The students were taking part in the inaugural Pittsburgh Summer Institute—Public Health in Action internship program, a collaboration between the health department and the Pennsylvania Public Health Training Center in the Center for Public Health Practice. They were mentored by epidemiologists at the health department to gain practical skills in applying their learning to real-life public health issues.

Among other findings, the students noticed that 33 percent of Allegheny County respondents admitted to at least one episode of binge drinking in the past 30 days. That matched the rate of adults who reported growing up with an adult who was abusive or had drug and alcohol dependencies. Overall, 15 percent reported physical or sexual abuse as children. What was the connection, the interns wondered, between the rates of alcohol abuse, child abuse, and overall health status?

The interns’ analyses added to the ongoing collaboration on the ACHS, which was developed by a group of faculty and graduate students from Pitt Public Health and ACHD. Faculty members under contract to the department had helped to design the survey format, and they continue to study the resulting mosaic of the county’s health challenges.

Only five bustling city blocks separate ACHD from Pitt Public Health. But despite their compelling mutual interests in advancing community health, the intellectual distance between the institutions has waxed and waned in the six decades since they were founded.

Last summer, 10 interns from the Graduate School of Public Health detoured from their usual commutes to Parran and Crabtree halls to the nearby headquarters of the Allegheny County Health Department (ACHD). The group was mining a trove of public health gold: the results of the recent Allegheny County Health Survey (ACHS) of local residents. They paused at some troubling results.

“We especially need to get much better at supporting infants and young families to get a healthy start in life.”

by Christine H. O’Toole
Now the two are rebuilding the digital and practical bridges that connect public health research and practice. Under new leadership, the county agency is determined to address stubborn problems like infant mortality and cardiovascular disease, where the region ranks unacceptably high among other major cities. At the same time, it must find solutions for issues like obesity and air pollution, which require a concerted approach among many entities—city planners, industries, schools, and health agencies.

Donald S. Burke, dean of Pitt Public Health and the UPMC-Jonas Salk Chair in Global Health, believes that funding pressures and a new era of challenges combine to create an opportunity for a stronger relationship with the county health department. A member of the agency’s board since 2007, he has headed its five-year strategic planning effort. The board, chaired by professor Lee Harrison of the University’s schools of medicine and public health, will unveil the recommendations this winter.

While Pitt Public Health has evolved into a research powerhouse, forging strong collaborations with the city’s medical community, the surrounding community has lagged behind other metropolitan areas in public health standards, particularly in preventing premature mortality. Pitt Public Health faculty members are already engaged in these topics. But for ACHD, which receives only $5 million in taxpayer funding each year, attention to those big-picture issues has become a luxury.

“It is a very, very small health department for the population,” says Ronald E. Voorhees, who became acting director of the department in June 2012. Although federal and state funds increase the department’s overall budget to $36 million a year, “there is not a lot of capacity within the health department to take on much beyond the basics of disease control and environmental regulation. Public health needs to be proactive in addressing chronic and behavioral conditions. We especially need to get much better at supporting infants and young families to get a healthy start in life.”

Burke believes that Pitt Public Health can lend capacity to the health department effort and believes it’s time to do so.

“My own view is that the health department is underfunded,
underappreciated, and arguably not as terribly effective an organization in serving the public health as it might be because of those constraints," he says. "Our health in Allegheny County is less than our peer index counties across the United States. Our life expectancy is less. As a community, we need to change things; we need to make it better."

Collaborative History

Improving community health was, of course, the impetus for the creation of both the Graduate School of Public Health in 1948 and ACHD eight years later. As Burke points out, the dean of the school also served as health department director in its early years. In an era of infectious epidemics—measles, influenza, and of course, polio—the department was crisis-oriented.

"Diseases have changed over time," acknowledges Lewis Kuller, emeritus professor of public health. "Chronic diseases—heart disease, diabetes, cancer, dementia, aging, osteoporosis, emphysema—have become primary diseases. Changing characteristics of health problems in the community have not impacted health departments as much as they should have, but they’ve impacted schools of public health dramatically. This could be the reason why the two have grown apart."

"We still play a crucial role in identifying outbreaks and preventing disease and in controlling the spread of disease through clinical activities such as tuberculosis (TB), HIV, and STD care," says Voorhees, an epidemiologist who has held an appointment as visiting associate professor at Pitt Public Health since 2009 and recently was appointed as professor. "But to really get at the reasons why people become ill, why we have infant mortality, why there are periods when people die younger than they need to, requires a more sophisticated assessment function. We’re trying to build that within epidemiology. But being a public sector entity, it’s hard to grow in a climate where there’s a lot of pressure to reduce taxes."

Connecting publicly funded health agencies with the private U.S. health care system poses obstacles, too, says Maggie Potter, director of the school’s Center for Public Health Practice. "[In the U.S.] the personal delivery of health is completely separate from the population health side—research, enacting policies, infectious diseases. In other countries where health care systems are centralized and uniform, those kinds of things are much more tied into what’s going on with individuals," she explains. "The private health care system in the United States operates independently from government records. For example, why do we have high rates of asthma for kids near bus stops? To the extent Allegheny County can move in that direction, bring all parties to the table, it will go a long way” toward effectively solving problems.

For its part, Pitt Public Health continues to seize opportunities to make its research and teaching relevant to the community.

"Schools of public health, ours included, have for decades been striving to improve relationships with public health practitioners in the public and private sectors," says Potter. "If you don’t interact with the profession or the practice community, you don’t get a clear focus. Every public health jurisdiction at the local level struggles to measure progress toward excellence. Study after study says that takes leadership: a scientific basis for decision making that academic involvement with the health department can bring.”

_targets for Lowering Premature Mortality_

Public health and community leaders already agree on three issues that urgently need their combined attention, says Burke: infant mortality, violence, and hypertension and heart disease. All have significant impacts on African American families.

The statistics are sobering.

The infant mortality rate for Black residents of Allegheny County was 20.7 in 2009, a slight decrease from 21 in 2000 but still worse than the rates in China or Mexico. A second spike in mortality occurs among young adults. For young men aged 18-30, homicide is the leading cause of death in the county; the rate for young Black men is 14 times higher than for Whites, and homicide is the leading cause of death among African American men. In Pittsburgh alone, the homicide rate for young Black men is 60 times the city average and 50 times the national average. Among adults aged 45-60,
hypertension and heart disease again have a disproportionate effect on African American males. Heart disease was the leading cause of death in the county in 2008, accounting for nearly 27 percent of all deaths.

“We need to look hard at those three areas, ask what we can do to reduce mortality, and have that be a major metric of success or failure of the health department. That’s a tough assignment,” Burke admits.

The Urban League of Greater Pittsburgh prompted public discussion on health disparities between various communities with its 2002 “Black Papers,” comprehensive reports on African American public health; another set of reports was published in 2011. These reports emphasized how socioeconomic conditions affect local health.

Pitt Public Health’s Center for Health Equity, the successor to the school’s Center for Minority Health, continues to focus on disparities based on race, income, and education.

Director Patricia Documet says equity encompasses “more than race. In addition to racial and ethnic minorities, it’s people who are chronically poor, poorly educated, or people with disabilities—everyone who experiences inequities.”

Voorhees believes that there needs to be partnership on assessing the problems and the objectives. “Let’s get the health department, the universities, the Department of Human Services, and other community organizations together,” he says. “To succeed, we all need to work together.”

Other U.S. regions face similar challenges, and Voorhees points out strong university-government partnerships elsewhere.

“There are good collaborations. The Minnesota health department and the University of Minnesota do survey work together. In New Mexico, STD and TB clinics are staffed by both university faculty and in-house staff.”

Burke emphasizes that benchmarking will lead Allegheny County to the best practices. “I look at the bottom line,” he says. “What are the mortality rates for these three target areas in the 34 U.S. counties with over 1 million people?”

To bolster the health department’s resources, Burke suggests creating a new nonprofit to leverage research and interventions.

“My preference is to have a new entity that would work closely with the health department and could get funding from other organizations and be the rallying point for interventions and a combination of research and evaluation of programs. We need a new mechanism with more flexibility than the county currently has,” he observes. During a 23-year career at Walter Reed Army Institute of Research, Burke created a similar support program.

Burke sees Pitt Public Health as a catalyst that can effectively attack local health care challenges. “But it’s not just about us,” he cautions. “That’s a valuable role for the University as a whole: pharmacy, nursing, dentistry, medicine, education, and law. We can help launch the process.”

“It’s going to take a long time to turn around the current figures, and not just by the health department acting by itself,” says Potter. “It’s going to take bringing leadership to bear on issues. Communities who are most seriously impacted by mortality rates need to be participants—and so does the health care system.”
Researchers are already at work on projects to understand the county’s challenges in the areas identified by Dean Donald S. Burke. An infant mortality group convened by Assistant Professor Jessica Burke, and comprising University researchers, health department staff members, and doula program representatives, has begun monthly brainstorming sessions. With a grant to map starting points for violence prevention, an effort to reduce homicides among young African American men is under way. Community participation is an important component in an effort that “goes beyond police reporting facts” to pinpoint underlying causes, says Center for Health Equity Director Patricia Documet.

High rates of hypertension and heart disease in African American men are being addressed through a health education effort by the Center for Health Equity. An outgrowth of a program to reach adult men through local barbershops, the Healthy Family Project targets the city’s East End neighborhoods as a health empowerment zone. Documet says outreach to Hispanic communities will adopt the best practices of the project.

Pitt Public Health not only designed and analyzed the second Allegheny County Health Survey (ACHS) for the Allegheny County Health Department in 2009–10; the school also helped to raise funds to conduct the study and intends to reprise it in several years. The Department of Behavioral and Community Health Sciences continues to analyze results. Student interns will continue to participate in the health department’s summer institute in applied public health, many working with ACHS data.

With the second-oldest population in the country, the Pittsburgh region is a natural laboratory for research on healthy aging. Community volunteers have enlisted to promote the “10 Keys to Healthy Aging,” simple behaviors developed by the University’s Center for Aging and Population Health (CAPH). Reducing the risk of falls—the main reason older people go to emergency departments—is the focus of ongoing work by Steven Albert, chair of behavioral and community health sciences and codirector of CAPH. Albert’s group is currently testing prevention trials among elderly Pennsylvanians.

A long-term partnership between the region’s gay, bisexual, lesbian, and transgender communities and Pitt Public Health supports HIV/AIDS research and health services in the Pittsburgh region. Anthony Silvestre, coinvestigator of the study and professor of infectious diseases and microbiology, established the nation’s first HIV Community Advisory Board. Founded in 1984, the board continues to meet.

Through the Department of Environmental and Occupational Health, which houses the Center for Healthy Environments and Communities, Pitt Public Health is assessing the regional impact of Marcellus shale drilling, comparing baseline tests of drinking wells in areas with and without gas drilling operations.

Students continue to volunteer in community preparedness through SPHERE, the Student Public Health Epidemic Response Effort. They have also responded enthusiastically to help the county health department deliver mass immunizations. Jamie Sokol (MPH ’07), emergency preparedness training and exercise coordinator for the department, says students have shown interest in becoming involved with the Medical Reserve Corps, a group of 700 county residents registered to respond in public health emergencies. “We want to get students excited about working for a health department,” she says.