Healthy People 2020: Who’s Leading the Leading Health Indicators?
Don Wright, MD, MPH
Deputy Assistant Secretary for Health
Director Office of Disease Prevention and Health Promotion
U.S. Department of Health and Human Services
Who’s Leading the Leading Health Indicators?

Leading Health Indicators are:
- Critical health issues that, if addressed appropriately, will dramatically reduce the leading causes of preventable deaths and illnesses
- Linked to specific Healthy People objectives
- Intended to motivate action to improve the health of the entire population

1200 Healthy People objectives

LHIs are a subset of Healthy People objectives
Who's Leading the Leading Health Indicators?

Featured Speakers:

- Karen B. DeSalvo, MD, MPH, MSc – Acting Assistant Secretary for Health, U.S. Department of Health and Human Services

- Fleetwood Loustalot, PhD, FNP, CDR, US Public Health Service – Epidemiology, Surveillance and Health Services Lead, Division for Heart Disease and Stroke Prevention, Centers for Disease Control and Prevention

- Stephanie Coronel-Mockler, MPH, CHES – Co-Director, Colorado Prevention Center (CPC) Community Health
Clinical Preventive Services

- Clinical preventive services, such as routine disease screening and scheduled immunizations, are key to reducing death and disability.

- These services prevent illnesses and diseases—from flu to cancer—or detect them in their earlier, more treatable stages, significantly reducing the risk of illness, disability, early death, and medical care costs.
The Clinical Preventive Services Leading Health Indicators are:

1. Colorectal Cancer Screening
2. Hypertension
3. Diabetes
4. Immunizations
The leading modifiable (controllable) risk factors for heart disease and stroke are:

- **High blood pressure** (hypertension)
- High cholesterol
- Cigarette smoking
- Diabetes
- Poor diet and physical inactivity
- Overweight and obesity
Blood Pressure Control, Adults 18+ Years with Hypertension, 2011–2014

Notes: — is 95% confidence interval. 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. Data by age group are not age adjusted. 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, 1999-2000 through 2013-2014

Note: 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, 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 Surveys (NHANES), CDC, NCHS.

Obj. HDS-12
Federal Agency Activities Supporting Hypertension Control

Fleetwood Loustalot, PhD, FNP
CDR, US Public Health Service
Epidemiology, Surveillance and Health Services Lead
Division for Heart Disease and Stroke Prevention
Centers for Disease Control and Prevention
Federal Partners/Contributors

- **National Institute of Neurological Disorders and Stroke (NINDS)**
  - Katie Jakubs 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 Associate Secretary of Health (OASH)**
  - Emmeline Ochiai
Hypertension Control Efforts Across Federal Agencies

- Healthy People 2020 Heart Disease and Stroke Workgroup co-led by the:
  - National Institute of Neurological Disorders and Stroke (NINDS)
  - National Heart, Lung, and Blood Institute (NHLBI)
  - Centers for Disease Control and Prevention (CDC)

- Diverse activities supporting hypertension prevention and control efforts including:
  - Raising Awareness
  - Generating Evidence
  - Promoting Action
Raising Awareness
The Heart Truth®

- National campaign to promote awareness of heart disease and its risk factors among women and educate and motivate them to take action to prevent the disease and control its risk factors.
- Sponsored by the National Heart, Lung, and Blood Institute, the National Institutes of Health.
- Significant amount of program materials and resources for workplaces, communities, researchers and other partners are available at www.hearttruth.gov.
Hypertension and Brain Health

- Observational evidence suggests a link between hypertension in midlife and cognitive decline and dementia in later life.

- Stroke (clinical or silent) increases risk of dementia, and white matter disease in the brain increases risk of cognitive impairment. Hypertension is a major risk factor for stroke and white matter disease.

- Many Americans are aware of the link between hypertension and stroke and heart disease, but most are not aware of the potential harm to brain health.
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
Million Hearts®

- Goal: Prevent 1 million heart attacks and strokes by 2017
- US Department of Health and Human Services initiative, co-led by:
  - Centers for Disease Control and Prevention (CDC)
  - Centers for Medicare & Medicaid Services (CMS)
- Partners across federal and state agencies and private organizations
- Includes community and clinical interventions
- Hypertension control is a central theme and significant resources are available for partners

http://millionhearts.hhs.gov/
Generating Evidence
Hypertension Control: Randomized Controlled Trials

- Systolic Blood Pressure Intervention Trial (SPRINT)
  - Collaboration across NIH, including the NHLBI, NINDS, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), and the National Institute on Aging (NIA)
  - Highlight: a lower blood pressure target (>120 mmHg systolic) reduced the rates of cardiovascular events, in adults 50+ without diabetes

- SPRINT- Memory and Cognition in Decreased Hypertension (SPRINT- MIND)
  - NHLBI, NINDS, NIDDK and NIA collaborating
  - Seeks to understand the impact of lowered blood pressure target on memory and cognitive function
  - Ongoing (end date 12/2018)
Hypertension Control: Effectiveness and Implementation Trials

- NHLBI sponsored the Home Blood Pressure Telemonitoring and Case Management to Control Hypertension study
  - Promoted community efforts to achieve blood pressure control through in-home monitoring with the collaboration of pharmacists and primary care
  - Aimed to evaluate the long term feasibility, and other critical factors for translating this intervention into practice
  - Telemonitoring at home and pharmacist case management achieved better control compared with usual care

Hypertension Control: Comparative Effectiveness Trials

- NINDS, NHLBI partnering with the Patient Centered Outcomes Research Institute (PCORI)
  - Sponsoring two trials to evaluate hypertension control strategies at the health system and/or community level
  - Aim to improve hypertension control among high risk racial and ethnic minority groups (AL/NC, MD)
  - Approaches include peer coaching, clinic-based approaches, collaborative stepped care model
Promoting Action
Programs Addressing Stroke and Hypertension Disparities

- **NINDS Stroke Prevention Intervention Research Program**
  - Stroke prevention, hypertension control interventions in minority communities
    - (LA, NY, FL/PR, KPNC/UCSF)
  - Multi-level: health systems, healthcare providers, communities, patients
  - Stakeholder engagement, dissemination and implementation efforts
**Improving Blood Pressure Control**

- Significant evidence is available to promote improvements in hypertension control at the population level and in diverse settings. We should:
  - Increase general awareness of the risk of hypertension
  - Promote the rapid utilization and incorporation of new evidence into treatment
  - Integrate systems-level changes in the health care systems, such as standardized hypertension treatment with protocol-driven care using diverse models of care
  - Improve community and clinical linkages to more broadly address a complex condition like hypertension

- **Interventions Engaging Community Health Workers**
Colorado Heart Healthy Solutions

Stephanie Coronel-Mockler, MPH
Co-Director, Community Health,
Colorado Prevention Center
Combined, heart disease and stroke was the leading cause of death in Colorado in 2013, accounting for 24% (8,030) of all deaths.

Colorado Heart Healthy Solutions was launched in 2008:

- Community Health Worker led program
- Focus on at-risk individuals
  - Defined as those with moderate to high 10-year CVD risk or any uncontrolled risk factor
- Focus on underserved individuals
  - Defined as those who face disadvantages such as minorities, the poor, those with less education, un- or under-insured and those who live far from resources (rural and frontier counties)
Program Goal

Improve cardiovascular health of adults in Colorado communities
CHHS Partners 2015-2016

Local Public Health Agencies
- Clear Creek County Public Health
- Costilla County Public Health Agency
- Denver Public Health
- Kit Carson County Health & Human Services
- Montezuma County Health Department
- Northwest Colorado Visiting Nurse Assoc
- Tri County Health Department

Community Health Centers & Hospitals
- Conejos County Hospital
- High Plains Community Health Center
- Mountain Family Health Center
- Spanish Peaks Regional Health Center

Other Community Organizations
- Colorado Alliance for Health Equity and Practice
- San Luis Valley Area Health Education Center
- Tri County Health Network
CHHS Model

**Outreach & Screenings**
- Community outreach with priority given to underserved populations
- Health Assessment, Education, & Results Counseling

**Community Navigation**
- Referrals to Medical Clinics
- Ongoing CHW Services
  - Identify health goals
  - Create manageable action plans
  - Assist with overcoming barriers
  - Provide ongoing support to keep individuals on track
- Educational support for health care providers
- Referrals to Community-Based Healthy Living Programs

**Health Improvements**
- Improve chronic disease risk factors
- Improve diet and physical activity
- Increase access to primary care and provider use of evidence-based guidelines

6-12 months
Outreach, Screening and Referral (OSCAR) System

Client Demo

6/17/2010 at CPC

Recalculate risk at age

Comments

Lifestyle Goals

 Targets

- Total Cholesterol <200
- HDL >40
- Triglycerides <150
- LDL <160
- Systolic Blood Pressure <140
- Diastolic Blood Pressure <90
- BMI <25
- Waist Circumference <40

Save Cancel

Previous Interview: N/A

Summary and Results

BMI

LOW 7.5%
HIGH 20%

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Your Customized Health Prescription

- You are at MEDIUM risk of having a heart attack or stroke in the next 10 years.
- 12 of 100 people with your score will have a heart attack or stroke in the next 10 years.
- Your high cholesterol and high blood pressure is/are increasing your chance of having a heart attack or stroke.
- Make an appointment with your doctor and ask about the medicines below:
  - Statin (for cholesterol)
- Attention! Your triglyceride level is: 188; goal is less than 150. Schedule an appointment to see your doctor.
Outreach, Screening and Referral (OSCAR) System

Client Demo

6/17/2010 at CPC

How ready are you to make changes to improve your health?
- Not thinking about change
- Thinking about change
- Preparing for change
- Changing
- Maintaining Change

What would you most like to work on to lower your risks?
- Cut down on smoking
- Improve cholesterol
- Lower blood pressure

How would you like to lower your risks?
- Lose weight
- See a health care provider
- Increase physical activity
- Improve nutrition

How important is it?
Not important
[ ]
[ ]
[ ]
Very important

Action Plan (try to include how much, when and how often in the action plan)

Summary and Results
CHHS by the Numbers

* CHHS has served over **40,000** clients since 2009

* conducting over **120,000** discrete interactions (screenings, follow ups, retests)

* 88% underserved

* 54% did not know their CVD risk
## Selected Program Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Mean Baseline Levels for those with Abnormal Risk Factor</th>
<th>Change in Risk Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systolic Blood Pressure (mmHg)</td>
<td>152.6</td>
<td>↓ 10.8</td>
</tr>
<tr>
<td>Diastolic Blood Pressure (mmHg)</td>
<td>96.7</td>
<td>↓ 7.3</td>
</tr>
<tr>
<td>Total Cholesterol (mg/dL)</td>
<td>235.2</td>
<td>↓ 21.0</td>
</tr>
<tr>
<td>LDL Cholesterol (mg/dL)</td>
<td>163.3</td>
<td>↓ 31.4</td>
</tr>
<tr>
<td>HDL Cholesterol (mg/dL)</td>
<td>30.8</td>
<td>↑ 6.6</td>
</tr>
<tr>
<td>Glucose (mg/dL)</td>
<td>129.9</td>
<td>↓ 16.4</td>
</tr>
</tbody>
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Leading Health Indicator:
Adults with hypertension whose blood pressure is under control

Participants with hypertension at baseline with at least one retest (n=3069)

<table>
<thead>
<tr>
<th>% at BP Goal</th>
<th>Baseline</th>
<th>Retest</th>
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<tbody>
<tr>
<td></td>
<td>46.4%</td>
<td>58.5%</td>
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CPC COMMUNITY HEALTH
Selected Program Outcomes (cont.)

* 21% decreased fat intake

* 22% increase physical activity levels

* 17% of smokers quit smoking
Lessons Learned

* Statewide program with a local focus
  Adapted model to fit the needs/priorities of each community
  * Employed CHWs through local agencies
  * Collaborate and integrate with local resources (medical and lifestyle)

* Use of OSCAR to centrally monitor health outcomes and program implementation
  * Share data with program stakeholders (CHWs, supervisors, providers, etc.)
Primary Funding: Cancer, Cardiovascular Disease, and Pulmonary Disease Grants Program at the Colorado Department of Public Health and Environment

- Caring for Colorado Foundation
- The Colorado Health Foundation
- Anschutz Family Foundation
- Health Resources and Services Administration
CHHS Program Staff

* Stephanie Coronel-Mockler, MPH
  * CHHS Program Director
  * Co-Director, CPC Community Health
  * stephanie.coronel@cpcmed.org

* Nick Flattery, MPH
  * Senior Project Manager

* Mori Krantz, MD
  * CHHS Medical Director
  * Cardiologist, Denver Health
  * www.cpccommunityhealth.org

* Chris Jones, MPHc
  * Associate Project Manager
Roundtable Discussion
Please take a moment to fill out our brief survey.
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