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Asthma

"Patient care and research are the keys to better understanding the health effects of climate change. I'm hopeful these discoveries will improve lives in communities everywhere."

I appreciate this opportunity to share the realities of climate change on my family's health. I have adult onset asthma, and both my 12-year-old daughter and 16-year-old son have had severe asthma for most of their lives.

As parents, we tell our children there are no ceilings, and the sky is the limit. My daughter, Leila, dreams of working to pass laws that improve the quality of people's lives. Asthma is the one road block that might prevent her from this dream. As our climate changes, controlling her asthma becomes more challenging.

My son was diagnosed with asthma at the age of two after a frightening trip to the emergency room. Around this time, I learned about the bucket theory, which holds that it's not just one trigger that causes an asthma attack but a buildup of many factors. Cold air, exhaustion, mold, and smoke are toxic combinations if dumped into the asthma bucket all at once. When the bucket is full, the bucket tips over. Although I can help control my family's asthma by limiting exposure to their triggers, I can't control our air.

Reno, Nevada, has changed dramatically since we settled here 20 years ago. The city council recently identified climate change as a threat the city should address in its strategic planning.

Strange weather patterns are creating premature pollination. Hay fever season is no longer a season, it seems never ending. Drought conditions continue. Summers are hotter with extreme heat and triple-digit temperatures. Wild fires in the Western United States are becoming more frequent and intense. One particular wild fire, the Yosemite Rim fire, which burned for over two months in 2013, had a calamitous impact on my community. I was out of town during the rim fire. My daughter texted, saying that she felt like sharks were circling her, as she worried about a looming asthma attack. Although the fire was

ASTHMA

Asthma is a chronic disease that swells the airways, or breathing tubes, of your lungs. This swelling (inflammation) causes the airways to make thick, sticky secretions called mucus, and it causes the muscles in and around your airways to get very tight or constrict, which makes it very hard for you to get air into and out of your lungs.

Asthma can be caused by genetics, allergies, respiratory infections, and irritants such as:

- Molds and dust
- Exhaust fumes from vehicles
- Chemicals in garden sprays
- Strong odors from paint, perfumes, colognes, hair spray, deodorants, and cleaning products
- Tobacco smoke
- Weather changes
- Stress or exercise
- Medications
- Sulfites in foods such as dried fruits, wine, and beer

Learn more: ATS Patient Information Series. "What is Asthma?" New York, NY: American Thoracic Society, 2013. patients.thoracic.org

about 200 miles south of Reno, the smoke darkened our skies and dropped fine ash onto our homes and into our lungs.

Health officials warned that the air quality was so bad that even the healthiest of individuals were in danger if they spent too much time outdoors. People with heart and lung disease were urged to stay indoors. Citizens were warned to watch for chest pains, heart palpitations, or trouble breathing. Having managed asthma for some time, our family was prepared. But the rest of my community was not as lucky.

People with asthma were certainly in danger, but even more at risk were the number of non-asthmatics rushed to the hospital for respiratory issues. Pediatric wards overflowed, urgent care facilities juggled long lines, and pulmonologists were working overtime.

Friends complained of headaches and the inability to focus and work. People left town simply to avoid being hospitalized. I worry about our children's asthma forcing us to move one day. I worry about those I love being placed in harm's way each summer, and I pray that nothing tragic happens.

Patient care and research are the keys to better understanding the health effects of climate change. I'm hopeful these discoveries will improve lives in communities everywhere. We are all at risk in our changing climate.