CDC PUBLIC HEALTH GRAND ROUNDS

Million Hearts 2022: A Compelling Call to Action




Accessible version: https://www.youtube.com/watch?v=_rTpoWxOHOk

February 20, 2018

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

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Hello

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“Take home” messages in a short video at: cdc.gov/cdcgrandrounds/video-archive.htm

scienceclips CDC

Centers for Disease Control and Prevention
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Million Hearts 2022: A Compelling Call to Action




February 20, 2018

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

Million Hearts® 2022: Focusing Action for Impact

Janet S. Wright, MD, FACC

Executive Director, Million Hearts®

Division for Heart Disease and Stroke Prevention, CDC

Center for Clinical Standards and Quality, CMS

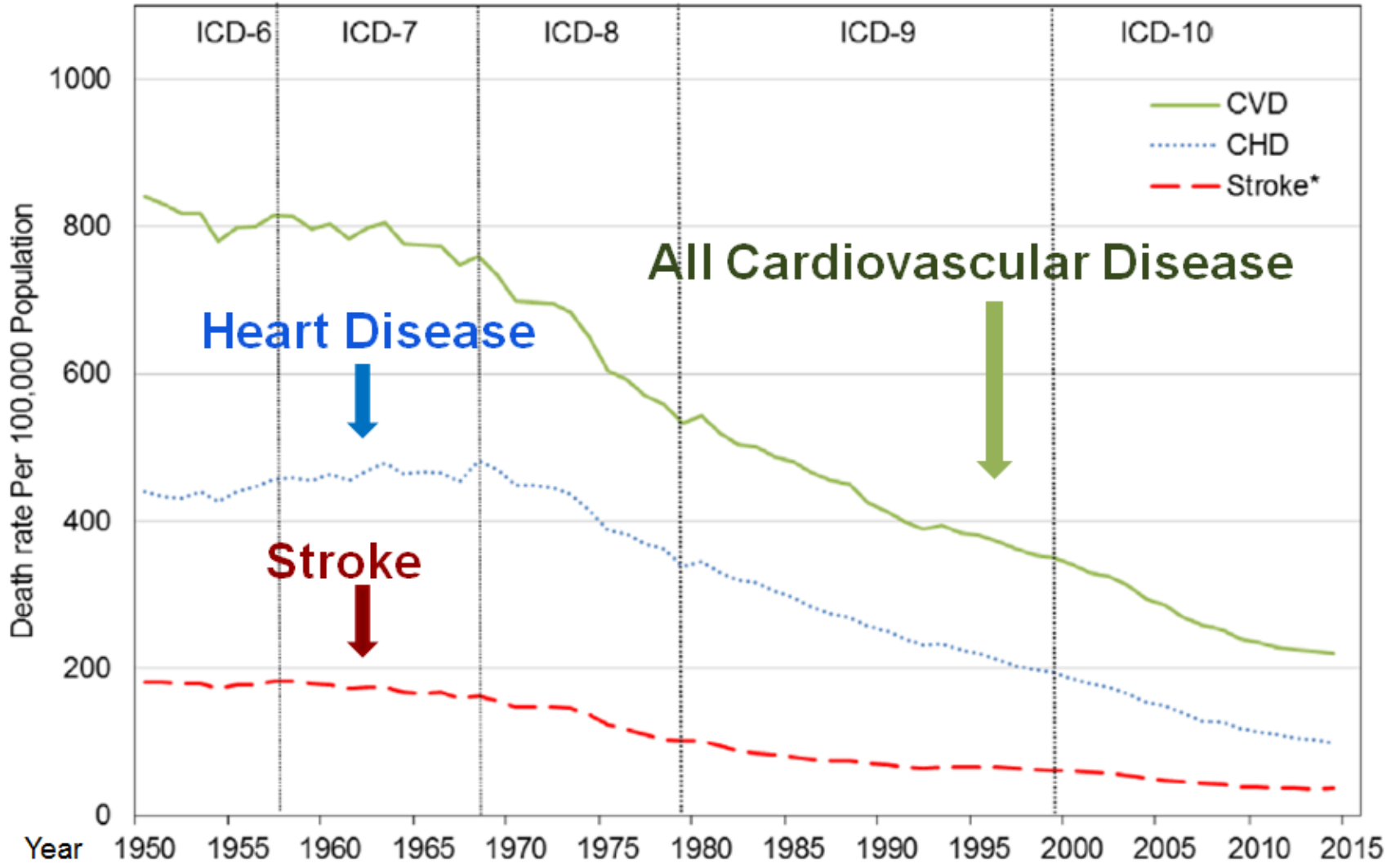
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Heart Disease and Stroke in the U.S.

- More than 1.5 million people in the U.S. suffer from heart attacks and strokes per year
- More than 800,000 deaths per year from cardiovascular disease (CVD)
- CVD costs the U.S. hundreds of billions of dollars per year
- Heart disease is the greatest contributor to racial disparities in life expectancy

Benjamin EJ, Blaha MJ, Chiuve SE, et al. *Circulation.* 2017;135(10):e146–603.
Kochanek KD, Arias E, Anderson RN. *NCHS Data Brief*. 2013;(125):1-8.

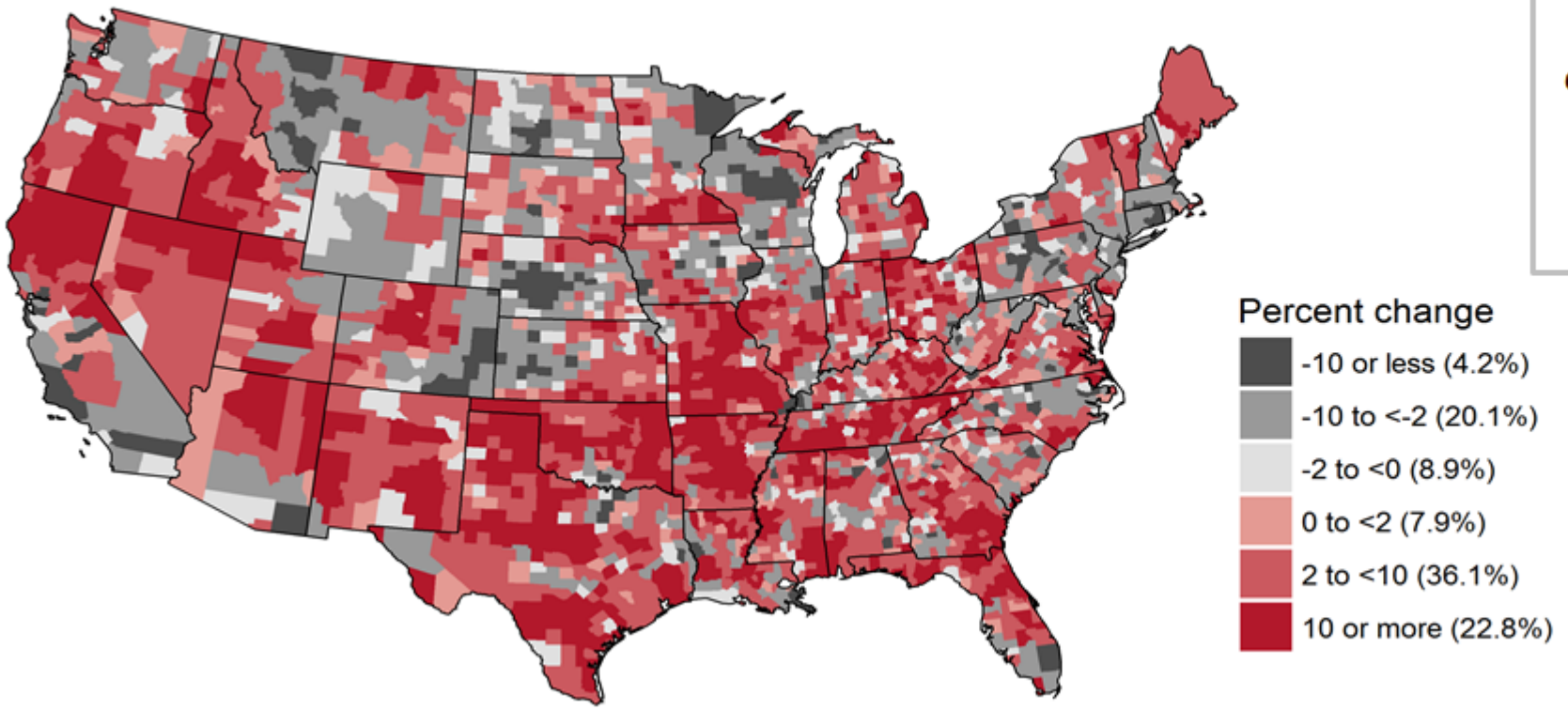
Burden of Heart Disease and Stroke
National Data, 1950–2015



Mensah GA, Wei GS, Sorlie PD, et al. *Circ Res.* 2017;120(2):366–380.

Heart Disease Mortality Rates

County-level percent change in heart disease death rates, United States, Ages 35–64, 2010–2015



Over 50% of counties experienced increases in heart disease mortality from 2010–2015.

Vaughan AS, Ritchey MD, Hannan J, et al. *Ann Epidemiol.* 2017;27(12):796–800.

Million Hearts® 2012–2016

- Improvements in **A**spirin, **B**lood pressure control, **C**holesterol management; progress in artificial trans-fat and sodium policies
- Target likely hit for tobacco prevalence
- By 2014, ~115,000 cardiovascular events were prevented, relative to expected number if 2011 rates had remained stable
- We estimate that up to half a million total events may have been prevented
- Million Hearts® effort involved 120 official partners, 20 federal agencies, and all 50 states and the District of Columbia

Million Hearts 1.0 Lessons Learned

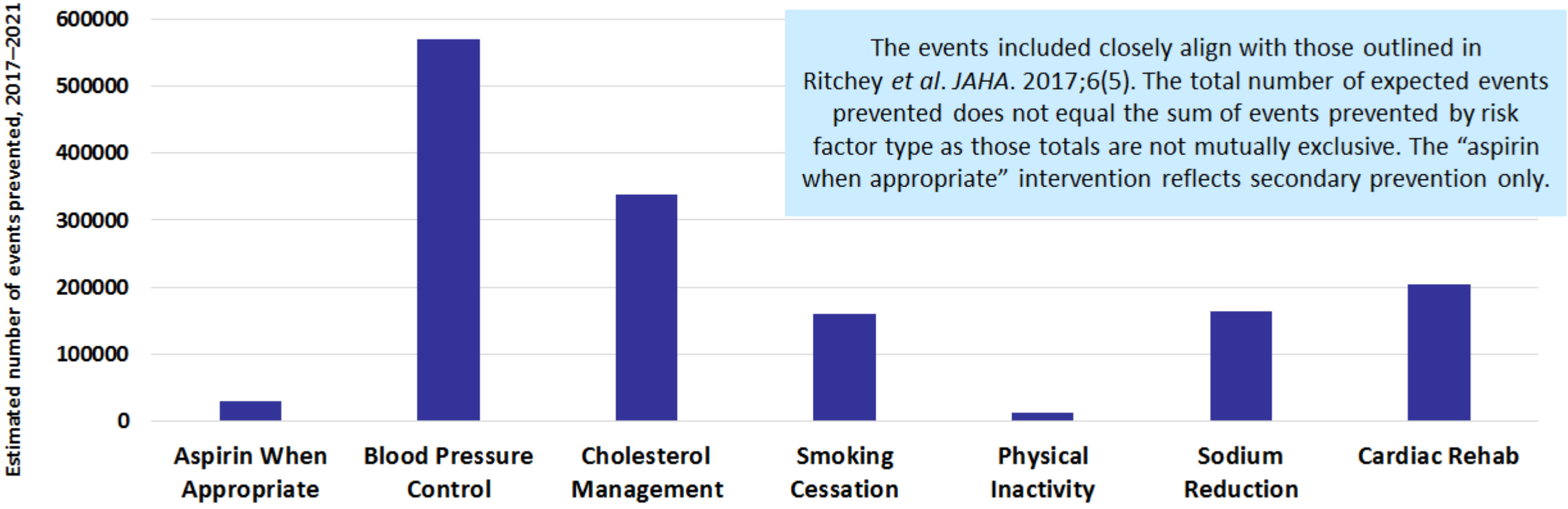
- **Simply-stated, time-limited, and specific aim**
- **Leverage complementary assets of public health and health care**
- **Focus on a small set of evidence-based strategies and measures**

Million Hearts 1.0 Lessons Learned

- Set a large table with options for implementation
- Champions motivate, equip, and lead the work
- Communicate via multiple vehicles, frequently
- Adapt quickly when guidelines and measures change
- Recognizing high performance generates great returns

Relative Contributions to “the Million”

Estimated Number of Events Prevented If Million Hearts Risk Factor Objectives Are Gradually Achieved, 2017–2021



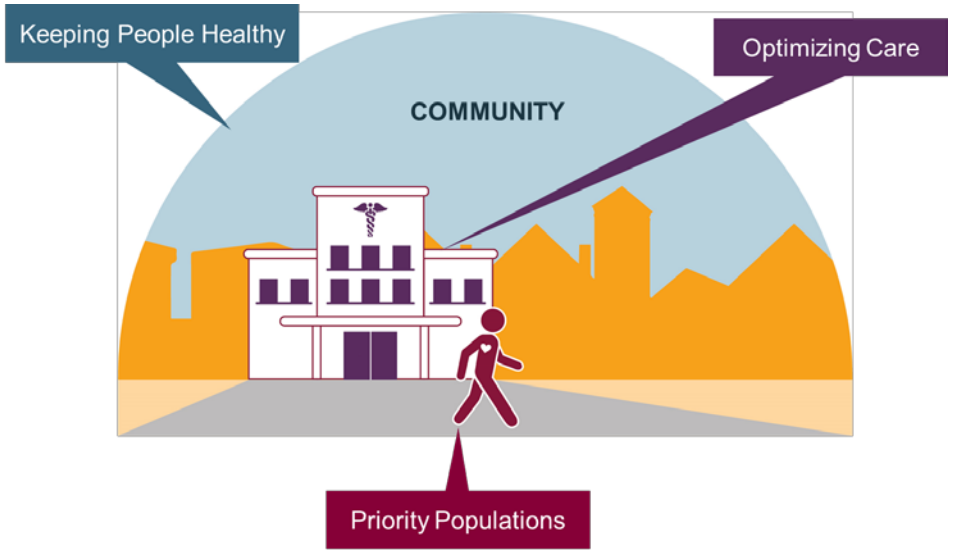
The events included closely align with those outlined in Ritchey *et al*. *JAHA*. 2017;6(5). The total number of expected events prevented does not equal the sum of events prevented by risk factor type as those totals are not mutually exclusive. The “aspirin when appropriate” intervention reflects secondary prevention only.

Reflects preliminary findings from simulation modeling conducted using the CVD Policy Model, ModelHealth:CVD, and PRISM (unpublished). Baseline data were determined for: aspirin when appropriate using 2013-14 NHANES; BP control and cholesterol management using 2011-14 NHANES; smoking cessation and physical inactivity using 2015 NHIS; and sodium reduction using 2011-12 NHANES.

Cardiac rehab estimates are from: Ades P, Keteyian SJ, Wright JS, et al. *Mayo Clin Proc.* 2017;92(2):234-242.

Million Hearts® 2022

- **Aim: Prevent 1 million—or more—heart attacks and strokes in the next 5 years**
- **National 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**



Million Hearts® 2022
Priorities

Keeping People Healthy
Reduce sodium intake
Decrease tobacco use
Increase physical activity

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Keeping People Healthy
Reduce sodium intake
Decrease tobacco use
Increase physical activity

Optimizing Care
Improve ABCS
Increase use of cardiac rehab
Engage patients in heart-healthy behaviors

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

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Improving Outcomes for Priority Populations
Blacks/African Americans with hypertension
35–64 year-olds
People who have had a heart attack or stroke
People with mental illness or substance use disorders who use tobacco

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

Keeping People Healthy

Goals	Effective Public Health Strategies
Reduce Sodium Intake Target: 20%	• Enhance consumers' options for lower-sodium foods • Institute healthy food procurement and nutrition policies
Decrease Tobacco Use Target: 20%	• Enact smoke-free space policies that include e-cigarettes • Use pricing approaches • Conduct mass media campaigns
Increase Physical Activity Target: 20% (Reduction of inactivity)	• Create or enhance access to places for physical activity • Design communities and streets that support physical activity • Develop and promote peer-support programs

Optimizing Care

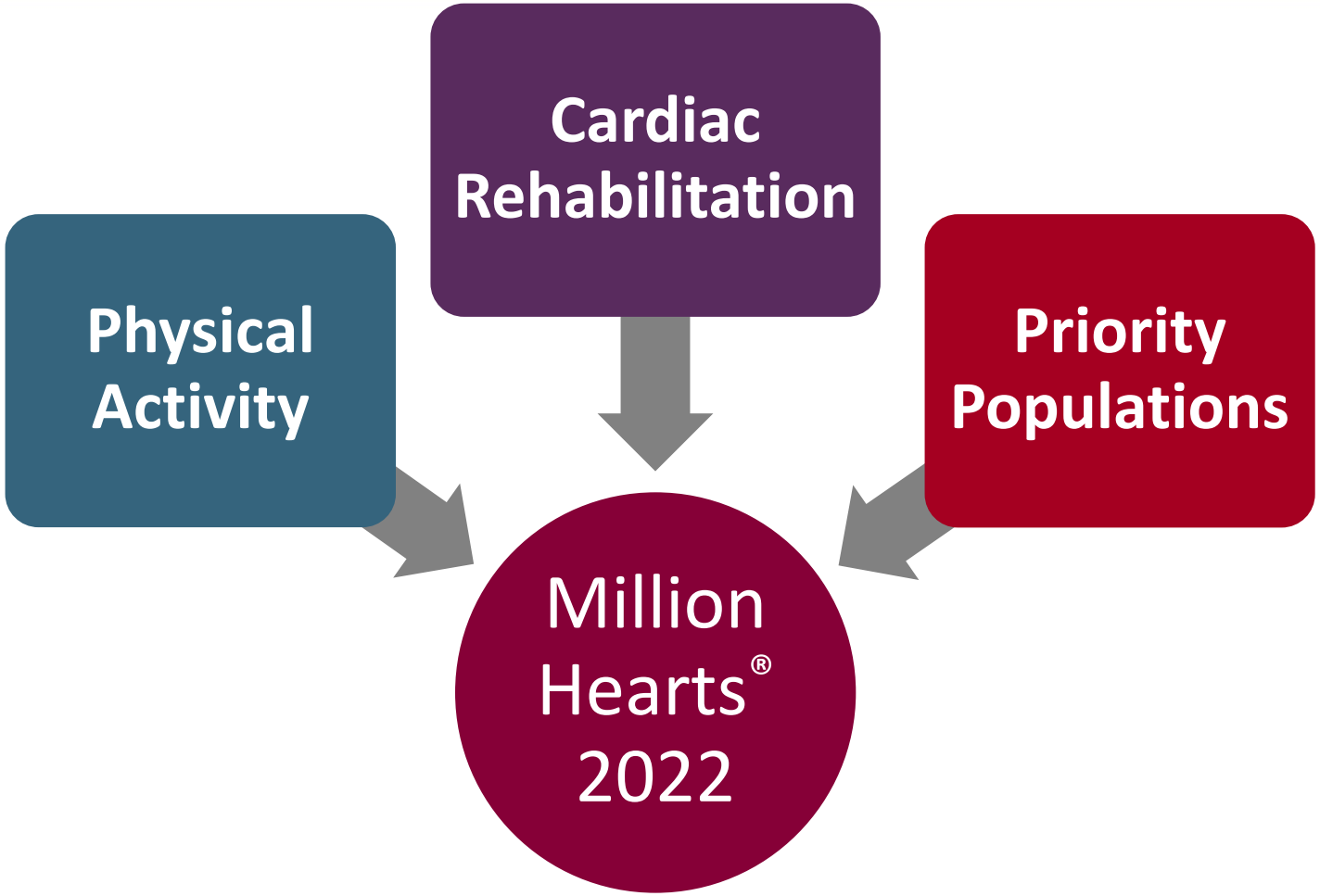
Goals	Effective Healthcare Strategies
Improve ABCS Targets: 80%	***High performers excel in the use of…*** • **Technology**—decision support, patient portals, default and e-referrals, registries, and algorithms • **Teams**—including pharmacists, nurses, community health workers, and cardiac rehab professionals • **Processes**—treatment protocols; daily huddles; ABCS scorecards; finding patients with undiagnosed high BP, high cholesterol, or tobacco use • **Patient and Family Supports**—home blood pressure monitoring; problem-solving in medication adherence; counseling on nutrition, physical activity, tobacco use; referral to physical activity programs and cardiac rehab
Increase Use of Cardiac Rehab Target: 70%	
Engage Patients in Heart-healthy Behaviors Targets: TBD	

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

Improving Outcomes for Priority Populations

Priority Population	Intervention Needs	Strategies
Blacks/African Americans with hypertension	• Improving hypertension (HTN) control	• Targeted protocols • Medication adherence strategies
35–64 year olds where event rates are rising	• Improving HTN control and statin use • **Increasing physical activity**	• Targeted protocols • Community-based program enrollment
People who have had a heart attack or stroke	• **Increasing cardiac rehab referral and participation** • **Avoiding exposure to air pollution**	• Automated referrals, hospital CR liaisons, convenient referrals • Air Quality Index tools
People with mental illness or substance abuse disorders who use tobacco	• Reducing tobacco use	• Integrating tobacco cessation into behavioral health treatment • Tobacco-free mental health and substance use treatment campuses • Tailored quitline protocols

What's New in Million Hearts® 2022



Creating Livable, Prosperous and Healthy Communities

Leslie A. Meehan, MPA AICP

Director, Office of Primary Prevention

Tennessee Department of Health

Office of the Commissioner

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

What Drives our Health?

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Health care is necessary—but not sufficient—for good health

Root Causes of Chronic Disease: Inactivity and Poor Nutrition

“Most chronic diseases and conditions are a normal response by normal people to an abnormal environment.”

—David Mowat, Canadian Partnership Against Cancer

The Built Environment: Our Streets Should Be Public Assets

Limited sidewalks

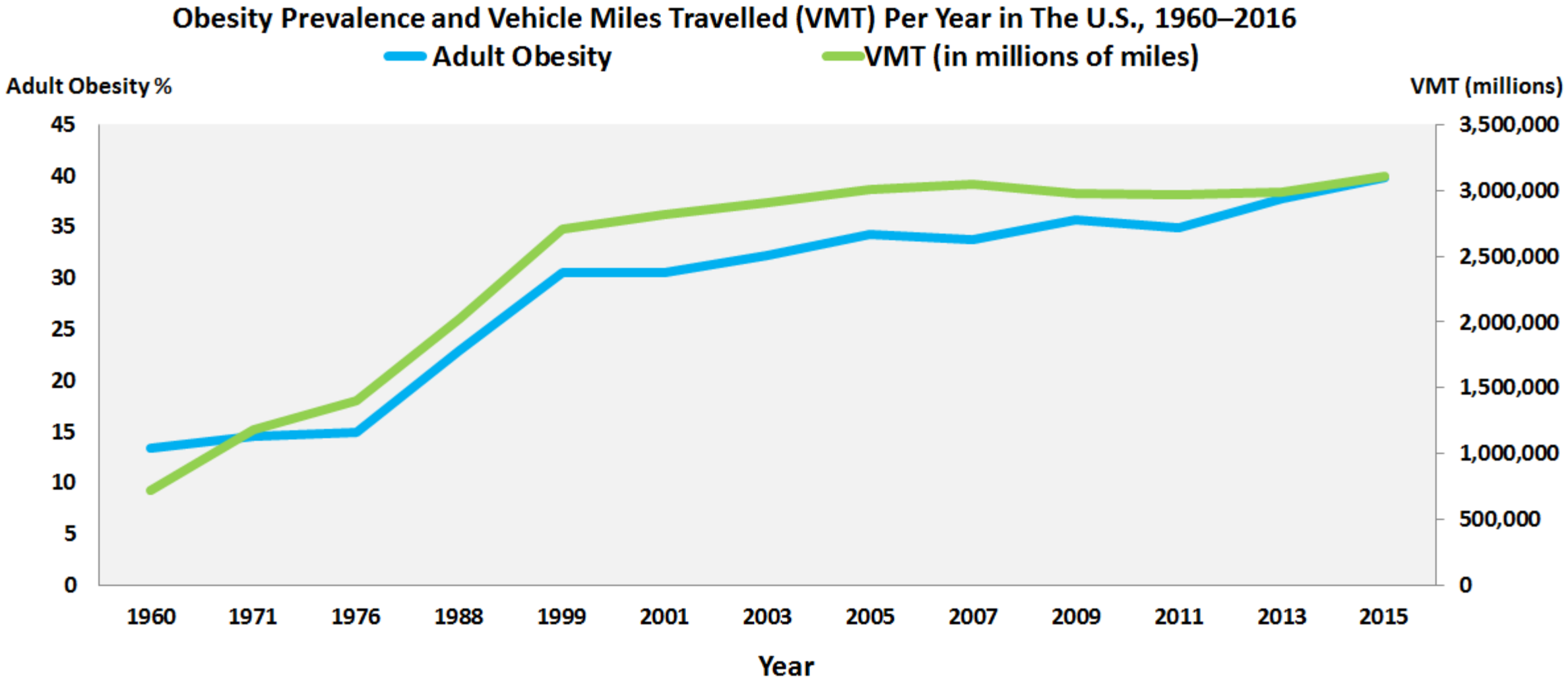
No bicycle lanes

Fast food, not fresh food

Predatory lending

Signs and electrical wires

The Role of Transportation



CDC – NHANES; U.S. Department of Transportation, Federal Highway Administration

What Public Health Can Do to Improve the Built Environment

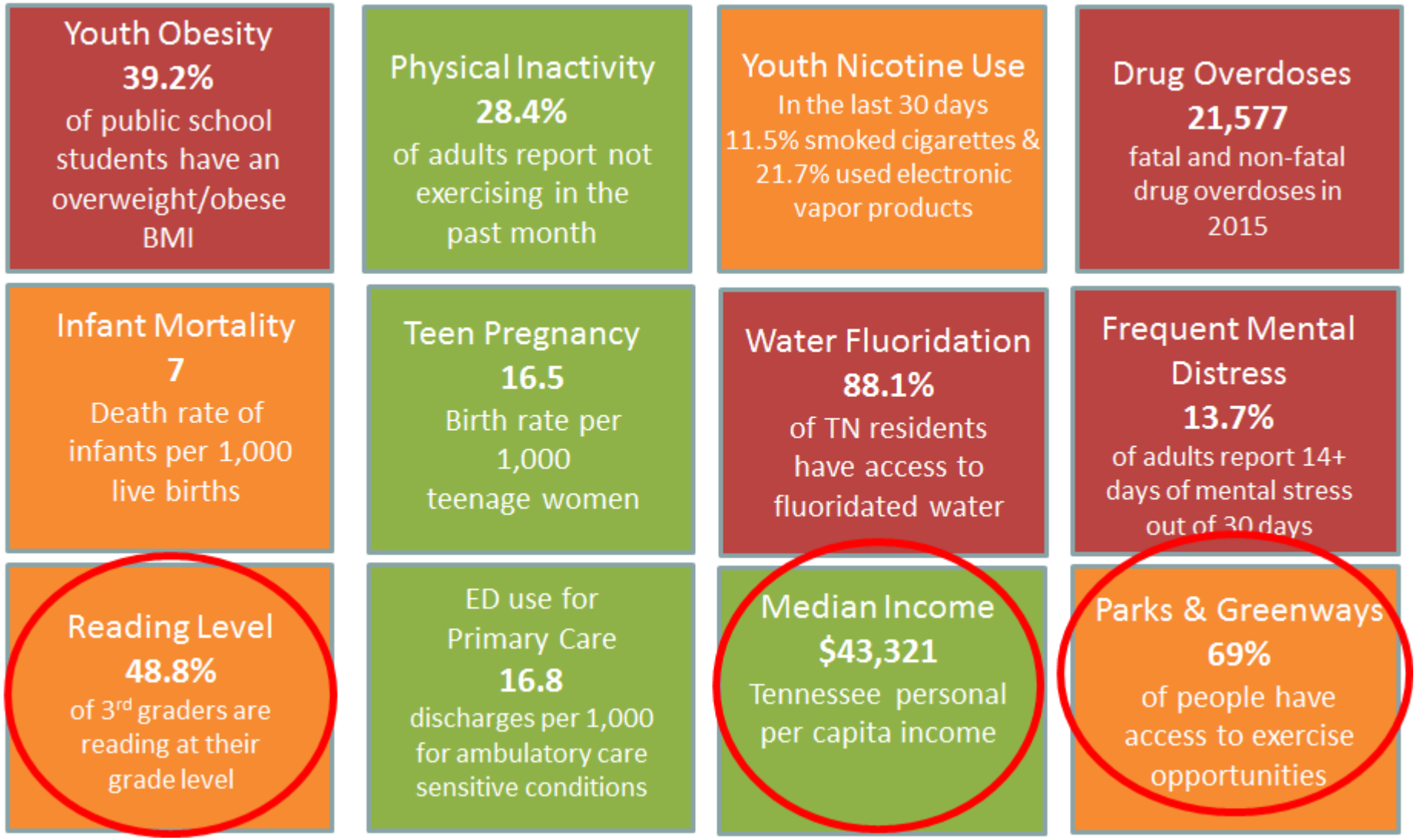
- **Tennessee Department of Health**
  - Plans
  - Staff
  - Grants
  - Cross-sector communication
  - Clinic to community
  - Data collection and analysis
- **Ten leading causes of death in TN all related to physical inactivity**
- **Quantifying public opportunities to walk, bicycle, and play**

Primary Prevention as the Tennessee Department of Health (TDH) Way

State Health Plan and Primary Prevention Plans

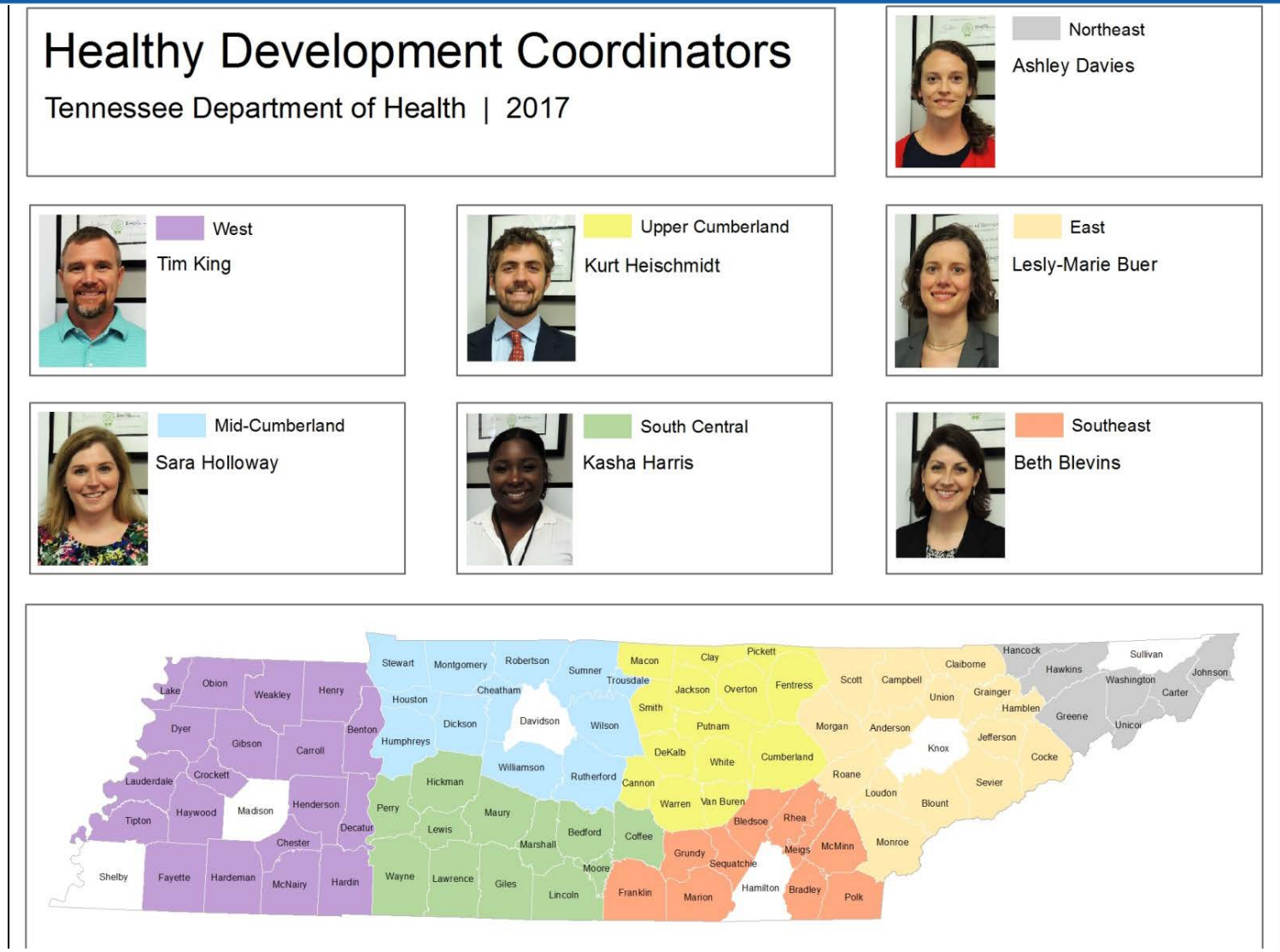
Three Guiding Questions

Using Tennessee Vital Signs to Measure Contributions from Outside of Public Health



Staff—Heathy Development Coordinators

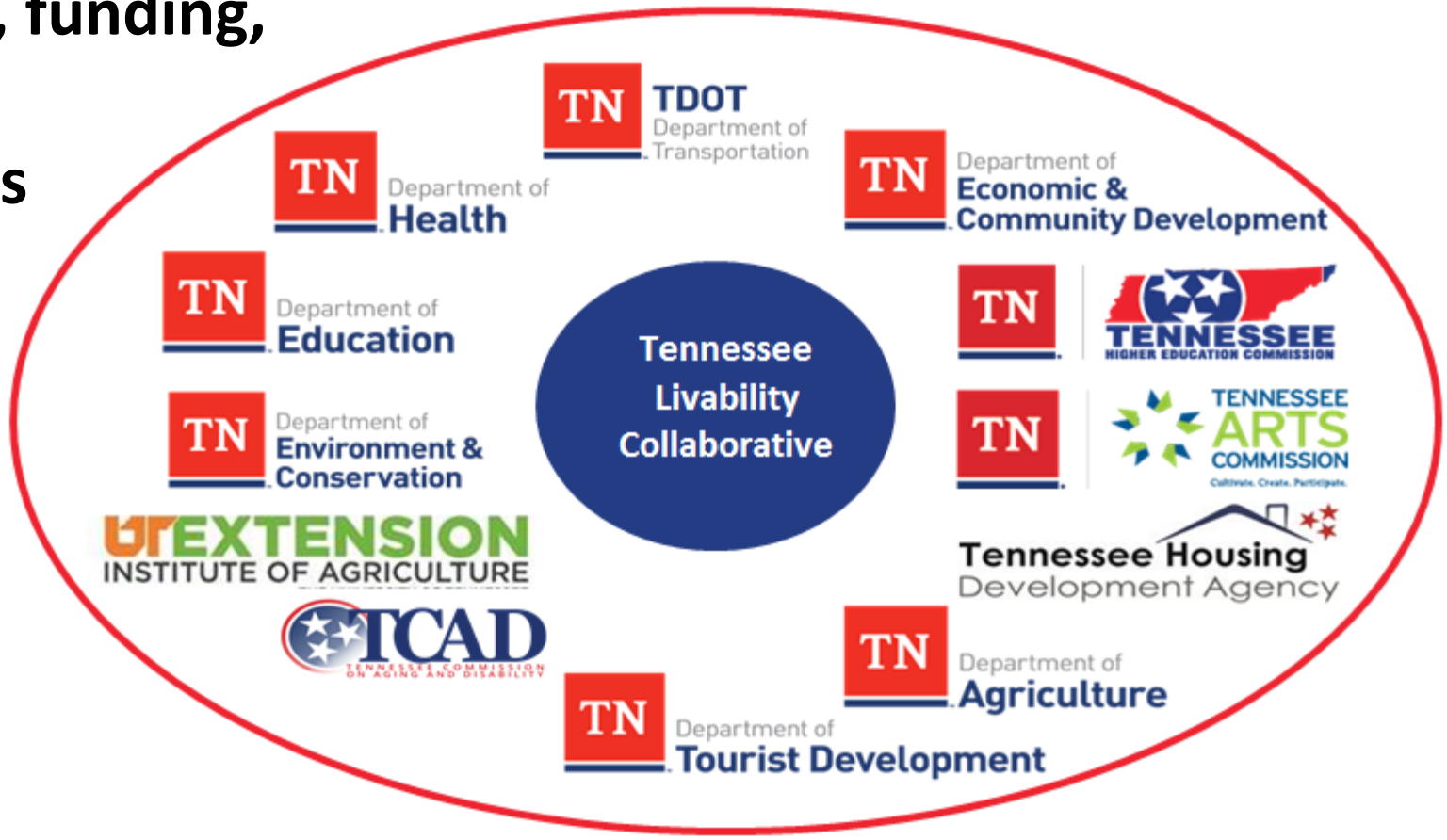
- **Job description: As communities grow, healthy development coordinators promote access to healthy foods and physical activity**



Access to Health through Healthy Active Built Environments Grants

Cross-Sector Communication—Tennessee Livability Collaborative

- 12 state agencies work together to improve prosperity, quality of life, and health through policy, funding, and programming to create livable communities
- A health in all policies approach to primary prevention
- Learn how all contribute to quality of life



Clinic to Community—Exercise as Medicine

Henry Horton State Park

Healthy Park-Healthy Person

4358 Nashville Hwy Chapel Hill, TN 37034
www.hhsphealth.com
931-364-7724

TENNESSEE State Parks

Patient: _____

Date: _____

See back side for more information on the healthy points program at Henry Horton State Park

Park Rx Check the appropriate activity, time, and frequency

○ Walk	○ 10 Minutes	○ 1 Day/Week
○ Hike	○ 20 Minutes	○ 2 Days/Week
○ Run	○ 30 Minutes	○ 3 Days/Week
○ Bike	○ 1 Hour	○ 5 Days/Week
○ Paddle	○ 1+ Hours	○ 6 Days/Week
○ Other		○ 7 Days/Week

Notes:

Unlimited Refills

Signature of Prescriber

For more information visit www.hhsphealth.com

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Data Collection and Analysis
Transportation, Physical Activity and Health

Partnering with CDC and U.S. Department of Transportation

Middle Tennessee Transportation and Health Study

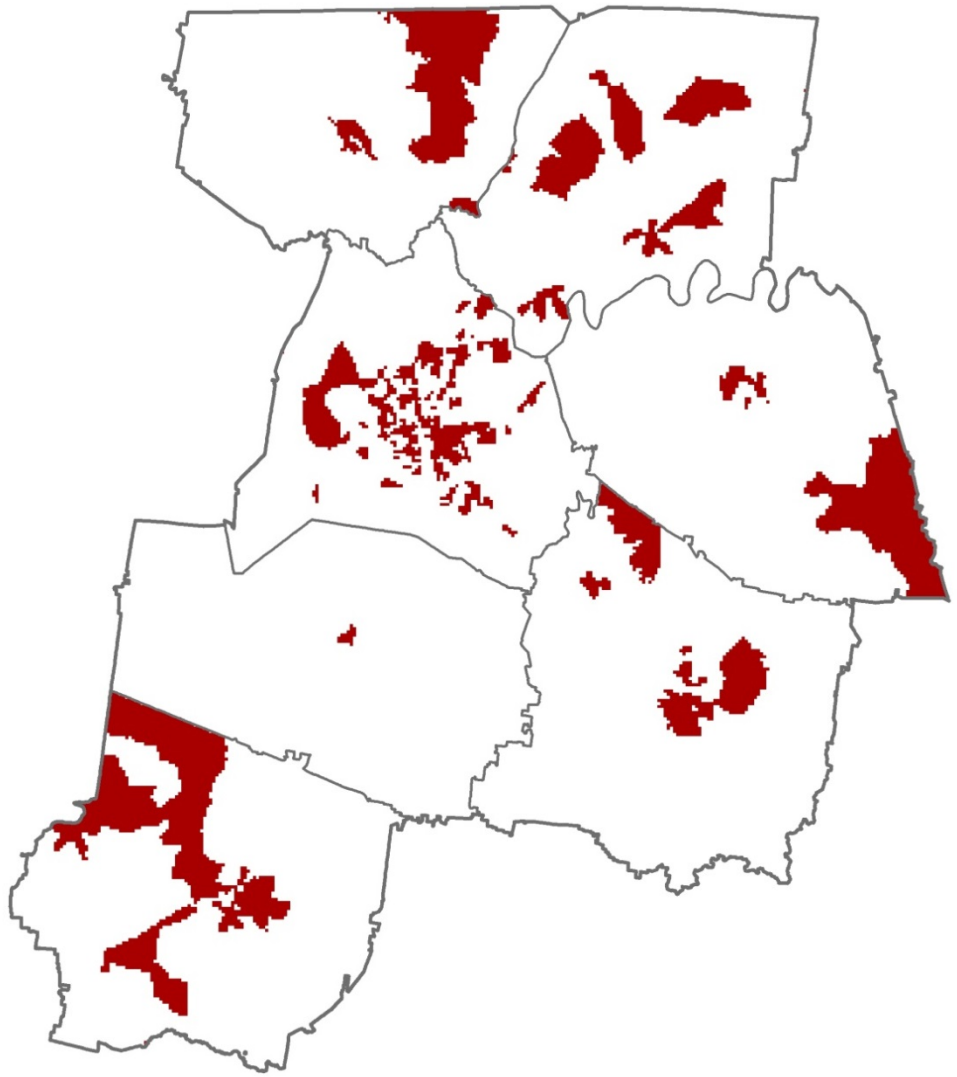
- **11,000 participants**
- **Health questions included**
  - Height
  - Weight
  - Amount of time getting physical activity
  - Amount of time spent sitting
  - Diet
  - Overall quality of health

Prioritization of Greenways, Sidewalks, and Bikeways Based on Transportation and Health Study

Health Priority Areas

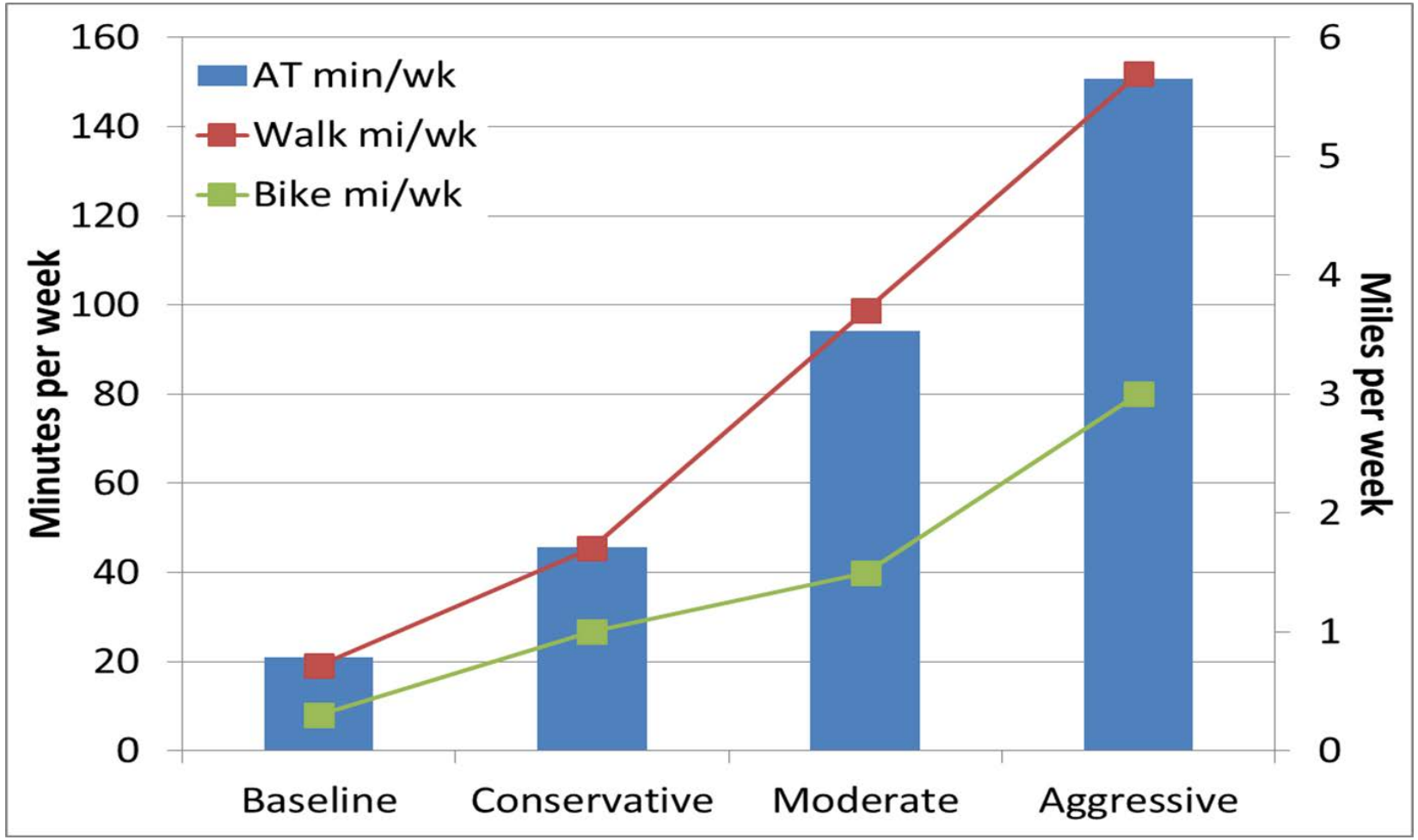
High rates in 3 of following:

- Poverty
- Unemployment
- Household without a car
- Aging (over age 65)



Population Health Models with Increased Walking and Biking

Hypothetical Scenario Based on Modeled Data



AT: Active transportation

Integrated Transportation and Health Impact Model

Moderate	Δ Disease Burden		Δ Premature Deaths / Year
Cardiovascular Diseases	-3.1%	↓	85.6
Diabetes	-3.0%	↓	9.3
Depression	-1.1%	↓	0.0
Dementia	-1.3%	↓	11.6
Breast Cancer	-1.2%	↓	2.2
Colon Cancer	-1.1%	↓	2.0
Road Traffic Crashes	0.0%	↔	0.0
Total	-1.0%	↓	112.3

Savings:
$116 million per year in healthcare costs

Δ: Change

Thank You

RADM Susan Orsega,
Chief Nurse of the U.S. Public Health Service,
calls on her colleagues to go into uncomfortable places and be nimble engineers

ABCS Improvement in the Real World

George S. Schroeder, MD

Family Physician

Plymouth Family Physicians

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

Million Hearts® 2022 ABCS Clinical Quality Measures

Measure	Measure Description
Aspirin When Appropriate	**Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic** Percentage of patients aged 18 years and older with IVD with documented use of aspirin or other antithrombotic (NQF 0068/Quality ID 204)
Blood Pressure Control	**Controlling High Blood Pressure**: % of patients aged 18–85 years with a diagnosis of HTN and an office BP of <140/90 during the measurement year (NQF 0018/Quality ID 236)
Cholesterol Management	**Statin Therapy for the Prevention and Treatment of Cardiovascular Disease** % who were prescribed or on statin therapy during the measurement period: • Adults aged ≥ 21 years who were previously diagnosed with or currently have an active diagnosis of clinical atherosclerotic cardiovascular disease; OR • Adults aged ≥21 years with a fasting or direct LDL-C level ≥ 190 mg/dL; OR • Adults aged 40-75 years with a diagnosis of diabetes with a fasting or direct LDL-C level of 70-189 mg/dL (CMS 347v1/Quality ID 438)
Smoking Cessation	**Preventive Care and Screening: Tobacco Use** % of patients ≥18 years who were screened about tobacco use one or more times within 24 months and who received cessation counseling intervention if a tobacco user (NQF 0028/Quality ID 226)

millionhearts.hhs.gov/data-reports/cqm/measures.html
NQF: National Quality Forum
CMS: Centers for Medicare and Medicaid Services

Meet Plymouth Family Physicians

- **Community of 8,500 in rural Wisconsin**
- **Independent practice since 1985**

- **Plymouth Team:**
  - 2 physicians
  - 5 medical assistants
  - 1 business manager
  - 1 medical records manager
  - 2 receptionists
- **AHRQ EvidenceNOW participant**
- **2017 Million Hearts Hypertension Control Champion**

Plymouthfamily.com

Our Road To Continuous Quality Improvement

- Independent physician driven practice
- 20 years into our electronic medical records (EMR) system
- EMR-affiliated practice-based research network
- Access to actionable performance data reports

Primary (Care) Practices Research Network (PPRNet)

- 24 years old, Medical University of South Carolina affiliated
- Funded through 15 federal grants from NIH and AHRQ
- 150+ primary care practices
- Ongoing monthly data extracts of 70 clinical markers
- Culture of continuous quality improvement

AHRQ: Agency for Healthcare Research & Quality

Back To The ABCS

- Start measuring your performance
- Don’t waste time denying the data
- We are not doing as well as we think we are
- Resolving to work harder won’t affect improvement
- You have been working hard all along
- You need to recruit help

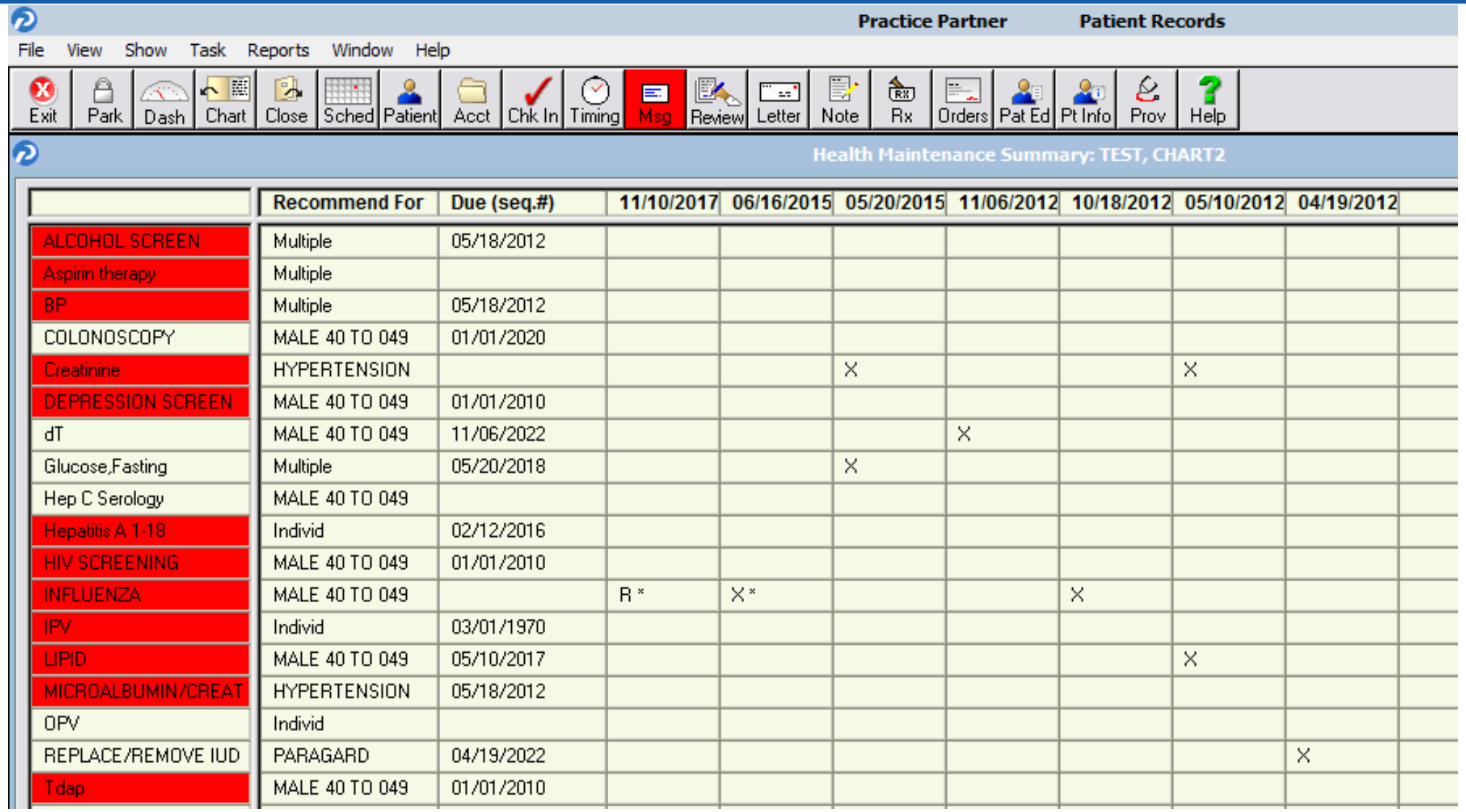
Everyone Is A Provider

- **Every employee has authority**
  - Given by our patients
  - Regardless of their education
- **Every personal interchange**
- **Focus on clinical goals**
- **Don’t talk about the weather**
- **Talk about the science of medicine**

Educating Your Staff

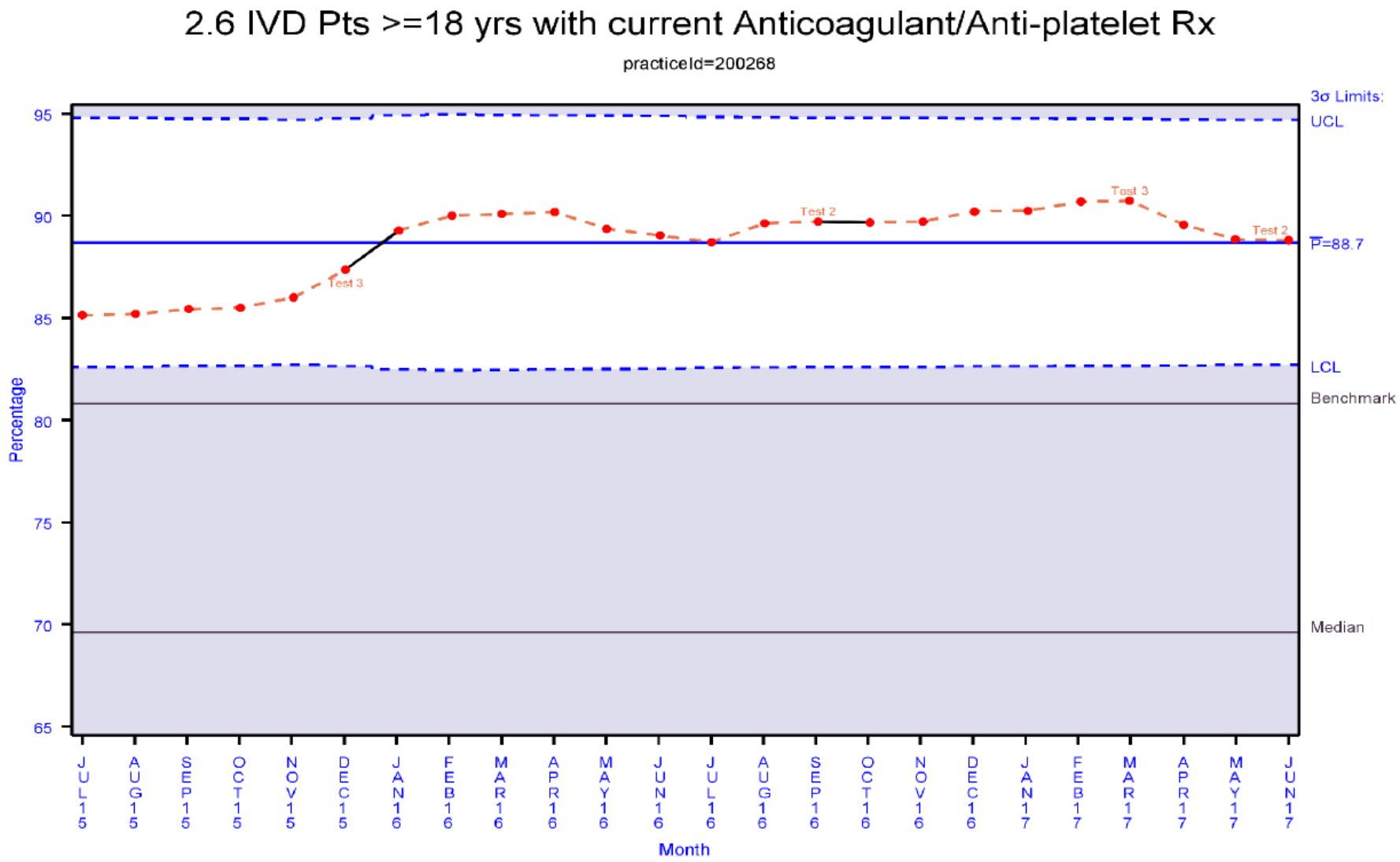
- Weekly 90-minute noontime meetings
- Quarterly half-day meetings
- Professional education
- Close the office
- Focus entirely on the science
- Avoid the business of medicine

Health Maintenance Table

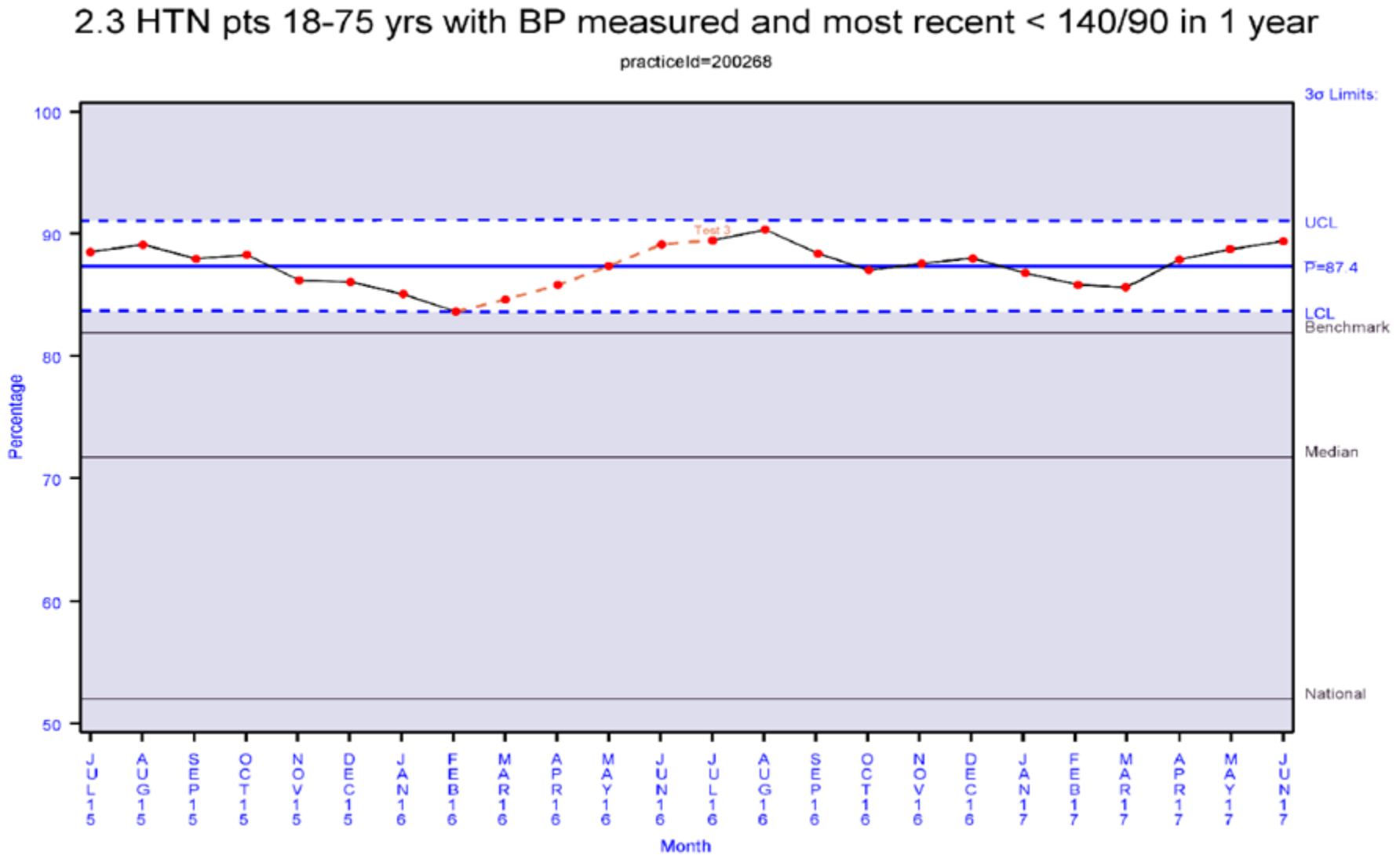


	Recommend For	Due (seq.#)	11/10/2017	06/16/2015	05/20/2015	11/06/2012	10/18/2012	05/10/2012	04/19/2012
ALCOHOL SCREEN	Multiple	05/18/2012							
Aspirin therapy	Multiple								
BP	Multiple	05/18/2012							
COLONOSCOPY	MALE 40 TO 049	01/01/2020							
Creatinine	HYPERTENSION				X			X	
DEPRESSION SCREEN	MALE 40 TO 049	01/01/2010							
dT	MALE 40 TO 049	11/06/2022				X			
Glucose,Fasting	Multiple	05/20/2018			X				
Hep C Serology	MALE 40 TO 049								
Hepatitis A 1-18	Individ	02/12/2016							
HIV SCREENING	MALE 40 TO 049	01/01/2010							
INFLUENZA	MALE 40 TO 049		R *	X *			X		
IPV	Individ	03/01/1970							
LIPID	MALE 40 TO 049	05/10/2017						X	
MICROALBUMIN/CREAT	HYPERTENSION	05/18/2012							
OPV	Individ								
REPLACE/REMOVE IUD	PARAGARD	04/19/2022							X
Tdap	MALE 40 TO 049	01/01/2010							

Performance Measure Reports:
Aspirin / Antiplatelet Agent Application



Performance Measure Reports: Blood Pressure Control



Our Blood Pressure Routine

- We see hypertensive patients twice yearly
- BP measurements are expected quarterly
- Refills only follow BP at goal
- Patients are “held hostage” if they are not at goal
- Never flippantly renew meds for patient convenience
- Every hypertensive patient has a follow-up appointment

BP: Blood pressure

Chasing Blood Pressure Out of Control

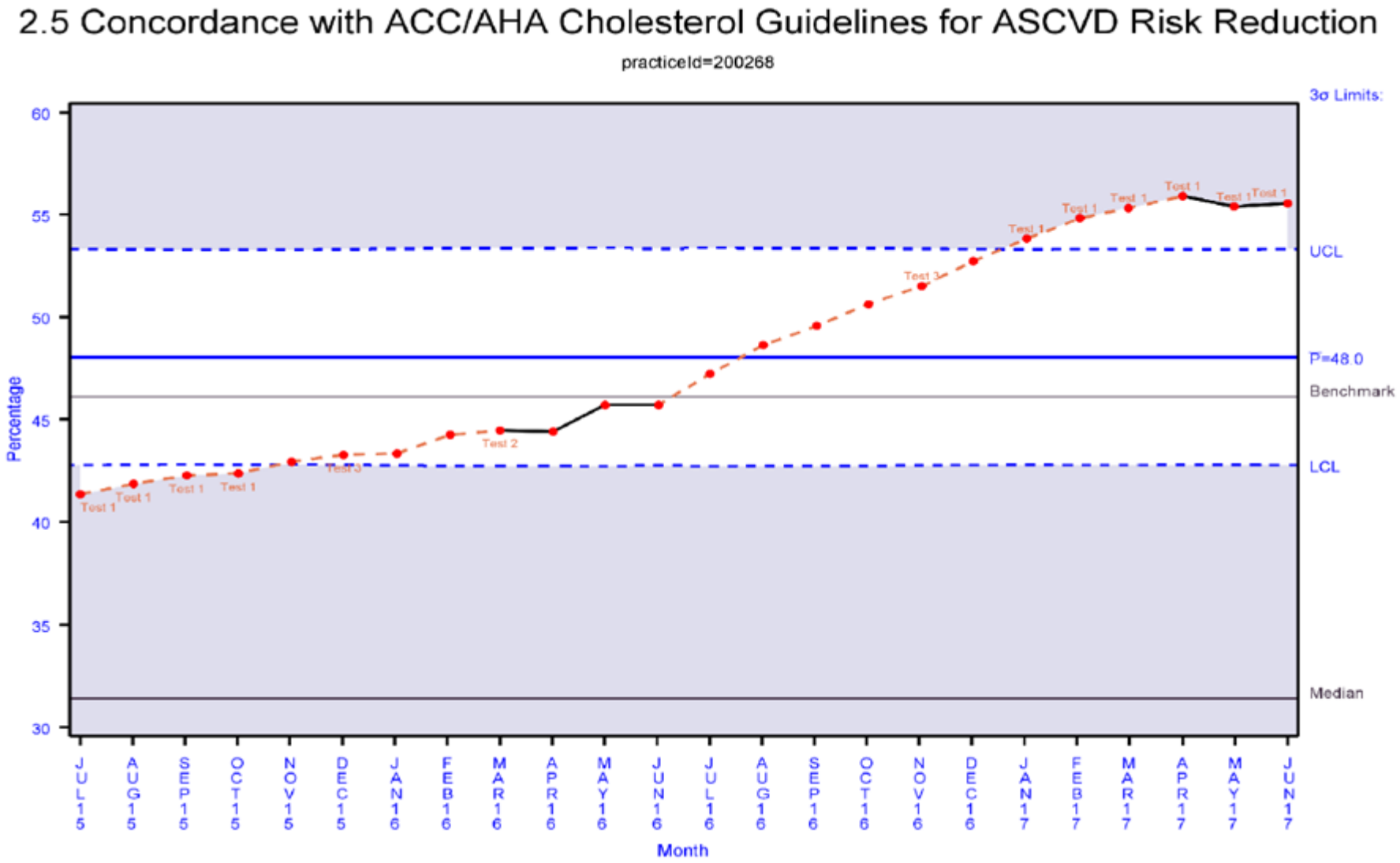
- Patients fall out of control
- Medications renewed at shorter intervals
- Forward message to ourselves to check on patient follow through
- Require more measurements
- Home blood pressure measurements
- Blood pressure lounge

BP Lounge

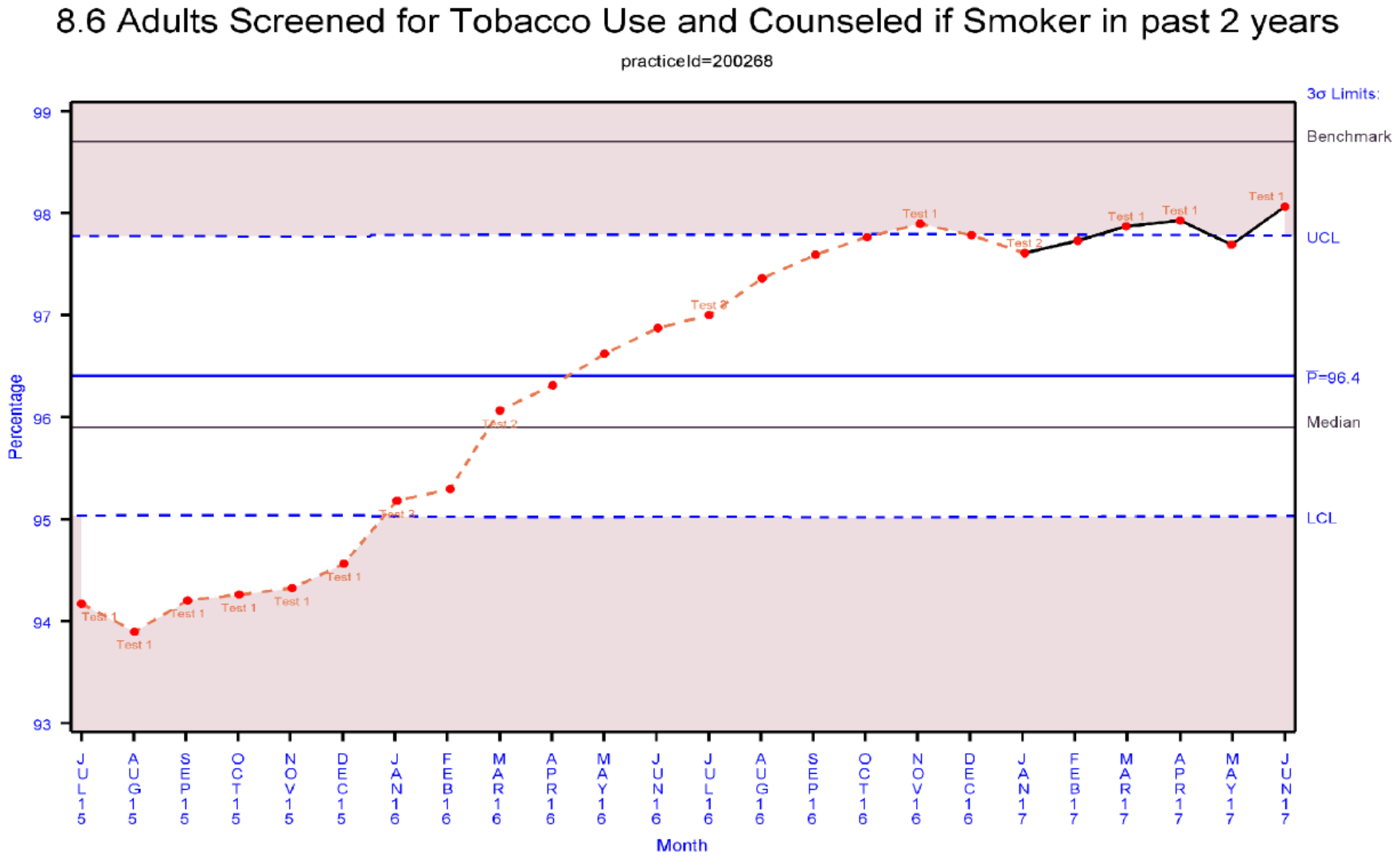
- Quiet room connected to our waiting room
- True resting blood pressure
- Receptionist asks the person to expose their arm and sit comfortably for 5 minutes and starts timer
- After timer goes off, a medical assistant is called to come and take the blood pressure

BP: Blood pressure

Performance Measure Reports: Cholesterol Management



Performance Measure Reports: Smoking Assessment and Treatment



Patient-Level Report Summary

	Below PPRNet Median / Btwn PPRNet Median and PPRNet Benchmark / Above PPRNet Benchmark PPRNet Clinical Quality Measures:	Number of eligible patients	Percent meeting criterion	Number not meeting criterion
CQM #	**1. Diabetes Mellitus**			
	2. Cardiovascular Disease			
2.1	Screening for high blood pressure	1348	99.63%	5
2.2	Patients diagnosed with HTN for 3 BP measures ≥ 140/90 in past year	52	100.00%	0
2.3	Controlling high blood pressure (BP)	717	92.05%	57
2.4	Cholesterol abnormalities screening	1079	96.11%	42
2.5	^^^^Concordance with ACC/AHA Cholesterol Guidelines for ASCVD Risk Reduction	811	59.31%	330
2.6	Ischemic Vascular Disease: Use of aspirin or oral anticoagulant Rx	252	91.67%	21
2.7	Antiplatelet Medication for High Risk Patients	240	72.08%	67
2.8	Patients with atrial fibrillation with current anti-platelet or oral anticoagulant Rx	103	96.12%	4
2.9	Atrial Fibrillation and Atrial Flutter: Chronic Anticoagulation Therapy	61	77.05%	14
2.10	Heart Failure (HF): ACE Inhibitor or ARB Therapy	49	85.71%	7
2.11	Heart Failure (HF): Beta-Blocker Therapy	49	73.47%	13
2.12	Patients screened for abdominal aortic aneurysm	131	93.89%	8
	3. Chronic Kidney Disease			
	8. Mental Health and Substance Abuse			
8.1	Depression screening (adults)	1621	86.37%	221
8.2	Anti-depressant medication management	475	56.63%	206
8.3	Alcohol misuse: screening	1621	91.12%	144

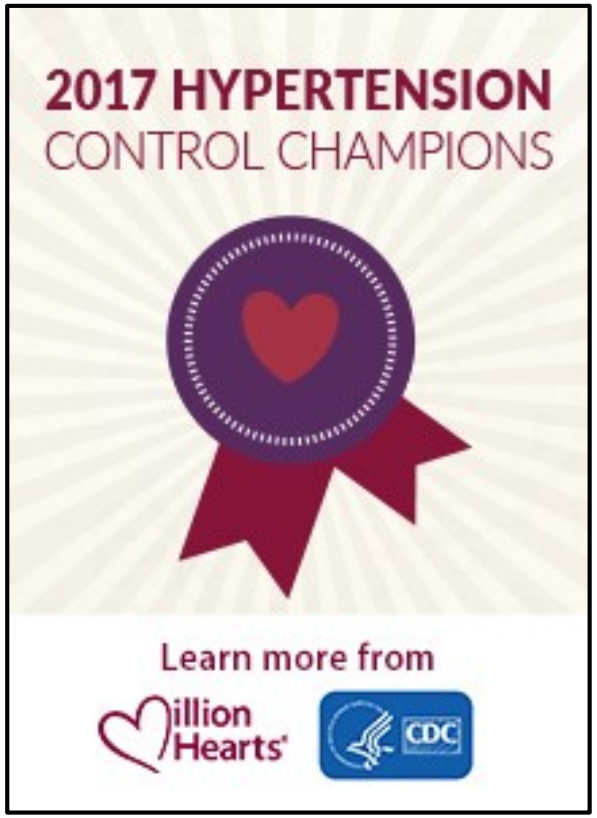
Patient-Level Report

Patients not meeting criteria:

PPRNet ID	DOB	Sex	Provider	Last BP date	Systolic Value	Diastolic Value
216785	7/17/1949	MALE	SCHROEDER,_GEORGE_S	8/4/2017	152	68
3031	10/31/1949	MALE	SCHROEDER,_GEORGE_S	8/29/2017	140	72
2998	7/30/1951	FEMALE	SCHROEDER,_GEORGE_S	5/30/2017	144	80
4834	3/24/1951	MALE	SCHROEDER,_GEORGE_S	11/15/2016	138	106
217319	9/23/1953	MALE	SCHROEDER,_GEORGE_S	8/4/2017	143	74
533	12/22/1954	MALE	SCHROEDER,_GEORGE_S	7/12/2017	142	62
1117	5/15/1956	MALE	SCHROEDER,_GEORGE_S	3/23/2017	152	86
213109	5/12/1958	FEMALE	SCHROEDER,_GEORGE_S	7/31/2017	148	86
215775	4/25/1959	MALE	SCHROEDER,_GEORGE_S	9/27/2016	142	64
216774	4/5/1959	MALE	SCHROEDER,_GEORGE_S	2/3/2017	134	94
216781	8/25/1959	MALE	SCHROEDER,_GEORGE_S	8/1/2017	140	82
216005	6/13/1960	MALE	SCHROEDER,_GEORGE_S	5/25/2017	150	70
1987	6/17/1963	MALE	SCHROEDER,_GEORGE_S	11/22/2016	140	86
9	8/9/1963	MALE	SCHROEDER,_GEORGE_S	5/30/2017	130	90
2077	1/17/1968	FEMALE	SCHROEDER,_GEORGE_S	1/13/2017	148	90

Pearls of Wisdom

- Make performance paramount
- Cultivate and educate the provider in every staff member
- Measure performance concurrently
- Join a practice-based research network
- They will be your QI department



QI: Quality Improvement

What Works to Prevent Second Heart Attacks

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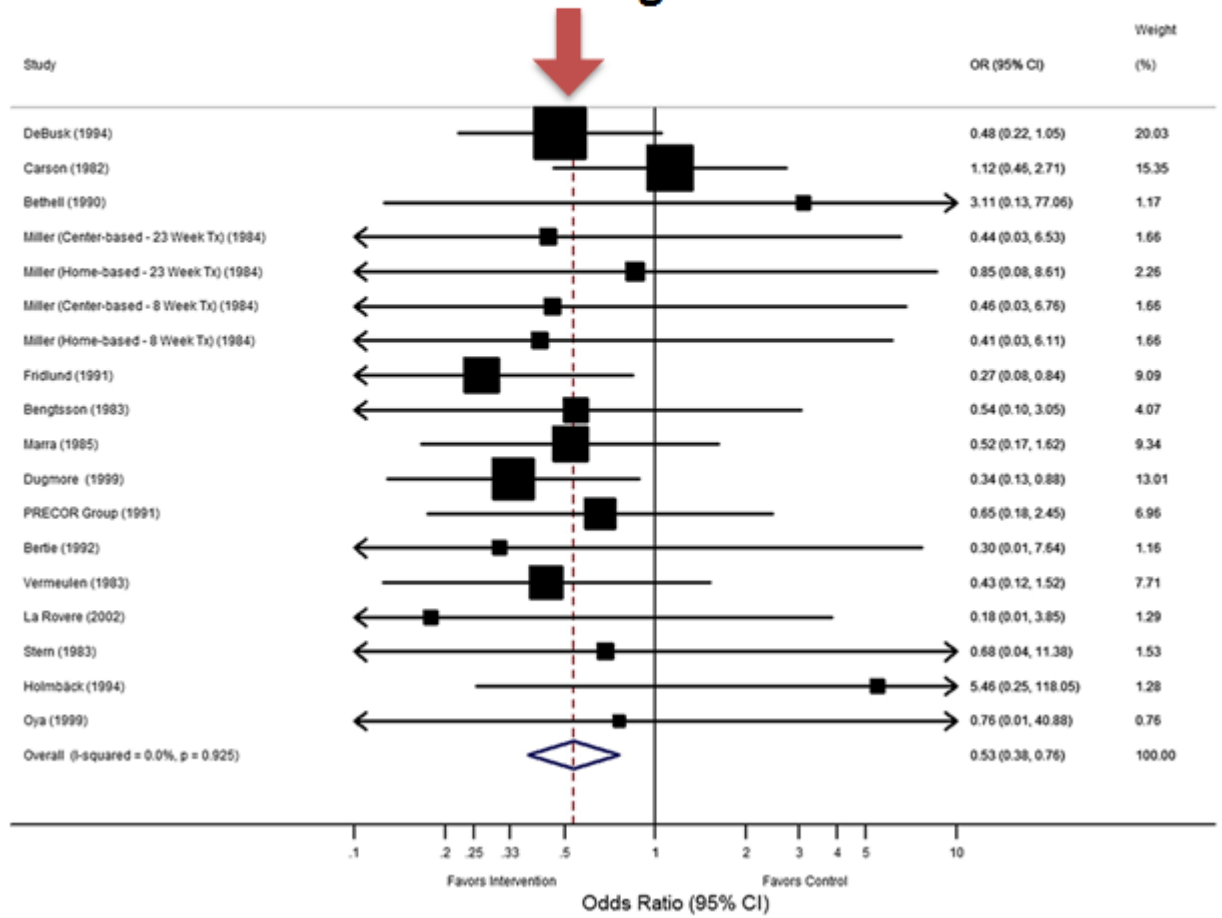
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Indications for Cardiac Rehabilitation (CR)

- **CMS reimbursable diagnoses include**
  - Symptomatic coronary artery disease or recent myocardial infarction (MI)
  - Recent coronary stent or coronary artery bypass surgery
- **CR is a <u>Class I</u> recommendation MI survivors for prevention of a second heart attack**
  - Odds ratio 0.53

Forest plot effect of exercise-based CR on reinfarction. Exercise-based CR significantly reduces reinfarction among MI survivors.



Lawler PR, Filion KB, Eisenberg MJ. *Am Heart J*. 2011 Oct;162(4):571-584.

A Tale of Two Patients

Patient A

42-year-old woman who presented with a myocardial infarction. She was treated with coronary artery bypass grafting (CABG) 6 weeks ago

- Non-diabetic, non smoker, no family history of CHD, no hypertension
- BMI 22; lost 20 pounds intentionally over the past 2 years
- Registered nurse and mother of two

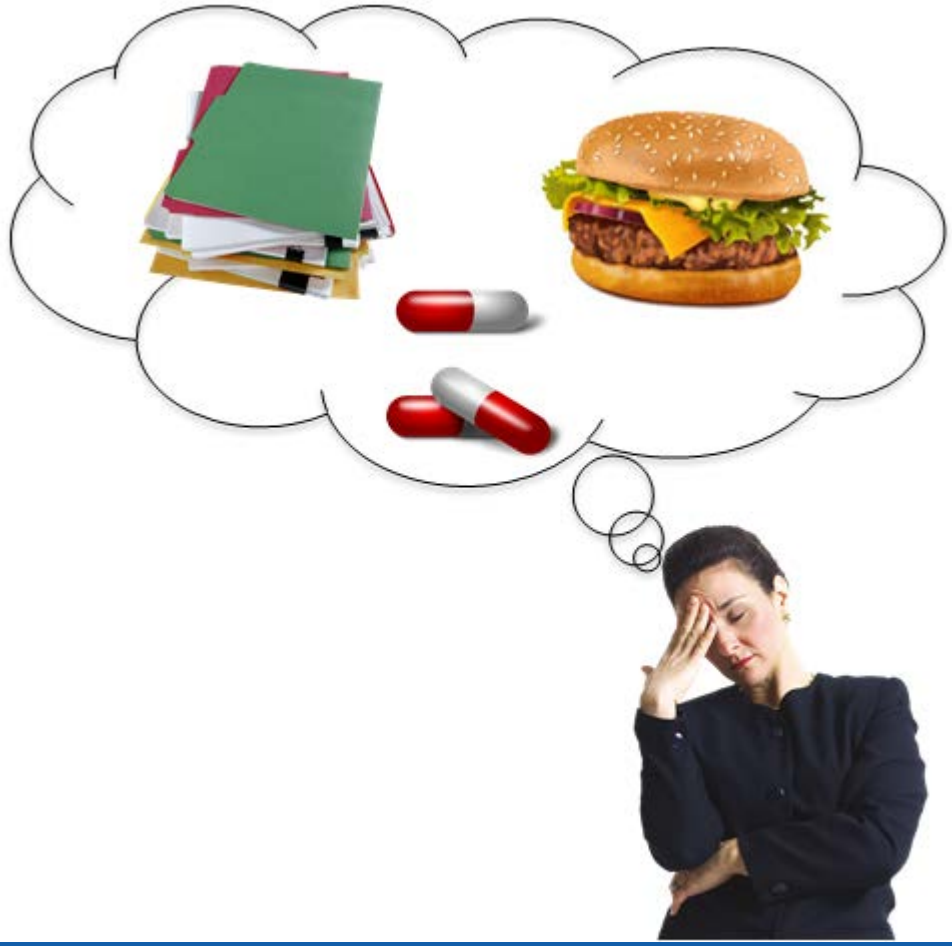
Patient B

44-year-old man who had chest pain and a positive stress test. Angiography showed single vessel disease and percutaneous intervention (PCI) was done two weeks ago

- Smoker, diabetic, hypertension, family history of premature coronary artery disease
- BMI 33
- Recently began working for a heating and air conditioning company

What Are Patient Concerns?

- **Why did this happen to me? Will this happen again?**
  - How do I know if I'm having a "heart attack" again?
- **Is it safe to exercise?**
  - How much can I do?
- **Can I go back to work?**
  - If I do go back to work, how can I get time off to come to rehab?
- **How should I be eating?**
- **Did stress contribute to my cardiac event?**
- **Will I always have to take all of these pills and what are they for?**

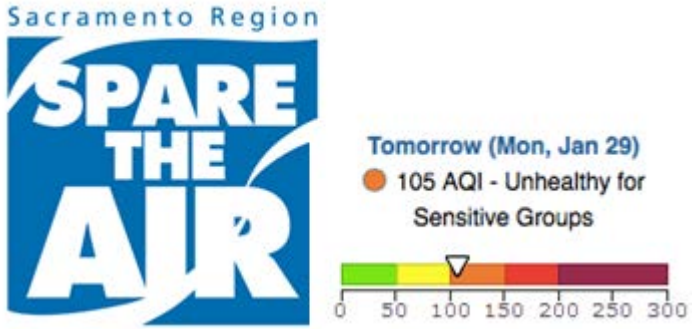


Cardiac Rehabilitation (CR) Addresses Most Concerns

- **Structured and monitored exercise**
- **Formal curriculum**
  - Medication education
  - Symptom recognition
  - Stress management, including a cardiac yoga class
- **Integrated dietician and health and behavior specialist**
- **Smoking cessation services**
- **Transition counseling—how to exercise outside of the CR program**

A Holistic Approach

- **UC Davis CR nurses are disease case managers**
  - Patients have comorbidities: diabetes, chronic obstructive pulmonary disease, depression, heart failure
- **Typical session in rehab**
  - Glucose check before and after exercise for diabetics
  - Start monitored exercise
  - Presentation on plant-based protein sources (during exercise)
  - End exercise then have a group stretch and cool down with a brief meditation exercise
  - Reminder of a **"Spare the Air"** day so patients should exercise indoors

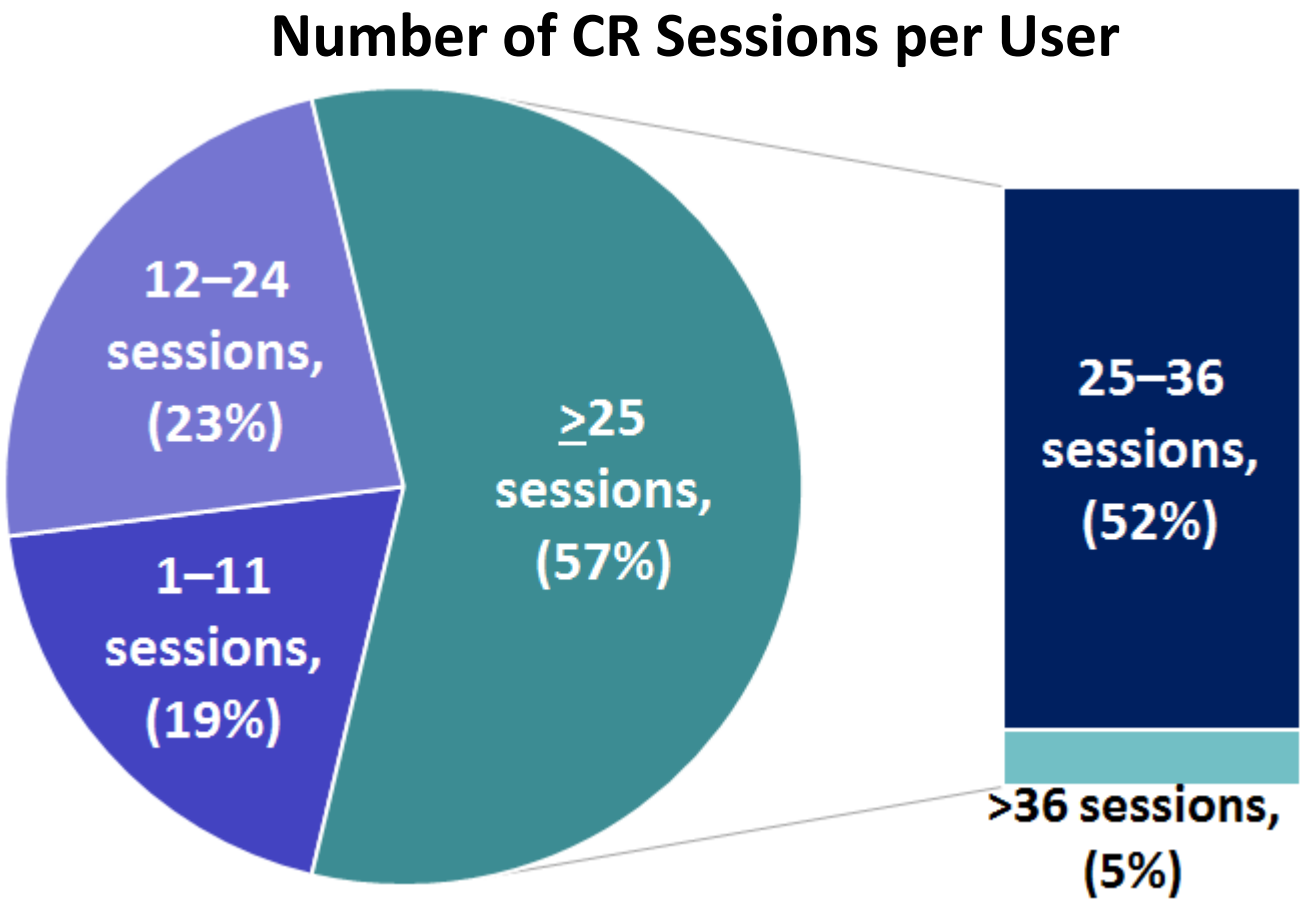


Cardiac Rehabilitation (CR) Utilization Among Medicare Fee-for-service Beneficiaries, 2013

- **Despite known benefits, participation rates remain low**
- **Approximately 450,000 beneficiaries were eligible for CR in 2013**
  - Qualifying diagnoses in 2013 included
    - Symptomatic coronary artery disease
    - Myocardial infarction
    - Heart valve replacement
    - Heart transplant
  - 20% (90,000) used CR at least once in 12 months

McNeely J, Ritchey M, Maresh S, et al. Abstract 15035: Circ 134, A15035-A15035 (2016)

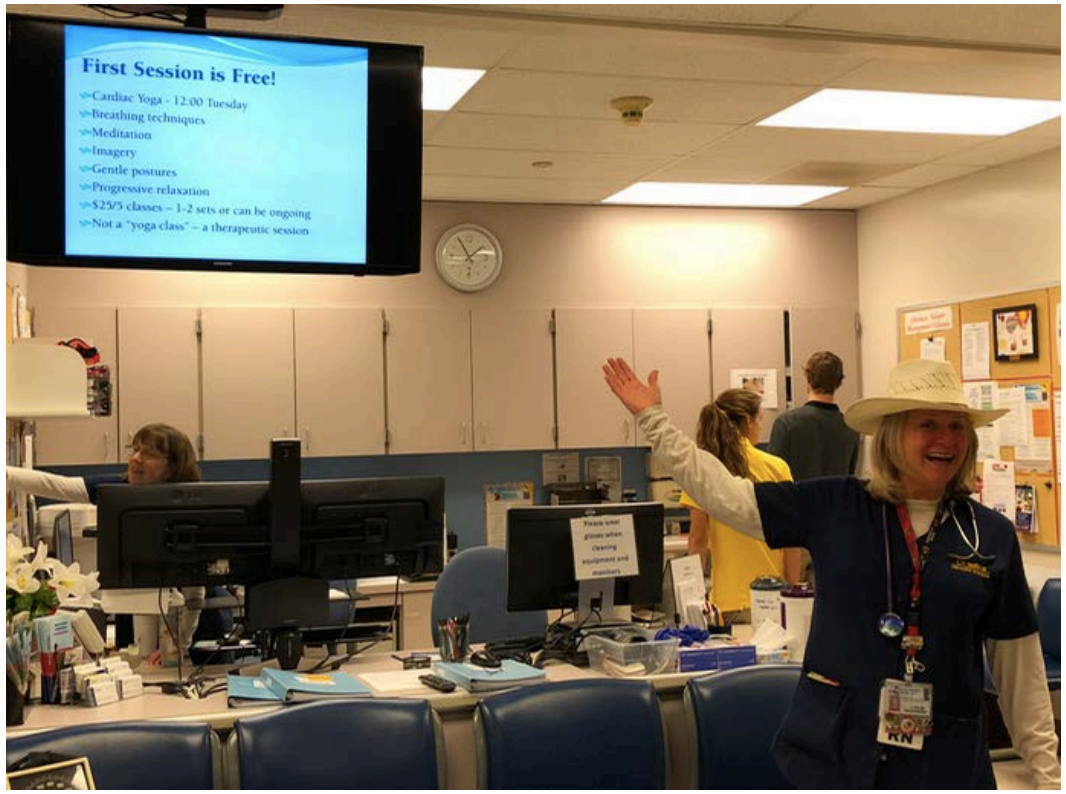
Cardiac Rehabilitation (CR) Utilization Among Medicare Fee-for-service Beneficiaries, 2013



McNeely J, Ritchey M, Maresh S, et al. Abstract 15035: Circ 134, A15035-A15035 (2016)

How Do We Increase Participation?

- **Capture all possible referrals for covered diagnoses**
  - Automatic referral integrated into discharge order set
  - Actively seek referrals
  - Provider education (e.g., residents, fellows, NPs, PAs)
- **Structured orientation**
  - Schedule patients for first exercise session at orientation
- **Follow-up calls**
  - Touch base with patients who have stopped coming and assess barriers

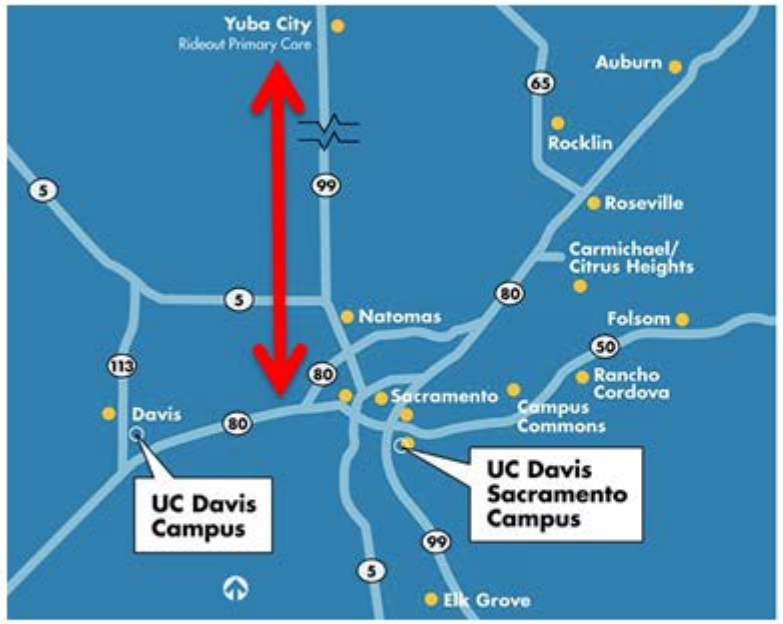


NP: Nurse Practitioner

PA: Physician Assistant

Why Do Patients Stop Coming?

- Had to go back to work
- Co-pay is $40 per session
  - Private insurance
- "Too far to drive"
- "No ride"
- "I didn't see the point"
- "They tried to make me a vegan"



Solutions

- **Financial barriers**
  - Philanthropy—co-pay assistance fund
  - Raise awareness at the administrative level
    - Managed care plans could consider designating preventive measures such as cardiac rehabilitation (CR) differently from “office visits”
- **Distance and work**
  - Much interest in out-of-center CR programs
  - Technology platforms exist for this, but reimbursement is a challenge
- **Patient has no interest**
  - Enlist allies such as the primary cardiologist and primary care provider
  - Assess for depression
  - Persist and continue ask patient if they want to go back

Data Supports Cardiac Rehabilitation

- **Reduction in second heart attacks**
- **Reduction in total mortality**
  - 13%–24% mortality risk reduction in participants over 1–3 years
- **Reduction in hospitalizations**
- **Increase in physical function**

Ades PA, Keteyian SJ, Wright JS et al. *Mayo Clin Proc*. 2017 Feb;92(2):234-242.

What Happened to Our Patients?

Patient A

42-year-old woman has completed 18 sessions and is still coming

- She is back at work
- Reports having more confidence about dietary choices and exercising safely
- Walking 60 minutes a day

Patient B

44-year-old man completed cardiac rehabilitation program

- Quit smoking
- Improved his exercise tolerance
- Went back to work
- Plans to work out at a private gym after “graduation”

Opportunities in U.S. Adults to Prevent Cardiovascular Disease

Blood Pressure	Cholesterol	Sodium	Physical Activity	Tobacco Use
34 M	35M/42M	215M	124 M	36.5 M
Uncontrolled	Unmanaged	Overconsume	Underactive	Smoke

We Know What Works

Resources and Tools Available on the Million Hearts® Website

- **Action Guides—Hypertension** control; Self-measured blood pressure monitoring (SMBP); Tobacco cessation; Medication adherence
- **Protocols**—Hypertension treatment; Tobacco cessation; Cholesterol management
- **Tools**—Hypertension prevalence estimator; atherosclerotic cardiovascular disease (ASCVD) risk estimator
- **Messages and Resources**—Undiagnosed hypertension, Medication adherence, Health IT, SMBP, Particle pollution, Physical activity, Tobacco use, Cardiac rehabilitation
- **Clinical Quality Measures**

Millionhearts.hhs.gov

2018 Million Hearts® Hypertension Control Challenge

Identify clinicians, clinical practices, and health systems that meet the Million Hearts® target* for hypertension control

Application cycle:
February 20, 2018 — April 6, 2018

For more information, go to:

millionhearts.hhs.gov or www.challenge.gov

*At or above 80% hypertension control rate (<140 mmHg systolic and <90 mmHg diastolic) of adult population 18–85