



Public Health Academia and Practice: Partners through the years

James L. Gale, Professor Emeritus, Epidemiology



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training professionals to do the work of making populations healthier.

Both systems have their particular ways of hiring, firing, and convincing policy makers about the merits of particular programs. Perhaps one of the larger differences is the time frame in which policy changes are made. The practice world is often held more immediately responsible for results by its policy makers and the public, while academia frequently changes more slowly. This difference in the amount of time necessary to change directions and programs can be a major cause of misunderstanding.

At the UW School of Public Health and Community Medicine, state instructional and operating funds make up only 20% of the School's budget. The remainder comes from grants, contracts, and donations, often vigorously competed for by the School's entrepreneurial faculty. While this arrangement allows great flexibility as to new faculty initiatives, faculty cannot begin new efforts with practice partners unless resources to do so can be found.

The 1988 Institute of Medicine report, *The Future of Public Health*, noted the distance between schools of public health and local, state, and federal public health practice. Since

that report, schools such as ours have made efforts to close that gap. Federal agencies such as the Health Services Resources Administration (HRSA) and the Centers for Disease Control and Prevention have increased funding for outreach between practice communities and academia.

In 1990, then Dean Gil Omenn, together with Mark Oberle, Chuck Treser, and others, established the Northwest Center for Public Health Practice, with a mandate to reach out to our Northwest region. Funding for the Center has waxed and waned, but currently fortunes are better, with strong partnerships with our seven Northwest partner states to prepare the workforce for public health emergencies.

During the last 15 years, the Council of Public Health Practice Coordinators at the Association of Schools of Public Health has emphasized the value of new knowledge created by faculty in practice settings. From this group has come at least two publications on how to evaluate scholarly work generated from activities carried out in the realm of practitioners. Within our School, we have broadened the criteria for tenure and promotion to include the demonstration of scholarship in practice settings—scholarship that might not follow the traditional research pathways but nevertheless creates new knowledge.

Student practica have also brought practitioners and academics closer. These 120-hour assignments to practice agencies—such as Public Health-Seattle & King County, South Whidbey Community Clinic, and the Kenya Medical Research Institute—for academic credit are now required for the MPH degree. They are also mandated by our accrediting agency, the Council on Education in Public Health. Initially, our faculty was indifferent to this requirement. Attitudes have changed, however, and student practica are now the normal way of doing business. Students have repeatedly validated this exercise as germane to their training.

Initially, some faculty members were also reluctant to embrace practice partners—in part, I believe, out of ignorance of what they might have had to offer. In addition, practitioners didn't know how to gain access to faculty and

James L. Gale, Professor Emeritus of Epidemiology, will deliver the Spring Quarter Distinguished Faculty Lecture on May 19, 2005, from 3:30–5:00 pm in Room T-639 in the Health Sciences Building. A reception will follow. For more information, contact Billie Grace at 206-543-1144.

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student expertise as it applied in their settings. However, as federal money has increasingly encouraged collaboration, individuals on both sides of the faculty/agency divide have found common ground upon which to collaborate and find funding for projects. The mutually beneficial opportunities for students have been an incidental bonus.

As I write this, opportunities continue to surface. Many grants and contracts—in public health preparedness, evaluation of health prevention programs, and HIV-AIDS prevention and treatment programs, among others—are now targeted for academic/practice collaboration. And the School's new Department of Global Health (to be jointly administered with the School of Medicine) will generate expanded international opportunities as well.

Good Health: What's stopping us?

*Yael Dvora Yanich, Public Information Specialist,
Health Promotion Research Center*

If we know how to save lives and improve people's health, what's stopping us? Many of us know how to reduce our risk of cancer, but we often don't act on the knowledge. This is true for individuals and for society as a whole. For example, colorectal cancer screening is widely available and can prevent cancer or detect it in its early stages, saving lives either way. Yet, surprisingly, only about half of Washingtonians over age 50 are up-to-date on colorectal cancer screening. Similarly, we know that smoking cessation medications and counseling can more than double a smoker's chance of quitting successfully—reducing the risk of subsequent smoking-related illnesses. Yet, only one in 10 employers offers such treatment to employees through health insurance.

Applied research aims to bridge this gap between knowledge and action, pointing the way to better health through the use of evidence-based interventions and real-world experience. At the vanguard of applied cancer prevention research is

the Alliance for Reducing Cancer, Northwest (ARC NW), a coalition of Pacific Northwest researchers, community partners, employers, government, health care systems, and research institutions. Leading the alliance is Jeffrey Harris, MD, MPH, MBA, Associate Director of UW's Health Prevention Research Center and Professor in the Department of Health Services.

ARC NW is one of eight centers in the nationwide Cancer Prevention and Control Research Network, funded by the Centers for Disease Control and Prevention and the National Cancer Institute as part of the CDC's Prevention Research Center Program. Presently, ARC NW operates on three fronts: cancer screening, outreach and dissemination, and workplace health promotion.

Cancer is the leading cause of death for working-age Americans, and the workplace is a logical site for health promotion. Most working-age Americans receive their health insurance through their employers and increasingly receive other health promotion benefits at work as well. ARC NW and the American Cancer Society's (ACS) Seattle-based Great West Division have developed ACS Workplace

Solutions, a practical program designed to illustrate the business case for employer-sponsored cancer prevention and show employers how to implement best practices in prevention of cancer and other chronic diseases.

ACS Workplace Solutions promotes 15 evidence-based recommendations proven to influence key behavioral risk factors such as tobacco use, physical activity, nutrition, and use of clinical preventive services (breast, cervical, and colorectal cancer screening; and flu vaccines). Recommendations are

tailored to meet employers' needs and make use of avenues that are readily available to employers, including insurance benefit design, workplace policies, and employee programs. The program also offers detailed "how-to" materials to help employers implement the recommendations.

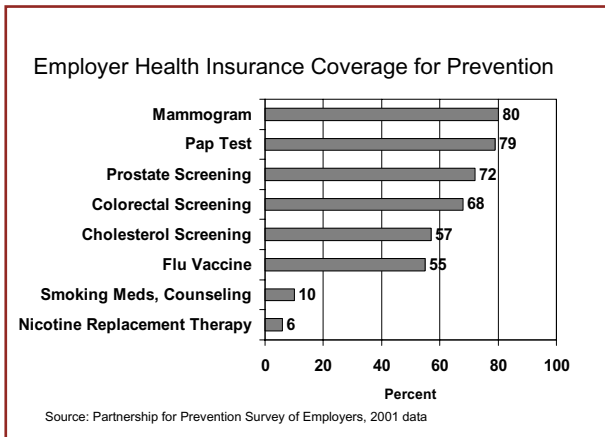
In the past year, ACS and ARC NW have piloted the ACS Workplace Solutions with three Seattle-based Fortune 500 companies, each insuring more than 30,000 employees. Early results have been very encouraging. Of the 45 benefits,



The UW's Rotunda Café offers patrons healthy choices, including low-fat and low-carb options and a salad bar.

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policies, and programs recommended by ACS, only five (11%) had been fully implemented at the three companies before ACS Workplace Solutions began. Since completing the program, however, all three companies have begun implementing recommendations such as adding healthier



foods to workplace cafeterias, eliminating co-payments for cancer screening, offering a telephone-based smoking cessation program, or sponsoring physical activity teams for employees.

“Employers tell us they have three major needs related to the health of their employees,” observed Dr. Harris. “First, they want to recruit and retain the best possible employees. Second, they want those employees to be as free as possible from health problems that decrease their productivity. Third, they must control spiraling health care costs. Our program offers help with all three, eliciting a very positive response from employers.”

ACS and ARC NW are continuing their pilot work with eight additional companies, including state and local government employers and companies headquartered outside the Seattle area. Future plans involve continuing to track changes at the pilot companies and extending the program to mid-size employers.

For further information: www.arcnw.org

Harris JR, Holman PB, Carande-Kulis VG. Financial impact of health promotion: we need to know much more, but we know enough to act. *Am J Health Promot* 2001;15(5):378-82.

Harris JR, Schauffler HH, Milstein A, Powers P, Hopkins DP. Expanding health insurance coverage for smoking cessation treatments: experience of the Pacific Business Group on Health. *Am J Health Promot* 2001;15(5):350-6.

Air Pollution and Cardiovascular Disease: Some answers, but still more questions

Joel Kaufman, Associate Professor,
Environmental & Occupational Health Services

If air pollution is something we breathe in, shouldn't we see effects primarily in the lung? Why worry about the heart?



Joel Kaufman

The possibility that air pollutants may trigger cardiovascular events like heart attacks has been the source of increasingly intense interest over the last 10 years.

But speculation began more than 50 years ago, when the lethal London fog of 1952 (a deadly combination of stagnant air conditions and accumulated airborne coal-burning smoke and soot) resulted in more than 10,000 additional deaths over a several week period than would have normally occurred. Cardiovascular diseases caused most of the excess mortality in that densely populated and industrialized city. As that and other dramatic episodes passed from memory, however, most air pollution research came to focus on the lung diseases that toxic gases and particles might cause or worsen.

Even as air quality has improved nationwide, careful analysis of various epidemiological data has repeatedly demonstrated that increased concentrations of pollution—especially fine particulate air pollution—are still associated with excess morbidity and mortality. And once again researchers have found that the largest fraction of this excess disease and death is from cardiovascular processes, such as heart attacks.

Interestingly, researchers see the effects of air pollution on cardiovascular events in two kinds of studies: those investigating adverse effects from increased daily levels of particulate air pollution (which are associated with increased numbers of heart attacks on that day and a few days following) and studies looking at higher long-term average air pollution exposures (which are also associated

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with higher rates of heart attacks). And the magnitude of the observed effects is quite a bit larger in this second type of long-term exposure study.

Researchers have been puzzled by the fact that the exposure concentrations that seem to cause these effects are much lower than the concentrations routinely encountered and permitted in industrial workplaces, where this kind of excess of heart disease has not been observed. Unfortunately, even after several years of escalating research intensity, the way in which fairly low concentrations of these tiny particles might increase the risk of heart attacks remains quite poorly understood. Another mystery: are all tiny particles equally bad, or are some worse than others? There are some hints that emissions from diesel engines may be of particular concern, but more data is necessary.

To explore the link between heart disease and air pollution, investigators at the UW have launched two new research initiatives: the first laboratory-based, and the second a large-scale epidemiological study. Both these projects were spawned by the EPA-supported, multi-disciplinary research center (Northwest Center for Particulate Matter and Health) effort led by DEOHS Professor Jane Koenig. This article will focus on the laboratory study; details of the epidemiological study will be published in a future issue of *Spotlight on Research*.

In the laboratory study, researchers are testing the theory that air pollution particles might impair the ability of the body's key blood vessels—such as the coronary arteries that feed the heart—to respond normally to physiological cues. For example, under certain stresses, blood vessels should dilate to permit more blood flow to affected areas. In several

diseases, however, this ability is impaired. This problem, termed endothelial dysfunction, has been shown to be a major underlying factor—not only in acute heart events, but also in the progression of atherosclerosis (the underlying, long-term blood vessel changes that lead to heart attacks and strokes).

In a laboratory located just off campus, volunteers will be exposed to diesel exhaust at substantial levels (though close to levels found at the worst downtown bus stop you can remember). After exposure to this polluted air (and after a matched clean air exposure session), researchers will use ultrasound images to measure how well the major artery in the arm responds to minor stresses. (The more accessible arm artery stands in for the coronary artery in these studies.)

This research will give us important information about the as-yet elusive mechanism for these tiny particles' effects on cardiovascular health. It will also help researchers to understand whether diesel exhaust is a potent cause of vascular problems, which would tell us we need to work harder to reduce these emissions. Dr. Kaufman's group is hopeful that this promising research will translate into specific recommendations that will prevent unnecessary heart disease in the future.

For more information:

Brook RD, Franklin B, Cascio W, Hong Y, Howard G, Lipsett M, et al. Air pollution and cardiovascular disease: a statement for healthcare professionals from the Expert Panel on Population and Prevention Science of the American Heart Association. *Circulation* 2004;109(21):2655-71.

Research priorities for airborne particulate matter: IV. Continuing research progress. Washington, DC: National Academies Press; 2004.

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