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The Mysterious Asthma Increase

By Ben Leiberman
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Asthma is on the rise, and the experts are not sure why. Outdoor air pollution is the most politically popular culprit but is unlikely to be the cause, while more plausible explanations have thus far received scant attention. The latest study from the Public Health Policy Advisory Board (PHPAB), a not-for-profit public health advocacy group, underscores the many uncertainties regarding this increasingly common disease. Nonetheless, Asthma: Epidemic Increase Cause Unknown, is important reading in that it spells out what needs to be learned before this epidemic can be effectively addressed.

This much is known: Asthma incidence and mortality have sharply increased in the past two decades, particularly among children. The study cites statistics showing a doubling of asthma cases from 6.8 million in 1980 to 14.6 million in 1996, and a further increase to 17.3 million in 1999. There is some question about changing definitions of asthma and doctors' heightened awareness of the condition affecting the diagnosis rate, but there is little doubt that the increase is real. Tragically, asthma deaths have tripled from 1,674 in 1977 to 5,438 in 1998, making it the leading cause of death in young children.

One might think that such a sharp rise could easily be traced to some clear cause, but none has yet emerged. Although doctors know many of the factors that contribute to the development of asthma and cause asthma attacks, there is no consensus regarding the reasons behind the increase.

Without question, genetics plays a role. Asthma runs in families, and medical statistics show racial and ethnic differences not attributable to income levels. For example, the study notes that asthma is considerably more common in African American children than whites but is less common among Hispanics. However, genetics cannot explain the increase, unless there is some genetic predisposition to asthma that needs an environmental trigger to manifest itself.

That leads to the next question: What has changed about the environment in which children live that has made asthma so much more prevalent? Again, there are no easy answers, although indoor air contaminants may play a role in both the development of asthma and the exacerbation of asthma attacks. The study refers to a report by the National Academy of Science's Institute of Medicine that identified a number of indoor air pollutants, including insect remains, for which there is evidence of a contributing role. This hypothesis may also help explain the timing of the asthma increase, since the energy crisis of the 1970s gave rise to regulations and incentives to cut down on "excessive" ventilation and create tighter, more energy-efficient buildings. These energy conservation measures may well have had the unintended consequence of concentrating the indoor air contaminant levels in millions of newer homes and schools. Nonetheless, more needs to be learned before indoor air can be clearly implicated as the cause of the asthma increase.

One interesting hypothesis surrounds daycare and the relatively new phenomenon of large groups of infants spending many hours per day in close proximity to one another. Many parents have learned that kids in daycare give each other colds and other communicable diseases with alarming frequency, so the possibility of this mechanism playing a role in asthma cannot be ignored. But, as the study concedes, the current body of evidence regarding daycare and asthma is far from definitive.

Unfortunately, the potential cause taken most seriously in Washington is the one most easily dismissed: outdoor air pollution. Environmental activists and their political allies have been quick to exploit the emotional issue of childhood asthma. Some cite research showing weak statistical associations between current air pollution levels and asthma as a justification for a host of regulations aimed at motor vehicle and industrial emissions. However, the study notes that "the long-running increase in asthma prevalence has occurred during an era when, paradoxically, outdoor air has become cleaner." Unfortunately, much like the decades-long attempt to blame cancer on pollution, the misuse of the asthma issue by those with an environmental agenda may lead to a counterproductive misallocation of resources.

The study concludes that "the state of available data on asthma is a major barrier to understanding the epidemic" and calls for increased research into the reasons for the increase. Only when we better understand the cause of the asthma epidemic can an effective public health response be created.

Ben Lieberman is a senior policy analyst with the Competitive Enterprise Institute, in Washington, DC.

Responses:

April 30, 2002

I wonder what part childhood vaccinations play in the increase in childhood asthma. Are these vaccinations really safe, and how do they effect the developing immunity in a young child? I would like to see studies performed on non-vaccinated children, including, but not be limited to, religious communities such as the Amish who do not vaccinate. Is there an increase of asthma among Amish children and other unvaccinated children, parallel to that in children who are routinely vaccinated?

—C. Schreppler
Maryland

June 12, 2002

At the risk of being accused of buying into another popular "environmental activist" cause, I wonder how much global warming has to do with this. An increase of only a few degrees at the right time of year can increase severalfold the pollen output of ragweed and allergenic grasses. It is those kinds of subtle changes that are the real danger of global warming, not the more dramatic glacier calving or flooding.

I also wonder if the increase in asthma among African-American children is really an increase, or just the effect of better access to health care and better attitudes among doctors. My asthma manifests as fatigue and confusion, not as wheezing. How many black children with asthma twenty years ago might have been misdiagnosed as lazy or learning-disabled because of similar symptoms?

—Ringobabe

June 28, 2002

3M voluntarily took Scotchguard off the market because it was shown to trigger asthma.

The off-gassing of carpeting, use of formaldehyde in particle board, and off-gassing of dry cleaning chemicals should all be examined seriously as reasons for this increase.

I'm sure there's plenty of pressure from these industries to not investigate these substances, but for the health of everyone, someone should do so.

—slicendice

July 8, 2002

Without a doubt, pollution does cause asthma in me.

When I live out in the country I'll get snotty and itchy during ragweed season, but that's pretty much it. However, when I moved three blocks from a chemical factory that gave off millions of pounds of pollutants, I had ten serious attacks each and every week.

I ended up going camping during ragweed season and had no asthma until I'd drive home and open the door near my house. Then I'd be at hospital again.

By the way, all pollution is processed through the colon and it collects there when too much is taken in at once, so I'd definitely connect that to any cancers, too.

Also, pollutants in the colon is one of the known causes of increase in infertility, and anyone going to reproductive clinics will get told this.

—scriptwriter

August 1, 2002

There is probably more than one cause. Children who weren't breastfed have a much higher chance of developing asthma. Another study just came out this week from Australia. Breastfed babies have the antibodies to fight off infection and allergies — so maybe if a child is predisposed to asthma, environmental factors could trigger it while breastfeeding could help protect against it.

—LBKG

August 9, 2002

What is the connection between asthma and the hormones, additives, and other non-food products that are used to make animals grow faster and produce faster? Is milk all it's hyped up to be? Why won't a baby cow drink pasteurized milk?

There is no money in wellness. All the doctors and organizations are well aware of this. Therefore, they attribute asthma to all the wrong things. I repeat, there is no wealth for doctors in wellness!

Have a nice day!

Eric M. Ford
Senior Claim Representative
OneBeacon Insurance, Connecticut Branch

The editor replies:

While scientists and physicians have not linked asthma to bottle-feeding or food additives, I must note that if they had discovered such a link and withheld that knowledge from patients, they would soon face the decidedly unprofitable threat of malpractice suits — as an insurance man such as Mr. Ford ought to know. It is both scientifically and fiscally unlikely that doctors are "well aware" of a connection between food additives and asthma and are keeping it a secret.

Todd Seavey
Editor
HealthFactsAndFears.com

September 6, 2002

I work as a speech/language pathologist, and based on my twenty-two years of work experience with students who have more than their fair share of upper respiratory problems, I must say that the most consistent factor that shows up is exposure to secondhand smoke. After studying up on what toxins are contained in tobacco smoke, I am not surprised that it is frequently a "trigger" for asthma.

—smithjm

October 29, 2002

Dear Forum,

Asthma is definitely increasing in many countries. However, one commonality in these countries is an increase in hygiene and a decrease in exposure to parasitic diseases. Why am I bringing up parasites? Allergic and parasitic reactions are handled similarly in humans and mammals. For example, eosinophils increase in the bloodstream in response to both reactions. Perhaps the reason why we are seeing an increase in asthma and other allergic disorders is due to an increase in hygiene and a decrease in exposure to parasites. Thus, immune reactions that have been geared against parasites for millions of years have nothing to do but target and overreact to allergic antigens. As a result, we are now observing the increases in allergic and asthmatic disorders.

A nice study would be to compare allergic and parasitic disease prevalences in developed and developing nations, as well as performing retrospective studies in countries where the standard of living has increased and parasitic disease prevalence has decreased.

M. Roberto Cortinas, D.V.M.
Research Associate
University of Illinois at Urbana-Champaign
College of Veterinary Medicine
Department of Veterinary Pathobiology
2001 S. Lincoln Avenue
2843 VMBSB - MC002
Urbana, Illinois 61802

October 29, 2002

I began having asthma when I was seventy years old. Physicians have said that it is unusual to get asthma this late in life.

We had our lawn sprayed. I was working in my yard when I noticed the spray, and I inhaled some of the spray in rushing into the house. I had what seemed like bronchitis afterward, but the bronchitis didn't clear up. The next season the man came again to

spray. I was not expecting him and was again out in my yard working. The same thing happened, seemingly a bad case of bronchitis. In my opinion, the spraying caused my asthma.

More people are having their lawns sprayed than ever before, either professionally or by doing it themselves. I wish someone would make a study to see if others have been affected this way.

—blessingwm

November 1, 2002

I built a house on the end of a street back in 1995. Months later, my pet cockatiel died. We think it was because of a tumor.

I lived there about five years, during which time I experienced difficulty breathing at night before going to sleep. I went to the doctor and had my heart checked. When that came back OK, the doctor ran a test on my lungs and told me I had the beginnings of asthma. The doctor thought that my ragweed allergy was the trigger.

Recently, a newspaper article came to my attention stating that high levels of radon gas had been found in the houses across the street and one down. It is known to cause lung cancer. The article says that breathing it in large amounts — 20 picocurries per liter — on a consistent basis is cause for concern, especially for children. These homes scored in the 70s.

As for me, I haven't been bothered with asthma much since I moved. So you be the judge. Is this another possible answer to why asthma is on the increase?

TLZ Wisconsin

The editor replies:

It seems unlikely that Cortinas, blessingwm, and TLZ are all correct at the same time. At least Cortinas extrapolates from large amounts of data rather than from an individual anecdote as blessingwm does, but both would do well to avoid drawing conclusions without further evidence. As for TLZ: It is fascinating that the less scientifically-grounded radon theory seems to hold a greater attraction for you than the mundane ragweed allergy explanation. If you've moved and your condition has changed, it may well be because you've moved away from ragweed, not because you've moved away from radon (even those who have pushed the dubious theory of danger to homeowners from low-level radon haven't described it as causing ragweed-allergy-like symptoms). We may all be prone to see connections where there are none — as between our own chest pains and the death of a beloved cockatiel.

May 21, 2003

There seems to have been a huge increase in asthma worldwide since the early 90s. Could this have anything to do with the dropping of conventional weapons on nerve gas stockpiles in Iraq during the first Gulf War? Conventional weapons will not destroy such materials, just insert them into a higher level of the atmosphere.

—dave

AMERICAN COUNCIL ON SCIENCE AND HEALTH
1995 BROADWAY, 2ND FLOOR, NEW YORK, NY 10023-5860
TELEPHONE: (212) 362-7044 • FAX: (212) 362-4919 • E-MAIL: General organization mailbox: acsh@acsh.org ; Individual staffer: [last name or last name followed by first initial]@acsh.org