City Trees & Health
The Nature of Physical Activity

Dr. Kathleen Wolf
Research Social Scientist
University of Washington
College of the Environment
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City Green &
public health
mental health
healing
therapy

research evidence!
Physical Inactivity & Obesity

The majority of Americans are not active enough, with a goal of 30 minutes per day of moderate activity to reduce risk factors for chronic diseases (heart, stroke, cancer, diabetes) and significant costs to national health services.

310-580,000 deaths per year
$100 billion medical costs (1995)
9.4% of all U.S. medical costs

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, 1988**

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

Source: CDC Behavioral Risk Factor Surveillance System.

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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)

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)

No Data           <10%          10%-14%  15%-19%

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)

No Data           <10%          10%-14%  15%-19%

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)

![Map of Obesity Trends 1994](source)

Source: CDC Behavioral Risk Factor Surveillance System.

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**Obesity Trends* Among U.S. Adults**

**BRFSS, 1995**

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

![Map of Obesity Trends 1995](source)

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, 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)

Source: CDC Behavioral Risk Factor Surveillance System.
Obesity Trends* Among U.S. Adults
BRFSS, 2004
(*BMI ≥ 30, or ~ 30 lbs. overweight for 5’ 4” person)

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, 2005
(*BMI ≥ 30, or ~ 30 lbs. overweight for 5’ 4” person)

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

BRFSS, 2007

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

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

BRFSS, 2008

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

doubling of U.S. obesity rate since 1980s

Source: Behavioral Risk Factor Surveillance System, CDC.
parks, open spaces & trails
need access & facilities

make room for pedestrians
+ walk to school, Naderi et al. 2008, ITE Jnl
Nature, Human Health & Walkable Neighborhoods

- Environments: Neighborhood Streets (Tokyo)
  - tree-lined streets
  - nearby parks
  - vs. barren streetscapes

- Outcomes: Elderly People & Walking
  - less illness
  - lower mortality rate

Human Dimensions of Urban Forestry and Urban Greening

What’s New?
Nature and Consumer Environments
Research about how the urban forest influences business district visitors.

Trees and Transportation
Studies on the value of having quality landscapes in urban roadsides.

Civic Ecology
Studies of human behaviors and benefits when people are active in the environment.

Policy and Planning
Integrating urban greening science with community change.

Urban Forestry and Human Benefits
More resources, studies and links...

Research Director
Kathleen L. Wolf, Ph.D.

www.naturewithin.info