

Environmental Injustices

in the Air We Breathe

By Mario Bravo

For years now, San Antonio residents have endured unhealthy levels of ozone in the air we breathe. Yet, the city of San Antonio has narrowly avoided violating the US Environmental Protection Agency's national ozone standards, designed to protect human health. But San Antonio will soon have to make changes to its approach to air quality.

In October of last year, the EPA, responding to the findings of recent health studies, lowered the maximum allowable ozone level. On April 8 of this year, San Antonio exceeded that threshold, which means our region is not meeting EPA's ozone air quality standards.

This matters because ground-level ozone can affect our health and often has disproportionate impacts on racial and ethnic minorities. The good news is that there are lots of ways to reduce ozone.

Ozone is formed when pollutants called precursors – nitrogen oxides (NOx), carbon monoxide (CO) and volatile organic compounds (VOCs) – mix with sunlight. While ozone that exists in the earth's atmosphere protects us from the sun's harmful ultraviolet rays, ground level ozone can cause shortness of breath and aggravate lung diseases like asthma, emphysema and chronic bronchitis. If you have a lung-related health concern, chances are you know when ozone levels are high.

Among the major metropolitan areas in Texas, Bexar County has the highest rate of child hospitalizations from asthma attacks. According to the 2014 Texas Asthma Burden Report, pediatric asthma emergency department visits in Texas between 2002 and 2013 were highest for African Americans, followed closely by Hispanics.

African-American and Latino communities in San Antonio also pay a huge economic cost as a result of high ozone levels and poor air quality: asthma-related hospitalizations are not only life threatening but often leave families in debt. The Texas Asthma Burden Report found that over \$460 million was spent on adult asthma hospitalizations in 2012, with the average cost per adult at over \$30,000. And there are other costs, as well. Asth-

matic adults often miss work when they have an attack – many in jobs where if you don't work, you don't get paid. In addition, parents of asthmatic children miss work in order to take care of their child, who is missing school. For those who are already struggling financially, the economic burden of poor health due to high ozone levels can contribute to a perpetual cycle of poverty.

The disproportionate impact of high ozone-levels on racial and ethnic minorities is also related to how close people live to the sources of ozone. For example, NOx, one of the precursors to ozone, is a byproduct of burning fuels. It is often found in higher concentrations downwind of power plants and factories and near roads where vehicle traffic is high – all places where African-Americans and Latinos often live.

According to a 2014 peer-reviewed study published in the Public Library of Science, NOx presents an environmental injustice because exposure to a common form of NOx is unequally distributed. The PLOS study claimed that this exposure was 38% higher for non-white populations than for white populations, and that reducing exposure levels in non-

white communities to those present in white communities would reduce annual non-white deaths by 7,000 nationwide.

While San Antonio residents can and should consider lifestyle changes to help improve our air quality, we also need to make sure that industrial polluters are taking the steps necessary to reduce emissions. It's also true that on high ozone days, many of the local ozone-forming emissions are coming from outside of the city, including emissions from nearby oil & gas activities in the Eagle Ford shale. City, regional, and state leaders need to develop a comprehensive plan to reduce our region's ozone and improve public health. They need your input to make sure their plan is a smart one – one that addresses all the emission sources, is fair to everyone, and puts San Antonio on the path to cleaner air and better health.

Bio: Mario works on air quality advocacy in the Greater San Antonio and Eagle Ford Shale regions and manages the Neighbors of Oil and Gas workshop series.

