



## Smart Growth will help California avoid air pollution-related illnesses, deaths and costs

New research by the American Lung Association in California finds that Smart growth development strategies could help California cut over 132,000 tons of air pollution and avoid up to 140 premature deaths, 105,000 asthma attacks and other respiratory symptoms, 16,550 work days lost and \$1.66 billion in health costs in 2035.

### Introduction

Smart growth is a top priority for the public health community. Our dependence on driving and dirty fuels is a barrier in the fight against air pollution, global warming and a wide range of chronic illnesses. With auto-centered cities and sprawling suburbs the norm, people are forced into their cars for even the shortest trips and have less opportunity to incorporate physical activity into their daily routines which is critical to staving off obesity, diabetes, heart and lung disease and other chronic conditions.

Despite California's great successes in reducing harmful emissions, our state remains home to some of the worst air pollution in the United States. In order to continue our positive progress on cleaner air and to support public health, California must embrace opportunities to depart from business as usual planning and envision a healthier way to accommodate our growing state. Strong implementation of California's Sustainable Communities and Climate Protection Act (SB 375: Steinberg: 2008) offers this opportunity and is critical to meeting California's air quality and climate goals.

### Brief Project Description

The American Lung Association in California (ALAC) contracted with TIAX LLC to evaluate the air pollution-related illnesses, deaths and health costs avoided through smarter growth in California. By evaluating the reductions in criteria air pollutants noted in the recently released Vision California planning scenarios prepared for the High Speed Rail Authority in coordination with the Strategic Growth Council, ALAC has quantified significant air quality and health benefits to smart growth in California.

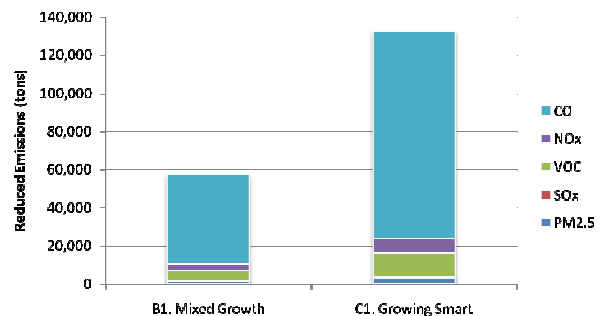
It is important to note that the considerable benefits associated with improved walking, biking and transit options that boost daily physical activity and reduce rates of obesity, diabetes, heart and lung disease, cancers and other chronic illnesses reduced were not evaluated in this study.

### Brief Description of Vision California Scenarios

Holding technological and fuel efficiency policies constant, the Vision California "Mixed Growth" (roughly half of new growth in California occurs in compact, urban design) and "Growing Smarter" (smart growth) scenarios offer a range of health benefits and avoided health impacts over business as usual (BAU) trends. The Vision California report is available online: [www.visioncalifornia.org](http://www.visioncalifornia.org)

### Results

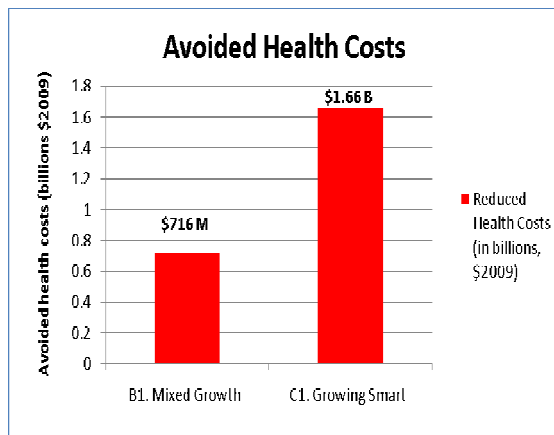
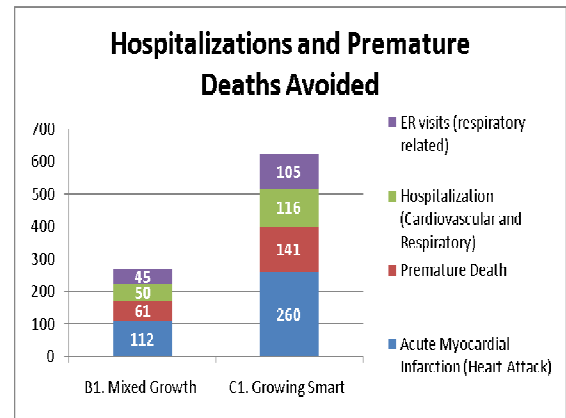
By moving forward now to embrace smart growth principles growing toward a more sustainable future that emphasizes more compact, mixed use communities that support walking, biking and transit to reduce our need to drive, California could avoid between 55,000 and 132,000 tons of criteria air pollution compared with BAU planning in 2035.



## Air Pollution-Related Health Impacts Avoided

The health benefits of such reductions are clear. In the year 2035, more compact development patterns could help Californians avoid:

- 60 – 140 premature deaths
- 110 – 260 heart attacks
- 1,025 – 2,370 asthma attacks
- 44,000 – 101,960 other respiratory symptoms
- 95 – 215 chronic and acute bronchitis cases
- 45 – 105 respiratory-related ER visits
- 50 – 115 hospitalizations (cardio./resp.)
- 7,145 – 16,550 lost work days



## Air Pollution Related Health Costs Avoided

By choosing the path for smarter growth, California could avoid between \$716 million and \$1.66 billion in health costs as the result of fewer emissions and pollution-related illnesses and deaths in 2035.

Coupled with savings in municipal infrastructure, road maintenance and household vehicle ownership and travel, the avoided health costs to California provide a more complete view of the financial benefits of accommodating California's population growth in more compact communities with viable options for walking, biking and transit that reduce our dependency on driving and polluting fuels.

The table below provides a line-item view of the air pollution-related health impacts avoided in 2035 as the result of both mixed and smart growth scenarios evaluated.

Avoided Health Impacts in 2035	Mixed Growth	Growing Smart
Premature Deaths	61	141
Heart Attacks	112	260
Hospitalizations (Cardiovascular and Respiratory)	50	116
Emergency Room visits (Respiratory related)	45	105
Chronic Bronchitis	41	94
Acute Bronchitis	93	215
Asthma Attacks	1,024	2,371
Other Respiratory Symptoms	44,008	101,963
Work Loss Days	7,144	16,553

This study comes just before the California Air Resources Board votes on September 23, 2010 to establish regional greenhouse gas reduction targets, the next step in implementing California's historic Sustainable Communities and Climate Protection Act (SB 375, Steinberg: 2008). Following the adoption of the regional targets, the California's regional planning agencies will begin a public process of developing Sustainable Communities Strategies to meet their goals.

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