

US Physical Activity Guidelines *For Youth, Adults and Older Adults*

<www.health.gov/paguidelines>

- ❖ **Brief History of PA Guidelines in the USA**
- ❖ **The Guideline Development Process - Summary**
- ❖ **2008 PA Guidelines for Americans - Highlights**
- ❖ **A New issue - Sedentary Behavior**



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Guidelines Development - A dynamic process

- ❖ Nearly 60 years of continued science investigating the health benefits of physical activity (*Morris, et al. 1953*)
- ❖ *First US physical activity guidelines by American Heart Association in 1972-73 (clinical - how to avoid injury)*
- ❖ ACSM produced *Guidelines for Graded Exercise Testing and Prescription* starting in 1975 (7 editions) and *The Quantity and Quality of Exercise for Developing and Maintaining Fitness in Healthy Adults* in 1978, 1990, 1998, 2011 (exercise training)
- ❖ CDC / ACSM published physical activity guidelines for public health in 1995, USPHS in 1996, NHLBI in 1996 and ACSM / AHA in 2007

Guidelines Development - A dynamic process

2008 Physical Activity Guidelines for Americans

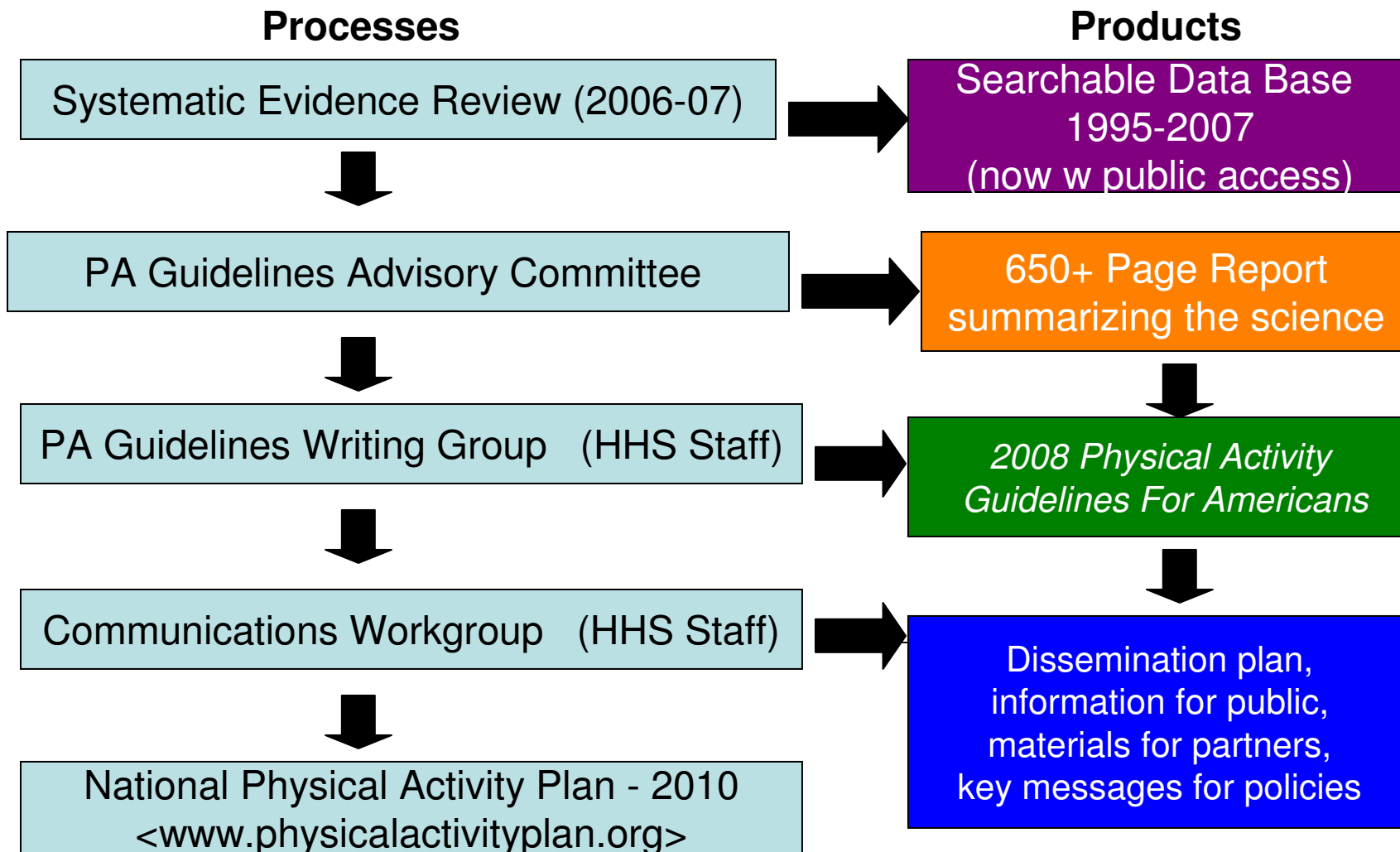
Federal Guidelines by DHHS are a major advance:

- based on substantial new science
- deal with a range of benefits & implementation issues
- application to a broader population
- potential impact on US Federal policy

New guidelines adopted by USA, Canada, UK and WHO in 2008-2011 are well harmonized

Process for Developing National PA Plan in the USA

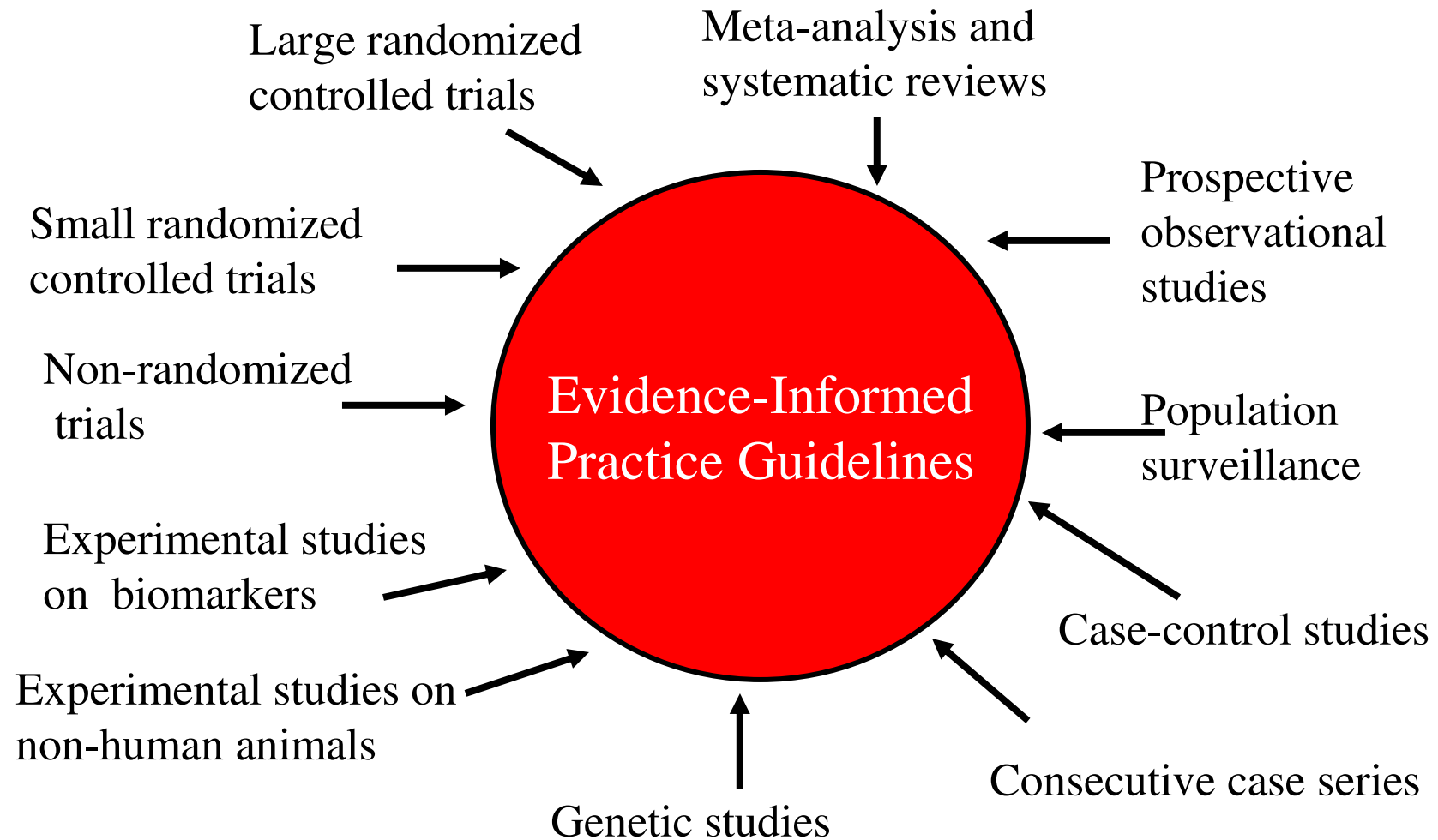
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Physical Activity Guidelines Advisory Committee Outcome Areas

- ❖ All-cause mortality
- ❖ Cardiorespiratory health
- ❖ Musculoskeletal health
- ❖ Metabolic health
- ❖ Energy balance & maintenance of healthy weight
- ❖ Cancer
- ❖ Mental health
- ❖ Functional health - especially in older adults
- ❖ Youth
- ❖ Understudied populations
- ❖ Adverse events & safety

Sources of Data to Support Evidence-Informed Physical Activity Practice Guidelines





U.S. Department of
Health and Human Services



Physical Activity Guidelines Advisory Committee Report 2008

To the Secretary of Health and Human Services

www.health.gov/paguidelines



Preventive Health Benefits of Physical Activity: Strong Evidence

- Lower risk of:
 - Early death (all-cause mortality)
 - Coronary heart disease, stroke
 - Hypertension
 - Type 2 diabetes
 - Cancers: colon and breast
- Prevention of weight gain
- Weight loss (with reduction of caloric intake)
- Prevention of falls
- Depression, cognitive function (older adults)

Preventive Health Benefits of Physical Activity: Moderate Evidence

- Functional ability (older adults)
- Hip fracture, bone density, osteoporosis
- Lung cancer and endometrial cancer
- Weight maintenance after weight loss
- Sleep quality

- Evidence was insufficient for other conditions, e.g.
 - Anxiety disorders
 - Prostate cancer



U.S. Department of
Health and Human Services



2008 Physical Activity Guidelines for Americans



Be Active, Healthy, and Happy!

www.health.gov/paguidelines





Be Active Your Way

A Guide for Adults

Based on the *2008 Physical Activity Guidelines for Americans*

Be Active, Healthy, and Happy!



Physical Activity Guidelines for Americans - 2008

Adults and Older Adults

- ❖ ALL ADULTS should avoid inactivity. Some activity is better than none, and adults who participate in any amount of physical activity gain some health benefits.
- ❖ PUBLIC HEALTH TARGET. For substantial health benefits, adults should perform at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity activity/week.
- ❖ Aerobic activity can be accumulated in bouts of 10 minute or longer (e.g., 3 x 10 min./day)
- ❖ Mix moderate and vigorous intensity activity to meet the aerobic activity goal (500 - 1000 MET-minutes/week).
- ❖ Perform 6-8 resistance (muscle strengthening) exercises 2 x week

Dose-Response Through Full Range of Activity

➤ LOW END: ***Something is better than nothing.***

The dose-response for major health benefits clearly indicates an inverse relation between the dose of activity and risk of disease ***through the full range of activity.***

➤ HIGH END: As total activity increases from 150 to 300 minutes of moderate-intensity PA/week, two things happen:

- ***Additional*** benefits accrue (e.g. lower risk of breast cancer, more effective weight control)
- ***More extensive*** benefits accrue (e.g., risks of heart disease and type 2 diabetes are significantly lower with 300 minutes/week compared to 150 minutes/week)



Key Older Adult (65+) Guidelines

- ❖ The key guidelines for adults for aerobic & resistance activity apply to older adults, but there are 4 additional qualifying guidelines
 - Guideline for adults who cannot perform 150 minutes/week
 - Balance exercise
 - Use relative intensity to determine the level of effort
 - Chronic conditions and injury risk



Children and Adolescents (ages 6-17)

- ❖ **60 or more minutes of physical activity daily**
 - Aerobic: Most of the 60 or more minutes per day should be either moderate- or vigorous-intensity aerobic physical activity. Include vigorous-intensity physical activity at least 3 days per week.
 - Muscle-strengthening: Include muscle-strengthening physical activity on at least 3 days of the week, as part of the 60 or more minutes.
 - Bone-strengthening: Include bone-strengthening physical activity on at least 3 days of the week, as part of the 60 or more minutes.
- ❖ Encourage participation in physical activities that are age appropriate, enjoyable, and offer variety



Children and Adolescent Guidelines

- ❖ As opposed to adults, no choice on frequency - Daily PA recommended
- ❖ Unstructured play can meet guidelines
- ❖ Requires some vigorous intensity activity - moderate-intensity activity only not sufficient
- ❖ Insufficient data to specify exact amounts/ranges of vigorous aerobic, muscle strengthening, and bone strengthening activities
- ❖ Challenge to track youth that meet this guideline



Additional Considerations

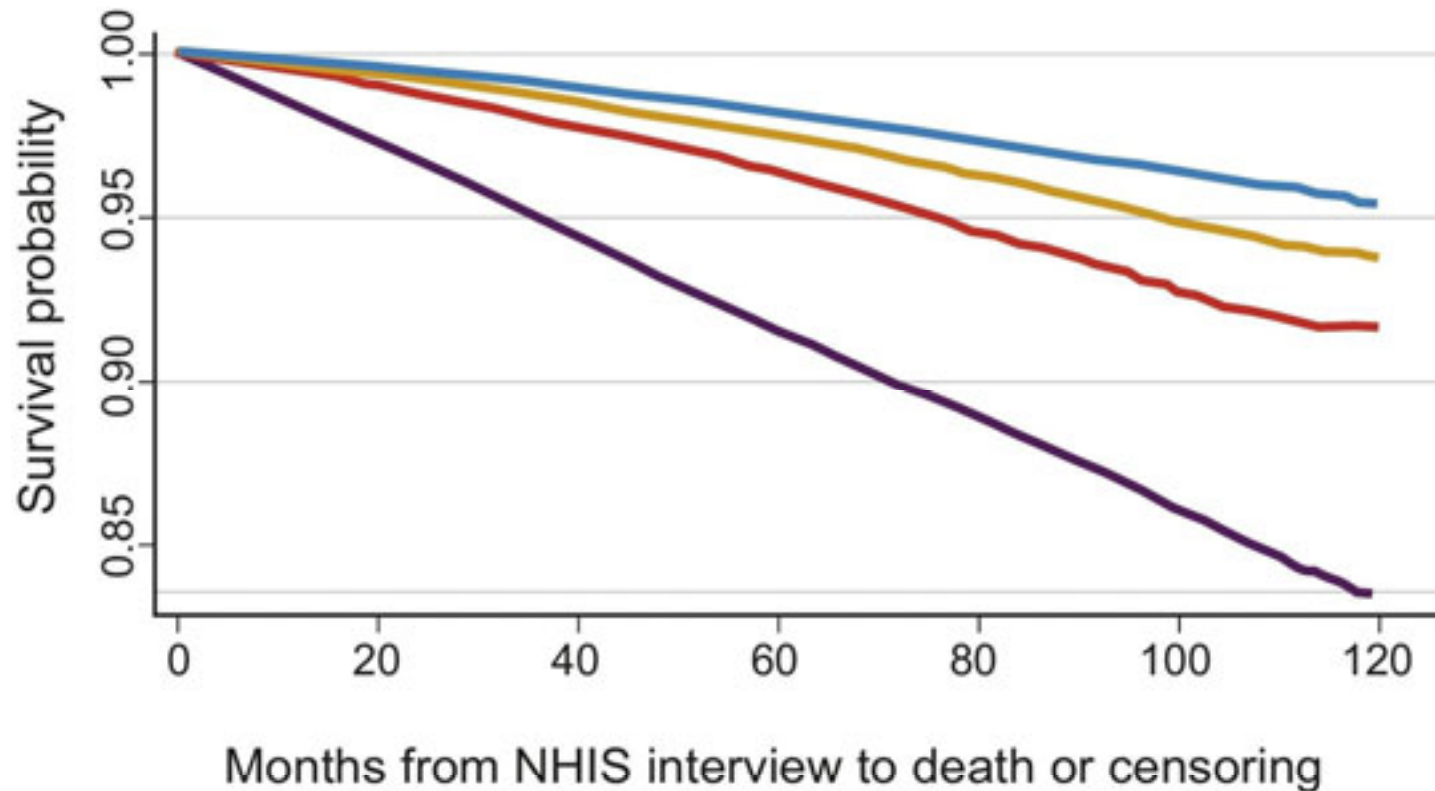
Other subgroups of the population in the *Physical Activity Guidelines for Americans* include:

- ❖ Persons with disabilities
- ❖ Adults with selected chronic conditions
- ❖ Women during pregnancy and the postpartum period

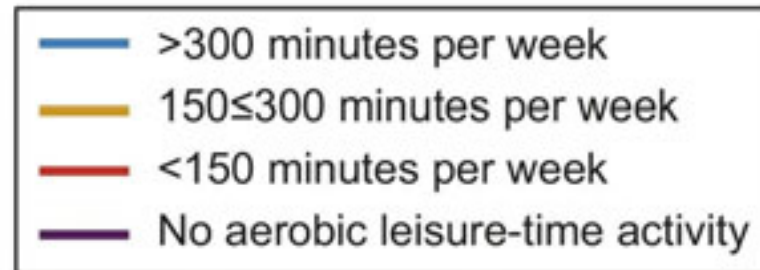


Does Following the Guidelines Work for Adults?

All-Cause Mortality and Adherence to 2008 Aerobic Activity Guidelines



*Schoenborn & Stommel,
Am J Prev Med ,
2011,40:514-521.*



NEW ISSUE -Sitting / Sedentary Behavior

Preliminary Conclusions Based on Published Data

- ❖ Higher amounts of habitual sedentary behavior (sitting) are associated with increased risk for various diabetes and CVD biomarkers and all-cause and CVD mortality. This increased risk appears to be somewhat independent of time spent in MVPA.**
- ❖ Longer bouts of sitting time tend to increase risk and more frequent breaks appear to decrease risk.**
- ❖ High amounts of sedentary behavior carries greater risk in men, women, boys and girls who perform little or no MVPA compared to those who meet MVPA guidelines.**
- ❖ So far it looks like sitting time may need to be decreased by hours/day to achieve significant decreases in risk.**

Thank You

Questions?

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