



National Institute  
on Minority Health  
and Health Disparities

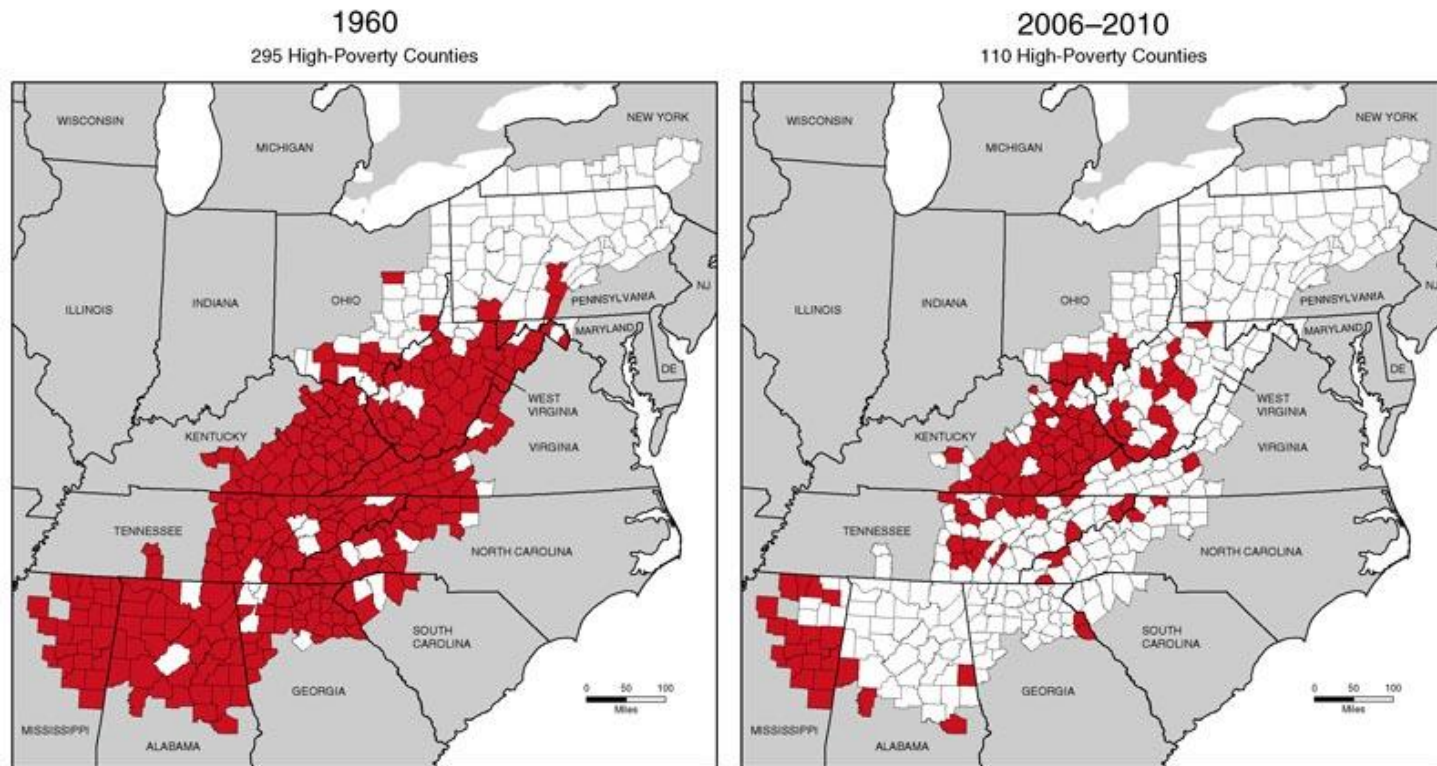
# The Appal-TREE Project:

Community-Based Participatory  
Research to promote healthy eating in  
Appalachia

NIMHD Grant # R24MD008018

# The Setting

## High-Poverty Counties in the Appalachian Region (Counties with Poverty Rates At Least 1.5 Times the U.S. Average)

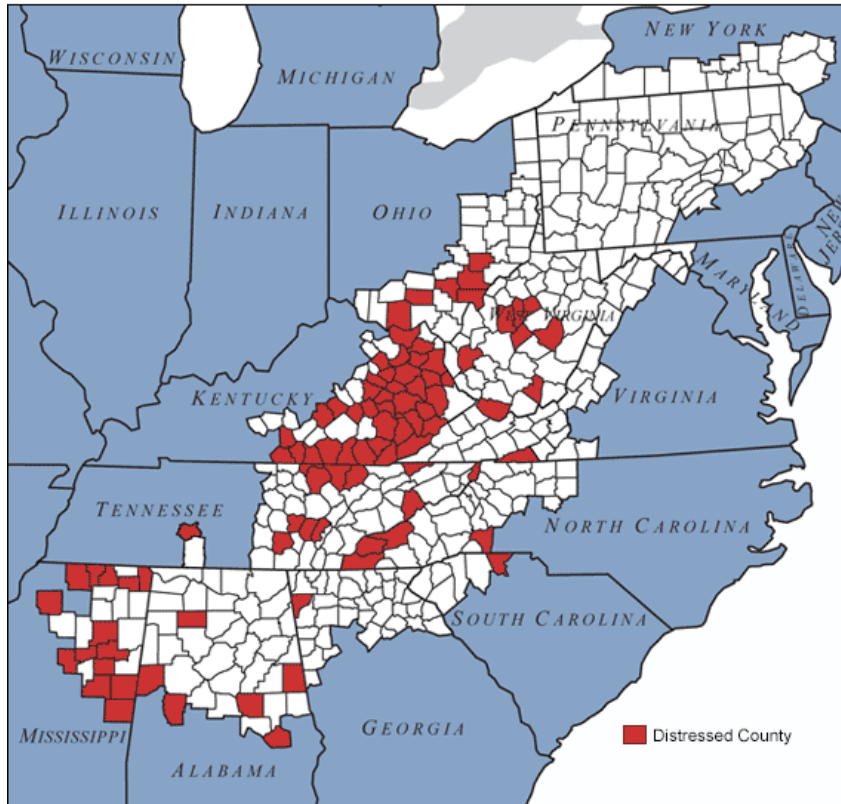


Data Source: Office of Economic Opportunity data from U.S. Dept. of Agriculture, Economic Research Service, 1960.

Data Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2006–2010.

# Dietary implications of persistent poverty

ARC-Designated Distressed Counties, Fiscal Year 2015



- Rural poverty and related food access challenges lead to poor dietary outcomes
  - KY ranks 3<sup>rd</sup> for adolescent obesity
  - 3<sup>rd</sup> for those least likely to meet RDI for F&V

Created by the Appalachian Regional Commission

**Data Sources:**

Unemployment data: U.S. Department of Labor, Bureau of Labor Statistics, LAUS, 2010–2012

Income data: U.S. Department of Commerce, Bureau of Economic Analysis, REIS, 2012

Poverty data: U.S. Department of Commerce, Bureau of the Census, American Community Survey, 2008–2012

# Community-Based Participatory Research (CBPR) Initiative in Reducing and Eliminating Health Disparities: Planning Phase (R24)

- Three year planning grant
- True CBPR
  - Year 1 was community assessment and determination of research topic and intervention strategy
  - Years 2 and 3 for pilot project implementation and evaluation
- Year 1
  - Establishment of Community Advisory Board
  - Partnership with Community Farm Alliance
  - Qualitative research, assets inventory, needs priorities

# Who is the “community” in CBPR?

- Quantitative/survey research not well suited to exploratory questions
- Individual interviews focus on “leaders”
- Focus groups privilege the most vocal
  - Particular challenge in tight-knit, class-based rural communities of Appalachia
  - Hard to express dissenting opinions
- How can we know that the people sharing their views with us accurately represent “the community?”

# Structured Public Involvement

- Two community forums, with wide net cast in invitations
  - Followed up with Web option
- Explanation of key components of intervention plan
- Participants gave immediate, but anonymous feedback using electronic keypads
  - High participant satisfaction (8.1/9)
  - High levels of participation (348 in a small, rural county)
  - Can create questions on the fly
  - Can cross-tab with demographics



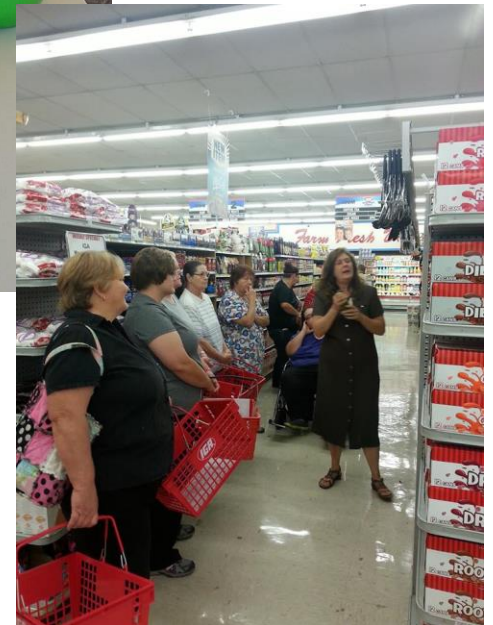
# Community Priorities

- Access to food NOT the priority we expected
- Cost of healthy food was a big issue, esp for those with HH incomes under \$50K
- Focus on youth
  - Significant concern about SSB consumption
  - Schools seen as major problem



# The Appal-TREE Intervention

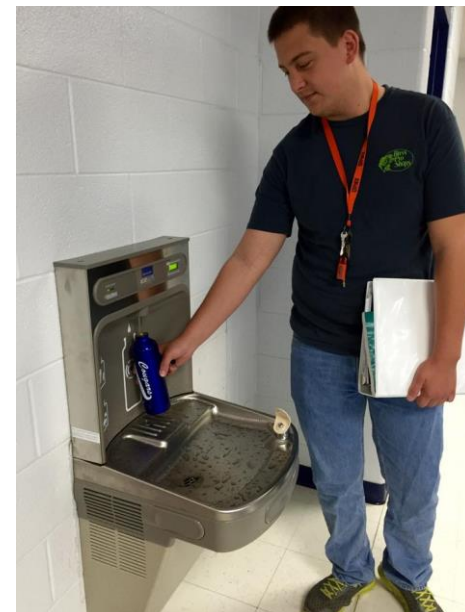
- ACT Now –  
Appalachians Cooking  
Together NOW
  - Six week cooking class
  - Knife skills, shopping,  
minimizing waste
  - Held in public housing,  
community centers





# The Appal-TREE Intervention

- Go H<sub>2</sub>O
  - Free water bottles and filling stations in all middle and high schools
  - Pro-water instead of anti-SSB
  - Addresses issue of poor water quality/taste



# The Appal-TREE Intervention

- Farmers Market Summer Feeding Program
  - Partnered with school food service
  - One of first SFP located at farmers market
  - Anyone under 18 got free smoothie or breakfast burrito



# Preliminary Outcomes

- Cooking classes – 3 weeks post
  - Increase in monthly salad greens (2.7\*), fruit (5.1), and vegetable (2.8) consumption
  - Decrease in candy (-7.9\*) and chips (-3.7)
- Go H<sub>2</sub>O
  - Over 20,000 bottles filled in 2 months
  - Increased frequency of water consumption by 0.13 days/month, compared to decrease of 1.84 days/month at control \*
- FM summer feeding
  - At FM, 65% consumed at least ½ serving FV
  - Traditional SF site = 46.5% with ½ serving FV
  - At home meals = 22.6% with ½ serving FV

# Next steps

- Through spring
  - Complete cooking classes, including 3 month followup data
  - Focus on Go H2O social marketing promotion
    - Incentives to bring water bottles every day
    - Promotional social media, poster, other campaigns to shift social norms
- Next grant
  - Build on pilot in one county to replicate in neighboring counties
  - Incorporate social marketing skills transfer through summer camp/workshop

# Questions?

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