

With Uncertainty Filling the Air, 9/11 Health Risks Are Debated

By KIRK JOHNSON

Five-year-old Phoebe Kaufman's room was once filled with her artwork. Now all that remains is a single picture of a flower, which hangs by her bed. Her parents threw out everything else because paper is porous and might have absorbed just from the collapsing World Trade Center towers that blasted into their Lower Manhattan apartment through an open window.

No one knows whether Phoebe's artwork had become dangerous, and air tests done in that apartment building, about a block from ground zero, have shown the air to be safe. But decisions still had to be made, so everything absorbent — stuffed animals, mattresses, coats — went into the trash.

It's the floor that has the family in a quandary now. The family's insurance company said it would pay to have their old wooden floor refinished, but that idea was shot down by their pediatrician, who said that the trade center dust, perhaps containing asbestos or other hazardous materials, was deep in the floor's cracks and that sanding would throw it back into the air.

"It's such a uniquely American thing to think that science can provide an objective truth, but no one has an answer to these kinds of questions," said Phoebe's mother, Elizabeth Berger. "There's no one to turn to."

Community leaders in Lower Manhattan have estimated that about 75 percent of the roughly 20,000 people who lived within a half mile of the trade center have returned to their homes since the Sept. 11 disaster. And all of them are facing the same series of questions and choices about how to live in this altered place and how to assess the environmental risks that the proximity to a disaster site and cleanup project may entail.

This being New York, the diversity of conclusions is boundless. Some people see downtown as a toxic nightmare, a kind of Manhattan Love Canal that has permanently poisoned the area's buildings and apartments with asbestos or chemicals. Others believe the risks are overblown or nonexistent.

But in another way, many residents say, the diversity of views reflects the deeper problem they face: that no answer seems certain, scien-

tifically airtight, or obvious. Because there has been little government testing of apartments for air quality — and some tests conducted months ago have still not been published — there is no public body of facts or set of numbers that can bestow a feeling of certainty. Some building owners have had their properties privately tested; others have not. And every test that is done becomes ammunition for one side or another — those who see great risk and those who do not.

How to clean an apartment or an office that was contaminated, how to know when it is clean enough, whether to pay for expensive tests or filters, whether to worry about how well the neighbors cleaned their apartments and rooftops, are all questions that have for the most part been left to individual tenants, owners and workers.

"People have essentially been left to their own devices," said Representative Jerrold Nadler, a Democrat from Manhattan who represents downtown, and who believes that what he calls the microclimates of downtown — the homes and offices, the personal spaces and lives of residents and workers — have been mostly neglected in the disaster response.

But New Yorkers have not waited for science and government to catch up. In the same energetic, impatient ways that have always shaped the city's character, they have simply gotten on with things.

Beth Kaltman, 22, a model, cleaned her own apartment using paper towels. So did Dr. Jessica Leighton, an assistant commissioner of risk and environmental communication at the New York City Department of Health.

Noreen Hennessy and her husband, Elliot Freeman, who live on Warren Street, a few blocks from the disaster site, hired professional cleaners. In the converted factory building on Broadway where Phoebe Kaufman and her family live, some people ripped up their floors. Some mopped up and vacuumed, and others never came back.

Phoebe's father, Frederick Kaufman, installed filters to cover the air ducts that connect to the rest of the building, working on the theory that dirtier air from other apartments or common areas of the building could infiltrate. He cannot say that this, like throwing away Phoebe's artwork, was a necessary step; he also cannot say, when it comes to the health of his daughter and his son, Julian, 2, that it was not necessary, either.

"You can no longer say this is a rational response, or this is an emotional response, you just have to say, this is what I have to do to feel safe," he said. And without conclusive data, people also have little basis of defending the decisions they do make, he said.

"Anybody doing more cleaning than I is a fanatic, and anybody doing less is crazy," he said.

The federal Environmental Protection Agency took the lead responsibility for the air in public spaces — sidewalks and streets. The Occupational Safety and Health Administration was in charge at ground zero. The New York City Departments of Health and Environmental Protection would take on the questions of building safety. Testing and monitoring began almost immediately — what would grow in the ensuing months to become a sprawling database measuring everything from chromium, PCB's and lead to asbestos, silica and benzene.

— And so, too, began what many health researchers now say was a huge political blunder. Officials from the E.P.A. and the city made broad pronouncements that the air downtown was safe to breathe, and not much of a long-term health concern outside the immediate perimeter of the disaster. Although those conclusions have not been disproved by the thousands of tests conducted since then — more than 10,000 air samples by the E.P.A. — the second-guessing and suspicions began almost immediately among many residents, and later physicians, that the tests were inadequate, or partial, or that the many things that could not be known about the air impact were being minimized, resulting in a cloud of mistrust and uncertainty that has still not gone away.

"I have the concern that the initial reassurances were based on the desire to move ahead as quickly as possible — that reassurances were given because it supported public policy," said Dr. Stephen M. Levin, the medical director at the Mount Sinai-Irving J. Selikoff Center for Occupational and Environmental Medicine at the Mount Sinai School of Medicine, who has seen dozens of cases of respiratory ailments related to the trade center disaster.

What ensued, in part, was a war of data and interpretation. The E.P.A., in testing for things like asbestos or other particles in the air, used a 24-hour-averaging system, which was considered the scientific standard for gauging exposures. But that system was attacked because it flattened the periodic spikes that were being recorded as dust and smoke drifted around the area.

The E.P.A. also focused on small particles, based on the scientific literature that said they were the greatest concern. That emphasis failed to reflect the larger particles that physicians and scientists say were causing widespread misery and worry — from sore throats to red eyes — across wide swaths of Lower Manhattan.

The size of the asbestos fibers that the government was measuring also became part of the battle. The E.P.A. scientists said that the larger particles they were testing for — and which were showing up in relatively few numbers — were the most dangerous because their shape allowed them to be lodged in the lungs, while smaller particles would get sloughed off by the body. Critics said that smaller particles were being deliberately overlooked. Some private tests showed concentrations of the tiniest asbestos fibers — less than five microns in size — that were in some cases four times above the government's safety threshold.