

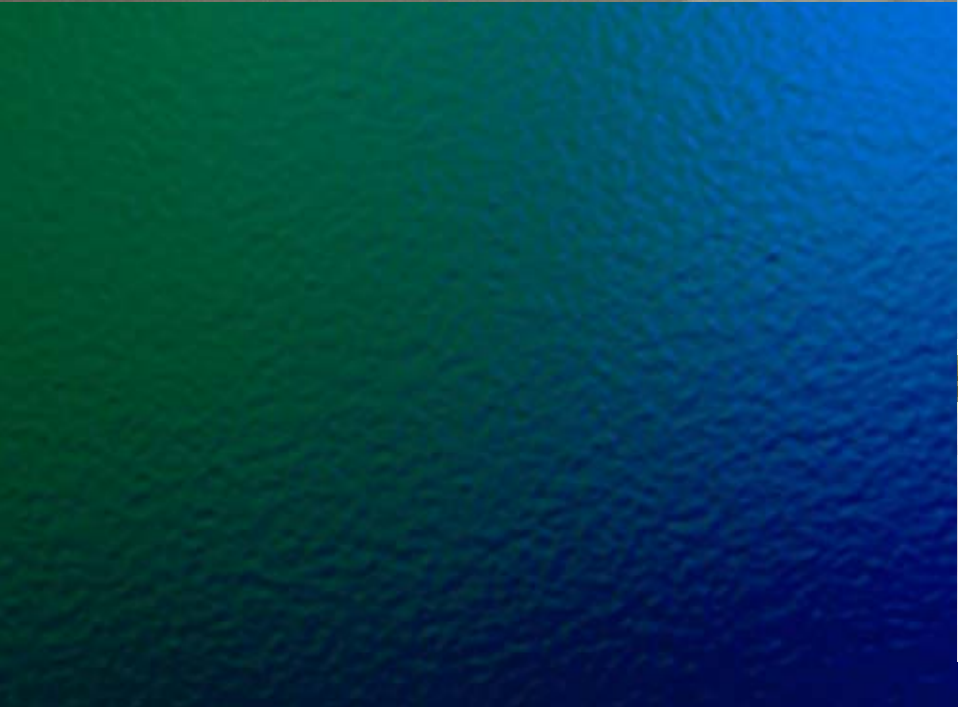
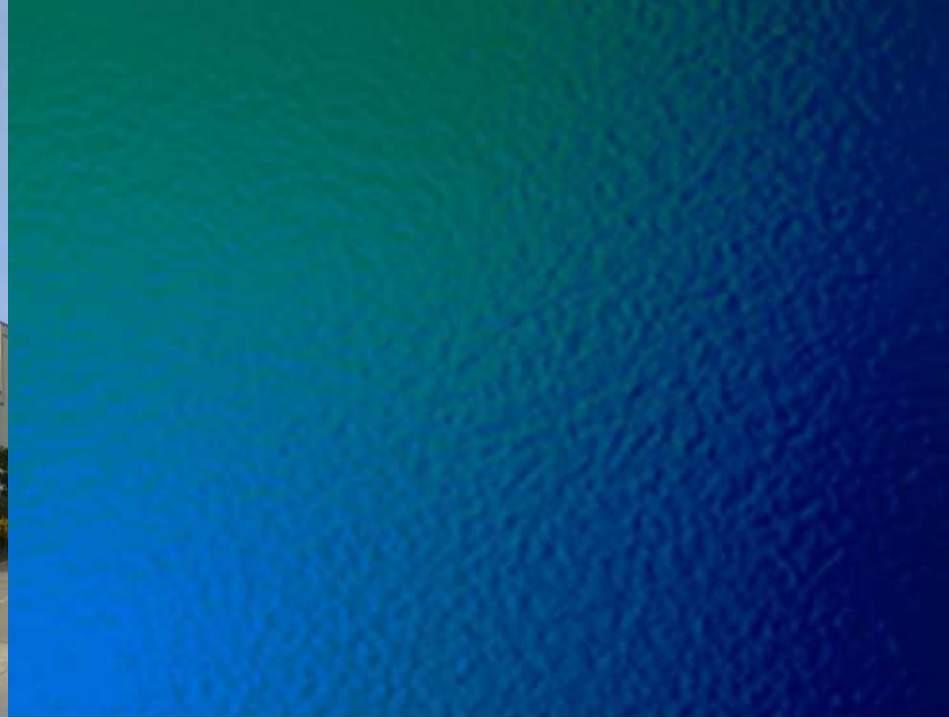


**It's All About Health**

**A.M. Aminian, M.D.**

**Allergy Institute, Fresno, Visalia**

**Clinical Teaching Faculty UCSF**



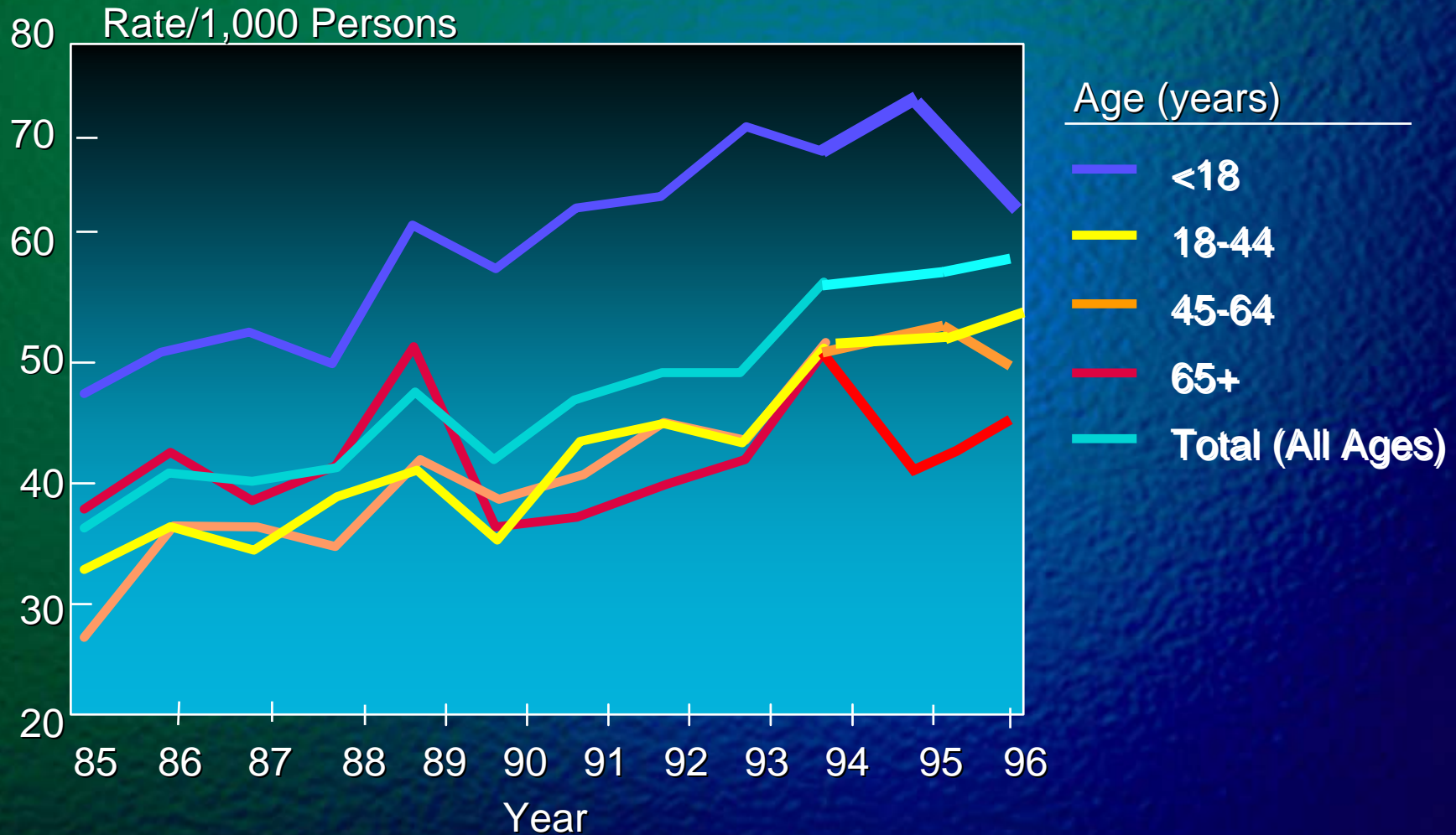




# The Effect of Air pollution on Health

- **Respiratory System (Allergies & Asthma)**
- **Cardiovascular System**
- **Premature Death**
- **Poor Quality of Life**

# Trends in Prevalence of Asthma By Age, U.S., 1985-1996



**Current asthma prevalence: 20.5 million  
Americans (6.2 million children)**

American Lung Association Epidemiology & Statistics Unit Research Program  
Services. *Trends in Asthma Morbidity and Mortality*. July 2006. Available at:  
[www.lungusa.org](http://www.lungusa.org). Accessed November 2, 2006

October 2006

## Nearly Six Million Californians Suffer from Asthma Symptoms or Asthma-like Breathing Problems

Susan H. Babey, Ying-Ying Meng, E. Richard Brown and Theresa A. Hastert

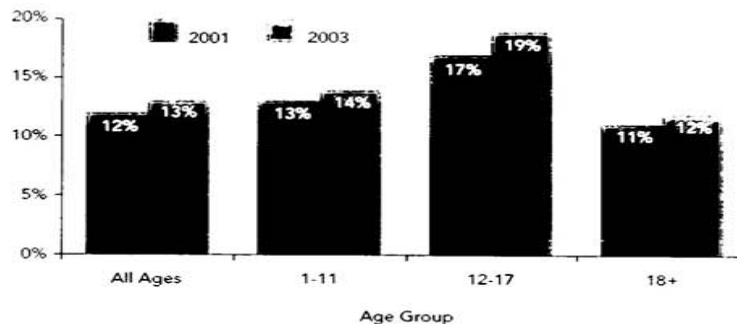
In California, 4.5 million adults, adolescents and children had been diagnosed with asthma (13% of all Californians) in 2003, up from four million (12%) in 2001. This increase is consistent in younger children, adolescents and adults (Exhibit 1).<sup>1</sup> Nationally, 10% of the population has been diagnosed with asthma.<sup>2</sup> Among the 4.5 million Californians diagnosed with asthma, more than 2.5 million suffered from an asthma attack or other asthma symptoms in 2003 (56% of those diagnosed).

An additional 3.4 million Californians who have not been diagnosed with asthma—10% of all Californians—suffer from asthma-like breathing problems. Some of these respondents might have other respiratory conditions, while others are likely to have asthma that has not been diagnosed.

Based on data from the 2003 California Health Interview Survey (CHIS 2003), this policy brief examines the prevalence of lifetime asthma diagnoses and asthma symptoms, as well as the prevalence of asthma-like breathing problems in the absence of an asthma diagnosis. Where possible, it also describes

### Exhibit 1

Lifetime Asthma Prevalence by Age and Year, California, 2001 and 2003



Note: Lifetime asthma prevalence refers to people who have ever been diagnosed with asthma.  
Source: 2001 and 2003 California Health Interview Surveys.



Support for this policy brief was provided by a grant from The California Endowment.





**UCLA**

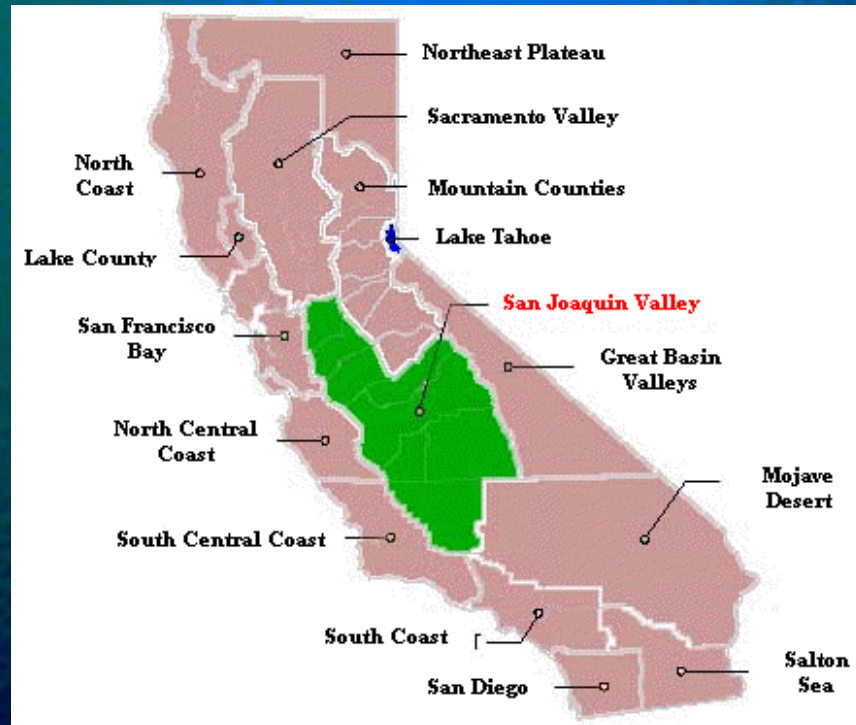
# Health Policy Research Brief

October 2006

## Nearly Six Million Californians Suffer from Asthma Symptoms or Asthma-like Breathing Problems

Susan H. Babey, Ying-Ying Meng, E. Richard Brown and Theresa A. Hastert

# 10% of San Joaquin Valley Residents have Asthma

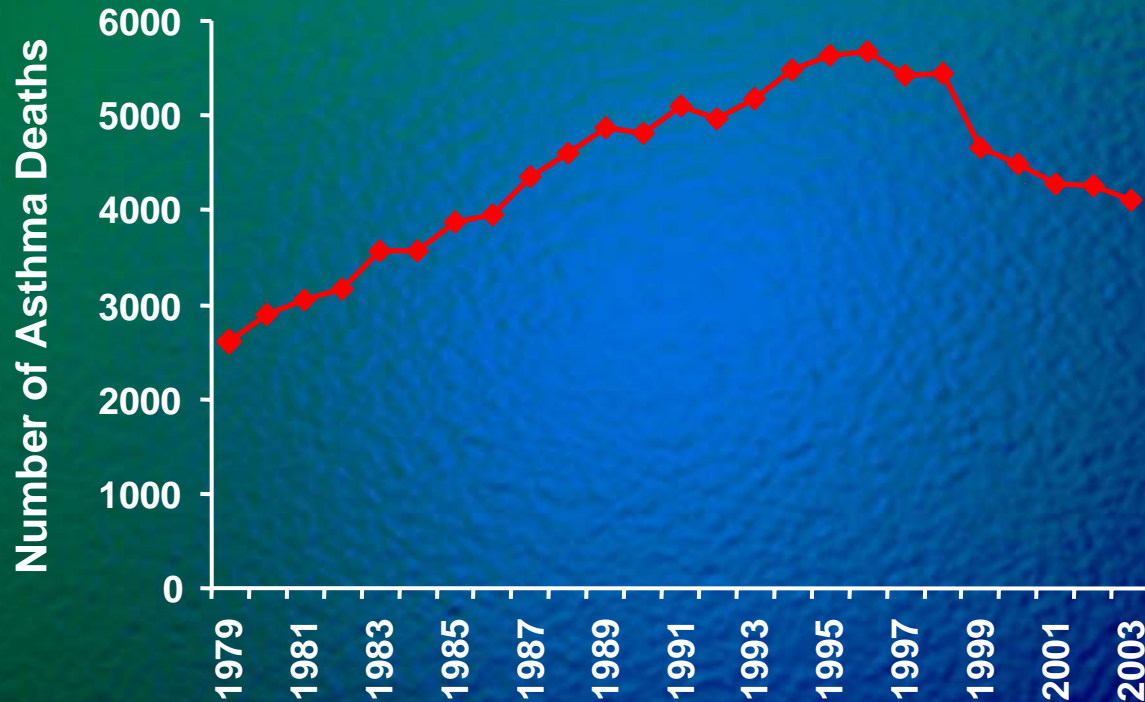


**Fresno & Kings counties have the highest  
rate (20%) of Asthma in Children**



1 out of 5 Children have Asthma

# Number of Asthma Deaths\* in US



\* 1979-1998 rates reflect the International Classification of Disease (ICD) 9th Revision Code 493. 1999-2003 rates reflect the ICD 10th Revision Codes.

American Lung Association Epidemiology & Statistics Unit Research Program Services. *Trends in Asthma Morbidity and Mortality*. July 2006. Available at: [www.lungusa.org](http://www.lungusa.org). Accessed November 2, 2006.

**San Joaquin Valley 1 of 4 regions  
nationwide with highest rate of Asthma  
Deaths**

# Economic Burden of Asthma

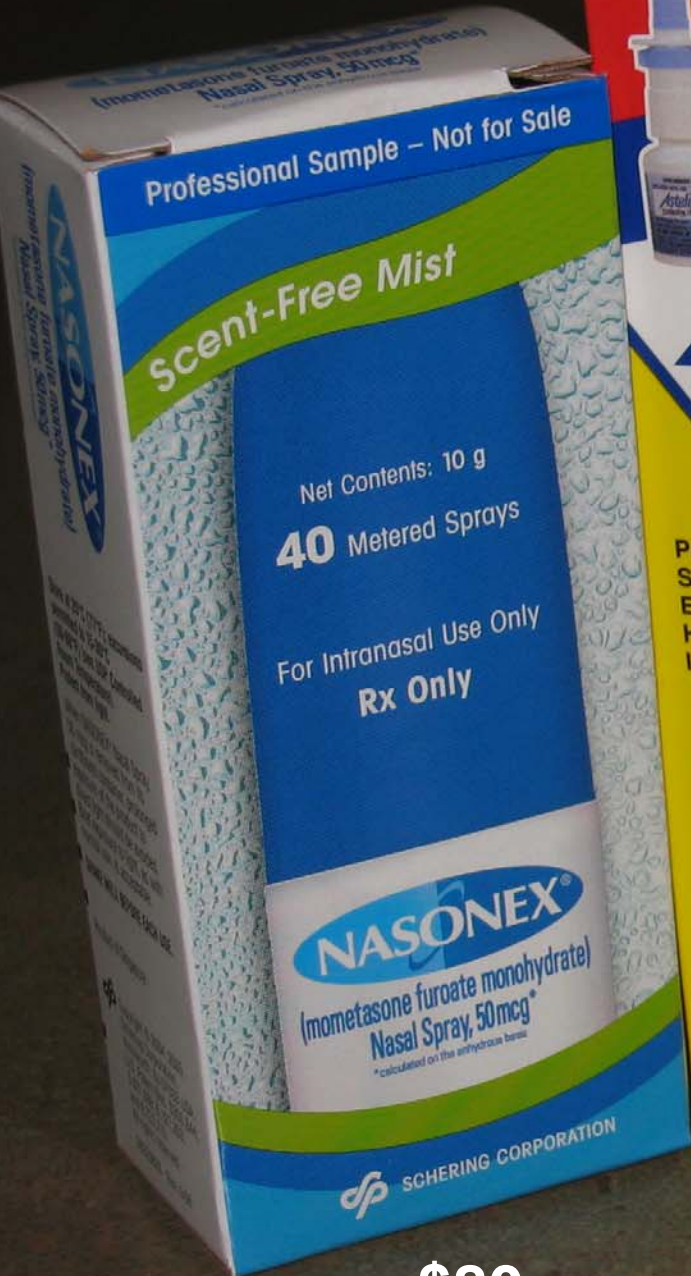
# **Annual Estimated Direct and Indirect Costs of Asthma**

- **\$14 billion** in total cost:
  - \$9.4 billion direct health care costs
  - \$4.6 billion indirect costs (eg, lost productivity)



# Cost of Asthma

- Nationally: 14 billion dollars
- In SJV: 3.2 billion dollars



\$80



\$60

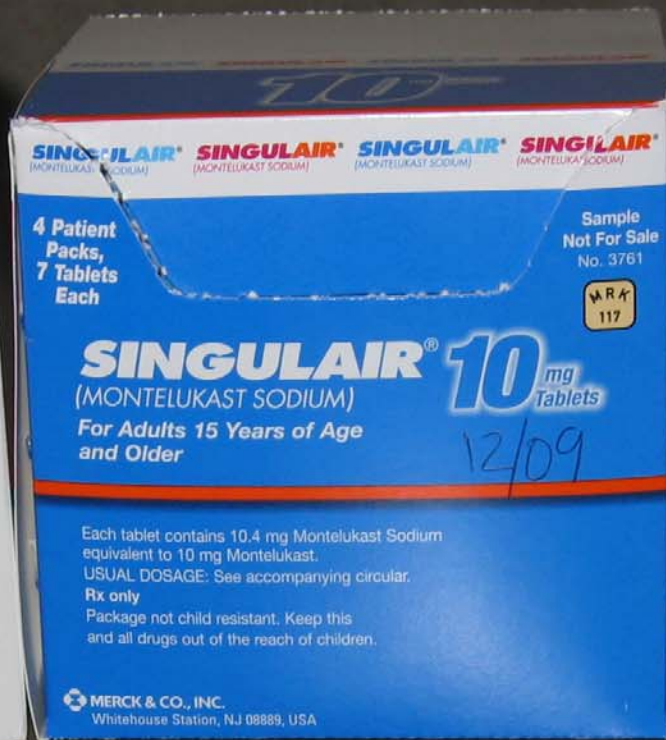


\$60

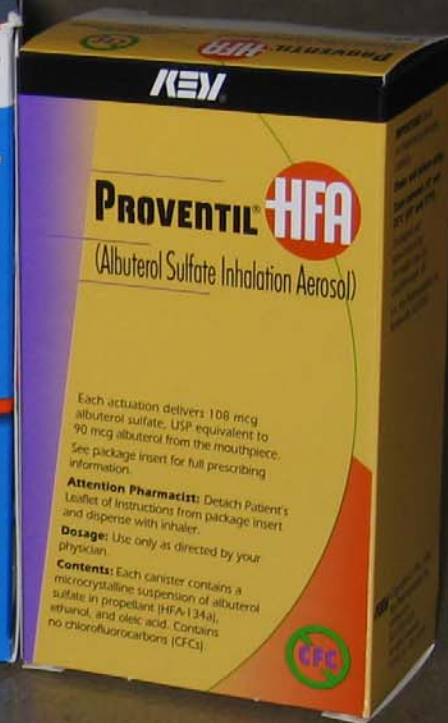
Total \$200



\$200



\$60



\$60

Total \$320



\$80



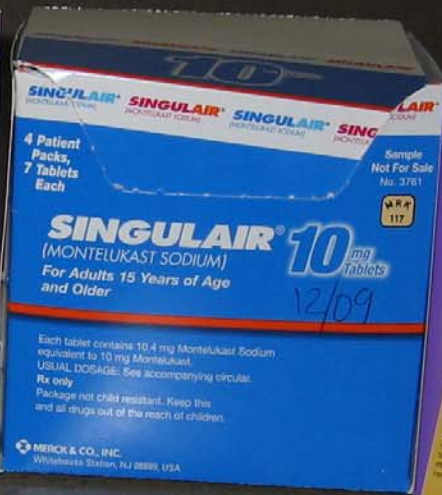
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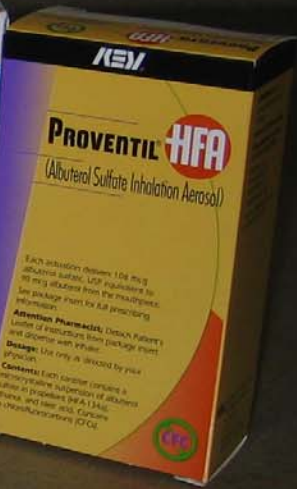
\$60



\$200



\$60



\$60

Total per Month: \$520

# **How does Air Pollution affect Health**

# Outdoor Air Pollution

**1. OZONE**

**2. Diesel Exhaust**

**3. Tobacco Smoke Exposure**

# Outdoor Air Pollution

- **These Pollutants create and enhance inflammation of the respiratory and cardiovascular systems.**
- **Air Pollution and Allergen exposure have additive effect on the worsening of the asthma and the allergies.**


# Outdoor Air Pollution

- Diesel Exhaust is an important contributor of Particulate Matter (PM)
- Diesel Exhaust/Particulate Matters
- Affect the Immune system to produce and enhance an exaggerated allergic response in asthma and hay fever



# **How does Air Pollution affect Cardiovascular System**

# **Effect of Air Pollution on Cardiovascular System**

**Particulate Matter plus High Cholesterol**  
turn on genes that cause Inflammation  
of the Heart  **Heart disease and**  
**Death**

**Diesel Pollution caused more than 250  
premature deaths in SJV in 2004**

**More people die prematurely in SJV as a result of Diesel Pollution than Homicide**

**What can be done to help reducing Air  
Pollution and help Quality of Life?**

- **Government's responsibility**
- **Individual responsibilities**







A photograph of two cows in a barn. The cow on the left is black with a white blaze on its face. The cow on the right is black and white. A yellow thought bubble with a red border is positioned above the cow on the right, containing the text "Sorry, but we can not control ourslves". A series of small red circles connects the bubble to the cow's head. The cows are standing in a metal stall with hay on the floor.

**Sorry, but we  
can not control ourslves**

**California Cows Fail Latest Emissions Test**









**We expect the government to do everything for us but what about our own individual responsibilities**







# Fireplace/ Woodstove

Air quality forecast:  
good or  
moderate.

Please  
burn  
cleanly

Learn to  
burn cleanly  
at 1-800  
SMOG INFO or  
[www.valleyair.org](http://www.valleyair.org).

Burning Status

**CHECK  
BEFORE YOU  
BURN**







THE HOTEL

ESSEX ST

9871

COHOES

CDTA



















**WHEN YOU CAN'T BREATHE,**



**NOTHING ELSE MATTERS.**

Thank You