Supplementary Material

# Supplementary Tables

Table 1. Beta regression results – Dependent variable: Poor general health

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| Violation event | 0.014\*\*\* |  |  |  |  |  |  |  |  |  |  |  |  |
|  | (0.005) |  |  |  |  |  |  |  |  |  |  |  |  |
| Violations |  | 0.001\*\*\* |  |  |  |  |  |  |  |  |  |  |  |
|  |  | (0.000) |  |  |  |  |  |  |  |  |  |  |  |
| Pop affected by violations |  |  | 0.089\*\*\* |  |  |  |  |  |  |  |  |  |  |
|  |  |  | (0.013) |  |  |  |  |  |  |  |  |  |  |
| Violations duration |  |  |  | 0.000 |  |  |  |  |  |  |  |  |  |
|  |  |  |  | (0.000) |  |  |  |  |  |  |  |  |  |
| T1 violations |  |  |  |  | 0.003\*\*\* |  |  |  |  |  |  |  |  |
|  |  |  |  |  | (0.001) |  |  |  |  |  |  |  |  |
| Pop affected by T1 violations |  |  |  |  |  | 0.071\*\*\* |  |  |  |  |  |  |  |
|  |  |  |  |  |  | (0.016) |  |  |  |  |  |  |  |
| T1 violations duration |  |  |  |  |  |  | 0.000\* |  |  |  |  |  |  |
|  |  |  |  |  |  |  | (0.000) |  |  |  |  |  |  |
| T1 violations (pathogens) |  |  |  |  |  |  |  | 0.003\* |  |  |  |  |  |
|  |  |  |  |  |  |  |  | (0.002) |  |  |  |  |  |
| Pop affected by T1 violations (pathogens) |  |  |  |  |  |  |  |  | 0.070\*\*\* |  |  |  |  |
|  |  |  |  |  |  |  |  |  | (0.017) |  |  |  |  |
| Pathogens violations duration |  |  |  |  |  |  |  |  |  | 0.000 |  |  |  |
|  |  |  |  |  |  |  |  |  |  | (0.000) |  |  |  |
| T2 violations |  |  |  |  |  |  |  |  |  |  | 0.001\*\*\* |  |  |
|  |  |  |  |  |  |  |  |  |  |  | (0.000) |  |  |
| Pop affected by T2 violations |  |  |  |  |  |  |  |  |  |  |  | 0.090\*\*\* |  |
|  |  |  |  |  |  |  |  |  |  |  |  | (0.014) |  |
| T2 violations duration |  |  |  |  |  |  |  |  |  |  |  |  | 0.000 |
|  |  |  |  |  |  |  |  |  |  |  |  |  | (0.000) |
| Education | -1.189\*\*\* | -1.183\*\*\* | -1.180\*\*\* | -1.183\*\*\* | -1.183\*\*\* | -1.185\*\*\* | -1.184\*\*\* | -1.184\*\*\* | -1.184\*\*\* | -1.183\*\*\* | -1.183\*\*\* | -1.177\*\*\* | -1.183\*\*\* |
|  | (0.041) | (0.041) | (0.041) | (0.041) | (0.041) | (0.041) | (0.041) | (0.041) | (0.041) | (0.041) | (0.041) | (0.041) | (0.041) |
| Income | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* |
|  | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Poverty | 1.466\*\*\* | 1.466\*\*\* | 1.455\*\*\* | 1.460\*\*\* | 1.468\*\*\* | 1.460\*\*\* | 1.465\*\*\* | 1.461\*\*\* | 1.460\*\*\* | 1.461\*\*\* | 1.463\*\*\* | 1.454\*\*\* | 1.460\*\*\* |
|  | (0.142) | (0.142) | (0.141) | (0.143) | (0.143) | (0.143) | (0.143) | (0.143) | (0.143) | (0.143) | (0.142) | (0.142) | (0.143) |
| Unemployment | 0.540\*\*\* | 0.540\*\*\* | 0.560\*\*\* | 0.551\*\*\* | 0.545\*\*\* | 0.550\*\*\* | 0.551\*\*\* | 0.550\*\*\* | 0.545\*\*\* | 0.549\*\*\* | 0.542\*\*\* | 0.562\*\*\* | 0.550\*\*\* |
|  | (0.205) | (0.204) | (0.203) | (0.206) | (0.205) | (0.205) | (0.206) | (0.206) | (0.205) | (0.207) | (0.205) | (0.203) | (0.206) |
| Uninsured | 0.524\*\*\* | 0.523\*\*\* | 0.519\*\*\* | 0.532\*\*\* | 0.526\*\*\* | 0.521\*\*\* | 0.528\*\*\* | 0.527\*\*\* | 0.524\*\*\* | 0.530\*\*\* | 0.525\*\*\* | 0.522\*\*\* | 0.532\*\*\* |
|  | (0.080) | (0.080) | (0.079) | (0.080) | (0.080) | (0.080) | (0.080) | (0.080) | (0.080) | (0.080) | (0.080) | (0.079) | (0.080) |
| Gini | 1.164\*\*\* | 1.162\*\*\* | 1.139\*\*\* | 1.173\*\*\* | 1.170\*\*\* | 1.172\*\*\* | 1.173\*\*\* | 1.173\*\*\* | 1.173\*\*\* | 1.173\*\*\* | 1.163\*\*\* | 1.143\*\*\* | 1.173\*\*\* |
|  | (0.126) | (0.126) | (0.125) | (0.127) | (0.127) | (0.127) | (0.128) | (0.128) | (0.127) | (0.128) | (0.126) | (0.126) | (0.127) |
| Elderly | -0.595\*\*\* | -0.597\*\*\* | -0.605\*\*\* | -0.600\*\*\* | -0.594\*\*\* | -0.602\*\*\* | -0.600\*\*\* | -0.602\*\*\* | -0.604\*\*\* | -0.601\*\*\* | -0.599\*\*\* | -0.608\*\*\* | -0.601\*\*\* |
|  | (0.058) | (0.058) | (0.057) | (0.058) | (0.058) | (0.058) | (0.058) | (0.058) | (0.058) | (0.058) | (0.058) | (0.057) | (0.058) |
| Nonwhite | 0.210\*\*\* | 0.207\*\*\* | 0.208\*\*\* | 0.209\*\*\* | 0.209\*\*\* | 0.210\*\*\* | 0.209\*\*\* | 0.209\*\*\* | 0.209\*\*\* | 0.209\*\*\* | 0.207\*\*\* | 0.206\*\*\* | 0.209\*\*\* |
|  | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) |
| Constant | -1.775\*\*\* | -1.772\*\*\* | -1.764\*\*\* | -1.775\*\*\* | -1.776\*\*\* | -1.774\*\*\* | -1.775\*\*\* | -1.774\*\*\* | -1.773\*\*\* | -1.774\*\*\* | -1.772\*\*\* | -1.764\*\*\* | -1.775\*\*\* |
|  | (0.038) | (0.038) | (0.038) | (0.038) | (0.038) | (0.038) | (0.038) | (0.038) | (0.038) | (0.038) | (0.038) | (0.038) | (0.038) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Observations | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 |
| Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | |  |  |  |  |  |  |  |  |  |  |

Table 2. OLS regression results – Dependent variable: Poor physical

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Violation event | 0.025\*\* |  |  |  |  |  |  |  |  |  |  |  |  |
|  | (0.012) |  |  |  |  |  |  |  |  |  |  |  |  |
| Violations |  | 0.002\*\*\* |  |  |  |  |  |  |  |  |  |  |  |
|  |  | (0.001) |  |  |  |  |  |  |  |  |  |  |  |
| Pop affected by violations |  |  | 0.002\*\*\* |  |  |  |  |  |  |  |  |  |  |
|  |  |  | (0.000) |  |  |  |  |  |  |  |  |  |  |
| Violations duration |  |  |  | 0.000 |  |  |  |  |  |  |  |  |  |
|  |  |  |  | (0.000) |  |  |  |  |  |  |  |  |  |
| T1 violations |  |  |  |  | -0.001 |  |  |  |  |  |  |  |  |
|  |  |  |  |  | (0.003) |  |  |  |  |  |  |  |  |
| Pop affected by T1 violations |  |  |  |  |  | 0.000 |  |  |  |  |  |  |  |
|  |  |  |  |  |  | (0.000) |  |  |  |  |  |  |  |
| T1 violations duration |  |  |  |  |  |  | -0.000 |  |  |  |  |  |  |
|  |  |  |  |  |  |  | (0.000) |  |  |  |  |  |  |
| T1 violations (pathogens) |  |  |  |  |  |  |  | 0.007 |  |  |  |  |  |
|  |  |  |  |  |  |  |  | (0.006) |  |  |  |  |  |
| Pop affected by T1 violations (pathogens) |  |  |  |  |  |  |  |  | 0.000 |  |  |  |  |
|  |  |  |  |  |  |  |  |  | (0.001) |  |  |  |  |
| Pathogens violations duration |  |  |  |  |  |  |  |  |  | 0.000 |  |  |  |
|  |  |  |  |  |  |  |  |  |  | (0.000) |  |  |  |
| T2 violations |  |  |  |  |  |  |  |  |  |  | 0.002\*\*\* |  |  |
|  |  |  |  |  |  |  |  |  |  |  | (0.001) |  |  |
| Pop affected by T2 violations |  |  |  |  |  |  |  |  |  |  |  | 0.002\*\*\* |  |
|  |  |  |  |  |  |  |  |  |  |  |  | (0.000) |  |
| T2 violations duration |  |  |  |  |  |  |  |  |  |  |  |  | 0.000 |
|  |  |  |  |  |  |  |  |  |  |  |  |  | (0.000) |
| Education | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* | -0.022\*\*\* |
|  | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Income | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* | -0.011\*\*\* |
|  | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) |
| Poverty | 0.043\*\*\* | 0.043\*\*\* | 0.042\*\*\* | 0.042\*\*\* | 0.042\*\*\* | 0.042\*\*\* | 0.042\*\*\* | 0.042\*\*\* | 0.042\*\*\* | 0.042\*\*\* | 0.042\*\*\* | 0.042\*\*\* | 0.042\*\*\* |
|  | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) |
| Unemployment | 0.036\*\*\* | 0.036\*\*\* | 0.037\*\*\* | 0.036\*\*\* | 0.037\*\*\* | 0.037\*\*\* | 0.037\*\*\* | 0.036\*\*\* | 0.036\*\*\* | 0.036\*\*\* | 0.036\*\*\* | 0.037\*\*\* | 0.036\*\*\* |
|  | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) |
| Uninsured | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* | 0.006\*\*\* |
|  | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) |
| Gini | 1.735\*\*\* | 1.736\*\*\* | 1.703\*\*\* | 1.752\*\*\* | 1.753\*\*\* | 1.752\*\*\* | 1.753\*\*\* | 1.752\*\*\* | 1.751\*\*\* | 1.751\*\*\* | 1.735\*\*\* | 1.707\*\*\* | 1.751\*\*\* |
|  | (0.279) | (0.279) | (0.278) | (0.280) | (0.280) | (0.280) | (0.280) | (0.280) | (0.280) | (0.280) | (0.279) | (0.278) | (0.280) |
| Elderly | -0.013\*\*\* | -0.013\*\*\* | -0.014\*\*\* | -0.014\*\*\* | -0.014\*\*\* | -0.014\*\*\* | -0.014\*\*\* | -0.014\*\*\* | -0.014\*\*\* | -0.014\*\*\* | -0.014\*\*\* | -0.014\*\*\* | -0.014\*\*\* |
|  | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Nonwhite | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* | -0.005\*\*\* |
|  | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Constant | 3.465\*\*\* | 3.470\*\*\* | 3.481\*\*\* | 3.464\*\*\* | 3.465\*\*\* | 3.465\*\*\* | 3.467\*\*\* | 3.466\*\*\* | 3.466\*\*\* | 3.466\*\*\* | 3.471\*\*\* | 3.482\*\*\* | 3.464\*\*\* |
|  | (0.088) | (0.088) | (0.088) | (0.088) | (0.088) | (0.088) | (0.088) | (0.088) | (0.088) | (0.088) | (0.088) | (0.088) | (0.088) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Observations | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 |
| Adjusted R-squared | 0.729 | 0.729 | 0.730 | 0.729 | 0.729 | 0.729 | 0.729 | 0.729 | 0.729 | 0.729 | 0.729 | 0.730 | 0.729 |
| Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | |  |  |  |  |  |  |  |  |  |  |

Table 3. OLS regression results – Dependent variable: Poor mental

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Violation event | 0.060\*\*\* |  |  |  |  |  |  |  |  |  |  |  |  |
|  | (0.017) |  |  |  |  |  |  |  |  |  |  |  |  |
| Violations |  | 0.004\*\*\* |  |  |  |  |  |  |  |  |  |  |  |
|  |  | (0.001) |  |  |  |  |  |  |  |  |  |  |  |
| Pop affected by violations |  |  | 0.003\*\*\* |  |  |  |  |  |  |  |  |  |  |
|  |  |  | (0.000) |  |  |  |  |  |  |  |  |  |  |
| Violations duration |  |  |  | 0.000\* |  |  |  |  |  |  |  |  |  |
|  |  |  |  | (0.000) |  |  |  |  |  |  |  |  |  |
| T1 violations |  |  |  |  | -0.002 |  |  |  |  |  |  |  |  |
|  |  |  |  |  | (0.005) |  |  |  |  |  |  |  |  |
| Pop affected by T1 violations |  |  |  |  |  | 0.001 |  |  |  |  |  |  |  |
|  |  |  |  |  |  | (0.001) |  |  |  |  |  |  |  |
| T1 violations duration |  |  |  |  |  |  | -0.000 |  |  |  |  |  |  |
|  |  |  |  |  |  |  | (0.000) |  |  |  |  |  |  |
| T1 violations (pathogens) |  |  |  |  |  |  |  | 0.027\*\* |  |  |  |  |  |
|  |  |  |  |  |  |  |  | (0.011) |  |  |  |  |  |
| Pop affected by T1 violations (pathogens) |  |  |  |  |  |  |  |  | 0.001 |  |  |  |  |
|  |  |  |  |  |  |  |  |  | (0.001) |  |  |  |  |
| Pathogens violations duration |  |  |  |  |  |  |  |  |  | 0.000 |  |  |  |
|  |  |  |  |  |  |  |  |  |  | (0.000) |  |  |  |
| T2 violations |  |  |  |  |  |  |  |  |  |  | 0.005\*\*\* |  |  |
|  |  |  |  |  |  |  |  |  |  |  | (0.001) |  |  |
| Pop affected by T2 violations |  |  |  |  |  |  |  |  |  |  |  | 0.003\*\*\* |  |
|  |  |  |  |  |  |  |  |  |  |  |  | (0.001) |  |
| T2 violations duration |  |  |  |  |  |  |  |  |  |  |  |  | 0.000\*\* |
|  |  |  |  |  |  |  |  |  |  |  |  |  | (0.000) |
| Education | -0.010\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* |
|  | (0.001) | (0.001) | (0.001) | (0.001) | (0.002) | (0.002) | (0.002) | (0.001) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) |
| Income | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* | -0.012\*\*\* |
|  | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) |
| Poverty | 0.029\*\*\* | 0.029\*\*\* | 0.028\*\*\* | 0.029\*\*\* | 0.029\*\*\* | 0.029\*\*\* | 0.029\*\*\* | 0.029\*\*\* | 0.029\*\*\* | 0.029\*\*\* | 0.029\*\*\* | 0.028\*\*\* | 0.029\*\*\* |
|  | (0.004) | (0.004) | (0.003) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.004) | (0.003) | (0.004) |
| Unemployment | 0.056\*\*\* | 0.056\*\*\* | 0.057\*\*\* | 0.057\*\*\* | 0.057\*\*\* | 0.057\*\*\* | 0.057\*\*\* | 0.057\*\*\* | 0.057\*\*\* | 0.057\*\*\* | 0.056\*\*\* | 0.057\*\*\* | 0.057\*\*\* |
|  | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) | (0.006) |
| Uninsured | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 |
|  | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) |
| Gini | 2.200\*\*\* | 2.206\*\*\* | 2.162\*\*\* | 2.239\*\*\* | 2.242\*\*\* | 2.239\*\*\* | 2.241\*\*\* | 2.241\*\*\* | 2.239\*\*\* | 2.236\*\*\* | 2.203\*\*\* | 2.168\*\*\* | 2.239\*\*\* |
|  | (0.363) | (0.363) | (0.363) | (0.364) | (0.365) | (0.365) | (0.365) | (0.365) | (0.365) | (0.365) | (0.363) | (0.363) | (0.364) |
| Elderly | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* | -0.009\*\*\* |
|  | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) |
| Nonwhite | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* | -0.008\*\*\* |
|  | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Constant | 4.426\*\*\* | 4.435\*\*\* | 4.451\*\*\* | 4.419\*\*\* | 4.426\*\*\* | 4.426\*\*\* | 4.427\*\*\* | 4.430\*\*\* | 4.428\*\*\* | 4.428\*\*\* | 4.439\*\*\* | 4.452\*\*\* | 4.422\*\*\* |
|  | (0.117) | (0.117) | (0.117) | (0.117) | (0.117) | (0.117) | (0.117) | (0.117) | (0.117) | (0.117) | (0.117) | (0.117) | (0.117) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Observations | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 | 3,100 |
| Adjusted R-squared | 0.429 | 0.430 | 0.431 | 0.428 | 0.427 | 0.427 | 0.427 | 0.428 | 0.427 | 0.427 | 0.430 | 0.431 | 0.428 |
| Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | |  |  |  |  |  |  |  |  |  |  |

**Table 4. Updated OLS results used in calculating the marginal diminishing effects of costs associated with health-based violations**

|  |  |  |
| --- | --- | --- |
|  | (1) | (2) |
| Dependent variable | Poor physical | Poor mental |
|  |  |  |
| Number of violations | 0.00390\*\*\* | 0.00959\*\*\* |
|  | (0.00132) | (0.00198) |
| Number of violations 2 | -0.00003\* | -0.00008\*\*\* |
|  | (0.00002) | (0.00002) |
| Education | -0.02239\*\*\* | -0.00932\*\*\* |
|  | (0.00110) | (0.00150) |
| Income | -0.01131\*\*\* | -0.01245\*\*\* |
|  | (0.00231) | (0.00286) |
| Poverty | 0.04251\*\*\* | 0.02880\*\*\* |
|  | (0.00290) | (0.00350) |
| Unemployment | 0.03612\*\*\* | 0.05608\*\*\* |
|  | (0.00434) | (0.00608) |
| Uninsured | 0.00614\*\*\* | -0.00159 |
|  | (0.00158) | (0.00208) |
| Gini | 1.72957\*\*\* | 2.18802\*\*\* |
|  | (0.27845) | (0.36187) |
| Old | -0.01348\*\*\* | -0.00864\*\*\* |
|  | (0.00141) | (0.00193) |
| Nonwhite | -0.00497\*\*\* | -0.00772\*\*\* |
|  | (0.00054) | (0.00071) |
| Constant | 3.47342\*\*\* | 4.44590\*\*\* |
|  | (0.08768) | (0.11678) |
|  |  |  |
| Observations | 3,100 | 3,100 |
| Adjusted R-squared | 0.72917 | 0.43074 |
| Robust standard errors in parentheses | | |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | |

**Table 5. Diminishing marginal costs of health-based violations (physically unhealthy days)**

|  |  |  |  |
| --- | --- | --- | --- |
| Violations | Total Cost $ | Marginal Cost $  (Δ per violation) | Marginal Cost Decline (%) |
| 0 | 0 | – | – |
| 1 | 3,480,403 | 3,480,403 | – |
| 2 | 6,906,846 | 3,426,443 | -1.60% |
| 3 | 10,279,330 | 3,372,484 | -3.10% |
| 4 | 13,597,854 | 3,318,524 | -4.70% |
| 5 | 16,862,418 | 3,264,564 | -6.20% |
| 6 | 20,073,022 | 3,210,604 | -7.80% |
| 7 | 23,229,667 | 3,156,645 | -9.30% |
| 8 | 26,332,352 | 3,102,685 | -10.90% |
| 9 | 29,381,077 | 3,048,725 | -12.40% |
| 10 | 32,375,843 | 2,994,766 | -14.00% |

**Table 6. Diminishing marginal costs of health-based violations (mentally unhealthy days)**

|  |  |  |  |
| --- | --- | --- | --- |
| Violations | Total Cost $ | Marginal Cost $  (Δ per violation) | Marginal Cost Decline (%) |
| 0 | 0 | – | – |
| 1 | 4,846,484 | 4,846,484 | – |
| 2 | 9,611,428 | 4,764,944 | -1.70% |
| 3 | 14,294,834 | 4,683,406 | -3.40% |
| 4 | 18,896,700 | 4,601,866 | -5.00% |
| 5 | 23,417,027 | 4,520,327 | -6.70% |
| 6 | 27,855,815 | 4,438,788 | -8.40% |
| 7 | 32,213,064 | 4,357,249 | -10.10% |
| 8 | 36,488,774 | 4,275,710 | -11.80% |
| 9 | 40,682,944 | 4,194,170 | -13.50% |
| 10 | 44,795,575 | 4,112,631 | -15.10% |

**Note that:**

1. **Marginal Cost** (Δ per violation) is calculated as:

Where:

is the coefficient for Number of violations

is the coefficient for Number of violations 2

is the annual cost per unhealthy day obtained from McNamara et al. (2024). For physically unhealthy days, and for mentally unhealthy days,

is the county’s average population in the US, which is 104,089

1. **Total Costs** are the sum of marginal costs up to that violation.