

The Effect of Dietary Fat Intake on Plasma Concentration of One-Carbon Metabolites and Markers of B-vitamin Status



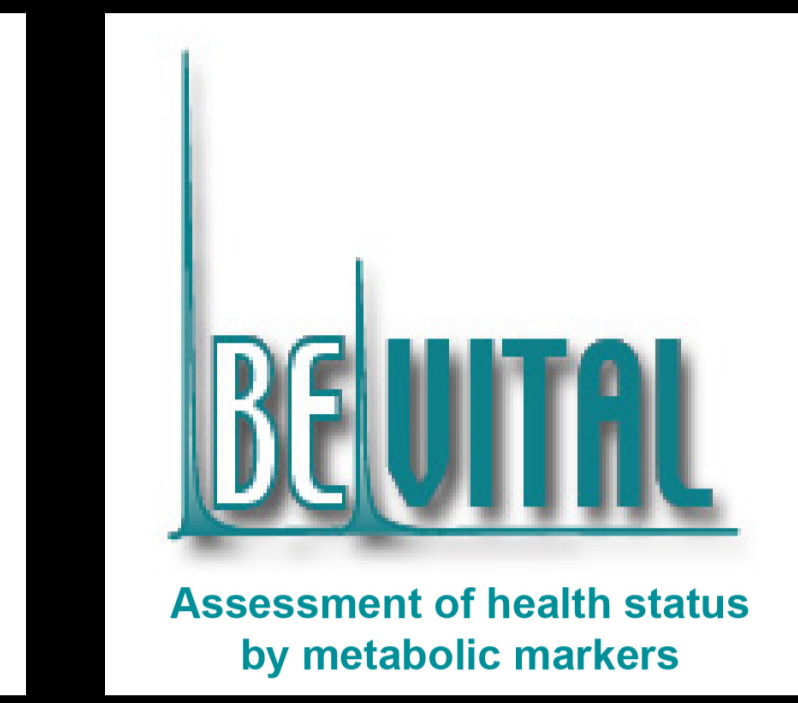
Contact information

@ vegard.lysne@uib.no

+47 41 66 82 18



Vegard Lysne, Anthea Van Parys, Thomas Olsen, Ingvild Marienborg, Johnny Laupsa-Borge, Therese Karlsson, Jutta Dierkes, Per Magne Ueland and Ottar Nygård



Background

In rats, activation of PPAR α substantially influences plasma one-carbon metabolites and markers of B-vitamin status

Fatty acids act as PPAR α ligands

Is dietary fat associated with these metabolites?

Study design

4166 patients with stable angina pectoris (WENBIT)

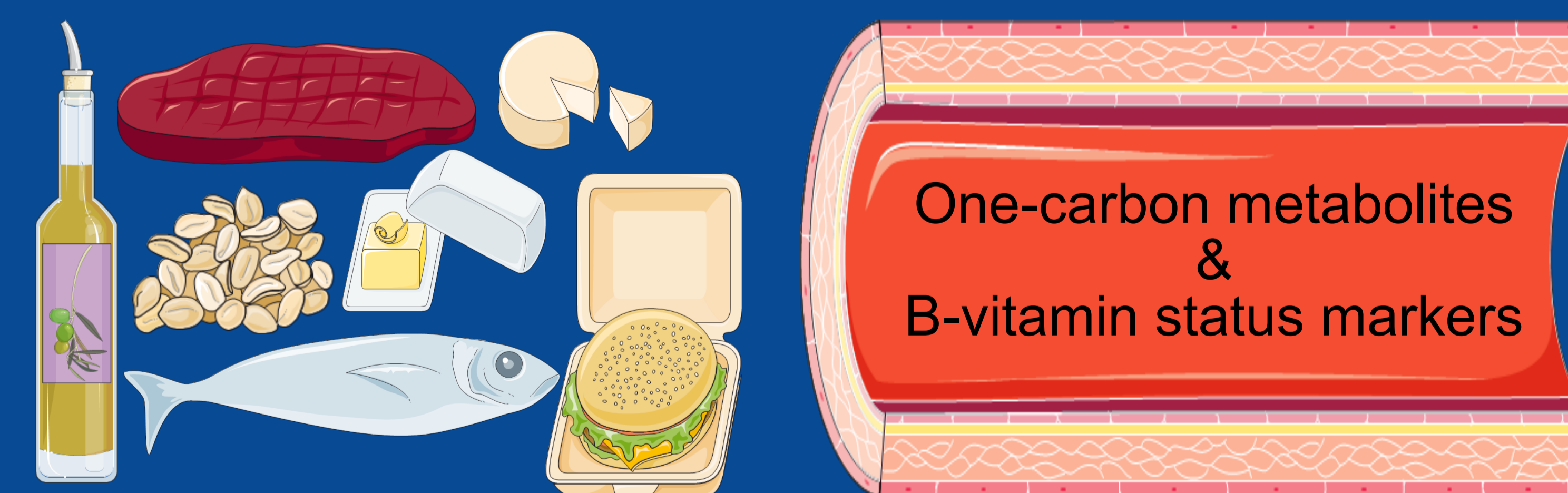
2484 participants completed FFQ

503 excluded due to incomplete FFQ or implausible energy intakes

1981 included in final study population

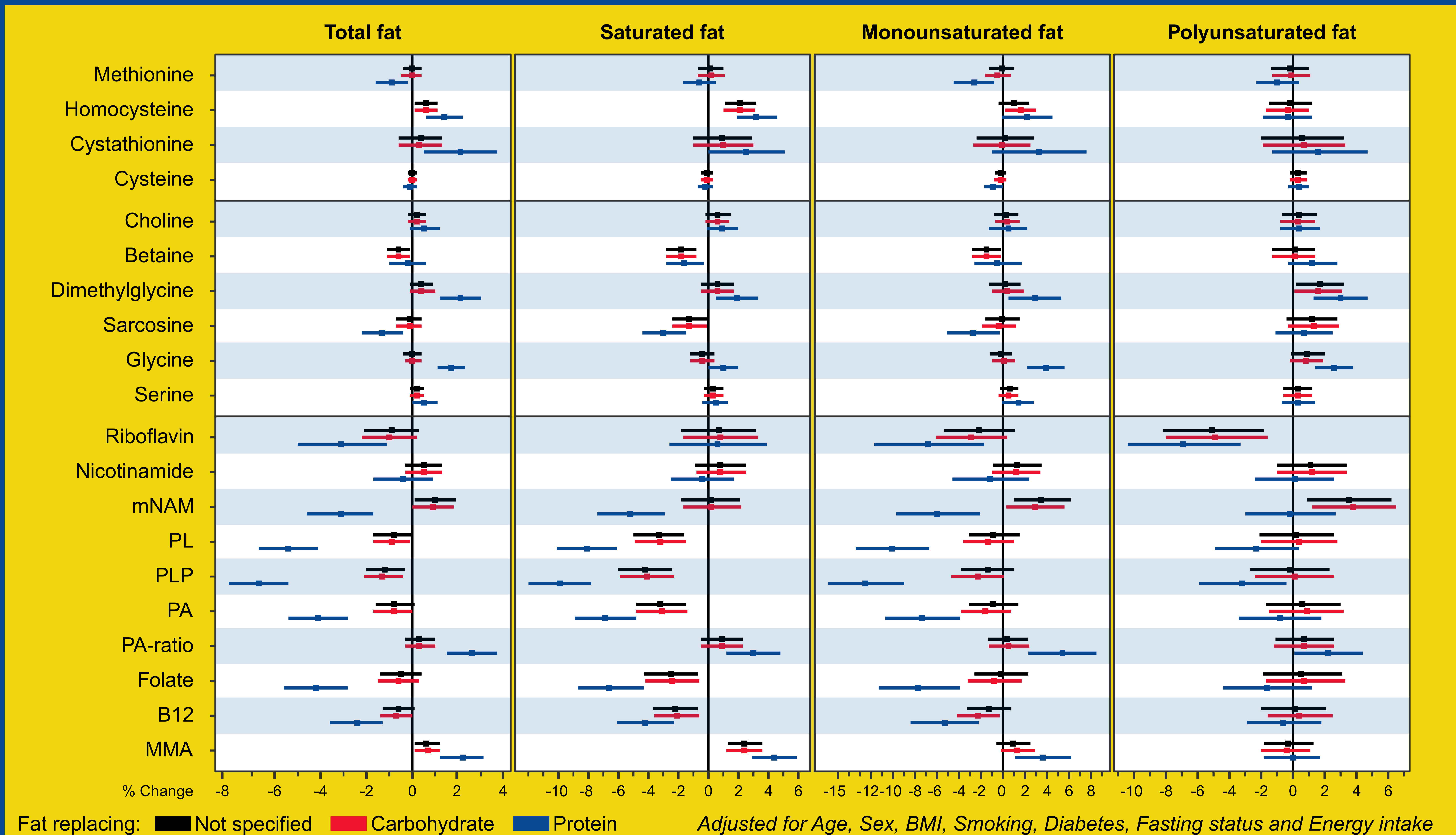
Exposure

Outcome



Linear regression analyses

Results: % change in target metabolite per 2 E% increment in fat intake



Main conclusion

Fat intake and composition may influence plasma concentration of several one-carbon metabolites and markers of B-vitamin status, especially when replacing protein.