

**Table S1.** Crude and adjusted odds ratios (95% confidence interval) for asthma by coffee intake (frequency) according to age, sex, and smoking status.

| Characteristics                 | Odds ratios for asthma |                     |                      |                     |                      |                     |
|---------------------------------|------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
|                                 | Crude                  | P-value             | Model 1 <sup>2</sup> | P-value             | Model 2 <sup>3</sup> | P-value             |
| Age < 53 years old (n = 80,079) |                        |                     |                      |                     |                      |                     |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                     |
| 1 time (m) through 6 times (w)  | 1.01 (0.83-1.22)       | 0.951               | 1.00 (0.82-1.21)     | 0.976               | 0.99 (0.79-1.25)     | 0.965               |
| 1-2 times (d)                   | 0.78 (0.55-0.93)       | 0.006 <sup>1</sup>  | 0.77 (0.64-0.92)     | 0.005 <sup>1</sup>  | 0.81 (0.66-1.00)     | 0.053               |
| ≥ 3 times (d)                   | 0.78 (0.64-0.95)       | 0.013 <sup>1</sup>  | 0.82 (0.66-1.00)     | 0.050               | 0.93 (0.72-1.18)     | 0.540               |
| Age ≥ 53 years old (n = 81,969) |                        |                     |                      |                     |                      |                     |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                     |
| 1 time (m) through 6 times (w)  | 0.99 (0.87-1.13)       | 0.901               | 1.04 (0.92-1.19)     | 0.500               | 0.95 (0.80-1.13)     | 0.603               |
| 1-2 times (d)                   | 0.78 (0.70-0.88)       | <0.001 <sup>1</sup> | 0.83 (0.73-0.93)     | 0.002 <sup>1</sup>  | 0.82 (0.70-0.97)     | 0.017 <sup>1</sup>  |
| ≥ 3 times (d)                   | 0.77 (0.66-0.89)       | 0.001 <sup>1</sup>  | 0.85 (0.72-1.00)     | 0.056               | 0.76 (0.59-0.97)     | 0.027 <sup>1</sup>  |
| Men (n = 55,559)                |                        |                     |                      |                     |                      |                     |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                     |
| 1 time (m) through 6 times (w)  | 1.32 (1.05-1.65)       | 0.015 <sup>1</sup>  | 1.45 (1.16-1.82)     | 0.001 <sup>1</sup>  | 1.17 (0.88-1.57)     | 0.275               |
| 1-2 times (d)                   | 0.98 (0.79-1.21)       | 0.842               | 1.08 (0.88-1.34)     | 0.456               | 1.03 (0.79-1.35)     | 0.821               |
| ≥ 3 times (d)                   | 0.89 (0.72-1.11)       | 0.317               | 1.11 (0.88-1.40)     | 0.366               | 1.16 (0.95-1.58)     | 0.332               |
| Women (n = 106,489)             |                        |                     |                      |                     |                      |                     |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                     |
| 1 time (m) through 6 times (w)  | 0.87 (0.77-0.98)       | 0.021 <sup>1</sup>  | 0.92 (0.81-1.04)     | 0.191               | 0.92 (0.79-1.07)     | 0.288               |
| 1-2 times (d)                   | 0.68 (0.61-0.76)       | <0.001 <sup>1</sup> | 0.73 (0.66-0.82)     | <0.001 <sup>1</sup> | 0.76 (0.66-0.87)     | <0.001 <sup>1</sup> |
| ≥ 3 times (d)                   | 0.68 (0.58-0.78)       | <0.001 <sup>1</sup> | 0.76 (0.65-0.89)     | 0.001               | 0.75 (0.61-0.91)     | 0.005 <sup>1</sup>  |
| Nonsmoker (n = 118,185)         |                        |                     |                      |                     |                      |                     |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                     |
| 1 time (m) through 6 times (w)  | 0.93 (0.83-1.05)       | 0.248               | 0.99 (0.88-1.12)     | 0.920               | 0.97 (0.83-1.13)     | 0.691               |
| 1-2 times (d)                   | 0.71 (0.64-0.79)       | <0.001 <sup>1</sup> | 0.77 (0.69-0.86)     | <0.001 <sup>1</sup> | 0.78 (0.68-0.90)     | <0.001 <sup>1</sup> |

|                                |                  |                     |                  |                    |                  |                    |
|--------------------------------|------------------|---------------------|------------------|--------------------|------------------|--------------------|
| ≥ 3 times (d)                  | 0.70 (0.60-0.81) | <0.001 <sup>1</sup> | 0.82 (0.71-0.96) | 0.012 <sup>1</sup> | 0.80 (0.65-0.98) | 0.029 <sup>1</sup> |
| Past smoker (n = 23,761)       |                  |                     |                  |                    |                  |                    |
| None                           | 1.00             |                     | 1.00             |                    | 1.00             |                    |
| 1 time (m) through 6 times (w) | 1.22 (0.90-1.66) | 0.174               | 1.30 (0.95-1.77) | 0.095              | 1.08 (0.73-1.59) | 0.697              |
| 1-2 times (d)                  | 1.03 (0.78-1.36) | 0.846               | 1.07 (0.81-1.42) | 0.632              | 0.96 (0.68-1.37) | 0.839              |
| ≥ 3 times (d)                  | 0.88 (0.64-1.20) | 0.416               | 0.98 (0.71-1.34) | 0.881              | 0.87 (0.57-1.34) | 0.532              |
| Current smoker (n = 20,102)    |                  |                     |                  |                    |                  |                    |
| None                           | 1.00             |                     | 1.00             |                    | 1.00             |                    |
| 1 time (m) through 6 times (w) | 0.74 (0.48-1.15) | 0.184               | 0.87 (0.56-1.35) | 0.531              | 0.72 (0.41-1.26) | 0.248              |
| 1-2 times (d)                  | 0.58 (0.39-0.86) | 0.006 <sup>1</sup>  | 0.67 (0.45-0.99) | 0.047 <sup>1</sup> | 0.84 (0.52-1.34) | 0.461              |
| ≥ 3 times (d)                  | 0.58 (0.40-0.86) | 0.006 <sup>1</sup>  | 0.73 (0.49-1.09) | 0.122              | 0.91 (0.57-1.47) | 0.712              |

<sup>1</sup> Logistic regression model, Significance at P < 0.05

<sup>2</sup> Model 1 was adjusted for age, sex, BMI category, income, smoking status, alcohol consumption, and nutritional intake (total calories, protein, fat, and carbohydrate).

<sup>3</sup> Model 2 was adjusted for model 1 plus frequency of green tea and soda drink intake.

**Table S2.** Crude and adjusted odds ratios (95% confidence interval) for asthma by coffee intake (amount) according to age, sex, and smoking status.

| Characteristics                 | Odds ratios for asthma |                     |                      |                     |                      |                     |
|---------------------------------|------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
|                                 | Crude                  | P-value             | Model 1 <sup>2</sup> | P-value             | Model 2 <sup>3</sup> | P-value             |
| Age < 53 years old (n = 80,079) |                        |                     |                      |                     |                      |                     |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                     |
| 1/2 cup each time               | 0.98 (0.72-1.34)       | 0.915               | 0.96 (0.70-1.32)     | 0.816               | 1.04 (0.74-1.44)     | 0.828               |
| 1 cup each time                 | 0.84 (0.71-0.99)       | 0.035 <sup>1</sup>  | 0.85 (0.71-1.00)     | 0.054               | 0.89 (0.74-1.08)     | 0.246               |
| 2 cups each time                | 0.68 (0.50-0.91)       | 0.011 <sup>1</sup>  | 0.68 (0.50-0.91)     | 0.011 <sup>1</sup>  | 0.70 (0.51-0.96)     | 0.027 <sup>1</sup>  |
| Age ≥ 53 years old (n = 81,969) |                        |                     |                      |                     |                      |                     |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                     |
| 1/2 cup each time               | 1.05 (0.83-1.32)       | 0.693               | 0.12 (0.89-1.41)     | 0.327               | 1.05 (0.82-1.35)     | 0.678               |
| 1 cup each time                 | 0.82 (0.74-0.92)       | <0.001 <sup>1</sup> | 0.88 (0.79-0.98)     | 0.025 <sup>1</sup>  | 0.84 (0.73-0.96)     | 0.010 <sup>1</sup>  |
| 2 cups each time                | 0.92 (0.73-1.15)       | 0.451               | 1.01 (0.80-1.27)     | 0.932               | 0.95 (0.74-1.22)     | 0.680               |
| Men (n = 55,559)                |                        |                     |                      |                     |                      |                     |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                     |
| 1/2 cup each time               | 1.00 (0.66-1.52)       | 0.982               | 1.10 (0.72-1.66)     | 0.664               | 1.05 (0.67-1.63)     | 0.843               |
| 1 cup each time                 | 1.02 (0.84-1.24)       | 0.828               | 1.19 (0.97-1.45)     | 0.089               | 1.10 (0.87-1.39)     | 0.420               |
| 2 cups each time                | 1.07 (0.78-1.48)       | 0.668               | 1.26 (0.91-1.75)     | 0.166               | 1.20 (0.85-1.71)     | 0.301               |
| Women (n = 106,489)             |                        |                     |                      |                     |                      |                     |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                     |
| 1/2 cup each time               | 0.94 (0.77-1.16)       | 0.592               | 1.05 (0.85-1.29)     | 0.649               | 1.05 (0.84-1.32)     | 0.645               |
| 1 cup each time                 | 0.73 (0.66-0.80)       | <0.001 <sup>1</sup> | 0.79 (0.71-0.87)     | <0.001 <sup>1</sup> | 0.79 (0.70-0.90)     | <0.001 <sup>1</sup> |
| 2 cups each time                | 0.64 (0.51-0.80)       | <0.001 <sup>1</sup> | 0.72 (0.58-0.91)     | 0.005 <sup>1</sup>  | 0.71 (0.56-0.90)     | 0.005 <sup>1</sup>  |
| Nonsmoker (n = 118,185)         |                        |                     |                      |                     |                      |                     |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                     |
| 1/2 cup each time               | 0.92 (0.75-1.13)       | 0.440               | 1.02 (0.83-1.25)     | 0.881               | 0.99 (0.79-1.23)     | 0.907               |
| 1 cup each time                 | 0.77 (0.70-0.85)       | <0.001 <sup>1</sup> | 0.84 (0.76-0.93)     | 0.001 <sup>1</sup>  | 0.84 (0.74-0.94)     | 0.004 <sup>1</sup>  |

|                             |                  |                     |                  |                    |                  |                    |
|-----------------------------|------------------|---------------------|------------------|--------------------|------------------|--------------------|
| 2 cups each time            | 0.68 (0.54-0.84) | <0.001 <sup>1</sup> | 0.78 (0.63-0.98) | 0.031 <sup>1</sup> | 0.76 (0.60-0.95) | 0.019 <sup>1</sup> |
| Past smoker (n = 23,761)    |                  |                     |                  |                    |                  |                    |
| None                        | 1.00             |                     | 1.00             |                    | 1.00             |                    |
| 1/2 cup each time           | 1.27 (0.76-2.13) | 0.368               | 1.30 (0.77-2.19) | 0.324              | 0.19 (0.68-2.08) | 0.534              |
| 1 cup each time             | 1.01 (0.77-1.31) | 0.952               | 1.08 (0.83-1.42) | 0.555              | 0.95 (0.69-1.29) | 0.728              |
| 2 cups each time            | 1.23 (0.79-1.89) | 0.356               | 1.29 (0.83-2.00) | 0.254              | 1.14 (0.71-1.83) | 0.594              |
| Current smoker (n = 20,102) |                  |                     |                  |                    |                  |                    |
| None                        | 1.00             |                     | 1.00             |                    | 1.00             |                    |
| 1/2 cup each time           | 0.91 (0.46-1.80) | 0.782               | 1.04 (0.52-2.09) | 0.909              | 1.38 (0.67-2.84) | 0.379              |
| 1 cup each time             | 0.60 (0.42-0.86) | 0.006 <sup>1</sup>  | 0.72 (0.50-1.05) | 0.089              | 0.82 (0.54-1.24) | 0.345              |
| 2 cups each time            | 0.57 (0.33-0.99) | 0.048 <sup>1</sup>  | 0.65 (0.37-1.14) | 0.132              | 0.80 (0.44-1.45) | 0.463              |

<sup>1</sup> Logistic regression model, Significance at P < 0.05

<sup>2</sup> Model 1 was adjusted for age, sex, BMI category, income, smoking status, alcohol consumption, and nutritional intake (total calories, protein, fat, and carbohydrate).

<sup>3</sup> Model 2 was adjusted for model 1 plus amount of green tea and soda drink intake.

**Table S3.** Crude and adjusted odds ratios (95% confidence interval) for asthma by green tea intake (frequency) according to age, sex, and smoking status.

| Characteristics                 | Odds ratios for asthma |                     |                      |                     |                      |                    |
|---------------------------------|------------------------|---------------------|----------------------|---------------------|----------------------|--------------------|
|                                 | Crude                  | P-value             | Model 1 <sup>2</sup> | P-value             | Model 2 <sup>3</sup> | P-value            |
| Age < 53 years old (n = 80,079) |                        |                     |                      |                     |                      |                    |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                    |
| 1 time (m) through 6 times (w)  | 1.03 (0.88-1.21)       | 0.711               | 1.04 (0.88-1.23)     | 0.629               | 0.98 (0.80-1.20)     | 0.866              |
| 1-2 times (d)                   | 0.81 (0.70-0.94)       | 0.005 <sup>1</sup>  | 0.82 (0.71-0.95)     | 0.008 <sup>1</sup>  | 0.93 (0.78-1.12)     | 0.442              |
| ≥ 3 times (d)                   | 0.76 (0.63-0.92)       | 0.004 <sup>1</sup>  | 0.81 (0.66-0.98)     | 0.031 <sup>1</sup>  | 0.81 (0.63-1.04)     | 0.093              |
| Age ≥ 53 years old (n = 81,969) |                        |                     |                      |                     |                      |                    |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                    |
| 1 time (m) through 6 times (w)  | 1.15 (1.02-1.30)       | 0.023 <sup>1</sup>  | 1.15 (1.02-1.30)     | 0.020 <sup>1</sup>  | 1.12 (0.95-1.32)     | 0.184              |
| 1-2 times (d)                   | 0.89 (0.80-0.99)       | 0.041 <sup>1</sup>  | 0.90 (0.80-1.00)     | 0.059               | 1.01 (0.87-1.18)     | 0.895              |
| ≥ 3 times (d)                   | 0.92 (0.78-1.08)       | 0.307               | 0.99 (0.83-1.17)     | 0.896               | 1.19 (0.92-1.56)     | 0.187              |
| Men (n = 55,559)                |                        |                     |                      |                     |                      |                    |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                    |
| 1 time (m) through 6 times (w)  | 1.44 (1.21-1.73)       | <0.001 <sup>1</sup> | 1.47 (0.23-1.76)     | <0.001 <sup>1</sup> | 1.34 (1.05-1.71)     | 0.020 <sup>1</sup> |
| 1-2 times (d)                   | 1.02 (0.86-1.21)       | 0.771               | 1.04 (0.88-1.23)     | 0.669               | 1.07 (0.85-1.34)     | 0.550              |
| ≥ 3 times (d)                   | 0.90 (0.74-1.09)       | 0.273               | 1.01 (0.83-1.24)     | 0.884               | 0.93 (0.70-1.24)     | 0.634              |
| Women (n = 106,489)             |                        |                     |                      |                     |                      |                    |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                    |
| 1 time (m) through 6 times (w)  | 1.00 (0.89-1.13)       | 0.943               | 1.00 (0.89-1.13)     | 0.947               | 0.98 (0.84-1.14)     | 0.762              |
| 1-2 times (d)                   | 0.81 (0.73-0.90)       | <0.001 <sup>1</sup> | 0.82 (0.74-0.91)     | <0.001 <sup>1</sup> | 0.96 (0.84-1.10)     | 0.578              |
| ≥ 3 times (d)                   | 0.85 (0.72-0.99)       | 0.049 <sup>1</sup>  | 0.90 (0.76-1.07)     | 0.234               | 1.06 (0.84-1.34)     | 0.639              |
| Nonsmoker (n = 118,185)         |                        |                     |                      |                     |                      |                    |
| None                            | 1.00                   |                     | 1.00                 |                     | 1.00                 |                    |
| 1 time (m) through 6 times (w)  | 1.07 (0.96-1.19)       | 0.246               | 1.07 (0.96-1.19)     | 0.244               | 1.01 (0.88-1.17)     | 0.843              |
| 1-2 times (d)                   | 0.84 (0.76-0.93)       | 0.001 <sup>1</sup>  | 0.85 (0.76-0.94)     | 0.001 <sup>1</sup>  | 0.99 (0.87-1.13)     | 0.888              |

|                                |                  |                    |                  |                    |                  |       |
|--------------------------------|------------------|--------------------|------------------|--------------------|------------------|-------|
| ≥ 3 times (d)                  | 0.85 (0.73-1.00) | 0.055              | 0.94 (0.80-1.11) | 0.462              | 1.06 (0.84-1.34) | 0.595 |
| Past smoker (n = 23,761)       |                  |                    |                  |                    |                  |       |
| None                           | 1.00             |                    | 1.00             |                    | 1.00             |       |
| 1 time (m) through 6 times (w) | 1.38 (1.08-1.77) | 0.011 <sup>1</sup> | 1.41 (1.10-1.81) | 0.008 <sup>1</sup> | 1.30 (0.93-1.81) | 0.125 |
| 1-2 times (d)                  | 1.15 (0.92-1.43) | 0.208              | 1.14 (0.91-1.42) | 0.259              | 1.17 (0.87-1.57) | 0.287 |
| ≥ 3 times (d)                  | 0.98 (0.75-1.29) | 0.915              | 1.04 (0.78-1.37) | 0.807              | 1.16 (0.77-1.77) | 0.475 |
| Current smoker (n = 20,102)    |                  |                    |                  |                    |                  |       |
| None                           | 1.00             |                    | 1.00             |                    | 1.00             |       |
| 1 time (m) through 6 times (w) | 1.00 (0.71-1.42) | 0.983              | 1.08 (0.76-1.54) | 0.649              | 1.26 (0.79-2.00) | 0.333 |
| 1-2 times (d)                  | 0.63 (0.46-0.85) | 0.003 <sup>1</sup> | 0.67 (0.49-0.91) | 0.012 <sup>1</sup> | 0.71 (0.47-1.05) | 0.088 |
| ≥ 3 times (d)                  | 0.64 (0.48-0.86) | 0.003 <sup>1</sup> | 0.74 (0.54-1.00) | 0.052              | 0.72 (0.48-1.07) | 0.103 |

<sup>1</sup> Logistic regression model, Significance at P < 0.05

<sup>2</sup> Model 1 was adjusted for age, sex, BMI category, income, smoking status, alcohol consumption, and nutritional intake (total calories, protein, fat, and carbohydrate).

<sup>3</sup> Model 2 was adjusted for model 1 plus frequency of coffee and soda drink intake.

**Table S4.** Crude and adjusted odds ratios (95% confidence interval) for asthma by green tea intake (amount) according to age, sex, and smoking status.

| Characteristics                 | Odds ratios for asthma |                    |                      |                    |                      |         |
|---------------------------------|------------------------|--------------------|----------------------|--------------------|----------------------|---------|
|                                 | Crude                  | P-value            | Model 1 <sup>2</sup> | P-value            | Model 2 <sup>3</sup> | P-value |
| Age < 53 years old (n = 80,079) |                        |                    |                      |                    |                      |         |
| None                            | 1.00                   |                    | 1.00                 |                    | 1.00                 |         |
| 1/2 cup each time               | 0.82 (0.70-0.97)       | 0.021 <sup>1</sup> | 0.85 (0.72-1.00)     | 0.053              | 0.87 (0.73-1.04)     | 0.136   |
| 1 cup each time                 | 0.87 (0.76-0.99)       | 0.036 <sup>1</sup> | 0.89 (0.78-1.02)     | 0.097              | 0.83 (0.80-1.07)     | 0.318   |
| 2 cups each time                | 0.96 (0.60-1.55)       | 0.879              | 0.95 (0.59-1.53)     | 0.839              | 1.06 (0.65-1.72)     | 0.821   |
| Age ≥ 53 years old (n = 81,969) |                        |                    |                      |                    |                      |         |
| None                            | 1.00                   |                    | 1.00                 |                    | 1.00                 |         |
| 1/2 cup each time               | 1.04 (0.91-1.18)       | 0.591              | 1.09 (0.95-1.24)     | 0.224              | 1.15 (0.99-1.34)     | 0.059   |
| 1 cup each time                 | 0.95 (0.86-1.04)       | 0.271              | 0.96 (0.87-1.06)     | 0.413              | 1.05 (0.93-1.18)     | 0.456   |
| 2 cups each time                | 1.11 (0.79-1.56)       | 0.554              | 1.06 (0.75-1.50)     | 0.732              | 1.13 (0.79-1.61)     | 0.497   |
| Men (n = 55,559)                |                        |                    |                      |                    |                      |         |
| None                            | 1.00                   |                    | 1.00                 |                    | 1.00                 |         |
| 1/2 cup each time               | 1.04 (0.86-1.25)       | 0.667              | 1.13 (0.94-1.37)     | 0.200              | 1.09 (0.89-1.34)     | 0.410   |
| 1 cup each time                 | 1.10 (0.95-1.27)       | 0.203              | 1.16 (0.99-1.35)     | 0.055              | 1.11 (0.94-1.33)     | 0.222   |
| 2 cups each time                | 1.12 (0.69-1.81)       | 0.638              | 1.08 (0.67-1.75)     | 0.755              | 1.03 (0.62-1.68)     | 0.919   |
| Women (n = 106,489)             |                        |                    |                      |                    |                      |         |
| None                            | 1.00                   |                    | 1.00                 |                    | 1.00                 |         |
| 1/2 cup each time               | 0.89 (0.78-1.01)       | 0.062              | 0.94 (0.83-1.07)     | 0.379              | 1.02 (0.89-1.17)     | 0.812   |
| 1 cup each time                 | 0.87 (0.79-0.95)       | 0.003 <sup>1</sup> | 0.86 (0.78-0.95)     | 0.003 <sup>1</sup> | 0.96 (0.86-1.07)     | 0.479   |
| 2 cups each time                | 1.08 (0.77-1.51)       | 0.670              | 1.03 (0.73-1.45)     | 0.876              | 1.16 (0.82-1.65)     | 0.397   |
| Nonsmoker (n = 118,185)         |                        |                    |                      |                    |                      |         |
| None                            | 1.00                   |                    | 1.00                 |                    | 1.00                 |         |
| 1/2 cup each time               | 0.91 (0.81-1.03)       | 0.127              | 0.97 (0.86-1.10)     | 0.655              | 1.03 (0.90-1.18)     | 0.654   |
| 1 cup each time                 | 0.91 (0.83-0.99)       | 0.041 <sup>1</sup> | 0.91 (0.83-1.00)     | 0.058              | 0.99 (0.89-1.11)     | 0.920   |

|                             |                  |                    |                  |       |                  |       |
|-----------------------------|------------------|--------------------|------------------|-------|------------------|-------|
| 2 cups each time            | 1.01 (0.72-1.42) | 0.934              | 0.98 (0.70-1.38) | 0.929 | 1.08 (0.77-1.54) | 0.645 |
| Past smoker (n = 23,761)    |                  |                    |                  |       |                  |       |
| None                        | 1.00             |                    | 1.00             |       | 1.00             |       |
| 1/2 cup each time           | 1.14 (0.88-1.46) | 0.322              | 1.20 (0.93-1.54) | 0.170 | 1.20 (0.91-1.60) | 0.194 |
| 1 cup each time             | 1.16 (0.95-1.41) | 0.154              | 1.17 (0.95-1.43) | 0.142 | 1.19 (0.94-1.50) | 0.151 |
| 2 cups each time            | 1.66 (0.93-2.94) | 0.083              | 1.54 (0.86-2.75) | 0.142 | 1.52 (0.83-2.76) | 1.173 |
| Current smoker (n = 20,102) |                  |                    |                  |       |                  |       |
| None                        | 1.00             |                    | 1.00             |       | 1.00             |       |
| 1/2 cup each time           | 0.67 (0.48-0.94) | 0.020 <sup>1</sup> | 0.77 (0.55-1.09) | 0.138 | 0.83 (0.58-1.19) | 0.313 |
| 1 cup each time             | 0.71 (0.55-0.91) | 0.008 <sup>1</sup> | 0.78 (0.60-1.02) | 0.069 | 0.83 (0.62-1.12) | 0.219 |
| 2 cups each time            | 0.65 (0.26-1.61) | 0.355              | 0.62 (0.25-1.54) | 0.300 | 0.70 (0.27-1.77) | 0.448 |

<sup>1</sup> Logistic regression model, Significance at  $P < 0.05$

<sup>2</sup> Model 1 was adjusted for age, sex, BMI category, income, smoking status, alcohol consumption, and nutritional intake (total calories, protein, fat, and carbohydrate).

<sup>3</sup> Model 2 was adjusted for model 1 plus amount of coffee and soda drink intake.



**Table S5.** Crude and adjusted odds ratios (95% confidence interval) for asthma by soda drink intake (frequency) according to age, sex, and smoking status.

| Characteristics                 | Odds ratios for asthma |                    |                      |                    |                      |         |
|---------------------------------|------------------------|--------------------|----------------------|--------------------|----------------------|---------|
|                                 | Crude                  | P-value            | Model 1 <sup>2</sup> | P-value            | Model 2 <sup>3</sup> | P-value |
| Age < 53 years old (n = 80,079) |                        |                    |                      |                    |                      |         |
| None                            | 1.00                   |                    | 1.00                 |                    | 1.00                 |         |
| 1 time (m) through 6 times (w)  | 1.06 (0.9-1.21)        | 0.351              | 1.07 (0.94-1.22)     | 0.288              | 1.04 (0.91-1.19)     | 0.528   |
| 1-2 times (d)                   | 0.87 (0.72-1.05)       | 0.148              | 0.90 (0.74-1.09)     | 0.290              | 0.92 (0.76-1.12)     | 0.424   |
| ≥ 3 times (d)                   | 0.97 (0.72-1.31)       | 0.858              | 1.02 (0.75-1.39)     | 0.886              | 1.02 (0.75-1.39)     | 0.901   |
| Age ≥ 53 years old (n = 81,969) |                        |                    |                      |                    |                      |         |
| None                            | 1.00                   |                    | 1.00                 |                    | 1.00                 |         |
| 1 time (m) through 6 times (w)  | 1.06 (0.96-1.16)       | 0.252              | 1.11 (1.01-1.22)     | 0.037 <sup>1</sup> | 1.08 (0.9-1.19)      | 0.111   |
| 1-2 times (d)                   | 0.87 (0.75-1.02)       | 0.085              | 0.93 (0.80-1.09)     | 0.401              | 0.96 (0.82-1.12)     | 0.591   |
| ≥ 3 times (d)                   | 1.02 (0.78-1.33)       | 0.874              | 1.11 (0.85-1.46)     | 0.447              | 1.11 (0.85-1.46)     | 0.430   |
| Men (n = 55,559)                |                        |                    |                      |                    |                      |         |
| None                            | 1.00                   |                    | 1.00                 |                    | 1.00                 |         |
| 1 time (m) through 6 times (w)  | 1.01 (0.87-1.16)       | 0.920              | 1.08 (0.93-1.24)     | 0.304              | 1.03 (0.89-1.19)     | 0.721   |
| 1-2 times (d)                   | 0.82 (0.66-1.01)       | 0.060              | 0.92 (0.74-1.14)     | 0.425              | 0.83 (0.75-1.15)     | 0.499   |
| ≥ 3 times (d)                   | 0.91 (0.64-1.27)       | 0.573              | 1.04 (0.74-1.47)     | 0.820              | 1.05 (0.74-1.48)     | 0.799   |
| Women (n = 106,489)             |                        |                    |                      |                    |                      |         |
| None                            | 1.00                   |                    | 1.00                 |                    | 1.00                 |         |
| 1 time (m) through 6 times (w)  | 1.02 (0.93-1.12)       | 0.635              | 1.10 (1.00-0.21)     | 0.042 <sup>1</sup> | 1.08 (0.99-1.19)     | 0.096   |
| 1-2 times (d)                   | 0.83 (0.72-0.96)       | 0.013 <sup>1</sup> | 0.92 (0.79-1.06)     | 0.245              | 0.95 (0.82-1.10)     | 0.469   |
| ≥ 3 times (d)                   | 0.95 (0.74-1.21)       | 0.684              | 1.06 (0.83-1.36)     | 0.638              | 1.07 (0.83-1.37)     | 0.601   |
| Nonsmoker (n = 118,185)         |                        |                    |                      |                    |                      |         |
| None                            | 1.00                   |                    | 1.00                 |                    | 1.00                 |         |
| 1 time (m) through 6 times (w)  | 1.03 (0.94-1.13)       | 0.472              | 1.10 (1.01-1.21)     | 0.030 <sup>1</sup> | 1.08 (0.99-1.18)     | 0.098   |
| 1-2 times (d)                   | 0.84 (0.73-0.97)       | 0.017 <sup>1</sup> | 0.93 (0.81-1.07)     | 0.317              | 0.96 (0.83-1.11)     | 0.574   |

|                                |                  |       |                  |       |                  |       |
|--------------------------------|------------------|-------|------------------|-------|------------------|-------|
| ≥ 3 times (d)                  | 0.98 (0.78-1.24) | 0.882 | 1.11 (0.88-1.41) | 0.381 | 1.11 (0.88-1.41) | 0.377 |
| Past smoker (n = 23,761)       |                  |       |                  |       |                  |       |
| None                           | 1.00             |       | 1.00             |       | 1.00             |       |
| 1 time (m) through 6 times (w) | 0.96 (0.79-1.16) | 0.647 | 1.06 (0.87-1.28) | 0.582 | 1.02 (0.83-1.24) | 0.868 |
| 1-2 times (d)                  | 0.77 (0.58-1.03) | 0.083 | 0.88 (0.65-1.18) | 0.392 | 0.88 (0.65-1.18) | 0.384 |
| ≥ 3 times (d)                  | 0.90 (0.56-1.43) | 0.647 | 1.03 (0.64-1.65) | 0.916 | 1.04 (0.65-1.67) | 0.879 |
| Current smoker (n = 20,102)    |                  |       |                  |       |                  |       |
| None                           | 1.00             |       | 1.00             |       | 1.00             |       |
| 1 time (m) through 6 times (w) | 0.94 (0.74-1.20) | 0.641 | 1.09 (0.85-1.41) | 0.475 | 1.06 (0.82-1.36) | 0.662 |
| 1-2 times (d)                  | 0.72 (0.49-1.06) | 0.098 | 0.90 (0.60-1.33) | 0.589 | 0.91 (0.61-1.35) | 0.644 |
| ≥ 3 times (d)                  | 0.60 (0.29-1.22) | 0.157 | 0.75 (0.36-1.55) | 0.438 | 0.74 (0.36-1.53) | 0.414 |

<sup>1</sup> Logistic regression model, Significance at P < 0.05

<sup>2</sup> Model 1 was adjusted for age, sex, BMI category, income, smoking status, alcohol consumption, and nutritional intake (total calories, protein, fat, and carbohydrate).

<sup>3</sup> Model 2 was adjusted for model 1 plus frequency of coffee and green tea intake.

**Table S6.** Crude and adjusted odds ratios (95% confidence interval) for asthma by soda drink intake (amount) according to age, sex, and smoking status.

| Characteristics                 | Odds ratios for asthma |         |                      |         |                      |         |
|---------------------------------|------------------------|---------|----------------------|---------|----------------------|---------|
|                                 | Crude                  | P-value | Model 1 <sup>2</sup> | P-value | Model 2 <sup>3</sup> | P-value |
| Age < 53 years old (n = 80,079) |                        |         |                      |         |                      |         |
| None                            | 1.00                   |         | 1.00                 |         | 1.00                 |         |
| 1/2 cup each time               | 0.99 (0.71-1.36)       | 0.943   | 0.98 (0.71-1.36)     | 0.916   | 0.97 (0.69-1.36)     | 0.858   |
| 1 cup each time                 | 1.01 (0.89-1.14)       | 0.873   | 1.03 (0.91-1.17)     | 0.611   | 1.04 (0.91-1.18)     | 0.566   |
| 2 cups each time                | 1.07 (0.78-1.48)       | 0.660   | 1.09 (0.79-1.51)     | 0.598   | 1.13 (0.82-1.57)     | 0.448   |
| Age ≥ 53 years old (n = 81,969) |                        |         |                      |         |                      |         |
| None                            | 1.00                   |         | 1.00                 |         | 1.00                 |         |
| 1/2 cup each time               | 1.02 (0.79-1.32)       | 0.861   | 1.08 (0.84-1.39)     | 0.548   | 0.99 (0.76-1.30)     | 0.968   |
| 1 cup each time                 | 1.01 (0.92-1.11)       | 0.762   | 1.07 (0.97-1.17)     | 0.152   | 1.08 (0.98-1.18)     | 0.126   |
| 2 cups each time                | 1.06 (0.77-1.47)       | 0.700   | 1.18 (0.85-1.63)     | 0.326   | 1.13 (0.82-1.57)     | 0.447   |
| Men (n = 55,559)                |                        |         |                      |         |                      |         |
| None                            | 1.00                   |         | 1.00                 |         | 1.00                 |         |
| 1/2 cup each time               | 0.94 (0.64-1.39)       | 0.942   | 0.98 (0.66-1.44)     | 0.918   | 0.99 (0.66-1.48)     | 0.962   |
| 1 cup each time                 | 0.97 (0.84-1.10)       | 0.966   | 1.05 (0.92-1.20)     | 0.472   | 1.05 (0.92-1.21)     | 0.462   |
| 2 cups each time                | 0.72 (0.44-1.18)       | 0.722   | 0.84 (0.51-1.38)     | 0.497   | 0.84 (0.51-1.38)     | 0.487   |
| Women (n = 106,489)             |                        |         |                      |         |                      |         |
| None                            | 1.00                   |         | 1.00                 |         | 1.00                 |         |
| 1/2 cup each time               | 0.97 (0.77-1.23)       | 0.811   | 1.06 (0.84-1.34)     | 0.596   | 0.98 (0.77-1.25)     | 0.884   |
| 1 cup each time                 | 0.97 (0.89-1.06)       | 0.566   | 1.05 (0.96-1.15)     | 0.238   | 1.06 (0.97-1.16)     | 0.180   |
| 2 cups each time                | 1.05 (0.82-1.36)       | 0.697   | 1.22 (0.94-1.58)     | 0.129   | 1.23 (0.95-1.60)     | 0.116   |
| Nonsmoker (n = 118,185)         |                        |         |                      |         |                      |         |
| None                            | 1.00                   |         | 1.00                 |         | 1.00                 |         |
| 1/2 cup each time               | 1.04 (0.84-1.30)       | 0.710   | 1.13 (0.90-1.40)     | 0.288   | 1.08 (0.86-1.35)     | 0.526   |
| 1 cup each time                 | 0.98 (0.90-1.07)       | 0.660   | 1.06 (0.97-1.15)     | 0.203   | 1.06 (0.97-1.16)     | 0.164   |

|                             |                  |       |                  |       |                  |                    |
|-----------------------------|------------------|-------|------------------|-------|------------------|--------------------|
| 2 cups each time            | 1.09 (0.85-1.39) | 0.502 | 1.27 (0.99-1.64) | 0.058 | 1.29 (1.00-1.67) | 0.047 <sup>1</sup> |
| Past smoker (n = 23,761)    |                  |       |                  |       |                  |                    |
| None                        | 1.00             |       | 1.00             |       | 1.00             |                    |
| 1/2 cup each time           | 0.89 (0.52-1.51) | 0.662 | 0.96 (0.57-1.64) | 0.888 | 0.90 (0.52-1.56) | 0.706              |
| 1 cup each time             | 0.92 (0.77-1.10) | 0.378 | 1.03 (0.85-1.24) | 0.765 | 1.03 (0.86-1.25) | 0.726              |
| 2 cups each time            | 0.65 (0.33-1.28) | 0.216 | 0.75 (0.38-1.47) | 0.400 | 0.71 (0.36-1.41) | 0.330              |
| Current smoker (n = 20,102) |                  |       |                  |       |                  |                    |
| None                        | 1.00             |       | 1.00             |       | 1.00             |                    |
| 1/2 cup each time           | 0.25 (0.06-1.01) | 0.051 | 0.27 (0.07-1.10) | 0.068 | 0.24 (0.06-0.98) | 0.047 <sup>1</sup> |
| 1 cup each time             | 0.91 (0.73-1.15) | 0.432 | 1.09 (0.86-1.38) | 0.457 | 1.09 (0.86-1.38) | 0.478              |
| 2 cups each time            | 0.49 (0.18-1.33) | 0.161 | 0.58 (0.21-1.59) | 0.291 | 0.58 (0.21-1.60) | 0.294              |

<sup>1</sup> Logistic regression model, Significance at  $P < 0.05$

<sup>2</sup> Model 1 was adjusted for age, sex, BMI category, income, smoking status, alcohol consumption, and nutritional intake (total calories, protein, fat, and carbohydrate).

<sup>3</sup> Model 2 was adjusted for model 1 plus amount of coffee and green tea intake.

**Table S7.** Frequency of coffee/green tea/soda drink intake according to sex

| Characteristics                | Total participants |               | P-value             |
|--------------------------------|--------------------|---------------|---------------------|
|                                | Men                | Women         |                     |
| Frequency of coffee            |                    |               | <0.001 <sup>1</sup> |
| None                           | 7,136 (12.8)       | 19,971 (18.8) |                     |
| 1 time (m) through 6 times (w) | 10,659 (19.2)      | 23,919 (22.5) |                     |
| 1-2 times (d)                  | 21,678 (39.0)      | 46,796 (43.9) |                     |
| ≥ 3 times (d)                  | 16,086 (29.0)      | 15,803 (14.8) |                     |
| Amount of coffee               |                    |               | <0.001 <sup>1</sup> |
| None                           | 7,136 (12.8)       | 19,971 (18.8) |                     |
| 1/2 cup each time              | 1,671 (3.0)        | 4,589 (4.3)   |                     |
| 1 cup each time                | 43,675 (78.6)      | 76,422 (71.8) |                     |
| 2 cups each time               | 3,077 (5.5)        | 5,507 (5.2)   |                     |
| Frequency of green tea         |                    |               | <0.001 <sup>1</sup> |
| None                           | 19,186 (34.5)      | 50,406 (47.3) |                     |
| 1 time (m) through 6 times (w) | 8,629 (15.5)       | 17,576 (16.5) |                     |
| 1-2 times (d)                  | 16,071 (28.9)      | 29,801 (28.0) |                     |
| ≥ 3 times (d)                  | 11,673 (21.0)      | 8,706 (8.2)   |                     |
| Amount of green tea            |                    |               | <0.001 <sup>1</sup> |
| None                           | 19,186 (34.5)      | 50,406 (47.3) |                     |
| 1/2 cup each time              | 10,463 (18.8)      | 16,713 (15.7) |                     |
| 1 cup each time                | 24,915 (44.8)      | 37,893 (35.6) |                     |
| 2 cups each time               | 995 (1.8)          | 1,477 (1.4)   |                     |
| Frequency of soda drink        |                    |               | <0.001 <sup>1</sup> |
| None                           | 22,005 (39.6)      | 43,245 (40.6) |                     |
| 1 time (m) through 6 times (w) | 23,212 (41.8)      | 46,295 (43.5) |                     |
| 1-2 times (d)                  | 8,014 (14.4)       | 13,433 (12.6) |                     |
| ≥ 3 times (d)                  | 2,328 (4.2)        | 3,516 (3.3)   |                     |
| Amount of soda drink           |                    |               | <0.001 <sup>1</sup> |
| None                           | 22,005 (39.6)      | 43,245 (40.6) |                     |
| 1/2 cup each time              | 1,698 (3.1)        | 3,881 (3.6)   |                     |
| 1 cup each time                | 30,517 (54.9)      | 56,407 (53.0) |                     |
| 2 cups each time               | 1,339 (2.4)        | 2,956 (2.8)   |                     |

<sup>1</sup> Independent T-test or Chi-square test. Significance at P < 0.05

d= day; w = week; m = month

**Table S8.** Incidence of developed asthma during the follow-up period according to the frequency and amount of coffee/green tea/soda drink intake

| Characteristics                | Asthma incidence (n, %) | P-value             |
|--------------------------------|-------------------------|---------------------|
| Frequency of coffee            |                         | <0.001 <sup>1</sup> |
| None                           | 59 (16.0)               |                     |
| 1 time (m) through 6 times (w) | 96 (26.0)               |                     |
| 1-2 times (d)                  | 153 (41.5)              |                     |
| ≥ 3 times (d)                  | 61 (16.5)               |                     |
| Amount of coffee               |                         | <0.001 <sup>1</sup> |
| None                           | 59 (16.0)               |                     |
| 1/2 cup each time              | 18 (4.9)                |                     |
| 1 cup each time                | 277 (75.1)              |                     |
| 2 cups each time               | 15 (4.1)                |                     |
| Frequency of green tea         |                         | <0.001 <sup>1</sup> |
| None                           | 154 (41.7)              |                     |
| 1 time (m) through 6 times (w) | 78 (21.1)               |                     |
| 1-2 times (d)                  | 101 (27.4)              |                     |
| ≥ 3 times (d)                  | 36 (9.8)                |                     |
| Amount of green tea            |                         | <0.001 <sup>1</sup> |
| None                           | 154 (41.7)              |                     |
| 1/2 cup each time              | 55 (14.9)               |                     |
| 1 cup each time                | 154 (41.7)              |                     |
| 2 cups each time               | 6 (1.6)                 |                     |
| Frequency of soda drink        |                         | <0.001 <sup>1</sup> |
| None                           | 143 (38.8)              |                     |
| 1 time (m) through 6 times (w) | 178 (48.2)              |                     |
| 1-2 times (d)                  | 33 (8.9)                |                     |
| ≥ 3 times (d)                  | 15 (4.1)                |                     |
| Amount of soda drink           |                         | <0.001 <sup>1</sup> |
| None                           | 143 (38.8)              |                     |
| 1/2 cup each time              | 12 (3.3)                |                     |
| 1 cup each time                | 204 (55.3)              |                     |
| 2 cups each time               | 10 (2.7)                |                     |

<sup>1</sup> Chi-square test. Significance at P < 0.05

d= day; w = week; m = month

**Table S9.** Adjusted odds ratios (95% confidence interval) for asthma by coffee, green tea, and soda drink intake

| Characteristics                | Odds ratio for asthma | P-value            |
|--------------------------------|-----------------------|--------------------|
| Frequency of coffee            |                       |                    |
| None                           | 1.00                  |                    |
| 1 time (m) through 6 times (w) | 0.99 (0.87-1.14)      | 0.936              |
| 1-2 times (d)                  | 0.84 (0.75-0.96)      | 0.008 <sup>1</sup> |
| ≥ 3 times (d)                  | 0.89 (0.75-1.05)      | 0.172              |
| Amount of coffee               |                       |                    |
| None                           | 1.00                  |                    |
| 1/2 cup each time              | 1.07 (0.88-1.31)      | 0.491              |
| 1 cup each time                | 0.89 (0.80-0.99)      | 0.030 <sup>1</sup> |
| 2 cups each time               | 0.86 (0.71-1.05)      | 0.132              |
| Frequency of green tea         |                       |                    |
| None                           | 1.00                  |                    |
| 1 time (m) through 6 times (w) | 1.07 (0.94-1.21)      | 0.311              |
| 1-2 times (d)                  | 0.99 (0.88-1.11)      | 0.904              |
| ≥ 3 times (d)                  | 0.99 (0.83-1.19)      | 0.975              |
| Amount of green tea            |                       |                    |
| None                           | 1.00                  |                    |
| 1/2 cup each time              | 1.03 (0.92-1.16)      | 0.559              |
| 1 cup each time                | 1.01 (0.92-1.11)      | 0.831              |
| 2 cups each time               | 1.13 (0.85-1.50)      | 0.394              |
| Frequency of soda drink        |                       |                    |
| None                           | 1.00                  |                    |
| 1 time (m) through 6 times (w) | 1.07 (0.99-1.15)      | 0.107              |
| 1-2 times (d)                  | 0.94 (0.83-1.06)      | 0.322              |
| ≥ 3 times (d)                  | 1.06 (0.87-1.30)      | 0.569              |
| Amount of soda drink           |                       |                    |
| None                           | 1.00                  |                    |
| 1/2 cup each time              | 0.97 (0.79-1.19)      | 0.780              |
| 1 cup each time                | 1.06 (0.98-1.14)      | 0.151              |
| 2 cups each time               | 1.13 (0.90-1.42)      | 0.298              |

<sup>1</sup> Logistic regression model adjusted for age, sex, income, smoking status, alcohol consumption, and total calories. Significance at P < 0.05

d= day; w = week; m = month