**Table 2 - Associations between BMD (bone mineral density) exposures and incident dementia in sex-combined models, adjusting for age, sex, ApoE4 status, and BMI. Quartiles are designated as Q1, Q2, Q3, and Q4.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Beta | OR | se | Lower 95% CI | Upper 95% CI | p-value |
| Baseline BMD | Baseline BMD | -0.751 | 0.472 | 0.572 | 0.154 | 1.449 | 0.189 |
| BMD\_quart2 | -0.118 | 0.889 | 0.244 | 0.551 | 1.433 | 0.628 |
| BMD\_quart3 | 0.120 | 1.128 | 0.230 | 0.718 | 1.772 | 0.602 |
| BMD\_quart4 | 0.166 | 1.180 | 0.240 | 0.737 | 1.889 | 0.491 |
| BMD\_quantile4th vs 1-3 | 0.129 | 1.138 | 0.159 | 0.833 | 1.555 | 0.416 |
|  |  |  |  |  |  |  |  |
| BMD loss | BMD\_change\_yr | 0.001 | 1.001 | 0.039 | 0.927 | 1.082 | 0.970 |
| BMD\_change\_yr\_q2 | 0.018 | 1.018 | 0.211 | 0.673 | 1.539 | 0.933 |
| BMD\_change\_yr\_q3 | 0.307 | 1.359 | 0.198 | 0.922 | 2.003 | 0.121 |
| BMD\_change\_yr\_q4 | 0.150 | 1.162 | 0.198 | 0.788 | 1.711 | 0.449 |
| BMD\_change\_yr quantile4th vs 1-3 | 0.031 | 1.031 | 0.153 | 0.764 | 1.391 | 0.841 |
|  |  |  |  |  |  |  |  |
| Baseline BMD and Bone Loss | BMD\_change\_yr | -0.006 | 0.994 | 0.041 | 0.917 | 1.078 | 0.890 |
| sec\_fnbmd | -0.902 | 0.406 | 0.615 | 0.122 | 1.354 | 0.142 |

**Sex Stratified Table**

**Table 3 (Table S2 Rotterdam sex-stratified: Associations between BMD (bone mineral density) exposures and incident dementia in sex stratified models, adjusting for age, ApoE4 status, and BMI.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Exposure | Sex | Model | Parametrization | Beta | OR | SE | P | lower 95% CI | Upper 95% CI |
| Baseline BMD | Female | 1.1 | continuous | -0.473 | 0.623 | 0.698 | 0.498 | 0.159 | 2.450 |
|  | Male | 1.1 | continuous | -1.228 | 0.293 | 1.015 | 0.226 | 0.040 | 2.142 |
|  | Female | 1.2 | Q2 vs. Q1 | -0.257 | 0.773 | 0.350 | 0.462 | 0.390 | 1.535 |
|  |  |  | Q3 vs. Q1 | -0.077 | 0.926 | 0.313 | 0.806 | 0.502 | 1.710 |
|  |  |  | Q4 vs. Q1 | -0.011 | 0.989 | 0.314 | 0.971 | 0.534 | 1.830 |
|  | Male | 1.2 | Q2 vs. Q1 | -0.002 | 0.998 | 0.342 | 0.995 | 0.511 | 1.949 |
|  |  |  | Q3 vs. Q1 | 0.320 | 1.377 | 0.347 | 0.356 | 0.697 | 2.721 |
|  |  |  | Q4 vs. Q1 | 0.330 | 1.391 | 0.412 | 0.423 | 0.621 | 3.118 |
|  | Female | 1.3 | Q4 vs. Q1-Q3 | 0.101 | 1.106 | 0.179 | 0.573 | 0.779 | 1.570 |
|  | Male | 1.3 | Q4 vs. Q1-Q3 | 0.221 | 1.247 | 0.355 | 0.534 | 0.622 | 2.500 |
| Bone Loss | Female | 2.1 | continuous | 0.003 | 1.003 | 0.044 | 0.945 | 0.921 | 1.093 |
|  | Male | 2.1 | continuous | -0.002 | 0.998 | 0.089 | 0.979 | 0.838 | 1.188 |
|  | Female | 2.2 | Q2 vs. Q1 | -0.056 | 0.945 | 0.255 | 0.825 | 0.573 | 1.558 |
|  |  |  | Q3 vs. Q1 | 0.080 | 1.084 | 0.240 | 0.738 | 0.677 | 1.735 |
|  |  |  | Q4 vs. Q1 | 0.072 | 1.075 | 0.228 | 0.751 | 0.688 | 1.679 |
|  | Male | 2.2 | Q2 vs. Q1 | 0.186 | 1.204 | 0.380 | 0.624 | 0.572 | 2.534 |
|  |  |  | Q3 vs. Q1 | 0.822 | 2.275 | 0.354 | 0.020 | 1.137 | 4.550 |
|  |  |  | Q4 vs. Q1 | 0.268 | 1.307 | 0.404 | 0.507 | 0.592 | 2.883 |
|  | Female | 2.3 | Q4 vs. Q1-Q3 | -0.032 | 0.969 | 0.094 | 0.734 | 0.806 | 1.164 |
|  | Male | 2.3 | Q4 vs. Q1-Q3 | -0.088 | 0.916 | 0.324 | 0.786 | 0.485 | 1.729 |
| Baseline BMD and Bone Loss | Female | 3 | Baseline BMD | -0.647 | 0.523 | 0.754 | 0.391 | 0.119 | 2.294 |
|  |  |  | Bone Loss | 0.003 | 1.003 | 0.046 | 0.946 | 0.917 | 1.098 |
|  | Male | 3 | Baseline BMD | -1.475 | 0.229 | 1.078 | 0.171 | 0.028 | 1.894 |
|  |  |  | Bone Loss | -0.032 | 0.969 | 0.094 | 0.734 | 0.806 | 1.164 |