Table S1 – Results for linear models for the top 35 CpG sites after adjusting for all confounding factors considered apriori in this study

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **CpG** | **Associated Gene** | **Heavy Vehicle Frequency (ref=Never)** | **Estimate** | **Standard Error** | **P value** | **Significant covariates in model** | **Direction of Methylation** |
| **cg25895913 (n=329)** | ***CDH4*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.16 | 0.04 | 0.0002 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.16 | 0.04 | 0.0004 |
| 10 /day | 0.04 | 0.05 | 0.4 |
| Seldom | 0.04 | 0.04 | 0.3 |
| **cg11156891 (n=329)** | ***ANKRD65*** |  |  |  |  |  | **↓** |
| >10 /hr | -0.48 | 0.13 | 0.0002 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | -0.29 | 0.13 | 0.03 |
| 10 /day | -0.19 | 0.15 | 0.2 |
| Seldom | -0.12 | 0.11 | 0.3 |
| **cg12407057 (n=329)** | ***ANKRD65*** |  |  |  |  |  | **↓** |
| >10 /hr | -0.33 | 0.10 | 0.0006 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | -0.24 | 0.10 | 0.01 |
| 10 /day | -0.08 | 0.12 | 0.5 |
| Seldom | -0.07 | 0.09 | 0.4 |
| **cg20747739 (n=329)** | ***FAM132A*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.15 | 0.04 | <.0001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.12 | 0.04 | 0.002 |
| 10 /day | 0.04 | 0.05 | 0.4 |
| Seldom | 0.02 | 0.03 | 0.5 |
| **cg18565510 (n=329)** | ***ACAP3*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.22 | 0.05 | <.0001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.14 | 0.05 | 0.01 |
| 10 /day | 0.09 | 0.06 | 0.2 |
| Seldom | 0.07 | 0.05 | 0.1 |
| **cg24843003 (n=329)** | ***DAZAP1*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.19 | 0.05 | 0.0001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.15 | 0.05 | 0.005 |
| 10 /day | 0.05 | 0.06 | 0.4 |
| Seldom | 0.09 | 0.04 | 0.06 |
| **cg15730464 (n=329)** | ***LGI2*** |  |  |  |  |  | **↓** |
| >10 /hr | 0.28 | 0.06 | <.0001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.19 | 0.06 | 0.004 |
| 10 /day | 0.04 | 0.07 | 0.6 |
| Seldom | 0.18 | 0.06 | 0.001 |
| **cg16196077 (n=329)** | ***RTKN2*** |  |  |  |  |  | **↓** |
| >10 /hr | -0.27 | 0.09 | 0.003 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | -0.25 | 0.09 | 0.007 |
| 10 /day | -0.15 | 0.11 | 0.2 |
| Seldom | 0.00 | 0.08 | 1.0 |
| **cg02707264 (n=329)** | ***MYRIP*** |  |  |  |  |  | **↓** |
| >10 /hr | -0.11 | 0.04 | 0.005 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | -0.02 | 0.04 | 0.6 |
| 10 /day | 0.01 | 0.05 | 0.7 |
| Seldom | 0.02 | 0.03 | 0.5 |
| **cg03476673 (n=329)** | ***CRISPLD2*** |  |  |  |  |  | **↓** |
| >10 /hr | -0.23 | 0.07 | 0.0009 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | -0.12 | 0.07 | 0.09 |
| 10 /day | -0.11 | 0.08 | 0.2 |
| Seldom | -0.08 | 0.06 | 0.2 |
| **cg07023532 (n=329)** | ***ACOT4*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.18 | 0.06 | 0.001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.23 | 0.06 | <.0001 |
| 10 /day | 0.21 | 0.07 | 0.002 |
| Seldom | 0.14 | 0.05 | 0.005 |
| **cg20255272 (n=329)** | ***VWA1*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.24 | 0.07 | 0.001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.15 | 0.08 | 0.05 |
| 10 /day | 0.10 | 0.09 | 0.3 |
| Seldom | 0.01 | 0.07 | 0.9 |
| **cg12417992 (n=329)** | ***SLC6A9*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.12 | 0.04 | 0.001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.11 | 0.04 | 0.004 |
| 10 /day | 0.11 | 0.05 | 0.02 |
| Seldom | 0.04 | 0.03 | 0.3 |
| **cg04154465 (n=329)** | ***WNT2B*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.23 | 0.07 | 0.0004 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.19 | 0.07 | 0.004 |
| 10 /day | 0.11 | 0.08 | 0.1 |
| Seldom | 0.05 | 0.06 | 0.4 |
| **cg12813768 (n=329)** | ***SYCP1*** |  |  |  |  |  | **↓** |
| >10 /hr | -0.37 | 0.09 | <.0001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | -0.19 | 0.09 | 0.04 |
| 10 /day | -0.09 | 0.11 | 0.4 |
| Seldom | -0.08 | 0.08 | 0.3 |
| **cg14162906 (n=329)** | ***TMEM222*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.14 | 0.04 | 0.0005 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.15 | 0.04 | 0.0005 |
| 10 /day | 0.15 | 0.05 | 0.003 |
| Seldom | 0.07 | 0.04 | 0.08 |
| **cg24361098 (n=329)** | ***BCL11A*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.23 | 0.06 | 0.0002 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.15 | 0.06 | 0.02 |
| 10 /day | 0.13 | 0.07 | 0.09 |
| Seldom | 0.13 | 0.06 | 0.02 |
| **cg16147794 (n=329)** | ***SLC16A10*** |  |  |  |  |  | **↓** |
| >10 /hr | -0.19 | 0.07 | 0.006 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | -0.07 | 0.07 | 0.3 |
| 10 /day | -0.13 | 0.08 | 0.1 |
| Seldom | 0.06 | 0.06 | 0.4 |
| **cg16668397 (n=329)** | ***JPH3*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.11 | 0.04 | 0.01 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.12 | 0.05 | 0.007 |
| 10 /day | 0.07 | 0.05 | 0.2 |
| Seldom | 0.02 | 0.04 | 0.6 |
| **cg26419883 (n=329)** | ***TRPM5*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.18 | 0.04 | <.0001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.05 | 0.05 | 0.3 |
| 10 /day | 0.06 | 0.05 | 0.2 |
| Seldom | 0.03 | 0.04 | 0.4 |
| **cg21775675 (n=329)** | ***TMEM161B*** |  |  |  |  |  | **↓** |
| >10 /hr | -0.17 | 0.05 | 0.001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | -0.05 | 0.05 | 0.3 |
| 10 /day | -0.09 | 0.06 | 0.2 |
| Seldom | 0.00 | 0.05 | 1.0 |
| **cg04794690 (n=329)** | ***PADI3*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.16 | 0.05 | 0.004 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.20 | 0.05 | 0.0003 |
| 10 /day | 0.07 | 0.06 | 0.3 |
| Seldom | 0.12 | 0.05 | 0.02 |
| **cg06942649 (n=329)** | ***FBXO25*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.23 | 0.09 | 0.01 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.23 | 0.09 | 0.01 |
| 10 /day | 0.20 | 0.11 | 0.06 |
| Seldom | 0.06 | 0.08 | 0.4 |
| **cg18459806 (n=329)** | ***NIN*** |  |  |  |  |  | **↓** |
| >10 /hr | -0.16 | 0.04 | <.0001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | -0.07 | 0.04 | 0.07 |
| 10 /day | -0.10 | 0.05 | 0.04 |
| Seldom | -0.03 | 0.04 | 0.4 |
| **cg20631351 (n=329)** | ***PALM*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.12 | 0.04 | 0.004 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.08 | 0.04 | 0.05 |
| 10 /day | 0.06 | 0.05 | 0.2 |
| Seldom | 0.04 | 0.04 | 0.3 |
| **cg00347824 (n=329)** | ***NSMAF*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.21 | 0.05 | 0.0002 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.10 | 0.06 | 0.08 |
| 10 /day | 0.12 | 0.07 | 0.06 |
| Seldom | 0.06 | 0.05 | 0.3 |
| **cg17053854 (n=329)** | ***SEPT9*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.09 | 0.03 | 0.002 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.09 | 0.03 | 0.004 |
| 10 /day | 0.03 | 0.04 | 0.4 |
| Seldom | 0.02 | 0.03 | 0.5 |
| **cg25324786 (n=329)** | ***RASA3*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.13 | 0.05 | 0.01 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.07 | 0.05 | 0.2 |
| 10 /day | -0.04 | 0.06 | 0.5 |
| Seldom | -0.04 | 0.05 | 0.4 |
| **cg26720961 (n=329)** | ***TSNARE1*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.12 | 0.06 | 0.05 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.02 | 0.06 | 0.8 |
| 10 /day | -0.01 | 0.08 | 0.8 |
| Seldom | -0.10 | 0.06 | 0.06 |
| **cg05575058 (n=329)** | ***FAM164A*** |  |  |  |  |  | **↓** |
| >10 /hr | -0.16 | 0.05 | 0.0008 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | -0.08 | 0.05 | 0.09 |
| 10 /day | -0.10 | 0.06 | 0.1 |
| Seldom | -0.06 | 0.04 | 0.2 |
| **cg15742605 (n=329)** | ***SAMD11*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.19 | 0.05 | 0.0003 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.08 | 0.05 | 0.1 |
| 10 /day | 0.04 | 0.06 | 0.5 |
| Seldom | -0.01 | 0.05 | 0.9 |
| **cg26185508 (n=329)** | ***CDCP2*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.16 | 0.05 | 0.004 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.17 | 0.06 | 0.002 |
| 10 /day | 0.18 | 0.06 | 0.007 |
| Seldom | 0.08 | 0.05 | 0.1 |
| **cg02378006 (n=329)** | ***UNC5B*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.19 | 0.06 | 0.001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.07 | 0.06 | 0.2 |
| 10 /day | 0.00 | 0.07 | 1.0 |
| Seldom | 0.00 | 0.05 | 1.0 |
| **cg08462127 (n=329)** | ***MYOM2*** |  |  |  |  |  | **↑** |
| >10 /hr | 0.13 | 0.05 | 0.006 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |
| 1-9 /hr | 0.04 | 0.05 | 0.4 |
| 10 /day | 0.11 | 0.06 | 0.06 |
| Seldom | -0.02 | 0.04 | 0.7 |
| **cg11017318 (n=329)** | ***SYT16*** |  |  |  |  |  |  |
| >10 /hr | -0.06 | 0.04 | 0.1 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Current smoking status; Exposure to smoke outside the home |  |
| 1-9 /hr | -0.05 | 0.04 | 0.2 |  |
| 10 /day | -0.08 | 0.05 | 0.1 |  |
| Seldom | 0.00 | 0.04 | 1.0 |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table S2. Results for linear models for CpG sites associated with the frequency of heavy vehicles passing by homes of current smokers | | | | | | | | | |
| **CpG** | **Associated Gene** | **Heavy Vehicle Frequency (ref=Never)** | **Estimate** | **Standard Error** | **P value** | **Significant covariates in final model** | **Dunnett's test (LSMEAN=Never)** | **Linear trend test (F value, df=1)** *p value* | **Direction of Methylation** |
| cg25895913 (n=88) | ***CDH4*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.23 | 0.08 | 0.005 | Tobacco Smoke Exposure (at 10 yrs); Gender; Age subject started smoking | \* | 0.0005 |
| 1-9 /hr | 0.18 | 0.09 | 0.04 |  |  |
| 10 /day | -0.01 | 0.09 | 0.9 |  |  |
| Seldom | 0.10 | 0.08 | 0.2 |  |  |
| cg20747739 (n=94) | ***FAM132A*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.11 | 0.07 | 0.09 | Gender; BMI; Age subject started smoking | \* | 0.006 |
| 1-9 /hr | 0.21 | 0.07 | 0.006 |  |  |
| 10 /day | 0.07 | 0.08 | 0.4 |  |  |
| Seldom | -0.04 | 0.06 | 0.6 |  |  |
| cg18565510 (n=94) | ***ACAP3*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.24 | 0.09 | 0.01 | Gender; BMI; Age subject started smoking | \* | 0.01 |
| 1-9 /hr | 0.09 | 0.10 | 0.4 |  |  |
| 10 /day | 0.09 | 0.11 | 0.5 |  |  |
| Seldom | 0.07 | 0.09 | 0.4 |  |  |
| cg15730464 (n=87) | ***LGI2*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | 0.35 | 0.11 | 0.002 | Tobacco Smoke Exposure ( at 10 yrs); SES; Gender; Age subject started smoking | \*\* | <.0001 |
| 1-9 /hr | 0.24 | 0.12 | 0.04 |  |  |
| 10 /day | -0.22 | 0.13 | 0.1 |  |  |
| Seldom | 0.20 | 0.10 | 0.06 |  |  |
| cg16196077 (n=82) | ***RTKN2*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.50 | 0.18 | 0.007 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; Current smoking status; Exposure to smoke outside the home; Age subject started smoking | \* | 0.0007 |
| 1-9 /hr | -0.27 | 0.21 | 0.2 |  |  |
| 10 /day | -0.14 | 0.22 | 0.5 |  |  |
| Seldom | 0.00 | 0.19 | 1.0 |  |  |
| cg07023532 (n=94) | ***ACOT4*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.39 | 0.10 | 0.0003 | Gender; BMI; Age subject started smoking | \*\* | 0.0008 |
| 1-9 /hr | 0.32 | 0.11 | 0.0059 | \* |  |
| 10 /day | 0.24 | 0.13 | 0.0546 |  |  |
| Seldom | 0.18 | 0.10 | 0.0812 |  |  |
| cg12813768 (n=82) | ***SYCP1*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.54 | 0.19 | 0.006 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; Exposure to smoke outside the home; Age subject started smoking | \* | 0.002 |
| 1-9 /hr | -0.32 | 0.22 | 0.1458 |  |  |
| 10 /day | -0.08 | 0.23 | 0.7181 |  |  |
| Seldom | -0.20 | 0.20 | 0.3012 |  |  |
| cg16147794 (n=81) | ***SLC16A10*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.39 | 0.13 | 0.0035 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home; Age subject started smoking | \* | 0.01 |
| 1-9 /hr | -0.20 | 0.15 | 0.1813 |  |  |
| 10 /day | -0.36 | 0.16 | 0.0243 | 0 |  |
| Seldom | -0.25 | 0.13 | 0.0616 |  |  |
| cg26419883 (n=94) | ***TRPM5*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.20 | 0.09 | 0.0196 | BMI; Gender; Age subject started smoking | 0 | 0.02 |
| 1-9 /hr | 0.10 | 0.10 | 0.2807 |  |  |
| 10 /day | 0.05 | 0.10 | 0.6036 |  |  |
|  | Seldom | 0.10 | 0.08 | 0.2262 |  |  |
| cg21775675 (n=81) | ***TMEM161B*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.37 | 0.12 | 0.002 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home; Age subject started smoking | \*\* | 0.006 |
| 1-9 /hr | -0.03 | 0.13 | 0.8358 |  |  |
| 10 /day | -0.21 | 0.14 | 0.1466 |  |  |
| Seldom | -0.07 | 0.12 | 0.551 |  |  |
| cg06942649 (n=94) | ***FBXO25*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.52 | 0.17 | 0.0024 | BMI; Gender; Age subject started smoking | \*\* | 0.005 |
| 1-9 /hr | 0.59 | 0.18 | 0.002 | \*\* |  |
| 10 /day | 0.40 | 0.20 | 0.0524 |  |  |
| Seldom | 0.27 | 0.16 | 0.1002 |  |  |
| cg18459806 (n=81) | ***NIN*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.20 | 0.07 | 0.0101 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home; Age subject started smoking | \* | 0.009 |
| 1-9 /hr | -0.22 | 0.08 | 0.0125 | **\*** |  |
| 10 /day | -0.14 | 0.09 | 0.1363 |  |  |
| Seldom | -0.10 | 0.08 | 0.2004 |  |  |

\*\*\* p<0.001

\*\* p<0.01

\* p<0.05

◌ p<0.1

Once the Dunnett’ tests provided statistical evidence of differences in marginal means of the heavy vehicular traffic frequency, a second test for trend is performed to assess a ‘dose-response’ relationship.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table S3. Results for linear models for CpG sites associated with the frequency of heavy vehicles passing by homes of current nonsmokers | | | | | | | | | |
| **CpG** | **Associated Gene** | **Heavy Vehicle Frequency (ref=Never)** | **Estimate** | **Standard Error** | **P value** | **Significant covariates in final model** | **Dunnett's test (LSMEAN=Never)** | **Linear trend test (F value, df=1)** *p value* | **Direction of Methylation** |
| cg25895913 (n=264) | ***CDH4*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.13 | 0.05 | 0.008 | Tobacco Smoke Exposure (at 10 yrs); Gender | \* | 0.005 |
| 1-9 /hr | 0.16 | 0.05 | 0.0006 | \*\* |  |
| 10 /day | 0.09 | 0.06 | 0.1 |  |  |
| Seldom | 0.03 | 0.04 | 0.4 |  |  |
| cg11156891 (n=248) | ***ANKRD65*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.47 | 0.14 | 0.0009 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; ; Exposure to smoke outside the home | \*\* | 0.01 |
| 1-9 /hr | -0.31 | 0.14 | 0.03 | 0 |  |
| 10 /day | -0.44 | 0.17 | 0.01 | \* |  |
| Seldom | -0.14 | 0.12 | 0.3 |  |  |
| cg12407057 (n=248) | ***ANKRD65*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.32 | 0.11 | 0.003 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \*\* | 0.01 |
| 1-9 /hr | -0.25 | 0.10 | 0.02 | 0 |  |
| 10 /day | -0.25 | 0.13 | 0.05 |  |  |
| Seldom | -0.09 | 0.09 | 0.3 |  |  |
| cg20747739 (n=264) | ***FAM132A*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.15 | 0.04 | 0.0007 | Gender; BMI | \*\* | 0.0003 |
| 1-9 /hr | 0.08 | 0.04 | 0.05 |  |  |
| 10 /day | 0.02 | 0.05 | 0.7 |  |  |
| Seldom | 0.05 | 0.04 | 0.2 |  |  |
| cg18565510 (n=264) | ***ACAP3*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.19 | 0.06 | 0.002 | Gender; BMI | \*\* | 0.002 |
| 1-9 /hr | 0.16 | 0.06 | 0.008 | \* |  |
| 10 /day | 0.08 | 0.07 | 0.3 |  |  |
| Seldom | 0.06 | 0.05 | 0.2 |  |  |
| cg24843003 (n=270) | ***DAZAP1*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.20 | 0.05 | 0.0004 | Gender | \*\* | 0.001 |
| 1-9 /hr | 0.15 | 0.05 | 0.007 | \* |  |
| 10 /day | 0.09 | 0.07 | 0.2 |  |  |
| Seldom | 0.08 | 0.05 | 0.10 |  |  |
| cg15730464 (n=258) | ***LGI2*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | 0.28 | 0.07 | 0.0002 | Tobacco Smoke Exposure ( at 10 yrs); SES; Gender | \*\* | 0.004 |
| 1-9 /hr | 0.18 | 0.07 | 0.01 | 0 |  |
| 10 /day | 0.15 | 0.09 | 0.09 |  |  |
| Seldom | 0.17 | 0.06 | 0.01 | \* |  |
| cg03476673 (n=248) | ***CRISPLD2*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.23 | 0.08 | 0.004 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \* | 0.01 |
| 1-9 /hr | -0.14 | 0.08 | 0.07 |  |  |
| 10 /day | -0.15 | 0.09 | 0.1 |  |  |
| Seldom | -0.07 | 0.07 | 0.3 |  |  |
| cg20255272 (n=258) | ***VWA1*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.21 | 0.08 | 0.01 | Tobacco Smoke Exposure (0-4 yrs only); Gender; BMI; SES; | \* | 0.03 |
| 1-9 /hr | 0.10 | 0.08 | 0.2 |  |  |
| 10 /day | 0.15 | 0.10 | 0.1 |  |  |
| Seldom | 0.04 | 0.07 | 0.6 |  |  |
| cg12417992 (n=264) | ***SLC6A9*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.13 | 0.04 | 0.004 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs only); SES; Gender | \* | 0.01 |
| 1-9 /hr | 0.11 | 0.04 | 0.02 | 0 |  |
| 10 /day | 0.12 | 0.05 | 0.03 |  |  |
| Seldom | 0.03 | 0.04 | 0.5 |  |  |
| cg04154465 (n=258) | ***WNT2B*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.28 | 0.07 | 0.0001 | SES; Gender; BMI | \*\*\* | <.0001 |
| 1-9 /hr | 0.22 | 0.07 | 0.002 | \*\* |  |
| 10 /day | 0.09 | 0.09 | 0.3 |  |  |
| Seldom | 0.08 | 0.06 | 0.2 |  |  |
| cg12813768 (n=254) | ***SYCP1*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.28 | 0.10 | 0.007 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; Exposure to smoke outside the home | \* | 0.009 |
| 1-9 /hr | -0.16 | 0.10 | 0.1 |  |  |
| 10 /day | -0.11 | 0.13 | 0.4 |  |  |
| Seldom | -0.06 | 0.09 | 0.5 |  |  |
| cg14162906 (n=264) | ***TMEM222*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.14 | 0.05 | 0.003 | BMI; Gender | \* | 0.03 |
| 1-9 /hr | 0.15 | 0.05 | 0.002 | \*\* |  |
| 10 /day | 0.18 | 0.06 | 0.003 | **\*\*** |  |
| Seldom | 0.04 | 0.04 | 0.3 |  |  |
| cg24361098 (n=264) | ***BCL11A*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.25 | 0.07 | 0.0004 | BMI; Gender | \*\* | 0.004 |
| 1-9 /hr | 0.18 | 0.07 | 0.009 | **\*** |  |
| 10 /day | 0.16 | 0.09 | 0.07 |  |  |
| Seldom | 0.11 | 0.06 | 0.07 |  |  |
| cg16668397 (n=264) | ***JPH3*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.13 | 0.05 | 0.008 | BMI; Gender | \* | 0.01 |
| 1-9 /hr | 0.13 | 0.05 | 0.007 | \* |  |
| 10 /day | 0.11 | 0.06 | 0.06 |  |  |
| Seldom | 0.03 | 0.04 | 0.5 |  |  |
| cg26419883 (n=264) | ***TRPM5*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.15 | 0.05 | 0.003 | BMI; Gender | \* | 0.003 |
| 1-9 /hr | 0.05 | 0.05 | 0.3 |  |  |
| 10 /day | 0.06 | 0.06 | 0.4 |  |  |
| Seldom | 0.01 | 0.04 | 0.9 |  |  |
| cg04794690 (n=264) | ***PADI3*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.19 | 0.06 | 0.002 | BMI; Gender | \*\* | 0.001 |
| 1-9 /hr | 0.22 | 0.06 | 0.0003 | \*\* |  |
| 10 /day | 0.05 | 0.07 | 0.5 |  |  |
| Seldom | 0.10 | 0.05 | 0.06 |  |  |
| cg18459806 (n=248) | ***NIN*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.15 | 0.05 | 0.002 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \*\* | 0.007 |
| 1-9 /hr | -0.03 | 0.05 | 0.5 |  |  |
| 10 /day | -0.09 | 0.06 | 0.1 |  |  |
| Seldom | -0.01 | 0.04 | 0.8 |  |  |
| cg20631351 (n=264) | ***PALM*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.11 | 0.04 | 0.01 | BMI; Gender | 0 | 0.01 |
| 1-9 /hr | 0.11 | 0.04 | 0.01 | **\*** |  |
| 10 /day | 0.06 | 0.05 | 0.3 |  |  |
| Seldom | 0.04 | 0.04 | 0.3 |  |  |
| cg00347824 (n=264) | ***NSMAF*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.22 | 0.06 | 0.0005 | BMI; Gender | \*\* | 0.007 |
| 1-9 /hr | 0.10 | 0.06 | 0.1 |  |  |
| 10 /day | 0.15 | 0.08 | 0.06 |  |  |
| Seldom | 0.08 | 0.06 | 0.1 |  |  |
| cg17053854 (n=258) | ***SEPT9*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.09 | 0.03 | 0.01 | Tobacco Smoke Exposure (at 10 yrs ); BMI; Gender | \* | 0.003 |
| 1-9 /hr | 0.09 | 0.03 | 0.007 | \* |  |
| 10 /day | 0.05 | 0.04 | 0.3 |  |  |
| Seldom | 0.00 | 0.03 | 1.0 |  |  |
| cg26720961 (n=254) | ***TSNARE1*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.16 | 0.07 | 0.03 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; Exposure to smoke outside the home | 0 | 0.002 |
| 1-9 /hr | 0.04 | 0.07 | 0.6 |  |  |
| 10 /day | 0.00 | 0.09 | 1.0 |  |  |
| Seldom | -0.10 | 0.06 | 0.1 |  |  |
| cg05575058 (n=248) | ***FAM164A*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.19 | 0.06 | 0.0008 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \*\* | 0.003 |
| 1-9 /hr | -0.11 | 0.05 | 0.05 |  |  |
| 10 /day | -0.10 | 0.07 | 0.1 |  |  |
| Seldom | -0.05 | 0.05 | 0.3 |  |  |
| cg15742605 (n=248) | ***SAMD11*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.16 | 0.06 | 0.007 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \* | 0.0003 |
| 1-9 /hr | 0.05 | 0.06 | 0.4 |  |  |
| 10 /day | -0.01 | 0.07 | 0.9 |  |  |
| Seldom | -0.05 | 0.05 | 0.3 |  |  |
| cg26185508 (n=264) | ***CDCP2*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.13 | 0.06 | 0.03 | BMI; Gender | \* | 0.08 |
| 1-9 /hr | 0.17 | 0.06 | 0.004 |  |  |
| 10 /day | 0.12 | 0.07 | 0.1 |  |  |
| Seldom | 0.07 | 0.05 | 0.1 |  |  |
| cg02378006 (n=248) | ***UNC5B*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.17 | 0.07 | 0.02 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | 0 | 0.002 |
| 1-9 /hr | 0.07 | 0.07 | 0.3 |  |  |
| 10 /day | -0.01 | 0.09 | 0.9 |  |  |
| Seldom | -0.02 | 0.06 | 0.8 |  |  |
|  |  |  |  |  |  |  |  |  |  |

\*\*\* p<0.001

\*\* p<0.01

\* p<0.05

◌ p<0.1

Once the Dunnett’ tests provided statistical evidence of differences in marginal means of the heavy vehicular traffic frequency, a second test for trend is performed to assess a ‘dose-response’ relationship.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table S4. Results for linear models for CpG sites associated with the frequency of heavy vehicles passing by homes among male subjects | | | | | | | | | |
| **CpG** | **Associated Gene** | **Heavy Vehicle Frequency (ref=Never)** | **Estimate** | **Standard Error** | **P value** | **Significant covariates in final model** | **Dunnett's test (LSMEAN=Never)** | **Linear trend test (F value, df=1)** *p value* | **Direction of Methylation** |
| cg18565510 (n=122) | **ACAP3** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.15 | 0.06 | 0.02 | Gender; BMI | 0 | 3.9 |
| 1-9 /hr | 0.16 | 0.06 | 0.01 | \* | 0.05 |
| 10 /day | 0.11 | 0.08 | 0.16 |  |  |
| Seldom | 0.07 | 0.05 | 0.19 |  |  |
| cg24843003 (n=124) | **DAZAP1** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.10 | 0.06 | 0.11 | Gender |  | 0.0007 |
| 1-9 /hr | 0.04 | 0.07 | 0.58 |  | 0.01 |
| 10 /day | 0.12 | 0.08 | 0.16 |  |  |
| Seldom | 0.14 | 0.06 | 0.01 | \* |  |
| cg15730464 (n=112) | **LGI2** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | 0.26 | 0.09 | 0.01 | Tobacco Smoke Exposure ( at 10 yrs); SES; Gender | \* | 5.6 |
| 1-9 /hr | 0.10 | 0.09 | 0.28 |  | 0.02 |
| 10 /day | 0.01 | 0.11 | 0.96 |  |  |
| Seldom | 0.17 | 0.08 | 0.04 |  |  |
| cg07023532 (n=122) | **ACOT4** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.20 | 0.08 | 0.02 | Gender; BMI | 0 | 2.2 |
| 1-9 /hr | 0.25 | 0.09 | 0.005 | \* | 0.1 |
| 10 /day | 0.24 | 0.11 | 0.03 | 0 |  |
| Seldom | 0.12 | 0.07 | 0.09 |  |  |
| cg20255272 (n=113) | **VWA1** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.20 | 0.11 | 0.08 | Tobacco Smoke Exposure (0-4 yrs only); Gender; BMI; SES; |  | 1.9 |
| 1-9 /hr | 0.24 | 0.11 | 0.03 |  | 0.2 |
| 10 /day | 0.35 | 0.14 | 0.02 | 0 |  |
| Seldom | -0.05 | 0.10 | 0.61 |  |  |
| cg04154465 (n=115) | **WNT2B** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.30 | 0.12 | 0.01 | SES; Gender; BMI | \* | 9.2 |
| 1-9 /hr | 0.07 | 0.12 | 0.53 |  | 0.003 |
| 10 /day | -0.17 | 0.15 | 0.28 |  |  |
| Seldom | 0.08 | 0.10 | 0.42 |  |  |
| cg18459806 (n=106) | **NIN** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.17 | 0.07 | 0.02 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | 0 | 1.6 |
| 1-9 /hr | -0.12 | 0.06 | 0.08 |  | 0.2 |
| 10 /day | -0.17 | 0.08 | 0.05 |  |  |
| Seldom | -0.12 | 0.06 | 0.04 |  |  |
| cg17053854 (n=112) | **SEPT9** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.10 | 0.05 | 0.03 | Tobacco Smoke Exposure (at 10 yrs ); BMI; Gender |  | 10.9 |
| 1-9 /hr | 0.14 | 0.04 | 0.00 | \*\* | 0.001 |
| 10 /day | -0.04 | 0.05 | 0.44 |  |  |
| Seldom | 0.02 | 0.04 | 0.55 |  |  |
| cg25324786 (n=108) | **RASA3** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.25 | 0.08 | 0.004 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; Exposure to smoke outside the home | \* | 12.0 |
| 1-9 /hr | 0.08 | 0.08 | 0.31 |  | 0.0008 |
| 10 /day | -0.01 | 0.10 | 0.96 |  |  |
| Seldom | -0.01 | 0.07 | 0.92 |  |  |
| cg05575058 (n=106) | **FAM164A** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.22 | 0.08 | 0.01 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \* | 4.5 |
| 1-9 /hr | -0.10 | 0.08 | 0.19 |  | 0.04 |
| 10 /day | -0.11 | 0.10 | 0.27 |  |  |
| Seldom | -0.09 | 0.07 | 0.19 |  |  |
|  |  |  |  |  |  |  |  |  |  |

\*\*\* p<0.001

\*\* p<0.01

\* p<0.05

◌ p<0.1

Once the Dunnett’ tests provided statistical evidence of differences in marginal means of the heavy vehicular traffic frequency, a second test for trend is performed to assess a ‘dose-response’ relationship.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table S5. Results for linear models for CpG sites associated with the frequency of heavy vehicles passing by homes among female subjects | | | | | | | | | |
| **CpG** | **Associated Gene** | **Heavy Vehicle Frequency (ref=Never)** | **Estimate** | **Standard Error** | **P value** | **Significant covariates in final model** | **Dunnett's test (LSMEAN=Never)** | **Linear trend test (F value, df=1)** *p value* | **Direction of Methylation** |
| cg25895913 (n=241) | ***CDH4*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.16 | 0.05 | 0.002 | Tobacco Smoke Exposure (at 10 yrs); Gender | \*\* | 18.4 |
| 1-9 /hr | 0.17 | 0.05 | 0.001 | \*\* | <.0001 |
| 10 /day | 0.04 | 0.06 | 0.5 |  |  |
| Seldom | 0.01 | 0.05 | 0.8 |  |  |
| cg11156891 (n=223) | ***ANKRD65*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.69 | 0.16 | <.0001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; ; Exposure to smoke outside the home | \*\*\* | 16.4 |
| 1-9 /hr | -0.37 | 0.17 | 0.03 | 0 | <.0001 |
| 10 /day | -0.25 | 0.19 | 0.2 |  |  |
| Seldom | -0.28 | 0.15 | 0.1 |  |  |
| cg12407057 (n=223) | ***ANKRD65*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.47 | 0.13 | 0.0002 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \*\*\* | 18.4 |
| 1-9 /hr | -0.32 | 0.13 | 0.02 | 0 | <.0001 |
| 10 /day | -0.08 | 0.15 | 0.6 |  |  |
| Seldom | -0.14 | 0.12 | 0.2 |  |  |
| cg20747739 (n=240) | ***FAM132A*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.16 | 0.05 | 0.0004 | Gender; BMI | \*\* | 16.7 |
| 1-9 /hr | 0.11 | 0.05 | 0.02 | \* | <.0001 |
| 10 /day | 0.04 | 0.05 | 0.5 |  |  |
| Seldom | 0.04 | 0.04 | 0.4 |  |  |
| cg18565510 (n=240) | ***ACAP3*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.23 | 0.07 | 0.001 | Gender; BMI | \*\* | 11.0 |
| 1-9 /hr | 0.13 | 0.07 | 0.1 |  | 0.001 |
| 10 /day | 0.09 | 0.08 | 0.3 |  |  |
| Seldom | 0.06 | 0.06 | 0.3 |  |  |
| cg24843003 (n=245) | ***DAZAP1*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.22 | 0.06 | 0.0003 | Gender | \*\* | 18.2 |
| 1-9 /hr | 0.21 | 0.06 | 0.001 | \*\* | <.0001 |
| 10 /day | 0.06 | 0.07 | 0.5 |  |  |
| Seldom | 0.06 | 0.06 | 0.3 |  |  |
| cg15730464 (n=236) | ***LGI2*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | 0.29 | 0.08 | 0.0002 | Tobacco Smoke Exposure ( at 10 yrs); SES; Gender | \*\*\* | 15.3 |
| 1-9 /hr | 0.20 | 0.08 | 0.01 | \* | 0.0001 |
| 10 /day | 0.04 | 0.09 | 0.7 |  |  |
| Seldom | 0.16 | 0.07 | 0.04 |  |  |
| cg16196077 (n=228) | ***RTKN2*** |  |  |  |  |  |  |  | ↓ |
| >10 /hr | -0.29 | 0.11 | 0.01 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; Exposure to smoke outside the home | \* | 11.1 |
| 1-9 /hr | -0.26 | 0.11 | 0.02 | 0 | 0.001 |
| 10 /day | -0.08 | 0.13 | 0.5 |  |  |
| Seldom | -0.03 | 0.10 | 0.7 |  |  |
| cg03476673 (n=223) | ***CRISPLD2*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.26 | 0.09 | 0.004 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \* | 6.6 |
| 1-9 /hr | -0.14 | 0.09 | 0.1 |  | 0.01 |
| 10 /day | -0.12 | 0.11 | 0.3 |  |  |
| Seldom | -0.12 | 0.08 | 0.1 |  |  |
| cg07023532 (n=240) | ***ACOT4*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.17 | 0.07 | 0.01 | Gender; BMI | \* | 2.2 |
| 1-9 /hr | 0.22 | 0.07 | 0.002 | \*\* | 0.1 |
| 10 /day | 0.20 | 0.08 | 0.01 | \* |  |
| Seldom | 0.15 | 0.06 | 0.02 | 0 |  |
| cg20255272 (n=235) | ***VWA1*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.25 | 0.09 | 0.01 | Tobacco Smoke Exposure (0-4 yrs only); Gender; BMI; SES; | \* | 10.1 |
| 1-9 /hr | 0.09 | 0.10 | 0.4 |  | 0.002 |
| 10 /day | 0.01 | 0.11 | 0.9 |  |  |
| Seldom | 0.03 | 0.09 | 0.7 |  |  |
| cg12417992 (n=240) | ***SLC6A9*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.15 | 0.05 | 0.001 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs only); SES; Gender | \*\* | 10.1 |
| 1-9 /hr | 0.16 | 0.05 | 0.001 | \*\* | 0.0017 |
| 10 /day | 0.12 | 0.05 | 0.03 |  |  |
| Seldom | 0.06 | 0.04 | 0.2 |  |  |
| cg04154465 (n=236) | ***WNT2B*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.21 | 0.07 | 0.005 | SES; Gender; BMI | \* | 9.7 |
| 1-9 /hr | 0.22 | 0.08 | 0.01 | \* | 0.002 |
| 10 /day | 0.20 | 0.09 | 0.03 | 0 |  |
| Seldom | -0.02 | 0.07 | 0.8 |  |  |
| cg12813768 (n=228) | ***SYCP1*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.32 | 0.11 | 0.004 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; Exposure to smoke outside the home | \* | 15.5 |
| 1-9 /hr | -0.13 | 0.11 | 0.3 |  | 0.0001 |
| 10 /day | 0.03 | 0.13 | 0.8 |  |  |
| Seldom | 0.02 | 0.10 | 0.9 |  |  |
| cg14162906 (n=240) | ***TMEM222*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.13 | 0.05 | 0.009 | BMI; Gender | \* | 5.4 |
| 1-9 /hr | 0.16 | 0.05 | 0.002 | \*\* | 0.02 |
| 10 /day | 0.15 | 0.06 | 0.01 | **\*** |  |
| Seldom | 0.04 | 0.05 | 0.4 |  |  |
| cg24361098 (n=240) | ***BCL11A*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.31 | 0.08 | <.0001 | BMI; Gender | \*\*\* | 9.4 |
| 1-9 /hr | 0.16 | 0.08 | 0.04 |  | 0.002 |
| 10 /day | 0.18 | 0.09 | 0.05 |  |  |
| Seldom | 0.19 | 0.07 | 0.009 | **\*** |  |
| cg16147794 (n=223) | ***SLC16A10*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | -0.25 | 0.09 | 0.005 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \* | 10.0 |
| 1-9 /hr | -0.16 | 0.09 | 0.09 |  | 0.002 |
| 10 /day | -0.11 | 0.10 | 0.3 |  |  |
| Seldom | -0.02 | 0.08 | 0.8 |  |  |
| cg16668397 (n=240) | ***JPH3*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.16 | 0.05 | 0.002 | BMI; Gender | \*\* | 13.4 |
| 1-9 /hr | 0.21 | 0.05 | 0.0001 | \*\*\* | 0.0003 |
| 10 /day | 0.07 | 0.06 | 0.2 |  |  |
| Seldom | 0.05 | 0.05 | 0.3 |  |  |
| cg26419883 (n=240) | ***TRPM5*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.21 | 0.05 | 0.0001 | BMI; Gender | \*\*\* | 15.9 |
| 1-9 /hr | 0.10 | 0.06 | 0.08 |  | <.0001 |
| 10 /day | 0.07 | 0.07 | 0.3 |  |  |
| Seldom | 0.05 | 0.05 | 0.3 |  |  |
| cg21775675 (n=223) | ***TMEM161B*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.24 | 0.07 | 0.0005 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \*\* | 12.4 |
| 1-9 /hr | -0.10 | 0.07 | 0.2 |  | 0.0005 |
| 10 /day | -0.12 | 0.08 | 0.1 |  |  |
| Seldom | -0.03 | 0.06 | 0.6 |  |  |
| cg04794690 (n=240) | ***PADI3*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.21 | 0.07 | 0.001 | BMI; Gender | \*\* | 9.9 |
| 1-9 /hr | 0.26 | 0.07 | 0.0002 | \*\*\* | 0.002 |
| 10 /day | 0.07 | 0.08 | 0.4 |  |  |
| Seldom | 0.18 | 0.06 | 0.005 | \* |  |
| cg06942649 (n=240) | ***FBXO25*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.26 | 0.10 | 0.01 | BMI; Gender | \* | 3.32 |
| 1-9 /hr | 0.26 | 0.11 | 0.01 | \* | 0.07 |
| 10 /day | 0.25 | 0.12 | 0.04 |  |  |
| Seldom | 0.16 | 0.10 | 0.1 |  |  |
| cg18459806 (n=223) | ***NIN*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.15 | 0.05 | 0.003 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \* | 11.3 |
| 1-9 /hr | -0.05 | 0.05 | 0.3 |  | 0.0009 |
| 10 /day | -0.06 | 0.06 | 0.4 |  |  |
| Seldom | 0.01 | 0.05 | 0.9 |  |  |
| cg20631351 (n=240) | ***PALM*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.17 | 0.05 | 0.001 | BMI; Gender | \*\* | 8.3 |
| 1-9 /hr | 0.13 | 0.05 | 0.01 | **\*** | 0.004 |
| 10 /day | 0.12 | 0.06 | 0.05 |  |  |
| Seldom | 0.07 | 0.05 | 0.2 |  |  |
| cg00347824 (n=240) | ***NSMAF*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.19 | 0.07 | 0.004 | BMI; Gender | \* | 6.7 |
| 1-9 /hr | 0.08 | 0.07 | 0.3 |  | 0.01 |
| 10 /day | 0.08 | 0.08 | 0.3 |  |  |
| Seldom | 0.07 | 0.06 | 0.3 |  |  |
| cg17053854 (n=236) | ***SEPT9*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.08 | 0.04 | 0.03 | Tobacco Smoke Exposure (at 10 yrs ); BMI; Gender | 0 | 5.4 |
| 1-9 /hr | 0.07 | 0.04 | 0.1 |  | 0.02 |
| 10 /day | 0.07 | 0.05 | 0.1 |  |  |
| Seldom | 0.00 | 0.04 | 1.0 |  |  |
| cg05575058 (n=223) | ***FAM164A*** |  |  |  |  |  |  |  | **↓** |
| >10 /hr | -0.14 | 0.06 | 0.02 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | 0 | 3.9 |
| 1-9 /hr | -0.08 | 0.06 | 0.2 |  | 0.05 |
| 10 /day | -0.09 | 0.07 | 0.2 |  |  |
| Seldom | -0.05 | 0.06 | 0.4 |  |  |
| cg15742605 (n=223) | ***SAMD11*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.23 | 0.06 | 0.0002 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \*\*\* | 13.5 |
| 1-9 /hr | 0.09 | 0.06 | 0.2 |  | 0.0003 |
| 10 /day | 0.11 | 0.07 | 0.1 |  |  |
| Seldom | 0.04 | 0.06 | 0.5 |  |  |
| cg26185508 (n=240) | ***CDCP2*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.21 | 0.06 | 0.001 | BMI; Gender | \*\* | 10.1 |
| 1-9 /hr | 0.25 | 0.06 | 0.0001 | \*\*\* | 0.0017 |
| 10 /day | 0.18 | 0.07 | 0.01 | \* |  |
| Seldom | 0.08 | 0.06 | 0.2 |  |  |
| cg02378006 (n=223) | ***UNC5B*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.22 | 0.07 | 0.002 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \*\* | 17.6 |
| 1-9 /hr | 0.04 | 0.08 | 0.6 |  | <.0001 |
| 10 /day | -0.01 | 0.09 | 0.9 |  |  |
| Seldom | -0.05 | 0.07 | 0.4 |  |  |
| cg08462127 (n=223) | ***MYOM2*** |  |  |  |  |  |  |  | **↑** |
| >10 /hr | 0.15 | 0.06 | 0.02 | Maternal Smoking; Tobacco Smoke Exposure (0-4 yrs and at 10 yrs); SES; Gender; BMI; Exposure to smoke outside the home | \* | 6.0 |
| 1-9 /hr | 0.05 | 0.06 | 0.4 |  | 0.01 |
| 10 /day | 0.09 | 0.07 | 0.2 |  |  |
| Seldom | 0.00 | 0.06 | 0.9 |  |  |

\*\*\* p<0.001

\*\* p<0.01

\* p<0.05

◌ p<0.1

Once the Dunnett’ tests provided statistical evidence of differences in marginal means of the heavy vehicular traffic frequency, a second test for trend is performed to assess a ‘dose-response’ relationship.