

Tar Heel Footprints in Health Care

A periodic feature that recognizes individuals whose efforts—often unsung—enhance the health of North Carolinians

Dr. Bob Parr Takes the Lead in Tracking Pollution



There was smoke in the air when Robert Parr, DO, grabbed his AirBeam and followed the trail of red dots on the map to his neighbor's house. Parr approached his neighbor and explained the health impacts created by burning the mountain of leaves that was smoking in his yard. The neighbor was not convinced, but this changed weeks later when his sister, who was pregnant, asked him to stop for the good of the neighborhood and her young family.

Parr is an advocate for hyperlocal air monitoring and educating health professionals and communities about how air pollution can affect their health. Several studies have shown the link between air pollution exposure and adverse health effects on the respiratory [1] and cardiovascular [2] systems. More recent studies have indicated that exposure to air pollution below the current national standards [3, 4] can increase mortality for sensitive populations [5].

"We have to realize we are planting seeds. We have to plant as many seeds as possible, then step back and wait," said Parr. "Sometimes I mount a monitor on Savvy, my Labrador Retriever, and our walks around the park turn into impromptu talks on air quality with people across the age spectrum."

Personal air monitors provide immediate visual data linking medical research to the air we are actually breathing at any given moment. They complete

the educational link between medical research about the effects of air quality on health and personalized awareness.

Working with Clean Air Carolina's AirKeepers program, Parr has helped install low-cost stationary particulate matter monitors across New Hanover County. With these monitors, anyone can check their air quality in real time where they live, work, and play. Parents who have a child with asthma can check these monitors online to see if the air quality is suitable for their child to play outside and perhaps avoid a trip to the emergency department.

Parr has always been interested in environmental health but he realized the serious health impacts of air pollution on April 21, 2008, at a New Hanover County Commissioners meeting. At the meeting, the commissioners discussed an incentive package to bring a cement plant to Wilmington. Several individuals spoke about the detrimental health effects of air pollution. The plant could release thousands of tons of air pollutants into the atmosphere every year, they argued. Yet few health professionals were aware of the medical consequences.

Parr started learning more about air pollution and noticed how it affected his patients and community. "After getting up to speed on the medical literature, I realized that I was missing the boat in my practice by ignoring the preemptive power of avoiding bad air," he said. "I was treating problems that might be avoided by simply breathing clean air. This is what the medical literature shows time and time again."

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When Parr was practicing emergency medicine, he regularly saw cases of exacerbated asthma. He and his medical team treated patients with the best medication available only to send them outside to poor air quality. Parr wonders how many more lives he could have helped if he had known what he knows now about the morbidity and mortality related to air pollution. According to the World Health Organization, air pollution is responsible for 3.3 million premature deaths worldwide [6]. This is what drives Parr to keep planting his seeds and putting up more monitors. **NCMJ**

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