**Table 3:** Results of hurdle regression models

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Log. Model** | **Stroke** | | **MI** | | **COPD** | | **GIC** | |
| **for Zero Counts** | **Est. (95%CI)** | **p-Value** | **Est. (95%CI)** | **p-Value** | **Est. (95%CI)** | **p-Value** | **Est. (95%CI)** | **p-Value** |
| Intercept | 0.173 (0.083-0.262) | < 0.001 | 0.178 (0.084-0.273) | < 0.001 | 0.027 (0.000-0.193) | < 0.001 | 0.217 (0.121-0.314) | < 0.001 |
|  |  |  |  |  |  |  |  |  |
| After | 0.062 (0.000-0.129) | < 0.001 | 0.074 (0.000-0.163) | < 0.001 | 0.190 (0.087-0.293) | < 0.001 | 0.230 (0.159-0.301) | < 0.001 |
|  |  |  |  |  |  |  |  |  |
| Men | 1.802 (1.731-1.872) | < 0.001 | 1.841 (1.760-1.922) | < 0.001 | 2.160 (2.028-2.292) | < 0.001 | 1.609 (1.525-1.693) | < 0.001 |
| Men\*After | 0.965 (0.879-1.052) | 0.420 | 0.894 (0.789-0.999) | 0.036 | 0.755 (0.609-0.900) | 0.001 | 0.895 (0.801-0.988) | 0.020 |
|  |  |  |  |  |  |  |  |  |
| Age 70-79 | 0.528 (0.438-0.619) | < 0.001 | 0.465 (0.375-0.555) | < 0.001 | 0.597 (0.444-0.751) | < 0.001 | 0.458 (0.360-0.557) | < 0.001 |
| Age 80-89 | 0.347 (0.247-0.446) | < 0.001 | 0.278 (0.170-0.386) | < 0.001 | 0.435 (0.244-0.626) | < 0.001 | 0.287 (0.168-0.407) | < 0.001 |
| Age 90+ | 0.321 (0.143-0.499) | < 0.001 | 0.265 (0.049-0.480) | < 0.001 | 0.658 (0.134-1.183) | 0.118 | 0.230 (0.000-0.538) | < 0.001 |
|  |  |  |  |  |  |  |  |  |
| **NB Model** | **Stroke** | | **MI** | | **COPD** | | **GIC** | |
| **for Positive Counts** | **Est. (95%CI)** | **p-Value** | **Est. (95%CI)** | **p-Value** | **Est. (95%CI)** | **p-Value** | **Est. (95%CI)** | **p-Value** |
| Intercept | 3.634 (3.615-3.654) | < 0.001 | 3.535 (3.513-3.558) | < 0.001 | 5.126 (5.101-5.152) | < 0.001 | 3.463 (3.437-3.490) | < 0.001 |
|  |  |  |  |  |  |  |  |  |
| lin.spl.(Temp.Dist.)1 | 0.944 (0.933-0.955) | < 0.001 | 0.948 (0.935-0.961) | < 0.001 | 0.910 (0.896-0.925) | < 0.001 | 0.871 (0.856-0.887) | < 0.001 |
| lin.spl.(Temp.Dist.)2 | 0.872 (0.861-0.884) | < 0.001 | 0.877 (0.863-0.890) | < 0.001 | 0.801 (0.787-0.816) | < 0.001 | 0.787 (0.771-0.802) | < 0.001 |
| After | 1.727 (1.715-1.739) | < 0.001 | 1.638 (1.624-1.652) | < 0.001 | 1.291 (1.275-1.307) | < 0.001 | 1.350 (1.331-1.368) | < 0.001 |
| lin.spl.(Temp.Dist.)1\*After | 0.937 (0.922-0.951) | < 0.001 | 0.944 (0.928-0.961) | < 0.001 | 1.056 (1.037-1.075) | < 0.001 | 1.062 (1.040-1.084) | < 0.001 |
| lin.spl.(Temp.Dist.)2\*After | 0.983 (0.968-0.998) | 0.023 | 0.955 (0.938-0.972) | < 0.001 | 1.241 (1.221-1.261) | < 0.001 | 1.166 (1.142-1.189) | < 0.001 |
|  |  |  |  |  |  |  |  |  |
| Men | 0.821 (0.806-0.836) | < 0.001 | 0.796 (0.778-0.814) | < 0.001 | 0.855 (0.832-0.878) | < 0.001 | 0.859 (0.838-0.881) | < 0.001 |
| Men\*After | 1.113 (1.102-1.124) | < 0.001 | 1.112 (1.099-1.124) | < 0.001 | 1.078 (1.063-1.093) | < 0.001 | 1.097 (1.079-1.114) | < 0.001 |
|  |  |  |  |  |  |  |  |  |
| Age 70-79 | 1.116 (1.097-1.135) | < 0.001 | 1.143 (1.123-1.163) | < 0.001 | 1.079 (1.053-1.105) | < 0.001 | 1.132 (1.106-1.157) | < 0.001 |
| Age 80-89 | 1.161 (1.141-1.181) | < 0.001 | 1.240 (1.217-1.263) | < 0.001 | 1.097 (1.066-1.129) | < 0.001 | 1.216 (1.187-1.246) | < 0.001 |
| Age 90+ | 1.129 (1.094-1.164) | < 0.001 | 1.230 (1.186-1.274) | < 0.001 | 1.070 (0.981-1.158) | 0.136 | 1.277 (1.206-1.348) | < 0.001 |
| *No. of Observations* | 217,000 | | 157,680 | | 88,712 | | 114,961 | |
| *No. of Groups* | 24,146 | | 17,218 | | 9,865 | | 14,393 | |
| *VAR Ind. RE Log. Model* | 4.60 | | 3.90 | | 6.05 | | 3.87 | |
| *VAR Ind. RE NB Model* | 0.23 | | 0.24 | | 0.25 | | 0.28 | |
| *Overdisp. Par. NB Model* | 11.20 | | 15.50 | | 13.90 | | 8.55 | |