



# County Health Rankings & Roadmaps

A Healthier Nation, County by County

## 2012 *Rankings* North Carolina



Robert Wood Johnson Foundation



UNIVERSITY OF WISCONSIN

**Population Health Institute**

*Translating Research into Policy and Practice*



## Introduction

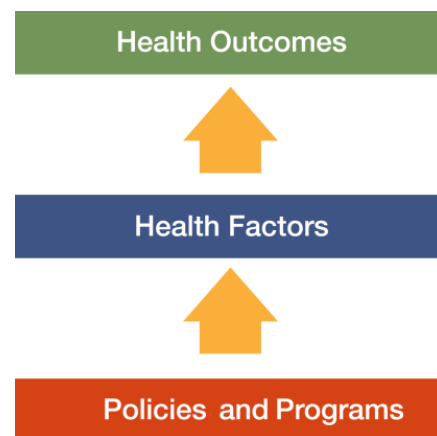
Where we live matters to our health. The health of a community depends on many different factors, including the environment, education and jobs, access to and quality of healthcare, and individual behaviors. We can improve a community's health by implementing effective policies and programs. For example, 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](http://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.



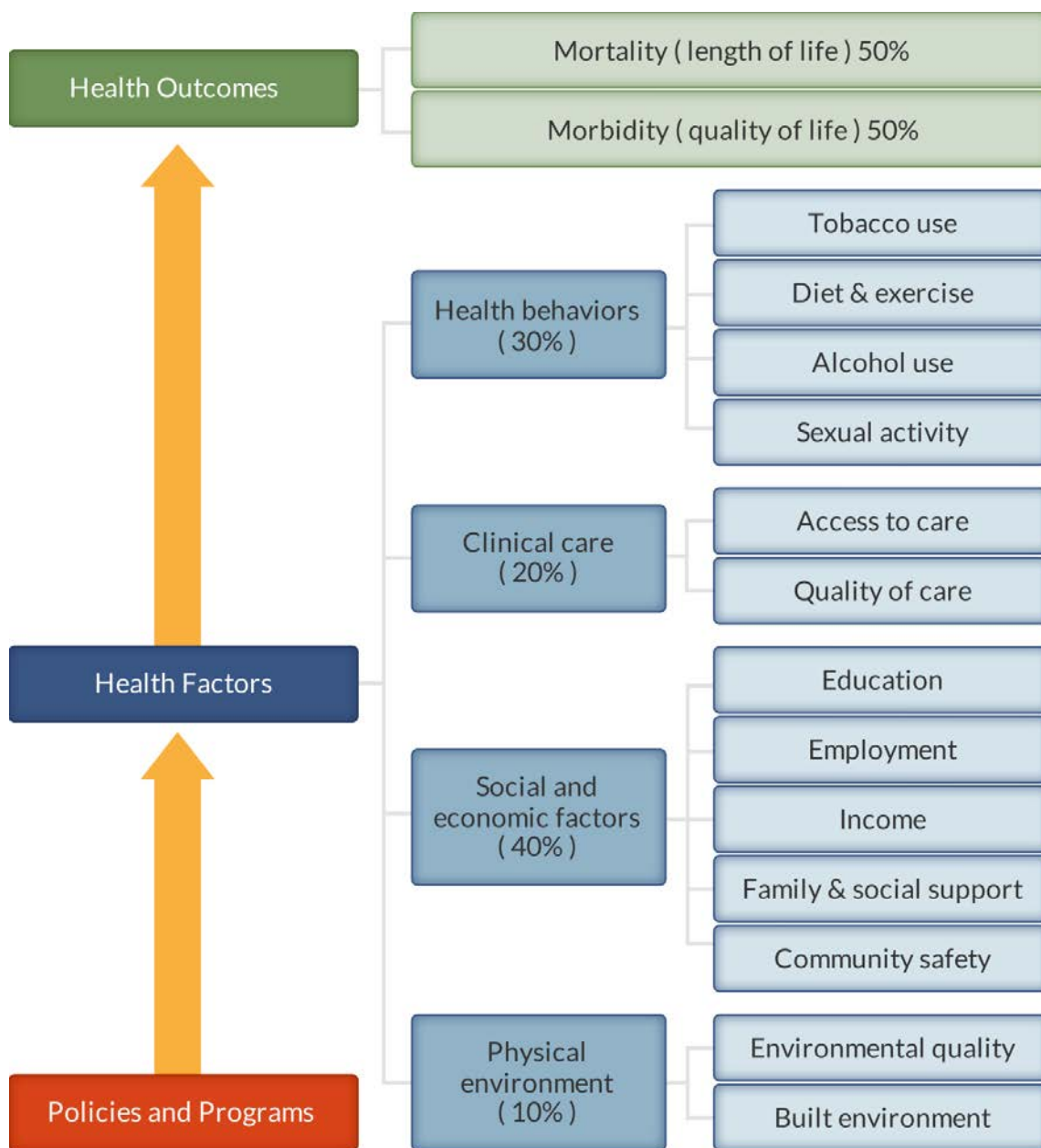
### Roadmaps to Health Action Center

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 North Carolina 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.

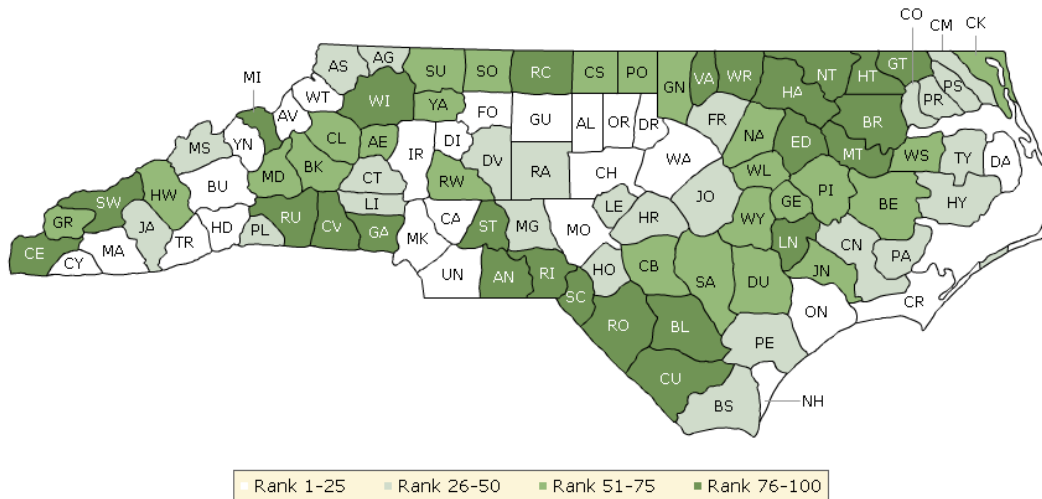


County Health Rankings model ©2012 UWPHI

The maps on this page and the next display North Carolina'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

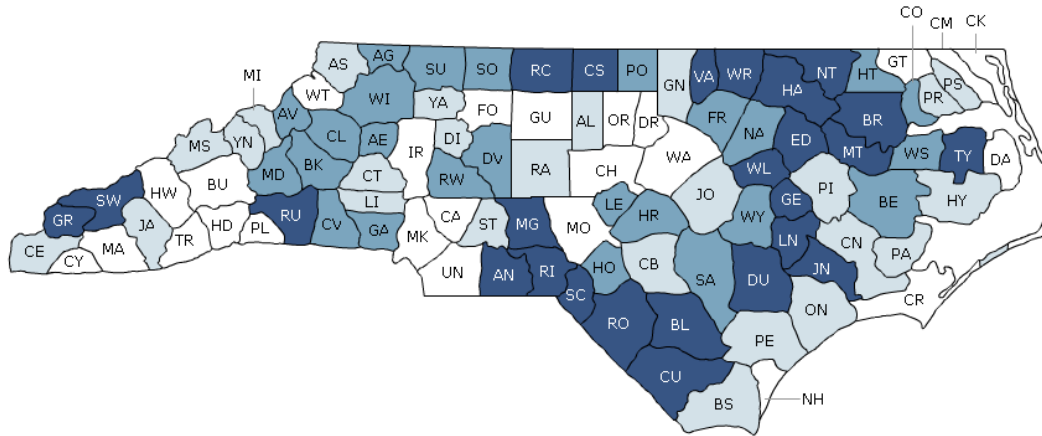
summary rankings. The green map shows the distribution of summary health outcomes. The blue displays the distribution of the summary rank for health factors.

### HEALTH OUTCOMES



County	Rank	County	Rank	County	Rank	County	Rank
Alamance	23	Cumberland	63	Johnston	27	Randolph	35
Alexander	67	Currituck	51	Jones	71	Richmond	90
Alleghany	41	Dare	5	Lee	38	Robeson	99
Anson	89	Davidson	50	Lenoir	88	Rockingham	78
Ashe	37	Davie	22	Lincoln	34	Rowan	54
Avery	15	Duplin	55	Macon	13	Rutherford	84
Beaufort	56	Durham	8	Madison	30	Sampson	74
Bertie	94	Edgecombe	96	Martin	86	Scotland	91
Bladen	97	Forsyth	25	McDowell	62	Stanly	79
Brunswick	47	Franklin	46	Mecklenburg	4	Stokes	75
Buncombe	14	Gaston	76	Mitchell	82	Surry	61
Burke	68	Gates	83	Montgomery	36	Swain	95
Cabarrus	7	Graham	69	Moore	12	Transylvania	24
Caldwell	58	Granville	73	Nash	65	Tyrrell	43
Camden	39	Greene	66	New Hanover	10	Union	3
Carteret	11	Guilford	9	Northampton	92	Vance	93
Caswell	72	Halifax	98	Onslow	20	Wake	1
Catawba	29	Harnett	44	Orange	2	Warren	87
Chatham	21	Haywood	64	Pamlico	42	Washington	60
Cherokee	81	Henderson	17	Pasquotank	40	Watauga	6
Chowan	49	Hertford	85	Pender	28	Wayne	59
Clay	19	Hoke	48	Perquimans	45	Wilkes	77
Cleveland	80	Hyde	31	Person	57	Wilson	70
Columbus	100	Iredell	18	Pitt	52	Yadkin	53
Craven	32	Jackson	26	Polk	33	Yancey	16

### HEALTH FACTORS



Rank 1-25   Rank 26-50   Rank 51-75   Rank 76-100

County	Rank	County	Rank	County	Rank	County	Rank
Alamance	47	Cumberland	49	Johnston	43	Randolph	42
Alexander	63	Currituck	17	Jones	77	Richmond	98
Alleghany	56	Dare	14	Lee	54	Robeson	100
Anson	93	Davidson	62	Lenoir	86	Rockingham	90
Ashe	39	Davie	31	Lincoln	29	Rowan	75
Avery	59	Duplin	81	Macon	16	Rutherford	83
Beaufort	53	Durham	8	Madison	28	Sampson	69
Bertie	85	Edgecombe	99	Martin	84	Scotland	96
Bladen	89	Forsyth	21	McDowell	61	Stanly	38
Brunswick	33	Franklin	68	Mecklenburg	19	Stokes	60
Buncombe	6	Gaston	65	Mitchell	45	Surry	55
Burke	52	Gates	18	Montgomery	79	Swain	94
Cabarrus	13	Graham	80	Moore	15	Transylvania	11
Caldwell	67	Granville	48	Nash	72	Tyrrell	92
Camden	4	Greene	76	New Hanover	10	Union	7
Carteret	20	Guilford	24	Northampton	87	Vance	95
Caswell	82	Halifax	97	Onslow	36	Wake	2
Catawba	30	Harnett	70	Orange	1	Warren	88
Chatham	9	Haywood	25	Pamlico	26	Washington	71
Cherokee	46	Henderson	5	Pasquotank	50	Watauga	3
Chowan	51	Hertford	66	Pender	44	Wayne	58
Clay	22	Hoke	74	Perquimans	32	Wilkes	64
Cleveland	73	Hyde	41	Person	57	Wilson	78
<b>Columbus</b>	<b>91</b>	<b>Iredell</b>	<b>23</b>	<b>Pitt</b>	<b>34</b>	<b>Yadkin</b>	<b>37</b>
Craven	27	Jackson	40	Polk	12	Yancey	35

## 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	Wake	1	Orange
2	Orange	2	Wake
3	Union	3	Watauga
4	Mecklenburg	4	Camden
5	Dare	5	Henderson
6	Watauga	6	Buncombe
7	Cabarrus	7	Union
8	Durham	8	Durham
9	Guilford	9	Chatham
10	New Hanover	10	New Hanover
11	Carteret	11	Transylvania
12	Moore	12	Polk
13	Macon	13	Cabarrus
14	Buncombe	14	Dare
15	Avery	15	Moore
16	Yancey	16	Macon
17	Henderson	17	Currituck
18	Iredell	18	Gates
19	Clay	19	Mecklenburg
20	Onslow	20	Carteret
21	Chatham	21	Forsyth
22	Davie	22	Clay
23	Alamance	23	Iredell
24	Transylvania	24	Guilford
25	Forsyth	25	Haywood
26	Jackson	26	Pamlico
27	Johnston	27	Craven
28	Pender	28	Madison
29	Catawba	29	Lincoln
30	Madison	30	Catawba
31	Hyde	31	Davie
32	Craven	32	Perquimans
33	Polk	33	Brunswick
34	Lincoln	34	Pitt
35	Randolph	35	Yancey
36	Montgomery	36	Onslow
37	Ashe	37	Yadkin
38	Lee	38	Stanly
39	Camden	39	Ashe
40	Pasquotank	40	Jackson
41	Alleghany	41	Hyde
42	Pamlico	42	Randolph



Rank	Health Outcomes	Rank	Health Factors
43	Tyrrell	43	Johnston
44	Harnett	44	Pender
45	Perquimans	45	Mitchell
46	Franklin	46	Cherokee
47	Brunswick	47	Alamance
48	Hoke	48	Granville
49	Chowan	49	Cumberland
50	Davidson	50	Pasquotank
51	Currituck	51	Chowan
52	Pitt	52	Burke
53	Yadkin	53	Beaufort
54	Rowan	54	Lee
55	Duplin	55	Surry
56	Beaufort	56	Alleghany
57	Person	57	Person
58	Caldwell	58	Wayne
59	Wayne	59	Avery
60	Washington	60	Stokes
61	Surry	61	McDowell
62	McDowell	62	Davidson
63	Cumberland	63	Alexander
64	Haywood	64	Wilkes
65	Nash	65	Gaston
66	Greene	66	Hertford
67	Alexander	67	Caldwell
68	Burke	68	Franklin
69	Graham	69	Sampson
70	Wilson	70	Harnett
71	Jones	71	Washington
72	Caswell	72	Nash
73	Granville	73	Cleveland
74	Sampson	74	Hoke
75	Stokes	75	Rowan
76	Gaston	76	Greene
77	Wilkes	77	Jones
78	Rockingham	78	Wilson
79	Stanly	79	Montgomery
80	Cleveland	80	Graham
81	Cherokee	81	Duplin
82	Mitchell	82	Caswell
83	Gates	83	Rutherford
84	Rutherford	84	Martin
85	Hertford	85	Bertie
86	Martin	86	Lenoir
87	Warren	87	Northampton
88	Lenoir	88	Warren
89	Anson	89	Bladen
90	Richmond	90	Rockingham

Rank	Health Outcomes	Rank	Health Factors
91	Scotland	91	Columbus
92	Northampton	92	Tyrrell
93	Vance	93	Anson
94	Bertie	94	Swain
95	Swain	95	Vance
96	Edgecombe	96	Scotland
97	Bladen	97	Halifax
98	Halifax	98	Richmond
99	Robeson	99	Edgecombe
100	Columbus	100	Robeson

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

<sup>1</sup> NCES used for AK, AL, AR, CA, CT, FL, HI, ID, KY, MT, ND, NJ, OK, SD and TN

<sup>2</sup> State data source for IL.

<sup>3</sup> Not available for AK and HI.

<sup>4</sup> Access to Healthy Foods (2009) from Census Zip Code Business Patterns for AK and HI.

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