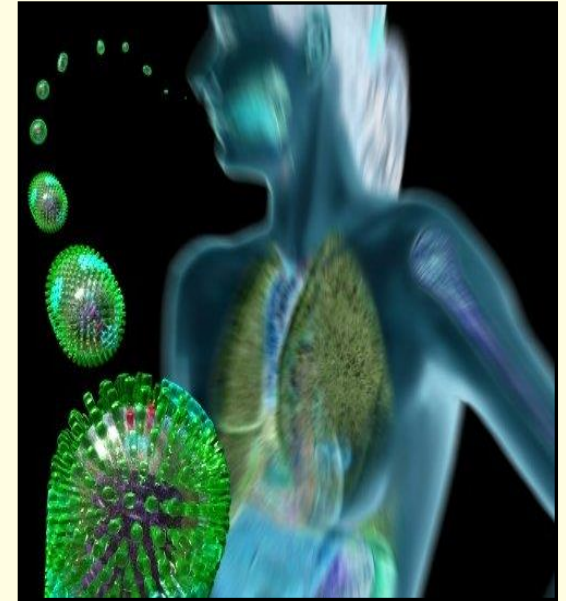


State of Public Health WEST VIRGINIA

Rahul Gupta, MD, MPH, FACP
Commissioner and
State Health Officer
Public Health Impact Task Force Meeting
Charleston, West Virginia
April 29, 2015



Public Health Protects West Virginians



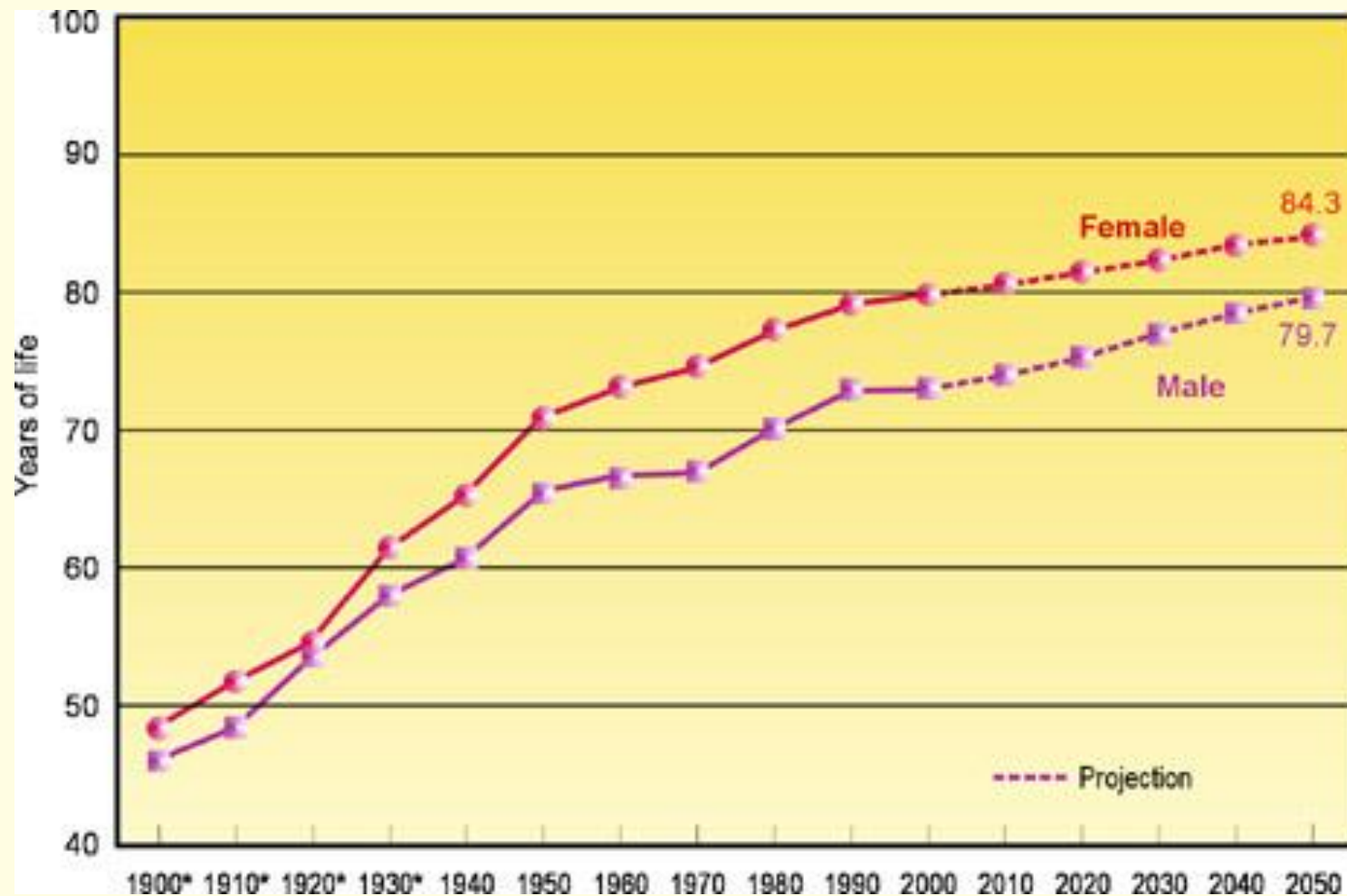
Public Health Eras in America

Prior to 1850	Battling Epidemics
1850-1949	Building State and Local Public Health Infrastructure
1950-1999	Filling Gaps in Medical Care Delivery
After 1999	Preparing for and Responding to Community Health Threats
2010 onwards	Chronic Disease Management

“Science and Social Values”

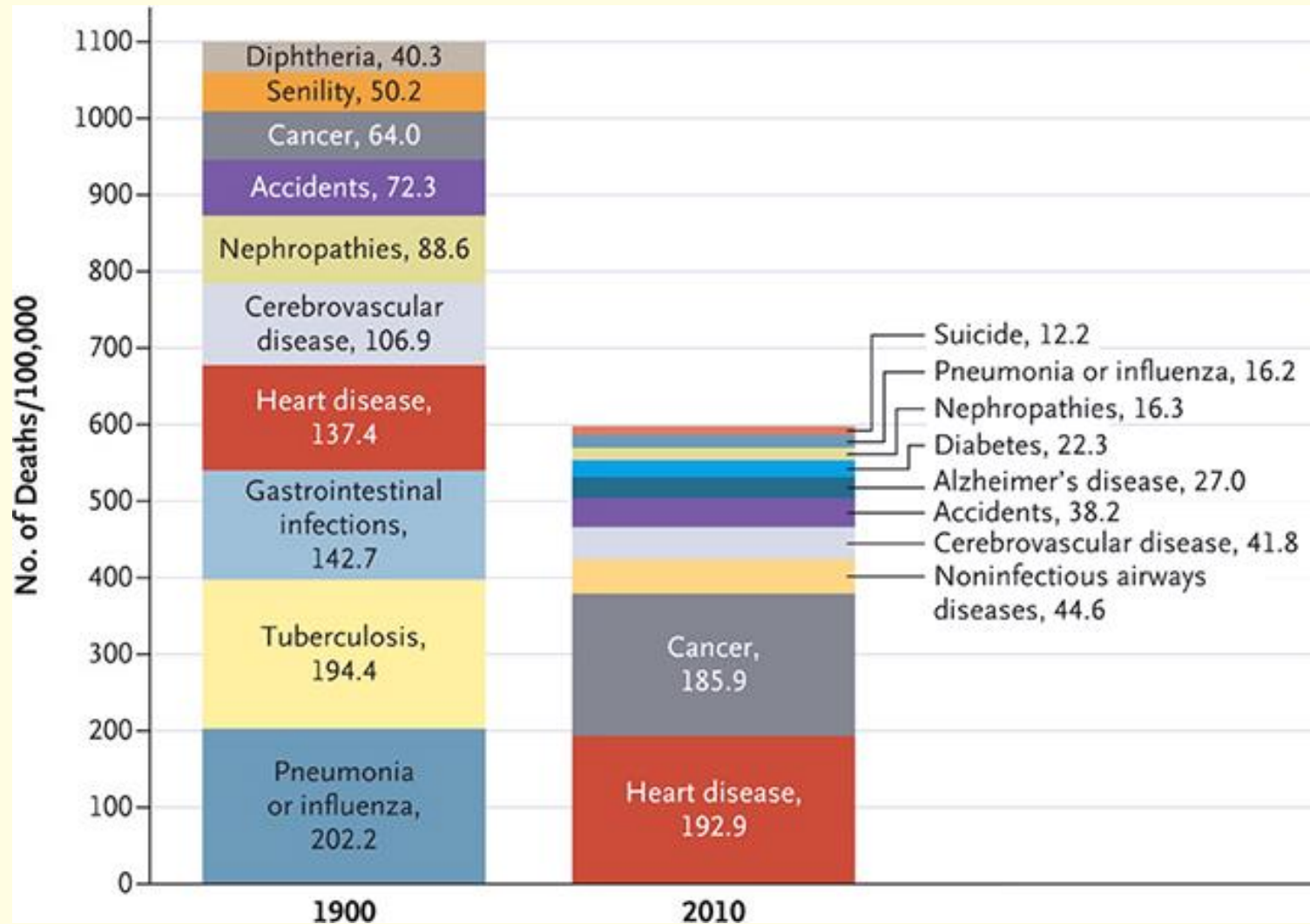
- Social Justice Perspective
- Inherently Political
- Evolving Expectations = Expanding Agenda
- Link with Government
- Grounding in Science
- Focus on Prevention
- Uncommon Culture

U.s. Life Expectancy at Birth – Selected Years



Source: www.healthypeople.gov

Leading Causes of Death



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

WV Risk Factor Indicators

Risk Factor	WV Prevalence	Rank	U.S. Prevalence
Current Smoking	27.3%	1	18.1%
Smokeless Tobacco Use	9.4%	1	3.7%
Fair/Poor Health Status	25.7%	2	18.2%
Lack of Physical Activity	31.4%	9	26.6%

Data Source: WV Health Statistics Center, Behavioral Risk Factor Surveillance System, 2013

**West Virginia ranks among the bottom in
America's Health Rankings**

WV Morbidity Indicators

Health Condition	WV Prevalence	Rank	U.S. Prevalence
Arthritis	36.2%	1	25.0%
Disability	27.6%	1	19.8%
Cardiovascular Disease	13.7%	1	8.6%
Obesity	35.1%	1	28.3%
COPD	10.6%	2	6.4%
Hypertension	41.0%	2	32.5%
Diabetes	13.0%	4	10.3%
Kidney Disease	3.3%	7	2.6%
Depression	22.0%	9	17.7%
Cancer	13.0%	10	11.1%

Data Source: WV Health Statistics Center, Behavioral Risk Factor Surveillance System, 2013

In 2013, WV ranked 46 (Overall)

WV Mortality Indicators

Cause of Death	WV Rate	Rank	U.S. Rate
Accidents	70.7	1	38.8
Diabetes	34.1	1	21.2
Drug Induced	32.9	1	14.6
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 Statistics System, 2013

WV Demographics

1. Median age 41.3 years
 - 3rd 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

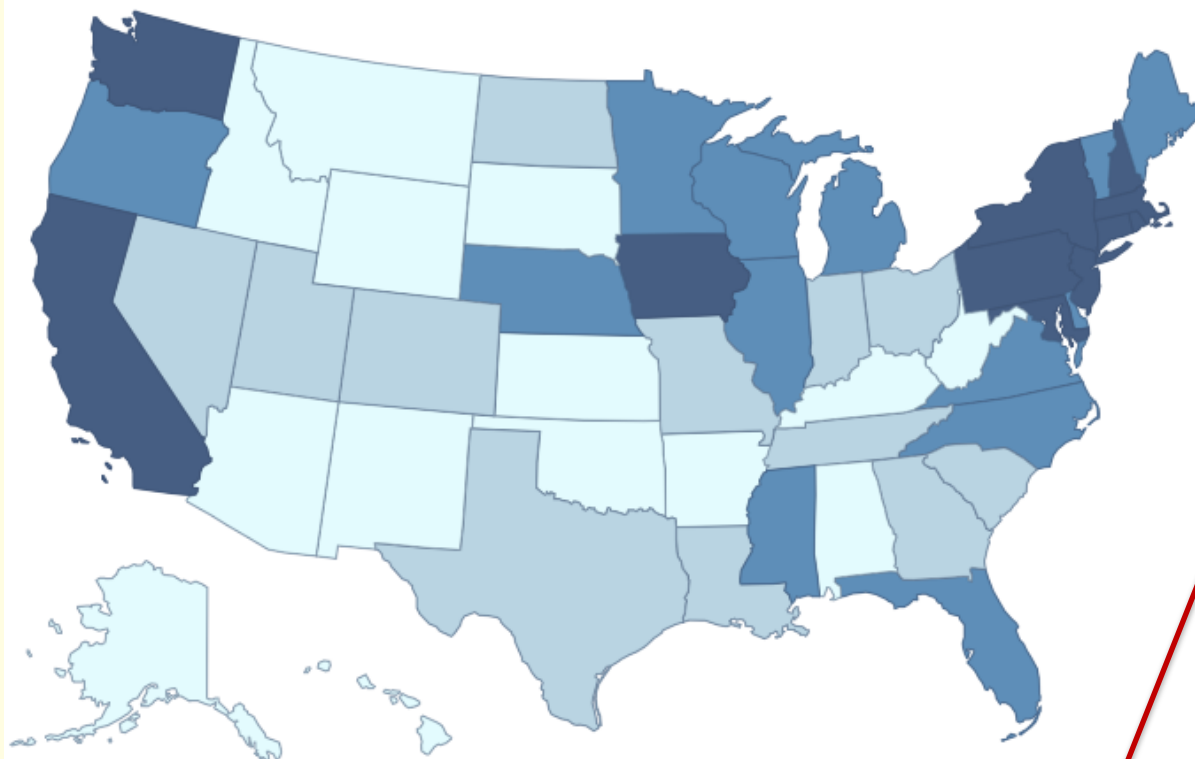
- 4. Lowest in nation: Bachelor's degree or higher (18.9%)*
- 5. Third lowest in nation: Median household income (\$41,253)
- 6. Tenth highest: Percentage below poverty level (18.5%)



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

College Retention Rates, 2010

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



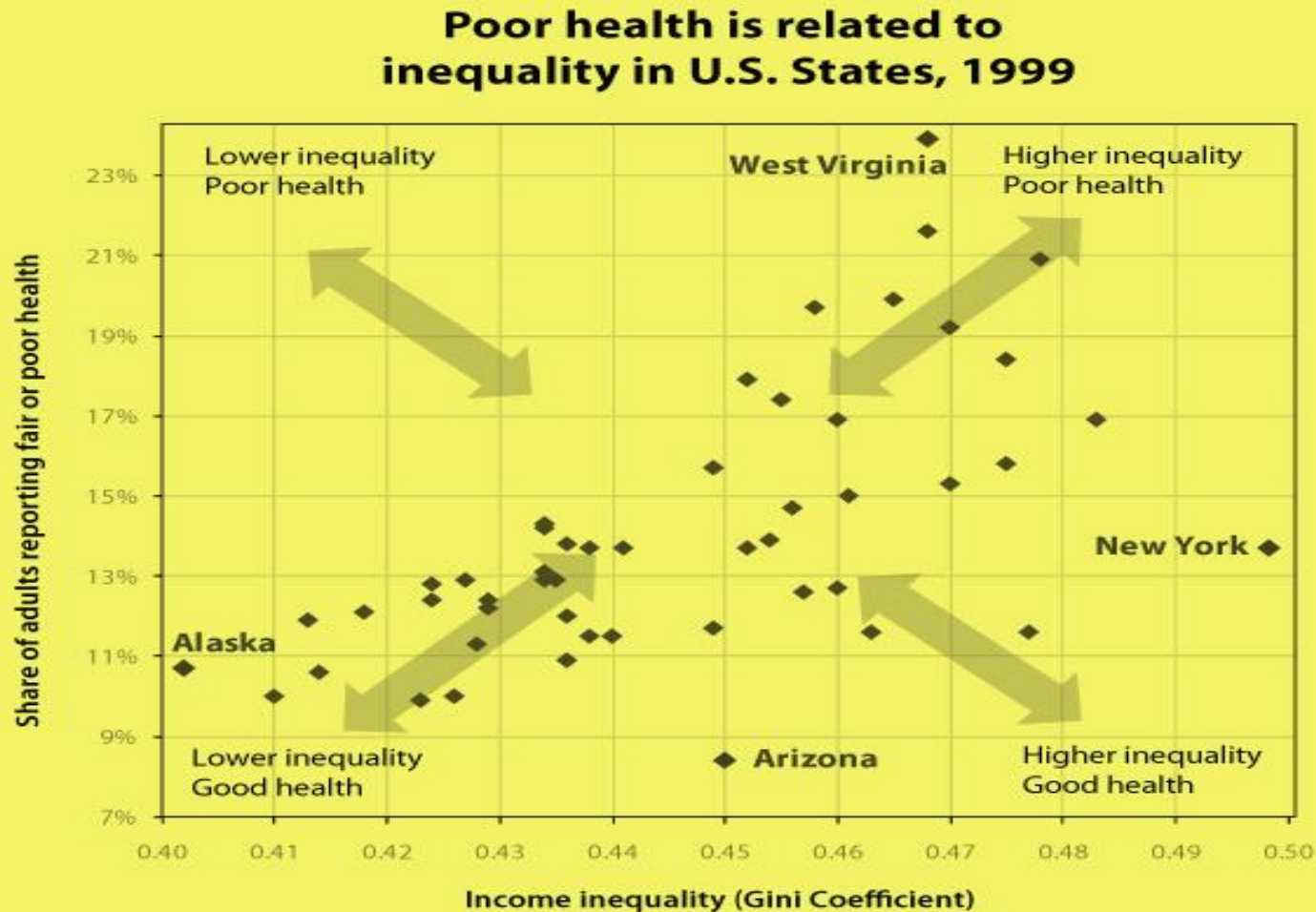
National Center for Higher Education
Management Systems (NCHEMS).

WV 3rd 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

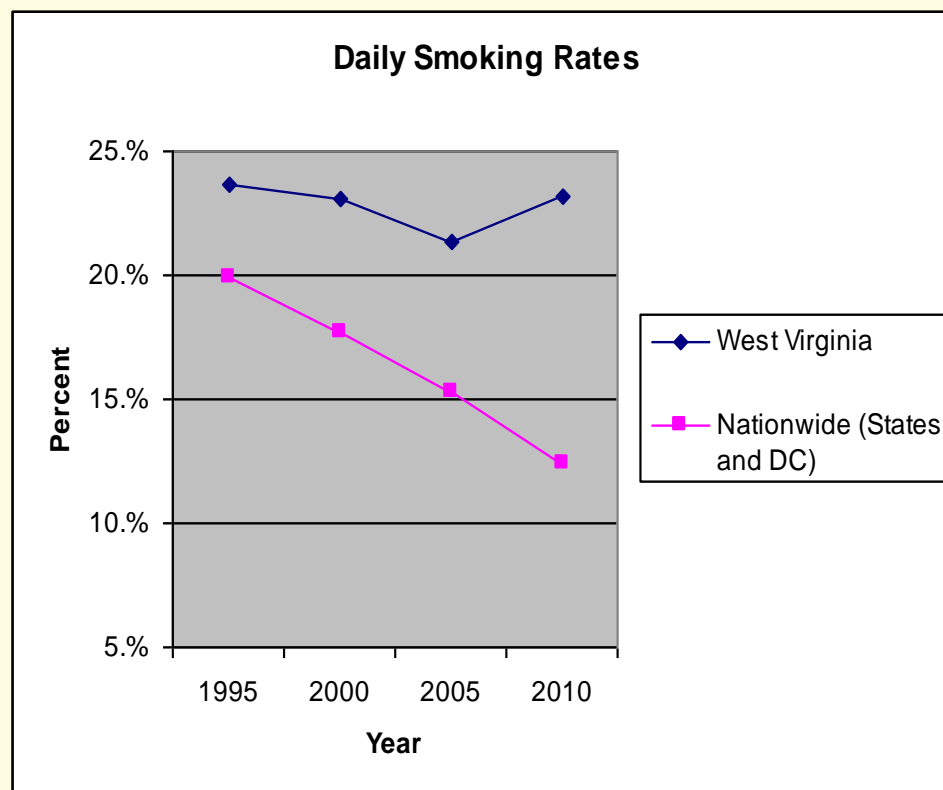
Health or Health Care!



Source: Author's analysis of 1999 Census Bureau Gini Coefficient Calculations and 1999 CDC Data on Health Status from the Behavioral Risk Factor Surveillance System.

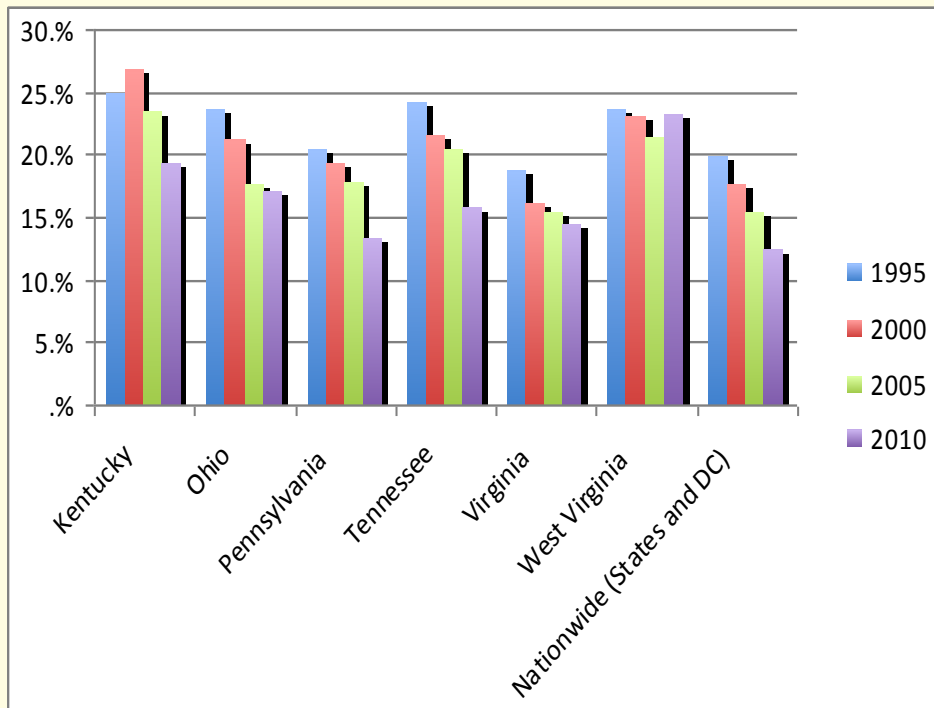
Comparison of Daily Smoking Rates Nationwide and in West Virginia

- **Nationwide smoking rate decreased from 20% to approximately 12.3%**
- **In contrast to the nationwide smoking rate, WV's daily smoking rate has remained elevated**



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

Birth Outcomes

- 25.6% of mothers smoked during pregnancy in WV in 2013 compared to 8.9% of mothers in the U.S.
- 9.4% of births were low birthweight in 2013 in WV compared to 8.0% of births that were low birthweight in the U.S.

Data Source: WV Health Statistics Center, Behavioral Risk Factor Surveillance System, 2013

Infant Mortality Rate

- The infant mortality rate in West Virginia in 2013 was 7.6 infant deaths per 1,000 live births compared to the U.S. infant mortality rate which was 6.0 per 1,000 live births

Data Source: WV Health Statistics Center, Behavioral Risk Factor Surveillance System, 2013

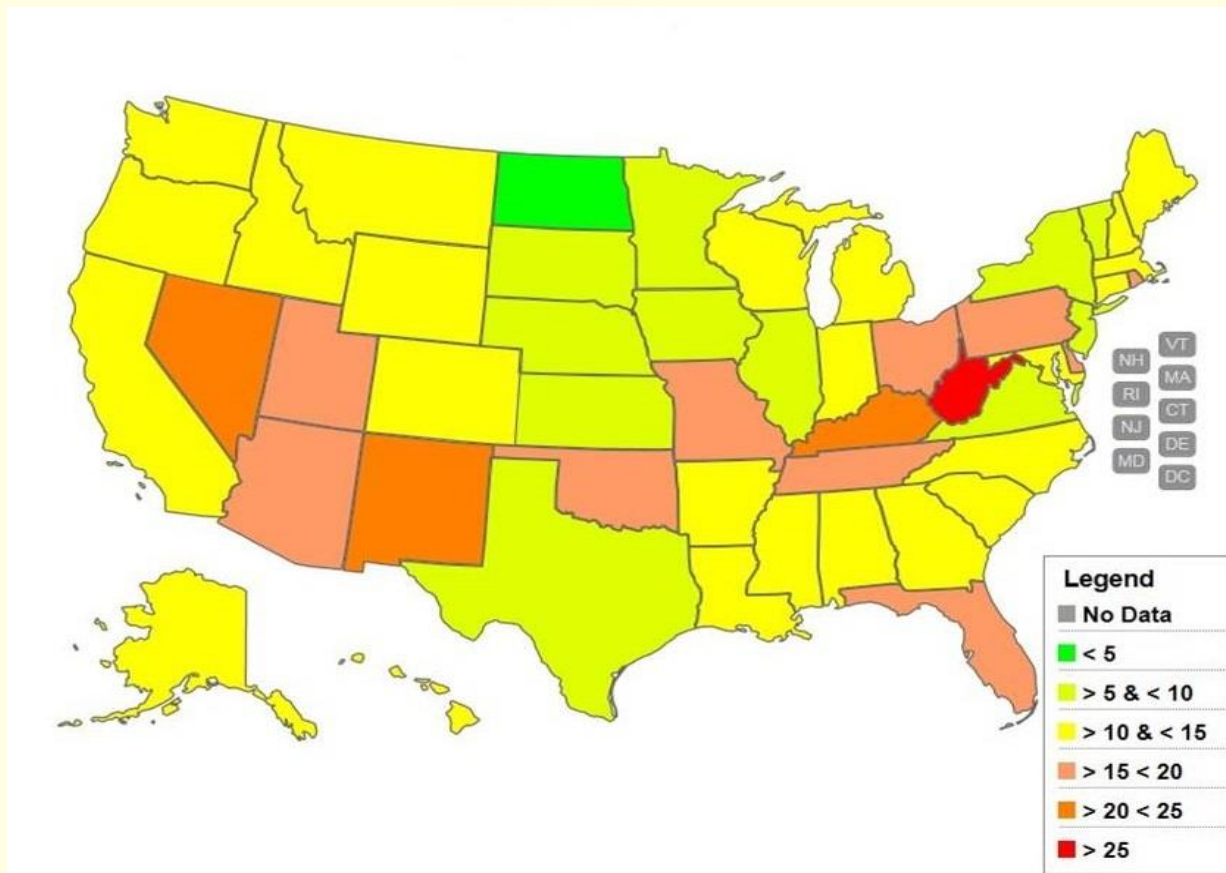
Deaths from Drug Overdoses Have Increased Dramatically

2010 Rank: Highest

2010 Mortality Rate (per 100,000): 28.9

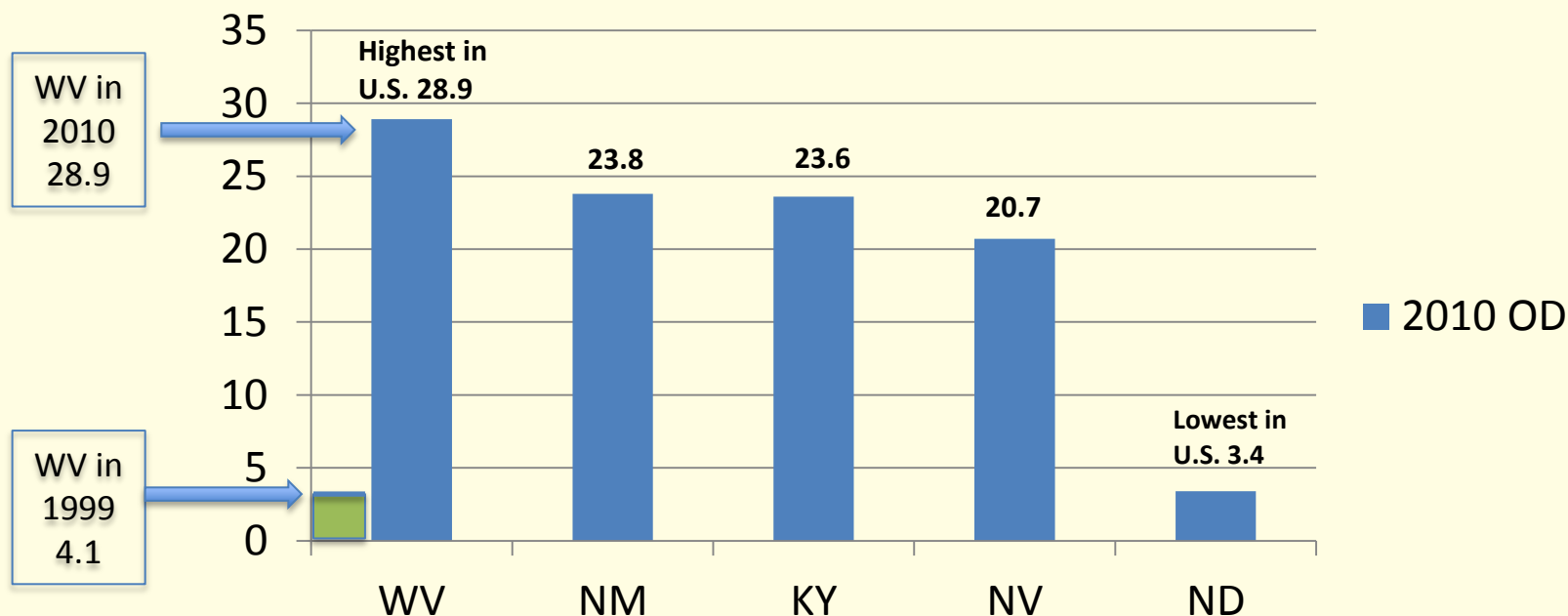
1999 Mortality Rate (per 100,000): 4.1

Rate Change 1999-2010: increased by **605** percent



State-By-State Drug Overdose Comparison

Drug Overdoses Rates Per 100,000 Residents in 2010



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

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)**



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

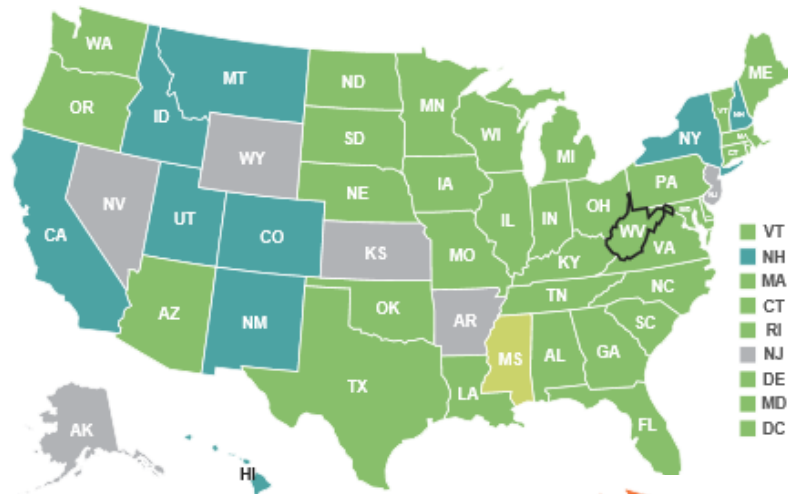
Source: Finkelstein EA et al. J Occupational Environ Med 2010;52:971

Costs of Obesity 1998-2008

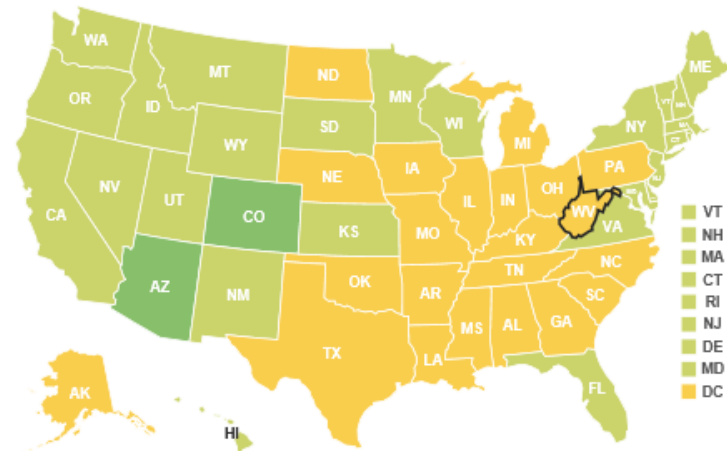
	<u>1998</u>	<u>2008</u>
Total Costs	\$78 B/y	\$147 B/y
Medical Costs	6.5%	9.1%

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

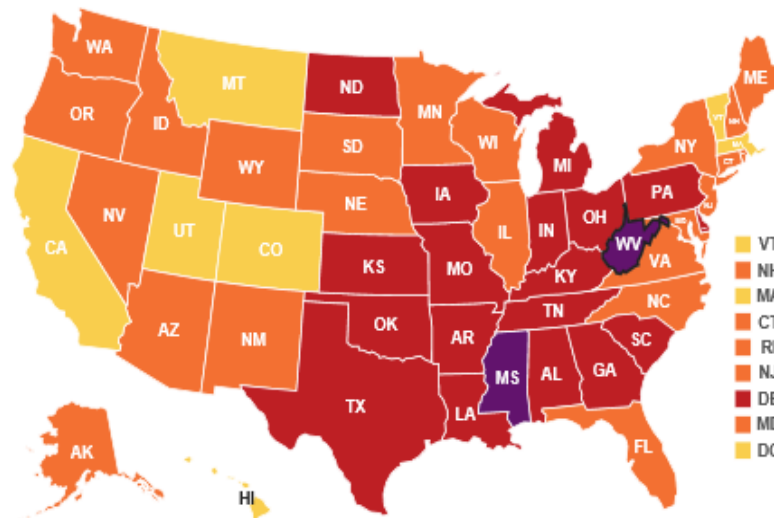
Obesity Trends



1990



2000



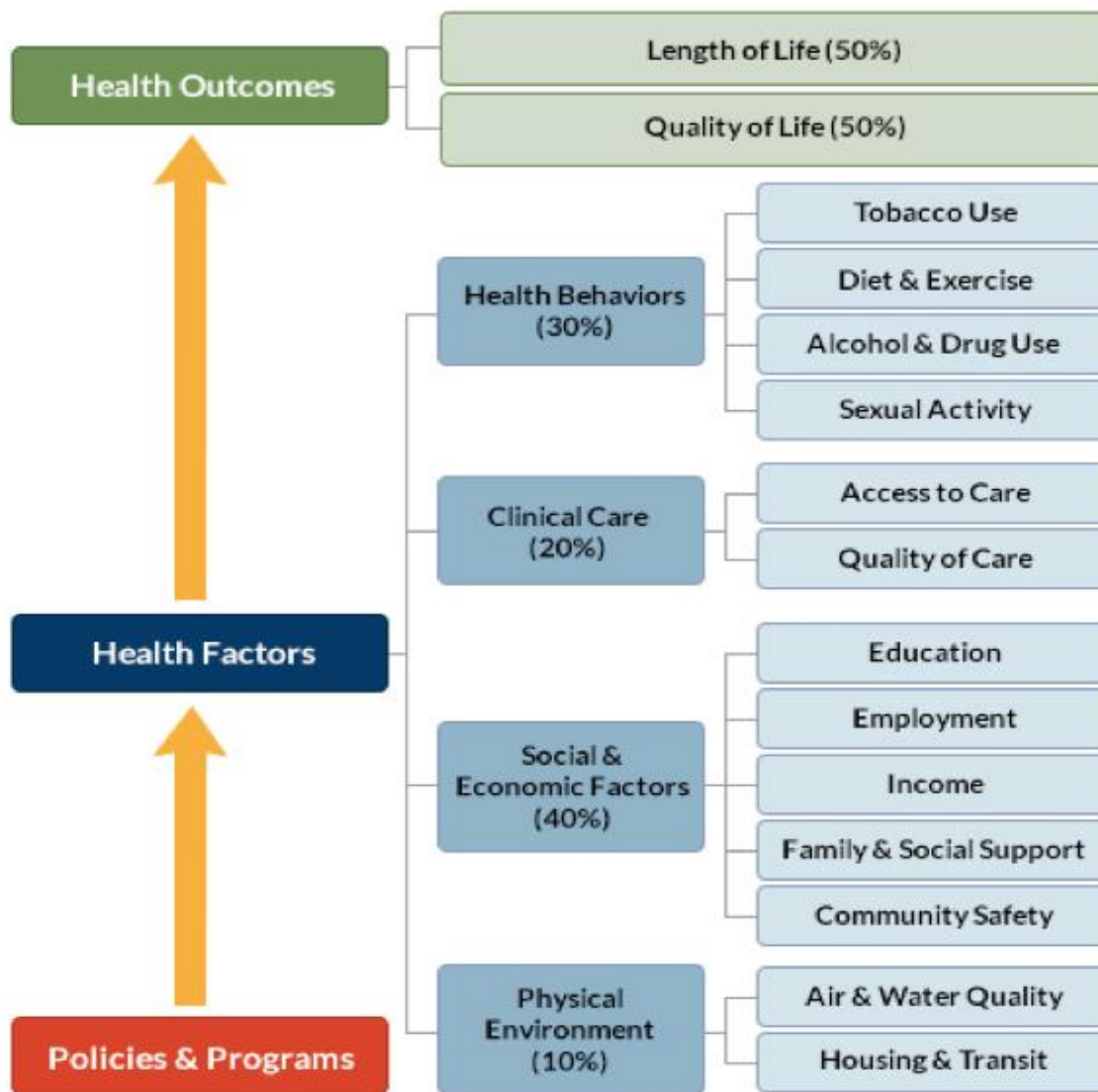
2013

Percent of obese adults (Body Mass Index of 30+)

0 - 9.9% 10 - 14.9% 15 - 19.9% 20 - 24.9% 25 - 29.9% 30 - 34.9% 35%+

Source: Behavioral Risk Factor Surveillance System

Determinants of Health



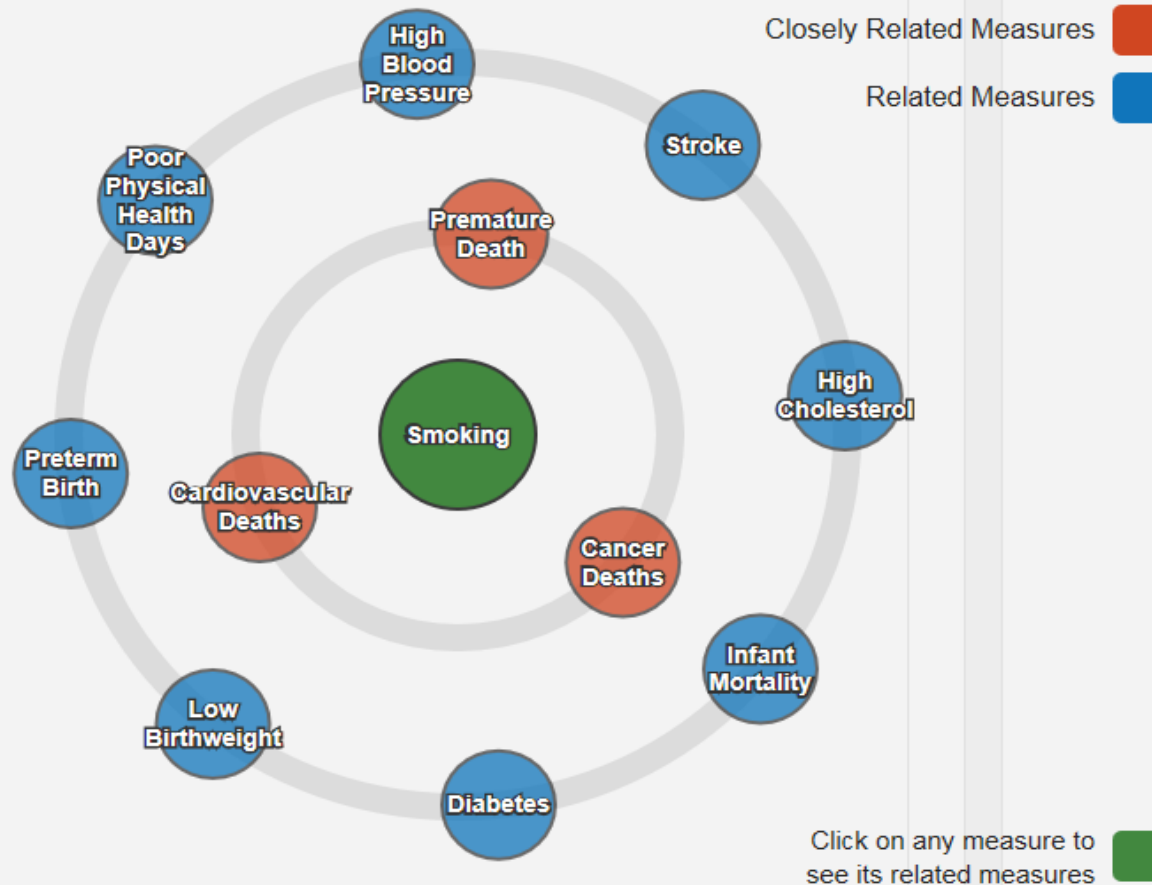
Health Connections

Related Measures

Smoking

Related Measures

Explore the relations between ranking measures

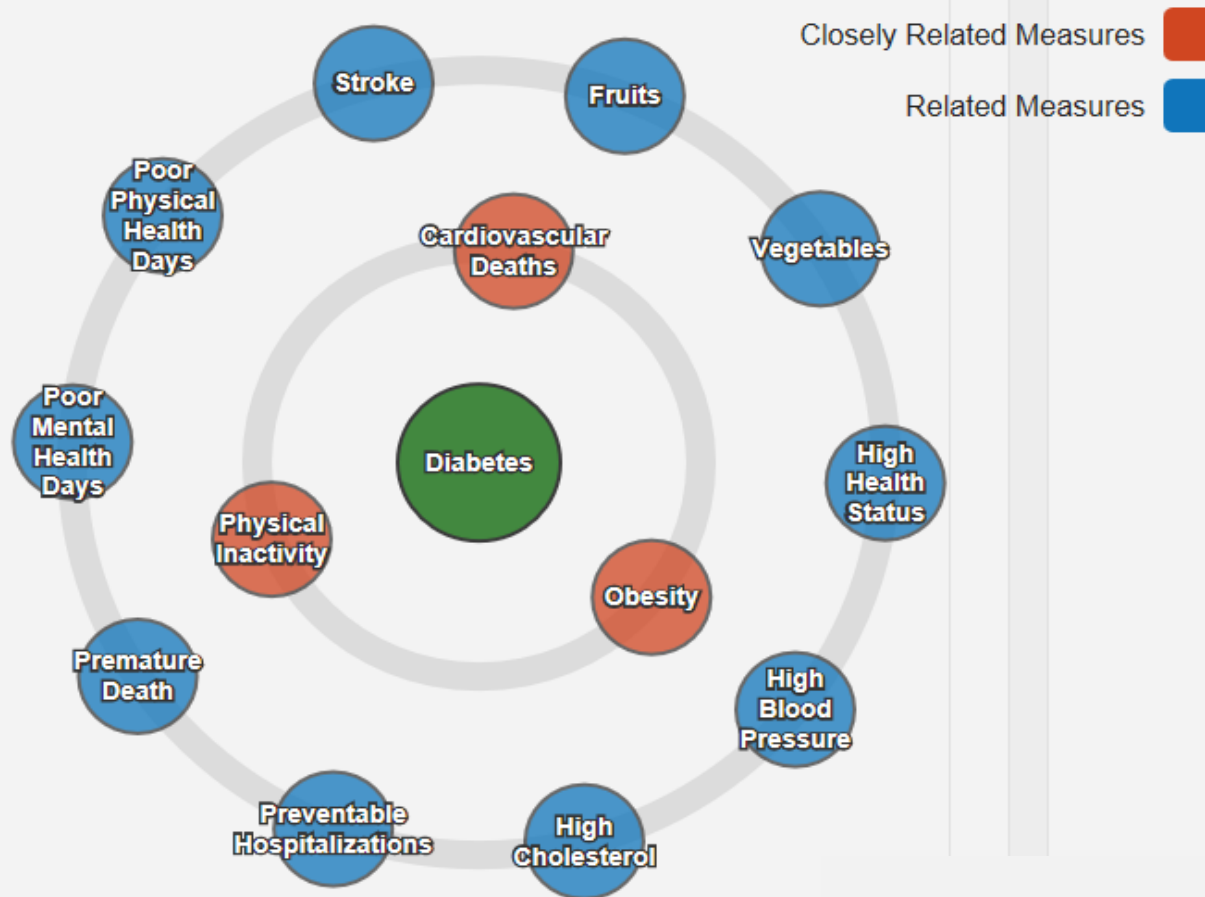


Smoking

Health Connections

Related Measures

Explore the relations between ranking measures



Diabetes

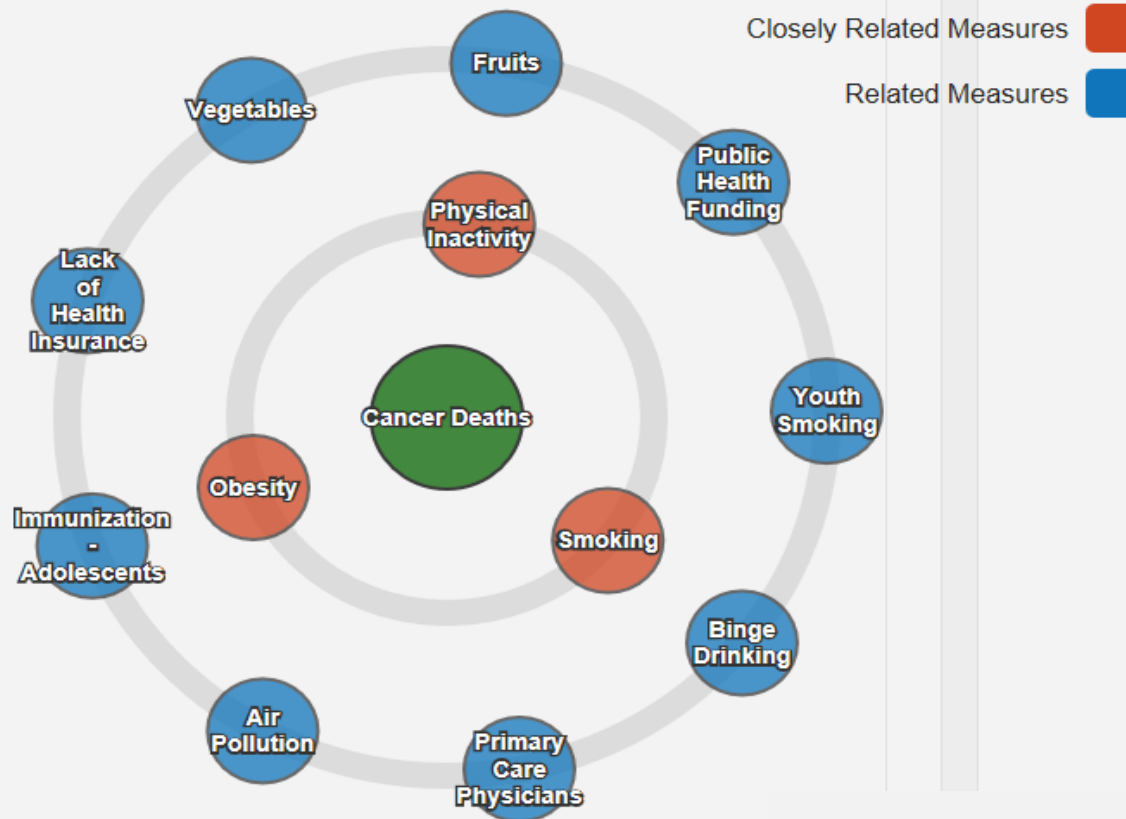
Health Connections

Related Measures

Cancer Deaths

Related Measures

Explore the relations between ranking measures



Cancer

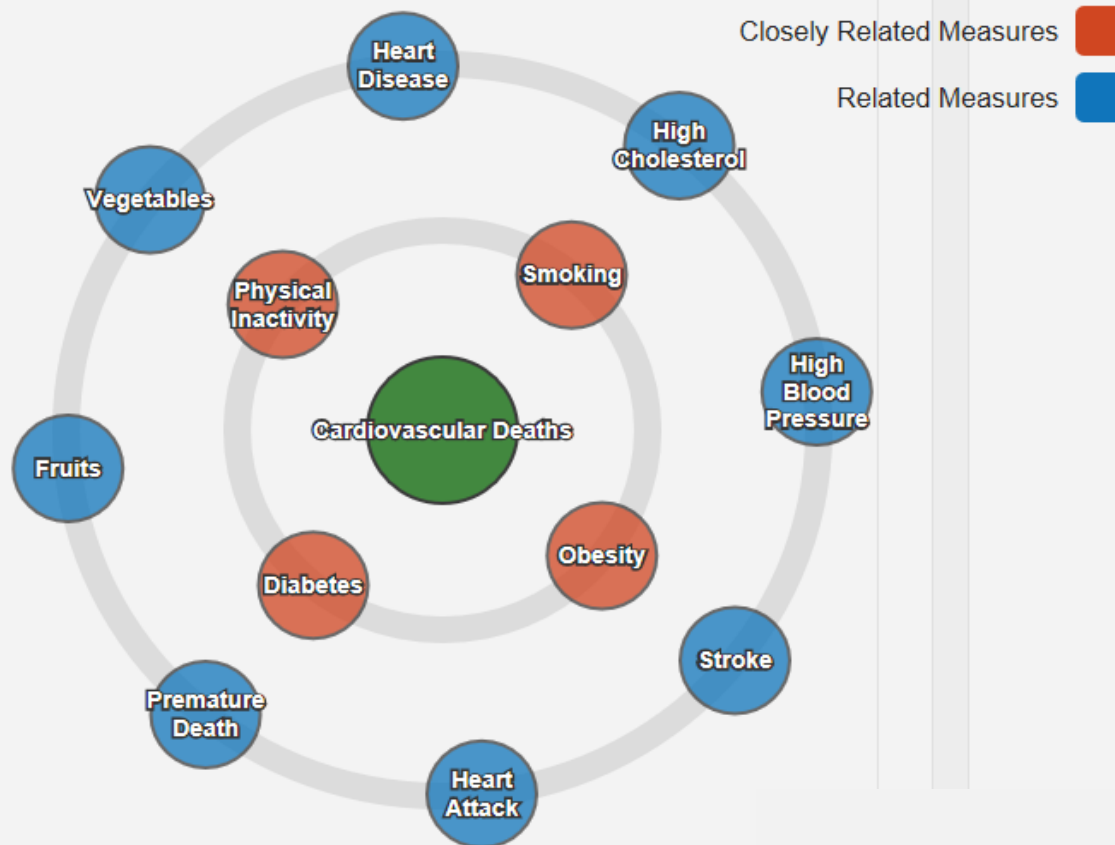
Health Connections

Related Measures

Cardiovascular Deaths

Related Measures

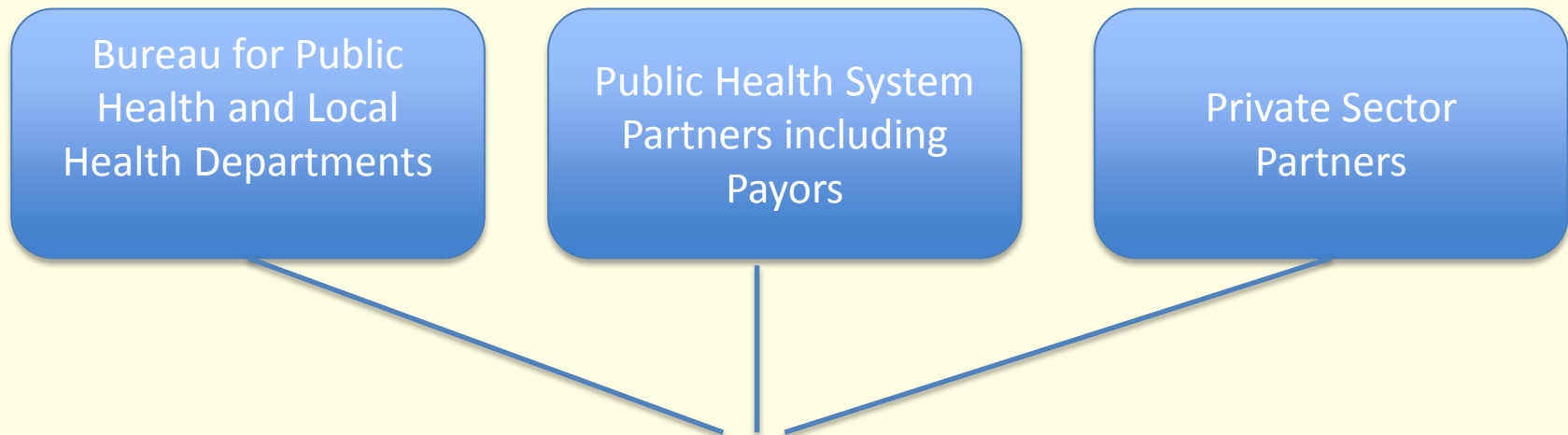
Explore the relations between ranking measures



Heart Disease

PUBLIC HEALTH IMPACT TASK FORCE

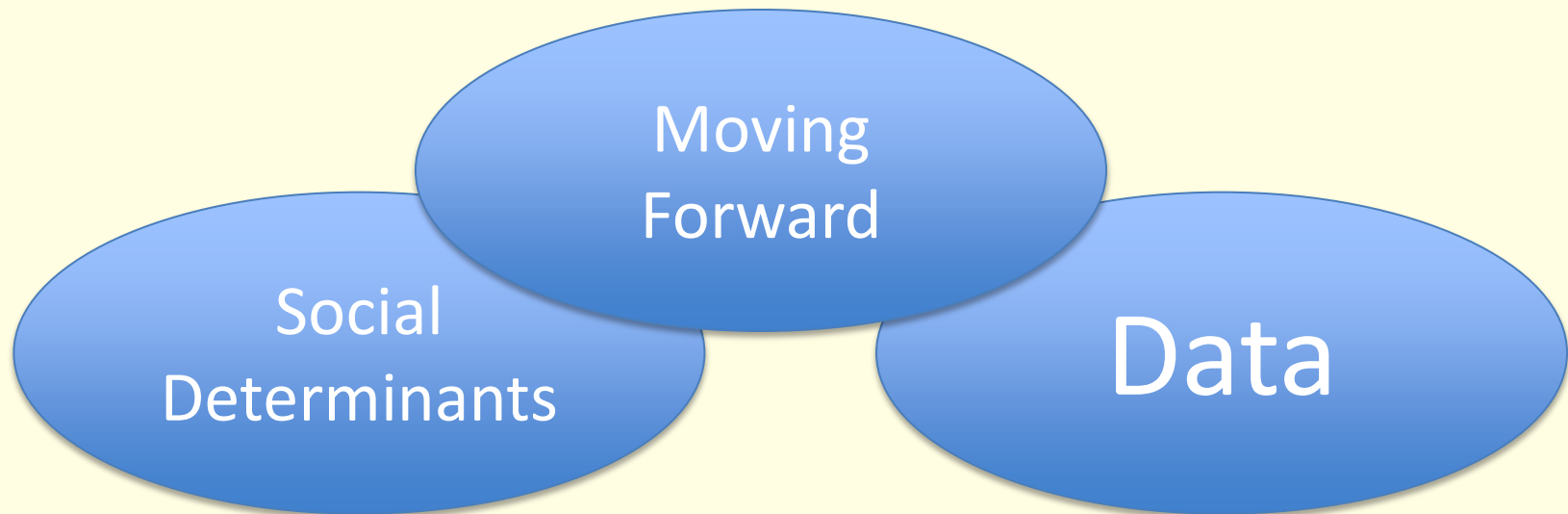
Call to Action: Charge and Purpose of the Task Force



- **Redefining the mission of Public Health in West Virginia for the 21st Century**

No Secret!

**What we have done in the past
has not worked.**



1880's

- State Board of Health was created
- Local boards of health were to make and establish sanitary regulations and enforce rules and regulations of State Board of Health

Early 1900's

- State Department of Health was created and led by the Commissioner
- County health officer authorized and led the County Board of Health

Historical Perspective: Legal Framework

2000

- Defined powers and duties of board to include environmental health, communicable and reportable disease prevention and control and community health promotion



Vision of DHHR Cabinet Secretary Karen L. Bowling

Better Health

- Achieve better health outcomes, lower health care costs and better health of our citizens

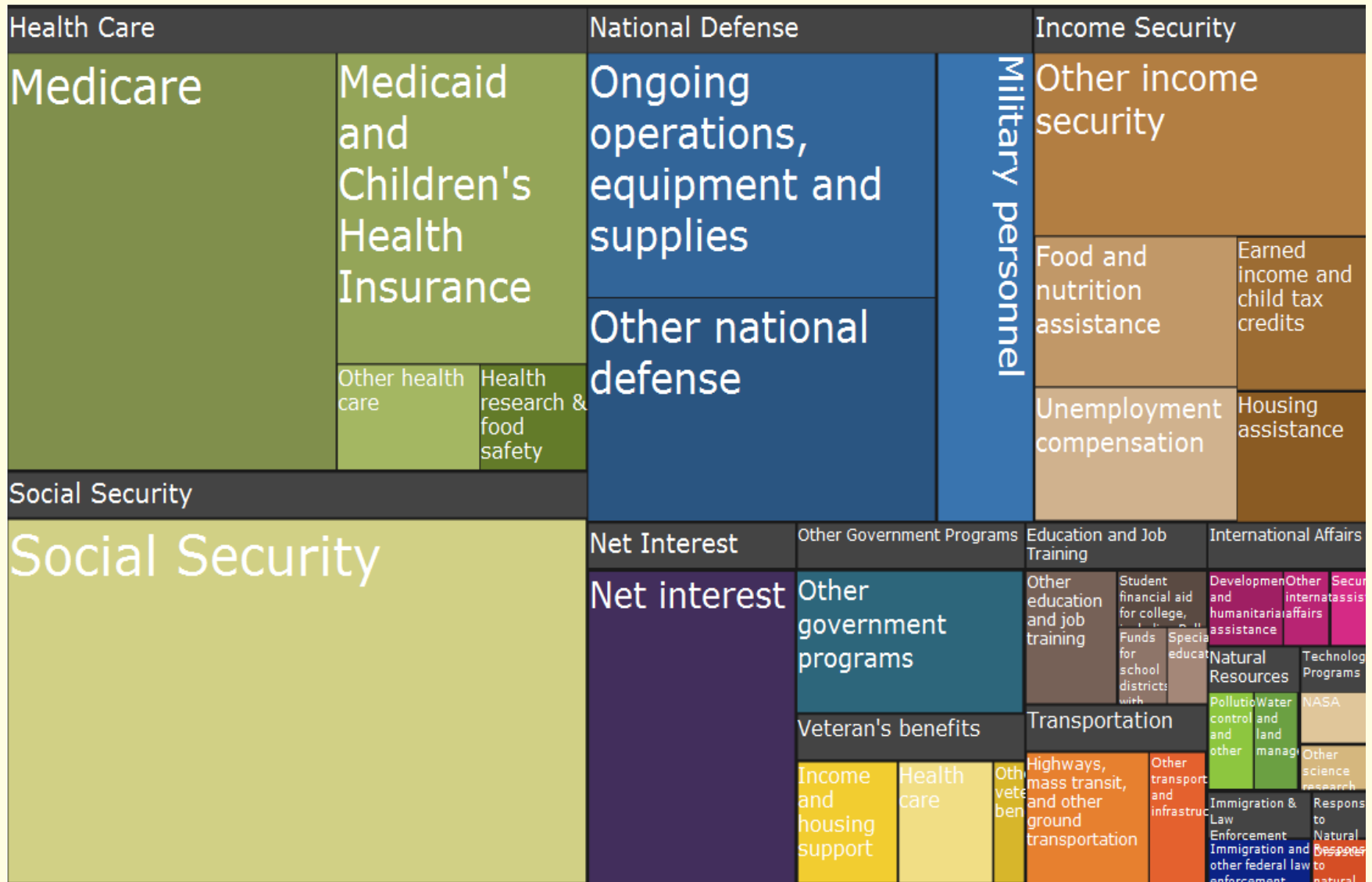
Better Quality

- Continue to reduce the uninsured rate in WV
- Work with our partners to integrate physical and behavioral health into a single care model and expand the managed care program
- Streamline waiver programs to be more efficient and beneficial to West Virginians

Lower Cost

- Exploring a variety of short and long term strategies to lower the cost of health

“Funding” Picture



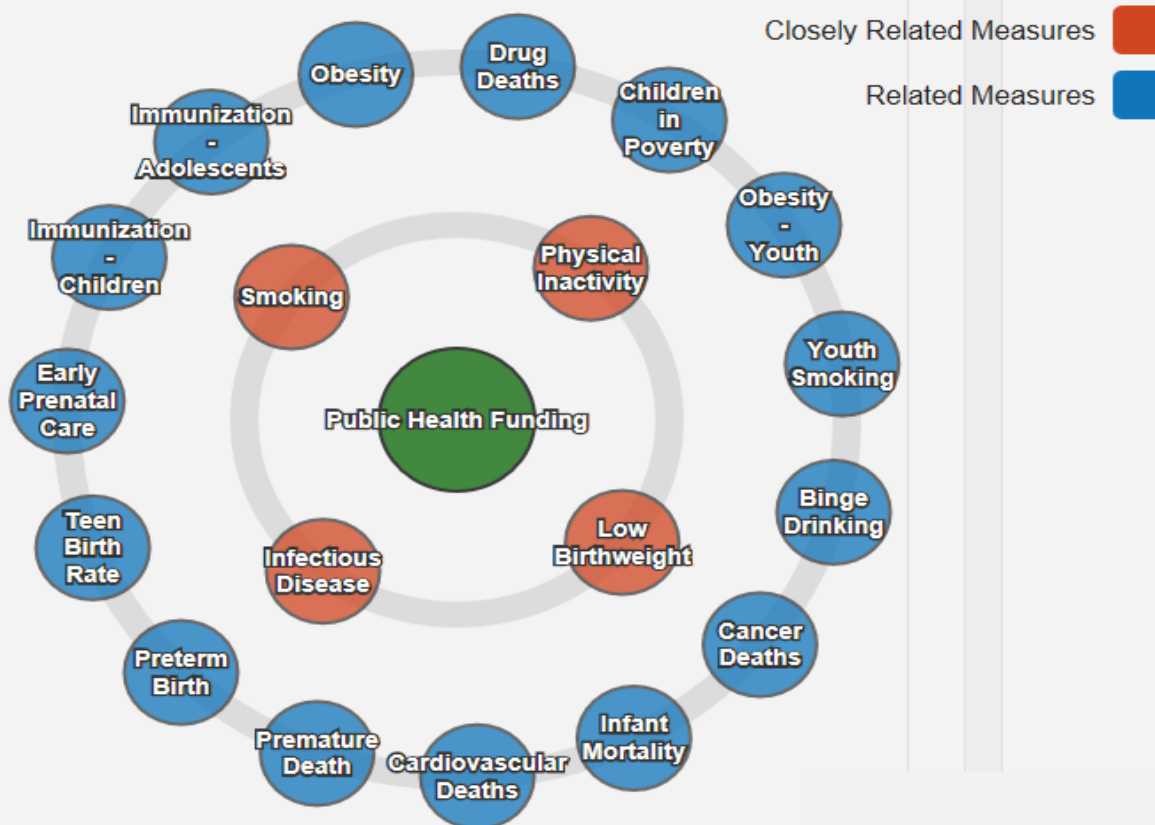
Public Health Funding

Related Measures

Public Health Funding

Related Measures

Explore the relations between ranking measures



Public Health Funding

IOM Report found that the current funding system does not promote integration:

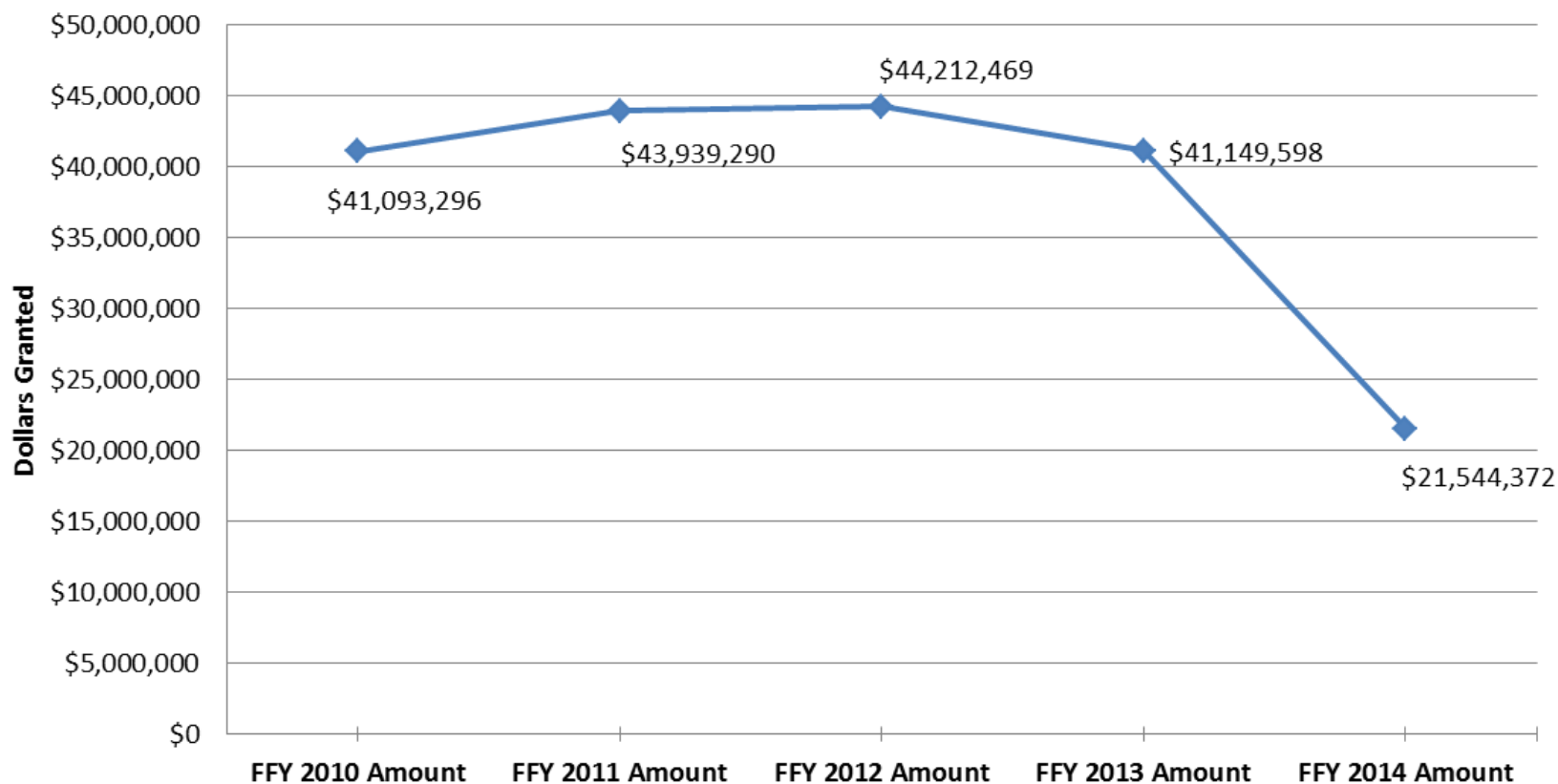
- Grants from HRSA and CDC aimed to address same issues
- Competing funding streams has created silos at the local level
- Inflexibility of funds limits local entity activities

As a result, CDC and HRSA have strategically shifted funding to support integration and alignment

Source: www.iom.edu/primarycarepublichealth

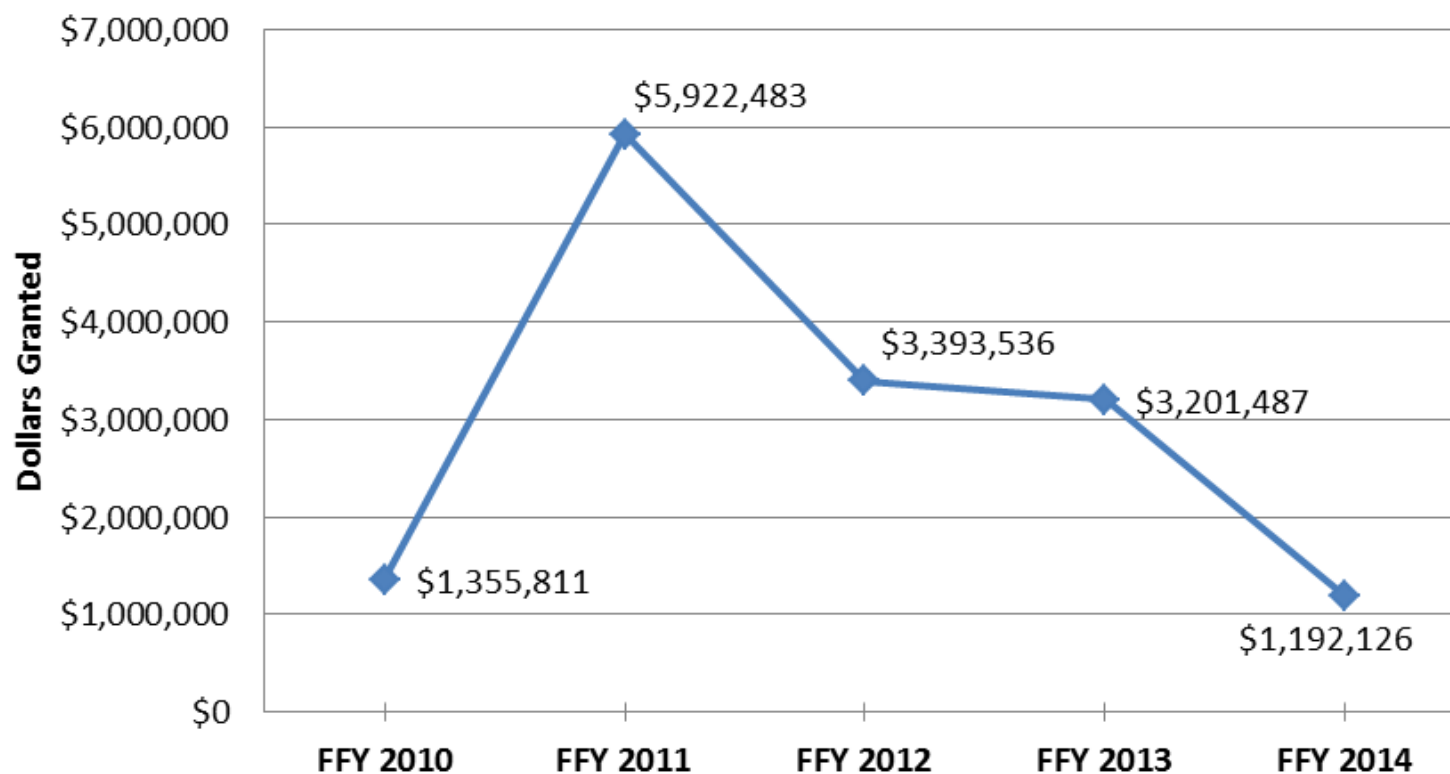
Federal Funding (CDC) 2010-2014

**CDC Funding to West Virginia Public Health Programs
Over Time**

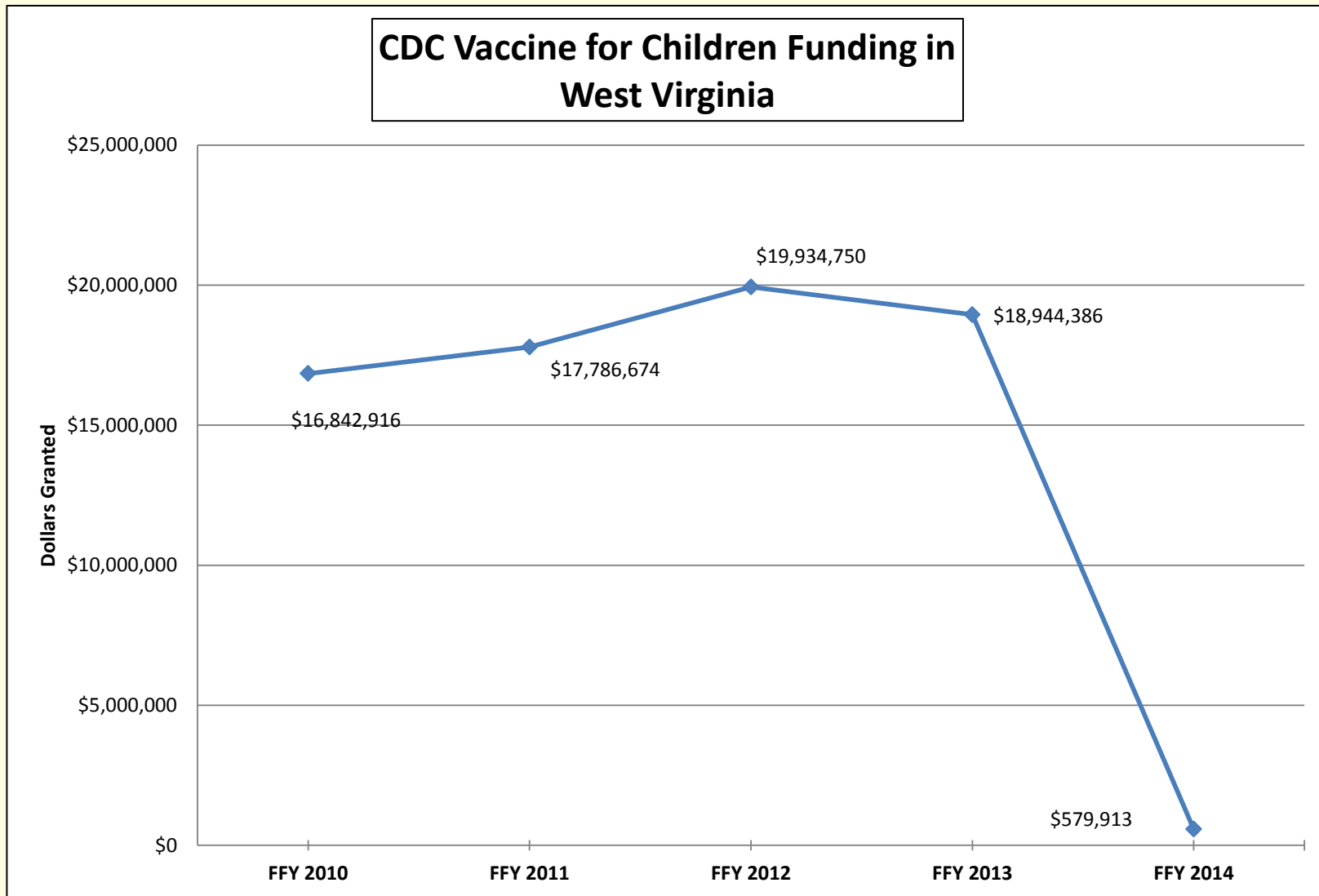


Federal Funding (CDC) 2010-2014

CDC Affordable Care Act Dollars To West Virginia Over Time

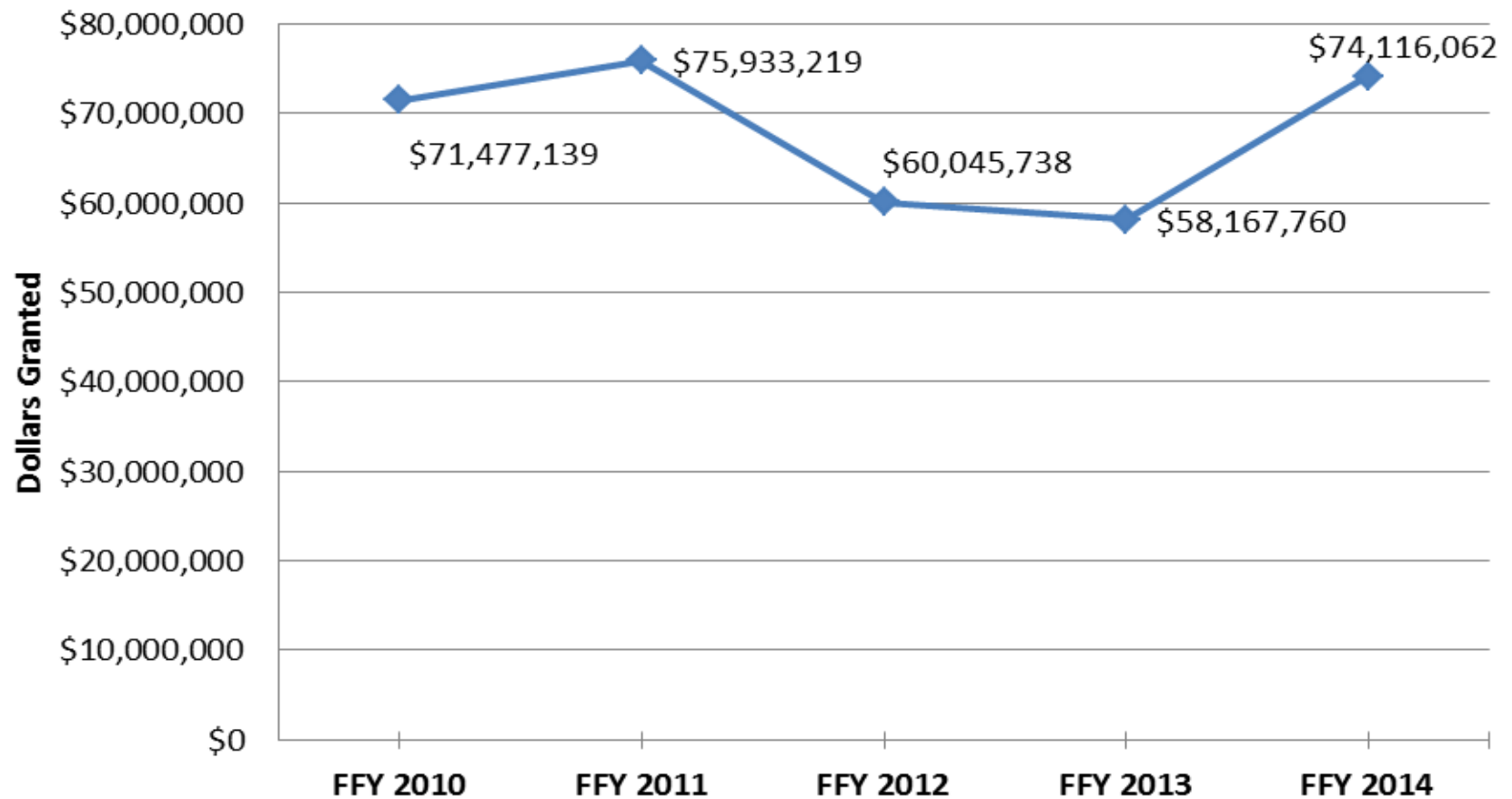


Federal Program Funding (CDC) 2010-2014



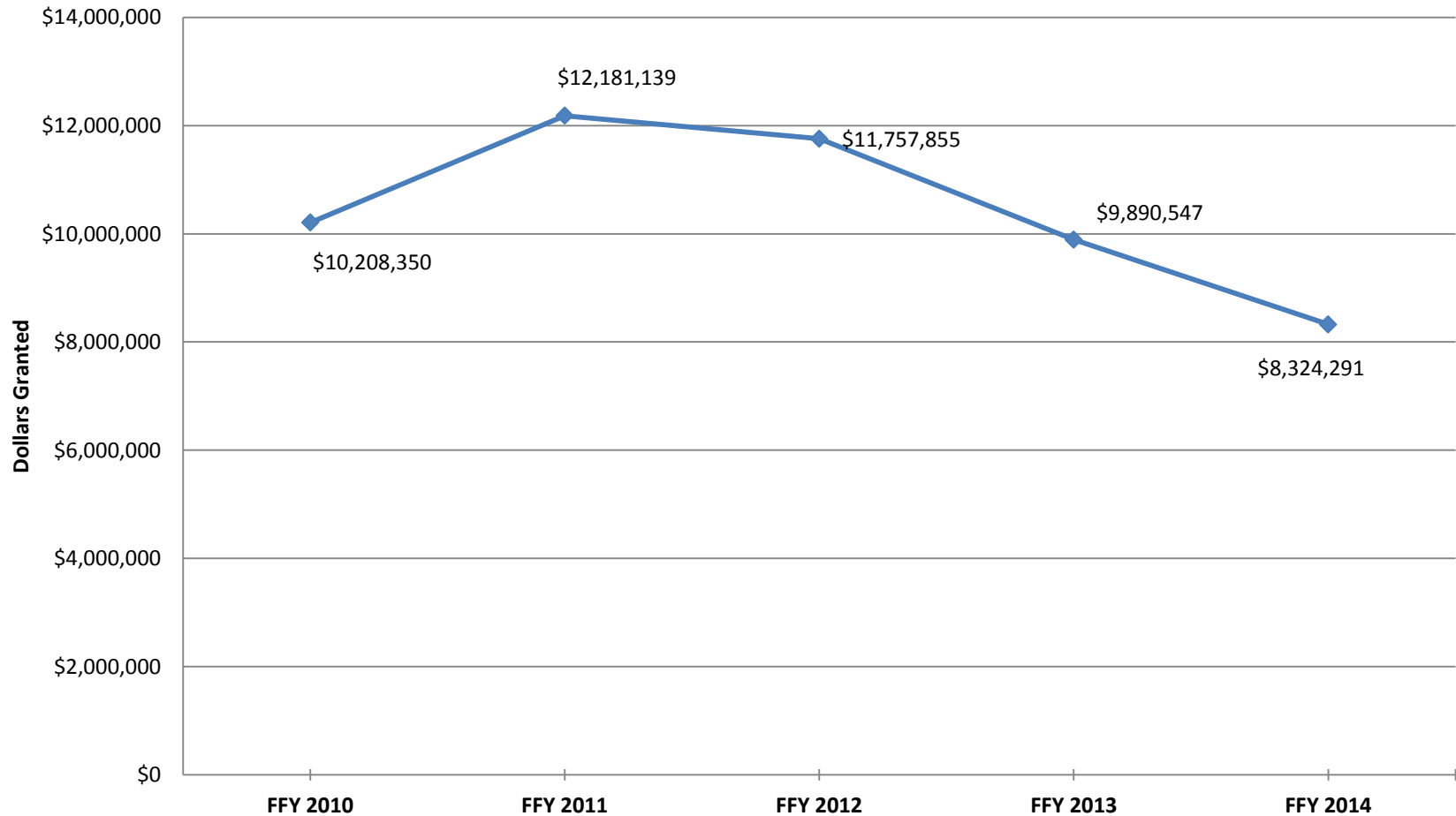
Federal Funding (HRSA) 2010-2014

HRSA Funding To West Virginia Over Time

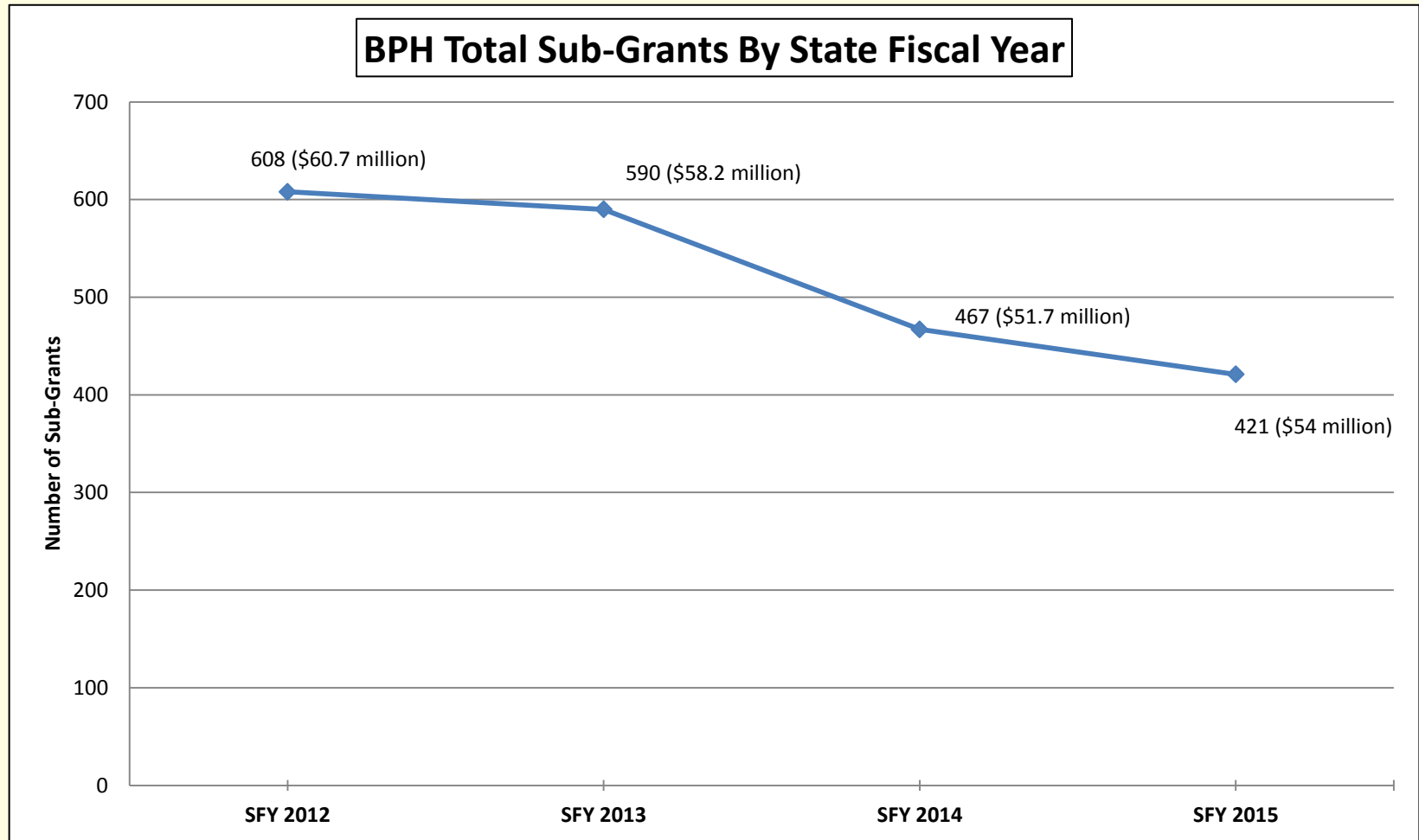


Federal Program Funding (CDC) 2010-2014

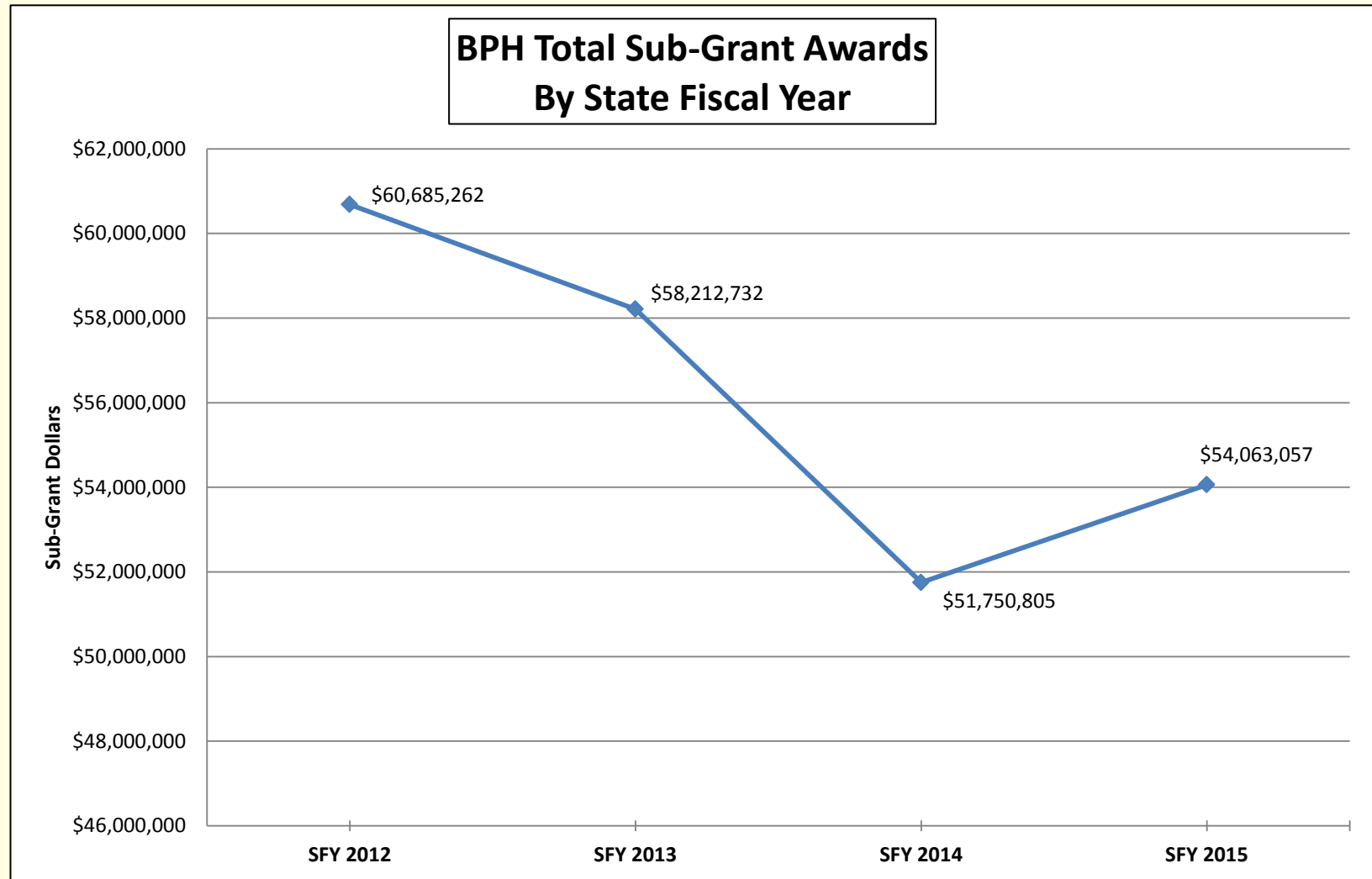
CDC Chronic Disease and Health Promotion Program Funding in West Virginia



BPH Total Sub-Grants By State Fiscal Year

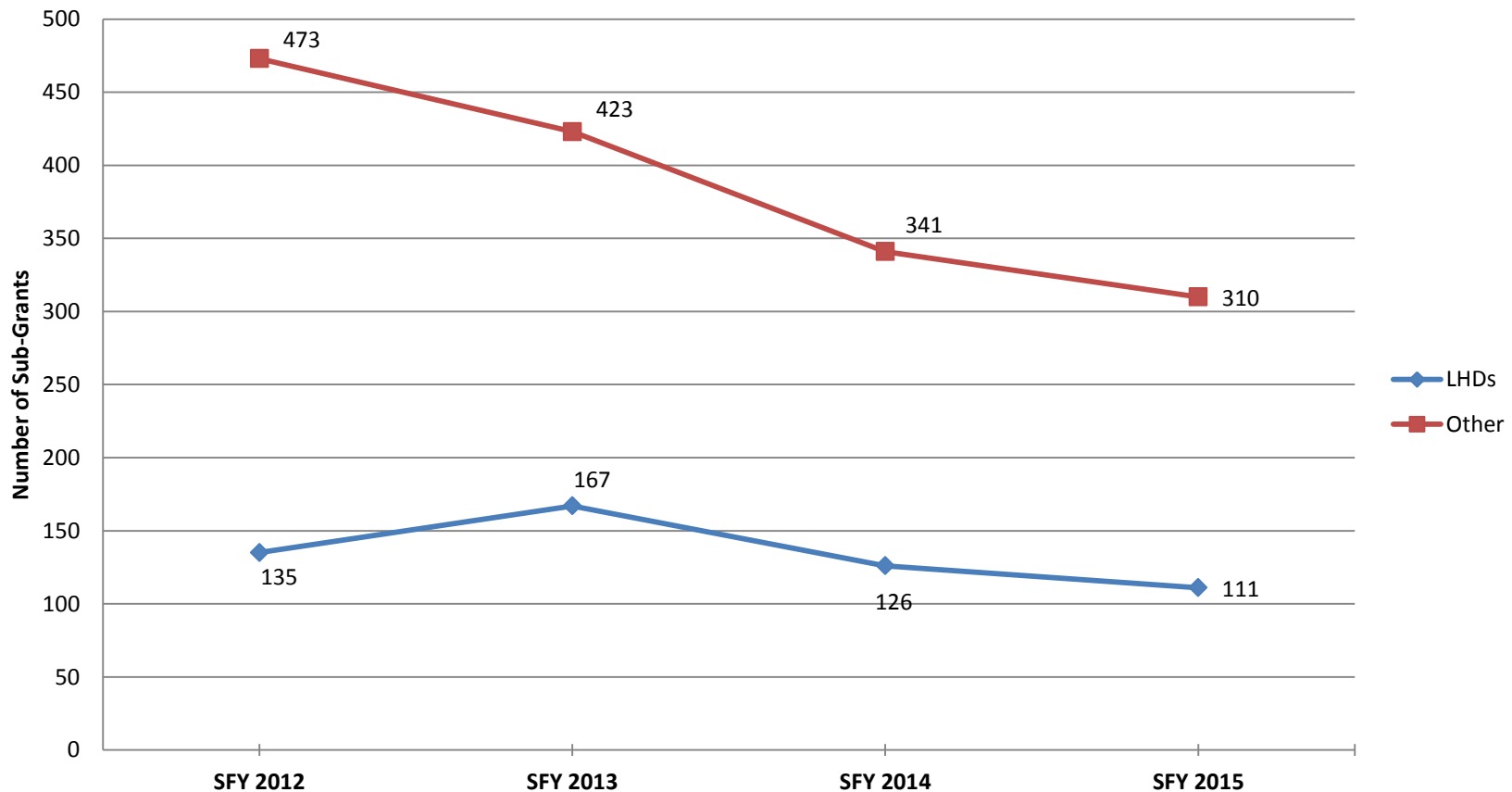


BPH Total Sub-Grant Awards

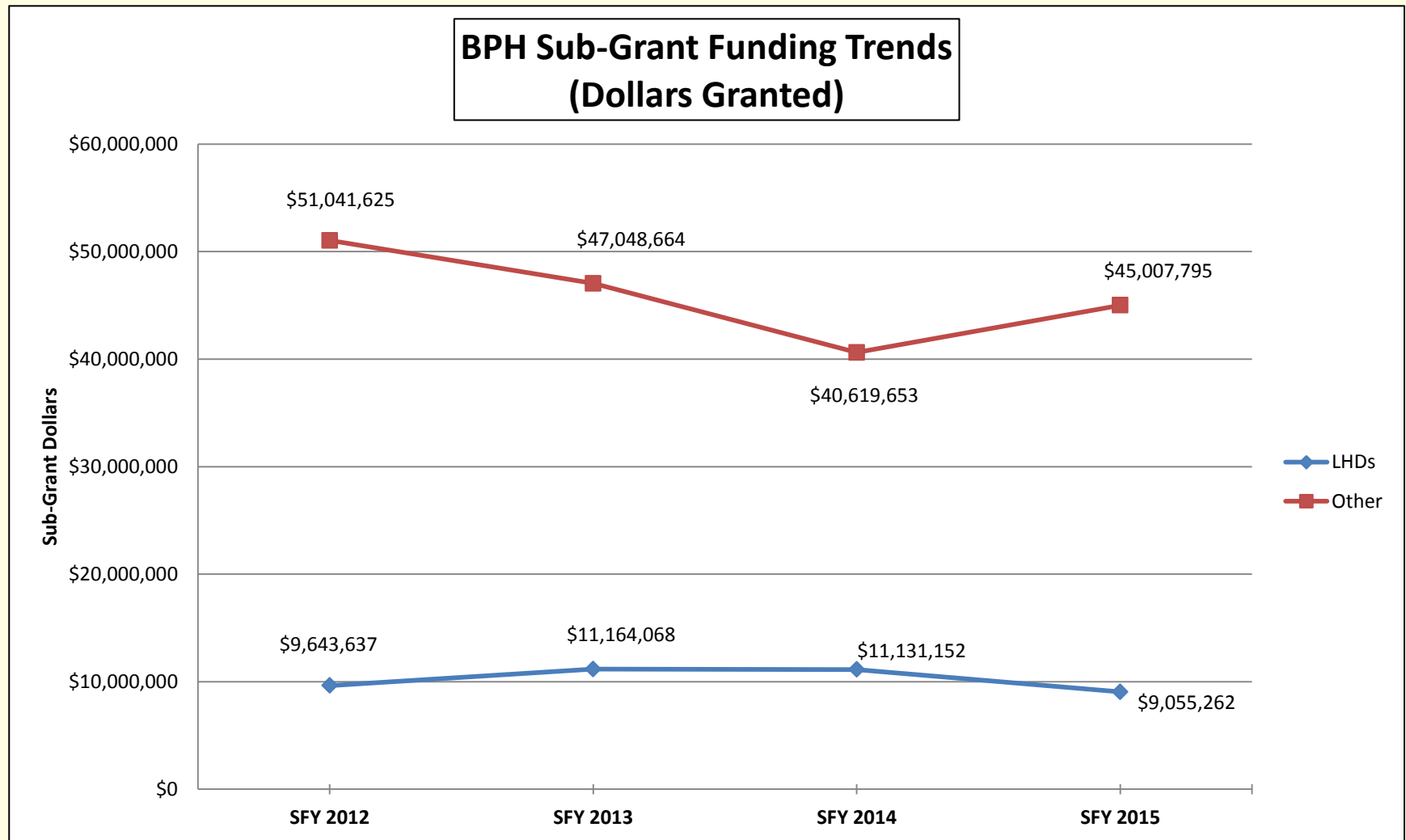


Number of BPH Sub-Grants

**BPH Sub-Grant Funding Trends
(Number of Sub-Grants)**



BPH Sub-Grants in Dollars

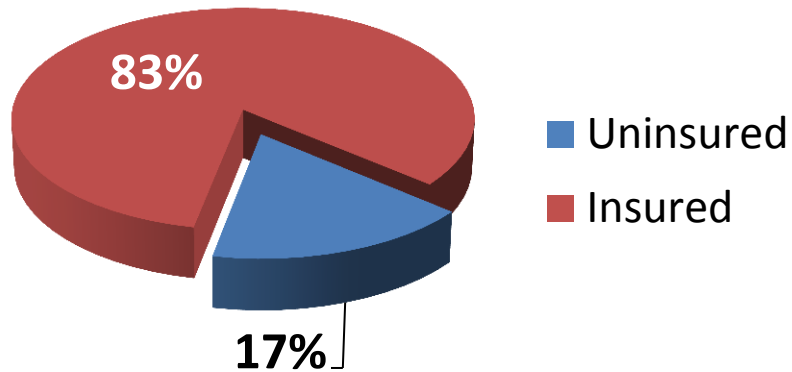


State Innovation Models (SIM)

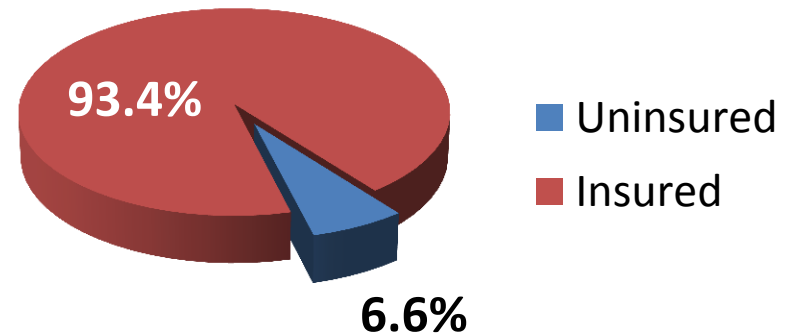
- Initiative to develop and test of state-led, multi-payer health care payment and service delivery models that will:
 - improve health system performance
 - increase quality of care
 - decrease costs for Medicare, Medicaid and Children's Health Insurance Program (CHIP) beneficiaries
- Medicare - Shift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

Uninsured Vs. Insured in West Virginia

**WV Insured vs. Uninsured
2013**



**WV Insured vs. Uninsured
2014**



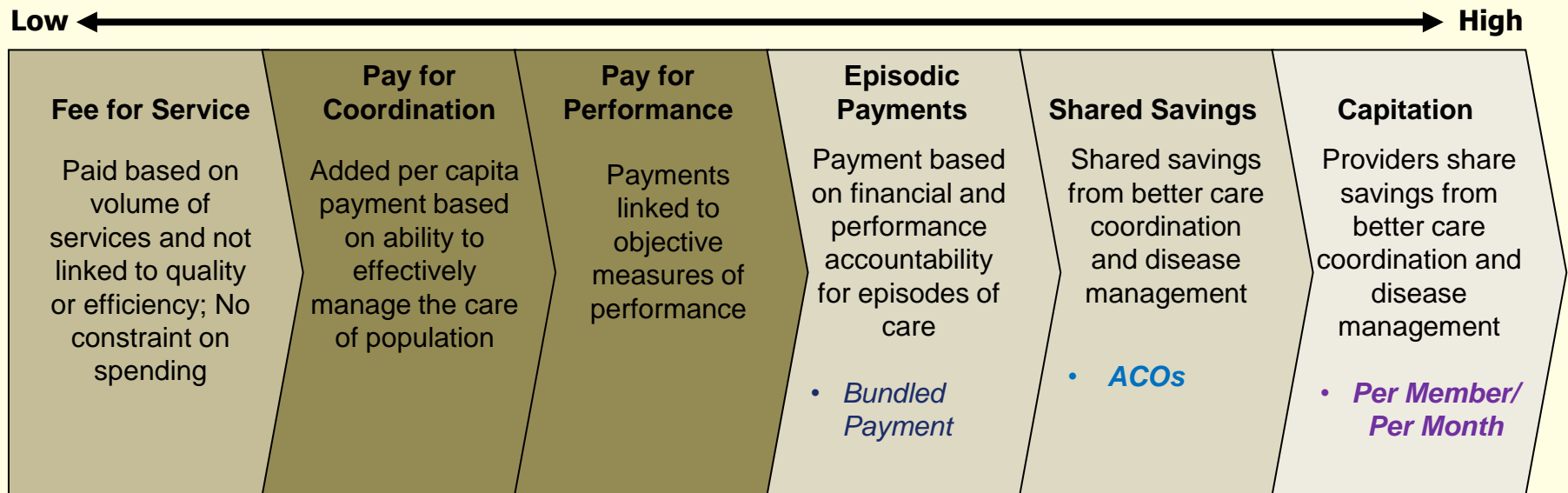
Value Based Care

- Shared savings model (ACOs, IT systems)
- Measuring performance and data analytics
- 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

Payment system reform will require providers to bear greater population-based financial risk



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

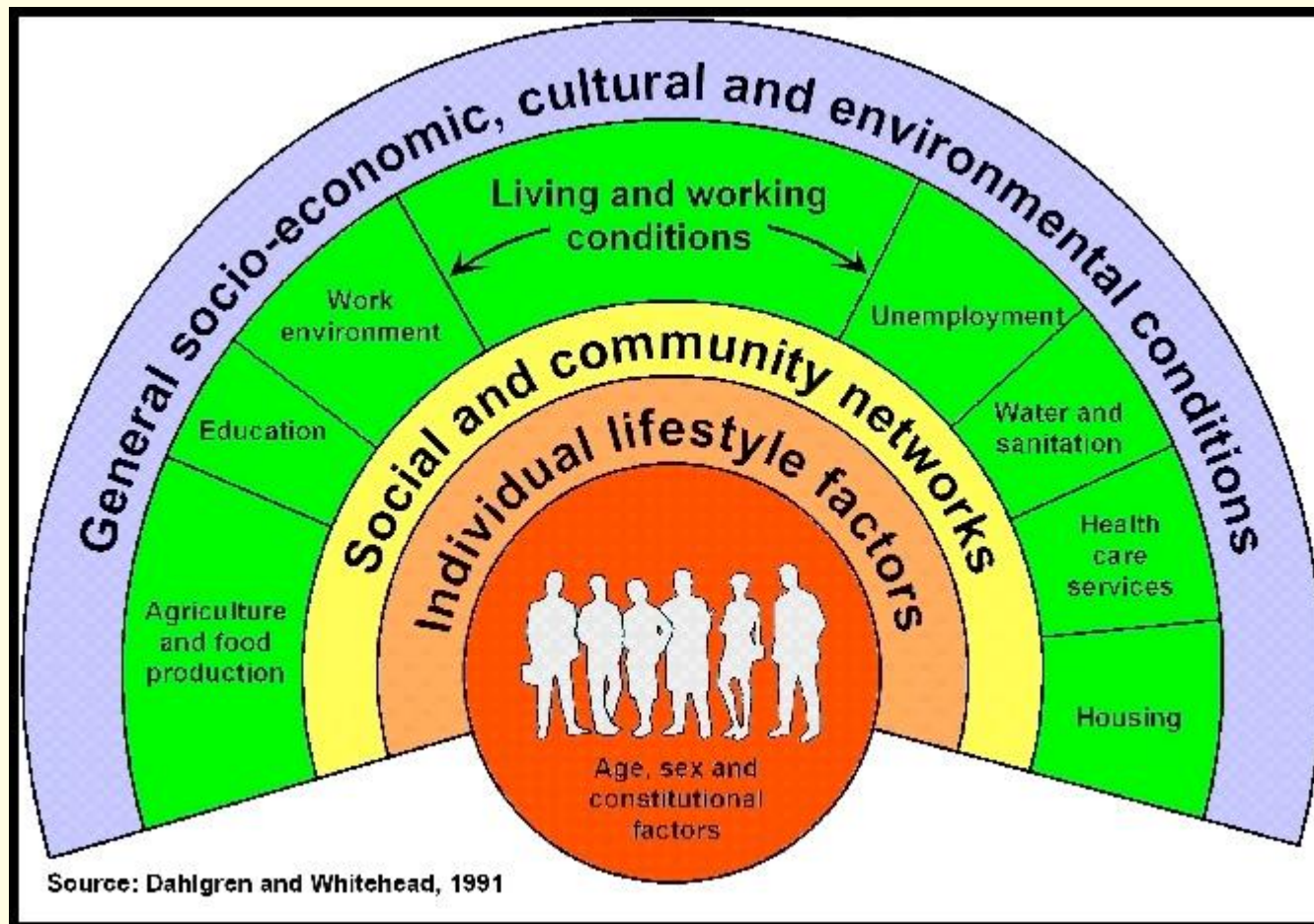


- The preparedness and response capabilities of communities served by accredited Local Health Departments (LHDs) exceed those of non-accredited LHDs.
- Accreditation improves the infrastructure of the health department, which has a positive impact on emergency preparedness activities.

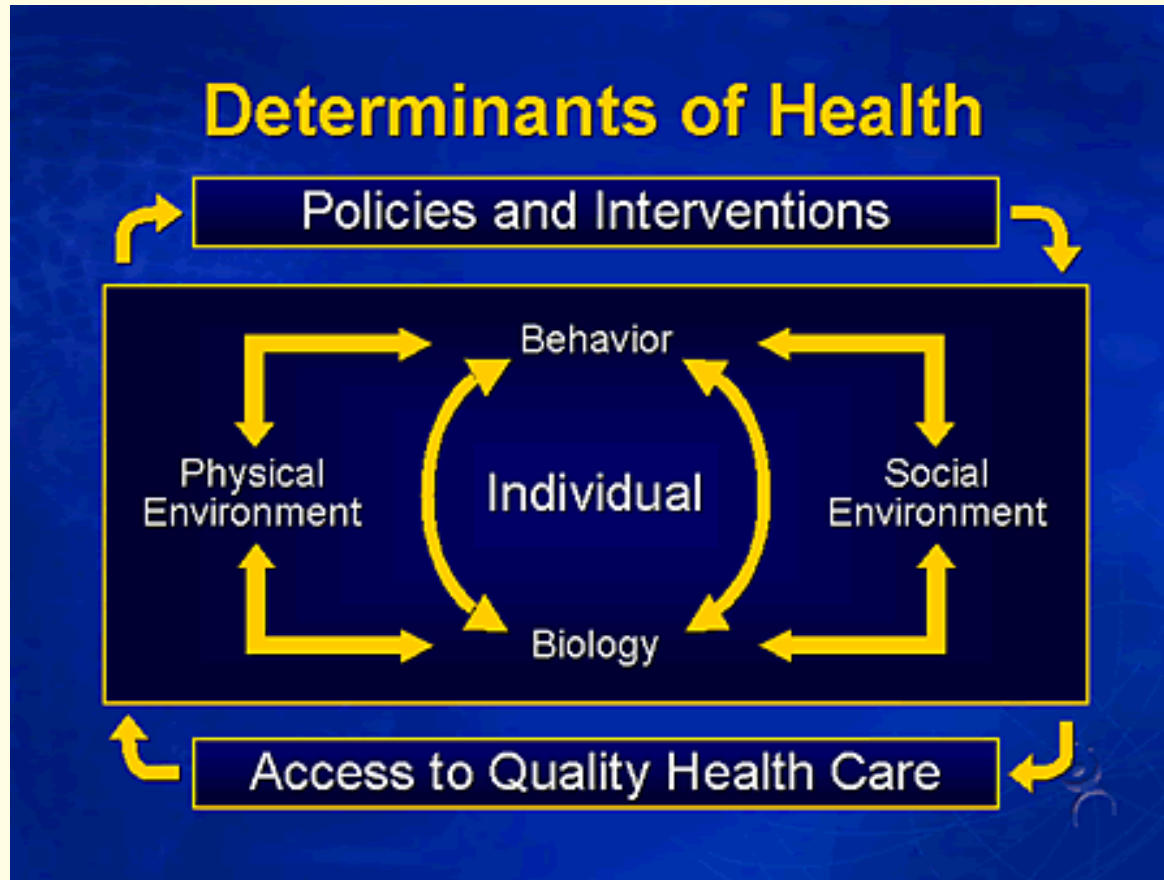
- The social determinants of health are the circumstances in which people are born, grow up, live, work, and age, as well as the systems put in place to deal with illness.
- These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics.

Change
We Must Change the Mindset

“Influencers” of Health

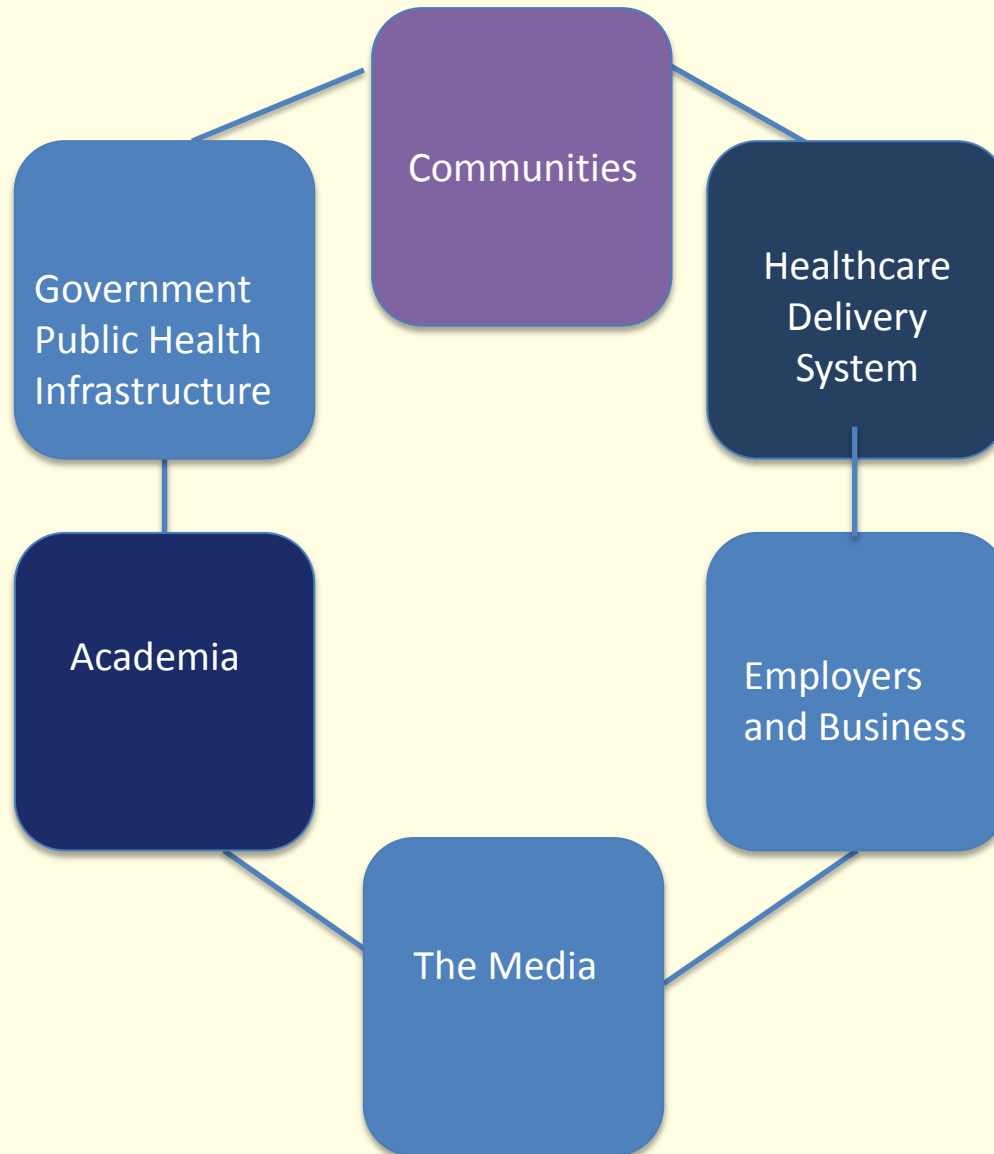


What Determines Health?



Source: www.healthypeople.gov

Assuring the Conditions for Population Health



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.

Experiencing “Health Culture Shifts”

- ✓ **Moving from sick care to preventive care**
- ✓ **Changing ED visits to community medical homes**

This Means:

- Wellness Visits
- More Counseling
- More Screenings



Population Health Solutions

- **Population Health in 21st Century**



**Traditional
Preventive/Clinical
Services**



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



Health in All Policies

Source for buckets concept: Auerbach J, CDC, Population Health
and the State Innovation Model Grants presentation, NGA meeting, April 2015

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

Preventive Services = New Expectations

- Beyond Immunization, are we providing these services?
- How often are we providing these services?
- Do we have enough staff to provide these services?
- How much funding are we setting aside for this area?
- How are we measuring success in this area?
- Are we billing at market rate?

**Public Health has to move away from
the “We don’t do that here” approach
to stay complementary while
generating revenue**

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



Health in All Policies

- 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**

Using Asthma Example

Bucket 1 – Diagnosis, action plan, medications, clinical guidance



Bucket 2 – Community health worker does home visit; assesses triggers, counsels patient; offers limited remediation

Bucket 3 – Community standards on housing; limits to indoor and outdoor pollutants; reductions in smoking rates

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

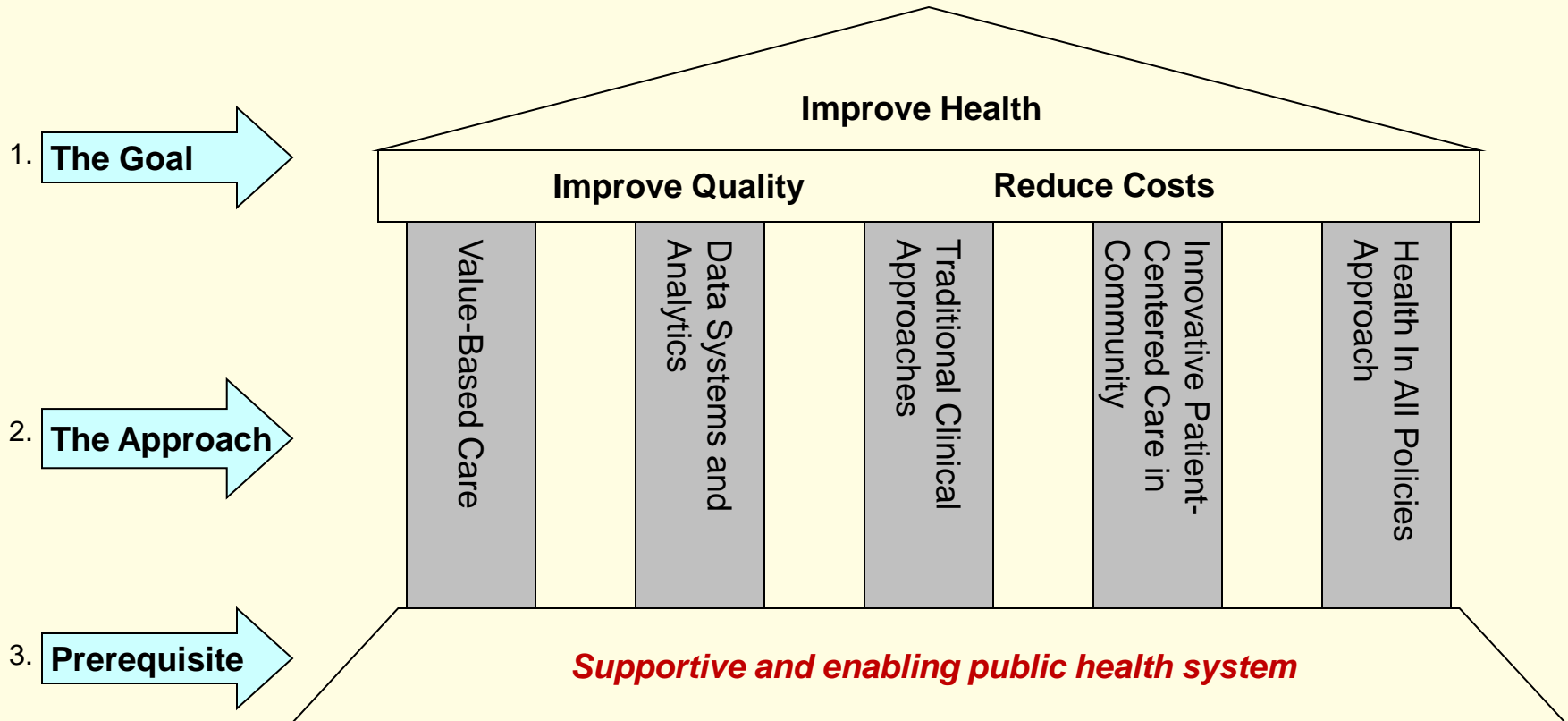
Challenges Bring Opportunities



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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