Supplementary Table 2: Sensitivity analysis – Associations of sex hormones with all-cause mortality and other-disease mortality after exclusion of deaths of first 12 months

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Multivariable adjusted* associations of hormone levels with all-cause mortality – Men (n = 997)

| All-cause mortality (events = 119) | SHBG | TT | cFT | DHT |
|------------------------------------|------------------|-------------------|-------------------|-------------------|
| (0.00002 ===1) | 1.25 (1.00,1.57) | 0.86 (0.77, 0.97) | 0.84 (0.73, 0.97) | 0.88 (0.76, 1.02) |

SHBG = Sex hormone-binding globulin, TT = Total testosterone, cFT = Calculated free testosterone, DHT = Dihydrotestoterone, E2 = Estradiol.

* Adjusted for age, batch, systolic blood pressure, LDL cholesterol, use of lipid lowering medication, smoking status, use of antihypertensive medication, prevalent diabetes,

body mass index, education years, physical activity, alcohol consumption, estimated glomerular filtration rate, high-sensitivity C-reactive protein concentration, prevalent cancer,

prevalent myocardial infarction and prevalent stroke. Additionally, SHBG is adjusted for TT and E2; DHT and TT are adjusted for SHBG.

9 deaths from the first 12 months of follow-up were excluded from the analysis

Data are reported as hazard ratios (95% confidence interval) per 1 logarithmic SD increase with p < 0.05 marked as **bold**; Ref. = reference category; n = sample size.

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Multivariable adjusted* associations of hormone levels with all-cause and other-disease mortality – Women (n = 704)

| All-cause mortality (events = 65) | SHBG | TT | cFT | DHT | |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|--|
| | 1.52 (1.12, 2.04) | 1.05 (0.78, 1.41) | 0.83 (0.64, 1.08) | 1.25 (0.95, 1.64) | |
| Other disease – mortality | | | | | |
| (<i>events=18</i>) | SHBG | TT | cFT | DHT | |
| | 2.11 (1.19, 3.72) | 0.99 (0.58, 1.72) | 0.81 (0.50, 1.30) | 0.96 (0.66, 1.39) | |

SHBG = Sex hormone-binding globulin, TT = Total testosterone, cFT = Calculated free testosterone, DHT = Dihydrotestoterone, E2 = Estradiol.

* Adjusted for age, batch, systolic blood pressure, LDL cholesterol, use of lipid lowering medication, smoking status, use of antihypertensive medication, prevalent diabetes,

body mass index, education years, physical activity, alcohol consumption, estimated glomerular filtration rate, menopausal status, high-sensitivity C-reactive protein

16 concentration, prevalent cancer, prevalent myocardial infarction and prevalent stroke. Additionally, SHBG is adjusted for TT and E2; DHT and TT are adjusted for SHBG.

SHBG = Sex hormone-binding globulin, TT = Total testosterone, cFT = Calculated free testosterone, DHT = Dihydrotestoterone, E2 = Estradiol.

18 5 deaths from the first 12 months of follow-up were excluded from the analysis

Data are reported as hazard ratios (95% confidence interval) per 1 logarithmic SD increase with p < 0.05 marked in **bold**; Ref. = reference category; n =sample size.