

# Beyond the Scale: Physical Activity and Health Outcomes among Individuals with Obesity

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# Disclosures

I am the Principal Investigator of a trial studying change in HbA1c and weight loss using behavioral counselling and a continuous glucose monitor, funded by WW International.

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# Outline

## Physical Activity and Health Benefits Among Individuals with Obesity

- Evidence from Epidemiology
- Evidence from Clinical Trials

# Physical Activity for Health—Every Minute Counts

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An important component of current physical activity guidelines is that for **substantial** health benefits, recommended engagement includes:

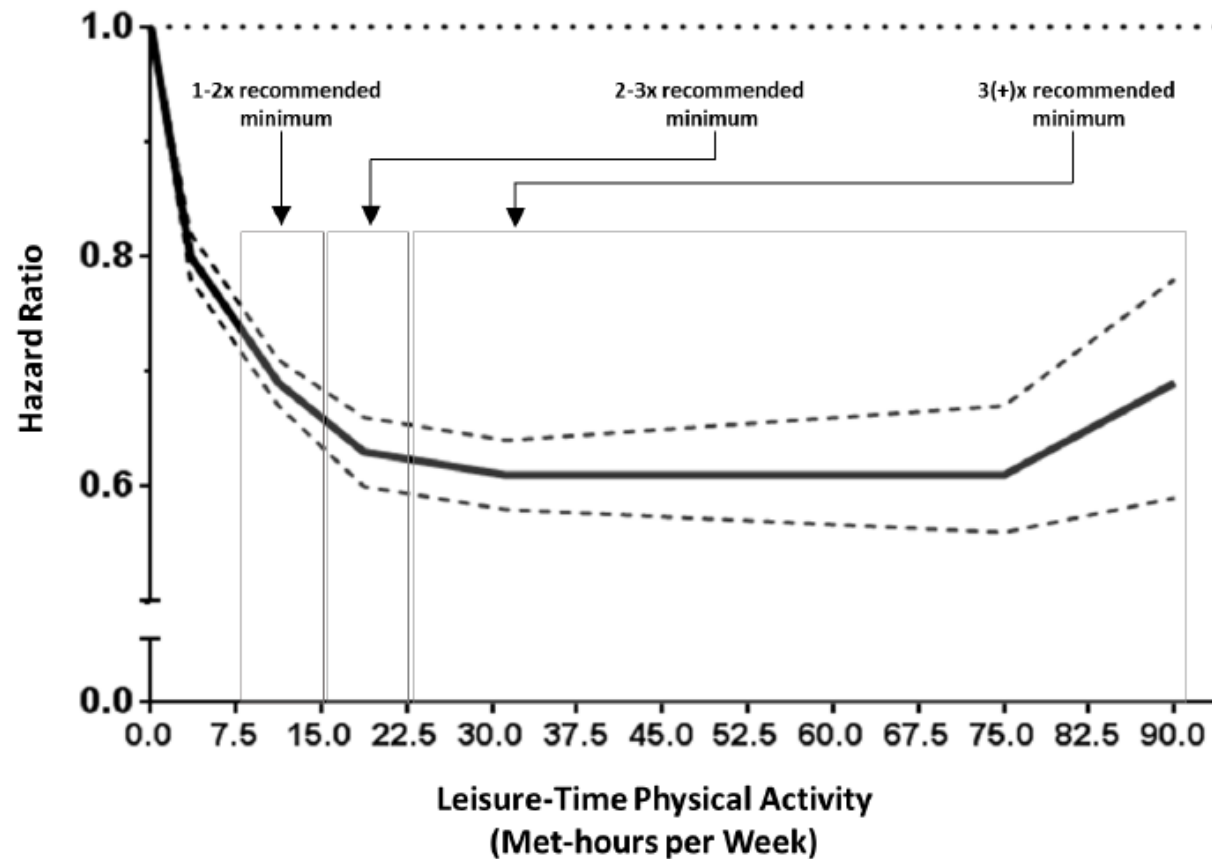
- 150-300 min/wk of moderate intensity activity, or
- 75-150 min/wk of vigorous intensity activity, or
- an equivalent combination of moderate and intense physical activity.

However, the **first** recommendation indicates that adults:

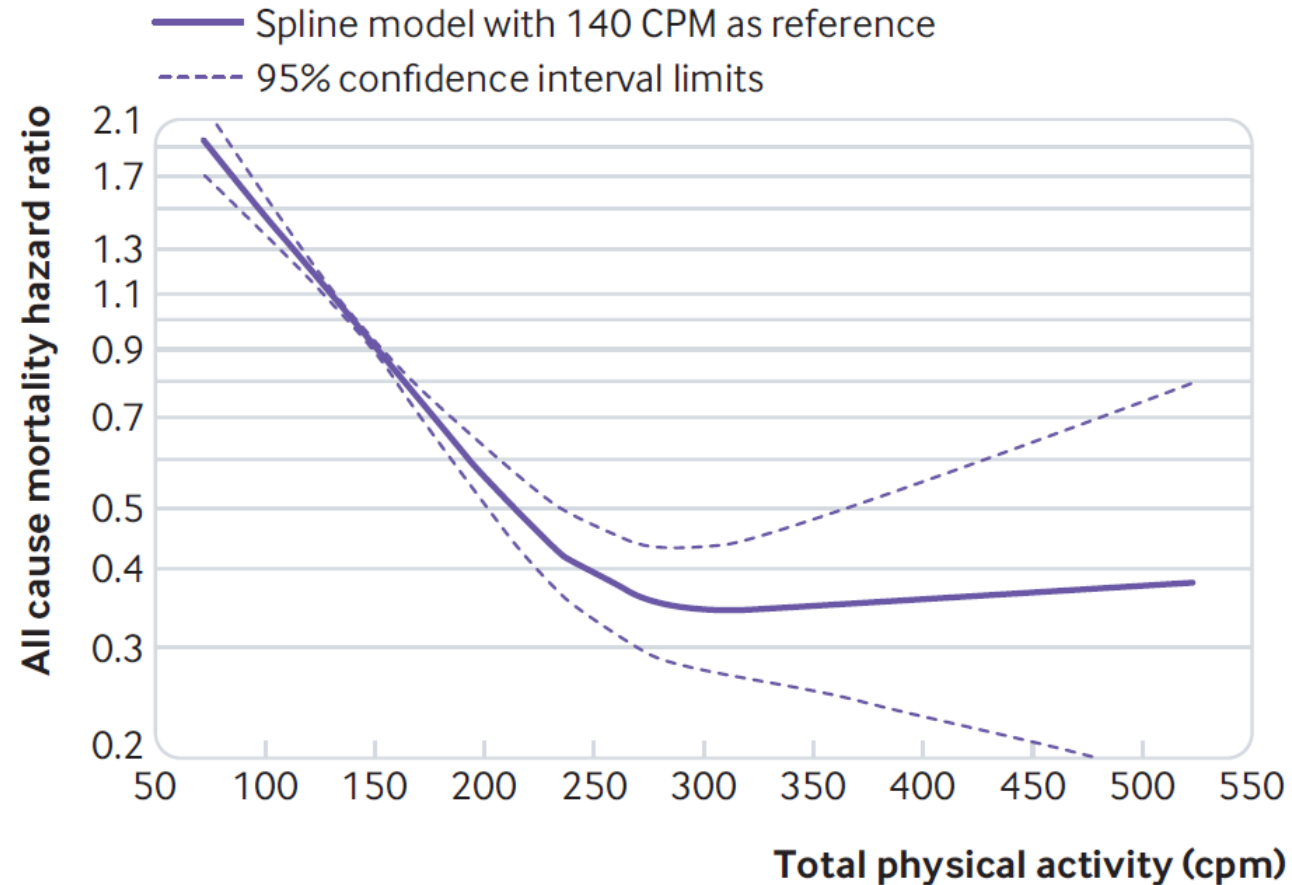
“should move more and sit less throughout the day, and that some activity is better than none because adults who sit less and do any amount of MVPA gain some health benefits”

# Physical Activity and Mortality

Figure F6-3. Relationships of Moderate-to-Vigorous Physical Activity to All-Cause Mortality, with Highlighted Characteristics Common to Studies of this Type



# Accelerometer-Measured Physical Activity and Mortality





# Physical Activity and Excess Body Weight and Adiposity for Adults. American College of Sports Medicine Consensus Statement

“Even in the absence of reducing body weight or adiposity, physical activity contributes to other health benefits for persons with excess body weight and adiposity such as reduced risk of cardiovascular disease, diabetes, cancer, and others.”

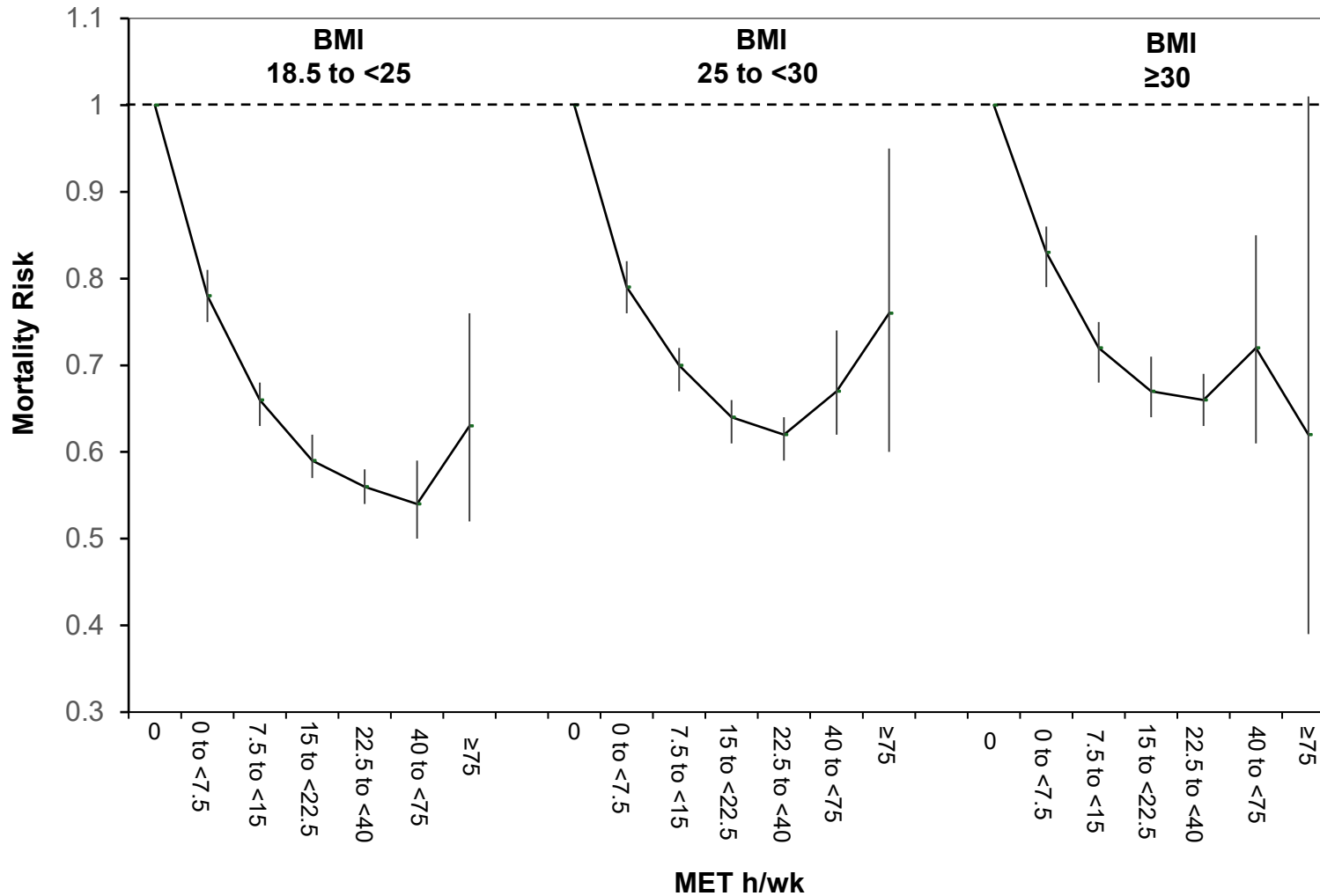
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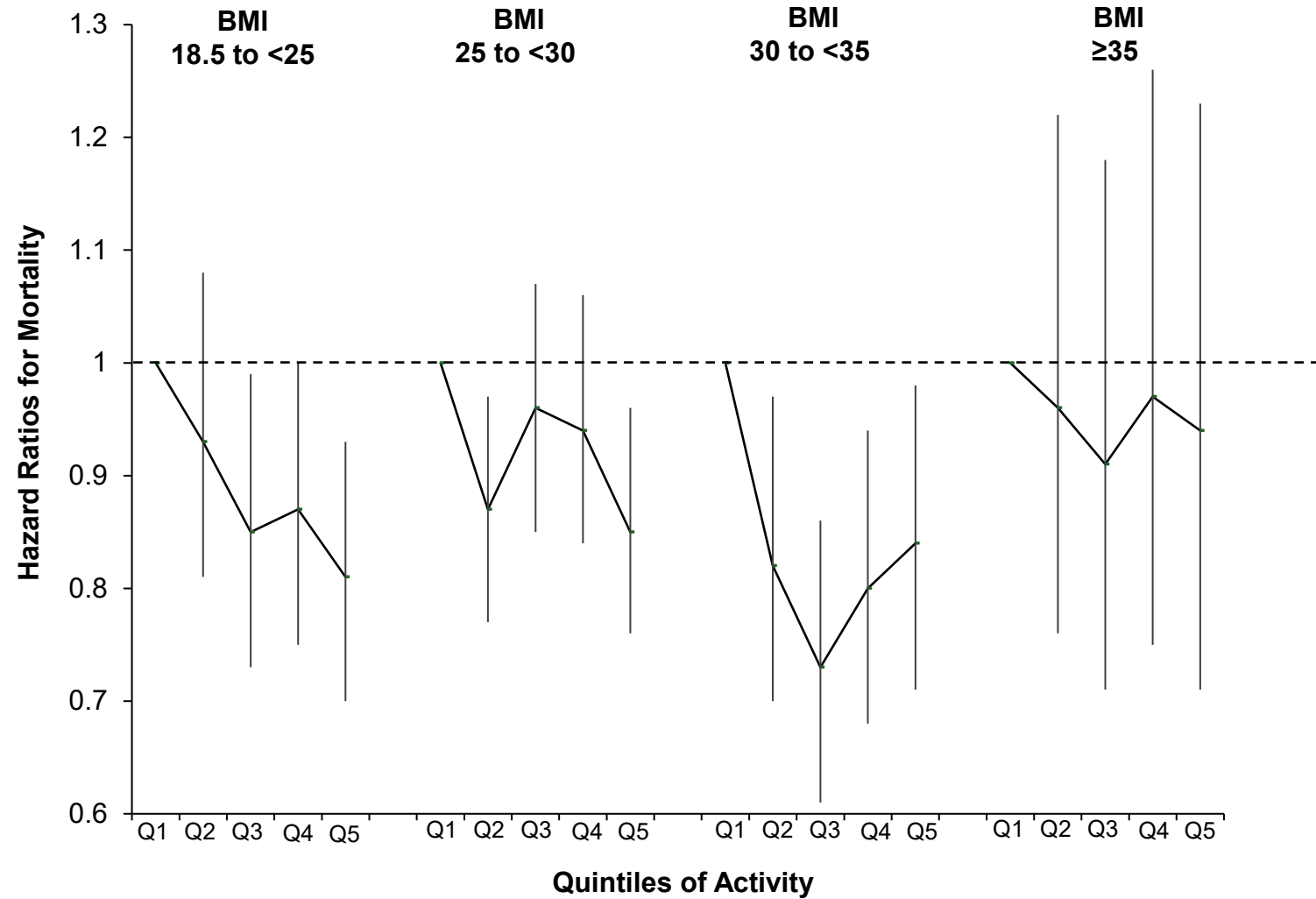
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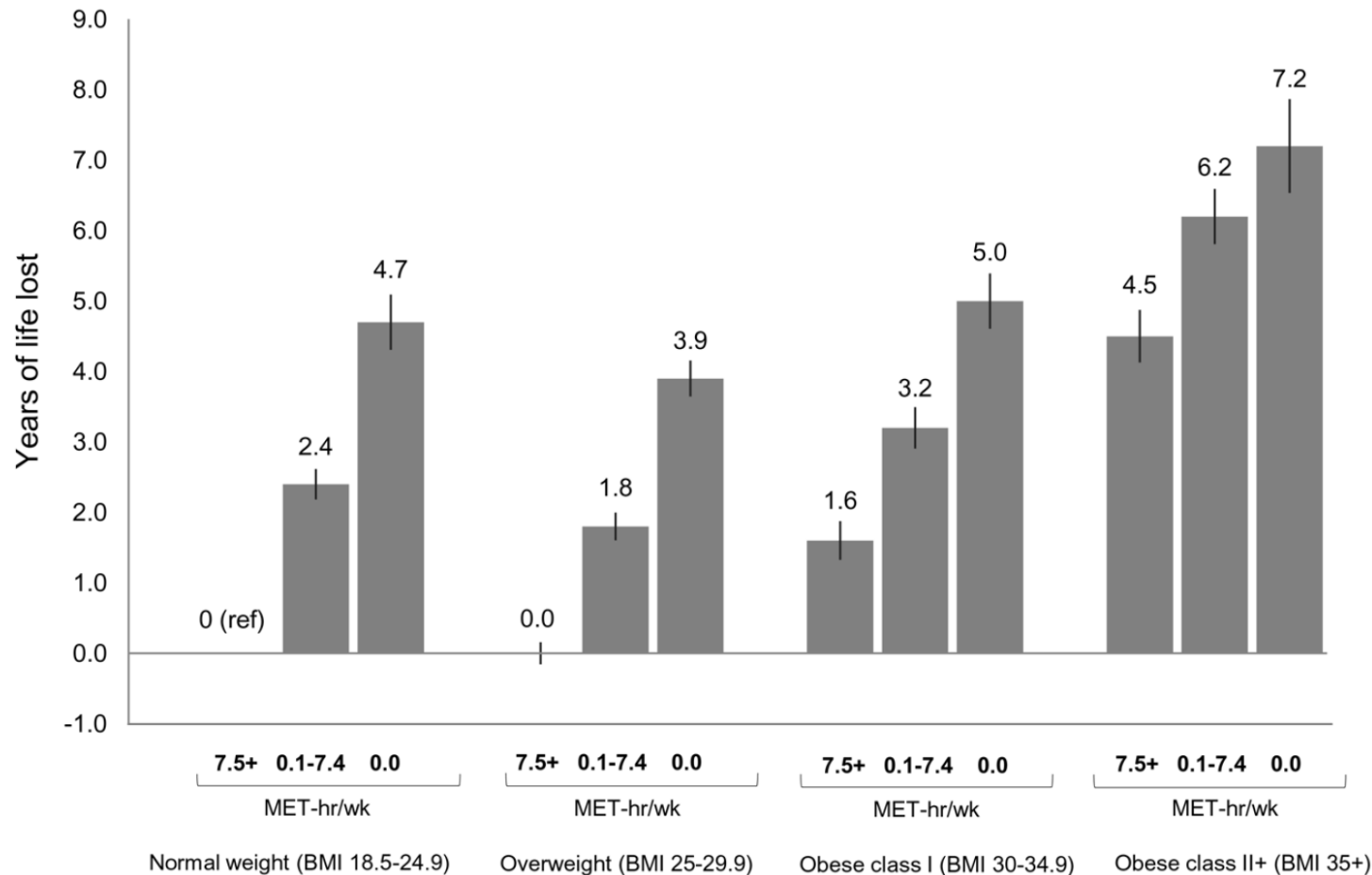
# Physical Activity, BMI and Mortality



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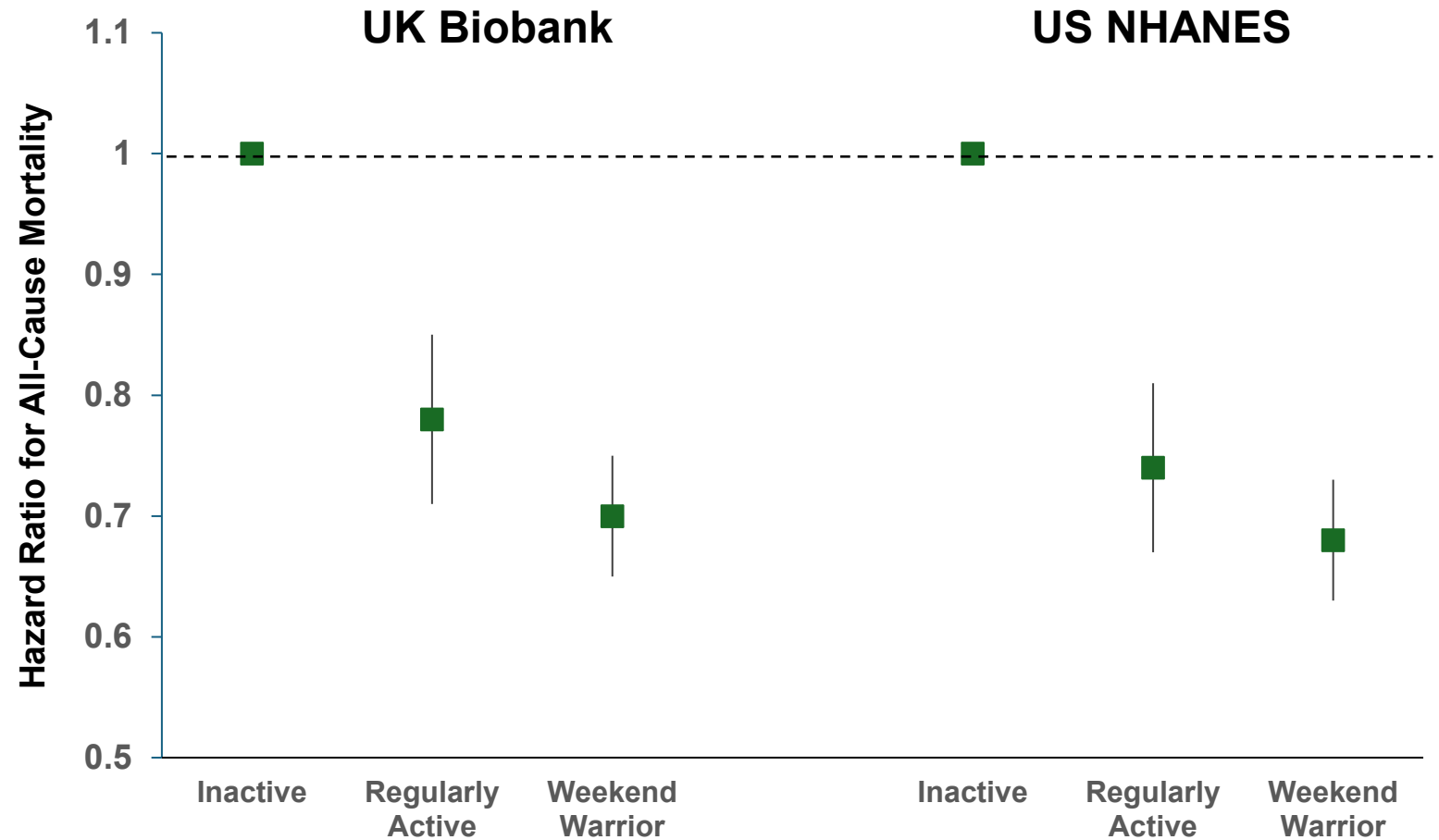


# Physical Activity, BMI and Years of Life Lost

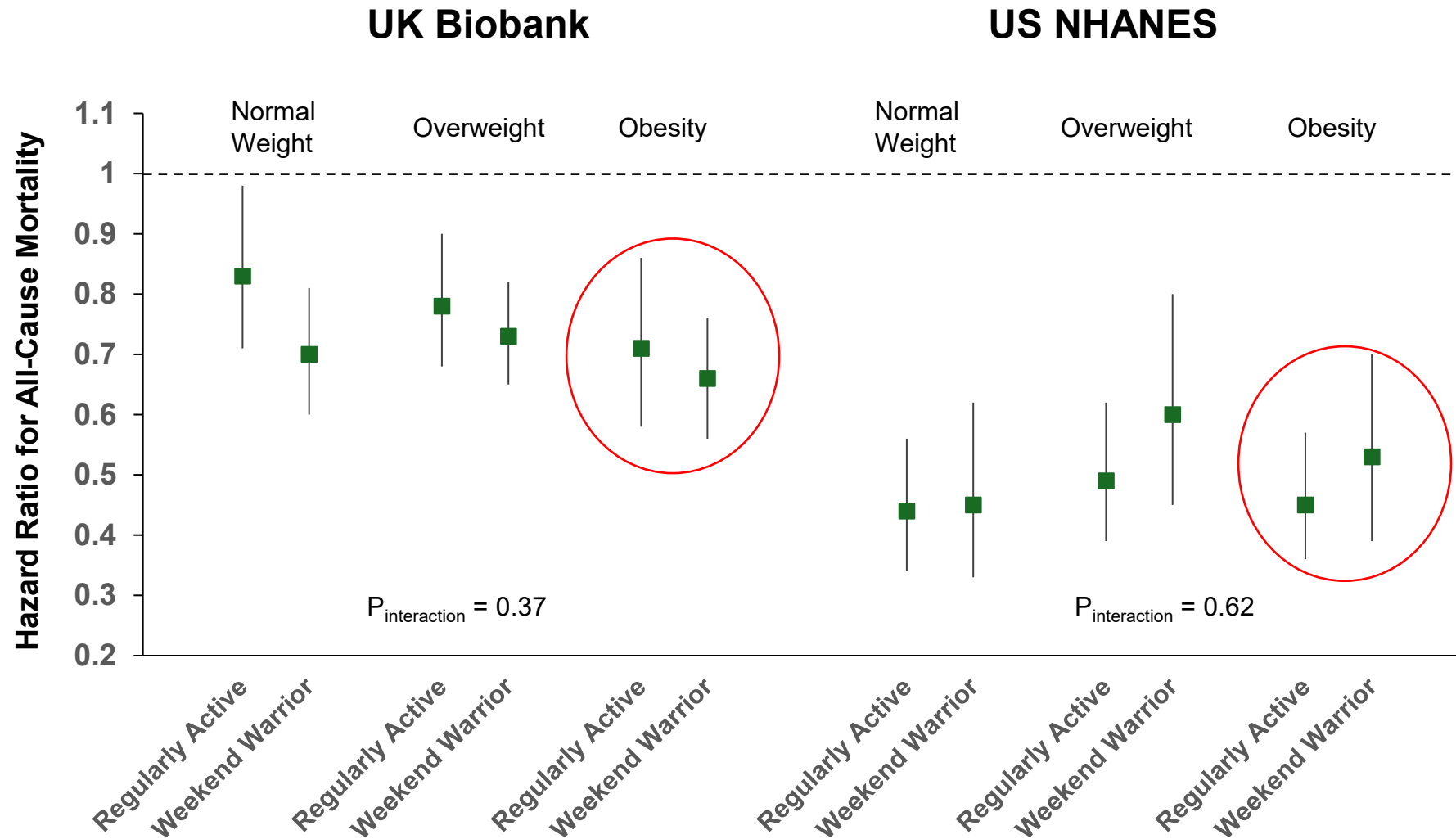


# Weekend Warriors and Mortality

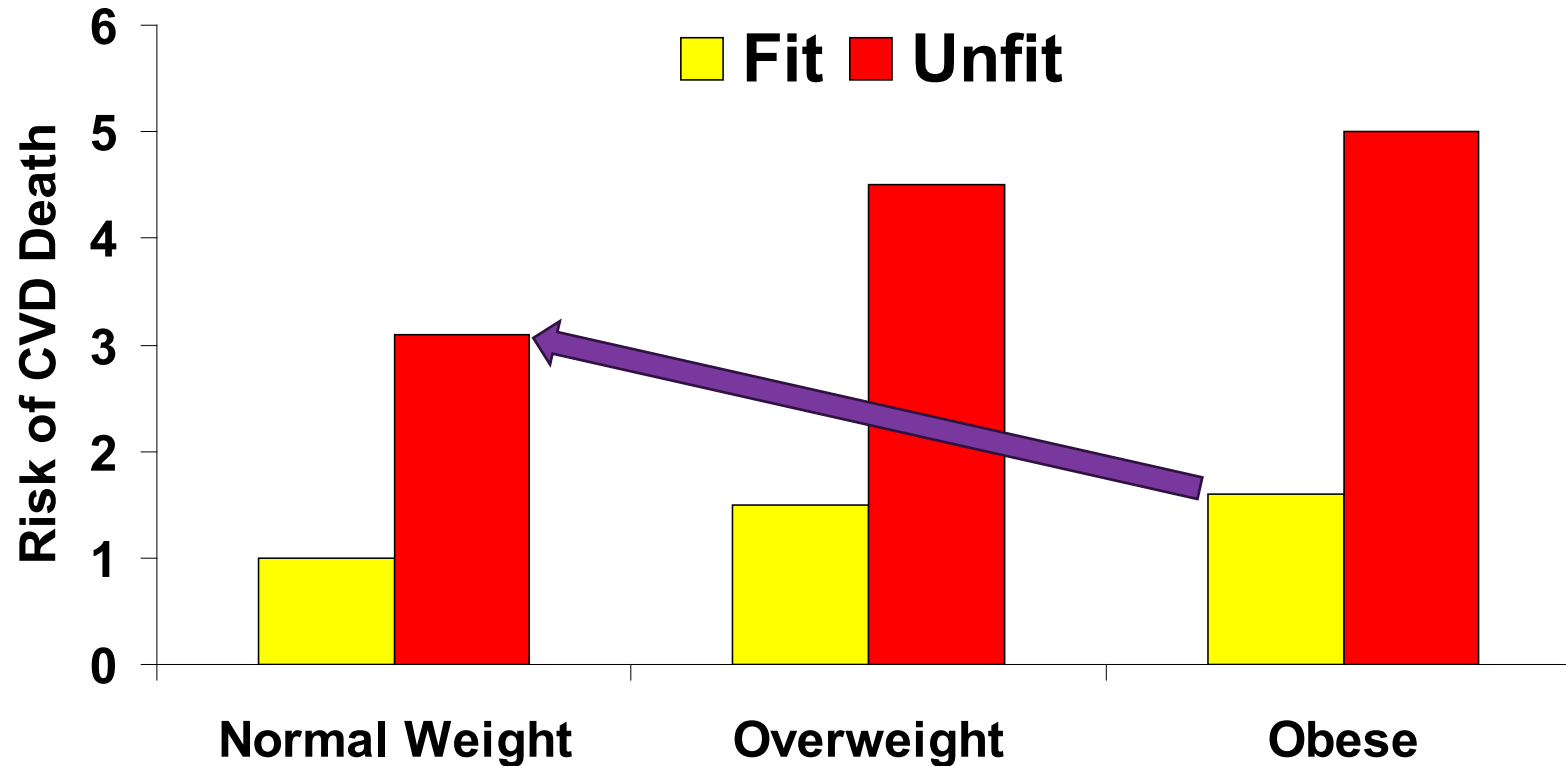
**Weekend Warrior** defined as  
≥150 min/wk of MVPA  
with 50% of MVPA in 1–2 days



# Weekend Warriors and Mortality by BMI Category

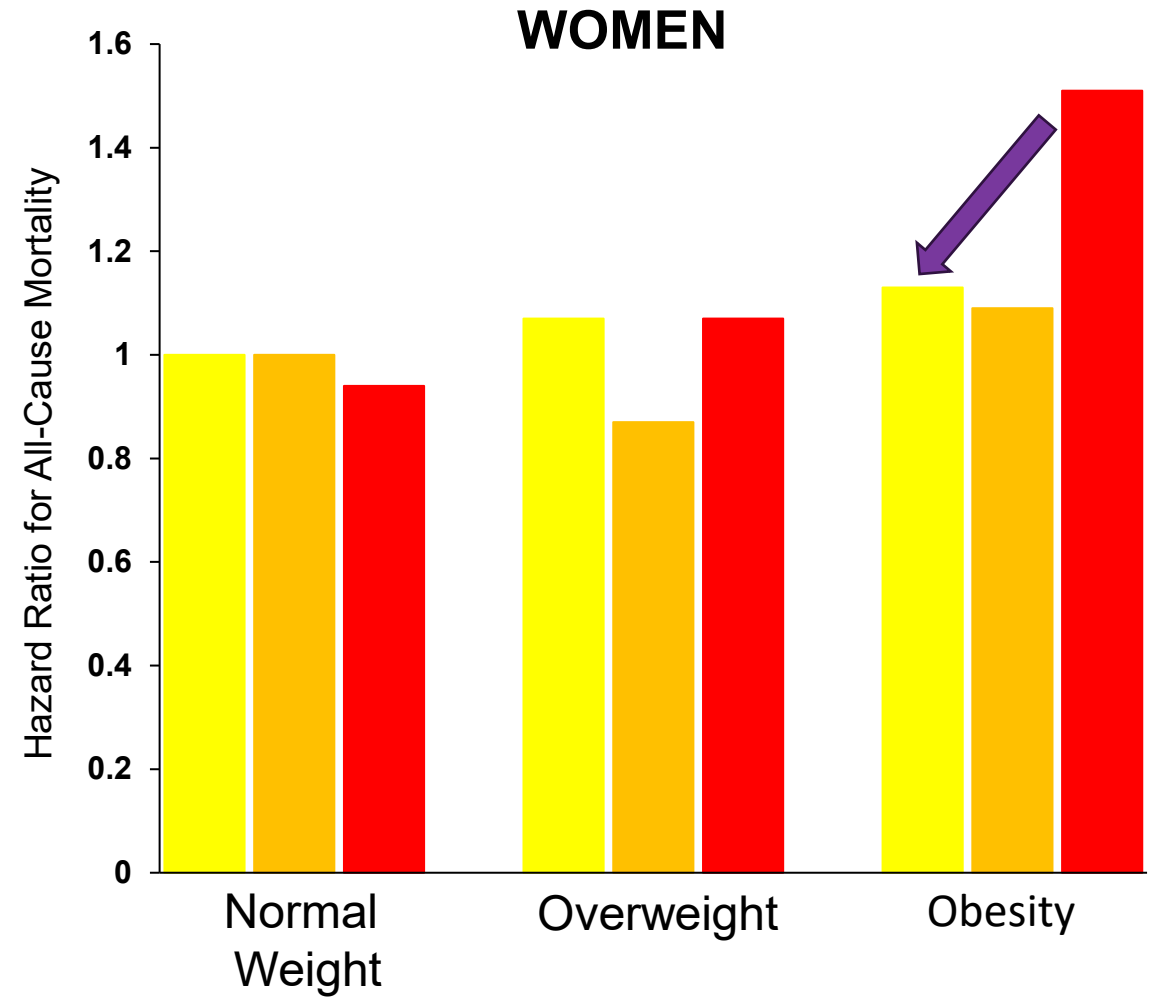
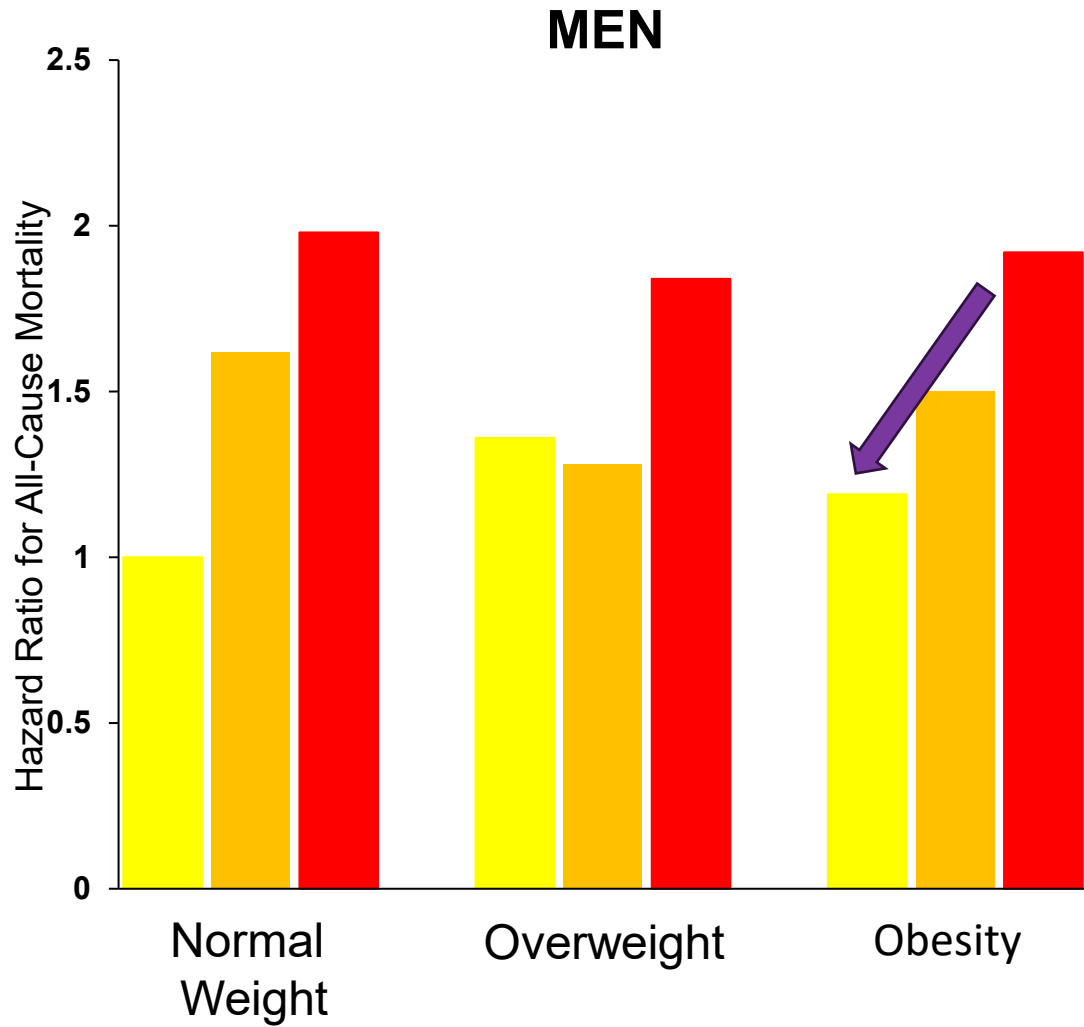


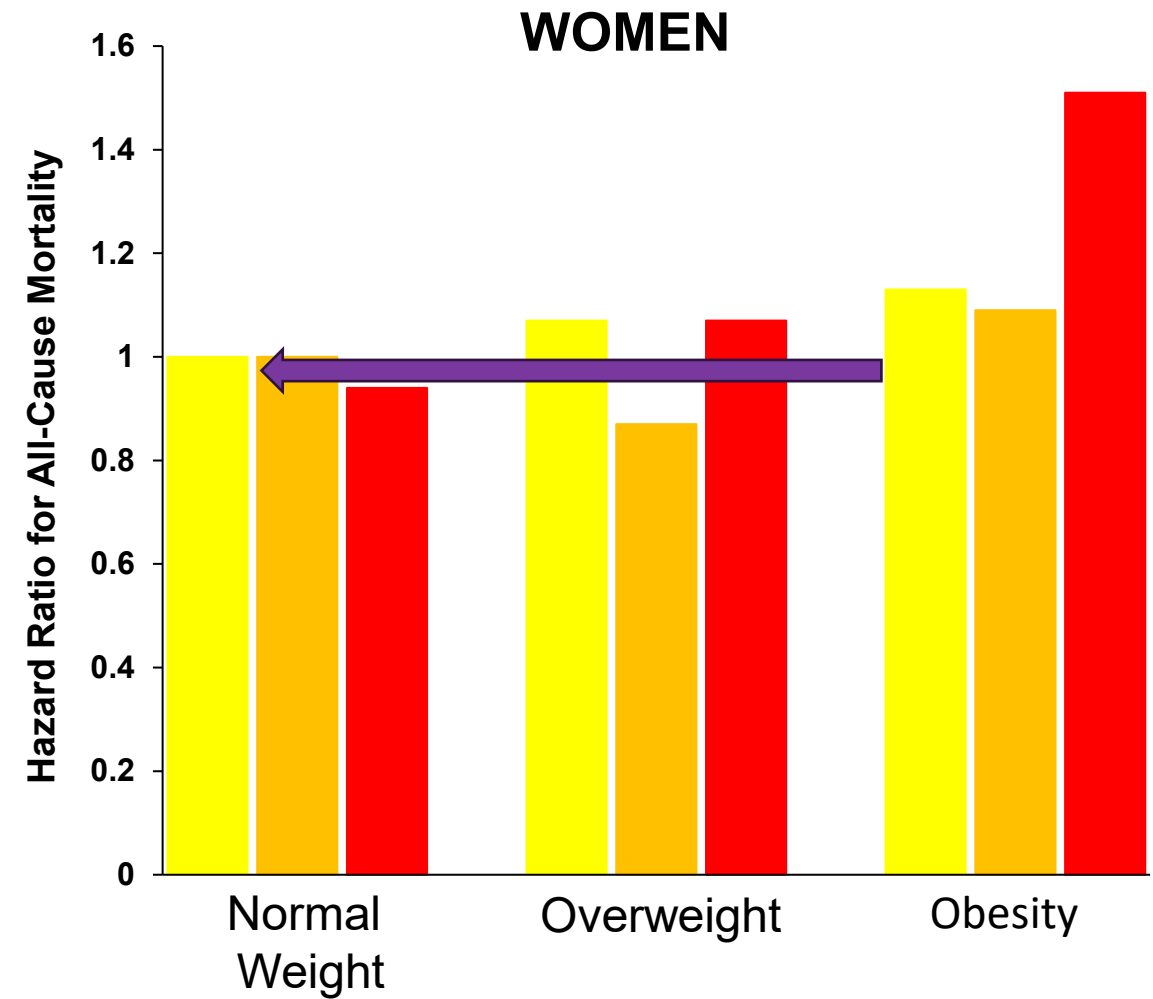
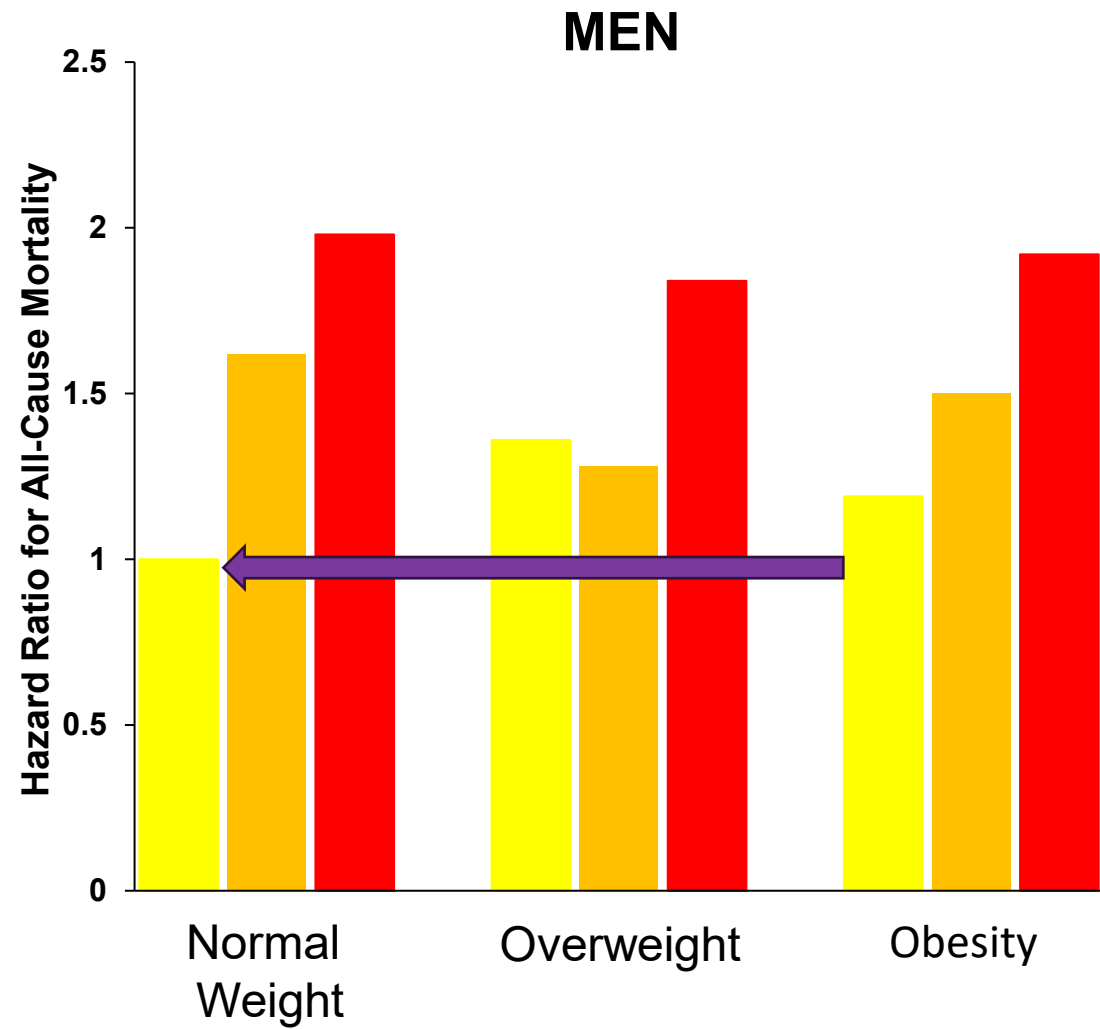
## Risk of CVD Mortality in Men with Normal Weight, Overweight and Obesity: Effects of Cardiorespiratory Fitness



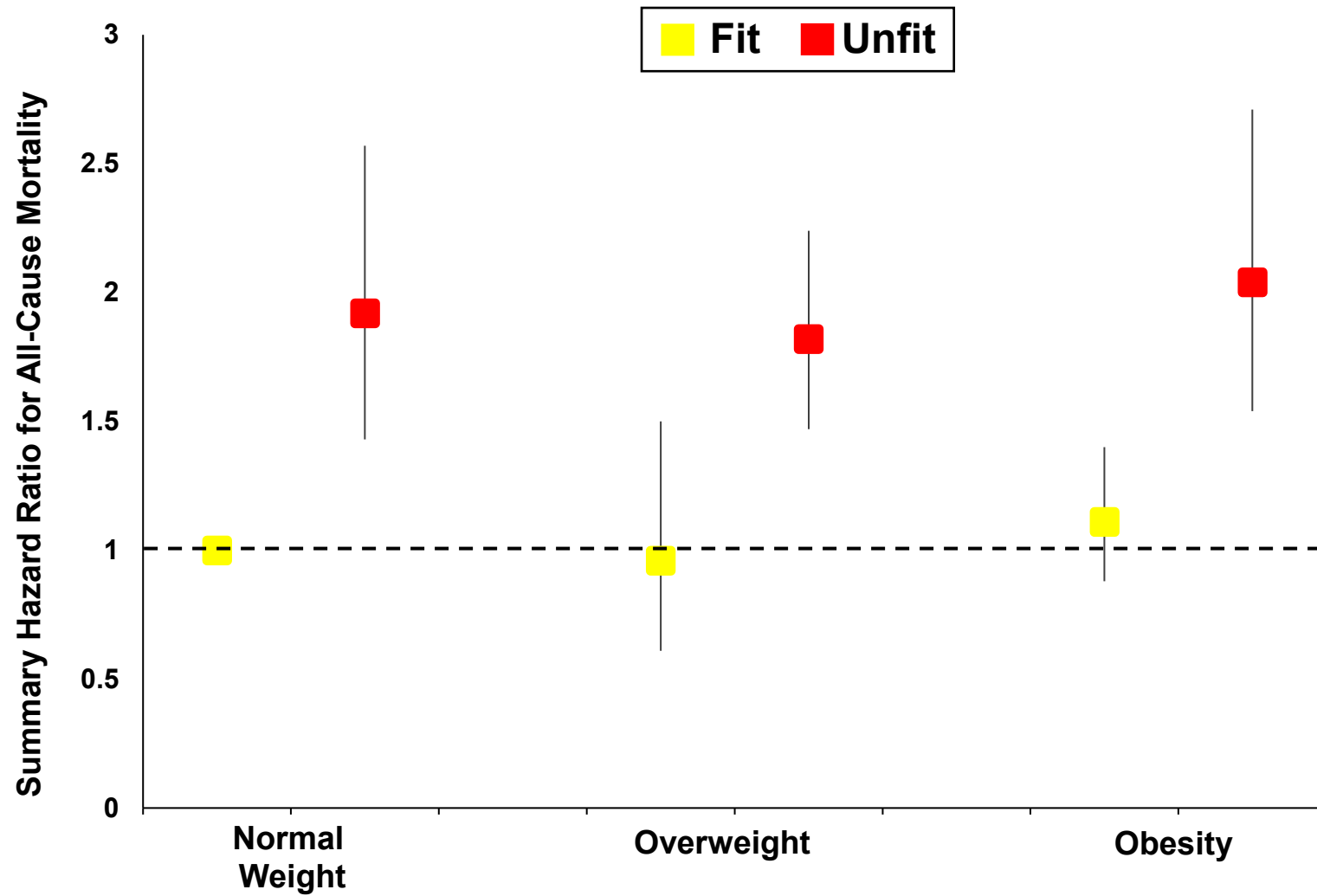
N = 25,714 men followed for approximately 10 years.

Wei et al. *JAMA* 1999;282:1547-53.

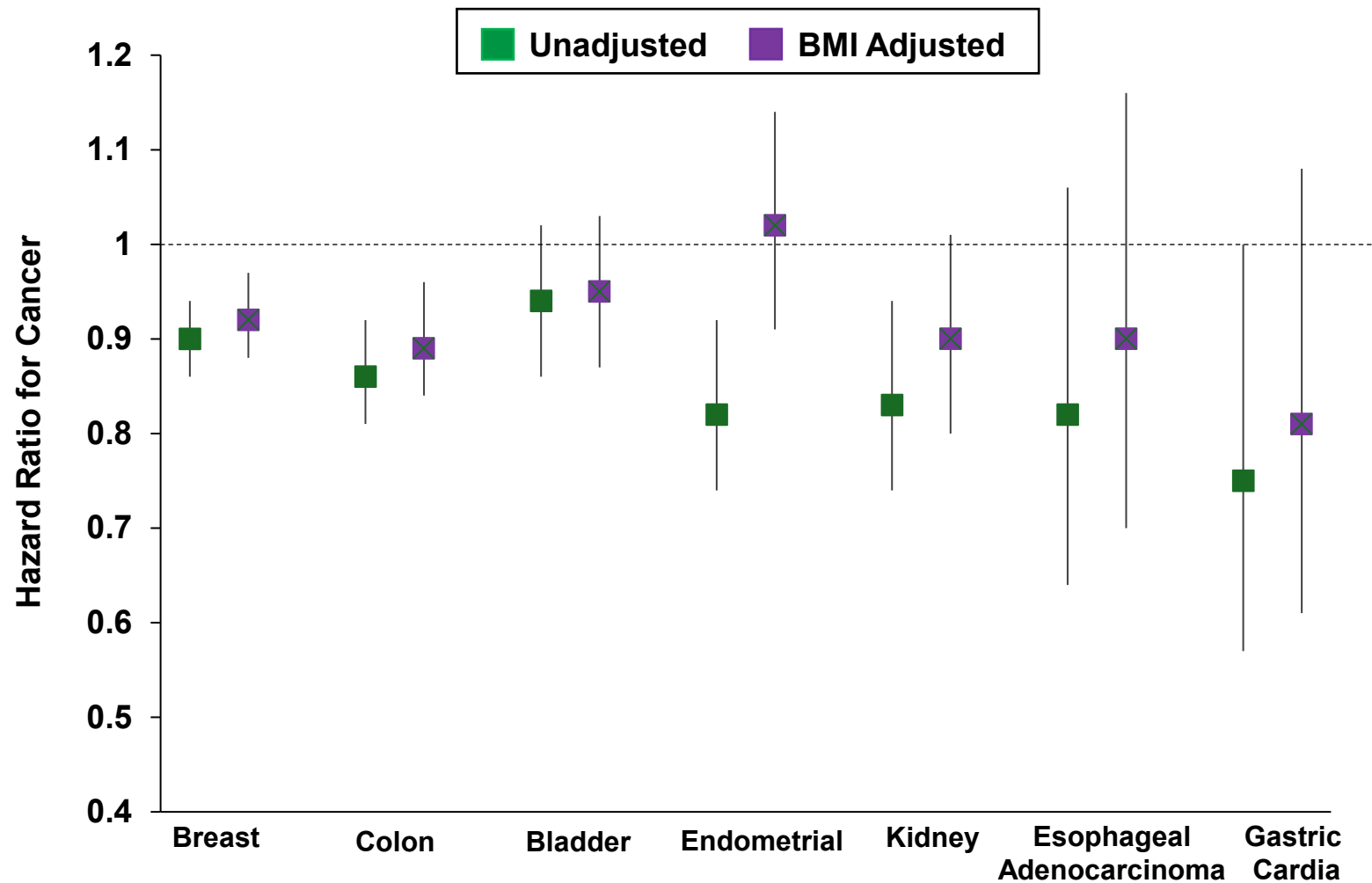




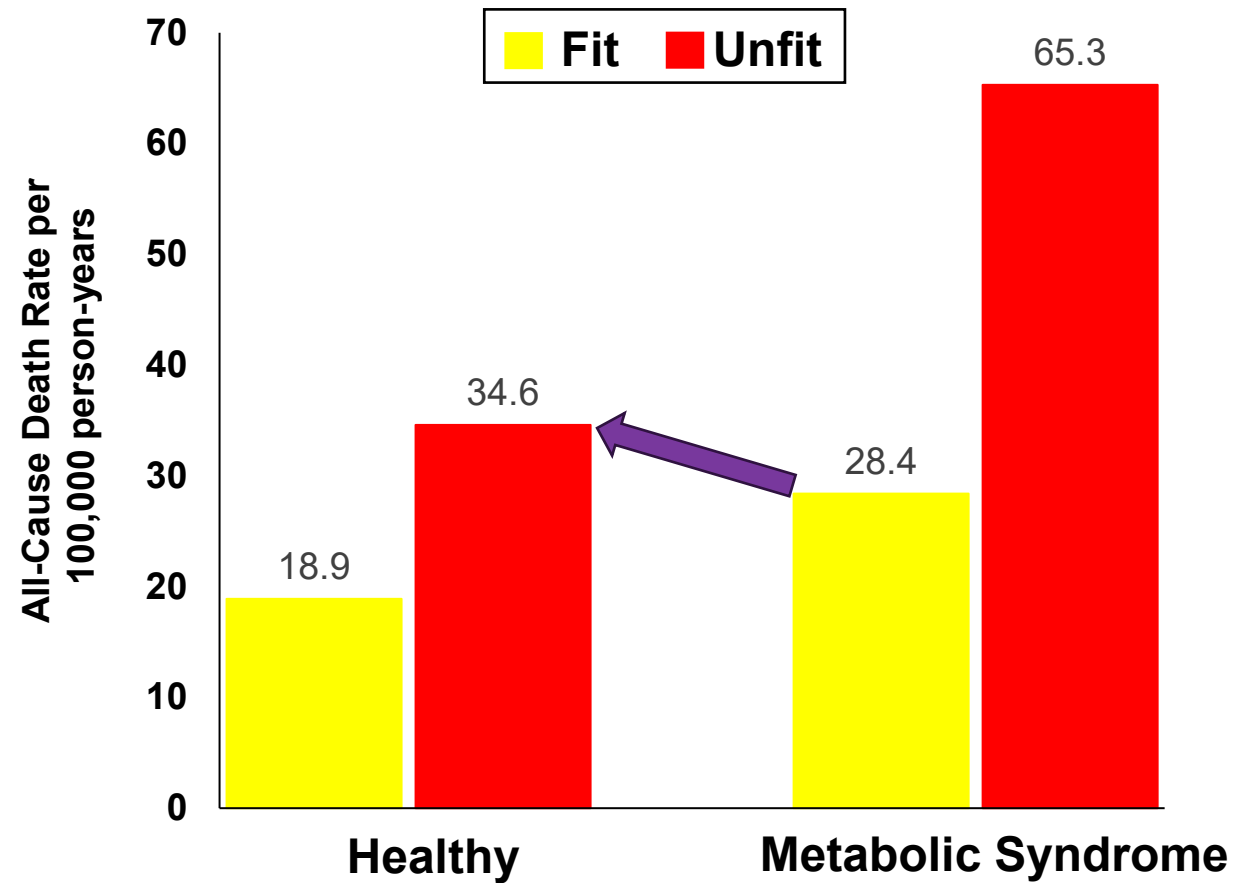




# Impact of Adjusting for BMI in the Association between Physical Activity and Cancers With Strong Evidence of Association



## Risk of Mortality in Men with and without Metabolic Syndrome: Effects of Cardiorespiratory Fitness

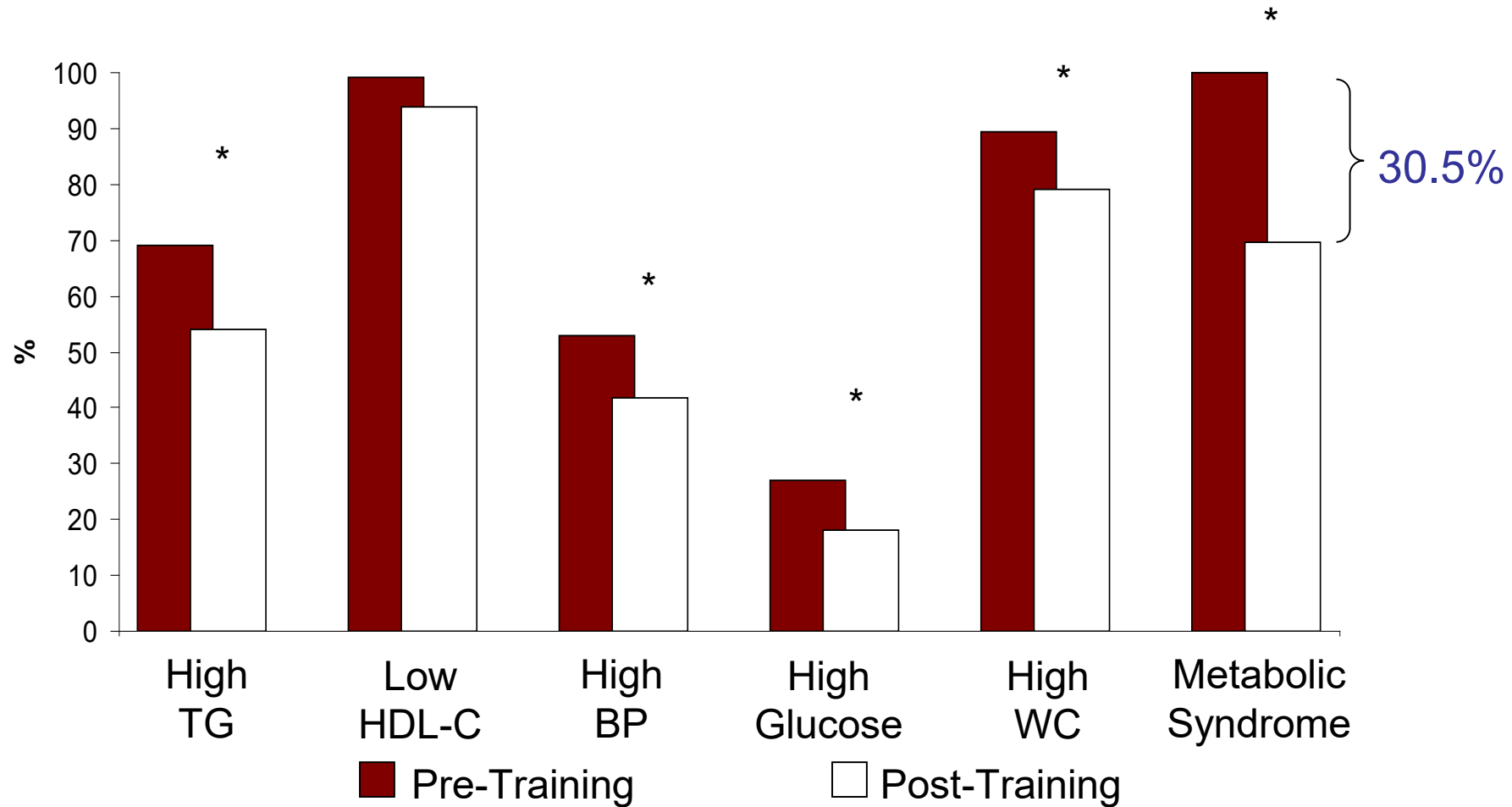


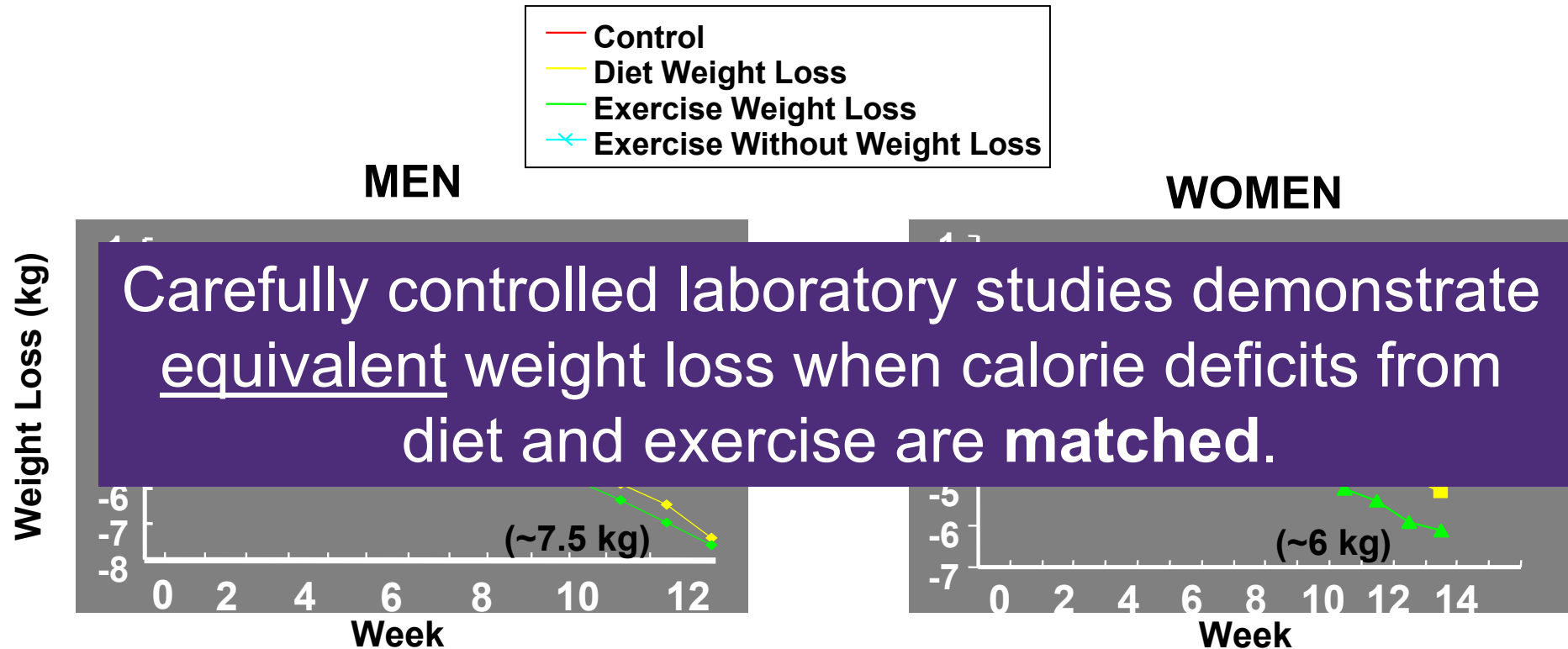
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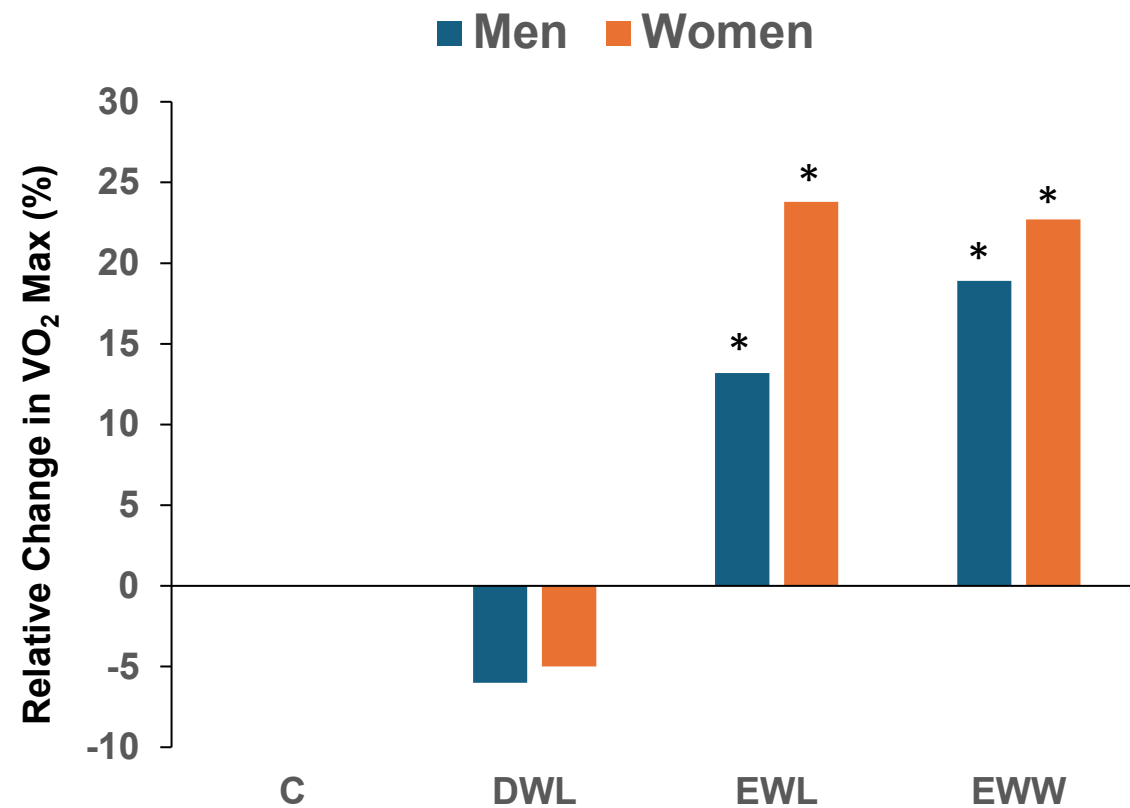
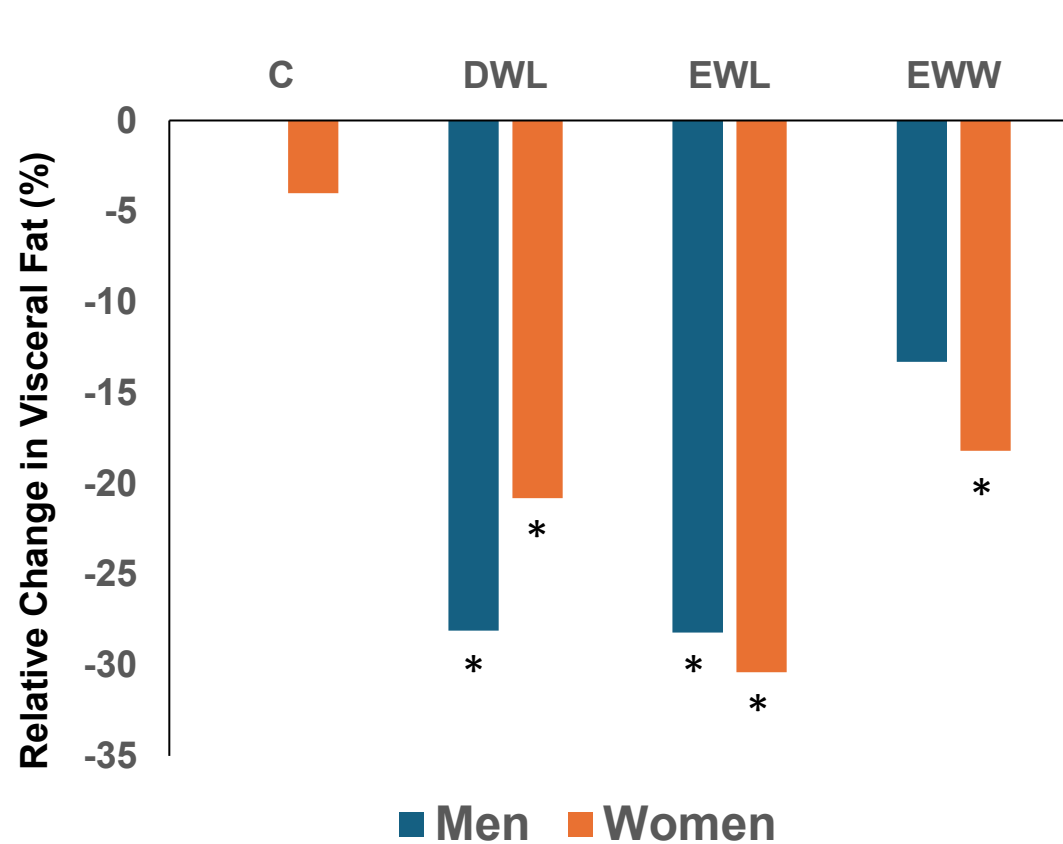
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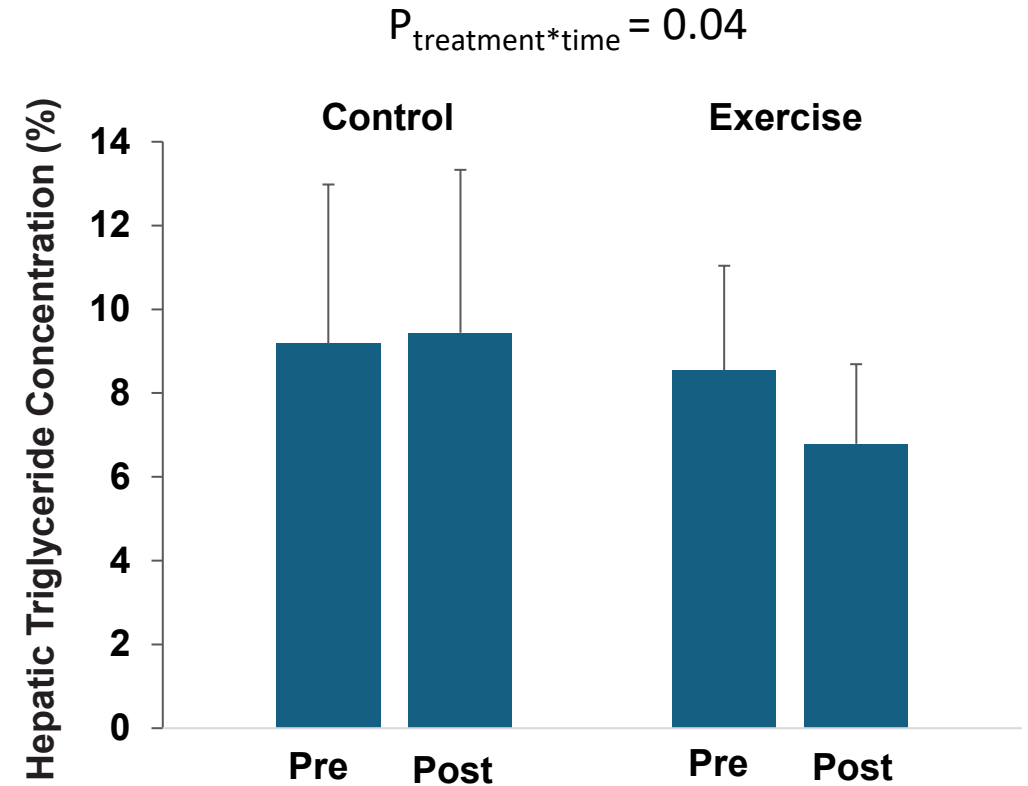
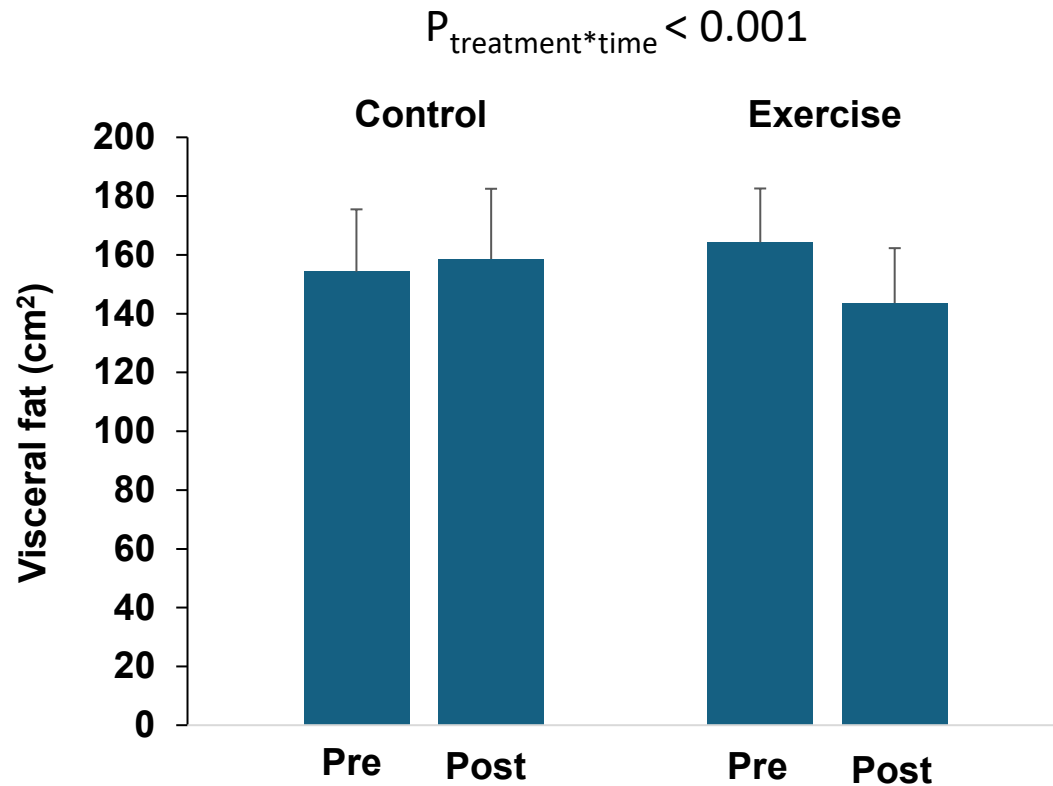
## Targeting the Metabolic Syndrome with Exercise





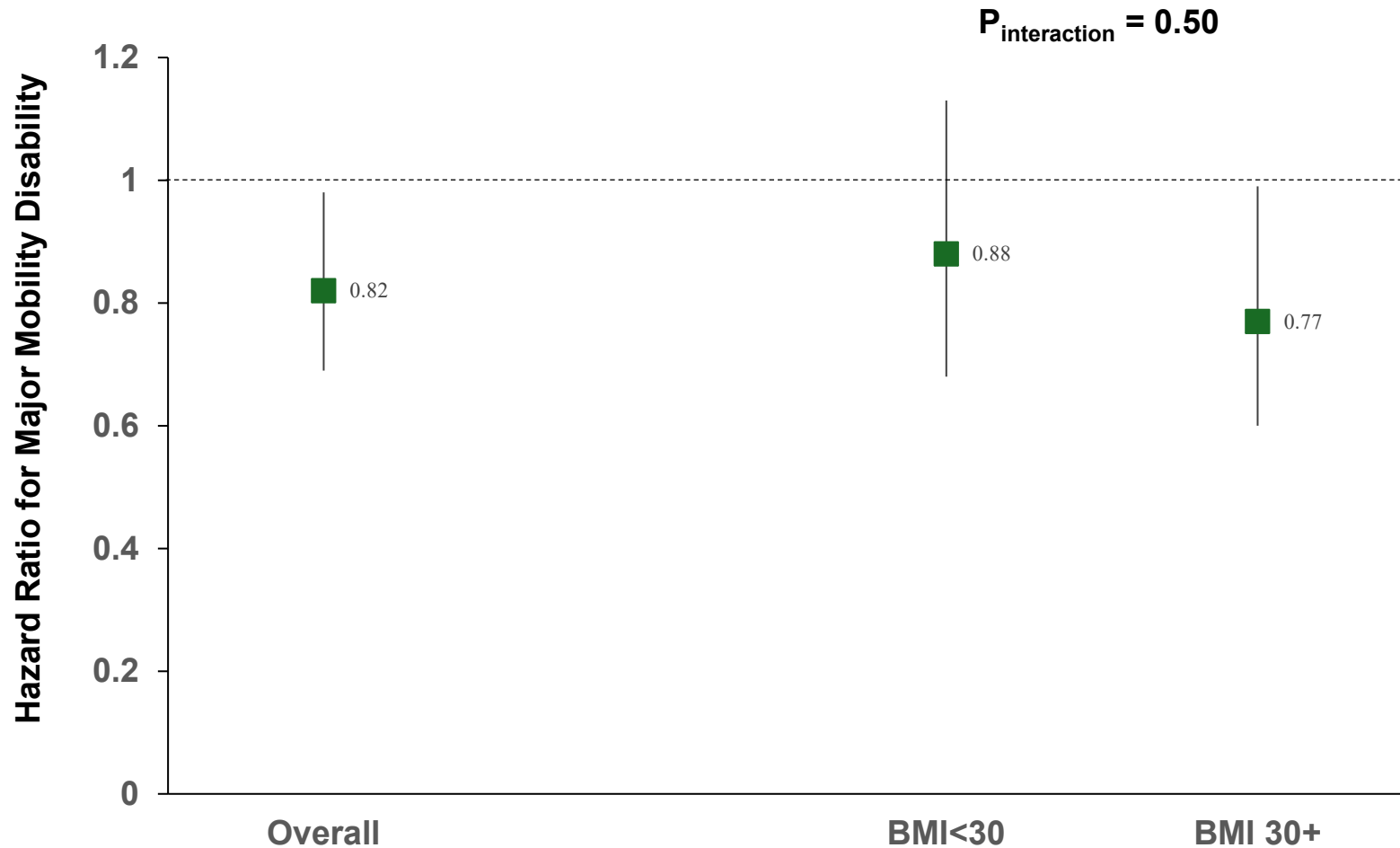


## Effects of Exercise without Weight Loss





# Exercise and Mobility Disability: The LIFE Study



# Summary

- Evidence from cohort studies indicates that physical activity is associated with a lower risk of mortality, and the effects are **also seen** among people with overweight and obesity
- Being physically fit protects against the increased risk of mortality associated with obesity and metabolic syndrome
- Intervention research also demonstrates that even in the absence of weight loss, individuals with obesity can accrue health benefits

# Key Takeaways

- Individuals with obesity can reap many health benefits from physical activity, even **without** weight loss
- While physical activity burns energy and contributes to energy balance, health benefits can be obtained with **any amount** of physical activity



**Thank You!**