

# “Culture of Health” in Appalachia: Delineating and Understanding Bright Spots

Appalachian Translational Research Network Health Summit  
Cincinnati, Ohio  
November 17, 2016

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## **Support**

Robert Wood Johnson Foundation  
Appalachian Regional Commission  
Foundation for a Healthy Kentucky

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## **Collaborators**

*PDA, Inc.*

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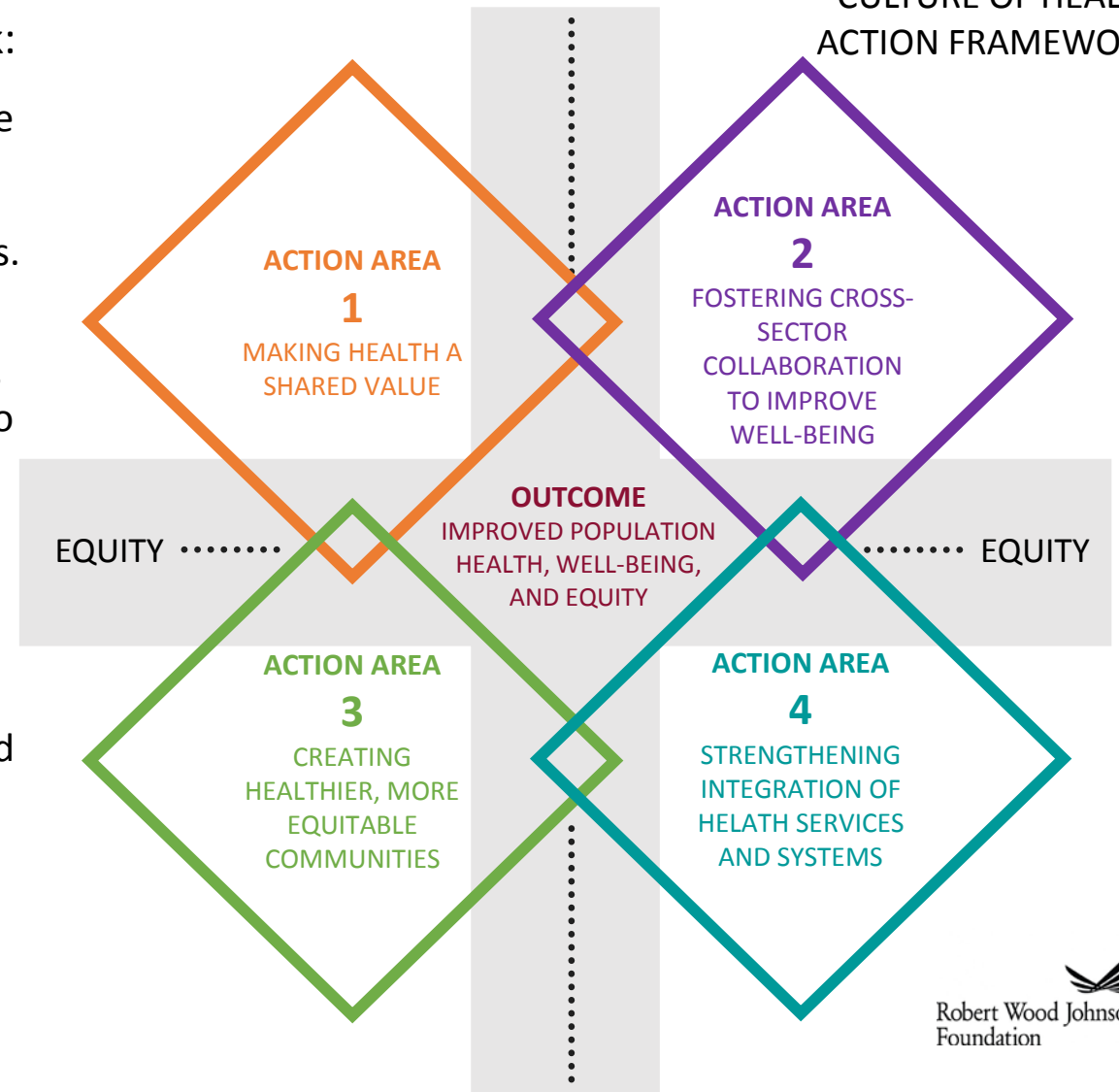
# Outline

- Conceptual Framework: Culture of Health
- Objective 1: Delineating Bright Spots
  - Statistical approach and results
  - Bright Spots have “better than expected” health
- Objective 2: Understanding Bright Sports
  - Case Studies
  - Preliminary observations from four initial Bright Spots
- Next Steps

# Culture of Health

## CULTURE OF HEALTH ACTION FRAMEWORK

- The overall approach uses the RWJF Culture of Health framework:
  1. **Making Health a Shared Value**, measured by indicators such as the percentage of people who strongly agree that health is influenced by their peers and their communities and the percentage who indicate they have adequate social support from family and friends.
  2. **Fostering Cross-Sector Collaboration to Improve Well-Being**, denoted by measures like the number of local health departments that collaborate with community organizations and employers who promote better health in the workplace.
  3. **Creating Healthier, More Equitable Communities**, using measurements such as the number of grocery stores, farmers' markets, and safe sidewalks in communities; the ratio of children attending preschool; and the affordability of housing.
  4. **Strengthening Integration of Health Services and Systems**, gauged by measures such as the percentage of people served by a comprehensive public health system and the percentage of physicians sharing electronic data with other clinicians, health systems and patients.
- Other typical controls (e.g. sociodemographic)

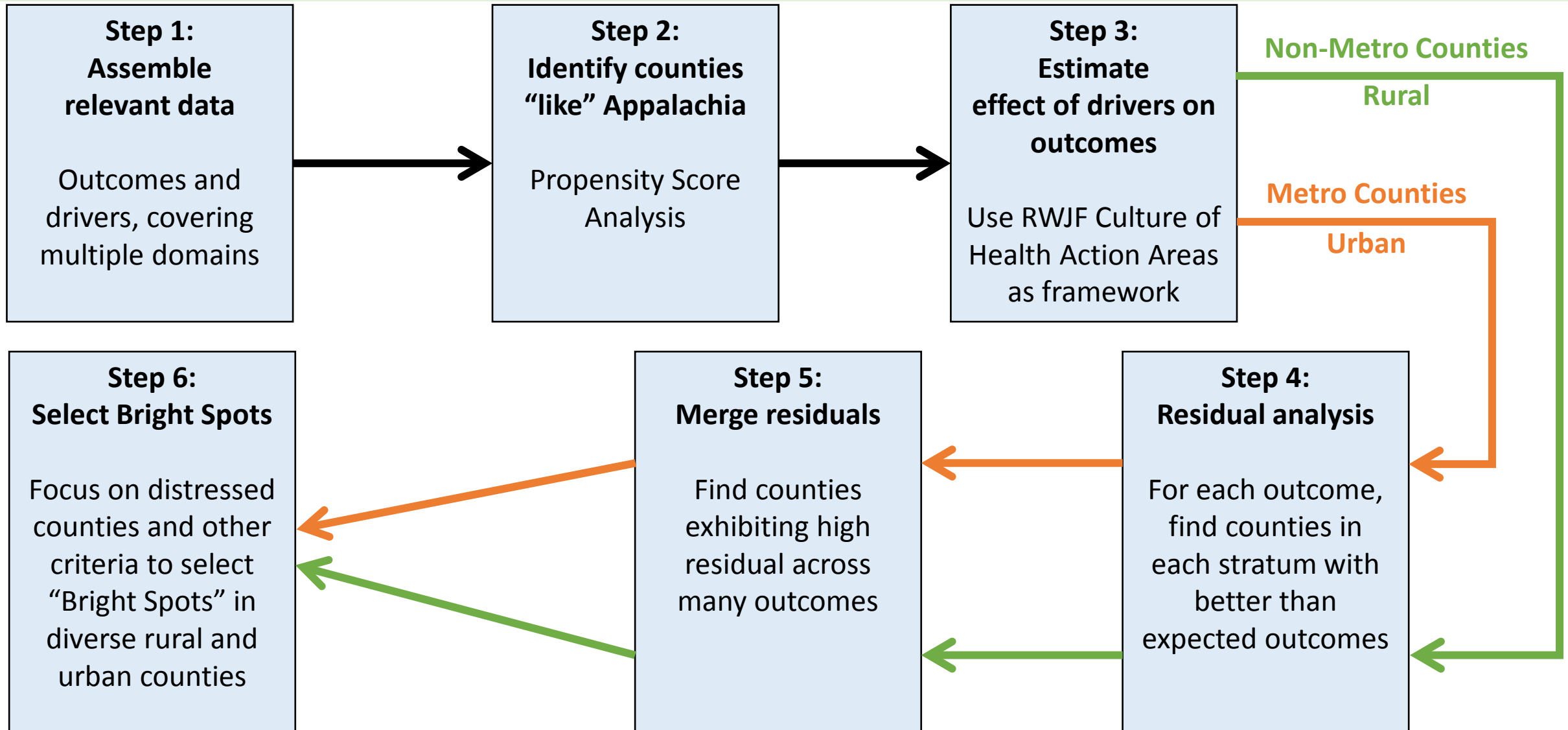


# Objective 1: Delineating Bright Spots

- Identify Appalachian counties with better than expected health.
- Identify the relationship between each of 19 outcomes and 29 drivers among Appalachian and “Appalachian-like” counties.
- Determine predicted values for each outcome in each Appalachian county given its drivers.
- Calculate the gap between predicted and observed values for each outcome.
- Find the counties with the largest average residual. These counties are, on average, the most “unexpectedly healthy” and therefore “Bright Spots.”

*Further details can be provided from previous webinars upon request.*

# Statistical Approach: Overview



# Outcome Measures

Category	Measure
Behavioral Health	Suicide Incidence Depression Prevalence Excessive Drinking Poisoning Mortality Opioid Prescription Rates
Children	Low Birthweight Births Infant Mortality
Mortality	Heart Disease Deaths Years of Potential Life Lost Rate Cancer Deaths Injury Deaths Stroke Deaths COPD Deaths

Category	Measure
Morbidity	Physically Unhealthy Days Mentally Unhealthy Days Medicare HCCs Diabetes Prevalence Obesity Prevalence
Health Care Systems and Utilization	Heart Disease Hospitalizations

# Driver Measures

Category	Measure
Children	Teen Birth Rate
Environment	Full-Service Restaurants / 1,000 Pop Access to Exercise Opportunities Average Daily Particulate Matter 2.5 Grocery Stores / 1,000 Pop Student-Teacher Ratio Average Travel Time To Work
Health Behaviors	% Adult Smokers % Physically Inactive Chlamydia Rate
Health Care System and Utilization	Primary Care Physician Ratio Dentist Ratio Specialist Physician Ratio Mental Health Provider Ratio Electronic Prescription Adoption Uninsured Rate Under 65

Category	Measure
Quality	A1C Screening Rates for Persons with Diabetes Mammogram Screening Rates
Social Determinants	% Employed in Social Assistance % Single-Parent Households SNAP Benefits per Capita Households No Car & Low Access to Stores % With Housing > 30% Income Composite Index Value Social Association Rate % Using Disability Benefits % Adults with Some College Education Poverty Rate Median Income

# Bright Spots: Top Ten Residuals

- Greater variation in non-metro counties: brighter bright spots
- “Better than expected health” represents an average outcome residual.

## Non-Metro

County	State	Avg. Residual
Wayne	Kentucky	0.71
Grant	West Virginia	0.67
Noxubee	Mississippi	0.64
McCreary	Kentucky	0.62
Morgan	Kentucky	0.57
Calhoun	West Virginia	0.55
Russell	Kentucky	0.54
Bledsoe	Tennessee	0.53
Pulaski	Kentucky	0.52
Hardy	West Virginia	0.49

## Metro

County	State	Avg. Residual
Wirt	West Virginia	0.44
Hale	Alabama	0.41
Clay	West Virginia	0.40
Madison	North Carolina	0.35
Henderson	North Carolina	0.34
Sequatchie	Tennessee	0.33
Tioga	New York	0.32
Whitfield	Georgia	0.31
Marshall	Mississippi	0.29
Jefferson	West Virginia	0.29

[Next Step: Round 2 Planned Counties](#)



# Objective 2: Understanding Bright Spots

Through case studies of 10 Bright Spot Counties:

- Understand and explain the characteristics of Bright Spots
  - How they reflect Culture of Health domains
  - Other factors that account for their Bright Spot status
    - Structural elements
    - Idiosyncratic characteristics
- Determine commonalities and differences across Bright Spot locations
- Delineate policy recommendations for improving the Culture of Health across Appalachia based on Bright Spot commonalities and differences.

# Case Study Components

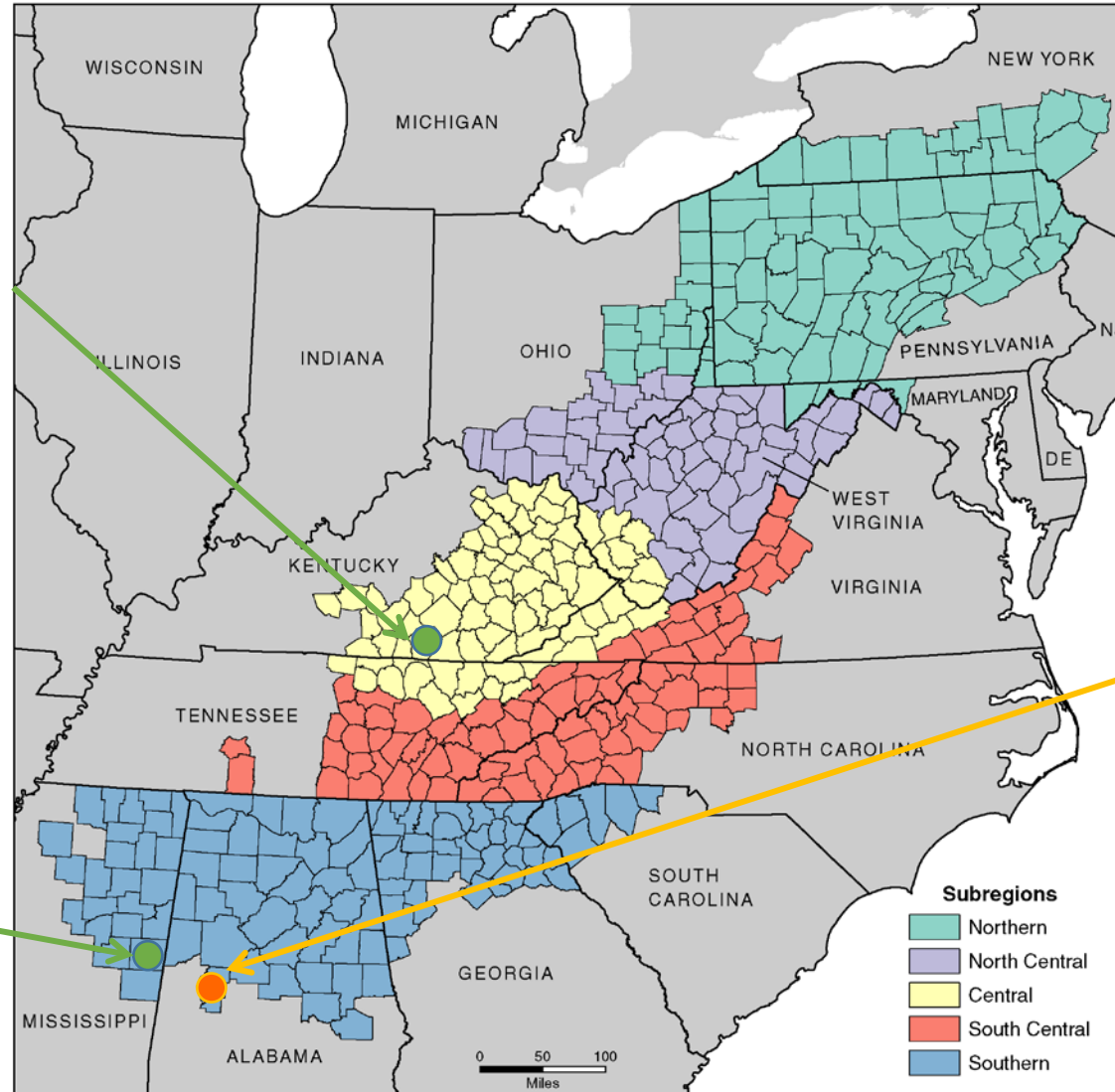
1. Delineate Bright Spot counties (Objective 1)
2. Prepare for site visits: media campaign, review of documentary sources, contacts with county leaders
3. Intensive site visit: interviews with county leaders and residents over several days
4. Review site visit interviews, develop initial case study report
5. Follow-ups to gather additional or missing information
6. Write final case study report with community review

# Initial Case Study Sites

Wayne and McCreary, KY

Noxubee, MS

Hale, AL



Map by: Appalachian Regional Commission, November 2009.

# County Characteristics

## Rural:

**Wayne, KY:** Overall bright across a majority of outcomes. Very strong in mortality and measures that relate to the health care system.

**McCreary, KY:** One of the poorest counties in the US, so many of its "bright spot" indicators still show very poor outcomes. Stands out for stroke and poisoning mortality. Underperformance on diabetes prevalence suggests that health determinants may not be getting addressed.

**Noxubee, MS:** Noxubee shows up as a bright spot for mortality measures, but lags behind its sub-region in raw numbers. Noxubee starts from so far behind, even its bright spots areas lag in real terms. However, Behavioral Health is generally a real bright spot.

## Metro:

**Hale, AL:** Hale shows up as a bright spot for mortality measures, but lags behind its sub-region in the raw numbers. Hale starts from so far behind, even its bright spots areas lag in real terms. However, Behavioral Health is generally a real bright spot.

# County Characteristics

Characteristic	County				United States
	Noxubee, MS	Hale, AL	McCreary, KY	Wayne, KY	
Population, 2015	11,043	15,063	17,878	20,646	--
Percent population change 2010-2015	-4.3	-4.4	-2.3	-1.7	4.1
Percent White alone, 2015	27.2	41.1	91.2	98.0	77.1
Percent Black alone, 2015	71.4	57.8	6.3	2.0	13.3
Percent HS graduates (those aged 25 and older)	67.1	79.4	70.3	67.6	86.3
Median household income (in 2014 dollars), 2010-2014	26,231	30,839	20,000	29,295	53,482
Per capita income in past 12 months (in 2014 dollars), 2010-2014	14,070	18,774	11,287	15,935	28,555
Persons in poverty, percent	31.3	28.1	47.0	26.2	14.8
ARC Designation	Rural	Small Metro	Rural	Rural	--

Source: United States Census Bureau, Quick Facts <http://www.census.gov/quickfacts/table/PST045215/00> [accessed 1 August 2016]

# Data Collection

- Field teams include
  - Two research team members
  - One local journalist
- Field visit preparation
  - Initial county contacts: August 8, 2016
  - Interaction with community leaders
  - Review of documentary sources (ongoing)
- Training: September 8, 2016
- Radio Campaign
  - *Alabama – Mississippi*: 112 announcements August 8 – 21, on two rated stations reaching 66,800 adults.
  - *Kentucky*: 159 spots and website streaming August 8 – Sept 5, on one unrated station reaching 25,000 adults in the radio footprint.
- Interview dates
  - Noxubee County: September 19-20
  - Hale County: September 21-22
  - McCreary County: September 26-27
  - Wayne County: September 28-29

# Analysis

## Data

- Transcripts
- Notes
- Journalists' summaries
- Photographs



## Analysis

- Transcripts have been edited.
- Transcripts are being coded, with a coding dictionary being developed.
- Documentary sources are being reviewed.
- Holes are being identified for follow-up phone interviews.



# Results: Key Informants

## Summary of Key Informants



Type of Organization	County			
	Noxubee, MS	Hale, AL	McCreary, KY	Wayne, KY
Local Government	3	-	1	-
Extension	1	-	-	1
Education	-	-	1	-
Health Care	3	2	2	2
Public Health	-	3	1	1
Non-Profit	-	2	2	2
Local Citizen	1	-	1	-
<b>Total</b>	<b>8</b>	<b>7</b>	<b>8</b>	<b>6</b>



# Results: Key Informants

- Knowledgeable about research
- Not familiar with
  - Project
  - Funders
- Cautious / skeptical about project
  - “Here we go again”
  - Past exposés
- Skeptical about being a Bright Spot
  - Surprised by the designation given the challenges they face
  - Concerned about losing external support due to this positive designation



# Culture of Health Domains

*Found specific strong individuals and strong programs in each county.*

## Noxubee County, MS

Velma Jenkins, Shuqualak Community: “The population of Shuqualak is entirely black, and predominantly seniors – 60s and up. Its members are extremely tight-knit and supportive, especially in times of crisis.”



# Culture of Health Domains

*Found specific strong individuals and strong programs in each county.*

## Hale County, AL

John Dorsey, Project Horseshoe Farm: addresses mental health across all ages; holistic health approach



Xavier Vendrell and Natalie Butts, Rural Studios (Auburn University): student projects addressing local issues, such as affordable housing, public use buildings (e.g., library), local agriculture

# Culture of Health Domains

*Found specific strong individuals and strong programs in each county.*

## McCreary County, KY

Sue Singleton, Christian Care Center: community services, including OTC medications, pharmacy, food bank, medical equipment



Braxton King, Lord's Gym: after school activities

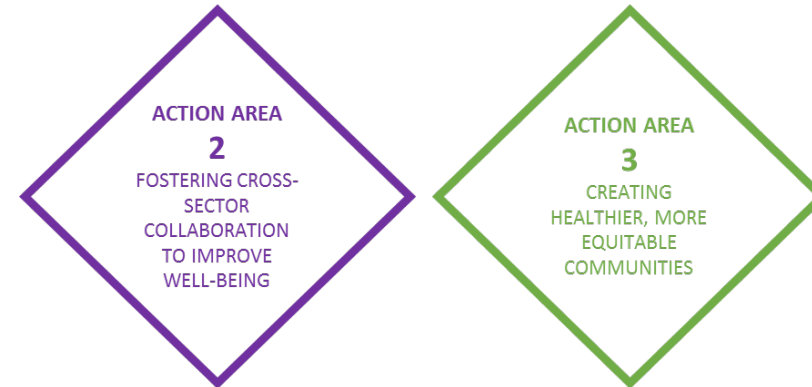


# Culture of Health Domains

*Found specific strong individuals and strong programs in each county.*

## Wayne County, KY

Sally Sumner, Hope Center: food pantry, pay utility bills



Jody Paver, Wayne County Extension: general extension programs, senior voucher program for farmers' market



# Next Steps

## Completing Round 1

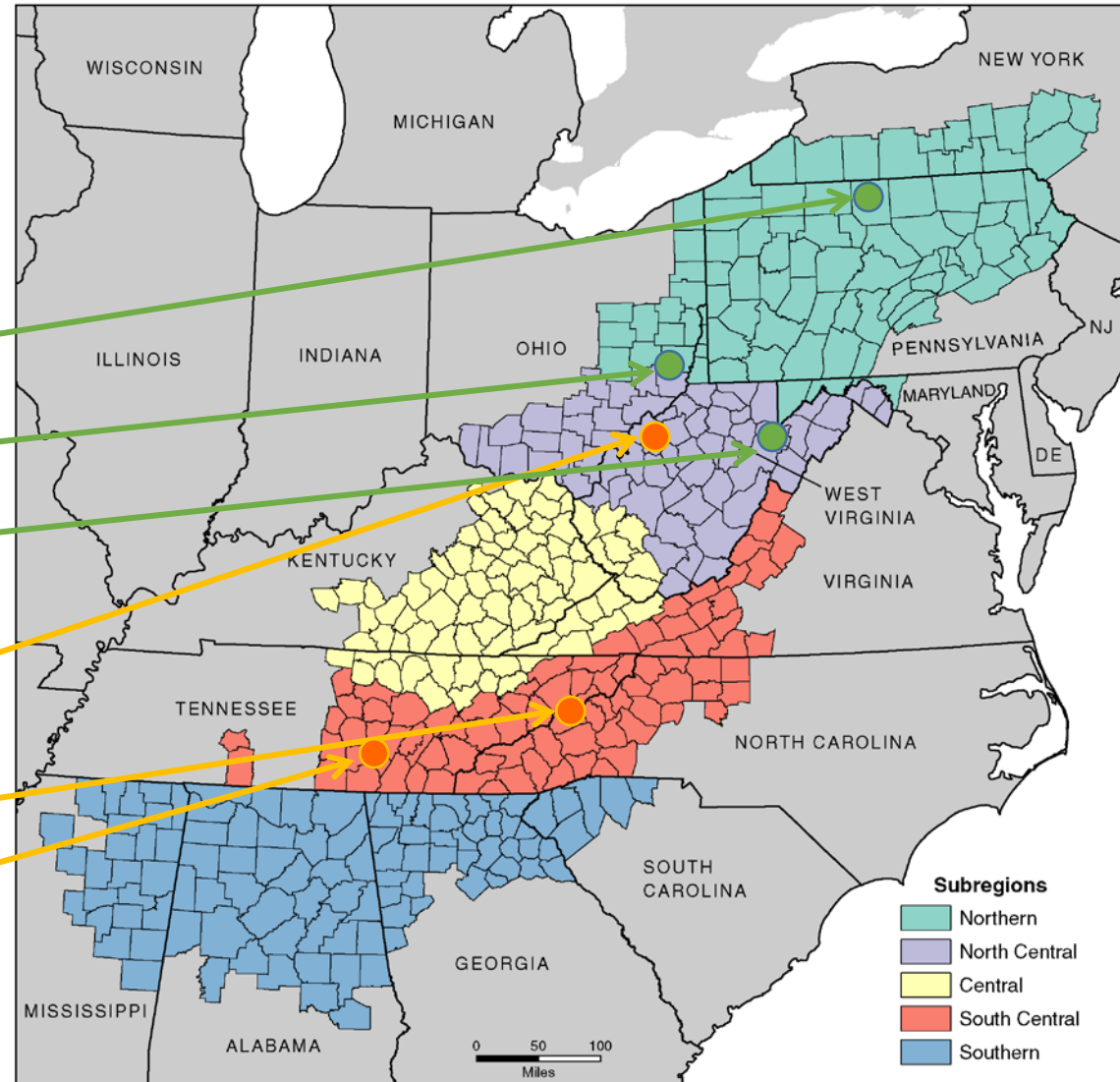
- Data analysis
- Follow-up interviews
- Writing case reports
- Sharing case reports with county leaders
  - Review
  - Approval

## Preparing for Round 2

- Selecting next counties
- Revising publicity
  - Local social media
  - Local print media
  - Local verbal network
- Preliminary county contacts
- Site visits

# Next Step: Round 2 Counties

County	State
<i>Non-Metro</i>	
Potter	Pennsylvania
Monroe	Ohio
Grant	West Virginia
<i>Metro</i>	
Wirt	West Virginia
Madison	North Carolina
Sequatchie	Tennessee



Map by: Appalachian Regional Commission, November 2009.

[Bright Spots: Top Ten Residuals](#)

# Questions?

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