

## Methane Pollution from the Oil & Gas Industry Harms Public Health

**One in three Americans lives in a county with oil and gas production.** As oil and gas operations increasingly extend into neighborhoods across the United States, concerns have mounted about the impact of the industry's air pollution on the health of nearby communities.

Methane, the main component of natural gas and a powerful pollutant, is leaked from oil and gas industry operations at a rate of seven million tons per year, and it brings with it serious implications for public health.

### Methane pollution exacerbates the health impacts of climate change

Methane, a greenhouse gas, is a powerful contributor to short term climate change. Data from the Intergovernmental Panel on Climate Change suggests that **more than half of the warming we experience over the next two decades** due to current emissions **will be from the continued release of methane and other short-lived pollutants into the atmosphere.**

Climate change has many widespread impacts, including increased risk of harm to public health from extreme weather events such as stronger hurricanes, droughts, and heatwaves. Additionally, warmer weather extends the lives and ranges of mosquitos and ticks, expanding their ability to spread Lyme disease and other harmful diseases.

Climate change can increase levels of ground level ozone, also known as smog, exacerbating asthma and respiratory diseases.



### Methane is released along with other toxic chemicals that impact health

Toxic chemicals such as hydrogen sulfide, toluene, xylene and benzene are also released alongside methane during oil and gas industry production activities. And formaldehyde, another toxic air pollutant, is also often released from the exhaust of natural gas compressor engines.

### Elevated levels of benzene and formaldehyde have been detected near oil and gas production sites.

For example, a peer-reviewed 2014 study found potentially dangerous concentrations of benzene and elevated levels of formaldehyde near oil and gas operations.

People exposed to toxic air pollutants like these can have an increased chance of getting cancer or experiencing other serious health impacts, including damage to the immune system, and neurological, reproductive, developmental, respiratory and other health problems.

**“Climate change is already taking a toll on the lung health of millions of Americans from worsened air quality, extreme heat events, wildfires and more.”**

*–American Lung Association*

## Oil and gas operations release smog-forming pollution that degrades air quality

**Oil and natural gas operations are also the leading industrial source of smog-forming volatile organic compounds.**

Smog is a dangerous air pollutant that can harm the respiratory system, aggravate asthma and other lung diseases, and is linked to early death from respiratory disease. Several studies around the world have found increased risk of heart attacks or hospital visits for cardiovascular disease based on short and long term exposure to smog.

**Over 50 million Americans live in a county home to oil and gas operations that also has measured air pollution levels exceeding the federal health standard.**

*When you look at methane from the oil and gas sector, you are looking at opportunities to reduce ozone forming chemicals”*

*- EPA Administrator Gina McCarthy*

These high smog levels can harm everyone, but children – who often spend more time outdoors and are more likely to have asthma – are particularly at risk from these effects. Seniors, people with lung disease, and people who are active outdoors also have increased risk from smog pollution.

All of these consequences come with real costs in the form of more emergency room visits, hospital admissions, and missed school and work days.

## Strong action needed to reduce air pollution from the oil and gas industry

Smog forming compounds, toxic air pollutants, and climate-altering methane emissions are impacting Americans around the country. Recognizing these impacts, leading states have started to enact smart standards to reduce this harmful pollution and the Environmental Protection Agency recently proposed to reduce methane emissions from new and updated oil and natural gas equipment.

These are significant steps towards addressing this pollution. However, with thousands of companies already in operation across the country, **we need to ensure that there are standards in place to protect all Americans from dangerous air pollution and the worst impacts of climate change.**

## Evidence of the oil and gas industry’s contribution to poor air quality can be found around the country:

- **Utah** state officials have acknowledged that oil and gas operations are responsible for the elevated smog levels in in the rural Uintah Basin.
- EPA has found that emissions from Wise County, **Texas**, including from oil and gas collection and production in the Barnett Shale field, are contributing to unhealthy levels of smog in nearby Dallas-Fort Worth.
- A peer-reviewed study determined that a majority of the smog-forming compounds found in one **Colorado** city were a result of nearby oil and gas drilling activity. The study also found smog levels tied to oil and gas operations miles away from any industry equipment, suggesting that **this type of air pollution can travel miles and miles downwind from its source.**

