

19

Marin Strøm
Afd. for Epidemiologisk Forskning
Statens Serum Institut
Artillerivej 5
2300 Copenhagen S
Denmark
Email: mrm@ssi.dk

Covariate structures of fish intake in Danish National Birth Cohort

Marin Strøm*, Marie-Louise Østerdal, Vibeke K. Knudsen, Tórhallur I. Halldórson (Maternal Nutrition Group, Statens Serum Institut, København, Danmark), Sjúrdur F. Olsen (University of Århus, Århus, Danmark)

The Danish National Birth Cohort (DNBC) is a large prospective cohort (n=101,046) assessing a multitude of dietary and other exposures during and after pregnancy. DNBC provides a unique opportunity to examine impact on maternal and offspring health of fish-consumption in pregnancy. For this purpose knowledge about covariate structures is needed.

Women reporting the same frequencies of fish-intake (n=7496) in interviews in gestation weeks 12 and 30 and in a general FFQ in week 25 were grouped into zero, low, intermediate and high fish-intake groups.

Fruit and vegetable-intake was higher by 55 and 50g/day, while meat-intake was 15g/day lower among women with high compared to zero fish-intake. Macronutrient-differences were small (0,1-2%energy), albeit significantly higher for protein and lower for fat among women with high v. zero fish-intake. MUFAs and SFAs were lower and PUFAs higher among women with high fish-intake (differences 0,5-2%energy). Vitamin D- vitamin C-, retinol- and fibre-intake was increased in high v. zero fish-consumers (differences 4µg/day, 22mg/day, 76mg/day, 8g/day respectively). Women with high fish-intake were older, had lower BMI and larger proportions of women in higher occupations and physically active women and lower proportions of smokers and women who drank no alcohol during pregnancy.

High fish-intake is associated with healthier general dietary patterns and more beneficial sociodemographic and lifestyle factors in the DNBC. This needs to be accounted for in analyses of health effects of fish intake in this cohort.

The study was supported by the Faroese Research Council and the Faroese Fisheries Research Foundation.