Healthy People 2020 Progress Review
Agenda and Presenters

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

- **1979**: Smallpox Eradicated
- **1982**: AIDS is Infectious
- **1988**: SG Declares Nicotine Addictive
- **1990**: Human Genome Project Begins
- **1990s**: Drinking Water Fluoridation
- **2000s**: Obesity and Chronic Disease
- **2005**: Hurricane Katrina
- **2009**: H1N1 Flu
## Evolution of Healthy People

<table>
<thead>
<tr>
<th>Target Year</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overarching Goals</td>
<td>• Decrease mortality: infants–adults&lt;br&gt;• Increase independence among older adults</td>
<td>• Increase span of healthy life&lt;br&gt;• Reduce health disparities&lt;br&gt;• Achieve access to preventive services for all</td>
<td>• Increase quality and years of healthy life&lt;br&gt;• Eliminate health disparities</td>
<td>• Attain high-quality, longer lives free of preventable disease&lt;br&gt;• Achieve health equity; eliminate disparities&lt;br&gt;• Create social and physical environments that promote good health&lt;br&gt;• Promote quality of life, healthy development, healthy behaviors across life stages</td>
</tr>
<tr>
<td># Topic Areas</td>
<td>15</td>
<td>22</td>
<td>28</td>
<td>42</td>
</tr>
<tr>
<td># Objectives/Measures</td>
<td>226</td>
<td>312</td>
<td>1,000</td>
<td>~1,200</td>
</tr>
</tbody>
</table>
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

Prevention Matters

• Controllable risk factors
  o High blood pressure
  o High cholesterol
  o Cigarette smoking
  o Diabetes
  o Poor diet and physical inactivity
  o Overweight and obesity

• 29.5% of adults are affected by high blood pressure, half of them have it under control

Arthritis, Osteoporosis, and Chronic Back Conditions

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

• Osteoporosis is marked by low bone mass and a reduction in bone strength
  o Increased risk of broken bones

• Chronic back pain
  o Lasts for more than three months
  o Can become progressively worse and reoccur
  o Outlasts the usual healing process

Arthritis in the United States

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

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
  o Adequate dietary calcium and vitamin D, and,
  o 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

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

- 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.
Presentation Outline

- 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
Burden of Arthritis

- 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.

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

<table>
<thead>
<tr>
<th>Educational Attainment (Ages 25+)</th>
<th>Rate per 1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;High School</td>
<td>0 - 10</td>
</tr>
<tr>
<td>High School</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Some College</td>
<td>20 - 30</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>30 - 40</td>
</tr>
<tr>
<td>4 Year College Degree</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Advanced Degree</td>
<td>50 - 60</td>
</tr>
</tbody>
</table>

**HP2020 Target: 27.6**

<table>
<thead>
<tr>
<th>2008 Total *</th>
<th>2015 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>American Indian</td>
<td>Asian</td>
</tr>
</tbody>
</table>

**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.

**SOURCE:** National Health Interview Survey (NHIS), CDC/NCHS.
Weight Reduction Counseling, Overweight or Obese Adults 18+ Years with Arthritis

HP2020 Target: 45.3%

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

HP2020 Target: 57.4%

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

HP2020 Target: 5.3%

2005-2008 Total *
2013-2014 Total

Male
Female
Hispanic
Asian
Black
White

Age (years)
50-64
65+

Percent

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 single race groups.

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

- 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.

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.


Obj. HDS-2
Decrease desired
Coronary Heart Disease Deaths

Rate per 100,000

HP2020 Target: 103.4

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.

Stroke Deaths

Rate per 100,000

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.


Obj. HDS-3
Decrease desired 28
Blood Pressure Control, Adults 18+ Years with Hypertension, 2011–2014

HP2020 Target: 61.2%

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

HP2020 Target: 69.5%

NOTES: I = 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

Percent

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms Awareness</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Call 9-1-1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**HP2020 Target:** 94.7%
**HP2020 Target:** 59.3%

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.

Obj. HDS-17.2, 17.3
Increase desired
Key Takeaways - Arthritis, Osteoporosis, and Chronic Back Conditions

- **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.
Key Takeaways - Heart Disease and Stroke

- 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
NIH Mission

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

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.

High Blood Pressure: Unfinished Business and New Opportunities to Seize

- 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**

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

Benjamin E et al. *Circulation*. 2017;135:00
What are innovative strategies to improve HBP control?

The HyperLink Study

Telemonitoring and Case Management for Blood Pressure Control

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.

JAMA. 2013;310(1):46-56
Raising Heart Disease Awareness: February is American Heart Month

- 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 difference.

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

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

www.hearttruth.gov
Programs Addressing Stroke and Hypertension Disparities

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)
Know Stroke: Know the Signs. Act in Time.

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
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](http://www.mindyourrisks.nih.gov)
NIH StrokeNet

- 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

http://nihstrokenet.org/
Key Points and Opportunities

- 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)
## Heart Disease and Stroke Federal Partners/Contributors

- **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
Major Areas of Focus

Keeping People Healthy

Optimizing Care

Priority Populations

COMMUNITY
Million Hearts®

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
**Million Hearts® 2022 Domains**

### 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

- 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
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
Paul Coverdell National Acute Stroke Program (PCNASP) Successes

- 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.
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
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

Past and Current Participating Health Departments

- Clusters of local health departments
- State Health Departments - Trained
- State Health Departments - Not Trained Yet
High blood pressure among adults aged ≥18 years by census tract, Chicago, IL, 2013
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.

Tools and Resources

- **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
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

**Pain vs. Time**

- More pain
- Diet
- Diet + Exercise

**Function vs. Time**

- Worse function
- Diet
- Exercise
- Diet + Exercise

*P = 0.0001

*Adjusted for gender, BMI, baseline values

Messier et al. JAMA 2013
• 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

Rochester Osteoporosis Project 1997

Osteoporotic Fractures in Men 2000
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
“Crisis in Osteoporosis”? 

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
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.
Evidence-Based Prevention Communication Efforts

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/](https://bones.nih.gov/)

- NIH Senior Health
  - Built with You in Mind
  - [https://nihseniorhealth.gov/](https://nihseniorhealth.gov/)

- Go4Life
  - [https://go4life.nia.nih.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](#)

Working Groups

- Federal Working Group on Bone Diseases
  - National Institutes of Health
  - Bethesda, Maryland
CDC Arthritis Program Mission

CDC’s Arthritis Program

- Fund state programs to reach adults with arthritis with evidence-based interventions
- Fund national programs to reach adults with arthritis with evidence-based interventions
- Epidemiology, surveillance, intervention research
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

**Physical Activity**
- Clinically significant changes in
  - Pain
  - Function
  - Psychological well-being

Brady et al, *Preventing Chronic Disease*, 2013
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
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
Cumulative Reach
By 6-Month Reporting Period (RP)
Total Reach 104,723
July 2012--December 2016
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
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.
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
## CDC Arthritis Program
### National Programs 2016-2021

**Advancing Arthritis Public Health Approaches through National Organizations**

<table>
<thead>
<tr>
<th>3 Components</th>
<th>6 Awards</th>
<th>5 Grantees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Innovative Dissemination &amp; Delivery Systems for Arthritis-appropriate Evidence-based, Interventions (EBIs)</td>
<td>Association of State &amp; Territorial Chronic Disease Program Directors (NACDD)</td>
</tr>
<tr>
<td></td>
<td>Environmental Approaches to Create Sustainable Access to Arthritis EBIs</td>
<td>Y-USA</td>
</tr>
<tr>
<td>2</td>
<td>Arthritis Toll-Free Consumer Information &amp; Referral Helpline</td>
<td>National Recreation &amp; Parks Association (NRPA)</td>
</tr>
<tr>
<td>3</td>
<td>Osteoarthritis Action Alliance</td>
<td>University of North Carolina</td>
</tr>
</tbody>
</table>
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.
Next Steps

- 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
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

Evidence-based Interventions
Ys are discovering, developing, and disseminating research-tested, high-fidelity health interventions to improve health.

Compliance
Y-USA is helping YMCAs and other community-based organizations comply with privacy laws and health care regulations.

Shared Physical Spaces
Ys are exploring the value of shared spaces with health practices, rehab and cancer centers, primary care within Y facilities, retail programming space with health care systems, clinical facilities at camps, and other health services.

Community Health Navigation
Ys help individuals develop the relationships necessary to manage health by conducting home visits, spreading awareness of recommended preventive services, and helping connect people to health care exchanges and marketplaces.

Capacity Building
Y-USA is engaging Ys from the earliest stages to ensure they have the staff, competencies, and relationships necessary to implement evidence-based programs.

Health Equity
Y-USA infuses principles of equity into services to ensure everyone has the opportunity to live their healthiest lives, and that underserved populations have access to health-promoting resources.

Healthier Communities Initiative
Across 247 communities, Ys have used a collective impact model to implement policy, system, and environmental changes so that healthy choices are the easy choices for all. Building on this knowledge, Y-USA’s Talent and Knowledge Management department is testing new and advanced models of collaboration over the next three years.

The YMCA’s Model of 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

THE PROGRAM’S REACH DEC ‘16

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Y associations offering the program</td>
<td>167</td>
</tr>
<tr>
<td>Number of states delivering the program</td>
<td>37</td>
</tr>
<tr>
<td>Number of EnhanceFitness sites</td>
<td>340</td>
</tr>
<tr>
<td>Number of certified instructors</td>
<td>1,573</td>
</tr>
<tr>
<td>Number of participants served</td>
<td>17,740</td>
</tr>
</tbody>
</table>

PROVEN RESULTS

Studies show:

- **90%** participant retention rate\(^1\)
- **13%** improvement in social functioning\(^1\)
- **35%** improvement in physical functioning\(^1\)
- **53%** improvement in depression\(^1\)

Fewer hospitalizations and **$945** less in health care costs per year than non-participants\(^2\)

PARTICIPANT SATISFACTION

Over **99%** of participants say they would recommend Enhance\(^®\)Fitness to a friend\(^3\)
BLOOD PRESSURE SELF-MONITORING

**DISCOVERY**

**Efficacy**
The program has evidence it can produce the intended outcomes

**Validation**
The program satisfies dimensions of well-being, brand, license, training, evaluation, data, fundraising & price requirements, and a pilot produces the intended outcomes in a YMCA setting

**DEVELOPMENT**

**Translation**
The program is piloted by YMCAs in various operational settings and produces the intended outcomes

**Scaling**
The program is delivered by a sufficient number of YMCA providers to inform a refined operating model that maintains fidelity and intended outcomes, and a national dissemination plan is established

**DISSEMINATION**

**Dissemination**
The program is replicated widely and available to any YMCA that has capacity to deliver it

Programs must pass each stage or risk being phased out

---

2013
3 YMCAs
Building the model

2014
7 YMCAs
Getting the Outcomes

2015
17 YMCAs
Ensuring success

2016
63 YMCAs
Scaling broadly

2018
Available to ALL YMCAs
## 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

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

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

- 69% Female; 31% Male
- 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

- 35% White or Caucasian
- 58% Black or African American
- 0.1% Other
- 0.2% Prefer Not to Answer
- 1.3% Asian
- 1.8% Native Hawaiian or Other Pacific Islander
- 0.2% American Indian or Alaska Native
THE PERCENTAGE OF BLACK/AFRICAN AMERICANS SERVED IN THE BLOOD PRESSURE SELF-MONITORING PROGRAM IS GREATER THAN THE COMMUNITY

- **White**
  - Community: 56%
  - Participants: 58%

- **Black**
  - Community: 23%
  - Participants: 35%

- **Hispanic**
  - Community: 10%
  - Participants: 21%

<table>
<thead>
<tr>
<th>Community</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>White</td>
</tr>
<tr>
<td>Black</td>
<td>Black</td>
</tr>
<tr>
<td>Hispanic</td>
<td>Hispanic</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Referral Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y staff member or volunteer</td>
<td>70%</td>
</tr>
<tr>
<td>A friend, family member, or word of mouth</td>
<td>6%</td>
</tr>
<tr>
<td>A poster, flyer, Y event</td>
<td>6%</td>
</tr>
<tr>
<td>A doctor or health care professional</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
<tr>
<td>Media (TV, web, radio, print, etc.)</td>
<td>3%</td>
</tr>
<tr>
<td>Direct mailing or email communication</td>
<td>2%</td>
</tr>
<tr>
<td>The Y’s website</td>
<td>1%</td>
</tr>
</tbody>
</table>
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**

- Overall avg. (-5.0) p<0.001

**Change in diastolic**

- Overall avg. (-3.8) p<0.001
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
Healthy People 2020
Stories from the Field

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

Healthy People in Action
Who’s Leading the Leading Health Indicators? Webinar

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
Progress Review Planning Group

- 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)
- Ayanna Johnson (HHS/ODPHP)
- Yen Lin (HHS/ODPHP)
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ODPHP (search "healthy people")