**Supplementary Table 5**. RR and 95%CI for the association between baseline vitamin D status and incident depression at wave 2 and wave 3 (n=850)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Incident Depression at wave 2 | | | | |
|  | Model | Overall sample adjusted for sex | Males | Females |
| Vitamin D levels at wave 1 |  |  |  |  |
|  | Unadjusted | 0.98(0.95, 1.01) | 0.98(0.94, 1.02) | 0.98(0.94, 1.03) |
|  | Adjusted | 0.98(0.95, 1.01) | 0.97(0.93, 1.01) | 0.98(0.94, 1.03) |
| VDD at wave 1 |  |  |  |  |
|  | Unadjusted | 1.22(0.84, 1.77) | 1.23(0.74, 2.05) | 1.21(0.70, 2.07) |
|  | Adjusted | 1.21(0.83.1.77) | 1.34(0.79, 2.29) | 1.24(0.71, 2.20) |
| Incident Depression at wave 3 | | | | |
|  | Model | Overall sample adjusted for sex | Males | Females |
| Vitamin D levels at wave 1 |  |  |  |  |
|  | Unadjusted | 0.97(0.94, 1.02) | 0.96(0.92, 1.02) | 0.99(0.95,1.04) |
|  | Adjusted | 0.97(0.94, 1.01) | 0.96(0.92, 1.01) | 0.98(0.94,1.03) |
| VDD at wave 1 |  |  |  |  |
|  | Unadjusted | 1.25(0.88, 1.78) | 1.45(0.90, 2.32) | 1.06(0.63, 1.78) |
|  | Adjusted | 1.26(0.88, 1.81) | 1.38(0.85, 2.25) | 1.01(0.64, 1.91) |
| Cumulative Incident Depression at both wave 2 and wave 3 | | | | |
|  | Model | Overall sample adjusted for sex | Males | Females |
| Vitamin D levels at wave 1 |  |  |  |  |
|  | Unadjusted | **0.98(0.95, 1.00)** | **0.97(0.94, 1.00)** | 0.98(0.94, 1.03) |
|  | Adjusted | **0.97(0.94, 0.99)** | **0.97(0.93, 1.00)** | 0.98(0.93 1.02 |
| VDD at wave 1 |  |  |  |  |
|  | Unadjusted | 1.35(0.98. 1.86) | 1.45(0.95, 2.22) | 1.24(0.76, 2.00) |
|  | Adjusted | 1.36(0.98, 1.89) | 1.49(0.95, 2.32) | 1.31(0.79, 2.17) |

Adjusted model included covariates: age at wave 1, only child status, family structure, self-perceived family economic status, BMI at wave 1, physical activity at wave 1 and self-perceived puberty timing at wave 1.