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COUNTY HEALTH RANKINGS METHODS AND MEASURES

Amanda Jovaag

www.countyhealthrankings.org

UNIVERSITY OF WISCONSIN
Population Health Institute
Translating Research for Policy and Practice

Support provided by
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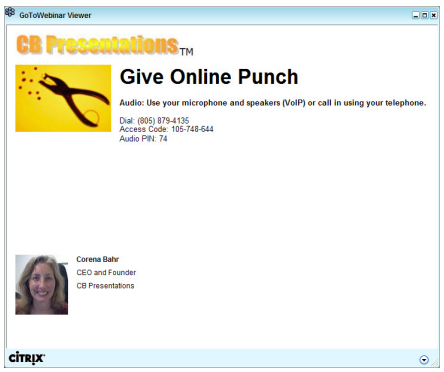
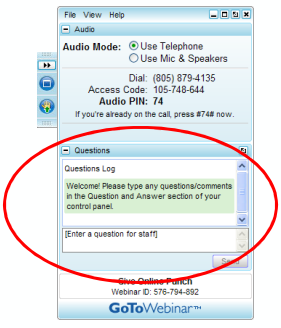
GOTOWEBINAR ATTENDEE INTERFACE

1. Viewer Window



2. Control Panel



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ACKNOWLEDGEMENTS

- Robert Wood Johnson Foundation
  - Including Abbey Cofsky, Andrea Ducas, Michelle Larkin, Jim Marks, Joe Marx,
- Wisconsin *County Health Rankings & Roadmaps* Team
  - Including Bridget Catlin, Julie Willems Van Dijk, Matt Rodock, Kathryn Hatchell, Hyojun Park, Elizabeth Pollock, Anne Roubal
- Our Partners
  - Including Burness, United Way Worldwide, National Association of Counties, NNPHI, Dartmouth Institute, CDC, NCHS

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OUTLINE

County Health Rankings & Roadmaps Background

What's New for 2015?

2015 Measures

Methods: *Rankings* Calculation

Special Data Issues

Wrap-Up; Q & A

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County Health Rankings Logic Model

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COUNTY HEALTH RANKINGS: 2 RANKINGS

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TOOLS & RESOURCES WEBINARS BLOG Dane

Search

Dane Search

3 results found matching "Dane"

Even When Your County is Healthy, a Check-Up Can

Dane County, Wisconsin is, for the most part, a pretty healthy place to live. I s
developers of the County Health Rankings. The report – produced by the Uni
Population Health Institute and the Robert...

Literacy Network Improves Adults' Health Care Kno

Literacy skills are a key predictor of an individual's health status.

Public-Private Partnerships: A Commitment to Impr

Public-private partnerships play a critical role in mobilizing community health
enhancing, and sustaining county policies and programs.

TOOLS & RESOURCES WEBINARS BLOG Dane ABOUT FAQ

Search

Dane SEARCH

4 results found matching "Dane"

Dane, WI: County Snapshot

Rankings Data · http://dev.chr.forumone.com/app/wisconsin/2014/rankings/dane/county/outcomes/overall/snapshot

Public-Private Partnerships: A Commitment to Improve Health

Public-private partnerships play a critical role in mobilizing community health through building, enhancing, and sustaining county policies and programs. During a panel discussion at the National Association of Counties (NACo) Roadmaps to Health...

Even When Your County is Healthy, a Check-Up Can Help

Dane County [1], Wisconsin is, for the most part, a pretty healthy place to live.I should know.Im one of the developers of the /County Health Rankings/ [2]. The report - produced by the University of Wisconsin Population Health Institute and the...

Literacy Network Improves Adults' Health Care Knowledge in WI

Literacy skills are a key predictor of an individuals health status. After attending the 2009 Health Literacy Summit in Madison, WI, Literacy Network of Dane County [1] developed /English for Health/ [2], an award-winning program that helps adults...

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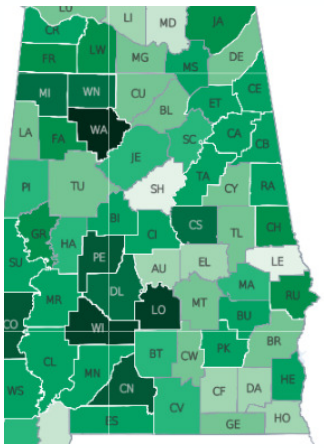
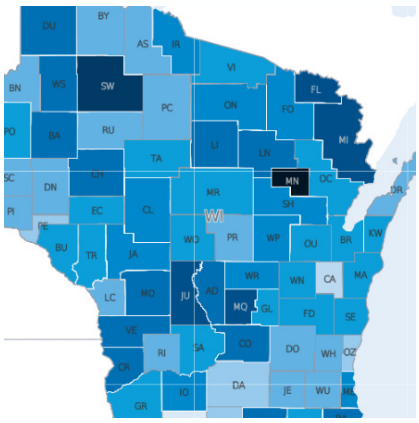
MEASURE MAPS





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USING THE RANKINGS DATA

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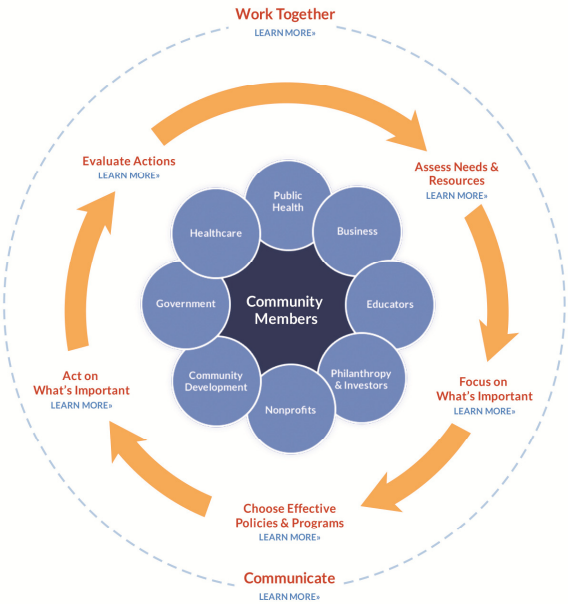

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HOW ARE MEASURES SELECTED?

- Reflect important aspects of population health that can be improved
- Valid, reliable, recognized and used by others
- Available at the county level
- Available for free or low cost
- As up-to-date as possible
- Fewer measures better than more

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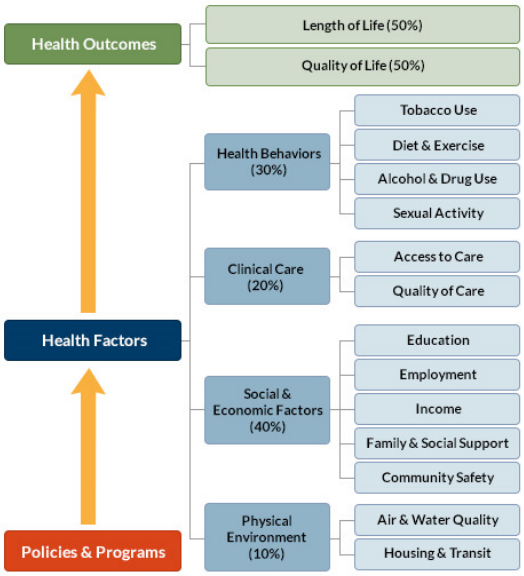

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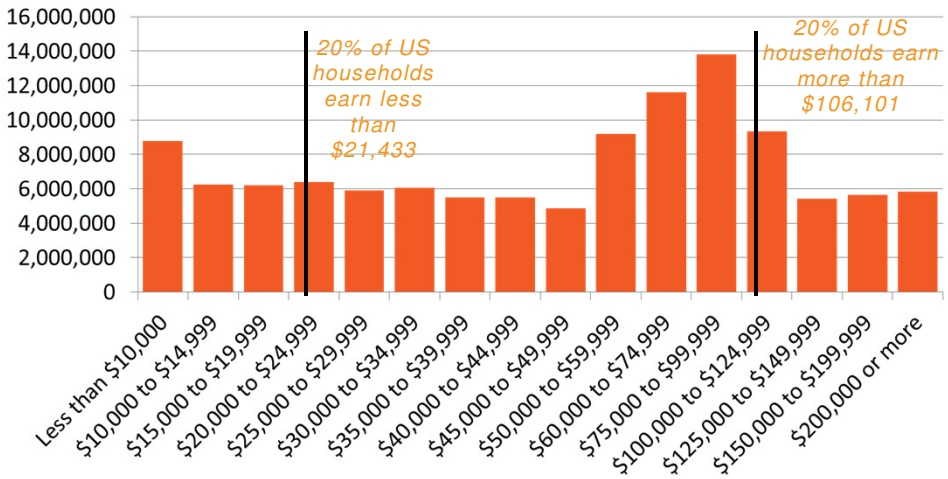
NEW MEASURE – INCOME INEQUALITY



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NEW MEASURE – INCOME INEQUALITY

- Ratio of household income at the 80th percentile to income at the 20th percentile
- Data source: American Community Survey
- Years: 2009-2013

Minimum	10th Percentile	Median	National Average	90th Percentile	Maximum
2.6	3.7	4.4	4.9	5.4	9.7

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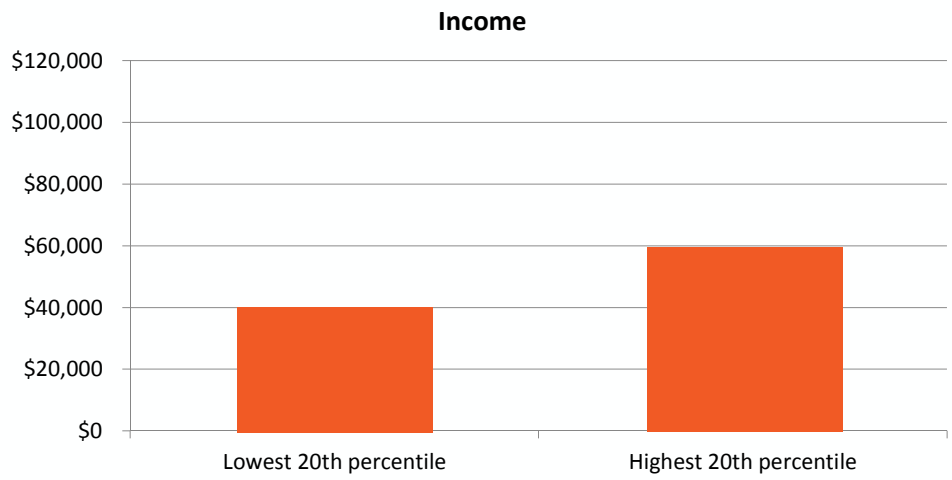
INCOME INEQUALITY



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HEALTH OUTCOMES

FOCUS AREA	MEASURE	DATA SOURCE	YEARS
LENGTH OF LIFE (50%)	Premature Death (50%) (Years Of Potential Life Lost)	National Center for Health Statistics	2010-2012
QUALITY OF LIFE (50%)	Poor or Fair Health (10%)	Behavioral Risk Factor Surveillance System (BRFSS)	2006-2012
	Poor Physical Health Days (10%)		
	Poor Mental Health Days (10%)		
	Low Birthweight (20%)	National Center for Health Statistics	2006-2012

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HEALTH BEHAVIORS

FOCUS AREA	MEASURE	DATA SOURCE	YEARS
TOBACCO USE (10%)	Adult Smoking (10%)	BRFSS	2006-2012
DIET AND EXERCISE (10%)	Adult Obesity (5%)	CDC Diabetes Interactive Atlas	2011
	Food Environment Index (2%)	USDA & Feeding America	2012
	Physical Inactivity (2%)	CDC Diabetes Interactive Atlas	2011
	Access To Exercise Opportunities (1%)	Delorme & ESRI	2010 & 2013
ALCOHOL USE (5%)	Excessive Drinking (2.5%)	Behavioral Risk Factor Surveillance System	2006-2012
	Alcohol-impaired Driving Deaths (2.5%)	Fatality Analysis Reporting System	2009-2013
SEXUAL ACTIVITY (5%)	Sexually Transmitted Infections (2.5%)	National Center for Hepatitis, HIV, STD, and TB Prevention	2012
	Teen Births (2.5%)	National Center for Health Statistics	2006-2012

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CLINICAL CARE

FOCUS AREA	MEASURE	DATA SOURCE	YEARS
ACCESS TO CARE (10%)	Uninsured (5%)	Small Area Health Insurance Estimates	2012
	Primary Care Physicians (3%)	Area Health Resource File/American Medical Association	2012
	Dentists (1%)	Area Health Resource File/National Provider Identification File	2013
	Mental Health Providers (1%)	CMS, National Provider Identification	2014
QUALITY OF CARE (10%)	Preventable Hospital Stays (5%)	Dartmouth Institute: Dartmouth Atlas of Health Care, Medicare Claims Data	2012
	Diabetic Monitoring (2.5%)		
	Mammography Screening (2.5%)		

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SOCIAL AND ECONOMIC FACTORS

FOCUS AREA	MEASURE	DATA SOURCE	YEARS
EDUCATION (10%)	High School Graduation (5%)	National Center For Education Statistics	2011-2012
	Some College (5%)	American Community Survey	2009-2013
EMPLOYMENT (10%)	Unemployment (10%)	US Bureau of Labor Statistics	2013
INCOME (10%)	Children In Poverty (7.5%)	Small Area Income And Poverty Estimates	2013
	Income Inequality (2.5%)	**American Community Survey**	2009-2013
FAMILY AND SOCIAL SUPPORT (5%)	Single-parent Households (2.5%)	American Community Survey	2009-2013
	Social Associations (2.5%)	**County Business Patterns**	2012
COMMUNITY SAFETY (5%)	Violent Crime (2.5%)	Uniform Crime Reporting, Federal Bureau of Investigation	2010-2012
	Injury Deaths (2.5%)	CDC WONDER	2008-2012

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PHYSICAL ENVIRONMENT

FOCUS AREA	MEASURE	DATA SOURCE	YEARS
AIR & WATER QUALITY (5%)	Air Pollution – Particulate Matter (2.5%)	CDC WONDER Environmental data, NASA Applied Sciences Program/Public Health Program	2011
	Drinking Water Violations (2.5%)	Safe Drinking Water Information System	FY2013-2014
HOUSING & TRANSIT (5%)	Severe Housing Problems (2%)	Comprehensive Housing Affordability Strategy (CHAS) data	2007-2011
	Driving Alone To Work (2%)	American Community Survey	2009-2013
	Long Commute – Driving Alone (1%)	American Community Survey	2009-2013

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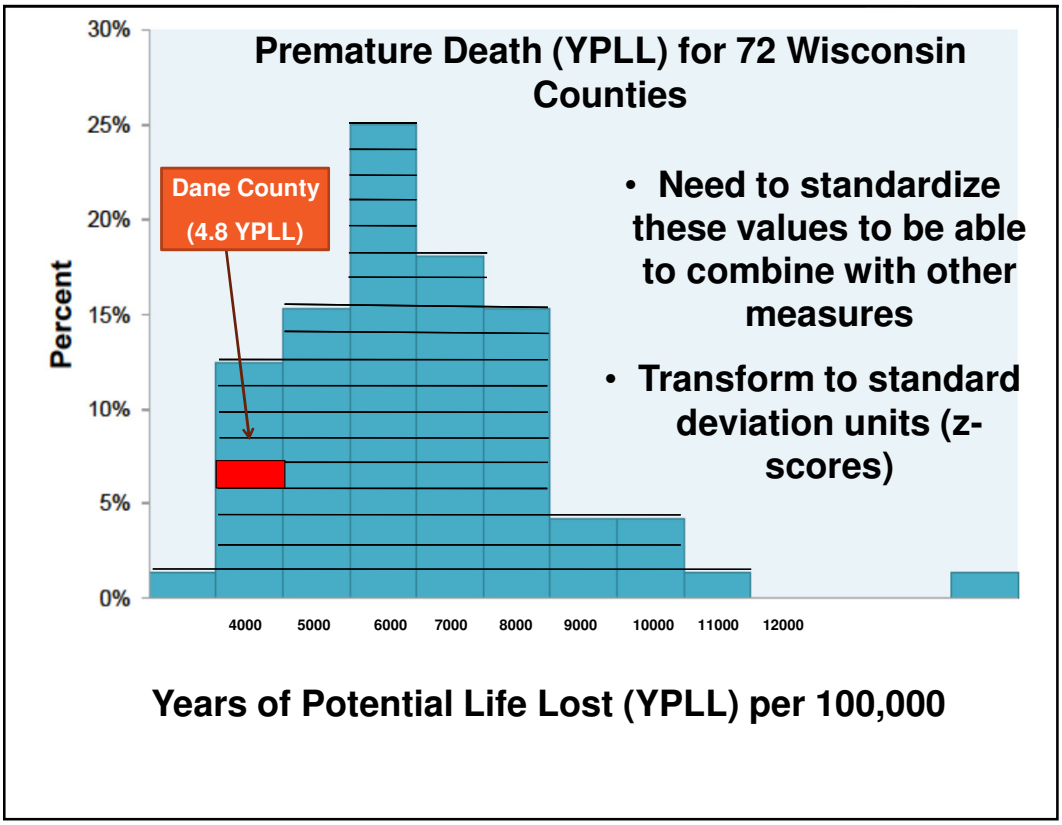
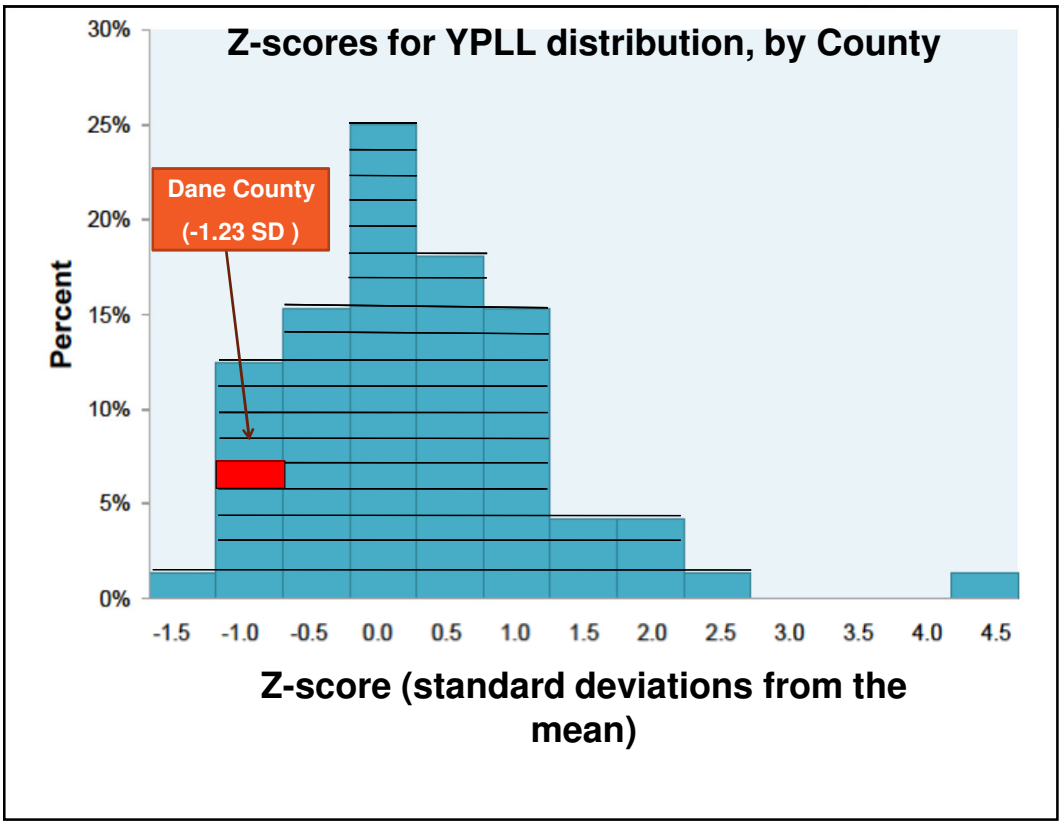

Premature Death (YPLL) for 72 Wisconsin Counties
Dane County
(4.8 YPLL)
• Need to standardize these values to be able to combine with other measures
• Transform to standard deviation units (z-scores)
Percent
30%
25%
20%
15%
10%
5%
0%
4000
5000
6000
7000
8000
9000
10000
11000
12000
Years of Potential Life Lost (YPLL) per 100,000


Z-scores for YPLL distribution, by County
Dane County
(-1.23 SD)
Percent
30%
25%
20%
15%
10%
5%
0%
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
Z-score (standard deviations from the mean)

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HEALTH OUTCOMES - RANK CALCULATION

Dane County	Value	Z-score	Weight	
Length of life (YPLL)	**4800**	**-1.23**	**50%**	**-.61**
Quality of life				**-.10**
-Fair/poor self- reported health	9%	-1.27	10%	-.13
-Physical un-healthy days	3.2	-0.05	10%	-.005
-Mental un-healthy days	3.0	0.06	10%	+.006
-Low birthweight	6.3%	0.15	20%	+.03

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HEALTH OUTCOMES – RANK CALCULATION

Dane County	Value	Z-score	Weight		Rank
Length of life (YPLL)	**4800**	**-1.23**	**50%**	**-.61**	**6**
Quality of life				**-.10**	**31**
COMPOSITE OUTCOMES SCORE				**-.71**	**10**

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WHAT RANKS ARE CALCULATED?

- Health Outcomes
  - Length of life
  - Quality of life
- Health Factors
  - Health behaviors
  - Clinical care
  - Social and economic factors
  - Physical environment

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MISSING DATA

- Insufficient health outcomes data for ranking
  - e.g., if data are missing for premature death, county is not ranked
- Sufficient data for ranking but missing individual measures
  - State mean is assigned in place of missing value to be able to rank

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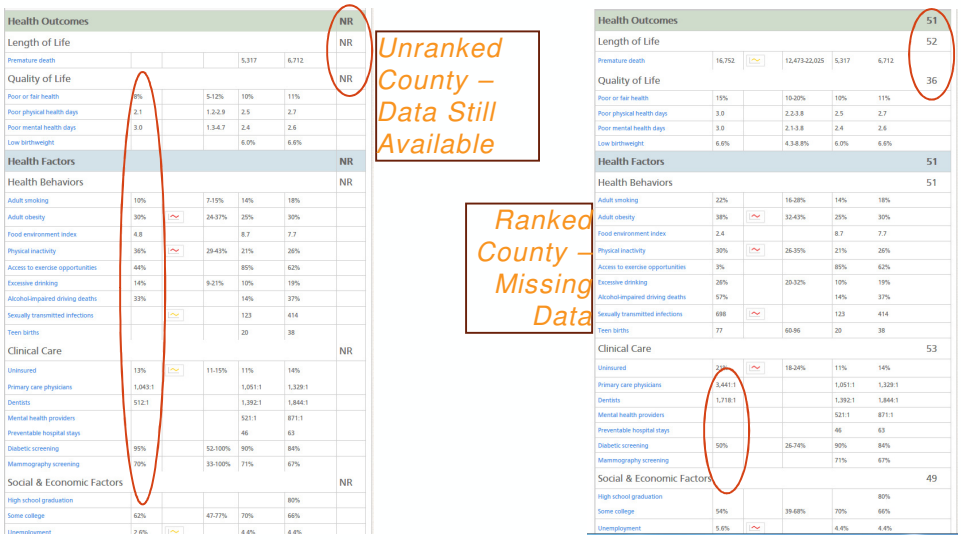
MISSING DATA



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DATA RELIABILITY

- Reliability differs by measure – some more reliable (e.g., mortality) than others
- To increase reliability, we
  - Use multiple years of data
  - Truncate Z-scores at 3.0 for counties with less than 20,000 population
- To evaluate reliability of a specific measure
  - Examine sample size and margin of error (confidence interval)

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UPCOMING WEBINARS

March 17

Using the *Rankings* in Your Community

April 7

***County Health Rankings & Roadmaps* 101 and Website Tour**

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THANK YOU!

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County Health Rankings Data Lead

University of Wisconsin Population Health Institute

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