**Supplementary Table S4:** Cumulative hazard ratios (HR) and 95% confidence intervals of smoking and BMI for specific cancer sites

|  |  |
| --- | --- |
| **All-sites cancer a**  | **Smoking** |
| **heavy** b | **light** c | **former** | **never** |
| BMI | ≥ 30 | 2.67 [2.21,3.22] | 1.57 [1.32,1.88] | 1.51 [1.26,1.80] | 1.15 [1.01,1.32] |
| [25,30) | 2.34 [2.00,2.73] | 1.38 [1.19,1.60] | 1.32 [1.14,1.52] | 1.01 [0.92,1.10] |
| < 25 | 2.32 [2.04,2.63] | 1.37 [1.22,1.53] | 1.31 [1.16,1.47] | 1.00, Reference |
| **Pancreatic cancer a** |
| BMI | ≥ 30 | 2.94 [1.29,6.73] | 2.33[1.11, 4.90] | 2.33 [1.13,4.83] | 1.60 [0.93,2.75] |
| [25,30) | 2.22 [1.07,4.60] | 1.75 [0.93,3.32] | 1.75 [0.94,3.30] | 1.20 [0.81,1.78] |
| < 25 | 1.84 [1.01,3.37] | 1.46 [0.89,2.39] | 1.46 [0.89,2.40] | 1.00, Reference |
| **Liver cancer a** |
| BMI | ≥ 30 | 7.53 [2.93,19.35] | 3.90 [1.55,9.80] | 4.73 [1.96,11.44] | 2.21 [1.18,4.15] |
| [25,30) | 4.37 [1.87,10.23] | 2.26 [0.98,5.21] | 2.75 [1.23,6.13] | 1.28 [0.77,2.12] |
| < 25 | 3.41 [1.73,6.70] | 1.76 [0.91,3.42] | 2.14 [1.14,4.01] | 1.00, Reference |
| **Lung cancer** |
| BMI | ≥ 30 | 7.92 [4.95,12.70] | 2.50 [1.55,4.02] | 1.84 [1.14,2.98] | 0.80 [0.57,1.14] |
| [25,30) | 9.39 [6.48,13.61] | 2.96 [2.02,4.33] | 2.18 [1.48,3.23] | 0.95 [0.77,1.17] |
| < 25 | 9.86 [7.29,13.33] | 3.11 [2.26,4.26] | 2.29 [1.64,3.20] | 1.00, Reference |
| **Colorectal cancer** |
| BMI | ≥ 30 | 1.16 [0.61,2.22] | 1.38 [0.80,2.36] | 1.53 [0.92,2.54] | 1.37 [0.92,2.03] |
| [25,30) | 0.96 [0.54,1.72] | 1.14 [0.73,1.79] | 1.27 [0.82,1.94] | 1.13 [0.86,1.49] |
| < 25 | 0.85 [0.51,1.41] | 1.01 [0.70,1.44] | 1.12 [0.80,1.56] | 1.00, Reference |
| **UADT cancer d** |
| BMI | ≥ 30 | 4.22 [1.84,9.67] | 2.03 [0.89,4.62] | 1.42 [0.62,3.28] | 0.78 [0.42,1.43] |
| [25,30) | 3.87 [1.97,7,61] | 1.86 [0.95,3.64] | 1.31 [0.65,2.62] | 0.71 [0.48,1.05] |
| < 25 | 5.45 [3.18,9.34] | 2.62 [1.53,4.49] | 1.84 [1.03,3.29] | 1.00, Reference |
| **Leukaemia** |
| BMI | ≥ 30 | 1.31 [0.70,2.46] | 1.13 [0.64,1.99] | 1.29 [0.75,2.23] | 1.13 [0.74,1.74] |
| [25,30) | 1.19 [0.70,2.01] | 1.02 [0.65, 1.61] | 1.17 [0.75,1.81] | 1.02 [0.77,1.35] |
| < 25 | 1.16 [0.74,1.81] | 1.00 [0.70,1.43] | 1.14 [0.80,1.62] | 1.00, Reference |
| **Bladder cancer** |
| BMI | ≥ 30 | 2.98 [1.17,7.55] | 1.42 [0.57,3.48] | 1.18 [0.48,2.89] | 1.16 [0.62,2.18] |
| [25,30) | 1.60 [0.70,3.67] | 0.76 [0.34,1.70] | 0.63 [0.28,1.43] | 0.62 [0.38,1.02] |
| < 25 | 2.57 [1.33,4.93] | 1.22 [0.65,2.29] | 1.01 [0.53,1.95] | 1.00, Reference |
| **Stomach cancer** |
| BMI | ≥ 30 | 1.94 [0.66,5.66] | 0.87 [0.30,2.55] | 1.77 [0.70,4.50] | 1.45 [0.71,2.95] |
| [25,30) | 1.60 [0.63,4.09] | 0.72 [0.28,1.85] | 1.46 [0.66,3.24] | 1.19 [0.72,1.98] |
| < 25 | 1.34 [0.62,2.91] | 0.60 [0.27,1.34] | 1.23 [0.66,2.27] | 1.00, Reference |
| **Breast cancer** |
| BMI | ≥ 30 | 1.48 [0.70,3.13] | 0.82 [0.41,1.65] | 0.85 [0.42,1.73] | 1.07 [0.64,1.79] |
| [25,30) | 1.60 [0.86,2.98] | 0.89 [0.51,1.56] | 0.92 [0.51,1.65] | 1.16 [0.84,1.60] |
| < 25 | 1.38 [0.82,2.33] | 0.77 [0.49,1.21] | 0.79 [0.49,1.29] | 1.00, Reference |
| **Cancer of female genitals e** |
| BMI | ≥ 30 | 2.18 [0.82,5.79] | 2.77 [1.35,5.69] | 2.27 [1.05,4.94] | 1.88 [1.10,3.20] |
| [25,30) | 1.52 [0.62,3.73] | 1.93 [1.04,3.59] | 1.58 [0.79,3.16] | 1.31 [0.88,1.95] |
| < 25 | 1.16 [0.52,2.58] | 1.48 [0.92,2.36] | 1.21 [0.69,2.12] | 1.00, Reference |
| **Prostate cancer** |
| BMI | ≥ 30 | 1.04 [0.46,2.36] | 2.14 [1.14,4.02] | 1.74 [0.94,3.19] | 1.54 [0.93,2.55] |
| [25,30) | 0.98 [0.47,2.03] | 2.00 [1.20,3.35] | 1.63 [0.98,2.69] | 1.45 [1.03,2.04] |
| < 25 | 0.68 [0.35,1.29] | 1.38[0.93,2.05] | 1.12 [0.76,1.66] | 1.00, Reference |
| **Remaining cancer deaths** |
| BMI | ≥ 30 | 1.63 [1.04,2.53] | 1.23 [0.81,1.84] | 1.29 [0.87,1.91] | 1.05 [0.77,1.42] |
| [25,30) | 1.37 [0.94,1.99] | 1.03 [0.74,1.44] | 1.08 [0.78,1.50] | 0.88 [0.72,1.08] |
| < 25 | 1.56 [1.14,2.12] | 1.17 [0.90,1.53] | 1.23 [0.95,1.59] | 1.00, Reference |

Values are based on the full model adjusted for sex, age, survey, alcohol consumption, frequency of physical activity, civil status, years of education, nationality, and healthy diet

a depicted in Figure 1

b Current light smokers: smoking less than 20 cigarette equivalents a day. One pipe or cigarillo correspondent to two and one cigar to four cigarette equivalents.

c Current heavy smokers: smoking at least 20 cigarette equivalents a day.

BMI: body mass index

d Cancer of upper Aero-digestive tract: malignant growth of lips, oropharynx, nasopharynx, piriform sinus, laryngopharynx, oesophagus, larynx

e Cancer of female genitals: malignant growth of vulva, vagina, cervix uteri, corpus uteri, ovary, placenta