

Cleaner Air = Less Symptoms

Researchers find less pollution in Southern California is associated with less chronic bronchitic symptoms in children.

4,602 Children



8 SoCal Communities



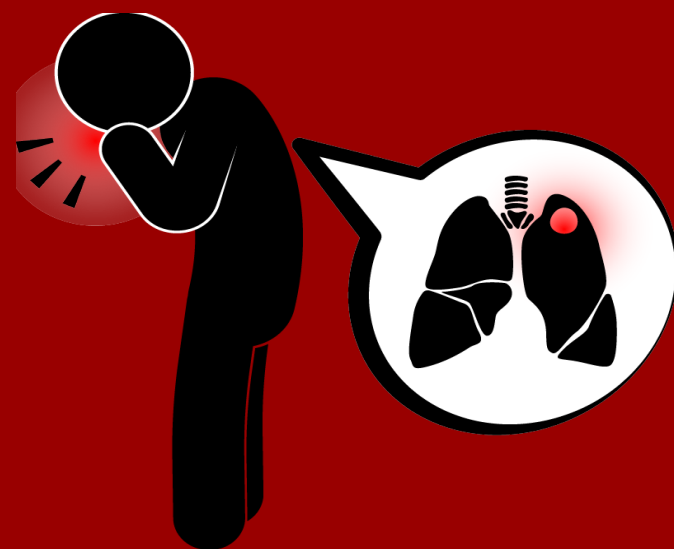
WHAT WAS MEASURED?

Chronic Bronchitic Symptoms

Long lasting cough or phlegm

Long lasting (chronic) lung symptoms

Bronchitis (during the past year)



Pollution

Pollution levels across So Cal have been measured for a period spanning 20 years starting in 1993.



Particles: Coarse (PM10), Fine (PM 2.5 μm)
Gases: Nitrogen Dioxide (NO₂), Ozone (O₃)

FINDINGS

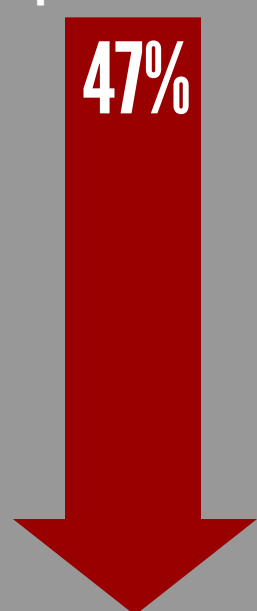
POLLUTION DOWN, SYMPTOMS DOWN

As pollution levels declined across the 8 communities over two decades, bronchitic symptoms declined in children (10 years of age).

AIR POLLUTION

Fine particles

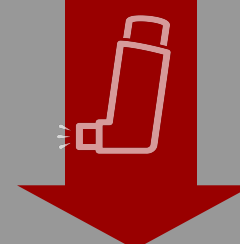
47%



CHILDREN'S CHRONIC BRONCHITIC SYMPTOMS

Asthma

32%



No Asthma

21%



Berhane, et al. JAMA 2016.doi:10.1001/jama.2016.3444

Infographic: Wendy Gutschow/USC