



Four-year Change in Cardiometabolic Risk

Does Race/Ethnicity Matter?

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The Health of Aging Racial Minorities



- Compared to whites and Hispanics, blacks live shorter lives and have worse health throughout their lives
- Measured biological indicators of health and functioning provide an opportunity for identifying causes of health disparities

The Health and Retirement Study



- Research Questions:
 - Are there race differences in health at older ages?
 - If so, do these differences increase, decrease, or stay the same as individuals age?
- Analytic Sample (n = 5,467):
 - Biomarker data from 2006 and 2008 half-samples; 4-years follow-up
 - Mean age at baseline: 64.6 (range: 52-95)
 - White (85%), Black (8%), Hispanic (7%)
 - Female (53%)

Use of Biological Indicators of Health



- Cardiometabolic Risk:
 - Summary measure of risk for cardiovascular and metabolic diseases
 - Risk factors known to predict death, disability and death
 - Can be measured early, before disease diagnosis and progression

Cardiovascular Biomarkers



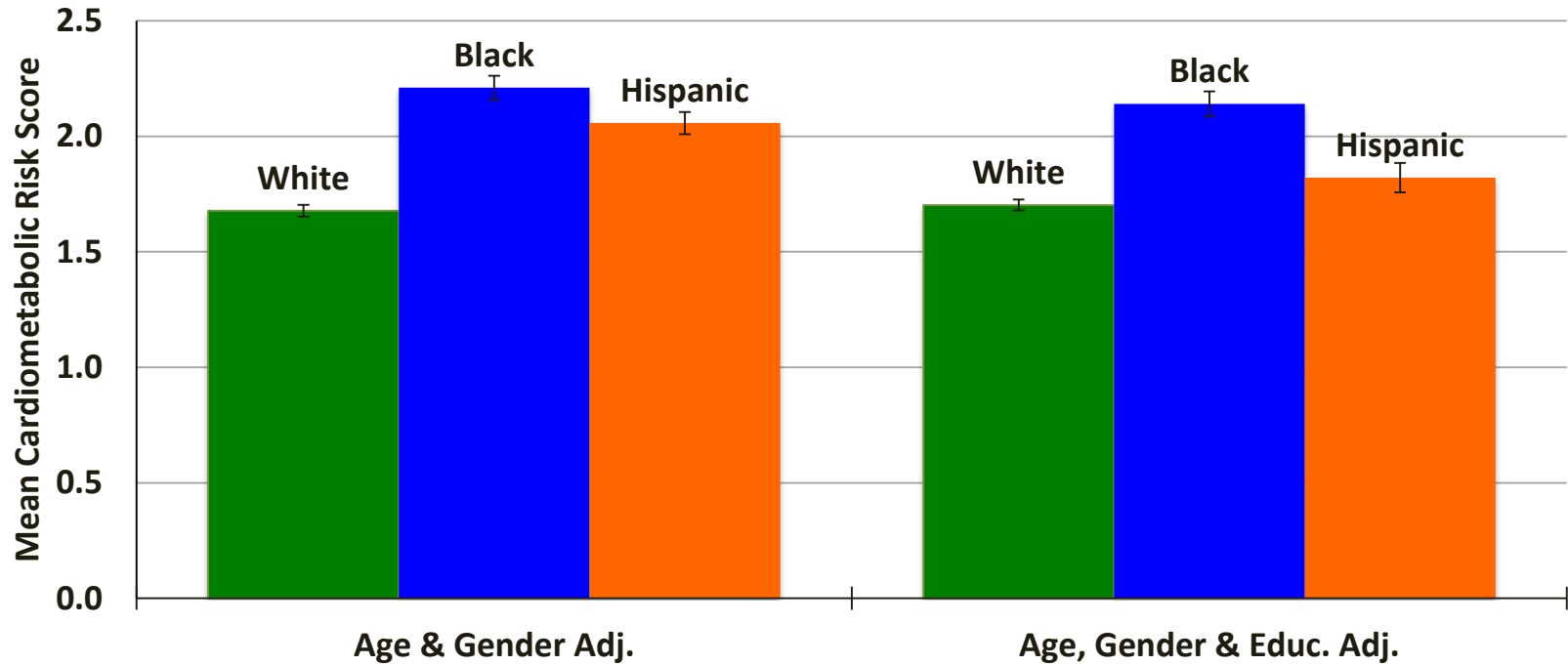
	High Risk Level	% High*	Comments
Pulse Pressure (PP)	≥60 mmHg	22%	Difference between systolic and diastolic blood pressure; associated with stiffening of the arteries
Heart Rate (HR)	≥90 bpm	5%	Beats per minute; a high heart rate compromises blood flow to the body
C-reactive Protein (CRP)	≥3.0 mg/L	35%	Measure of chronic inflammation throughout the body that is predictive of cardiovascular disease

Metabolic Biomarkers

	High Risk Level	% High*	Comments
Total cholesterol (TC)	≥240 mg/dL	21%	Combination of high- and low-density lipoproteins and triglycerides
High-density Lipoprotein (HDL)	<40 mg/dL	19%	Low levels are bad; considered "good" cholesterol because it helps breakdown excess cholesterol
Hemoglobin A1c (HbA1c)	≥6.5%	10%	A measure of average blood glucose levels over the past 2-3 months
Waist circumference (WC)	> 35 inches (women) > 40 inches (men)	64%	Measure of excess fat around the abdominal area

* At baseline

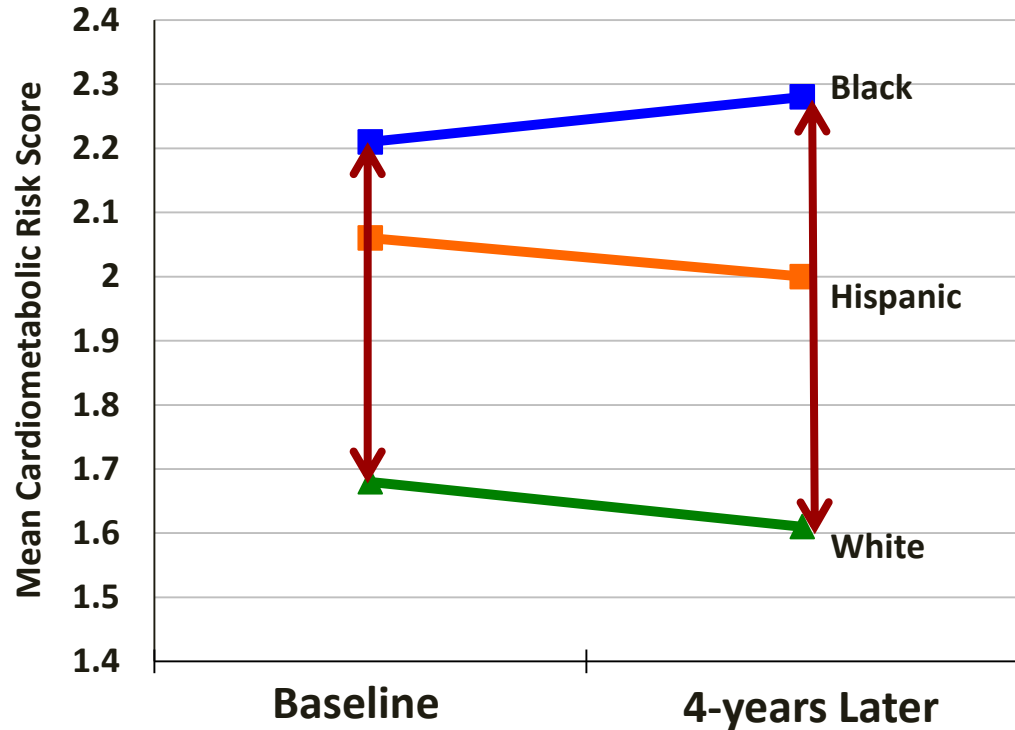
Blacks Have the Worst Cardiometabolic Risk Scores



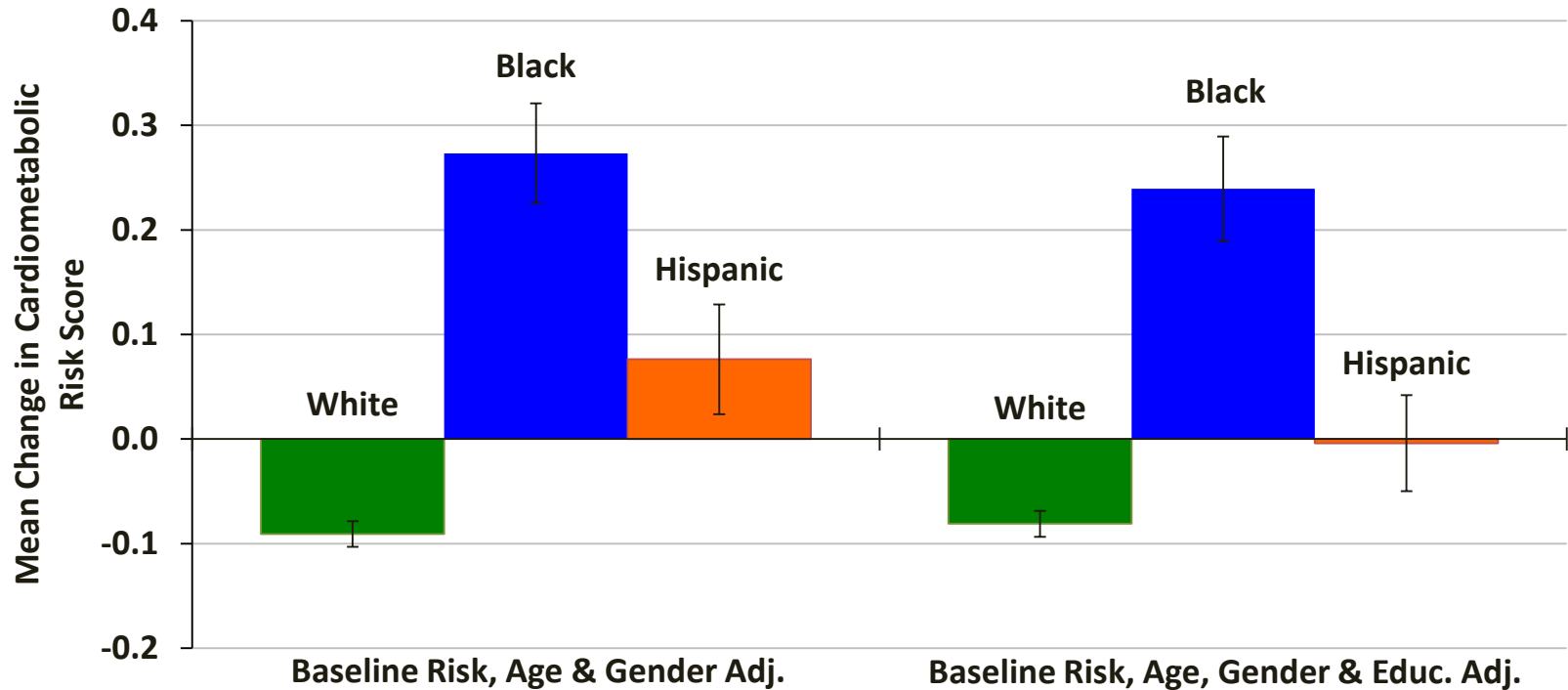
The Black-White Difference Increases Over Time



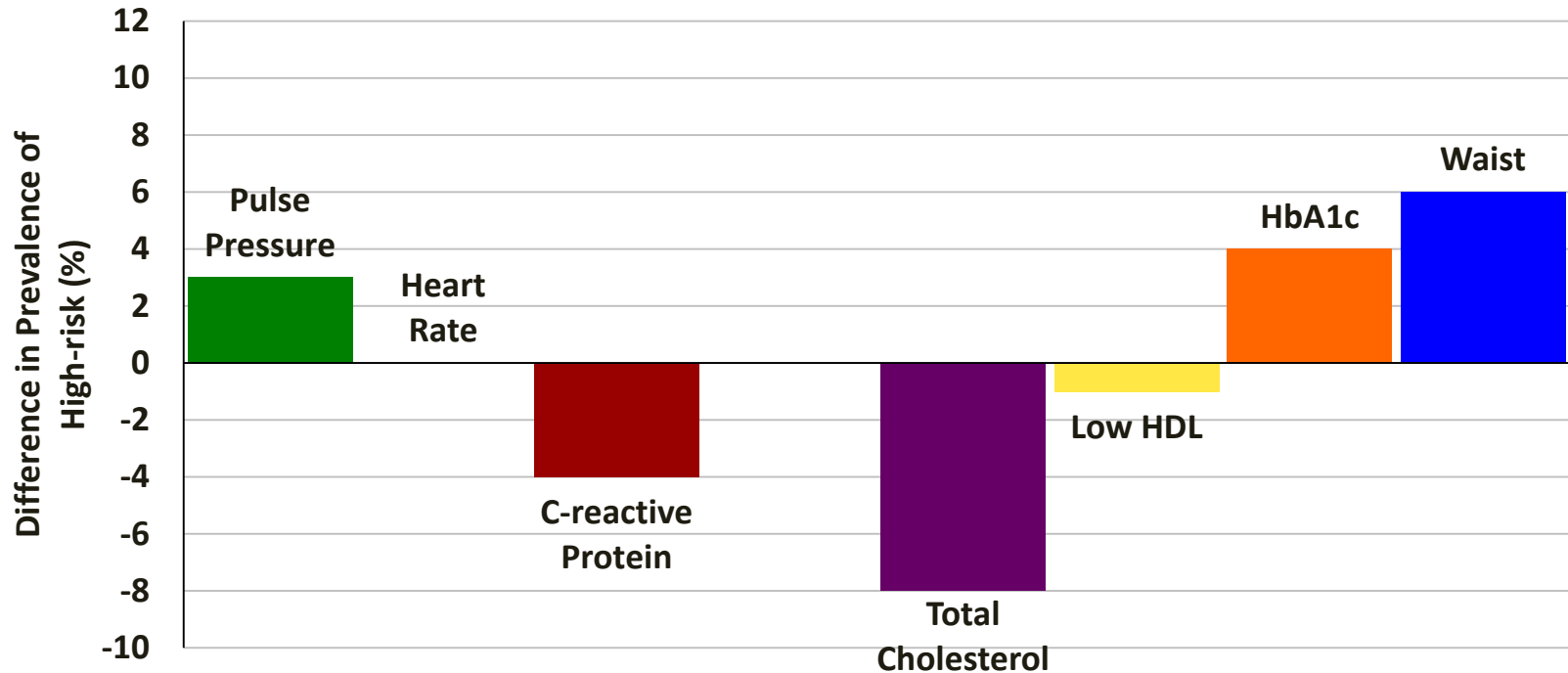
- Risk levels decreased for whites and Hispanics
- Risk levels **increased among blacks**
- Race difference widened in 4 years



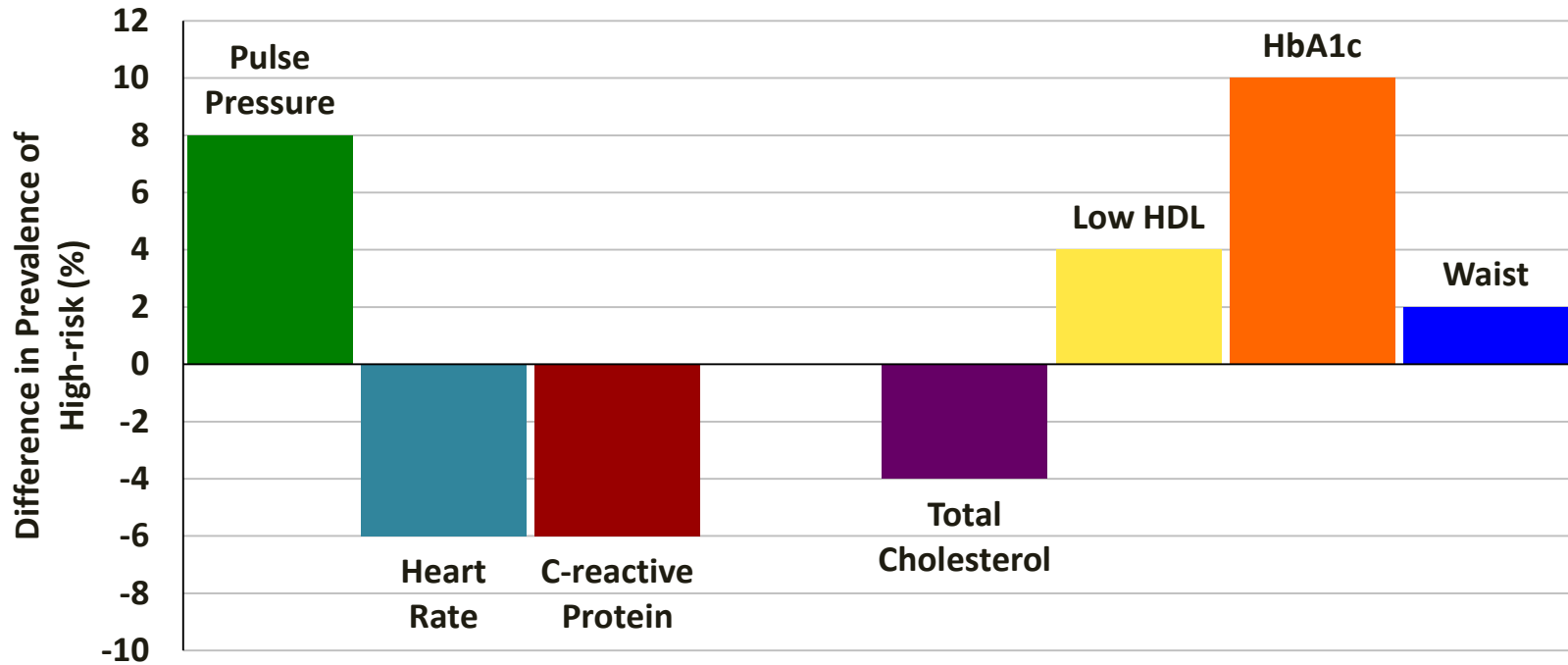
The Black-White Difference Increases Over Time



Which Biomarkers are Whites doing Better on?



Which Biomarkers are Blacks doing Worse on?



Summary of Major Findings



- Blacks have higher cardiometabolic risk than whites and Hispanics
- The disparity between blacks and whites widened over time because risk levels increased for blacks, but decreased for whites

**Why is the change in cardiometabolic risk
different by race?**