NEW RESEARCH
Respiratory and nervous system effects related to the Fall 2021 Carson odor crisis

Background

A warehouse fire in Carson, CA led to high levels of hydrogen sulfide (H2S) around the Dominguez Channel in Fall 2021.

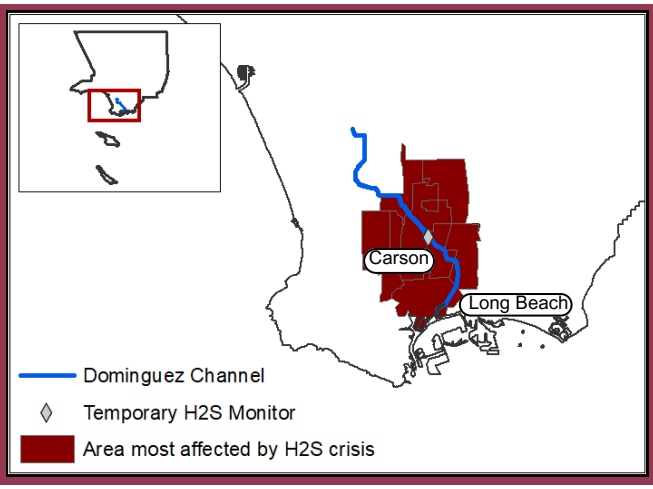
H2S is a toxic odorous gas.

H2S levels peaked around 7000 parts per billion (ppb) & remained above California's acute air quality standard of 30 ppb for over a month.

Residents in the Carson area complained of horrible odors during this H2S crisis.

What was studied?

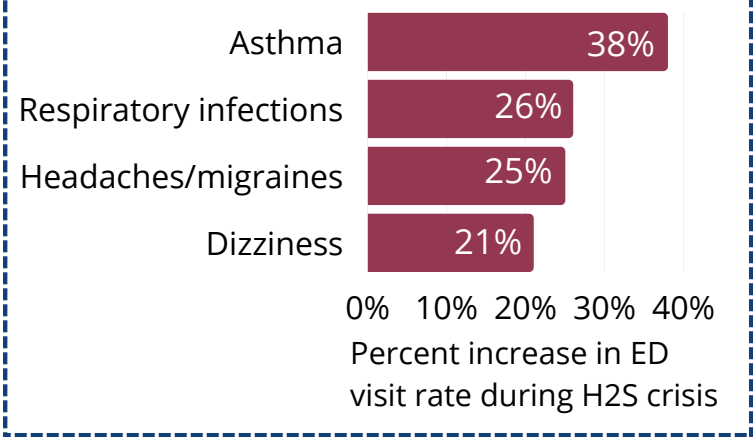
We examined patterns of emergency department (ED) visits in the Carson area to understand how the H2S crisis affected ED visit rates for respiratory & nervous system diseases.



Findings

H2S crisis was linked to higher rates of respiratory & neurological ED visits.

The increase in the rate of respiratory-related ED visits lasted 7 weeks & was strongest among residents who lived ≤6 km from the event's epicenter.



Quist AJL, Johnston JE. Respiratory and Nervous System Effects of a Hydrogen Sulfide Emergency in Carson, California, USA. Science of the Total Environment, 2023; 906:167480; https://doi.org/10.1016/j.scitotenv.2023.167480

USC resources on H2S:

Submit an odor complaint here: or call: 1-800-CUT SMOG

Check H2S levels anytime:
AQMD Rule1180 Community air monitoring
Refinery fenceline monitoring

envhealthcenters.usc.edu
@USCEHC
@USCEnviroHealth
USC Environmental Health Centers
EJRL Environmental Justice Research Lab

NIEHS (R21ES034720 & T32ES013678)