



FIFTH EDITION

Community and Public Health

# Nutrition

**Sari Edelstein, PhD, RDN**

*Professor, Retired  
Nutrition and Dietetics Department  
Simmons University*



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*To many of my past students, who stepped up and wrote these chapters now that they are professionals in their own right.*





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# Preface

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## What Is Community and Public Health Nutrition?

Community and public health nutrition is a complex, multi-faceted set of programs dedicated to improving the health of the population through improved nutrition. In more detail, community and public health nutrition primarily exists to:

- Improve the health of the whole population and teach high-risk subgroups within the population improved nutrition
- Emphasize health promotion and disease prevention through improved nutrition
- Provide integrated community efforts for improved nutrition with leadership demonstrated by local, state, and federal government offices

To accomplish these three primary elements of community and public health nutrition, the U.S. Public Health Service has delineated 10 Essential Public Health Service Functions.<sup>1</sup> Each of these 10 elements will assist the reader in understanding the steps that must be taken by public health professionals to bring about definitive qualitative and quantitative results.

1. Monitor health status to identify and solve community health problems
2. Identify and investigate the causes of health problems and health hazards in the community
3. Mobilize community partnerships and action to identify and solve health problems
4. Develop policies and plans that support individual and community health
5. Enforce laws and regulations that protect health and ensure safety
6. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
7. Inform, educate, and empower people about health issues
8. Evaluate effectiveness, accessibility, and quality of personal and population-based health services

9. Assure a competent public health and personal healthcare workforce
10. Research for new insights and innovative solutions to health problems

When these 10 elements are expanded to full explanations, we create a compendium of information that mirrors the table of contents in this book. The organization of *Community and Public Health Nutrition, Fifth Edition* embraces the essential public health service functions.

## Organization of This Text

The structure of *Community and Public Health Nutrition* has been completely reorganized not only to encompass public health nutrition but also to include community nutrition.

Part I, “Applying Nutrition in Community and Public Health,” creates the necessary foundation for readers to understand community and public health nutrition. These chapters include:

- An explanation that community and public health goals are built on a foundation of sound research, wherein peer-reviewed studies provide the groundwork
- A journey through studying populations utilizing epidemiology and how problems and solutions are questioned and acted upon

Chapters 3 through 8 comprise Part II, “Shaping the Policies That Affect the Community and Public’s Health,” and Part III, “Assessing and Intervening in the Community’s Nutrition Needs.” These chapters illustrate the landscape of community and public health, including:

- The role of the local, state, and federal government in supporting community and public health nutrition
- How researchers and others determine the need for community and public health nutrition in areas of the United States
- How researchers determine the needs of each community and focus on its nutritional problems
- An explanation of how nutritional services are planned and evaluated for a community
- Changing the public’s eating behavior

<sup>1</sup>[www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html](http://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html)

In Part IV, “Promoting the Public’s Nutritional Health,” Chapters 9 through 12, we strive to educate the reader about local, state, and federal programs that provide community and public health nutrition for those at risk. These include:

- Promoting maternal, infant, child, and adolescent nutrition
- Assessing and providing for adult nutrition
- Caring for older adults and their nutritional problems
- Explaining nutritional programs in public health

Part V, “Protecting the Public’s Nutritional Health,” delineates 21st century issues in providing safe and secure food supplies for the public. These include:

- Providing food security and adequate food access for the public
- Safeguarding and securing the food supply

Part VI, “Managing Programs,” and Part VII, “Surviving in a Competitive World,” address the administrative and managerial portion of community and public health nutrition and programs. These include:

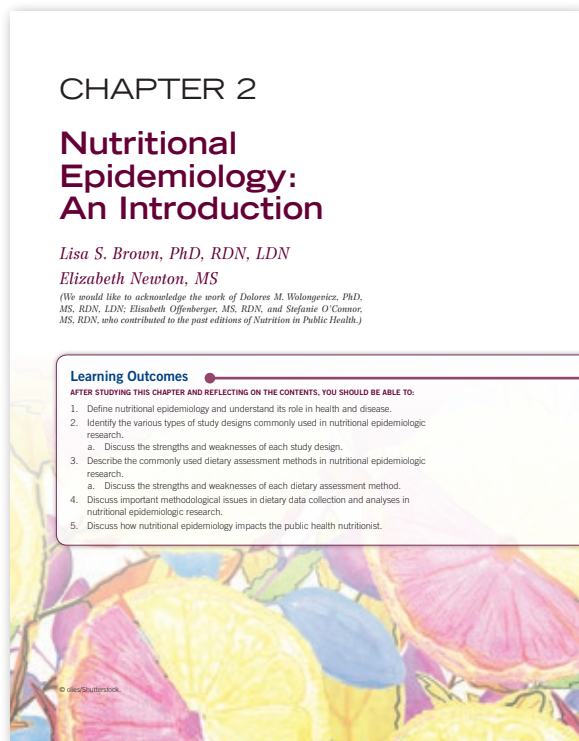
- Grant writing for funding of community and public health nutrition programs
- Staffing, managing, and leading community and public health nutrition personnel
- Leveraging nutrition education through a community and public health team
- Networking for nutrition by earning administrative support
- Marketing nutrition programs and services
- Striving for excellence and envisioning the future



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# Features of This Text

An effort has been made to ensure that pedagogical features are consistent from chapter to chapter. At the beginning of each chapter, the reader will find the following:



**Learning Outcomes** present the chapter's desired outcomes to readers.

**Key Terms** help the reader quickly identify critical new terms, with definitions included in the end-of-text Glossary.

**Epidemiology** assesses the occurrence of a disease within a set population. This field also looks at the factors that prevent and hasten the disease's development.

**Nutritional epidemiology** utilizes the processes of epidemiology to look at the influence of dietary factors on a disease or health condition in the population.

In the middle of each chapter, the reader will find the following:

### **Discussion Prompt**

Describe the factors that prevented the recognition of a nutrition link and good health. How did epidemiology change this thinking?

**Discussion Prompts** provide practical application questions for readers to ponder and find solutions for as future community and public health personnel.

**Strategy Tips** encourage readers to take the chapter material further and call to action what health professionals should do in a situation.

### **Strategy Tips**

#### **Contacting elected officials**

- Vote in elections to influence who will represent your views in government.
- Join a professional association or advocacy group(s) that advocates for public health. Many voices are generally louder than one. Be active in the group and encourage policy involvement.
  - Conflicts arise. Don't take them personally. Learn from your opponent's position; it may strengthen your own position. Accept that some people may reject you for your position on an issue.
  - Write letters to the editor of the newspaper when you have a strong position on a health or nutrition issue.
  - Identify and know your audience. Adjust your message to better target their concerns and needs.
  - Be persistent. Learn from your own mistakes and move on with that knowledge to do a better job next time.
  - Take the time to comment on policy proposals and changes. The government often requests written comments on new policies and policy changes. These requests for comments are printed in the Federal Register for comment periods of 30 to 90 days. This is one of those unusual times when someone is required to read your letter and comments. Federal employees are required to read and compile all comments received during a comment period. These compiled comments are then used to support approval, change, or rejection of proposed policies.

### **Pandemic Learning Opportunity**

If epidemiologists were able to act faster than what occurred in 2021, how would the outcome change? Going further, how important is it to have a fully functioning epidemiology unit working in the United States?

**Pandemic Learning Opportunity** asks the readers to recognize problem-solving situations that occurred during the pandemic for future use.

At the end of each chapter, the reader will find the following:

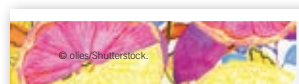
**Case Studies** provide a real-world dimension to chapter content, illustrating how public health nutrition issues and programs can affect real people. Each chapter now has two case studies.

**Case Study: Type 2 Diabetes Epidemiology Study**

This case study will provide a scenario in which a nutritional epidemiologic study is warranted. Following the case, there will be questions based upon the scenario presented.

You are a nutritionist working at a community health center providing basic nutrition education through general nutrition group education courses. Prior to the beginning of each course, you ask your clients to fill out a questionnaire that asks about various chronic diseases they have to better tailor your education throughout the course. You notice that over the last year, there has been an increased number of individuals who have reported new onset type 2 diabetes mellitus. You wonder if the increase in this disease is just in the clients whom you are seeing or if this is occurring within the greater community of your health center and that community food and exercise habits may be impacting the trend you have noticed. Your supervisor decides that it would be beneficial for you to look into the trend that you are seeing and conduct a small study using health center resources.

1. What is the purpose of your study?
2. Which type of study design should you choose for your study? What are the strengths and weaknesses of the study design chosen?
3. Which type of dietary assessment method would best fit with your design and purpose? What are the advantages and disadvantages to using this type of method?
4. Would your study result in significant causality? Is that necessary for your purpose?



**Learning Portfolio**

<b>Key Terms</b>	page
Community	128
Goal	128
Target population	128
Prevalence	133
Body mass index (BMI)	138
Validity	139
Reliability	139
Stakeholders	144
Key informants	146
Qualitative research	148
Objective	149

**Issues for Discussion**

1. Why would it be important to include program providers as part of your needs-assessment team?
2. What is the rationale for examining the leading causes of death as a measure of the community's health? In relation to mortality, what else could you examine?
3. If the purpose of the Baltimore City example provided in this chapter is to identify the causes of the high prevalence of obesity among children living in Baltimore City, lay out one goal and at least two objectives for such a needs-assessment. Don't forget the acronym SMART.

**Practical Activities**

1. You need to conduct a focus group with the goal of obtaining information on the attitudes of parents of middle schoolers toward school lunch offerings in your local county. Develop a framework for your focus group. Consider components such as recruitment, time and location, and topics of discussion. Finally, develop at least five discussion questions that you believe would truly ask your question and help you obtain the information you need.
2. Develop a paper survey with at least six questions about any nutrition-related public health topic. Hand it to a friend and ask them to complete the survey. Upon completion, examine the responses and ask the friend to give you feedback. Did your questions ask what you wanted them to ask? Were they clear or confusing? If using multiple response questions, did the choices capture all possible responses?
3. Think about your own community in which you live in. From observation, what is a possible nutrition-related problem that you think needs to be examined? Describe how you might go about developing a rationale for a potential needs-assessment on the problem you are interested in. Consider what kind of information you might want to include in your rationale and where you would look to obtain this information.

**Issues for Discussion** encourage readers to discuss topics relevant to the chapter with their peers.

**Practical Activities** suggest activities that allow readers to apply what has been learned in the chapter, either individually or as part of a group.

**Online Resources** direct readers to websites relevant to the chapter content.

**Online Resources**

1. Administration on aging: <http://www.aoa.gov>
2. American Association of Retired Persons: <http://aarp.org>
3. American Geriatrics Society: <http://americangeriatrics.org>
4. Centers for Medicare and Medicaid Services: <http://cms.hhs.gov/>
5. Meals on Wheels Association of America: <https://www.mealsonwheelsamerica.org/>
6. Mini Nutritional Assessment: [https://www.mnaelderly.com/forms/mini/mna\\_mini\\_english.pdf](https://www.mnaelderly.com/forms/mini/mna_mini_english.pdf)
7. National Association of Nutrition and Aging Services Programs: <http://www.nanasp.org>
8. National Institute on Aging: <https://www.nia.nih.gov/>
9. National Institutes of Health Seniors Health: <https://www.nia.nih.gov/health>
10. Older Americans Act Nutrition Program: [https://acl.gov/sites/default/files/news%202017-03/OAA-Nutrition\\_Programs\\_Fact\\_Sheet.pdf](https://acl.gov/sites/default/files/news%202017-03/OAA-Nutrition_Programs_Fact_Sheet.pdf)
11. U.S. Food and Drug Administration – Food Safety for Older Adults: <https://www.fda.gov/media/83744/download>

These pedagogical features assist in bringing the chapter material to life as students will need to use critical thinking to solve public health nutrition problems through application.

## New to this Edition

*Community and Public Health Nutrition, Fifth Edition* has maintained the cutting-edge relevance of previous editions, while adding several enhancements:

- New Box Features were created for this edition including **Discussion Prompts, Lessons Learned from the Pandemic**, and **Strategy Tips** which were developed to help the reader with critical thinking and practical application.
- **Additions to the Table of Contents.** The Table of Contents has added material to reflect the addition of community nutrition to each chapter. The text can now be fully utilized for both community nutrition and public health nutrition courses.
- **Thoroughly revised and in-depth content.** Each chapter has been updated and enhanced to give the reader a vast supply of background information and a full understanding of community and public health nutrition. In addition, new and expanded topics have been added to the *Fifth Edition* to reflect current community and public health issues. These include:
  - Updated *Dietary Guidelines for Americans, Healthy People 2030*, and other nutrition indexes

- Updated community and federal nutrition policies and services
- Updated approaches to disease prevention and new disease statistics, including current U.S. statistics and census information
- Newly added grant-writing procedures
- New, comprehensive, end-of-text Glossary
- **Added Case Studies.** Two case studies are now found at the end of each chapter, reinforcing key concepts by presenting real-life examples. An Answer Key for all case study questions is available for qualified instructors.
- A **Study Guide** is now provided Online featuring numerous activities for students to complete in writable PDFs.

## Instructor and Student Resources

Qualified instructors can receive access to the full suite of instructor resources, including the following:

- Slides in PowerPoint format, featuring more than 300 slides
- Test Bank, containing 600 questions
- Study Guide containing the following for each chapter:
  - Learning Outcomes
  - Practical Activities
  - Matching Key Terms with Definitions
  - Additional Case Studies and their answers
  - Fill-in-the-blank Questions and their answers
  - Critical Thinking Questions
  - Issues for Discussion



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# Acknowledgments

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# Contributors

Nina Current, MS, RDN, LDN  
Lisa S. Brown, PhD, RDN, LDN  
Elizabeth Newton, MS  
Jody L. Vogelzang, PhD, RDN, FAND, CHES  
Juliana Ross Gilenberg, RDN, CSO, CNSC, LDN  
Melinda Boyd, DCN, MPH, MHR, RD, FAND  
Julie M. Moreschi, MS, RDN, LDN  
Jessica L. Garay, PhD, RDN, CSCS, FAND  
April Pelkey, BS  
Meg Bruening, PhD, MPH, RD  
Gabriela Martinez, BS  
Molly Jepson, BS  
Marianella Herrera-Cuenca DSc, MD  
Shirley Y. Chao, PhD, RDN, LDN, FAND

Amy Sheeley, PhD, RDN  
Lauren Melnick, MS, RDN, LDN  
David H. Holben, PhD, RDN, LD, FAND  
Chloe Giraldi, MS, RD, LDN  
Kathleen Cullinen, PhD, RDN  
Erin Gilfillan, MS, RDN, CDN  
Hannah Husby, MS, RDN, CDN  
Stephanie Cook, RDN, CSO, LDN  
Megan Lehnerd, PhD  
Joycelyn Faraj, PhD, RDN  
Farrell Frankel, MS, RDN  
Federika Garcia Muchacho, MS, RDN, LDN  
Gisela Alvarez, RDN, LDN  
Christina Ypsilantis, RD, LDN





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# Reviewers

**Amir Alakaam, PhD**

Associate Professor  
The University of Tennessee at Chattanooga

**Kelly Burgess, MBA, RD, LDN**

Licensed and Registered Dietitian  
Adjunct Professor  
Better Health LLC

**Natalie Caine-Bish, PhD, RD**

Associate Professor, Didactic Program Director  
Kent State University

**Mary Beth Gilboy, PhD, MPH, RDN**

Associate Professor of Nutrition  
West Chester University of Pennsylvania

**Krystal Lynch, PhD, MPH**

Assistant Professor, Nutrition and Dietetics  
Eastern Illinois University

**Colleen Tewksbury, PhD, MPH, RD, CSOWM, LDN**

Senior Research Investigator  
University of Pennsylvania

