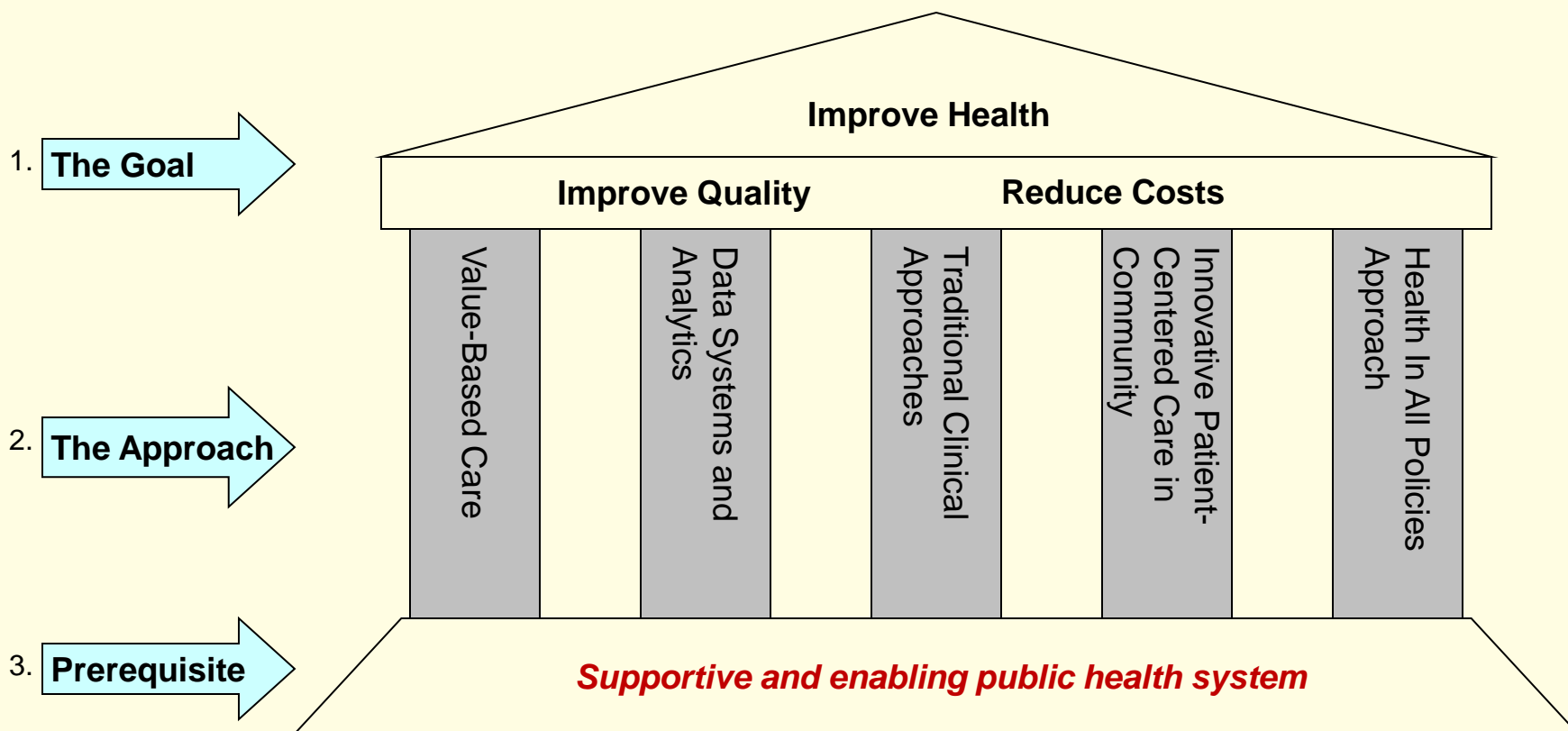


Future of Public Health: West Virginia's Call to Action

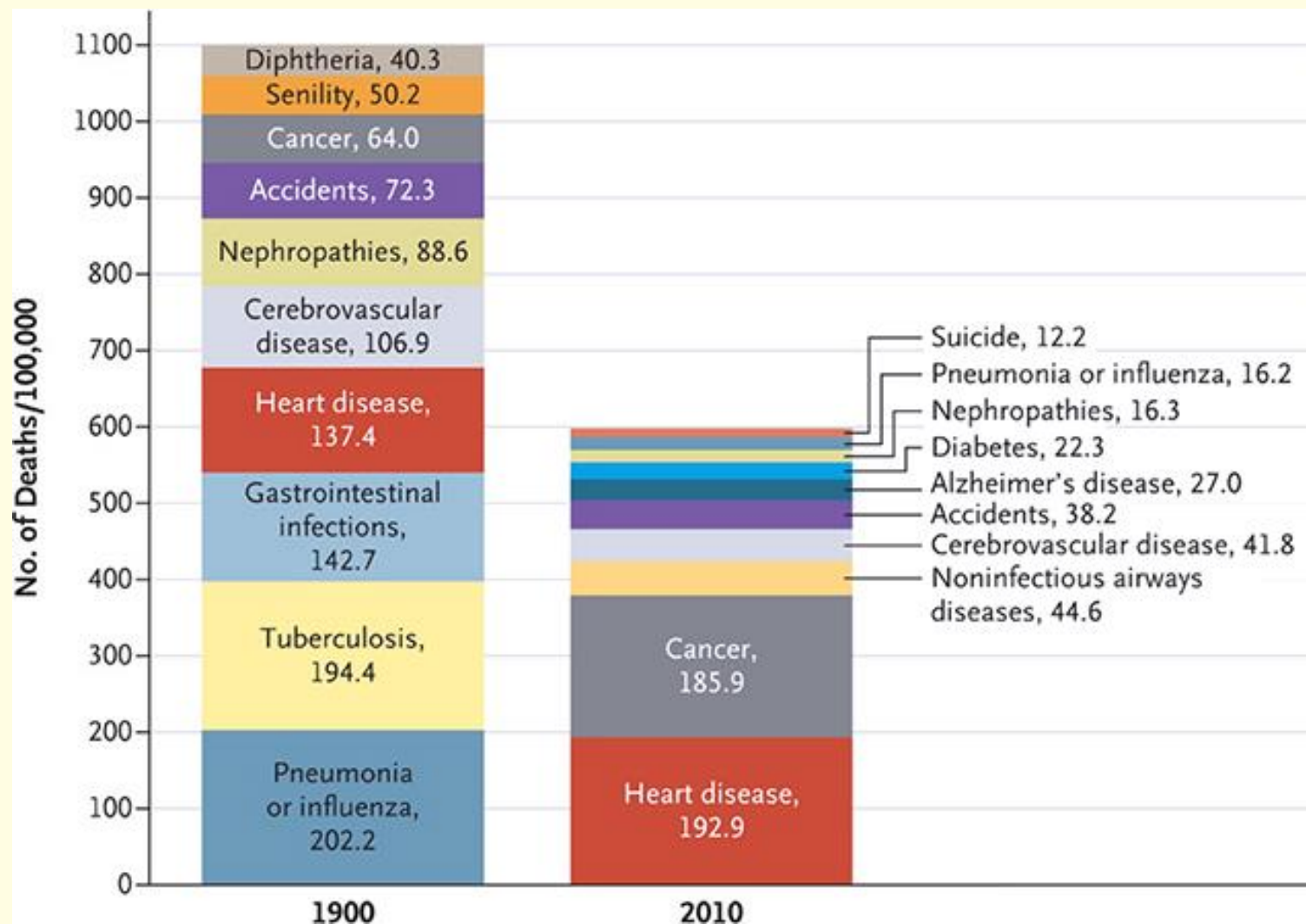
Rahul Gupta, MD, MPH, FACP
Commissioner and State Health Officer
April 09, 2016



Future – A Population Health Approach

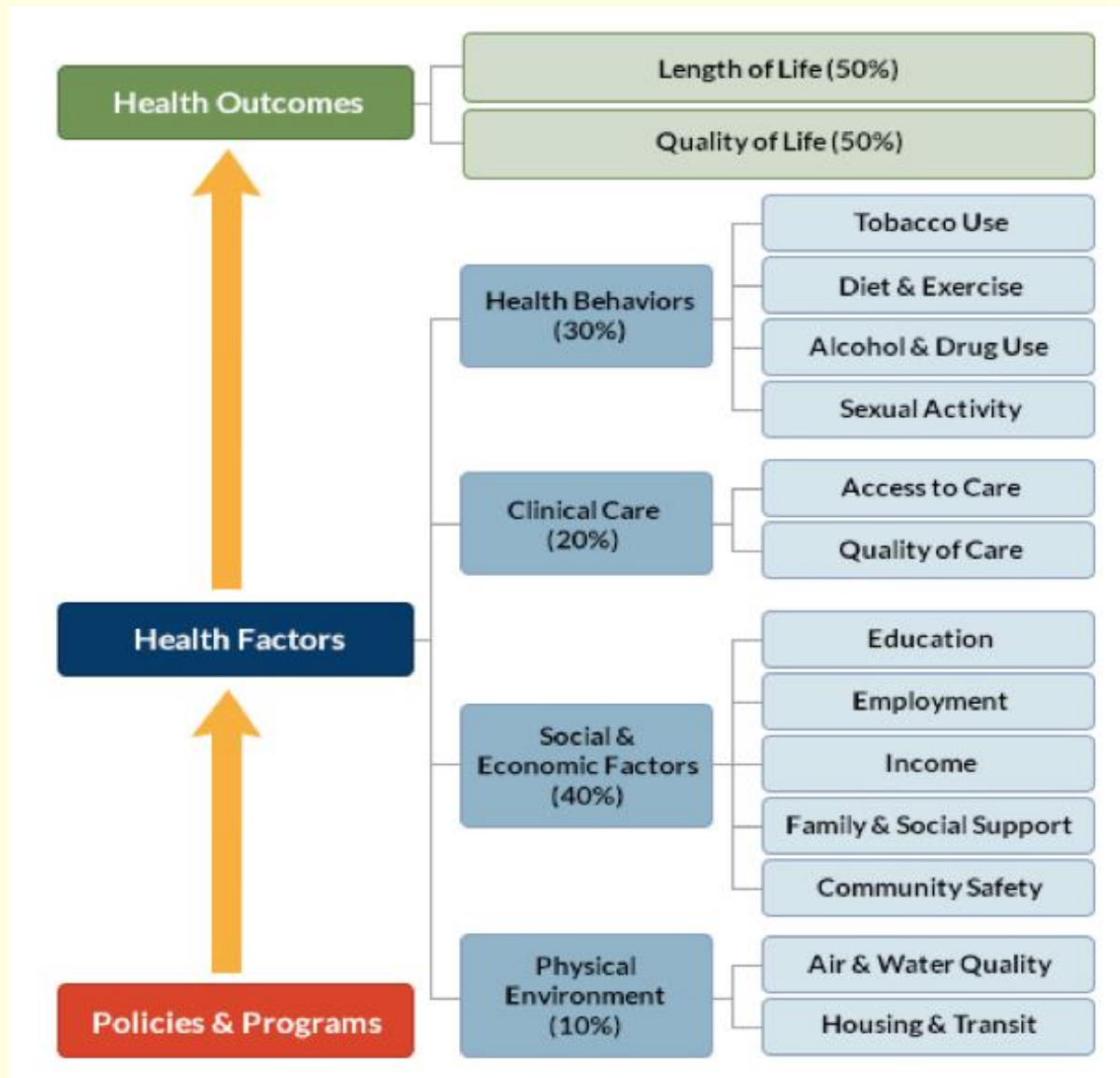


Leading Causes of Death in U.S.



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

Determinants of Health



Source: countyhealthrankings.com

Health Contributors

Key: Text in white indicates OPTH target

Health Impact Pyramid



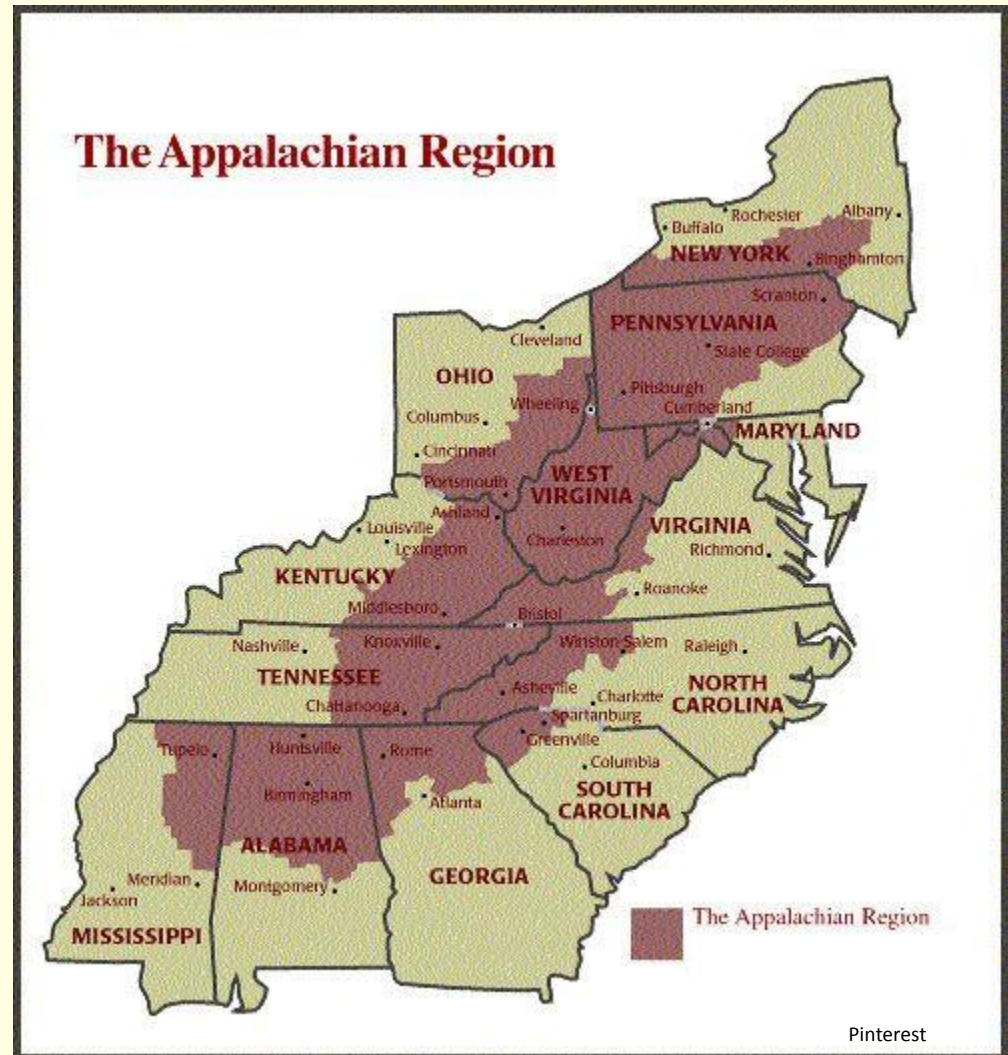
Source: Adapted from Frieden TR. A Framework for Public Health Action: The Health Impact Pyramid. Am J Public Health. 2010;100(4):590-5.

"Funding" Picture

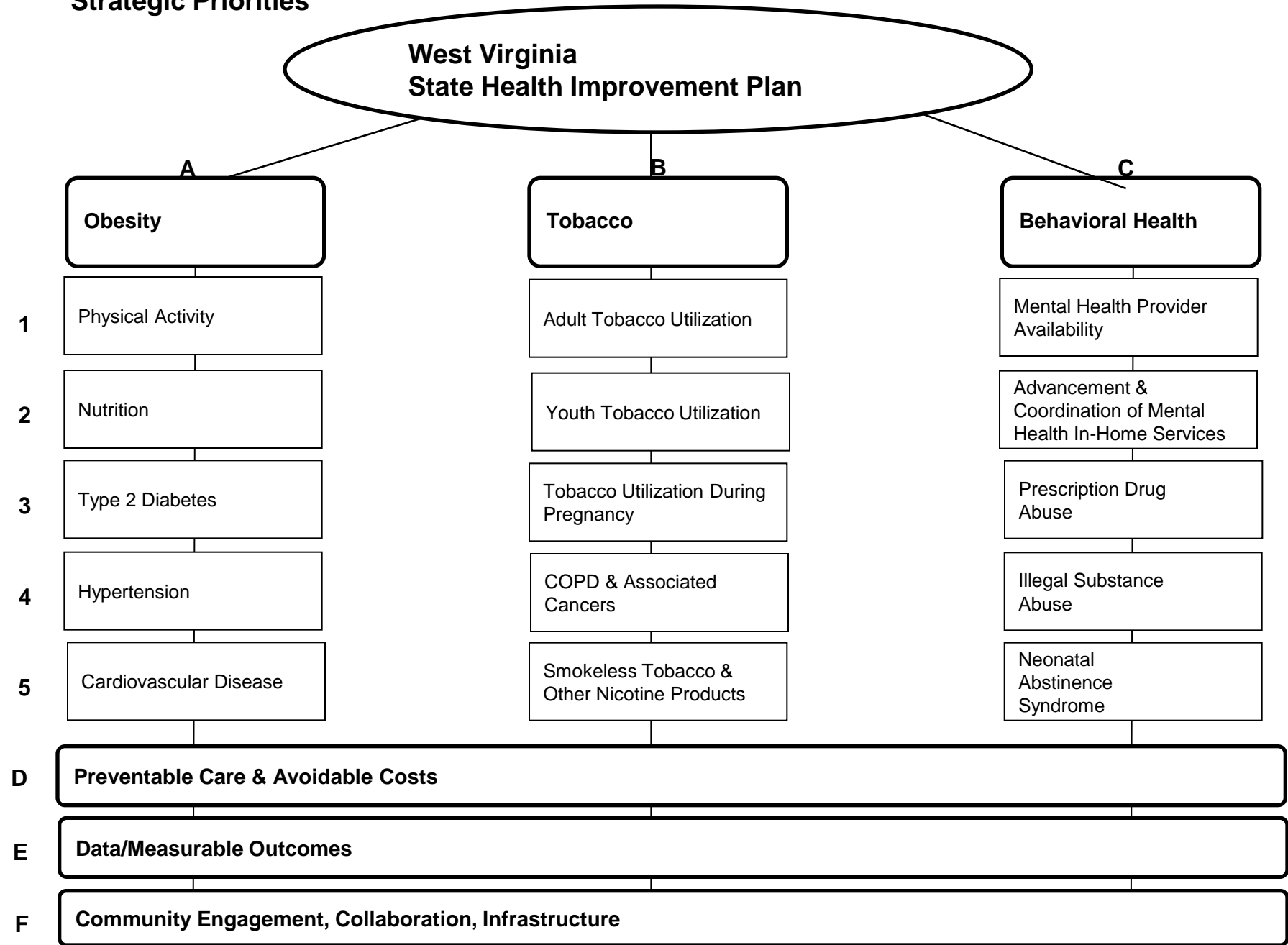


Three Key Health Issues in Appalachia

- Tobacco
- Obesity
- Drugs

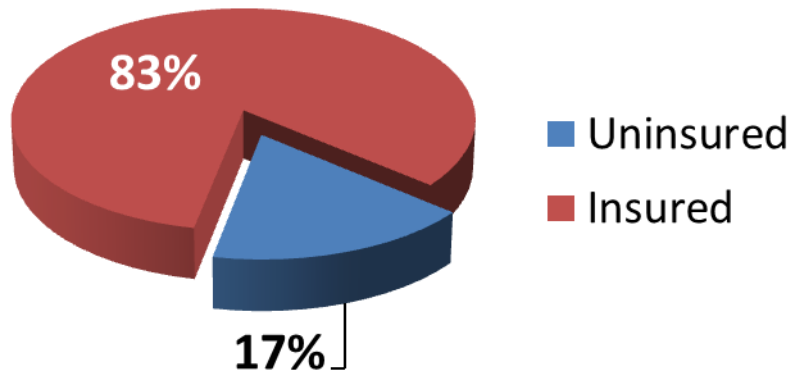


**Health Innovations Collaborative
Strategic Priorities**

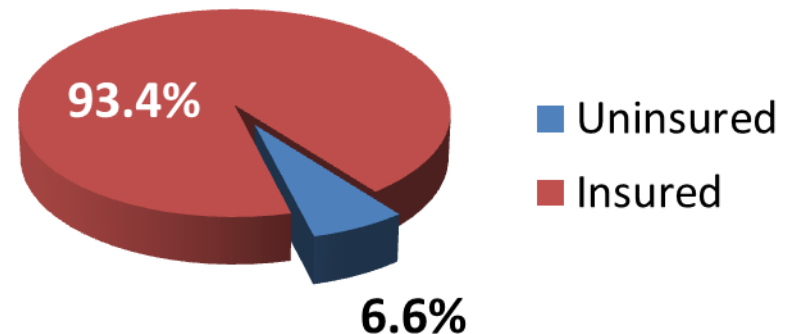


Uninsured Vs. Insured in West Virginia

**WV Insured vs. Uninsured
2013**



**WV Insured vs. Uninsured
2014**



Population Health Approaches

Health In All Policies
Approach

Innovative Patient-
Centered Care in
Community

Traditional Clinical
Approaches

Data Systems and
Analytics

Value-Based Care

State Innovation Models (SIM)

- Initiative to develop and test of state-led, multi-payer health care payment and service delivery models that will:
 - improve health system performance
 - increase quality of care
 - decrease costs for Medicare, Medicaid and Children's Health Insurance Program (CHIP) beneficiaries
- Medicare - Shift from fees for services to value based payment model
- Key preventive services now covered without cost sharing

Value Based Care

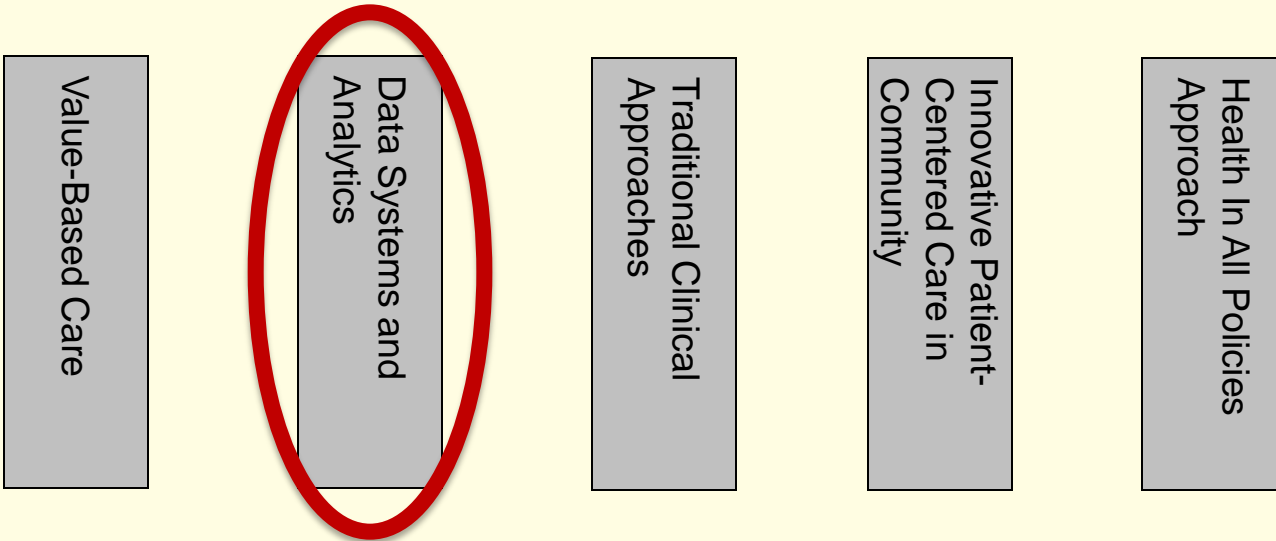
- Shared savings model (ACOs, IT systems)
- Measuring performance and data
- 30-day readmissions, community needs assessment, infection reporting, choosing wisely, others
- Value-based environment is based in streamlining operations and eliminating waste



WEST VIRGINIA
Department of
**Health & Human
Resources**
BUREAU FOR PUBLIC HEALTH

Low ←		→ High			
Fee for Service Paid based on volume of services and not linked to quality or efficiency; No constraint on spending	Pay for Coordination Added per capita payment based on ability to effectively manage the care of population	Pay for Performance Payments linked to objective measures of performance	Episodic Payments Payment based on financial and performance accountability for episodes of care • <i>Bundled Payment</i>	Shared Savings Shared savings from better care coordination and disease management • <i>ACOs</i>	Capitation Providers share savings from better care coordination and disease management • <i>Per Member/Per Month</i>

Population Health Approaches



Public Health Accreditation

The goal of the national accreditation program is to improve and protect the health of the public by advancing the quality and performance of state and local public health departments.

- Document capacity of the health department to deliver the core functions and ten Essential Public Health Services
- Stimulate transparency
- Improve management processes used by the health department



Source: <http://www.phaboard.org/>

- Stimulate quality improvement and performance management
- Improve accountability to community, stakeholders, and policy makers
- Improve communications
- Improve competitiveness for funding

Requires Increasing Efficiency and Effectiveness

- 30% increase in community engagement
- 40% reduction in time it takes to complete a septic and well inspection
- 13% reduction in client wait time in Family Planning clinic
- 45% decrease in no-show rates in HIV clinic
- 49% increase in # of department policies and procedures reviewed and updated in last 3 years
- 100% of rabies reports completed within 3 days

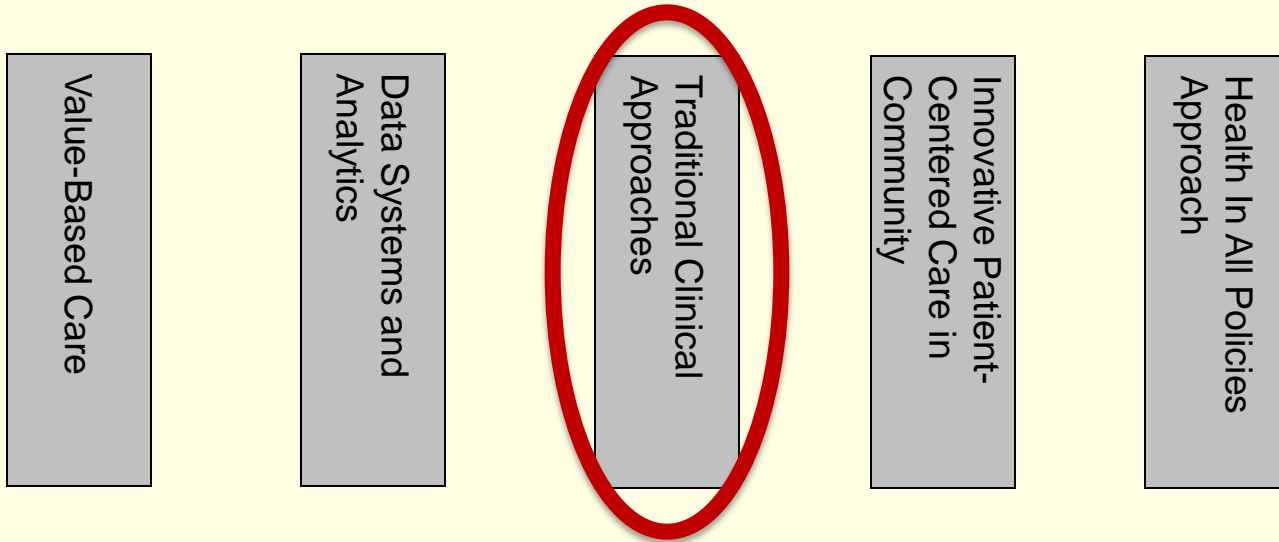
Building the Evidence Base

Accreditation and Public Health Preparedness in North Carolina



- The preparedness and response capabilities of communities served by accredited Local Health Departments (LHDs) exceed those of non-accredited LHDs.
- Accreditation improves the infrastructure of the health department, which has a positive impact on emergency preparedness activities.

Population Health Approaches



Preventive/Clinical Services

- More people have access to Preventive Care services

**Traditional
Preventive/Clinical
Services**

- Aspirin Therapy
- Blood Pressure Control
- Cholesterol Management
- Smoking Cessation
- Healthy Eating
- Physical Activity

Population Health Approaches

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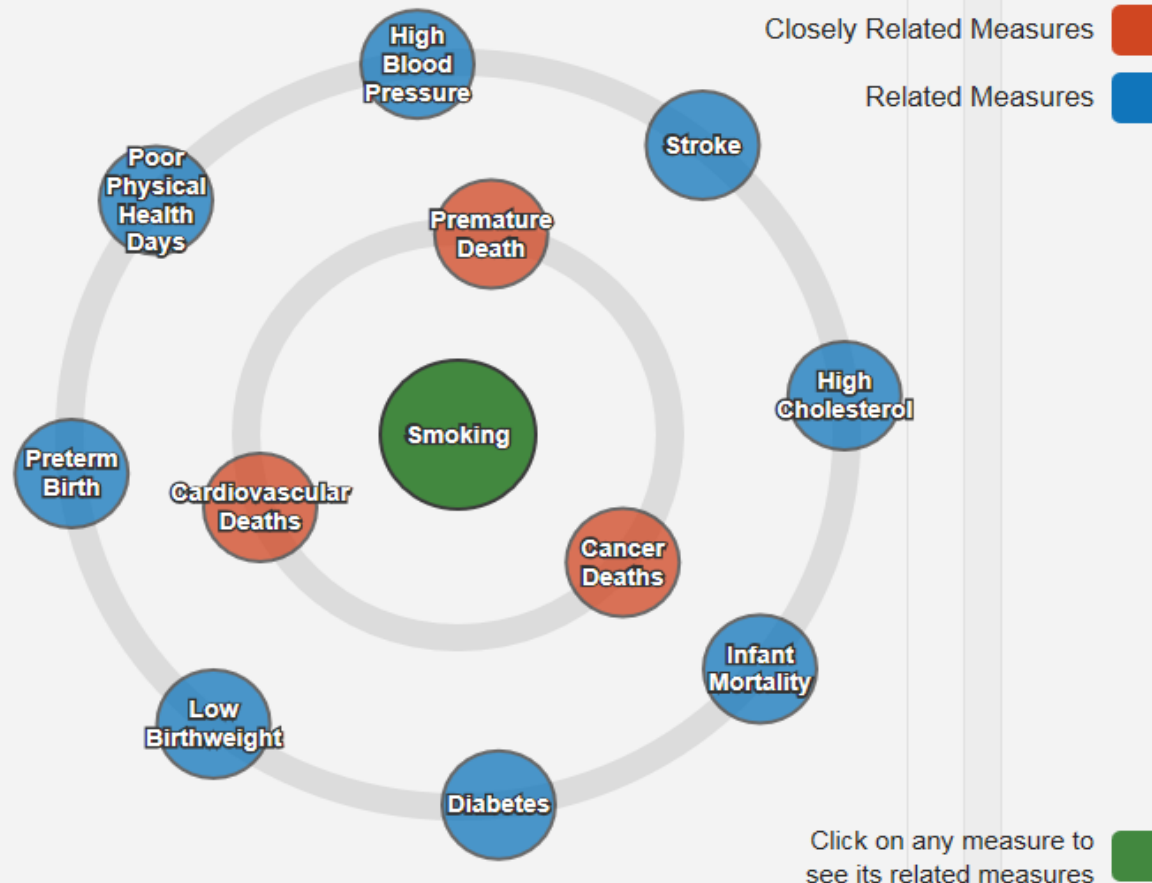
Health Connections

Related Measures

Smoking

Related Measures

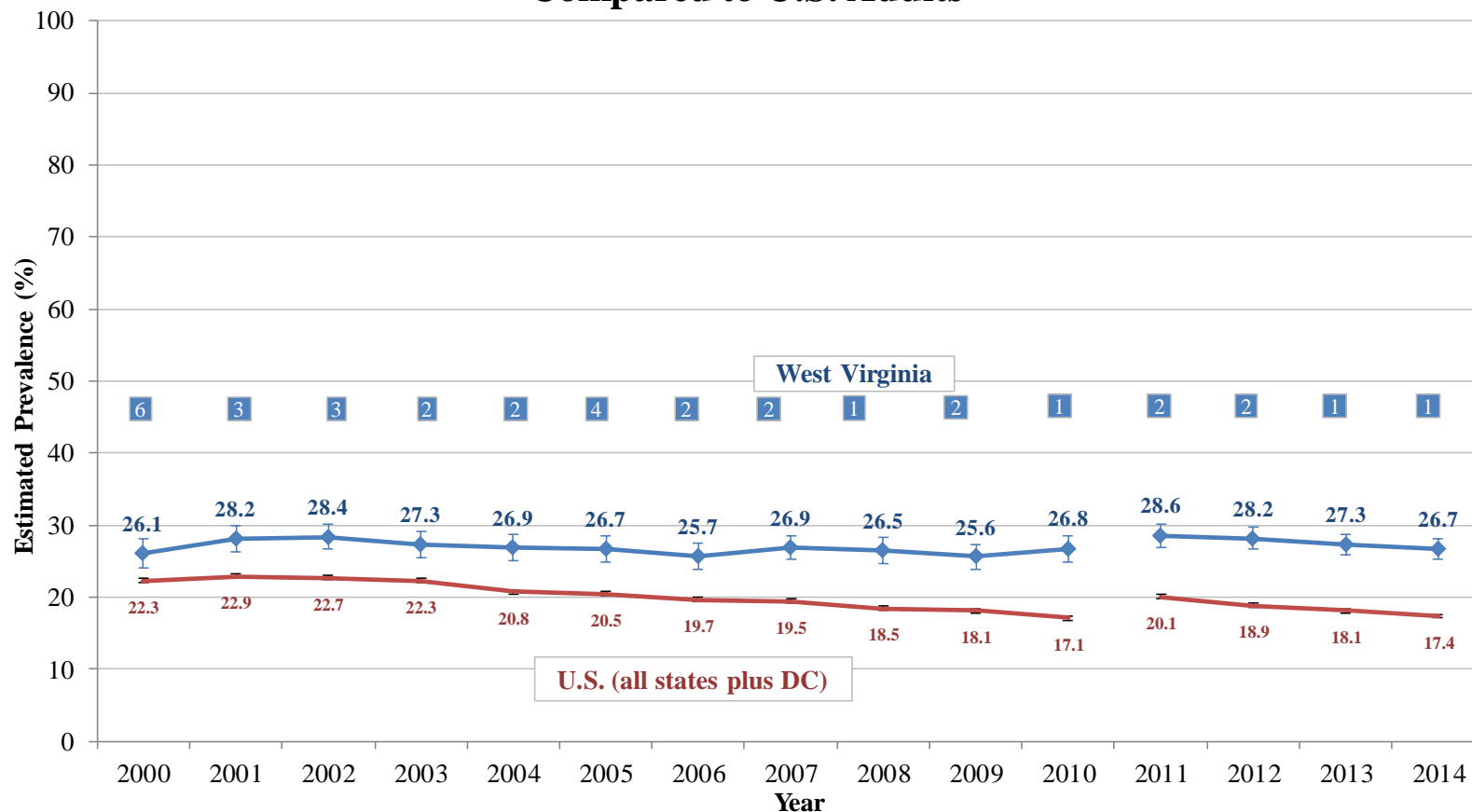
Explore the relations between ranking measures



Smoking

Current Smoking Among Adults

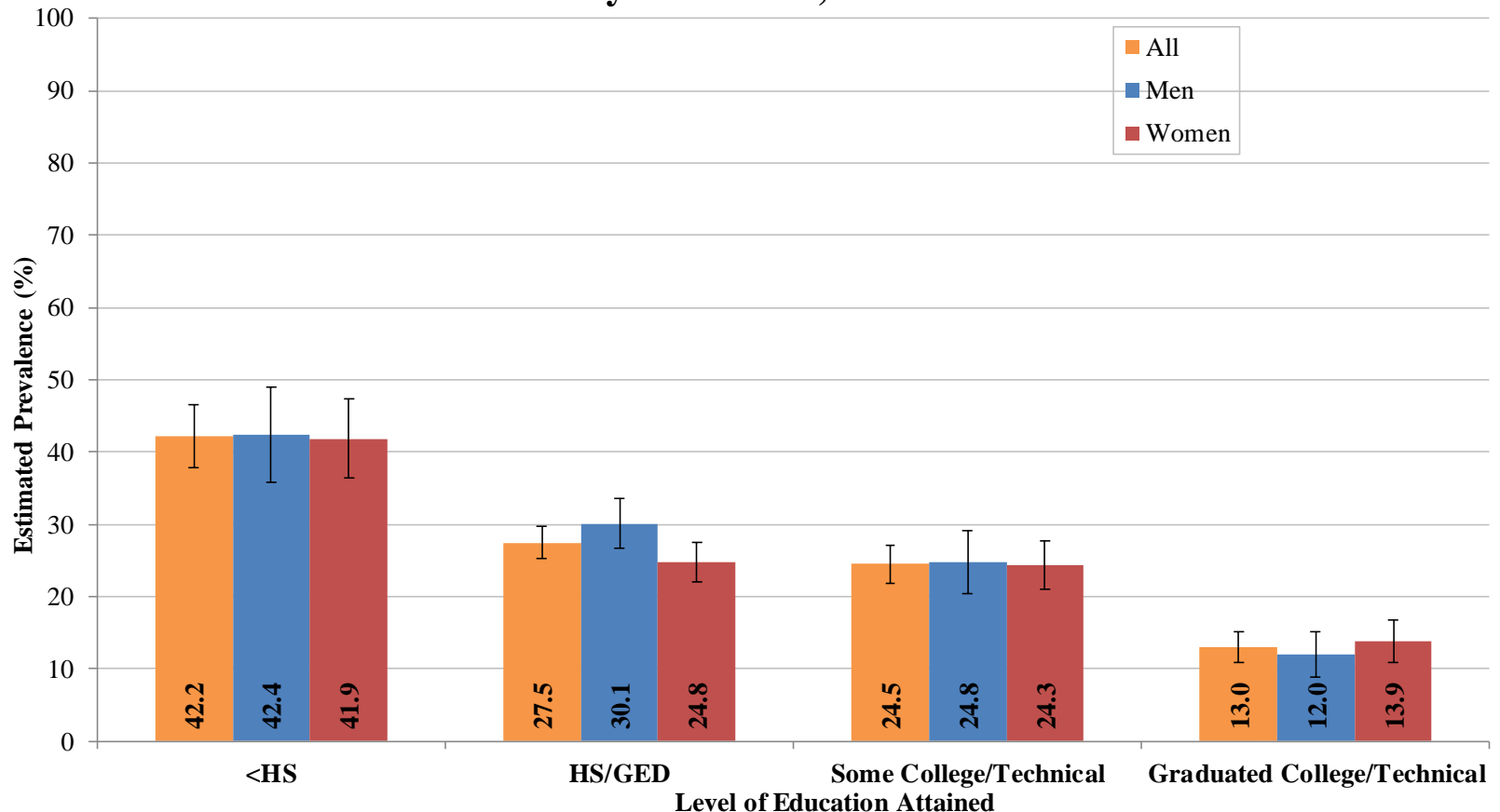
Prevalence of Current Cigarette Smoking Among West Virginia Adults, Compared to U.S. Adults



Note: In 2011 there were changes made to the weighting methodology and the sample composition in BRFSS, therefore the 2011 prevalence data and beyond is not directly comparable to previous years of BRFSS data.
Data Sources: West Virginia Health Statistics Center, Behavioral Risk Factor Surveillance System; U.S. Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System.

Current Smoking Among WV Adults by Education

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

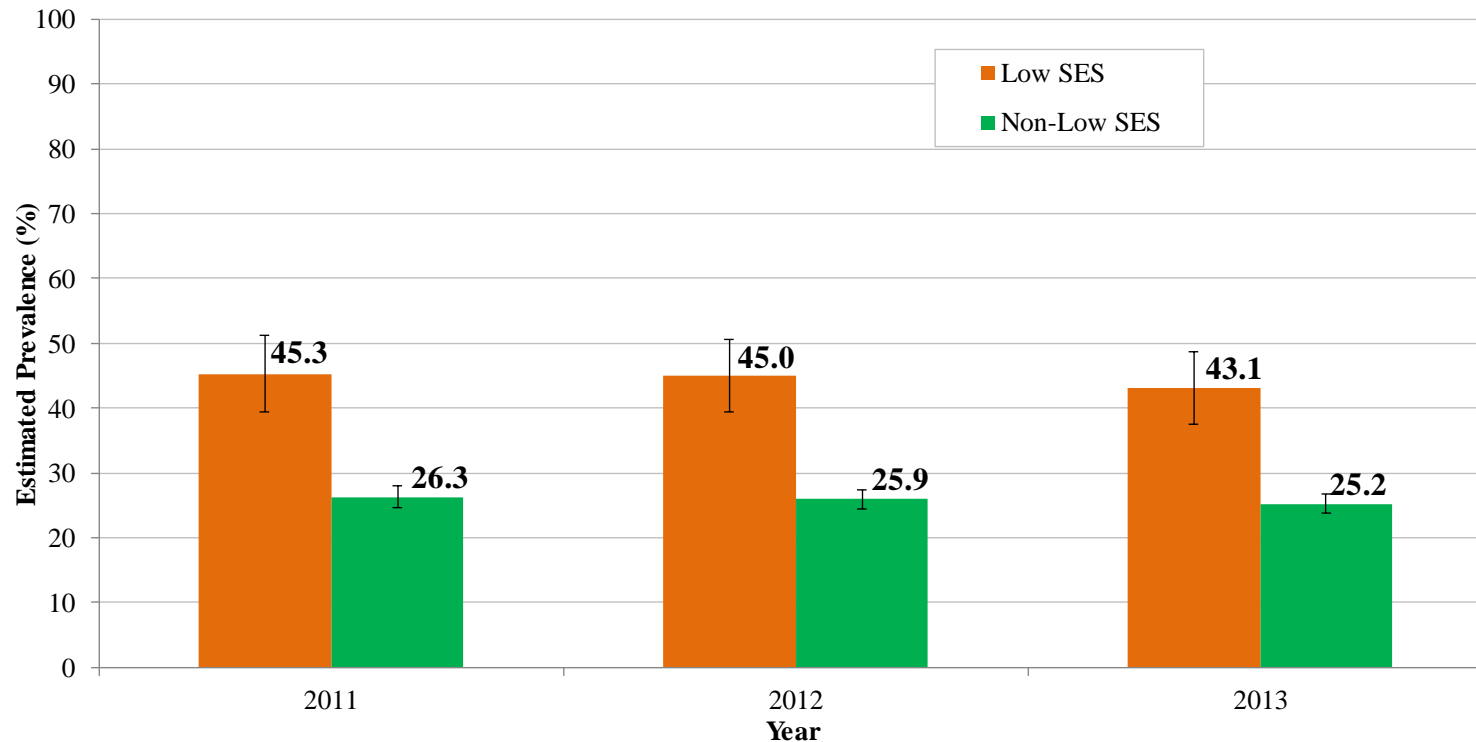


Note: In 2011 there were changes made to the weighting methodology and the sample composition in the Behavioral Risk Factor Surveillance System (BRFSS), therefore the 2011 prevalence data and beyond is not directly comparable to previous years of BRFSS data.

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

Socio-Economic Status Comparison

**Prevalence of Current Cigarette Smoking Among West Virginia Adults,
by Socio-Economic Status**



**44.8%
in 2014**

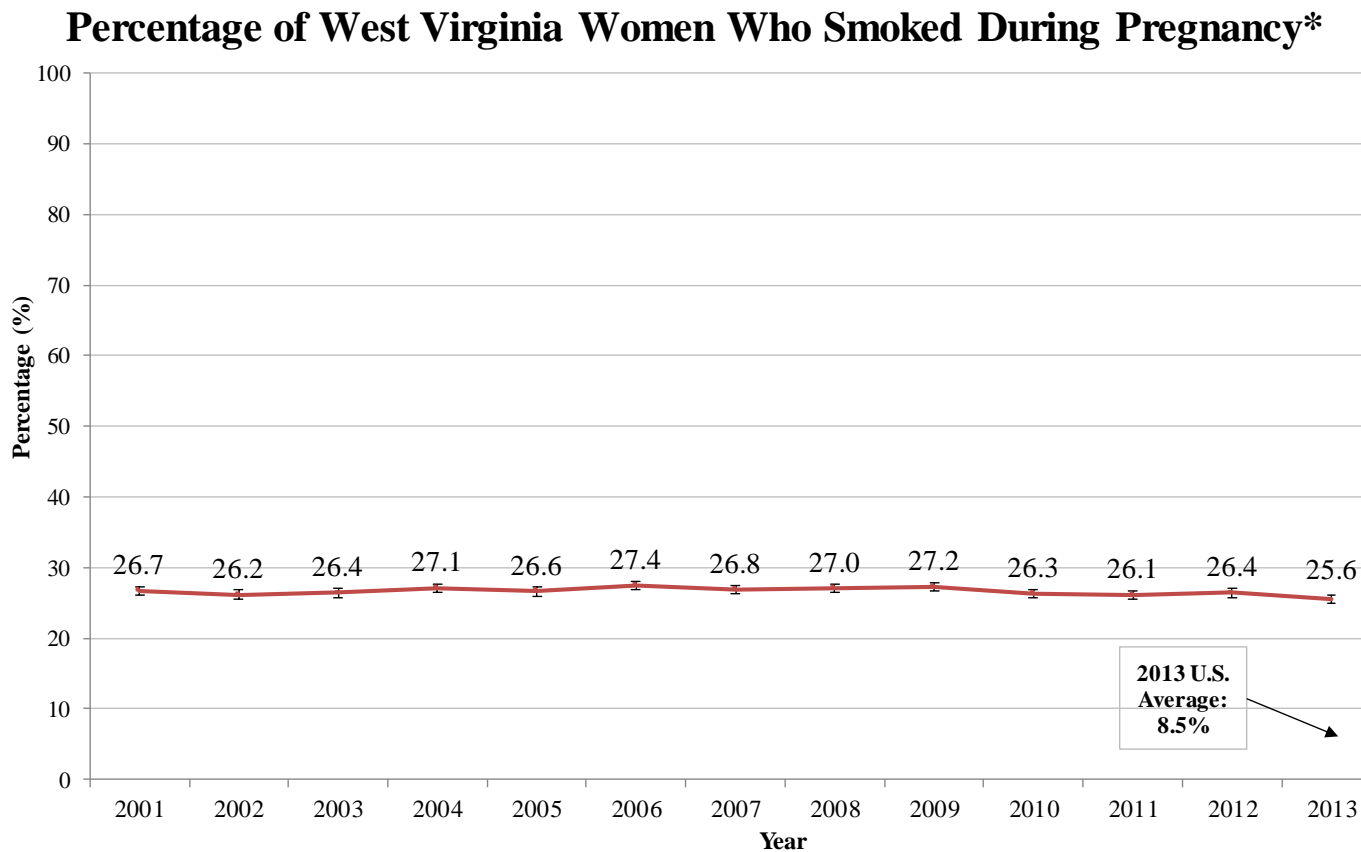
Current smoking is defined as having smoked 100 or more cigarettes in a lifetime and currently smoking cigarettes every day or some days. Low socio-economic status (SES) is defined as having an annual household income of less than \$25,000 and education level less than high school/GED. Confidence Interval brackets are indicated around each value.

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

The 2014 WV Adult Smoking Rate among those who are low SES* is 44.8%.

***Household Income < \$25,000 and
having < HS / GED education**

Smoking During Pregnancy in WV



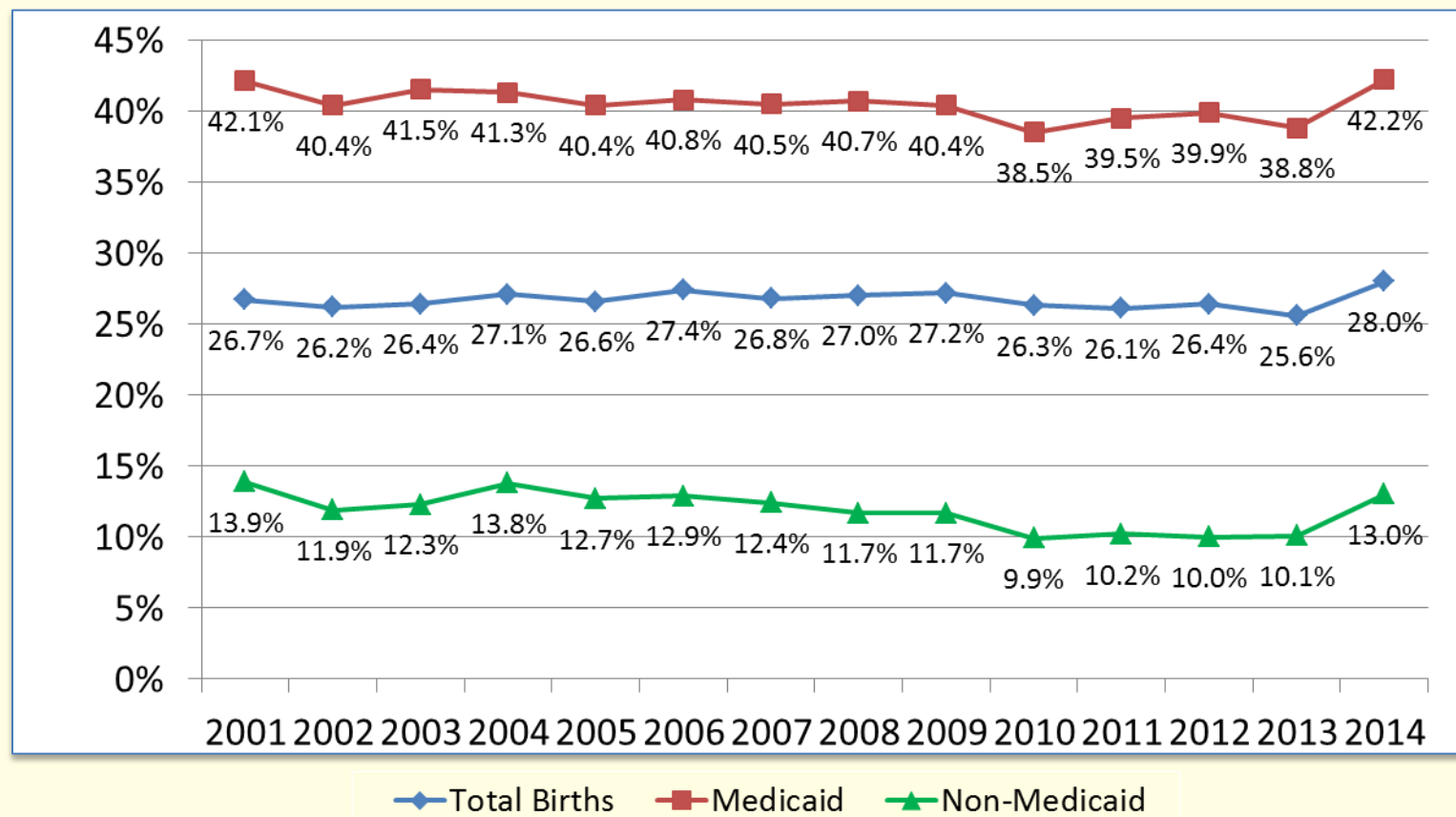
*Note: Applies only to women who had a live birth. U.S. average percentage is calculated from 41 states reporting in 2013 (including District of Columbia).

Confidence Interval brackets are indicated around each value.

Data Source: West Virginia Health Statistics Center, Vital Statistics System; CDC National Center for Health Statistics, from CDC WONDER.

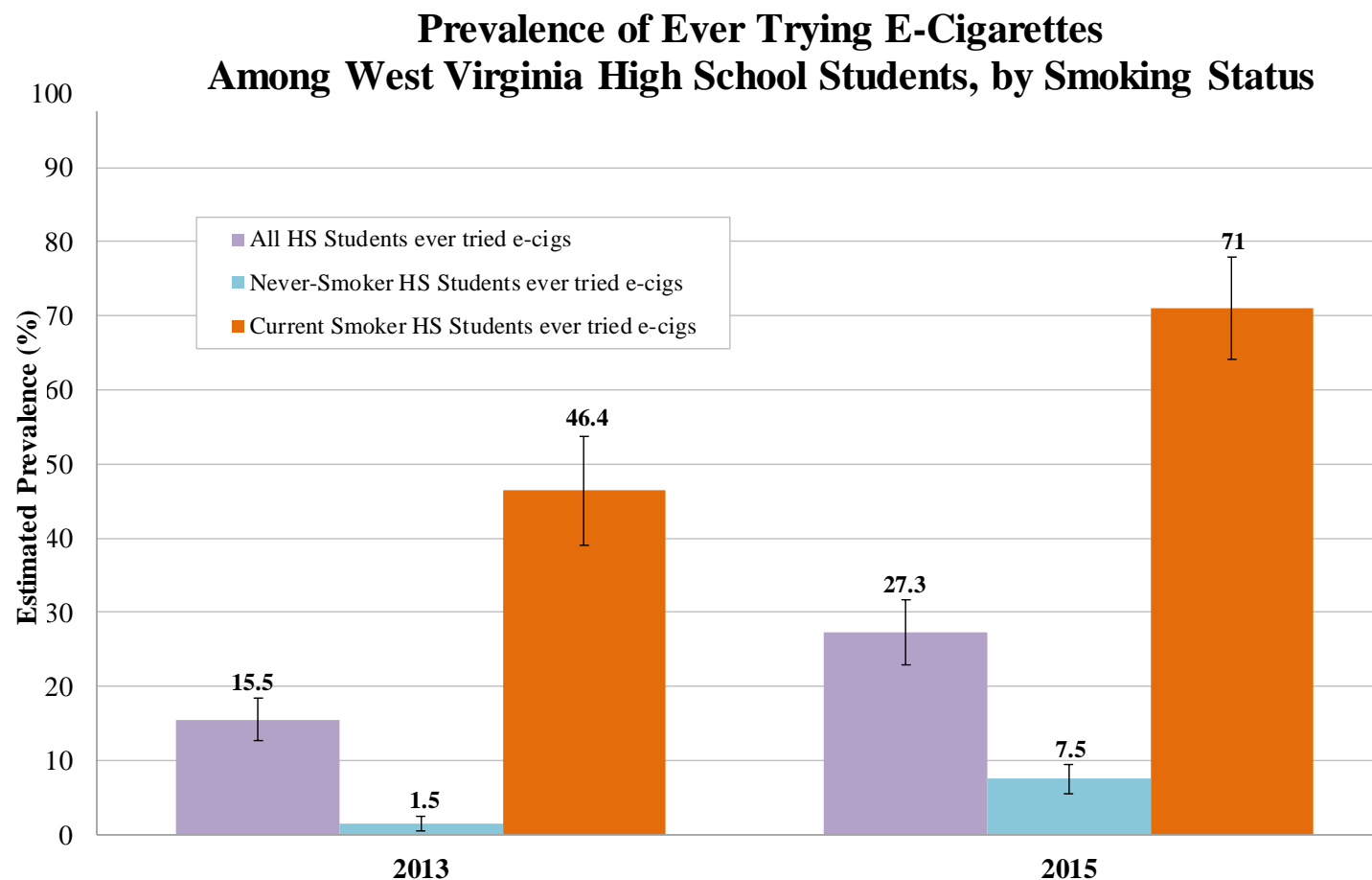
Mothers Who Smoke During Pregnancy

2001-2014 WV % of Resident Births to Mothers Who Reported Smoking During Pregnancy and Medicaid and Non-Medicaid Funding



Data Sources: WV Health Statistics Center, Vital Statistics System
2013 data is preliminary. 2014 data is cumulative.

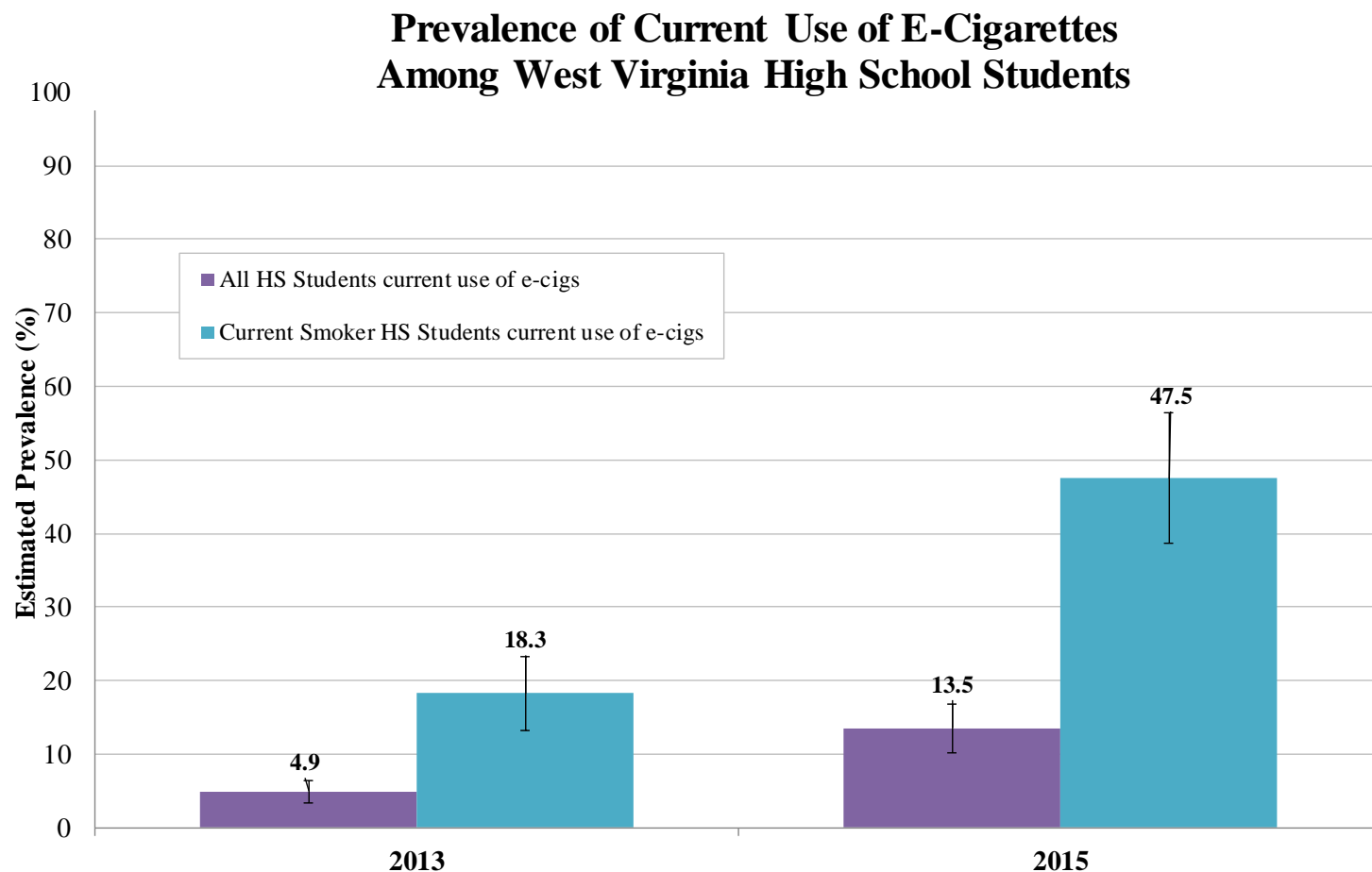
Ever Trying E-Cigarettes Among WV Youth



Data Source: West Virginia Division of Tobacco Prevention, West Virginia Youth Tobacco Survey.

Graph prepared by the West Virginia Health Statistics Center.

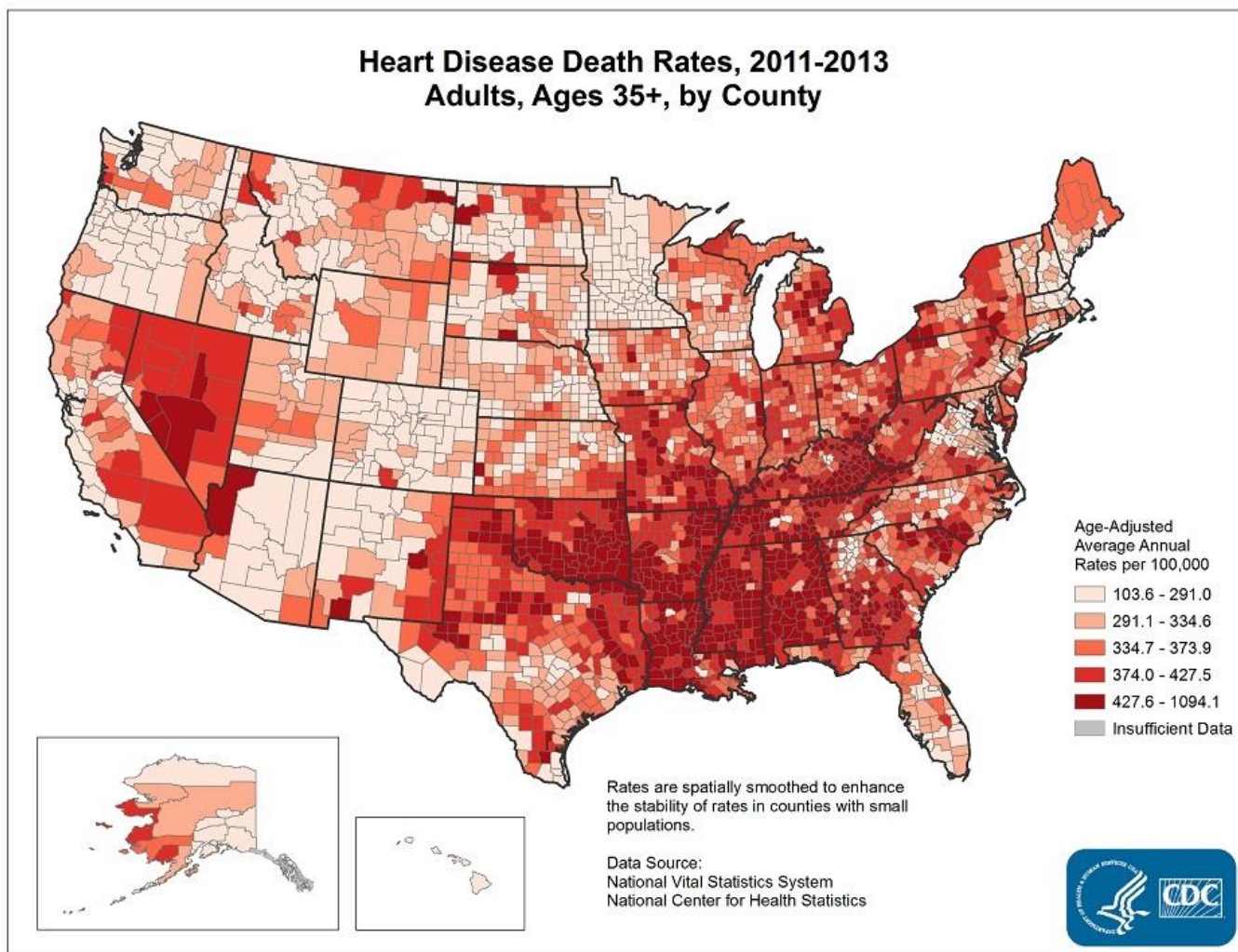
Current Use of E-Cigarettes Among WV Youth



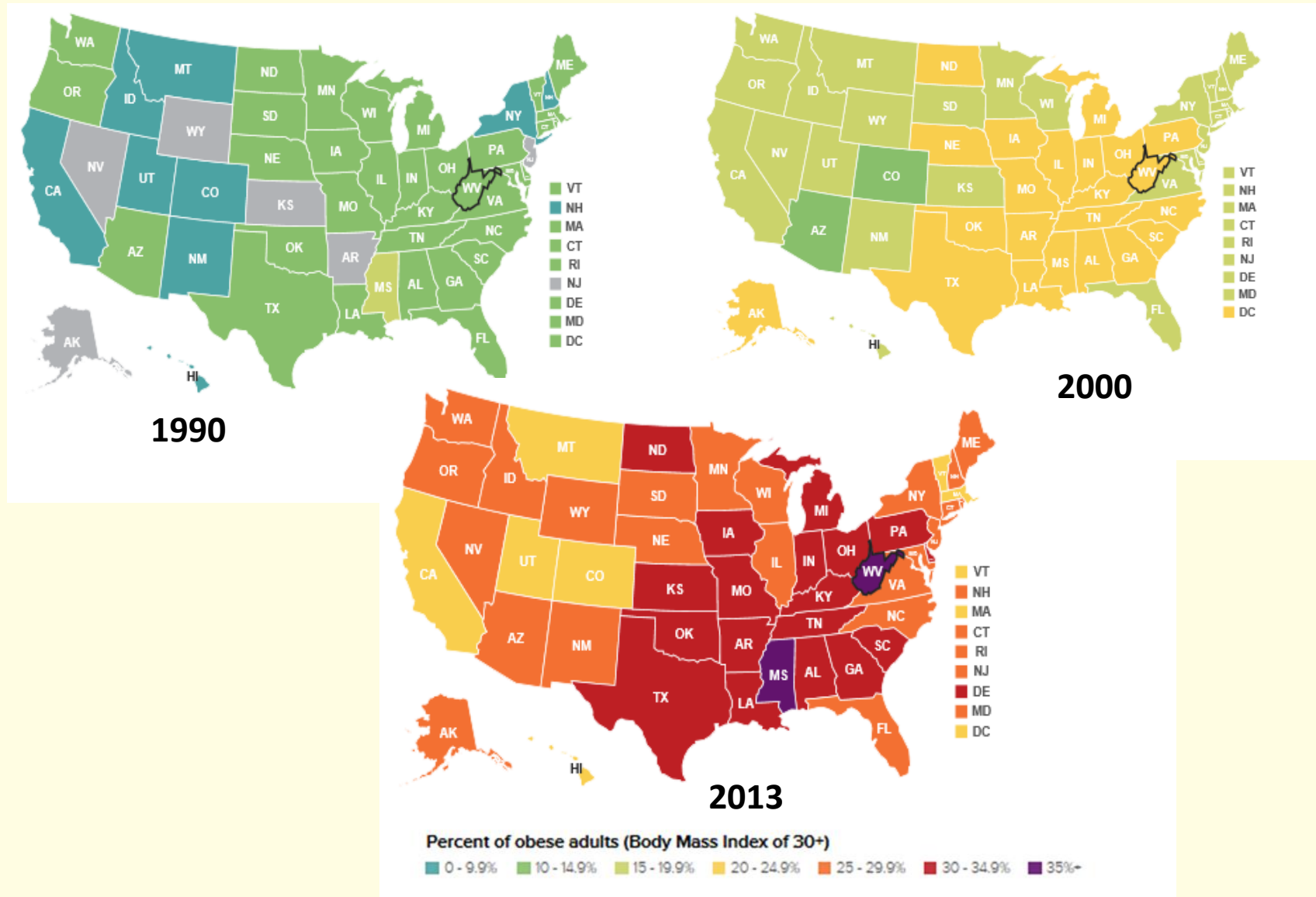
Data Source: West Virginia Division of Tobacco Prevention, West Virginia Youth Tobacco Survey.

Graph prepared by the West Virginia Health Statistics Center.

Smoking Factor for Heart Disease



Obesity Trends



Source: Behavioral Risk Factor Surveillance System

Costs of Obesity 1998-2008

	<u>1998</u>	<u>2008</u>
Total Costs	\$78 B/y	\$147 B/y
Medical Costs	6.5%	9.1%

Source: Finkelstein et al. Health Affairs 2009; 28:w822

Per Capita Expenses Due to Excess Weight

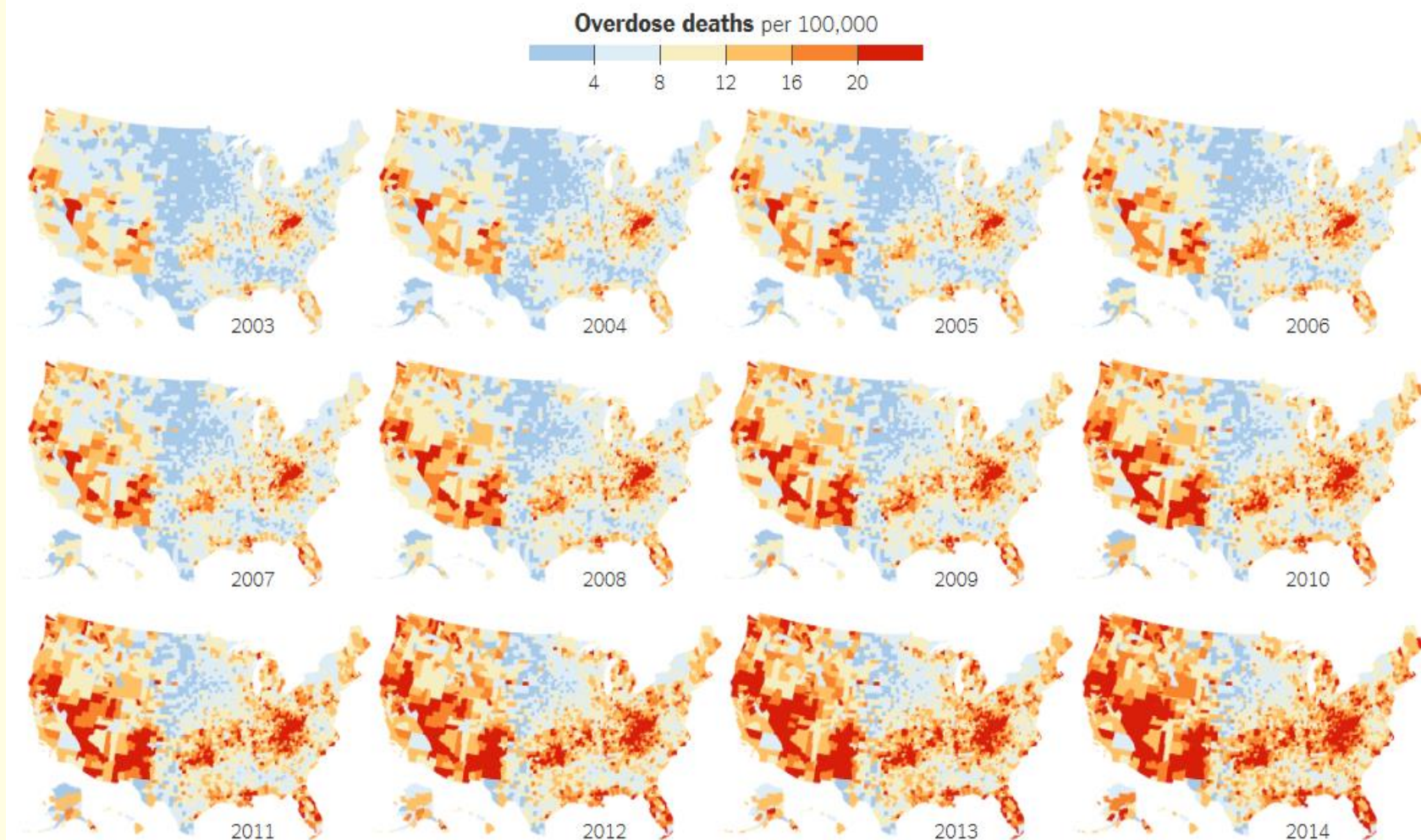
Obesity Grade	I	II	III
<u>Men (total)</u>	\$1,143	\$2,491	\$6,078
Medical	\$475	\$824	\$1,269
Absenteeism	\$277	\$657	\$1,026
<i>Presenteeism</i>	<u>\$391</u>	<u>\$1,010</u>	<u>\$3,792</u>
<u>Women (total)</u>	\$2,524	\$4,112	\$6,694
Medical	\$1,274	\$2,532	\$2,395
Absenteeism	\$407	\$67	\$1,262
<i>Presenteeism</i>	\$843	\$1,513	\$3,037

Source: Finkelstein EA et al. J Occupational Environ Med 2010;52:971

Drug Overdose Deaths



Drug Overdose Death Progression



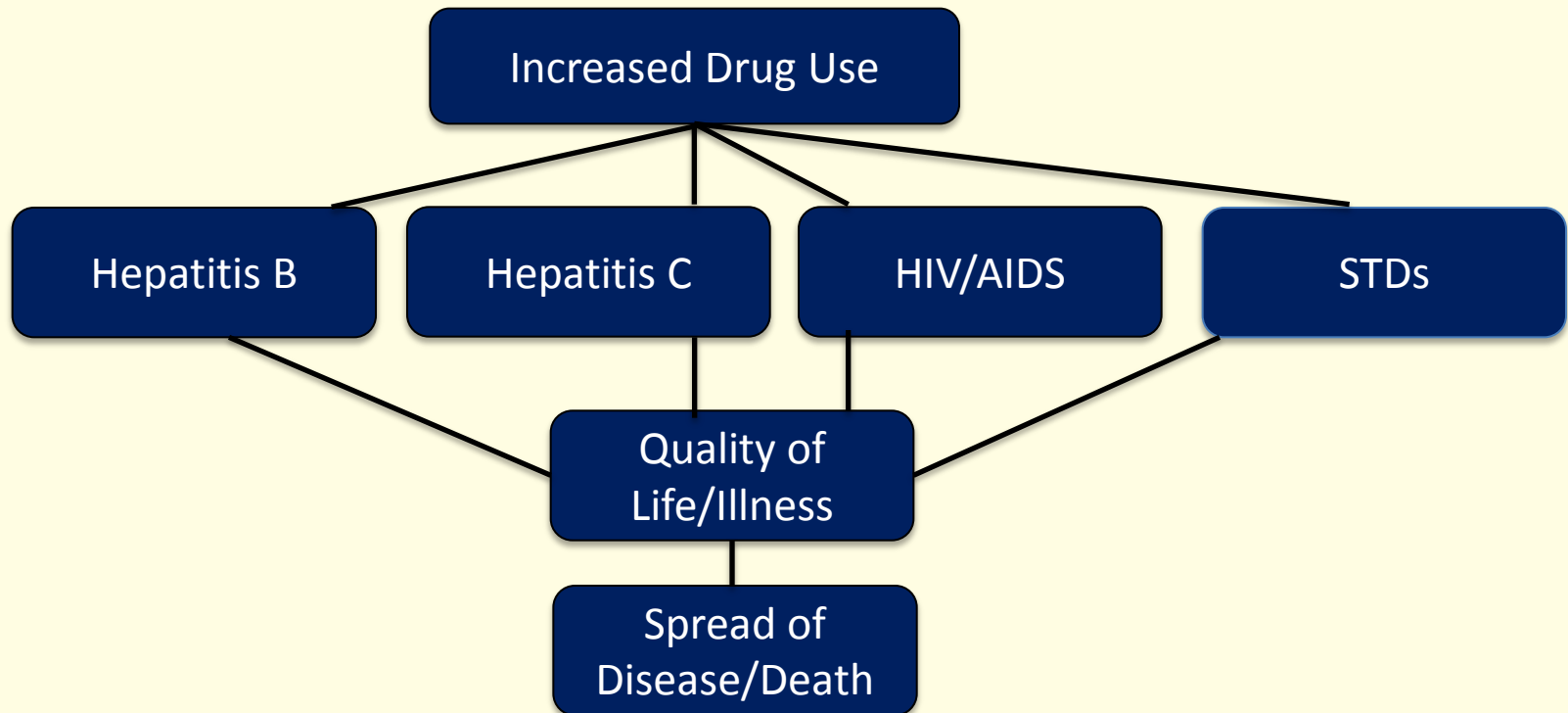
The New York Times

January 19, 2016

2014: 47,055 deaths (125 Americans per day)

Risks of Increased Drug Use

Potential public health impact on communities as a result of increased drug use in West Virginia.



Heroin Overdose Deaths

Last 12 Months: April 2014 – April 2015

- **179 Heroin Overdose Deaths***

- **Cabell 35**
- **Kanawha 28**
- **Berkeley 24**
- **Wood 10**

***54 percent
of cases**

Data Source: West Virginia Health Statistics Center, Vital Statistics System, Drug Overdose Database, July 2015. Data include all manners of drug overdose deaths including accidents, suicides, homicides, and those of undetermined intent.

Substance Use During Pregnancy

BPH-Funded Study Conducted in August 2009

**Results: Cord Blood Confirmed
19% of Babies Born in WV
had at least one substance in their system.
(Drug or Alcohol)**



Community Care Coordination

- Meet needs of the individuals at home and in community
- Link clinical and communitywide measures and partners
- Community level clinical interventions
- Community level social and behavioral interventions
- Care transitions and environmental interventions

**Innovative
Patient-Centered
Care; Community
Care Coordination**



Community Care Approaches

- Links health systems and communities
- Facilitates access to and improve quality and cultural competence of medical care
- Builds individual and community capacity for health by:
 - ✓ Increasing health knowledge and self-sufficiency of the patients
 - ✓ Serving as community health educators
 - ✓ Providing social support
 - ✓ Advocating for the health care needs of patients and communities

Expectations Exist and More Coming

- Grants are becoming more competitive
- Competitive Grants and sub-recipient agreements may require Community Care Coordination components
- Evaluation may require Community Care Coordination as using “Best Practices” models



Population Health Approaches

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How can Population Health Solutions
Solve These Problems?

- Policies that encourage healthy behaviors and healthy lifestyles
- Consider community and state level policies
- Remember that 80% of health factors are NOT related to clinical services

Health in All Policies

COMMUNITY PREVENTION Reduce need for treatment



**Tobacco
control**

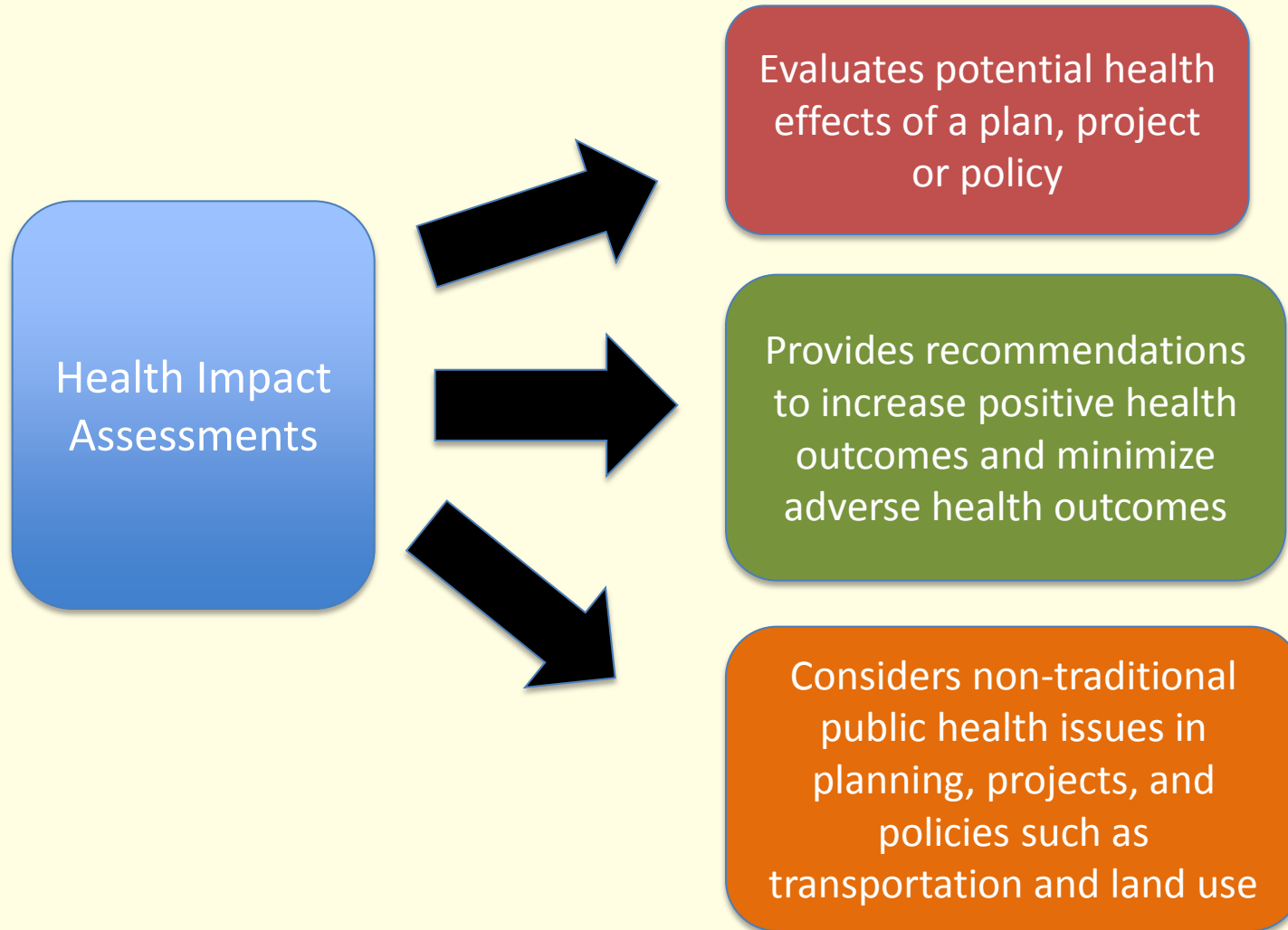


**Sodium
reduction**



***Trans* fat
elimination**

Health Impact Assessment



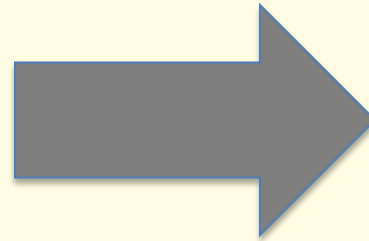
How Health Impact Assessments Work

1. **Screening** – Determines the need and value of the HIA
2. **Scoping** – Determines which health impacts to evaluate, the methods for analysis, and the work plan for completing the assessment
3. **Assessment** – Provides a profile of existing health conditions and evaluates health impacts
4. **Recommendations** – Provides strategies to manage identified adverse health impacts
5. **Reporting** – Includes development of the HIA report and communication of findings and recommendations
6. **Monitoring** – Tracks impacts of HIA on decision-making processes and the decision, as well as impacts of the decision

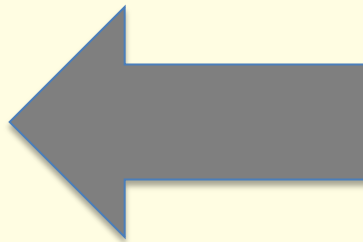
Implications for Public Health

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

Tobacco Approach

- State Health Improvement Plan – Has an area of tobacco targeting to reduce smoking in WV
- MOMS Project: Management of Maternal Smoking – a federal initiative to combat the highest prevalence of pregnant women who smoke in the country
- Youth Smoking Coalitions – Student Led coalition in schools across WV have helped reduce cigarette smoking
- Provider Engagement – State Health Officer video to providers about tobacco cessation and encouraging use of QuitLine
- Consideration of tax increase by legislature

Overdose Deaths Approach

- Governor's Advisory Council on Substance Abuse
- Working across Bureaus at the Department of Health and Human Resources to combat addiction
- Legislation enacted by the Governor to support efforts to curb overdose deaths



**Some legislative actions that have
been helpful**

State Strategies for Expanded Naloxone Use



Making naloxone available without a prescription or third-party prescribing

Overdose response training for professionals and laypersons

Good Samaritan laws

Community-based naloxone education and distribution programs reduce opioid overdose deaths

Naloxone (SB 335)

- Opioid Antagonist Act (administration and protections) enables emergency responders, medical personnel, family and friends to administer a drug that reverses the effects of an opioid overdose and can save a person's life.
- The WV Office of Emergency Medical Services (WVOEMS) reported over 6,000 administrations of Naloxone since 2012. This does not include hospital administrations.
- WVOEMS has completed the train the trainer program. Local agencies are now training their members.

Good Samaritan Law (SB 523)

- Called the Alcohol and Drug Overdose Prevention and Clemency Act
- Authorizes limited immunity from prosecution for certain misdemeanor offenses for a person who, in good faith and in a timely manner, seeks emergency medical assistance for a person who reasonably appears to be experiencing a drug or alcohol overdose.
- Identifies himself or herself, if requested by emergency medical assistance personnel or law-enforcement officers; and
- Cooperates with and provides any relevant information requested by emergency medical assistance personnel or law-enforcement officers needed to treat the person reasonably believed to be experiencing an overdose.

Syringe Exchange Program

- Working with Cabell-Huntington Health Department and City of Huntington to pilot a syringe exchange program
- First of its kind program in West Virginia
- Links users with more than needles, it provides resources for counseling, rehabilitation, and treatment
- Will complete a robust evaluation following the pilot to see what other communities could model if necessary

Medication-Assisted Treatment (HB2880)

- DHHR is participating in a pilot project that will allow for medication-assisted treatment for certain persons, who are incarcerated because of their addiction or dependence on opioids.



Obesity Approach

- State Health Improvement Plan – to include first-ever obesity component
- Working in conjunction with Harvard School of Public Health on CHOICES – Childhood Obesity Intervention Cost-Effectiveness Study
- TryThisWV – Coalition targeting obesity pushing mini-grants and grassroots initiatives to combat obesity. Turned \$82,000 in grants into projects worth more than \$750,000.
- Making fresh fruits and vegetables through Farmers Markets across the State

Call to Action

Tobacco

MOMS Program

Youth “RAZE”
Program

Provider Engagement Video

State Health Improvement
Plan

Drug Overdose Deaths

Legislation

Increase Naloxone Use

Needle Exchange Program

Substance Abuse Hotline

State Health Improvement
Plan

Obesity

CHOICES

TryThisWV

Farmers Markets / Making
Healthy foods the Easy
Choice

State Health Improvement
Plan

- ✓ Evidence-Based Solutions
- ✓ Affordable / Sustainable
- ✓ Measurable

The Indian Mountain Man

Dashrath Manjhi (1934-2007)



Dashrath Manjhi's wife, Falguni Devi, died due to lack of medical treatment because the nearest town with a Doctor was 70 km away from their village in Bihar, India.

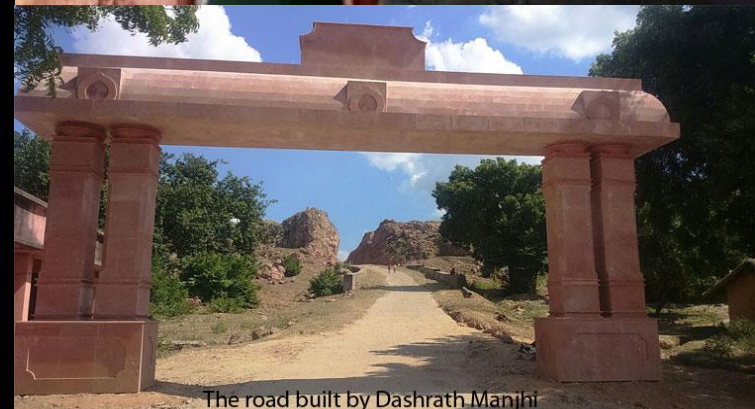
Dashrath did not want anyone else to suffer the same fate as his wife,

so he single-handedly carved a 360-foot-long (110 m), 25-foot-high (7.6 m) and 30-foot-wide (9.1 m) road by cutting a mountain of Gehlour hills, working day and night for 22 years from 1960 to 1982.

His feat reduced the distance between Atri and Wazirganj blocks of Gaya district from 75 km to just one km, bringing him international acclaim.



Dashrath Manjhi cut through a mountain single-handed for 22 years - day and night, to ensure no one else dies without medical care like his wife. Reducing the distance from 70 km to just 1 km from his village to hospital.



The road built by Dashrath Manjhi

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