Building Healthier Communities

James M. Galloway, MD, FACP, FACC, FAHA
Assistant U.S. Surgeon General
Acting Regional HHS Director
Rear Admiral, U.S. Public Health Service
Regional Health Administrator, Region V
Adjunct Professor, Northwestern University
Building Healthier Communities

James M. Galloway, MD

has no financial relationships to disclose or conflicts of interest related to this presentation.
The United States has the highest GNP in the world.

The US spends nearly half of all health care dollars spent in the world.

Life expectancy in the US is one of the lowest of industrialized countries, behind Jordan and Slovenia.

Infant mortality?

- We are 31st!
- Cuba, Slovenia and Estonia do better!
Physical activity, nutrition, and smoking are the three most important areas to target to improve the health of our nation.
Obesity Trends* Among U.S. Adults

BRFSS, 1985

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1986
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1987
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1988
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1989
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1990
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1991
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults

BRFSS, 1992

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1993
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1994
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1995
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1996
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1997
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1998

(*BMI ≥ 30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 1999

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 2000

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 2001

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 2002
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults

BRFSS, 2003

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2004
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: Behavioral Risk Factor Surveillance System, CDC.
Obesity Trends* Among U.S. Adults
BRFSS, 2005
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: Behavioral Risk Factor Surveillance System, CDC.

No Data      <10%           10%–14%     15%–19%        20%–24%       25%–29%       ≥30%

Source: Behavioral Risk Factor Surveillance System, CDC.
Obesity Trends* Among U.S. Adults
BRFSS, 2006
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: Behavioral Risk Factor Surveillance System, CDC.
Obesity Trends* Among U.S. Adults
(*BMI ≥30, or about 30 lbs. overweight for 5’4’’ person)
Building a Healthier Community

BRFSS: Overweight or Obese Adults

Gender and Race/Ethnicity

- Chicago
- Male
- Female
- White
- Black
- Hispanic

Percent

- 1998
- 2002
Building a **Healthier** Community

**YRBSS: Overweight Youth**

<table>
<thead>
<tr>
<th>Gender and Race/Ethnicity</th>
<th>1999</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Building a **Healthier** Community

**YRBSS: Vigorous Exercise 3x/week**

- **Gender and Race/Ethnicity**
- **Percent**
  - **1997**
  - **2003**

**Gender and Race/Ethnicity**:
- Chicago
- Male
- Female
- White
- Black
- Hispanic

**Percent**:
- 0
- 10
- 20
- 30
- 40
- 50
- 60
- 70

**Legend**:
- 1997
- 2003
# Results

Table 1: Percentage of Adolescents and Adults Meeting MyPyramid Recommendations

<table>
<thead>
<tr>
<th></th>
<th>Adolescents 12-18 (n = 1667)</th>
<th>Men ≥19 Years (n = 2005)</th>
<th>Women ≥19 Years (n = 1904)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent Consuming</td>
<td>Median Cups (% Meeting Req.)</td>
<td>Percent Consuming</td>
</tr>
<tr>
<td>Fruits and Vegetables</td>
<td>99.9</td>
<td>1.74 (0.9)</td>
<td>99.8</td>
</tr>
<tr>
<td>Fruits</td>
<td>89.2</td>
<td>0.51 (6.2)</td>
<td>86.4</td>
</tr>
<tr>
<td>Whole Fruits</td>
<td>45.4</td>
<td>0.49 (N/A)</td>
<td>53.8</td>
</tr>
<tr>
<td>100% Fruit Juice</td>
<td>40.3</td>
<td>0.54 (N/A)</td>
<td>34.0</td>
</tr>
<tr>
<td>Vegetables</td>
<td>98.5</td>
<td>1.21 (5.8)</td>
<td>99.3</td>
</tr>
<tr>
<td>Vegetables without fried potatoes</td>
<td>98.0</td>
<td>0.72 (2.2)</td>
<td>99.1</td>
</tr>
</tbody>
</table>

*Daily recommendations for adolescents and adults range from 1.5 to 2.5 cups of fruits and from 2.0 to 4.0 cups of vegetables (depending on daily caloric requirement).

Based on data from the 2003 – 2004 NHANES Survey; This is a modified table from: Kimmons, J. et al. “Fruit and Vegetable Intake Among Adolescents and Adults in the United States: Percentage Meeting Individualized Recommendations.” Medscape J Med. 2009;11(1):26
The Current Situation

- The Washington Post reports that the width of a standard movie seat used to be 19 inches....
  - It is now 23 inches..

- Journal of Pediatrics, 2006, reported that 1 percent of all American infants and children – more than 283,000 children – are too big to fit in a car seat....
The Current Situation

## Table 2. Actual Causes of Death in the United States in 1990 and 2000

<table>
<thead>
<tr>
<th>Actual Cause</th>
<th>No. (%) in 1990*</th>
<th>No. (%) in 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>400,000 (19)</td>
<td>435,000 (18.1)</td>
</tr>
<tr>
<td>Poor diet and physical inactivity</td>
<td>300,000 (14)</td>
<td>400,000 (16.6)</td>
</tr>
<tr>
<td>Alcohol consumption</td>
<td>100,000 (5)</td>
<td>85,000 (3.5)</td>
</tr>
<tr>
<td>Microbial agents</td>
<td>90,000 (4)</td>
<td>75,000 (3.1)</td>
</tr>
<tr>
<td>Toxic agents</td>
<td>60,000 (3)</td>
<td>55,000 (2.3)</td>
</tr>
<tr>
<td>Motor vehicle</td>
<td>25,000 (1)</td>
<td>43,000 (1.8)</td>
</tr>
<tr>
<td>Firearms</td>
<td>35,000 (2)</td>
<td>29,000 (1.2)</td>
</tr>
<tr>
<td>Sexual behavior</td>
<td>30,000 (1)</td>
<td>20,000 (0.8)</td>
</tr>
<tr>
<td>Illicit drug use</td>
<td>20,000 (&lt;1)</td>
<td>17,000 (0.7)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,060,000 (50)</strong></td>
<td><strong>1,159,000 (48.2)</strong></td>
</tr>
</tbody>
</table>

*Data are from McGinnis and Foege. The percentages are for all deaths.

One VITAL Aspect of the Public Health Solution: The Funding of Prevention

We MUST invest in disease prevention to ensure that healthcare coverage is as cost-effective as possible.

- The Partnership for Prevention has identified a series of clinical preventive measures that, if fully adopted by 90 percent of the population, could save 100,000 lives a year.

- Trust for America’s Health (TFAH), in collaboration with The New York Academy of Medicine, has identified a series of community level disease prevention programs for improving rates of physical activity, nutrition, and smoking cessation that could dramatically reduce the prevalence and/or severity of the most expensive chronic diseases in the U.S. today.
Based on an economic model developed by the Urban Institute, TFAH found that:

- an investment of $10 per person per year in effective programs to improve physical activity, good nutrition, and prevent smoking could result in savings of more than $16 billion in health care costs annually within five years.

- This is a return of $5.60 for every $1 spent.
The Optimal Federal Role

Provide effective prevention interventions, universal access and quality coverage to all Americans.
Building A Healthier Community

Health

- Inactivity
- Unhealthy Diet
- Tobacco Abuse
- Dyslipidemia
- Hypertension
- Genetics
Building A Healthier Community

- Inactivity
- Unhealthy Diet
- Genetics
- Obesity
- Type 2 Diabetes
- Hypertension
<table>
<thead>
<tr>
<th>Modification</th>
<th>Recommendation</th>
<th>Avg. SBP Reduction Range†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight reduction</td>
<td>Maintain normal body weight (body mass index 18.5–24.9 kg/m²).</td>
<td>5–20 mmHg/10 kg</td>
</tr>
<tr>
<td>DASH eating plan</td>
<td>Adopt a diet rich in fruits, vegetables, and lowfat dairy products with reduced content of saturated and total fat.</td>
<td>8–14 mmHg</td>
</tr>
<tr>
<td>Dietary sodium reduction</td>
<td>Reduce dietary sodium intake to ≤100 mmol per day (2.4 g sodium or 6 g sodium chloride).</td>
<td>2–8 mmHg</td>
</tr>
<tr>
<td>Aerobic physical activity</td>
<td>Regular aerobic physical activity (e.g., brisk walking) at least 30 minutes per day, most days of the week.</td>
<td>4–9 mmHg</td>
</tr>
<tr>
<td>Moderation of alcohol</td>
<td>Men: limit to ≤2 drinks* per day. Women and lighter weight persons: limit to ≤1 drink* per day.</td>
<td>2–4 mmHg</td>
</tr>
<tr>
<td>consumption</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Population-Based Strategy

**SBP Distributions**

- **Before Intervention**
- **After Intervention**

**Reduction in SBP**

<table>
<thead>
<tr>
<th>Reduction in SBP (mmHg)</th>
<th>2</th>
<th>3</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Reduction in Mortality</td>
<td>6</td>
<td>8</td>
<td>14</td>
</tr>
</tbody>
</table>

- **Stroke**
- **CHD**

Reduction in BP
“It is unreasonable to expect that people will change their behavior easily when so many forces in the social, cultural, and physical environment conspire against such change”

Institute of Medicine, 2003
The aim must be to establish a health promoting environment in the social space in which persons make significant health decisions.

The struggle is for the relevant space that various forces, some unconcerned with health and some actually detrimental to it, have thus far too loosely preempted.

Social ecology for health means deliberately occupying more of that social space and using it in the interest of health.

Breslow L. Am J Health Promotion 10:253-257.
The Social Ecological Model cuts across disciplinary lenses and integrates multiple perspectives and theories.

This framework recognizes that behavior is affected by multiple levels of influence, including interpersonal factors, interpersonal processes, institutional factors, community factors, environmental factors, social factors and public policy.
The dessert equivalent to punching the Surgeon General right in the face.
Building a Healthier Chicago

http://www.healthierchicago.org
Building a Healthier Chicago

**GOAL**

To improve the health of Chicago’s residents and employees through the integration of existing and new public health, medicine and community health promotion activities.
Building a Healthier Chicago

VISION

Integrated, effective and sustained community-wide partnerships for health promotion that can be replicated nationwide
Building a Healthier Chicago

Our Objectives:

- Promote, coordinate and track the adoption of optimal programs, practices, policies, and supportive environments throughout the health care organizations, worksites, schools, and neighborhoods of Chicago.
Our Objectives: (cont.)

- Develop and maintain a system of interventions that complement and reinforce each other to maximize reach and effectiveness.

- Build Synergy!
Building A Healthier Chicago

**Policies and Systems**
Local, state, and federal policies and laws, economic and cultural influences, media

**Community**
Physical, social and cultural environment

**Organizations**
Schools, worksites, faith-based organizations, etc.

**Relationships**
Family, peers, social networks, associations

**Individuals**
Knowledge, attitudes, beliefs

Vermont Department of Health
Building a Healthier Chicago

Partners (partial listing)

- City of Chicago DPH
  - Parks and Recreation
  - Mayor’s Fitness Council
- American Medical Association
- Midwest Business Group on Health
- American Dietetic Association
- American Heart Association
- American Diabetes Association
- Chicago Medical Society
- CLOCC
- Health & Medicine Policy Research Group
- Chicagoland Chamber of Commerce
- Shaping America’s Health
- CHEST Foundation
- Community Health Charities
- American College of Cardiology
- National Kidney Foundation of Illinois
- Metropolitan Chicago Healthcare Council
- American Cancer Society
- Alliance for a Healthier Generation
- American College of Sports Medicine
- Chicago BEARS
- University of Chicago
- UIC COPH & Institute for Health Research and Policy
- Northwestern University
Building a Healthier Chicago

**Partners** (partial listing)

- RUSH
- Butler University
- St. Xavier University
- The Public Health Institute
- YMCA
- Alliance
- Access Community Health Network
- Illinois Foundation for Healthcare Quality
- Erie Family Health Center
- Humana, Inc
- Rush Health Associates
- Blue Cross/Blue Shield
- Ad Council

- NBC
- Illinois Department of Public Health
- Illinois Medical Society
- JP Morgan Chase
- Proactive Partners
- Chicago Runs
- Aadman Total Wellness
- Waterton Residential
- Midwest Dairy Council
- Chicago Endurance Sports
- Takeda Pharmaceuticals
- Code Red
- Novartis
Building a Healthier Chicago

Our Federal Partners:

- Federal Occupational Health
  - Health Risk Appraisal
- The President’s Council on Physical Fitness
  - The President’s Challenge
- The Surgeon General’s Initiative on Obesity
Building a Healthier Chicago

Our Federal Partners (continued):

- The Office of Health Promotion and Disease Prevention
  - Metrics from Healthy People 2010/2020
- Centers For Disease Control and Prevention
- The Office of Public Health and Science
Building a Healthier Chicago

Our Federal Partners (continued):

- U.S. Department of Agriculture
  - Food and Nutrition Service
- Internal Revenue Service
- Small Business Administration
American Medical Association

- Medical Outreach
  - Providers, hospitals and health programs
  - Physician Advisory Council
  - Healthy Lifestyle Implementation Programs
- Education/Initiatives with Chicago Medical Society
  - 13,000 Medical Students
  - Public Health Committee
  - Senior Physicians Committee
Multiple Initiatives
  - Five to Thrive, HTN, RxChicago, etc.
Community Health Centers
City Employees
  - City wide
  - Police
  - Firefighters
Mayors Council on Physical Fitness
Parks and Recreation
Building a Healthier Chicago

The Federal Fitness Campaign

- Federal Executive Board
  - Department of Health and Human Services
  - Federal Occupational Health – HRA model
  - FEMA/Homeland Security
  - Federal Aviation Administration
  - Centers for Medicare and Medicaid
  - Health Resources Service Administration
  - Agency for Families and Children
Building a Healthier Chicago

Our External Foci:

- Broadly, supporting our partners in:
  - Improved activity levels
  - Improved healthy eating
  - Prevention, detection and control of hypertension
Building a Healthier Chicago

- Worksite Wellness – a MAJOR Component
  - Experiences
  - RUSH Worksite Wellness Initiatives
  - Federal Work Site Wellness Program role out
  - CDPH Work Site Wellness Program Expansion
Current Activities (a select few)

- Conferences:
  - Community Town Hall (SAH)
  - Worksite Wellness (with MBGH)
  - Nutrition/Obesity (with NIH and many others)
  - Upcoming Policy Conference
  - Upcoming Community Nutrition Conference – Eat well, Live well!

- Model BHC Healthy schools
- Model BHC Healthy residential high rises
- Model BHC Healthy office high rises
- Model BHC Healthy agencies
- Model BHC Healthy corporations
- Policy Development – City Council & Aldermen
- Community Involvement- CDPH, FQHCs, others
- Data Generation/Evaluation/GIS Mapping

Multiple studies have revealed that it takes about 6 weeks of repeated behavior change to develop a habit...

Unfortunately, will power only lasts about 5 weeks

Dr. Gordon Ewy, University of Arizona
“I do stay in shape. This is the shape I stay in.”
The idea that individual health choices and personal behaviors are the most important determinants of chronic disease is an idea whose time has come and gone.

George Mensah, MD.
Individual choices are important…

However, it is unlikely that individually attempted changes in lifestyles and behaviors alone can avert the growing epidemic of chronic disease that we are witnessing.
Environmental Change:
Policies
Practices
Programs

Healthy Chicago
Healthy Behavior
Less Illness & Death

Changing
Individual Behaviors

Collaborative Partnership
Although partnerships have affected change in community-wide behavior, the strongest evidence shows that coalitions most effectively contribute to changes in programs, services and practices.

We must “ignite and build a social movement” at private, public and policy levels in order to change broad scale social norms and create a social environment supportive of health.

Building a Healthier Chicago
“Trying harder will not work,
New systems will…..”
“Somebody has to do it,

It’s just amazing that it has to be us.....”

Jerry Garcia
Building a Healthier Chicago

http://www.healthierchicago.org