\*\*Table 3\*\*. Mixed effect Poisson regression of cognitive status on genetic factors and lifetime incarceration

|  | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | | Model 7 | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **IRR**12 | **95% CI**2 | **IRR**12 | **95% CI**2 | **IRR**12 | **95% CI**2 | **IRR**12 | **95% CI**2 | **IRR**12 | **95% CI**2 | **IRR**12 | **95% CI**2 | **IRR**12 | **95% CI**2 |
| AD PGS (z-score) | 1.02 | 0.96, 1.09 |  |  | 1.02 | 0.95, 1.08 |  |  | 1.02 | 0.95, 1.08 | 1.02 | 0.96, 1.10 | 1.02 | 0.95, 1.09 |
| APOE-4 allele count |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| one copy |  |  | 1.22\* | 1.04, 1.43 | 1.22\* | 1.04, 1.43 |  |  | 1.21\* | 1.03, 1.42 | 1.21\* | 1.03, 1.42 | 1.18\* | 1.00, 1.39 |
| two copies |  |  | 1.55 | 0.98, 2.45 | 1.54 | 0.97, 2.44 |  |  | 1.55 | 0.98, 2.46 | 1.56 | 0.99, 2.46 | 1.61\* | 1.00, 2.59 |
| Lifetime incarceration |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Incarcerated |  |  |  |  |  |  | 2.13\*\*\* | 1.67, 2.73 | 2.13\*\*\* | 1.67, 2.72 | 2.13\*\*\* | 1.67, 2.73 | 2.01\*\*\* | 1.51, 2.68 |
| Lifetime Incarceration\*AD PGS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Incarcerated \* AD PGS (z-score) |  |  |  |  |  |  |  |  |  |  | 0.91 | 0.70, 1.17 |  |  |
| Lifetime Incarceration\*APOE-4 allele count |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Incarcerated \* one copy |  |  |  |  |  |  |  |  |  |  |  |  | 1.29 | 0.75, 2.22 |
| Incarcerated \* two copies |  |  |  |  |  |  |  |  |  |  |  |  | 0.59 | 0.10, 3.68 |
| 1\*p<0.05; \*\*p<0.01; \*\*\*p<0.001 | | | | | | | | | | | | | | |
| 2IRR = Incidence Rate Ratio, CI = Confidence Interval | | | | | | | | | | | | | | |