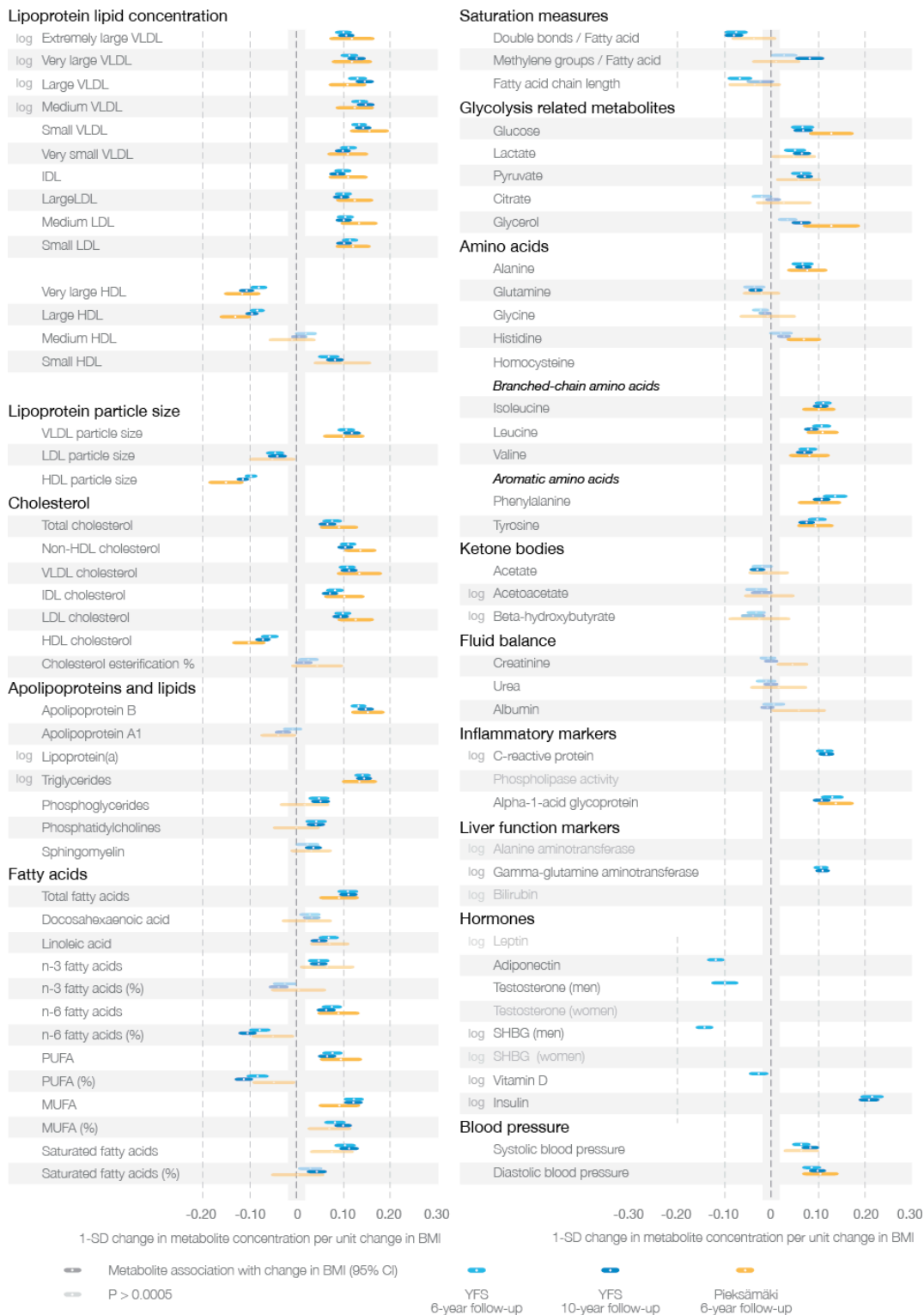


Figure S4. Associations of metabolite changes with change in BMI at 6-year and 10-year follow-up in the Cardiovascular Risk in Young Finns Study, and at 6-year follow-up in the Pieksämäki Study.



Association magnitudes are in units of change in metabolite concentration, scaled to 1-SD units at baseline, per 1-kg/m² change in BMI. White dots indicate β -regression coefficients, colored shading indicates 95% confidence intervals, and darker shading denotes $p < 0.0005$. Longitudinal associations were assessed in YFS during 6-year ($n=1,488$; light blue) and 10-year follow-up ($n=1,372$; dark blue). The longitudinal associations are also shown for 456 middle-aged persons from the Pieksämäki Study at 6-year follow-up (yellow). Associations were adjusted for sex and age, baseline metabolite concentration, change in smoking, change in alcohol intake, and change in physical activity index.