



County Health  
Rankings & Roadmaps

A Healthier Nation, County by County

# *RANKINGS METHODOLOGY & NEW MEASURES*

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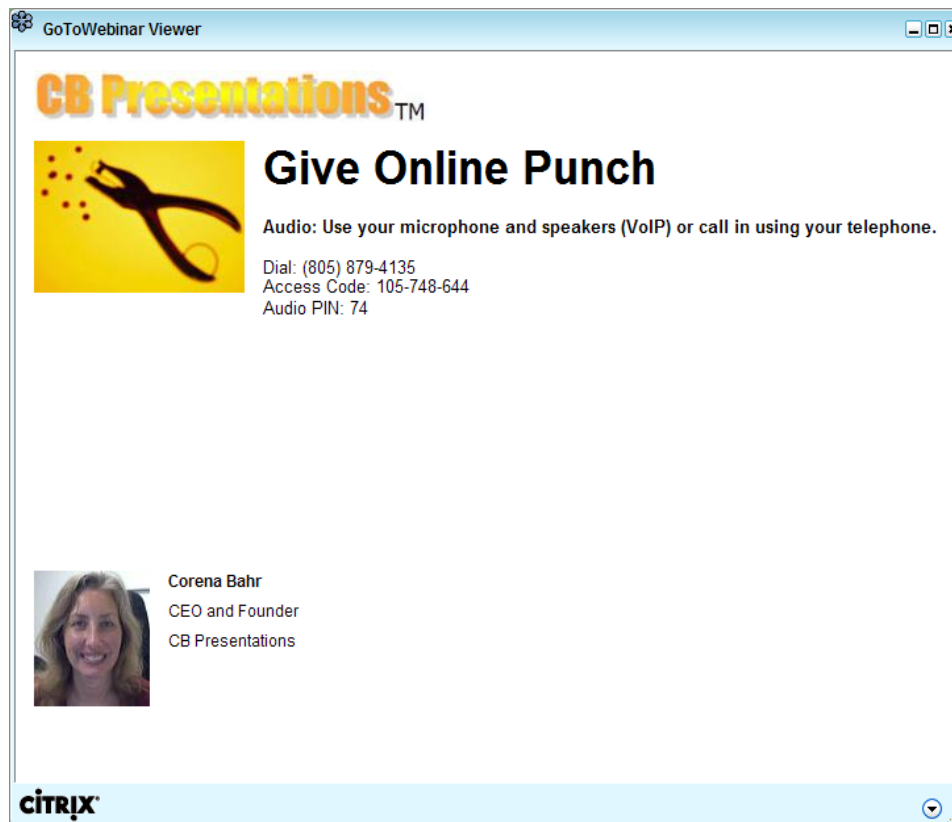
*March 13, 2012*



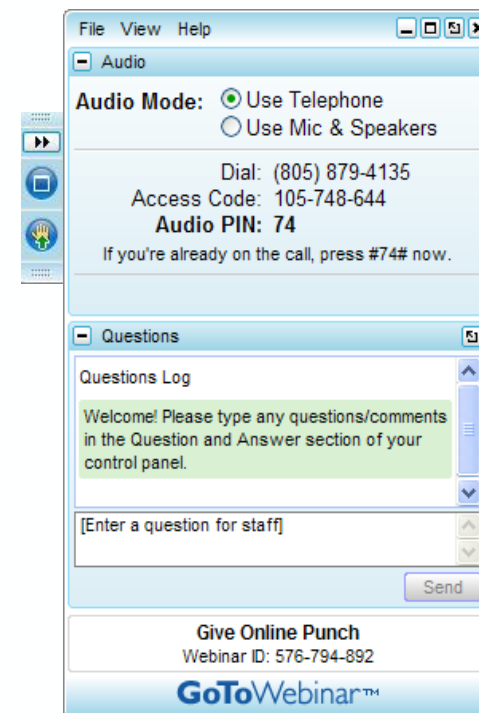


# GOTOWEBINAR ATTENDEE INTERFACE

## 1. Viewer Window



## 2. Control Panel





# OUTLINE

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Brief *Rankings* Background



Selection of Measures

Methods: *Rankings* Calculation

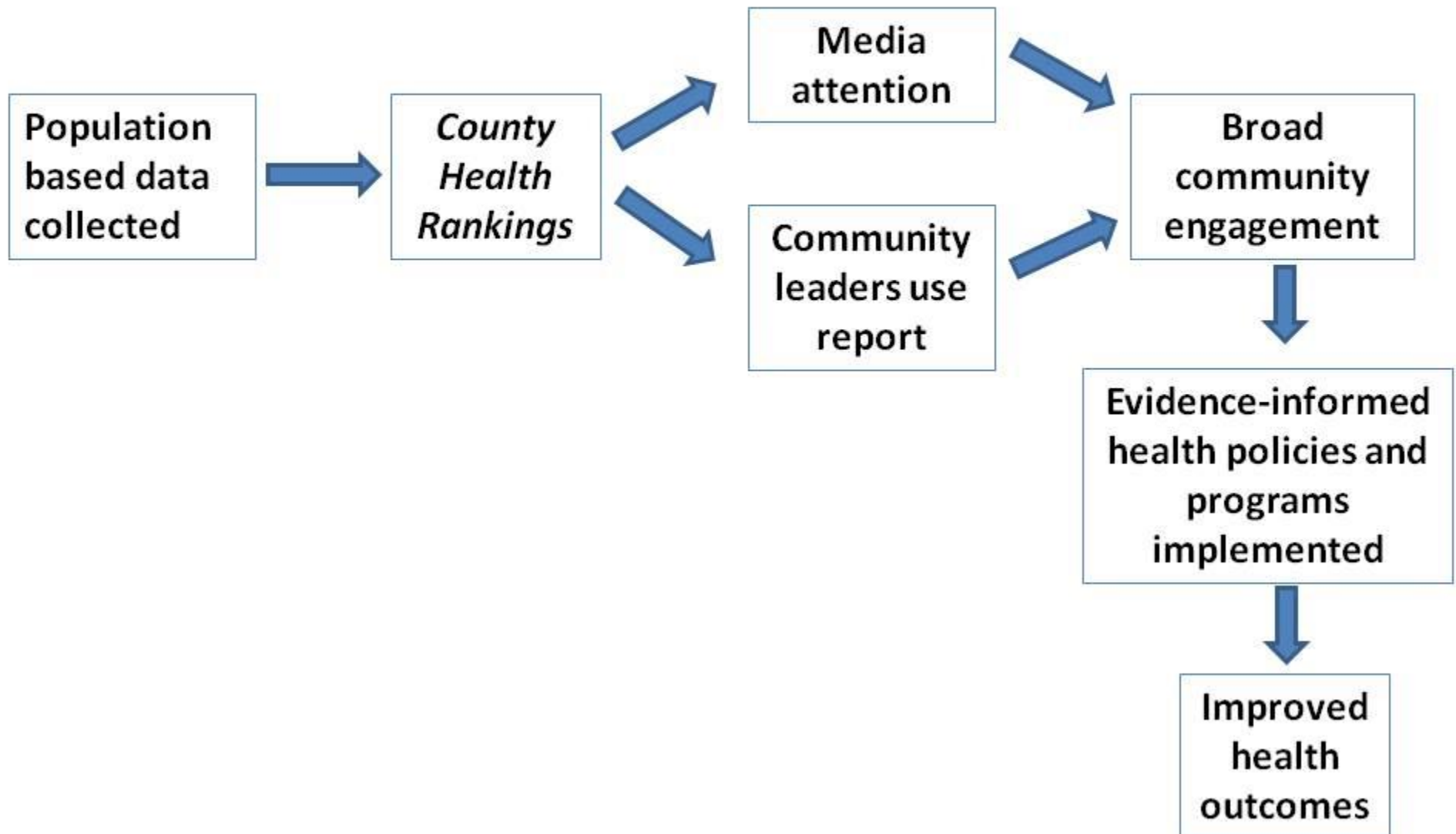
Special Data Issues

Other 2012 Changes

Wrap-Up; Q & A



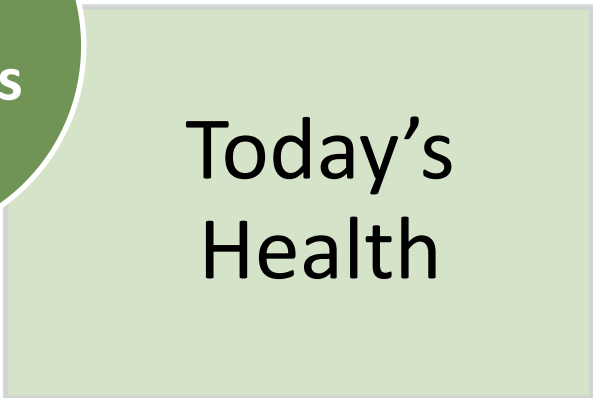
# County Health Rankings Logic Model

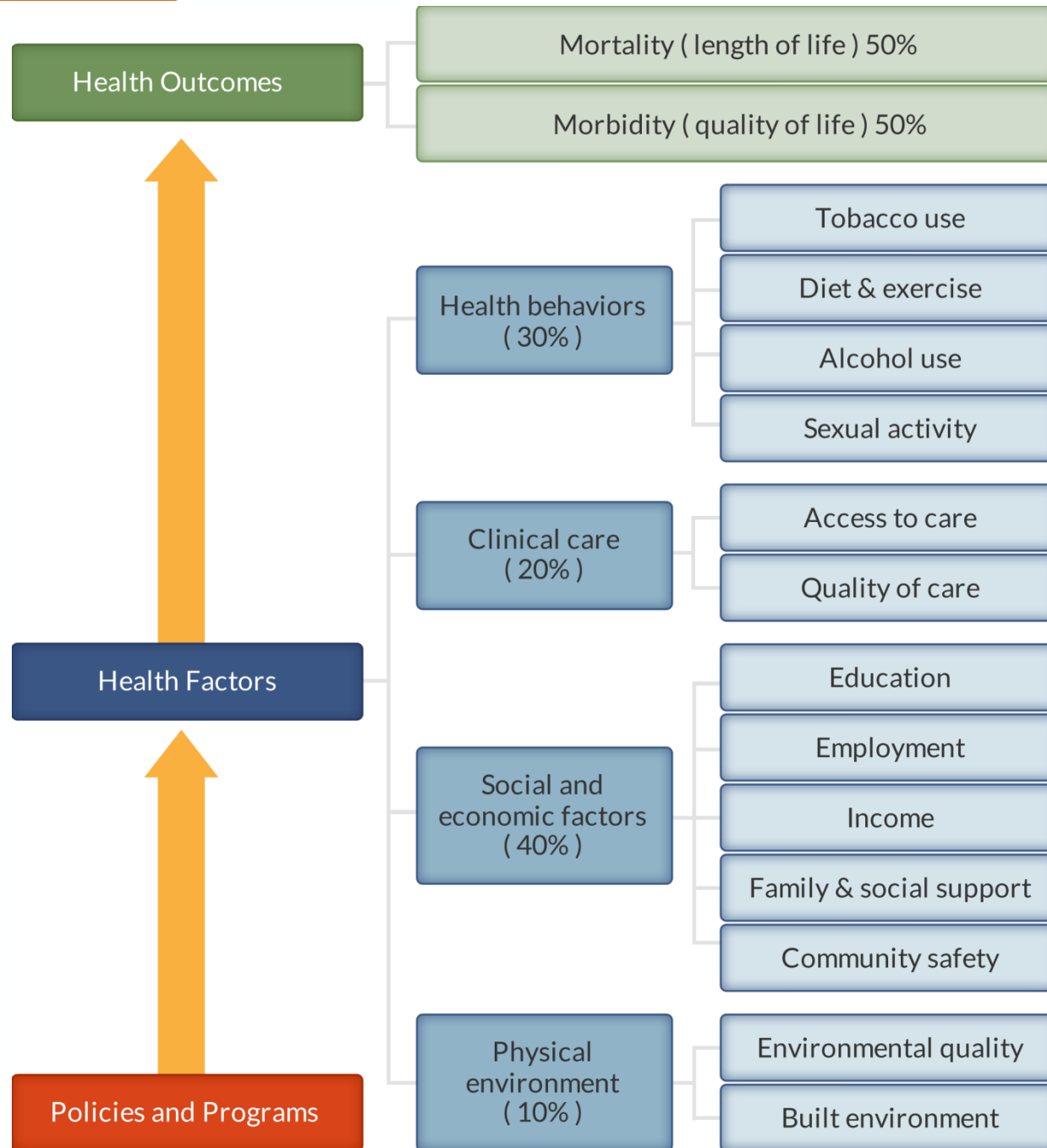




# COUNTY HEALTH RANKINGS: 2 RANKINGS

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# WWW.COUNTYHEALTHRANKINGS.ORG

The screenshot displays the website's navigation and main content area. At the top, there are two tabs: "Rankings" (selected) and "Roadmaps". Below the tabs is a search bar with a magnifying glass icon and a link that says "Learn about the Data & Methods >". The main content area features a header "SELECT A STATE TO ACTIVATE COUNTIES" above a map of the United States. The map shows state boundaries and is labeled with two-letter state abbreviations: WA, OR, CA, NV, UT, AZ, NM, TX, MT, ID, WY, CO, ND, SD, NE, KS, OK, MN, IA, MO, AR, LA, WI, IL, IN, OH, WV, VA, NC, SC, GA, AL, MS, TN, KY, PA, NY, NJ, DE, MD, CT, RI, NH, ME, and FL. On the right side of the map, there is a "zoom" control with "+" and "-" buttons.



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## HOW ARE MEASURES SELECTED?

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- ▶ 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



# HEALTH OUTCOMES

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FOCUS AREA	MEASURE	DATA SOURCE
MORTALITY (50%)	Premature death (50%) (Years of Potential Life Lost)	National Center for Health Statistics
MORBIDITY (50%)	Low birthweight (20%)	National Center for Health Statistics
	Poor or fair health (10%)	Behavioral Risk Factor Surveillance System
	Poor physical health days (10%)	
	Poor mental health days (10%)	



# HEALTH BEHAVIORS

FOCUS AREA	MEASURE	DATA SOURCE
TOBACCO USE (10%)	Adult smoking (10%)	Behavioral Risk Factor Surveillance System
DIET AND EXERCISE (10%)	Adult obesity (7.5%) Physical inactivity (2.5%)	National Center for Chronic Disease Prevention and Health Promotion
ALCOHOL USE (5%)	Excessive drinking (2.5%) Motor vehicle crash death rate (2.5%)	Behavioral Risk Factor Surveillance System National Center for Health Statistics
SEXUAL ACTIVITY (5%)	Teen birth rate (2.5%) Sexually transmitted Infections (Chlamydia Rate) (2.5%)	National Center for Health Statistics National Center for Hepatitis, HIV, STD, and TB Prevention



# CLINICAL CARE

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FOCUS AREA	MEASURE	DATA SOURCE
ACCESS TO CARE (10%)	Uninsured (5%)	Small Area Health Insurance Estimates Health Resources & Services Administration
	Primary care physician (5%)	
QUALITY OF CARE (10%)	Preventable hospital stays (5%)	Dartmouth Institute: Dartmouth Atlas Project, Medicare Claims Data
	Diabetic screening (2.5%)	
	Mammography screening (2.5%)	



# SOCIAL AND ECONOMIC FACTORS

FOCUS AREA	MEASURE	DATA SOURCE
EDUCATION (10%)	High school graduation (5%)	States provided H.S. graduation data
	Some college (5%)	American Community Survey
EMPLOYMENT (10%)	Unemployment (10%)	US Bureau of Labor Statistics
INCOME (10%)	Children in poverty (10%)	Small Area Income and Poverty Estimates
FAMILY AND SOCIAL SUPPORT (5%)	Inadequate social support (2.5%)	Behavioral Risk Factor Surveillance System
	Single-parent households (2.5%)	American Community Survey
COMMUNITY SAFETY (5%)	Violent Crime (5%)	Uniform Crime Reporting, Federal Bureau of Investigation



# PHYSICAL ENVIRONMENT

Focus Area	Measure	Data Source
ENVIRONMENTAL QUALITY (4%)	Air Pollution – Particulate Matter Days (2%)	CDC Environmental Protection Agency Collaboration
	Air Pollution – Ozone Days (2%)	
BUILT ENVIRONMENT (6%)	Limited Access to Healthy Foods (2%)	Food Environment Atlas
	Fast Food Restaurants (2%)	County Business Patterns
	Access to Recreational Facilities (2%)	County Business Patterns



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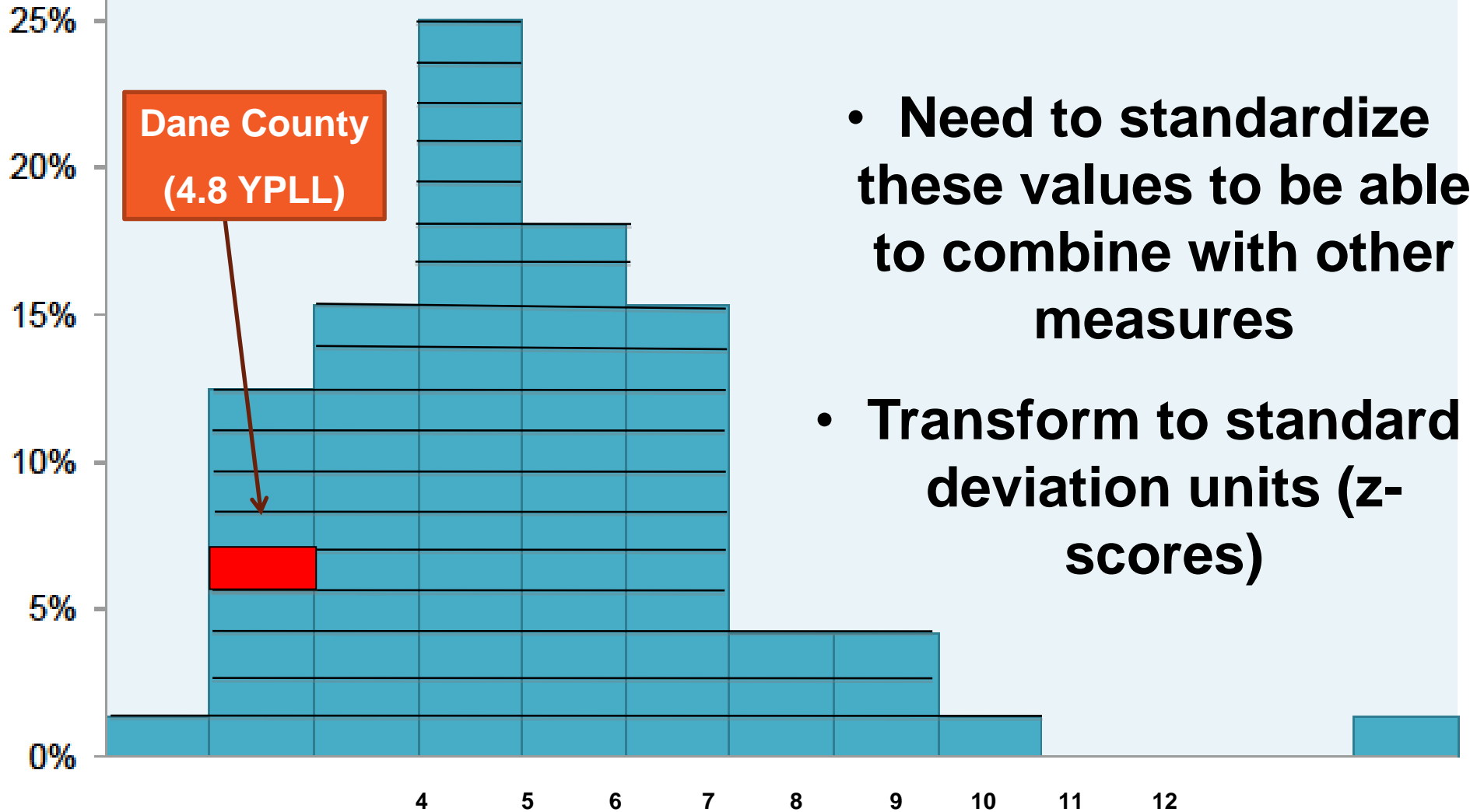
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% of Counties

# Premature Death (YPLL) for 72 Wisconsin Counties



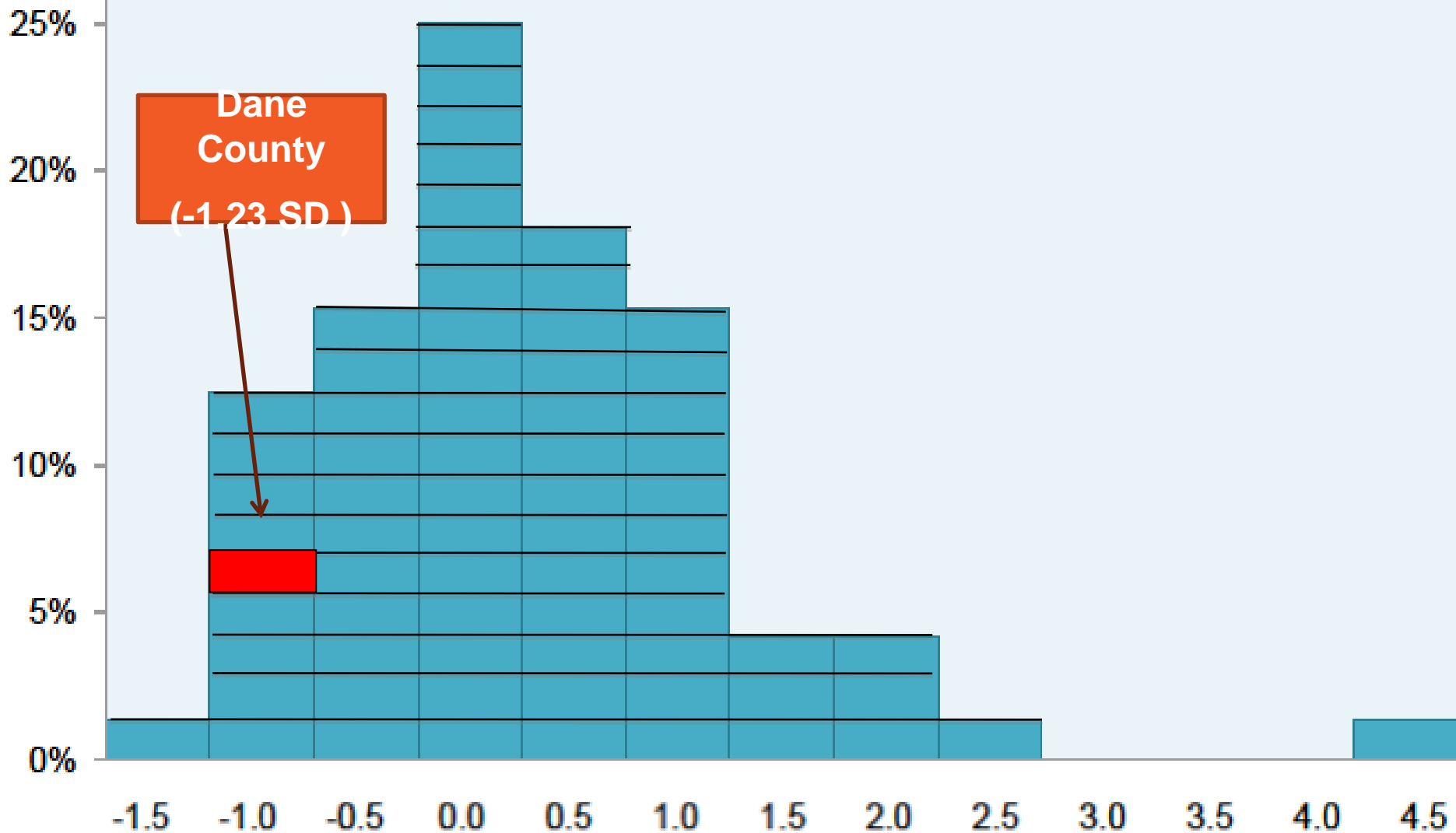
**Dane County  
(4.8 YPLL)**

- Need to standardize these values to be able to combine with other measures
- Transform to standard deviation units (z-scores)

**Years of Potential Life Lost (YPLL) per 1,000**

% of Counties

# Z-scores for YPLL distribution, by County



Z-score (standard deviations from the mean)



# HEALTH OUTCOMES - RANK CALCULATION

Dane County	Value	Z-score	Weight	
<b>MORTALITY (YPLL)</b>	<b>4.8</b>	<b>-1.23</b>	<b>50%</b>	<b>-.61</b>
<b>MORBIDITY</b>				<b>-.10</b>
-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



# HEALTH OUTCOMES – RANK CALCULATION

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Dane County	Value	Z-score	Weight		Rank
MORTALITY (YPLL)	4.8	-1.23	50%	-.61	6
MORBIDITY				-.10	31

**COMPOSITE OUTCOMES SCORE**

**-.71**

**10**



# WHAT RANKS ARE CALCULATED?

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- ▶ Health Outcomes
  - Mortality
  - Morbidity
  
- ▶ Health Factors
  - Health Behaviors
  - Clinical Care
  - Social and Economic Factors
  - Physical Environment



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## MISSING DATA

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- ▶ 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



## DATA RELIABILITY

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- ▶ 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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## OTHER CHANGES FOR 2012

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- ▶ *Roadmaps to Health*
- ▶ New website to make our model and our methods more easily accessible – for data and for taking action
- ▶ New data – quick review
  - Uninsured; Physical Inactivity; High School Graduation; Limited Access to Healthy Foods; Fast Food Restaurants



# ADDITIONAL MEASURES

- ▶ Could not see a doctor because of cost
  
- ▶ Per capita Medicare spending
  
- ▶ Dentist provider rate

## 2011 | CASS, NORTH DAKOTA

Snapshot **Additional Measures** Find Programs and Policies

To see more details, click on a measure.

	Cass County	North Dakota
▶ Demographics		
▼ Health Outcomes		
% diabetic	6%	8%
HIV prevalence rate		
▼ Health Behaviors		
Binge drinking	23%	21%
Physical inactivity	21%	25%
▼ Health Care		
Mental health providers	1,361:1	2,555:1
▼ Social & Economic Factors		
Median household income	\$46,942	\$45,996
% with high housing costs	32%	25%
% of children eligible for free lunch	18%	31%
% illiterate	5.1%	6.3%



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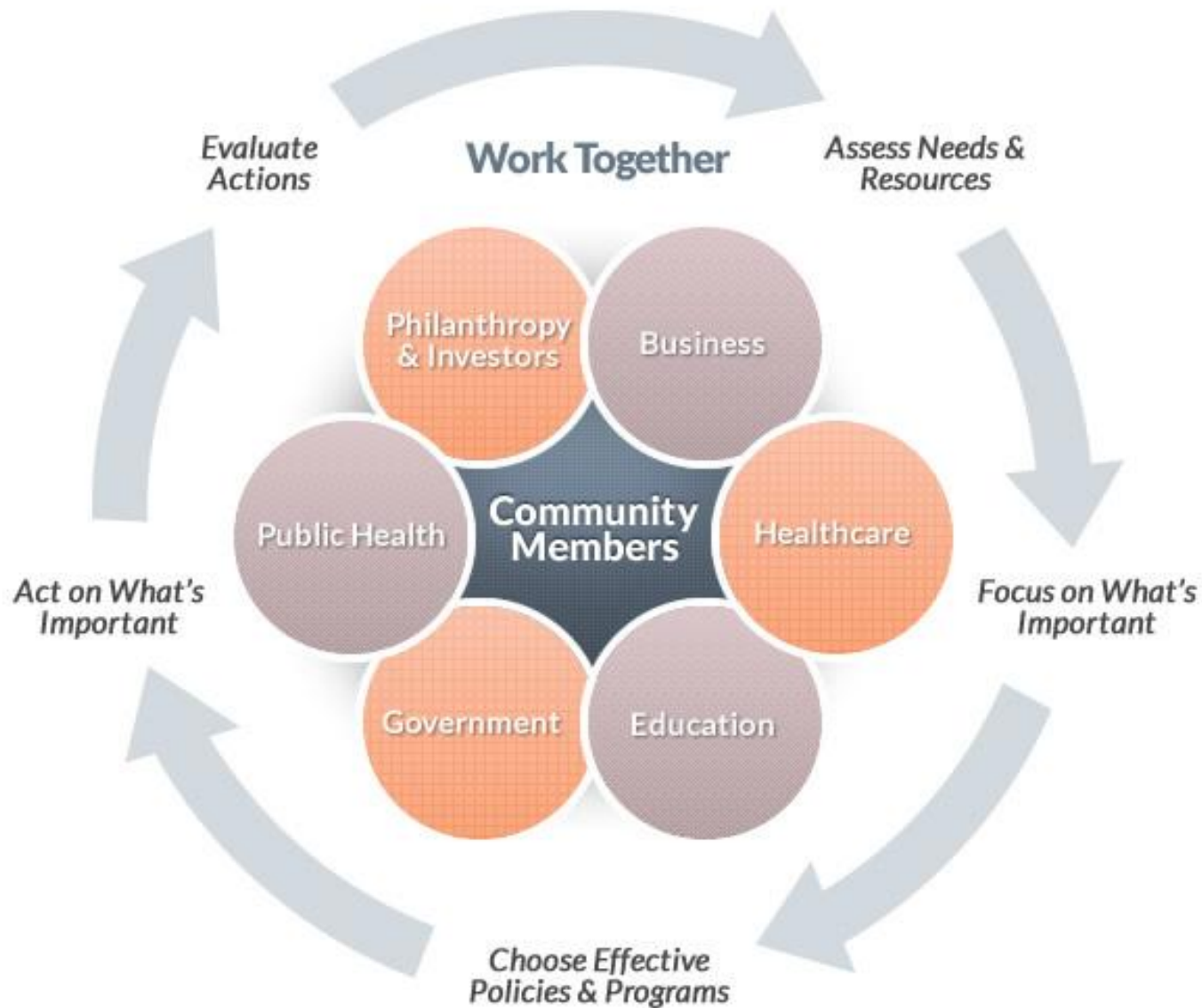
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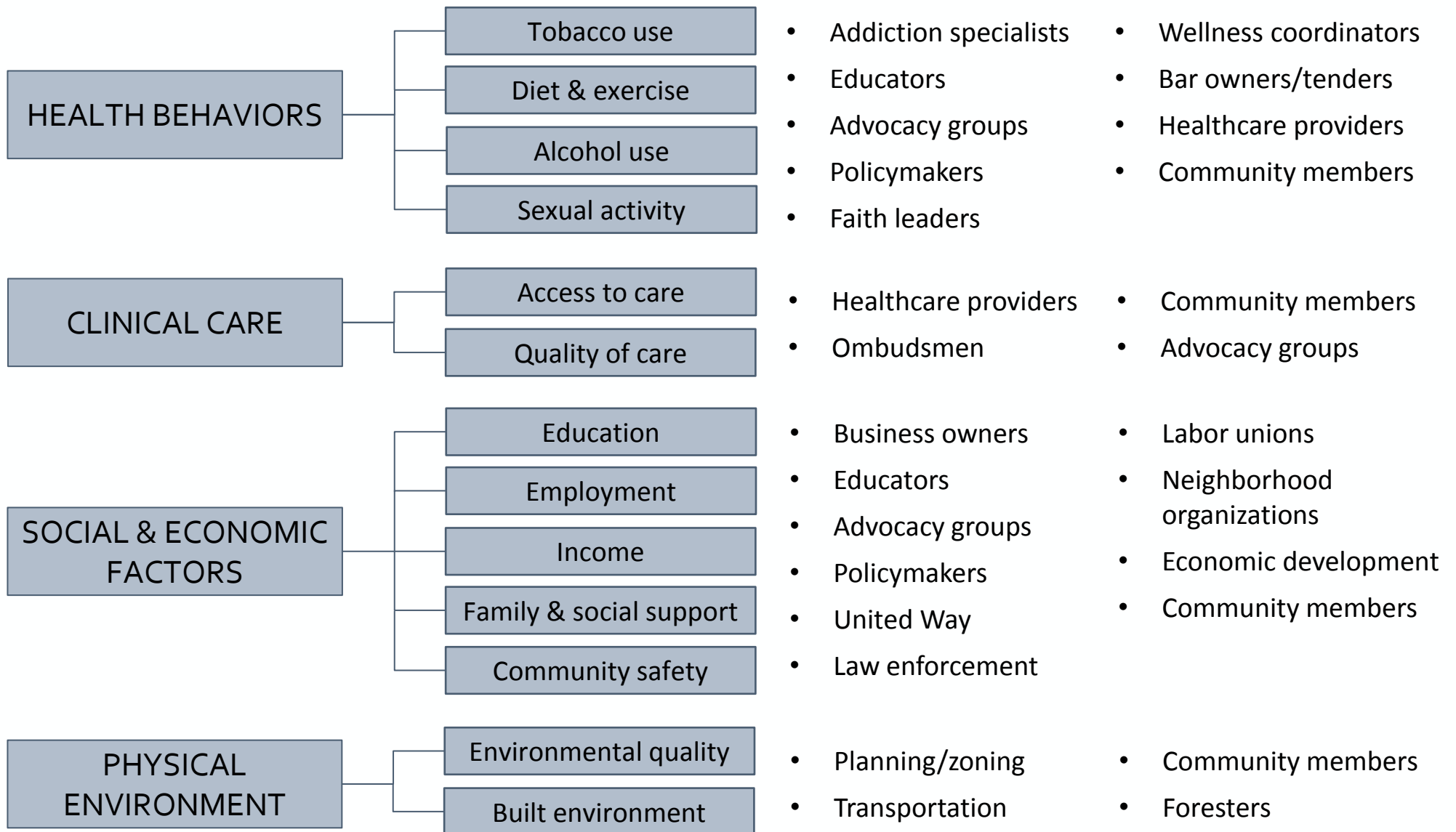


# TAKE ACTION





# HEALTH FACTORS & POTENTIAL PARTNERS





# UPCOMING WEBINARS

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March 20

Getting Your *Rankings* Message Out

April 10

*County Health Rankings 101*



# STAYING CONNECTED

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follow us on  
**twitter**



**e-Newsletter: [chr@match.wisc.edu](mailto:chr@match.wisc.edu)**



# ACKNOWLEDGEMENTS

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- ▶ *Wisconsin County Health Rankings & Roadmaps* Team
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  - Including Abbey Cofsky, Brenda Henry, Michelle Larkin, Jim Marks, Joe Marx
  
- ▶ Our Partners
  - Including Burness Communications, Community Catalyst, United Way Worldwide, ASTHO, NACCHO, NNPHI, Dartmouth Institute, CDC, NCHS



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# THANK YOU!

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