In Good Health
Nobody wants to believe that deciding to use a popular perfume or munch on a tasty snack could make you sick. But a growing body of research is now available to show women how to make healthier choices for themselves and their families. Those in Pittsburgh also have had the chance to learn more at two “new science, new solutions” conferences held in the city. By Christine H. O’Toole

— Sheila Fine answered in the stylish affirmative for over a decade. But on April 20, 2007, the 68-year-old Pittsburgher summoned the courage to say goodbye to dye. Fine knew the over-the-counter cream that regularly turned her gray hair brown added more than conditioners and color. Analysis by a cosmetic safety database had linked it to cancer, neurotoxicity and chemicals that disrupt hormonal function, and warned that the effects lingered in body tissues. “When I would sit there getting my hair colored, the chemicals would soon turn dark brown, and they dyed my scalp, as well as my hair. And the rest went down the drain. Just think about all the products we put on our skin: hormone replacement therapy patches, acne creams, antibiotic creams, cortisol creams,” says the Fine Family Foundation board member. “I didn’t like the idea of this dye entering my system.” The event that pulled the trigger on Fine’s decision to ditch the dye was Pittsburgh’s first conference on Women’s Health & the Environment, held last year. She was among 2,300 participants who eagerly crowded Pittsburgh’s convention center to learn about the environmental hazards women are exposed to every day—even in their cosmetics—and the immediate actions they can take to protect themselves and their families. The conference was co-sponsored by Teresa Heinz, The Heinz Endowments, the Johnson Family Foundation and Magee-Womens Hospital of UPMC. “We did not just talk about being smarter consumers. That’s important, but we wanted to make it clear that we could not shop our way out of this crisis,” says Teresa Heinz. “We need smart science and smart policy, as well as smart consumers. And on all three fronts, we wanted women to feel empowered—as individuals and as a group.”
The conference jump-started 18 months of grassroots efforts to encourage women who attended the event to continue making choices that protect their health. Organizers of these activities have seen an increased desire among women in the Pittsburgh area to learn and do more to live healthier. This work was amplified at a second regional conference held in Pittsburgh in September.

“Mrs. Heinz recognized that the first conference motivated women in southwestern Pennsylvania to get involved with environmental health concerns that were not being adequately addressed,” says Caren Glotfelty, director of the Endowments’ Environment Program. “This next conference enabled us to build on that energy and momentum with information on the most up-to-date science and public policy and with even more practical measures women can take to protect their health.”

Fine agrees that the women’s health conference last year helped solidify some of her thoughts about taking steps to improve her health, including the resolution to no longer dye her hair. “Why keep contributing to something that is putting toxins in my body and our environment?”

She’s stepping back from an all-American belief in better living through chemistry, and her simple personal decision feels right. “It would be obsessive and difficult to ‘cold-turkey’ everything,” she argues. “But if we do some homework and slowly adjust what we use and purchase for ourselves and our family, change is very workable.” As for her image transformation, from “bottle brunette” to all natural, she says with a laugh, “It’s the most liberating thing I’ve ever done.”

Environmental health researchers say toxins that enter the human body at very low levels—what scientists call “physiological levels”—can persist over time, triggering disease or change at the cellular level years or even generations after initial exposure.

John Peterson Myers, a speaker at last year’s conference and founder and CEO of Environmental Health Sciences, notes that diseases he refers to as “today’s epidemics”—hormone-related cancers, endometriosis, infertility, obesity, diabetes and asthma—are being linked to this process of bioaccumulation. Also of concern are endocrine disruptors, which are synthetic chemicals that act like natural hormones in the body, but can trigger a variety of reproductive and systemic problems. Found in products like plastic containers, cosmetics, hair dyes, flame retardants, pesticides and herbicides, their prevalence makes it difficult for a consumer to dodge their effects.

“We are beginning to understand that very low doses at the wrong time, even early in embryonic development, can have profound effects,” says Devra Davis, director of the Center for Environmental Oncology at the University of Pittsburgh Cancer Institute. She cites research presented at a recent conference, which reported four cases of infertility in granddaughters of women who took the synthetic hormone diethylstilbestrol, or DES, during their pregnancies. The drug had already been proven to impair the reproductive system of the women’s daughters, but the new study showed that its effects persisted decades later into a third generation. At the same conference, researchers reported cases of ovarian cancer in pre-pubescent girls as young as 10.

“That, I think, has been really shocking but not surprising,” says Davis, who also was a speaker at both women’s health conferences in Pittsburgh. “We could make sense of those rare events, because we had prior evidence on DES. That is a signal that there may be other serious long-term hazards out there, and we must pay more attention. We’ve made progress in stepping back from the paradigm that says the only proof [of environmental hazards] that we can accept is sick or dead people.”

Ann McGuinn, a board member with the city’s Children’s Institute, is among those who see the need for more consumer information as a call to action.
“We were all at a tipping point,” recalls McGuinn of her impressions after the first Pittsburgh conference. “We were like spokes of the wheel, coming from different directions to the same conclusion: that toxicity in our environment has dramatically affected family and women’s health. So that [conference] was a pivotal moment, to have this information presented without sugar coating. But the speakers also talked about solutions—that struck all of us. They’re not just worrying about air and water, women’s cancers and decreasing fertility for men and women—which all make perfect sense, once you understand what’s happening with the chemistry—but suggesting ways that we can protect ourselves.”

McGuinn has taken the helm of an ad hoc women’s network on the environment and women’s health to organize more public information sessions and to ask public health officials, school administrators and legislators to respond to these issues, stressing concrete solutions.

Magee-Womens Hospital officials have folded environmental issues into patient and staff education programs since 2005. The hospital is a member of the network and coordinated plans for the second citywide conference (see sidebar “The Next Chapter”). In recognition of its early leadership on environmental issues (see “Nature and Nurture,” Winter 2007, h magazine), Magee shared a national award from the Environmental Protection Agency last year with Children’s Hospital of Pittsburgh of UPMC. They were two of only 10 organizations that received a Children’s Environmental Health Excellence Award for outstanding commitment to protecting children from environmental health risks.

Joyce Lewis, Magee’s director of community and governmental affairs, says she’s noticed that consumer knowledge is already increasing. “In our pre-natal and baby basics classes, folks come in with more information—especially when there’s an item on the news,” she says. “People are calling our education department and enrolling for workshops. They’re paying attention.”

Magee sends home tips on environmental health with the families of all newborns—a massive audience, since half of all Pittsburghers have been born at the hospital. Its safe cosmetics workshops are attracting teenagers, and it is developing an online tool kit for obstetricians to use to understand environmental health risks.

This year, the hospital also is partnering with the Endowments to offer small-scale information sessions that tie today’s alarming headlines to research updates and safe, practical strategies for protecting health. More than 100 savvy consumers have turned up at each of the weekday-evening meetings to ask pointed questions.

Organizers of the May 15 safe food session must have seemed prescient. Just five weeks later, a salmonella scare squashed sales of fresh tomatoes nationwide. The federal government warning to avoid certain tomatoes was lifted in July, though officials continued to caution against eating hot peppers into August.

But in the spring, those filling the auditorium at the Carnegie Science Center auditorium weren’t worried about tainted produce. They were seeking “reasonable choices for healthy families,” as the program was billed.
As a growing number of families become more conscious about the quality of their food, nutrition experts are touting the advantages of locally grown produce, vegetables cultivated without pesticides and antibiotic-free meat.

Colorful handouts from Pittsburgh’s Rachel Carson Institute offered suggestions for growing native plants, a primer on pesticides and an overview of endocrine disruptors. Everyday action tips included admonitions such as, “Do not give young children soft plastic teethers,” and “Grow more vegetables to reduce your shopping bill, increase the quality of the food you eat and reduce global warming” by reducing the energy consumed by trucking produce across the country. The pamphlets emphasized common-sense solutions to growing problems.

David and Theresa Kantz of Wexford settled into their seats, seeking ways to raise their garden vegetables without pesticides. Theresa, a nurse with Highmark Blue Cross Blue Shield, a large regional health insurer, says she’s also buying more organic foods and is taking classes in macrobiotic cooking.

Sitting a few rows away and equally vigilant about her family’s diet was Karina Winters-Hart, with sons Andrew and Alex in tow. Andrew, age 7, has a nut allergy, which makes him part of a growing demographic. In the past five years, the incidence of peanut allergies has doubled, according to the Food Allergies and Anaphylaxis Network, and research is investigating whether environmental factors may be a cause.

Due to what George Washington University nurse practitioner Barbara Boston calls the “focusing” of contemporary diets, our immune systems are less able to deal with the constant influx of the same foods. The more a pregnant woman eats certain processed foods, particularly those with known allergens like nuts, the more likely her fetus may become sensitized to that food.

The speaker that evening was Lance Price, director of the Center for Metagenomics and Human Health at the Translational Genomics Research Institute in Phoenix, Ariz. The center applies findings of the Human Genome Project to the development of diagnostics, prognostics and therapies for cancer, neurological disorders, diabetes and other complex diseases.

Price delivered an arresting statistic to the group in his discussion of the links between antibiotics used in industrial meat production and the leap in antibiotic-resistant infections in humans. “MRSA [methicillin-resistant Staphylococcus aureus] now kills more people than AIDS. The national estimate for 2005 was more than double the MRSA prevalence of 2000.”

While an individual response might be to become vegetarian, a common-sense community response is a change in food safety regulations. Audience member Jeanne Clark of PennFuture, an environmental action group, gave participants an update on pending Pennsylvania legislation that would ban the use of antibiotics on healthy animals in livestock factories and volunteered a Web site address, www.keepantibioticsworking.org, which could provide background on the issue.

Another national health issue with regional implications, safe air, was discussed at a session on June 25. The Endowments’ Glotfelty introduced the program with a rueful acknowledgement: “Once again, Pittsburgh is right there at the top of the list of metro areas with the worst air quality.”

From 2003 to 2005, the region’s air-quality monitors recorded the nation’s highest levels of fine-particle pollution, which can pass invisibly into human lungs and bloodstream.

Pollution, too, is a women’s health issue: Long-term exposure to fine-particle air pollution is associated with a higher incidence of cardiovascular disease and death among post-menopausal women. And overall, southwestern Pennsylvania leads the nation in deaths linked to particulates from coal-powered power plants.

“I work as a respiratory therapist, and I have a respiratory problem,” says Brenda Patrick, 50, who lives in the Pittsburgh suburb of Penn Hills. “My husband, my daughter and my son all have respiratory issues. I was surprised [to learn] about the particulate problem. We ignore the problem when we can’t see it. That has to change.”

The desire of Patrick and the others to learn more and to protect their patients and families is a trend that the Center for Environmental Oncology’s Davis believes has become widespread, increasing the need for sharing practical ways to make healthier life choices.

“The preventive thrust hits home with a lot of people,” says Davis. “We are asking, ‘Isn’t it time for us to build fences to keep people from falling off the cliff?’ There’s a sense that we’re figuring out how to build those fences.”
Pittsburgh’s second “Women’s Health & the Environment: New Science, New Solutions” conference was held Sept. 25, 2008, at the David L. Lawrence Convention Center. More than 2,100 people showed up to continue the discussion about environmental health risks and the protective steps women can take that was launched during the first standing-room-only conference at the convention center. Organizers of that inaugural event turned away 400 would-be participants. This year’s conference took a more in-depth look at environmental hazards in air, water, food and personal care products.

Keynoting the all-day session was Nancy Nichols, a Boston journalist and pancreatic cancer survivor whose book, “Lake Effect: Two Sisters and a Town’s Toxic Legacy,” will debut this fall. Moderating the morning and afternoon sessions was Bev Smith, a popular radio commentator on the American Urban Radio Networks. Diane MacEachern, author of “Big Green Purse: Use Your Spending Power to Create a Cleaner, Greener World,” delivered the day’s closing address.

Among other speakers were Charlotte Brody, executive director of Commonweal, a California environmental health and research group; Jane Houlihan of the Environmental Working Group; Bruce Hill, senior scientist for the Clean Air Task Force; Conrad “Dan” Volz of the University of Pittsburgh’s Graduate School of Public Health; and Carolyn Raffensperger of the Science and Environmental Health Network.

“Because women use more cosmetics and personal and household products than men, we have greater exposure to chemicals that cause cancer and other illnesses,” notes Teresa Heinz, who again co-sponsored the conference along with The Heinz Endowments and Magee-Womens Hospital of UPMC. “Because of our physiology, we are especially vulnerable to those exposures. And because of our gender, medical science until recently had little interest in the unique ways in which our bodies react to various types of medicine, chemicals and pollutants. Our goal with this conference was to link what we know about the challenges facing women’s health with actions we can take to meet those challenges.”