# S18 Table. Percent change in hospital admissions per 10-μg/m3 increase in O3 (lag 0-2 days) by minor disease categories, on average across all cities.

|  |  |  |  |  | Percent change in admissions per10-μg/m3 increase in O3, % |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Single-pollutant model |  | Two-pollutant model |
| CCS code | Disease category |  | Total no. of admissions |  | Point estimate(95% CI) | Unadjusted*P* value | Adjusted*P* value |  | Point estimate(95% CI) | Unadjusted*P* value | Adjusted*P* value |
| 1 | Tuberculosis |  | 911,001 |  | -0.06 (-0.30, 0.18) | 0.604  | 0.916  |  | -0.07 (-0.32, 0.17) | 0.569  | 0.913  |
| 2 | Septicemia (except in labor) |  | 247,832 |  | 0.09 (-0.26, 0.45) | 0.595  | 0.916  |  | 0.01 (-0.36, 0.39) | 0.940  | 0.991  |
| 3 | Bacterial infection; unspecified site |  | 108,626 |  | 0.12 (-0.46, 0.69) | 0.693  | 0.923  |  | -0.10 (-0.72, 0.53) | 0.761  | 0.923  |
| 4 | Mycoses |  | 102,580 |  | -0.04 (-0.56, 0.49) | 0.892  | 0.969  |  | -0.20 (-0.77, 0.37) | 0.499  | 0.913  |
| 5 | HIV infection |  | 69,110 |  | 0.21 (-0.43, 0.86) | 0.517  | 0.891  |  | 0.27 (-0.43, 0.97) | 0.453  | 0.913  |
| 6 | Hepatitis |  | 812,827 |  | 0.13 (-0.08, 0.34) | 0.211  | 0.631  |  | 0.06 (-0.16, 0.29) | 0.568  | 0.913  |
| 7 | Viral infection |  | 1,287,445 |  | 0.01 (-0.18, 0.19) | 0.953  | 0.980  |  | 0.14 (-0.08, 0.36) | 0.218  | 0.691  |
| 8 | Other infections; including parasitic |  | 191,575 |  | 0.02 (-0.37, 0.42) | 0.908  | 0.970  |  | -0.01 (-0.44, 0.41) | 0.952  | 0.991  |
| 9 | Sexually transmitted infections (not HIV or hepatitis) |  | 88,870 |  | -0.61 (-1.41, 0.18) | 0.132  | 0.563  |  | -0.77 (-1.62, 0.09) | 0.078  | 0.565  |
| 10 | Immunizations and screening for infectious disease |  | 9,495 |  | -0.54 (-2.32, 1.23) | 0.549  | 0.916  |  | -1.17 (-3.08, 0.75) | 0.232  | 0.692  |
| 11 | Cancer of head and neck |  | 502,628 |  | -0.18 (-0.45, 0.10) | 0.205  | 0.631  |  | -0.15 (-0.44, 0.15) | 0.323  | 0.811  |
| 12 | Cancer of esophagus |  | 510,443 |  | 0.03 (-0.23, 0.28) | 0.844  | 0.968  |  | -0.03 (-0.30, 0.25) | 0.854  | 0.973  |
| 13 | Cancer of stomach |  | 854,446 |  | 0.01 (-0.19, 0.21) | 0.926  | 0.972  |  | -0.05 (-0.27, 0.16) | 0.621  | 0.913  |
| 14 | Cancer of colon |  | 495,169 |  | 0.06 (-0.23, 0.35) | 0.676  | 0.916  |  | 0.03 (-0.28, 0.35) | 0.837  | 0.965  |
| 15 | Cancer of rectum and anus |  | 505,433 |  | 0.09 (-0.16, 0.35) | 0.485  | 0.861  |  | 0.12 (-0.15, 0.39) | 0.393  | 0.880  |
| 16 | Cancer of liver and intrahepatic bile duct |  | 779,960 |  | 0.04 (-0.16, 0.24) | 0.692  | 0.923  |  | 0.04 (-0.18, 0.25) | 0.751  | 0.922  |
| 17 | Cancer of pancreas |  | 191,736 |  | 0.26 (-0.15, 0.66) | 0.209  | 0.631  |  | 0.09 (-0.33, 0.52) | 0.672  | 0.922  |
| 18 | Cancer of other GI organs; peritoneum |  | 227,609 |  | 0.08 (-0.29, 0.45) | 0.678  | 0.916  |  | 0.04 (-0.38, 0.45) | 0.867  | 0.982  |
| 19 | Cancer of bronchus; lung |  | 1,872,596 |  | 0.12 (-0.03, 0.27) | 0.113  | 0.563  |  | 0.11 (-0.06, 0.27) | 0.205  | 0.687  |
| 20 | Cancer; other respiratory and intrathoracic |  | 14,943 |  | 1.14 (-0.34, 2.62) | 0.132  | 0.563  |  | 0.99 (-0.58, 2.55) | 0.217  | 0.691  |
| 21 | Cancer of bone and connective tissue |  | 94,158 |  | -0.01 (-0.59, 0.57) | 0.969  | 0.985  |  | -0.17 (-0.79, 0.44) | 0.580  | 0.913  |
| 22 | Melanomas of skin |  | 24,963 |  | -0.86 (-2.03, 0.30) | 0.147  | 0.563  |  | -0.85 (-2.08, 0.37) | 0.172  | 0.674  |
| 23 | Other non-epithelial cancer of skin |  | 77,862 |  | 0.54 (-0.08, 1.16) | 0.089  | 0.563  |  | 0.51 (-0.16, 1.17) | 0.135  | 0.654  |
| 24 | Cancer of breast |  | 1,031,596 |  | 0.06 (-0.14, 0.25) | 0.569  | 0.916  |  | 0.05 (-0.16, 0.26) | 0.642  | 0.913  |
| 25 | Cancer of uterus |  | 173,071 |  | -0.20 (-0.63, 0.23) | 0.358  | 0.757  |  | -0.13 (-0.59, 0.33) | 0.581  | 0.913  |
| 26 | Cancer of cervix |  | 600,054 |  | 0.29 (0.03, 0.54) | 0.029\* | 0.388  |  | 0.28 (0.03, 0.54) | 0.031\* | 0.444  |
| 27 | Cancer of ovary |  | 202,125 |  | -0.11 (-0.52, 0.29) | 0.581  | 0.916  |  | -0.35 (-0.78, 0.08) | 0.110  | 0.610  |
| 28 | Cancer of other female genital organs |  | 38,206 |  | 0.65 (-0.27, 1.57) | 0.168  | 0.575  |  | 0.64 (-0.34, 1.63) | 0.200  | 0.687  |
| 29 | Cancer of prostate |  | 204,959 |  | -0.11 (-0.49, 0.28) | 0.586  | 0.916  |  | -0.10 (-0.51, 0.31) | 0.640  | 0.913  |
| 30 | Cancer of testis |  | 12,452 |  | -0.08 (-1.70, 1.54) | 0.920  | 0.972  |  | -0.06 (-1.79, 1.68) | 0.949  | 0.991  |
| 31 | Cancer of other male genital organs |  | 18,617 |  | -0.36 (-1.73, 1.01) | 0.609  | 0.916  |  | -0.47 (-1.92, 0.98) | 0.523  | 0.913  |
| 32 | Cancer of bladder |  | 212,065 |  | 0.24 (-0.15, 0.63) | 0.232  | 0.639  |  | 0.18 (-0.24, 0.59) | 0.410  | 0.896  |
| 33 | Cancer of kidney and renal pelvis |  | 165,670 |  | -0.04 (-0.49, 0.40) | 0.844  | 0.968  |  | 0.01 (-0.46, 0.48) | 0.958  | 0.991  |
| 34 | Cancer of other urinary organs |  | 26,281 |  | 0.21 (-0.92, 1.34) | 0.719  | 0.934  |  | 0.12 (-1.07, 1.31) | 0.843  | 0.966  |
| 35 | Cancer of brain and nervous system |  | 137,704 |  | 0.11 (-0.38, 0.60) | 0.664  | 0.916  |  | 0.13 (-0.39, 0.65) | 0.625  | 0.913  |
| 36 | Cancer of thyroid |  | 563,513 |  | 0.12 (-0.14, 0.39) | 0.353  | 0.755  |  | 0.17 (-0.12, 0.45) | 0.249  | 0.710  |
| 37 | Hodgkin’s disease |  | 34,210 |  | -0.22 (-1.18, 0.74) | 0.659  | 0.916  |  | -0.55 (-1.57, 0.47) | 0.293  | 0.775  |
| 38 | Non-Hodgkin’s lymphoma |  | 356,137 |  | 0.09 (-0.22, 0.41) | 0.557  | 0.916  |  | 0.06 (-0.26, 0.38) | 0.704  | 0.922  |
| 39 | Leukemias |  | 645,532 |  | 0.00 (-0.23, 0.23) | 0.985  | 0.990  |  | 0.01 (-0.24, 0.25) | 0.951  | 0.991  |
| 40 | Multiple myeloma |  | 146,549 |  | 0.43 (-0.11, 0.96) | 0.117  | 0.563  |  | 0.41 (-0.15, 0.98) | 0.153  | 0.674  |
| 41 | Cancer; other and unspecified primary |  | 129,460 |  | 0.26 (-0.24, 0.75) | 0.307  | 0.708  |  | 0.21 (-0.31, 0.74) | 0.430  | 0.913  |
| 42 | Secondary malignancies |  | 486,077 |  | 0.03 (-0.23, 0.30) | 0.812  | 0.960  |  | -0.05 (-0.34, 0.23) | 0.711  | 0.922  |
| 43 | Malignant neoplasm without specification of site |  | 61,211 |  | -0.34 (-1.04, 0.36) | 0.346  | 0.748  |  | -0.02 (-0.77, 0.73) | 0.951  | 0.991  |
| 44 | Neoplasms of unspecified nature or uncertain behavior |  | 508,677 |  | 0.01 (-0.27, 0.29) | 0.957  | 0.980  |  | -0.10 (-0.39, 0.19) | 0.492  | 0.913  |
| 45 | Maintenance chemotherapy; radiotherapy |  | 12,173,649 |  | -0.09 (-0.19, 0.02) | 0.100  | 0.563  |  | -0.10 (-0.21, 0.01) | 0.070  | 0.549  |
| 46 | Benign neoplasm of uterus |  | 1,010,719 |  | -0.04 (-0.27, 0.19) | 0.748  | 0.950  |  | -0.07 (-0.30, 0.16) | 0.559  | 0.913  |
| 47 | Other and unspecified benign neoplasm |  | 2,884,383 |  | -0.07 (-0.22, 0.08) | 0.344  | 0.748  |  | -0.05 (-0.20, 0.10) | 0.525  | 0.913  |
| 48 | Thyroid disorders |  | 1,080,281 |  | -0.14 (-0.32, 0.05) | 0.146  | 0.563  |  | -0.14 (-0.34, 0.06) | 0.159  | 0.674  |
| 49 | Diabetes mellitus without complication |  | 1,559,966 |  | 0.20 (0.04, 0.36) | 0.015\* | 0.233  |  | 0.13 (-0.04, 0.30) | 0.126  | 0.654  |
| 50 | Diabetes mellitus with complications |  | 1,601,337 |  | 0.20 (0.02, 0.38) | 0.031\* | 0.392  |  | 0.08 (-0.13, 0.28) | 0.471  | 0.913  |
| 51 | Other endocrine disorders |  | 391,190 |  | -0.08 (-0.44, 0.27) | 0.643  | 0.916  |  | -0.12 (-0.49, 0.26) | 0.551  | 0.913  |
| 52 | Nutritional deficiencies |  | 35,728 |  | -0.36 (-1.46, 0.75) | 0.524  | 0.896  |  | -0.38 (-1.60, 0.85) | 0.548  | 0.913  |
| 53 | Disorders of lipid metabolism |  | 68,063 |  | -0.29 (-1.03, 0.44) | 0.438  | 0.808  |  | -0.41 (-1.20, 0.38) | 0.304  | 0.784  |
| 54 | Gout and other crystal arthropathies |  | 189,684 |  | -0.30 (-0.68, 0.08) | 0.120  | 0.563  |  | -0.42 (-0.83, -0.01) | 0.046\* | 0.510  |
| 55 | Fluid and electrolyte disorders |  | 78,150 |  | 0.16 (-0.44, 0.76) | 0.603  | 0.916  |  | 0.17 (-0.47, 0.82) | 0.599  | 0.913  |
| 57 | Immunity disorders |  | 12,701 |  | -0.93 (-2.41, 0.54) | 0.216  | 0.631  |  | -1.07 (-2.66, 0.52) | 0.185  | 0.687  |
| 58 | Other nutritional; endocrine; and metabolic disorders |  | 229,833 |  | -0.29 (-0.69, 0.11) | 0.152  | 0.563  |  | -0.36 (-0.79, 0.07) | 0.104  | 0.610  |
| 59 | Deficiency and other anemia |  | 682,025 |  | 0.17 (-0.07, 0.40) | 0.160  | 0.569  |  | 0.11 (-0.13, 0.35) | 0.374  | 0.878  |
| 60 | Acute posthemorrhagic anemia |  | 2,401 |  | 1.38 (-9.72, 12.47) | 0.808  | 0.960  |  | 0.12 (-13.24, 13.48) | 0.986  | 0.991  |
| 62 | Coagulation and hemorrhagic disorders |  | 592,711 |  | -0.31 (-0.55, -0.06) | 0.015\* | 0.233  |  | -0.28 (-0.55, -0.02) | 0.034\* | 0.444  |
| 63 | Diseases of white blood cells |  | 70,776 |  | -0.27 (-0.95, 0.40) | 0.428  | 0.807  |  | -0.21 (-0.96, 0.54) | 0.586  | 0.913  |
| 64 | Other hematologic conditions |  | 78,999 |  | -0.43 (-1.04, 0.18) | 0.167  | 0.575  |  | -0.57 (-1.22, 0.09) | 0.090  | 0.610  |
| 65 | Mental retardation |  | 30,747 |  | 0.65 (-0.38, 1.68) | 0.219  | 0.631  |  | 1.20 (0.07, 2.33) | 0.038\* | 0.444  |
| 66 | Alcohol-related mental disorders |  | 63,812 |  | -0.13 (-0.89, 0.63) | 0.729  | 0.934  |  | -0.15 (-0.97, 0.66) | 0.710  | 0.922  |
| 67 | Substance-related mental disorders |  | 9,443 |  | 0.67 (-1.25, 2.60) | 0.493  | 0.866  |  | 0.43 (-1.63, 2.49) | 0.682  | 0.922  |
| 68 | Senility and organic mental disorders |  | 197,581 |  | 0.09 (-0.31, 0.49) | 0.662  | 0.916  |  | 0.11 (-0.32, 0.54) | 0.627  | 0.913  |
| 69 | Affective disorders |  | 310,099 |  | -0.20 (-0.57, 0.18) | 0.304  | 0.708  |  | -0.33 (-0.78, 0.11) | 0.139  | 0.654  |
| 70 | Schizophrenia and related disorders |  | 348,859 |  | -0.16 (-0.59, 0.26) | 0.453  | 0.827  |  | -0.17 (-0.61, 0.27) | 0.453  | 0.913  |
| 71 | Other psychoses |  | 15,470 |  | 0.89 (-0.61, 2.39) | 0.246  | 0.645  |  | 0.74 (-0.83, 2.31) | 0.357  | 0.850  |
| 72 | Anxiety; somatoform; dissociative; and personality disorders |  | 441,926 |  | 0.17 (-0.11, 0.44) | 0.235  | 0.639  |  | 0.13 (-0.17, 0.43) | 0.383  | 0.880  |
| 73 | Preadult disorders |  | 12,140 |  | 0.30 (-1.27, 1.87) | 0.706  | 0.934  |  | 0.10 (-1.76, 1.96) | 0.917  | 0.991  |
| 74 | Other mental conditions |  | 56,465 |  | 0.06 (-0.78, 0.91) | 0.881  | 0.968  |  | -0.00 (-0.92, 0.92) | 0.995  | 0.995  |
| 76 | Meningitis (except that caused by tuberculosis or sexually transmitted disease) |  | 76,103 |  | -0.08 (-0.70, 0.53) | 0.787  | 0.960  |  | -0.16 (-0.83, 0.51) | 0.641  | 0.913  |
| 77 | Encephalitis (except that caused by tuberculosis or sexually transmitted disease) |  | 366,528 |  | -0.19 (-0.50, 0.12) | 0.227  | 0.637  |  | -0.16 (-0.49, 0.18) | 0.356  | 0.850  |
| 78 | Other CNS infection and poliomyelitis |  | 75,956 |  | 0.05 (-0.62, 0.73) | 0.878  | 0.968  |  | -0.02 (-0.73, 0.69) | 0.959  | 0.991  |
| 79 | Parkinson’s disease |  | 158,499 |  | -0.20 (-0.66, 0.26) | 0.392  | 0.803  |  | -0.26 (-0.76, 0.23) | 0.299  | 0.780  |
| 80 | Multiple sclerosis |  | 19,147 |  | 0.28 (-1.04, 1.60) | 0.674  | 0.916  |  | 0.81 (-0.62, 2.24) | 0.265  | 0.733  |
| 81 | Other hereditary and degenerative nervous system conditions |  | 241,382 |  | -0.19 (-0.55, 0.17) | 0.304  | 0.708  |  | -0.26 (-0.65, 0.13) | 0.196  | 0.687  |
| 82 | Paralysis |  | 188,113 |  | -0.27 (-0.84, 0.29) | 0.337  | 0.748  |  | -0.53 (-1.09, 0.03) | 0.063  | 0.539  |
| 83 | Epilepsy; convulsions |  | 707,298 |  | -0.18 (-0.39, 0.04) | 0.106  | 0.563  |  | -0.24 (-0.46, -0.02) | 0.034\* | 0.444  |
| 84 | Headache; including migraine |  | 313,017 |  | -0.28 (-0.64, 0.08) | 0.128  | 0.563  |  | -0.27 (-0.64, 0.10) | 0.156  | 0.674  |
| 85 | Coma; stupor; and brain damage |  | 83,333 |  | 0.10 (-0.62, 0.81) | 0.794  | 0.960  |  | 0.14 (-0.62, 0.90) | 0.721  | 0.922  |
| 86 | Cataract |  | 2,083,086 |  | 0.09 (-0.13, 0.32) | 0.415  | 0.803  |  | 0.14 (-0.10, 0.37) | 0.265  | 0.733  |
| 87 | Retinal detachments; defects; vascular occlusion; and retinopathy |  | 563,655 |  | -0.05 (-0.39, 0.29) | 0.764  | 0.960  |  | -0.06 (-0.41, 0.28) | 0.732  | 0.922  |
| 88 | Glaucoma |  | 357,287 |  | -0.25 (-0.59, 0.09) | 0.143  | 0.563  |  | -0.27 (-0.63, 0.09) | 0.147  | 0.674  |
| 89 | Blindness and vision defects |  | 18,362 |  | -0.09 (-1.66, 1.47) | 0.908  | 0.970  |  | -0.20 (-1.75, 1.36) | 0.803  | 0.947  |
| 90 | Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitteddisease) |  | 297,381 |  | 0.02 (-0.32, 0.37) | 0.890  | 0.969  |  | 0.04 (-0.33, 0.41) | 0.830  | 0.964  |
| 91 | Other eye disorders |  | 1,155,446 |  | -0.20 (-0.40, 0.00) | 0.055  | 0.470  |  | -0.20 (-0.42, 0.02) | 0.077  | 0.565  |
| 92 | Otitis media and related conditions |  | 264,907 |  | -0.26 (-0.61, 0.09) | 0.144  | 0.563  |  | -0.27 (-0.64, 0.11) | 0.165  | 0.674  |
| 93 | Conditions associated with dizziness or vertigo |  | 576,577 |  | -0.04 (-0.28, 0.21) | 0.766  | 0.960  |  | -0.14 (-0.41, 0.12) | 0.282  | 0.768  |
| 94 | Other ear and sense organ disorders |  | 480,097 |  | -0.24 (-0.50, 0.02) | 0.076  | 0.563  |  | -0.26 (-0.54, 0.02) | 0.065  | 0.539  |
| 95 | Other nervous system disorders |  | 1,218,357 |  | -0.06 (-0.25, 0.12) | 0.497  | 0.866  |  | -0.06 (-0.26, 0.13) | 0.516  | 0.913  |
| 96 | Heart valve disorders |  | 361,550 |  | -0.22 (-0.52, 0.07) | 0.141  | 0.563  |  | -0.27 (-0.59, 0.05) | 0.101  | 0.610  |
| 97 | Peri-; endo-; and myocarditis; cardiomyopathy (except that caused by tuberculosis or sexually transmitted disease) |  | 539,506 |  | 0.23 (-0.03, 0.49) | 0.079  | 0.563  |  | 0.18 (-0.09, 0.45) | 0.201  | 0.687  |
| 98 | Essential hypertension |  | 1,932,066 |  | -0.24 (-0.40, -0.09) | 0.002\* | 0.044\* |  | -0.33 (-0.49, -0.16) | <0.001\* | 0.007\* |
| 99 | Hypertension with complications and secondary hypertension |  | 224,487 |  | -0.21 (-0.59, 0.17) | 0.281  | 0.704  |  | -0.30 (-0.72, 0.12) | 0.165  | 0.674  |
| 100 | Acute myocardial infarction |  | 905,773 |  | 0.20 (0.00, 0.40) | 0.049\* | 0.458  |  | 0.14 (-0.07, 0.35) | 0.189  | 0.687  |
| 101 | Coronary atherosclerosis and other heart disease |  | 5,602,675 |  | 0.12 (0.02, 0.22) | 0.016\* | 0.236  |  | 0.03 (-0.08, 0.13) | 0.610  | 0.913  |
| 102 | Nonspecific chest pain |  | 33,587 |  | -0.57 (-1.55, 0.41) | 0.257  | 0.652  |  | -0.76 (-1.85, 0.33) | 0.171  | 0.674  |
| 103 | Pulmonary heart disease |  | 211,172 |  | 0.31 (-0.12, 0.73) | 0.156  | 0.563  |  | 0.10 (-0.36, 0.55) | 0.673  | 0.922  |
| 104 | Other and ill-defined heart disease |  | 38,582 |  | -0.03 (-1.00, 0.95) | 0.958  | 0.980  |  | -0.02 (-1.06, 1.02) | 0.965  | 0.991  |
| 105 | Conduction disorders |  | 127,505 |  | -0.12 (-0.63, 0.39) | 0.653  | 0.916  |  | 0.06 (-0.48, 0.60) | 0.830  | 0.964  |
| 106 | Cardiac dysrhythmias |  | 1,233,373 |  | 0.12 (-0.05, 0.29) | 0.153  | 0.563  |  | 0.14 (-0.04, 0.32) | 0.119  | 0.641  |
| 107 | Cardiac arrest and ventricular fibrillation |  | 36,199 |  | 0.18 (-0.83, 1.20) | 0.724  | 0.934  |  | 0.18 (-0.89, 1.26) | 0.738  | 0.922  |
| 108 | Congestive heart failure; nonhypertensive |  | 429,258 |  | 0.24 (-0.05, 0.53) | 0.104  | 0.563  |  | 0.04 (-0.27, 0.35) | 0.806  | 0.947  |
| 109 | Acute cerebrovascular disease |  | 5,301,927 |  | -0.06 (-0.16, 0.04) | 0.243  | 0.645  |  | -0.11 (-0.22, 0.00) | 0.054  | 0.539  |
| 110 | Occlusion or stenosis of precerebral arteries |  | 87,918 |  | -0.01 (-0.70, 0.68) | 0.985  | 0.990  |  | 0.13 (-0.61, 0.88) | 0.730  | 0.922  |
| 111 | Other and ill-defined cerebrovascular disease |  | 922,625 |  | -0.20 (-0.40, 0.00) | 0.053  | 0.470  |  | -0.26 (-0.49, -0.03) | 0.024\* | 0.444  |
| 112 | Transient cerebral ischemia |  | 1,632,182 |  | 0.01 (-0.14, 0.17) | 0.866  | 0.968  |  | -0.04 (-0.21, 0.12) | 0.612  | 0.913  |
| 113 | Late effects of cerebrovascular disease |  | 393,340 |  | 0.19 (-0.10, 0.48) | 0.200  | 0.631  |  | 0.09 (-0.23, 0.40) | 0.586  | 0.913  |
| 114 | Peripheral and visceral atherosclerosis |  | 228,819 |  | 0.07 (-0.31, 0.45) | 0.720  | 0.934  |  | 0.02 (-0.38, 0.43) | 0.904  | 0.991  |
| 115 | Aortic; peripheral; and visceral artery aneurysms |  | 199,457 |  | 0.16 (-0.24, 0.56) | 0.429  | 0.807  |  | 0.09 (-0.34, 0.51) | 0.691  | 0.922  |
| 116 | Aortic and peripheral arterial embolism or thrombosis |  | 49,080 |  | -0.07 (-0.91, 0.77) | 0.874  | 0.968  |  | -0.19 (-1.09, 0.71) | 0.677  | 0.922  |
| 117 | Other circulatory disease |  | 210,983 |  | 0.37 (-0.01, 0.75) | 0.059  | 0.484  |  | 0.39 (-0.02, 0.81) | 0.064  | 0.539  |
| 118 | Phlebitis; thrombophlebitis and thromboembolism |  | 222,791 |  | 0.07 (-0.32, 0.46) | 0.731  | 0.934  |  | -0.06 (-0.48, 0.36) | 0.788  | 0.938  |
| 119 | Varicose veins of lower extremity |  | 322,454 |  | -0.14 (-0.49, 0.21) | 0.433  | 0.807  |  | -0.11 (-0.47, 0.24) | 0.525  | 0.913  |
| 120 | Hemorrhoids |  | 582,380 |  | 0.16 (-0.09, 0.41) | 0.211  | 0.631  |  | 0.07 (-0.20, 0.34) | 0.607  | 0.913  |
| 121 | ther diseases of veins and lymphatics |  | 232,594 |  | 0.00 (-0.39, 0.39) | 0.996  | 0.996  |  | 0.12 (-0.28, 0.52) | 0.548  | 0.913  |
| 122 | Pneumonia (except that caused by tuberculosis or sexually transmitted disease) |  | 4,838,952 |  | 0.33 (0.22, 0.43) | <0.001\* | <0.001\* |  | 0.26 (0.14, 0.38) | <0.001\* | 0.004\* |
| 123 | Influenza |  | 18,139 |  | -0.79 (-2.41, 0.83) | 0.340  | 0.748  |  | -1.26 (-3.12, 0.60) | 0.184  | 0.687  |
| 124 | Acute and chronic tonsillitis |  | 1,098,734 |  | 0.05 (-0.14, 0.23) | 0.632  | 0.916  |  | 0.06 (-0.14, 0.26) | 0.549  | 0.913  |
| 125 | Acute bronchitis |  | 1,264,828 |  | 0.40 (0.19, 0.62) | <0.001\* | 0.012\* |  | 0.35 (0.12, 0.57) | 0.003\* | 0.080  |
| 126 | Other upper respiratory infections |  | 1,578,611 |  | 0.33 (0.15, 0.51) | <0.001\* | 0.012\* |  | 0.34 (0.15, 0.53) | <0.001\* | 0.023\* |
| 127 | Chronic obstructive pulmonary disease and bronchiectasis |  | 2,752,048 |  | 0.33 (0.18, 0.48) | <0.001\* | 0.002\* |  | 0.17 (0.01, 0.33) | 0.036\* | 0.444  |
| 128 | Asthma |  | 352,056 |  | 0.74 (0.37, 1.12) | <0.001\* | 0.007\* |  | 0.83 (0.43, 1.23) | <0.001\* | 0.004\* |
| 129 | Aspiration pneumonitis; food/vomitus |  | 37,475 |  | -0.22 (-1.18, 0.74) | 0.655  | 0.916  |  | -0.48 (-1.45, 0.48) | 0.328  | 0.811  |
| 130 | Pleurisy; pneumothorax; pulmonary collapse |  | 383,664 |  | 0.04 (-0.26, 0.33) | 0.801  | 0.960  |  | 0.05 (-0.28, 0.39) | 0.752  | 0.922  |
| 131 | Respiratory failure; insufficiency; arrest (adult) |  | 107,162 |  | 0.52 (-0.07, 1.11) | 0.082  | 0.563  |  | 0.59 (-0.04, 1.21) | 0.066  | 0.539  |
| 132 | Lung disease due to external agents |  | 88,708 |  | -0.48 (-1.31, 0.35) | 0.256  | 0.652  |  | -0.53 (-1.40, 0.34) | 0.232  | 0.692  |
| 133 | Other lower respiratory disease |  | 1,824,000 |  | 0.09 (-0.08, 0.25) | 0.323  | 0.731  |  | -0.03 (-0.21, 0.14) | 0.725  | 0.922  |
| 134 | Other upper respiratory disease |  | 1,196,109 |  | 0.23 (0.05, 0.41) | 0.014\* | 0.233  |  | 0.16 (-0.03, 0.35) | 0.107  | 0.610  |
| 135 | Intestinal infection |  | 305,833 |  | 0.17 (-0.21, 0.55) | 0.380  | 0.795  |  | -0.16 (-0.56, 0.24) | 0.435  | 0.913  |
| 136 | Disorders of teeth and jaw |  | 280,120 |  | -0.22 (-0.57, 0.13) | 0.221  | 0.631  |  | -0.25 (-0.65, 0.16) | 0.236  | 0.692  |
| 137 | Diseases of mouth; excluding dental |  | 272,721 |  | 0.05 (-0.33, 0.42) | 0.800  | 0.960  |  | -0.01 (-0.42, 0.40) | 0.950  | 0.991  |
| 138 | Esophageal disorders |  | 330,857 |  | -0.04 (-0.42, 0.35) | 0.850  | 0.968  |  | -0.25 (-0.66, 0.15) | 0.221  | 0.691  |
| 139 | Gastroduodenal ulcer (except hemorrhage) |  | 384,425 |  | -0.27 (-0.56, 0.02) | 0.071  | 0.553  |  | -0.41 (-0.72, -0.10) | 0.010\* | 0.214  |
| 140 | Gastritis and duodenitis |  | 1,183,930 |  | 0.07 (-0.11, 0.24) | 0.459  | 0.830  |  | -0.01 (-0.21, 0.19) | 0.918  | 0.991  |
| 141 | Other disorders of stomach and duodenum |  | 461,535 |  | 0.15 (-0.14, 0.44) | 0.309  | 0.708  |  | 0.11 (-0.21, 0.43) | 0.491  | 0.913  |
| 142 | Appendicitis and other appendiceal conditions |  | 1,005,200 |  | -0.02 (-0.20, 0.16) | 0.856  | 0.968  |  | -0.08 (-0.28, 0.11) | 0.397  | 0.880  |
| 143 | Abdominal hernia |  | 1,120,233 |  | -0.28 (-0.49, -0.06) | 0.012\* | 0.233  |  | -0.31 (-0.52, -0.10) | 0.004\* | 0.103  |
| 144 | Regional enteritis and ulcerative colitis |  | 159,991 |  | 0.23 (-0.20, 0.65) | 0.292  | 0.705  |  | 0.17 (-0.29, 0.63) | 0.463  | 0.913  |
| 145 | Intestinal obstruction without hernia |  | 637,056 |  | 0.17 (-0.06, 0.40) | 0.148  | 0.563  |  | 0.15 (-0.10, 0.40) | 0.233  | 0.692  |
| 146 | Diverticulosis and diverticulitis |  | 16,494 |  | -0.37 (-1.69, 0.94) | 0.578  | 0.916  |  | -0.31 (-1.69, 1.08) | 0.664  | 0.922  |
| 147 | Anal and rectal conditions |  | 613,938 |  | -0.01 (-0.27, 0.26) | 0.959  | 0.980  |  | -0.05 (-0.32, 0.22) | 0.707  | 0.922  |
| 148 | Peritonitis and intestinal abscess |  | 105,973 |  | 0.33 (-0.28, 0.93) | 0.288  | 0.704  |  | 0.17 (-0.46, 0.80) | 0.593  | 0.913  |
| 149 | Biliary tract disease |  | 2,535,207 |  | -0.12 (-0.27, 0.03) | 0.118  | 0.563  |  | -0.12 (-0.28, 0.03) | 0.107  | 0.610  |
| 150 | Liver disease; alcohol-related |  | 94,037 |  | 0.07 (-0.50, 0.64) | 0.811  | 0.960  |  | -0.25 (-0.87, 0.37) | 0.426  | 0.913  |
| 151 | Other liver diseases |  | 1,398,024 |  | 0.18 (0.01, 0.35) | 0.042\* | 0.412  |  | 0.09 (-0.09, 0.27) | 0.347  | 0.846  |
| 152 | Pancreatic disorders (not diabetes) |  | 574,406 |  | -0.17 (-0.43, 0.09) | 0.200  | 0.631  |  | -0.14 (-0.42, 0.14) | 0.325  | 0.811  |
| 153 | Gastrointestinal hemorrhage |  | 811,588 |  | 0.07 (-0.13, 0.28) | 0.480  | 0.860  |  | -0.04 (-0.27, 0.19) | 0.735  | 0.922  |
| 154 | Noninfectious gastroenteritis |  | 690,820 |  | 0.17 (-0.08, 0.42) | 0.190  | 0.631  |  | 0.04 (-0.24, 0.33) | 0.756  | 0.922  |
| 155 | Other gastrointestinal disorders |  | 943,699 |  | -0.08 (-0.28, 0.11) | 0.406  | 0.803  |  | -0.08 (-0.31, 0.15) | 0.501  | 0.913  |
| 156 | Nephritis; nephrosis; renal sclerosis |  | 825,703 |  | 0.12 (-0.08, 0.32) | 0.247  | 0.645  |  | 0.07 (-0.15, 0.28) | 0.539  | 0.913  |
| 157 | Acute and unspecified renal failure |  | 204,743 |  | 0.48 (0.02, 0.93) | 0.039\* | 0.405  |  | 0.54 (0.05, 1.02) | 0.029\* | 0.444  |
| 158 | Chronic renal failure |  | 1,324,204 |  | 0.04 (-0.14, 0.21) | 0.675  | 0.916  |  | -0.05 (-0.24, 0.14) | 0.584  | 0.913  |
| 159 | Urinary tract infections |  | 478,841 |  | 0.19 (-0.07, 0.46) | 0.155  | 0.563  |  | 0.09 (-0.20, 0.38) | 0.551  | 0.913  |
| 160 | Calculus of urinary tract |  | 912,475 |  | 0.20 (0.01, 0.40) | 0.037\* | 0.405  |  | 0.18 (-0.03, 0.38) | 0.095  | 0.610  |
| 161 | Other diseases of kidney and ureters |  | 893,240 |  | 0.35 (0.15, 0.55) | <0.001\* | 0.017\* |  | 0.37 (0.15, 0.59) | 0.001\* | 0.043\* |
| 162 | Other diseases of bladder and urethra |  | 158,245 |  | 0.12 (-0.33, 0.56) | 0.605  | 0.916  |  | 0.01 (-0.47, 0.48) | 0.974  | 0.991  |
| 163 | Genitourinary symptoms and ill-defined conditions |  | 272,596 |  | -0.04 (-0.39, 0.31) | 0.827  | 0.968  |  | -0.01 (-0.38, 0.37) | 0.975  | 0.991  |
| 164 | Hyperplasia of prostate |  | 519,136 |  | -0.32 (-0.57, -0.06) | 0.014\* | 0.233  |  | -0.38 (-0.65, -0.10) | 0.007\* | 0.163  |
| 165 | Inflammatory conditions of male genital organs |  | 118,237 |  | -0.41 (-0.93, 0.12) | 0.127  | 0.563  |  | -0.36 (-0.92, 0.20) | 0.207  | 0.687  |
| 166 | Other male genital disorders |  | 510,115 |  | -0.37 (-0.72, -0.02) | 0.038\* | 0.405  |  | -0.22 (-0.58, 0.15) | 0.244  | 0.705  |
| 167 | Nonmalignant breast conditions |  | 547,288 |  | -0.06 (-0.32, 0.20) | 0.650  | 0.916  |  | -0.06 (-0.35, 0.22) | 0.663  | 0.922  |
| 168 | Inflammatory diseases of female pelvic organs |  | 511,738 |  | 0.02 (-0.24, 0.28) | 0.876  | 0.968  |  | 0.04 (-0.25, 0.33) | 0.779  | 0.933  |
| 169 | Endometriosis |  | 423,108 |  | -0.13 (-0.42, 0.17) | 0.402  | 0.803  |  | -0.13 (-0.43, 0.17) | 0.398  | 0.880  |
| 170 | Prolapse of female genital organs |  | 124,311 |  | -0.22 (-0.73, 0.29) | 0.397  | 0.803  |  | -0.41 (-0.95, 0.13) | 0.139  | 0.654  |
| 171 | Menstrual disorders |  | 223,970 |  | -0.11 (-0.49, 0.28) | 0.593  | 0.916  |  | -0.10 (-0.52, 0.32) | 0.637  | 0.913  |
| 172 | Ovarian cyst |  | 226,405 |  | -0.30 (-0.71, 0.10) | 0.141  | 0.563  |  | -0.42 (-0.86, 0.01) | 0.058  | 0.539  |
| 173 | Menopausal disorders |  | 20,765 |  | -0.16 (-1.43, 1.11) | 0.804  | 0.960  |  | -0.41 (-1.77, 0.95) | 0.551  | 0.913  |
| 174 | Female infertility |  | 208,894 |  | 0.48 (-0.09, 1.05) | 0.102  | 0.563  |  | 0.49 (-0.11, 1.08) | 0.107  | 0.610  |
| 175 | Other female genital disorders |  | 1,005,624 |  | 0.01 (-0.18, 0.20) | 0.940  | 0.980  |  | -0.01 (-0.21, 0.19) | 0.923  | 0.991  |
| 197 | Skin and subcutaneous tissue infections |  | 352,100 |  | 0.16 (-0.13, 0.45) | 0.285  | 0.704  |  | 0.11 (-0.22, 0.43) | 0.521  | 0.913  |
| 198 | Other inflammatory condition of skin |  | 314,154 |  | 0.03 (-0.31, 0.36) | 0.880  | 0.968  |  | -0.02 (-0.38, 0.34) | 0.923  | 0.991  |
| 199 | Chronic ulcer of skin |  | 61,605 |  | 0.28 (-0.39, 0.95) | 0.413  | 0.803  |  | -0.01 (-0.74, 0.71) | 0.969  | 0.991  |
| 200 | Other skin disorders |  | 571,424 |  | -0.03 (-0.27, 0.22) | 0.833  | 0.968  |  | -0.09 (-0.36, 0.17) | 0.490  | 0.913  |
| 201 | Infective arthritis and osteomyelitis (except that caused by tuberculosis or sexually transmitted disease) |  | 161,280 |  | -0.12 (-0.57, 0.34) | 0.618  | 0.916  |  | -0.12 (-0.61, 0.38) | 0.646  | 0.913  |
| 202 | Rheumatoid arthritis and related disease |  | 412,276 |  | -0.07 (-0.36, 0.22) | 0.636  | 0.916  |  | -0.01 (-0.32, 0.30) | 0.962  | 0.991  |
| 203 | Osteoarthritis |  | 433,178 |  | 0.02 (-0.32, 0.36) | 0.920  | 0.972  |  | -0.10 (-0.44, 0.23) | 0.546  | 0.913  |
| 204 | Other non-traumatic joint disorders |  | 214,644 |  | 0.17 (-0.22, 0.56) | 0.396  | 0.803  |  | 0.11 (-0.31, 0.53) | 0.601  | 0.913  |
| 205 | Spondylosis; intervertebral disc disorders; other back problems |  | 2,187,055 |  | 0.06 (-0.08, 0.20) | 0.427  | 0.807  |  | 0.00 (-0.15, 0.15) | 0.984  | 0.991  |
| 206 | Osteoporosis |  | 140,678 |  | -0.11 (-0.57, 0.34) | 0.623  | 0.916  |  | -0.32 (-0.82, 0.18) | 0.208  | 0.687  |
| 207 | Pathological fracture |  | 114,539 |  | 0.14 (-0.36, 0.65) | 0.576  | 0.916  |  | -0.08 (-0.63, 0.46) | 0.768  | 0.926  |
| 208 | Acquired foot deformities |  | 15,801 |  | 0.18 (-1.28, 1.64) | 0.808  | 0.960  |  | 0.68 (-0.86, 2.22) | 0.386  | 0.880  |
| 209 | Other acquired deformities |  | 174,068 |  | 0.43 (-0.10, 0.97) | 0.112  | 0.563  |  | 0.48 (-0.14, 1.10) | 0.132  | 0.654  |
| 210 | Systemic lupus erythematosus and connective tissue disorders |  | 593,865 |  | 0.01 (-0.22, 0.25) | 0.902  | 0.970  |  | -0.02 (-0.27, 0.24) | 0.905  | 0.991  |
| 211 | Other connective tissue disease |  | 473,131 |  | 0.08 (-0.19, 0.34) | 0.565  | 0.916  |  | 0.05 (-0.24, 0.33) | 0.752  | 0.922  |
| 212 | Other bone disease and musculoskeletal deformities |  | 189,225 |  | -0.26 (-0.66, 0.15) | 0.220  | 0.631  |  | -0.25 (-0.72, 0.21) | 0.290  | 0.775  |

Results are presented as point estimates and 95% CIs of the percentage increase in daily hospital admissions associated with a 10-μg/m3 increase in O3. Minor disease categories are based on the Clinical Classifications Software (CCS). The 3-day moving average exposure (lag 0-2) was used as the exposure metric of O3. In single-pollutant models, the effects of O3 were estimated without adjustment for co-pollutants; in two-pollutant models, the effects of O3 were estimated after adjustment for PM2.5. The Benjamini-Hochberg procedure was applied to adjust the *P* values across 188 minor disease categories; both unadjusted and adjusted *P* values are reported.

\* Statistically significant estimate (*P* < 0.05).