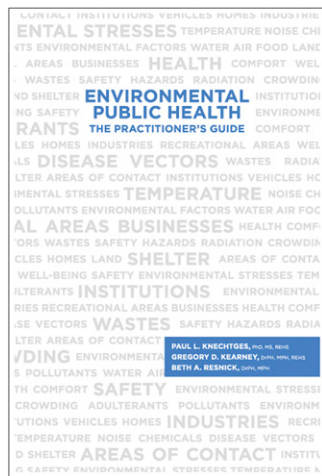


Being an Environmental Health Officer



Environmental Public Health: The Practitioner's Guide
 Paul L. Knechtges, Gregory D. Kearney, and Beth A. Resnick, Eds.
 Washington, DC: APHA Press; 2018
 740 pp; \$90
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Working as an environmental health officer (EHO) in one of approximately 2800 US city, county, and tribal nation health departments is challenging. Many of us know EHOs as public health inspectors and sanitarians. Today, “environmental health officer” is a more accurate job title. Having taught some classes for EHOs, I am amazed at how much has been added to their job responsibilities.

EVOLUTION OF THE POSITION

Rather than provide a list of responsibilities, which Knechtges et al. do in their book, I illustrate the challenge with an example. Glen Belnay, a colleague and friend, was the health officer for a rural New Jersey township that became suburban in the 1970s. When he started, one of his standard jobs was inspecting restaurants and engaging in other food-related safety activities. He dealt with septic tanks, communicable disease outbreaks, and pest control. Each is part of traditional health officer practice.

Belnay worked for his community for 45 years, retiring in 2019. His jobs multiplied, which is really the story told by the practitioner guide. Belnay worked closely with the city planner to choose places in the town to locate multifamily housing and retailing to avoid

sprawl. He collected data that led to part of a farm becoming a Superfund hazardous waste site. He worked on building a successful argument to remove a large quantity of elemental mercury that had been stored in the town for decades and eventually was shipped to an isolated US government facility in Nevada. As new suburbanites built large single-family homes, Belnay dealt with complaints that odors from nearby farms were interfering with use of new and expensive homes, depressing their resale value. Then there was the issue of new transmission towers that some claimed caused cancer (Remember electromagnetic fields and cancer?). These are only some of the new challenges EHOs now face.

In other places across the United States, health officers work with their colleagues on food security, providing affordable housing, redeveloping brownfield sites and grayfield sites, and helping school districts expand their physical plant. EHOs increasingly work with urban planners (see Greenberg and Schneider¹). In essence, the job and tasks follow the issues. I think of EHOs as a local

community’s family doctor—that is, they have to be prepared to deal with everything from the consequences of automobile traffic to zoonotic disease outbreaks like *Salmonella* when horses and other animals interact with people. In essence, EHOs identify, evaluate, and try to control environmental risks.

THE PRACTITIONER'S GUIDE

EHOs do not need to be an expert on every issue. But they must understand biology, chemistry, environmental science and technology, food safety, radiation safety, risk analysis, urban planning, and risk communications. They need to be part detective, part law officer to take action, and they need to work with public and private entities to be successful because some of their work angers businesses and property owners when additional costs are incurred. They must acquire multidisciplinary knowledge and apply it in practice. In short, EHOs need carefully crafted synopses of massive literatures. I praise Knechtges, Kearney, and Resnick, as well as 25 other contributors for writing *Environmental Public Health: The Practitioner's Guide*. When I taught portions of the sanitarian course, each of the instructors

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assembled a set of readings. In New Jersey, the students received multiple thick loose-leaf books of reading material. One large volume is a much better option as a main text.

Knechtges et al.'s 25-chapter, 740-page book is divided into three sections. The first consists of five chapters that summarize the history of the sanitary movement, and the legal, science, and organizational bases of public health. Part 2 offers chapters about processes widely used by EHOs: surveillance, risk analysis, toxicology, and risk communication. The book's third part highlights 16 programs and services provided by EHOs. These include traditional ones like food safety, pest and vector control, wastewater disposal and septic systems, housing, noise, safe drinking water, air quality, and occupational safety. Other issues have emerged as major challenges in the past 25 years, including environmental justice; climate change; hazardous chemical, biological, and nuclear waste; and public health emergencies. These existed for decades, but now are more prevalent EHO responsibilities.

The 25 chapters vary considerably in depth. The chapters that introduce toxicology, food safety, foodborne illness, safe drinking water, indoor and outdoor air pollution, and noise are detailed. Some chapters offer a list of resources and suggested reading, as well as references in the text. Some of the chapters could have used more depth. For example, the radiation protection chapter would have been more complete had it included the Department of Energy's role with nuclear waste and plutonium disposition, which are issues in some states. Also, EHOs will need to supplement what the book offers about solid and

hazardous waste, healthy communities, and the legal framework of public health. I do not mean to be critical because those are well-written chapters. I do mean to point out that a book written by so many authors about such a large literature will present chapters of varying depth. Robert Friis's excellent four-volume set, *The Praeger Handbook of Environmental Health*,² epitomizes wide variations in chapters written by dozens of authors.

Overall, I would use *Environmental Public Health: The Practitioner's Guide* as a basic text for EHOs and supplement it with pieces from government Web sites, as well as private, not-for-profit, and business sources. Overall, *Environmental Public Health: The Practitioner's Guide* is a valuable contribution that will still be relevant in a decade.

While the content of this book represents a major improvement over what has been available in the past, the reality is that many public health professionals expect continuing evolution of the job. Specifically, I think many readers of this journal will be disappointed if by the year 2030 the upstream determinants of health model developed by the Robert Wood Johnson Foundation has not been fully incorporated into public health practice at the local level, which means directly working with urban planners, school systems, the local economic development officer, road department, and many others. Furthermore, we expect the health officer to play a much more central role working with doctors and other medical care practitioners in response to federal mandated requirements related to the Affordable Care Act. In short order, I expect health officers will need to increase the breadth and depth of their knowledge and rely on staff to

perform many of the inspections and other traditional functions of the EHO. They will need ongoing continuing education focused on organizational management and technical training focused on those subjects that are most directly relevant to enhancing public health and quality of life in the community. The EHO job should become more complicated and oriented to joint management of public health and public health-related assets. *AJPH*

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CONFLICTS OF INTEREST

The author reports no conflict of interest.

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2. Friis R, ed. *The Praeger Handbook of Environmental Health*. Santa Barbara, CA: Praeger Press; 2012.