

*Poverty and Health: Lessons from Appalachia and  
America's "Poorest State"*

Randy Wykoff, MD, MPH & TM  
Dean and Professor  
East Tennessee State University  
College of Public Health

# *Central Appalachia*

- **9,129,000 people**
  - 2.8% of the US Population
- **Living in 238 counties in six states**
  - All of the “Appalachian” Counties of Kentucky, North Carolina, Tennessee, and Virginia ;
  - Part of the “Appalachian” Counties of West Virginia and Ohio

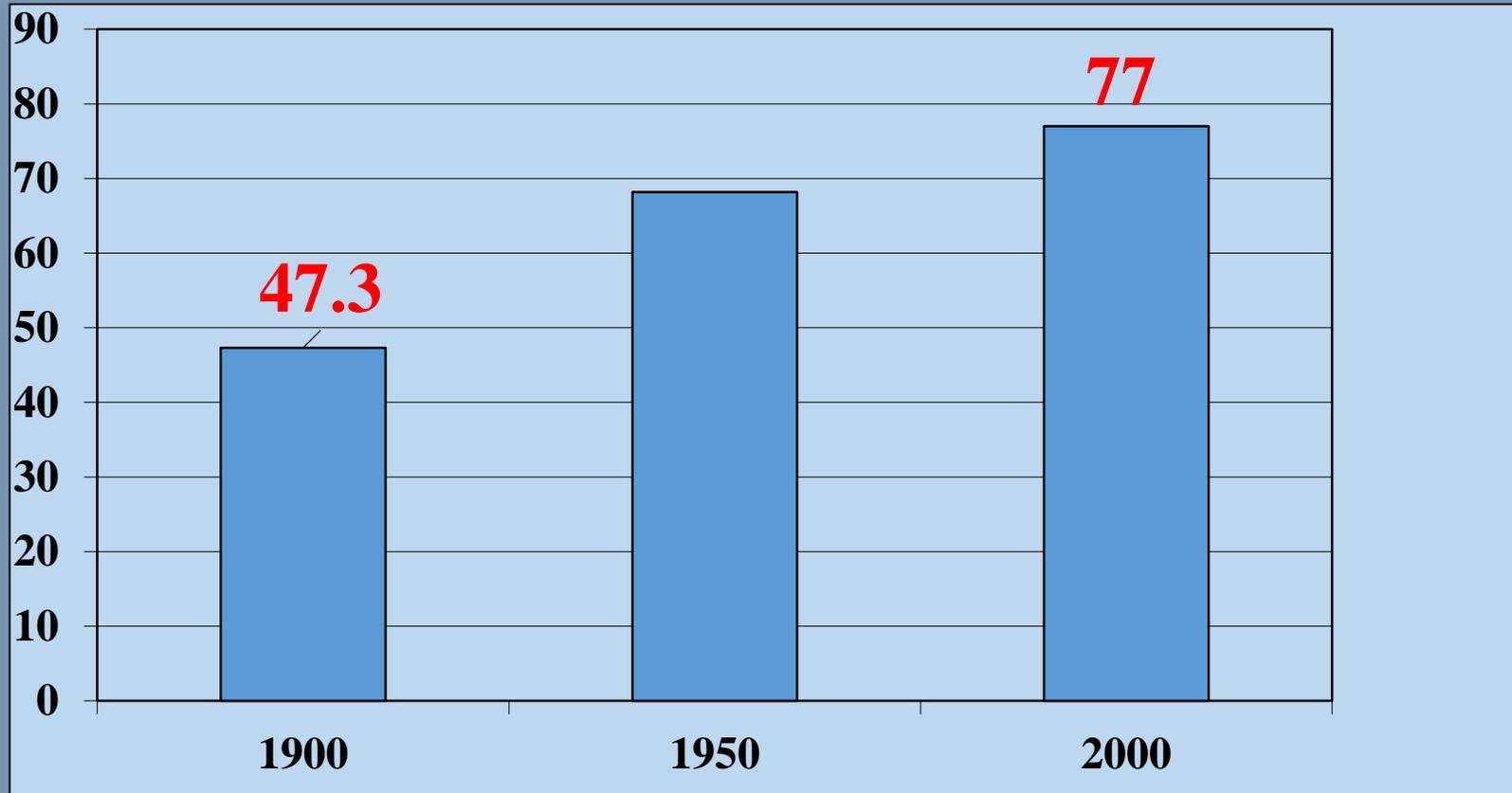


# *Life Expectancy*

Estimated Average Life Expectancy  
in 2016:  
**79.8 Years**



# *Life Expectancy Change in the 20<sup>th</sup> Century*



# *Life Expectancy*

In 2016, for Life Expectancy  
the United States Ranks:

**36th**

Behind---

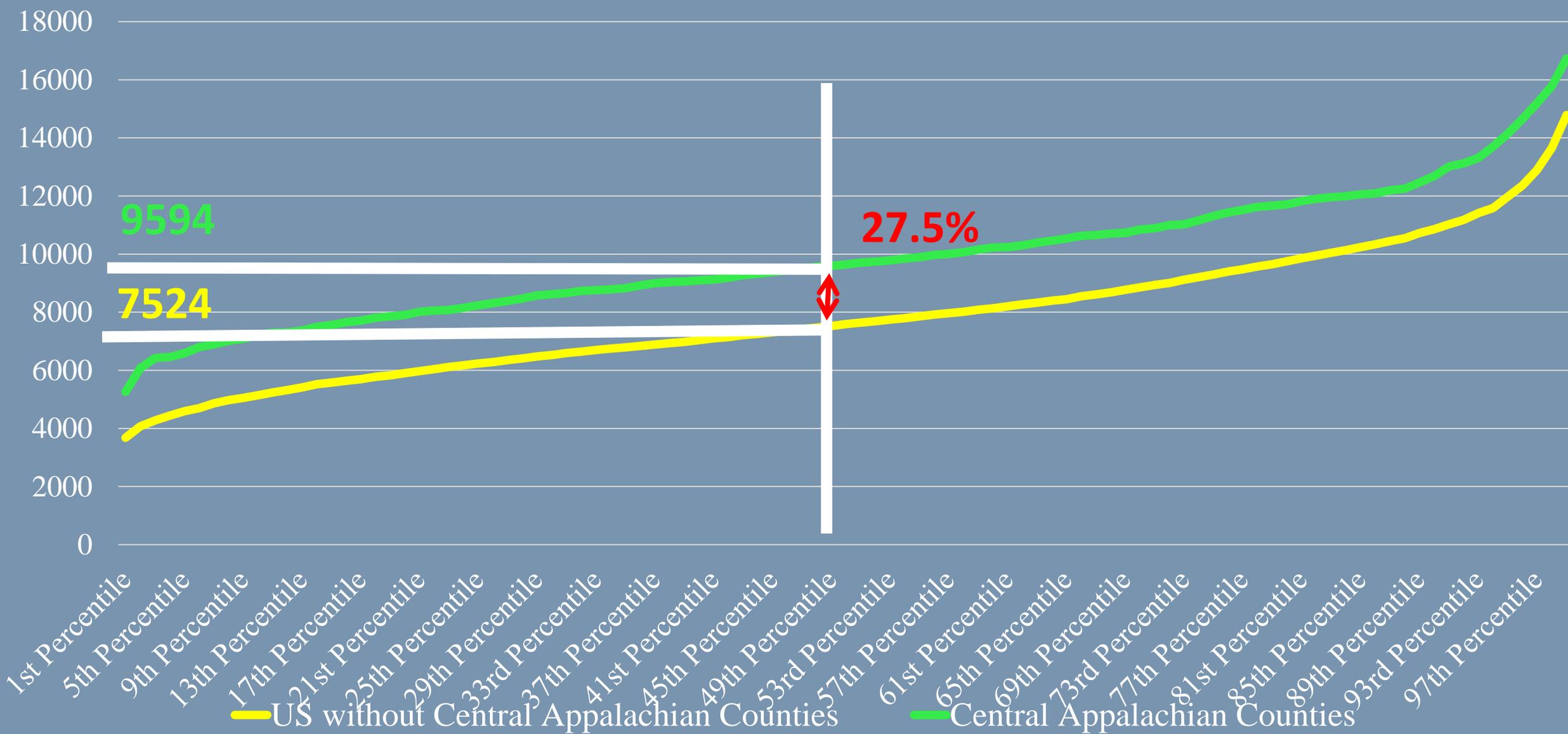
Monaco, Singapore, Japan, San Marino, Iceland, Andorra, Switzerland,  
Guernsey, Israel, South Korea, Luxembourg, Italy, Australia, Sweden,  
Liechtenstein, Jersey, Canada, France, Norway, Spain, Austria,  
Netherlands, Bermuda, Isle of Man, New Zealand, Cayman Islands,  
Belgium, Finland, Ireland, United Kingdom, Germany, Greece, Malta,  
{European Union}, Taiwan, and Virgin Islands

# Premature (Early) Death Rates: United States 2016

1	Minnesota	5369	18	Nebraska	6529	34	North Carolina	7746
2	Connecticut	5451	19	North Dakota	6637	35	Alaska	7857
3	California	5528	20	Idaho	6652	36	Wyoming	7916
4	New York	5658	21	Illinois	6743	37	Georgia	7980
5	Massachusetts	5755	22	Maine	6812	38	Ohio	8063
6	New Jersey	5820	23	Maryland	6836	39	Indiana	8208
7	Hawaii	5898		<b>UNITED STATES</b>	<b>7054</b>	40	Missouri	8239
8	Washington	5973	24	Arizona	7148	41	South Carolina	8796
9	Vermont	5980	25	Florida	7179	42	New Mexico	8887
10	Colorado	6095	26	Kansas	7180	43	Tennessee	9369
11	Rhode Island	6129	27	Texas	7183	44	Kentucky	9626
12	New Hampshire	6277	28	Pennsylvania	7189	45	Arkansas	9762
13	Utah	6279	29	Montana	7213	46	Oklahoma	9895
14	Wisconsin	6324	30	South Dakota	7245	47	Louisiana	9958
15	Iowa	6328	31	Delaware	7372	48	Alabama	10097
16	Virginia	6508	32	Nevada	7533	49	West Virginia	10245
17	Oregon	6523	33	Michigan	7689	50	Mississippi	10804



# Years of Potential Life Lost by County: United States Appalachian Counties vs. Non-Appalachian Counties



9594

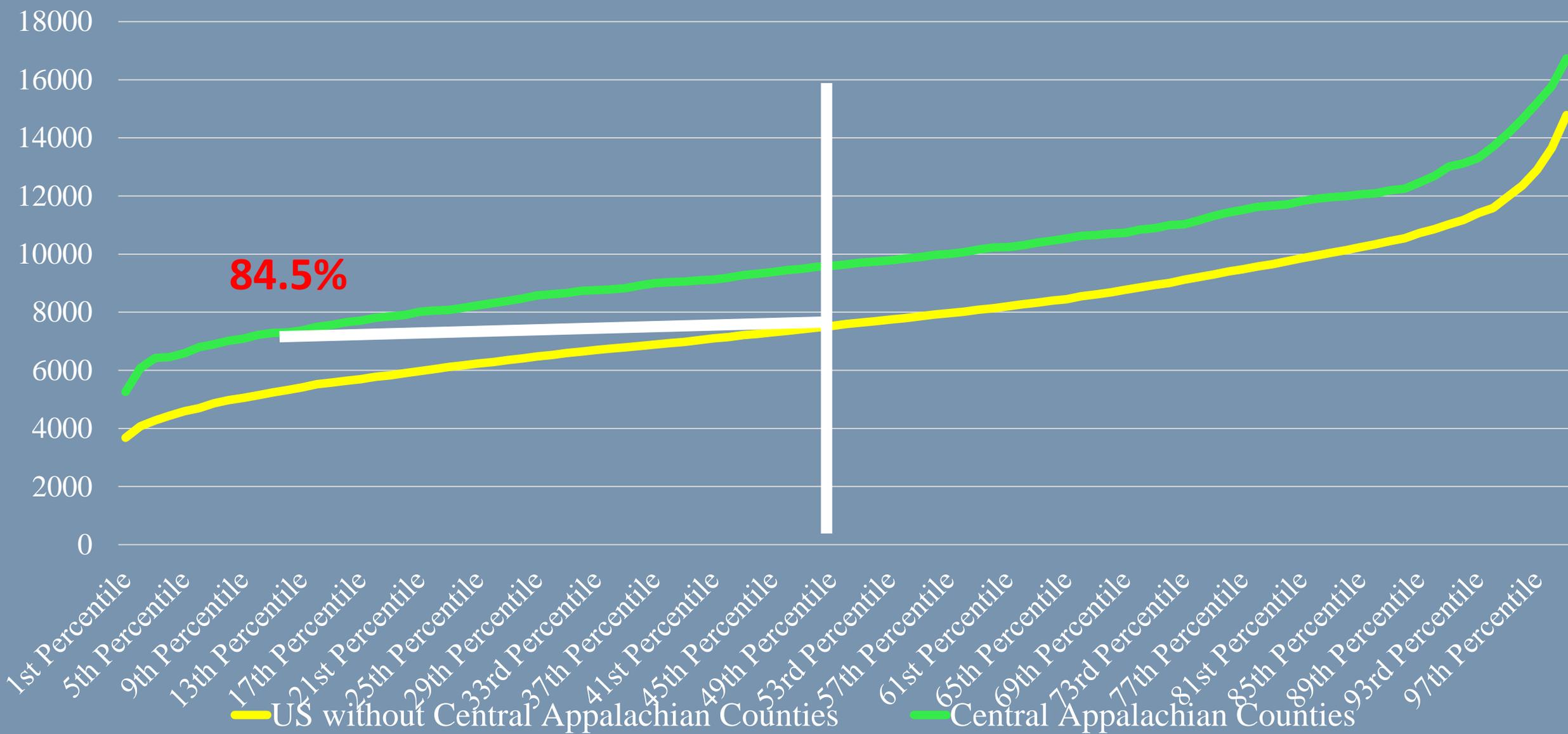
7524

27.5%

US without Central Appalachian Counties

Central Appalachian Counties

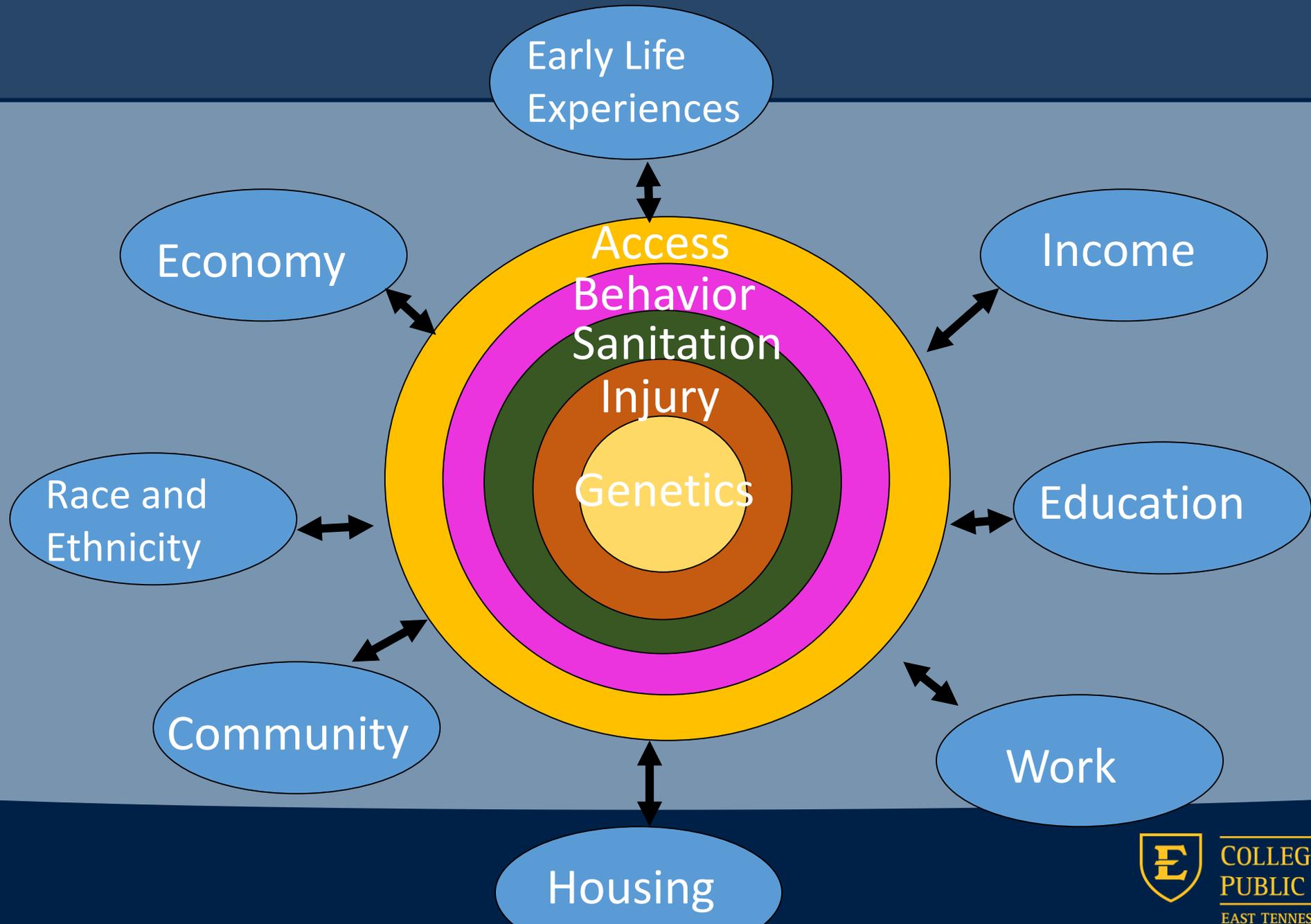
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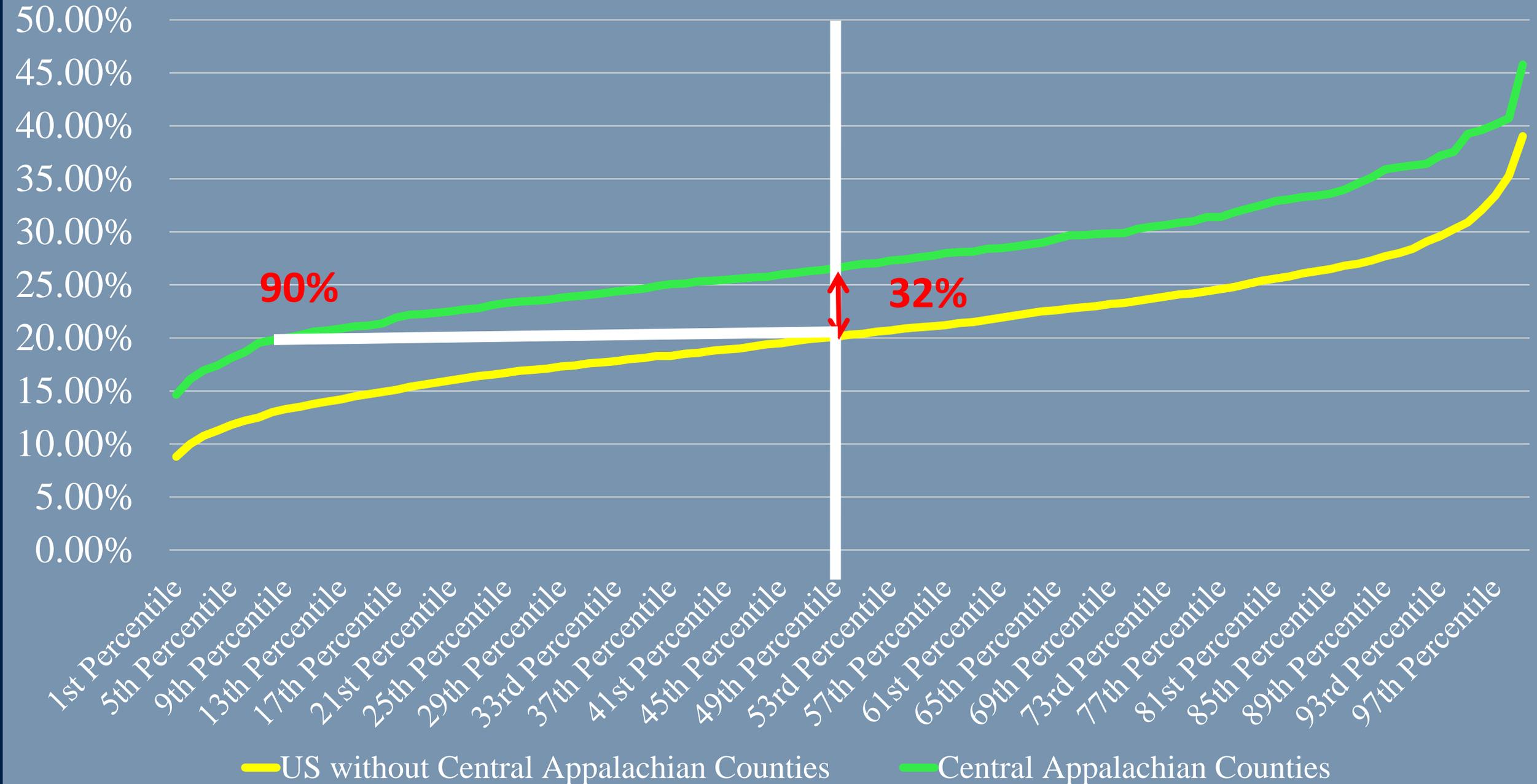
## *Premature Death Rate in Appalachian Tennessee*

- The median premature death rate in Central Appalachia is more than a quarter higher than the national median; and
- 84.5% of the counties of Central Appalachia have a Premature Death Rate that is higher than the National median
- In the Nation that ranks 36<sup>th</sup> in the world . . .



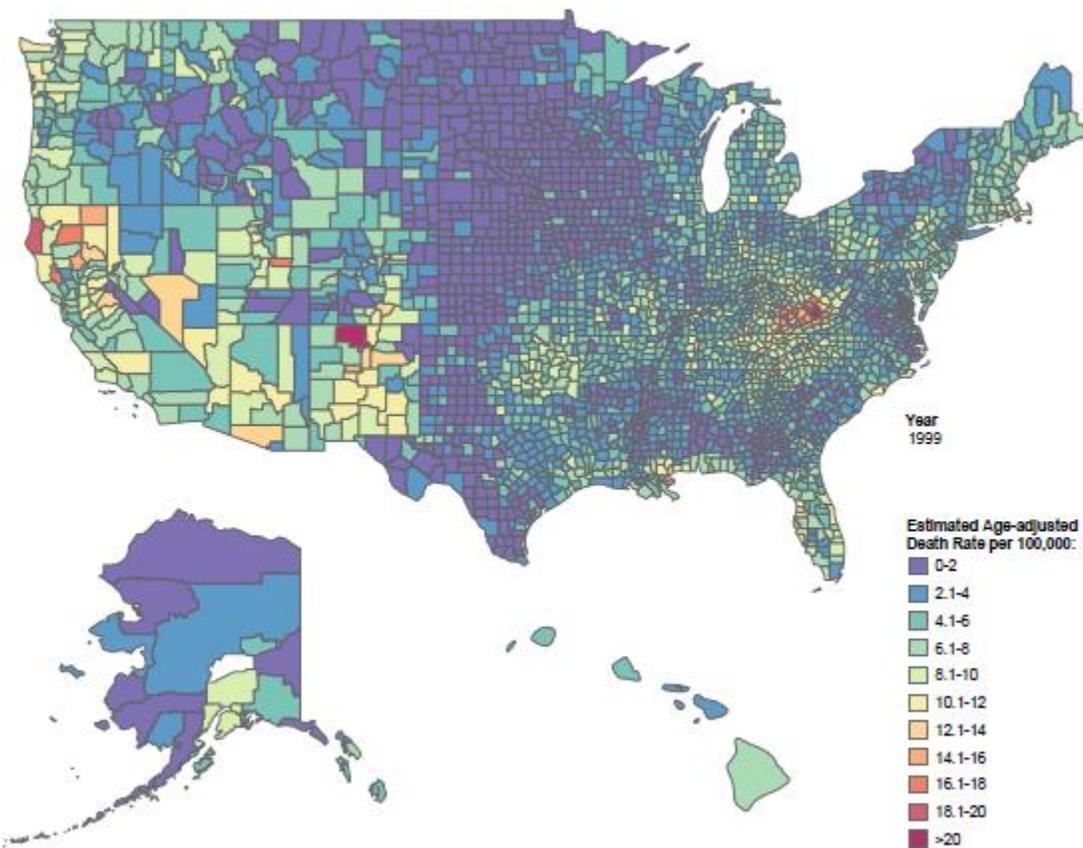


# Adult Smoking Rates by County



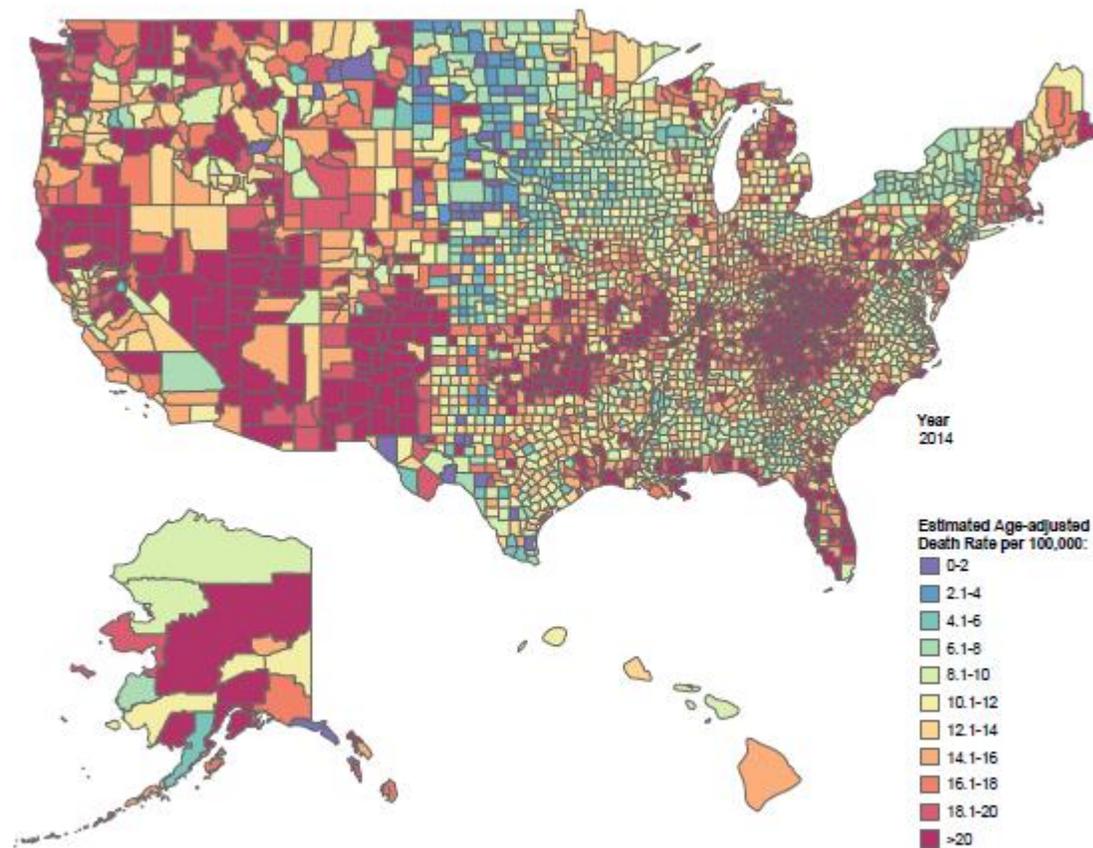
# Estimated Death Rates for Drug Poisonings By County: 1999 - 2014

Estimated Age-adjusted Death Rates<sup>§</sup> for Drug Poisoning  
by County, United States: 1999



Designed by L. Rossen, B. Bastian & Y. Chong. SOURCE: CDC/NCHS, National Vital Statistics System.

Estimated Age-adjusted Death Rates<sup>§</sup> for Drug Poisoning  
by County, United States: 2014



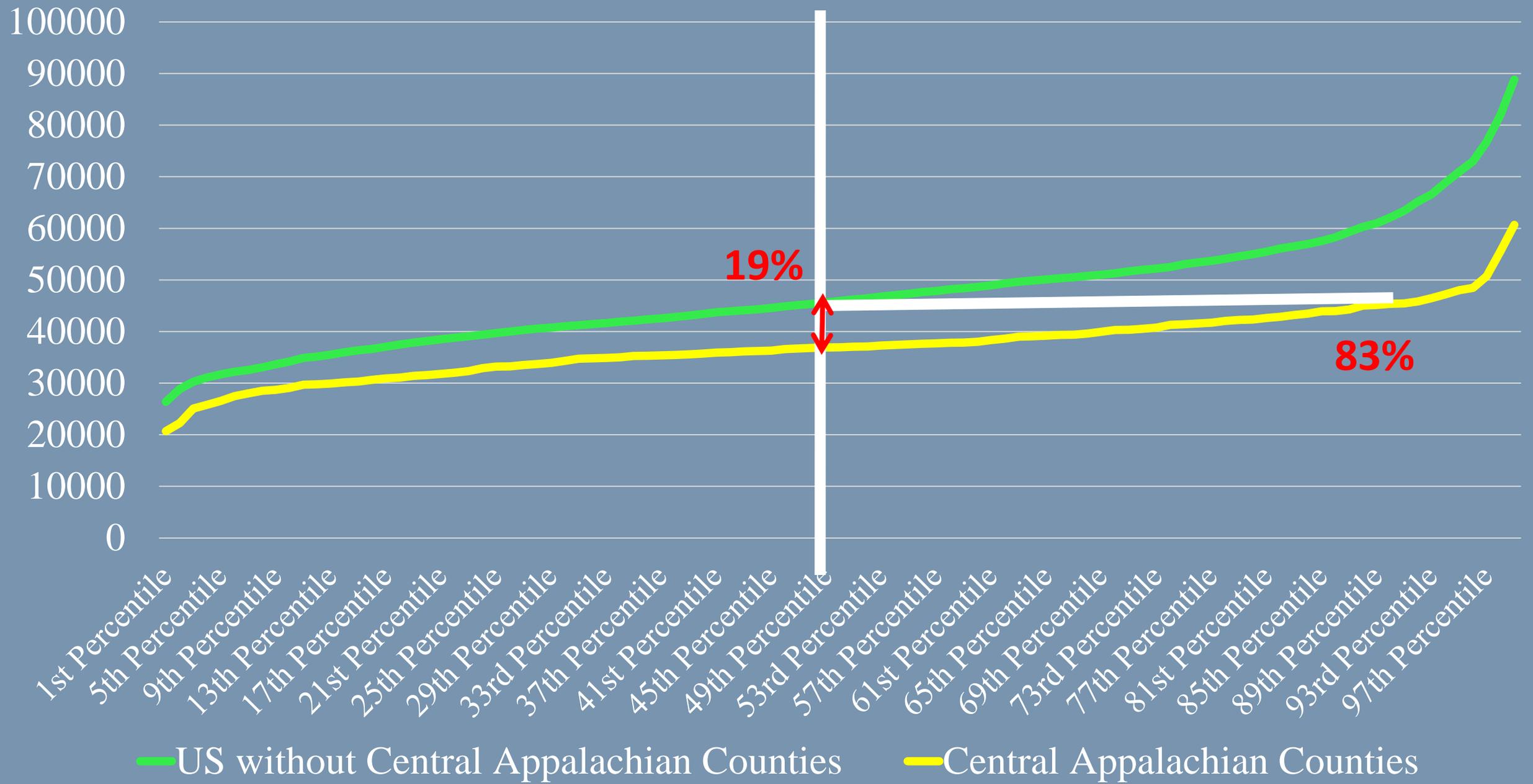
Designed by L. Rossen, B. Bastian & Y. Chong. SOURCE: CDC/NCHS, National Vital Statistics System.



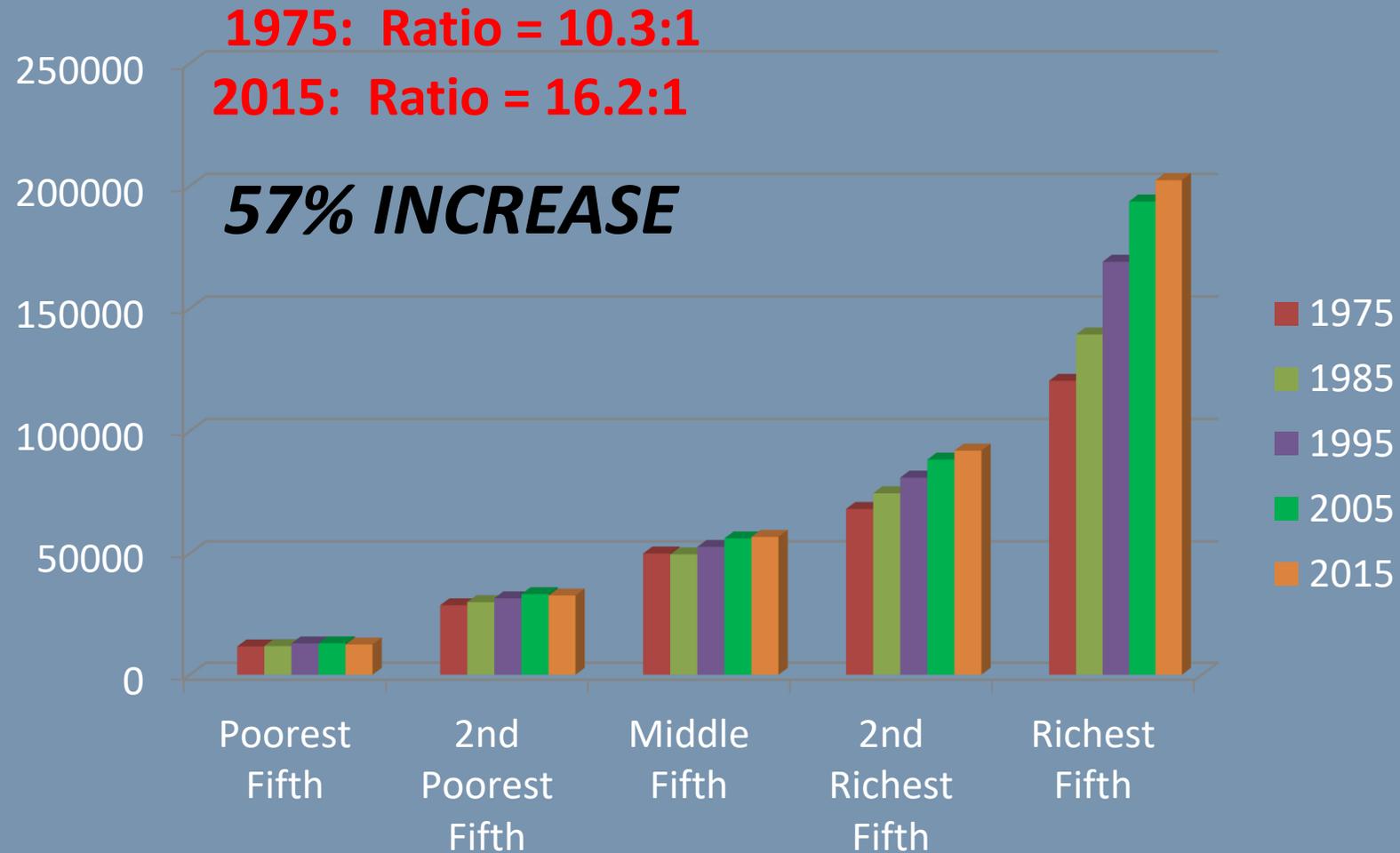
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# Median Household Income by County



# Selected Measures of Household Income Disparities: 1975 - 2015



# Health and Social Conditions of the Poorest Versus Wealthiest Counties in the United States

*Olivia Egen, MPH, Kate Beatty, PhD, David J. Blackley, DrPH, Katie Brown, MPH, and Randy Wykoff, MD*

**Objectives.** To more clearly articulate, and more graphically demonstrate, the impact of poverty on various health outcomes and social conditions by comparing the poorest counties to the richest counties in the United States and to other countries in the world.

**Methods.** We used 5-year averages for median household income to form the 3141 US counties into 50 new “states”—each representing 2% of the counties in the United States (62 or 63 counties each). We compared the poorest and wealthiest “states.”

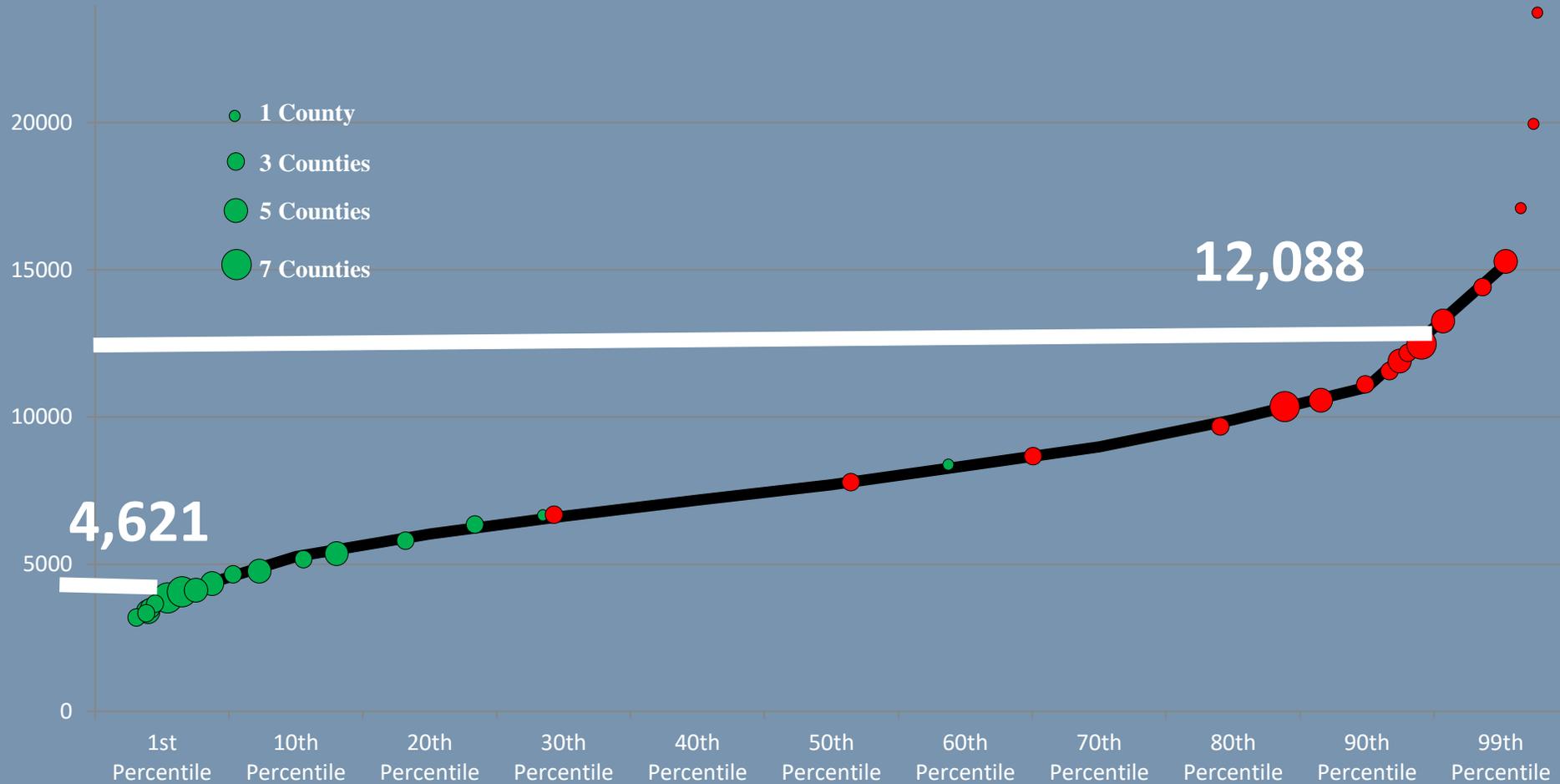
**Results.** We documented dramatic and statistically significant differences in life expectancy, smoking rates, obesity rates, and almost every other measure of health and well-being between the wealthiest and poorest “states” in the country. The populations of more than half the countries in the world have a longer life expectancy than do US persons living in the poorest “state.”

**Conclusions.** This analysis graphically demonstrates the true impact of the extreme socioeconomic disparities that exist in the United States. These differences can be obscured when one looks only at state data, and suggest that practitioners and policymakers should increasingly focus interventions to address the needs of the poorest citizens in the United States. (*Am J Public Health.* 2017;107:130–135. doi:10.2105/AJPH.2016.303515)

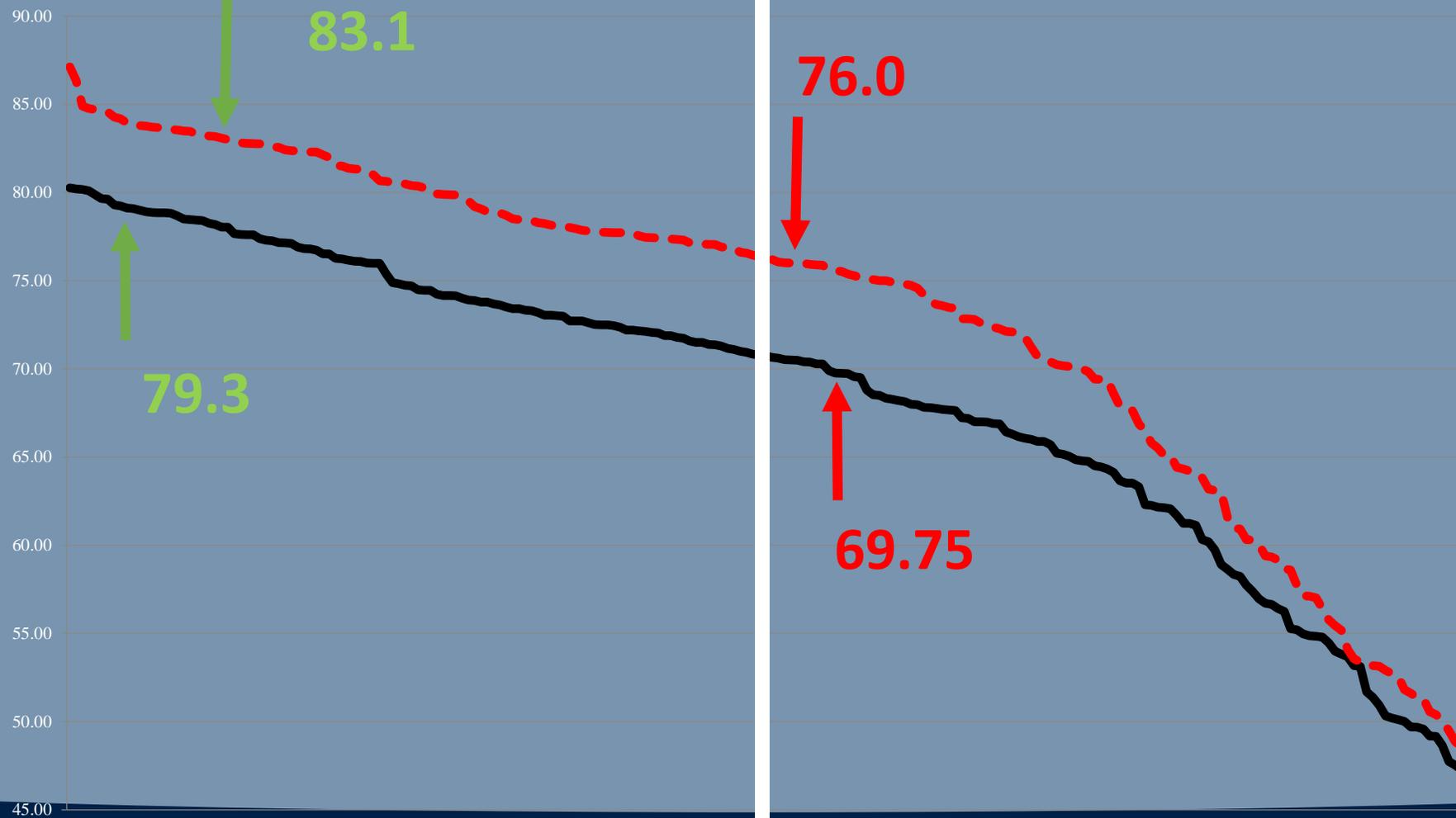
socioeconomic status indicator of 5-year average median household income. We included a total of 3141 counties in the analysis because these are the county (or county-equivalents) as identified by the County Health Rankings (CHR) National Data.<sup>17</sup>

Once we had stratified all 3141 counties by 5-year average median household income, we faced the question as to whether we should create our new “states” on the basis of total population (i.e., each new “state” should have the same population) or on total number of counties (i.e., each new “state” should have the same number of counties). A set of analyses (not shown) has indicated that, although population does have a modest impact on health disparities, it is much less impactful than poverty. Using the same number of counties most closely reflected the

# Premature Death(YPLL): 2% Wealthiest Counties vs 2% Poorest Counties



# Life Expectancy: All 222 Countries in the World: Male and Female



— International Male Life Expectancy

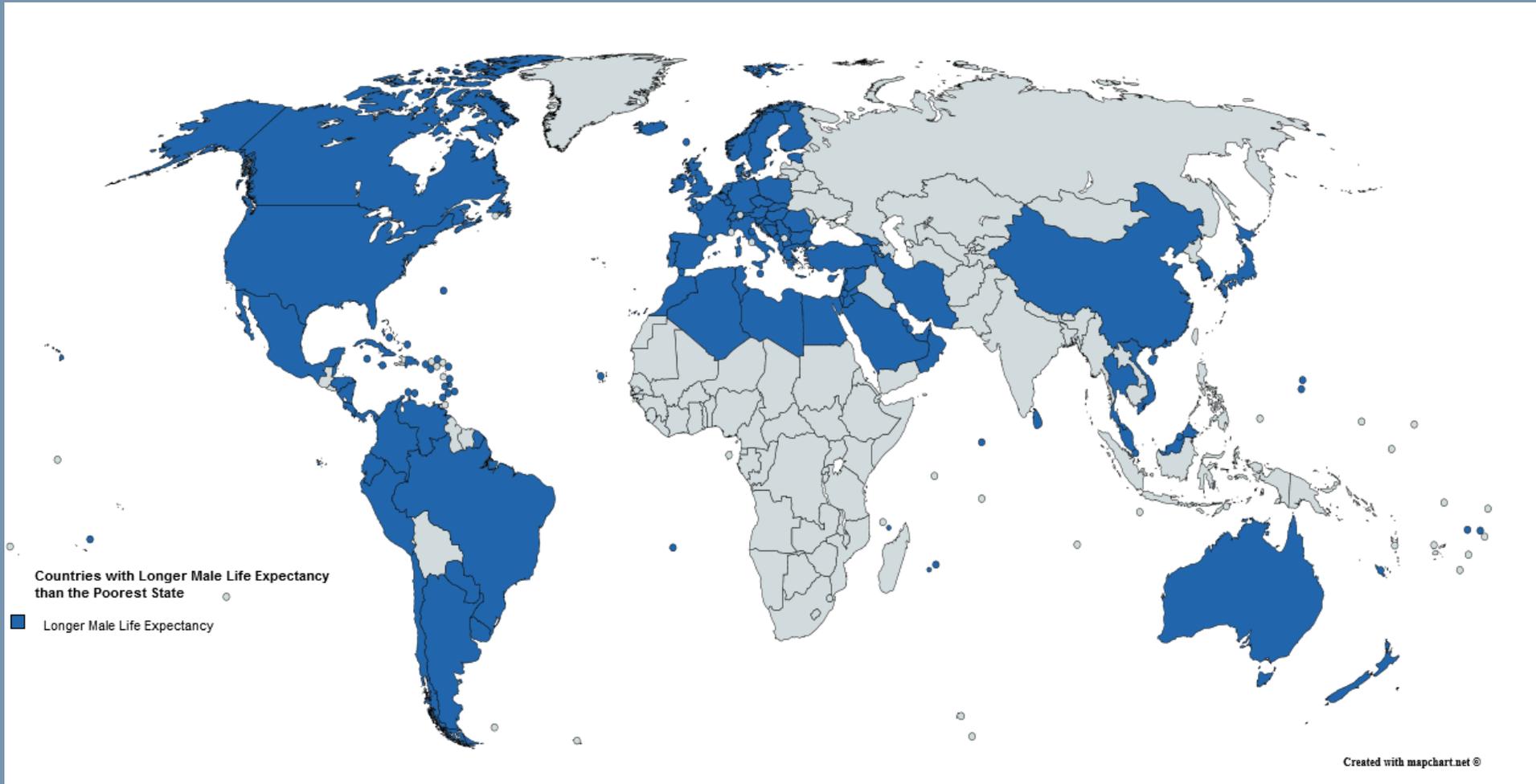
- - - International Female Life Expectancy



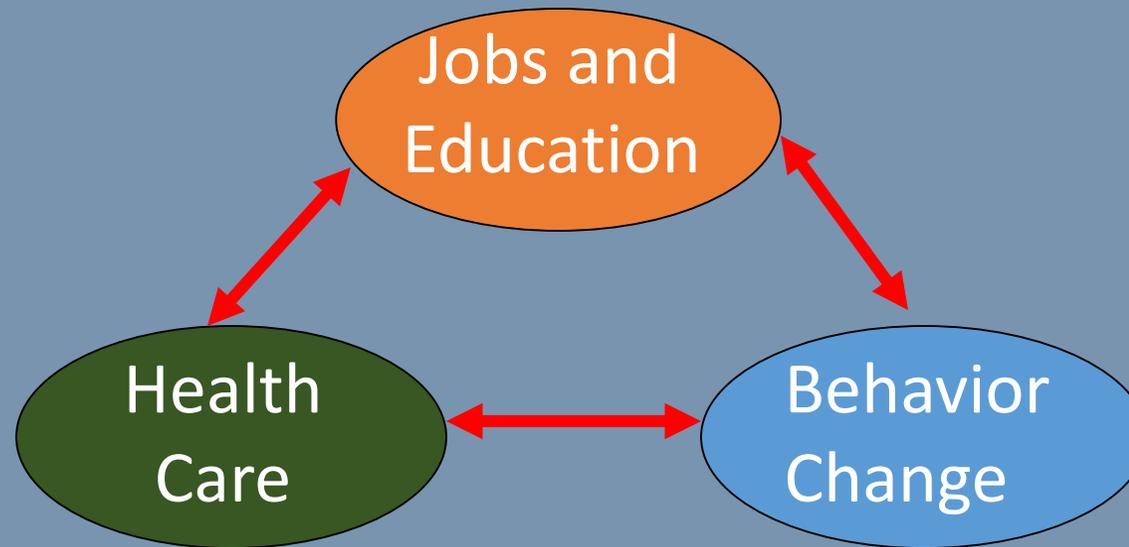
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# Where Do Men Live Longer Than in America's "Poorest State?"



# *What Can We Do To Improve Health in the United States?*



# *What Can We Do To Improve Health in the United States?*

**We need to work together to assure access to health care, especially preventive services;**

**We need to work together to encourage healthier behaviors;**

**We need to work together to enhance economic opportunity and improve educational achievement;**



*Please Feel Free to Contact Me...*

Randy Wykoff, MD, MPH & TM  
Professor and Dean  
College of Public Health  
East Tennessee State University

(423) 439-4243

[wykoff@etsu.edu](mailto:wykoff@etsu.edu)



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