

**Supplemental Table 3.** Percent change in liver enzyme levels with an interquartile range increase in the concentrations of PM<sub>2.5</sub>, NO<sub>2</sub>, and O<sub>3</sub>, stratified by physical activity and alcohol drinking<sup>1</sup>

|                   | Pollutant         | n   | AST      |            |                          | ALT      |             |                          | γ-GTP    |             |                          |
|-------------------|-------------------|-----|----------|------------|--------------------------|----------|-------------|--------------------------|----------|-------------|--------------------------|
|                   |                   |     | Estimate | 95% CI     | <i>p</i> for interaction | Estimate | 95% CI      | <i>p</i> for interaction | Estimate | 95% CI      | <i>p</i> for interaction |
| Physical activity |                   |     |          |            |                          |          |             |                          |          |             |                          |
| ≥ 1/wk            | PM <sub>2.5</sub> | 330 | 0.6      | -2.1, 3.4  | 0.04                     | 3        | -0.1, 6.6   | 0.50                     | 5.8      | 1.1, 10.5   | 0.48                     |
|                   | NO <sub>2</sub>   | 327 | 3.1      | -0.1, 6.3  | 0.86                     | 3.9      | 0.1, 7.7    | 0.49                     | -0.3     | -5.7, 5.1   | 0.20                     |
|                   | O <sub>3</sub>    | 339 | -0.4     | -4.7, 4.0  | 0.07                     | 0.04     | -4.4, 4.5   | 0.08                     | 4.2      | -2.0, 10.5  | 0.53                     |
| < 1/wk            | PM <sub>2.5</sub> | 197 | 5.4      | 2.3, 8.5   |                          | 2.6      | -2.2, 7.4   |                          | 3.6      | -1.5, 8.7   |                          |
|                   | NO <sub>2</sub>   | 197 | 4.1      | -0.02, 8.2 |                          | 4.1      | -1.3, 9.4   |                          | -4.7     | -10.9, 1.5  |                          |
|                   | O <sub>3</sub>    | 199 | 5.3      | 0.2, 10.4  |                          | 6        | -0.2, 12.2  |                          | 6.4      | -1.3, 14.1  |                          |
| Alcohol drinking  |                   |     |          |            |                          |          |             |                          |          |             |                          |
| No                | PM <sub>2.5</sub> | 405 | 2.5      | 0.1, 4.8   | 0.53                     | 3.7      | 0.5, 6.9    | 0.50                     | 2.8      | -0.1, 6.4   | 0.008                    |
|                   | NO <sub>2</sub>   | 402 | 5        | 2.1, 7.8   | 0.51                     | 5.6      | 2.2, 9.1    | 0.22                     | -1.6     | -5.9, 2.7   | 0.78                     |
|                   | O <sub>3</sub>    | 415 | 1.8      | -1.9, 5.6  | 0.20                     | -0.3     | -4.3, 3.7   | 0.77                     | 1.5      | -3.7, 6.6   | 0.69                     |
| < 1/wk            | PM <sub>2.5</sub> | 54  | 4.8      | -0.1, 10.6 |                          | 2.8      | -5.4, 11.0  |                          | 7.6      | -4.0, 19.1  |                          |
|                   | NO <sub>2</sub>   | 54  | -0.3     | -7.2, 6.7  |                          | -3.3     | -11.6, 5.0  |                          | -2.2     | -16.5, 12.1 |                          |
|                   | O <sub>3</sub>    | 55  | 4.1      | -5.9, 14.2 |                          | 10.4     | -3.1, 23.9  |                          | 10.1     | -6.3, 26.3  |                          |
| ≥ 1/wk            | PM <sub>2.5</sub> | 64  | 4.2      | -2.0, 10.4 |                          | 1        | -11.5, 13.4 |                          | 20       | 6.3, 33.8   |                          |
|                   | NO <sub>2</sub>   | 64  | -0.9     | -8.4, 6.5  |                          | 4.8      | -6.4, 16.1  |                          | -10.5    | -26.5, 5.5  |                          |
|                   | O <sub>3</sub>    | 65  | -7.3     | -17.9, 3.2 |                          | 17.6     | 4.9, 30.2   |                          | 18.8     | 0.6, 37.0   |                          |

AST, aspartate aminotransferase; ALT, alanine aminotransferase; γ-GTP, γ-glutamyltranspeptidase; CI, confidence interval; PM<sub>2.5</sub>, particulate matter ≤ 2.5 μm; NO<sub>2</sub>, nitrogen dioxide; O<sub>3</sub>, ozone.

<sup>1</sup>Changes in liver enzyme levels by an interquartile range increase in the concentrations of air pollutants were estimated using a linear mixed model after adjusting for age, sex, smoking status, mean temperature, dew point, season, body mass index, alcohol consumption, and amount of exercise.