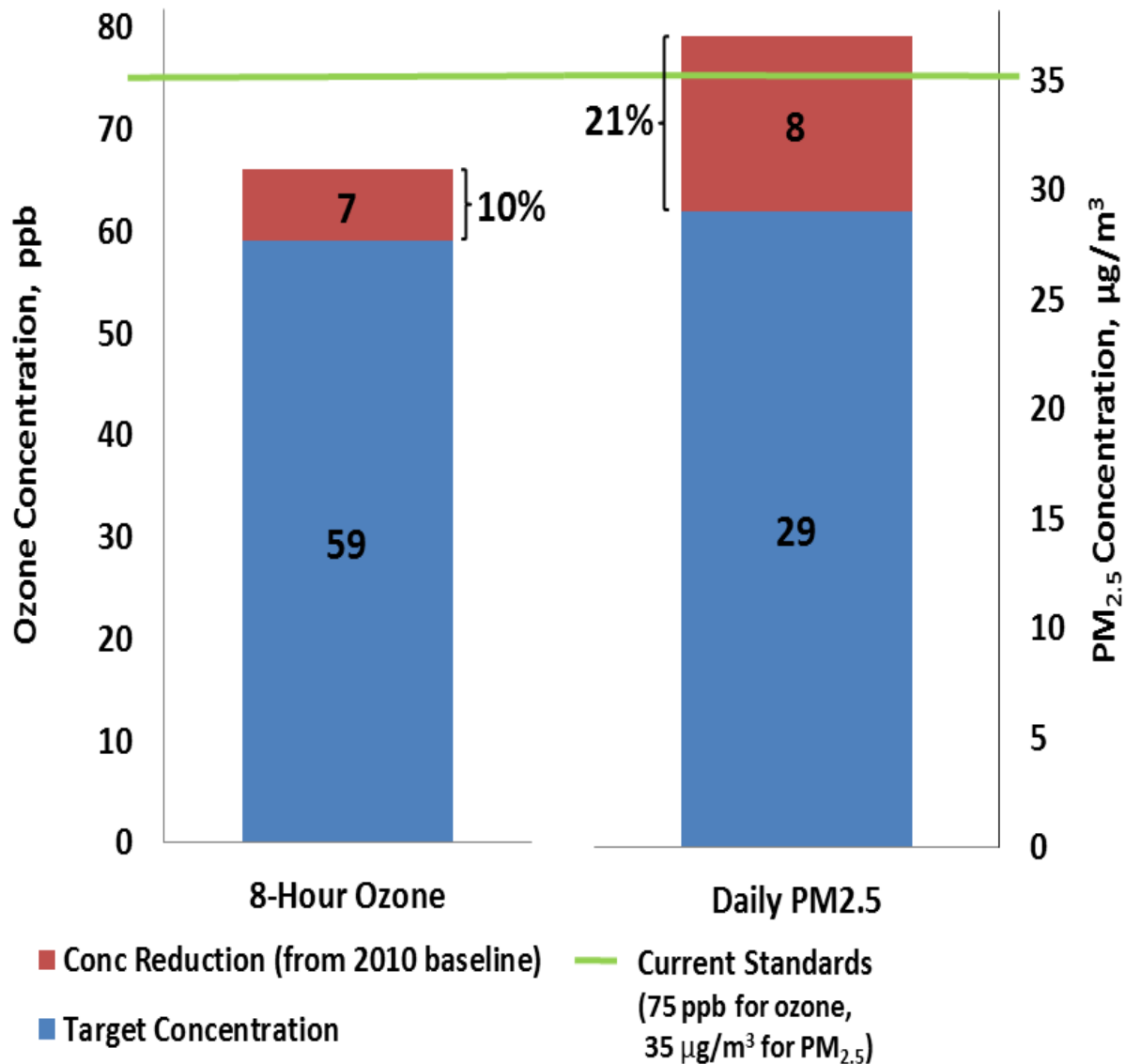# Estimated Health Benefits of Achieving Clean Air Dialogue Air Quality Improvement Goals

Figure 1: Clean Air Dialogues Air Quality Improvement Goals[1]

Table 1: Estimated Annual Health Benefits of a 21% Reduction in PM$_{2.5}$ Concentration

Health Impact	Statewide		Metro Area (7-County)	
	Incidences	*Value*	*Incidences*	*Value*
Adult Mortality	410	$3.68 billion	220	$1.97 billion
Infant Mortality	1	$7.1 million	1	$4.5 million
Non-Fatal Heart Attacks	410	$43 million	230	$24 million
Respiratory Hospital Admissions	99	$2.4 million	55	$1.3 million
Cardiovascular Hospital Admissions	83	$4.1 million	67	$2.3 million
Acute Respiratory Symptoms	360,000	$22.8 million	220,000	$13.9 million
Lower Respiratory Symptoms	9,300	$180,000	5,400	$105,000
Upper Respiratory Symptoms	13,000	$410,000	7,800	$240,000
Work Loss Days	61,000	$9.2 million	37,000	$6.5 million
Asthma Exacerbation	33,000	$1.7 million	19,000	$1.0 million
Respiratory Emergency Room Visits	180	$67,000	110	$40,000
Acute Bronchitis	720	$320,000	420	$190,000

Table 2: Estimated Annual Health Benefits of a 10% Reduction in Ozone Concentration

Health Impact	Statewide		Metro Area (7-County)	
	Incidences	*Value*	*Incidences*	*Value*
Adult Mortality	17	$129 million	7	$61.3 million
Respiratory Hospital Admissions	140	$2.8 million	69	$1.3 million
Acute Respiratory Symptoms	120,000	$7.1 million	67,000	$4.0 million
School Loss Days	42,000	$3.8 million	23,000	$2.0 million
Respiratory Emergency Room Visits	48	$18,000	26	$9,500

Notes and assumptions:

- All estimations of health impacts and their corresponding economic values were done using EPA's Environmental Benefits Mapping and Analysis (BenMAP) modeling software. BenMAP is the state of the art model for estimating health impacts of air pollution and is used by EPA for its regulatory impact analyses and air pollution policy analysis. All choices within BenMAP (health impact functions, health valuation functions) were chosen according to what EPA currently uses for its regulatory impact analyses for $PM_{2.5}$ and ozone. (See http://www.epa.gov/air/benmap/ for more information.)

- All estimates are point estimates and do not reflect the uncertainty around estimating the health impacts of air pollution. Estimates of the 95% confidence interval around this range are available upon request.

- Clean Air Dialogue's goal for reducing $PM_{2.5}$ pollution was for daily $PM_{2.5}$ ambient concentrations. However, these estimates are for reducing annual average $PM_{2.5}$ concentrations. The conversion was made by assuming that Clean Air Dialogue's goal of a 21% reduction in daily $PM_{2.5}$ corresponds to a 21% reduction in annual average $PM_{2.5}$.