Partnering to Better Address and Combat Health Disparities: using Leadership and Motivation

Jaime L. Pula, PhD, RDN
Divisional Dietitian – Mid-Atlantic
March 21, 2017
Disclosure Statement

• Dr. Pula has no relevant financial or nonfinancial relationships to disclose.
Registered Dietitian Nutritionist
Exercise Physiologist

Wellness Coordinator
Researcher

Lifestyle Coach
Nutrition Expert
Clinical & Foodservice Beginnings

“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”
Where Can I Find More Info?
What Is Healthy People?

- A national agenda that communicates a vision for improving health and achieving health equity
- Creates a comprehensive strategic framework uniting health promotion and disease prevention issues under a single umbrella
- A set of science-based, measurable objectives with targets to be achieved by the year 2020
- Requires tracking of data-driven outcomes
Healthy People: What is it?

• Comprehensive set of national 10-year health objectives
• Framework for PUBLIC HEALTH priorities and actions
• An evolving initiative:
  – 1979: Surgeon General’s Report
  – 1980: Promoting Health, Preventing Disease
  – 1990: Healthy People 2000
  – 2000: Healthy People 2010
  – 2010: Healthy People 2020
Who is a Public Health Professional?

- The science and art of preventing disease, prolonging life, and promoting human health through organized efforts and informed choices of society, organizations, public and private, communities, and individuals.”

Newspaper headlines from around the world about polio vaccine tests (13 April 1955)

https://en.wikipedia.org/wiki/Public_health
### Evolution of Healthy People

<table>
<thead>
<tr>
<th>Overarching Goals</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease mortality: infants--adults</td>
<td>Increase span of healthy life</td>
<td>Increase quality and years of healthy life</td>
<td>Attain high-quality, longer lives free of preventable disease</td>
<td></td>
</tr>
<tr>
<td>Increase independence among older adults</td>
<td>Reduce health disparities</td>
<td>Eliminate health disparities</td>
<td>Achieve health equity and eliminate disparities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Achieve access to preventive services for all</td>
<td></td>
<td>Create social and physical environments that promote good health</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Promote quality of life, healthy development, healthy behaviors across life stages</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Topic Areas</th>
<th>15</th>
<th>22</th>
<th>28</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Objectives</td>
<td>226</td>
<td>312</td>
<td>969</td>
<td>Approximately 1,200</td>
</tr>
</tbody>
</table>

SOURCE: Healthy People 2010 Final Review.

Key Features of Healthy People

- Addresses disease prevention and health promotion issues of national, public health significance
- Provides evidence-based objectives and targets
- Measures outcome via data over 10-year time span
- Motivates to promote positive health outcomes
- Encourages collaborative processes
Strength of Healthy People

Aligns strategic public health goals and efforts across the nation

Non-aligned effort
Random acts of innovation

Aligned effort

SOURCE: http://www.healthypeople.gov

Key players

- Office of Disease Prevention and Health Promotion (HHS/OS/OASH)
- Assistant Secretary for Health (HHS/OS)
- Federal Agencies (HHS and non-HHS)
- National Center for Health Statistics (HHS/CDC)
- State and Local Health Departments


National Center for Health Statistics

- Serves as statistical advisor to HHS, Healthy People workgroups, and the Federal Interagency Workgroup
  - Healthy People, National Prevention Strategy, etc.
- Maintains comprehensive database of all Healthy People objective data
- Coordinates monitoring of Healthy People goals/objectives
- Develops research on measuring the overarching goals of Healthy People
- Develops analytic and graphical presentations to track Healthy People goals and objectives, including Progress Reviews

How stakeholders are using Healthy People

- Data tool for measuring program performance
- Framework for program planning and development
- Goal setting and agenda building
- Teaching public health courses
- Benchmarks to compare State and local data
- Way to develop nontraditional partnerships


2 Goals of Healthy People

• Goal 1: Increase the quality and years of healthy life
• Goal 2: Eliminate health disparities across:
  – Race and ethnicity
  – Gender
  – Education level
  – Income
  – Geographic location
  – Disability status
  – Sexual orientation
Topic Areas

The Topic Areas of Healthy People 2020 identify and group objectives of national concern, highlighting specific issues and populations. Each Topic Area is assigned to one or more lead agencies within the federal government that is responsible for developing, tracking, monitoring, and periodically reporting on objectives:

1. Access to Health Services
2. Adolescent Health
3. Arthritis, Osteoporosis, and Chronic Back Conditions
4. Blood Disorders and Blood Safety
5. Cancer
6. Chronic Kidney Disease
7. Dementias, Including Alzheimer's Disease
8. Debt and Health
9. Disability and Health
10. Early and Middle Childhood
11. Educational and Community-Based Programs
12. Environmental Health
13. Family Planning
14. Food Safety
15. Gambling
16. Global Health
17. Healthcare-Associated Infections
18. Health Communication and Health Information Technology
19. Health-Related Quality of Life and Well-Being
20. Hearing and Other Sensory or Communication Disorders
21. Heart Disease and Stroke
22. HIV
23. Immunization and Infectious Diseases
24. Injury and Violence Prevention
25. Lesbian, Gay, Bisexual, and Transgender Health
26. Mental, Infant, and Child Health
27. Medical Product Safety
28. Mental Health and Mental Disorders
29. Nutrition and Weight Status
30. Occupational Safety and Health
31. Older Adults
32. Oral Health
33. Physical Activity
34. Preparedness
35. Public Health Infrastructure
36. Respiratory Diseases
37. Sexually Transmitted Diseases
38. Sleep Health
39. Social Determinants of Health
40. Substance Abuse
41. Tobacco Use
42. Vision

Healthcare Services Group

Solutions • Performance • Results
## Ten ‘Leading Health Indicators’ (LHIs)

<table>
<thead>
<tr>
<th>Physical Activity</th>
<th>Mental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate/vigorous physical activity among adults</td>
<td>Suicides</td>
</tr>
<tr>
<td>Vigorous physical activity among adolescents</td>
<td>Treatment of adults with depression</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overweight and Obesity</th>
<th>Injury and Violence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity in adults</td>
<td>Deaths from motor vehicle crashes</td>
</tr>
<tr>
<td>Obesity in children and adolescents</td>
<td>Homicides</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tobacco Use</th>
<th>Environmental Quality</th>
<th>Immunization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarette smoking among adults</td>
<td>Exposure to ozone</td>
<td></td>
</tr>
<tr>
<td>Cigarette smoking among adolescents</td>
<td>Children's exposure to tobacco smoke at home</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance Abuse</th>
<th>Access to Health Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescents not using alcohol or illicit drugs</td>
<td>Fully immunized young children</td>
</tr>
<tr>
<td>Adults using illicit drugs</td>
<td>Influenza &amp; pneumonia vaccination of older adults</td>
</tr>
<tr>
<td>Adult binge drinking</td>
<td>Persons with health insurance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsible Sexual Behavior</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Condom use by sexually active unmarried persons</td>
<td>Persons with a source of ongoing care</td>
</tr>
<tr>
<td>Adolescent sexual behavior</td>
<td>Hospitalizations for pediatric asthma</td>
</tr>
</tbody>
</table>

**SOURCE:** Healthy People 2010 Final Review.

The Impact of Services Provided by Allied Healthcare Professionals on Any Individual

http://2012books.lardbucket.org/books/an-introduction-to-nutrition/section

*Revised Figure based on Observation
OBESITY

DIABETES MELLITUS
GOUT
DIABETES
HYPERCHOLESTEROL
DEPRESSION
SWEATING
HEART DISEASE
OBESITY
GALLBLADDER DISEASE
VARICOSE VEINS
ARTHRITIS IN JOINTS
STROKE
HIGH BLOOD PRESSURE
Adult obesity, 1988–94 and 2005–08

NOTES: Data are for the proportion of adults aged 20 and over who are obese and are age adjusted to the 2000 standard population. Obesity is defined as body mass index (BMI) ≥ 30.0. Respondents were asked to select only one race prior to 1999. For 1999 and later years, respondents were asked to select one or more races. For all years, the categories black and white include persons who reported only one racial group. Persons of Mexican-American origin may be of any race.

I = 95% confidence interval.

SOURCE: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
Adult obesity, 1988–2008

NOTES: Data are for the proportion of adults aged 20 and over who are obese and are age adjusted to the 2000 standard population. Obesity is defined as body mass index (BMI) ≥ 30.0.

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

Obj. 19-2
Child and adolescent obesity, 1988–94 and 2005–08

NOTES: Data are for children and adolescents aged 6–19 years who are overweight or obese. Overweight is defined as body mass index (BMI) ≥ gender- and age-specific 95th percentile from the 2000 CDC Growth Charts for the United States. Respondents were asked to select only one race prior to 1999. For 1999 and later years, respondents were asked to select one or more races. For all years, the categories black and white include persons who reported only one racial group. Persons of Mexican American origin may be of any race.

I = 95% confidence interval.

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

Obj. 19-3c
Child and adolescent obesity, 1988–2008

NOTES: Data are for children and adolescents aged 2–19 years who are overweight or obese. Overweight is defined as body mass index (BMI) ≥ gender- and age-specific 95th percentile from the 2000 CDC Growth Charts for the United States.

SOURCE: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
“Jar Parents of Obese Kids Out of a State of Denial that their Children (have) a Problem”

~ The Georgia Children’s Health Alliance

Carroll, M., 2012
Addressing Childhood Obesity: The Role of School-Based Health Centers

• “I weighed more than the scale could actually measure. The scale could only go up to 350 lbs. I was shocked, surprised, and scared.”

• At 385 lbs., Michigan high-school student Jonathan Miller sat in the back of the classroom on a bench because he couldn’t fit in the desk. He could only buy his clothes from one store and worried about how he would fit into seats at social events.

Wright, 2011
The annual cost of obesity-related chronic disease and disability

- 2/3 of adults are overweight or obese
- 1/3 of children are overweight or obese

Institute of Medicine, 2012
Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation

Institute of Medicine, 2012

Revised Figure based on Observation

SOLUTIONS • PERFORMANCE • RESULTS
• If unaddressed, what will obesity’s effects on health, health care costs, and our productivity as a nation become?
What Does This Mean To You?

IF TRENDS CONTINUE, ALMOST 4 IN 10 ADULTS ARE PREDICTED TO BE OBESE BY 2035

IN 2015
Around 3 in 10 adults are obese.

IN 2035
Around 4 in 10 adults will be obese.
Development of a School-Based Wellness Program

R.U.S.H. (Reaching Ultimate Student Health) School-Based Wellness Program
R.U.S.H. Gains State and National Recognition

Media Coverage
Oral and Poster Presentations
Easter Seals New Jersey and St. Joseph’s Children’s Hospital (SJCH) request the honor of your presence at an Educational Forum on behalf of National Center on Health, Physical Activity, and Disability (NCHPAD) for Inclusive Health Coalition (IHC) Programs.

September 23, 2014
St. Joseph’s Regional Medical Center (SJIRM)
Main Lobby, Auditorium 1, 2 and 3
5:00 p.m. to 7:00 p.m.

This information session is of great value to parents/guardians, families (including siblings), and caregivers of people with disabilities and special needs – as well as nurses and all disabilities and healthcare service providers.

R.S.V.P. by: September 16, 2014 to
Jamel L. Pula, PhD, RD, Wellness Coordinator, at
973.754.3117; pulaj@sjirmc.org

Light refreshments will be served.

All-Inclusive Health & Wellness
Agenda
Introductions: William Copeck, RN, Representative, SJCH, SJIRM
Laura O’Reilly, RN, AVP, Health and Wellness, Easter Seals New Jersey, Personal Trainer and member of Developmental Disabilities Nurses Association, Creator of Be Well! & Thrive™
Inclusive Exercise
• About The NCHPAD IHC
• Be Well! & Thrive™ with Equality, Dignity and Independence Overview of Easter Seals New Jersey’s Health and Wellness Programs throughout Service Lines
• The importance of nutrition and physical activity for health across the lifespan for all people
• Caregiver support
Jamel L. Pula, PhD, RD, Wellness Coordinator, SJCH, SJIRM
• R.U.S.H. (Reaching Ultimate Student Health) School-Based, Wellness Programs
• Inclusion of school-aged children and their parents (and community) in health, and nutrition and physical activity promotion activities
Heather Russell, MS, RD, Pediatric Outpatient Registered Dietitian, SJCH, SJIRM
• The importance of nutrition and physical activity for health across the lifespan for all people

Solutions • Performance • Results
Synergistic Partnerships

Key to Optimize Successes

Inclusive Health Coalition (IHC)

National Center for Health, Physical Activity and Disability
Easter Seals New Jersey
St. Joseph’s Healthcare System
Schematics of Quasi Experimental Study Design

Grades 4 - 8
2013 – 2014
5 Urban Sites
n = 279

Wellness Program During the School Day (DS)
2 sites
n = 179

Wellness Program After School Program (AS)
3 sites
n = 100
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 - 11 YO</td>
<td>140</td>
<td>50%</td>
</tr>
<tr>
<td>12 - 14 YO</td>
<td>139</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>137</td>
<td>49%</td>
</tr>
<tr>
<td>Female</td>
<td>142</td>
<td>51%</td>
</tr>
<tr>
<td><strong>Ethnicity/Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino</td>
<td>194</td>
<td>69.5%</td>
</tr>
<tr>
<td>Black</td>
<td>72</td>
<td>26%</td>
</tr>
<tr>
<td>White</td>
<td>11</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.5%</td>
</tr>
</tbody>
</table>
Pre- & Post-Measurements

• Initial & Final Medical Screens
  – Weeks 0, 6
    • Height
    • Weight
    • Body Mass Index (BMI)
    • Percentile BMI-for-Age
    • Body Fat %
    • Waist Circumference
    • Resting Heart Rate
    • Blood Pressure
Height & Weight Collection
BMI%-for-Age Based on Gender: Defined

- Used for boys and girls aged 2 to 20 years of age
- \(\text{BMI} = \frac{\text{weight (kg)}}{\text{height (m)}^2}\)

Keys, et. al., 1972

- Adiposity or fat tissue varies with age and gender during childhood and adolescence
  - Not a direct measure of body fatness;
  - However, parallels direct measures
    - Underwater weighing
    - Dual energy x-ray
Why is BMI%-for-Age Important?

- BMI-for-age (based on gender) in childhood is a determinant of adulthood BMI.
~55% of ALL Students (Pre-Tx) were Overweight or Obese

<table>
<thead>
<tr>
<th>Weight Status</th>
<th>R.U.S.H. School-Based Wellness Program</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>n = 279</td>
<td>100%</td>
</tr>
<tr>
<td>Obese</td>
<td>152</td>
<td>55%</td>
</tr>
<tr>
<td>Non-Obese</td>
<td>127</td>
<td>45%</td>
</tr>
<tr>
<td>Male</td>
<td>n = 137</td>
<td>49%</td>
</tr>
<tr>
<td>Obese</td>
<td>75</td>
<td>55%</td>
</tr>
<tr>
<td>Non-Obese</td>
<td>62</td>
<td>45%</td>
</tr>
<tr>
<td>Female</td>
<td>n = 142</td>
<td>51%</td>
</tr>
<tr>
<td>Obese</td>
<td>77</td>
<td>54%</td>
</tr>
<tr>
<td>Non-Obese</td>
<td>65</td>
<td>46%</td>
</tr>
</tbody>
</table>
~ 50% of All Participants Can Expect Reduced BMI Scores Post R.U.S.H. There is No Difference Between the Groups

<table>
<thead>
<tr>
<th>BMI Scores</th>
<th>Wellness Program School Day n = 179</th>
<th>Wellness Program After School Program n = 100</th>
<th>Percentage During/After</th>
<th>P-Value</th>
<th>Relative Risk</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced</td>
<td>82</td>
<td>56</td>
<td>46% / 56%</td>
<td>0.107</td>
<td>0.86</td>
<td>0.72 – 1.03</td>
</tr>
<tr>
<td>No Change</td>
<td>97</td>
<td>44</td>
<td>54% / 44%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced</td>
<td>36</td>
<td>24</td>
<td>40% / 50%</td>
<td>0.367</td>
<td>0.87</td>
<td>0.68 – 1.13</td>
</tr>
<tr>
<td>No Change</td>
<td>53</td>
<td>24</td>
<td>60% / 50%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced</td>
<td>46</td>
<td>32</td>
<td>51% / 62%</td>
<td>0.294</td>
<td>0.86</td>
<td>0.67 – 1.10</td>
</tr>
<tr>
<td>No Change</td>
<td>44</td>
<td>20</td>
<td>49% / 38%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
>90% of All Participants Can Expect Improved Anthropometrics Post R.U.S.H. 
There is No Difference Between the Groups

<table>
<thead>
<tr>
<th>Anthropometrics</th>
<th>Wellness Program</th>
<th>Wellness Program</th>
<th>Percentage</th>
<th>P-Value</th>
<th>Relative Risk</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight, Body Fat%, BMI Score, BMI% for Age based on gender</td>
<td>School Day n = 179</td>
<td>After School Program n = 100</td>
<td>During/After</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Improved</td>
<td>167</td>
<td>92</td>
<td>93% / 92%</td>
<td>0.810</td>
<td>1.08</td>
<td>0.74 – 1.56</td>
</tr>
<tr>
<td>No Change</td>
<td>12</td>
<td>8</td>
<td>7% / 8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male Improved</td>
<td>85</td>
<td>44</td>
<td>96% / 92%</td>
<td>0.451</td>
<td>1.32</td>
<td>0.65 – 2.67</td>
</tr>
<tr>
<td>No Change</td>
<td>4</td>
<td>4</td>
<td>4% / 8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Improved</td>
<td>82</td>
<td>48</td>
<td>91% / 92%</td>
<td>1.000</td>
<td>0.95</td>
<td>0.62 – 1.44</td>
</tr>
<tr>
<td>No Change</td>
<td>8</td>
<td>4</td>
<td>9% / 8%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CCSP Field Day May 2014
Grades K - 6
Corporate Wellness Initiatives

Winning Over Weight (WOW) – mimicked after the Biggest Loser
When Exercise Just Isn’t Enough

News mystery: Americans are exercising more, but obesity rates keep rising...

"I don't get it... I did six extra sit ups this week!"

©2013 Los Angeles Times
HORSLEY
Limit Sugar and Sweet Treats

• Omit juice, soda, lemonade, iced tea, fruit punch. Drink Water.
• Eat fruit for dessert.
• Offer dessert only on special occasions.
• Choose healthier cereals.
• Do not bring candy, juice, sodas, cake, etc. into the home.
• Try not to use sweet treats as a reward.
Calories In = Calories Out
Encouraging Portion Control

- Prepare plates ahead of time.
- Do not encourage seconds.
- Read food labels for serving size.
- Teach how to measure out foods.
- Do not eat out of boxes or bags.
- Do not eat in front of the TV or computer.
Encouraging Portion Control Continued

Bottomless Bowls: Visual Cues Bias Soup Intake

- When will you be full?
- When I reach the bottom.
- Well, good luck with that.

Wansink, Painter & North, Obesity Research, 2005

NOTES: Data are for new cases of diabetes in adults aged 18–84, are based on a 3-year average, and are age adjusted to the 2000 standard population. Data by education level are for persons aged 25–84.

I = 95% confidence interval.
SOURCE: National Health Interview Survey (NHIS), CDC, NCHS.

Obj. 5-2

<table>
<thead>
<tr>
<th>Age group (in years)</th>
<th>1997–99</th>
<th>2001–03</th>
<th>2006–08</th>
<th>2010 Target</th>
<th>Decrease desired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 18–44</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 45–64</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 65–74</td>
<td>5</td>
<td>6</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 75–84</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Data are for new cases of diabetes in adults aged 18–84 and are based on a 3-year average.

I = 95% confidence interval.

SOURCE: National Health Interview Survey (NHIS), CDC, NCHS.
Adults with diagnosed diabetes, 1988–94 and 2005–08

NOTES: Data are the proportion of adults aged 20 and over with diagnosed diabetes and are age adjusted to the 2000 standard population. Respondents were asked to select only one race prior to 1999. For 1999 and later years, respondents were asked to select one or more races. For all years, the categories black and white include persons who reported only one racial group. Persons of Mexican American origin may be of any race.

I = 95% confidence interval.

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

Obj. 5-4
Lower extremity amputations, persons with diabetes, 1997–99 and 2005–07

**Rate per 1,000 (age adjusted)**

**Total**  |  **White**  |  **Black**  |  **Female**  |  **Male**

**1997–99**  |  **2005–07**  |  **2010 Target**

**Decrease desired**

**NOTES:** Data are for any amputation of lower limb among persons with diabetes, are based on a 3-year average, and are age adjusted to the 2000 standard population. For NHDS, only one race could be recorded prior to 2000. For NHIS, respondents reported one or more races yet identified one race as best representing them. For 1999 and later years (NHIS), and for 2000 and later years (NHDS), one or more races were reported. For all years, the categories black and white include persons who reported only one racial group, and include persons of Hispanic origin. For comparability with 1997–98 data, the selection of more than one race in NHIS was not used in 1999.

**I = 95% confidence interval.**

**SOURCES:** National Hospital Discharge Survey (NHDS), CDC, NCHS; National Health Interview Survey (NHIS), CDC, NCHS.

**Obj. 5-10**
New cases of end-stage renal disease, 1997–2008

Rate per million (adjusted for age, sex, and race, where applicable)


Black*
American Indian or Alaska Native
Hispanic
Asian or Pacific Islander
White*
Total

2010 Target

* Data for the non-Hispanic black and non-Hispanic white populations were not collected prior to 2000.
NOTES: Data are for new cases of end-stage renal disease and are adjusted for age, sex, and race, where applicable. For all years, only one race category could be recorded per person. The categories black and white include persons of Hispanic or non-Hispanic origin. Persons of Hispanic origin may be of any race.
SOURCE: United States Renal Data System (USRDS), NIH, NIDDK.

Obj. 4-1
New cases of end-stage renal disease due to diabetes, 1997–2008

Rate per million (adjusted for age, sex, and race, where applicable)

- Black*
- American Indian or Alaska Native
- Hispanic
- Asian or Pacific Islander
- Total
- White*

2010 Target

* Data for the non-Hispanic black and non-Hispanic white populations were not collected prior to 2000.

NOTES: Data are for new cases of end-stage renal disease that are due to diabetes and are adjusted for age, sex, and race, where applicable. For all years, only one race category could be recorded per person. The categories black and white include persons of Hispanic or non-Hispanic origin. Persons of Hispanic origin may be of any race.

SOURCE: United States Renal Data System (USRDS), NIH, NIDDK.

Obj. 4-7
Coronary heart disease deaths, 1999–2007

NOTES: 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 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. Persons of Hispanic origin may be of any race.

SOURCE: National Vital Statistics System—Mortality (NVSS-M), CDC, NCHS.

Obj. 12-1
Stroke deaths, 1999–2007

NOTES: 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. Persons of Hispanic origin may be of any race.

SOURCE: National Vital Statistics System—Mortality (NVSS-M), CDC, NCHS.

Obj. 12-7
High blood pressure prevalence, 1988–94 and 2005–08

NOTES: Data are for the proportion of adults aged 18 and over with high blood pressure and are age-adjusted to the 2000 standard population. High blood pressure is defined for adults as an average systolic blood pressure ≥140 mm Hg, an average diastolic blood pressure ≥90 mm Hg, or self-reported current use of blood pressure lowering medication. Respondents were asked to select only one race prior to 1999. For 1999 and later years, respondents were asked to select one or more races. For all years, the categories black and white include persons who reported only one racial group. Persons of Mexican American origin may be of any race.

I = 95% confidence interval.

SOURCE: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
High blood pressure control, 1988–94 and 2005–08

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexican American</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTES: Data are for the proportion of adults aged 18 and over with a controlled blood pressure and are age adjusted to the 2000 standard population. Controlled blood pressure is defined as an average systolic blood pressure <140 mm Hg and an average diastolic blood pressure <90 mm Hg among adults with hypertension. Respondents were asked to select only one race prior to 1999. For 1999 and later years, respondents were asked to select one or more races. For all years, the categories black and white include persons who reported only one racial group. Persons of Mexican American origin may be of any race.

I = 95% confidence interval.

SOURCE: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
High cholesterol prevalence, 1988–94 and 2005–08

NOTES: Data are for the proportion of adults aged 20 and over with high cholesterol levels and are age adjusted to the 2000 standard population. High cholesterol level is defined as a total blood cholesterol of 240 mg/dL or greater. Respondents were asked to select only one race prior to 1999. For 1999 and later years, respondents were asked to select one or more races. For all years, the categories black and white include persons who reported only one racial group. Persons of Mexican American origin may be of any race.

I = 95% confidence interval.

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

Obj. 12-14
Asthma deaths, 1999 and 2007

NOTES: Data are for ICD-10 codes J43–J46 reported as underlying cause of death. Total number of deaths due to asthma (all ages combined) declined 26.0% between 1999 and 2007, from 4,657 deaths to 3,447 deaths.

I = 95% confidence interval.

SOURCE: National Vital Statistics System—Mortality (NVSS-M), CDC, NCHS.
Asthma deaths, older adults, 1999–2007

NOTES: Data are for ICD-10 codes J45–J46 reported as underlying cause of death among older adults aged 65 and over. Only one race could be recorded prior to 2003. For 2003 and later years, one or more races were recorded. For all years, the categories black and white include persons for whom only one racial group was recorded. Persons of Hispanic origin may be of any race.

SOURCE: National Vital Statistics System—Mortality (NVSS-M), CDC, NCHS.

Obj. 24-1e
Asthma-related emergency department visits, 1995–97 and 2005–07

NOTES: Data are for visits to an emergency department by children and adults aged 5–64 years with a first-listed diagnosis of asthma (ICD-9-CM code 493). Only one race could be recorded prior to 1999. For 1999 and later years, one or more races were recorded. For all years, the categories black and white include persons for whom only one racial group was recorded, and include persons of Hispanic or non-Hispanic origin.

I = 95% confidence interval.

SOURCE: National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

Obj. 24-3b
COPD deaths, 1999 and 2007

NOTES: Data are for ICD-10 codes J40–J44 reported as underlying cause of death among adults aged 45 and over and are age adjusted to the 2000 standard population. Only one race could be recorded prior to 2003. For 2003 and later years, one or more races were recorded. For all years, the categories black and white include persons for whom only one racial group was recorded. Persons of Hispanic origin may be of any race.

1 = 95% confidence interval.

SOURCE: National Vital Statistics System—Mortality (NVSS-M), CDC, NCHS.

Obj. 24-10

NOTE: Data are for the number of outbreaks of infections caused by *Escherichia coli* O157:H7 in the U.S. resident population.

SOURCE: Foodborne Disease Outbreak Surveillance System, CDC, NCEZID.

Obj. 10-2a
Salmonella serotype Enteritidis outbreaks, 1997–2008

NOTE: Data are for the number of outbreaks of infections caused by Salmonella serotype Enteritidis in the U.S. resident population.

SOURCE: Foodborne Disease Outbreak Surveillance System, CDC, NCEZID.

Obj. 10-2b
STOP
TAKE A BREAK
Free Resources Available

Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People™

SOLUTIONS • PERFORMANCE • RESULTS
PREVENTABLE Chronic Disease

Adult Obesity
Obesity Risks Among Adults

Obesity is common, serious, and costly. In 2015, about 1 in 4 adults were obese. In 2017, the adult obesity rate was 39.6%, higher than the 35.7% rate in 2013. This epidemic has affected every part of the United States. In every state, more than 15% of adults are obese. In high-income states, over 25% of adults are obese. The number of obese adults continues to rise, and health disparities persist. The medical costs of obesity are enormous, with estimates of the annual medical costs of obesity as high as $1 trillion. More efforts are needed, and more federal initiatives are needed to change our consumption into ways that support health and reduce obesity.

Want to learn more? Visit...
Safe Food Handling & Storing Practices are Imperative
Food Safety Initiatives

More multistate outbreaks are being found

Why?
Better methods to detect and investigate, and wider food distribution.

Multistate outbreaks: less common, but more serious

Why?
The deadly germs *Salmonella*, *E. coli* and *Listeria* cause 91% of multistate outbreaks.

- **Only 3%** of all US foodborne outbreaks are multistate, but they cause more than their share of outbreak sicknesses, hospitalizations, and deaths:
  - **11%** of all sicknesses
  - **34%** of hospitalizations
  - **56%** of deaths

Handwashing Saves Lives - Remains Top Preventative Measure
Vaccinations

Protect the Circle of Life
Your Flu Vaccine Protects Me, My Flu Vaccine Protects You

business pulse
VACCINATION IS THE SINGLE BEST WAY TO PREVENT FLU

45%

During 2012-2013, an estimated 45 percent of the U.S. population 6 months and older to prevent an estimated 6.6 million influenza-related illnesses, 3,300 live flu-related medical events and 98,000 hospitalizations.

Many more people could have been protected if they had gotten vaccinated.

CDC FOUNDATION
Leadership and Motivation

A leader is best when people barely know he exists, when his work is done, his aim fulfilled, they will say: we did it ourselves.

— Lao Tzu
Admiral David Satcher

• Surgeon General and Assistant Secretary for Health; dual offices from 1998-2001
  – “Tobacco use among U.S. racial/ethnic minority groups”

• Morehouse School of Medicine in Atlanta, GA at the Center of Excellence on Health Disparities
Rear Admiral Sylvia Trent-Adams

- Deputy Surgeon General
  2014 to Present
- Advises and supports the Surgeon General regarding operations of the U.S. Public Health Service (USPHS) Commissioned Corps and in communicating the best available scientific information to advance the health of the nation.
Leading in the Healthcare Setting

• Healthcare is a business, but the bottom line is not the end of the story
• Building a foundation for strong business practices requires learning over the career span

To lead people walk behind them.
~ Lao Tzu
Leading in the Healthcare Setting Continued

• Take the Initiative – Start Where You Are
• Preparing the way for change – recognize challenges as an opportunity for change
• Culture, behaviors, attitudes, and perceptions influences outcomes and impact

—if you WANT to BECOME FULL, let Yourself Be Empty.
—Lao Tzu
Executive Skillset

- Administrative excellence
- Management – people and tasks
- Budget – oversight and accountability
- Business acumen – professionalism
- Critical thinking
- Strategic mindset
- Clinical prowess
- Superior communication
  - written; and
  - verbal
Portion Control Trivia
Possibilities

• Cardiorespiratory Unit
  – Dining Program
    • Diet Manual
    • Diet Extensions
    • Meal Patterns
    • Cooking Demonstrations
  – Exercise Component
    • Anthropometric Data Collection
    • Group Classes

• Employee Wellness Program
THANK YOU to All of Our Public Health Professionals
Questions?

Jaime L. Pula, PhD, RDN
609.423.8000
Jaime.Pula@hcsrgcorp.com