**Supplementary table 4** Adjusted HRs for the differences in minerals intake between dinner and breakfast and cancer and all-cause mortality with additionally excluding those having mineral supplements.

|  |  |  |
| --- | --- | --- |
|  | Cancer mortality | All-cause mortality |
|  | Case/N | HR (95%CI) | Case/N | HR (95%CI) |
| **Potassium (breakfast)** |  |  |  |
| Q1 | 87/4767 | 1 | 348/4767 | 1 |
| Q2 | 103/4751 | 0.92(0.69-1.23) | 456/4751 | 1.03(0.89-1.19) |
| Q3 | 104/4760 | 0.78(0.59-1.05) | 477/4760 | 0.92(0.80-1.07) |
| Q4 | 125/4751 | 0.89(0.67-1.18) | 563/4751 | 1.01(0.88-1.17) |
| Q5 | 111/4750 | 0.79(0.59-1.06) | 509/4750 | 0.93(0.81-1.08) |
| *P* for trend |  | 0.143 |  | 0.336 |
| **Potassium (lunch)** |  |  |  |
| Q1 | 117/4757 | 1 | 518/4757 | 1 |
| Q2 | 122/4758 | 1.11(0.85-1.43) | 515/4758 | 1.06(0.94-1.20) |
| Q3 | 110/4758 | 0.99(0.76-1.30) | 477/4758 | 1.03(0.91-1.18) |
| Q4 | 81/4751 | 0.71(0.53-0.96) | 408/4751 | 0.89(0.77-1.02) |
| Q5 | 100/4755 | 0.92(0.69-1.22) | 435/4755 | 1.03(0.90-1.18) |
| *P* for trend |  | 0.079 |  | 0.464 |
| **Potassium (dinner)** |  |  |  |
| Q1 | 127/4757 | 1 | 550/4757 | 1 |
| Q2 | 101/4760 | 0.76(0.58-0.99) | 488/4760 | 0.89(0.79-1.01) |
| Q3 | 99/4751 | 0.74(0.56-0.97) | 443/4751 | 0.83(0.73-0.95) |
| Q4 | 99/4756 | 0.68(0.51-0.90) | 438/4756 | 0.82(0.71-0.94) |
| Q5 | 104/4755 | 0.70(0.52-0.94) | 434/4755 | 0.85(0.73-0.98) |
| *P* for trend |  | 0.015 |  | 0.009 |
| **Calcium (breakfast)** |  |  |  |
| Q1 | 85/3999 | 1 | 367/3999 | 1 |
| Q2 | 101/3961 | 1.00(0.75-1.35) | 370/3961 | 0.86(0.74-1.00) |
| Q3 | 85/3985 | 0.75(0.55-1.02) | 455/3985 | 0.90(0.78-1.04) |
| Q4 | 111/3976 | 0.95(0.71-1.28) | 497/3976 | 0.93(0.81-1.08) |
| Q5 | 87/3973 | 0.84(0.61-1.15) | 436/3973 | 0.92(0.79-1.07) |
| *P* for trend |  | 0.309 |  | 0.760 |
| **Calcium (lunch)** |  |  |  |
| Q1 | 109/3980 | 1 | 463/3980 | 1 |
| Q2 | 104/3992 | 0.96(0.76-1.31) | 457/3992 | 1.05(0.92-1.20) |
| Q3 | 95/3967 | 0.89(0.67-1.18) | 412/3967 | 0.98(0.85-1.12) |
| Q4 | 83/3980 | 0.83(0.61-1.12) | 417/3980 | 1.02(0.88-1.17) |
| Q5 | 78/3975 | 0.85(0.62-1.16) | 376/3975 | 1.06(0.92-1.23) |
| *P* for trend |  | 0.119 |  | 0.717 |
| **Calcium (dinner)** |  |  |  |
| Q1 | 119/3985 | 1 | 516/3985 | 1 |
| Q2 | 97/3981 | 0.82(0.62-1.08) | 437/3981 | 0.90(0.79-1.03) |
| Q3 | 100/3977 | 0.80(0.60-1.05) | 449/3977 | 0.92(0.81-1.06) |
| Q4 | 87/3975 | 0.69(0.52-0.93) | 385/3975 | 0.80(0.69-0.92) |
| Q5 | 66/3976 | 0.59(0.43-0.83) | 338/3976 | 0.79(0.68-0.92) |
| *P* for trend |  | 0.001 |  | 0.000 |
| **Magnesium (breakfast)** |  |  |  |
| Q1 | 93/5028 | 1 | 389/5028 | 1 |
| Q2 | 105/4910 | 0.88(0.66-1.17) | 445/4910 | 0.88(0.76-1.02) |
| Q3 | 119/4675 | 0.92(0.69-1.22) | 527/4675 | 1.01(0.88-1.16) |
| Q4 | 114/4653 | 0.83(0.62-1.10) | 521/4653 | 0.92(0.80-1.06) |
| Q5 | 99/4513 | 0.78(0.58-1.06) | 471/4513 | 0.90(0.78-1.04) |
| *P* for trend |  | 0.123 |  | 0.552 |
| **Magnesium (lunch)** |  |  |  |
| Q1 | 119/4777 | 1 | 532/4777 | 1 |
| Q2 | 119/4873 | 1.07(0.83-1.39) | 540/4873 | 1.09(0.96-1.23) |
| Q3 | 113/4796 | 1.01(0.78-1.32) | 472/4796 | 0.98(0.86-1.12) |
| Q4 | 92/4731 | 0.81(0.61-1.08) | 437/4731 | 0.98(0.85-1.12) |
| Q5 | 87/4602 | 0.90(0.67-1.21) | 372/4602 | 1.00(0.86-1.15) |
| *P* for trend |  | 0.186 |  | 0.634 |
| **Magnesium (dinner)** |  |  |  |
| Q1 | 135/4786 | 1 | 592/4786 | 1 |
| Q2 | 105/4843 | 0.75(0.58-0.98) | 505/4843 | 0.88(0.78-1.00) |
| Q3 | 100/4752 | 0.71(0.54-0.93) | 456/4752 | 0.83(0.73-0.95) |
| Q4 | 93/4744 | 0.67(0.50-0.89) | 422/4744 | 0.81(0.71-0.93) |
| Q5 | 97/4654 | 0.72(0.53-0.97) | 378/4654 | 0.82(0.71-0.96) |
| *P* for trend |  | 0.019 |  | 0.004 |
| **Copper (breakfast)** |  |  |  |
| Q1 | 68/4253 | 1 | 320/4253 | 1 |
| Q2 | 123/5145 | 1.15(0.85-1.56) | 510/5145 | 0.93(0.80-1.07) |
| Q3 | 133/5105 | 1.10(0.81-1.49) | 584/5105 | 0.95(0.82-1.09) |
| Q4 | 123/5151 | 0.99(0.73-1.36) | 599/5151 | 0.95(0.83-1.10) |
| Q5 | 73/2927 | 1.10(0.77-1.56) | 296/2927 | 0.91(0.76-1.07) |
| *P* for trend |  | 0.842 |  | 0.438 |
| **Copper (lunch)** |  |  |  |
| Q1 | 68/2490 | 1 | 287/2490 | 1 |
| Q2 | 97/3952 | 1.00(0.73-1.37) | 431/3952 | 1.05(0.90-1.22) |
| Q3 | 146/6007 | 1.04(0.77-1.40) | 622/6007 | 1.06(0.92-1.23) |
| Q4 | 123/6210 | 0.79(0.58-1.08) | 619/6210 | 0.99(0.85-1.14) |
| Q5 | 86/3922 | 0.89(0.63-1.25) | 350/3922 | 0.95(0.80-1.12) |
| *P* for trend |  | 0.139 |  | 0.336 |
| **Copper (dinner)** |  |  |  |
| Q1 | 82/3091 | 1 | 372/3091 | 1 |
| Q2 | 119/4989 | 0.89(0.67-1.19) | 541/4989 | 0.93(0.81-1.06) |
| Q3 | 127/6298 | 0.74(0.55-0.99) | 602/6298 | 0.83(0.72-0.95) |
| Q4 | 115/5041 | 0.77(0.57-1.05) | 511/5041 | 0.90(0.78-1.04) |
| Q5 | 77/3162 | 0.80(0.56-1.13) | 283/3162 | 0.79(0.66-0.93) |
| *P* for trend |  | 0.118 |  | 0.011 |

Adjustments included age, sex, ethnicity, income, education level, regular exercise, smoking and drinking status, BMI, prevalence of diabetes, hypertension, hyperlipidemia, nutrient supplement use, AHEI, total daily energy intake and total dietary minerals intake. Q, quartile. HR, hazard ratio.