Supplemental table 1. Hazard ratio and 95% confidence interval of endometrial cancer according to WHO BMI.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **WHO Body Mass Index (kg/m2)** | | | | | | | |
|  | <18.50 | 18.50-22.99 | 23.0-24.99 | 25.0-27.49 | 27.5-29.9 | ≥30.0 | Trend  (per 5 kg/m2) |
| No. of cases | 6 | 74 | 38 | 29 | 22 | 11 |  |
| Person-years | 35,095 | 443,107 | 242,903 | 176,951 | 68,913 | 31,838 |  |
| Age-area adjusted HR (95%CI) | 1.10  (0.46-2.61) | 1.04  (0.70-1.55) | 1.0 | 1.08  (0.67-1.76) | 2.16  (1.28-3.66) | 2.36  (1.21-4.64) | 1.35  (1.01-1.68) |
| Multivariate HR1  (95%CI) a | 1.06  (0.44-2.51) | 1.05  (0.71-1.55) | 1.0 | 1.09  (0.67-1.77) | 2.17  (1.28-3.68) | 2.37  (1.20-4.66) | 1.35  (1.08-1.68) |

a Multivariate-adjusted HR1 was adjusted for age (in years) and study area (10 public health centers), smoking (never or ever), alcohol consumption (regular or none), coffee consumption (≤ 2 cups/week, 3-4 cups/week or ≥1 cup/day), history of diabetes mellitus (none or yes), sports (none or regular), use of exogenous female hormones (ever or never), age at menarche (<14, 14-15, 15-16 and ≥16), age at menopause (<48, 48-51 and ≥51), no of deliveries (nulliparous or ≥1) and menopausal status at baseline survey (pre or post menopausal).

Supplemental table 2. Subgroup analysis by menopausal status for hazard ratios and 95% confidence intervals of endometrial cancer according to BMI and height

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Premenopausal** | | | | |  | **Postmenopausal** | | | | | | |
|  | No. of cases/ participants | | Person- years | Age-area  adjusted HR (95%CI) | Multivariate HRa  (95%CI) |  | No. of cases/ participants | Person- years | | Age-area  adjusted HR (95%CI) | | Multivariate HRa  (95%CI) | |
| **Body Mass Index (kg/m2)** | | |  |  |  |  |  |  |  | |  | |
| ≤18.9 | | 4/1350 | 23,806 | 0.83  (0.28-2.41) | 0.83  (0.28-2.44) |  | 4/1777 | 30,483 | | 1.21  (0.40-3.67) | | 1.17  (0.39-3.58) | |
| 19.0-20.9 | | 17/4193 | 76,367 | 1.09  (0.57-2.06) | 1.10  (0.58-2.08) |  | 10/4431 | 81,174 | | 1.12  (0.50-2.50) | | 1.12  (0.50-2.50) | |
| 21.0-22.9 | | 23/6027 | 112,549 | 0.93  (0.52-2.06)3 | 0.96  (0.53-1.72) |  | 21/7862 | 145,707 | | 1.34  (0.69-2.60) | | 1.35  (0.69-2.63) | |
| 23.0-24.9 | | 22/5037 | 96,629 | 1.0 | 1.0 |  | 15/7562 | 141,843 | | 1.0 | | 1.0 | |
| 25.0-26.9 | | 12/2772 | 53,613 | 0.96  (0.47-1.93) | 0.96  (0.48-1.95) |  | 12/5001 | 93,502 | | 1.25  (0.59-2.67) | | 1.29  (0.60-2.76) | |
| 27.0-29.9 | | 10/1670 | 32,072 | 1.32  (0.63-2.81) | 1.32  (0.62-2.79) |  | 17/3303 | 61,654 | | 2.82  (1.41-5.67) | | 2.98  (1.48-5.98) | |
| ≥30.0 | | 6/581 | 11,129 | 2.41  (0.97-5.98) | 2.26  (0.90-5.67) |  | 4/1093 | 20,135 | | 2.03  (0.67-6.12) | | 2.08  (0.69-6.32) | |
| Trend  (per 5 kg/m2) | | |  | 1.28  (0.93-1.75) | 1.29  (0.95-1.76) |  |  |  | | 1.35  (0.98-1.86) | | 1.38  (1.01-1.91) | |
| **Height (cm)** | |  |  |  |  |  |  |  | |  | |  | |
| <148 | | 10/2324 | 45,716 | 1.01 | 1.01 |  | 16/7342 | 136,017 | | 1.0 | | 1.0 | |
| 148-151 | | 24/5351 | 102,561 | 1.19  (0.57-2.50) | 1.21  (0.28-2.54) |  | 25/9722 | 180,267 | | 1.19  (0.63-2.24) | | 1.20  (0.64-2.26) | |
| 152-155 | | 28/6511 | 122,079 | 1.22  (0.59-2.54) | 1.24  (0.60-2.59) |  | 24/8006 | 149,273 | | 1.34  (0.70-2.55) | | 1.37  (0.72-2.60) | |
| 156-159 | | 23/4578 | 84,423 | 1.53  (0.72-3.28) | 1.56  (0.73-3.33) |  | 11/4127 | 75,457 | | 1.20  (0.55-2.64) | | 1.24  (0.56-2.73) | |
| ≥160 | | 9/2866 | 51,387 | 1.08  (0.43-2.71) | 1.07  (0.42-2.71) |  | 7/1832 | 33,484 | | 1.73  (0.69-4.29) | | 1.73  (0.70-4.30) | |
| Trend  (per 5 cm) | |  |  | 1.04  (0.85-1.29) | 1.04  (0.85-1.28) |  |  |  | | 1.15  (0.92-1.43) | | 1.15  (0.93-1.43) | |

a Multivariate-adjusted HR1 was adjusted for age (in years) and study area (10 public health centers), smoking (never or ever), alcohol consumption (regular or none), coffee consumption (≤2 cups/week, 3-4 cups/week or ≥1 cup/day), sports (none or regular), use of exogenous female hormones (ever or never), age at menarche (<14, 14-15, 15-16 and ≥16), age at menopause (<48, 48-51 and ≥51) for postmenopausal women only, no of deliveries (nulliparous or ≥1), menopausal status at baseline survey (pre- or postmenopausal) and body mass index (<18.9, 19.0-20.9, 21.0-22.9, 23.0-24.9, 25.0-26.9, 27.0-29.9 and ≥30) (height only)

Supplemental table 3. Hazard ratios and 95% confidence intervals of endometrial cancer according to BMI in exogenous female hormone never-users.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hormone never user** | **Body Mass Index (kg/m2)** | | | | | | | | | | | | |
|  | ≤18.9 | 19.0-20.9 | | 21.0-22.9 | | 23.0-24.9 | 25.0-26.9 | | 27.0-29.9 | | ≥30.0 | | Trend  (per　5 kg/m2) |
| No. of participants | 2830 | 7772 | | 12533 | | 11369 | 7000 | | 4524 | | 1507 | |  |
| No. of cases | 7 | 26 | | 39 | | 32 | 20 | | 26 | | 11 | |  |
| Person-years | 48,696 | 140,846 | | 231,685 | | 214,148 | 131,846 | | 84,675 | | 27,875 | |  |
| Age-area adjusted HR (95%CI) | 0.95  (0.42-2.15) | 1.19  (0.71-2.00) | | 1.11  (0..69-1.77) | | 1.0 | 1.05  (0.60-1.83) | | 2.20  (1.31-3.69) | | 2.83  (1.42-5.63) | | 1.41  (1.03-1.72) |
| Multivariate HR1  (95%CI) a | 0.92  (040-2.09) | 1.17  (0.70-1.98) | | 1.11  (0.69-1.77) | | 1.0 | 1.05  (0.60-1.84) | | 2.23  (1.33-3.76) | | 2.86  (1.43-5.72) | | 1.43  (1.04-1.80) |
|  | **Height (cm)** | | | | | | | | | | | | |
|  | <148 | | 148-151 | | 152-155 | | | 156-159 | | ≥160 | | Trend  (per 5 cm) | |
| No. of participants | 8873 | | 13618 | | 13066 | | | 7773 | | 4205 | |  | |
| No. of cases | 24 | | 41 | | 48 | | | 33 | | 15 | |  | |
| Person-years | 165,562 | | 253,830 | | 242,762 | | | 141,930 | | 75,689 | |  | |
| Age-area adjusted HR 2(95%CI) | 1.0 | | 1.12  (0.68-1.87) | | 1.34  (0.81-2.21) | | | 1.59  (0.92-2.74) | | 1.37  (0.70-2.67) | | 1.15  (0.98-1.34) | |
| Multivariate HR2  (95%CI) b | 1.0 | | 1.13  (0.68-1.88) | | 1.36  (0.82-2.24) | | | 1.59  (0.92-2.75) | | 1.35  (0.69-2.64) | | 1.14  (0.98-1.34) | |

a Multivariate-adjusted HR1 was adjusted for age (in years) and study area (10 public health centers), smoking (never or ever), alcohol consumption (regular or none), coffee consumption (≤2 cups/week, 3-4 cups/week or ≥1 cup/day), sports (none or regular), use of exogenous female hormones (ever or never), age at menarche (<14, 14-15, 15-16 and ≥16), age at menopause (<48, 48-51 and ≥51) for postmenopausal women only, no of deliveries (nulliparous or ≥1), menopausal status at baseline survey (pre- or postmenopausal) and body mass index (<18.9, 19.0-20.9, 21.0-22.9, 23.0-24.9, 25.0-26.9, 27.0-29.9 and ≥30) (height only)

Supplemental table 4. Hazard ratios and 95% confidence intervals of endometrial cancer according to weight change from age 20 years

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Weight Change (kg)** | | |
|  | <-5 | -4.9+4.9 | +5< |
| No. of participants | 5442 | 13193 | 23506 |
| No. of cases | 15 | 56 | 84 |
| Person-years | 102,909 | 245,832 | 450,232 |
| Age-area adjusted HR (95%CI) | 0.63  (0.36-1.11) | 1.0 | 0.82  (0.59-1.15) |
| Multivariate HR2  (95%CI) a | 0.67  (0.38-1.19) | 1.0 | 0.68  (0.46-1.00) |

a. Multivariate-adjusted HR1 was adjusted for age (in years) and study area (10 public health centers), smoking (never or ever), alcohol consumption (regular or none), coffee consumption (≤ 2 cups/week, 3-4 cups/week or ≥1 cup/day), sports (none or regular), use of exogenous female hormones (ever or never), age at menarche (<14, 14-15, 15-16 and ≥16), age at menopause (<48, 48-51 and ≥51), no of deliveries (nulliparous or ≥1), menopausal status at baseline survey (pre- or postmenopausal) and body mass index (<18.9, 19.0-20.9, 21.0-22.9, 23.0-24.9, 25.0-26.9, 27.0-29.9 and ≥30).