

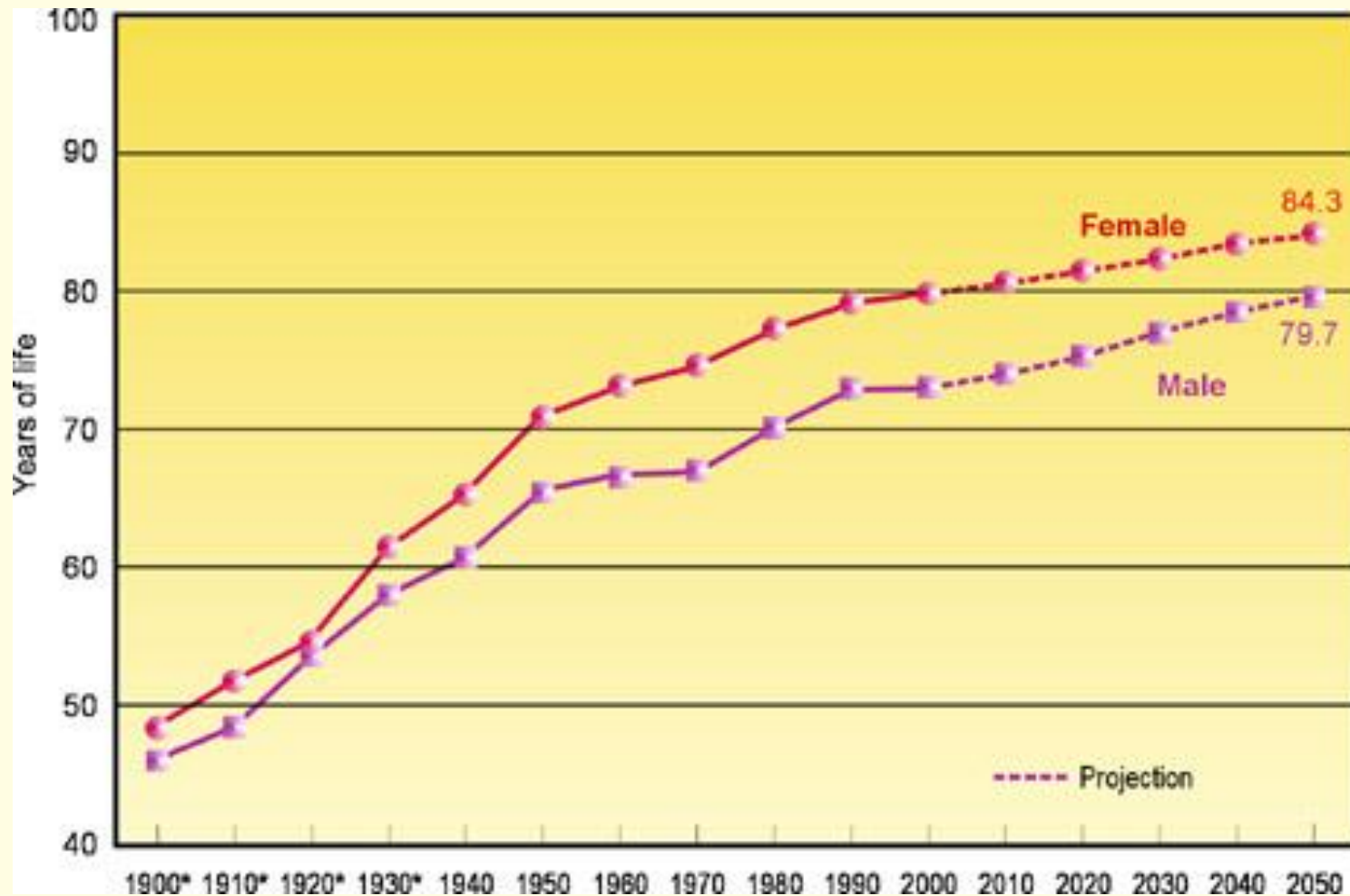
# Public Health Landscape in West Virginia:

## “A Focus on Protecting the Health and Well-being of Our Residents”

Rahul Gupta, MD, MPH, FACP  
Commissioner and State Health Officer  
Local Health Officer Summit Opening Remarks  
April 8, 2016

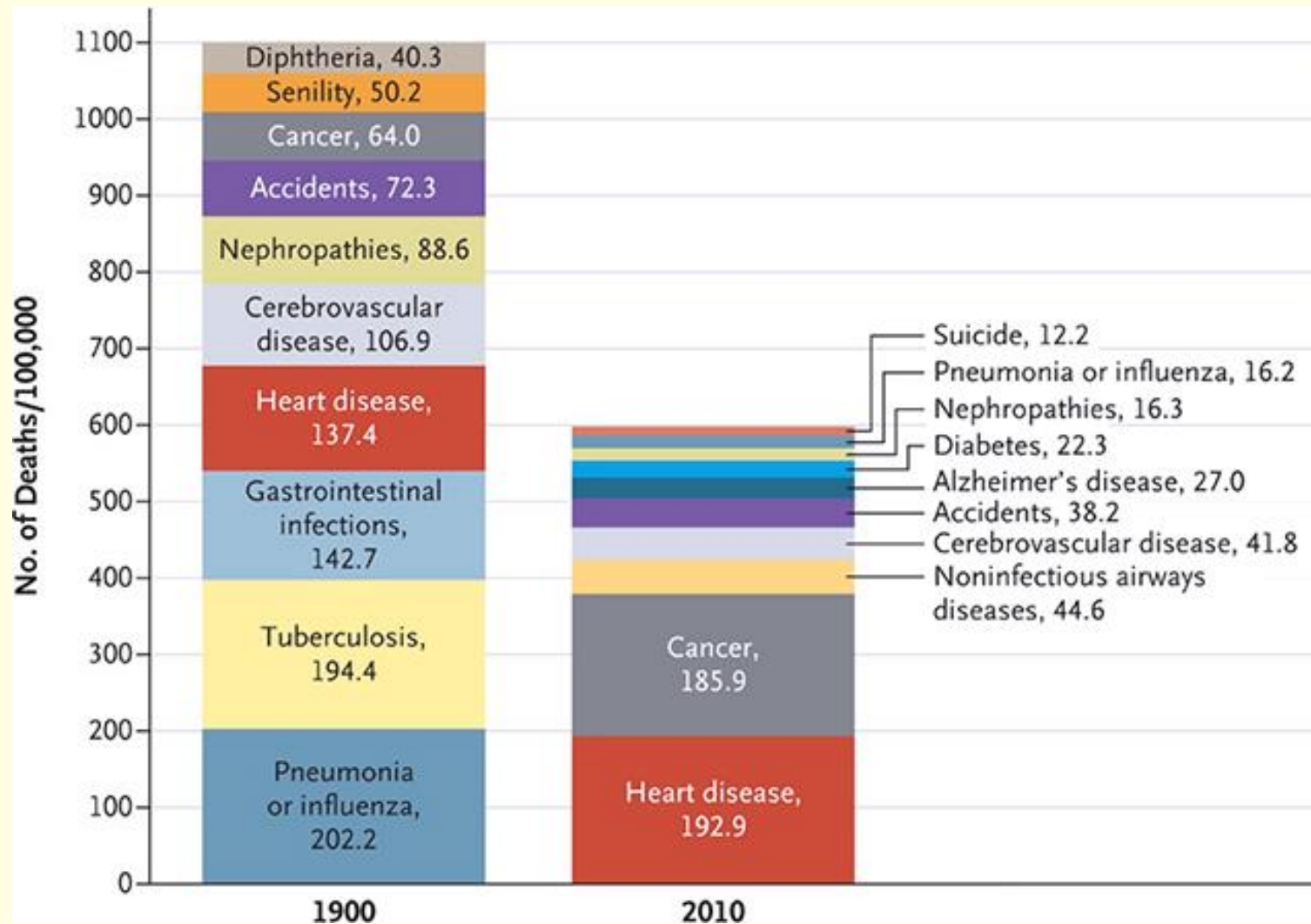


# U.S. Life Expectancy at Birth – Selected Years



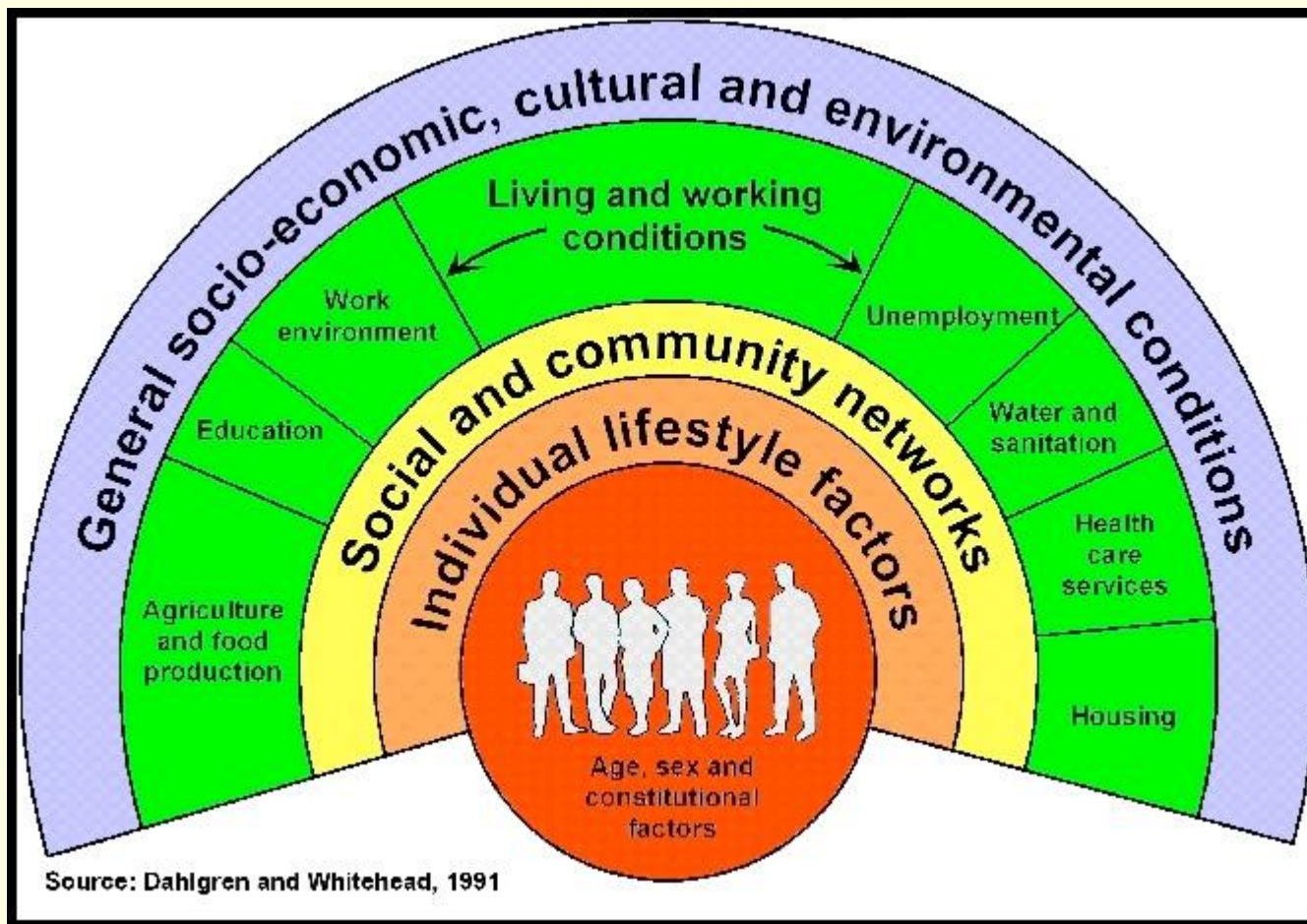
Source: [www.healthypeople.gov](http://www.healthypeople.gov)

# Leading Causes of Death in U.S.

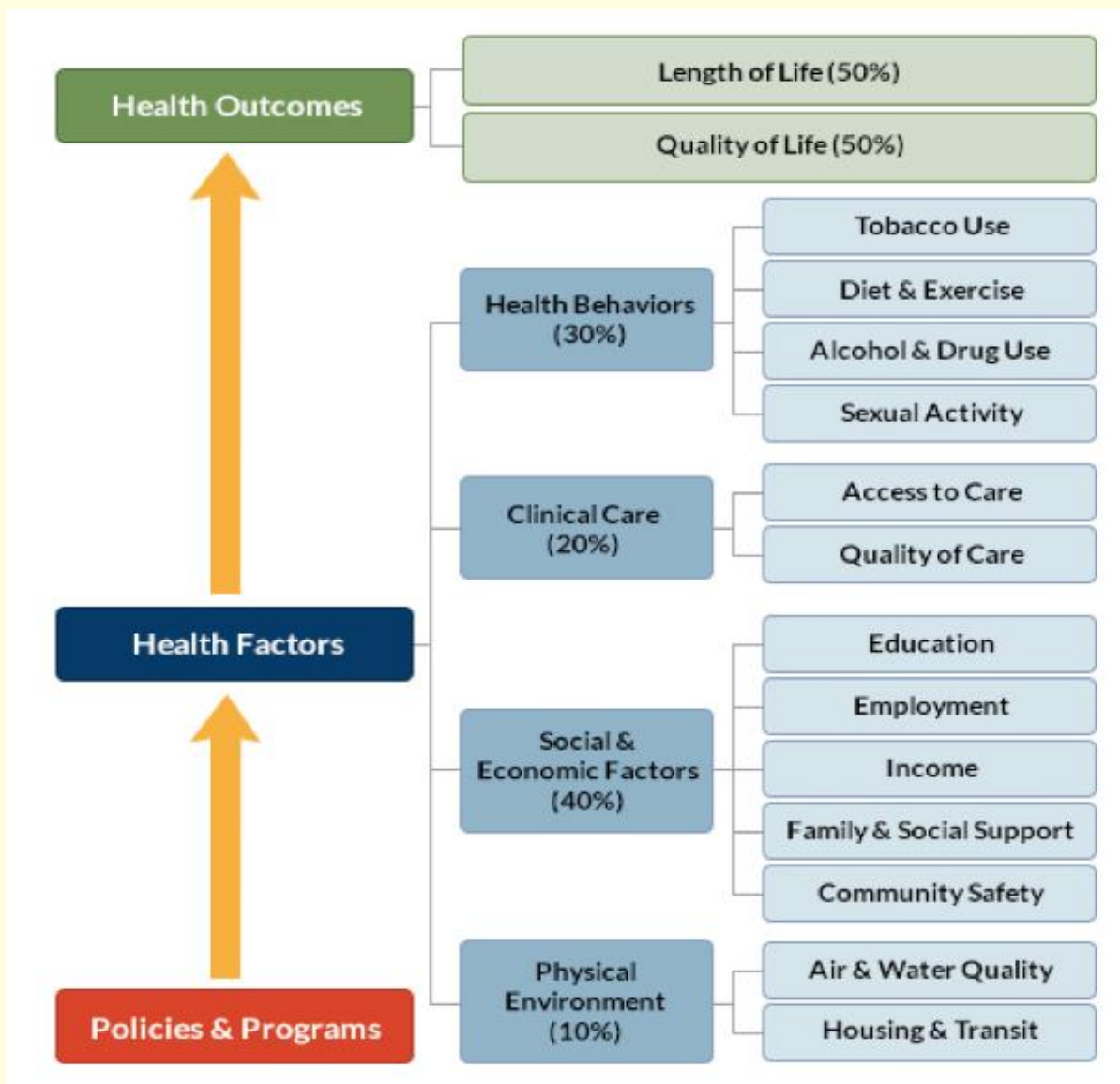


Source: Jones DS et al. N Engl J Med 2012; 366:2333-2338

# “Influencers” of Health



# Determinants of Health



Source: countyhealthrankings.com



# WV Demographics

1. Median age 41.3 years
  - 3<sup>rd</sup> highest in nation based on 2010 census data
2. Medicaid: 510,675\* persons or 28% of the population
3. 18% report being disabled
  - Compared to 12% of the U.S. population

\*Medicaid data as of (4/25/15)



# WV Demographics

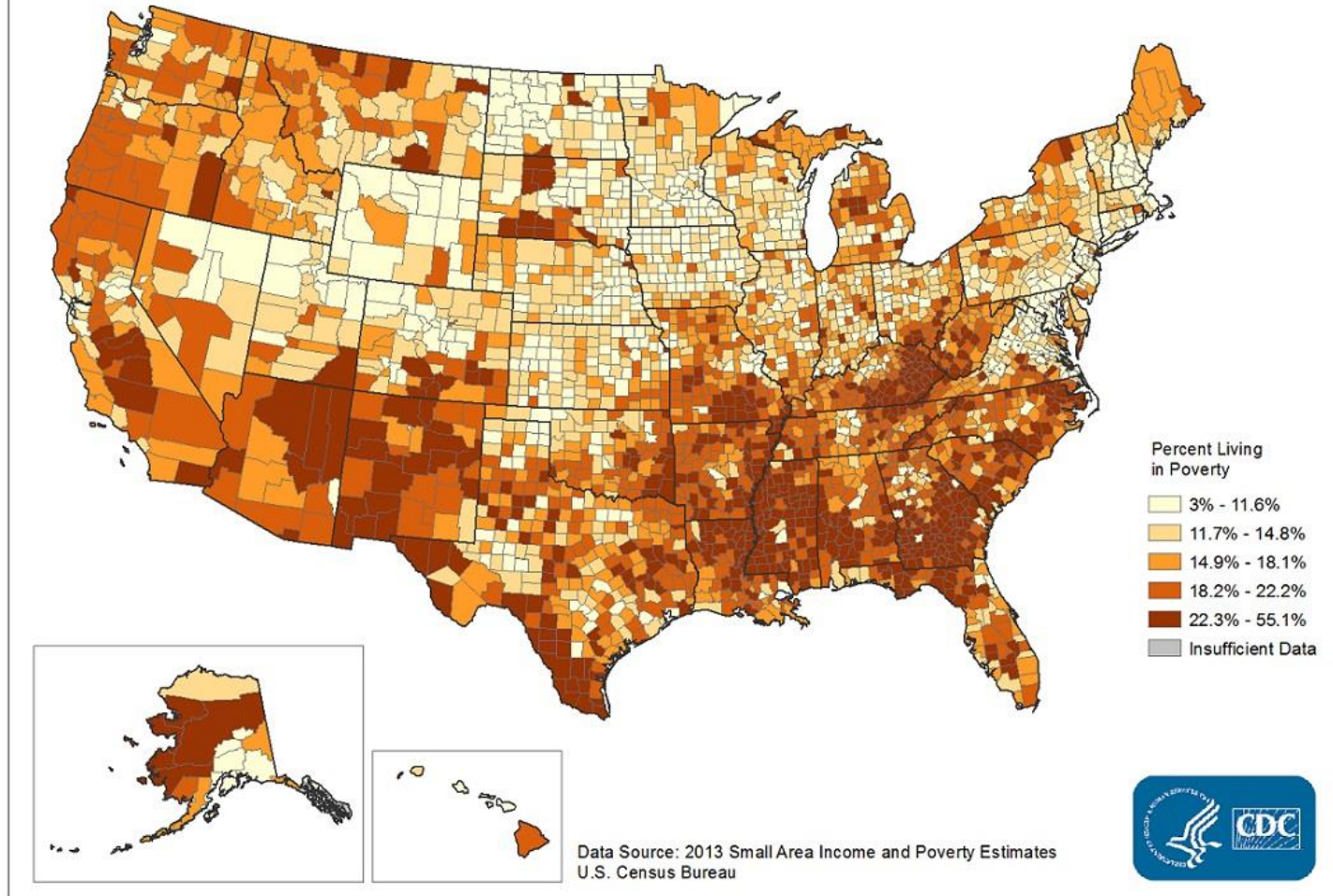
4. Lowest in nation: Bachelor's degree or higher (18.9%)\*
5. Third lowest in nation: Median household income (\$41,253)
6. Tenth highest: Percentage below poverty level (18.5%)



\*Source: <http://247wallst.com/special-report/2014/09/23/americas-most-and-least-educated-states/#ixzz3YeMUBTse>

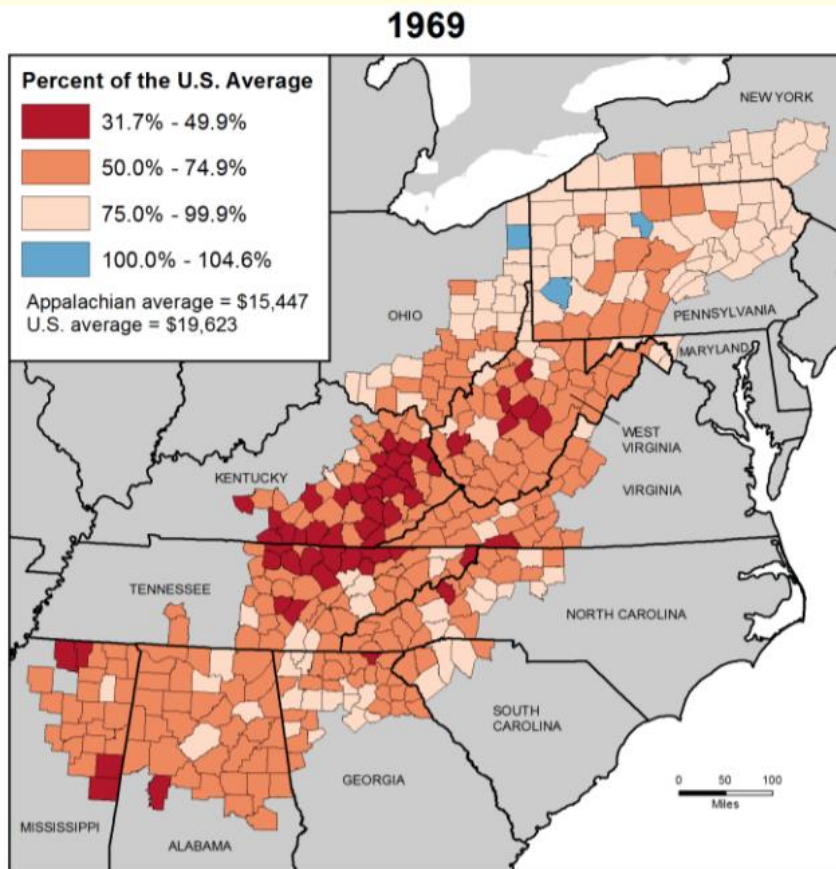
# Percentage of U.S. Residents Living in Poverty

## Percentage of Population Living in Poverty 2013

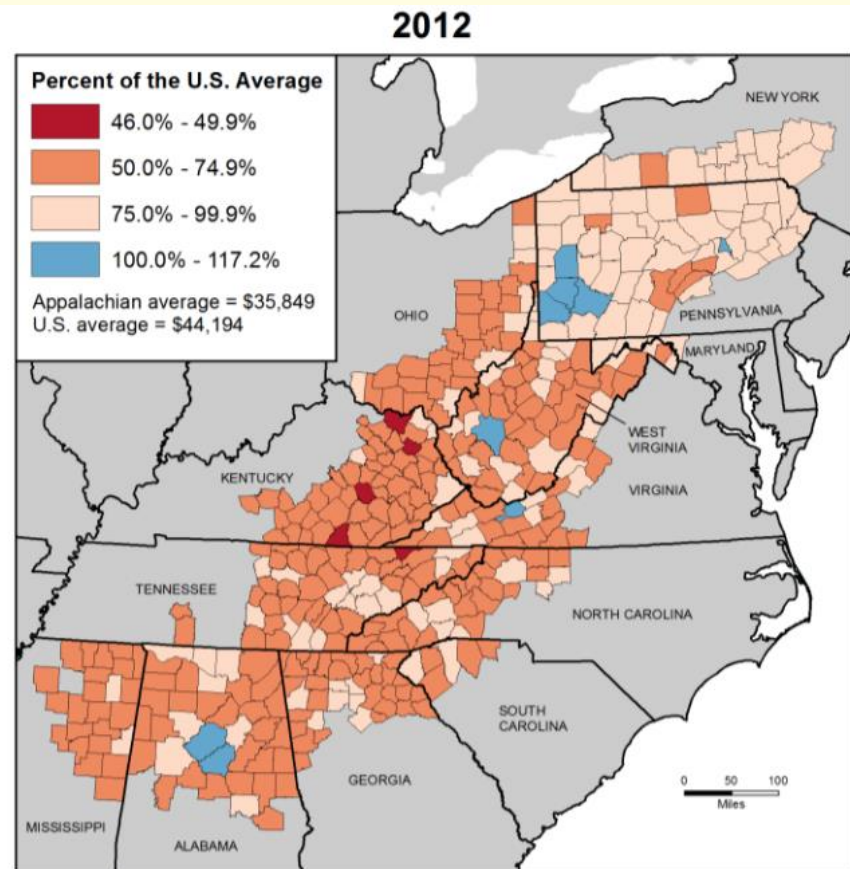




# Income Map: U.S. Versus Appalachia



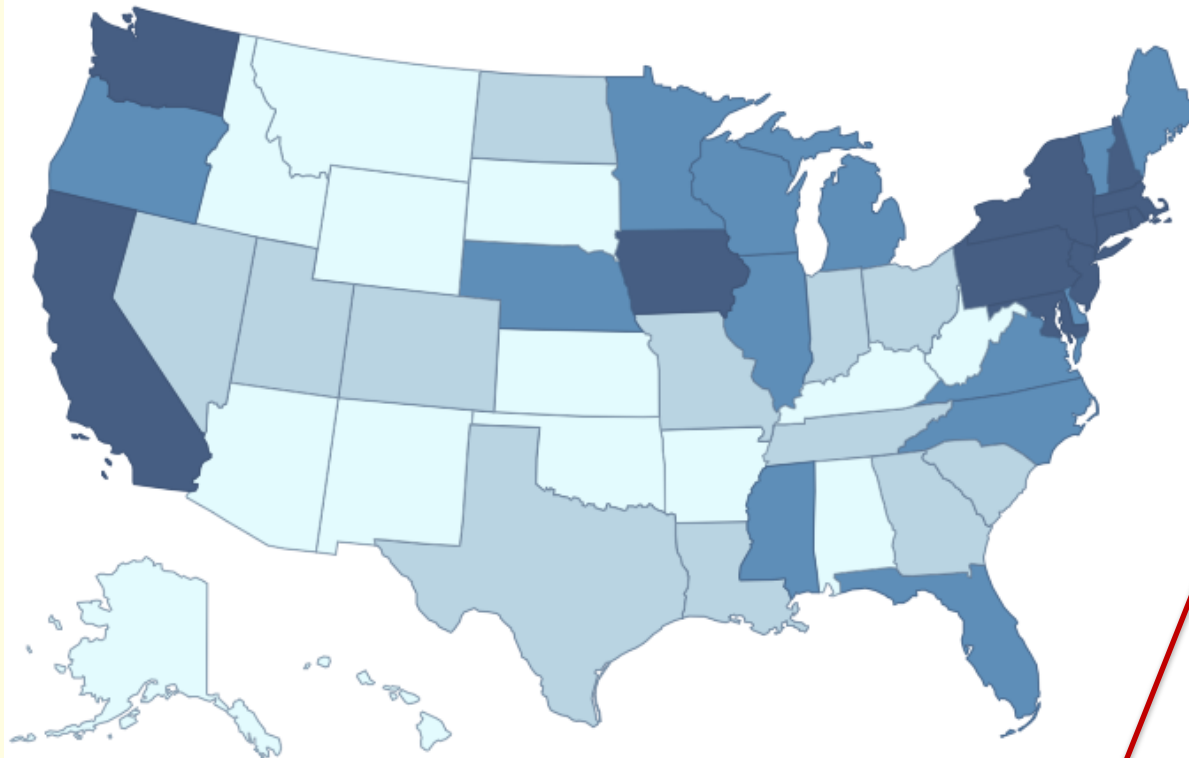
Source: U.S. Bureau of Economic Analysis  
Notes: Per capita income is total personal income divided by total population. The percent of U.S. average is computed by dividing the county personal income by the U.S. average and multiplying by 100. Income data are adjusted for inflation, expressed in 2012\$.



Source: U.S. Bureau of Economic Analysis  
Notes: Per capita income is total personal income divided by total population. The percent of U.S. average is computed by dividing the county personal income by the U.S. average and multiplying by 100. Income data are adjusted for inflation, expressed in 2012\$.

# College Retention Rates, 2010

Retention Rates - First-Time College Freshmen Returning Their Second Year: Four-Year Total - 2010



63.3 to 72.7  
72.8 to 75.5  
75.6 to 79.8  
79.9 to 84.0

U.S. Average = 77.1

National Center for Higher Education  
Management Systems (NCHEMS).

**WV 3<sup>rd</sup> Lowest Rate 68.3%**  
**CA Highest Rate 84.0%**

Source: NCES, IPEDS Fall 2010 Enrollment Retention Rate File

AK 63.3  
SD 68.2  
WV 68.3  
MT 68.4  
ID 68.5  
OK 69.1  
AR 69.9  
AZ 70.0  
NM 70.5  
KY 71.8  
AL 72.1  
KS 72.7

# WV Risk Factor Indicators

Risk Factor	WV Prevalence	Rank	U.S. Prevalence
Current Smoking	26.7%	1	17.4%
Smokeless Tobacco Use	8.5%	2	3.6%
Fair/Poor Health Status	25.8%	1	18.0%
Lack of Physical Activity	28.7%	4	23.9%

Data Source: WV Health Statistics Center, Behavioral Risk Factor Surveillance System, 2014

# WV Morbidity Indicators

Health Condition	WV Prevalence	Rank	U.S. Prevalence
Arthritis	40.0%	1	25.6%
Disability	29.1%	1	20.8%
Cardiovascular Disease	14.1%	1	8.7%
Obesity	35.7%	2	28.9%
COPD	13.5%	1	6.6%
Hypertension (2013)	41.0%	2	32.5%
Diabetes	14.1%	1	10.5%
Kidney Disease	3.6%	3	2.8%
Depression	23.6%	4	17.8%
Cancer	13.7%	5	11.0%

Data Source: WV Health Statistics Center, Behavioral Risk Factor Surveillance System, 2014

**In 2015, WV ranked 47 (Overall)**

# WV Mortality Indicators

Cause of Death	WV Rate	Rank	U.S. Rate
Accidents	71.7	1	39.4
Diabetes	34.1	1	21.2
Drug Overdoses	32.2	1	13.8
CLRD	64.5	2	42.1
All Causes	923.8	3	731.9
Cancer	190.8	3	163.2

Rates are Age-Adjusted per 100,000 Population

Data Source: WV Health Statistics Center, Vital Surveillance System, 2013



## Priority Focus Areas

**Substance Abuse  
Behavioral Health**

W.V. 32.2%  
U.S. 13.8%  
Ranked Highest in U.S.

**Tobacco**

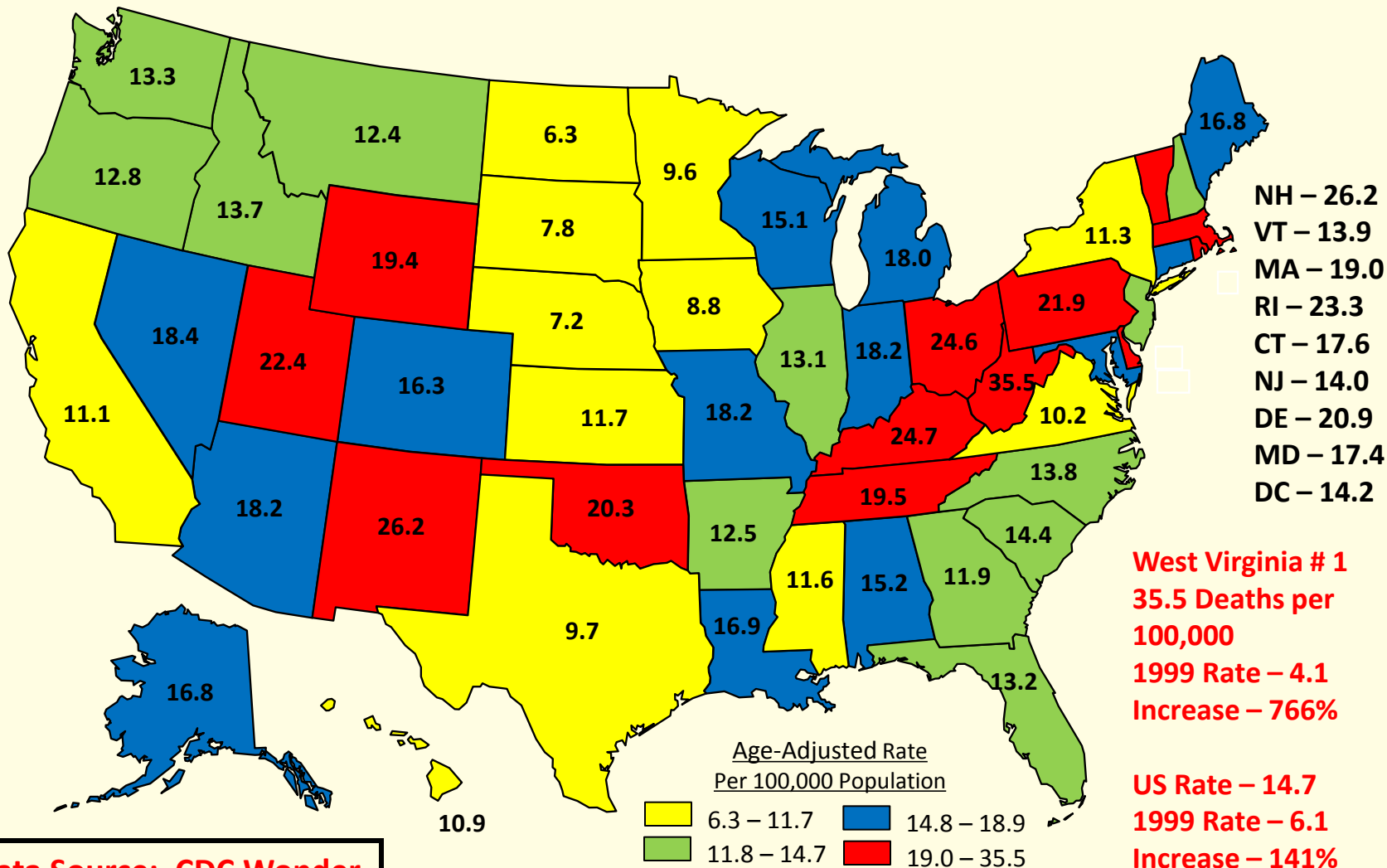
Smoking  
W.V. 26.7%  
U.S. 17.4%  
Ranked Highest in U.S.

**Obesity**

W.V. 35.7%  
U.S. 28.9%  
Ranked 2<sup>nd</sup> Highest in U.S.

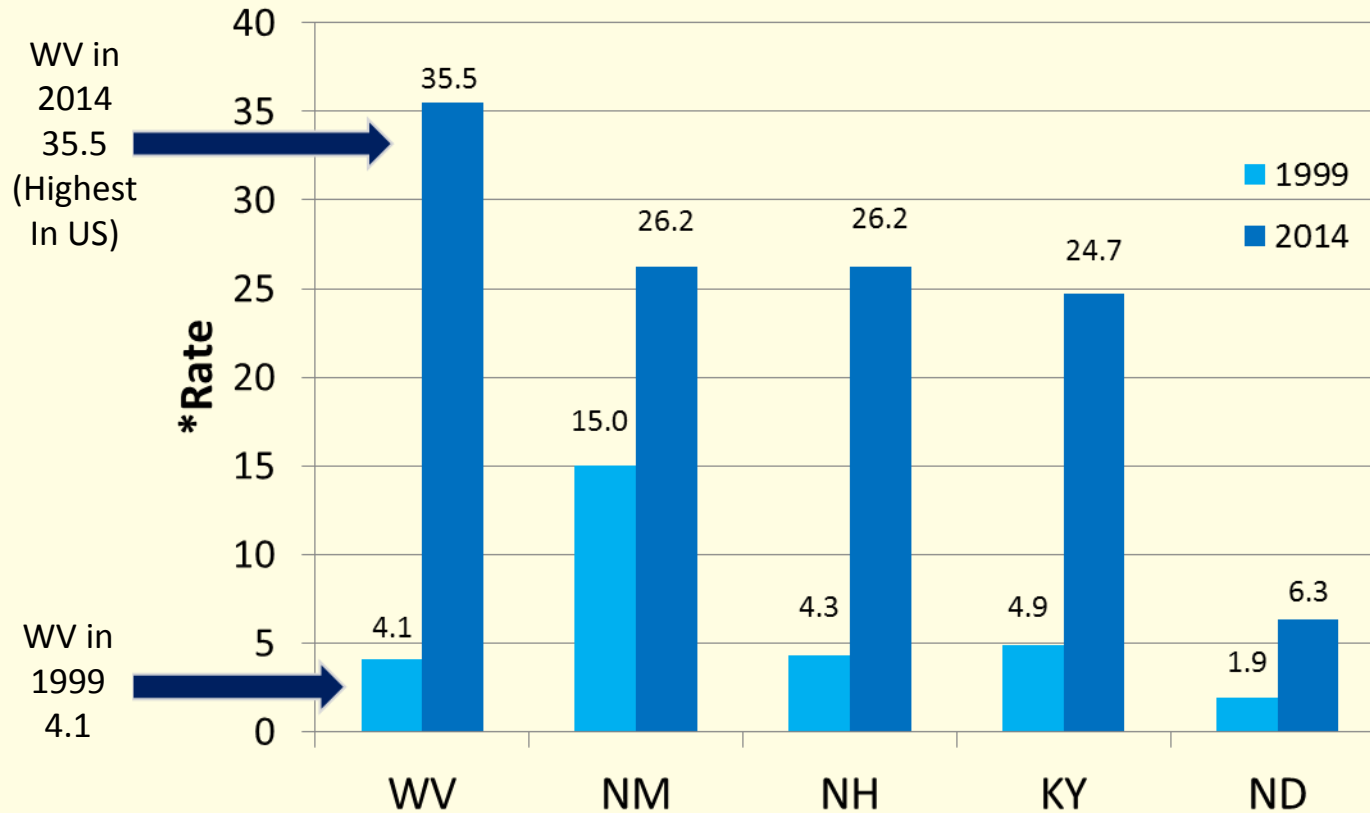
# Deaths from Drug Overdoses Have Increased Dramatically

## US Resident Overdose Deaths by State, 2014



# State-By-State Drug Overdose Comparison

## 2014 Four Highest and the Lowest State Resident Overdose Death Rates Compared to 1999



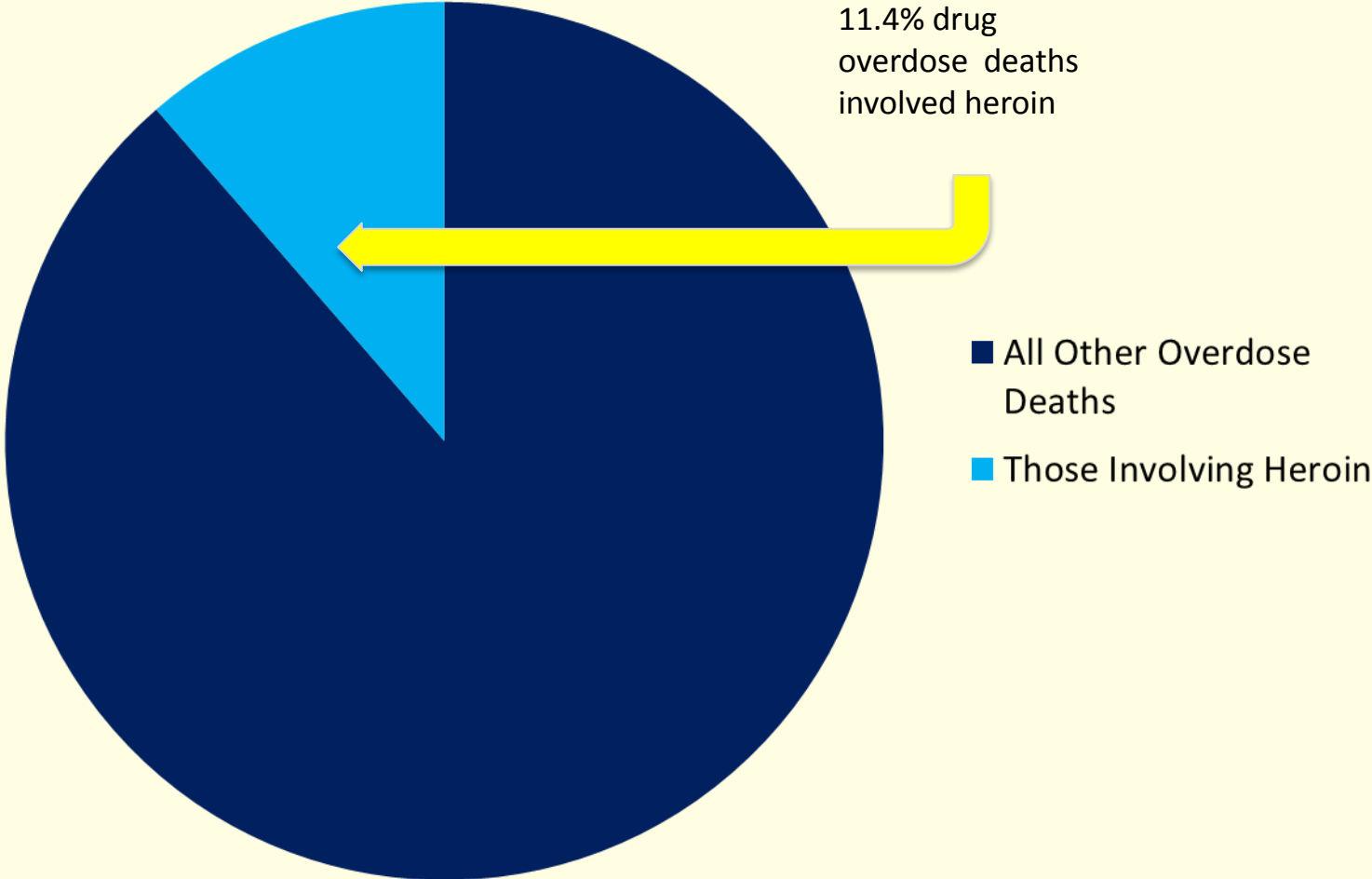
\* Rates are age-adjusted to the 2000 US Standard Million

**WV rate increased by eight-fold since 1999**

Source: CDC Wonder

# Overdose Data

## Drug Overdose Deaths Occurring in West Virginia, 2001-2015



Source - WV Health Statistics Center, Vital Surveillance System

# Selected Drug Overdose Death Information

YEAR	Overdoses - All Substances	All Opiate-Related**	Heroin-Related**	Morphine-Related**	Methadone-Related**	Oxycodone-Related**	Hydromorphone-Related**	Oxymorphone-Related	Hydrocodone-Related**	Fentanyl-Related**
2010	568	495	34	39	83	223	6	77	138	44
2011	656	573	41	45	61	224	14	182	171	51
2012	558	472	67	54	65	182	9	72	142	32
2013	585	494	157	48	55	199	12	32	137	40
2014*	628	548	165	68	39	199	11	48	133	55
2015*	529	467	151	50	22	137	6	42	88	131

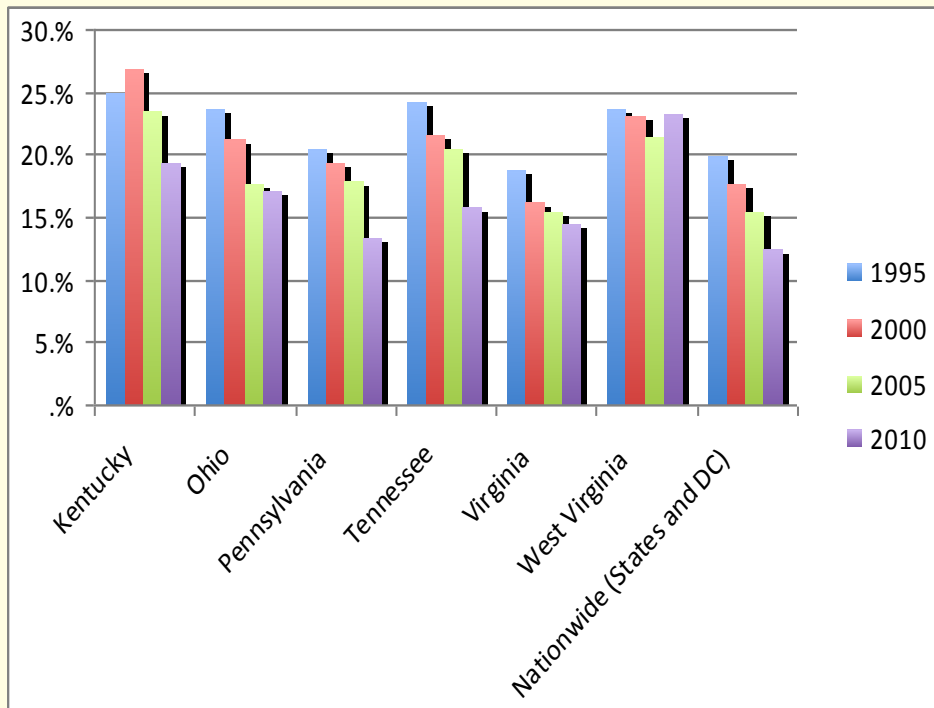


Source: West Virginia Health Statistics Center, Vital Surveillance System. The figures above are from an analysis completed on December 22, 2015. The information is compiled from causes of death as reported on death certificates certified by the Office of the Chief Medical Examiner.



# Tobacco: Adult Daily Smoking Rates

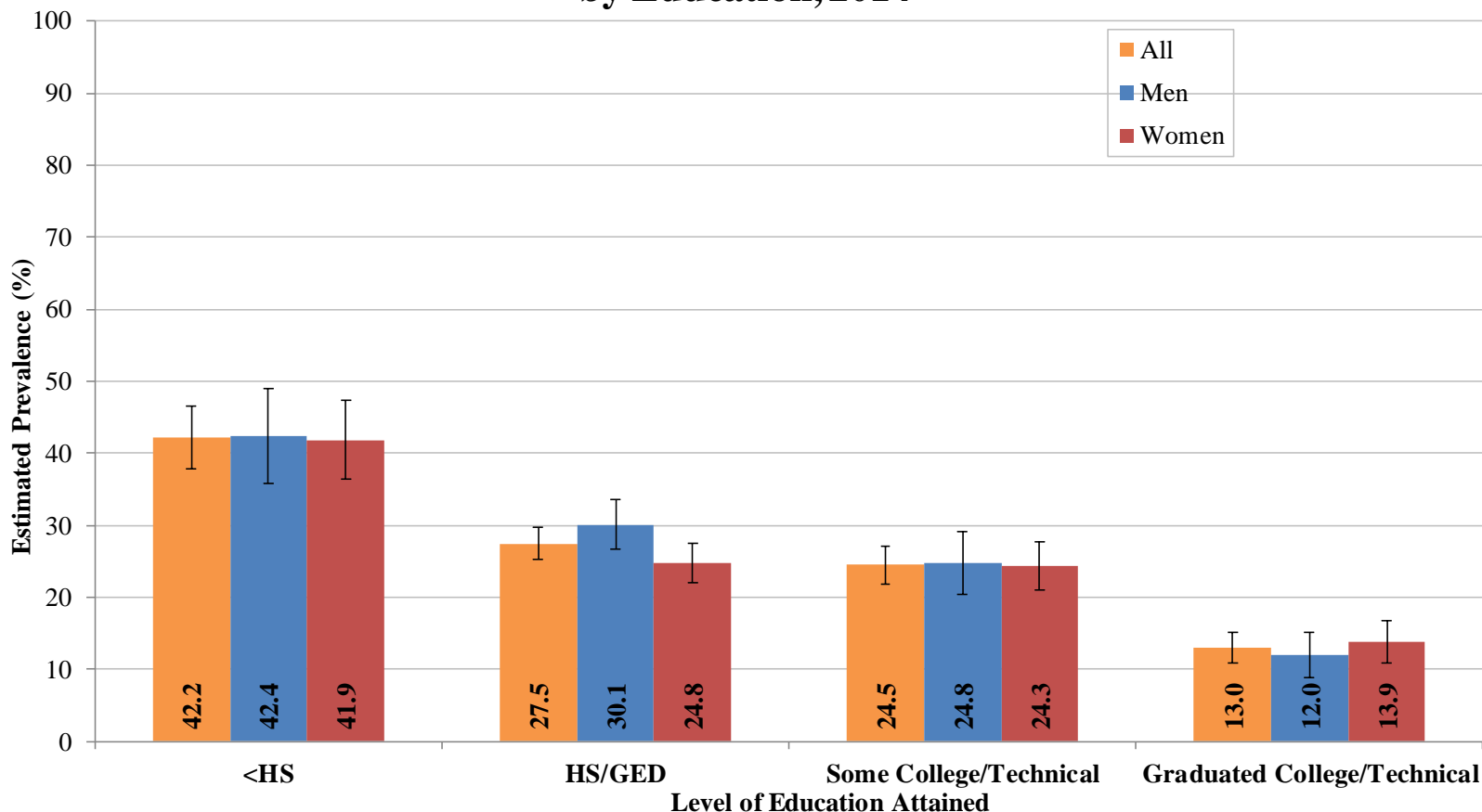
## Comparison of Daily Smoking Rates in West Virginia to Select States



- West Virginia's trend was not consistent with the other five states
- Five States, minus West Virginia decreased their daily smoking rates by 2010
- Kentucky, Ohio, and Tennessee all had daily smoking rates drop to under 20% by 2010
- Pennsylvania and Virginia experienced even greater results, with their daily smoking rates dropping under 15% by 2010

# Current Smoking Among WV Adults by Education

## Prevalence of Current Cigarette Smoking Among West Virginia Adults by Education, 2014

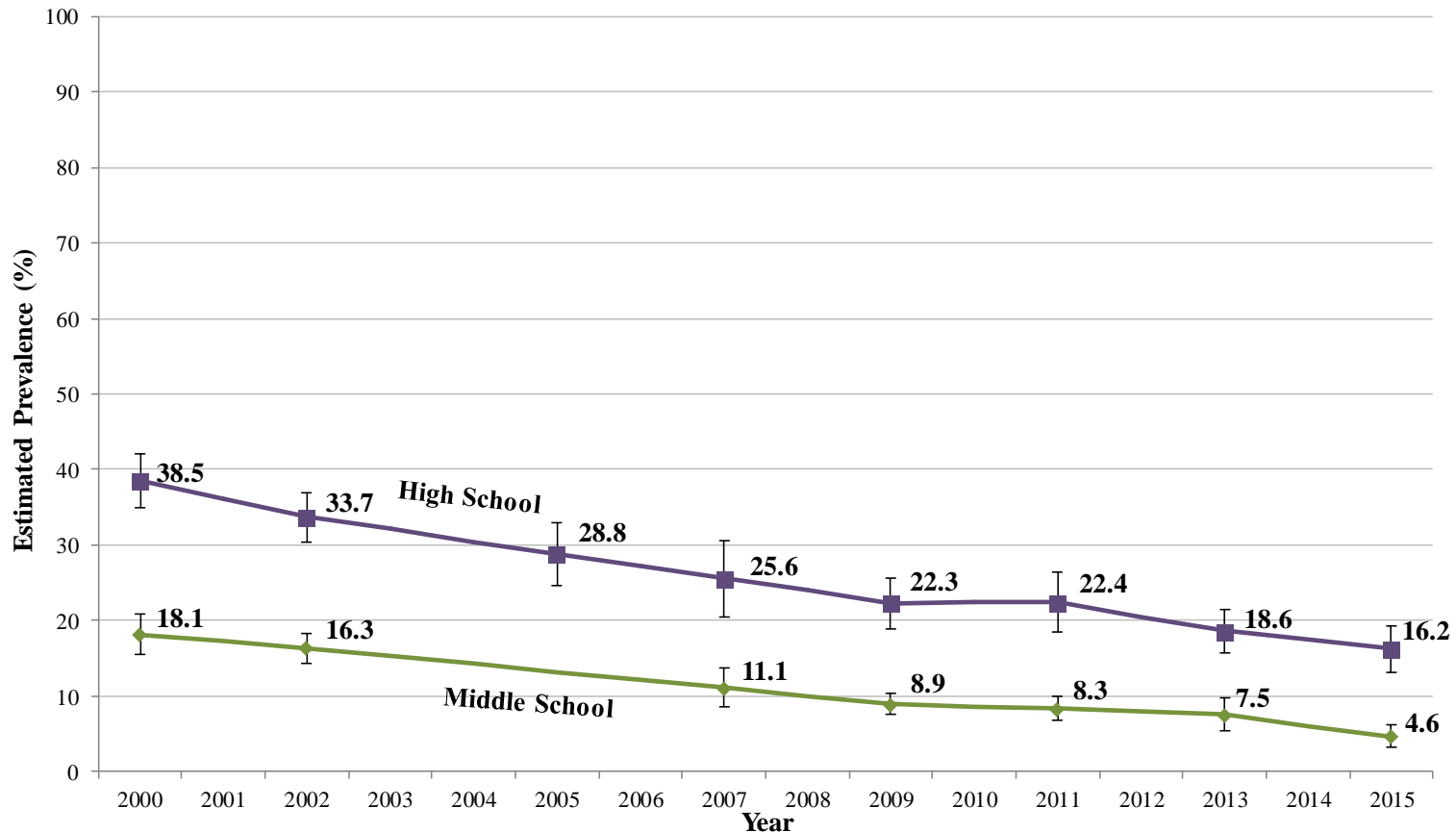


Note: In 2011 there were changes made to the weighting methodology and the sample composition in the Behavioral Risk Factor Surveillance System (BRFSS), therefore the 2011 prevalence data and beyond is not directly comparable to previous years of BRFSS data.

Data Source: West Virginia Health Statistics Center, Behavioral Risk Factor Surveillance System.

# Current Smoking Among WV Youth

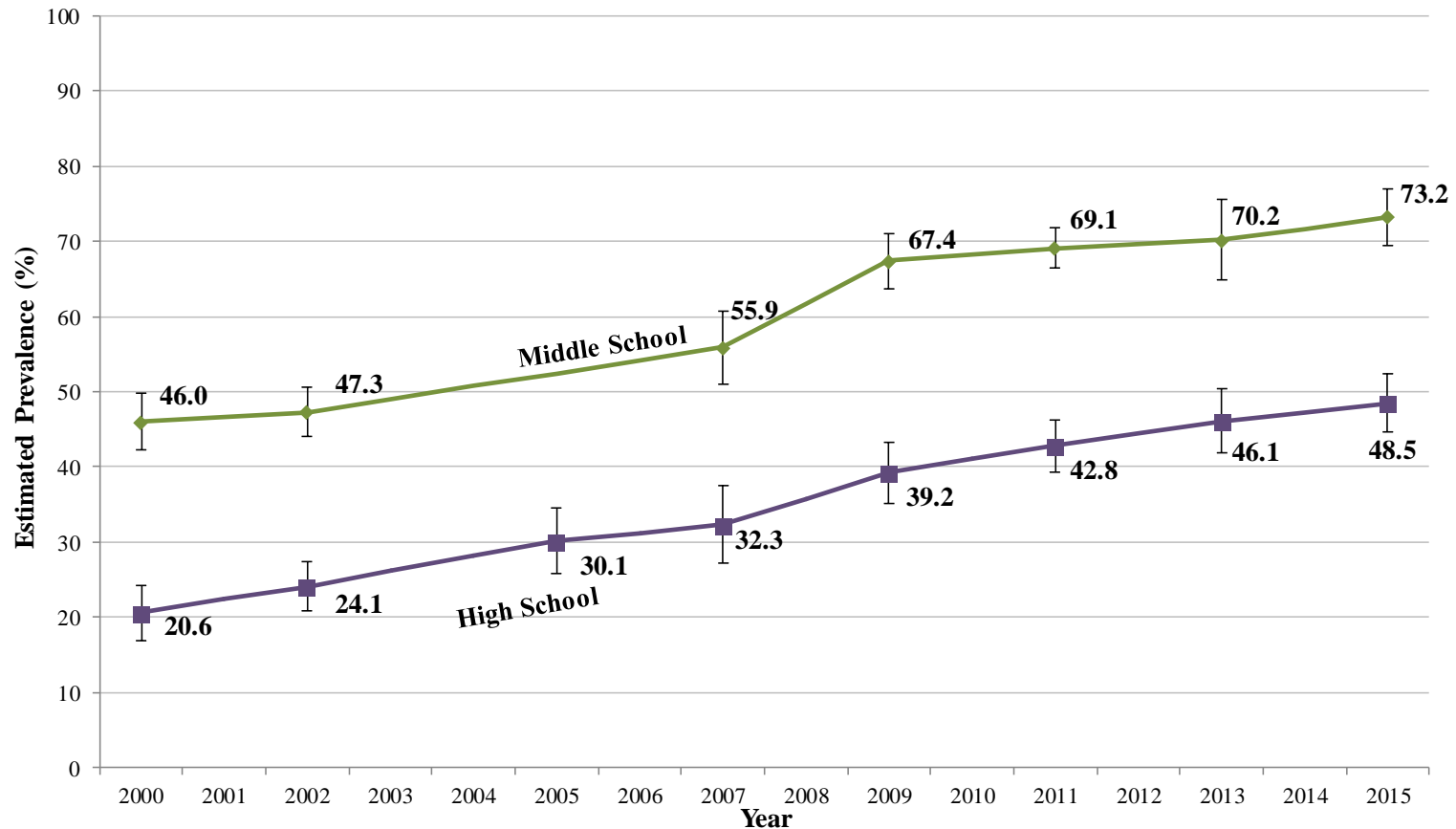
## Prevalence of Current Cigarette Smoking Among West Virginia Youth



Data Source: West Virginia Division of Tobacco Prevention, West Virginia Youth Tobacco Survey.  
Graph prepared by the West Virginia Health Statistics Center.

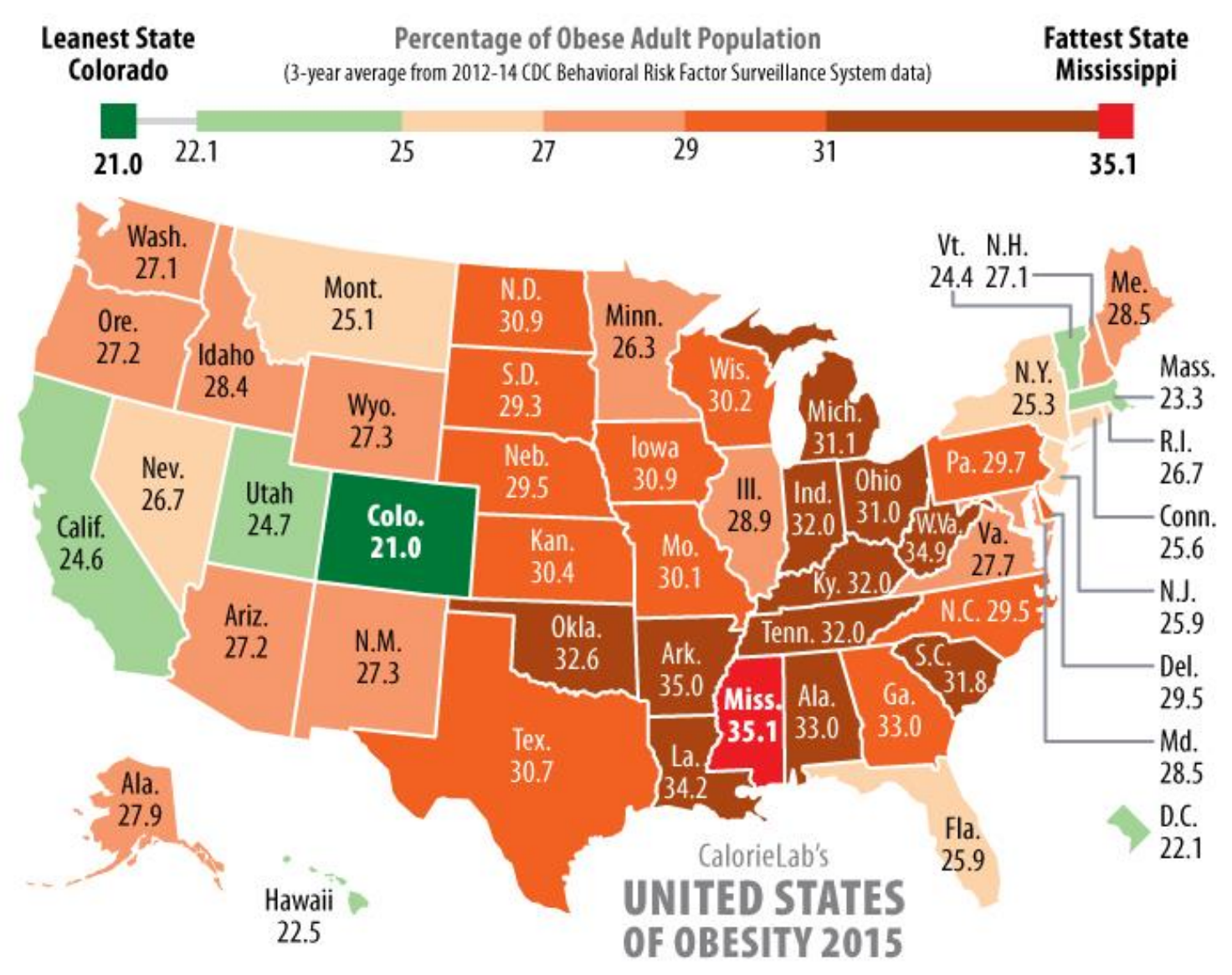
# Never-Tobacco Use Among WV Youth

## Prevalence of Never-Tobacco Use Among West Virginia Youth



Data Source: West Virginia Division of Tobacco Prevention, West Virginia Youth Tobacco Survey.  
Graph prepared by the West Virginia Health Statistics Center.

# Obesity Prevalence

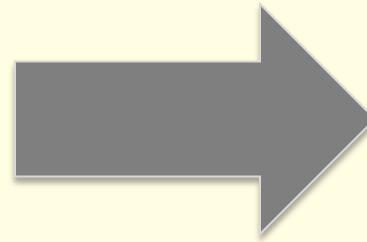




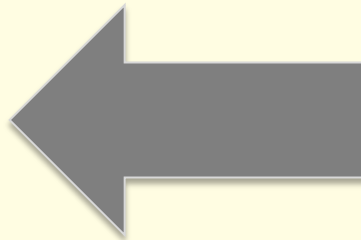
# Implications for Public Health

## Challenges

- Shrinking funds to support traditional approaches
- Population health risk shifting from office to community
- Quality measures move from process-based to outcome-based
- Reimbursement shifts from volume to value
- Expectation to achieve accreditation
- Public health and medical care integration required
- Weaknesses inherent to public health



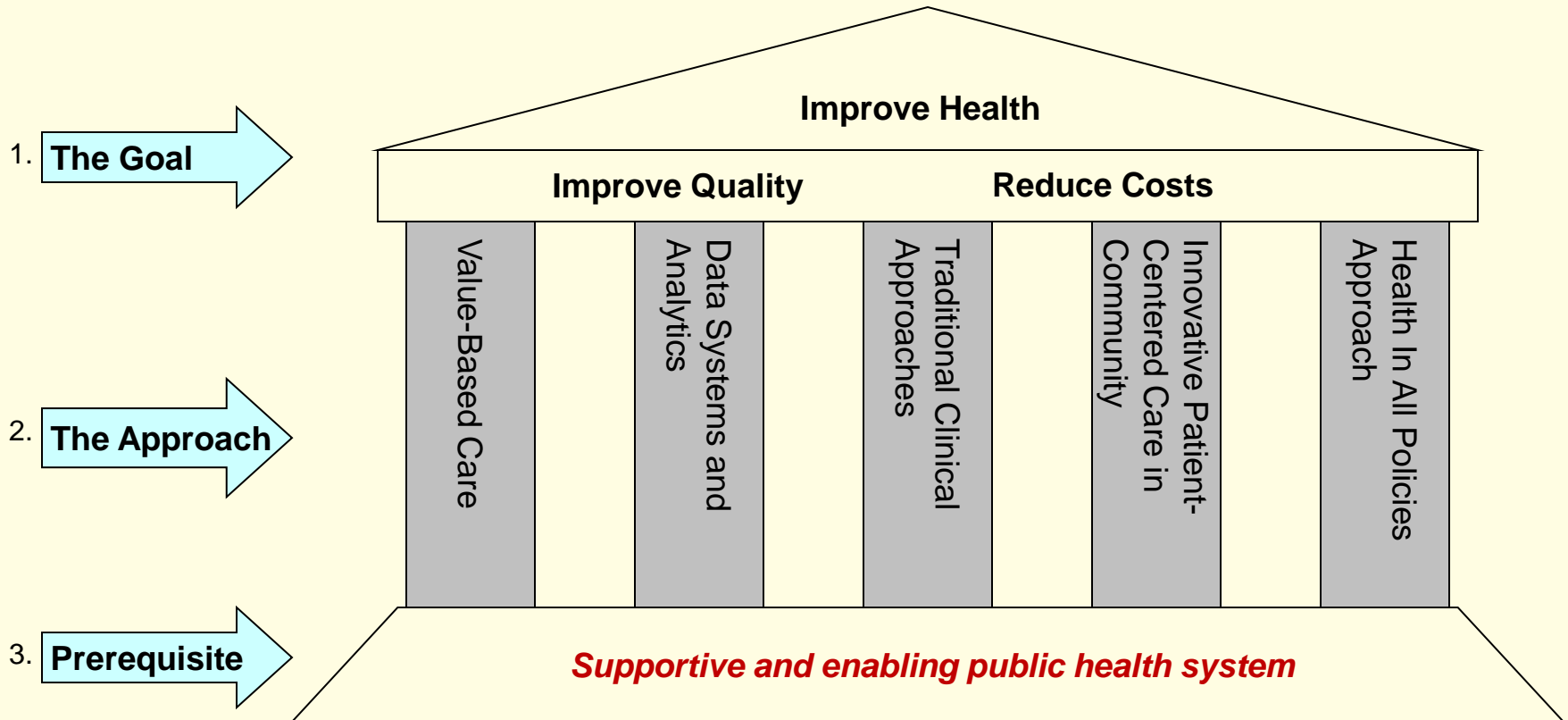
**Challenges  
Bring  
Opportunities**



## Opportunities

- Increase in insured population/demand
- Payment for disease management
- Payment for care coordination
- Improve operational efficiencies
- Align stakeholder interests and incentivize them the right way
- Embrace a culture of health by investing in social determinants
- Develop innovative public health system to improve outcomes
- Align with National Prevention Strategy

# Population Health Approaches



# Contact Information

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