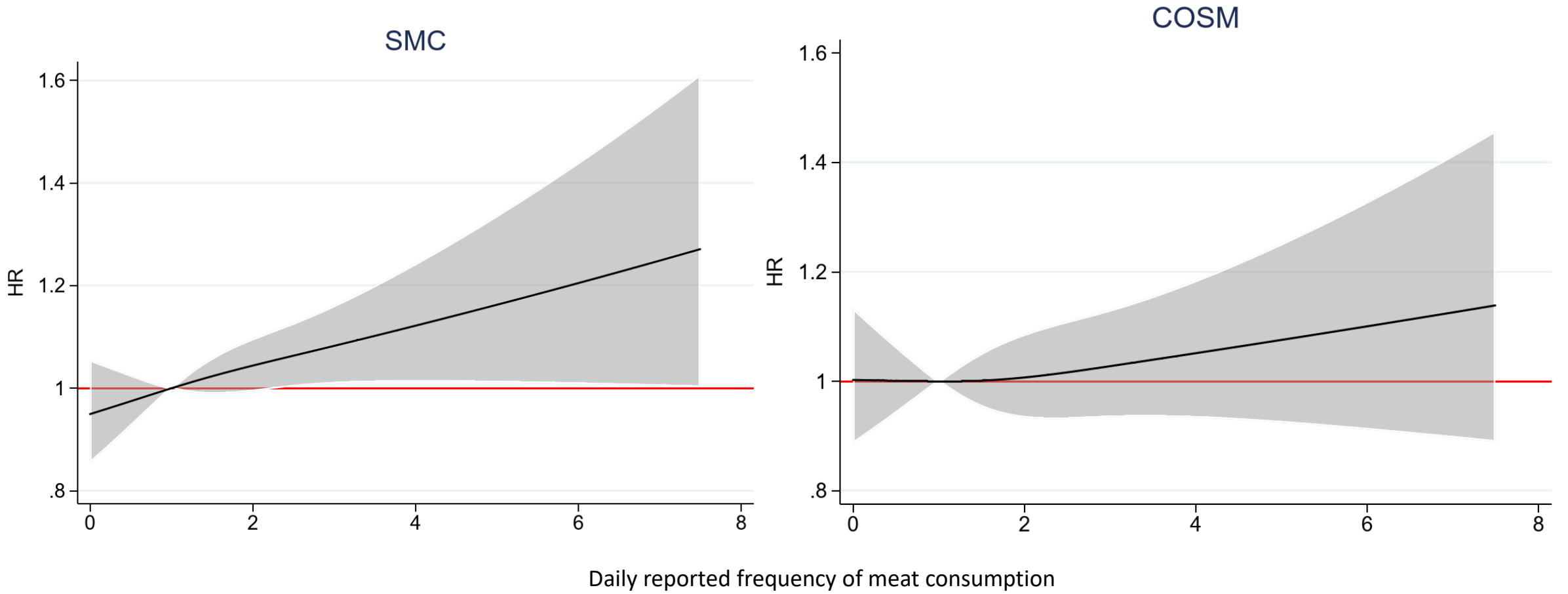


# Supplementary Information, supplemental figures 1-4

## **Meat consumption and the risk of hip fracture in women and men: Two prospective Swedish cohort studies**

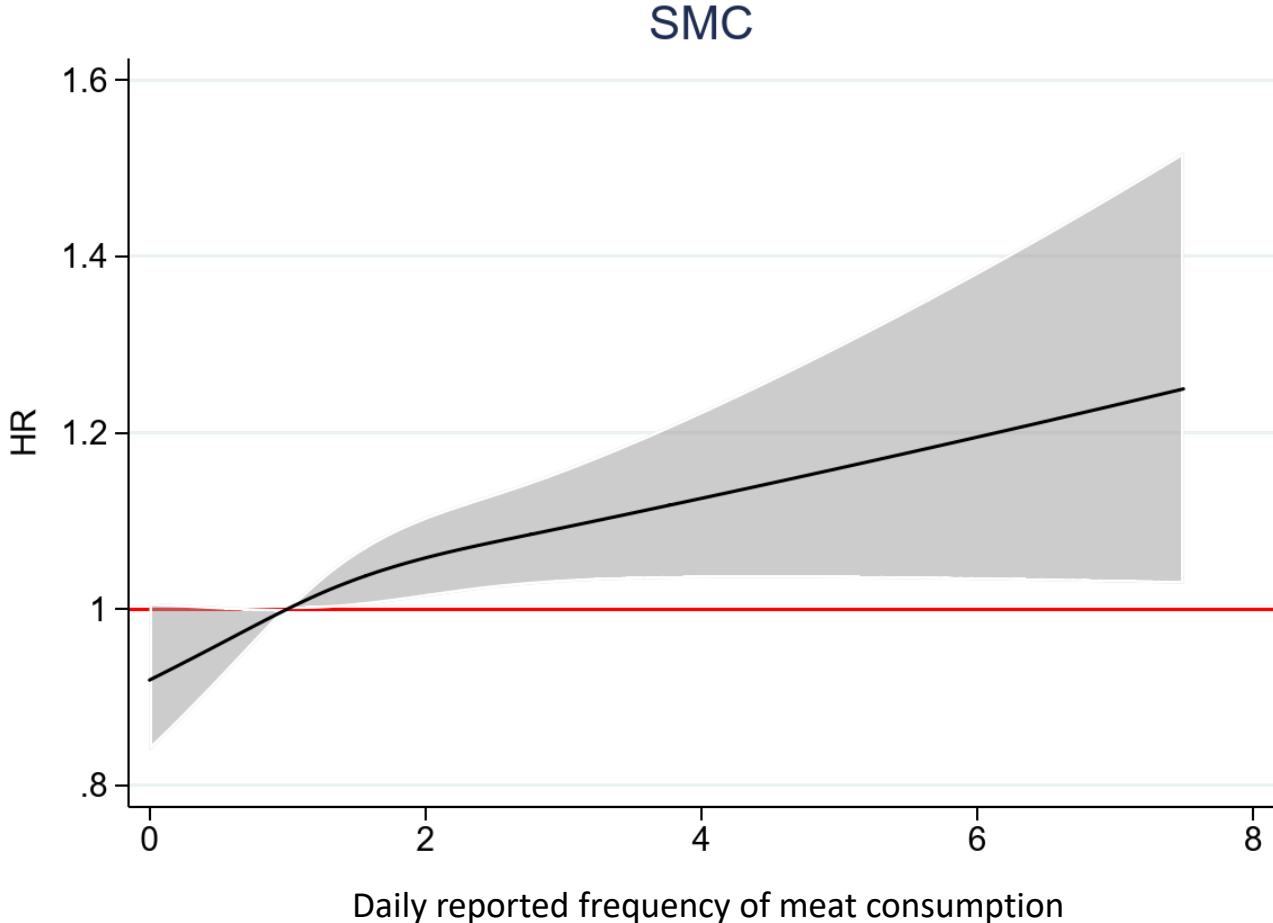
Eva Warensjö Lemming, Liisa Byberg, Jonas Höijer, John A Baron, Alicja Wolk and Karl Michaëlsson

# Supplemental figure 1



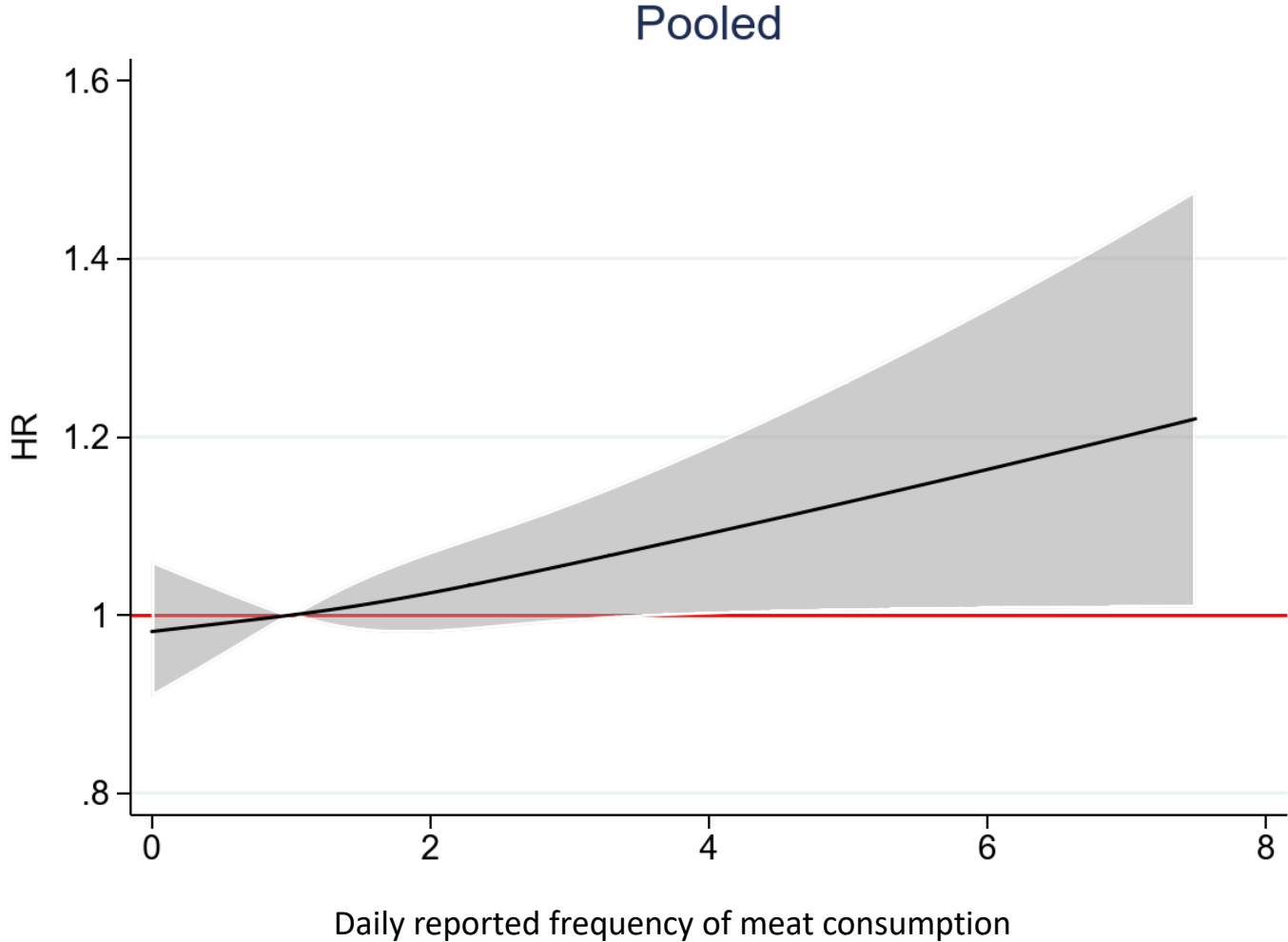
HR Hazard Ratio SMC Swedish mammography cohort COSM Cohort of Swedish men

Supplemental figure 2



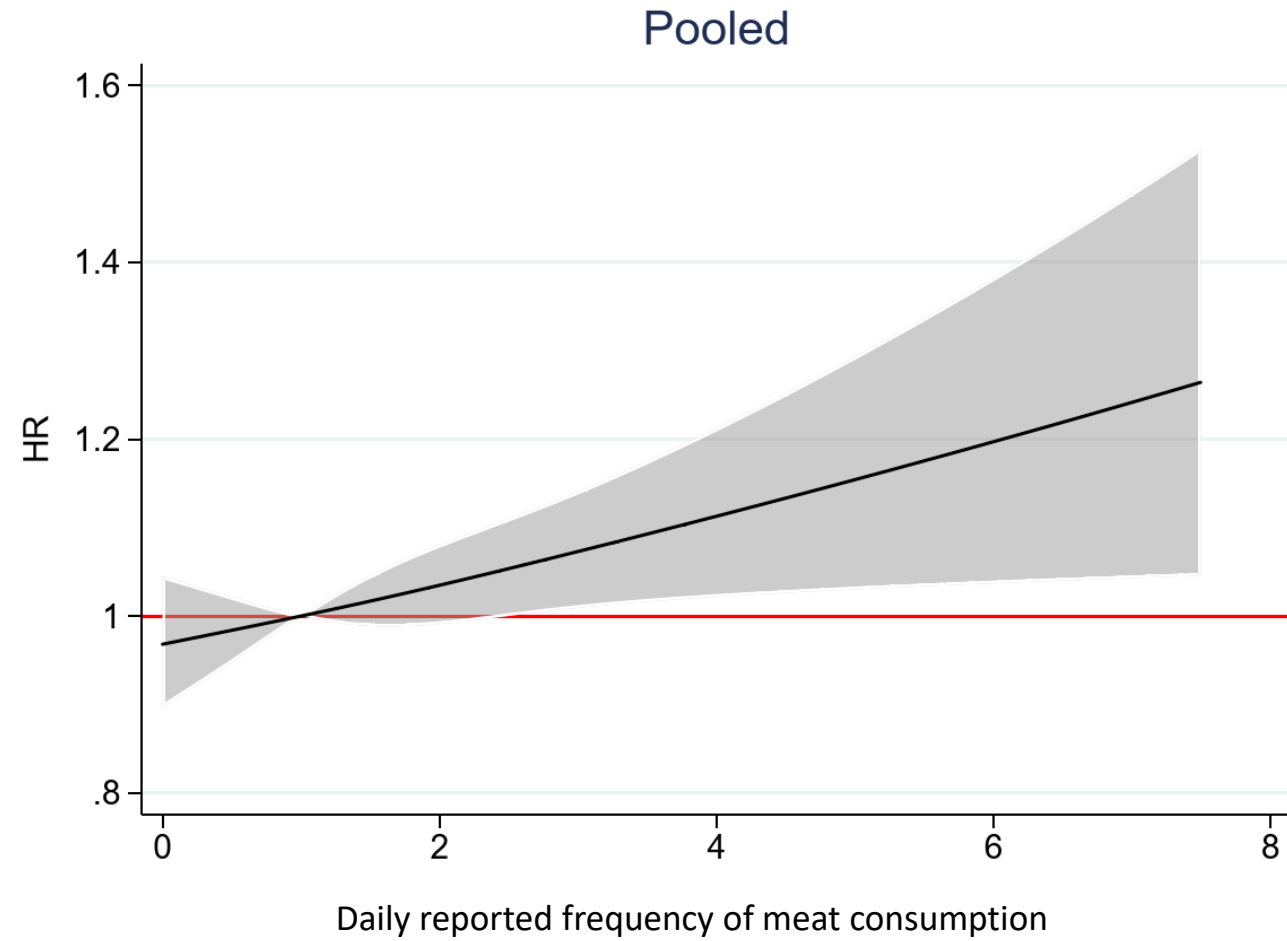
HR Hazard Ratio SMC Swedish mammography cohort

Supplemental figure 3



HR Hazard Ratio, pooled sample of both women and men

Supplemental figure 4



HR Hazard Ratio, pooled sample of both women and men

## Figure legends

**Supplemental figure 1.** Associations between meat intake (mainly red and processed meat, since chicken and other poultry only account for a small portion of meat intake) and hip fracture risk in women (SMC) and men (COSM) separately. Depicted are the multivariable-adjusted hazard ratios and 95% confidence intervals (shaded) of hip fractures. The exposure was the daily frequency of meat intake and the start date January 1<sup>st</sup> 1998. Meat was modelled as a continuous exposure, using a restricted cubic spline Cox model, with three knots placed at the 10th, 50th and 90th percentile, with the reference point set to a daily frequency of two servings. The meat variable were time-updated in 2009 and 2019. The analysis was adjusted for age, height (continuous), body mass index (continuous), smoking habits (current, former, never), living alone (binary), educational level ( $\leq 9$ , 10-12,  $>12$  years, other), use of calcium and vitamin D supplements (binary), cortisone use (binary), walking/cycling (never/seldom,  $< 20$  min/d, 20-40 min/d, 40-60 min/d, 1-1.5 h/d,  $>1.5$  h/d), leisure time physical exercise during the past year ( $<1$  h/w, 1 h/w, 2-3 h/w, 4-5 h/w,  $>5$  h/w), Charlson's weighted comorbidity index, energy intake, intake of fruits/vegetables and alcohol (all continuous).

**Supplemental figure 2.** Associations between meat intake (mainly red and processed meat, since chicken and other poultry only account for a small portion of meat intake) and hip fracture risk in the SMC cohort (women) with baseline 1987-90. Depicted are the multivariable-adjusted hazard ratios and 95% confidence intervals (shaded) of hip fractures. The exposure was the daily frequency of meat intake. Meat was modelled as a continuous exposure, using a restricted cubic spline Cox model, with three knots placed at the 10th, 50th and 90th percentile, with the reference point set to a daily frequency of two servings. The meat variable were time-updated in 1997, 2009 and 2019. The analysis was adjusted for age, height (continuous), body mass index (continuous), smoking habits (current, former, never), living alone (binary), educational level ( $\leq 9$ , 10-12,  $>12$  years, other), use of calcium and vitamin D supplements (binary), cortisone use (binary), walking/cycling (never/seldom,  $< 20$  min/d, 20-40 min/d, 40-60 min/d, 1-1.5 h/d,  $>1.5$  h/d), leisure time physical exercise during the past year ( $<1$  h/w, 1 h/w, 2-3 h/w, 4-5 h/w,  $>5$  h/w), Charlson's weighted comorbidity index, energy intake, intake of fruits/vegetables and alcohol (all continuous). HR Hazard Ratio

**Supplemental figure 3.** Associations between meat intake (mainly red and processed meat, since chicken and other poultry only account for a small portion of meat intake) and hip fracture risk in the pooled sample of women and men. Depicted are the multivariable-adjusted hazard ratios and 95% confidence intervals (shaded) of hip fractures. The exposure was the daily frequency of meat intake with a start date of January 1<sup>st</sup> 1998. Meat was modelled as a continuous exposure, using a restricted cubic spline Cox model, with three knots placed at the 10th, 50th and 90th percentile, with the reference point set to a daily frequency of two servings. The meat variable were time-updated in 2009 and 2019. The analysis was adjusted for age, height (continuous), body mass index (continuous), smoking habits (current, former, never), living alone (binary), educational level ( $\leq 9$ , 10-12,  $>12$  years, other), use of calcium and vitamin D supplements (binary), cortisone use (binary), walking/cycling (never/seldom,  $< 20$  min/d, 20-40 min/d, 40-60 min/d, 1-1.5 h/d,  $>1.5$  h/d), leisure time physical exercise during the past year ( $<1$  h/w, 1 h/w, 2-3 h/w, 4-5 h/w,  $>5$  h/w), Charlson's weighted comorbidity index, energy intake, intake of fruits/vegetables, alcohol and in addition milk, fermented milk and cheese (all continuous).

**Supplemental figure 4.** Associations between meat intake (mainly red and processed meat, since chicken and other poultry only account for a small portion of meat intake) and hip fracture risk in the pooled sample of women and men. Depicted are the multivariable-adjusted hazard ratios and 95% confidence intervals (shaded) of hip fractures. The exposure was the daily frequency of meat intake with a start date of January 1<sup>st</sup> 1998. Meat was modelled as a continuous exposure, using a restricted cubic spline Cox model, with three knots placed at the 10th, 50th and 90th percentile, with the reference point set to a daily frequency of two. The meat variable were time-updated in 2009 and 2019. The analysis was adjusted for age, height (continuous), body mass index (continuous), smoking habits (current, former, never), living alone (binary), educational level ( $\leq 9$ , 10-12,  $>12$  years, other), use of calcium and vitamin D supplements (binary), cortisone use (binary), walking/cycling (never/seldom,  $< 20$  min/d, 20-40 min/d, 40-60 min/d, 1-1.5 h/d,  $>1.5$  h/d), leisure time physical exercise during the past year ( $<1$  h/w, 1 h/w, 2-3 h/w, 4-5 h/w,  $>5$  h/w), Charlson's weighted comorbidity index, energy intake, intake of fruits/vegetables, alcohol and in addition chicken or other poultry (all continuous).