Physical Activity Prevalence and The Guide to Community Preventive Services

Joan Dorn, PhD
Physical Activity and Health Branch
Division of Nutrition, Physical Activity, and Obesity
Centers for Disease Control and Prevention

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Surveillance Systems

- CDC Behavioral Risk Factor Surveillance System (BRFSS)
- National Health Interview Survey (NHIS)
- National Health and Nutrition Examination Survey (NHANES)
- CDC Youth Risk Behavior Surveillance System (YRBSS)
- National Youth Physical Activity and Nutrition Survey (NYPANS)
So how are we doing?

How physically active are Americans?
**Percentage of Americans aged 18+ yrs reporting NO leisure-time physical activity by sex and race/ethnicity**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>% (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>33.9% (32.4-35.5)</td>
</tr>
<tr>
<td>Female</td>
<td>38.2% (36.9-39.5)</td>
</tr>
<tr>
<td>White (non-Hispanic)</td>
<td>31.9% (30.6-33.3)</td>
</tr>
<tr>
<td>Asian</td>
<td>33.6% (30.2-37.1)</td>
</tr>
<tr>
<td>African American (non-Hispanic)</td>
<td>47.4% (45.0-49.7)</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>47.4% (45.1-49.8)</td>
</tr>
<tr>
<td>American Indian or Alaska Native (only)</td>
<td>49.2% (40.2-58.2)</td>
</tr>
</tbody>
</table>

Source: [http://www.healthindicators.gov/Indicators/Noleisure-timephysicalactivity_1313/Profile/Data](http://www.healthindicators.gov/Indicators/Noleisure-timephysicalactivity_1313/Profile/Data)
Percentage of adults who met the 2008 physical activity guidelines for aerobic activity by age group and sex: United States, January-March 2011

Percentage of adults aged 18 years and over who met the 2008 federal physical activity guidelines for aerobic activity through leisure-time aerobic activity, by age group and sex.
Percentage of adults who met the 2008 physical activity guidelines for **aerobic activity** by race/ethnicity:

United States, January-March 2011

Age-sex-adjusted percentage of adults aged 18 years and over who met the 2008 federal physical activity guidelines for aerobic activity through leisure-time aerobic activity, by race/ethnicity.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, January–March 2011, Sample Adult Core component.
Percentage of adults* who engaged in leisure-time strengthening activities by age group and sex:

National Health Interview Survey, United States 2008

*aged 18 years and older;  http://www.cdc.gov/nchs/nhis.html
Percentage of adults who met the 2008 physical activity guidelines for both aerobic and muscle-strengthening activities by age group and sex: United States, January-March 2011

Percentage of adults, aged 18 years and over who met the 2008 federal physical activity guidelines for both aerobic and muscle-strengthening-activities through leisure-time aerobic and muscle-strengthening activities by age and sex.
Percentage of adults who met the 2008 physical activity guidelines for both aerobic and muscle-strengthening activities by race/ethnicity: United States, January-March 2011

Age-sex-adjusted percentage of adults, aged 18 years and over who met the 2008 federal physical activity guidelines for both aerobic and muscle-strengthening-activities through leisure-time aerobic and muscle-strengthening activities by race/ethnicity.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, January–March 2011, Sample Adult Core component.
What about kids?
Prevalence of high school youth meeting 2008 Physical Activity Guidelines

National Youth Physical Activity and Nutrition Survey, 2010

CDC. MMWR 60(23):773-777, 2011.
Prevalence of high school youth meeting aerobic physical activity guideline by sex and grade
National Youth Physical Activity and Nutrition Survey, 2010

<table>
<thead>
<tr>
<th>Overall</th>
<th>Male</th>
<th>Female</th>
<th>*Significance: P &lt;0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.3</td>
<td>21.9</td>
<td>8.4</td>
<td></td>
</tr>
</tbody>
</table>

*Significance: P <0.05

CDC. MMWR 60(23): 773-777, 2011.
Prevalence of high school youth meeting aerobic physical activity guideline by race/ethnicity and BMI$^1$ percentile

National Youth Physical Activity and Nutrition Survey, 2010

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Body Mass Index Percentile$^1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>16.9</td>
</tr>
<tr>
<td>Hispanic</td>
<td>11.8</td>
</tr>
<tr>
<td>Black</td>
<td>16.3</td>
</tr>
<tr>
<td></td>
<td>16.5</td>
</tr>
<tr>
<td></td>
<td>10.7</td>
</tr>
</tbody>
</table>

*Significance: P <0.05

CDC. MMWR 60(23):773-777, 2011.
Prevalence of high school youth meeting muscle strengthening guideline by sex and grade

National Youth Physical Activity and Nutrition Survey, 2010

CDC. MMWR 60(23):773-777, 2011.

*Significance: P < 0.05

Overall Sex Grade

Male | Female
---|---
9th | 10th | 11th | 12th

Prevalence (%)

Overall: 51
Sex: 65.0
Grade: 55.6, 52.2, 48.6, 46.4
Prevalence of high school youth meeting muscle strengthening guideline by race/ethnicity and BMI\textsuperscript{1}

National Youth Physical Activity and Nutrition Survey, 2010

![Bar chart showing prevalence of high school youth meeting muscle strengthening guideline by race/ethnicity and BMI.](image-url)
Prevalence of high school youth meeting both aerobic and muscle-strengthening guidelines by sex and grade

National Youth Physical Activity and Nutrition Survey, 2010

Overall  Sex  Grade

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>12th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>12.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>18.5</td>
<td>5.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9th</td>
<td>15.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10th</td>
<td>12.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11th</td>
<td>10.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12th</td>
<td>10.3</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

CDC. *MMWR* 60(23):773-777, 2011.
*Significance: P <0.05
Prevalence of high school youth meeting both aerobic and muscle strengthening guidelines by race/ethnicity and BMI

National Youth Physical Activity and Nutrition Survey, 2010

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Body Mass Index Percentile</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>&lt;85</td>
<td>9.7</td>
</tr>
<tr>
<td></td>
<td>≥85 &amp; &lt;95</td>
<td>13.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>&lt;85</td>
<td>9.9</td>
</tr>
<tr>
<td></td>
<td>≥85 &amp; &lt;95</td>
<td>13.6</td>
</tr>
<tr>
<td>Black</td>
<td>&lt;85</td>
<td>14.1</td>
</tr>
<tr>
<td></td>
<td>≥85 &amp; &lt;95</td>
<td>7.3</td>
</tr>
</tbody>
</table>

*Significance: P <0.05

CDC. MMWR 60(23):773-777, 2011.

*Significance: P <0.05
Community Guide
Physical Activity Recommendations

www.thecommunityguide.org/pa/index.html
Intervention Approaches

• Campaigns and Informational Approaches

• Behavioral and Social Approaches

• Environmental and Policy Approaches
Summary: Recommended with Strong Evidence

- Point-of-decision prompts
- School-based physical education
- Individually adapted health behavior change
Summary: Recommended with Strong Evidence

- Social support in community settings
- Create or enhance access combined with outreach
- Community-wide campaigns
Summary: Recommended with Sufficient Evidence

- Community-scale urban design and land use

- Street-scale urban design and land use
Summary: Insufficient Evidence

• Mass Media campaigns
• Classroom health education
• College health education/PE
• Classroom health education re: TV & video
• Family-based social support
• Transportation polices and practice
Websites

• http://www.cdc.gov/physicalactivity/professionals/index.html

• http://www.cdc.gov/physicalactivity/downloads/PA_State_Indicator_Report_2010_Indicators.pdf

• http://www.thecommunityguide.org/pa/index.html
Thank you!

???'s
Knowledge of Guidelines Among Parents

Estimate the proportion of U.S. parents knowledgeable of the Aerobic Guidelines for youth

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>2008</th>
<th>2009</th>
<th>Difference 2009-2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>1949</td>
<td>1552</td>
<td></td>
</tr>
<tr>
<td>Percent</td>
<td>9.2</td>
<td>9.7</td>
<td></td>
</tr>
<tr>
<td>CI*</td>
<td>7.5, 11.2</td>
<td>8.0, 11.7</td>
<td>0.5</td>
</tr>
</tbody>
</table>

* Weighted to the total US population as estimated by the annual Current Population Survey using 5 factors (gender, age, income, race, and household size).

Knowledge is defined as a response of “60 minutes, 7 days a week” when asked to identify “the amount of physical activity the government recommends for children to get overall health benefits.”

DeBastiani S et al. unpublished.
Indicator 24 – Physical Activity

Percentage of people age 45 and over who reported engaging in regular leisure time physical activity, by age group, 1997–2006

Note: Data are based on 2-year averages. "Regular leisure time physical activity" is defined as "engaging in light-moderate leisure time physical activity for greater than or equal to 30 minutes at a frequency greater than or equal to 5 times per week, or engaging in vigorous leisure time physical activity for greater than or equal to 20 minutes at a frequency greater than or equal to 3 times per week."

Reference population: These data refer to the civilian noninstitutionalized population.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.