**Additional file 3: Retrospective analysis of height, body mass index, weight change and breast cancer risk, by menopausal status**

|  |  |  |
| --- | --- | --- |
| Menopausal status | Premenopausal | Postmenopausal |
|  BRCA status | *BRCA1*  | *BRCA2*  | *BRCA1*  | *BRCA2*  |
|  | n | BC | HR | 95%CI | n | BC | HR | 95%CI | n | BC | HR | 95%CI | n | BC | HR | 95%CI |
| Height, per 10 cm | 4424 | 1583 | 1.06 | 0.97–1.17 | 2686 | 865 | 1.17 | 1.02–1.35 | 670 | 205 | 0.83 | 0.66–1.05 | 526 | 187 | 1.36 | 1.02–1.81 |
| Young–adult BMI, kg/m² (categories) |  <18.5 | 737 | 277 | 1.12 | 0.95–1.32 | 375 | 138 | 1.18 | 0.92–1.51 | 95 | 33 | 1.55 | 1.03–2.34 | 66 | 33 | 1.62 | 0.99–2.65 |
| 18.5–< 25 | 3364 | 1219 | 1.0 |  | 2082 | 677 | 1.0 |   | 520 | 153 | 1.0 |  | 410 | 140 | 1.0 |  |
| >=25 | 323 | 87 | 0.71 | 0.55–0.92 | 229 | 50 | 0.69 | 0.49–0.97 | 55 | 19 | 1.23 | 0.73–2.04 | 50 | 14 | 0.88 | 0.49–1.59 |
| Young–adult BMI per 5 kg/m2 (continuous) | 4424 | 1583 | 0.79 | 0.70–0.88 | 2686 | 865 | 0.76 | 0.66–0.88 | 670 | 205 | 0.95 | 0.71–1.27 | 526 | 187 | 0.81 | 0.60–1.10 |

Legend: BC=breast cancer, BMI=body mass index, 1.0=reference value

Retrospective analysis without adjustments for age at menarche, number of full term pregnancies, oral hormonal contraceptive use and hormone replacement therapy.