

Air Pollution and Health:

Building Our Understanding

March 25, 2021

Eastern Coachella Valley CSC meeting

Office of Environmental Health Hazard Assessment



What we are going to cover in this presentation

- What is the Office of Environmental Health Hazard Assessment (OEHHA)
- The relationship between air pollution and health



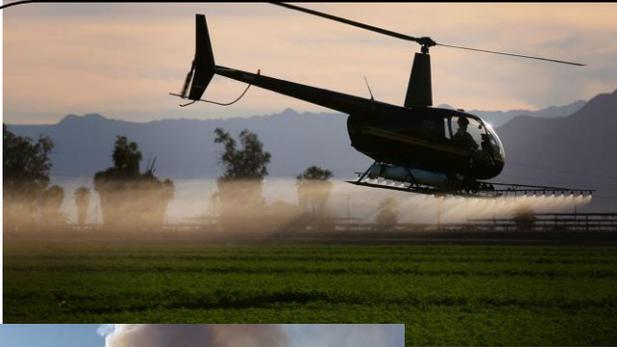
Office of Environmental Health Hazard Assessment (OEHHA)

Support other agencies by evaluating environmental hazards

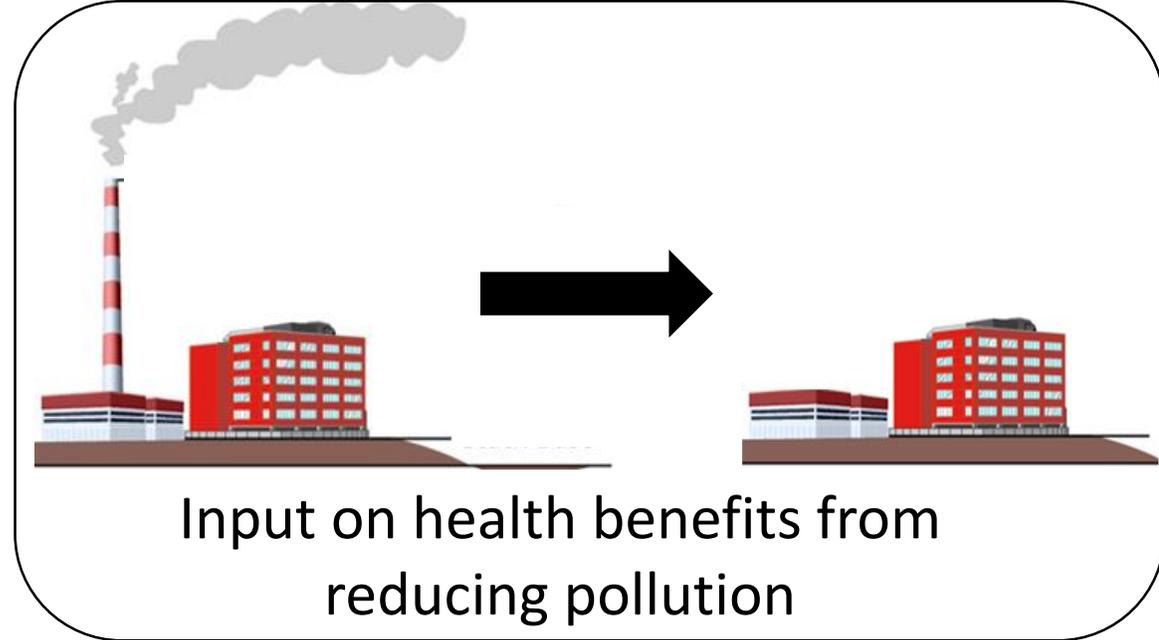


Office of Environmental Health Hazard Assessment (OEHHA)

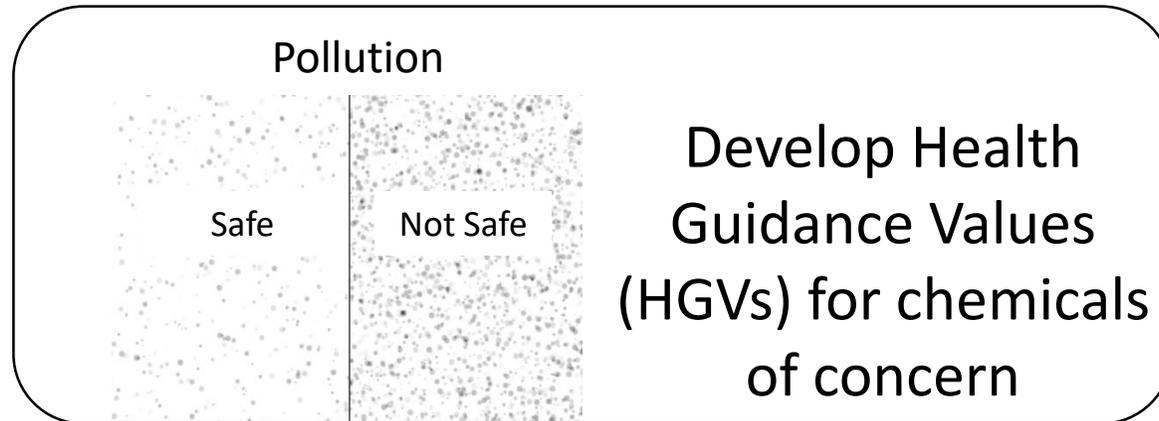
OEHHA's role in AB 617



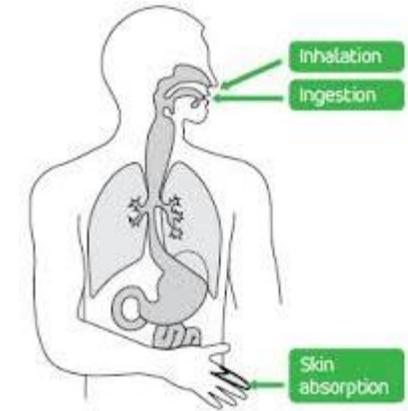
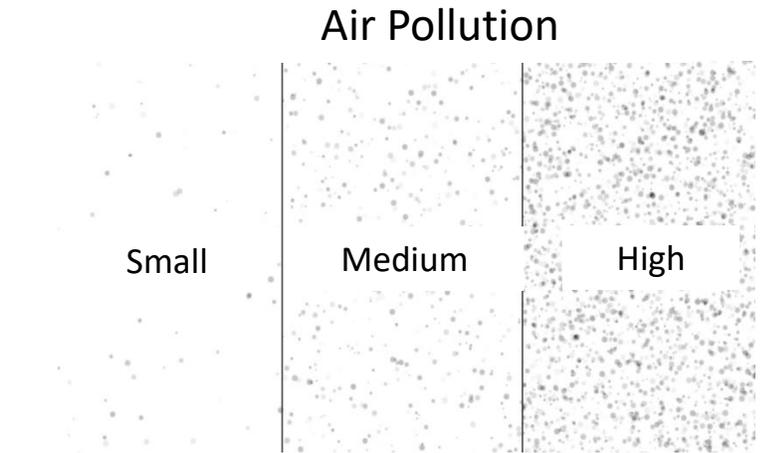
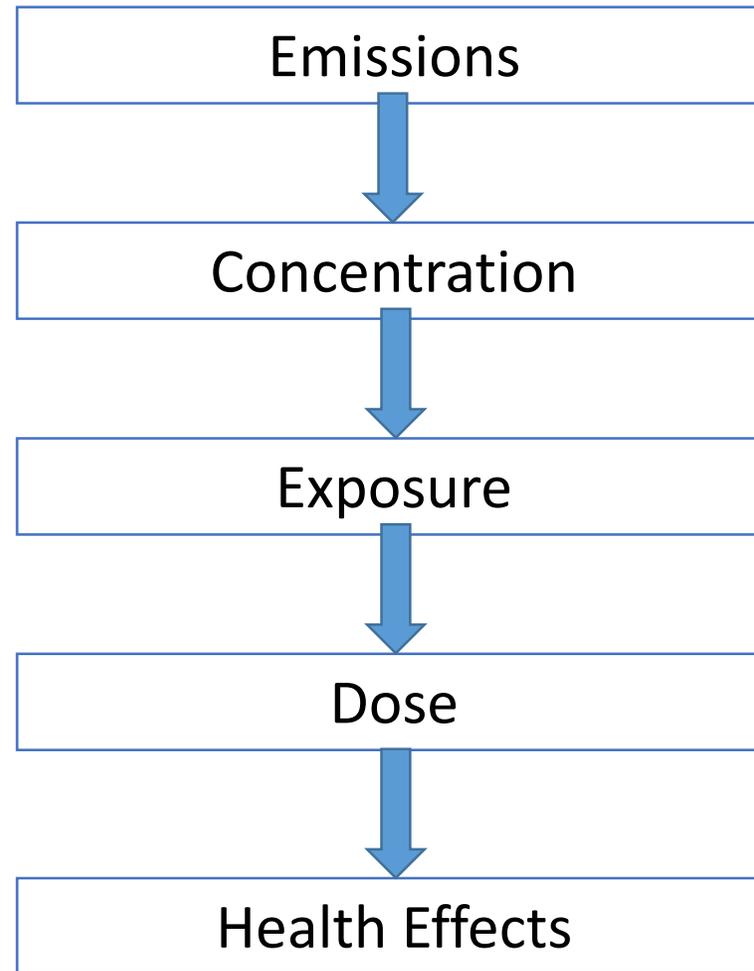
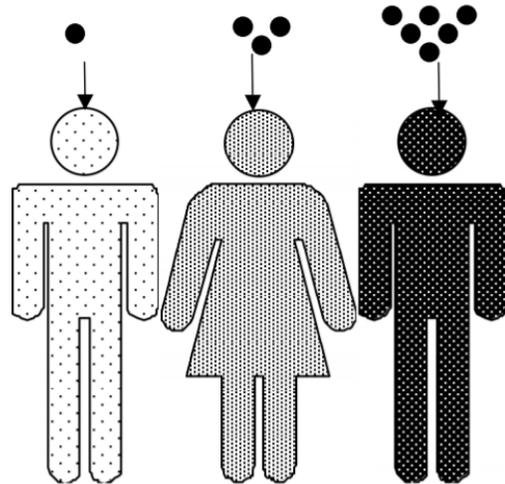
Input on health risks from different chemical exposures



Input on health benefits from reducing pollution



The relationship between air pollution and health



Emissions

The release of pollution into the environment



Agriculture



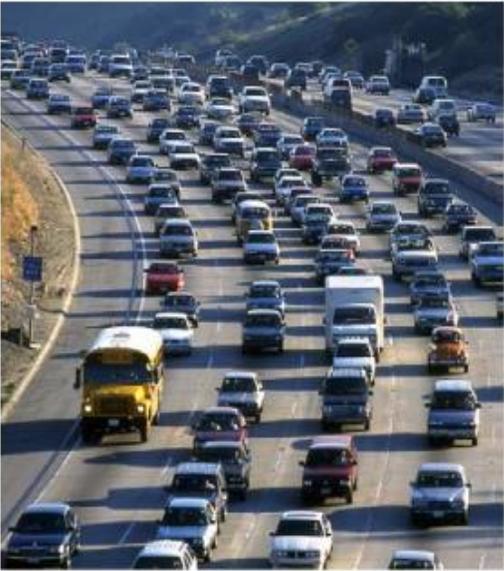
Businesses



Transportation



Emission Source / Use \longrightarrow Fate / Transport \longrightarrow Concentration



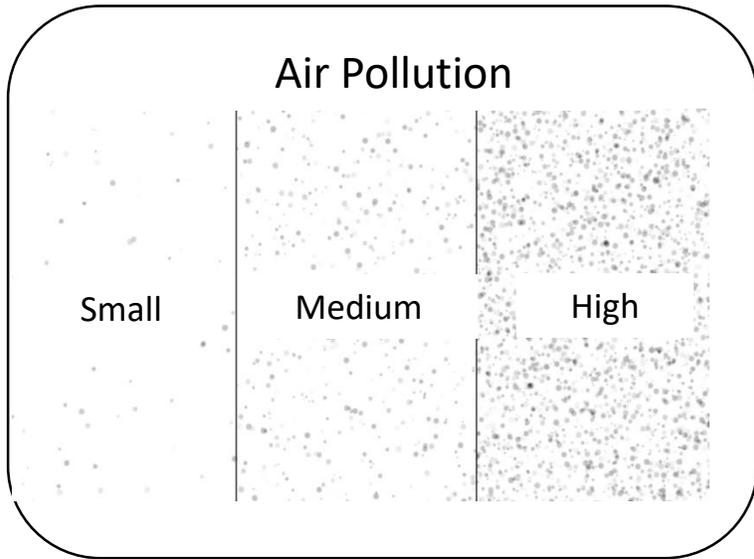
<https://www.kvpr.org/post/hearings-begin-over-kern-county-ordinance-allows-70000-new-oil-and-gas-wells>
<https://www.nytimes.com/2015/05/04/business/energy-environment/how-growth-in-dairy-is-affecting-the-environment.html>

<http://www.associatesinsectary.com/about-associates-insectary/spraying-2/>
<https://commons.wikimedia.org/wiki/File:Diesel-smoke.jpg>



Concentration

How much pollution is in the environment



Air monitoring tells you how much pollution is in the air

Various things can impact how much pollution is in the environment

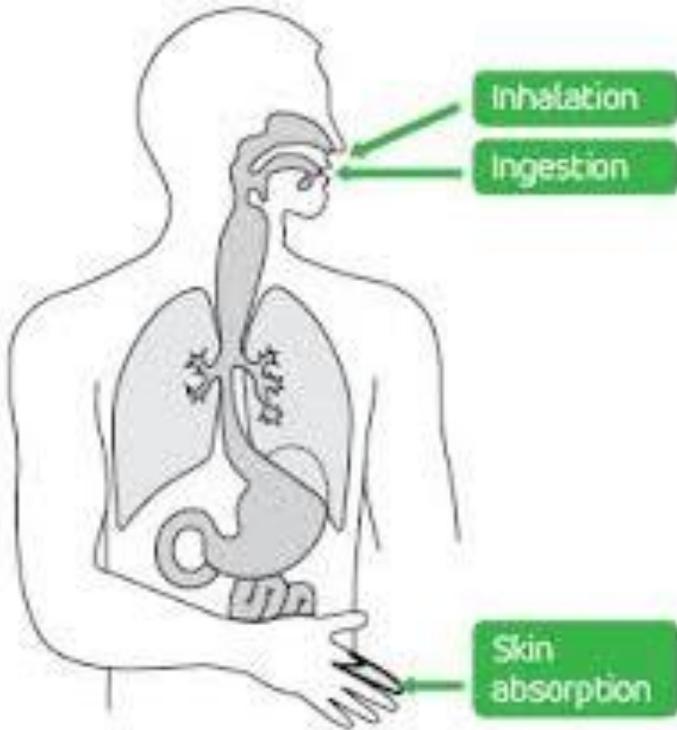
- How much pollution is released
- Temperature
- Wind speed and direction
- Mixing in the atmosphere
- Natural and physical landscape
- Interaction of pollutants



Exposure

Contact with pollution

How



Air Pollution

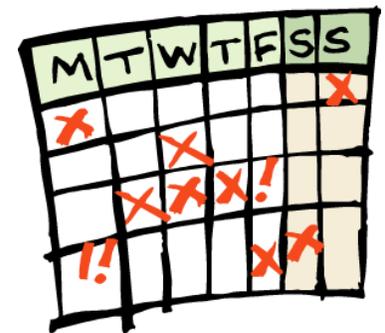
Small

Medium

High

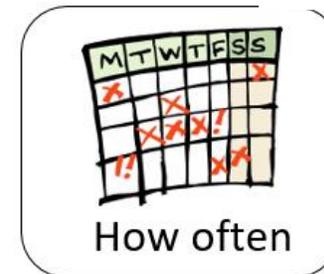
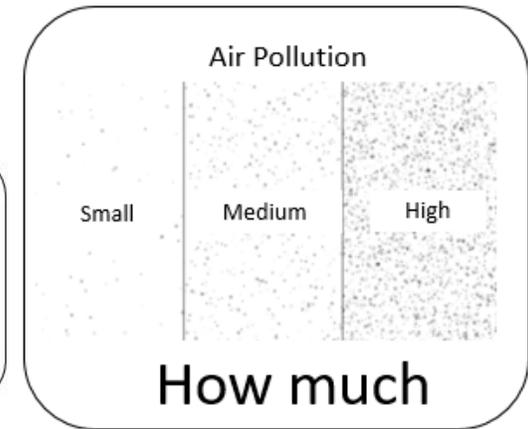
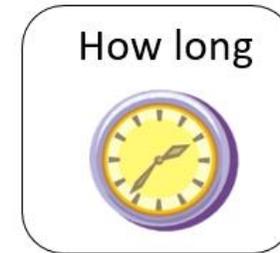
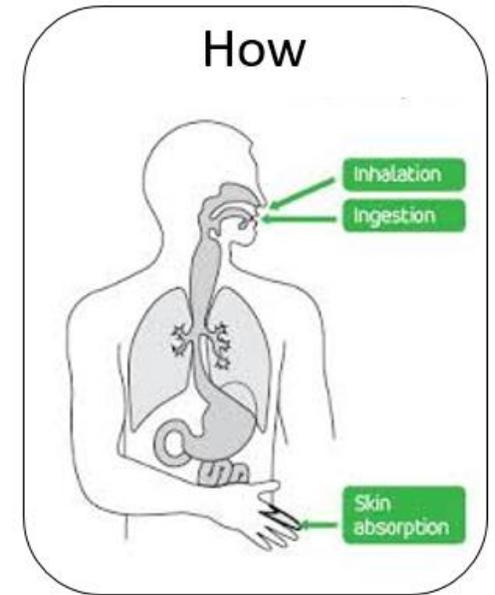
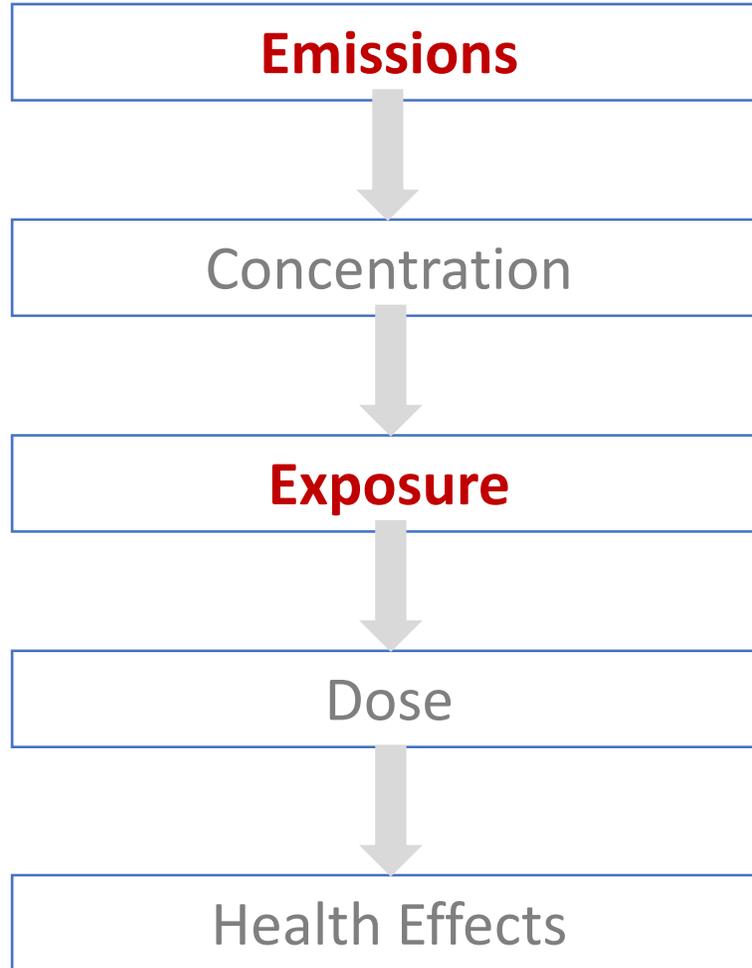
How much

How long



How often

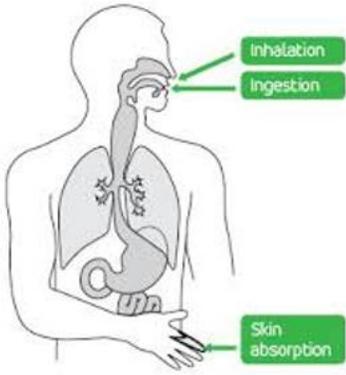
Emissions ≠ Exposure



Dose

Depends on your exposure

How



How often

How long



Air Pollution

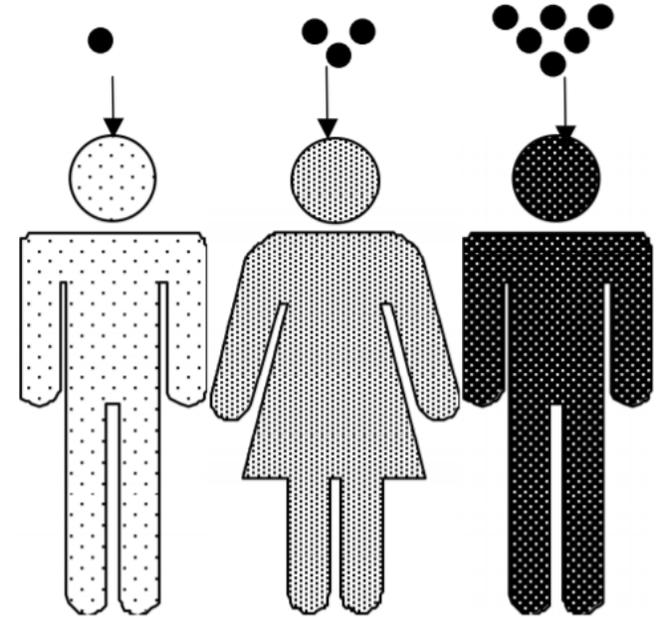
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Medium

High

How much

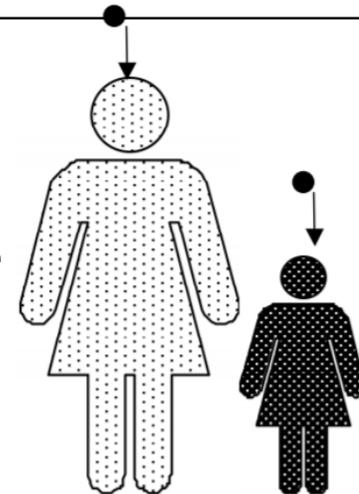
Amount of pollution that enters your body



Depends on your characteristics

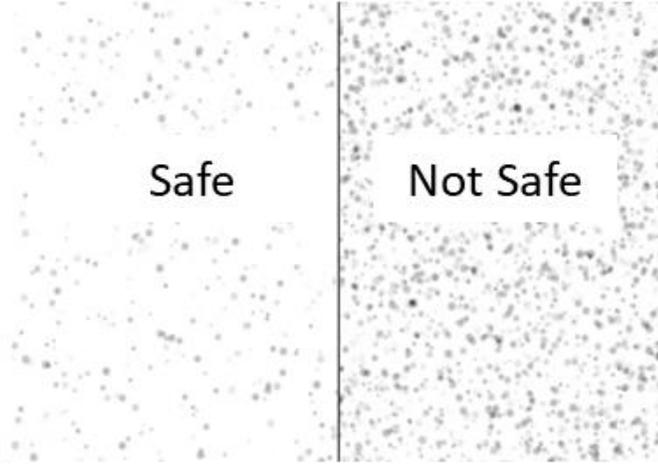


For example



Health Effects

Pollution



OEHHA develops Health Guidance Values (HGVs) for chemicals of concern

For Example



OEHHA developed HGVs for Diesel Exhaust Particulate

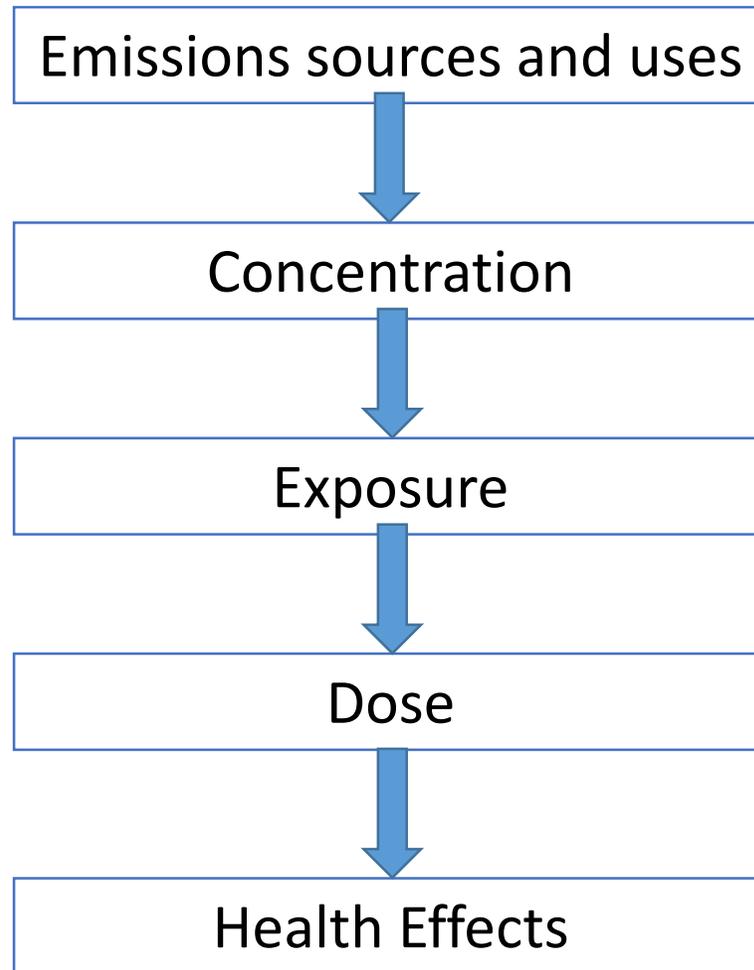


To prevent health effects



OEHHA has some health guidance values (HGVs) for chemicals

The relationship between air pollution and health



Steps used by risk assessors to identify health hazards and determine realistic goals for reducing exposure to toxics so there is no significant health effect for the public.



Announcement:

Upcoming workshops on the draft CalEnviroScreen 4.0

- Draft CalEnviroScreen 4.0 released on March 16 for public comment.
- Regional workshops in April using Zoom.
- *Imperial and Coachella Valleys on Monday, April 19, 5:30-7:00 pm.*
- An opportunity to ask questions, provide comments, and help us ground-truth the results in your community through breakout room discussions.
- More information and registration:
 - <https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40>
 - <https://calenviroscreen-oehha.hub.arcgis.com/>

