

Figure S1. Consort diagram outlining the summary of subject exclusion and inclusion. A total of 468 subjects were analyzed in the present study.

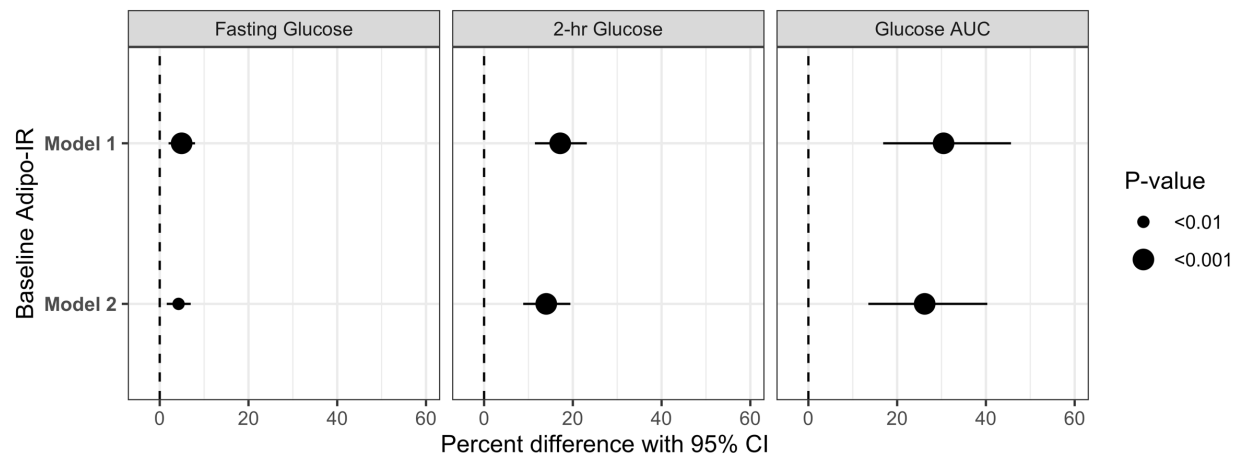


Figure S2. Percent difference (with 95% CI) from GEE models showing the associations between Adipo-IR and longitudinal change in glucose measures. Model 1 adjusted for time, baseline age, sex, family history of diabetes, ethnicity, physical activity, smoking status, and **BMI**. Model 2: Adjusted for Model 1 + TG: HDL.

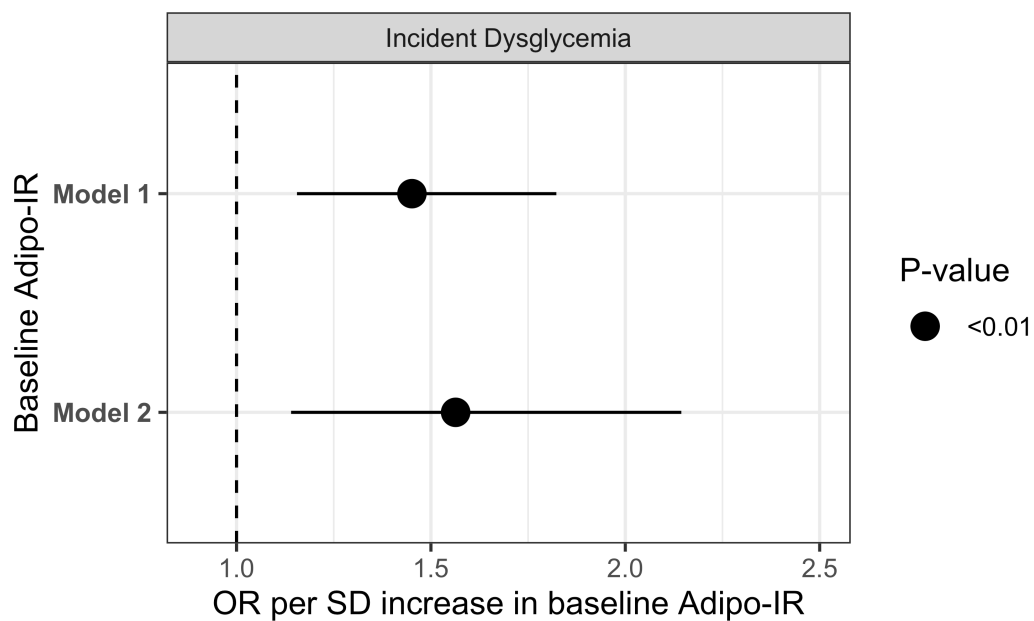
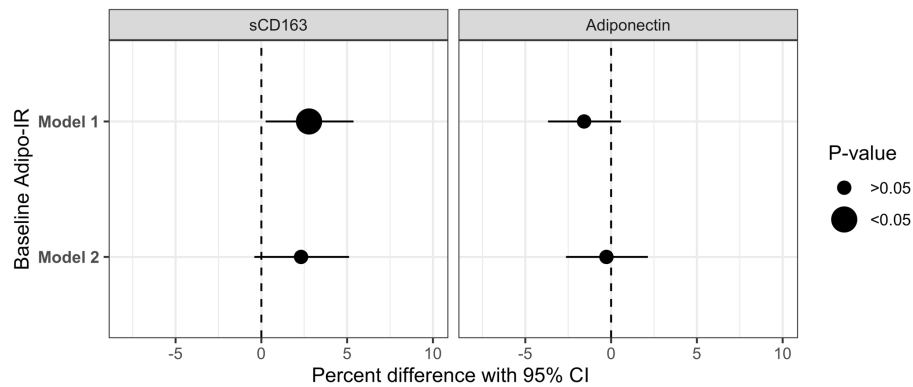
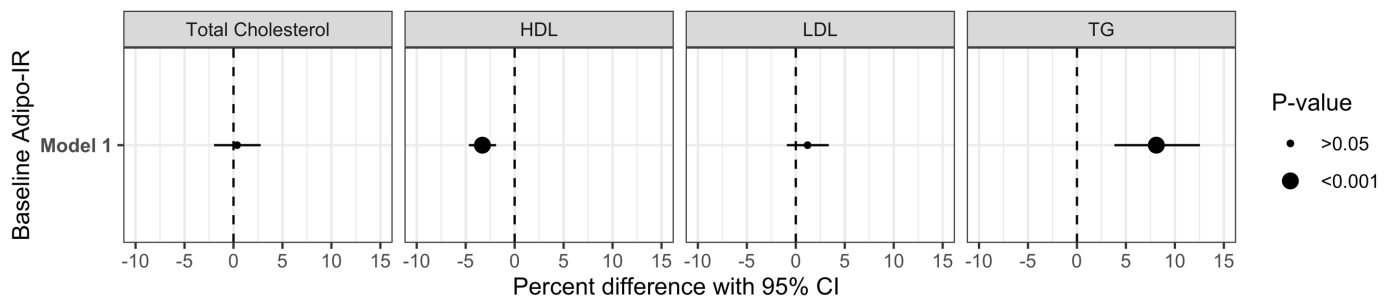


Figure S3. GEE model showing the OR per SD increase (with 95% CI) of baseline Adipo-IR and incident dysglycemia over 9-year follow-up in PROMISE. Model 1: adjusted for time, baseline age, sex, family history of diabetes, ethnicity, physical activity, smoking status, and **BMI**. Model 2: Adjusted for Model 1 + TG: HDL.

A) Adipose Tissue Function



B) Circulating Lipids



C) Systemic Inflammation

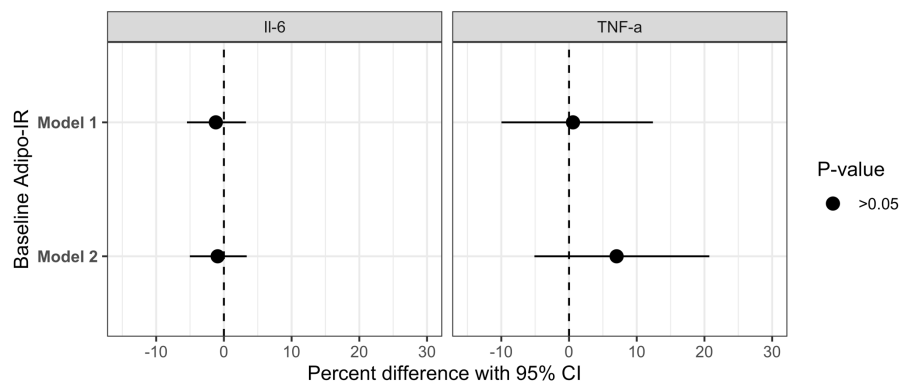


Figure S4. Percent difference (with 95% CI) from GEE models showing the associations between Adipo-IR and longitudinal change in biomarkers of adipose tissue function ((A) adiponectin and sCD163), circulating lipids ((B) total cholesterol, HDL, LDL, TG), and systemic inflammation ((C) TNF- α , and IL-6). Model 1: adjusted for time, baseline age, sex, family history of diabetes, ethnicity, physical activity, smoking status, and **BMI**. Model 2: Adjusted for Model 1 + TG: HDL.

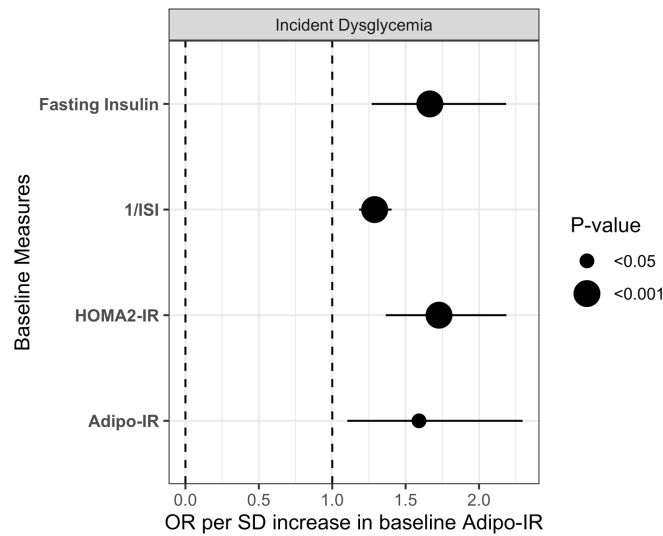


Figure S5. GEE model showing the OR per SD increase (with 95% CI) of baseline measures of fasting insulin, HOMA2-IR, 1/ISI, and Adipo-IR with incident dysglycemia over 9-year follow-up in PROMISE. Adjusted for time, baseline age, sex, family history of diabetes, ethnicity, physical activity, smoking status, and waist circumference.