
Measures have been taken, by the Utah Department of Health, Bureau of Health Promotions, to ensure no conflict of interest in this activity.

CNE/CPE/CEU's are available for this live webinar. You must take the pre and post tests. 80% is required on the post test to receive CNE/CPE/CEU's.

Certificates will be emailed out to you.
You will receive the post test link in your email after a hour after the webinar.

Brett McCliff, PhD, MSPH, PAPHS

Bmciff@utah.gov

Brett has worked in physical activity promotion for almost 20 years in a variety of fields from personal training to policy development. He received his undergraduate degree at the University of Utah in Exercise and Sport Science. His graduate work continued with a Master of Science in Public Health and a Ph.D. in Public Health at Walden University. Brett is the Immediate Past President of the National Physical Activity Society, and works with committees at the national, state, and local levels to promote environments that encourage regular physical activity. He is currently the Physical Activity Coordinator at the Utah Department of Health.

Physical Activity and Diabetes: How to Introduce Your Patients to Their New Best Friend

Brett McIff, PhD

Physical activity coordinator

Bmciff@utah.Gov

Objectives:

1. Participants will be able to describe the dose response benefit of regular physical activity to health
2. Participants will have specific advice to give to patients with type 2 diabetes regarding participation in physical activity
3. Participants will be able to counsel their patients on benefits of physical activity and diabetes

“ What if there was
one prescription
that could
prevent and treat
dozens of diseases,
such as diabetes,
hypertension and
obesity?

Would you prescribe it to
your patients?

Certainly. ”



-Robert E. Sallis, M.D., FACSM,
Exercise is Medicine™ Task Force Chairman

History of PA Recommendations

Sport Based

Mid-1950's

- President's Council on Physical Fitness, Professional organization driven

1960's

- Pres. Kennedy's "Soft American", Cooper Institute

1977

- Dietary Goals for the United States,

1995 —

- CDC and ACSM released guidelines for PA

1996

- Physical Activity and Health: A Report of the Surgeon General

2000/2005

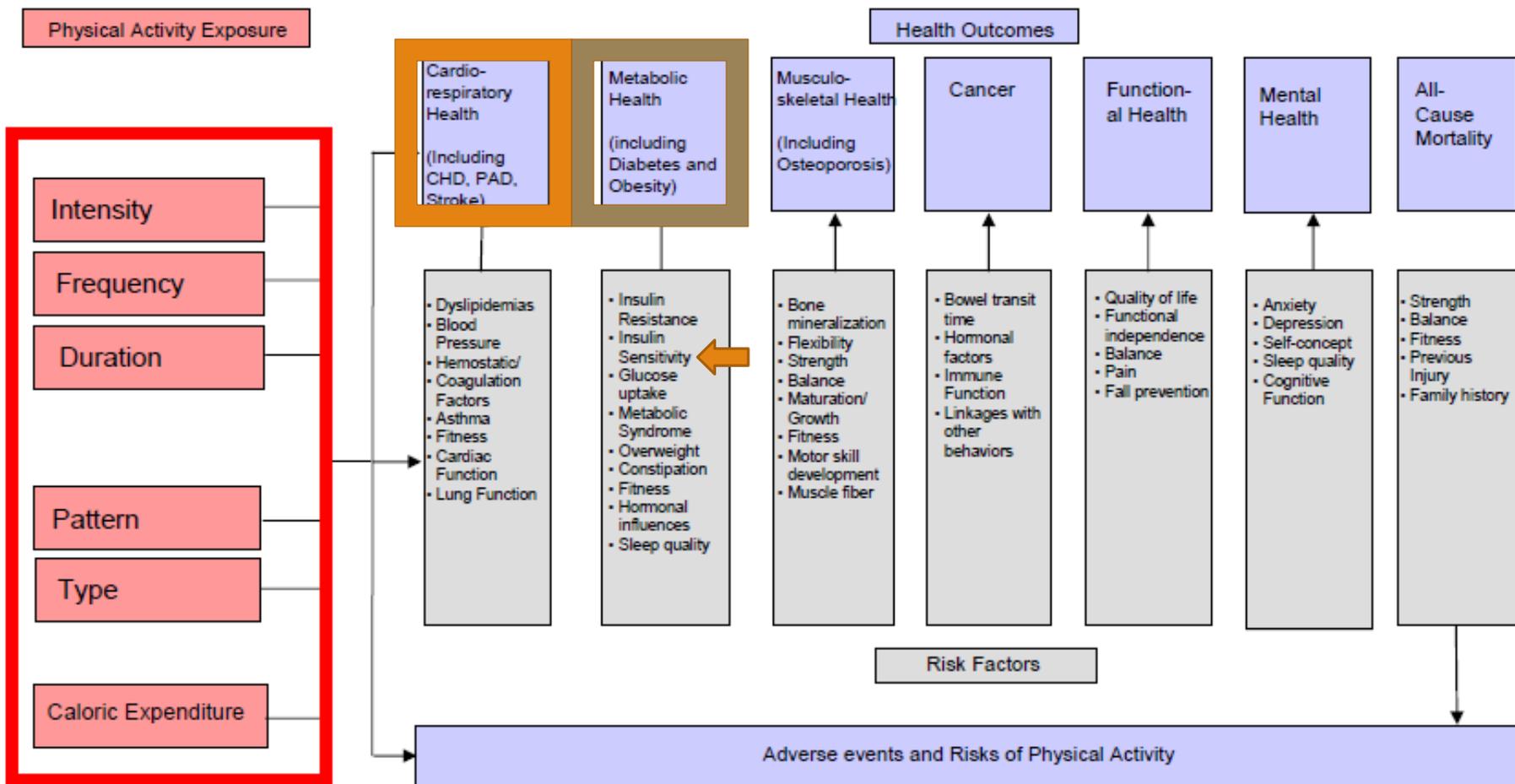
- Dietary Guidelines for Americans-Included PA

2008

- Physical Activity Guidelines for Americans



Physical Activity Guidelines For Americans: Conceptual Framework for Scientific Literature Review



All arrows will be examined for heterogeneity across demographic characteristics (eg gender, age, race/ethnicity). Evidence will also be examined for select special population groups.



Physical Activity Guidelines for Americans



Home

FAQs

Guidelines

Be Active Your Way

Toolkit

Advisory Committee

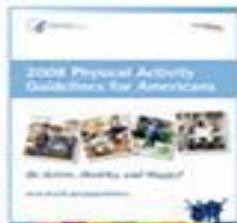
Federal Resources

Become a Supporter

News Room

2008 Physical Activity Guidelines for Americans

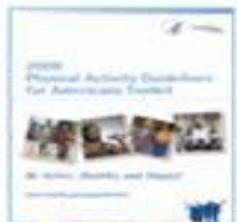
The Federal Government has issued its first-ever Physical Activity Guidelines for Americans. They describe the types and amounts of physical activity that offer substantial health benefits to Americans.



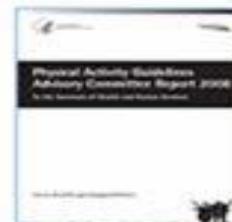
2008 Physical Activity Guidelines for Americans
For policy makers and health professionals



Be Active Your Way: A Guide for Adults
For adults aged 18–64



2008 Physical Activity Guidelines for Americans Toolkit
For organizations and communities



2008 Physical Activity Guidelines Advisory Committee Report
For health professionals and researchers

Get Active
healthfinder.gov

Guidelines for Adults

Minimum levels/week

- 150 minutes (2 ½ hours) moderate intensity; or
- 75 minutes (1 hour 15 minutes) vigorous intensity; or
- A combination of the two

Muscle strengthening activities involving all major muscle groups should be performed on 2 or more days of the week



Guidelines for Adults

Additional health benefits occur at:

- 300 minutes (5 hours) moderate intensity; or
- 150 minutes (2 ½ hours) vigorous intensity; or
- A combination
 - 2:1 rule



Guidelines for Older Adults

Follow Adult Guidelines

- If not possible, be as active as abilities or conditions allow

Emphasize exercises that maintain or improve balance

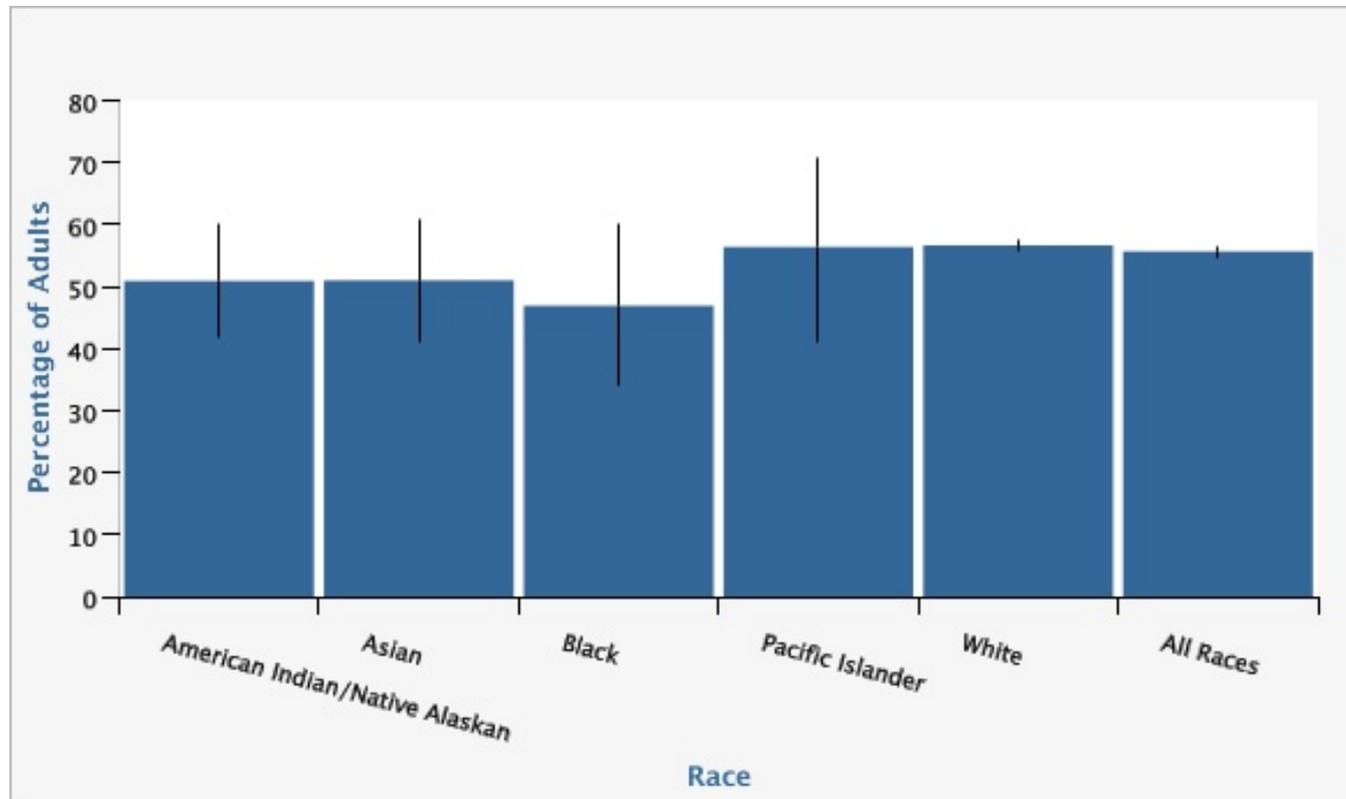
Those without chronic conditions or symptoms do not need to consult a health care provider prior to activity

For people with diabetes, the recommendations still apply. Aerobic, strength, and balance training are highly recommended

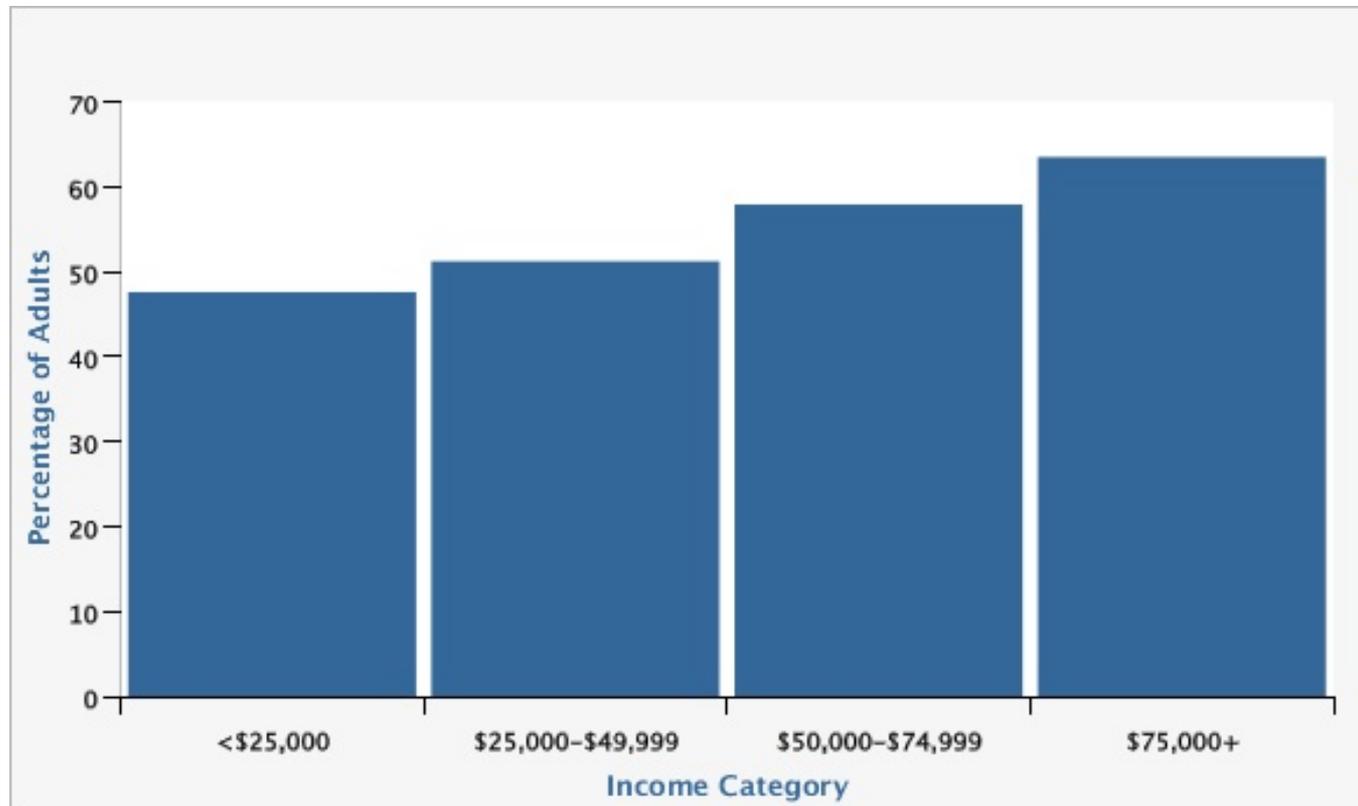


How Are We Doing?

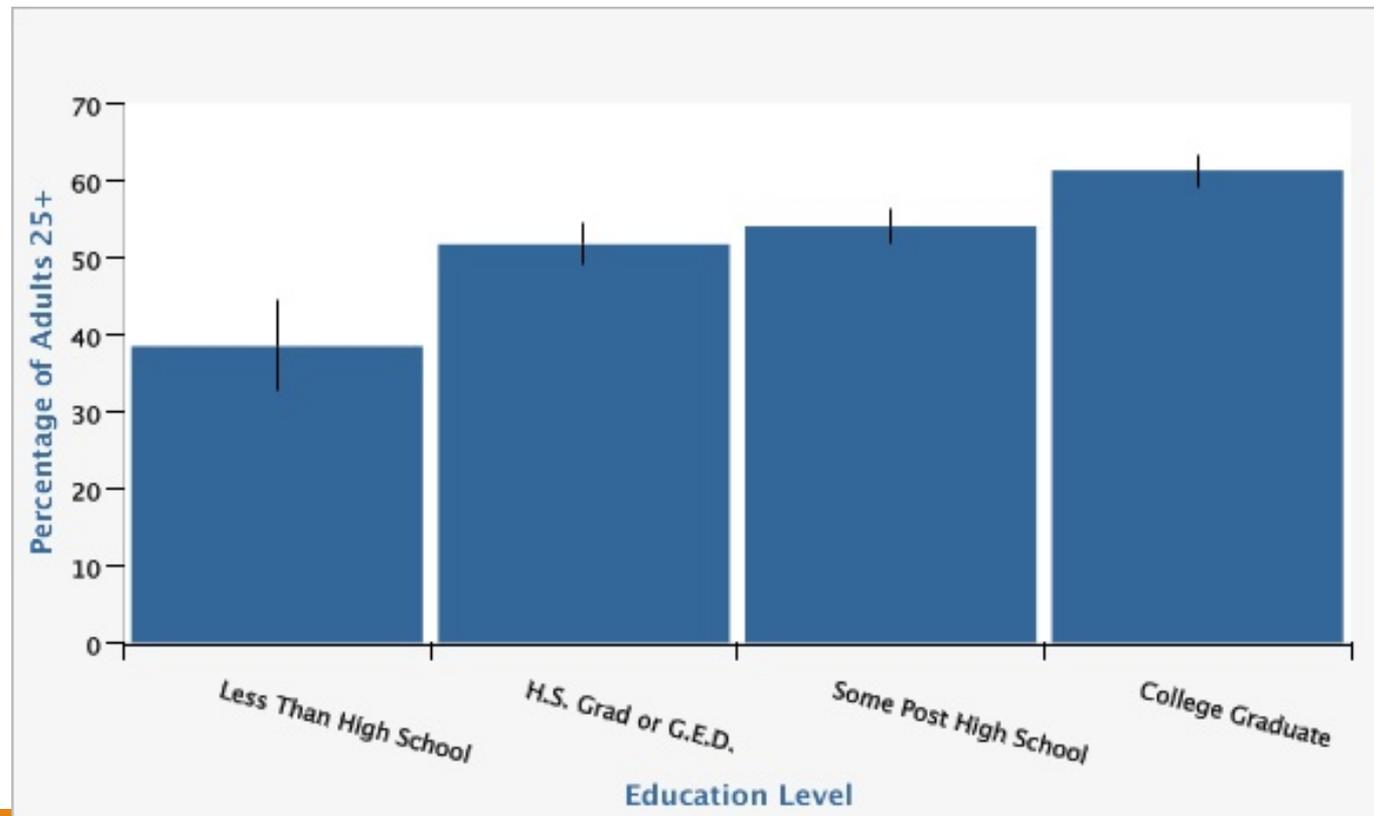
PERCENTAGE OF ADULTS WHO REPORTED GETTING THE RECOMMENDED AMOUNT OF PHYSICAL ACTIVITY BY RACE, UTAH ADULTS AGED 18+, 2005, 2007, AND 2009



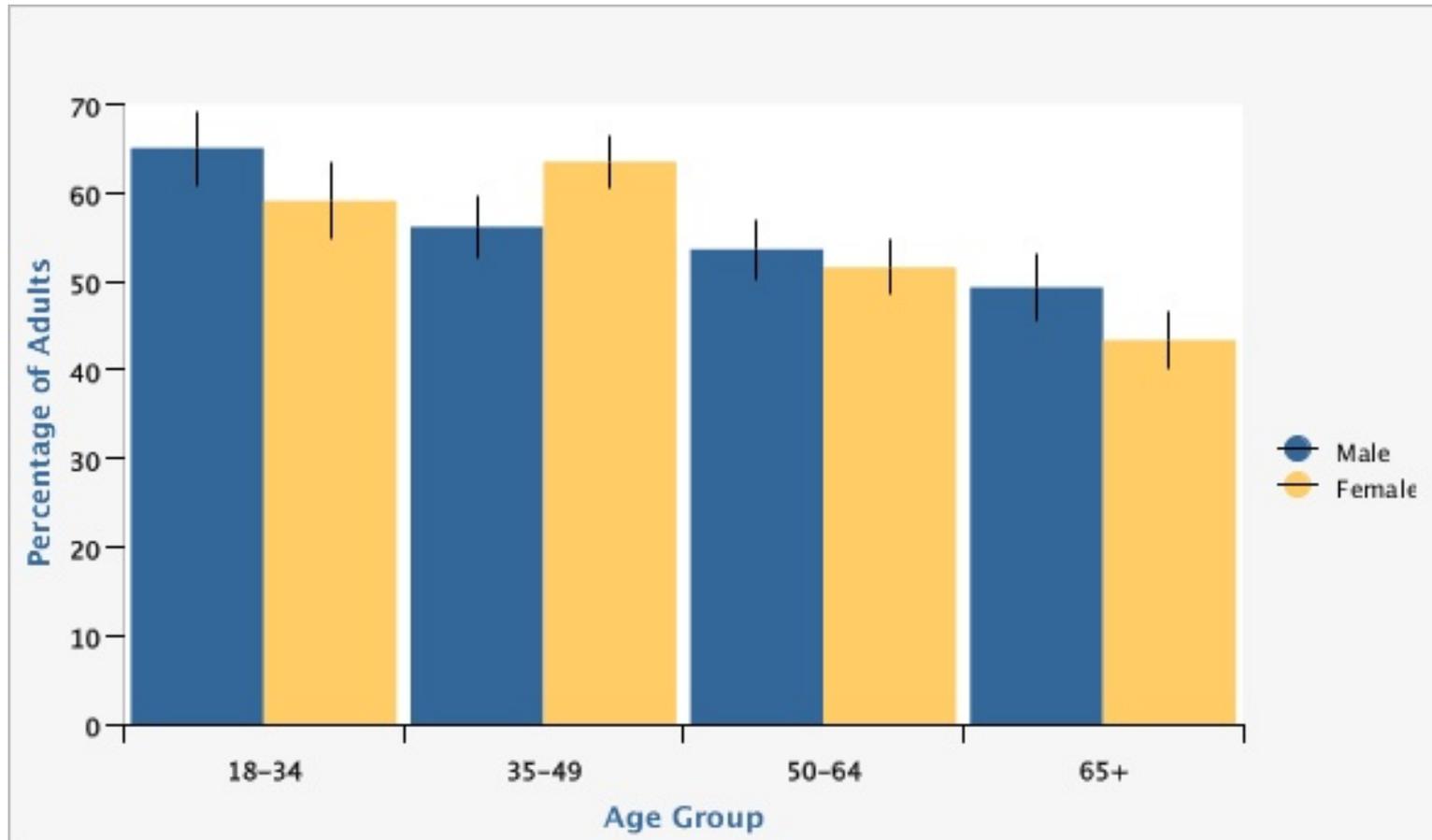
PERCENTAGE OF ADULTS WHO REPORTED GETTING THE RECOMMENDED AMOUNT OF PHYSICAL ACTIVITY BY INCOME, UTAH ADULTS AGED 18+, 2005, 2007, AND 2009



PERCENTAGE OF ADULTS WHO REPORTED GETTING THE RECOMMENDED AMOUNT OF PHYSICAL ACTIVITY BY EDUCATION LEVEL, UTAH, 2009



Percentage of Adults Who Reported Getting the Recommended Amount of Physical Activity by Gender and Age Group, Utah Adults Aged 18+, 2009



Sitting Time and Mortality from All Causes, Cardiovascular Disease, and Cancer

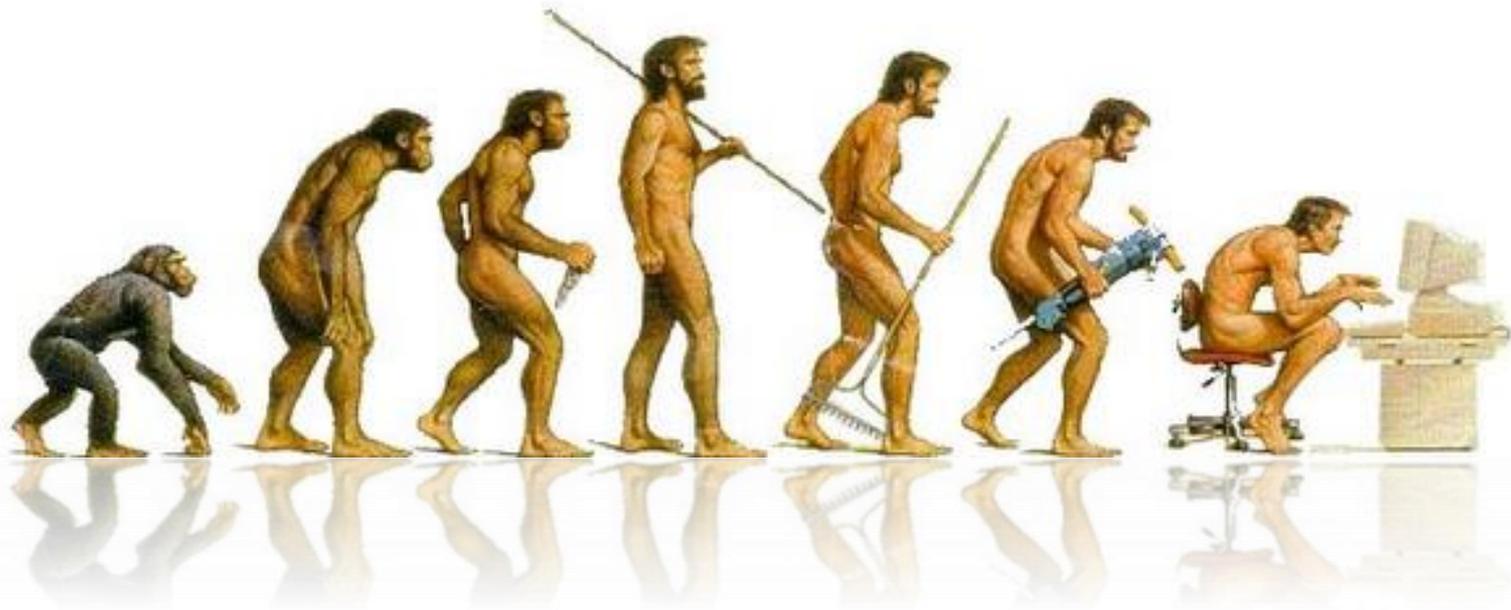
PETER T. KATZMARZYK¹, TIMOTHY S. CHURCH¹, CORA L. CRAIG², and CLAUDE BOUCHARD¹

¹Pennington Biomedical Research Center, Baton Rouge, LA; and ²Canadian Fitness and Lifestyle Research Institute, Ottawa, Ontario, CANADA

ABSTRACT

KATZMARZYK, P. T., T. S. CHURCH, C. L. CRAIG, and C. BOUCHARD. Sitting Time and Mortality from All Causes, Cardiovascular Disease, and Cancer. *Med. Sci. Sports Exer.*, Vol. 41, No. 5, pp. 998–1005, 2009. **Purpose:** Although moderate-to-vigorous physical activity is related to premature mortality, the relationship between sedentary behaviors and mortality has not been fully explored and may represent a different paradigm than that associated with lack of exercise. We prospectively examined sitting time and mortality in a representative sample of 17,013 Canadians 18–90 yr of age. **Methods:** Evaluation of daily sitting time (almost none of the time, one fourth of the time, half of the time, three fourths of the time, almost all of the time), leisure time physical activity, smoking status, and alcohol consumption was conducted at baseline. Participants were followed prospectively for an average of 12.0 yr for the ascertainment of mortality status. **Results:** There were 1832 deaths (759 of cardiovascular disease (CVD) and 547 of cancer) during 204,732 person-yr of follow-up. After adjustment for potential confounders, there was a progressively higher risk of mortality across higher levels of sitting time from all causes (hazard ratios (HR): 1.00, 1.00, 1.11, 1.36, 1.54; *P* for trend <0.0001) and CVD (HR: 1.00, 1.01, 1.22, 1.47, 1.54; *P* for trend <0.0001) but not cancer. Similar results were obtained when stratified by sex, age, smoking status, and body mass index. Age-adjusted all-cause mortality rates per 10,000 person-yr of follow-up were 87, 86, 105, 130, and 161 (*P* for trend <0.0001) in physically inactive participants and 75, 69, 76, 98, 105 (*P* for trend = 0.008) in active participants across sitting time categories. **Conclusions:** These data demonstrate a dose–response association between sitting time and mortality from all causes and CVD, independent of leisure time physical activity. In addition to the promotion of moderate-to-vigorous physical activity and a healthy weight, physicians should discourage sitting for extended periods. **Key Words:** PHYSICAL ACTIVITY, SEDENTARY BEHAVIOR, COHORT, DEATH, SURVIVAL

Physical Activity and Chronic Disease



Physical Activity Affects the Entire Body

Regular physical activity at the correct intensity:

- Reduces the risk of heart disease by 40%.
- Lowers the risk of stroke by 27%.
- Reduces the incidence of diabetes by almost 50%.
- Reduces the incidence of high blood pressure by almost 50%.
- Can reduce mortality and the risk of recurrent breast cancer by almost 50%.
- Can lower the risk of colon cancer by over 60%.
- Can reduce the risk of developing of Alzheimer's disease by one-third.
- Can decrease depression as effectively as Prozac or behavioral therapy.

Dose Response

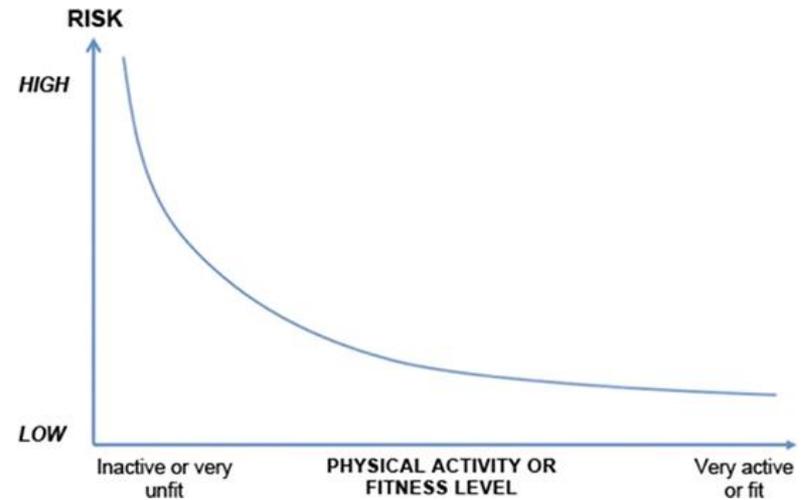
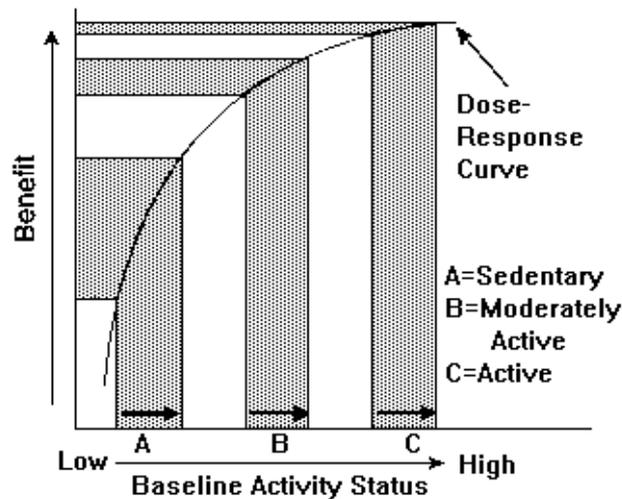
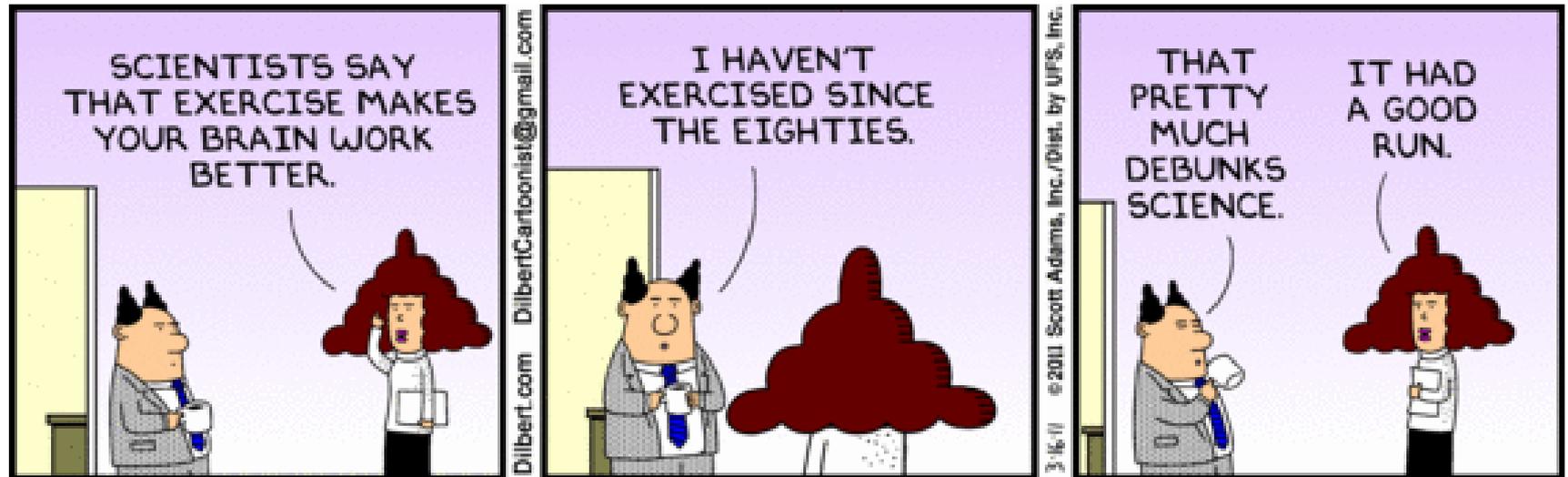


Figure 1.—The dose-response curve represents the best estimate of the relationship between physical activity (dose) and health benefits (response). The lower the baseline physical activity status, the greater will be the health benefit associated with a given increase in physical activity [arrows A, B, and C].

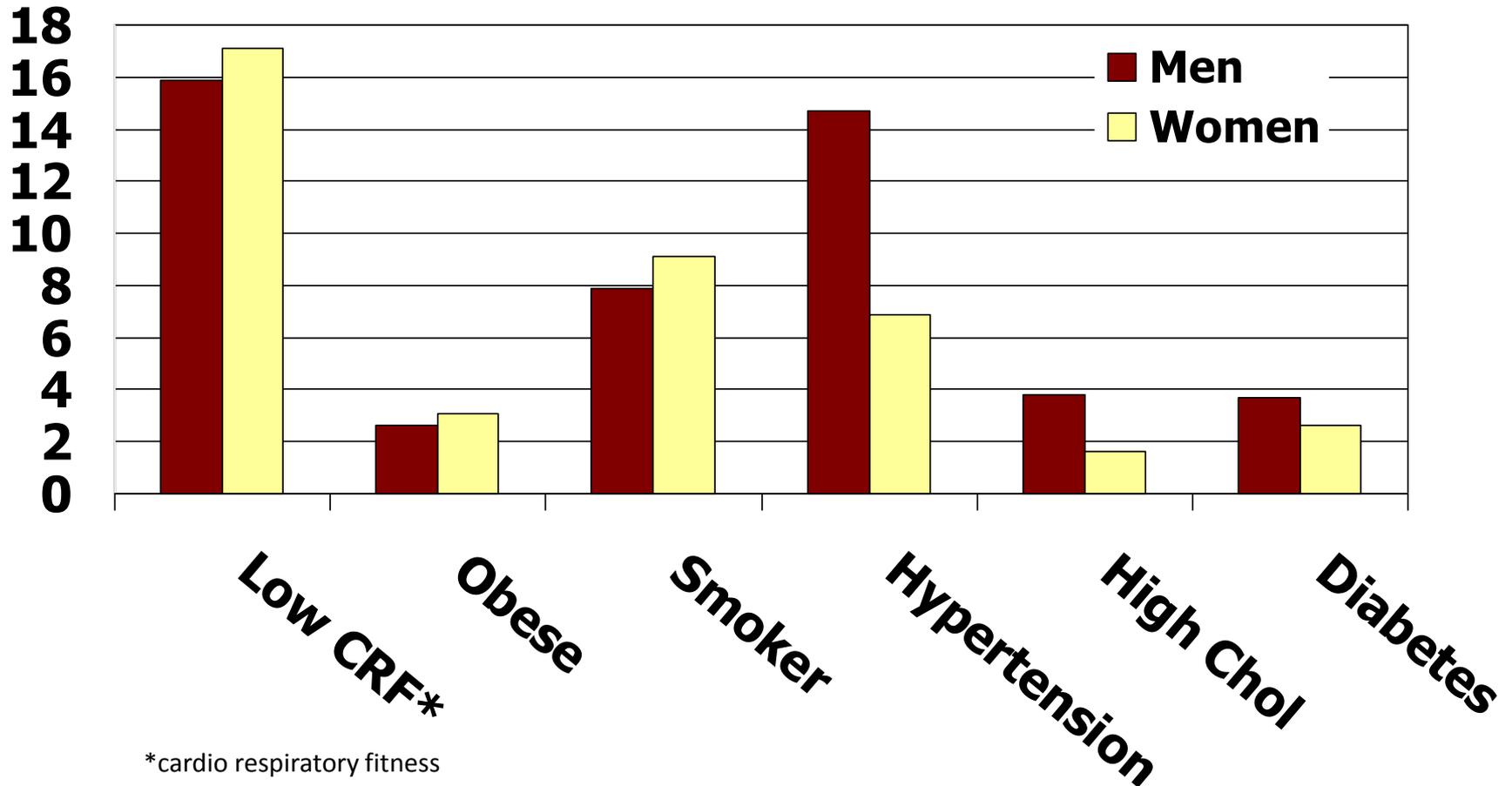
Physical Activity and The Brain...



Effect of Fitness (CRF) on Mortality

Attributable Fractions (%) for
All-Cause Deaths

40,842 Men & 12,943 Women, ACLS



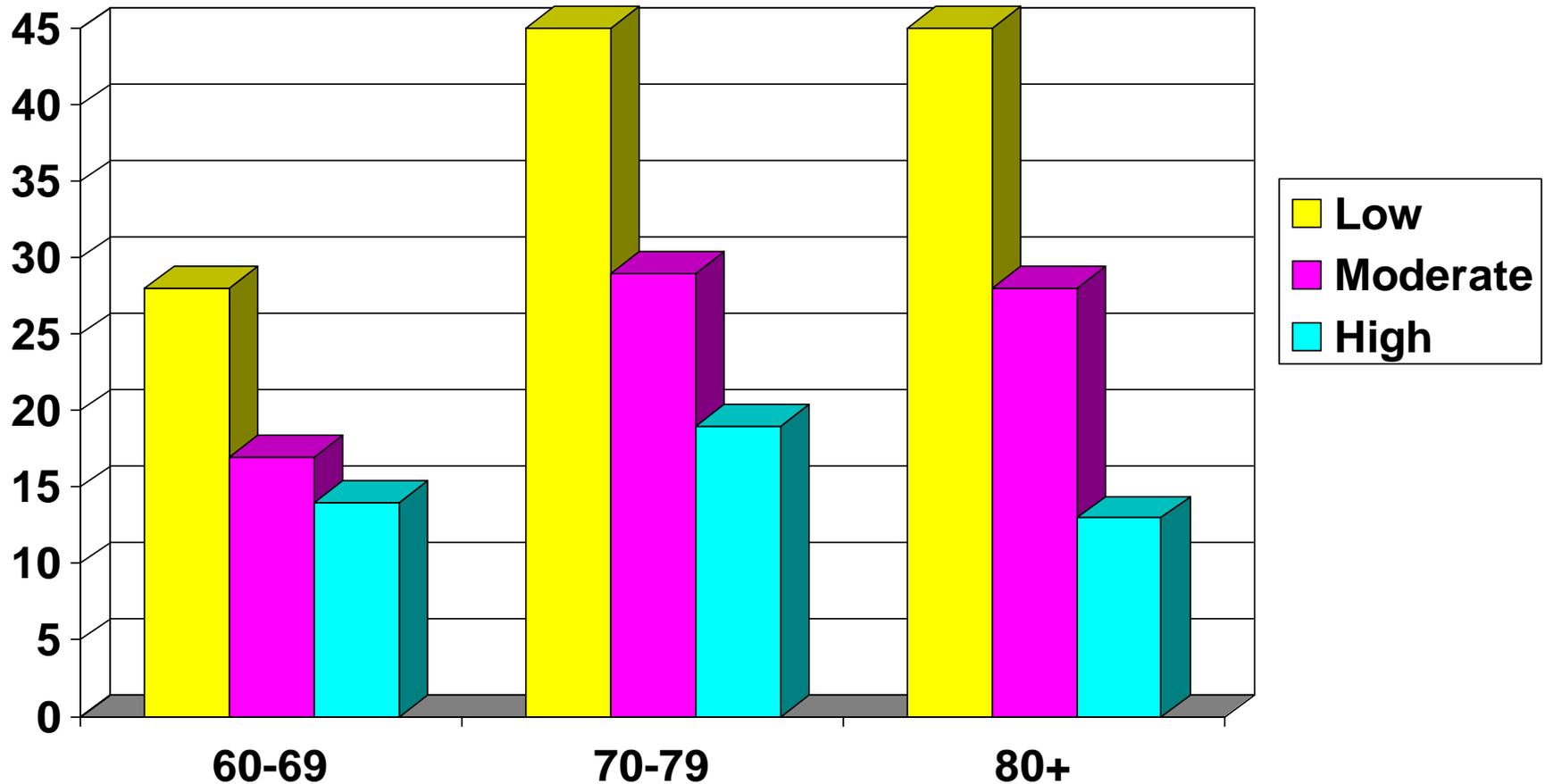
*cardio respiratory fitness

Blair SN. Physical inactivity: the biggest public health problem of the 21st century. *Br J Sports Med* 2009; 43:1-2.

Cooper Aerobics Center Longitudinal Study, 1970-2004. In progress

CRF and All-Cause Mortality, 4060 Women and Men ≥ 60 Years of Age, 989 Deaths

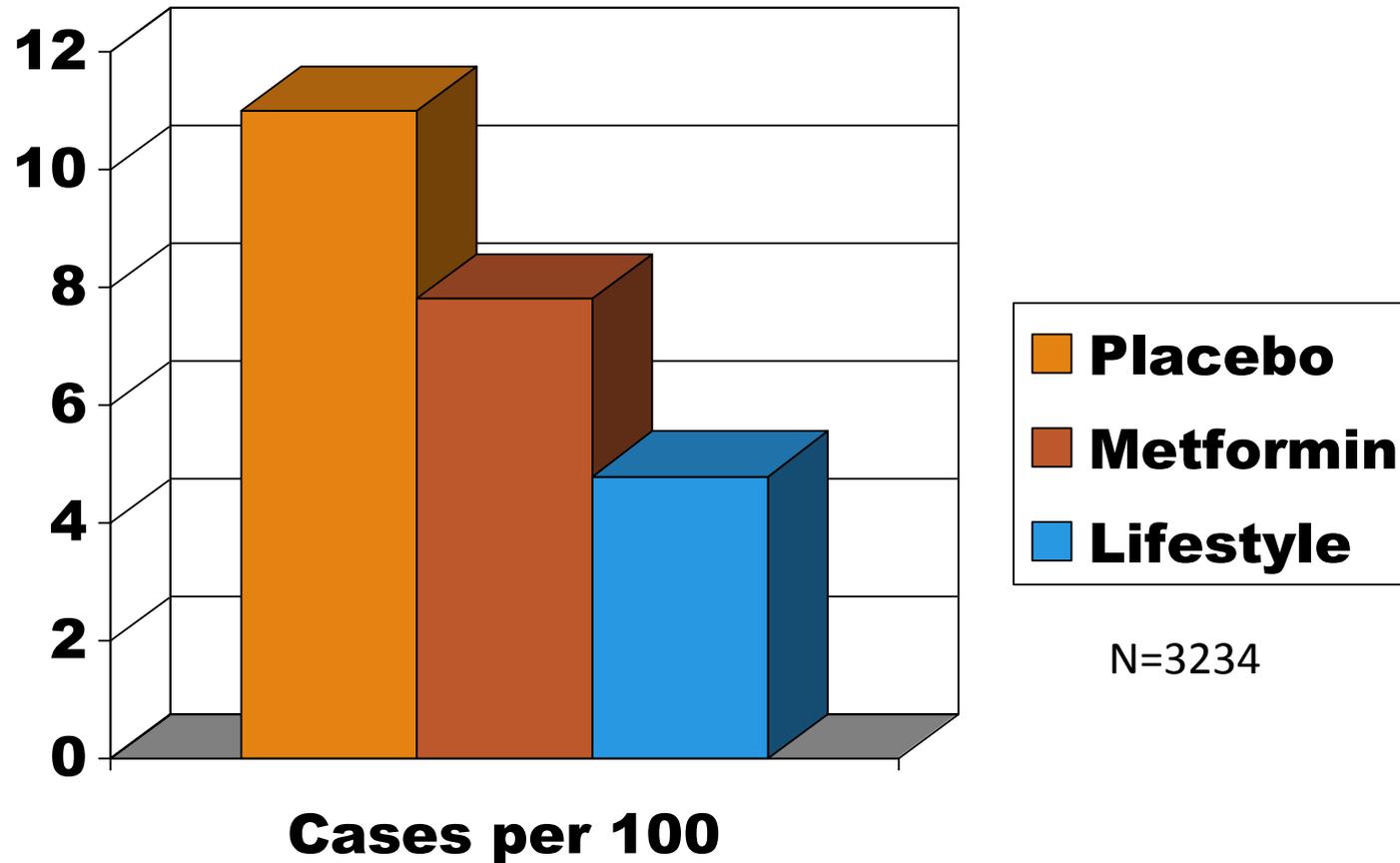
All-cause deaths/10,000 person-years



Rates are age adjusted

Sui X et al. *J Am Geriatrics Soc* 2007; 55:1940-7

Effectiveness of Interventions for Diabetes



Activity in Diabetes

Autonomic neuropathy: may decrease cardiac responsiveness to exercise, ↑ risk of postural hypotension, impaired thermoregulation, etc

Persons with diabetes should undergo cardiac evaluation prior to initiation of increased activity program

Obesity is not our first target, the benefits of regular PA on health (especially cardiovascular function) is much more than weight



Activity in Presence of Specific Long Term Complications of Diabetes

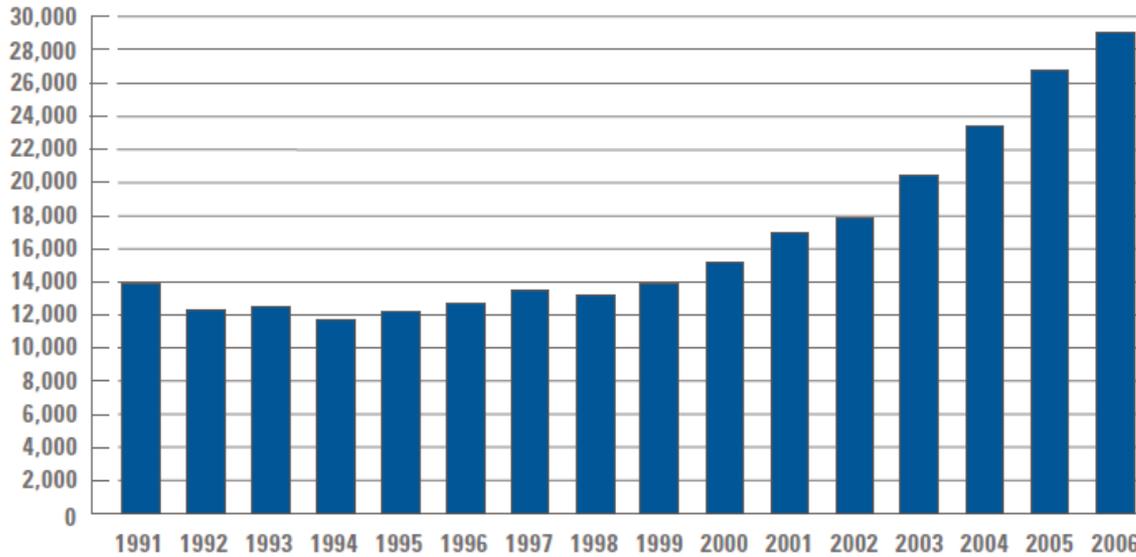
Retinopathy: vigorous aerobic or resistance exercise may trigger hemorrhages or retinal detachment

Peripheral neuropathy: lack of pain sensation increases risk of injury and skin breakdown; non weight-bearing exercise may be best

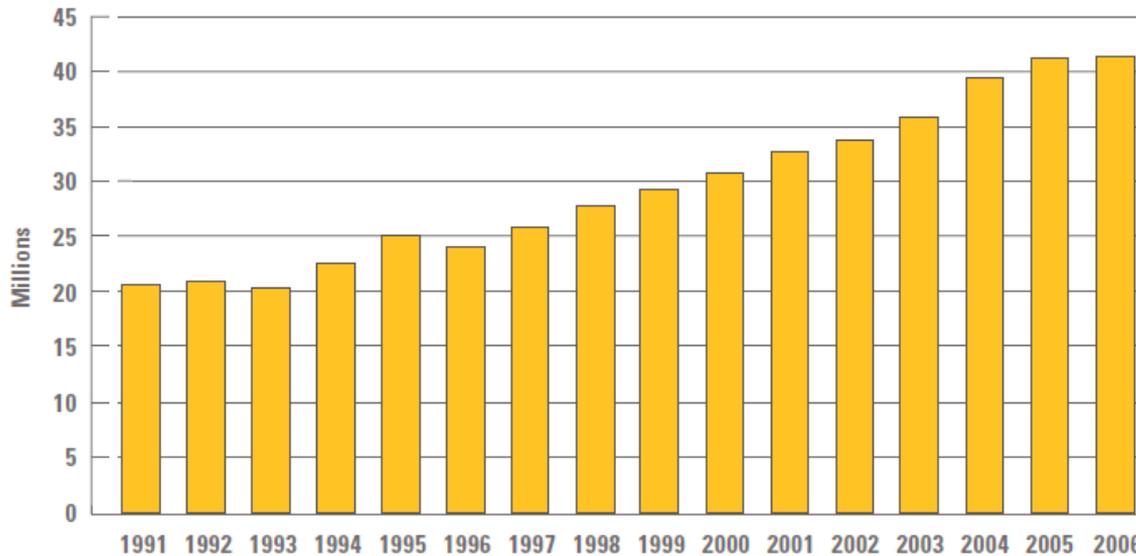
“If we had a pill that gave all those benefits (*physical activity*) and was readily available, we would find a way to make sure every patient took it.”

Robert E. Sallis, M.D.

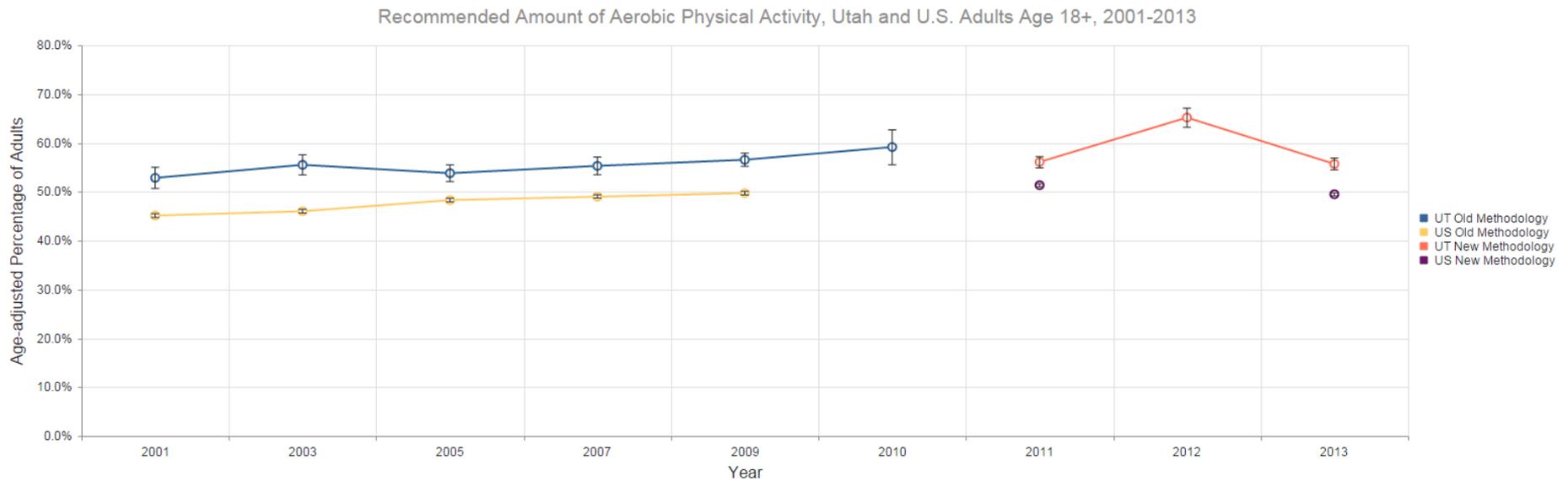
Number of Health Clubs in the U.S. by Year



Number of Health Clubs Members in the U.S. by Year

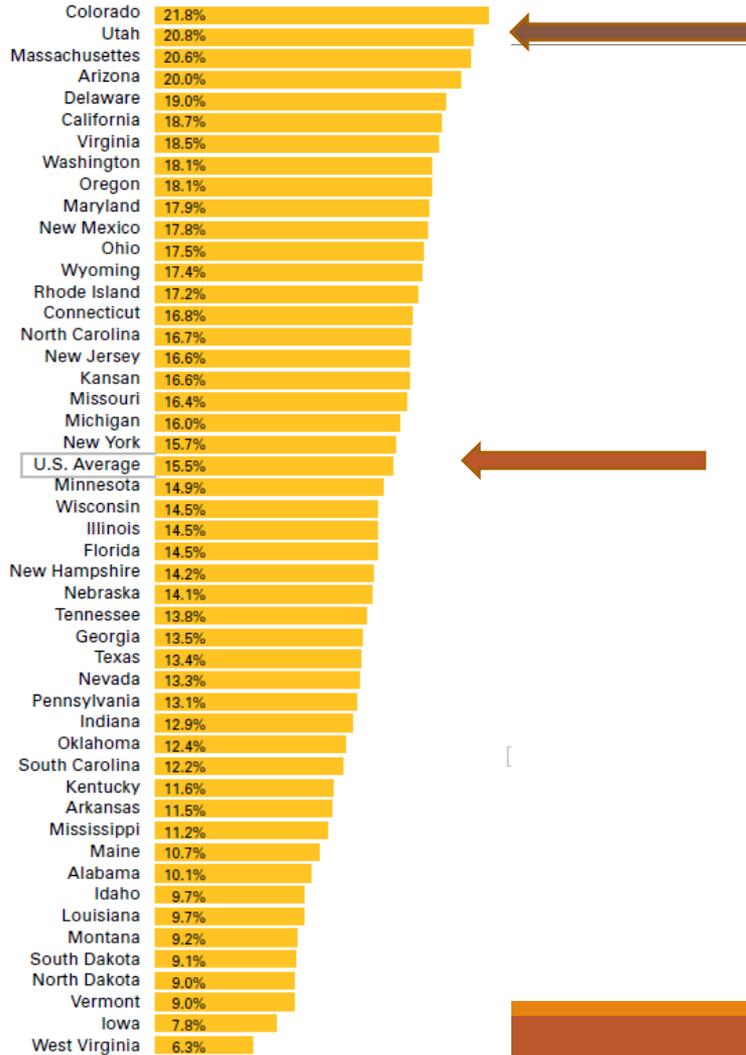


Percentage of Adults Who Reported Getting the Recommended Amount of Physical Activity, Utah and U.S. Adults Age 18+, 2001-2013



Health Club Memberships

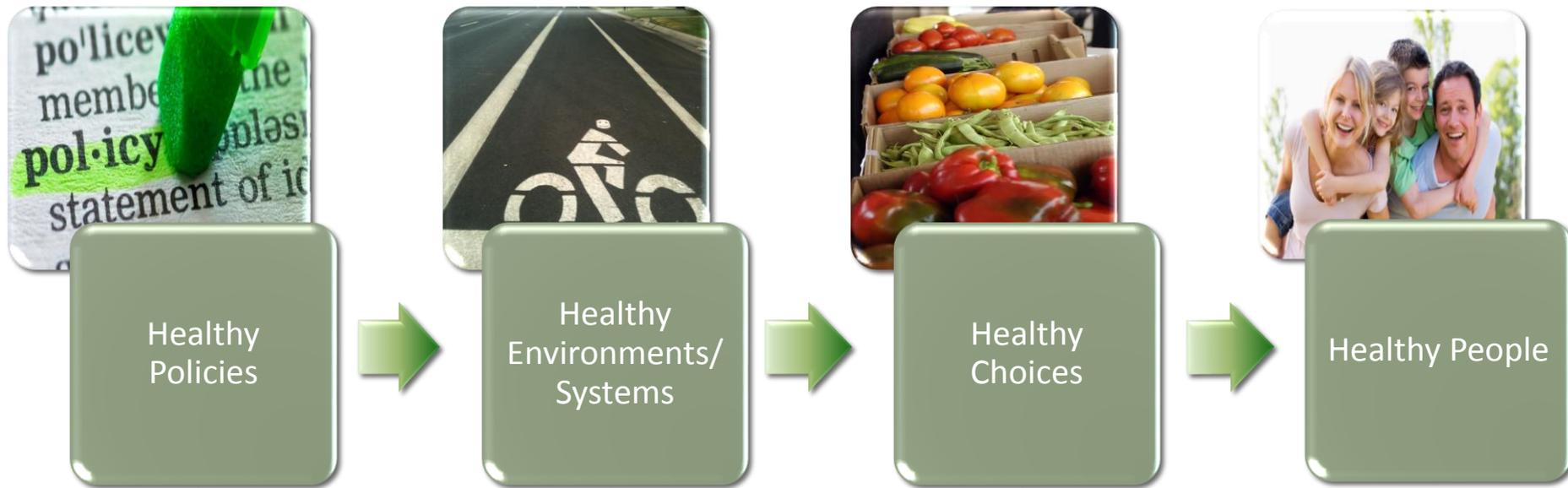
Percentage of state population belonging to a health club:



This is good money

- When people pay you to be open and make them feel better
- And, they don't have to do anything about it,
- Then, in their minds, problem solved!

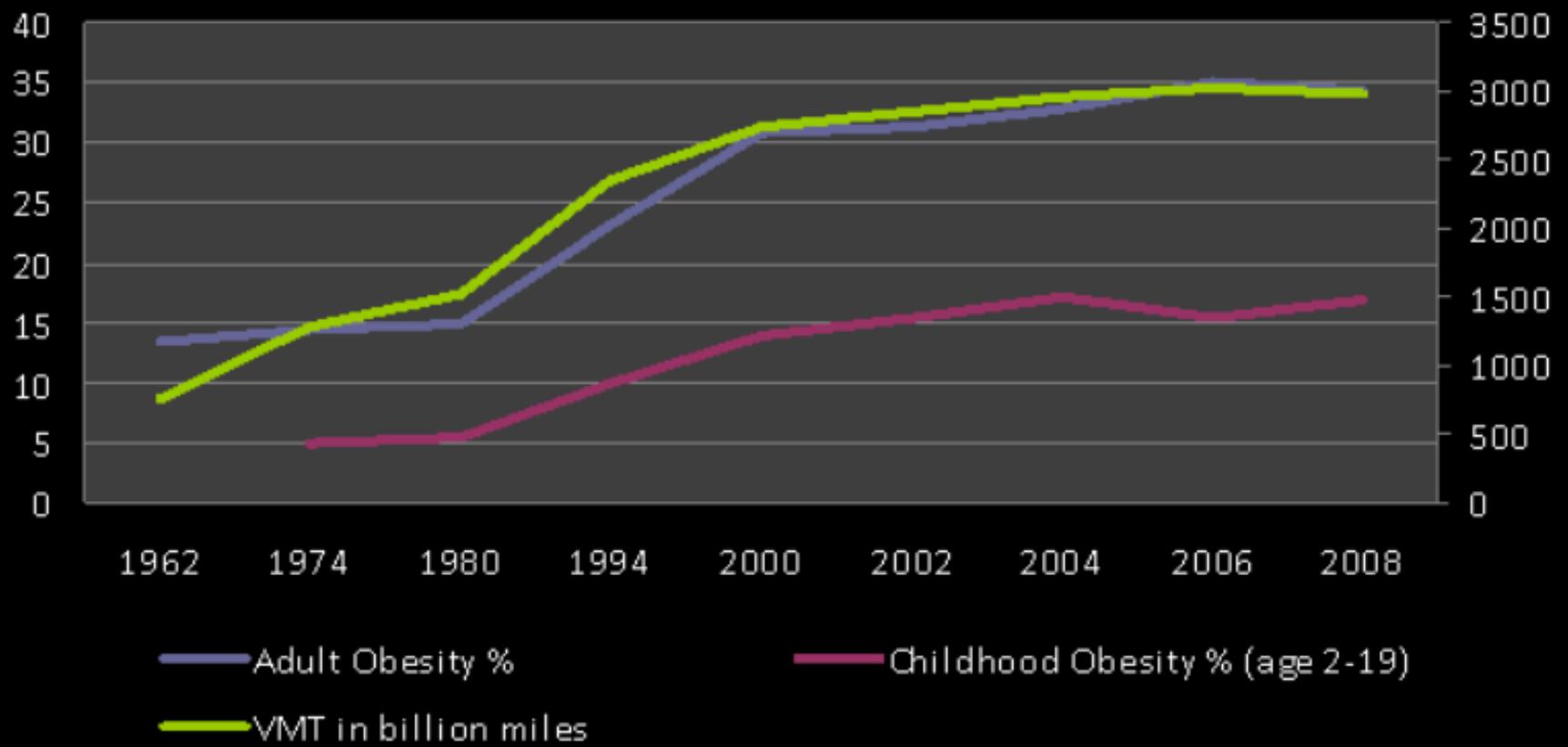
Our Approach



Public Health 101:

$$\text{Impact} = \text{Reach} \times \text{Effectiveness} \times \text{Exposure}$$

Obesity/Vehicle Miles Traveled in U.S.



Sources: Centers for Disease Control – National Health and Nutrition Examination Survey/
U.S. DOT – Federal Highway Administration, Annual Vehicle Distance Traveled in Miles and Related Data

Physicians, their Patients, & Exercise

47% of primary care physicians include an exercise history as part of their initial examination

Only 13% of patients report physicians giving advice about exercise

Physically active physicians are more likely to discuss exercise with their patients

Nearly two-thirds of patients (65%) would be more interested in exercising to stay healthy if advised by their doctor and given additional resources.

Talking with Your Patients

Be clear about the benefits of regular physical activity

- Include volume of lifestyle activity vs exercise
- 150 minutes of moderate PA per week
 - Not all at once!

Recognize the readiness to change

Exercise is Medicine

- Quality of life

Don't back down!



Build Strength on Strength

Social involvement

The miracle of small successes

Continue what is working well

As a provider, you have power

Pride is stronger than fear

But, Plan for Failure

It will hurt

- DOMS

They will fall off the wagon

- How will they get back on?
- Who will they get on with?

What works for your patient

- That is the best approach



Those who think they
have not time for bodily
exercise will sooner or
later have to find time for
illness.

Edward Stanley, Earl of Derby (1826-93),
British statesman.

Brett McCliff, PhD
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