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

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Future – A Population Health Approach

1. The Goal
   - Improve Health
     - Improve Quality
     - Reduce Costs

2. The Approach
   - Value-Based Care
   - Data Systems and Analytics
   - Traditional Clinical Approaches
   - Innovative Patient-Centered Care in Community
   - Health In All Policies Approach

3. Prerequisite
   - Supportive and enabling public health system
Leading Causes of Death in U.S.

Health Contributors

Health Impact Pyramid

Key: Text in white indicates OPTh target

Increasing Individual Effort Required

Increasing Population Impact

Counseling & Education
- Ongoing interventions: personalized HRA, health information, education, counseling and support
- Lifestyle interventions connecting personal health services with community-based services: obesity, smoking, YMCA-DPP, etc.

Clinical Interventions
- Ongoing interventions: CVD prevention has greatest impact, A1C testing and reporting
- Medication adherence and personalized behavioral interventions
- Care coordination, particularly multiple chronic comorbidities

Long-Lasting Protective Interventions
- One-time or infrequent interventions: immunizations, colonoscopy
- Smoking cessation

Changing Context To Make Individuals’ Default Decisions Healthy
- Healthy air, water, food
- Salt iodization
- Water fluoridation
- Essential HI benefits packages: high value services

Socioeconomic Factors
- Poverty reduction
- Improved education
- Health insurance/access to care

“Funding” Picture

Health Care

National Defense

Income Security

Ongoing operations, equipment and supplies

Military personnel

Other income security

Other national defense

Food and nutrition assistance

Unemployment compensation

Net Interest

Other Government Programs

International Affairs

Net interest

Education and Job Training

Veteran's benefits

Natural Resources

Other government programs

Pollution control and land management

Transportation

Other education and job training

Immigration and other federal law enforcement

Veteran's benefits

Highways, mass transit, and other ground transportation

Other science research

Income and housing support

Other transport and infrastructure

EPA, NIST, and other science agencies

Health care

Other education and job training
Three Key Health Issues in Appalachia

- Tobacco
- Obesity
- Drugs
Health Innovations Collaborative
Strategic Priorities

West Virginia
State Health Improvement Plan

A
Obesity

1
Physical Activity

2
Nutrition

3
Type 2 Diabetes

4
Hypertension

5
Cardiovascular Disease

B
Tobacco

Adult Tobacco Utilization

Youth Tobacco Utilization

Tobacco Utilization During Pregnancy

COPD & Associated Cancers

Smokeless Tobacco & Other Nicotine Products

C
Behavioral Health

Mental Health Provider Availability

Advancement & Coordination of Mental Health In-Home Services

Prescription Drug Abuse

Illegal Substance Abuse

Neonatal Abstinence Syndrome

D
Preventable Care & Avoidable Costs

E
Data/Measurable Outcomes

F
Community Engagement, Collaboration, Infrastructure
Uninsured Vs. Insured in West Virginia

WV Insured vs. Uninsured 2013
- 83% Insured
- 17% Uninsured

WV Insured vs. Uninsured 2014
- 93.4% Insured
- 6.6% Uninsured
Population Health Approaches

- Value-Based Care
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Payment Reform

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

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

- *ACOs*
Population Health Approaches

- Value-Based Care
- Data Systems and Analytics
- Traditional Clinical Approaches
- Innovative Patient-Centered Care in Community
- Health In All Policies Approach
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/](http://www.phaboard.org/)
Public Health Accreditation

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

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

Source: National Association of County and City Health Officials (NACCHO)
• 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.

Source: John Wayne PhD, MBA, November 6, 2009 - APHA Annual Meeting
Population Health Approaches

- Value-Based Care
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- Health In All Policies Approach
Preventive/Clinical Services

- More people have access to Preventive Care services
  - Aspirin Therapy
  - Blood Pressure Control
  - Cholesterol Management
  - Smoking Cessation
  - Healthy Eating
  - Physical Activity

Traditional Preventive/Clinical Services

Source: MMWR. 2011;60:1248-51
Population Health Approaches

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Health Connections

Related Measures
Smoking

Related Measures
Explore the relations between ranking measures

Closely Related Measures

Related Measures

Click on any measure to see its related measures

Source: www.americashealthrankings.org/ALL/Smoking
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.
Prevalence of Current Cigarette Smoking Among West Virginia Adults, by Socio-Economic Status

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.

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

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

Source: WV Health Statistics Center, 2014 WV Behavioral Risk Factor Surveillance System (BRFSS)
Percentage of West Virginia Women Who Smoked During Pregnancy*

*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.

2013 U.S. Average: 8.5%
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

Prevalence of Ever Trying E-Cigarettes Among West Virginia High School Students, by Smoking Status

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

Prevalence of Current Use of E-Cigarettes Among West Virginia High School Students

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

Heart Disease Death Rates, 2011-2013
Adults, Ages 35+, by County

Rates are spatially smoothed to enhance the stability of rates in counties with small populations.

Data Source:
National Vital Statistics System
National Center for Health Statistics

Age-Adjusted Average Annual Rates per 100,000
- 103.6 - 291.0
- 291.1 - 334.6
- 334.7 - 375.9
- 376.0 - 427.5
- 427.6 - 1094.1
- Insufficient Data
Obesity Trends

Source: Behavioral Risk Factor Surveillance System
<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>2008</th>
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<tbody>
<tr>
<td>Total Costs</td>
<td>$78 B/y</td>
<td>$147 B/y</td>
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<tr>
<td>Medical Costs</td>
<td>6.5%</td>
<td>9.1%</td>
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Source: Finkelstein et al. Health Affairs 2009; 28:w822
<table>
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<th>Obesity Grade</th>
<th>I</th>
<th>II</th>
<th>III</th>
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<tbody>
<tr>
<td><strong>Men (total)</strong></td>
<td>$1,143</td>
<td>$2,491</td>
<td>$6,078</td>
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<tr>
<td>Medical</td>
<td>$475</td>
<td>$824</td>
<td>$1,269</td>
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<tr>
<td>Absenteeism</td>
<td>$277</td>
<td>$657</td>
<td>$1,026</td>
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<td><strong>Presenteeism</strong></td>
<td>$391</td>
<td>$1,010</td>
<td>$3,792</td>
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<tr>
<td><strong>Women (total)</strong></td>
<td>$2,524</td>
<td>$4,112</td>
<td>$6,694</td>
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<tr>
<td>Medical</td>
<td>$1,274</td>
<td>$2,532</td>
<td>$2,395</td>
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<tr>
<td>Absenteeism</td>
<td>$407</td>
<td>$67</td>
<td>$1,262</td>
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<tr>
<td><strong>Presenteeism</strong></td>
<td>$843</td>
<td>$1,513</td>
<td>$3,037</td>
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Drug Overdose Deaths
Drug Overdose Death Progression

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.

- Increased Drug Use
  - Hepatitis B
  - Hepatitis C
  - HIV/AIDS
  - STDs

- Quality of Life/Illness
- Spread of Disease/Death
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

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
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 Impact Assessment

- Evaluates potential health effects of a plan, project or policy
- Provides recommendations to increase positive health outcomes and minimize adverse health outcomes
- Considers non-traditional public health issues in planning, projects, and policies such as transportation and land use
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

Source: Health Impact Partners fact sheet
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

**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
• 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

1. Making naloxone available without a prescription or third-party prescribing
2. Overdose response training for professionals and laypersons
3. Good Samaritan laws
4. 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.
• 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
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.
• 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
Dashrath Manjhi (1934-2007)

Dashrath Majhi’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.
Contact Information

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