

# CDC PUBLIC HEALTH GRAND ROUNDS

## Preventing A Million Heart Attacks and Strokes: A Turning Point for Impact



Accessible Version: <https://youtu.be/Dj4XNpMvKME>

**September 16, 2014**



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

# Million Hearts<sup>®</sup>: Where We Are and Where We Need to Go



**Janet Wright, MD, FACC**

*Executive Director, Million Hearts<sup>®</sup>*

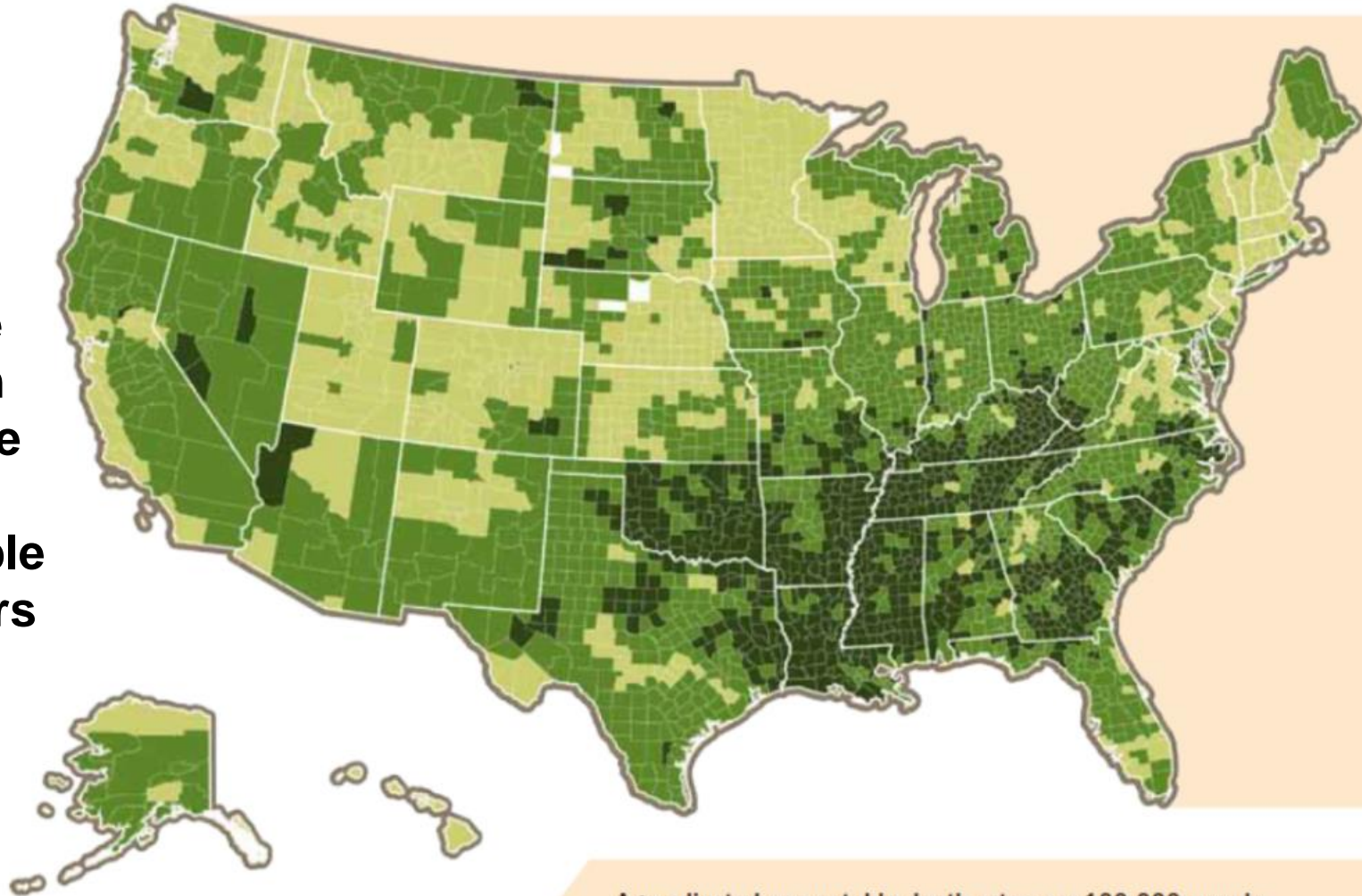
Division for Heart Disease and Stroke Prevention, CDC  
Center for Medicare and Medicaid Innovation

# Heart Disease and Stroke: Deadly, Costly, Unequal

- ❑ **More than 1.5 million heart attacks and strokes each year**
- ❑ **Cause of 1 of every 3 deaths**
  - 800,000 cardiovascular disease deaths
  - \$315.4 billion in healthcare costs and lost productivity
- ❑ **Leading contributor to racial disparities in life expectancy**

# ...and Preventable

**Each year,  
200,000  
preventable  
deaths from  
heart disease  
and stroke  
occur in people  
under 75 years  
old**



SOURCE: National Vital Statistics System,  
US Census Bureau, 2008-2010.

View more maps at the Interactive Atlas for Heart Disease  
and Stroke: <http://nccd.cdc.gov/DHDSAtlas/>

Age adjusted preventable death rates per 100,000 people



# Million Hearts®

**Goal: Prevent 1 million heart attacks  
and strokes by 2017**

- ❑ US Department of Health and Human Services initiative, co-led by**
  - Centers for Disease Control and Prevention (CDC)
  - Centers for Medicare & Medicaid Services (CMS)
- ❑ Partners across federal and state agencies and private organizations**

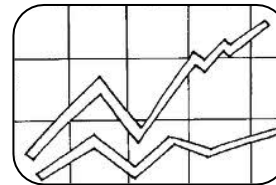
# Key Components of Million Hearts<sup>®</sup>

Keeping Us Healthy  
*Changing the environment*



Health  
Disparities

Excelling in the ABCS  
*Optimizing care*



Focus on  
the ABCS

Health  
information  
technology

Innovations in  
care delivery

ABCS: Aspirin when appropriate, Blood pressure control, Cholesterol management, Smoking cessation

# Preventing a Million: Targets for Our Environment

Intervention	2009 - 2010 Pre-Initiative Estimate	2017 Target
Smoking prevalence	26%	10% reduction (~24%)
Sodium reduction	3580 mg/day	20% reduction (~2900 mg/day)
Trans fat reduction	0.6% of calories	100% reduction (0% of calories)

# Preventing a Million: Targets for Optimizing Care

<b>Intervention</b>	<b>2009 - 2010 Pre-Initiative Estimate</b>	<b>2017 Population- wide Target</b>	<b>2017 Clinical Target</b>
Aspirin when appropriate	54%	65%	70%
Blood pressure control	53%	65%	70%
Cholesterol management	33%	65%	70%
Smoking cessation	22%	65%	70%



# Million Hearts<sup>®</sup> Lessons Learned: Getting to Goal

## Challenges

- ❑ Perception that heart attack and stroke are inevitable
- ❑ Competing priorities
- ❑ Incomplete adoption of evidence-based approaches
- ❑ Isolated efforts

## Solutions

- ❑ Clear, consistent, compelling action steps; real-life high-performers
- ❑ Making cardiovascular health a national priority
- ❑ Practical, ready-to-use tools and resources; value-based models of care
- ❑ Collaboration is key

# Million Hearts® Progress

## ❑ Goal of Million Hearts® resonates

- 1.3 million hits to website, 48,000 e-newsletter subscribers

## ❑ Strong teamwork across HHS and beyond

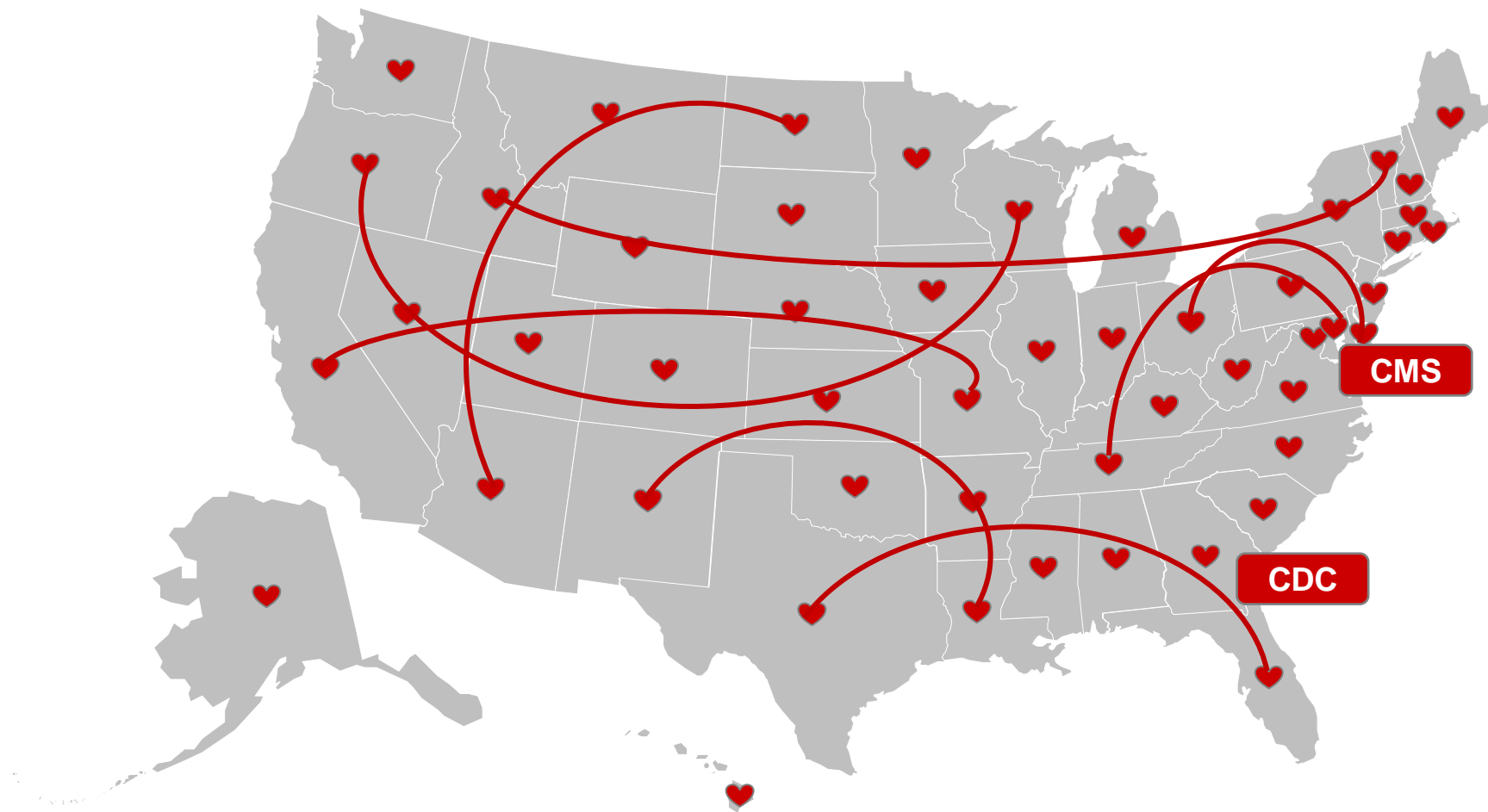
- Measure alignment (comparing apples to apples)
- Data-sharing and analysis
- Tool development and sharing

## ❑ Successes in the field

- Champions are teaching what works
- Programs are aligning for reach and impact



# Million Hearts<sup>®</sup> Progress Public Health-Healthcare Collaboration



# Monitoring Progress

## Short-term Outcomes

Performance Indicators	Data Source	2011	2012	2013
<b>Outpatient EHR adoption</b>	<b>NAMCS EHR supplement</b>	<b>34%</b>	<b>40%</b>	<b>48%</b>
<b>Clinical Quality Measure Reporting</b>	<b>PQRS GPRO (ABCS)</b>	<b>n=46</b>	<b>n=58</b>	<b>n=147*</b>
<b>Sodium procurement policies</b>	<b>Chronic disease state policy tracking system</b>	<b>2</b>	<b>5</b>	<b>6</b>
<b>100% smoke-free coverage in US</b>	<b>Americans for non-smoker's rights; CDC</b>	<b>48.1%</b>	<b>48.9%</b>	<b>49.1%</b>
<b>E-update subscribers</b>	<b>Gov't subscription service</b>	<b>34,071</b>	<b>38,344</b>	<b>43,726</b>

Results as of August 2014 except \*PQRS GPRO 2013 data preliminary, 09/16/14

EHR: Electronic health record

NAMCS: National Ambulatory Medical Care Survey

PQRS GPRO: Physician Quality Reporting System Group Practice Reporting Option

ABCS: Aspirin when appropriate, Blood pressure control, Cholesterol management, Smoking cessation

# Monitoring Progress Intermediate Outcomes

Performance Indicators	Data Source	2011	2012	2013
Aspirin use	NAMCS	54%	Summer 2014	UNK
	PQRS GPRO	N/A	83%	78%*
Blood pressure control	NHANES	53%	52%	2015
	PQRS GPRO	68%	69%	62%*
Cholesterol management	NHANES	33%	43%	2015
	PQRS GPRO	53%	56%	54%*
Smoking assessment and treatment	NAMCS	22%	Summer 2014	UNK
	PQRS GPRO	N/A	87%	83%*
Current smoking prevalence	NSDUH (combustible tobacco)	26%	25%	Winter 2014
	NHIS (cigarettes)	19%	18%	17.5%
Sodium intake (mg/day)	NHANES	3594	Fall 2014	2016

Results as of August 2014 except \*PQRS GPRO 2013 data preliminary, 09/16/14.  
PQRS GPRO: Physician Quality Reporting System, Group Practice Reporting Option.  
NHANES: National Health and Nutrition Examination Survey.  
NHIS: National Health Interview Survey.

NAMCS: National Ambulatory Medical Care Survey.  
UNK: Unknown.  
N/A: Not available.  
NSDUH: National Survey on Drug Use and Health.

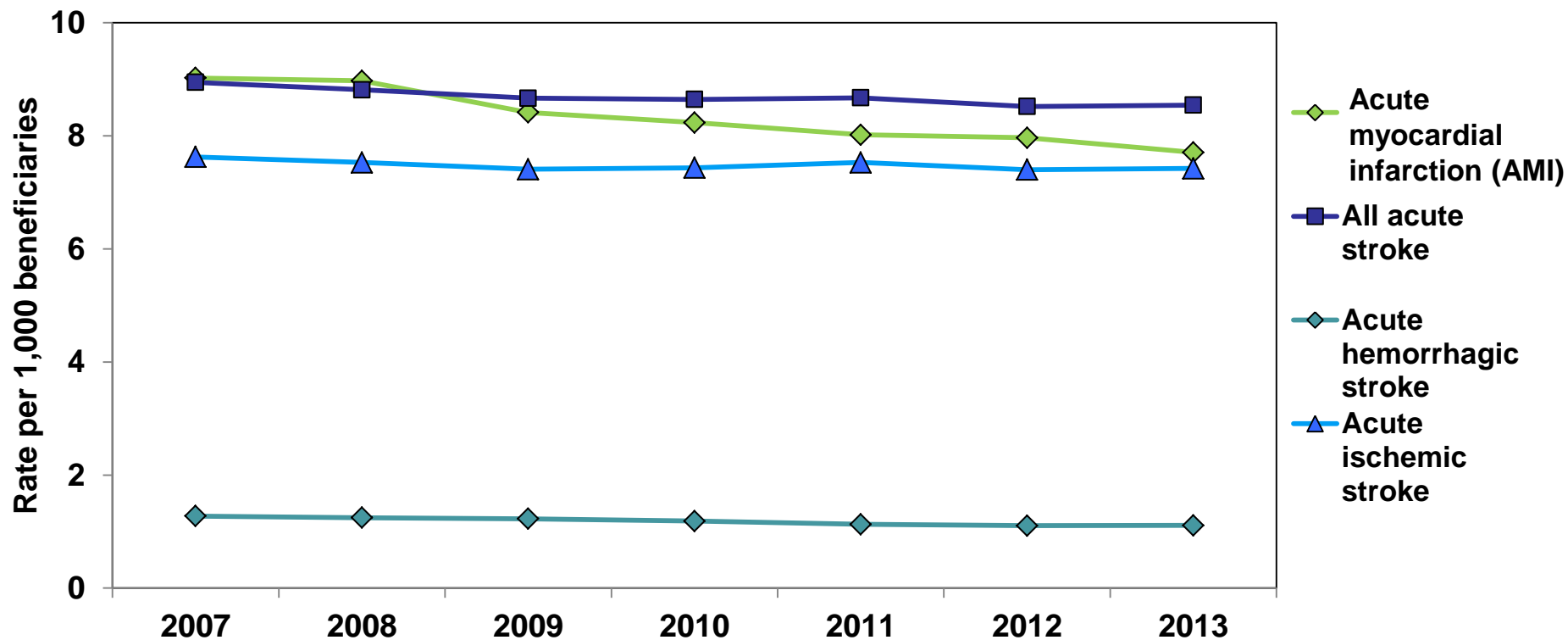
# Monitoring Progress Long-term Outcomes

## Performance Indicators

## Data Source

Medicare Fee for Service - AMI and stroke hospitalization rates

CMS Dashboard  
(per 1,000 beneficiaries)



Results as of August 2014. CMS: Centers for Medicare & Medicaid Services.

Rates are among those beneficiaries aged  $\geq 65$  years with Medicare Part A and B coverage and were adjusted to appropriately represent the number of full-time equivalent beneficiaries enrolled during the period and the 2010 Medicare population age distribution.

# Million Hearts® Progress

## *Changing the Environment*

### ☐ **More smoke-free space means fewer heart attacks**

- More than 125 communities have chosen to go smoke free

### ☐ **“Tips from Former Smokers”**

- Boosts quit attempts

### ☐ **CVS Health® stops selling tobacco products**

### ☐ **FDA’s artificial trans fat determination is pending**

### ☐ **Power of procurement to increase availability of foods lower in sodium**



# Million Hearts® Progress

## Optimizing Care – Performance on ABCS

“Dashboard” approach shows status of progress in ABCS by geographic area

**Million Hearts® Clinical Quality Measures for Selected State, Corresponding HHS Region, and National Values, as Reported by HRSA Health Care Sites**

ABCs Million Hearts® Clinical Quality Measures	Delaware		HHS Region 3 - Philadelphia		National	
	%	target	%	target	%	target
<b>A. Aspirin Use</b>	78%	●	76%	●	75%	●
<b>B. Blood Pressure Control</b>	61%	●	63%	●	63%	●
Blood Pressure Screening	n/a	●	n/a	●	n/a	●
<b>C. Cholesterol Management - Population</b>	n/a	●	n/a	●	n/a	●
Cholesterol Management - Diabetes	n/a	●	n/a	●	n/a	●
Cholesterol Management - IVD	n/a	●	n/a	●	n/a	●
<b>S. Smoking Assessment and Treatment</b>	49%	●	63%	●	63%	●

**Red** = 0% - 49%; **Yellow** = 50% - 69%; **Green** = 70%+; **Grey** = no data available



# Million Hearts® Progress

## Optimizing Care – Performance on ABCS

### Smoking Assessment and Treatment Performance Rates Reported by HRSA Healthcare Sites

Smoking Assessment and Treatment 2011



Smoking Assessment and Treatment 2013



#### Performance Rate

- 0-49%
- 50%-69%
- 70%+
- No data available

State-level data available from Healthcare Effectiveness Data and Information Set, Uniform Data System, and Physician Quality Reporting System

# Million Hearts<sup>®</sup> Progress

## *Addressing Health Disparities*

- ❑ **CDC-Association of State and Territorial Health Officials (ASTHO) Million Hearts<sup>®</sup> Hypertension Control Project**
  - Ohio improved hypertension control among African American males
    - From 70% to 73% in 6 months in 11 healthcare sites
- ❑ **CMS' Quality Improvement Organizations (QIO)**
  - Special projects in 3 states
    - Reaching over 1.9 million patients
    - Through 400+ practices and partners
- ❑ **Community and faith-based organizations**
  - NAACP
  - “100 Congregations” for Million Hearts<sup>®</sup>

# What Must Happen to Prevent a Million Heart Attacks and Strokes by 2017?

- ❑ 6.3 million smokers must quit
- ❑ 10 million people must control their hypertension
- ❑ There must be a 20% reduction in sodium intake

***Focus on populations  
with the greatest burden  
and at greatest risk***

# Success in Blood Pressure Control: 2013 Hypertension Champions

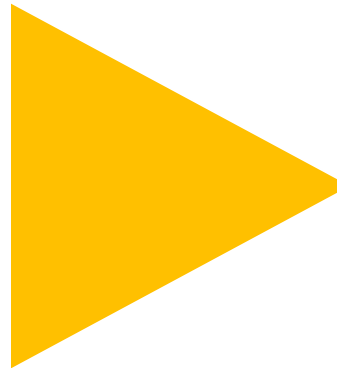


**Andrew Tremblay, MD**  
Chair, Department of Primary Care  
Cheshire Medical Center/Dartmouth-Hitchcock Keene

# Our Three-part Aim

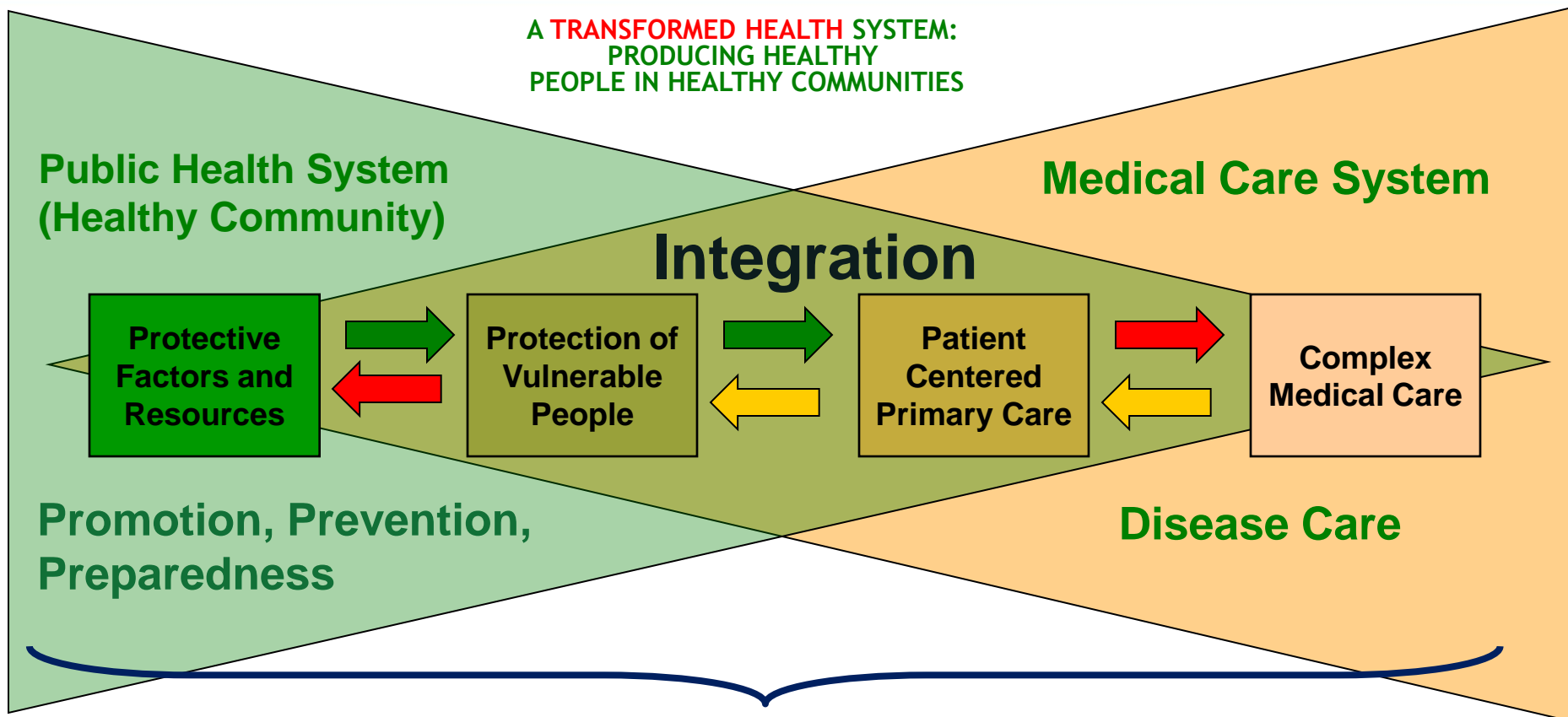
**Improve Health  
of All  
Residents**

**Create a  
Culture  
of Health**



**Decrease Medical  
Costs  
Allow Investment  
in Prevention**

# Integration of Public Health System and Medical Care System as a Strategic Concept



Community Partners and Individuals

# Cheshire Medical Center/Dartmouth-Hitchcock Keene (CMC/DHK)

- ❑ **38,000 active adult patients**
- ❑ **Over 125 providers**
  - Several multi-specialty groups
- ❑ **32% with hypertension**
  - Over 12,000 individuals
- ❑ **8.5% Medicaid-eligible**
- ❑ **3.7% racial or ethnic minority**

# Barriers to Optimal BP Control Observed at CMC/DHK

## ❑ Inconsistencies included

- Work flow between primary care teams (medical homes) and providers
- Engagement of specialty care departments
- Documentation, especially of second BP readings (dictation and vital flow sheet) by providers into EMR
- Inconsistent BP technique and multiple brands of equipment
- Lack of timely maintenance and calibration of equipment



# Additional Barriers Observed at CMC/DHK

- ❑ **Cost barrier of blood pressure rechecks and lack of consistent, centralized process**
- ❑ **Lack of resources to effectively manage registries**
- ❑ **No agreement on universal triage and treatment algorithms**
- ❑ **Varied process for flow staff to notify provider of elevated blood pressure**
- ❑ **Lack of engagement and alignment of patients and the community**

# Setting An Above Average Goal: 81% of Patients with HTN Control

- ❑ **Strategies deployed to improve HTN control**
  - Multidisciplinary Quality Improvement Team
    - Hypertension Champions
  
  - Free nurse clinics
    - Eliminated cost barriers
    - Implemented protocol based modifications
  
  - Electronic Health Record Use
    - Provider-specific registry coordination
  
  - Behavioral health strategies used to engage patients in convenient locations (e.g., YMCA, work, home)

# 10 Strategies for Success

- 1. Convened a multi-disciplinary team**
  - Grounded in our quality improvement framework and Clinical-Community Integration Model
  - Won the 2014 CMC/DHK Chairman's Award
- 2. Surveyed primary care providers and nursing staff about their barriers to adequate blood pressure control**
- 3. Calibrated all cuffs and standardized future purchasing**
- 4. Created a core competency for nursing staff in all departments and community partners**
  - YMCA, nursing homes and visiting registered nurses
- 5. Distributed a single blood pressure brochure throughout the community**
  - Consistent message and care plan prompt

# 10 Strategies for Success, continued

## 6. Created a nurse clinic

- No-cost blood pressure rechecks and triaging

## 7. Created single evidence-supported triage and treatment algorithms

- For primary care, specialty care, and community

## 8. Provided individual provider registries

- Monthly data feedback
- Increased the number of registry managers

## 9. Incentivized providers for meeting blood pressure control targets

## 10. Widely distributed “Know Your Numbers” wallet cards

- More than 12,000 issued

# Provider-specific Registry Management

Keene HTN BP out of control 0812.xlsx - Microsoft Excel

O2201

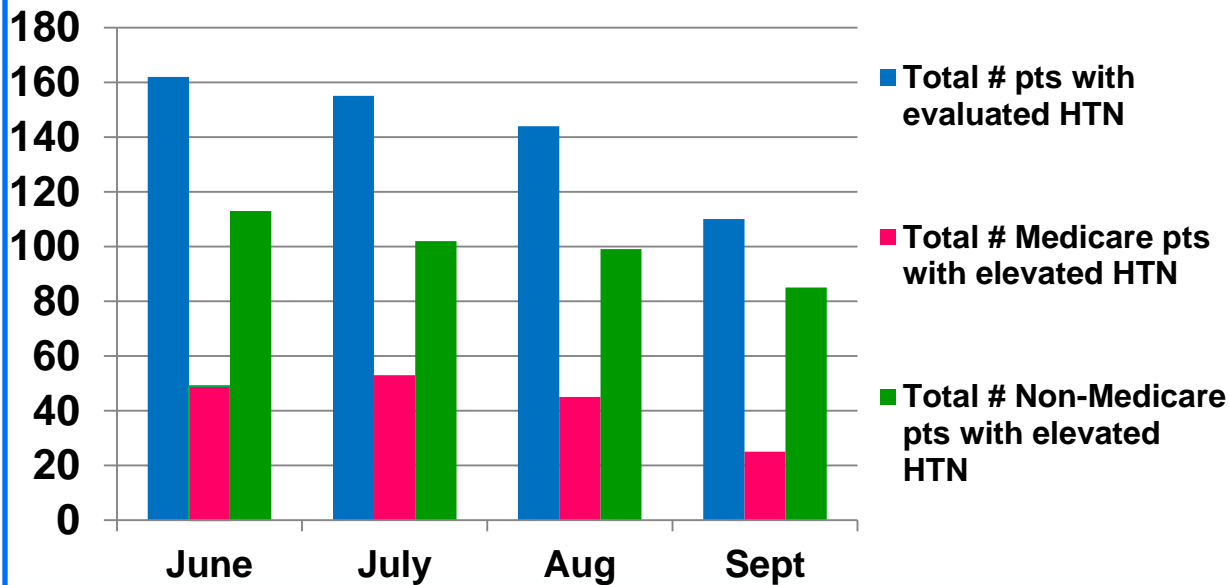
	D	E	F	G	H	I	J	L	M	N	O	P
1												
3	PCP	MRN	PATIENT NAME	FSC	VALU	BP Date	PCP Comment					
2189	TREMBLAY, ANDREW			MEDICARE	140/80	8/13/2012	F/UP PCP 10/23/12					
2190	TREMBLAY, ANDREW			MEDICARE	140/58	4/26/2012	F/UP PCP 10/25/12					
2191	TREMBLAY, ANDREW			MEDICARE	142/80	4/3/2012	F/UP PCP 10/26/12					
2192	TREMBLAY, ANDREW			MEDICARE	140/90	6/14/2012	F/UP PCP 11/16/12					
2193	TREMBLAY, ANDREW			MEDICARE	142/70	7/23/2012	F/UP PCP 11/20/12					
2194	TREMBLAY, ANDREW			MEDICARE	142/80	8/21/2012	F/UP PCP 12/11/12					
2195	TREMBLAY, ANDREW			MEDICARE	158/68	8/2/2012	Going to FL for winter 10/18/12 can not come in. 10/16/12					
2196	TREMBLAY, ANDREW			MEDICARE	168/76	9/9/2011	in rehab in FLORIDA l/m 6/27 + 7/24 Needs to schedule bp ck in NUC.					
2197	TREMBLAY, ANDREW			MEDICARE	148/70	3/14/2012	LMTCB needs pcp f/up					
2198	TREMBLAY, ANDREW			MEDICARE	140/90	12/12/2011	NUC BP ck 10/15/12					
2199	TREMBLAY, ANDREW			MEDICARE	150/98	8/2/2012	Updated BP 9/18/12 = 122/80					
2200	TREMBLAY, ANDREW			MEDICARE	144/78	6/18/2012	Updated BP 10/15/12 = 161/93,NUC					
2201	TREMBLAY, ANDREW			MEDICARE	148/88	6/26/2012	Updated BP 10/5/12 = 120/70					
2202	TREMBLAY, ANDREW			MEDICARE	142/78	8/16/2012	Updated BP 10/5/12 = 170/94					

**Example of  
Provider-specific  
Registry with  
personal  
identifiers  
removed**

# Tracking Progress Through Provider-specific Registry Management

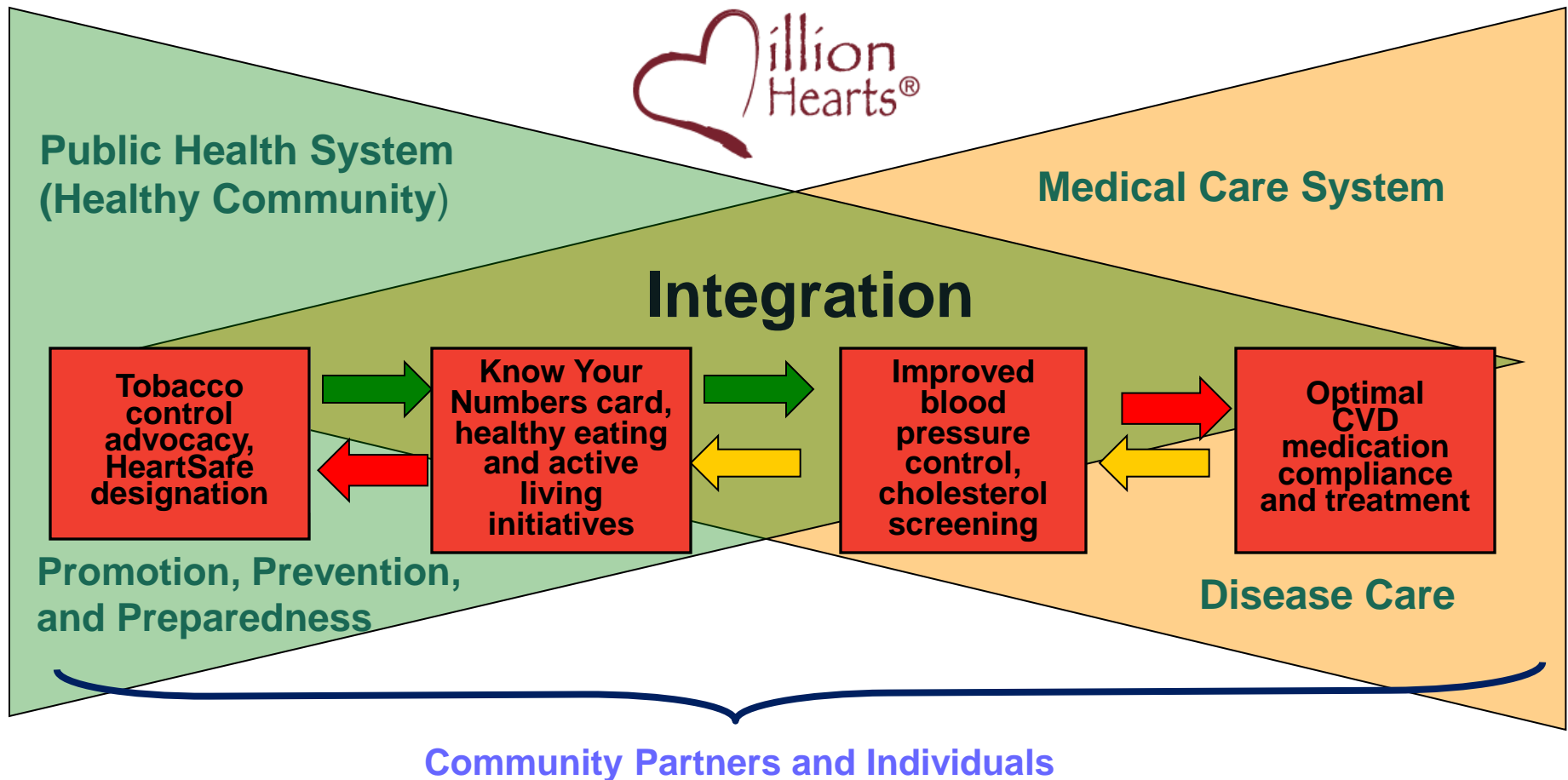
Dr Tremblays HTN Registry #'s  
2012

Month	Total # pt's with elevated HTN	Total # Medicare pt's with elevated HTN	Total # Non- Medicare pt's with elevated HTN
June	162	49	113
July	155	53	102
Aug	144	45	99
Sept	110	25	85



**Provider specific feedback provided both as charts and graphs**

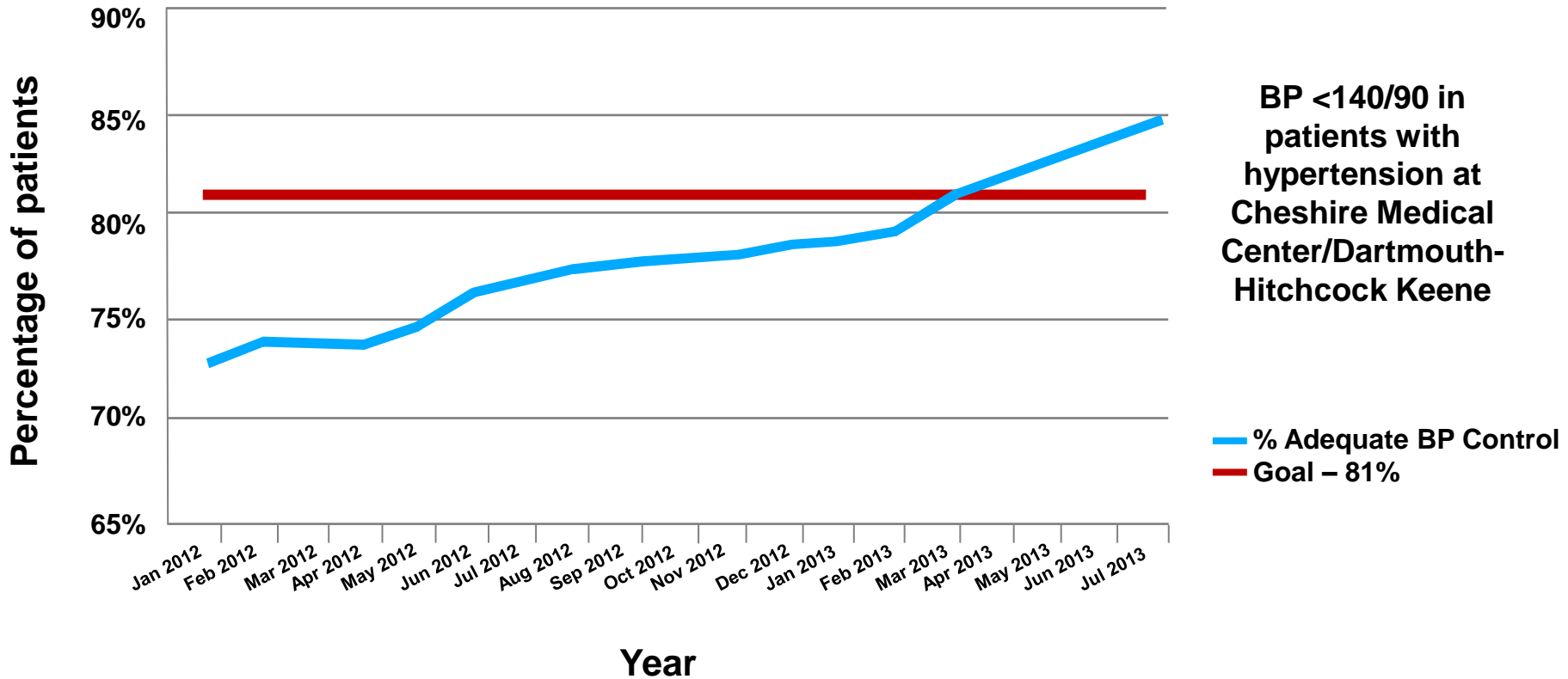
# Integration Applied to Million Hearts® Initiative



© Adapted by Y. Goldsberry, R. Fedrizzi, D. Bazos, L. Ayers LaFave and, J. Schlegelmilch from Centers for Disease Control and Prevention

CVD: Cardiovascular disease

# CMC/DHK Results: Control of Hypertension





# The Reward for a Job Well Done Is the Ability to Do More



□ **New Hampshire awarded an ASTHO/Million Hearts® Grant**

□ **CMC/DHK funded to:**

- Provide technical assistance to Federally-qualified Health Centers in 2 counties
- Replicate strategies and success in more diverse, urban settings



ASSOCIATION OF STATE AND TERRITORIAL HEALTH OFFICIALS

# Examples of New Community Partnerships



**Strengthened relationship and collaboration with the Manchester Health Department**

**YMCA will now offer reduced and no cost memberships to patients at Manchester Community Health Center**



At the Y, there are so many ways to feel great. Come check us out with this **complimentary guest pass**.



**The Organization for Refugee and Immigrant Success will provide a summer farm stand in the parking lot of Manchester Community Health Center to increase access to fresh fruits and vegetables**

# More to Do.....

- ❑ **Expanding registry coordination to provide comprehensive chronic disease management**
- ❑ **Explore the use of blood pressure kiosks**
- ❑ **“Activity is Good Medicine”**
- ❑ **Integrate nutrition counseling and therapy**
- ❑ **Pharmacist integration**
- ❑ **Spreading improvement**
- ❑ **A plan for maintaining gains**

# Tobacco Use Prevention in Massachusetts



**Patricia P. Henley, M.Ed.**

*Director, Office of Community Health and Tobacco Use Prevention*

Massachusetts Tobacco Cessation and Prevention Program

Massachusetts Department of Public Health

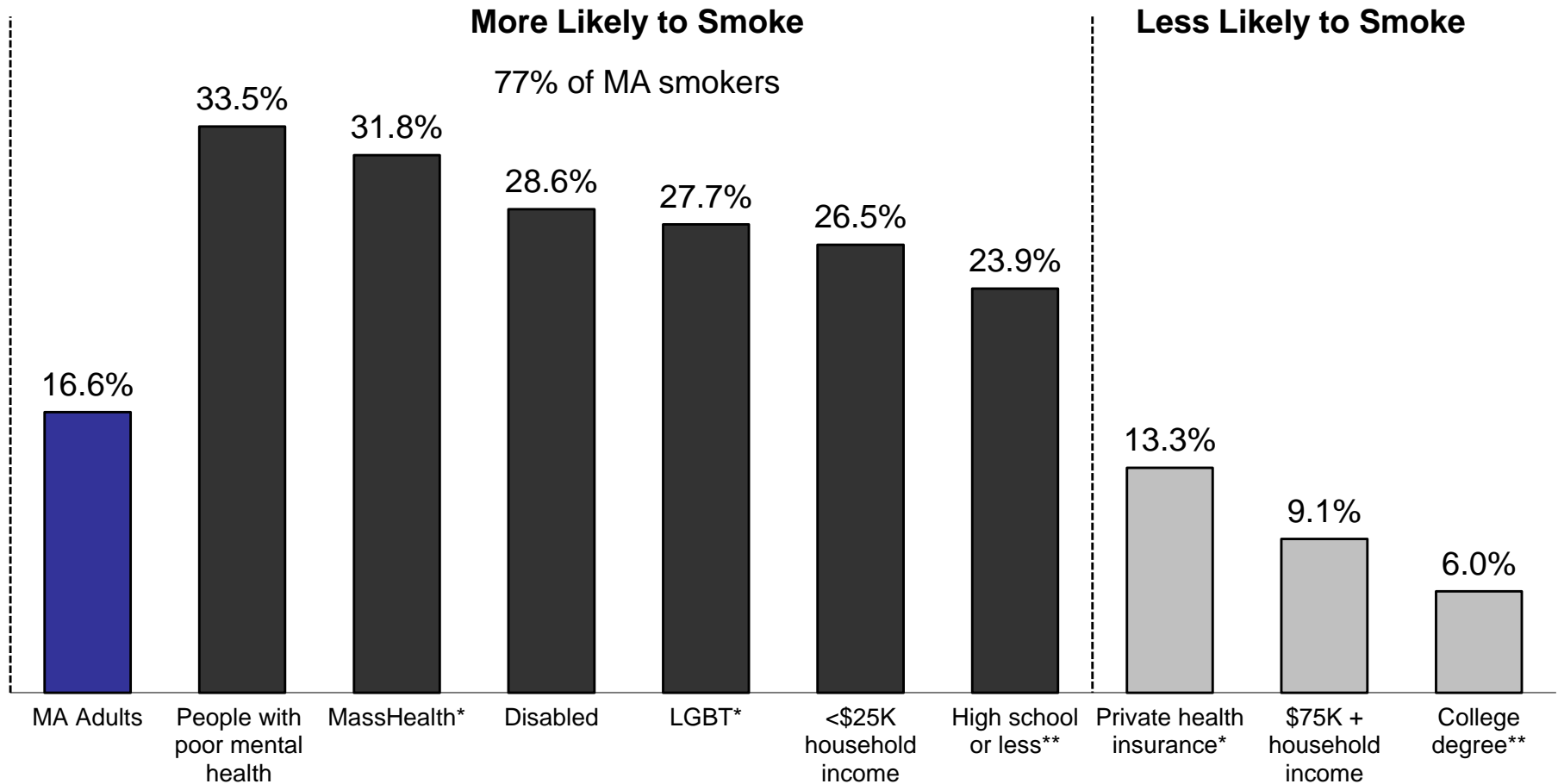
# The State of Massachusetts

## □ **Massachusetts is**

- 44<sup>th</sup> in the nation for land area
- 13<sup>th</sup> in the nation for population
- 1<sup>st</sup> in the nation for the number of local public health departments

## □ **351 municipalities with limited county government**

# Adult Smoking Prevalence Among Subgroups in Massachusetts, 2013



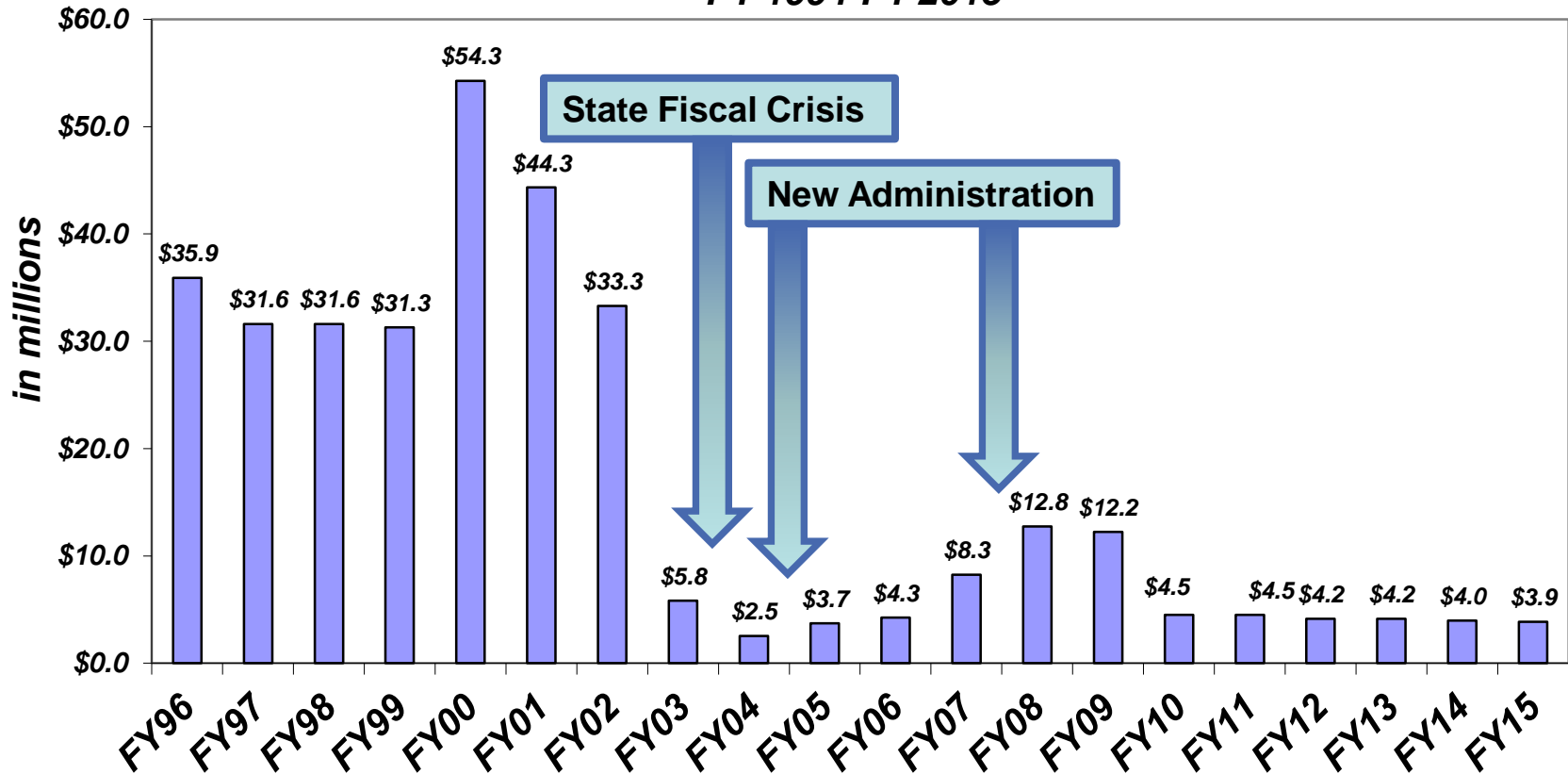
LGBT: Lesbian, Gay, Bisexual and Transgender  
Massachusetts Behavioral Risk Factor Surveillance System

\*Adults, age 18 - 64

\*\* Adults, age 25+

# Massachusetts Tobacco Control Program (MTCP) Budget

*MTCP Funding by Fiscal Year  
FY 1994-FY 2015*



# Massachusetts Tobacco Prevention Infrastructure at State and Local Levels

- ❑ **Despite budget cuts, maintained core infrastructure**
  - Local programs
  - Cessation services
  - Surveillance and evaluation
  - Legal and policy experts
  - Communications
    - Earned media, publicity gained through editorial influence\*
    - Paid media
  - Youth engagement
  - Quitline and QuitWorks
- ❑ **All of the above contribute to promoting sustainable policy change**

\* Earned media may include newspaper, television, radio, and the Internet, and may include formats such as news articles or shows, letters to the editor, editorials, and polls



# Local Boards of Health Programs

## ❑ 14 Board of Health tobacco control programs

- Cover 184 municipalities and 65% of MA population
- Provide local enforcement of tobacco regulations
- Retail store monitoring, inspections and compliance checks
- Local policy education and promotion



# Community Partnership Programs

## □ 8 Community Partnership programs

- Cover entire state in 8 regions
- Coordinate communications
  - Earned media
  - Local media outreach
- Build local partnerships
- Promote policy, systems and environmental strategies



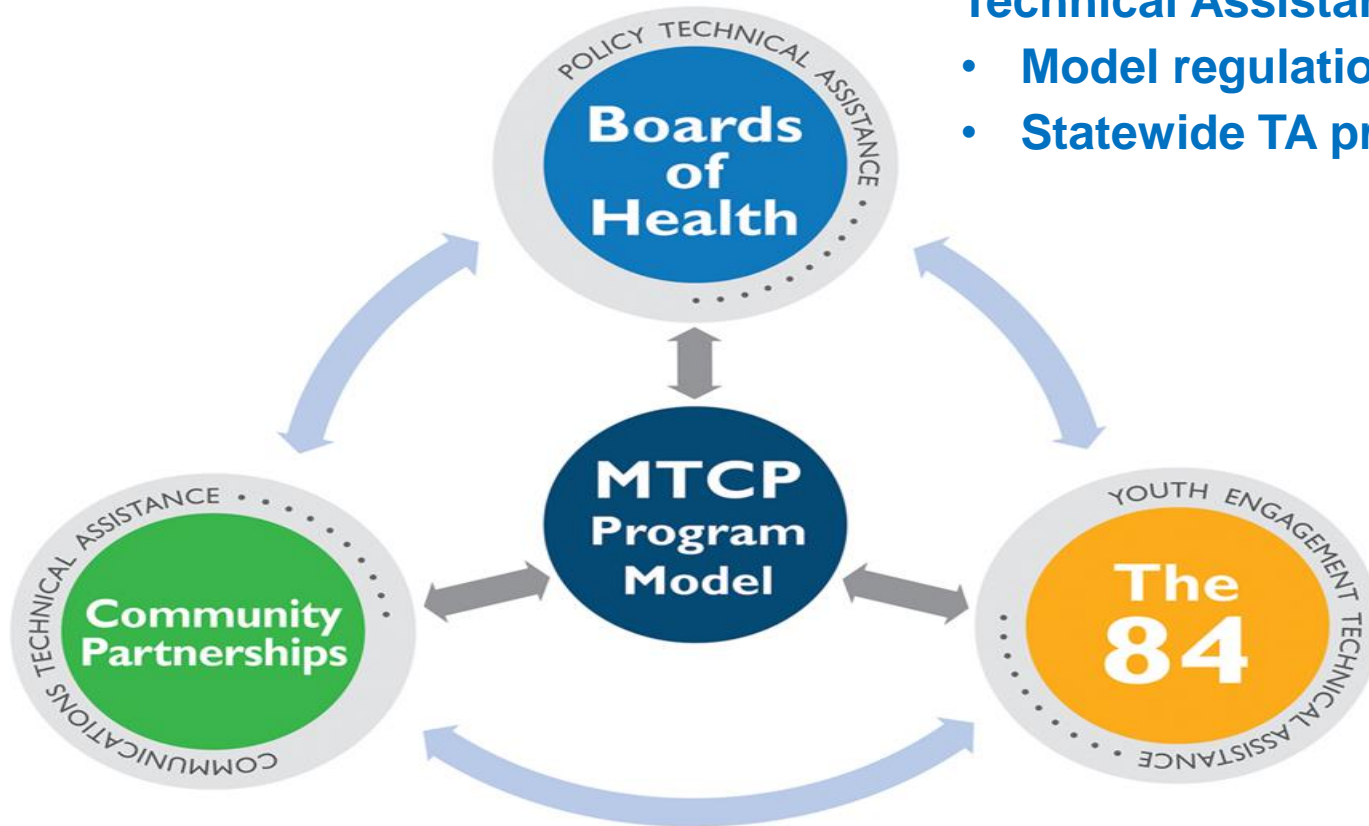
# The 84 Youth Prevention Program

## □ The 84 chapters

- Named after the 84% of youth who choose not to smoke
- 75+ chapters statewide
- Policy-focused youth groups
- Provide youth perspective to tobacco industry influence in their communities
- School-based chapters promote social norms and local policy



# MTCP Prevention Model



**Technical Assistance includes**

- **Model regulation language**
- **Statewide TA providers**

# Five Priorities for Tobacco Control in Massachusetts

- 1. Access to comprehensive cessation benefits for all state residents**  
*Goal: Increase smokers making quit attempts*
- 2. Protect youth from tobacco industry tactics**  
*Goal: Reduce number of youth who begin using tobacco*
- 3. Increase the price of tobacco**  
*Goal: Reduce all tobacco use*
- 4. Ensure all smokers receive intervention by healthcare providers**  
*Goal: Provide smokers with motivation to quit*
- 5. Protect everyone from secondhand smoke**  
*Goal: Protect the health of nonsmokers and smokers*

# Priority One: Access to Cessation Benefits through Quitline Programs

## ☐ **Quitline or The Massachusetts Smokers' Helpline**

- Discusses MA state health benefits for tobacco cessation with callers

## ☐ **QuitWorks**

- Educates healthcare providers about benefits available to patients who want or need to quit

## ☐ **Community programs promote cessation-related benefits and resources, including the Quitline**

## ☐ **Key characteristic of callers to the Quitline**

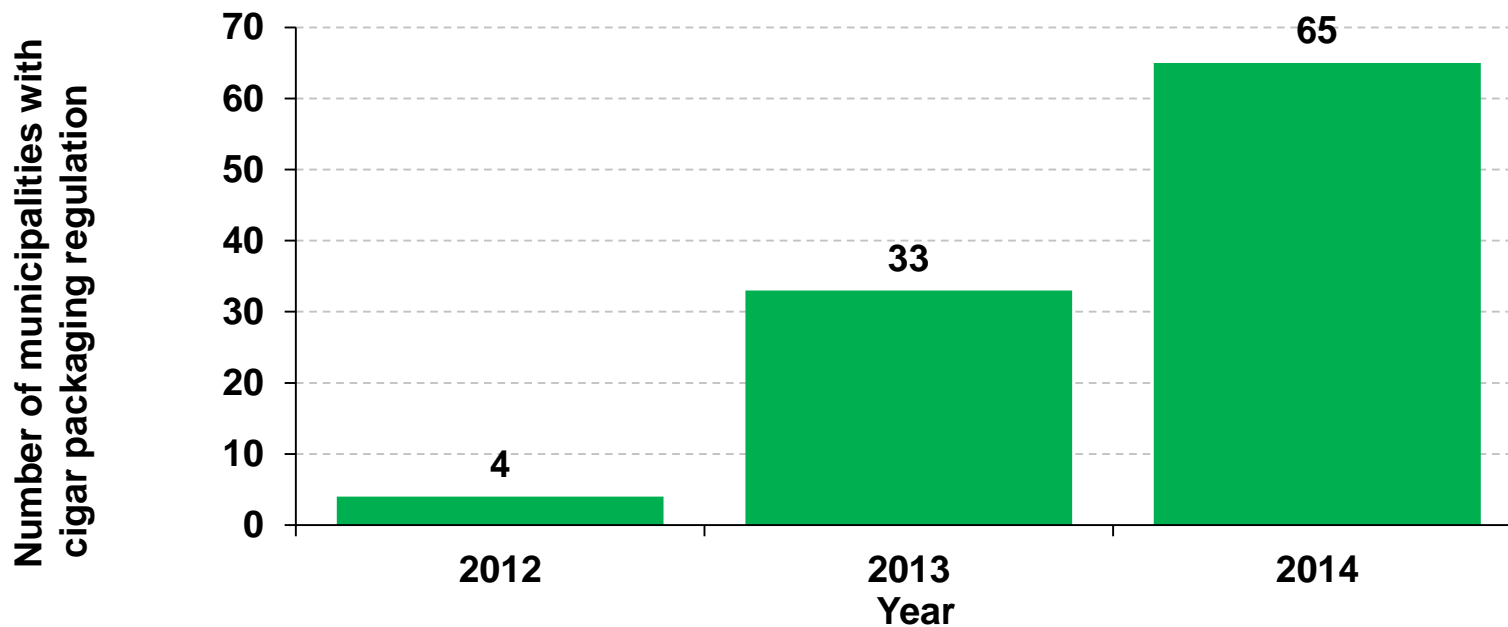
- 44% have Medicaid

# Priority Two: Protect Youth from Industry Tactics by Focusing on Local Policy Initiatives

- ❑ **Reducing tobacco retailer density**
  - Prohibiting the sale of tobacco in healthcare institutions
  - Limiting number of local tobacco retail permits
- ❑ **Pricing**
  - No single cigar packaging
- ❑ **Flavoring**
  - Restricting flavored tobacco products
- ❑ **Age restriction, including e-cigarettes**

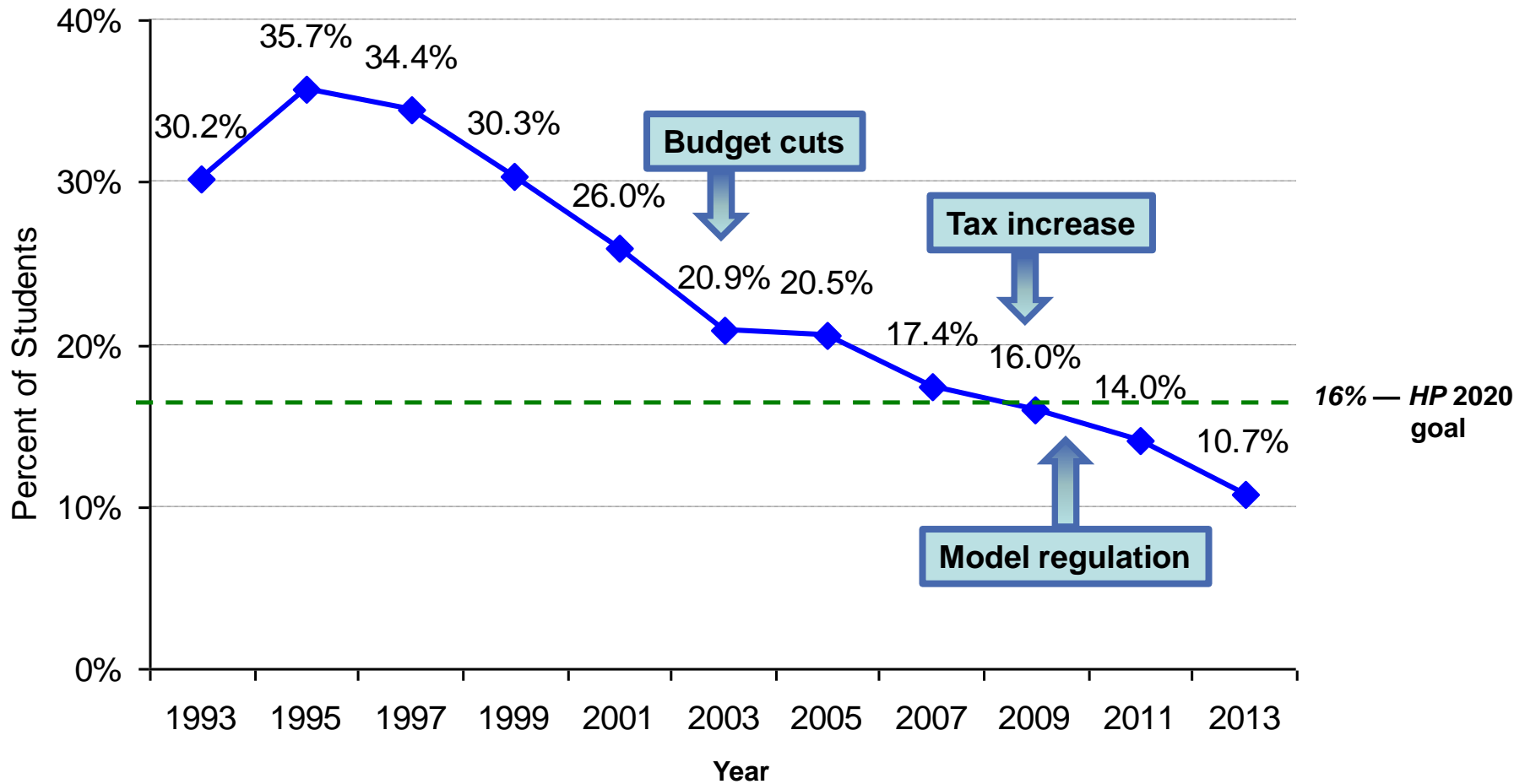
# Protect Youth from Industry Tactics: Cigar Packaging Regulation

- ❑ Regulation prohibits sale of cheap single cigars
- ❑ Single cigars cannot be sold for under \$2.50
- ❑ By 2014, 31.8% of the population covered by regulation





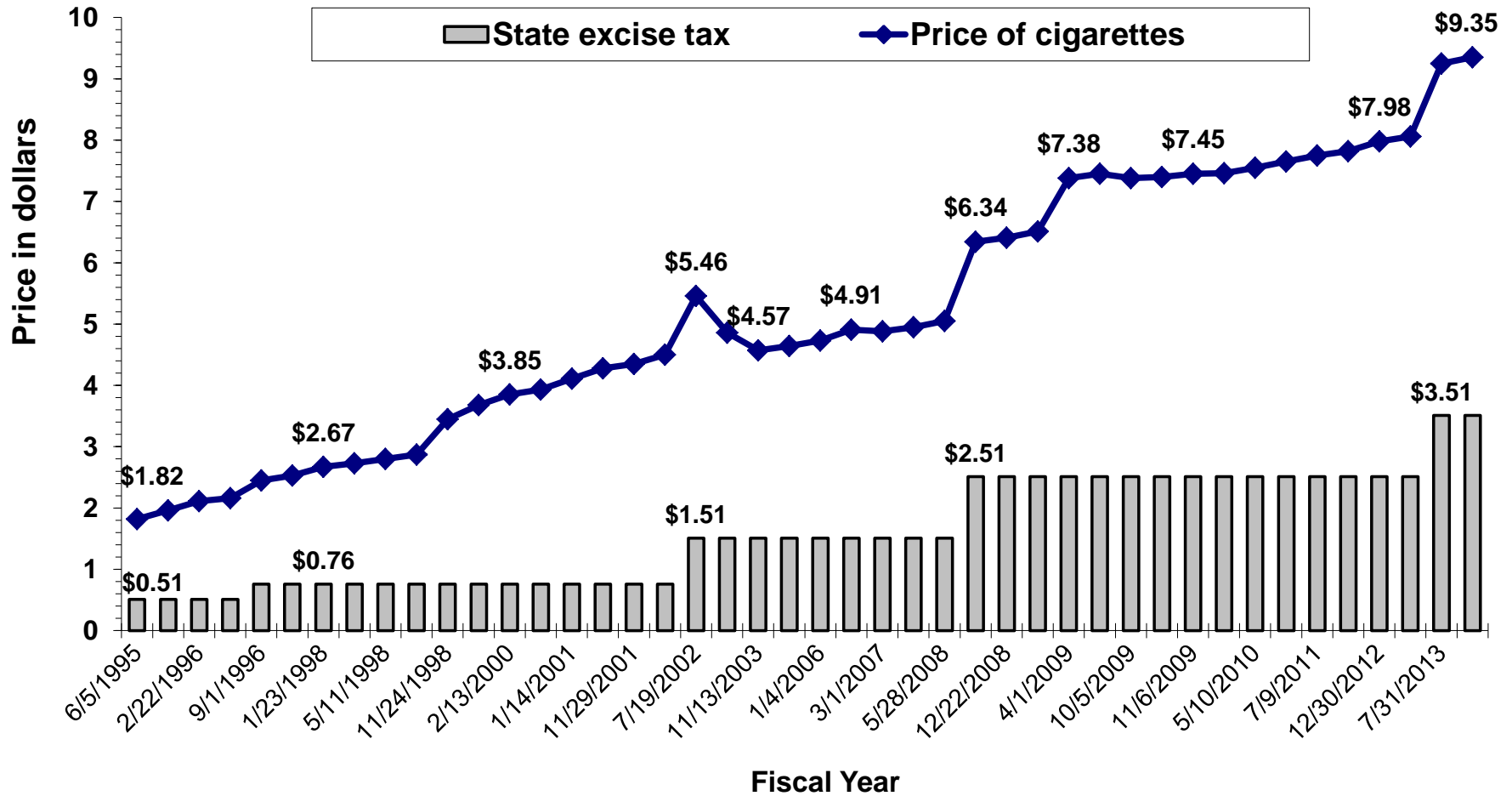
# Current Cigarette Use Among Massachusetts High School Students, 1993-2013



Current cigarette use: Smoked cigarettes one or more days during the past 30 days.

[www.doe.mass.edu/cnp/hprogrms/yrbs/](http://www.doe.mass.edu/cnp/hprogrms/yrbs/)

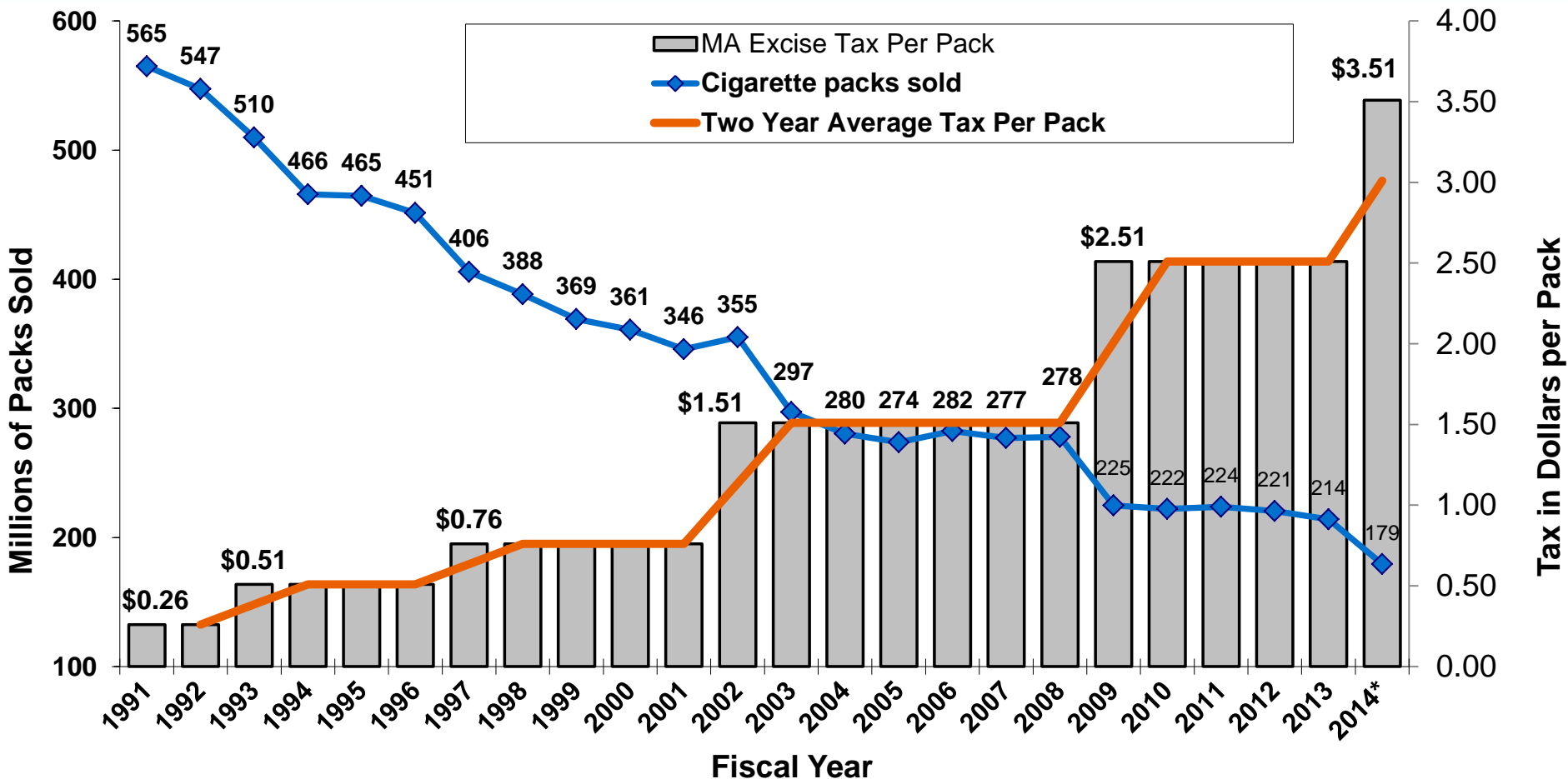
# Priority Three: Increase the Price of a Pack of Cigarettes



# Minimum Price Law

- ❑ **Regulations were issued in 1989 to enforce a 1945 law prohibiting retailers from selling cigarettes below cost**
- ❑ **Regulation provides a formula to calculate the minimum price**
- ❑ **The minimum price for Marlboro cigarettes in Massachusetts is \$9.54 per pack**
- ❑ **Not a public health law, but has public health benefits**

# Number of Cigarette Packs Sold Massachusetts, FY 1991 to FY 2014

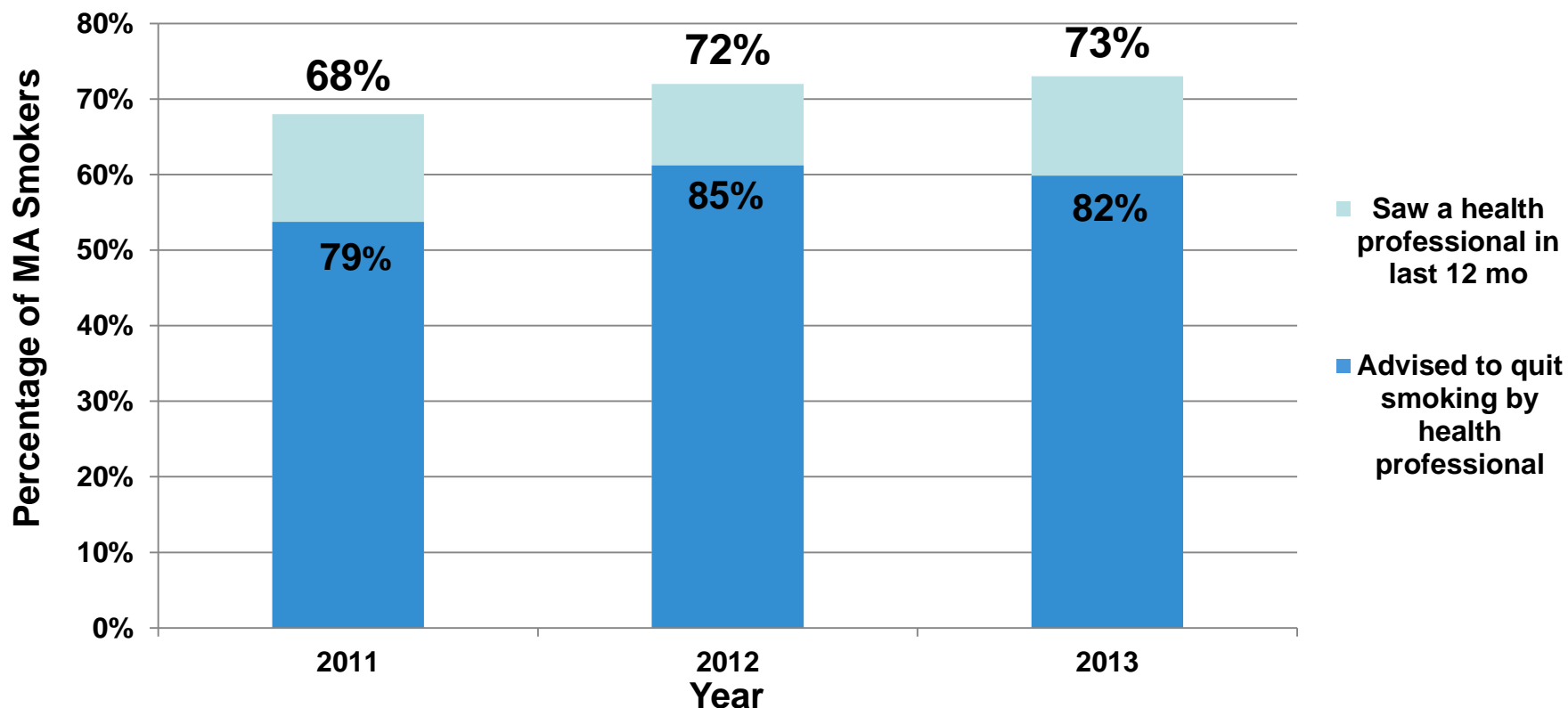


[www.mass.gov/dor/](http://www.mass.gov/dor/)

\* Projected for FY 2014 based on 10 months of data

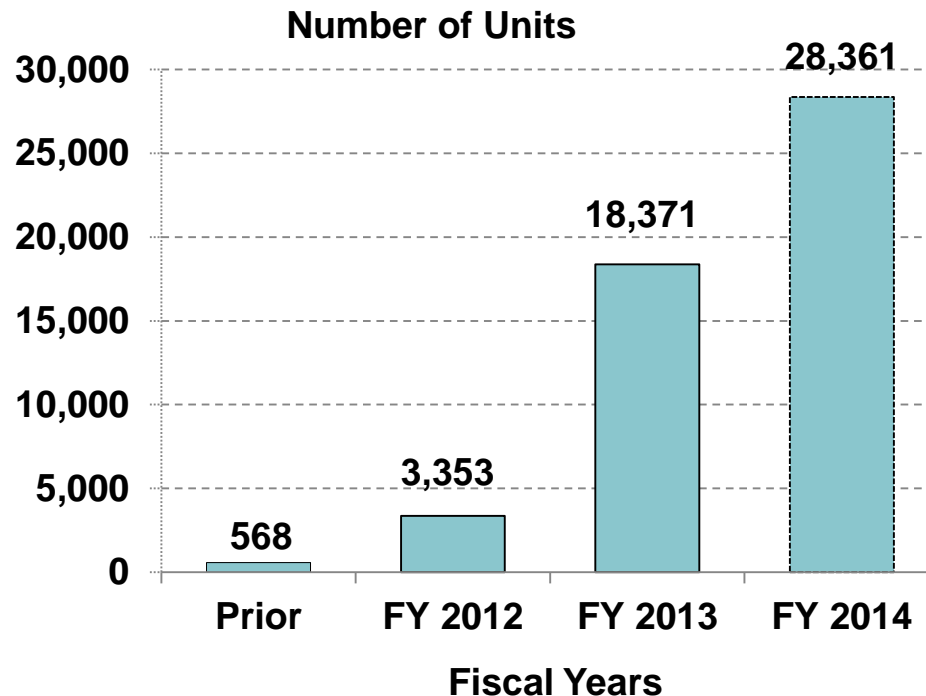
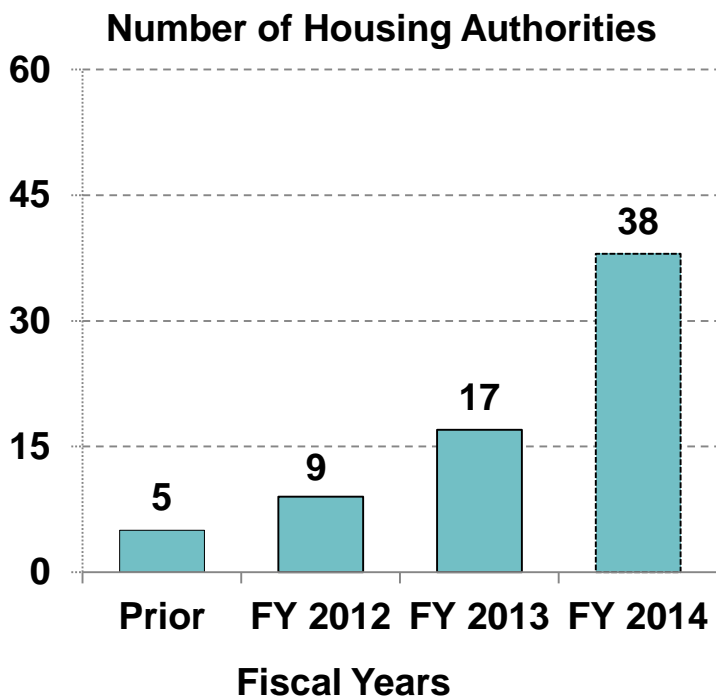
# Priority Four: Ensure All Smokers Receive Intervention by their Healthcare Provider

## Provider Interventions Among Massachusetts Smokers



# Priority Five: Protect All Massachusetts Residents from Secondhand Smoke

**As of June 2014, 38 public housing authorities with 28,361 units are smoke-free**



# Make Smoking History: the Role of Strong Public Policy

- ❑ **We focus on sustainable policies**
- ❑ **We focus on maintaining a core infrastructure to support strong policy strategies**
- ❑ **We base our strategies on both practice-based evidence and evidence-based practice**
- ❑ **We evaluate strategies and their impact**

# The work continues!





# Partnerships to Improve Cardiovascular Health through Sodium Reduction in Los Angeles County



**Patricia L. Cummings, MPH, PhD**

*Program Manager, Sodium Reduction Initiative*

*Epidemiologist, Division of Chronic Disease and Injury Prevention*

*Los Angeles County Department of Public Health*

# Improving Cardiovascular Health in Los Angeles County (LAC)

## ❑ Million Hearts<sup>®</sup> efforts in LAC

- ABCS
- Sodium reduction
- Clinical preventive services
- Clinical community linkages

## ❑ Sodium reduction initiative

- Case study: 100% Healthy Vending Machine Policy

## ❑ Lessons learned

## ❑ Next steps



ABCS: Aspirin when appropriate, Blood pressure control, Cholesterol management, Smoking cessation

# Cardiovascular Disease Risk Factors and Burden of Disease in Los Angeles County

24% of adults in Los Angeles County (LAC) have been diagnosed with hypertension

Heart attacks and stroke are leading causes of death in LAC

# Sodium: A Public Health Primer

## ❑ Current levels of sodium ingestion are not safe

- Average sodium intake 3,400 - 3,500 mg/day in U.S.
  - Reduce to <2,300 mg/day for general population
  - Reduce to 1,500 mg/day for specific populations
    - Persons 51 years of age or older, African Americans, and persons with high blood pressure, diabetes, or chronic kidney disease

## ❑ Difficult for consumers to reduce sodium intake

- 74% of adults are unaware of the recommended daily sodium intake limit
- Most sodium added before food preparation or serving

# Opinions on Sodium in Los Angeles County

81% (5.6 million) LAC adults (18+ years) agree there should be restrictions placed on how much sodium is added to packaged and restaurant foods

70% of LAC adults favor reduced access to unhealthy snacks and beverages in vending machines in public buildings and work sites

68% agree there should be policies or requirements to lower sodium content of foods in workplace cafeterias

# Los Angeles County Sodium Reduction Initiative



**SALT**

is **hidden** in many places you may not suspect.

Too much salt can raise blood pressure and lead to heart attack and stroke.

.....  
[CHOOSEHEALTHLA.COM](http://CHOOSEHEALTHLA.COM)

- ❑ **Supported by CDC's Sodium Reduction in Communities Program (SRCP)**
  - 2010-2013 and 2013-2016: County of Los Angeles government, City of Los Angeles government, school districts, and hospitals
- ❑ **Goal** — to reduce population sodium intake in Los Angeles County
- ❑ **Implementing strategies to improve food service venues**
  - Lower-sodium products, reduced portion sizes, menu labeling, pricing, placement, and promotion/media
- ❑ **National partners:** Million Hearts<sup>®</sup> and NSRI

# DPH Healthy Food Procurement (HFP) Initiative

- ❑ **Local, State, and Federal Partnerships**
- ❑ **2010:** HFP initiative launched by LA County DPH
- ❑ **2011\*:** County of Los Angeles Board Motion requires DPH to make nutrition recommendations for all new or renewing food service contracts in the county
  - *Vending Machine Nutrition Policy* (adopted in 2006; revised in 2010)
- ❑ **2010 - present:** worked with 6 of 12 departments
  - e.g., Chief Executive Office, Beaches & Harbors, Health Services, Public Works, Parks and Recreation, Probations

DPH: Department of Public Health

HFP initiative is supported by CDC's Communities Putting Prevention to Work, Sodium Reduction in Communities Program, and Community Transformation Grant.

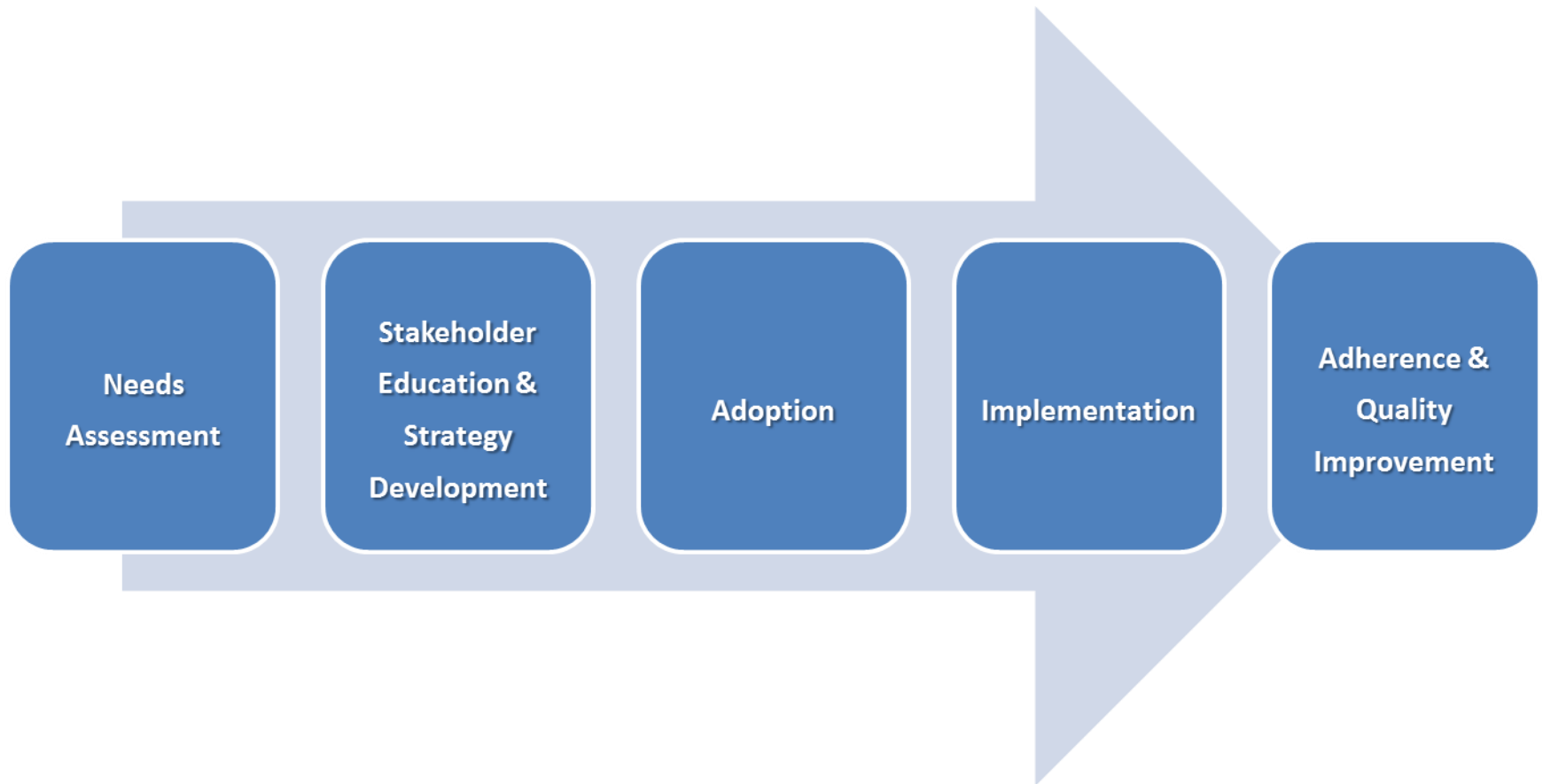
# Food Service Environments in Los Angeles County (LAC)

- ❑ **37 departments with 100,000+ staff**
  - 12 departments purchase, sell, and/or distribute food
- ❑ **2 main categories of food service in LAC**
  - 1. Meals and snacks served to dependent community members**
    - Distributive meals (senior meals, after-school snacks), meals served to hospitals, institutionalized populations (probations)
  - 2. Food sold on government property**
    - Concession operations (cafés, snack shops), food trucks, work-site cafeterias, vending machines
- ❑ **Estimated 37 million meals and snacks served each year**



# Operationalizing Healthy Nutrition Standards

## DPH's 5-Phase Process Framework



# Food Service Contracting Process: What's Nutrition Got to Do With It?

- ❑ **Contracting process is similar to applying for a grant**
  - Letter of Intent and Proposal
- ❑ **DPH recommended standards and purchasing practices are incorporated into RFP and IFB**
- ❑ **Bidders conferences are a requirement for the contract solicitation process**
  - Allows prospective bidders to ask questions
  - DPH presents nutrition standards and answers questions
- ❑ **Once vendor is selected and contract is executed, DPH recommendations become requirements**

# Example of Recommendations for Placement and Promotion in Vending Machines



**ADVERTISE A HEALTHY BEVERAGE CHOICE**  
such as water in promotional space

**PLACE BOTTLED WATER AT EYE LEVEL**  
provide at least 2 or more slots for water

**PLACE SIGNAGE**  
on vending machine to highlight  
healthy options

**PLACE DIET SODA AND  
SWEETENED BEVERAGES**  
with a higher calorie count on the bottom shelf



# Vending Machine Nutrition Policy

**ALL SNACKS SOLD IN COUNTY-CONTRACTED VENDING MACHINES MUST ADHERE TO THE FOLLOWING NUTRITION GUIDELINES:**

**AN INDIVIDUALLY SOLD SNACK THAT HAS NO MORE THAN:**

1. 35% of its calories from fat (excluding legumes, nuts, nut butters, seeds, eggs, non-fried vegetables and cheese packaged for individual sale).
2. 10% of its calories from saturated fat (excluding eggs and cheese packaged for individual sale).
3. 35% sugar by weight (excluding fruits and vegetables).
4. 250 calories per individual food item or package if a pre-packaged item.
5. 360 milligrams of sodium per individual food item or package if a pre-packaged item.

## EXAMPLES OF SNACKS THAT COMPLY WITH THE NUTRITION POLICY



Baked chips



Unsalted nuts



Pretzels



Granola and Energy bars



Dried fruit  
(no sugar added)

# Case-Study: Chief Executive Office Vending Contract

**500+ machines across 200+ locations**

**46,471 employees; 15,840 visitors per day across all locations**

	Adherence to Policy		Average Sodium per packaged product			
	Baseline (old vendor)	Follow-up (new vendor)	NEMS-V (old vendor)	Sales Records (transition period)	NEMS-V (new vendor)	Product List Data (new vendor)
Snacks	27% Healthy snacks	60% Healthy snacks	294 mg per package	203 mg per package	205 mg per package	126 mg per package
Beverages	57% Healthy beverages	74% Healthy beverages	N/A	53 mg per beverage	75 mg per beverage	N/A

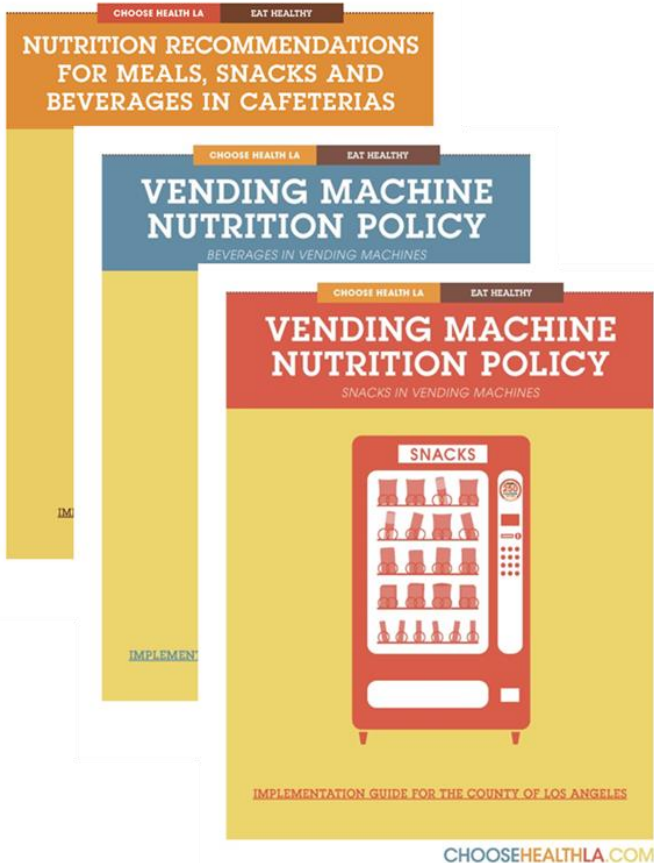
**Average 57% reduction of sodium in snacks**

\*Preliminary Data. Total weighted average for beverage and snack machines = 137.3 mg of sodium per package (weighted by sales)

Stratified weighted average by vending type: snacks = 118 mg of sodium per package; beverages = 18.9 mg of sodium per beverage

NEMS-V: Nutrition Environment Measures Vending Survey

# Impact of Sodium Reduction in Los Angeles County (LAC)



- ❑ Average sodium per packaged product adheres to County Vending Machine Policy nutrition standards
- ❑ FEM-LA population model for 2004 - 2050
  - Preliminary estimate: **3,207 - 5,155 deaths averted** from reductions in incidence of heart disease and stroke due to a 400 mg sodium reduction in dietary intake in LAC
  - **Up to 2 lives saved every week**
  - Savings in total medical spending **\$2.2 - 3.6 billion** in LAC from 2004 to 2050

Unpublished data. Estimates using the Future Elderly Model – Los Angeles County (FEM-LA). The FEM is an economic-demographic micro-simulation developed over the past decade by researchers with funding from the Centers for Medicare and Medicaid Services, the National Institute on Aging, the Department of Labor, and the MacArthur Foundation.  
Bibbins-Domingo K, Chertow GM, Coxson PG et al. N Engl J Med. 2010 Feb 18;362(7):590-9.

# Contributing to Million Hearts One County and One Policy at a Time

## ❑ For the 5-year period covered by Million Hearts<sup>®</sup> 2012 - 2017

- Up to 560 lives saved
- Up to \$778 million in medical costs averted

## ❑ Does not take other LA County Million Hearts<sup>®</sup> Programs into account



Unpublished data. Estimates using the Future Elderly Model – Los Angeles County (FEM-LA). The FEM is an economic-demographic micro-simulation developed over the past decade by researchers with funding from the Centers for Medicare and Medicaid Services, the National Institute on Aging, the Department of Labor, and the MacArthur Foundation.

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# Partnerships to Improve Cardiovascular Health in Los Angeles County

## ❑ Limitations

- Vendor product list cannot be assumed to be what is in the machine

## ❑ Lessons Learned

- Partnership with department and vendor is valuable for adherence
- Evaluation is essential

## ❑ Next Steps

- Continue to refine the sodium reduction framework
  - Update sodium limits for vending policy to 230 mg per package
- Designate intervention data collection points to monitor sodium intake
- Share evaluation results



# Educational Materials from Los Angeles County



Food Procurement resources

<http://publichealth.lacounty.gov/chronic>

Public education resources

[www.choosehealthla.com](http://www.choosehealthla.com)

Salt shocker videos

<http://www.youtube.com/user/ChooseHealthLA>

***Special thanks to:***

Dr. Paul Simon, Dr. Tony Kuo

Michelle Wood, Brenda Robles, Dr. Irene Vidyanti

Amelia Rose, Ranjana Wickramasekaran, Katrina Vo

# Million Hearts<sup>®</sup>, 2015

## Accelerating Progress, Achieving Results

- ❑ **Send a clear signal**
- ❑ **Measure and report progress in preventing heart attacks and strokes: every person counts**
  - **Millionhearts.gov**
  - **Mid-Course Review:**  
[millionhearts.hhs.gov/Docs/MH\\_Mid-Course\\_Review.pdf](http://millionhearts.hhs.gov/Docs/MH_Mid-Course_Review.pdf)
- ❑ **Detect. Connect. Control.**
- ❑ **Remember the ABCS**
  - **Aspirin when appropriate, blood pressure control, cholesterol management, and smoking cessation**