Essential Case Studies in Public Health: Putting Public Health into Practice

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Kathy Hunting is professor of environmental and occupational health and of epidemiology and biostatistics at The George Washington University School of Public Health and Health Services. She is an expert in epidemiologic study design and injury epidemiology, particularly as they pertain to studies of workers. Her connection to real-world issues is demonstrated not only by her teaching, research, and community service activities, but by the fact that she is conversant in the jargon of the construction trade—and even owns her own hard hat.

Professor Hunting joined The George Washington University in 1988 as a research scientist, and was a founding faculty member of the School of Public Health and Health Services. She is vice chair for educational activities in the environmental and occupational health department and also directs the master of public health (MPH) program in environmental health science and policy. She served in the dean's office from 2004 to 2010, first as associate dean for student and faculty development and subsequently as associate dean for academic affairs.

Professor Hunting teaches environmental health to undergraduates and principles of epidemiology, environmental and occupational epidemiology, and injury epidemiology to master’s students. She is a passionate teacher and brings to life even potentially dry topics such as research methods. Professor Hunting has twice been selected by School of Public Health and Health Services students for the Excellence in Teaching award, and she was also honored to receive the Public Health Student Association award for Dedication and Excellence.

Professor Hunting earned both her MPH and PhD in epidemiology at the Johns Hopkins University School of Hygiene and Public Health. Her BS in environmental science is from the University of California at Riverside.

BRENDA L. GLEASON, MA, MPH

Brenda Gleason is the president and founder of M2 Health Care Consulting, a strategic policy and communications consulting firm providing services to Fortune 100 companies, multinational professional services companies, and private equity firms, in addition to nonprofit health associations. Professor Gleason brings a unique perspective to analysis, problem solving, and communications because of her broad-ranging, health-related experience in government, publishing, and business.

Professor Gleason began her career in health policy at the Massachusetts Department of Public Health. She has served as the editor of several healthcare publications, including Community Health Funding Report and the Medicaid Pharmacy Bulletin, and worked on policy and strategy issues for Pfizer, Inc. and for the contract research organization PAREXEL International. Prior to starting M2 in 2005, Professor Gleason was the vice president of Healthcare Markets for Informed Decisions, LLC, a provider of innovative health information technology solutions for government and commercial providers. Informed Decisions created the award-winning eMPowerx platform—the first point-of-care e-prescribing program used by a state Medicaid agency.

Frequently quoted as a health policy expert, Professor Gleason has been featured in publications such as the Wall
About the Editors


Professor Gleason holds a lecturer title at The George Washington University School of Public Health and Health Services. She earned an MA from Boston College and an MPH from Boston University.
Editors Katherine Hunting and Brenda Gleason have done a remarkable job of bringing together and tying together Essential Case Studies in Public Health: Putting Public Health into Practice. The collection of cases is organized around the 10 essential public health services and the three IOM core public health functions. Each case addresses one or more of these essential services. Together, the cases engage students and practitioners in the process of thinking through problems inherent in implementing the 10 essential services and the three core functions. Understanding these 10 essential public health services is key since they now serve as the framework for accreditation of state and local health departments.

The editors and authors have worked closely together to ensure that the cases follow the standard format recommended by the North American Case Research Association. Each case is based on an actual public health problem that has come to local, national, and/or global attention in recent years. Most cases begin with interesting and compelling vignettes reflecting the circumstances of case protagonists—"the hook"—as it is called in the language of case studies. The case summaries read like detective stories waiting for public health professionals to untangle and solve the problem using evidence, experience, and public health expertise.

Many of the cases go on to lead the reader through a series of questions demanding thoughtful responses drawing on the disciplines of public health, from social and behavioral sciences, to epidemiology and biostatistics, to environmental health, to management and policy. The question format requires students and practitioners to build upon what they have learned in the case study and recommend what to do next. The cases require the users to draw their own conclusions using evidence and public health judgment and to reflect on the lessons learned and the challenges ahead.

An extensive faculty website accompanies the cases. It includes facilitator guides for each case, providing detailed suggested answers to the study questions. The facilitator guides go beyond providing answers; they provide case learning objectives, summaries of the cases, tips on teaching the materials, and an epilogue recounting what happened in the weeks and years that followed the case. In addition, information is provided to connect each case with the Association of Schools of Public Health master of public health core and cross-cutting competencies that form the basis for the public health certifying examination. Some cases include supplementary web-based materials for student use that expand on and deepen students’ understanding of the case.

Essential Case Studies in Public Health: Putting Public Health into Practice is a key component of the Essential Public Health series. In many ways, it is the capstone or synthesis book for the series because it draws on and can be used with many of the other books in the series. In addition, the book is ideal for continuing education for public health practitioners whose daily work challenges them to apply the 10 essential services and the three core functions.

Katherine Hunting and Brenda Gleason have engaged this process with their time, teaching expertise, and editing skills. As experienced and empathic teachers, they understand the need of students and practitioners and have ensured that each case study speaks to the users. As experienced teachers used to teaching courses with multiple faculty, they provided clear and frequent guidance on the development of the cases. As skilled editors, they provided repeated feedback designed
to ensure consistency and quality of the case studies. As an author of a case, I can vouch for their commitment to reviewing, providing important feedback, and rereading multiple versions of the cases.

Whether you are an undergraduate student using this book as part of a capstone or synthesis course, a graduate student using the text to master the discipline based and cross-cutting competencies of public health, or a public health practitioner using the cases to build upon your fundamental skills, you will find that these case studies bring public health to life in a way that helps you learn.

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Welcome to Essential Case Studies in Public Health: Putting Public Health into Practice, a collection of 21 teaching and learning cases. Each case is based on real events and problems. The case authors include over 40 public health faculty members, graduate students, and practitioners—most writing from their own experiences. These cases vividly illustrate how professionals across various disciplines tackle public health challenges.

The topical areas run the gamut from cardiovascular disease to clean water, from obesity to asthma, from vaccination to mental health, from pharmaceutical policy to environmental regulation. In learning through these cases, students apply a wide range of knowledge and skills relevant to public health outbreak investigation, policy analysis, regulatory decision making, ethics, program development, program evaluation, research synthesis, screening programs, working with stakeholders, social marketing, health risk communication, laboratory management, emergency preparedness, and more.

Each case in this book has been developed with specific learning objectives in mind; these focus on concepts and issues that comprise the heart of public health undergraduate and graduate education and are key to practitioners of public health. The Association of Schools of Public Health master of public health degree core disciplinary competencies in biostatistics, environmental health, epidemiology, health policy management, and social and behavioral sciences are covered in detail in these cases. Case-based learning may be an even more effective approach for developing competency in highly applied cross-cutting domains such as communication, informatics, diversity and culture, leadership, professionalism, program planning, public health biology, and systems thinking. This book’s cases have been explicitly developed to help students and practitioners develop competencies in the Association of Schools of Public Health disciplinary core and cross-cutting domains. In addition, the cases provide opportunities to analyze current health issues from an arts and sciences perspective focused on “promoting and protecting population health, safety, and well-being at local and global levels” as well as “eliminating health and social disparities worldwide” as called for in the Association of Schools of Public Health Undergraduate Learning Outcomes Development Project. The learning objectives are embedded in the cases but are also explicitly laid out in the facilitator guides available to instructors.

These cases are not merely stories that relate compelling public health issues, problems, or accomplishments, and then sum up the lessons learned. Rather, they are carefully constructed narratives, most of which put learners in the seat of a protagonist who has a problem to solve. While these decision cases present contextual information, they don’t provide the answers; evaluation of possible solutions and approaches is left to students. A few of the cases (for example, “The Heart Truth,” “Mumps Epidemic in Iowa,” and “The Strategies to Overcome and Prevent Obesity Alliance”) do not explicitly ask learners to make decisions, but instead, provide opportunities for students to actively analyze what made a program stumble or succeed, or to identify the lessons learned and then transfer them from historical to present-day context.

The subtitle of this book, Putting Public Health into Practice, bears comment. A theme running through all 21 cases is how evidence is utilized to frame and drive decision making about public health programs, policy initiatives, or interventions. The cases illustrate how front-line activities of public...
health practitioners are informed and enhanced by active research from the disciplines, and why protecting public health requires continuous process improvement and systems-level thinking. Whether told from the point of view of researchers; local, state, or federal officials; clinicians; consultants; or advocates, these cases illustrate public health in action. The intent is to take you behind the scenes, to let you glimpse the challenges and pitfalls, the strategies and successes, of the job of protecting the public’s health. As a learner, these cases place you in communities, organizations, government agencies, and public health and healthcare systems—and encourage you to think about what you might do. These cases can help prepare you for the day you may find yourself on the front lines, for real.

**THE 10 ESSENTIAL PUBLIC HEALTH SERVICES**

The 10 essential public health services linked to the three core functions (see Box 1) provide the organizing framework for this case book. It’s worth understanding something of their history. In 1988, the Institute of Medicine published a landmark report entitled, *The Future of Public Health*. This report resulted from a study undertaken to “address a growing perception … that this nation has lost sight of its public health goals and has allowed the system of public health activities to fall into disarray.”¹ In 1994, the Core Public Health Functions steering committee (comprised of diverse public health stakeholders) further elaborated these functions as part of a vision for healthy people in healthy communities and a mission to “promote physical and mental health and prevent disease, injury, and disability.”² In doing so, the committee outlined the 10 essential public health services shown in Box 1.

As illustrated in Figure 1, the assessment function involves monitoring trends in disease and injury and analyzing risk and protective factors through further investigation. The development of effective policies and practices rests upon effective communication and education approaches as well as broad involvement from all public health stakeholders. The assurance function entails enforcement of laws and statutes, provision of health services, and evaluation of programs and services. Public health workforce competency, though labeled an assurance function, is necessary for all public health functions. Finally, research provides the evolving evidence base that continually informs and enhances public health practice across all essential functions and services.

Recently, the National Public Health Performance Standards Program has brought increased visibility to the 10 essential public health services. The National Public Health Performance Standards Program is a collaborative effort to establish national performance standards for U.S. state and local public health systems, defined as “all public, private, and voluntary entities that contribute to public health activities within a given area.”³ The National Public Health Performance Standards Program has adopted the 10 essential services as its framework for describing and examining the “breadth of public health practice, performance, and infrastructure capability …”³ and informing a process of quality improvement.⁴

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**Box 1: The 10 Essential Public Health Services**

1. Monitor health status to identify community health problems
2. Diagnose and investigate health problems and health hazards in the community
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. Assure a competent public health and personal healthcare workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems

THE CASE METHOD: A NOTE TO LEARNERS

As every learner knows, opportunities to apply theories and concepts enhance your ability to understand them. Even the best lecturers, who pepper engaging and well-organized presentations with lots of interesting and relevant examples, can merely transfer information. You appreciate full well that the best teachers follow their lectures with opportunities to apply concepts, knowledge, and skills—whether through problem sets, critical analysis of research articles or current issues, class discussions, role plays, research projects, or case studies.

The case study approach is very effective for solidifying concepts and developing critical thinking skills. When you learn through case studies, you engage actively with the material, analyzing and synthesizing information. According to Dr. Lew Brown of the University of North Carolina at Greensboro and associate editor of the *Case Research Journal*, case-based learning will give you practice defining problems, identifying appropriate information, organizing what is known and what is not, developing options, evaluating alternatives, generating action plans, and effectively communicating your insights.6

According to another case study proponent:

> If reading, arguing, and challenging are hallmarks of critical thinking, then case studies are the poster children for the process. Most of them are discipline specific, certainly. But they all grapple with the essence of critical thinking—asking for evidence—developing a habit of mind that should permeate everyday life.7(p 65)
In order to learn from case studies, you must be prepared. You must have *read* the case, *thought about* the case, and be *ready to discuss* the case. In analyzing a case, you must be prepared, "to give it meaning in relation to its key issues or questions that have been asked about it. The goal is to come to conclusions congruent with the reality of the case, taking into account its gaps and uncertainties." 8(p 6) Although some questions in some cases are objective and actually have right answers, this is not typically the situation. Mostly—as with life outside the classroom—there are shades of gray with no single correct answer. Thus, to learn effectively through cases, you will need to become more comfortable with ambiguity and uncertainty.

Most of the cases in this book involve protagonists who are facing a dilemma. To prepare to discuss these decision cases, it’s helpful to keep in mind the questions presented in Box 2, in addition to any other specific questions raised by the case.

When you’re discussing a case, do not look to your instructor for all the answers. Listen to your classmates’ ideas, and have confidence in your own. The instructor is there as a guide to help facilitate your learning experience, but he or she is also learning alongside you. The classroom is a safe place to practice the analysis and synthesis skills you will need to apply in the professional world. According to an experienced case teacher at the Harvard Business School:

> The discussion process itself requires students to become profoundly and actively involved in their own learning, to discover for themselves rather than accept verbal or written pronouncements. … Such creative activity cannot be ordered or imposed upon the unwilling. Teachers can police attendance and monitor the memorization of theory and fact by tests. But we cannot order our students to be committed to learning and willing to risk experimentation, error, and the uncertainty of exploration.9(p 24)

Indeed, that commitment to learning is up to you as you develop and hone foundations for professional practice. May you enjoy learning as you experience public health problems coming alive through these cases!

**Box 2  Questions to Consider as You Prepare to Discuss a Decision Case**

- What is the problem to be resolved or decision to be made?
- Who are the decision makers, and what is motivating each of them?
- Who are the other stakeholders? What are their objectives?
- What questions must be addressed or issues must be resolved in order to solve the problem or come to a decision?
- What contextual issues might affect the decision? These may include health issues, social and political environment, technical barriers, or any other constraints and opportunities.
- What are the upsides and downsides associated with alternative actions?
- What would you do? Why?

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