

### Ozone\_6km Grid\_Results\_Summary for Tech Report

Endpoint Group	Endpoint	Author	Start Age	End Age
Acute Respiratory Symptoms	Minor Restricted Activity Days	Ostro and Rothschild	18	64
Asthma Exacerbation	Asthma Exacerbation One or More Symptoms	Schildcrout et al. O'Connor et al.	6	18
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	Sarnat et al. Peel et al. Glad et al. Mar and Koenig Ito et al. Wilson et al.	0	99
Hospital Admissions Respiratory	HA All Respiratory	Katsouyanni et al.	65	99
Mortality	Mortality All Cause	Zanobetti and Schwartz (b)	0	99
Mortality	Mortality Cardiopulmonary	Huang et al.	0	99
Mortality	Mortality Non-Accidental	Schwartz Bell et al. Ito et al. Smith et al.	0	99
Mortality	Mortality Respiratory	Jerrett et al.	30	99
School Loss Days	School Loss Days All Cause	Gilliland et al.	5	17

**Ozone\_6km Grid\_Results\_Summary for Tech Report**

Endpoint Group	Endpoint	SumOfPoint Estimate	SumOfMean	SumOfPercentile 875
Acute Respiratory Symptoms	Minor Restricted Activity Days	-44.6159718	-44.58165386	-59.93093661
Asthma Exacerbation	Asthma Exacerbation One or More Symptoms	-11.35870861	-11.3081666	45.72008297
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	-0.060705535	-0.05954855	0.064794414
Hospital Admissions Respiratory	HA All Respiratory	-0.010570447	-0.010552764	0.010368567
Mortality	Mortality All Cause	-0.008756358	-0.00875095	-0.011130532
Mortality	Mortality Cardiopulmonary	-0.006374458	-0.006369174	-0.008703217
Mortality	Mortality Non-Accidental	-0.007384593	-0.007352859	0.005572296
Mortality	Mortality Respiratory	-0.007238868	-0.007232465	-0.010044629
School Loss Days	School Loss Days All Cause	-32.22919697	-32.18652393	-53.25694834

**Ozone\_6km Grid\_Results\_Summary for Tech Report**

Endpoint Group	Endpoint	SumOfPercentile 925	SumOfPercentile 975	SumOfBaseline
Acute Respiratory Symptoms	Minor Restricted Activity Days	-63.75698347	-70.73026488	120,851,522
Asthma Exacerbation	Asthma Exacerbation One or More Symptoms	60.06573966	83.91762553	75,632,126
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.098739112	0.190659378	115,336
Hospital Admissions Respiratory	HA All Respiratory	0.01560017	0.025066306	136,809
Mortality	Mortality All Cause	-0.011723616	-0.012804531	172,904
Mortality	Mortality Cardiopulmonary	-0.009284972	-0.010345235	75,161
Mortality	Mortality Non-Accidental	0.013498017	0.020129893	163,654
Mortality	Mortality Respiratory	-0.010745527	-0.012022915	16,860
School Loss Days	School Loss Days All Cause	-58.51215989	-68.09217313	28,281,727

**Ozone\_6km Grid\_Results\_Summary for Tech Report**

Endpoint Group	Endpoint	SumOfPopulation	SumOfStandard Deviation	SumOfVariance
Acute Respiratory Symptoms	Minor Restricted Activity Days	15493682.83	31.3636604	36.94785839
Asthma Exacerbation	Asthma Exacerbation One or More Symptoms	4158884.378	47.9039669	94.23292986
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	23374519.71	0.129198717	0.000677878
Hospital Admissions Respiratory	HA All Respiratory	4134867.211	0.017598912	1.03612E-05
Mortality	Mortality All Cause	25499476.04	0.006088072	1.15026E-06
Mortality	Mortality Cardiopulmonary	25499476.04	0.005835845	1.0613E-06
Mortality	Mortality Non-Accidental	25499476.04	0.015272209	7.22528E-06
Mortality	Mortality Respiratory	15574579.39	0.007416313	1.66397E-06
School Loss Days	School Loss Days All Cause	4173777.007	42.33722475	73.96339264

**Ozone\_6km Grid\_Results\_Summary for Tech Report**

Endpoint Group	Endpoint	SumOfDelta	2SD	95% Interval		mean/baseline
Acute Respiratory Symptoms	Minor Restricted Activity Days	0.063762665	62.72732081	-18.1	107.3	-0.00004%
Asthma Exacerbation	Asthma Exacerbation One or More Symptoms	0.058368683	95.8079338	-84.5	107.1	-0.00001%
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.063872019	0.258397434	-0.20	0.32	-0.00005%
Hospital Admissions Respiratory	HA All Respiratory	0.05815506	0.035197824	-0.02	0.05	-0.000008%
Mortality	Mortality All Cause	0.064353943	0.012176143	-0.003	0.021	-0.000005%
Mortality	Mortality Cardiopulmonary	0.064353943	0.01167169	-0.005	0.018	-0.000008%
Mortality	Mortality Non-Accidental	0.064353943	0.030544418	-0.023	0.038	-0.000004%
Mortality	Mortality Respiratory	0.0639534	0.014832626	-0.008	0.0221	-0.00004%
School Loss Days	School Loss Days All Cause	0.058368683	84.67444951	-52.5	116.9	-0.00011%

### Ozone\_2km Grid\_Results\_Summary For Tech Report

Endpoint Group	Endpoint	Author	Start Age	End Age
Acute Respiratory Symptoms	Minor Restricted Activity Days	Ostro and Rothschild	18	64
Asthma Exacerbation	Asthma Exacerbation One or More Symptoms	Schildcrout et al. O'Connor et al.	6	18
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	Sarnat et al. Peel et al. Glad et al. Mar and Koenig Ito et al.	0	99
Hospital Admissions Respiratory	HA All Respiratory	Katsouyanni et al.	65	99
Mortality	Mortality All Cause	Zanobetti and Schwartz (b)	0	99
Mortality	Mortality Cardiopulmonary	Huang et al.	0	99
Mortality	Mortality Non-Accidental	Schwartz Bell et al. Ito et al.	0	99
Mortality	Mortality Respiratory	Jerrett et al.	30	99
School Loss Days	School Loss Days All Cause	Gilliland et al.	5	17

**Ozone\_2km Grid\_Results\_Summary For Tech Report**

Endpoint Group	Endpoint	SumOfPoint Estimate	SumOfMean	SumOfPercentile 875
Acute Respiratory Symptoms	Minor Restricted Activity Days	-65.49834934	-65.44771659	-87.98004964
Asthma Exacerbation	Asthma Exacerbation One or More Symptoms	-16.89202873	-16.81626736	46.6281492
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	-0.087371494	-0.085743853	0.048099525
Hospital Admissions Respiratory	HA All Respiratory	-0.015879306	-0.015852657	0.006496427
Mortality	Mortality All Cause	-0.013861935	-0.013853363	-0.017620355
Mortality	Mortality Cardiopulmonary	-0.009987365	-0.009979067	-0.013635915
Mortality	Mortality Non-Accidental	-0.011679977	-0.011631133	0.002026146
Mortality	Mortality Respiratory	-0.011538669	-0.011528457	-0.01601099
School Loss Days	School Loss Days All Cause	-47.81242049	-47.74733073	-79.00096154

**Ozone\_2km Grid\_Results\_Summary For Tech Report**

Endpoint Group	Endpoint	SumOfPercentile 925	SumOfPercentile 975	SumOfBaseline
Acute Respiratory Symptoms	Minor Restricted Activity Days	-93.59642887	-103.8325875	95,830,416
Asthma Exacerbation	Asthma Exacerbation One or More Symptoms	62.24417398	88.48253521	59,751,248
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.081389286	0.183950092	93,313
Hospital Admissions Respiratory	HA All Respiratory	0.012087111	0.022194924	110,698
Mortality	Mortality All Cause	-0.018559237	-0.020270352	135,475
Mortality	Mortality Cardiopulmonary	-0.01454736	-0.01620848	60,108
Mortality	Mortality Non-Accidental	0.008989016	0.015188965	128,588
Mortality	Mortality Respiratory	-0.017128204	-0.019164325	13,379
School Loss Days	School Loss Days All Cause	-86.79472988	-101.0016242	22,345,878



**Ozone\_2km Grid\_Results\_Summary For Tech Report**

Endpoint Group	Endpoint	SumOfPopulation	SumOfStandard Deviation	SumOfVariance
Acute Respiratory Symptoms	Minor Restricted Activity Days	12285872.38	34.18172721	7.65763473
Asthma Exacerbation	Asthma Exacerbation One or More Symptoms	3285280.818	53.18297191	21.39297021
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	18487482.94	0.143198823	0.000145065
Hospital Admissions Respiratory	HA All Respiratory	3248127.017	0.018796728	1.85661E-06
Mortality	Mortality All Cause	20168163.19	0.006472314	2.10188E-07
Mortality	Mortality Cardiopulmonary	20168163.19	0.006222451	1.92775E-07
Mortality	Mortality Non-Accidental	20168163.19	0.016233905	1.31679E-06
Mortality	Mortality Respiratory	12390737.82	0.007881968	3.0062E-07
School Loss Days	School Loss Days All Cause	3297772.582	46.99080547	16.75872656

**Ozone\_2km Grid\_Results\_Summary For Tech Report**

Endpoint Group	Endpoint	SumOfDelta	95% Interval		mean/baseline
Acute Respiratory Symptoms	Minor Restricted Activity Days	0.14163208	-2.9	133.8	-0.000068%
Asthma Exacerbation	Asthma Exacerbation One or More Symptoms	0.11000824	-89.5	123.2	-0.000028%
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.141931214	-0.2	0.4	-0.000092%
Hospital Admissions Respiratory	HA All Respiratory	0.106391907	-0.02	0.05	-0.000014%
Mortality	Mortality All Cause	0.144340515	0.0009	0.03	-0.000010%
Mortality	Mortality Cardiopulmonary	0.144340515	-0.002	0.02	-0.000017%
Mortality	Mortality Non-Accidental	0.144340515	-0.02	0.04	-0.000009%
Mortality	Mortality Respiratory	0.142585754	-0.004	0.03	-0.000086%
School Loss Days	School Loss Days All Cause	0.11000824	-46.2	141.7	-0.000214%

## PM2.5\_6km Grid\_Results\_Summary for Tech Report

Endpoint Group	Endpoint	Author	Start Age	End Age	SumOfPoint Estimate
Acute Bronchitis	Acute Bronchitis	Dockery et al.	8	12	0.225622521
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	Zanobetti et al	18	99	0.013334811
Acute Respiratory Symptoms	Minor Restricted Activity Days	Ostro and Rothschild	18	64	119.1044668
Asthma Exacerbation	Asthma Exacerbation Cough	Ostro et al.	6	18	3.430177025
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	Ostro et al.	6	18	4.936149598
Asthma Exacerbation	Asthma Exacerbation Wheeze	Ostro et al.	6	18	7.80326158
Chronic Bronchitis	Chronic Bronchitis	Abbey et al.	27	99	0.106473314
		Glad et al. Mar et al. Slaughter			
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	et al.	0	99	0.069313824
	HA All Cardiovascular (less Myocardial	Bell et al. Bell Moolgavkar			
	Infarctions)	Peng et al.	18	99	0.023748141
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	Ito	65	99	0.022444849
Hospital Admissions Cardiovascular	HA Dysrhythmia	Ito	65	99	0.006392847
	HA Ischemic Heart Disease (less Myocardial				
	Infarctions)	Ito	65	99	0.00533674
Hospital Admissions Cardiovascular	HA All Respiratory	Zanobetti et al	65	99	0.03858152
Hospital Admissions Respiratory	HA Asthma	Sheppard	0	64	0.008152751
Hospital Admissions Respiratory	HA Chronic Lung Disease	Moolgavkar	18	99	0.016843552
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	Moolgavkar	18	64	0.003492433
Hospital Admissions Respiratory	HA Pneumonia	Ito	65	99	0.024790218
Lower Respiratory Symptoms	Lower Respiratory Symptoms	Schwartz and Neas	7	14	2.901608798
		Woodruff et al. Krewski et al.			
Mortality	Mortality All Cause	Pope et al. Laden et al.	0	99	0.137191271
Mortality	Mortality Ischemic Heart Disease	Krewski et al.	30	99	0.087823129
Mortality	Mortality Lung Cancer	Krewski et al.	30	99	0.013143616
Upper Respiratory Symptoms	Upper Respiratory Symptoms	Pope et al.	9	11	4.132340663
Work Loss Days	Work Loss Days	Ostro	18	64	20.23765421

## PM2.5\_6km Grid\_Results\_Summary for Tech Report

Endpoint Group	Endpoint	SumOfMean	SumOfPercentile 875	SumOfPercentile 925
Acute Bronchitis	Acute Bronchitis	0.23	0.388256416	0.428882847
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	0.013	0.017187111	0.018087693
Acute Respiratory Symptoms	Minor Restricted Activity Days	119.07	132.0107938	135.2347627
Asthma Exacerbation	Asthma Exacerbation Cough	3.42	6.414443227	7.159909086
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	4.93	7.883328196	8.619509935
Asthma Exacerbation	Asthma Exacerbation Wheeze	7.79	11.50373738	12.42811326
Chronic Bronchitis	Chronic Bronchitis	0.11	0.167077189	0.182216293
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.07	0.150035951	0.173075935
	HA All Cardiovascular (less Myocardial			
Hospital Admissions Cardiovascular	Infarctions)	0.02	0.057108809	0.062677308
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	0.02	0.033268664	0.035972347
Hospital Admissions Cardiovascular	HA Dysrhythmia	0.006	0.01832659	0.02130741
	HA Ischemic Heart Disease (less Myocardial			
Hospital Admissions Cardiovascular	Infarctions)	0.005	0.010269211	0.011501297
Hospital Admissions Respiratory	HA All Respiratory	0.04	0.04812791	0.050512602
Hospital Admissions Respiratory	HA Asthma	0.008	0.011092229	0.011826491
Hospital Admissions Respiratory	HA Chronic Lung Disease	0.02	0.022432051	0.023797784
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	0.003	0.004828044	0.005161674
Hospital Admissions Respiratory	HA Pneumonia	0.02	0.036651513	0.039614289
Lower Respiratory Symptoms	Lower Respiratory Symptoms	2.90	3.9522246	4.214600546
Mortality	Mortality All Cause	0.14	0.420560875	0.482921826
Mortality	Mortality Ischemic Heart Disease	0.09	0.09746551	0.099874221
Mortality	Mortality Lung Cancer	0.013	0.017510973	0.018601958
Upper Respiratory Symptoms	Upper Respiratory Symptoms	4.13	6.107835723	6.601313447
Work Loss Days	Work Loss Days	20.23	22.05461947	22.5084988

## PM2.5\_6km Grid\_Results\_Summary for Tech Report

Endpoint Group	Endpoint	SumOfPercentile 975	SumOfBaseline	SumOfPopulation
Acute Bronchitis	Acute Bronchitis	0.502923909	63,936	1598407.724
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	0.019447066	44,416	3925710.004
Acute Respiratory Symptoms	Minor Restricted Activity Days	141.1103111	120,851,522	15493682.83
Asthma Exacerbation	Asthma Exacerbation Cough	8.518499304	30,163,700	4158884.378
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	9.961155053	15,393,891	4158884.378
Asthma Exacerbation	Asthma Exacerbation Wheeze	14.11275653	35,988,419	4158884.378
Chronic Bronchitis	Chronic Bronchitis	0.209807151	60,021	16645301.66
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.211755778	115,336	25499476.11
Hospital Admissions Cardiovascular	HA All Cardiovascular (less Myocardial	0.070324669	177,867	5554719.15
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	0.040899618	54,452	4134867.211
Hospital Admissions Cardiovascular	HA Dysrhythmia	0.026739636	40,059	4134867.211
Hospital Admissions Cardiovascular	HA Ischemic Heart Disease (less Myocardial	0.013746696	30,990	4134867.211
Hospital Admissions Respiratory	HA All Respiratory	0.054858625	136,809	4134867.211
Hospital Admissions Respiratory	HA Asthma	0.013164646	16,121	21364608.78
Hospital Admissions Respiratory	HA Chronic Lung Disease	0.026046586	59,770	9814275.005
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	0.005769704	10,730	15493682.83
Hospital Admissions Respiratory	HA Pneumonia	0.045013691	47,713	4134867.211
Lower Respiratory Symptoms	Lower Respiratory Symptoms	4.692705341	1,118,206	2552981.297
Mortality	Mortality All Cause	0.573944884	127,277	12211428.14
Mortality	Mortality Ischemic Heart Disease	0.104264084	30,927	15574579.39
Mortality	Mortality Lung Cancer	0.020590271	8,761	15574579.39
Upper Respiratory Symptoms	Upper Respiratory Symptoms	7.500663647	12,746,331	954573.5756
Work Loss Days	Work Loss Days	23.33568305	33,137,761	15493682.83

**PM2.5\_6km Grid\_Results\_Summary for Tech Report**

Endpoint Group	Endpoint	SumOfStandard Deviation	SumOfVariance	SumOfDelta
Acute Bronchitis	Acute Bronchitis	0.224983627	0.000665984	0.049644709
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	0.003486147	1.15213E-07	0.042239094
Acute Respiratory Symptoms	Minor Restricted Activity Days	18.07742875	3.678146945	0.036246061
Asthma Exacerbation	Asthma Exacerbation Cough	4.162408603	0.225045315	0.046871424
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	4.111024391	0.21951709	0.046871424
Asthma Exacerbation	Asthma Exacerbation Wheeze	5.161486794	0.346039337	0.046871424
Chronic Bronchitis	Chronic Bronchitis	0.085821936	7.70389E-05	0.034100056
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.072122025	6.49253E-05	0.034965754
	HA All Cardiovascular (less Myocardial			
	Infarctions)	0.022586921	5.34799E-06	0.039258897
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	0.015229117	2.33234E-06	0.039689302
Hospital Admissions Cardiovascular	HA Dysrhythmia	0.017099376	2.75678E-06	0.039689302
	HA Ischemic Heart Disease (less Myocardial			
	Infarctions)	0.007408299	5.0605E-07	0.039689302
Hospital Admissions Cardiovascular	HA All Respiratory	0.013296136	1.76904E-06	0.039689302
Hospital Admissions Respiratory	HA Asthma	0.003859197	2.02597E-07	0.036246061
Hospital Admissions Respiratory	HA Chronic Lung Disease	0.005111302	2.85456E-07	0.037967682
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	0.001790341	4.02845E-08	0.036246061
Hospital Admissions Respiratory	HA Pneumonia	0.016824031	2.69586E-06	0.039689302
Lower Respiratory Symptoms	Lower Respiratory Symptoms	1.446098198	0.027551251	0.049727201
Mortality	Mortality All Cause	0.205576597	0.000382073	0.038382053
Mortality	Mortality Ischemic Heart Disease	0.013533695	1.83209E-06	0.034302473
Mortality	Mortality Lung Cancer	0.006664144	3.83597E-07	0.034302473
Upper Respiratory Symptoms	Upper Respiratory Symptoms	2.71596822	0.097106512	0.049727201
Work Loss Days	Work Loss Days	2.543189267	0.073070501	0.036246061

## PM2.5\_6km Grid\_Results\_Summary for Tech Report

Endpoint Group	Endpoint	2SD	95% Interval		mean/baseline
Acute Bronchitis	Acute Bronchitis	0.449967254	-0.7	0.2	0.0004%
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	0.006972293	-0.020	-0.006	0.000029%
Acute Respiratory Symptoms	Minor Restricted Activity Days	36.1548575	-155.2	-82.9	0.000099%
Asthma Exacerbation	Asthma Exacerbation Cough	8.324817205	-11.7	4.9	0.000011%
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	8.222048781	-13.2	3.3	0.000032%
Asthma Exacerbation	Asthma Exacerbation Wheeze	10.32297359	-18.1	2.5	0.000022%
Chronic Bronchitis	Chronic Bronchitis	0.171643872	-0.28	0.07	0.000177%
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.144244049	-0.21	0.07	0.000060%
Hospital Admissions Cardiovascular	HA All Cardiovascular (less Myocardial	0.045173843	-0.07	0.02	0.000013%
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	0.030458234	-0.05	0.008	0.000041%
Hospital Admissions Cardiovascular	HA Dysrhythmia	0.034198753	-0.04	0.03	0.000016%
Hospital Admissions Cardiovascular	HA Ischemic Heart Disease (less Myocardial	0.014816598	-0.02	0.009	0.000017%
Hospital Admissions Respiratory	HA All Respiratory	0.026592271	-0.07	-0.012	0.000028%
Hospital Admissions Respiratory	HA Asthma	0.007718395	-0.02	-0.0004	0.000051%
Hospital Admissions Respiratory	HA Chronic Lung Disease	0.010222604	-0.03	-0.006	0.000027%
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	0.003580682	-0.007	0.00009	0.000033%
Hospital Admissions Respiratory	HA Pneumonia	0.033648061	-0.06	0.009	0.000052%
Lower Respiratory Symptoms	Lower Respiratory Symptoms	2.892196397	-5.8	-0.007	0.000259%
Mortality	Mortality All Cause	0.411153195	-0.5	0.3	0.0001%
Mortality	Mortality Ischemic Heart Disease	0.02706739	-0.11	-0.06	0.0003%
Mortality	Mortality Lung Cancer	0.013328288	-0.03	0.0002	0.0001%
Upper Respiratory Symptoms	Upper Respiratory Symptoms	5.431936441	-9.6	1.3	0.000032%
Work Loss Days	Work Loss Days	5.086378534	-25.3	-15.1	0.000061%

## PM2.5\_2km Grid\_Results\_Summary for Tech Report

Endpoint Group	Endpoint	Author	Start Age	End Age
Acute Bronchitis	Acute Bronchitis	Dockery et al.	8	12
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	Zanobetti et al	18	99
Acute Respiratory Symptoms	Minor Restricted Activity Days	Ostro and Rothschild	18	64
Asthma Exacerbation	Asthma Exacerbation Cough	Ostro et al.	6	18
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	Ostro et al.	6	18
Asthma Exacerbation	Asthma Exacerbation Wheeze	Ostro et al.	6	18
Chronic Bronchitis	Chronic Bronchitis	Abbey et al.	27	99
		Glad et al. Mar et al.		
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	Slaughter et al.	0	99
		Bell et al. Bell Moolgavkar		
Hospital Admissions Cardiovascular	HA All Cardiovascular (less Myocardial Infarctions)	Peng et al.	18	99
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	Ito	65	99
Hospital Admissions Cardiovascular	HA Dysrhythmia	Ito	65	99
Hospital Admissions Cardiovascular	HA Ischemic Heart Disease (less Myocardial Infarctions)	Ito	65	99
Hospital Admissions Respiratory	HA All Respiratory	Zanobetti et al	65	99
Hospital Admissions Respiratory	HA Asthma	Sheppard	0	64
Hospital Admissions Respiratory	HA Chronic Lung Disease	Moolgavkar	18	99
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	Moolgavkar	18	64
Hospital Admissions Respiratory	HA Pneumonia	Ito	65	99
Lower Respiratory Symptoms	Lower Respiratory Symptoms	Schwartz and Neas	7	14
		Woodruff et al. Krewski et		
Mortality	Mortality All Cause	al. Pope et al. Laden et al.	0	99
Mortality	Mortality Ischemic Heart Disease	Krewski et al.	30	99
Mortality	Mortality Lung Cancer	Krewski et al.	30	99
Upper Respiratory Symptoms	Upper Respiratory Symptoms	Pope et al.	9	11
Work Loss Days	Work Loss Days	Ostro	18	64



## PM2.5\_2km Grid\_Results\_Summary for Tech Report

Endpoint Group	Endpoint	SumOfPoint Estimate	SumOfMean
Acute Bronchitis	Acute Bronchitis	0.22150735	0.221141644
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	0.013502125	0.013131585
Acute Respiratory Symptoms	Minor Restricted Activity Days	118.9525523	118.9229025
Asthma Exacerbation	Asthma Exacerbation Cough	3.418302015	3.411473165
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	4.919133582	4.912355885
Asthma Exacerbation	Asthma Exacerbation Wheeze	7.776291537	7.767823986
Chronic Bronchitis	Chronic Bronchitis	0.106795076	0.106655993
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.066907293	0.066880914
Hospital Admissions Cardiovascular	HA All Cardiovascular (less Myocardial Infarctions)	0.024380001	0.024133667
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	0.02299732	0.022971689
Hospital Admissions Cardiovascular	HA Dysrhythmia	0.006613641	0.006584934
Hospital Admissions Cardiovascular	HA Ischemic Heart Disease (less Myocardial Infarctions)	0.005632273	0.005620258
Hospital Admissions Respiratory	HA All Respiratory	0.039386612	0.039364249
Hospital Admissions Respiratory	HA Asthma	0.007842508	0.007835988
Hospital Admissions Respiratory	HA Chronic Lung Disease	0.016803877	0.016269421
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	0.003413134	0.003410132
Hospital Admissions Respiratory	HA Pneumonia	0.025361176	0.03
Lower Respiratory Symptoms	Lower Respiratory Symptoms	2.852906539	2.9
Mortality	Mortality All Cause	0.171088817	0.2
Mortality	Mortality Ischemic Heart Disease	0.088954767	0.088932432
Mortality	Mortality Lung Cancer	0.013751374	0.013740923
Upper Respiratory Symptoms	Upper Respiratory Symptoms	4.064695829	4.060235794
Work Loss Days	Work Loss Days	20.16016719	20.2

## PM2.5\_2km Grid\_Results\_Summary for Tech Report

Endpoint Group	Endpoint	SumOfPercentile 875	SumOfPercentile 925
Acute Bronchitis	Acute Bronchitis	0.381175349	0.421060941
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	0.016859494	0.017646498
Acute Respiratory Symptoms	Minor Restricted Activity Days	131.8435024	135.063652
Asthma Exacerbation	Asthma Exacerbation Cough	6.392275766	7.135176346
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	7.856254023	8.589934441
Asthma Exacerbation	Asthma Exacerbation Wheeze	11.46404593	12.3852499
Chronic Bronchitis	Chronic Bronchitis	0.167582176	0.182767056
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.136059685	0.15563921
Hospital Admissions Cardiovascular	HA All Cardiovascular (less Myocardial Infarctions)	0.054377395	0.059444286
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	0.034088048	0.036858448
Hospital Admissions Cardiovascular	HA Dysrhythmia	0.018959987	0.022043958
Hospital Admissions Cardiovascular	HA Ischemic Heart Disease (less Myocardial Infarctions)	0.010838055	0.012138435
Hospital Admissions Respiratory	HA All Respiratory	0.049132452	0.051566979
Hospital Admissions Respiratory	HA Asthma	0.010670233	0.011376589
Hospital Admissions Respiratory	HA Chronic Lung Disease	0.021732089	0.022939869
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	0.004718452	0.005044519
Hospital Admissions Respiratory	HA Pneumonia	0.037496372	0.040527638
Lower Respiratory Symptoms	Lower Respiratory Symptoms	3.886136178	4.14419134
Mortality	Mortality All Cause	0.532854598	0.611714033
Mortality	Mortality Ischemic Heart Disease	0.098721405	0.101161159
Mortality	Mortality Lung Cancer	0.018320682	0.019462117
Upper Respiratory Symptoms	Upper Respiratory Symptoms	6.007883359	6.493294015
Work Loss Days	Work Loss Days	21.97026672	22.42243436

**PM2.5\_2km Grid\_Results\_Summary for Tech Report**

Endpoint Group	Endpoint	SumOfPercentile 975	SumOfBaseline
Acute Bronchitis	Acute Bronchitis	0.493751895	50,570
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	0.018834292	36,447
Acute Respiratory Symptoms	Minor Restricted Activity Days	140.9322742	95,830,416
Asthma Exacerbation	Asthma Exacerbation Cough	8.489095351	23,830,066
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	9.927034308	12,161,552
Asthma Exacerbation	Asthma Exacerbation Wheeze	14.06412169	28,431,733
Chronic Bronchitis	Chronic Bronchitis	0.210441363	47,712
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.188862185	93,313
Hospital Admissions Cardiovascular	HA All Cardiovascular (less Myocardial Infarctions)	0.066316256	141,012
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	0.041907366	43,680
Hospital Admissions Cardiovascular	HA Dysrhythmia	0.027664263	31,844
Hospital Admissions Cardiovascular	HA Ischemic Heart Disease (less Myocardial Infarctions)	0.014508322	23,641
Hospital Admissions Respiratory	HA All Respiratory	0.056003849	110,698
Hospital Admissions Respiratory	HA Asthma	0.012663894	13,133
Hospital Admissions Respiratory	HA Chronic Lung Disease	0.024906469	49,009
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	0.005638766	8,773
Hospital Admissions Respiratory	HA Pneumonia	0.046051928	38,021
Lower Respiratory Symptoms	Lower Respiratory Symptoms	4.614443672	884,486
Mortality	Mortality All Cause	0.726822533	112,027
Mortality	Mortality Ischemic Heart Disease	0.105607594	25,100
Mortality	Mortality Lung Cancer	0.021542372	6,768
Upper Respiratory Symptoms	Upper Respiratory Symptoms	7.377944213	10,082,979
Work Loss Days	Work Loss Days	23.24649884	26,254,631

## PM2.5\_2km Grid\_Results\_Summary for Tech Report

Endpoint Group	Endpoint	SumOfPopulation	SumOfStandard Deviation
Acute Bronchitis	Acute Bronchitis	1264259.936	0.191249743
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	3106799.887	0.003093107
Acute Respiratory Symptoms	Minor Restricted Activity Days	12285872.38	15.45285184
Asthma Exacerbation	Asthma Exacerbation Cough	3285280.818	3.526890451
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	3285280.818	3.483356564
Asthma Exacerbation	Asthma Exacerbation Wheeze	3285280.818	4.373431335
Chronic Bronchitis	Chronic Bronchitis	13232516.17	0.073991514
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	20168163.17	0.061971061
Hospital Admissions Cardiovascular	HA All Cardiovascular (less Myocardial Infarctions)	4377845.183	0.019762557
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	3248127.017	0.013428214
Hospital Admissions Cardiovascular	HA Dysrhythmia	3248127.017	0.014994213
Hospital Admissions Cardiovascular	HA Ischemic Heart Disease (less Myocardial Infarctions)	3248127.017	0.006315082
Hospital Admissions Respiratory	HA All Respiratory	3248127.017	0.011772032
Hospital Admissions Respiratory	HA Asthma	16920036.19	0.003347846
Hospital Admissions Respiratory	HA Chronic Lung Disease	7766999.705	0.004563326
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	12285872.38	0.001572271
Hospital Admissions Respiratory	HA Pneumonia	3248127.017	0.014716639
Lower Respiratory Symptoms	Lower Respiratory Symptoms	2019375.036	1.230945827
Mortality	Mortality All Cause	9710118.944	0.247812448
Mortality	Mortality Ischemic Heart Disease	12390737.82	0.011972467
Mortality	Mortality Lung Cancer	12390737.82	0.005668853
Upper Respiratory Symptoms	Upper Respiratory Symptoms	755115.1002	2.312411487
Work Loss Days	Work Loss Days	12285872.38	2.171455702

**PM2.5\_2km Grid\_Results\_Summary for Tech Report**

Endpoint Group	Endpoint	SumOfVariance	SumOfDelta
Acute Bronchitis	Acute Bronchitis	7.39803E-05	0.290035963
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	1.45898E-08	0.296245623
Acute Respiratory Symptoms	Minor Restricted Activity Days	0.423050194	0.297566414
Asthma Exacerbation	Asthma Exacerbation Cough	0.025105036	0.292659521
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	0.024488833	0.292659521
Asthma Exacerbation	Asthma Exacerbation Wheeze	0.038602881	0.292659521
Chronic Bronchitis	Chronic Bronchitis	9.03955E-06	0.295763731
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	7.3622E-06	0.297998667
Hospital Admissions Cardiovascular	HA All Cardiovascular (less Myocardial Infarctions)	6.49041E-07	0.300603658
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	2.95916E-07	0.30103755
Hospital Admissions Cardiovascular	HA Dysrhythmia	3.50123E-07	0.30103755
Hospital Admissions Cardiovascular	HA Ischemic Heart Disease (less Myocardial Infarctions)	6.21845E-08	0.30103755
Hospital Admissions Respiratory	HA All Respiratory	2.24856E-07	0.30103755
Hospital Admissions Respiratory	HA Asthma	2.30192E-08	0.297582865
Hospital Admissions Respiratory	HA Chronic Lung Disease	3.53304E-08	0.299301982
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	4.772E-09	0.297566414
Hospital Admissions Respiratory	HA Pneumonia	3.43079E-07	0.30103755
Lower Respiratory Symptoms	Lower Respiratory Symptoms	0.00306704	0.292760611
Mortality	Mortality All Cause	9.41409E-05	0.29399085
Mortality	Mortality Ischemic Heart Disease	2.32459E-07	0.296060801
Mortality	Mortality Lung Cancer	4.73653E-08	0.296060801
Upper Respiratory Symptoms	Upper Respiratory Symptoms	0.010814412	0.292760611
Work Loss Days	Work Loss Days	0.008384229	0.297566414

**PM2.5\_2km Grid\_Results\_Summary for Tech Report**

Endpoint Group	Endpoint	2SD	95% Interval		mean/baseline
Acute Bronchitis	Acute Bronchitis	0.382499486	-0.60	0.16	0.000437%
Acute Myocardial Infarction	Acute Myocardial Infarction Nonfatal	0.006186213	-0.02	-0.01	0.000036%
Acute Respiratory Symptoms	Minor Restricted Activity Days	30.90570369	-149.83	-88.02	0.000124%
Asthma Exacerbation	Asthma Exacerbation Cough	7.053780902	-10.47	3.64	0.000014%
Asthma Exacerbation	Asthma Exacerbation Shortness of Breath	6.966713128	-11.88	2.05	0.000040%
Asthma Exacerbation	Asthma Exacerbation Wheeze	8.74686267	-16.5	1.0	0.000027%
Chronic Bronchitis	Chronic Bronchitis	0.147983028	-0.3	0.04	0.000224%
Emergency Room Visits Respiratory	Emergency Room Visits Asthma	0.123942122	-0.19	0.06	0.000072%
Hospital Admissions Cardiovascular	HA All Cardiovascular (less Myocardial Infarctions)	0.039525115	-0.06	0.02	0.000017%
Hospital Admissions Cardiovascular	HA Congestive Heart Failure	0.026856427	-0.05	0.004	0.000053%
Hospital Admissions Cardiovascular	HA Dysrhythmia	0.029988426	-0.04	0.02	0.000021%
Hospital Admissions Cardiovascular	HA Ischemic Heart Disease (less Myocardial Infarctions)	0.012630163	-0.02	0.01	0.000024%
Hospital Admissions Respiratory	HA All Respiratory	0.023544064	-0.06	-0.02	0.000036%
Hospital Admissions Respiratory	HA Asthma	0.006695692	-0.01	-0.001	0.000060%
Hospital Admissions Respiratory	HA Chronic Lung Disease	0.009126653	-0.03	-0.007	0.000033%
Hospital Admissions Respiratory	HA Chronic Lung Disease (less Asthma)	0.003144541	-0.007	-0.0003	0.000039%
Hospital Admissions Respiratory	HA Pneumonia	0.029433279	-0.05	0.004	0.000067%
Lower Respiratory Symptoms	Lower Respiratory Symptoms	2.461891654	-5.31	-0.39	0.000322%
Mortality	Mortality All Cause	0.495624896	-0.67	0.32	0.0002%
Mortality	Mortality Ischemic Heart Disease	0.023944935	-0.11	-0.06	0.0004%
Mortality	Mortality Lung Cancer	0.011337705	-0.03	-0.002	0.0002%
Upper Respiratory Symptoms	Upper Respiratory Symptoms	4.624822973	-8.7	0.6	0.000040%
Work Loss Days	Work Loss Days	4.342911403	-24.5	-15.8	0.000077%