On the doorstep of the University of Pittsburgh School of Nursing, Heidi Donovan found a real-time laboratory where her students could learn firsthand how integral a nurse’s role can be in changing the health of a community.

An associate professor in the Department of Acute/Tertiary Care, Donovan teaches a master’s-level course in health promotion and disease prevention in culturally diverse populations. Thanks to her efforts, the class focus has broadened from individual behavior change to encompass some of the community, policy, and social factors that dramatically influence health.

“Health promotion can and should be done everywhere, at every level of our health care system,” says Donovan, who describes her students’ health promotion solutions as “simple, but difficult”—supporting individuals to succeed in behavior change efforts, proposing policy changes, training lay staff members of community organizations to promote healthy behaviors among their clients, and persuading local stores to offer healthy food choices. “Nurses are in the perfect position to support patients’ efforts to become healthier.
Nurses are particularly effective at considering a patient’s unique background and experiences in order to provide evidence-based recommendations and counseling in a highly individualized way to motivate people to make these simple but difficult behavior changes,” she explains.

**Better Nutrition, Healthier Community**

Working in partnership with the Community Human Services Corporation (CHS), a nonprofit social services organization in Pittsburgh’s South Oakland area (near the University), Donovan began developing service learning projects for her students. They started by interviewing the organization’s staff members and the neighbors who use its services, did driving and walking tours of the community, and began identifying some priorities for health improvement. As a result, Donovan and the class decided to focus on nutrition and physical activity.

After learning that residents had relatively few choices for low-cost, healthy foods, Donovan partnered with community leaders from the Allegheny County Health Department, CHS, the Oakland Business Improvement District, Peoples Oakland, and the Oakland Planning & Development Corporation to apply for and ultimately receive a two-year grant to improve physical activity, nutrition, chronic disease, and health promotion leadership in the community. The grant, sponsored by the Centers for Disease Control and Prevention and the National Association of County and City Health Officials, designates and supports Oakland as an ACHIEVE (Action Communities for Health, Innovation & EnVironmental changE) community.

Donovan and her colleagues identified teams made up of key community leaders and policymakers. They are focusing on the passage of a complete streets plan in Oakland to support safe walking, biking, and public transit; promoting simple physical activity within work settings; and working to influence and support the small groceries, markets, and restaurants that dot Oakland to offer healthier choices.

“It will really be about creating a campaign and maybe some friendly competition among restaurants and stores to do this,” says Donovan.
Donovan and her students also have worked with CHS homemakers program, supported by the United Way, which includes a corps of people who assist clients with chronic physical and mental health problems living alone. Donovan’s students interviewed various stakeholders and came up with a novel idea: Create simple health promotion tool kits and then train the homemakers, who already know the clients, to coach the clients through pantry evaluations, choosing and preparing healthy foods on a limited budget, increasing physical activity safely and slowly within the home, smoking cessation, and stress reduction.

One group of students designed clever, simple tool kits—including flip charts and pamphlets—that were turned over to a second group of students who conducted a “train the trainer” program in December 2010.

“They were pretty skeptical at first,” acknowledges Donovan of the homemakers. But, she adds, “There was an overwhelmingly positive response during the training program. Some of the homemakers even talked about making personal changes as well.”

Donovan is partnering with community leaders and local markets to make low-cost, healthy food more accessible to residents of South Oakland.

Reaching Out to Prevent Alcohol-related Disorders, Illnesses, and Injuries

Nurse-led research has long been recognized for its practical applications, and research that delves into better screening and early intervention is no exception.

At the VA Pittsburgh Healthcare System, Lauren Broyles (PhD ’08) works as a research health scientist who is investigating the efficacy of a specific type of alcohol intervention. Its acronym, SBIRT, stands for Screening, Brief Intervention, Referral and Treatment. This three-pronged approach spans the entire spectrum of alcohol misuse, from hazardous drinking to more severe disorders like alcohol abuse and dependence.

Traditionally, the SBIRT tool has been used in primary care settings and in some emergency and trauma settings and is typically used by physicians, residents, or medical students. But amid calls for a more interdisciplinary use of SBIRT, Broyles is focusing on nurses leading the approach.

“There are a lot of reasons why nurses make sense,” she says. “We have the greatest amount of predictable, extended patient contact. We have a practice style that’s very congruent with SBIRT and motivational interviewing.”

The SBIRT method uses a standardized instrument to perform alcohol screening, which identifies the level of alcohol intervention a patient might need, if any. It is then followed by a five-to-seven-minute brief intervention consisting of a motivational discussion that offers personalized feedback about the patient’s risk levels while encouraging the patient to reduce his or her alcohol consumption.

“It’s a patient-centered approach. It’s not argumentative and it’s not trying to be persuasive. It’s trying to meet the person where they are in their readiness to change their behavior,” Broyles says. “We have the opportunity as nurses to take an upstream, preventative approach to addressing alcohol use before it progresses to dependence or negatively impacts other health conditions. And we have the opportunity to do this across practice settings, not just in primary care.”

As part of research that was funded through a five-year U.S. Department of Veterans Affairs Career Development Award, Broyles is planning a pilot study...
that will measure the impact of SBIRT on patient outcomes among hospitalized patients, among whom it has not been extensively used or tested. She is in the midst of a study that trains nurses in the SBIRT technique and ensures that the training is effective.

The Joint Commission (formerly the Joint Commission for Accreditation of Healthcare Organizations) pilot tested new hospital accreditation measures that would require alcohol and tobacco SBIRT for all hospitalized patients. If adopted, the SBIRT measures will address some of the nation’s greatest unmet health care needs in hospitals across the country. At present, one in four hospital admissions is related to alcohol, tobacco, or other drug use and more than 2 million deaths in the United States each year, approximately one in four, are attributable to the use of alcohol, tobacco, or other drugs. Screening admitted patients for tobacco, alcohol, and substance use and initiating treatment for these conditions in the hospital makes good clinical sense.

“Administering SBIRT is a natural fit for nurses,” Broyles says. “It’s a place where nurses can really exemplify their holistic approach to practice. We have a shared responsibility to prevent alcohol-related harm.”

**Searching for Biomarkers**

On a larger scale, Wendy Henderson (BSN ’94, MSN ’99, PhD ’07) is applying the nurse’s approach to research on symptom distress in digestive disorders. “Nurses bring a different perspective to research. They look at what truly matters to the patients: How do they feel? Are they able to function?”

As an assistant clinical investigator in biobehavioral research at the National Institutes of Health (NIH), Henderson is part of a team that is looking for biomarkers in patients who have chronic abdominal pain, a poorly understood syndrome that affects roughly 15–20 percent of children and adults in the United States. “We have nurses at the lead because we’re listening to what patients are saying,” says Henderson. “We’re not necessarily focused on the disease state; we’re focusing on the patient’s symptoms.”

In this research, Henderson and her team are exploring the relationship between intestinal inflammation and abdominal pain as well as objective indicators at the molecular level of symptom severity and the related clinical outcomes. This work could lead to therapeutic targets for physiological problems related to the digestive system, such as obesity, fatty liver, and nutritional malabsorption.

Because NIH research is within the public domain, the findings may be translated directly to hospitals, clinics, and outpatient settings. For example, Henderson’s team has developed a tool called the gastrointestinal pain pointer, in which patients use a computer interface to indicate location and intensity of pain as well as to record the pain intensity. When fully developed, the tool could become available for general use. (Information on currently available clinical trials and research protocols is available at clinicaltrials.gov.)

“We’re able to invent novel ways to assess patient symptoms,” says Henderson.

For Donovan, the nurse is the cornerstone of discovery and implementation of evidence-based practice—careful integration of the best evidence with people’s very individual, personal, family, and environmental risk factors.

“Nurses have a great deal of respect from patients. We see patients at times when they might be very ripe for hearing behavioral change messages,” Donovan says. “I’ve seen some amazing things happen.”