

Asthma And Injustice On Chicago's Southeast Side

Jones, Kohar . Health Affairs ; Chevy Chase 35.5 (May 2016): 928-931.

[Collegamento al documento ProQuest](#)

TESTO COMPLETO

Headnote

A physician discovers a potential environmental link to asthma attacks in a poor Chicago community.

The woman sitting on the exam table in my office wheezed, "I can't breathe," her dark brown nostrils flaring and neck muscles straining to pull air into her lungs. "Five hundred and six dollars, doc!" she gasped, as I listened to her lungs. "Five hundred and six!"

That's how much the asthma medicines cost that she had been prescribed one week earlier by the hospital doctors before they sent her home. Because of the high price, she hadn't filled the prescription. She had no job, no health insurance, and no money. Now, in my office, she was panicking as her breath failed her. I felt for her, but all I could do was send her back to the hospital for a readmission. She was only one of many of my patients suffering from asthma- and the health consequences of joblessness.

My first job as a family physician straight out of residency began at a federally qualified health center on Chicago's South Side in September 2008. As the global economy fell into a tailspin, what little employment that was available to the neighborhood residents disappeared. I split my time between two clinic sites. The main site was in the South Chicago neighborhood. The second, a satellite clinic, was brand new, set up in two converted band practice rooms of a high school in a neighborhood further south, called the East Side, which followed the shores of Lake Michigan curving to the east toward Indiana. Illiana, some locals called the area. If I drove two minutes east from the clinic, I'd cross the state line into Indiana, where gas was cheap.

Chicago's Southeast Side has been struggling economically since the steel mills that fueled employment in the industrial corridor were shuttered in the mid-1980s, leaving behind industrial waste sites and unemployment. In 2008 the average income in the area was \$15,000, and the baseline unemployment rate was 15 percent. Many whose families had emigrated from Eastern Europe had left, and Hispanic immigrants had moved in. Those who were tethered to their homes stayed.

My morning drive to work brought me past main commercial drives with anemic foot traffic and shuttered stores, then across the drawbridge over the Calumet River made famous in the film *The Blues Brothers*. As I went from South Chicago to the East Side, I would pass enormous piles of stuff-metal scrap, rock salt, a gritty black substance I didn't recognize-sitting in outdoor, open-air storage facilities surrounded by chainlink fences at the side of the river. "That can't be good," I thought, looking at the black mounds.

It was years before I learned what the piles were and how bad the situation really was.

A Deadly Combination

I was a brand-new doctor at the federally qualified health center, whose mission was to provide access to high-quality care for everyone, regardless of their ability to pay. Ninety-five percent of our patients had incomes below 200 percent of the federal poverty level. More than half spoke primarily Spanish. Few had health insurance.

"What brings you to the clinic today?" I'd ask my new patients.

"Well, I lost my job," they'd begin, "and with the job, my health insurance. So, now here I am." Underlying their

medical problems were sociomedical problems: no jobs, no money, no health insurance, and no medications. Many of my patients had asthma. They would come to me wheezing after they had run out of their meds. One woman brought her asthmatic son, who was struggling for air, and confessed to buying three months' worth of medication just before her job ended and her insurance ran out, and trying to stretch the supply out across a year. She went from giving her son treatments every day, to every other day, to every third day. Seven months into the year, his wheezing had returned. I had to send the boy to the emergency department (ED) for treatment.

Working with uninsured asthma patients taught me how much medications cost. As one patient had lamented, it cost \$506 for an inhaled steroid for long-term control, plus the cost of an allergy medicine and an albuterol inhaler for quick relief. Without the means to pay that amount, patients bounced in and out of the hospital. I learned to prescribe generics off of the \$4 Walmart and Target lists and connect uninsured patients with the health center's 340B drug discount program, which provides federal subsidies that make a list of essential but expensive medicines more affordable at \$15 each or free for the homeless. But not all doctors knew of these workarounds, and not all patients got the medicines they needed.

I was grateful when the Affordable Care Act passed, and all of my patients now had access to health insurance—even if they didn't always have access to care in our overburdened safety-net system.

But asthma is not only a disease of health care access. It is also a disease of environmental quality. And my patients suffered in this respect, too. Uniformly, cities have poor air quality, and demographically, cities are home to many of the richest and poorest Americans. For the well-off living in luxury apartments overlooking parks, with purified air and homeowners associations that meticulously maintain the grounds, the asthma exacerbations triggered by pollution can be treated with medical care whose costs are covered by comprehensive health insurance. Poor residents lack this coverage and might live in neighborhoods that line highways and abut toxic waste dumps, or live next to factories that spew toxins into the air. These threats to respiratory health are compounded by potential asthma triggers within the home—cockroaches, mold, and mouse droppings—that landlords in poor developments might ignore.

The combination is deadly: Higher rates of asthma as a result of more indoor and outdoor environmental triggers paired with limited or no access to asthma treatments means more asthma hospitalizations and deaths.

Across the country, according to 2013 surveillance data from the Centers for Disease Control and Prevention, about 6.1 million children and 16.5 million adults have asthma. About 3,500 people die from asthma each year. According to a 1999 study, Chicago's death and hospitalization rates for asthma are twice the national average. Certain areas, such as Chicago's Southeast Side, have double the number of ED visits, hospitalizations, and deaths as the city as a whole.

Prescription: Clean Air

I first became aware of a unique environmental threat to lung health in the Southeast Side in 2011, when a man of Eastern European descent whose family had moved to Chicago two generations ago to work in the steel mills became my patient. His lung disease was worsening, quickly. I adjusted his medicines, but the changes did not help.

"There are new piles of black grit in the storage facility behind my house," he told me. "There's a thick coating of greasy dust in my home. I clean it every day, and it comes back every day. Do you think that could be making me sicker?"

"Yes," I told him. "It could."

I advised him to close the windows and buy an air purifier, which wasn't covered by insurance. He couldn't afford it. Instead, I prescribed him oxygen and put in a referral for him to see a lung doctor, who might have more ideas on how to address his difficulty breathing. Would he try experimental therapies? A lung transplant?

Even then, I knew what he really needed was clean air.

I had many other patients who suffered from respiratory illness as well. In October 2013 a middle-aged patient I was treating for heart disease came to see me because he developed worsening shortness of breath and wheezing. His lungs were tight. I gave him albuterol to relax them, and he improved. During the visit, he showed me

a flyer for some protests in the area.

"Stop assaulting our health and polluting our community," one of the flyers, printed in black and white, stated. "Join community members to protest [the] storage of BP's TOXIC PetCoke." The flyer named two local companies. Until then, I had never heard of petcoke—a nickname for petroleum coke, an inexpensive, carbon-heavy byproduct of the processing of heavy crude oils such as those in the Canadian oil sands deposits. I was only vaguely aware of debates about creating a new pipeline to bring crude oil from Canadian oil sands to the States. The oil sands were a new source of combustible carbon—essentially a stew of oil, heavy metals, and grit. They were hard to process but plentiful, and the fuel they generated could decrease US reliance on Middle Eastern oil.

But then there was petcoke. Described in a 2013 New York Times article as "unloved, unwanted, and long overlooked," petcoke is frequently used as fuel in power plants overseas, where environmental standards are lax. It is regarded by many as a dirtier fuel, with heavy metals baked into it, but its emissions don't count in international regulations on carbon production, and it is popular in China, Mexico, and India. Studies suggest, however, that the only health hazard associated with petcoke is from the particulate matter that escapes as fugitive dust from storage and handling sites. Particulate matter less than 10 microns is inhaled into the lungs, where it can lodge deep in the tissue and be absorbed into the bloodstream, exacerbating heart and lung disease.

I knew there was an oil refinery in Indiana—I could see it to the south on the shores of Lake Michigan. But I didn't know that the largest sum of private money invested in Indiana's state history had upgraded the BP refinery so that in July 2013 it processed enough crude oil to produce the world's second-largest amount of petcoke. A press release that accompanied the opening of the new "coker," as the oil refinery processing unit that converts residual oil to petcoke is called, boasted that upgrades to the refinery would deliver an expected incremental \$1 billion of operating cash flow to the company each year. BP's new coker produced enormous amounts of petcoke, which were steadily piling up on the shores of the Calumet River. The open-air storage facilities were creating black mountains of petcoke in my patients' backyards. When the wind blew, the petcoke dust blew—the fugitive dust that could irritate hearts and lungs, causing irreversible damage. There was a new harmful waste in our windy city.

Understanding The Threat

To learn more about petcoke and its potential health risks, in the summer of 2014 I joined Tom Shepherd of the Southeast Environmental Task Force on a "Toxics to Treasures" tour of conservation and restoration work taking place across a number of Southeast Side industrial sites. The tour began with a visit to Whiting, Indiana, home of the famous Pierogi Festival and home to the BP Whiting oil refinery. There was a distinct odor in the town, like day-old burnt rubber. We drove around the BP refinery, taking in the sheer magnitude of the facility, the towering cokers, and the enormous parking lot filled with cars. Nineteen hundred people work in the plant full time, plus contractors.

The town was trading air quality and environmental health for jobs.

Inside the oil refinery, said Shepherd, petcoke is considered "hazardous material" and must be handled as such. Once it leaves the refinery, it is labeled "byproduct" and can be handled however state regulations allow. Each state makes its own regulations. Indiana does not allow storage of petcoke in open-air facilities. At the time, Illinois did. We headed back over the state line to Chicago's East Side neighborhood and parked to view the petcoke piles at the edge of the block where my patient with lung disease lived. I imagined him in his small A-frame house, his oxygen tank at his side, looking out from his front window on the second floor. Along the tracks below, trains pulled open cars piled with mounds of black petcoke. Beyond the railroad was a green field, then a chain-link fence surrounding more enormous piles of petcoke. A sprinkler was dampening the petcoke to keep it from blowing away, but the wind caught the water and carried it toward the green field. Some dust escaped and likely made its way to the neighborhood and the lungs of my patient. He couldn't move away; his life savings were in his home. And now no one would buy it.

Looking sadly across the field, Shepherd said, "People tolerated big black piles of messy stuff when there were jobs." Twenty to thirty years ago this was a trade-off that some considered fair—a comfortable living for the family, in exchange for an unhealthy environment. When there were steel mills, there were thousands of jobs for the

neighborhood. Today there is still an unhealthy environment, but the jobs are gone. The storage terminals where the petcoke is stored now employ only fifty people.

But Shepherd deplores the multivariable calculus of health as a function of environmental quality and economic well-being. "Just because of our racial or socioeconomic status we cannot have different water or different air," he said. "We don't believe people need to tolerate environmental degradation for their jobs."

The Right To Health

I have adopted Shepherd's thinking on this. It is not a question of job opportunities or health. In a democratic society, all citizens have the right to both. And it makes financial sense. Over time, the initial investment in policies that limit pollutants and decrease particulate matter in the air would create a healthier population, which would save us money on medical care.

The country needs an integrated approach to asthma care that eliminates health hazards in our homes and neighborhoods, while ensuring access to health care.

Since 2013 the City of Chicago and the State of Illinois have passed laws to prevent the storage of uncovered piles of petcoke. One storage site was shut down in 2015, and two others consolidated into a single site that is getting a roof. The BP refinery, meanwhile, shifted the petcoke storage to Kentucky.

Federal standards are needed to manage petcoke so that it doesn't fall to local and state governments to scramble to pass laws to protect the populace only after the piles of petcoke appear in their backyard. Local, state, and national environmental laws need to be revisited to ensure adequate outdoor and indoor air quality for all members of society. The nation should follow the example of the Nemours/Alfred I. duPont Hospital for Children, in Delaware, which is partnering community health workers from the hospital with public housing authorities to optimize indoor air quality.

Asthma is a preventable and treatable disease. The public health know-how and the medical technologies exist to prevent needless asthma-related deaths.

What has not been learned is how to create a just society that minimizes health hazards for all: ensuring good indoor air quality by enforcing housing laws to make sure landlords eradicate cockroaches and rats; ensuring clean air outside by enforcing environmental laws that measure and regulate the amount of pollutants that trigger asthma and by regulating the transportation and storage of potentially hazardous materials; and ensuring that a just medical system functions to deliver lifesaving products and technologies to all people.

Today medical, economic, and environmental injustices add up to glaring health disparities, with a seventeen-year difference in life expectancy between different census tracts in Chicago. Until political will shifts to change business and government decisions around the distribution of resources and risks, patients will continue to suffer inequitably. The country needs to hear and respond to the complaint of Americans suffering from injustice, as they gasp, "We can't breathe." ?

Sidebar

The country needs to hear and respond to the complaint of Americans suffering from injustice, as they gasp, "We can't breathe."

Author Affiliation

Kohar Jones (kohar.jones@gmail.com) is center medical director for Harken Health's South Loop health center, in Chicago, Illinois.

DETTAGLI

Titolo:

Asthma And Injustice On Chicago's Southeast Side

Autore:	Jones, Kohar
Titolo pubblicazione:	Health Affairs; Chevy Chase
Volume:	35
Fascicolo:	5
Pagine:	928-931
Numero di pagine:	4
Anno di pubblicazione:	2016
Data di pubblicazione:	May 2016
Sezione:	Narrative Matters
Casa editrice:	The People to People Health Foundation, Inc., Project HOPE
Luogo di pubblicazione::	Chevy Chase
Paese di pubblicazione:	United States
Soggetto pubblicazione:	Insurance, Public Health And Safety
ISSN:	02782715
Tipo di fonte:	Scholarly Journals
Lingua di pubblicazione:	English
Tipo di documento:	Commentary
Caratteristica del documento:	Illustrations
DOI:	http://dx.doi.org/10.1377/HLTHAFF.2015.0117
ID documento ProQuest:	1787760349
URL del documento:	https://search.proquest.com/docview/1787760349?accountid=12117
Copyright:	Copyright The People to People Health Foundation, Inc., Project HOPE May 2016
Ultimo aggiornamento:	2016-05-10
Database:	Health Research Premium Collection

COLLEGAMENTI

[Linking Service](#)

Copyright © 2017 ProQuest.LLC. Tutti i diritti riservati.

[Condizioni di utilizzo](#) [Contatta ProQuest](#)