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Dr. Jennifer Elliot, associate professor, Duquesne University School of Pharmacy



REDEVELOPMENT IN HAZELWOOD INCLUDES EFFORTS TO ADDRESS A RANGE OF ENVIRONMENTAL ISSUES SO THAT THE HEALTH OF RESIDENTS AND THE NEIGHBORHOOD IS PROTECTED AND ENHANCED. BY MARK KRAMER

t Propel Hazelwood Charter School, in a mostly empty classroom, second-grader Montaziyah Evans played with her braids as she recounted her asthma medicines.

"Albuterol and Singulair," she said.

"Good job," responded Dr. Jennifer Elliot, an associate professor at Duquesne University's School of Pharmacy. She gave Montaziyah a high five. "Albuterol is

always so hard to remember."

After quizzing Montaziyah about steps in her medicine regimen, Dr. Elliot said she'd call Montaziyah's mother to check up on a few things. Then she walked the girl through the proper way of using an inhaler. "I take a deep breath," Dr. Elliot said, "like I'm sucking in spaghetti."

Montaziyah is one of about a dozen Hazelwood primary school students—reached through Propel and the after-school programs of the community organization Center of Life—who began participating in CARES (Caring for Asthma in our Region's Schoolchildren) last fall.

Every few weeks, Montaziyah talks with Dr. Elliot about prevention and treatment of her asthma.

A 50-child pilot program conducted in other nearby school districts found that the CAReS approach, administered

through Duquesne University and with support from The Heinz Endowments, helped children and their caregivers better understand asthma. The number of children able to control their asthma nearly doubled.

Dr. Elliot noted that some families have trouble getting kids to a doctor appointment, don't understand how a medication works,

or can't afford it in the first place.

"By coming to the school site, where the children are," she said, "we're taking away those barriers."

Nationwide, asthma affects both poor and African American households disproportionately, and children in Pittsburgh have a highly accelerated risk of asthma due to the region's poor air quality. Hazelwood is downwind from the U.S. Steel Clairton Coke Works, a major contributor to Allegheny County's status as just one of two counties east of the Rockies to fail federal air standards for particulate matter and sulphur dioxide. Researchers have found that Pittsburgh schoolchildren who have

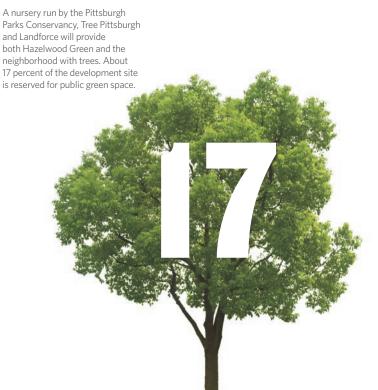
asthma are at high risk for not controlling this chronic illness, which can cause them to miss school, in turn affecting grades, pass rates, and possibly their ability to attend post-secondary schools and secure good jobs.

HEALTHY FITTIRES





Lytle Street within Hazelwood Green will incorporate cycle lanes that are protected through grade separation, an approach frequently seen in Europe, with only a handful of examples in North America. Trees on Lytle Street will be placed, on average, every 30 fete to ensure a good canopy, which in turn will create a more comfortable streetscape, slow traffic, filter air and rainwater, and provide shade for pedestrians.



The asthma program in Hazelwood not only attempts to reverse those impacts but also is among the many community initiatives helping residents deal with the effects of various environmental hazards while planning for a future in which the neighborhood is at the cutting edge of infrastructure design, innovative open spaces and green workforce development.

Local organizations and residents are cultivating urban gardens, creating green jobs and implementing stormwater management strategies. As the Hazelwood Green development advances across the remnants of a sprawling steel mill, air quality and other environmental concerns are driving inventive design and operations plans. These and other efforts foretell a time when Hazelwood could serve as a model for neighborhoods in the region that are trying to be environmentally responsible and innovatively green.

Fourth-grader Shamyah Livingston, center foreground, goes through breathing tests while Dr. Jennifer Elliott, right, an associate professor in Duquesne University's School of Pharmacy, monitors her progress. Shamyah is taking advantage of a school-based asthma clinic at Propel Hazelwood Charter School. Duquesne's pharmacy school runs the clinic in partnership with Primary Care Health Services. Dana Nardozzi, left background, is a Duquesne pharmacy student.



This goal was first pursued in earnest in 2002, when four Pittsburgh foundations, including the Endowments, purchased the 178-acre brownfield along the Monongahela River for \$10 million. A dozen years of significant environmental remediation and site prep—as well as a dozen studies—positioned the land as a blank slate for research and innovation that should benefit not only site users, but also the neighborhood of Hazelwood and beyond.

"The Endowments and other foundations bought the site to ensure that it wouldn't be redeveloped into just another industrial site," said Andrew McElwaine, the Endowments' vice president for Sustainability. He sees this "gorgeous riverfront property" becoming "an environmentally sound, prosperous development focused on the next economy, rather than the economy of the 1880s."

According to Hazelwood Green's Preliminary Land Development Plan, available at www.hazelwoodgreen.com, the space will "regenerate the ecology," leading to healthy people, efficient management of rainwater and restoration of the local ecosystem. It will serve as a testing ground and model for environmental initiatives and those wishing to live sustainably within an ecological footprint.

The plan maintains some structures from the former mill, but the \$1 billion project requires all buildings to meet LEED—Leadership in Energy and Environmental Design—Gold standards, thereby reducing energy demand while also utilizing renewable energy, such as solar, and collecting and using rainwater. Site plans also incorporate p4 Performance Measures—locally developed and quantifiable metrics that emphasize people, planet, place and performance in development decision-making. And the project is benchmarking itself against Living Community Challenge standards, which constitute the International Future Institute's framework for planning, design and construction.

As for transportation, "everything we're doing is trying to advance multi-modal solutions and reduce single-occupancy vehicles," project director Rebecca Flora said. This includes decreasing parking ratios and creating shared parking requirements. The Allegheny County Port Authority also has committed to rerouting one of its two Hazelwood routes through the Green.

Already, a new riverfront trail accommodating pedestrians and cyclists connects Hazelwood to other neighborhoods. The Green also boasts the city's first "complete street," Blair Street, which was designed to be safe and accessible for all users—pedestrian and vehicular—and constructed to capture all rainwater. Meanwhile, about 17 percent of the land has been reserved for public green space.

All of this, according to Ms. Flora, will help produce "pleasant pedestrian experiences throughout the site."

In addition, Hazelwood Green's central plaza will have a stormwater cistern to be used for irrigation, and native plants that are particularly efficient at filtering air pollutants. A nursery run by three organizations—the Pittsburgh Parks Conservancy,

the urban forest restoration nonprofit Tree Pittsburgh, and the workforce development agency Landforce—will populate both the site and the neighborhood with trees. Landforce staff will be available to work as contractors for incoming tenants.

"This is a holistic approach," Ms. Flora explained. "When we say sustainability, you really can't just think environment without recognizing that if we're good to the environment, we're good to people, and also good to the economy."

Hazelwood Green's first tenants include Carnegie Mellon University's Manufacturing Futures Initiative; the Advanced Robotics for Manufacturing Institute (ARM); and Catalyst Connections, a private not-for-profit organization that provides consulting, organizational development and training services to small manufacturers.

"From a social sustainability standpoint, those first tenants in particular are going to create economic opportunity and training opportunities

with the neighborhood," Ms. Flora said. "A strong linkage between the two can be a catalyst for more revitalization." The site will also work directly with tenants to manage transportation.

"At Hazelwood Green, we will achieve, over time, a net-zero district with renewable energy and efficient, smart buildings," said Rob Stephany, director of Community & Economic Development at the Endowments. "We would love to see that kind of system thinking penetrate the neighborhood" while maintaining affordable housing and avoiding displacement.

An example of collaboration on environmental initiatives in the neighborhood, he said, is the work of Rebuilding Together Pittsburgh, a community revitalization nonprofit that is helping senior citizen homeowners bring their houses up to code and mitigating lead, mold and radon as part of the upgrades.

Meanwhile, Grounded Strategies is conducting environmental research and programming in Hazelwood, and recently published its Hazelwood Community Greenspace Plan. The nonprofit community improvement agency will help guide the use and development of the neighborhood's 215 acres of open green space, several existing and potential greenways, and even city steps that encourage walking and neighborhood connectivity. Among the key green spaces are three large community gardens.

A steep slope towering 300 feet above Hazelwood Green defines the eastern border of the neighborhood, and can exacerbate water runoff, flooding homes and other structures. Hazelwood's sewer system currently collects both waste and rainwater. When these combine to exceed

capacity, wastewater flows into the Monongahela River. Grounded Strategies is working at the household level to help residents capture rainwater and take other measures to reduce flooding.

"If you want to think of it in terms of dollars and cents," said Masoud Sayles, Grounded Strategies' project director, "there's just tourism dollars being lost where people might have fun kayaking, paddle boarding, just enjoying the water. But they can't even go out on the water.

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Rebecca Flora, project director, Hazelwood Green

"It's really not just about Hazelwood, though. This is about getting the message out about these issues, because they're really Pittsburgh-wide and ... pretty much anywhere where we have combined sewers."

Joining Grounded Strategies in working with Hazelwood residents on the community gardens is Matt Peters, who moved to Hazelwood in 2011 and has managed those gardens as part of his contribution to his community. He currently serves as chair of the Hazelwood Initiative's Urban Agriculture Team.

"The importance of building community through gardening cannot be understated," he said. "When else do you have an opportunity to work together towards a common goal, and the payment is doing the work itself and the harvest you get?"

With a similar commitment to increasing access to healthy food and to building community capacity, Community Kitchen Pittsburgh has located its culinary arts training facility in the heart of Hazelwood. The organization's 12-week training program equips participants—most of whom have been incarcerated previously—to work in the food industry. Dylamato's Market on the southern end of the neighborhood stocks its shelves with fresh, healthy food from locally owned businesses—including garlic grown by Mr. Peters, who can recount Hazelwood's history as farmland.

He also asserted that the simple act of growing tomatoes and other vegetables at a community garden can lower grocery bills, increase property values and have other far-reaching environmental effects.

"The way we live in our cities," he said, "has an impact on our wild places thousands of miles away." h