

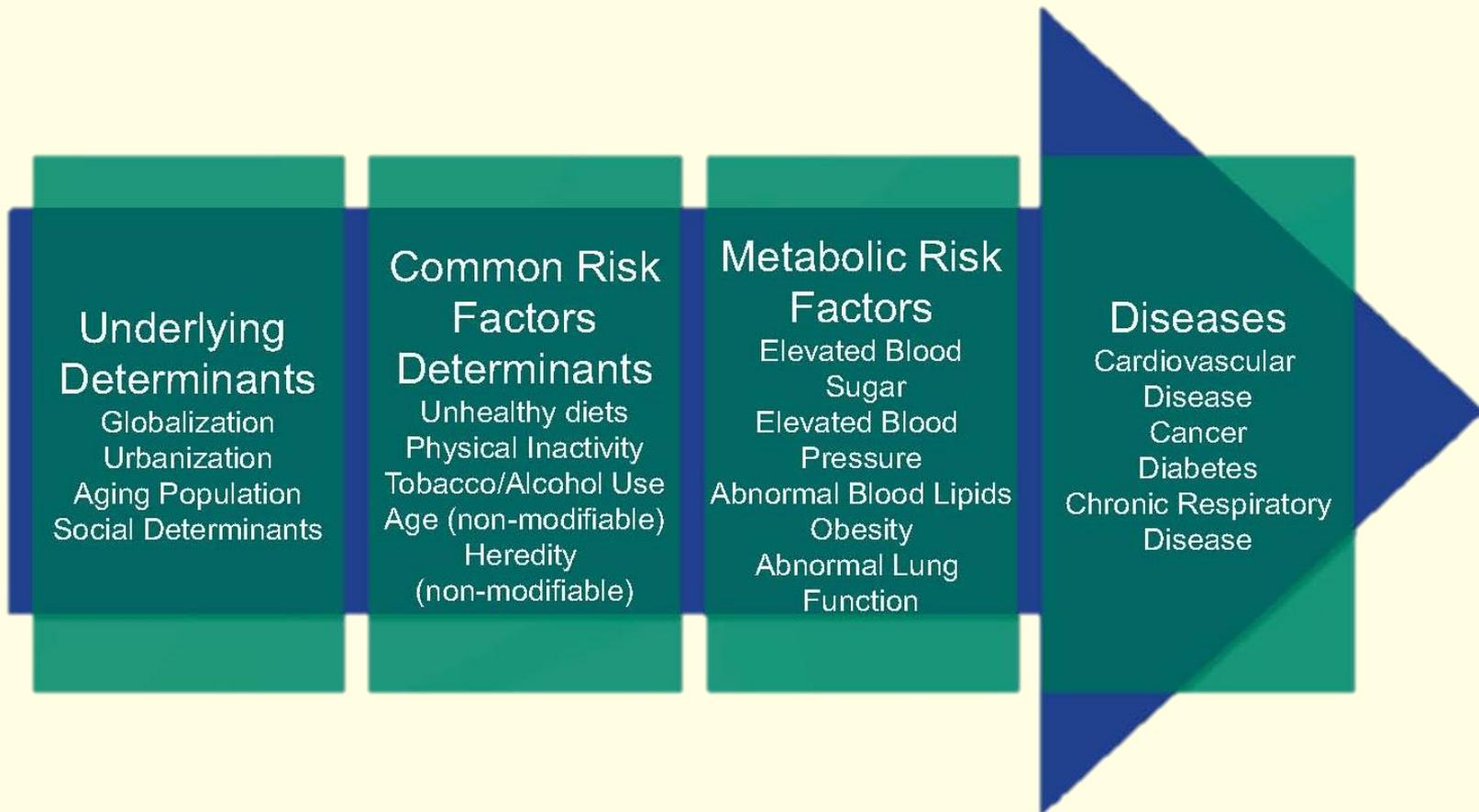
West Virginia State Obesity Plan Proposal

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State Innovations Model Meetings
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- **Obesity and related chronic disease challenges**
- **Burden of disease**
- **WV State Obesity Plan Proposal**

Causal Map for Chronic Disease



Source: University of Washington, http://www.univ-sante.edu.kh/mekong_sante_2011/download/ncd/3-002.pdf

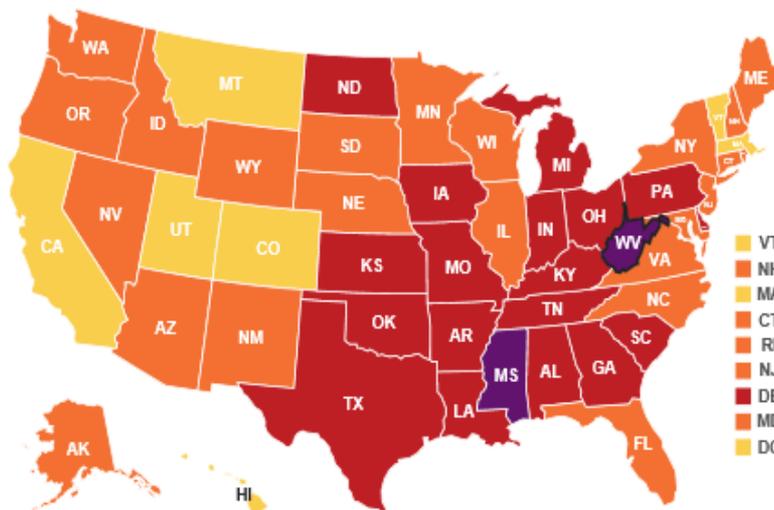
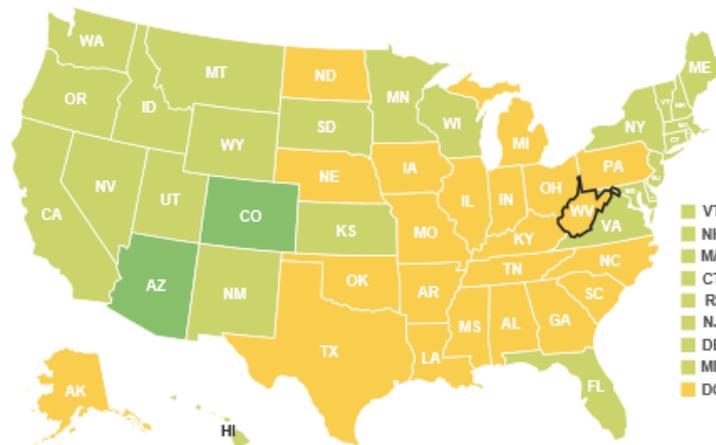
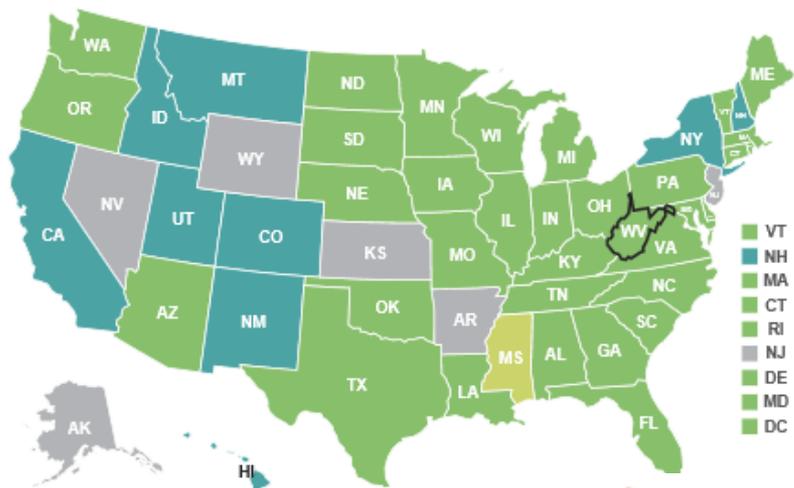
Chronic Diseases or Conditions

Prevalence of Chronic Diseases and Conditions Among WV Adults, 2013

Chronic Disease or Condition	WV (%)	U.S. (%)	WV Rank (53 Participants)
Obesity	35.1	28.2	1
Diabetes	13.0	10.3	4
Hypertension	41.0	32.5	2
High cholesterol	42.9	38.6	3
Ever had a stroke	3.9	2.9	7
Have coronary heart disease	7.5	4.2	2
Ever had a heart attack	7.8	4.4	1
Arthritis	36.2	25.0	1
Cancer	13.0	11.1	10

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

Obesity Trends

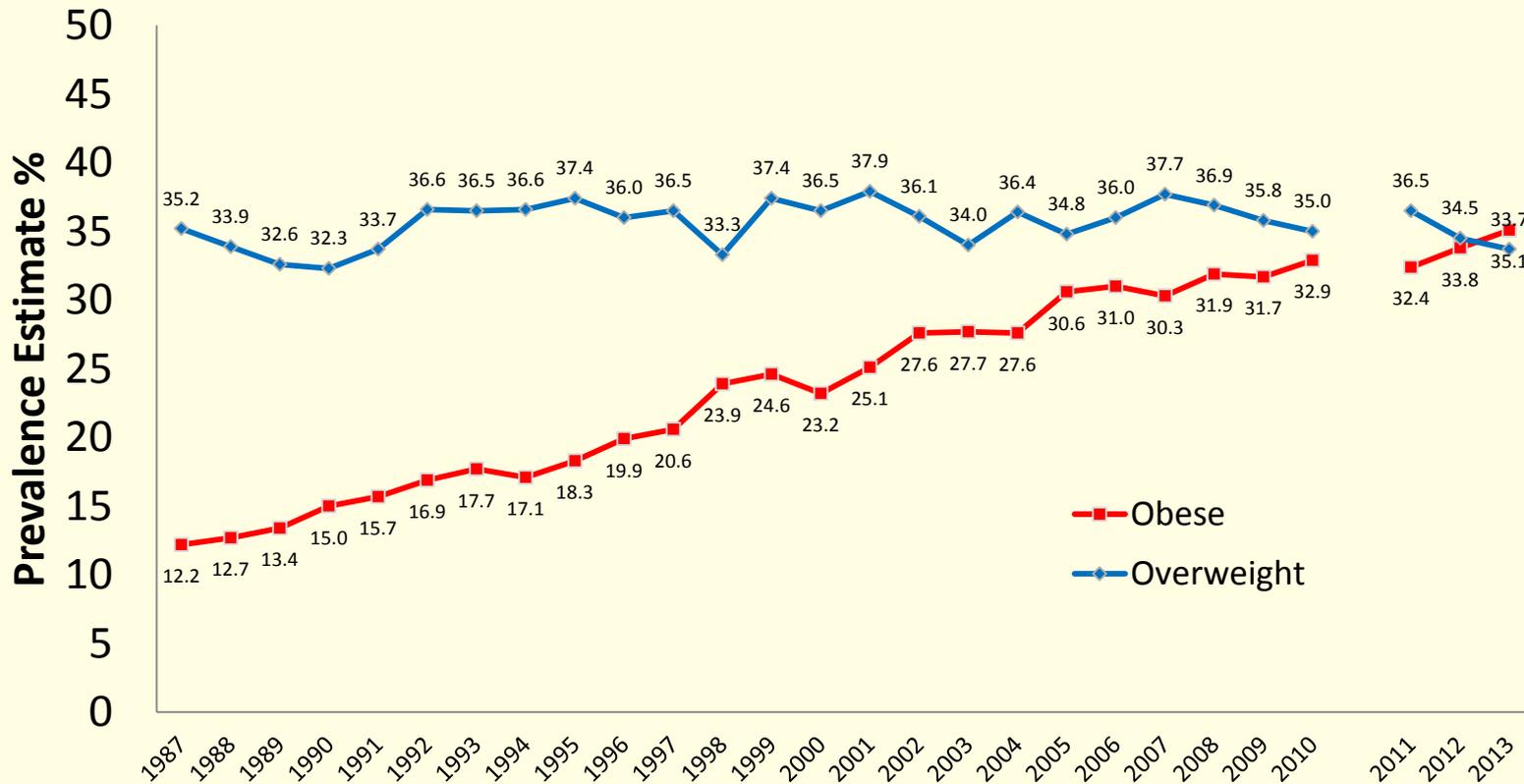


Percent of obese adults (Body Mass Index of 30+)

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

Obesity Among WV Adults

Prevalence of Obesity and Overweight Among WV Adults



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

Risk Factors Among WV Adults

Prevalence of Obesity and Related Risk Factors Among WV Adults, 2013

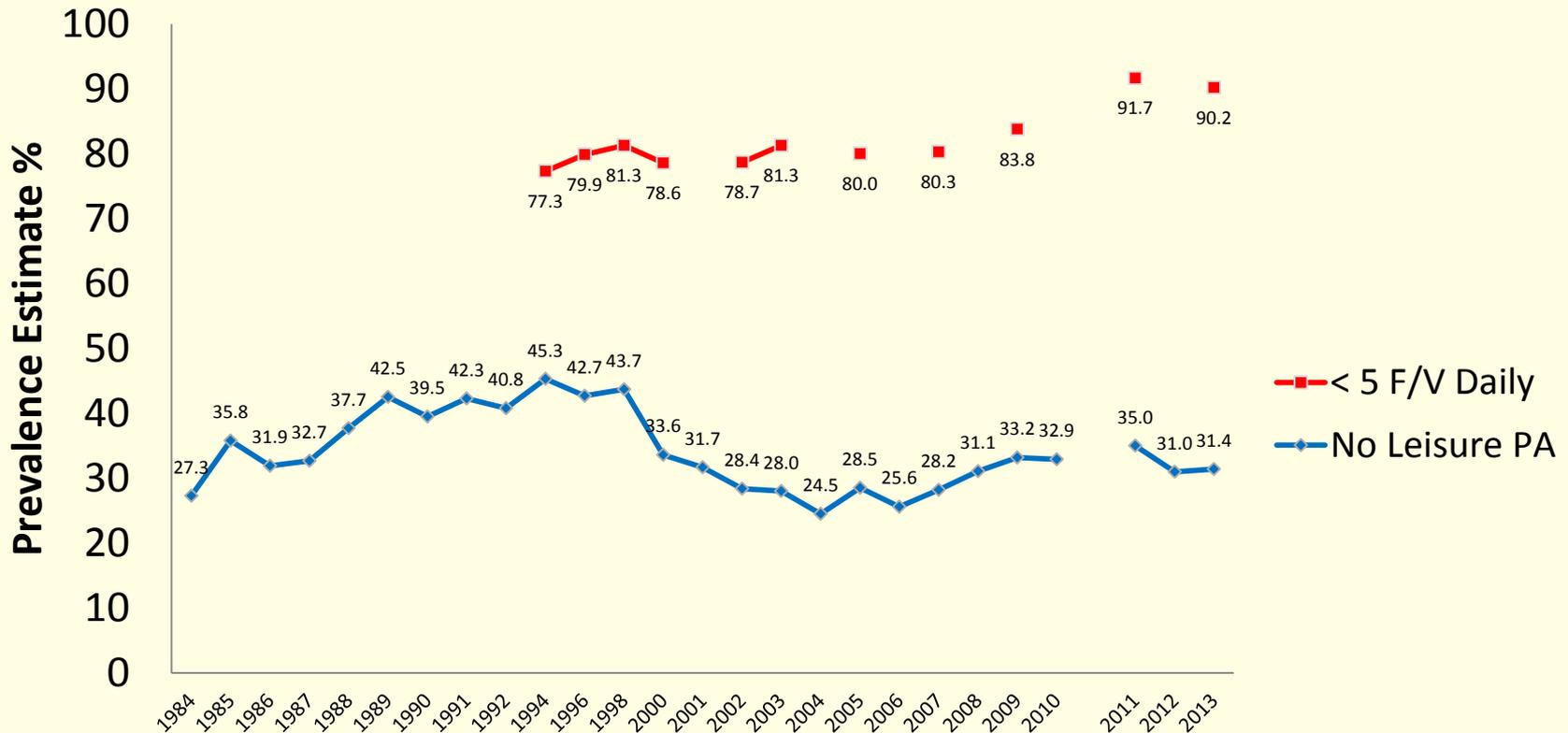
Risk Factor	WV (%)	U.S. (%)	WV Rank (53 Participants)
Obesity*	35.1	28.2	1
Consumption of less than 5 servings of fruits and vegetables daily*	90.2	82.9	3
Daily consumption of sugar-sweetened beverages	40.1	N/A	N/A
No leisure-time exercise*	31.4	26.6	9
Did not meet physical activity recommendations of 150 minutes of aerobic activity and 2 days of muscle strengthening activity	87.3	80.6	3
Inadequate sleep*	40.0	35.6	5

* WV significantly higher than US

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

Risk Factors Among WV Adults

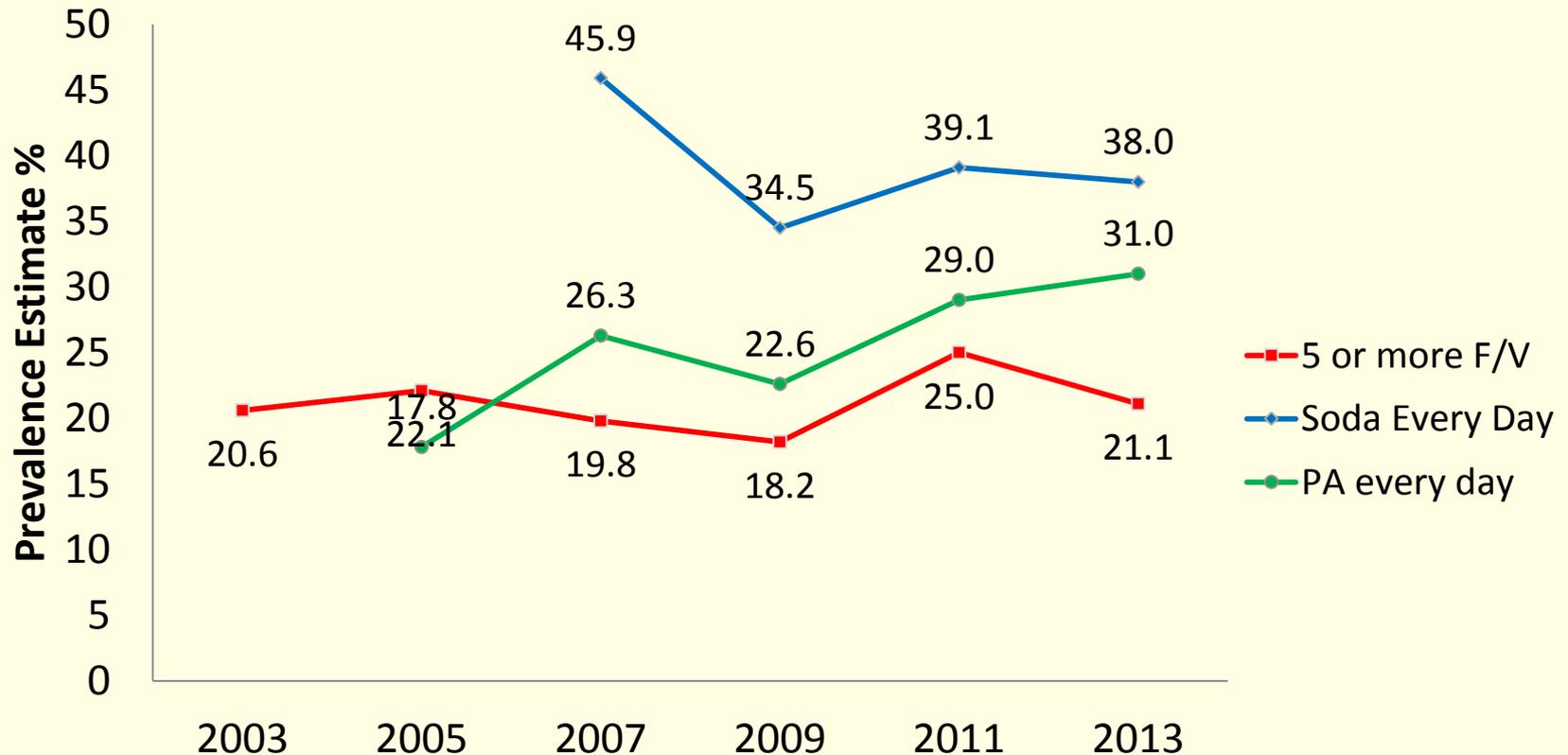
Prevalence of Risk Factors for Obesity Among WV Adults



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

Risk Factors Among WV High School Students

Figure #. Prevalence of Risk Factors for Obesity Among WV High School Students



Data Source: WV Department of Education, Youth Risk Behavior Survey

Impact of Obesity

- **Results in \$1.4 – \$1.8 billion in preventable direct medical costs**
- **Half of these preventable costs is for Medicare and Medicaid**
- **Estimated indirect costs = another \$5 billion**
- **Obese adults spend 42% more on direct health care costs; morbidly obese costs are 81% greater than for normal weight adults**
- **Obesity is associated with lower productivity while at work costing employers \$506 per obese worker per year**
- **Medical claims cost \$7,503 for healthy weight workers in contrast to \$51,091 for obese workers**

<http://stateofobesity.org/facts-economic-costs-of-obesity/>

U.S. 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

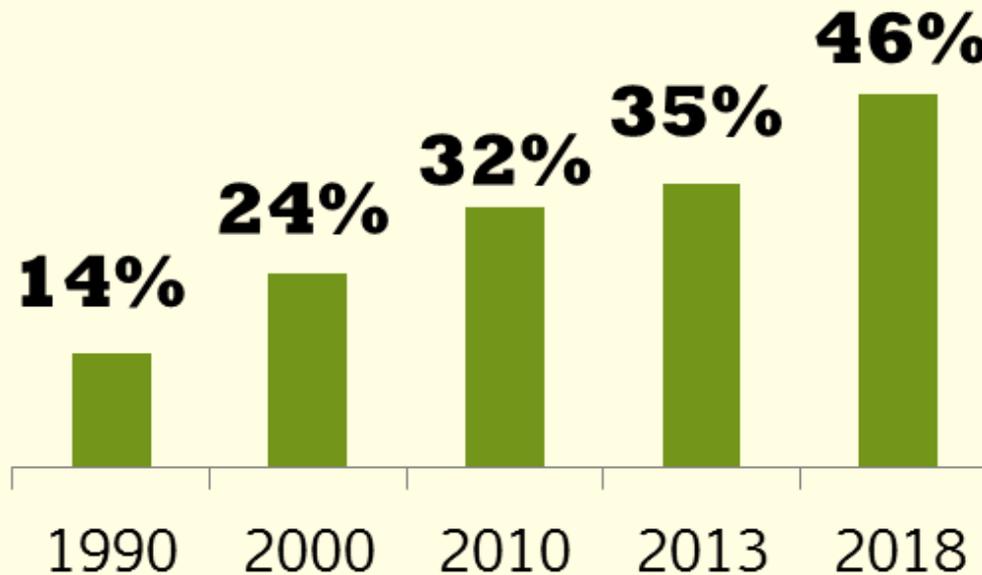
Source: Finkelstein EA et al. J Occupational Environ Med 2010;52:971

U.S. 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%

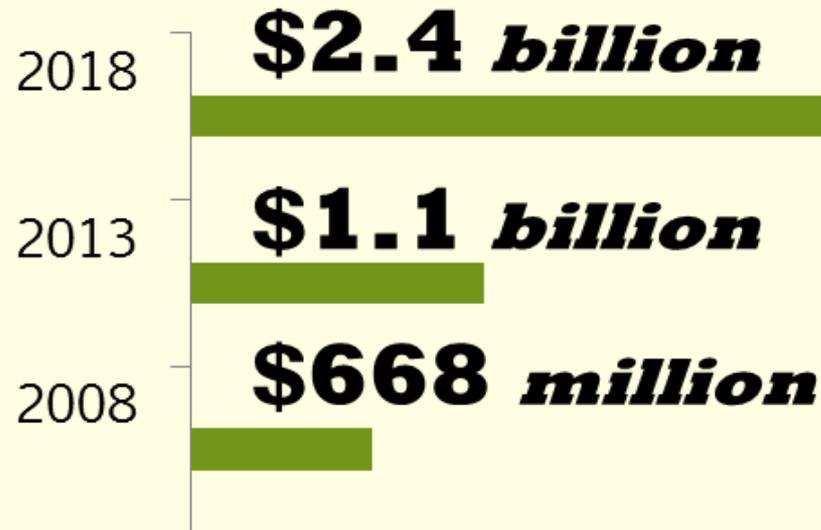
Source: Finkelstein et al. Health Affairs 2009; 28:w822

Increasing Rates of Obesity



West Virginia Division of Vital Statistics. Behavioral Risk Factor Surveillance System. 1990 – 2013.

Increasing Costs of Healthcare



American Journal of Public Health Research. Obesity in West Virginia: Control and Costs.
[http://pubs.sciepub.com/ajphr/1/8/2/..](http://pubs.sciepub.com/ajphr/1/8/2/) June 2015.

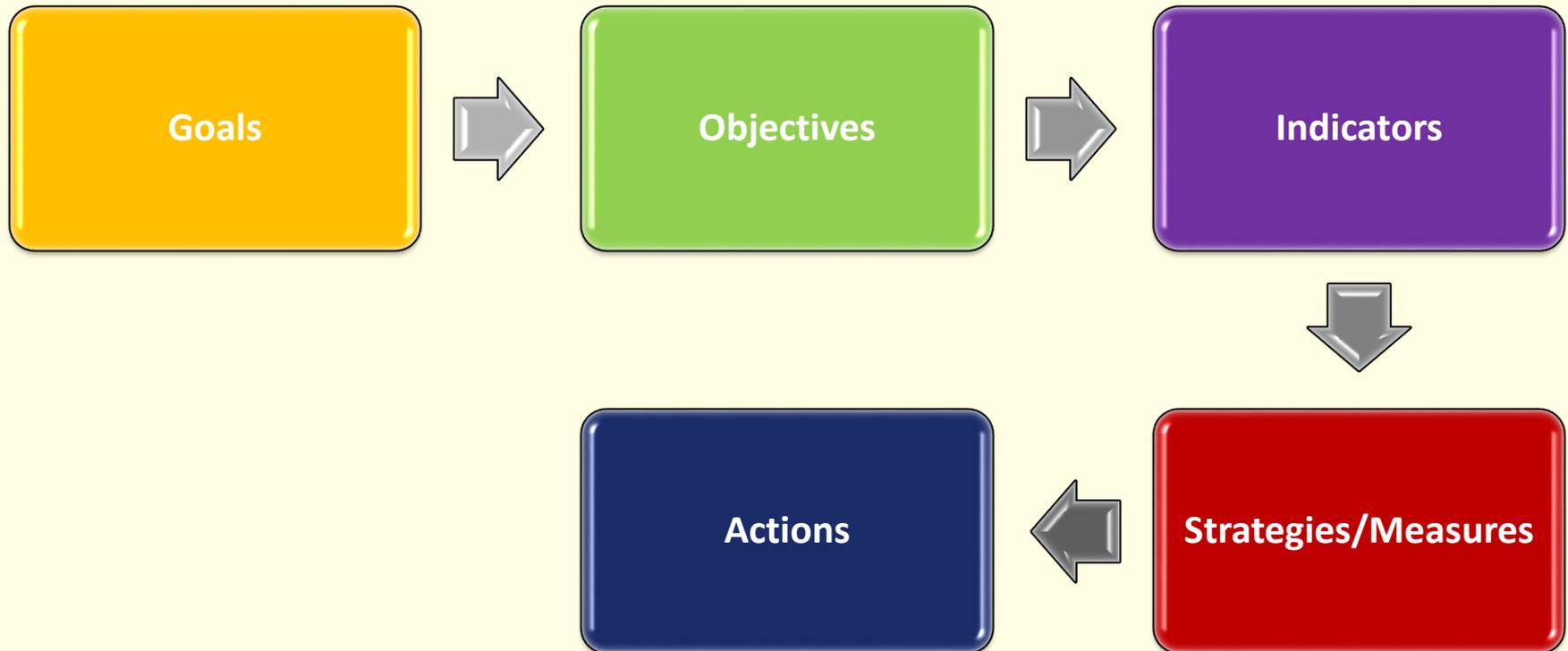
Contributors to Obesity

Why We Are Here

Environments that support sedentary behavior and poor diet



STATE OBESITY PLAN PROPOSAL



Goal 1 – Decrease the prevalence of obesity

1.A - Decrease the prevalence of obesity among WV adults from 35.1% to 33.0% by 2020 (BRFSS)

1.B - Decrease the prevalence of obesity among WV high school students from 15.6% to 14.0% by 2020 (YRBS)

Goal 2: Improve key chronic disease health indicators

Objectives for Adults

- 1.A.1 Increase the prevalence of consumption of 5 or more servings of fruits and vegetables daily among WV adults from 9.8% to 15.0% by 2020 (BRFSS)**

- 1.A.2 Decrease the prevalence of daily consumption of sugar-sweetened beverages among WV adults from 40.1% to 30.0% by 2020 (BRFSS)**

- 1.A.3 Increase the prevalence of leisure-time exercise among WV adults from 68.6% to 75.0% by 2020 (BRFSS)**

- 1.A.4 Increase the prevalence of met physical activity recommendations of 150 minutes of aerobic activity and 2 days of muscle strengthening activity among WV adults from 12.7% to 20.0% by 2020 (BRFSS)**

Goal 2: Improve key chronic disease indicators

- 2.1 Decrease the prevalence of high blood pressure in adults from 41% to 40% by 2020 (BRFSS)**
- 2.2 Decrease the prevalence of diabetes in adults from 13% to 12% in 2020 (BRFSS)**
- 2.3 Decrease the prevalence of pre-diabetes in adults from 8.6% to 8% in 2020 (BRFSS)**

Objectives for Youth

- 1.B.1 Increase the prevalence of consumption of fruits and vegetables 5 or more times daily among WV high school students from 21.1% to 30.0% by 2020 (YRBS)**

- 1.B.2 Decrease the prevalence of daily consumption of soda or pop among WV high school students from 38.0% to 25.0% by 2020 (YRBS)**

- 1.B.3 Increase the prevalence of meeting recommendations for 60 minutes or more of physical activity daily among WV high school students from 31.0% to 50.0% by 2020 (YRBS)**

Objectives for Adults

Goal # 1: Reduce Obesity

	Objectives	Indicator	Baseline Value	2020 Target	Rate of Change	
1.A	Decrease obesity among WV adults	Prevalence of obesity among WV and adults	35.1%	33.0%		5.98%
1.A.1	Increase fruit and vegetable consumption among WV adults	<i>Prevalence of consumption of 5 or more servings of fruits and vegetables daily among WV adults</i>	9.8%	15.0%		42.18%
1.A.2	Decrease the daily consumption of sugar-sweetened beverages among WV adults	<i>Prevalence of daily consumption of sugar-sweetened beverages among WV adults</i>	40.1%	30.0%		25.18%
1.A.3	Increase physical activity among WV adults	<i>Prevalence of leisure-time exercise among WV adults</i>	68.6%	75.0%		9.33%
1.A.4		<i>Prevalence of met physical activity recommendations of 150 minutes of aerobic activity and 2 days of muscle strengthening activity among WV adults</i>	12.7%	20.0%		57.48%

Goal # 2: Improve Key Health Indicators

	Objectives	Indicator	Baseline Value	2020 Target	Rate of Change	
2.1	Improve key chronic disease indicators	<i>Prevalence of high blood pressure in adults</i>	41%	40%		2.44%
2.2		<i>Prevalence of diabetes in adults</i>	13%	12%		7.69%
2.3		<i>Prevalence of pre-diabetes in adults</i>	8.6%	8%		6.98%

Objectives for Youth

Goal # 1: Reduce Obesity

	Objectives	Indicator	Baseline Value	2020 Target	Rate of Change	
1.B	Decrease obesity among WV high school students	Prevalence of obesity among WV high school students	15.6%	14.0%		10.25%
1.B.1	Increase fruit and vegetable consumption among youth	Prevalence of consumption of fruits and vegetables 5 or more times daily among WV high school students	21.1%	30.0%		34.21%
1.B.2	Decrease daily consumption of soda or pop among WV high school students	Prevalence of daily consumption of soda or pop among WV high school students	38.0%	25.0%		34.21%
1.B.3	Increase physical activity among WV high school students	Prevalence of meeting recommendations for 60 minutes or more of physical activity daily among WV high school students	31.0%	50.0%		61.29%
1.B.4	Increase the infants ever breastfed	Percentage of infants ever breastfed	59.3%	64%		7.92%
1.B.5	Increase the infants breastfed for 6 months	Percentage of infants exclusively breastfed through six months	12.2%	17%		39.34%

Strategies

PRIORITY GOALS	STRATEGIES/MEASURES
<p>1.A 1.B 1.B.4 1.B.5</p> <p>Reduce Obesity</p>	<p>COMMUNITY</p> <ul style="list-style-type: none"> Promote evidence based professional development for schools & administrators Increase built environment / grassroots support to reinforce healthy behaviors for community policy changes (# community mini grant recipients) Baseline: 103 FY2015 <p>HEALTH SYSTEMS</p> <ul style="list-style-type: none"> Increase the number of practice policies to measure body mass index/waist hip circumference Increase the number of practice policies to advise/counsel patients on weight management & risk factors for obesity Baseline: 21.6% BRFSS Increase referrals to self-management programs (DSME and others) Increase proportion of people with diabetes in targeted settings who have at least one encounter at a Diabetes Self-Management program Baseline: 2.7% Increase referrals to CDC recognized lifestyle change programs (i.e. National Diabetes Prevention Program) Baseline: 52.8% Increase the number of baby-friendly hospitals <p>POLICY</p> <ul style="list-style-type: none"> Increase the sugar sweetened beverage tax Enact policies and regulations to support insurance coverage for counseling and self-management programs Adopt a budget that funds high-priority population health initiatives that implement obesity prevention and control strategies
<p>1.A.1 1.A.2 1.B.1 1.B.2</p> <p>Increase fruit and vegetable consumption</p>	<p>COMMUNITY</p> <ul style="list-style-type: none"> Increase the number of ECEs that develop and/or adopt policies to implement food service guidelines/nutrition standards, including sodium (cafeterias, vending, snack bars) Baseline: 88 Percent of local education agencies that have adopted and implemented policies that establish standards (including sodium) (cafeterias, vending, snack bars, competitive foods available during the school day Baseline: 100% Increase the number of worksites that develop and/or adopt policies to implement food service guidelines, including sodium (cafeterias, vending, snack bars) Baseline: 3 Increase redemption rates for Farmer's Market Nutrition Program amongst WIC recipients Baseline: 60.78% (2014) Increase built environment / grassroots support to reinforce healthy behaviors for community policy changes (# community mini grant recipients) Baseline: 103 FY2015

Strategies

PRIORITY GOALS	STRATEGIES/MEASURES
<p>1.A.1 1.A.2 1.B.1 1.B.2</p> <p>Increase fruit and vegetable consumption</p>	<p>HEALTH SYSTEMS</p> <ul style="list-style-type: none"> • Increase the number of practice policies to measure body mass index/waist hip circumference • Increase the number of practice policies to advise/counsel patients on weight management & risk factors for obesity Baseline: 21.6% • BRFSS • Increase referrals to self-management programs (DSME and others) • Increase proportion of people with diabetes in targeted settings who have at least one encounter at a Diabetes Self-Management program Baseline: 2.7% • Increase referrals to CDC recognized lifestyle change programs (i.e. National Diabetes Prevention Program) Baseline: 52.8% <p>POLICY</p> <ul style="list-style-type: none"> • Enact policies and regulations to support insurance coverage for counseling and self-management programs and CDC recognized lifestyle change programs (i.e. NDPP & others) • Support local food development systems • Increase geographic availability of supermarkets in underserved areas • Adopt a budget that funds high-priority population health initiatives that implement obesity prevention and control strategies
<p>1.A.3 1.A.4 1.B.3</p> <p>Increase physical activity</p>	<p>COMMUNITY</p> <ul style="list-style-type: none"> • Increase the number of ECEs that develop and/or adopt policies to increase physical activity Baseline: 56 • Provide evidence based professional development /technical assistance to schools and administrators on physical education policies and physical activity Baseline: 153 • Increase the number of worksites that develop and/or adopt policies to increase physical activity Baseline: 220 • Increase built environment / grassroots support to reinforce healthy behaviors for community policy changes (# community mini grant recipients) Baseline: 103 FY2015 <p>HEALTH SYSTEMS</p> <ul style="list-style-type: none"> • Increase the proportion of health care systems with practice policies to record physical activity as a vital sign • Increase the number of practice policies to advise/counsel patients on weight management & risk factors for obesity • Increase referrals to self-management programs (DSME and others) • Increase proportion of people with diabetes in targeted settings who have at least one encounter at a Diabetes Self-Management program Baseline: 2.7% • Increase referrals to CDC recognized lifestyle change programs (i.e. National Diabetes Prevention Program) Baseline: 52.8%

Strategies

PRIORITY GOALS	STRATEGIES/MEASURES
<p>1.A.3 1.A.4 1.B.3</p> <p>Increase physical activity</p>	<p>POLICY</p> <ul style="list-style-type: none"> • Increase the number of statewide multi-level physical education and physical activity polices adopted by the state Baseline: 10 • Increase the number of state level recess policies adopted by the state Baseline: 0 • Enact policies and regulations to support insurance coverage for counseling and self-management programs and CDC recognized lifestyle change programs (i.e. NDPP & others) <p>Adopt a budget that funds high-priority population health initiatives that implement obesity prevention and control strategies</p>
<p>2.0</p> <p>Improve key chronic disease health indicators</p>	<p>COMMUNITY</p> <ul style="list-style-type: none"> • Increase awareness and identification of high blood pressure Baseline: 75.4% • Increase awareness and identification of diabetes Baseline 50.0% • Increase awareness and identification of pre-diabetes • Increase awareness of self-management programs • Increase proportion of people with diabetes in targeted settings who have at least one encounter at a Diabetes Self-Management program Baseline: 2.7% <p>HEALTH SYSTEMS</p> <ul style="list-style-type: none"> • Increase the proportion of health care systems with EHRs to treat patients w/HBP Baseline: 91.7% in selected 3 areas • Increase the proportion of health care systems that utilized team based care Baseline: 66.7% in selected 3 areas • Increase the number of patients who have been advised by their health care provider to reduce sodium consumption Baseline: 24.7% BRFSS • Proportion the WV adults who are watching or reducing sodium or salt intake Baseline 46.4% BRFSS • Increase the proportion of patients w/ HBP in adherence to medication regimens Baseline: 73.3% in selected 3 areas • Increase proportion of patients w/ HBP that have a self-management plan Baseline: 41.0% in selected 3 areas • Increase proportion of adults w/ HBP who have achieved control Baseline: 66.8% on selected 3 areas • Increase the number of Diabetes Self-Management Education programs (ADA; AADE; DSMP; EDC) Baseline for ADA & AADE=30 • Decrease the proportion of persons w/diabetes with A1c >9 Baseline: 26.9% in selected 3 areas • Increase the proportion of health care that have polices/practices to refer patients at risk to the National Diabetes Prevention Program Baseline: 52.8% • Increase the number of persons at risk who enroll in the National Diabetes Prevention Program Baseline: 113 • Increase the number of persons enrolled in the National Diabetes Prevention Program who achieve 5-6% weight loss (CDC DPRP) Baseline:52.8%

Strategies

PRIORITY GOALS	STRATEGIES/MEASURES
<p>2.0 Improve key chronic disease health indicators</p>	<ul style="list-style-type: none"> • Increase the number of practice policies to advise/counsel patients on weight management & risk factors for obesity <p>POLICY</p> <ul style="list-style-type: none"> • Create a centralized chronic disease registry • Provide incentives for medical practices to implement evidence-based guidelines for chronic disease management and prevention • Enact policies and regulations to support insurance coverage for counseling and self-management programs and CDC recognized lifestyle change programs (i.e. NDPP & others) • Increase the number of Medicaid recipients with diabetes who have DSME as a covered benefit Baseline: 3.13% • Increase budgets that funds high-priority population health initiatives that implement obesity prevention and control strategies <p>Support state tobacco policy initiatives</p>
<p>1.B.4 1.B.5 Promote Breastfeeding</p>	<p>COMMUNITY</p> <ul style="list-style-type: none"> • Promote breastfeeding using evidence-based curriculums, especially during home visits • Support all women to promote breastfeeding <p>HEALTH SYSTEMS</p> <ul style="list-style-type: none"> • Offer evidence-based provider training for breastfeeding • Provide support to hospitals working to become designated baby friendly/Mountain State Milestones • Offer certified lactation training to WV providers

Public Policy in West Virginia Related to Obesity

stateofobesity.org

Foods and Beverages	U.S.	West Virginia
Nutritional Standards for Competitive Foods in Schools	38 + D.C.	
Limits on Competitive Foods in Schools	29 + D.C.	
Farm to School Programs	50 + D.C.	
Menu Labeling Laws	4	
Sugar – Sweetened Beverage Taxes **	34 + D.C.	

Physical Activity	U.S.	West Virginia
Physical Education Requirements	50 + D.C.	
Physical Activity Requirements ***	22 + D.C.*	
Shared Use Agreements	29*	
Safe Routes to Schools	50 + D.C.	
Complete Streets Programs	28 + D.C.	

Health Assessments and Education in Schools	U.S.	West Virginia
Health Assessments and Screening	21	
Health Education Requirements	48 + D.C.	

*designates changes since information was last update on the stateofobesity.org website

**recommendation is 10% - while the average is 7% and WV is 5% ...stateofobesity.org

*** recommendation is 60 minutes daily; WV Policy 2510 is for 30 minutes daily

Cost Savings

It may be estimated that if obesity in West Virginia was reduced by just 1%, then \$52,613,430 * direct and indirect expenses could be saved in West Virginia annually.

**Estimated in 2009 dollars*

Source: Dor, et al. (2010) *Total Cost Per Person 2009*

**Reducing the
prevalence of
obesity in West
Virginia
by just
1%**

**May save
West Virginia over
\$52.6
Million/Year**

Cost Savings

It may be estimated that if West Virginia's 2020 target level of obesity is reduced to 33.0% from the current (2013) proportion of 35.1%, then \$110,488,203 of costs attributable to obesity will be saved annually.

**Reducing the
prevalence of
obesity in West
Virginia
by just
2.1%**

**May save
West Virginia over
\$110
Million/Year**

Source: Calculated from Dor, et al. (2010) *Total Cost Per Person, 2009*

Moving towards a healthier WV!



Questions?

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Thank you!