

# MEET THE NEW DIRECTOR OF THE ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES DIVISION—

*An Interview with Rosemary Sokas, MD, MOH, FACP*

**R**osemary Sokas, MD, MOH, FACP, joined the School of Public Health in November 2002, having previously served as associate director for science at the National Institute for Occupational Safety and Health.

## **How did your professional focus on occupational and environmental health develop?**

I started out in primary care internal medicine and worked in a migrant health center in western Puerto Rico and then at the Dr. Martin Luther King, Jr. Health Center in the Bronx before deciding to focus on prevention. I had seen pesticide exposure, musculoskeletal disorders from repetitive work, and the consequences of the stress of unemployment and domestic violence in these clinical settings. I also had a strong family interest because my grandfather, who was the center of my childhood, had been a drop forge worker with profound noise-induced hearing loss.

Occupational health was an easy choice, and it evolved to include environmental health. My first academic positions were in medical schools, at the University of Pennsylvania and at George Washington University. There I worked to incorporate occupational and environmental health into medical education and focused my research on the occupational and environmental factors having an impact on primary care topics like hypertension or musculoskeletal disorders.

Subsequently, I had six years of federal government service, first as director of the Occupational Safety & Health Administration's (OSHA) Office of Occupational Medicine, then as the associate director for science at the National Institute for Occupational Safety and Health (NIOSH). These were intense, fruitful years. At OSHA, I had the chance to see some of the worst workplaces in the U.S. and to start to recognize themes about what exactly causes exceptionally bad work settings, and, conversely, what might improve them. Accountability and communication were dominant factors.

At NIOSH, I helped coordinate our response to the terrorist events of 9/11 and the subsequent anthrax mailings, and accountability and communication again emerged as key themes. Equally striking was the central place of work in the events themselves. People were

targeted through their work. Rescue and response workers all faced additional health and safety hazards because of their work.

## **What opportunities do Chicago and UIC present for advances in occupational and environmental health?**

It's impossible to convey fully the richness and excitement of working in occupational and environmental health in a major metropolitan area. Think about virtually everything that allows us to live in Chicago—water treatment facilities, buildings, transportation, food distribution, you name it—all are the work of human hands, a constant effort allowing us to live our lives.

At the same time, each of these activities has the potential to cause harm, to our air, water, to wildlife, to ourselves. So, in the largest sense, the occupational and environmental health sciences help us to live more fully human lives in a way that respects the environment and attempts to sustain it for our children and their children. On the individual level, each of us hopes for healthy, meaningful work, not only to provide for our needs and for our families, but also to share in the act of creation—whether it's helping a child learn to read or roofing a building or treating a patient's cancer or discovering the mechanism of action of ultrafine particulate pollution.

Chicago is a great place to be to look at the interface between the natural and the built environments. UIC as a whole offers a stunning array of talented faculty, staff, and students, and the School of Public Health is a fertile environment for a whole range of work focused on prevention. The faculty members in the Environmental and Occupational Health Sciences (EOHS) Division are diverse, talented, passionate about their work, and wonderfully collegial. Individually, they focus on very specific scientific questions that they address rigorously, applying state-of-the-art approaches to address emerging questions such as the fate and transport of persistent organic pollutants in the Great Lakes, the impact of waste water from dental treatment facilities, sub-cellular inflammatory responses to inhaled exposures, the behavior of airborne pollutants, intervention strategies to promote safety in agriculture



Rosemary Sokas, MD, MOH, FACP (right) responds to questions from *HEALTHviews* interviewer.

and other high-risk industries, and health and safety in developing countries and in the newly emerging states of Eastern Europe.

### **How is the EOHS curriculum evolving to prepare students for real-world practice?**

Because faculty are engaged in practice and policy setting as well as in research, they provide students with both the technical expertise and the real-world applicability that energize classes focused on risk assessment or occupational diseases. The division faculty has just been through a strategic planning process that resulted in some curriculum changes. The new requirements for all of the students in our track include one course (of the student's choosing) in each of the three major areas of EOHS: measuring exposures, understanding outcomes, and implementing interventions.

In addition, students are asked to select a "quantitative theme." Each theme is a cluster of three courses, chosen with the assistance of faculty advisors, that allows students to graduate with the ability to apply specific, quantitative skills to whatever problem they confront. One student might elect environmental epidemiology, for example, while another might choose quantitative risk assessment, another might elect survey design, and yet another exposure assessment methods. The focused nature of this approach will allow students to have very competitive skills within a general public health framework.

The division effectively doubles the resources it is able to offer students through the Education and Research Center, funded by NIOSH and directed by Dr. Lorraine Conroy. In addition to providing support for students enrolling in the master's in industrial hygiene program, the occupational medicine residency programs at UIC and the John H. Stroger, Jr. Hospital

of Cook County, and the occupational health nursing program in the College of Nursing, this center sponsors pilot research projects. Faculty research also funds a number of research assistantships and provides opportunities for students to conduct research in industrial hygiene, epidemiology, toxicology, and environmental chemistry, among other areas.

### **What do you see as major challenges affecting occupational and environmental health now?**

I think one of the biggest challenges is getting what we do know about strategies for improving occupational and environmental health widely implemented so that they benefit workers and the wider public. The increasing injury and illness rates among nursing home workers, rising mortality rates among immigrant workers, and the high death toll among the self-employed and others in small businesses are examples of severe problems for which solutions may be available but are not implemented. These are the kinds of challenges calling out for intervention effectiveness research, a very applied, pragmatic approach.

There are faculty members here who have worked with the Chicago Area Workers' Rights Initiative, a coalition of governmental, labor, and faith-based organizations working to address the needs of the most disenfranchised. I currently chair the American Public Health Association's Occupational Health Section, and am co-team leader for the National Occupational Research Agenda's Special Populations at Risk Team, which explores the special needs of vulnerable populations. The UIC SPH is a wonderful place to bring these academic threads together, working with colleagues throughout the school to target environmental justice issues and particularly the needs of disadvantaged workers in small businesses.