

**Estimates of Excess Risk and Number of New Cases
Among Somerville Residents Living within 400 meters of a Freeway over a 5-Year Period due to Exposure of Freeway Air Pollution**

Condition	Reference	Distance from Freeway	RR Increase (95% CI) due to Exposure	Percent Increase	5-Year Incidence per 100,000 Unexposed	5-Year Incidence per 100,000 Exposed	Size of Population at Risk	Number (range) of New Cases over 5 Years due to Exposure within 400 m
Coronary Heart Disease	Kan H et al., 2008	300 m	1.12 (1.00 to 1.28)	12%	2460	2755	7500	22 (0 to 52)
Death from Coronary Heart Disease	Gan WQ et al., 2010	50 m	1.54 (1.21 to 1.96)	54%	1090	1679	7500	44 (17 to 78)
Ischemic Stroke	Kulick ER et al., 2018	100 m	1.42 (1.01 to 2.02)	42%	1025	1455	7500	32 (1 to 78)
Post-Stroke Mortality	Wilker EH et al., 2013	100 m	1.20 (1.01 to 1.43)	20%	335	402	7500	5 (0 to 11)
Type 2 Diabetes	Zhao Z et al., 2016	100 m	1.81 (1.06 to 3.08)	81%	1640	2968	7500	100 (7 to 256)
Lung Cancer	Nyberg F et al., 2000	100 m	1.60 (1.07 to 2.39)	60%	350	560	7500	16 (2 to 36)
Childhood Asthma	Gauderman WJ et al., 2005	150 m	1.83 (1.04 to 3.21)	83%	6250	11438	1000	52 (3 to 138)
Childhood Autism	Volk HE et al., 2011	150 m	1.86 (1.03 to 3.45)	86%	440	818	1000	4 (0 to 11)

Population of United States: 325,000,000 75% > 20 years of age = 243,750,000

Coronary Heart Disease	https://www.rightdiagnosis.com/c/coronary_heart_disease/prevalence.htm		
1,200,000 per year	$5 \times 100,000 \times 1,200,000 / 243,750,000$	2460	
529,659 per year	$5 \times 100,000 \times 529,659 / 243,750,000$	1090	
Stroke	https://www.rightdiagnosis.com/s/stroke/prevalence.htm		
500,000 per year	$5 \times 100,000 \times 500,000 / 243,750,000$	1025	
163,538 per year	$5 \times 100,000 \times 163,538 / 243,750,000$	335	
Type 2 Diabetes	https://www.rightdiagnosis.com/d/diab2/prevalence.htm		
798,000 per year	$5 \times 100,000 \times 798,000 / 243,750,000$	1640	
Lung Cancer	https://www.rightdiagnosis.com/l/lung_cancer/basics.htm		
169,400 per year	$5 \times 100,000 \times 169,400 / 243,750,000$	350	
Childhood Asthma	<i>J Asthma</i> . 2012 Feb;49(1):16-22.		
1,250/100,000 per year	$5 \times 1,250$	6250	
Childhood Autism	https://www.cdc.gov/ncbddd/autism/data.html		
prevalence 2004 = 800/100,000	prevalence 2014 = 1,680/100,000		
10-year incidence = 880/100,000	5-year incidence = 440/100,000		

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Population of Somerville 2016: approximately 80,000 (approximately 8,000 < 10 years old, 60,000 > 20 years old)
Living within 400 m: approximately 10,000 (approximately 1,000 < 10 years old, 7,500 > 20 years old)