	<a href="#">Klickitat</a>
24	<a href="#">Wahkiakum</a>	24	<a href="#">Asotin</a>
25	<a href="#">Pierce</a>	25	<a href="#">Franklin</a>
26	<a href="#">Lincoln</a>	26	<a href="#">Pierce</a>
27	<a href="#">Skamania</a>	27	<a href="#">Skamania</a>
28	<a href="#">Grant</a>	28	<a href="#">Grant</a>
29	<a href="#">Lewis</a>	29	<a href="#">Mason</a>
30	<a href="#">Pacific</a>	30	<a href="#">Lewis</a>
31	<a href="#">Pend Oreille</a>	31	<a href="#">Pend Oreille</a>
32	<a href="#">Yakima</a>	32	<a href="#">Stevens</a>
33	<a href="#">Grays Harbor</a>	33	<a href="#">Adams</a>
34	<a href="#">Cowlitz</a>	34	<a href="#">Yakima</a>
35	<a href="#">Asotin</a>	35	<a href="#">Okanogan</a>
36	<a href="#">Stevens</a>	36	<a href="#">Cowlitz</a>
37	<a href="#">Mason</a>	37	<a href="#">Pacific</a>

Rank	Health Outcomes	Rank	Health Factors
38	<a href="#">Okanogan</a>	38	<a href="#">Grays Harbor</a>
39	<a href="#">Ferry</a>	39	<a href="#">Ferry</a>

County Health Rankings is a program of the [Robert Wood Johnson Foundation](#) and the [University of Wisconsin Population Health Institute](#)

[Contact Us](#) [FAQs](#) [Site Map](#) [Credits](#)  
[Facebook](#) [Twitter](#)

