



Neighborhood Knowledge

Tech company aims to raise awareness of eco-health hazards one ZIP code at a time

BY CINDY KUZMA

The commute's convenient, and the school district is top-notch, but before you buy that new home, wouldn't you want to know whether there is lead in the soil or poisonous particles in the air from a source such as a nearby coal plant?

Right now, you won't find details about environmental health hazards on any real estate listing. Nor, for that matter, is this information easy to track down where you now live, work or otherwise spend your time, says Gabriel Filippelli, director of the Center for Urban Health at Indiana University-Purdue University Indianapolis.

But a new startup based

in Portland, Ore., aims to change that. "It's a right for people to understand, to know, what's in the air they breathe, the water they drink, the soil that's around their home," says Nick Bedbury, the co-founder and CEO of Upstream Research, a tech company in Washington state.

His company crunches numbers from a variety of sources — public and private — and compiles them into consumer-friendly reports. You can log in at upstreamreports.com and order one for your current or prospective address. The first three are free, and after that, they're \$5. In them, you'll learn about such dangers as the

arsenic level in your drinking water, the toxicity of your air or types of cancer or other environmentally linked diseases in your ZIP code.

There's little doubt these factors play a big role in your health, as well as your family's, Filippelli says. For instance, pathogens and contaminants in waterways or the drinking supply can make you sick with an acute infectious disease, cause cognitive or developmental problems in children and increase the odds of developing cancer years down the line, he notes. An increasing body of evidence also suggests that breathing air pollution boosts your chances of »



having asthma, heart disease and other health problems.

Then there's the ground underneath you. Research by Filippelli has shown that contaminants in soil can sully the produce of urban gardeners — but, he points out, you don't have to grow your own kale to face dangers. Lead, pesticides and other toxins can travel from the dirt outside to the interior of your abode through open doors and windows and on the feet of people and pets.

All these issues vary by neighborhood, depending on factors such as geology, proximity to power sources and infrastructure, Filippelli says. And though federal agencies, including the Environmental Protection Agency and Centers for Disease Control and Prevention, monitor the

Learning what environmental dangers reside in the air, soil and water near your home is a big step in knowing how to protect your family.

risks, there hasn't been one simple way for regular citizens to access that information.

Though he applauds Upstream's initial efforts to provide this service, Filippelli notes the company could go further to rank risks and propose actions.

"People don't want to hear, 'Oh, you live in a contaminated area, sorry,'" he says. "They want solutions."

That's something Bedbury and the crew at Upstream hope to improve. Their reports currently link to outside resources on each hazard, and they plan to add more direct steps to take in future versions. For instance, if you live in an area affected by lead contamination, you could order a free home test kit or help local leaders apply for a grant to address the problem.

That second direction is a crucial one, Bedbury believes. Besides helping people take precautions (see sidebar) to protect their families, he hopes access to this information inspires activism — pressuring corporations and leaders to change their behaviors. "We're hoping to make this available in a way that we galvanize 1,000 Erin Brockoviches who want to go out and help improve the neighborhood and the health of their community," he says. ●

HOME REMEDIES

"We're not just victims of our environment," says researcher Gabriel Filippelli. "We have some say over how it exposes us." Here's how to reduce your family's risks.



AIR: Check your local air quality with a tool like the UCLA AirForU App (free; uclahealth.org/ucla-airforu-app). On days when levels pose a threat, avoid outdoor activities, especially exercise; when you do run, walk or cycle, steer clear of high-traffic areas. And try essential oils — extracts from cloves, anise, fennel and ylang-ylang may ease stress on the liver and lungs from air pollution, according to a new study in *Environmental Chemistry Letters*.



WATER: In the case of a severe breach, like the lead contamination in Flint, Mich., follow official directions about boiling or drinking tap water. Otherwise, the biggest health threat probably comes from natural waterways, Filippelli says. Heat and rain can boost bacteria levels, so check with your health or parks department before swimming. Always shower afterward and avoid swallowing any water.



SOIL: Cover dirt you walk on with mulch so that lead and other contaminants aren't tracked into your home, Filippelli advises. Don't just dust and vacuum; mop and wipe surfaces with water at least once a week to reduce the amount of lead in indoor air. And wash your hands with soap every time you come inside to clean off harmful residue, he adds.