

Healthy People 2020 Progress Review



Preserving Your Healthy Lifespan: Preventing and Managing Chronic Musculoskeletal and Cardiovascular Diseases

Jewel Mullen, MD, MPH, MPA
Principal Deputy Assistant Secretary for Health
February 28, 2017



Chair

- Jewel Mullen, MD, MPH, MPA, Principal Deputy Assistant Secretary for Health, U.S. Department of Health and Human Services

Presentations

- Charles Rothwell, MBA, MS, Director, National Center for Health Statistics
- Gary Gibbons, MD, Director, National Heart Lung and Blood Institute, NIH
- Walter Koroshetz, MD, Director, National Institutes of Neurological Disorders and Stroke, NIH
- Wayne Giles MD, MS, Director, Division for Heart Disease and Stroke Prevention, CDC
- Joan McGowan, PhD, Director of the Division of Musculoskeletal Diseases, National Institute of Arthritis Musculoskeletal and Skin Diseases, NIH
- Kurt Greenlund, PhD, Acting Director, Division of Population Health, CDC

Community Highlight

- Matt Longjohn, MD, MPH National Health Officer, Vice President of Community Integrated Health, YMCA of the USA

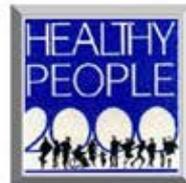
Healthy People at the Forefront of Public Health



HEALTHY PEOPLE
The Surgeon General's Report on
Diet, Physical Activity, and Obesity



1979



1990



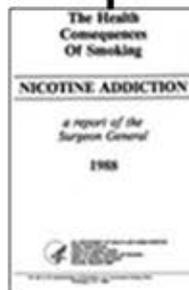
2000



2010



1979
Smallpox
Eradicated



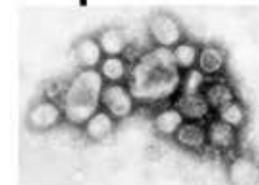
1988 SG
Declares
Nicotine
Addictive



1990
Human
Genome
Project
Begins



2000s Obesity
and Chronic Disease



2009 H1N1 Flu



1970 Clean
Air Act



1982 AIDS is
Infectious



Office of Disease Prevention
and Health Promotion



1990s Drinking
Water Fluoridation



September
11, 2001



2005 Hurricane
Katrina

Evolution of Healthy People



Target Year	1990	2000	2010	2020
Overarching Goals	 <ul style="list-style-type: none"> • Decrease mortality: infants–adults • Increase independence among older adults 	 <ul style="list-style-type: none"> • Increase span of healthy life • Reduce health disparities • Achieve access to preventive services for all 	 <ul style="list-style-type: none"> • Increase quality and years of healthy life • Eliminate health disparities 	 <ul style="list-style-type: none"> • Attain high-quality, longer lives free of preventable disease • Achieve health equity; eliminate disparities • Create social and physical environments that promote good health • Promote quality of life, healthy development, healthy behaviors across life stages
# Topic Areas	15	22	28	42
# Objectives/Measures	226	312	1,000	~1,200 5

Heart Disease and Stroke in the United States

- Heart Disease is the leading cause of death in the U.S.
- It includes several types of heart conditions, such as:
 - Coronary artery disease
 - Chest pain (angina)
 - Heart attack
- Stroke, the 5th leading cause of death, occurs when the flow of oxygenated blood to the brain is blocked
- Cardiovascular diseases (CVD) cost \$316.1 billion annually in 2012-2013
 - \$189.7 billion direct costs
 - \$126.6 billion indirect costs

SOURCE: <https://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke> <https://www.cdc.gov/heartdisease/>

- Controllable risk factors
 - High blood pressure
 - High cholesterol
 - Cigarette smoking
 - Diabetes
 - Poor diet and physical inactivity
 - Overweight and obesity
- 29.5% of adults are affected by high blood pressure, half of them have it under control



SOURCE: <https://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke>

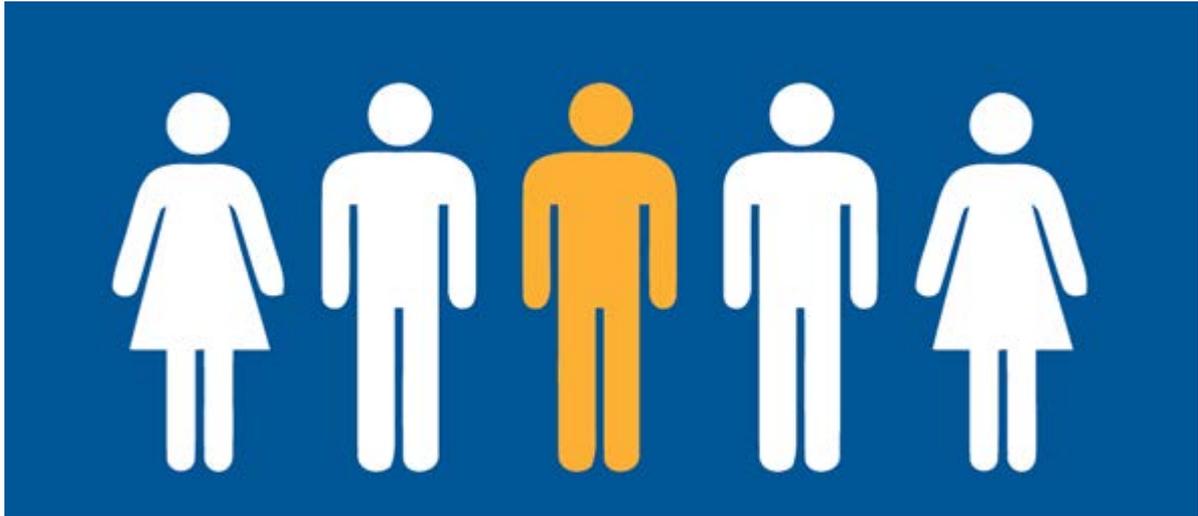
Arthritis, Osteoporosis, and Chronic Back Conditions

- Arthritis - more than 100 types
- Commonly occurs with other chronic conditions
 - Diabetes
 - Heart disease
 - Obesity



- Osteoporosis is marked by low bone mass and a reduction in bone strength
 - Increased risk of broken bones
- Chronic back pain
 - Lasts for more than three months
 - Can become progressively worse and reoccur
 - Outlasts the usual healing process

SOURCE: <https://www.healthypeople.gov/2020/topics-objectives/topic/Arthritis-Osteoporosis-and-Chronic-Back-Conditions>



- 1 in 5 adults has arthritis
- Arthritis is a leading cause of disability
- Costs are projected to increase over time

SOURCE: <https://www.healthypeople.gov/2020/topics-objectives/topic/Arthritis-Osteoporosis-and-Chronic-Back-Conditions>

Osteoporosis and Chronic Back Conditions

- 5.3 million people (50 years and older) have osteoporosis at the hip
- Half of all women and 1 in 4 men will have osteoporosis related fractures in their lifetime
- 80% of Americans experience low back pain in their lifetime



SOURCES: <https://www.healthypeople.gov/2020/topics-objectives/topic/Arthritis-Osteoporosis-and-Chronic-Back-Conditions>
<https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Low-Back-Pain-Fact-Sheet>

- Start early with healthy habits
 - Adequate dietary calcium and vitamin D, and,
 - Physical activity
- Maintain physical activity and a healthy weight throughout life for bone, joint, and spine health
- Avoid sports injuries through proper training and equipment use

SOURCE: https://www.niams.nih.gov/health_info/bone/SGR/surgeon_generals_report.asp

Charles Rothwell, MBA, MS Director, National Center for Health Statistics Centers for Disease Control and Prevention



Office of Disease Prevention
and Health Promotion



- Tracking the Nation's Progress
- Arthritis, Osteoporosis, and Chronic Back Conditions
- Heart Disease and Stroke

- 18 HP2020 Measurable Arthritis, Osteoporosis, and Chronic Back Conditions Objectives:
 - 2 Target met
 - 13 Little or no detectable change
 - 3 Getting worse

- 37 HP2020 Measurable Heart Disease and Stroke Objectives:
 - 15 Target met
 - 8 Improving
 - 10 Little or no detectable change
 - 2 Getting worse
 - 1 Baseline data only
 - 1 Informational

NOTES: The Arthritis, Osteoporosis, and Chronic Back Conditions Topic Area added 4 developmental objectives on generic pain issues in 2014, which are not addressed in this Progress Review. The Heart Disease and Stroke Topic Area contains 13 developmental objectives. Measurable objectives are defined as having at least one data point currently available, or a baseline, and anticipate additional data points throughout the decade to track progress. Informational objectives are also measurable objectives, however, they do not have a target associated with their data.

- Tracking the Nation's Progress
- Arthritis, Osteoporosis, and Chronic Back Conditions
 - Burden
 - Activity Limitations due to Arthritis and Chronic Back Conditions
 - Counseling for Weight Reduction and Physical Activity among Adults with Arthritis
 - Osteoporosis Prevalence
- Heart Disease and Stroke

- Arthritis is a leading cause of disability.
- In 2015, 55.4 million (22.9%) adults aged 18 and over in the United States had doctor-diagnosed arthritis.
- In 2015, 58% of adults with doctor-diagnosed arthritis were in the working age population (18-64); 42% were in the older adult population (65+).
- By 2040, the prevalence of arthritis is projected to increase 42% to 78.4 million (25.9% of U.S. adults).

Burden of Osteoporosis and Chronic Back Conditions



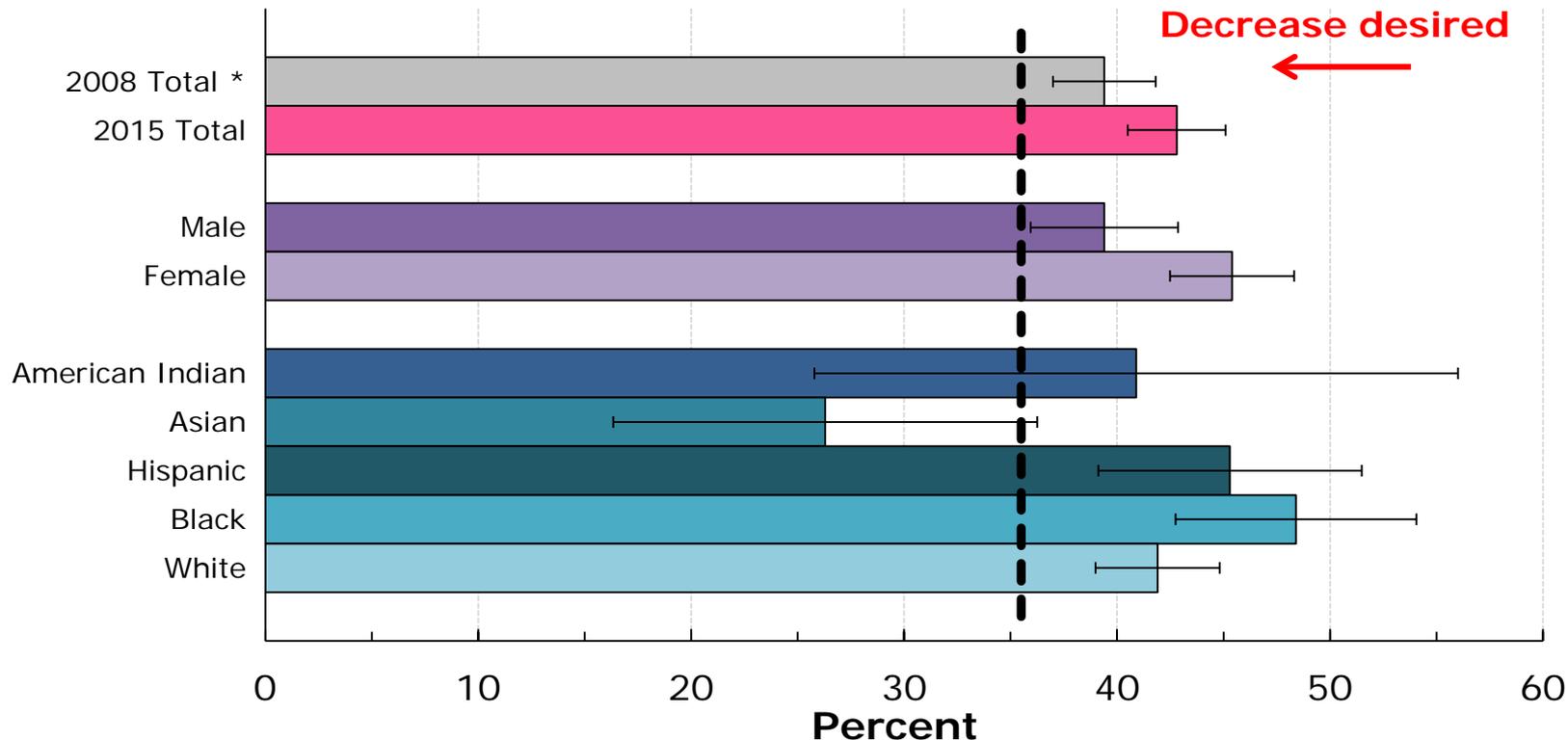
- Osteoporosis is a major risk factor for fracture.
- In 2013-14, 7.3% of adults aged 50 and over had osteoporosis at the hip (age-adjusted).
- Common causes of chronic back pain are osteoarthritis and disc degeneration.
- In 2015, 8.4 million adults aged 18 and over had activity limitations due to chronic back or neck pain.
- In 2015, among broad age groups of adults, prevalence of low back or neck pain is highest for persons aged 45 to 64.

SOURCES: US Dept. of Health and Human Services, Public Health Service, Office of the Surgeon General. Bone health and osteoporosis: A report of the Surgeon General. Rockville, MD: US GPO; 2004, p. 436. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK45513/pdf/TOC.pdf>

National Health and Nutrition Examination Survey (NHANES), CDC/NCHS. National Health Interview Survey (NHIS), CDC/NCHS. Manek NJ, Macgregor AJ. Epidemiology of back disorders: Prevalence, risk factors, and prognosis. *Curr Opin Rheumatol.* 2005;17:134-40.

Activity Limitations Due to Arthritis, Adults 18+ Years with Arthritis, 2015

HP2020 Target: 35.5%

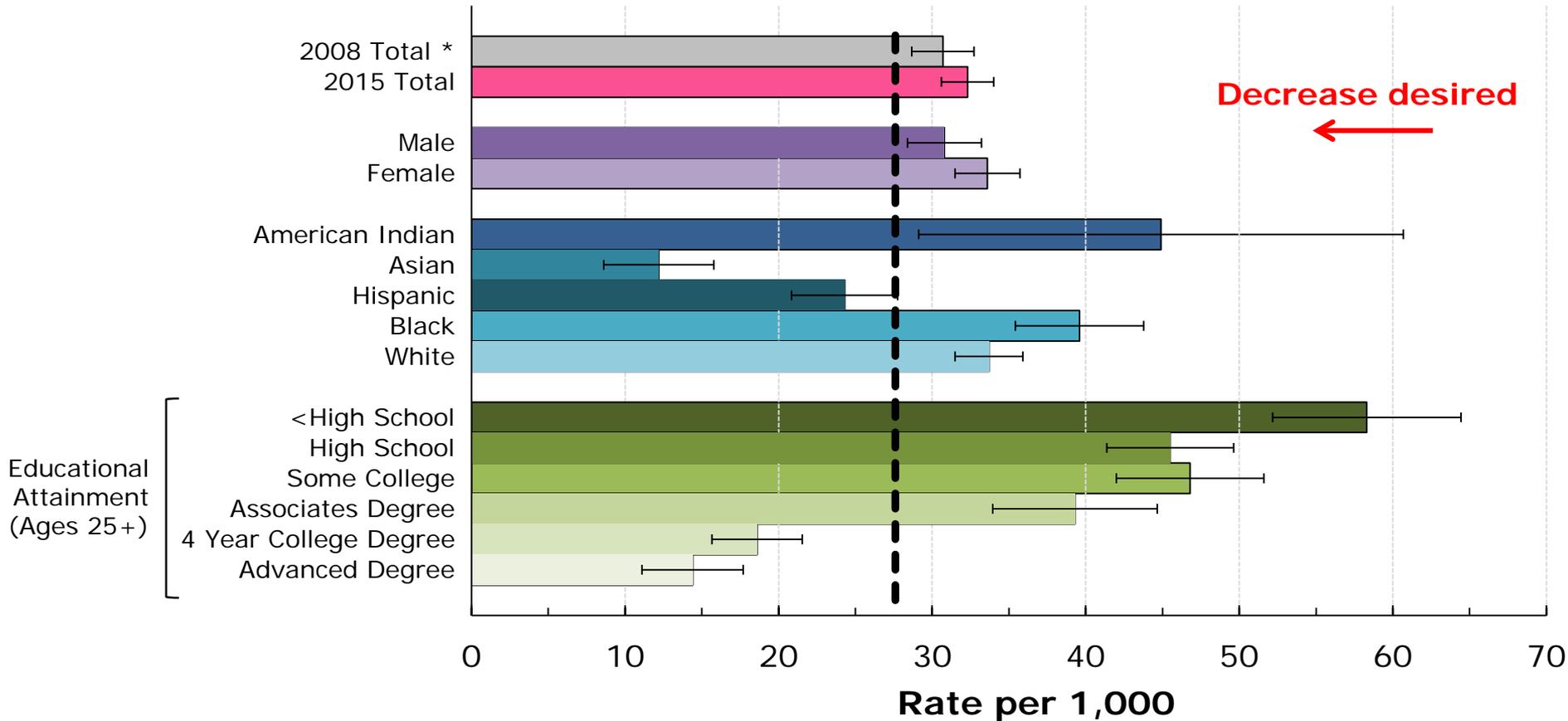


NOTES: — = 95% confidence interval. *2008 Total = HP2020 baseline. Data are for adults aged 18 years and over with doctor-diagnosed arthritis who are limited in any way in usual activities because of arthritis or joint symptoms. Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be any race. American Indian includes Alaska Native. Respondents were asked to select one or more races. Data for the single race categories shown are for persons who reported only one racial group. Data are age-adjusted to the 2000 standard population.

SOURCE: National Health Interview Survey (NHIS), CDC/NCHS.

Activity Limitations Due to Chronic Back or Neck Conditions, Adults 18+ Years, 2015

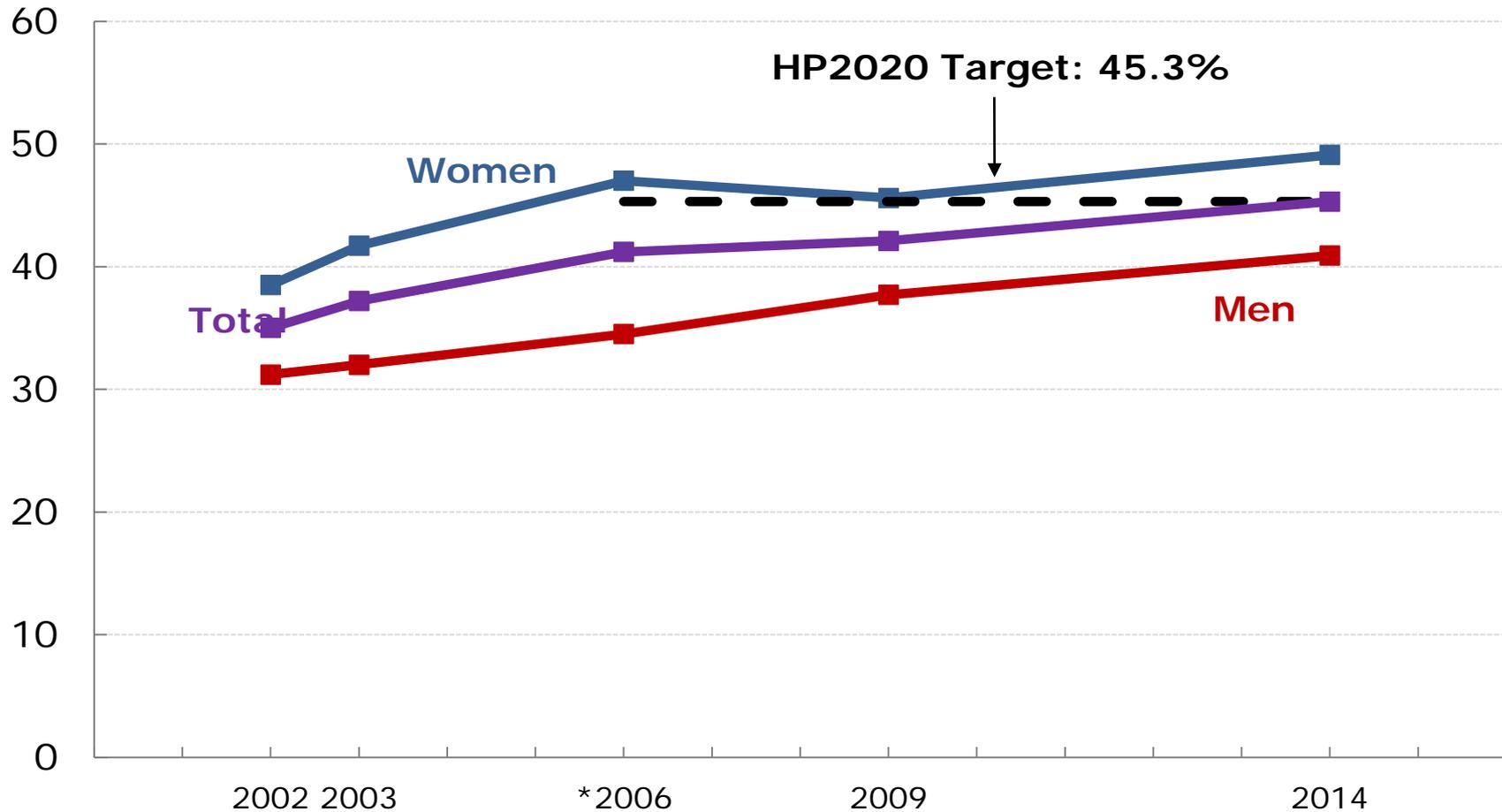
HP2020 Target: 27.6



NOTES: — = 95% confidence interval. *2008 Total = HP2020 baseline. Data are for adults with a limitation in activity due to chronic back or neck problems. Data (except those by education) are for adults 18 years and over. Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be any race. American Indian includes Alaska Native. Respondents were asked to select one or more races. Data for the single race categories shown are for persons who reported only one racial group. Education data are for adults aged 25 years and over. Data are age-adjusted to the 2000 standard population.

Weight Reduction Counseling, Overweight or Obese Adults 18+ Years with Arthritis

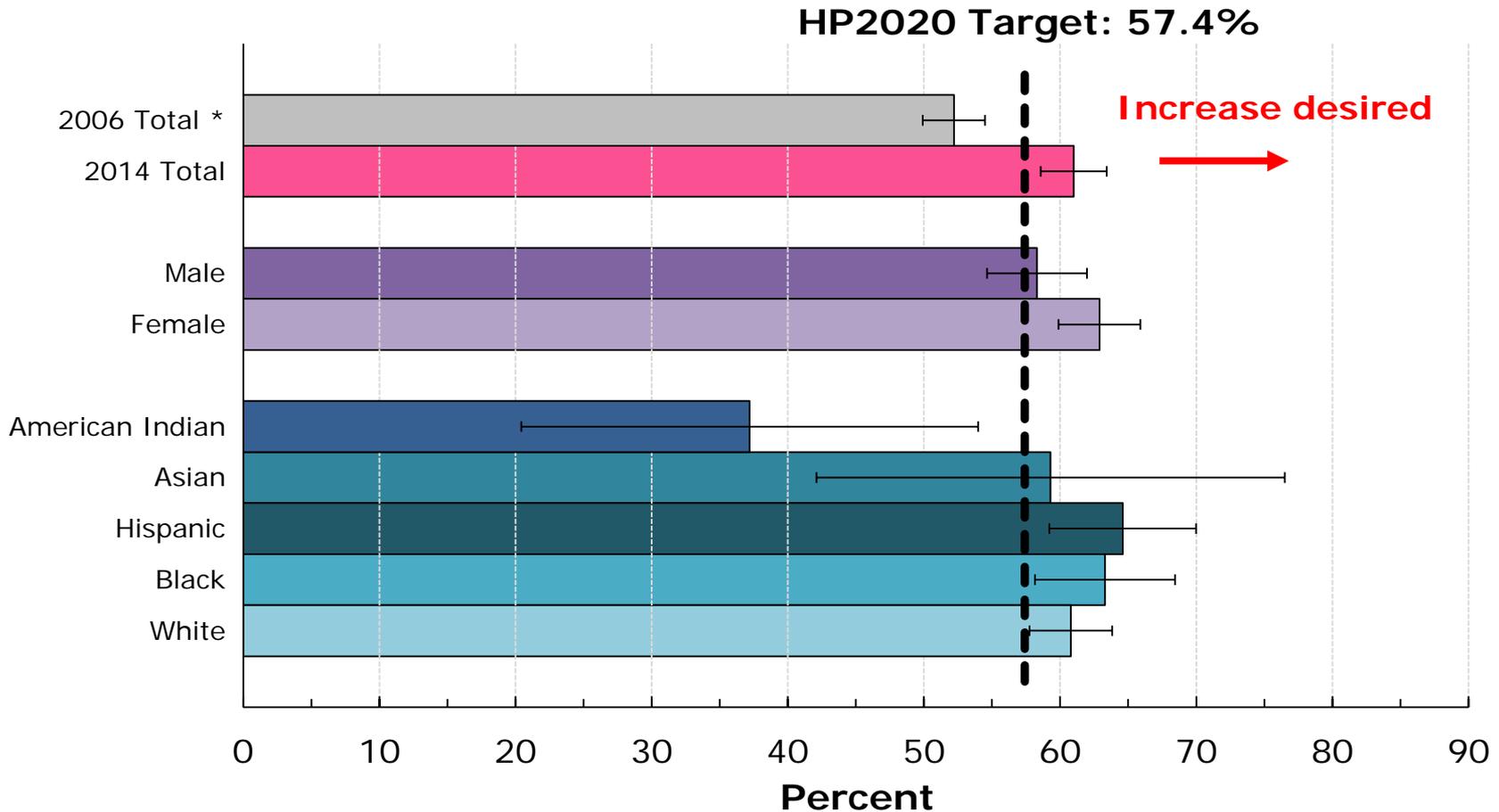
Percent



NOTES: *2006 = HP2020 baseline. Data are for overweight and obese adults aged 18 and over with doctor-diagnosed arthritis who received weight-reduction counseling from their health care provider to help arthritis or joint symptoms. Data are age-adjusted to the 2000 standard population.

SOURCE: National Health Interview Survey (NHIS), CDC/NCHS.

Counseling for Physical Activity or Exercise, Adults 18+ Years with Arthritis, 2014



Increase desired

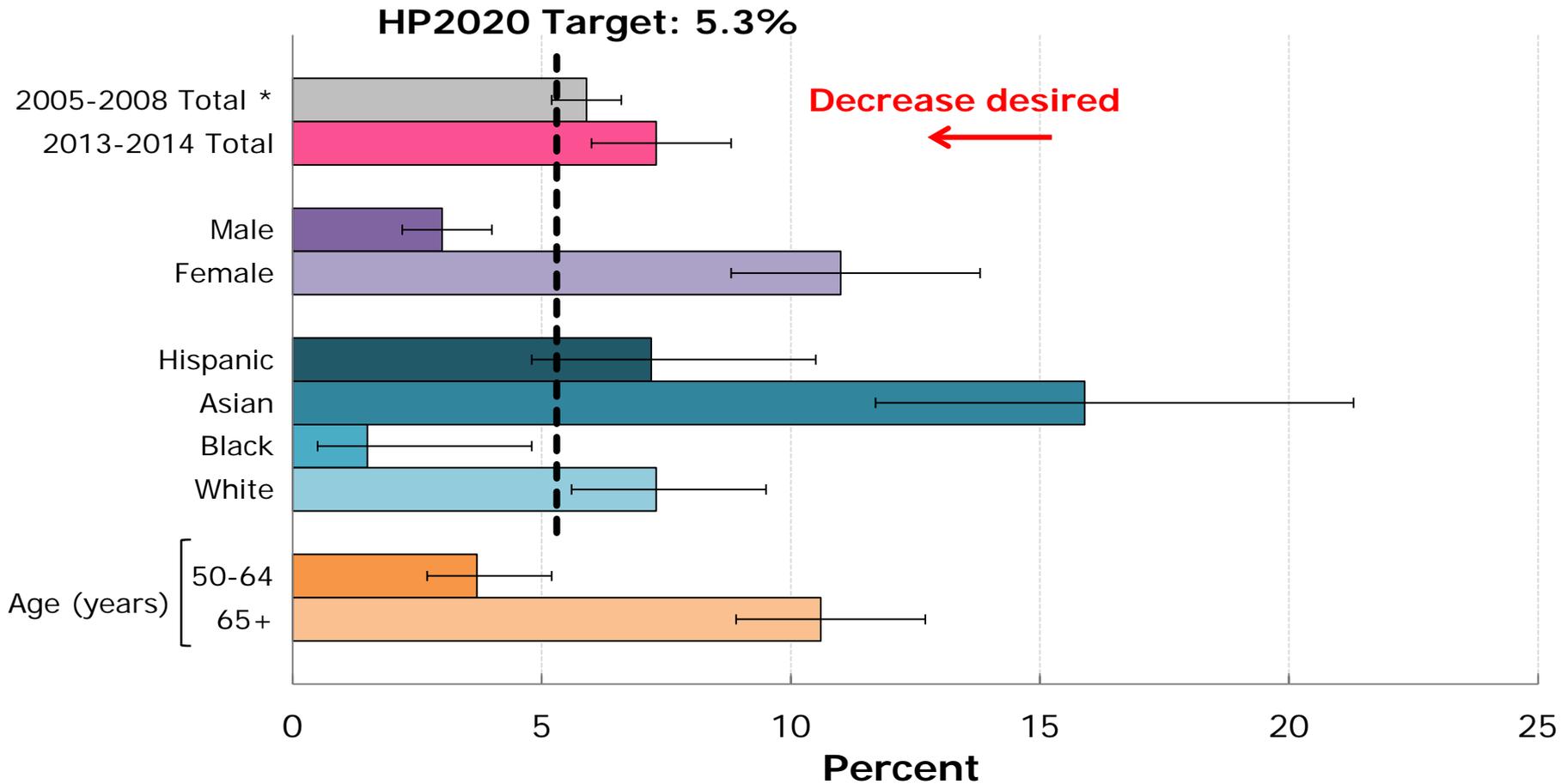


NOTES: — = 95% confidence interval. *2006 Total = HP2020 baseline. Data are for adults aged 18 years and over with doctor-diagnosed arthritis who received health care provider counseling for physical activity or exercise to help arthritis or joint symptoms. Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be any race. American Indian includes Alaska Native. Respondents were asked to select one or more races. Data for the single race categories shown are for persons who reported only one racial group. Data are age-adjusted to the 2000 standard population.

SOURCE: National Health Interview Survey (NHIS), CDC/NCHS.

Obj. AOCBC-7.2

Osteoporosis at the Hip, Adults 50+ Years, 2013-2014



NOTES: — = 95% confidence interval. *2005-2008 Total = HP2020 baseline. Data are for adults aged 50 years and over with a femoral neck bone mineral density (BMD) value ≤ 0.56 gm/cm² based on dual-energy X-ray absorptiometry (DXA) measurements. Data (except those by age group) are age-adjusted to the 2000 standard population. The categories Asian, Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be any race. Respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group. Target does not apply to all age groups.

SOURCE: National Health and Nutrition Examination Survey (NHANES), CDC/NCHS.

- Tracking the Nation's Progress
- Arthritis, Osteoporosis, and Chronic Back Conditions
- Heart Disease and Stroke
 - Burden
 - Deaths
 - Hypertension Prevalence and Control
 - Awareness of Stroke Symptoms and Response

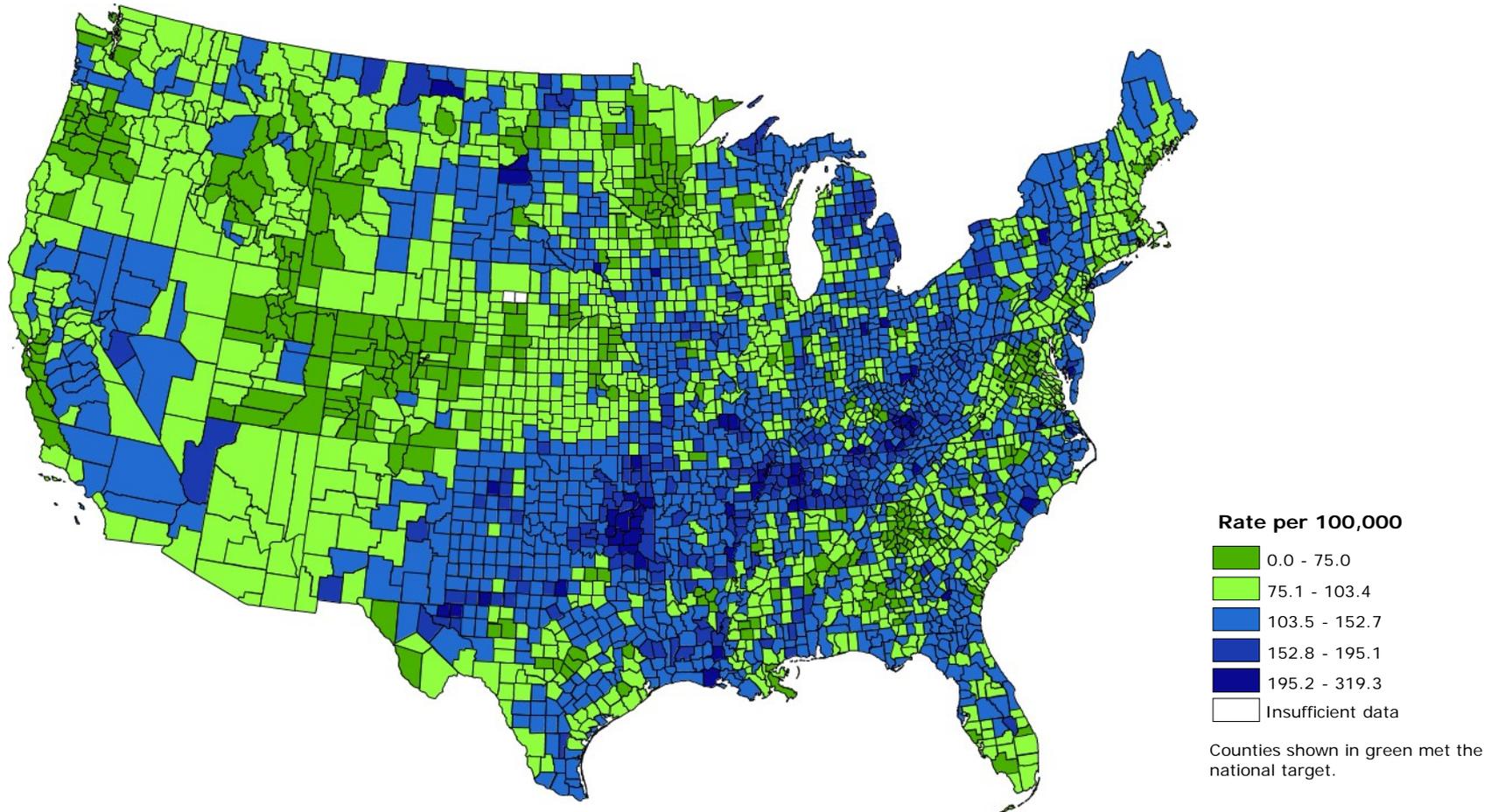
- In 2015, heart disease (633,842 deaths) was the leading cause of death, and stroke (140,323 deaths) was the fifth leading cause of death in the United States.
- In 2014, about 16.5 million adults aged 20 and over had coronary heart disease (CHD).
 - Each year, approximately 1.0 million adults aged 35 and over experience a new or recurrent heart attack or fatal CHD.
- In 2014, 7.2 million adults aged 20 and over have ever had a stroke.
 - Each year approximately 795,000 people (all ages) experience a new or recurrent stroke.

- The leading modifiable risk factors for heart disease and stroke are:
 - High blood pressure
 - High cholesterol
 - Cigarette smoking
 - Diabetes
 - Poor diet and physical inactivity
 - Overweight and obesity
- In 2011-14:
 - 29.5% of adults aged 18 and over had hypertension (75 million U.S. adults)
 - 50.3% of adults aged 18 and over with hypertension had their condition under control
 - 47.9% of adults aged 20 and over had normal total cholesterol levels (<200 mg/dL)

NOTES: Hypertension is defined among adults, excluding pregnant women, as systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg or taking blood pressure lowering medication. Blood pressure control is defined as systolic blood pressure < 140 mmHg and diastolic blood pressure < 90 mmHg among adults with hypertension. Data are age-adjusted to the 2000 standard population. SOURCES: Merai R, Siegel C, Rakotz M, et al. CDC Grand Rounds: A Public Health Approach to Detect and Control Hypertension. MMWR Morb Mortal Wkly Rep 2016;65:1261–1264. National Health and Nutrition Examination Survey (NHANES), CDC/NCHS.

Coronary Heart Disease Deaths by County, 2013–2015

National Target = 103.4 per 100,000 population • National Total = 99.6 per 100,000 population



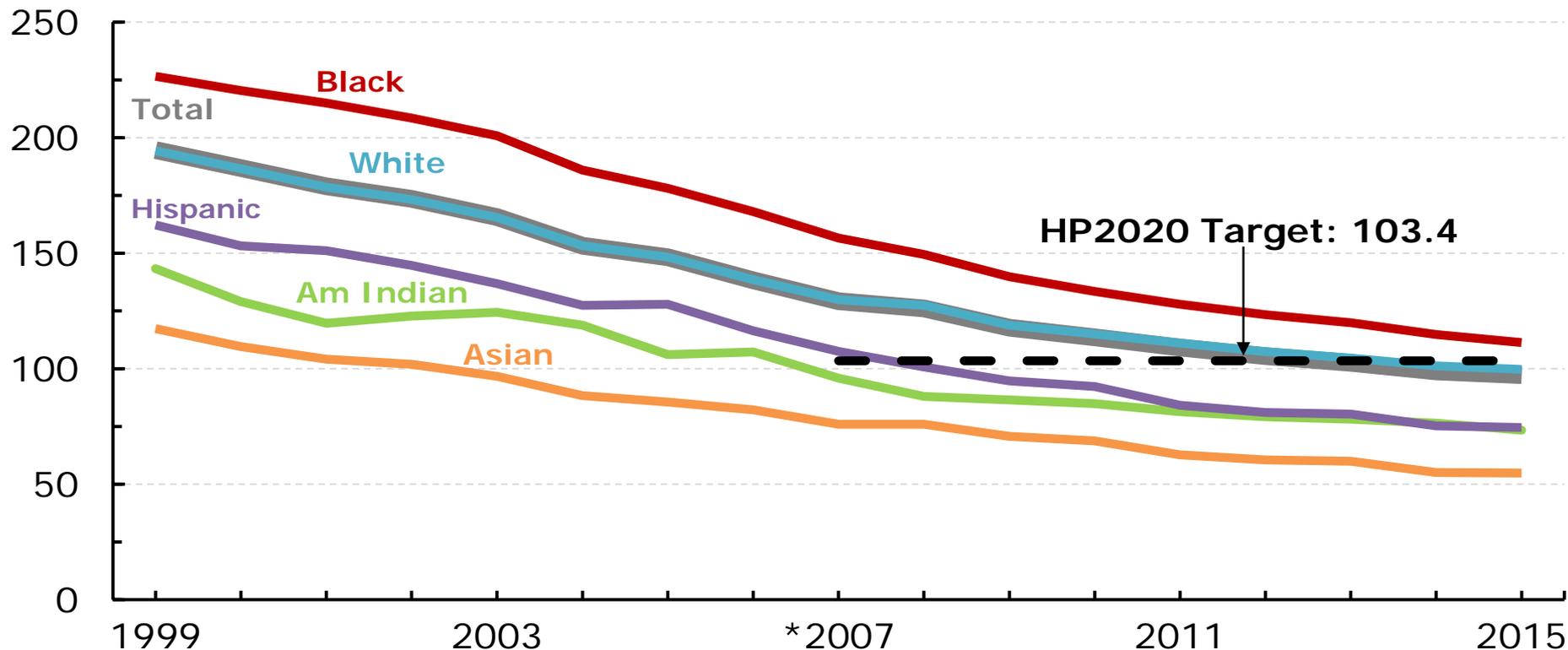
NOTES: Data are for ICD-10 codes I20-I25 reported as the underlying cause of death. Rates are age-adjusted to the 2000 standard population. Rates are spatially smoothed to enhance the stability of rates in counties with small populations. Data are displayed by a modified Jenks classification for U.S. counties which creates categories that minimize within-group variation and maximize between-group variation.

SOURCES: National Vital Statistics System—Mortality (NVSS—M), CDC/NCHS; Bridged—race Population Estimates, CDC/NCHS and Census. Interactive Atlas of Heart Disease and Stroke, CDC/NCCDPHP <http://nccd.cdc.gov/DHDSAtlas/>.

Obj. HDS-2
Decrease desired

Coronary Heart Disease Deaths

Rate per 100,000



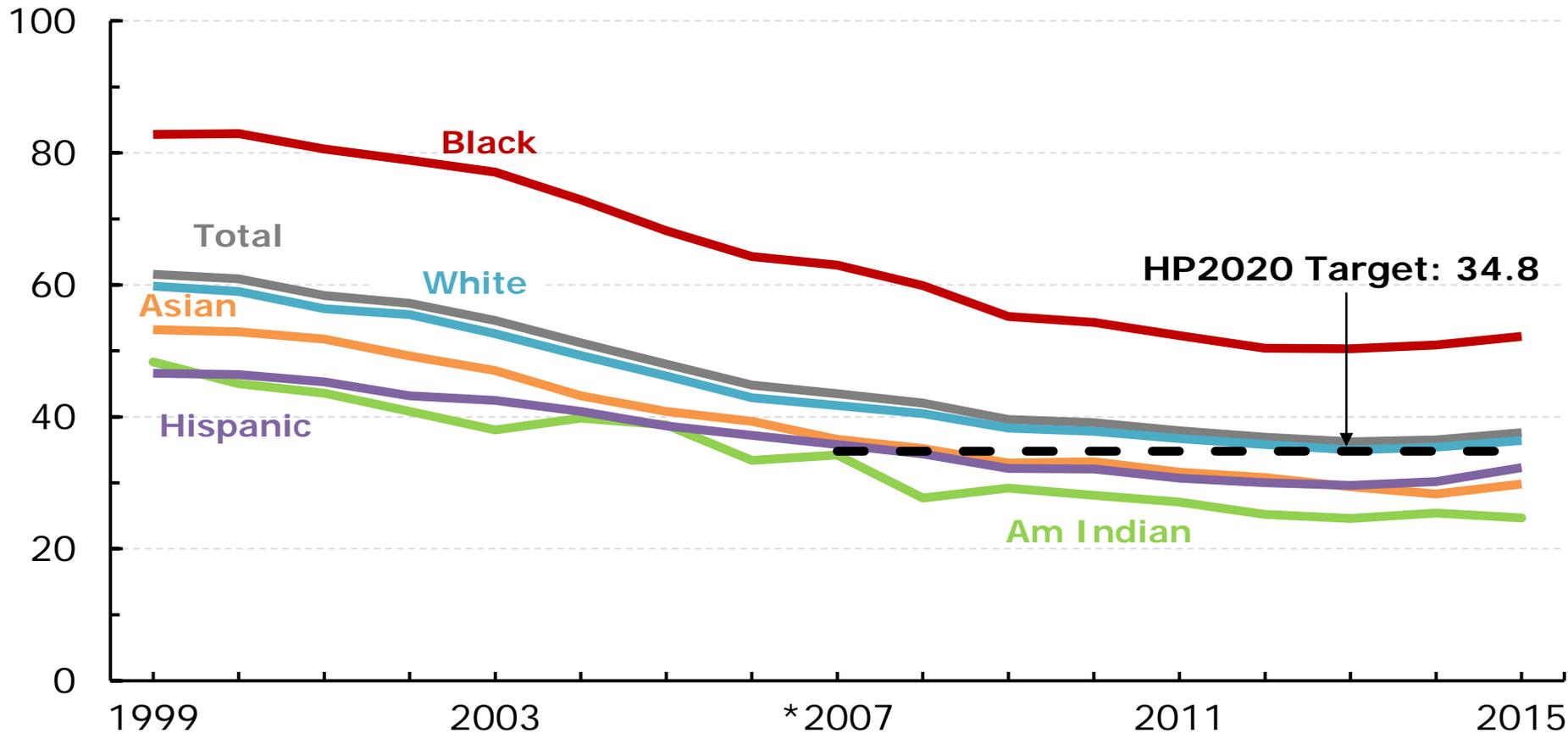
NOTES: *2007 = HP2020 baseline. Data are for ICD-10 codes I20–I25 reported as underlying cause of death and are age-adjusted to the 2000 standard population. Prior to 2003, only one race could be recorded; recording more than one race was not an option. Beginning in 2003 multiple-race data were reported by some states; multiple-race data were bridged to the single-race categories for comparability. American Indian includes Alaska Native. Asian includes Pacific Islander. Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race.

SOURCE: National Vital Statistics System—Mortality (NVSS—M), CDC/NCHS; Bridged—race Population Estimates for Census 2000 and 2010, CDC/NCHS and Census.

Obj. HDS-2
Decrease desired

Stroke Deaths

Rate per 100,000



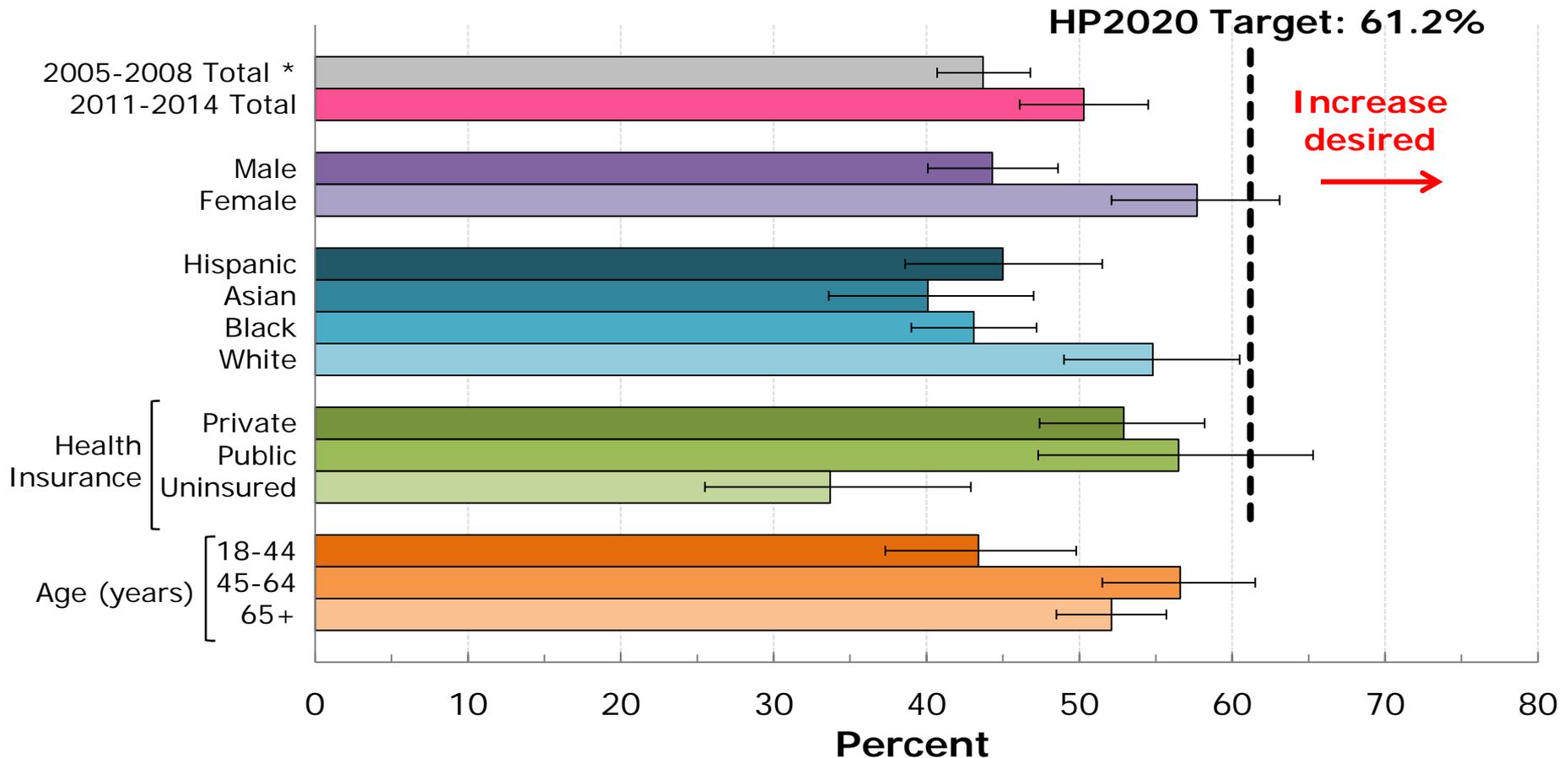
HP2020 Target: 34.8

NOTES: *2007 = HP2020 baseline. Data are for ICD-10 codes I60–I69 reported as underlying cause of death and are age-adjusted to the 2000 standard population. Prior to 2003 only one race category could be recorded; recording more than one race was not an option. Beginning in 2003 multiple-race data were reported by some states; multiple-race data were bridged to the single-race categories for comparability. American Indian includes Alaska Native. Asian includes Pacific Islander. Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race.

SOURCE: National vital Statistics System—Mortality (NVSS—M), CDC/NCHS; Bridged—race Population Estimates, CDC/NCHS and Census.

Obj. HDS-3
Decrease desired

Blood Pressure Control, Adults 18+ Years with Hypertension, 2011–2014

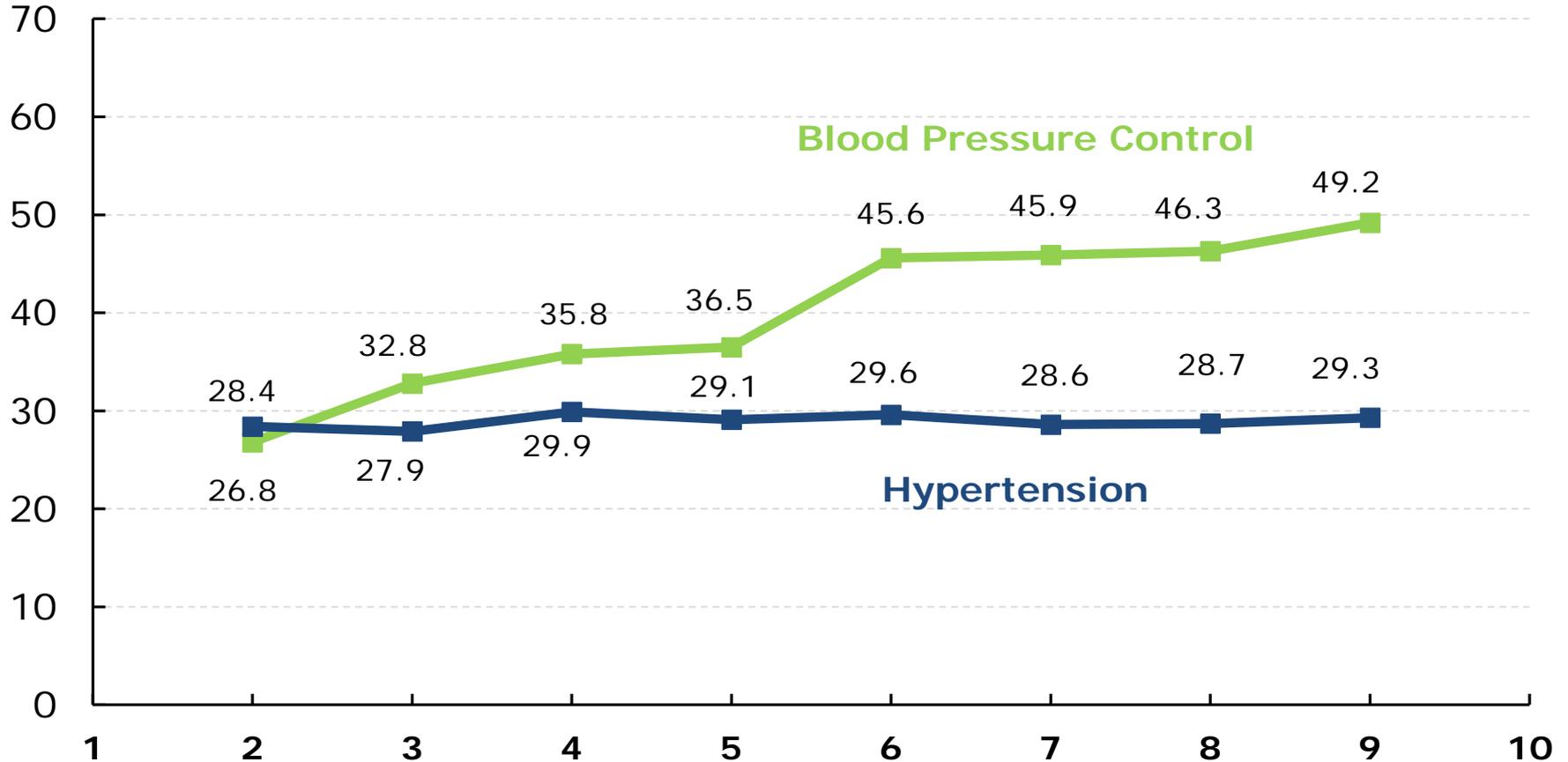


NOTES: — = 95% confidence interval. *2005-2008 Total = HP2020 baseline. Blood pressure control is defined as systolic blood pressure <140 mmHg and diastolic blood pressure <90 mmHg among adults with hypertension. Hypertension is defined among adults, excluding pregnant women, as systolic blood pressure ≥140 mmHg or diastolic blood pressure ≥90 mmHg or taking blood pressure lowering medication. Data (except those by insurance status) are for adults aged 18 years and over unless otherwise stated. Data by health insurance status are for adults aged 18-64 years. Data (except those by age group) are age-adjusted to the 2000 standard population. The categories Asian, Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be any race. Respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group. Target does not apply to age groups.

SOURCE: National Health and Nutrition Examination Survey (NHANES), CDC/NCHS.

Hypertension Prevalence and Blood Pressure Control, Adults 18+ Years

Percent

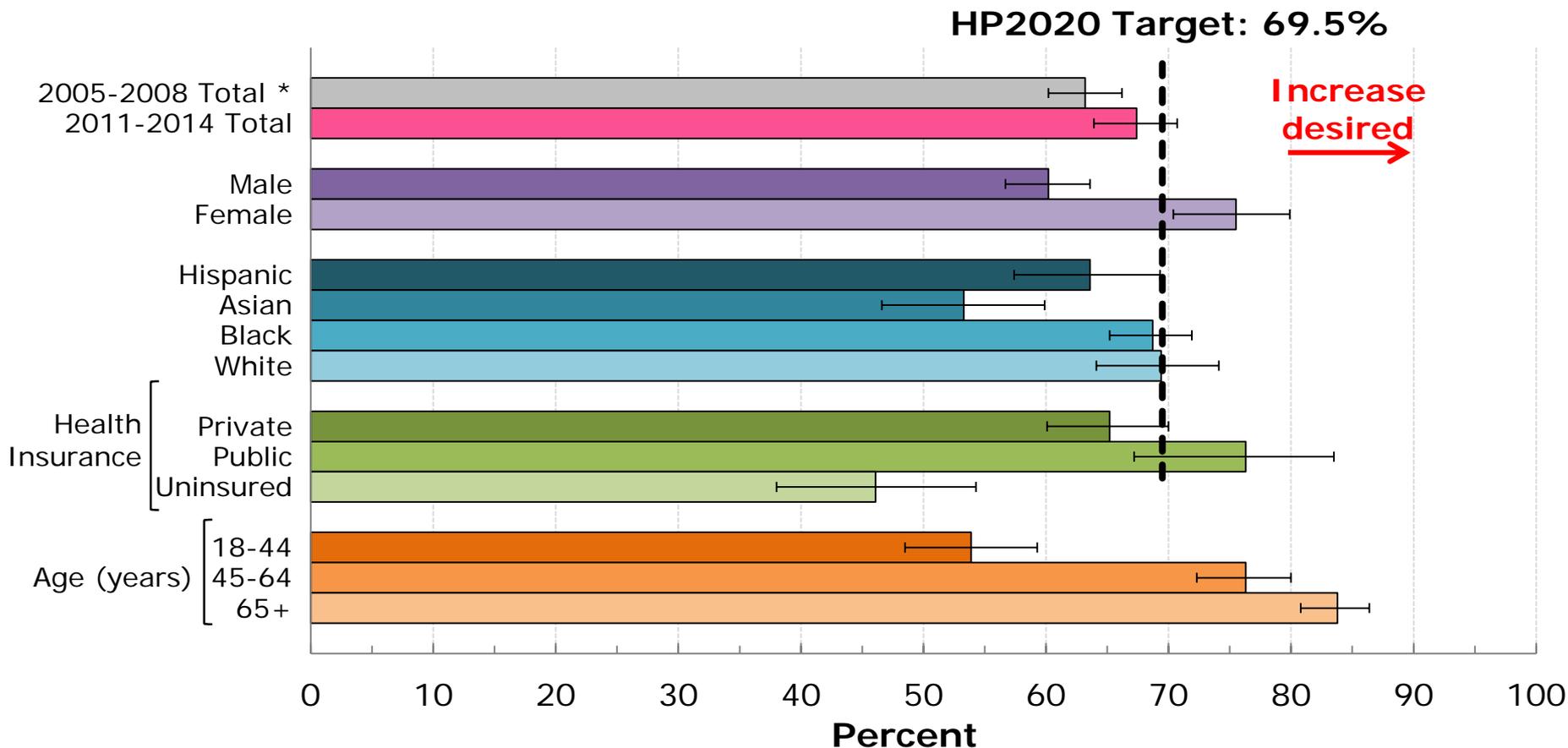


NOTES: Blood pressure control is defined as systolic blood pressure <140 mmHg and diastolic blood pressure <90 mmHg among adults aged 18 years and over with hypertension. Hypertension is defined among adults aged 18 years and over, excluding pregnant women, as systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg or taking blood pressure lowering medication. Data are age-adjusted to the 2000 standard population.

SOURCE: National Health and Nutrition Examination Survey (NHANES), CDC/NCHS.

Related Objs. HDS-5.1, 12

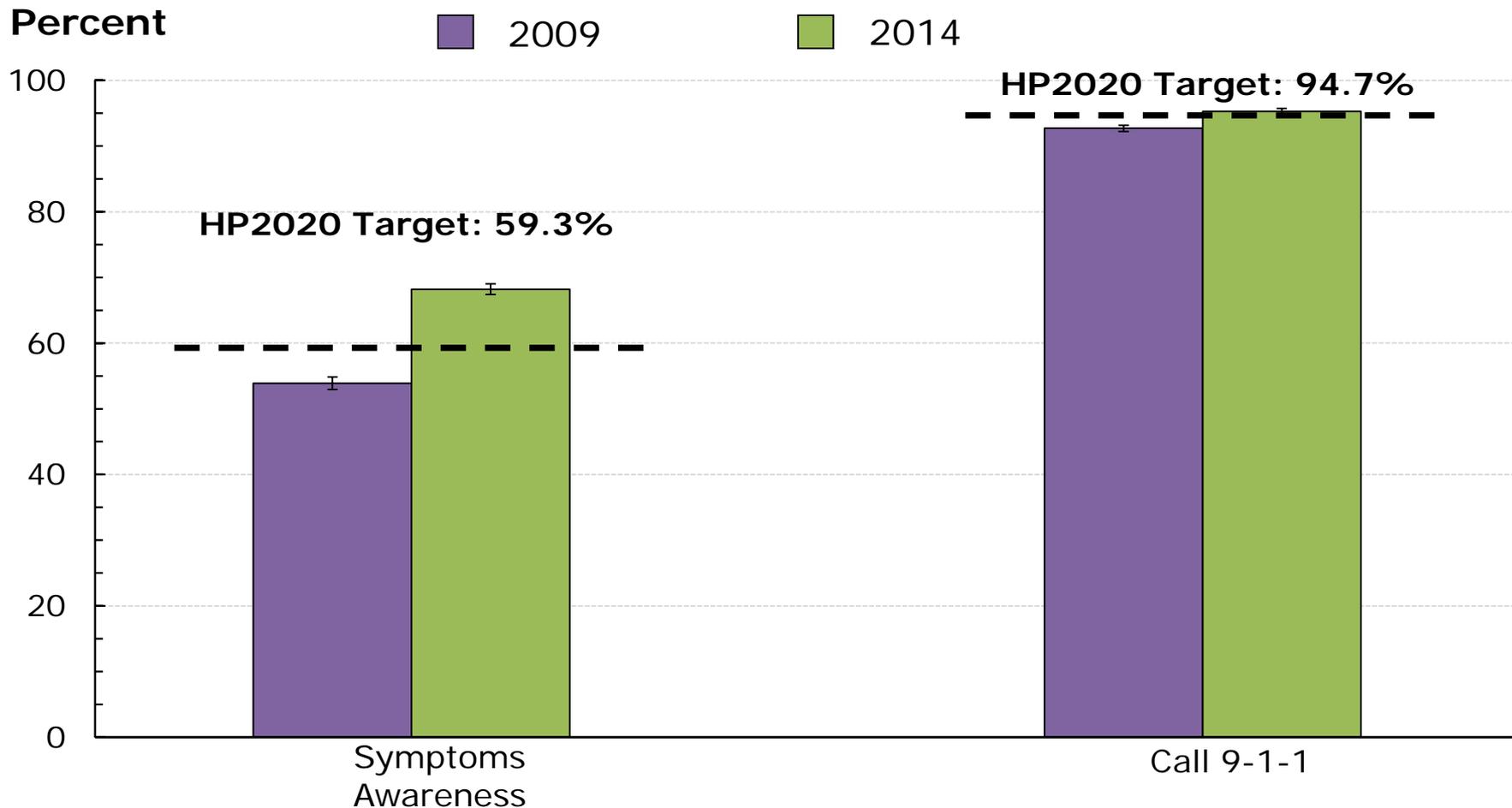
Prescribed Blood Pressure Medication Use, Adults 18+ Years with Hypertension, 2011–2014



NOTES: — = 95% confidence interval. *2005-2008 Total = HP2020 baseline. Data are for adults with hypertension who are taking prescribed medication to lower their blood pressure. Hypertension is defined among adults, excluding pregnant women, as systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg or taking blood pressure lowering medication. Data (except those by insurance status) are for adults aged 18 years and over unless otherwise stated. Data by health insurance status are for adults aged 18-64 years. Data (except those by age group) are age-adjusted to the 2000 standard population. The categories Asian, Black and White exclude persons of Hispanic origin. Persons of Hispanic origin may be any race. Respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group. Target does not apply to age groups.

SOURCE: National Health and Nutrition Examination Survey (NHANES), CDC/NCHS.

Awareness of Stroke Symptoms and the Importance of Calling 9-1-1, Adults 20+ Years



NOTES: I = 95% confidence interval. Data are for adults aged 20 years and over who are aware of the early warning symptoms and signs of a stroke and the importance of accessing rapid emergency care by calling 9-1-1 or another emergency number. Data are age-adjusted to the 2000 standard population.

SOURCE: National Health Interview Survey (NHIS), CDC/NCHS.

Objs. HDS-17.2, 17.3
Increase desired

■ Arthritis

- Prevalence is increasing.
- Arthritis is a leading cause of disability.
- Although counseling for physical activity/exercise and weight reduction met the targets, activity limitations due to arthritis is getting worse.
- Disparities persist by race and sex.

■ Osteoporosis

- Prevalence is increasing, and is higher among women than men.

■ Chronic Back Conditions

- There was little or no change in activity limitations.
- Disparities persist by race, sex, and education.

- Heart disease and stroke deaths are the first and fifth leading causes of death, respectively.
- Coronary heart disease deaths declined, meeting the HP2020 target. Rates varied by county with half meeting the HP2020 target.
- Stroke symptom awareness and response have improved.
- Although there has been little or no change in hypertension prevalence, there has been improvement in hypertension treatment and control.
- Disparities persist by race/ethnicity, sex, age, educational attainment, and health insurance status.

NIH Activities Supporting Heart Disease and Stroke Objectives

Gary H. Gibbons, MD
Director
National Heart, Lung, and Blood
Institute
National Institutes of Health

Walter Koroshetz, MD
Director
National Institute of Neurologic
Disorders and Stroke
National Institutes of Health



ODPHP

Office of Disease Prevention
and Health Promotion



National Heart, Lung,
and Blood Institute



National Institute of
Neurological Disorders
and Stroke

Turning Discovery into Health

NIH's mission is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.

Select HP2020 Heart Disease and Stroke Objectives

- Increase overall cardiovascular health
- Reduce deaths from heart disease and stroke
- Reduce high blood pressure
- Increase adherence to lifestyle guidelines
- Increase appropriate response to heart attack and stroke

Heart Disease and Stroke Risk Factors

High blood pressure

Cigarette Smoking

High blood cholesterol

Overweight/Obesity

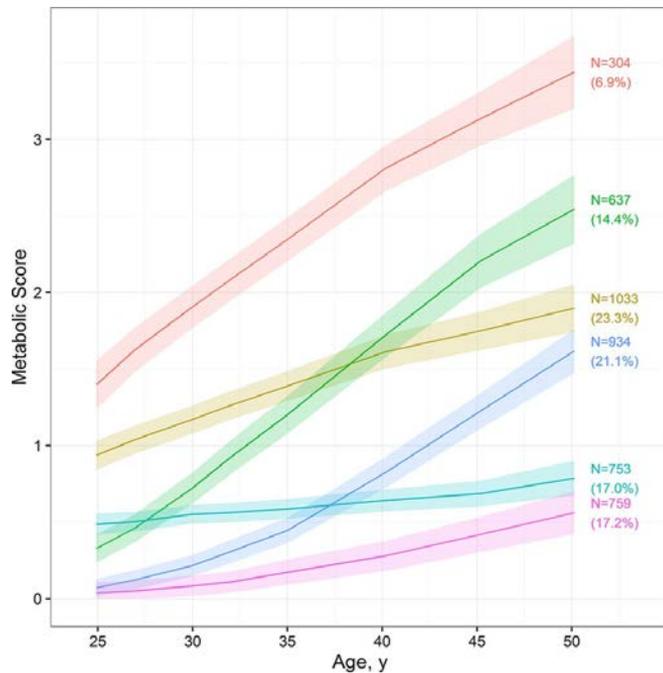
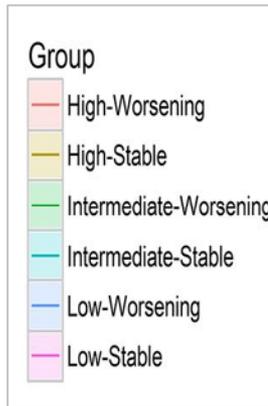
Physical Inactivity

Diabetes

Family history

Age

The Myth: CVD is a Disease of Elderly Men The Science: CVD Risk Emerges Early in Life



Heart Disease and Stroke Risk Factors

High blood pressure
Smoking
High blood cholesterol
Overweight/Obesity
Physical inactivity
Diabetes
Family history
Age

Risk emerges early. High blood cholesterol in early adulthood, if untreated, predicts worse outcomes later in life. Focus on diet, body weight and maintenance of physical activity are important early in life.

HP2020 Goal: Increase overall cardiovascular health in the U.S. population.



Office of Disease Prevention and Health Promotion

Murthy et al. JAMA. 2016; 5:e003934.



National Heart, Lung, and Blood Institute

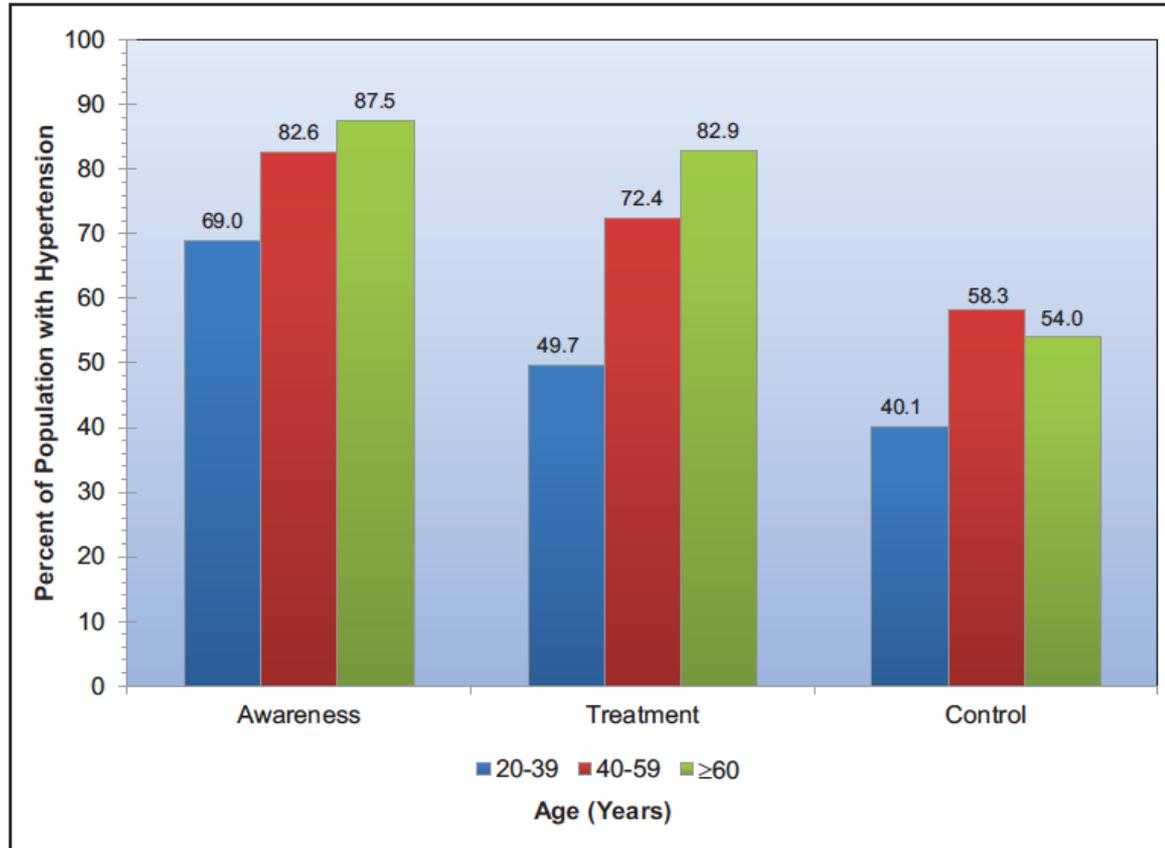
High Blood Pressure: Unfinished Business and New Opportunities to Seize

Healthy People
2020

- Leading risk factor for heart disease and stroke
- Present in 34% of adults
- Present in almost 50% of African Americans

Only ~50% have their high blood pressure controlled.

HP2020 Goal: Increase measurement and awareness of blood pressure



SPRINT

A randomized trial of intensive versus standard blood pressure control: Target SBP <120 mmHg for CVD prevention



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Benjamin E et al. *Circulation*. 2017;135:00

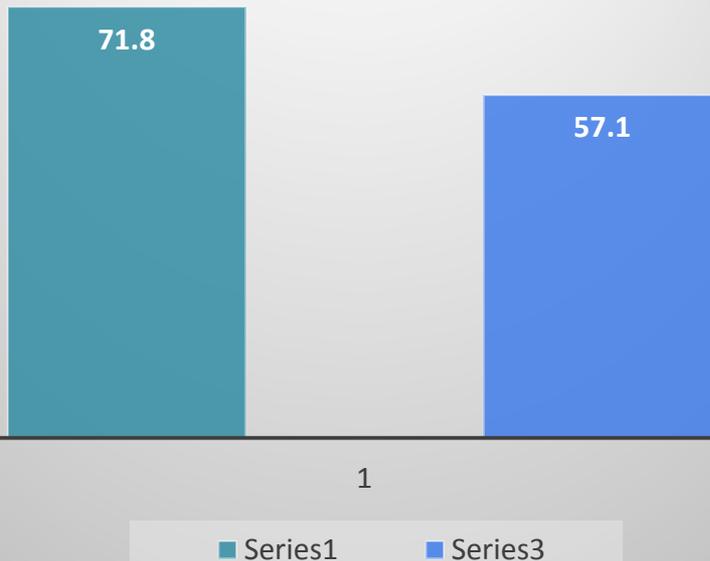


National Heart, Lung,
and Blood Institute

What are innovative strategies to improve HBP control?

The HyperLink Study

Telemonitoring and Case Management for Blood Pressure Control



JAMA. 2013;310(1):46-56



Compared to usual care, **telephone monitoring and pharmacist case management** resulted in **better blood pressure control** during the intervention and afterwards.

HP2020 Goal: Reduce the proportion of adults with high blood pressure.

Raising Heart Disease Awareness: February is American Heart Month

Healthy People
2020

- Promoting awareness of heart disease and its risk factors.
- Educating and motivating towards action to prevent the disease and control its risk factors.
- Small changes can make a big differences



Risk Factors for High Blood Pressure

High blood pressure has been associated with:



Family history



Being overweight
or obese



Unhealthy
eating habits



Being physically
inactive



Smoking

NIH National Heart
Lung and Blood Institute



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Resources for workplaces, communities,
researchers and other partners can be found at

www.hearttruth.gov

OWH
OFFICE ON WOMEN'S HEALTH



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NIH National Heart, Lung,
and Blood Institute

Programs Addressing Stroke and Hypertension Disparities

Healthy People
2020

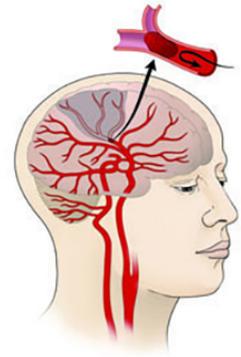
Reasons for Geographic and Racial Differences in Stroke (REGARDS)

(<http://www.regardsstudy.org/>): national cohort study of ~30,000 U.S. adults

- Higher stroke death rates in blacks vs whites, and for stroke belt residents vs non-stroke belt residents
- Higher mortality in blacks likely due to 3x higher stroke rates in middle age and higher prevalence of modifiable risk factors
- Excess stroke in blacks costs over \$3 billion per year

NINDS Stroke Prevention Intervention Research Program

- Stroke prevention, blood pressure control interventions in minority communities in 4 regions across the country
- Multi-level: health systems, healthcare providers, communities, patients
- Stakeholder engagement, dissemination and implementation efforts



Health Systems interventions work – disparities in hypertension, cholesterol, and glucose control were eliminated for blacks in Kaiser health plans in the West (Ayanian et al., 2014, NEJM)



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National Institute of
Neurological Disorders
and Stroke

Know Stroke: Know the Signs. Act in Time.

Healthy People
2020



The National Institute of
Neurological Disorders and Stroke

The NINDS sponsors a comprehensive public education campaign about the urgency and importance of knowing the symptoms of stroke and treating stroke as an emergency. The campaign has reached millions of people with this important message through a variety of media and community programs.



www.stroke.nih.gov



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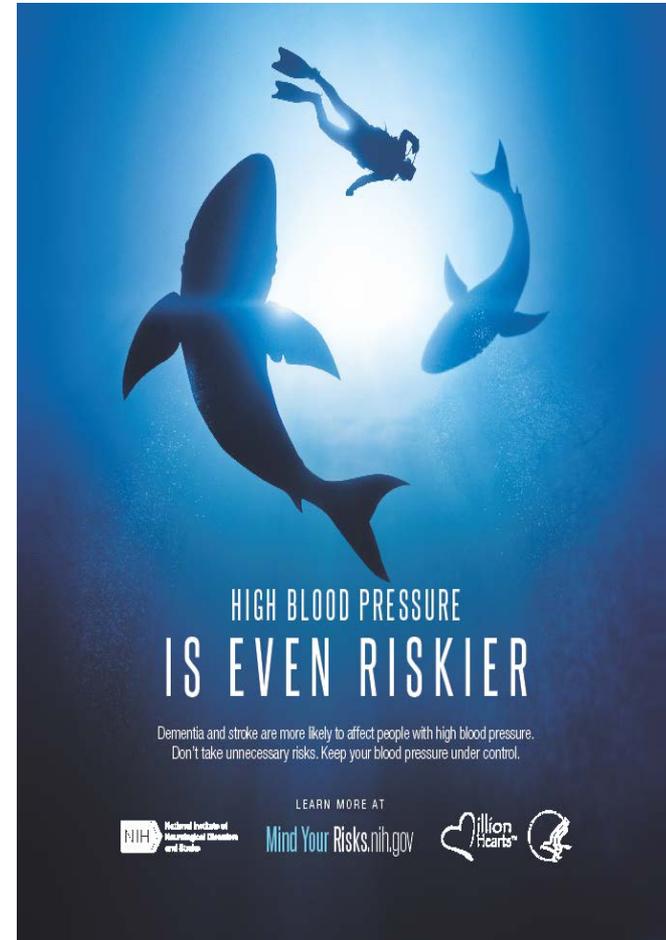
National Institute of
Neurological Disorders
and Stroke

NINDS-led **public education campaign** in partnership with Million Hearts®, the National Institute on Aging and NHLBI.

Campaign goals:

- Raise awareness that controlling blood pressure in mid-life may decrease risk for dementia
- Provide scientific evidence for doctors to discuss this topic with patients
- Promote existing blood pressure management tools

www.mindyourrisks.nih.gov



NIH StrokeNet

Healthy People
2020



PREVENTION | TREATMENT | RECOVERY

Funded by a Grant from the National Institutes of Health

National and Regional Coordinating Centers



- Established in 2013
- 25 regional centers, 300 satellite stroke hospitals, two coordinating centers
- Clinical trials and research to advance **acute treatment, prevention, and recovery and rehabilitation.**
- Increased trial efficiency
- Stable infrastructure and research capacity
- Improved data sharing
- Coordination and public-private partnerships with non-profits, industry, and international partners



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<http://nihstrokenet.org/>



National Institute of
Neurological Disorders
and Stroke

- Heart disease and stroke burden remains high, disparities persist
- Hypertension is the major modifiable risk factor, drives disparities
- Evidence-based strategies to improve risk factor control and reduce heart disease and stroke at the population level and in diverse settings:
 - Increase general awareness of the risk of hypertension
 - Promote rapid utilization and uptake of new evidence into treatment
 - Integrate health systems-level changes, such as protocol-driven care
 - Improve community and clinical linkages as recommended by the Community Guide (e.g. utilization of community health workers)

- **National Institute of Neurological Disorders and Stroke (NINDS)**
 - Katie Pahigiannis, PhD
- **National Heart, Lung, and Blood Institute (NHLBI)**
 - Joylene John-Sowah, MD, MPH
- **Centers for Disease Control and Prevention (CDC)**
 - Yuling Hong, MD, PhD
 - Fleetwood Loustalot, PhD, FNP
 - Angela Thompson-Paul, PhD
 - Kimberly Hurvitz, MHS
- **Office of the Assistant Secretary for Health (OASH)**
 - Emmeline Ochiai, JD, MPH

Activities Supporting Heart Disease and Stroke Objectives

Wayne H. Giles, MD, MS

Director of CDC's Division for Heart Disease and
Stroke Prevention, National Center for Chronic
Disease Prevention and Health Promotion

Core Functions of the Division for Heart Disease and Stroke Prevention



Applied Research and Evaluation
Epidemiology and Surveillance
Program Development and Support
Policy and Communication



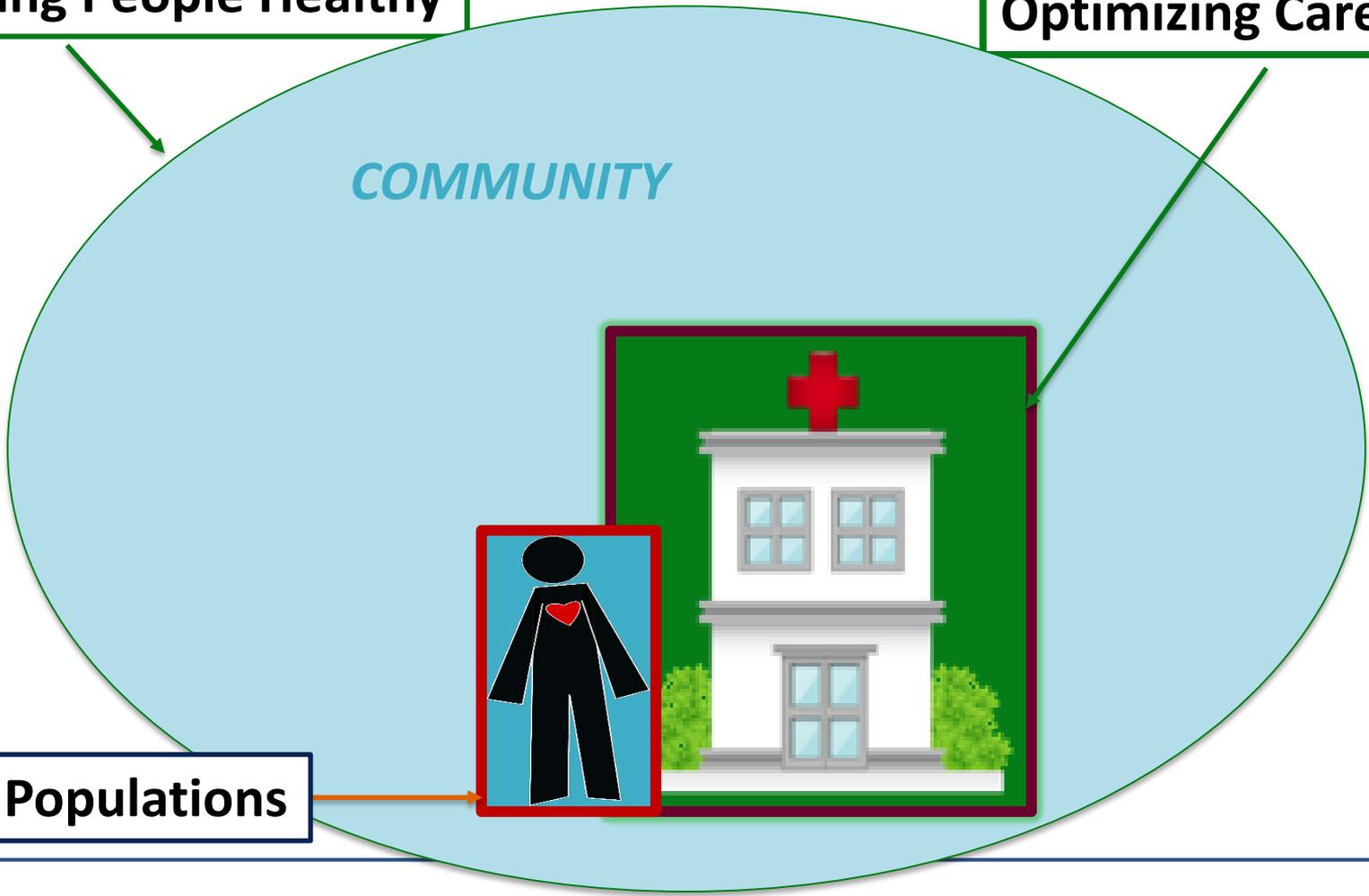
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and Health Promotion



Major Areas of Focus

Keeping People Healthy

Optimizing Care



COMMUNITY

Priority Populations



ODPHP

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and Health Promotion



Goal: Prevent 1 million heart attacks and strokes by 2017

- ❑ **U.S. 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**

- About 115,000 cardiovascular events were prevented during the first 2 years of the initiative
- Hypertension control is projected to increase 8.3% between 2009-2010 and 2015-2016.
- Improvements in care of at least 70% have been demonstrated across diverse clinical settings

Keeping People Healthy

Reduce Sodium Intake

Decrease Tobacco Use

Increase Physical Activity

Optimizing Care

Aspirin When Appropriate

Blood Pressure Control

Cholesterol Management

Smoking Cessation

Improving Outcomes for Priority Populations

Blacks/African-Americans

35-64 year olds

People who have had a heart attack or stroke

People with mental illness or substance use disorder

Others

State and Local Public Health Programs

Healthy People
2020

- Multi-faceted, state-wide initiative
- Funded for 5 Years (2013—2018)
- Funding awarded to all 50 states, 4 large city health departments and the territories
- Reduce health disparities among adults through a combination of community and health system interventions



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- ❑ Funds 21 programs
- ❑ Provides cardiovascular screening, referral, and lifestyle invention services to women aged 40–64
 - eligible through participation in the CDC National Breast and Cervical Cancer Early Detection Program
 - Provides cardiovascular screening
 - Lifestyle programs
 - the YMCA
 - Weight Watchers
 - Diabetes Primary Prevention Programs
- ❑ Between July 2014 and July 2015, participants received over 19,000 screenings and more than 28,000 evidence-based services, according to preliminary numbers.

Paul Coverdell National Acute Stroke Program (PCNASP) Program Care Continuum



Coverdell Care Continuum

Pre-hospital -----> In-hospital -----> Post-hospital



Community



Emergency Medical Services



Emergency Department



In-patient



Discharge Coordination



Community

- Promote public prevention messages
- Improve EMS care and transitions

- Improve hospital care and transitions

- Improve post-discharge care
- Educate and facilitate home support systems

- Coordinate partnerships, recruitment, and engagement
- Integrate, analyze, and use data
- Sustain improvements



Office of Disease Prevention and Health Promotion



Paul Coverdell National Acute Stroke Program (PCNASP) Successes

Healthy People
2020

- ❑ Funded 9 States to improve stroke care across the continuum of care
- ❑ 2005-mid-2015, more than 620,802 patients benefitted from hospital participation in the PCNASP
- ❑ **The Coverdell program and Georgia Department of Public Health worked with EMS to improve “door-to-needle” time for receipt of tPA, resulting in a 32% improvement as the average time dropped from 85 to 58 minutes.**



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CDC Vital Signs

Healthy People
2020

- ❑ 2016
 - Blood Pressure Control --- Helping Patients Take Their Medicine
- ❑ 2015
 - Heart Age – Is Your Heart Older Than You?
- ❑ 2014
 - Reducing Sodium in Children’s Diets
- ❑ 2013
 - Preventable Deaths from Heart Disease & Stroke
- ❑ 2012
 - Getting Blood Pressure Under Control
 - Where’s the Sodium?
- ❑ 2011
 - High Blood Pressure and Cholesterol

Vital signs™
February 2012

Where's the sodium?
There's too much in many common foods.

Heart Age
Is Your Heart Older Than You?

Her age is 53. But her heart is 75 years old because she smokes and has uncontrolled high blood pressure. She's not alone because most American adults have a heart that is older than their actual age. One way to understand your risk for a heart attack or stroke is to learn your "heart age." Heart age is the age of your heart and blood vessels as a result of your risk factors for heart attack and stroke. There are some things that put you at risk for a heart attack or stroke that you cannot change such as getting older or your family history; yet there are many others that you can change. If you smoke or have high blood pressure, your heart age will be much higher than your actual age. The most common reasons for a higher heart age that can be changed or managed are: high blood pressure, high cholesterol, smoking, obesity, unhealthy diet, physical inactivity, and diabetes. At any age, you can make your heart younger by making changes that reduce your risk. Even if you haven't had a heart attack or stroke, most US adults have a heart age older than their actual age placing them at greater risk of having one.

What you can do:

- Learn your heart age and how to improve it.
www.cdc.gov/heartdisease/heartage.htm
- Start by choosing a risk factor or two that you're ready to change, like smoking or high blood pressure, and focus on improving them first.
- Work with your doctor to make heart healthy choices for a lower heart age.
- Take action at any age to lower your heart age and keep it low over time.

Want to learn more? www.cdc.gov/vitalsigns/heartage

1 in 2
1 in 2 men have a heart age 5 or more years older than their actual age.

2 in 5
2 in 5 women have a heart age 5 or more years older than their actual age.

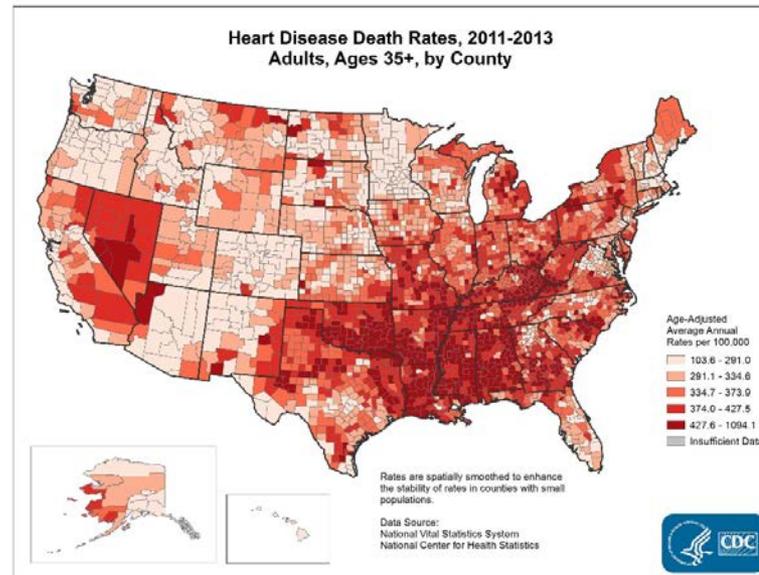
3 in 4
About 3 in 4 heart attacks and strokes are due to risk factors that increase heart age.

Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion

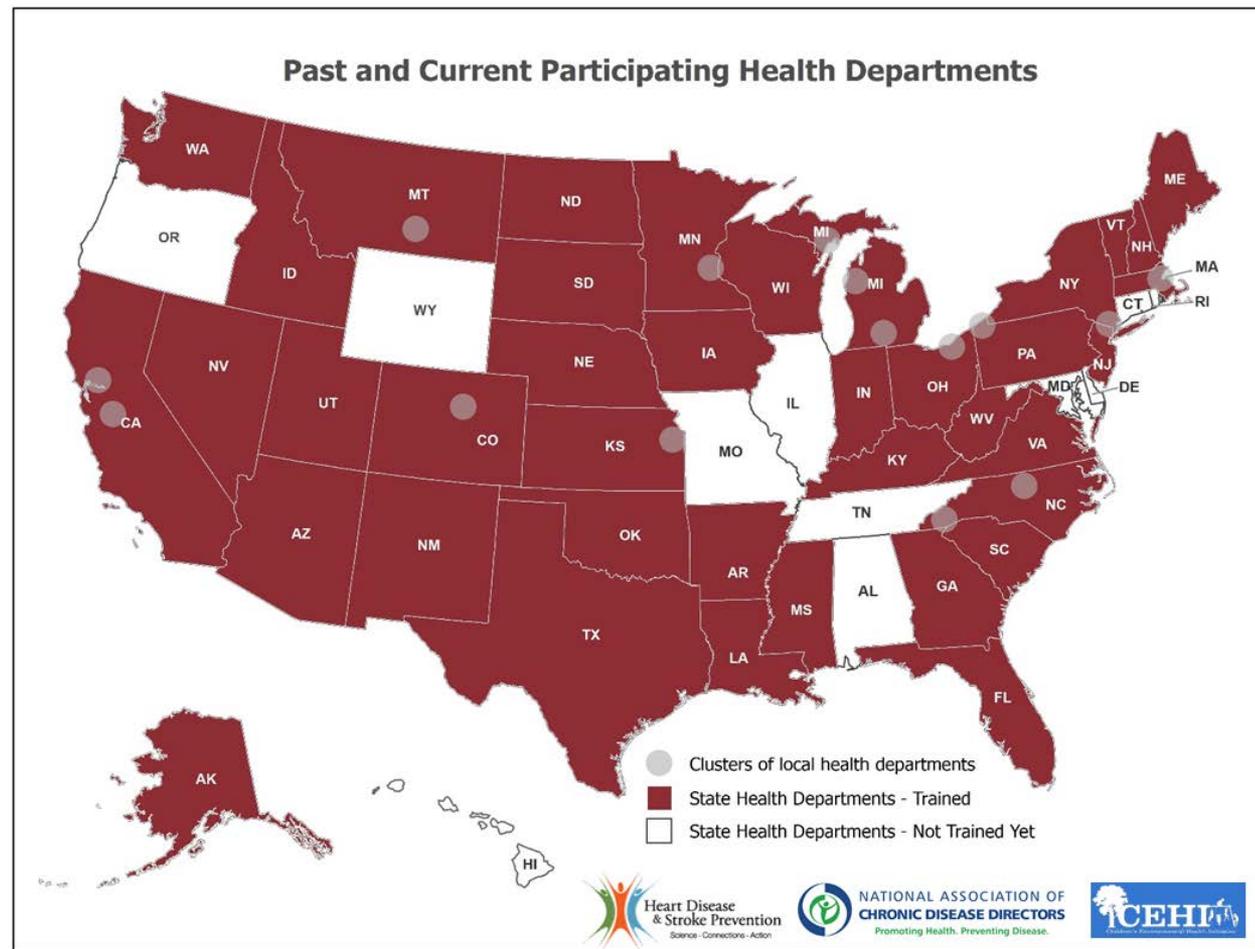


❑ Interactive Atlas of Heart Disease and Stroke

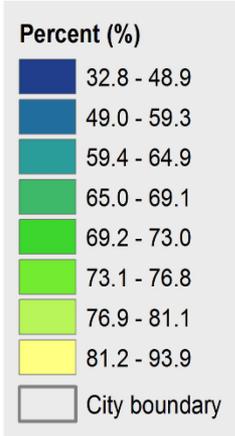
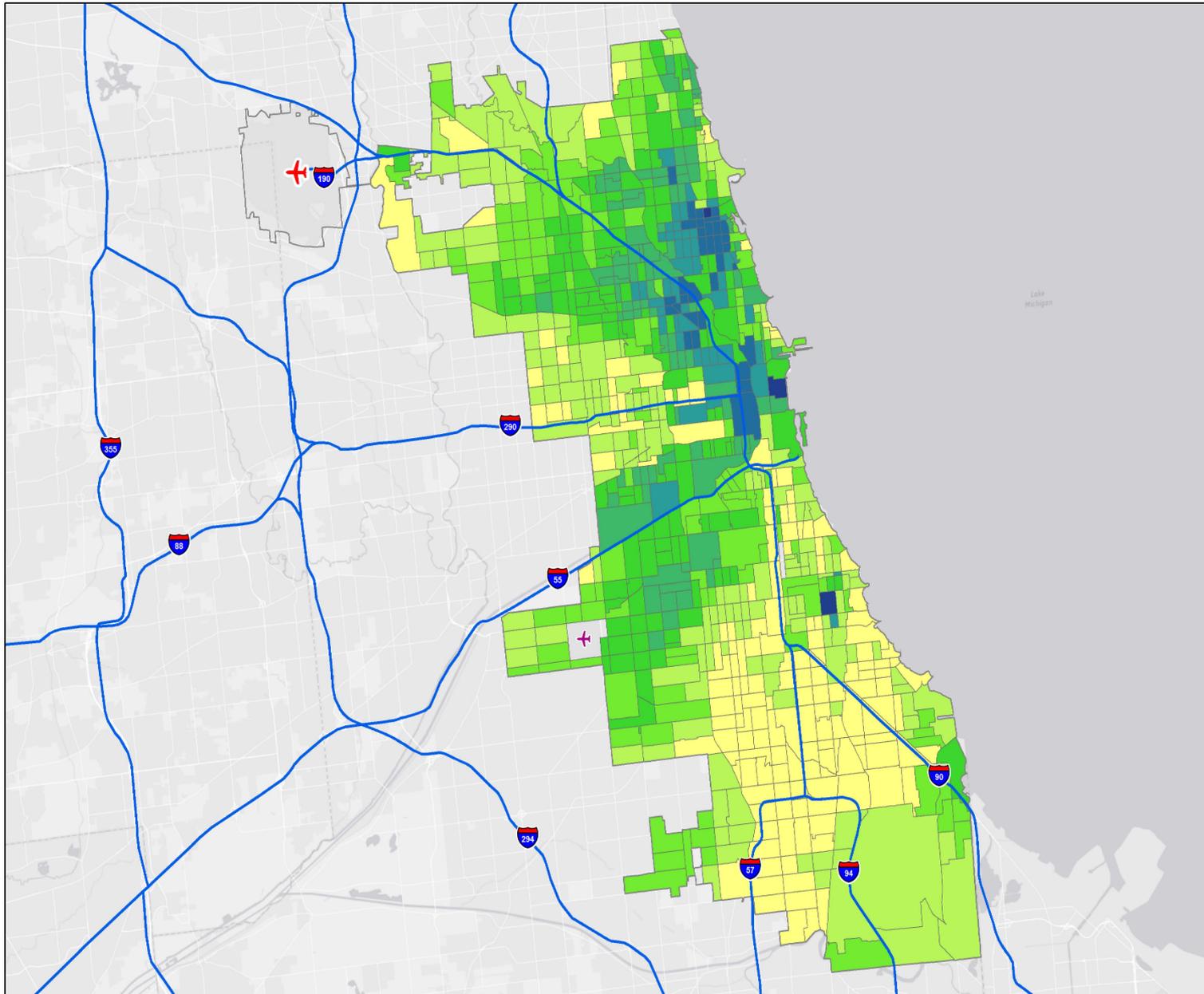
- CDC's Interactive Atlas of Heart Disease and Stroke is an online mapping tool that allows users to create county-level maps of heart disease and stroke by race/ethnicity, gender, and age group, along with maps of social and economic factors and health services for the entire United States or for a chosen state or territory.



Building GIS Capacity for Chronic Disease Surveillance in State and Local Health Departments

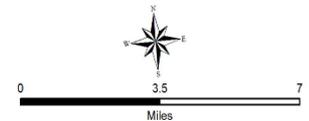


Taking medicine for high blood pressure control among adults aged ≥ 18 years with high blood pressure by census tract, Chicago, IL, 2013



Classification:
 Jenks natural breaks (9 classes) based on data for all 500 cities' census tracts. Legend depicts only those data classes within this map extent.

Census tracts with population less than 50 were excluded from the map.



Data sources:
 CDC BRFSS 2013, US Census Bureau 2010 Census, ACS 2009-2013.



❑ DHDSP Programs

- <https://www.cdc.gov/dhdsp/>

❑ Million Heart® Initiative

- <http://millionhearts.hhs.gov/>

❑ Chronic Disease GIS Exchange

- Community forum to help public health personnel use the power of geographic information systems (GIS) to address chronic disease through sharing maps, training materials, and resources
- <http://www.cdc.gov/dhdsp/maps/gisx/>

❑ 500 Cities

- <http://www.cdc.gov/500cities>

NIH Programs to Improve Outcomes in People with Arthritis, Osteoporosis, and Chronic Back Conditions

Joan A. McGowan, PhD
Director, Division of Musculoskeletal Diseases NIAMS



Office of Disease Prevention
and Health Promotion



National Institute of
Arthritis and Musculoskeletal
and Skin Diseases

NIH supports basic, translational and clinical research in Arthritis, Osteoporosis and Chronic Back Conditions

- Arthritis \$214 million
 - Osteoarthritis \$76 million

- Osteoporosis \$146 Million

- Chronic Pain Conditions \$391 Million

Source: NIH Estimates of Funding for Various Research, Condition, and Disease Categories (RCDC)

Arthritis



The Keys to Prevention

- Identification of risk factors
- Discovery and testing of novel diagnostic tools
- Generation of hypotheses to drive intervention studies



<https://oai.epi-ucsf.org/>

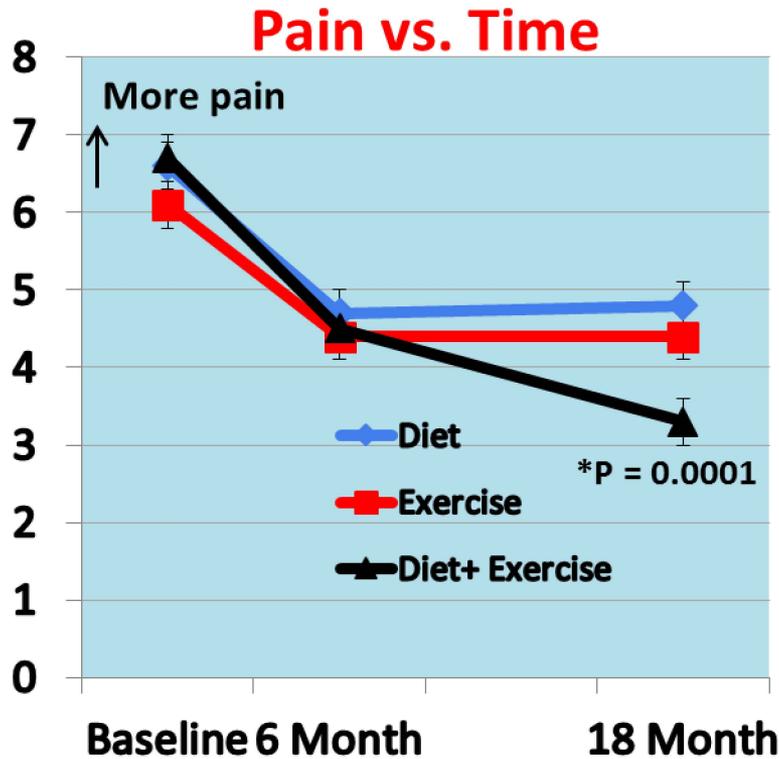


<http://most.ucsf.edu/>

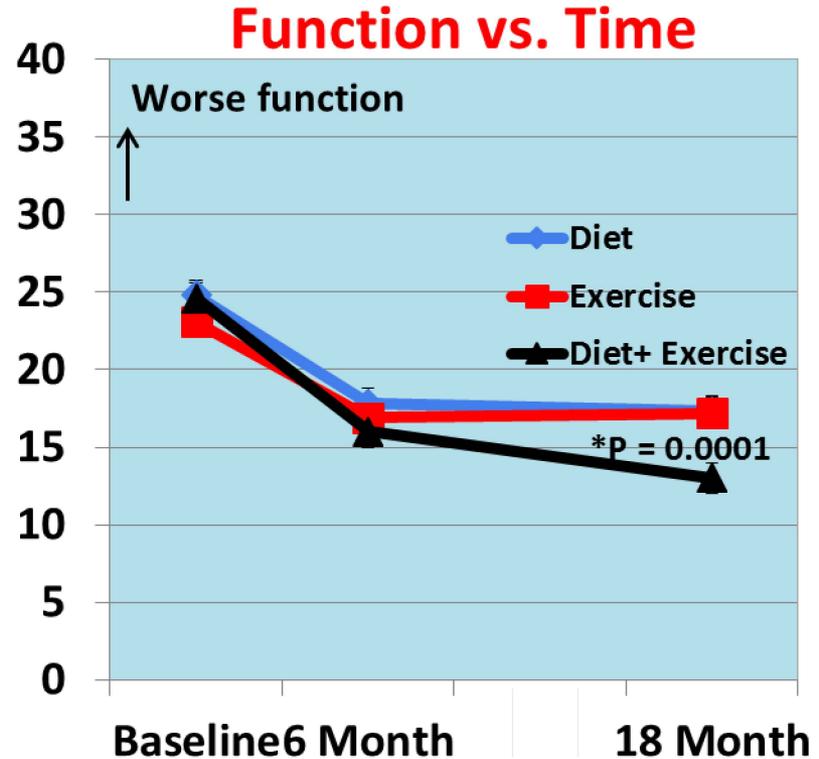
Improving Pain and Function in Knee Osteoarthritis



On the road to a public health strategy



*Adjusted for gender, BMI, baseline values



*Adjusted for gender, BMI, baseline values

Messier et al. JAMA 2013



Office of Disease Prevention and Health Promotion



WE-CAN – Weight Loss and Exercise for Communities with Arthritis in North Carolina

- In January of 2016 investigators put years of highly-controlled clinical study results to the test in a real-world setting.
- To demonstrate that community-based intervention programs can make a difference in people's lives and health.



Osteoporosis and Fractures



Osteoporosis & Hip Fractures: Epidemiology



Study of Osteoporosis in Women
1986



Framingham Osteoporosis Project
1988



A collaboration in
Minnesota & Wisconsin

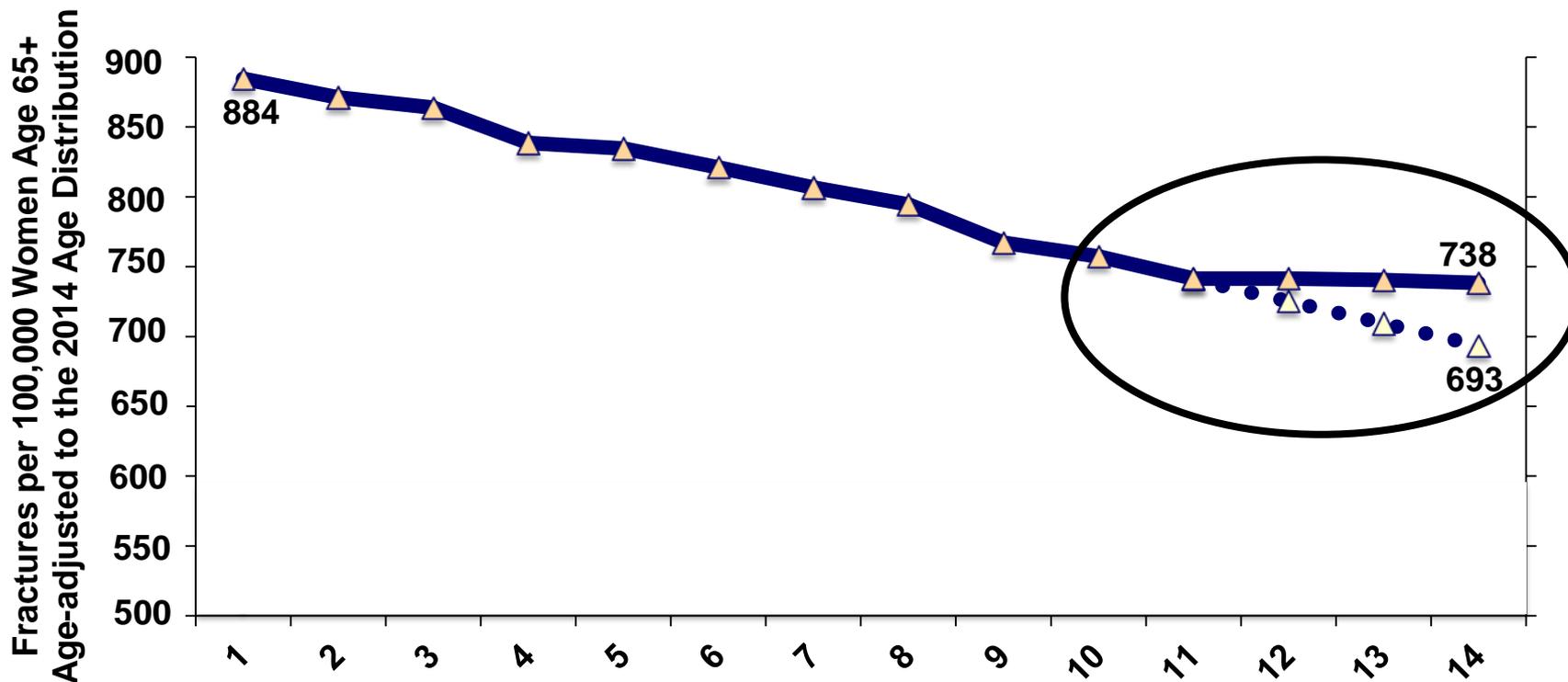
Rochester Osteoporosis Project
1997



Osteoporotic Fractures in Men
2000

US Hip Fracture Trends 2002-2015 Medicare Data

Despite significant decreases in hip fracture incidence before 2010, recent data suggest a flattening or reversal in the trend



Adapted from Lewiecki EM et al J Bone Miner Res 2016; 31 (Suppl 1) with permission from ASBMR



Considerable data and media attention have highlighted a potential "crisis" in the treatment of osteoporosis. Specifically, despite the availability of several effective drugs to prevent fractures, many patients who need pharmacological therapy are either not being prescribed these medications or if prescribed a medication, are simply not taking it. Khosla S J Bone Miner Res.(2017)3074

NIAMS/NIA/ODP

Pathways to Prevention:

Weighing the evidence. Identifying the research gaps. Determining next steps.

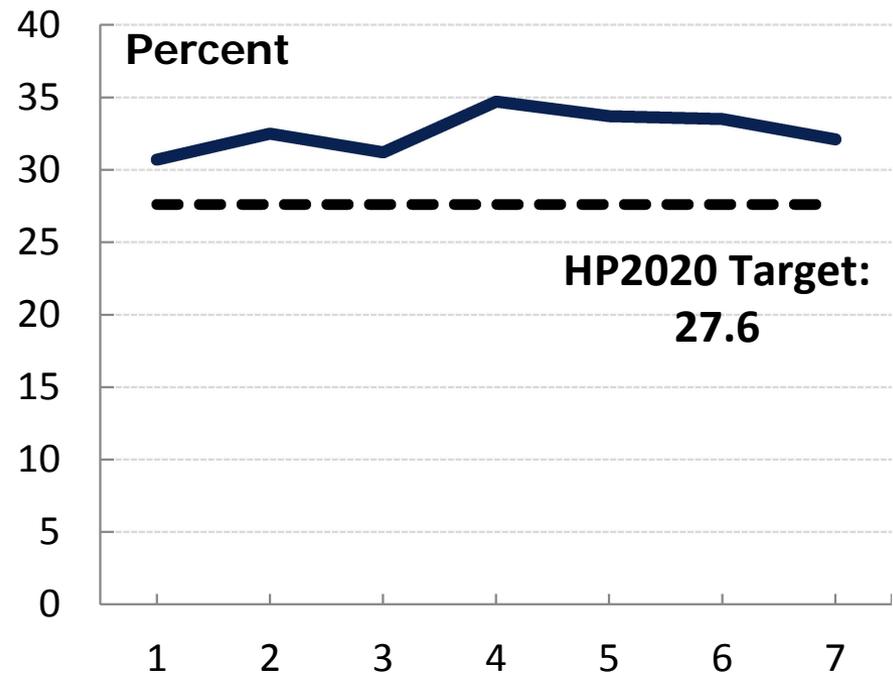
Chronic Back Conditions



- Low back and neck pain – third most costly health condition
- The increase in spending for low back and neck pain between 1996 and 2013 was larger than that for almost all other areas of health care.
- ***Evidence based prevention strategy – exercise!***

US Spending on Personal Health Care and Public Health 1996-2013
JAMA. 2016; 316(24):2627-2646

Activity limitations due to chronic back conditions



NOTES: Data are adults aged 18 years and over with limitation in activity due to chronic back or neck problems.
Data are age-adjusted to the 2000 standard population.

SOURCE: National Health Interview Survey (NHIS), CDC/NCHS.

Publications and Outreach Campaigns

NIH OSTEOPOROSIS AND RELATED BONE DISEASES
NATIONAL RESOURCE CENTER

A service provided by the National Institutes of Health

<https://bones.nih.gov/>

NIH Senior Health

Built with You in Mind

<https://nihseniorhealth.gov/>



<https://go4life.nia.nih.gov/>

Decision Tools

Back Pain Treatment Calculator

from Dartmouth and Consumer Reports

This calculator shows possible patient results for physical function, pain and other symptoms, and overall satisfaction after surgical or non-surgical treatment for patients with three different kinds of low back problems.

Answer some survey questions and get personalized results in just a few minutes!

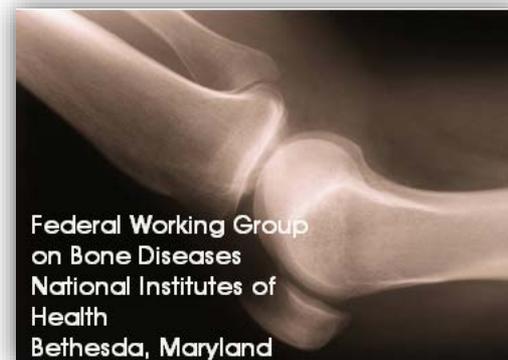
Get Started

UPON
Bones

on tailored for you
General's Report on

Bone Health and Osteoporosis

Working Groups



Federal Working Group
on Bone Diseases
National Institutes of
Health
Bethesda, Maryland

CDC Arthritis Program

Kurt J. Greenlund, Ph.D.
Director (Acting), Division of Population Health



CDC Arthritis Program Mission

CDC's Arthritis Program

Fund state programs to reach adults with arthritis with evidence-based interventions

Epidemiology, surveillance, intervention research

Fund national programs to reach adults with arthritis with evidence-based interventions



Arthritis interventions create a triple win:

- Evidence-based interventions reduce arthritis' impacts.
- Same interventions help multiple chronic conditions.
- Same infrastructure can address multiple conditions.



(Meta-analyses of 20-40 studies)

Self Management Education

- Persistent small to moderate effects on
 - Self-efficacy
 - Anxiety/depression
 - Fatigue/Energy
 - Exercise

Brady et al, *Preventing Chronic Disease*, 2013

Physical Activity

- Clinically significant changes in
 - Pain
 - Function
 - Psychological well-being

Kelley et al, *Arthritis Care & Research*, 2011

Menu of Evidence-Based Interventions

Self Management Education

- Arthritis Self Management Program (English & Spanish) (ASMP)
- Chronic Disease Self - Management Program (CDSMP) (English & Spanish)

Physical Activity

- Fit & Strong!
- Active Living Every Day
- EnhanceFitness (EF)
- Walk with Ease (WWE)

Communication Campaign

- Physical Activity. The Arthritis Pain Reliever
- Buenos Dias, Arthritis

CDC State Arthritis Program 2012-2017

Healthy People
2020

12 Funded State Arthritis Programs

– Average Funding ~ \$420k

Evolving Strategic Approach

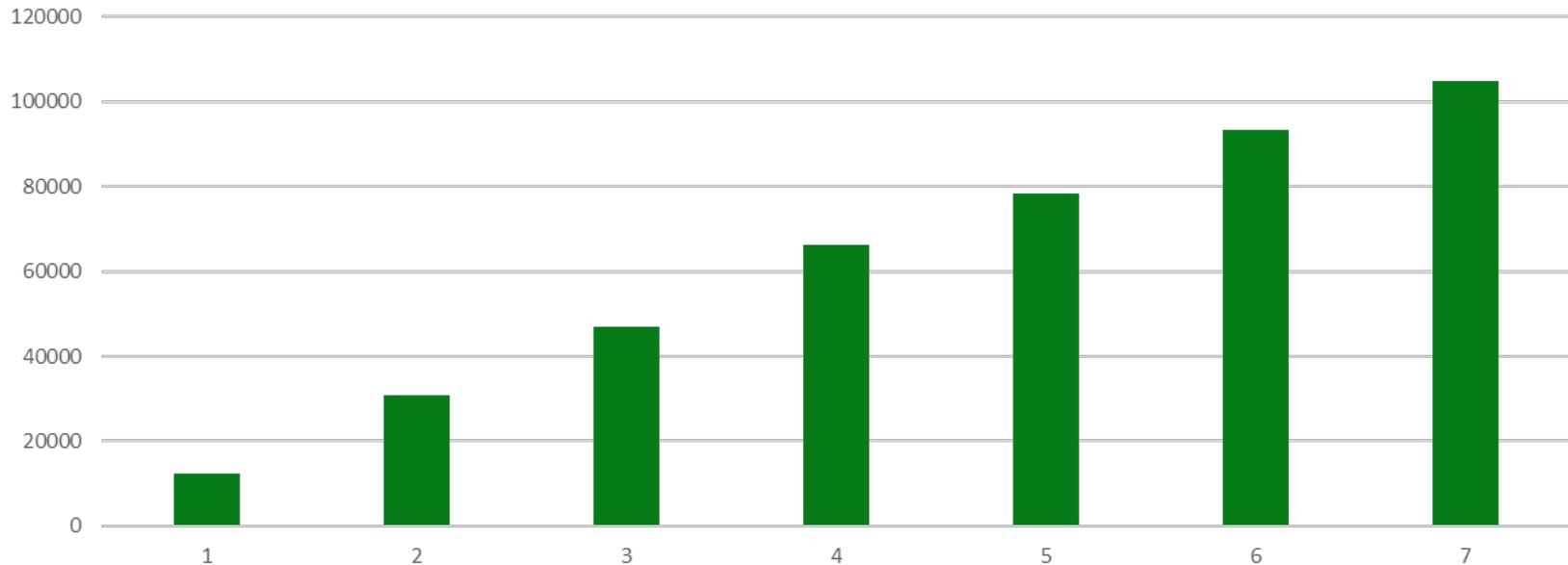
- Focus on dissemination of packaged PA & SME interventions
- Embed interventions in delivery systems
- Emphasis on “reach” numbers
- Expand arthritis-related media coverage
- Monitor burden; disseminate data



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and Health Promotion

Cumulative Reach By 6-Month Reporting Period (RP)

Total Reach 104,723
July 2012--December 2016



CDC Arthritis Program National Programs 2011-2016

Healthy People
2020

Grantee

- Arthritis Foundation (AF)
 - Toll free consumer hotline & resources
 - Walk With Ease dissemination pilot via large & multi-site workplaces
 - Online Arthritis Self-Management Program marketing & dissemination pilot
 - OA Action Alliance initiation



ODPHP

Office of Disease Prevention
and Health Promotion

Grantee

- NACDD (National Association of Chronic Disease Directors)
 - Arthritis intervention delivery pilot in local parks via NRPA
 - American Physical Therapy Association pilot to refer patients to interventions
 - Arthritis Council operation to facilitate state support & technical assistance
 - National Conference of State Legislators project: to identify & report insights into working with state legislators to promote & adopt interventions.
 - Medworks project: to explore potential mechanisms & opportunities for financing interventions via employee wellness & insurance benefits.

CDC Arthritis Program National Programs, continued



Grantee

- YMCA of the USA
 - National embedding: EnhanceFitness (EF) becomes a Signature Y program
 - Program expansion: start-up grants issued to increase local EF initiation
 - Health equity: EF training & support in economically disenfranchised areas
 - Clinic to Community: Focus on increasing provider referrals for EF
 - Sustainability: Exploration into sustainable financing options for EF
 - Marketing: EF specific marketing research, updates and expansion



Office of Disease Prevention
and Health Promotion

CDC Arthritis Program National Programs 2016-2021



Advancing Arthritis Public Health Approaches through National Organizations

3 Components		6 Awards 5 Grantees
1	Innovative Dissemination & Delivery Systems for Arthritis-appropriate Evidence-based, Interventions (EBIs)	Association of State & Territorial Chronic Disease Program Directors (NACDD)
	Environmental Approaches to Create Sustainable Access to Arthritis EBIs	Y-USA National Recreation & Parks Association (NRPA) University of North Carolina
2	Arthritis Toll-Free Consumer Information & Referral Helpline	Arthritis Foundation
3	Osteoarthritis Action Alliance	University of North Carolina



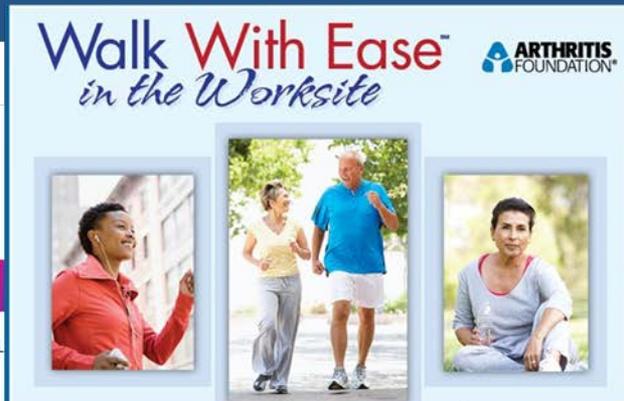
Office of Disease Prevention
and Health Promotion

CDC Arthritis Program Select Partner Activities

Healthy People
2020

National partners continue to grow the reach of evidence-based arthritis interventions:

- Y –USA has adopted EnhanceFitness as a signature program and offers it in more than 320 sites across 37 states.
- NRPA has disseminated WWE, ALED & AFEP via more than 45 local parks and recreation agencies across 32 states.
- AF disseminated WWE via large worksite systems (e.g., Delta Airlines, State Universities, and county and state health departments). More than 28 companies have participated.

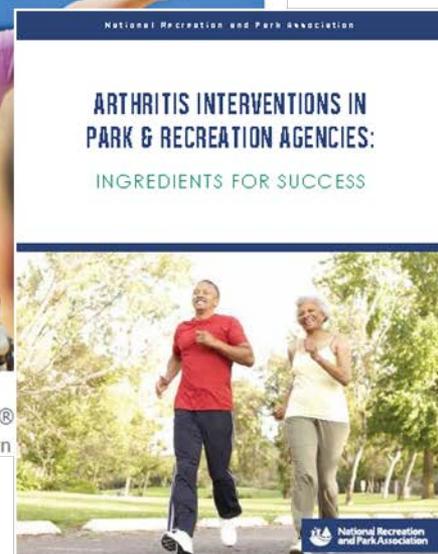


ENHANCE®FITNESS

Moderate-impact classes with high-impact results



Across the country, a growing number of Y associations offer Enhance® group exercise program for older adults that uses simple, easy-to-learn



ODPHP

Office of Disease Prevention
and Health Promotion

National Recreation
and Park Association

- Continue to work with states and national organizations.
- Work more closely with diabetes, heart disease, and obesity programs. These conditions occur together frequently.
 - HHS initiative to address multiple chronic conditions
- Seek new avenues to expand the availability of these evidence-based, underused interventions.

Key References

- CDC Arthritis Program
 - <https://www.cdc.gov/arthritis>
- CDC's Arthritis Funded National Programs
 - <https://www.cdc.gov/arthritis/partners/funded-national.htm>
- CDC's Arthritis Funded State Programs
 - <https://www.cdc.gov/arthritis/partners/funded-states.htm>
- Arthritis At-a-Glance
 - <http://www.cdc.gov/chronicdisease/resources/publications/aag/arthritis.htm>





FOR YOUTH DEVELOPMENT®
FOR HEALTHY LIVING
FOR SOCIAL RESPONSIBILITY

MEASURABLE PROGRESS UNLIMITED SUPPORT

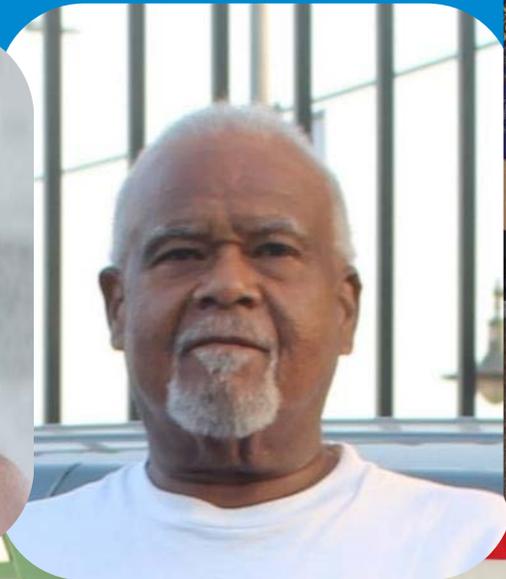
THE Y'S SUPPORT OF HP2020
GOALS FOR HYPERTENSION AND
ARTHRITIS

MATT LONGJOHN, MD MPH
VP AND NATIONAL HEALTH OFFICER
YMCA OF THE USA

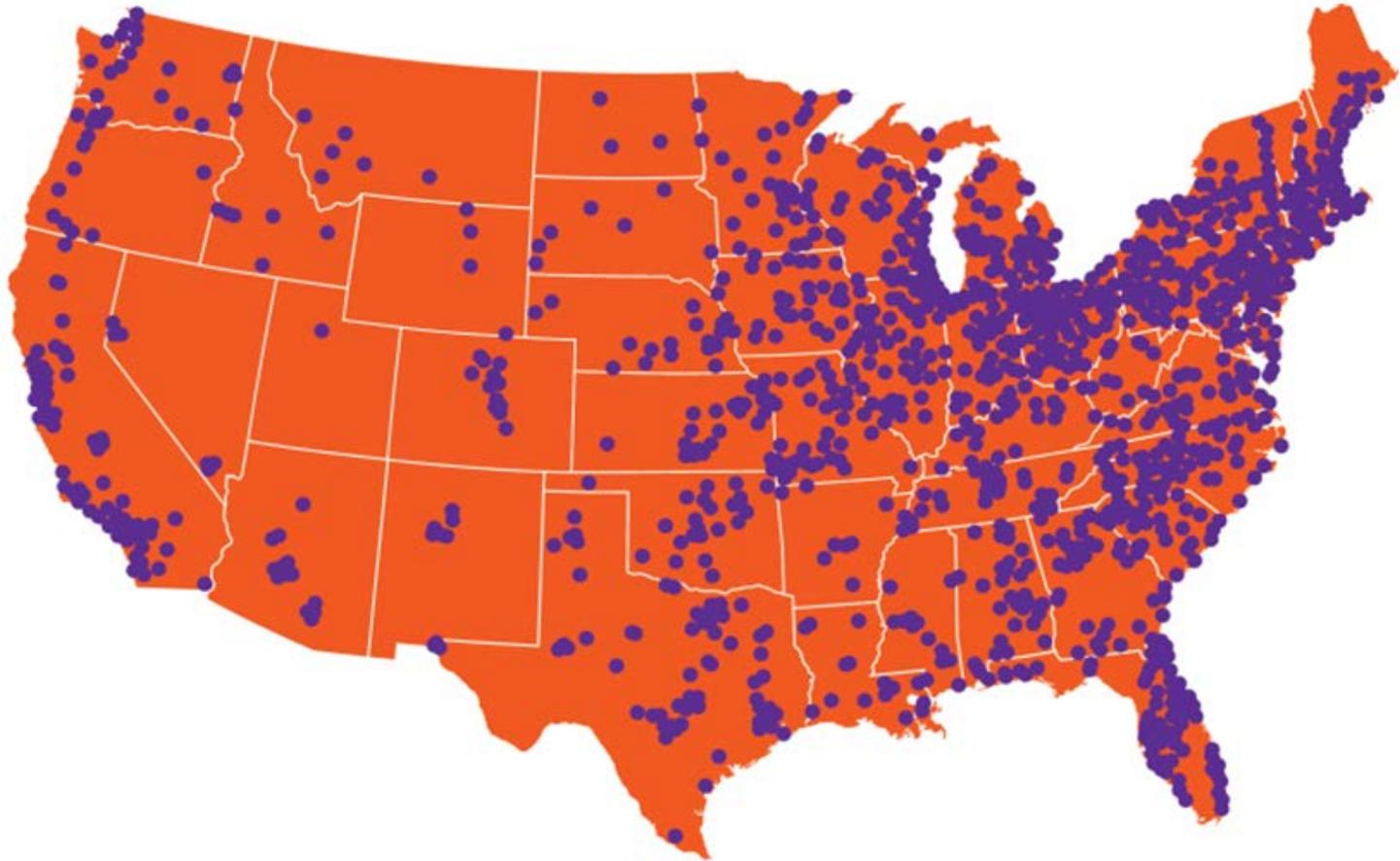
February 28, 2017



THE (WH)Y



THE Y: ASSOCIATIONS & BRANCHES



OUR REACH

FACTS

YMCAs
2,700

YMCAs IN COMMUNITIES
WHERE HOUSEHOLD INCOME IS
BELOW THE NATIONAL AVERAGE
58%

COMMUNITIES SERVED
10,000

STATES
50 plus
District of Columbia
and Puerto Rico

80% OF "HEALTH" HAPPENS OUTSIDE THE CLINIC

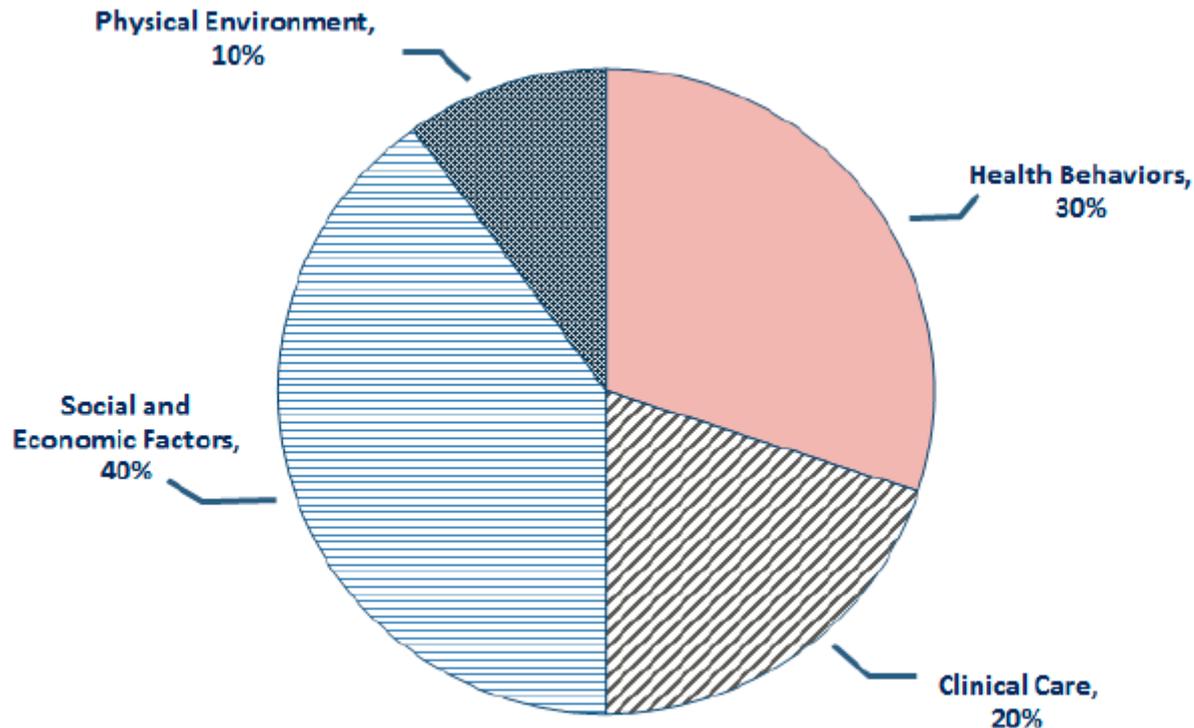


Figure 1. Modifiable Factors That Influence Health

Hanleybrown, F., Kania, J., & Kramer, M. (2012). Channeling Change: Making Collective Impact Work. [Web log post.] *Stanford Social Innovation Review*. Retrieved from http://www.ssireview.org/blog/entry/channeling_change_making_collective_impact_work.

COMMUNITY INTEGRATED HEALTH

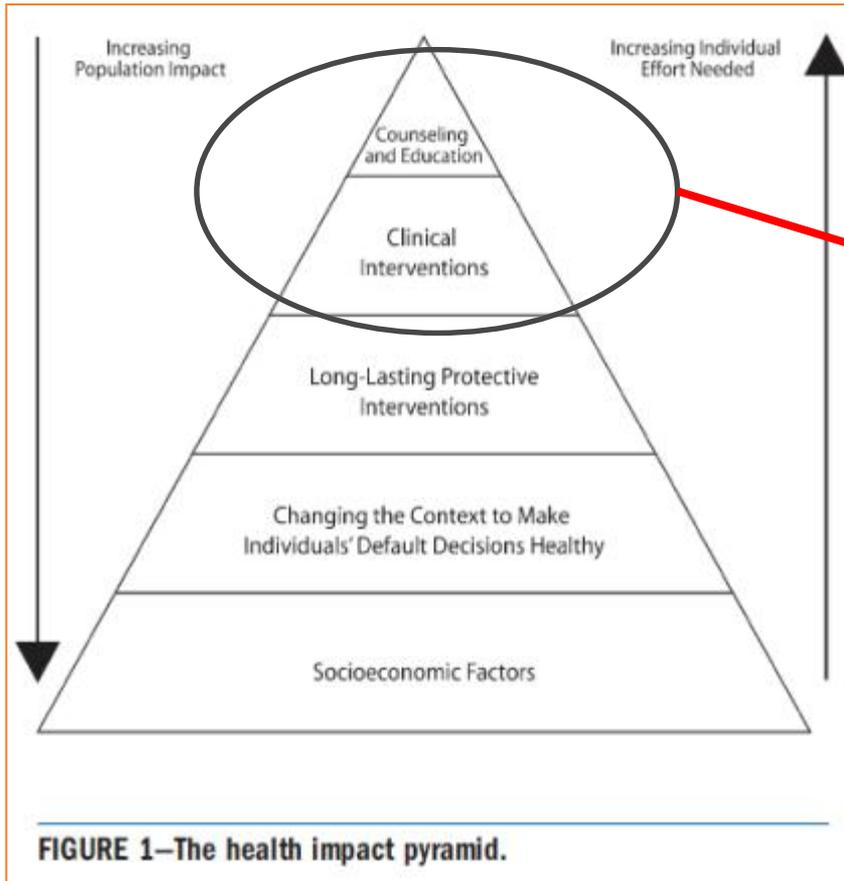


COLLABORATING FOR HEALTH-PROMOTING POLICY/SYSTEM/ENVIRONMENTAL CHANGES



To date, the Y with their community partners have advanced more than **39,000 strategies** impacting up to **73 million lives**

WE MEET HEALTH-SEEKERS WHERE THEY ARE...



Frieden, AJPH 2010



THE Y'S PIPELINE OF EVIDENCE-BASED (RCT PROVEN) PROGRAMS

DISCOVERY

Efficacy

Validation

DEVELOPMENT

Translation

Scaling

DISSEMINATION

Dissemination

YMCA's Diabetes Prevention Program

Enhance Fitness (Arthritis Self-Management)

LIVESTRONG at the YMCA (Cancer Survivorship)

Moving For Better Balance (Falls Prevention)

Blood Pressure Self-Monitoring

Childhood Obesity Intervention

Brain Health

Parkinson's

Tobacco Cessation

DELIVERING OUTCOMES AT SCALE: FALLS PREVENTION/ARTHRITIS SELF-MANAGEMENT



PROVEN RESULTS

Studies show:

90% participant retention rate¹

13% improvement in social functioning¹

35% improvement in physical functioning¹

53% improvement in depression¹

Fewer hospitalizations and **\$945** less in health care costs per year than non-participants²

THE PROGRAM'S REACH DEC '16

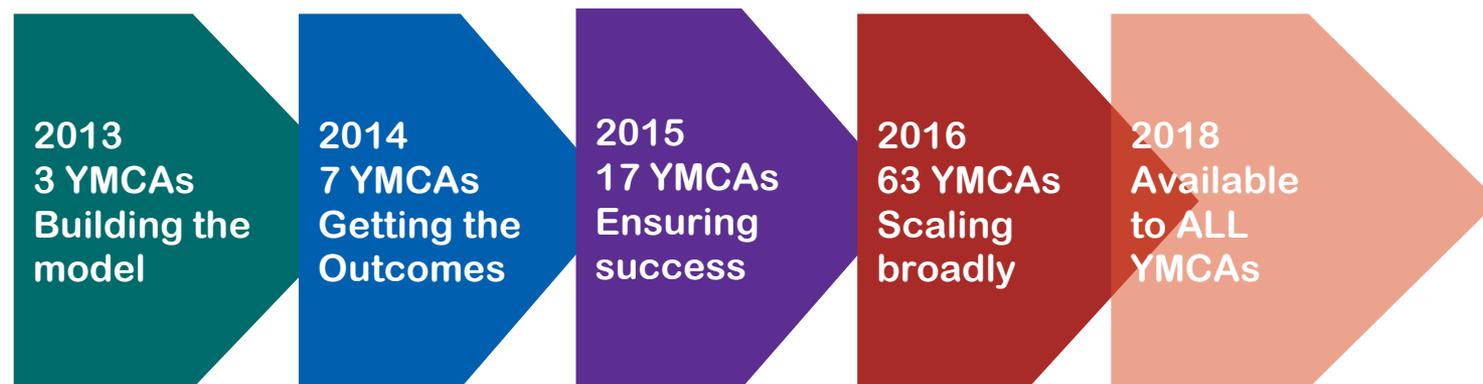
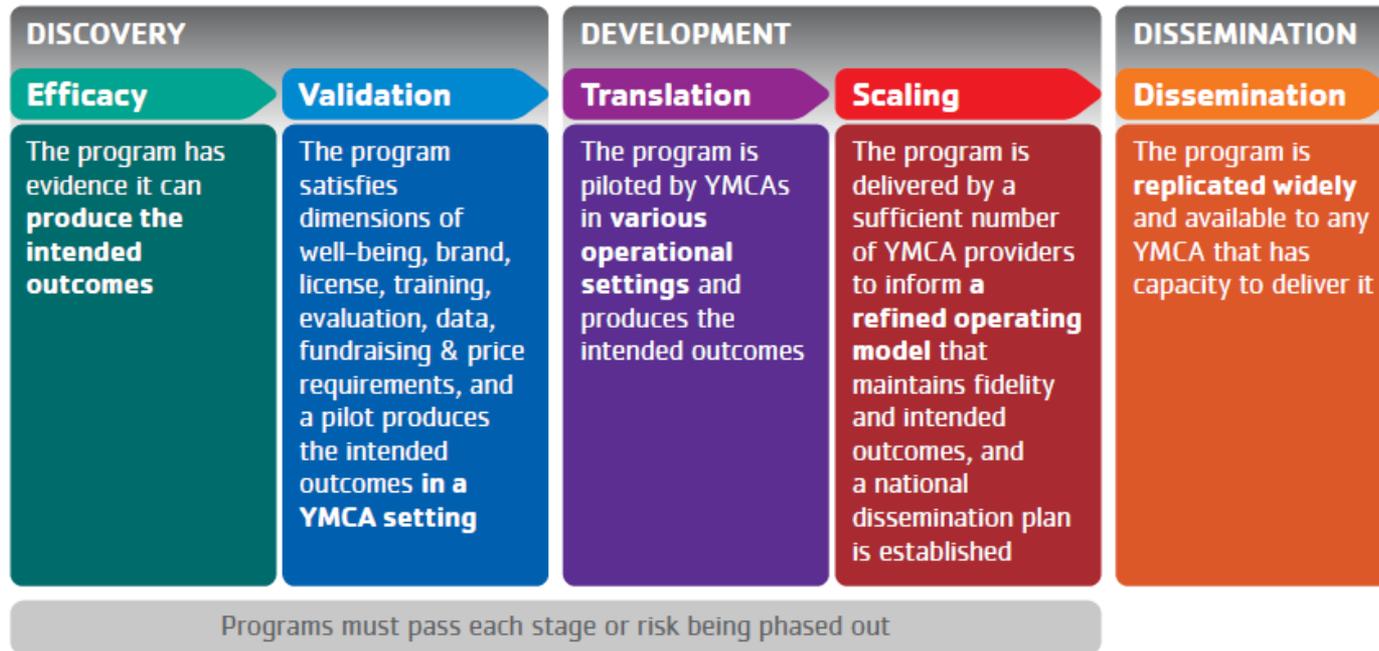
Number of Y associations offering the program	167
Number of states delivering the program	37
Number of EnhanceFitness sites 85% Y Sites 15% non-Y Sites	340
Number of certified instructors	1,573
Number of participants served	17,740

PARTICIPANT SATISFACTION

Over **99%** of participants say they would recommend

Enhance[®]Fitness to a friend¹

BLOOD PRESSURE SELF-MONITORING



BLOOD PRESSURE SELF-MONITORING PROGRAM: THE BASICS

Who?

- For adults who have ever been diagnosed with high blood pressure or are currently taking antihypertensive medication
- Must be interested in a self-monitoring program model
- Must not have experienced a recent cardiac event, nor have atrial fibrillation or other arrhythmias, nor be at risk for lymphedema

What?

- **4 month program:** Regular contact and 10-minute consultations with Healthy Heart Ambassadors
- Monthly nutrition education seminars
- Participant “self-monitor”, or measure and track their own blood pressure at home

When?
Where?

- Anytime, anywhere where adequate privacy can be ensured (lobby, clinic, multipurpose space)
- Space for blood pressure measurement stations and nutrition education seminars

How?

- Training on proper self-monitoring techniques
- Self-monitoring using a self-identified tracking tool
- Support, education, and coaching from trained staff called “Healthy Heart Ambassadors”

DELIVERING OUTCOMES AT SCALE: BLOOD PRESSURE SELF-MONITORING

**TAKE ACTION TO IMPROVE
HEART HEALTH**
Blood Pressure Self-Monitoring Program
FACT SHEET: OCTOBER 2016



1 out of every **3** American adults has high blood pressure.
American Heart Association



BY THE NUMBERS

Number of Y associations offering the program	63
Number of states delivering the program	28
Number of BPSM program sites	155
66% Y Sites 34% non-Y Sites	
Number of Healthy Heart Ambassadors trained	454
Number of participants enrolled	2,813
Percentage of participants who are African American	31%
Average change (mm/Hg) in systolic blood pressure	-4.6*
Average change (mm/Hg) in diastolic blood pressure	-3.0*



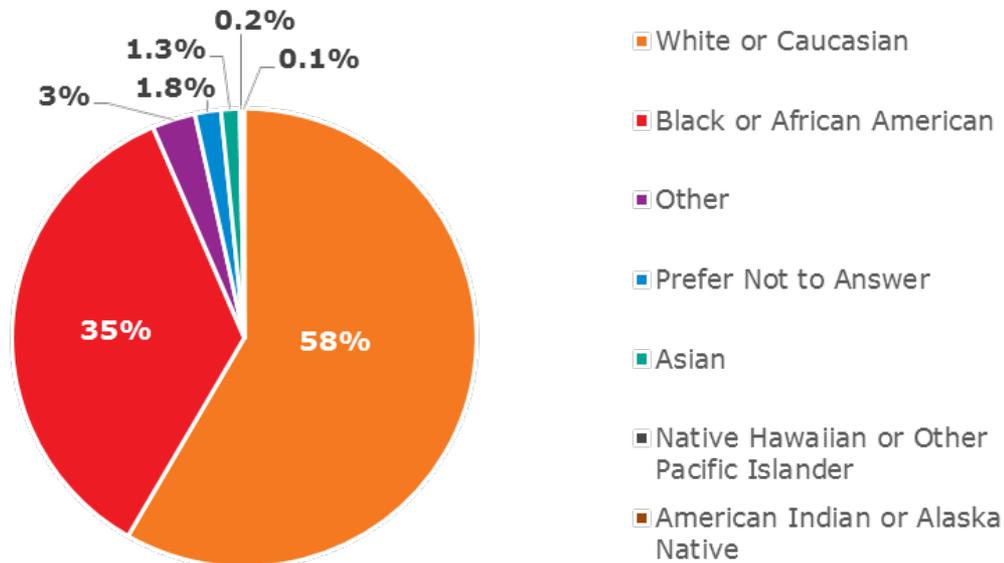
Data as of January 2017
*Based on enrollees who have ≥ 2 months between initial and final blood pressure reading

• 69% Female, 31% Male

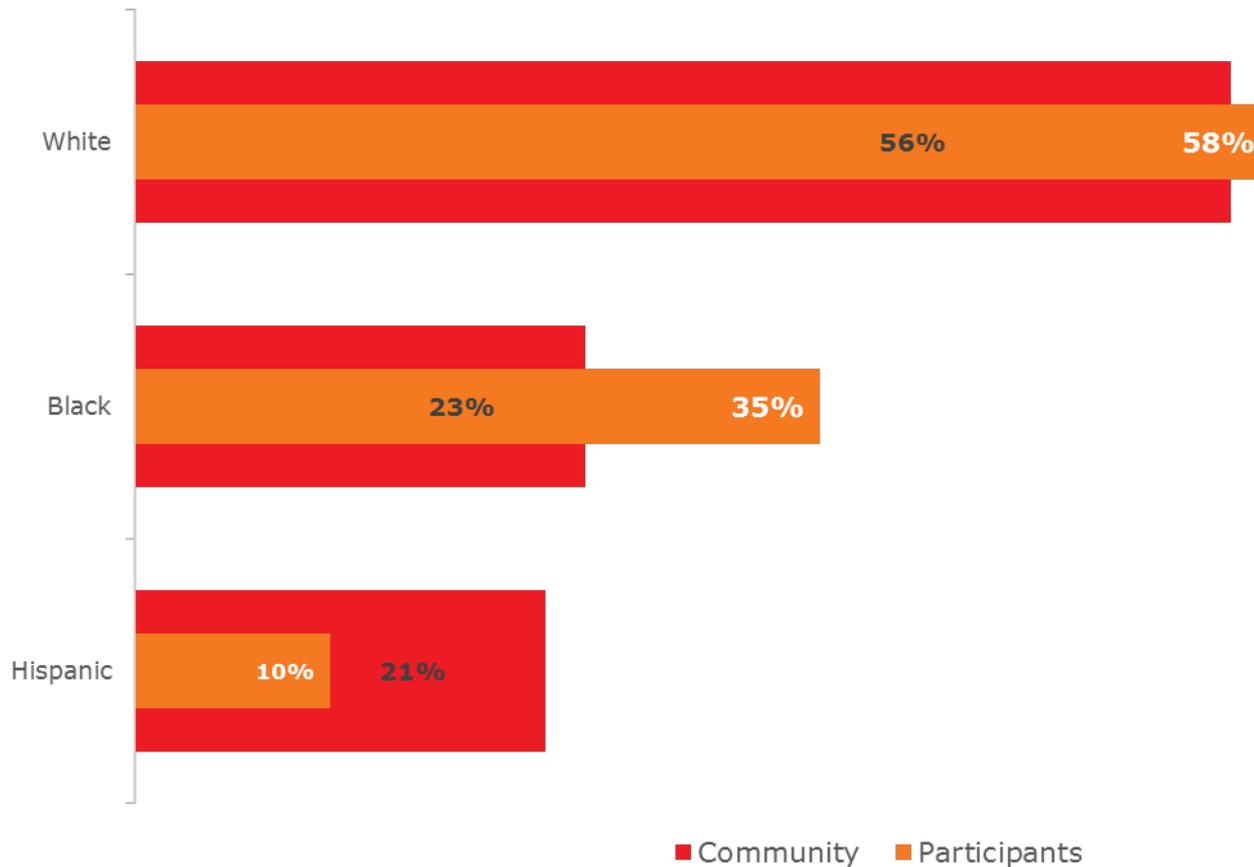
PARTICIPANT DEMOGRAPHICS

- Average Age of a Participant: 61 (min: 18; max: 98)
- Race/Ethnicity
 - 10% of participants self-identified as Hispanic

**Blood Pressure Self-Monitoring Program
participants' by Race, August 2016**



THE PERCENTAGE OF BLACK/AFRICAN AMERICANS SERVED IN THE BLOOD PRESSURE SELF-MONITORING PROGRAM IS GREATER THAN THE COMMUNITY



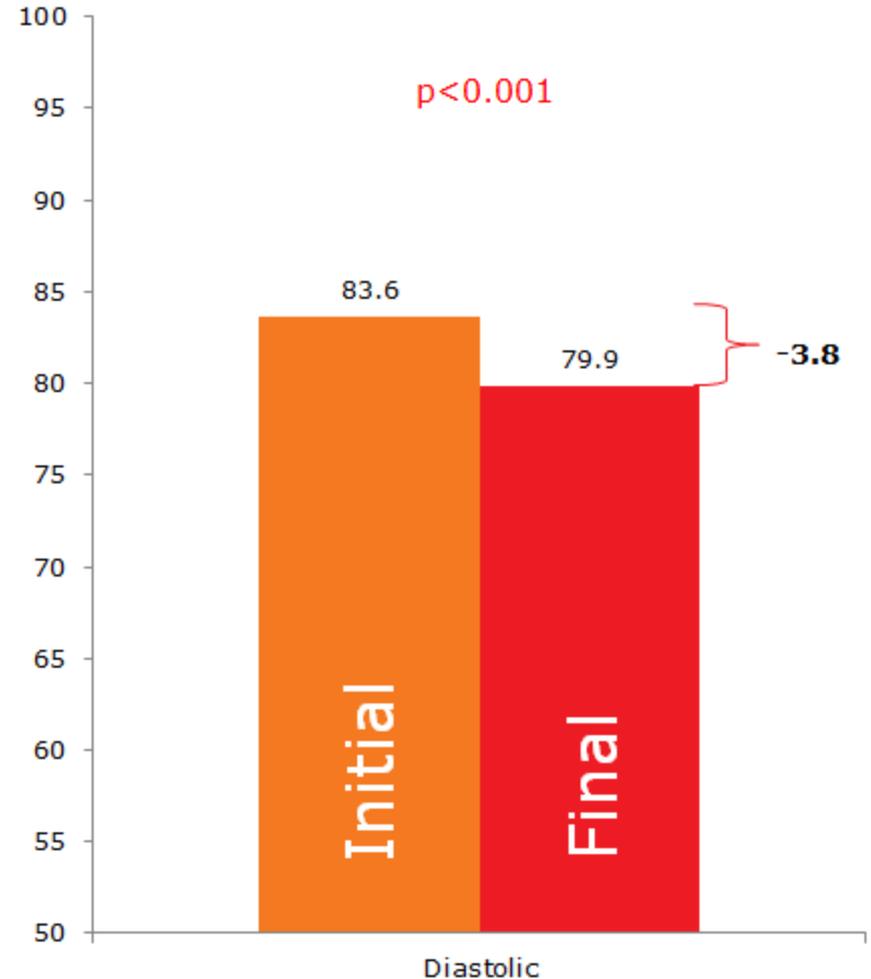
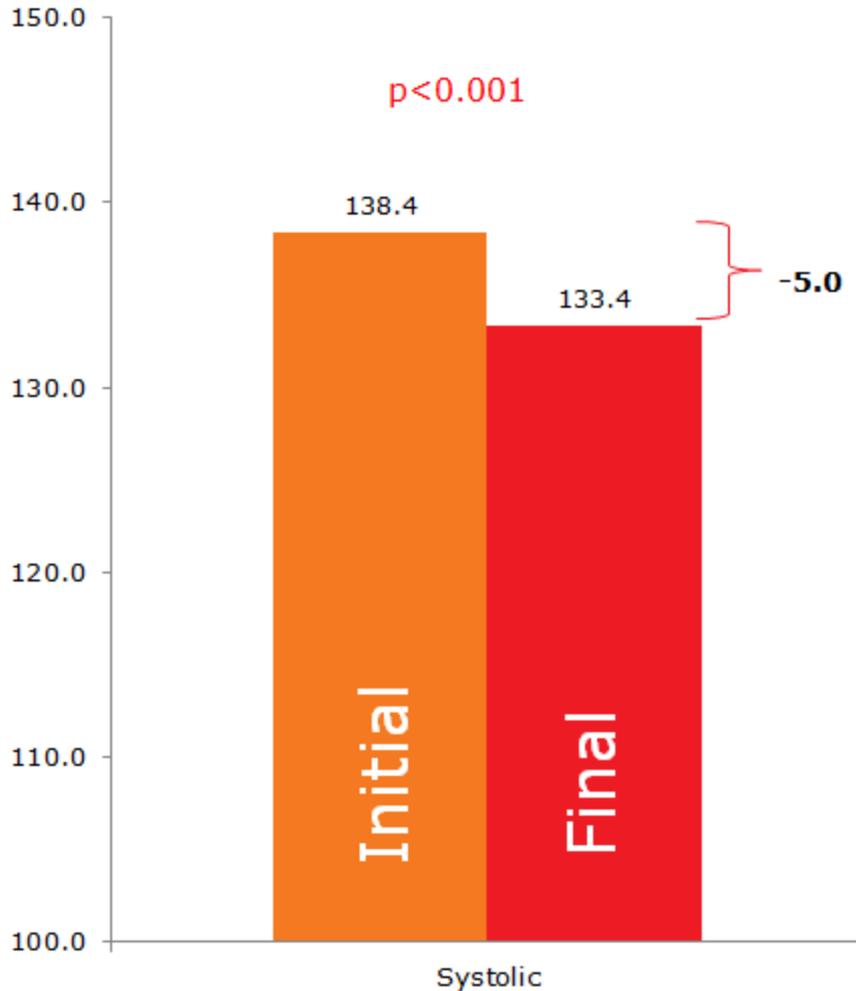
PARTICIPANT CHARACTERISTICS

- 49% of participants indicated they were diagnosed with high blood pressure within the 12 months prior to enrollment
- 79% of participants were taking prescription medication for high blood pressure at the time of enrollment
- 56% of participants did not have a home blood pressure cuff at the time of enrollment
- 54% of participants are Y members; 28% non-Y members; 18% unknown

REFERRAL SOURCES

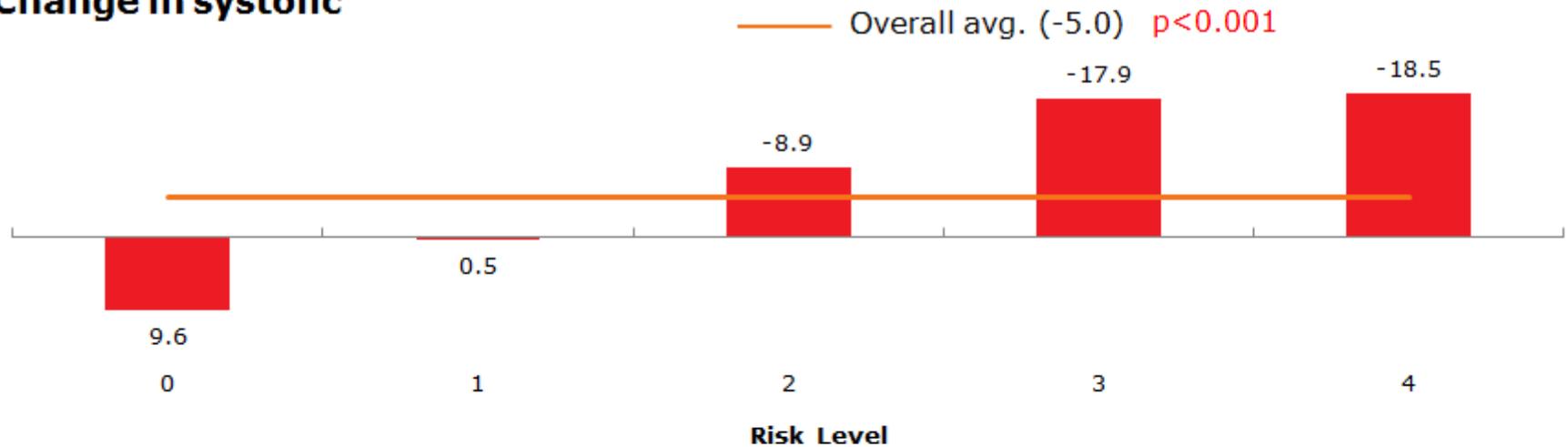
Referral Type	Percentage
Y staff member or volunteer	70%
A friend, family member, or word of mouth	6%
A poster, flyer, Y event	6%
A doctor or health care professional	6%
Other	5%
Media (TV, web, radio, print, etc.)	3%
Direct mailing or email communication	2%
The Y's website	1%

THERE IS A STATISTICALLY SIGNIFICANT DIFFERENCE IN SYSTOLIC AND DIASTOLIC BP BETWEEN INITIAL AND FINAL READINGS.

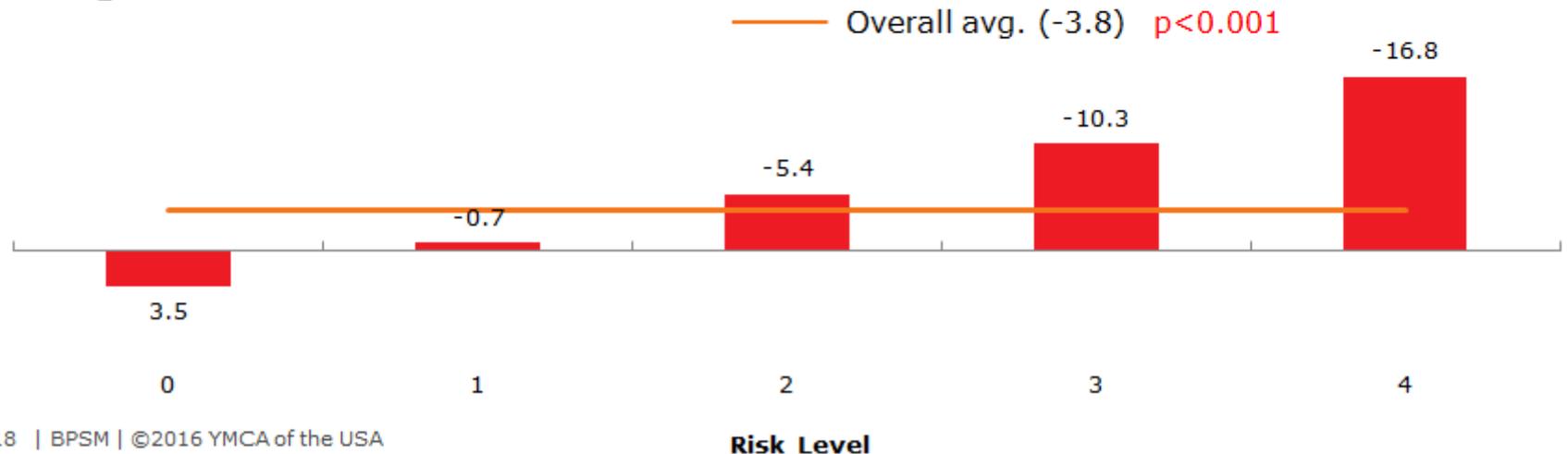


PARTICIPANTS WITH THE HIGHEST INITIAL BP READINGS DEMONSTRATE A SIGNIFICANTLY GREATER CHANGE IN SBP AND DBP. *Based on the AHA risk levels

Change in systolic



Change in diastolic



FOCUS AREAS FOR 2016-2018

Spread

- Develop a virtual learning solution to train and onboard YMCA staff
- Spread the program to more YMCAs (engage ≥ 65 in 2016)

Scale

- Offer the program at a larger number of program delivery sites (YMCA & non-YMCA locations) to more people with high blood pressure across the country

Sustainability

- Develop a business model that ensures sustainability of the program model, decreasing reliance on grant funding

Equity

- Continue to focus on equity among African American populations

Clinical Integration

- Collaborate with CDC/ACPM, AHA, AMA, to leverage RWJF / YUSA investments and initiate clinical referrals





THANK YOU

YMCA OF THE USA
800 872 9622

Roundtable Discussion

Carter Blakey
Deputy Director, Office of Disease
Prevention and Health Promotion



A library of stories highlighting ways organizations across the country are implementing Healthy People 2020

Stories from the Field

Want to know what others are doing to improve the health of their communities? Explore our *Stories from the Field* to see how communities across the Nation are implementing Healthy People 2020. You can also [share your story!](#)

Explore the map below or filter to view stories by the related topic area or Leading Health Indicator.

Sort By: Viewing 80 results

Topic Area	Organization Name	Organization Type	Date Posted	Program State
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Filter By: Show LHI Only [Reset Filters](#) [Update](#)



Healthy People 2020 in Action

 Who's Leading the Leading Health Indicators? series  Stories from the Field

Healthy People in Action

<http://www.healthypeople.gov/2020/healthy-people-in-action/Stories-from-the-Field>

Who's Leading the Leading Health Indicators? Webinar

Healthy People
2020

Please join us on
**Thursday, March 13th from
12:00 to 1:00 pm ET** for a
Healthy People 2020
*Who's Leading the Leading
Health Indicators?* webinar
on Mental Health.



Registration on
HealthyPeople.gov
available soon

Who's Leading the
Leading Health
Indicators?



ODPHP

Office of Disease Prevention
and Health Promotion

- Charles Helmick (CDC/ONDIEH)
- Joan McGowan (NIH/NIAMS)
- Kristy Nicks (NIH/NIAMS)
- Kamil Barbour (CDC/ONDIEH)
- Yuling Hong (CDC/ONDIEH)
- Fleetwood Loustalot (CDC/ONDIEH)
- Angela Thompson-Paul (CDC/ONDIEH)
- Joylene John-Sowah (NIH/NHLBI)
- Katie Pahigiannis (NIH/NINDS)
- Stan Lehman (CDC/OD)
- Jennifer Villani (NIH/OD)
- Irma Arispe (CDC/NCHS)
- David Huang (CDC/NCHS)
- Leda Gurley (CDC/NCHS)
- Asel Ryskulova (CDC/NCHS)
- Kimberly Hurvitz (CDC/NCHS)
- LaJeana Hawkins (CDC/NCHS)
- Carter Blakey (HHS/ODPHP)
- Emmeline Ochiai (HHS/ODPHP)
- Theresa Devine (HHS/ODPHP)
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