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

Develop Health Guidance Values (HGVs) for chemicals of concern
The relationship between air pollution and health

Emissions → Concentration → Exposure → Dose → Health Effects

Air Pollution:
- Small
- Medium
- High

Health Effects:
- Inhalation
- Ingestion
- Skin absorption
Emissions
The release of pollution into the environment

Agriculture

Businesses

Transportation

Office of Environmental Health Hazard Assessment
Emission Source / Use ➔ Fate / Transport ➔ Concentration
Concentration
How much pollution is in the environment

Air pollution can be classified as:
- Small
- Medium
- High

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

Air monitoring tells you how much pollution is in the air.
Exposure
Contact with pollution

How
- Inhalation
- Ingestion
- Skin absorption

How much
- Air Pollution
  - Small
  - Medium
  - High

How long

How often
Emissions ≠ Exposure

Emissions → Concentration → Exposure → Dose → Health Effects

How
- Inhalation
- Ingestion
- Skin absorption

Air Pollution
- Small
- Medium
- High

How long
How much
How often

Office of Environmental Health Hazard Assessment
Dose

Depends on your exposure

- How
  - Inhalation
  - Digestion
- How often
- How long
- How much

Amount of pollution that enters your body

Depends on your characteristics

For example
OEHHA develops Health Guidance Values (HGVs) for chemicals of concern. For example, OEHHA developed HGVs for Diesel Exhaust Particulate. To prevent health effects.
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://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40)
  • [https://calenviroscreen-oehha.hub.arcgis.com/](https://calenviroscreen-oehha.hub.arcgis.com/)