

FACE TO FACE WITH OIL AND GAS

VOICES FROM THE FRONT LINES OF OIL AND GAS POLLUTION

MOMS
clean air
FORCE

FIGHTING FOR
OUR KIDS' HEALTH



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INTRODUCTION

The oil and gas industry has become a major feature of the American landscape.



A natural gas drilling rig operates as natural gas piping rises from underground outside Rifle, Colorado.

A vast network of wells, pipelines, compressor stations, processing facilities, and other infrastructure stretches across more than 20 states and brings millions of Americans into close contact with the industry — and its pollution.

The pollution caused by the oil and gas industry is associated with serious public health impacts.

These impacts affect a broad and diverse range of Americans; anyone living dozens, and even hundreds, of miles from oil and gas infrastructure. And these impacts add to the health burden of vulnerable populations: children, pregnant women, the elderly, as well as tribal land residents, African Americans, and Latinos.

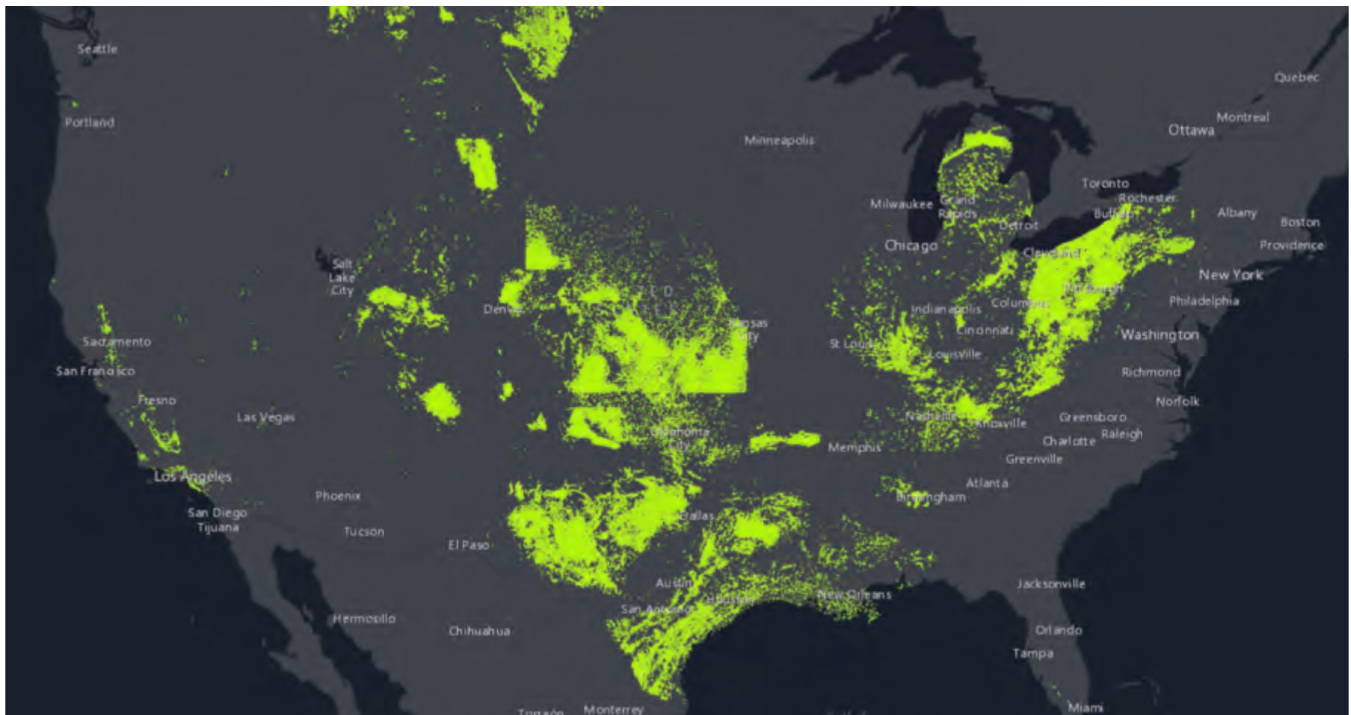
Despite the grave dangers of this pollution, the Trump administration is working to undermine and eliminate pollution prevention rules that protect our families from the oil and gas industry's harmful emissions.

This administration is effectively granting a license to pollute to an already-under-regulated industry.

In September 2018, the Bureau of Land Management finalized a new rule that stripped away safeguards from the 2016 Methane Waste Prevention Rule, a widely-supported rule aimed at preventing wasteful methane venting and flaring by the oil and gas industry on public and tribal lands. The original 2016 rule had the additional benefit of reducing air pollution that contributes to climate change and smog.

The Environmental Protection Agency (EPA) is also working to dismantle similar oil and gas pollution safeguards known as the New Source Performance Standards. Environmental Protection Agency (EPA) Administrator Andrew Wheeler is proposing to weaken and eliminate protections that curb methane emissions and toxic pollution from 36,000 recently built or updated oil and gas wells across the country.

14 million Americans live within a half mile of an active oil or gas well, compressor, or processor.



Earthworks and Clean Air Task Force

The derailment of these essential protections allows the oil and gas industry to recklessly release millions of tons of methane and toxic pollutants into the air our families breathe, posing a serious threat to public health; methane pollution also disrupts our climate, threatening public health with the grave impacts of climate change.

This report builds on data and analysis from the Clean Air Task Force and Earthworks quantifying the health impacts of oil and gas operations across the US.

By sharing the perspectives of women from across the country living with this pollution, this report brings us face to face with the health and climate impacts of the oil and gas industry.

The real life experiences of these women show the broad geographic scope of this pollution, how it affects many demographic groups in both urban and rural areas, and the importance of cleaning up the pollution — as well as the human impact of dismantling those pollution standards that protect public health and our changing climate.

OIL AND GAS POLLUTION HARMS PUBLIC HEALTH

Air pollutants associated with oil and gas operations can cause serious health impacts in pregnant women, babies and children — as well as older adults.

Each year it is estimated that the oil and gas industry emits more than 13 million tons of climate-warming methane¹, along with fine particles, nitrogen oxides, and other pollutants into our air that impacts public health. Exposure to these pollutants can cause cancer, adverse birth outcomes, blood disorders, neurological problems, reproductive problems, increased hospitalizations, respiratory diseases, and asthma attacks. In addition, many of these pollutants combine with heat and sunlight to form ground level ozone, or smog. A powerful lung irritant, smog can reduce lung function, trigger asthma attacks, and aggravate respiratory conditions.²

Children and babies are particularly affected by environmental pollution exposures because they drink more water and breathe more air per unit of body weight than adults and therefore can receive a higher dose of pollution than adults. Children's body systems are still developing, so they do not detoxify pollutants as efficiently as adults, and toxic levels of pollutants can accumulate in their bodies. Children's lungs and brains are still developing until early adulthood, so any pollution onslaught can have deleterious effects.



Girl on school playground with gas rig in background.

Children breathe more rapidly than adults do, increasing their exposure to air pollution compared to adults. They also breathe more air pound-for-pound than adults do, due to their larger lung surface area in proportion to their weight than adults, which makes clean air especially important for their health.³

Ultimately, children serve as sentinels for adverse health outcomes in the general population. They are the proverbial canaries in the coal mine.

Children are not the only ones especially vulnerable to air pollution. African Americans and Latinos also experience disproportionate health burdens from pollution. This is because they have higher rates of asthma and other underlying health conditions; have less access to healthcare; and tend to live in low income communities located closer to pollution sources such as factories, refineries, and highways.

This vulnerability of children, African Americans, and Latinos to the health impacts of pollution is the backdrop against which toxic emissions from the oil and gas industry are experienced by communities across the country. A growing body of peer-reviewed research indicates that living near oil and gas operations may be affecting the health of communities on the front lines of this industry. Peer reviewed studies conducted in Pennsylvania,^{4,5,6} Colorado⁷, and Texas⁸ have found associations between pregnant women living near oil and gas operations and an increase in adverse birth outcomes like low birth weight, preterm birth, high-risk pregnancies, and congenital heart defects.



American children suffer 750,000 summertime asthma attacks each year due to ground level ozone, or smog, caused by oil and gas pollution.

Some research has also pointed to a correlation between increased risk of asthma attacks and proximity to unconventional natural gas development.⁹ Oil and gas operations can expose children and families to air pollutants such as diesel exhaust, particulate matter, benzene, formaldehyde, and compounds that form smog, including methane. In addition to the direct health impacts of this pollution, oil and gas operations emit methane that contributes significantly to climate change, a major threat to our children’s health and future.

Air pollutants associated with oil and gas operations

AIR POLLUTANT	OIL AND GAS SOURCE	HEALTH IMPACTS
BENZENE	Occurs naturally in oil and gas; leaks during routine operations of natural gas wells, pipelines, compressor stations; also released by diesel-powered equipment.	Leukemia, asthma attacks, lung infections, low birth weight, headaches, vomiting, dizziness.
DIESEL EMISSIONS	Emitted from generators and trucks associated with oil and gas development. Pumps and compressor stations are often powered by diesel engines.	Asthma attacks, cancer, lung infections, heart disease, premature death.
FORMALDEHYDE	Emitted by compressor stations; created in the atmosphere when oil and gas pollutants, such as benzene, combine with heat and sunlight.	Asthma attacks, cancer.
METHANE	The main component of natural gas. Leaks at every point along the natural gas life cycle. Sometimes is vented deliberately into the air.	A powerful greenhouse gas that contributes to climate change. Health impacts of climate change include heat illness, asthma attacks, vector-borne infection, and disruptions to the global food supply.
PARTICLE POLLUTION	Emitted from generators and trucks used in oil and gas development. Pumps and compressor stations are often powered by diesel engines. Also caused by truck traffic.	Infant death, asthma attacks, low birth weight, heart attacks, stroke, cancer, premature death.
SILICA DUST	Sand is used in the process of hydraulic fracturing, or fracking. As sand is transported to well pads and poured into well shafts, silica dust can get into the air.	Cancer, silicosis.
SMOG (GROUND LEVEL OZONE)	Created when oil and gas pollutants, such as benzene, combine with heat and sunlight in the air.	Asthma attacks, lung infections, impaired lung development.

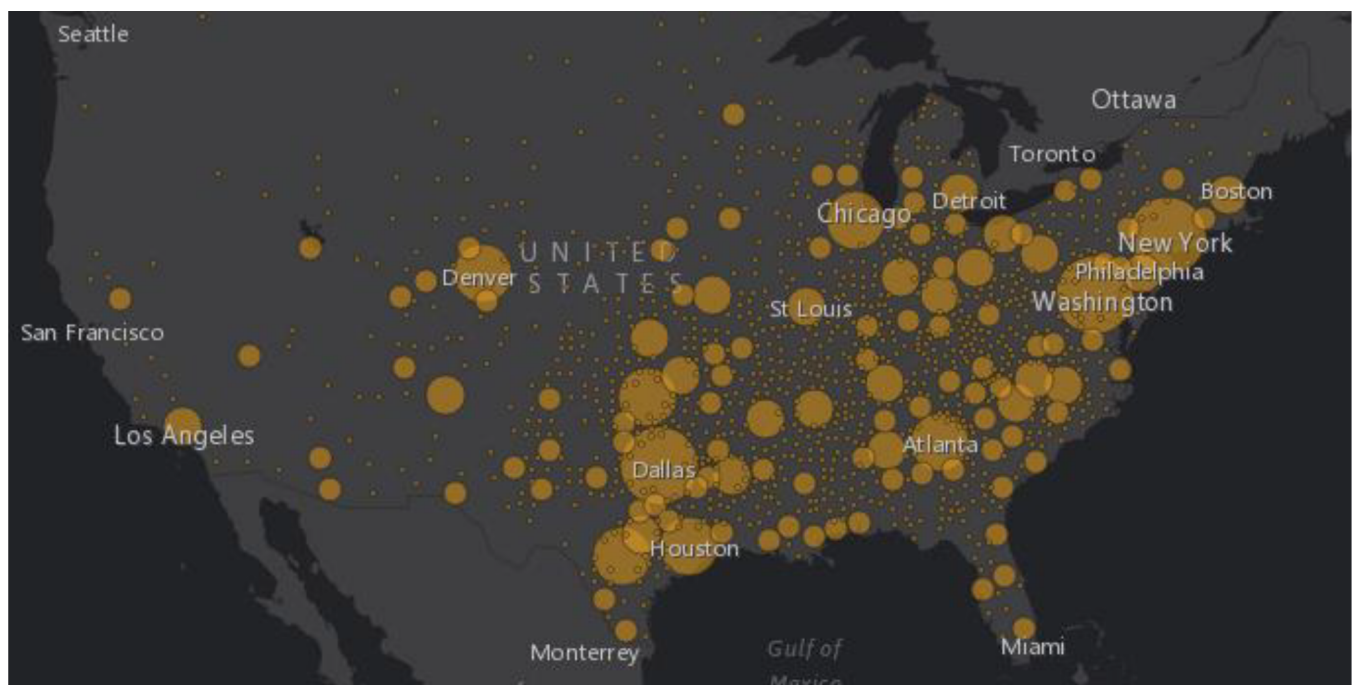
Smog

Ground level ozone, or smog, is one of the most pervasive air pollutants attributable to oil and gas operations.

Air pollution created by oil and gas activities contributes to smog formation in many parts of the country, even hundreds of miles from oil and gas production. This pollution, including methane, volatile organic compounds (VOCs), and nitrogen oxides, can travel far downwind, contributing to smog and affecting children in many states.

This poses a real threat to children who suffer from asthma across the country. Nationally, there are more than 750,000 summertime asthma attacks in children under the age of 18 and 500,000 days of missed school due to the smog resulting directly from oil and gas pollution each year. Many of these asthma attacks and missed school days occur far from oil and gas operations, in urban centers.¹⁰

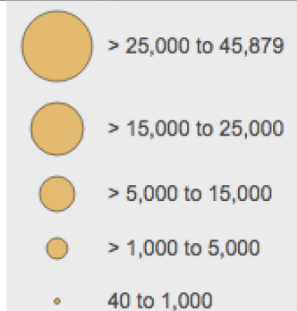
Asthma Attacks by Metropolitan Area



Air pollution from oil and gas facilities travels far downwind, contributing to elevated smog and affecting people in all of the lower 48 states. In the US, prevailing winds flow northeast, pulling smog-forming pollution from oil and gas operations into more densely populated areas.

Earthworks and Clean Air Task Force

Number of summertime asthma attacks in children due to oil and gas pollution

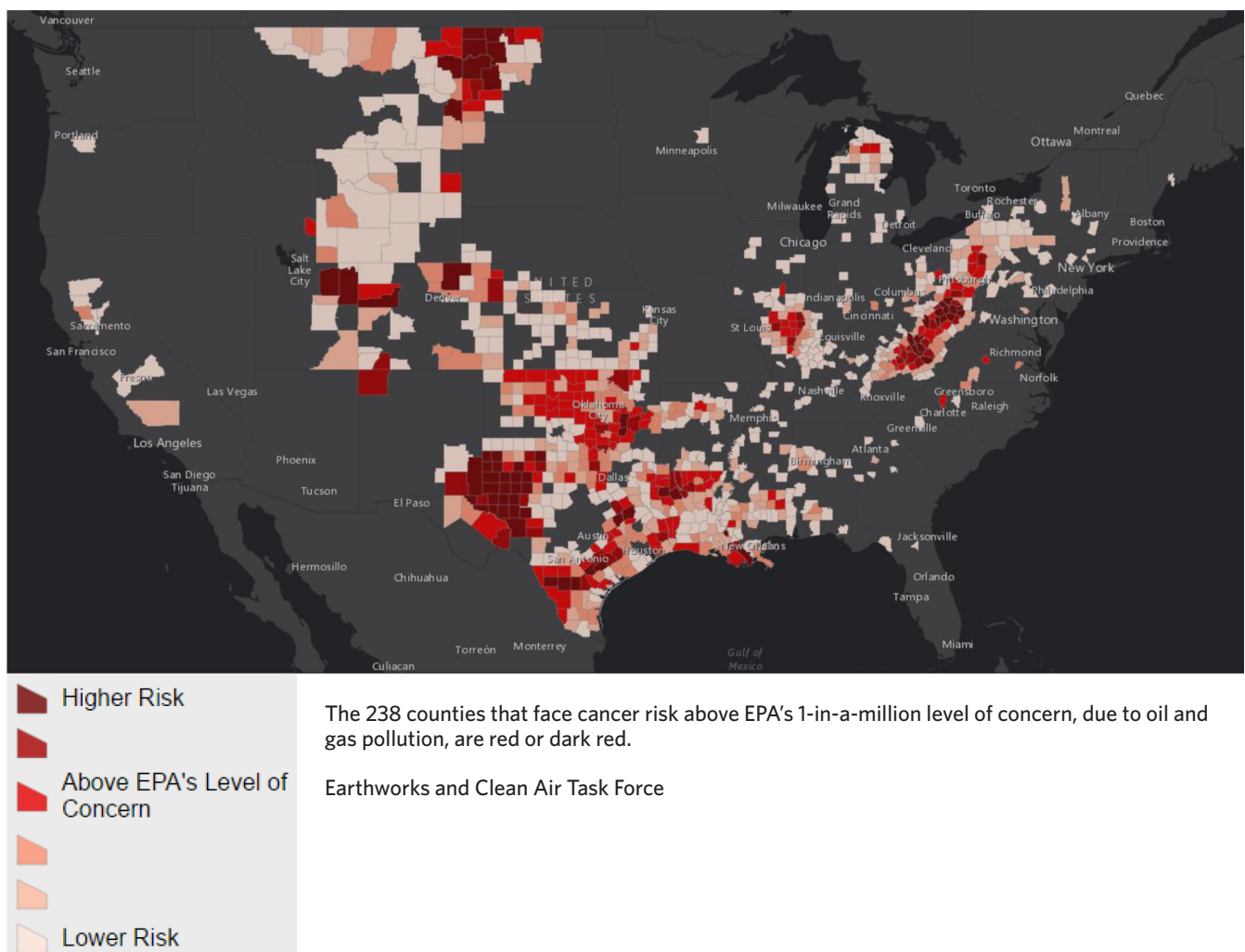


Benzene

Although methane is the main component of natural gas, harmful pollutants occur alongside it in geologic formations and can be released as air pollutants at well pads, compressor stations, and processing facilities. These VOCs include carcinogenic benzene. Benzene is a potent neurotoxin and causes childhood leukemia. This air pollution threatens the health and safety of those living nearby and downwind.

A study from the University of Colorado School of Public Health found higher concentrations of air pollutants such as benzene in close proximity to oil and gas facilities, correlating to an increased risk of health issues.¹¹ In addition to benzene, there are other VOCs that can be found at natural gas operations such as toluene, ethylbenzene, and xylene — commonly called the BTEX group — all of which are harmful to human health.

Risk of Cancer Due to Oil and Gas Air Pollution



Climate Change

Where oil and gas is being drilled, compressed, and sent through pipelines, methane can leak into the air along with dangerous co-pollutants. This not only wastes a valuable resource, it contributes to climate change.

Methane is a potent greenhouse gas that traps heat in the atmosphere. Over the first two decades after its release, methane traps more than 80 times more heat than the same amount of carbon dioxide.¹¹ Because heat increases smog formation, the increased warming caused by methane pollution creates a domino effect, further driving up smog levels — and harming our health.

In October of 2018, the world's leading United Nations scientists released a report from the Intergovernmental Panel on Climate Change (IPCC) concluding that the world must cut climate pollution 45% by 2030, and completely stop climate pollution by 2050, in order to have a chance of avoiding the worst effects of climate change.¹³

Climate change poses a vast array of other major threats to global public health, increasing extreme weather events resulting in more heat waves, flooding, droughts, and wildfires. In addition, climate change causes longer allergy seasons, increases insect populations like ticks and mosquitoes that carry diseases, makes mass migration and civil unrest more likely, and threatens the stability of the global food supply.

Methane leaking from oil and gas operations is a significant contributor to the problem of global climate change — and the Trump administration is currently unraveling national safeguards to prevent this wasteful, harmful pollution.



Compressor station complex: Compressors pressurize the gas to move it along in pipelines.



Natural gas drill rig with homes and Colorado Rocky mountains.



Pipeline valves at oil and gas processing plant.

IMPACTED COMMUNITIES

Oil and gas pollution affects a diverse cross section of America, including African Americans, Latinos, and Native Americans.

Millions of Americans live, learn, and play close to oil and gas infrastructure.¹⁴ 14 million Americans live within a half-mile of an active oil or gas well, compressor, or processor, putting them within an oil and gas “threat zone,” vulnerable to explosion, fire, and toxic pollution from these facilities. Over one million of those within the threat zone are African American, and 1.8 million are Latinos. Millions of children spend their days learning within the threat zone: 2.9 million children attend schools half a mile or less from active wells, compressors, and processors.

Too many Americans face elevated cancer risks due to air pollution. In many counties, the cancer risk due to air toxics from oil and gas operations exceed EPA’s levels of concern. In 2015, 9 million Americans lived in these counties; of these, 1.1 million were African American¹⁵, and more than 1.7 million were Latinos.¹⁶

On tribal lands, Native Americans are also vulnerable to the health effects of oil and gas pollution. The oil and gas industry dumps millions of tons of air pollutants into our air each year, and on tribal lands alone this mix of pollutants includes 18.4 billion cubic feet of methane.¹⁷ Native Americans may be far more likely than others to be exposed to oil and gas pollution. One analysis showed that Native Americans who live on the Fort Berthold Indian Reservation in North Dakota and members of the Navajo Nation in Utah and New Mexico are twice as likely to live within a half-mile of an oil and gas facility as residents of the surrounding states.¹⁸ The health burden of this pollution compounds the already significant health problems and poverty faced by many in these communities.

But the health impacts of oil and gas pollution are not limited to those living and learning within the threat zone. The smog that results from oil and gas pollution can travel hundreds of miles and affect the daily lives of those living far from oil and gas infrastructure. Smog knows no borders; it can travel long distances with the wind, which means communities near and far from oil and gas development are affected. This pollution has a major impact on children’s lives.

Smog from oil and gas pollution causes over 750,000 summertime asthma attacks in children each year;

138,000 of these are among African American children, and 153,000 of these are among Latino children. Smog from oil and gas pollution is responsible for 500,000 missed school days nationally; more than 100,000 are among African American children, and 112,000 are among Latino children.

Oil and gas pollution adds to the grave health burden already placed on African Americans and Latinos due to systemic oppression, which exposes vulnerable communities to health, economic, and social hazards.^{19, 20} When oil and gas pollution reaches these communities, that translates into a disproportionate health burden on Latino and African American communities.²⁰

NEED FOR METHANE SAFEGUARDS

Americans rely on the protections from the federal government to reduce methane leaks. Methane leaks from oil and gas operations can be invisible and can happen anytime, anywhere.



Left image shows normal view of West Texas oil and gas facilities. Right image is infrared view of the same facility, showing normally invisible pollution.

The only reliable way to reduce this pollution is to regularly check for and repair leaks.²¹

Unfortunately, most states across the country lack meaningful standards for leak detection and repair, which means that Americans rely on the protections provided by the federal New Source Performance Standards (NSPS), finalized by the Environmental Protection Agency (EPA) in 2016, and similar standards finalized by the Bureau of Land Management (BLM) that apply on federal and tribal lands, to protect us against methane and other harmful pollution from the oil and gas industry.

The EPA's pollution standards apply to 36,000 recently built or updated oil and gas wells across the country. In order to reduce toxic emissions and comply with the EPA's standards, "new and modified" facilities are required to install pollution control equipment when they are first built or when an older facility is modified as well as regularly inspect and fix leaky equipment.

By 2025, EPA's standards will reduce emissions by 510,000 tons of methane, along with 210,000 tons of volatile organic compounds and 3,900 tons of hazardous air pollutants.²² The BLM's rule applies similar requirements to find and fix leaking oil and gas infrastructure to all wells on federal and tribal lands across the country and also requires operators to minimize flaring, the burning off of gas.

FACE TO FACE WITH WOMEN ON THE FRONT LINES

The following are the stories of women from across the country who face the effects of oil and gas pollution in their families and communities every day.



JANE WORTHINGTON PENNSYLVANIA

Mothers shouldn't have to worry about their children being exposed to harmful air pollution while they're on the playground during recess or in the park on the weekend.

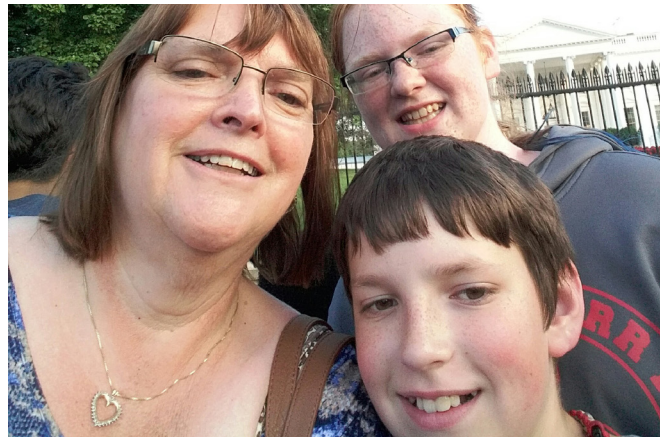
But that's what's happening to 2,944,785 children who are attending a school or a daycare within a half-mile of an oil and gas facility.

In the beautiful rolling hills of rural Western Pennsylvania, where natural gas facilities litter the landscape, Jane Worthington and her daughter Alexis Elliot live.

Unfortunately, Alexis is one of almost three million children attending school within half a mile of oil and gas operations.

Without federal safeguards to limit pollution at these industrial facilities, children like Alexis and hundreds of thousands of others across the country can be exposed to air pollutants such as methane, benzene, and compounds that cause smog.

Jane's training as a nurse makes her especially aware and concerned for her daughter's health. "When Alexis was 10 years old, she developed asthma-like conditions then rashes and infected eyes. Then she had gastrointestinal issues, bullseye rashes, and swelling of the joints...and lots of uncontrolled bloody noses," said Jane, who was dumbfounded as to the cause of Alexis's symptoms.



Alexis was sent to a toxicologist to test for chemical exposures and Jane was stunned to learn that her daughter had tested positive for benzene exposure exceeding the allowable limit for her age. Jane knew that "benzene exposure increases the risk of cancer over a person's lifetime. Some people can flush their systems. Alexis, evidently, cannot."

It was Alexis's health problems that made Jane take notice of her children's environment.

Jane noticed the natural gas well pads going up approximately a half mile from her daughter's school building and realized that Alexis's ongoing symptoms coincided with the cycle of gas well development.

Jane thinks Alexis may have been exposed to benzene from these local gas wells but it is difficult to prove.

Jane has taken action by raising her voice and advocating for air pollution safeguards to protect children's health. She now speaks at many events and meets often with her local, state, and federal elected officials.²³

JILL ANTARES HUNKLER

OHIO

“You know you’re in trouble when you see the fracking trucks arrive.”

That’s what Jill Antares Hunkler said to her sister the first time they spotted one of the many trucks needed to build the oil and gas infrastructure lumbering through their small village of Barnesville, Ohio. A compressor station was built less than a mile away from her home and once it was operational, life changed forever for her family.

“First, we noticed the odors and had nose, eye, and throat irritation as well as headaches. Then the symptoms worsened over time with nausea, vertigo, rashes, mental confusion, disorientation, numbness, body aches and pains.”

Jill knew she had only one mission: To protect her family, community and the traditional Native American healing ceremonial retreat located on her property. This mom, teacher and artist who honors her Native American roots added “environmental activist” to her portfolio and began researching what the potential impacts of oil and gas operations would have on her family’s health.

Jill contacted others who had lived near compressor stations and found they suffered similar ailments.

She became convinced that there was an emissions problem with the compressor and voiced her concerns to local and state officials. Because oil and gas air pollution



can be invisible, Jill enlisted help from the organization Earthworks to use their Forward Looking Infrared (FLIR) camera to film the air pollution at the compressor station. This camera makes invisible air pollution, such as methane, visible. Sure enough, the FLIR camera revealed extensive emissions from the compressor station. “The camera showed gases clearly appearing as grey plumes above the stacks moving across the facility fence line, and also showed venting from the storage tanks.”

Jill knew there was power in numbers and joined others in her community to fight for air and water protections from oil and gas operations. She also created a website, Ohio Allies, that provides current information to activists and elected officials who need to know more about how oil and gas operations will impact their community.

“We hope to make great strides to further water, air quality and land conservation efforts. Our pursuit is fueled only by the innate knowledge that it is our responsibility to future generations to leave a legacy of love and protection for our amazing planet.” Jill draws strength from her native and religious background to sustain her, along with her passion for the issues. “By honoring the ways of the Ancestors, we become empowered by the truth to take action...becoming the solution for this and future generations.”²⁴

MISTI O'QUINN AND CHERELLE BLAZER

TEXAS

Every summer, pollution from oil and gas operations causes smog, and triggers asthma attacks, in states across the country.

Nowhere is this more pronounced than in Texas, where oil and gas pollution is responsible for more than 140,000 summertime asthma attacks in children, and more than 105,000 lost school days due to asthma²⁵ — more than any other state. At the city level, the Dallas Fort Worth area has the most asthma attacks due to oil and gas pollution of any city in the nation, with more than 45,000 summertime asthma attacks in children due to oil and gas pollution, and more than 33,000 lost school days.

Misti O'Quinn, a mother of three school-aged children who lives in Dallas County, Texas, has come face to face with the serious health impacts of oil and gas pollution.

Two of her younger children suffer from moderate to severe asthma, which is exacerbated by exposure to smog. There are six wells and four compressor stations in Dallas County and thousands more to the West of Misti's community. Nearby oil and gas operations pose a serious threat to her children and other vulnerable communities — especially because air pollution is carried by the wind and knows no borders.

Earlier this year the American Lung Association gave this area a failing grade for smog in their annual "State of the Air" report.



"As I tell folks, just because you can't see air pollution doesn't mean you aren't breathing it," says Misti.

This underlying vulnerability in her community prompted Misti to join her cousin Cherelle Blazer who founded the group, Breath is Lyfe. Their goal is to help educate fellow parents in communities about the state of their air and how it can affect health.

Cherelle, who recently moved to New Orleans, experienced first-hand the impacts that air quality can have on health while living in Mansfield, Texas, in the Fort Worth area. "We had multiple gas wells within a mile of our community. The closest one was about 800 feet from our home." Because Cherelle's husband and three children have asthma, she is acutely aware of how the environment can trigger asthma attacks. "The whole family suffered allergy-like symptoms year-round along with eye and nose irritation. My youngest would often have nosebleeds. I had constant headaches and numbness in my arms." She wonders if the nearby gas wells were connected to these health problems. While Cherelle was pregnant with her youngest child, her husband had an asthma attack so severe that it sent him to the hospital where he slipped into a coma for three days.

Cherelle knows that air pollution can make her family's already-serious asthma even worse. Her determination to protect her family from health impacts of poor air quality has led her to the work she does today.

Cherelle and Misti draw upon their own experience and knowledge to help communities fight for clean air through Breath is Lyfe.

Misti explains, “It all starts with air quality education. Next, we push our families to take concrete action because there are things we can do—and no one needs to take the bad news sitting down!”

Misti's advocacy work has brought her in touch with low-income families struggling to keep up with trifecta of missed work, missed school and mounting bills. “Let's face it, the medicine used to treat asthma is not cheap, and when you don't have health insurance, what do you do?” In the lower income parts of town that Breath of Lyfe mostly serves, poverty is an extreme insult to the real injury caused by air pollution.

Oil and gas pollution in Dallas County adds to the health burdens already experienced by African Americans — who face systemic oppression, higher poverty rates, and higher asthma rates compared to white Americans. According to analysis from the Clean Air Task Force and NAACP, the Dallas-Fort Worth area is the worst city in the nation when it comes to the health burden on African Americans from oil and gas pollution. There, African American children experience more than 8,000 summertime asthma attacks, and miss more than 5,800 days of school each year, due to asthma attacks from oil and gas pollution.²⁶

“Sadly, the Dallas area is no stranger to smog formation. In fact, our city is in a state of non-attainment and has been for quite some time. This means our air is too dangerous

to breathe.” On high smog days, Misti keeps her younger kids inside. This is a drill she knows all too well. This past school year, she said the impact to her family was not without consequence.

“As a single mom, I am the first responder when it comes to my kids' health. In fact, I work from home just so that I have the freedom to respond right away to the asthma attacks. This last school year, for example, our family had flare-ups that forced my daughter to miss an entire week of school.”

Recently, Misti took a family trip to another part of the country where the quality of the air was in full attainment of our nation's clean air goals—and her children could literally breathe the difference.

“I was able to imagine what it might be like to live in an ‘A for ozone’ area—with my children playing outside freely. Free to run outside without coming in short of breath.”



SHIRLEY “SUG” MCNALL

NEW MEXICO

Shirley McNall is nicknamed “Sug,” which is short for sugar. But don’t think this grandmother eco-warrior is a sweet pushover.

She describes herself as “an independent Granny who is advocating for a cleaner environment for now and for future generations,” and she’s leading the charge to protect her family and community in northwest New Mexico in the small town of Aztec.

Sug remembers when her family moved into town so their daughter could go to junior high. They ended up in a house only 2,400 feet from a gas well.

“It started leaking,” she remembers. “Gas would get into the house at night. We were terrified our heater would spark it and cause a big explosion.”

“It dawned on me that this is not good!...I’ve been a busy bee working on this ever since.”

By “working on this,” Sug means organizing seminars on the threats oil and gas operations pose and taking visitors on a “Toxic Tour of Hell” she’s put together. The tour includes visiting residential neighborhoods that are dotted with leaky gas tanks, oil on the ground, fumes venting into the air, and non-stop compressor noise.



Though it seems unthinkable that Americans would have to live under such duress, Sug attributes the crisis to the fact that “the average American thinks natural gas is a clean fuel.” But it’s not. “It’s dirty and unhealthy,” and Sug tries to educate folks by showing them just exactly how bad it is.

Although burning natural gas emits half the carbon dioxide as burning coal in power plants, the process of getting oil and gas out of the ground to market creates methane pollution. Methane, the main component of natural gas, is more than 80 times more potent than carbon dioxide over a twenty-year time frame. In addition, leaking methane comes packaged with other harmful pollutants that impact the health of those who live, work, learn and play nearby.

Sug is particularly concerned that so much fracking is going on so close to where people live and kids go to school.

In her San Juan county, the oil and gas industry is allowed to drill as close as 100 feet from a house. Children are especially vulnerable to air pollution since their bodies are still developing and have a longer time to live with environmental onslaughts that can develop into diseases.

"At the local elementary school, there's a gas well 400 feet from the school building. I've been there and found leaks twice, so severe they were overwhelming," Sug reports. "The stink coming out of that well! Teachers have complained that they can smell it in their classrooms."

Oil and gas operations can expose children to the health and safety risks from air pollutants such as methane, diesel exhaust, particulate matter, and VOCs like benzene.

But Sug says that the wells being drilled in and around her community also contain hydrogen sulfide. Hydrogen sulfide, which smells like rotten eggs, can affect the brain and upper-respiratory system causing nausea, headaches, delirium, and dizziness. In a short period of time, exposure to the gas can lead to unconsciousness, followed by death.

"Every oil and gas employee is required to wear a hydrogen sulfide monitor," she notes. "If it goes off, they know they can't go near the well." Regular citizens like Sug have no such protection — even though there are eight gas wells within a half mile of Sug's house, and she believes that four of them are hydrogen sulfide positive.

Sug recounts one Christmas Eve day when, walking to retrieve her newspaper from her mailbox 900 feet down the road, the air pollution was so toxic she became dizzy, disoriented, and almost too wobbly to walk. She knew if she collapsed she'd freeze to death so she forced herself to make it back to her house. Later, representatives from the company constructing the gas wells in the area came out to investigate and discovered a new gas well was leaking.

"I could have died out there," says Sug.

Sug notes that as a country, we need to use a lot more clean renewable energy, but she doesn't expect that switch to happen particularly fast under President Trump.

"Trump doesn't care if we all drop dead from dirty air tomorrow," says Sug. As for all the clean air and methane protections on the books, she believes that "they're being thrown in the toilet" by the Trump administration.

Still, she declares, "We can't give up."

"I realize we need jobs, energy, and income," she notes, referring to the arguments often used to justify fracking. "But our health, and the health of our kids, is more important. We need to protect children who are vulnerable to air pollution."

Sug has a great grandbaby and she is fighting for his right to breathe clean air into his little lungs.

"That's the reason I don't sit around eating chocolate and knit booties," she says with a chuckle.²⁷



STACY LAMBRIGHT

COLORADO

Sure, kids get nosebleeds — once in a while. But when Colorado mom Stacy Lambright's son and daughter started getting them regularly, she knew something was up.

She looked around her community and realized one thing that was different since she and her husband had uprooted themselves from Indiana and planted themselves in Thornton, CO, just north of Denver: the amount of oil and gas nearby.

Stacy is a sustainability professional and has been working in the sustainability field for over 20 years on energy efficiency, clean energy, hazardous waste and water and resource conservation. "I'm aware of what's going on around me environmentally and socially," said Stacy. In other words, she was concerned about the pollution implications of all the gas rigs popping up on the landscape in Adams County where she lives. The more she investigated, the more concerned she became.

An oil and gas well is an industrial operation – and 500 new wells had been permitted in just a 4-6 mile area. In the state of Colorado, there are currently approximately 50,000 active oil and gas wells and over 20,000 that are abandoned. What amazed Stacy was that some of those wells were just 500 feet from people's homes. Some are located right next to school playgrounds. At Aspen Ridge Preparatory School in Erie, CO, for example, wells have been documented to be leaking and venting as little as



25 yards from the playground. Air pollution can be seen wafting towards the playground in a video taken by the organization Earthworks with an optical gas imaging camera that makes invisible air pollution visible.

Learning about the scope of oil and gas operations in her area, and the air pollution problems, sparked deep questions for Stacy.

"Ultimately, I didn't want oil and gas fracking anywhere near my family or community," she said.

"We live in Colorado, where we take pride in our community and natural beauty and in how "green" we are. To know you've bought a house where you're risking your family's health and safety? It's horrible. I don't want to move because we set our roots here...our kids don't want to move. But what am I doing by staying? Am I jeopardizing my family's health? Is everyone going to get cancer?"

As Stacy grappled with these questions, she realized that the ultimate goal has to be to protect her family, community and state.

One of those steps was to join Moms Clean Air Force and start getting involved nationally. Stacy wanted her voice to be heard.

With Moms Clean Air Force she trekked around Capitol Hill with teen kids in tow, visiting the staff of her Congressional delegation to discuss the health effects of oil and gas pollution.

Another step was to start organizing locally. "We have held numerous meetings at local schools, rec centers and neighborhood house parties to explain the basics. Our most recent meeting we expected 50 people and over 125 people showed up. You should see the look on their faces...they can't understand how this can happen. It is so important to become educated with real science facts and that is what we are presenting in these meetings."

Stacy thinks that our current president and federal administration are prioritizing the protection of polluter profits over children's health. "Trump's going to ruin everything we have in place for air quality...set us back 100 years," Stacy believes.

In addition to her Capitol Hill visits and local organizing, Stacy sometimes considers another way she could make a difference: by running for office herself.

"People are pouring thousands of hours into working with our elected officials, trying to get them to understand. But not many of them are listening. Candidates and incumbents get so much money from the oil and gas industry, they turn a deaf ear. Meanwhile, the industry dumps so much money into local campaigns, they make sure oil and gas proponents get elected. We have seen a change in the last election and people getting elected because they want to ensure the health and safety of their community. A change is coming and more and more people from every political view are fighting this battle."

***Says Stacy, "I only have so many years with my kiddos left. I want to get them through high school." And then... "I'll run for office."*²⁸**



DIANA JARA CALIFORNIA

Lakewood city, in Los Angeles County, has lots of parks and family-friendly outdoor activities, which is part of why it appeals to such a diverse population of families.

As a Hispanic mother of two school aged children, Diana Jara loves that her children are exposed to many different cultures in Lakewood.

One thing Diana doesn't love about Lakewood? The air pollution. Los Angeles County has the dubious distinction of being one of the nation's most polluted counties.

It received a failing grade for both smog and particle pollution in the latest State of the Air report from the American Lung Association. To make matters worse, there are 4,247 oil and gas production facilities in Los Angeles County that contribute smog-forming pollution to the already-dire smog problem that blankets the county.

Working as a Specialized Healthcare Aid, Diana has dedicated her life to ensure that children are protected and get the best care available. She works in classrooms to advocate and care for children who have specialized healthcare needs. But this isn't just her professional expertise. Diana also has first-hand experience as a mother in caring for a child who has a serious respiratory disease, asthma. Diana remembers when her daughter, Alma, was four years old and in preschool right before she was diagnosed with asthma.



"Alma would run around with her classmates before the bell rang and she would complain about her chest hurting as she was wheezing."

A mother's keen instincts kicked in. "I knew something was not right because she looked more distressed than other children her age in terms of just getting tired. I took her to the doctors and she was diagnosed with asthma." Alma was prescribed an inhaler to manage her asthma and from that day forward, it was always close at hand.

Putting her health care background to use, Diana educated herself about asthma and was determined to give her daughter the opportunity to live the best life possible.

"I am proactive about managing my daughter's asthma and look up the weather online to see if it will be windy because the bad air can be carried into my community from the surrounding areas."

Diana knows that air pollution from across the county can exacerbate Alma's asthma.

Diana is one of hundreds of thousands of Latina moms dealing with the health impacts of oil and gas pollution. Hispanic children are already disproportionately affected by asthma across the US, due to a combination of genetic, environmental, socioeconomic, and other factors.

Hispanic children are slightly more likely than non-Hispanic white children to be diagnosed with asthma (12.7% vs 11.7%) but are 70% more likely to be admitted to the hospital for the disease, and twice as likely to die of the disease compared to non-Hispanic white children.²⁹

For a community already vulnerable to the health impacts of asthma, the health burden of added oil and gas air pollution can be serious. “Latino and other communities of color face so many unfair and unjust challenges of just trying to live every day. Nobody’s children should have to be burdened with health challenges due to being born in a community of color or a low-income community.”

In Los Angeles county alone there are 364,566 Latinos living within a half-mile of oil and gas facilities, and nationwide there are more than 1.81 million Latinos living within this threat zone.

Unfortunately for many Latino children who have asthma, the outdoor air quality determines daily activities. Alma is a typical twelve-year-old who loves being outdoors and participating in activities like visiting her neighborhood parks with friends and spending time with the animals at her beloved equestrian center. Diana makes sure that her daughter has an inhaler with her at all times and often worries about asthma triggers. Smog is one of Alma’s most frequent asthma triggers.

If smog levels are high, Diana moves Alma indoors. At school, Alma needs to make a trip to the nurse’s office to use her inhaler before she participates in Physical Education. Last school year she missed 6 days due to asthma-related issues. Some of these lost school days may be directly attributable to the oil and gas air pollution in Los Angeles County. And this is a problem nationwide:

As a result of smog from oil and gas emissions, Latino communities nationwide are burdened by 153,000 childhood asthma attacks and 112,000 lost school days each year.

“Our air quality needs to be better and there is definitely room for improvement. Our elected officials can do better and need to do better for our children’s health. I look at children as seeds that need a healthy environment to grow into beautiful flowers and keep this in mind when I vote.”

Diana recognizes the power of voting for change. That’s why she educates herself about the issues and candidates that will protect all children and makes sure she goes out to vote. “It is important to show up to vote and then to hold those elected into office accountable to make the right decisions to protect our children.”

Diana encourages everyone she knows to get out to vote because there is so much at stake today and for future generations with climate change. “If we don’t make the right choices now, our children may not have a choice later.”



HEALTH EXPERTS OPPOSE ROLLBACKS OF POLLUTION SAFEGUARDS

Healthcare professionals from across the country are concerned about the health impacts of pollution from the oil and gas industry.

Public health and environmental organizations and experts have weighed in multiple times on the importance of federal rules that limit pollution from oil and gas development. This includes the American Lung Association, the Alliance of Nurses for Healthy Environments, the American Thoracic Society, and others.

In August 2017, over 150 environmental and public health organizations sent a letter to the EPA in favor of reducing methane emissions and in support of the 2016 methane rule. In their letter, the groups said:

“Given the damage that results from oil and gas emissions and the readily achievable, low-cost opportunities to reducing those emissions, regulation is both necessary and warranted. Curbing methane emissions from the oil and gas industry is a “win-win-win-win” solution that can reduce waste, curb greenhouse gas emissions, and improve air quality and public health.”³⁰

Dr. Elena Rios, President and CEO of the National Hispanic Medical Association, has also weighed in on the impacts of air pollution from oil and gas production. “Latino families are disproportionately suffering the effects of air pollution from gas oil production. Our children are suffering from more asthma attacks than non-Latino white children. Latino adults are experiencing higher rates of cancer and respiratory issues, like asthma attacks, partially as a result of this pollution. These harmful trends need to stop. We can’t have a healthy nation if the Latino community is lagging behind due to these types of environmental injustices.”³¹

“The effects of oil and gas pollution are disproportionately afflicting African Americans, particularly cancer and respiratory issues, and the trend is only increasing,” said Dr. Doris Browne, National Medical Association President. “Our membership is seeing far too many patients in communities of color suffering from these diseases. It is our goal to fight to reverse this dangerous trend.”³²

“There are far too many communities around the country dealing with the health impacts of pollution from oil and gas operations,”

said Katie Huffling, Executive Director of Alliance of Nurses for Healthy Environments.

“Both urban and rural areas are feeling these impacts. This pollution adds to the health burden of communities already disproportionately impacted by asthma, cancer, and other major health problems. It is vital that strong national safeguards against methane and other dangerous oil and gas pollution be strengthened, to protect the broad range of Americans from all backgrounds who are facing the health burden of oil and gas pollution today.”

CONCLUSION

The Trump administration has unleashed an all-out assault on common sense standards that keep our communities safe from pollution and reduce natural gas waste.

In September 2018, the Bureau of Land Management (BLM) finalized the rollback of the Methane Waste Prevention Rule, which limited venting and flaring of methane from oil and gas operations on public lands.

Currently, the Environmental Protection Agency (EPA) is working to dismantle oil and gas pollution safeguards known as the New Source Performance Standards. EPA Administrator Andrew Wheeler is proposing withdrawals and amendments with the goal of undermining safeguards that curb methane emissions and toxic pollution from 36,000 recently built or updated oil and gas wells across the country.

Americans need EPA's and BLM's rules to protect them from methane and other harmful air pollution resulting from oil and gas activities



Flaring on public lands.

Our families are already paying the price for oil and gas leaking and venting, and we will continue to do so as this administration continues to unravel these critical pollution safeguards.

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Moms Clean Air Force is a community of over one million moms (and dads) united against air pollution – including the urgent crisis of our changing climate – to protect children’s health.

We empower parents to take action
to protect every family’s right to breathe clean air.

www.momscleanairforce.org