

BriefTrends: Healthy Eating Index and Physical Activity in U.S. Adults, 2017-2020

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Abstract This BriefTrends summarizes Healthy Eating Index (HEI) scores across physical activity (PA) groups in U.S. adults from 2017 to 2020.

Keywords: Physical activity (PA), NHANES, Healthy Eating Index (HEI)

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1. Introduction

Purpose

To examine Healthy Eating Index (HEI) scores in adults across physical activity (PA) groups after adjusting for demographic covariates.

Data Source

The 2017 - March 2020 pre-pandemic National Health and Nutrition Examination Survey (NHANES).

Population

Noninstitutionalized U.S. adults 20+ years of age who report on all relevant study variables.

Variables

1) HEI (HEI-2015) ranging from 0 to 100 where a higher score represents a better-quality diet, 2) moderate-to-vigorous

PA (MVPA) group consisting of a) no PA, b) insufficient amounts of PA, and c) recommended amounts of PA and 3) demographic variables of age, sex, race/ethnicity, and income.

Analysis

Multiple linear regression with least squares means, 95% confidence intervals (CIs), and contrasts for testing linear trend in HEI means across MVPA groups. Means are adjusted for age, sex, race/ethnicity, and income. BMI was initially included with no considerable changes except a small loss of power.

Findings

Females had significantly greater HEI than males overall and among those meeting recommended amounts of PA. Significant linear trend in HEI was observed across MVPA groups overall and within each sex group. HEI was significantly different across all three MVPA groups among females. HEI was statistically equal for those with insufficient and sufficient amounts of PA in males.

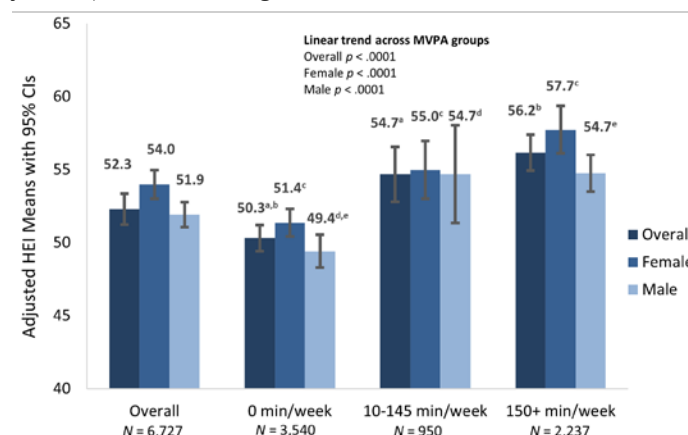


Figure 1. Adjusted Healthy Eating Index (HEI-2015) least squares means overall and across moderate-to-vigorous physical activity (MVPA) groups, NHANES 2017-2020. Note. N represents overall sample size (i.e., far left bars). HEI means are adjusted for age, sex, race/ethnicity, and income. Error bars represent the 95% confidence intervals (CIs) for the adjusted means. Linear trend p-values are from linear contrasts across MVPA groups. HEI means across MVPA groups with same letter superscript are significantly ($p < .05$) different from each other. Trend and comparisons are for same colored MVPA group bars

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