

The New Public Health

Second Edition



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The New Public Health

Second Edition

Theodore H. Tulchinsky, MD, MPH

Braun School of Public Health and Community Medicine
Hebrew University-Hadassah, Ein Karem
Jerusalem, Israel

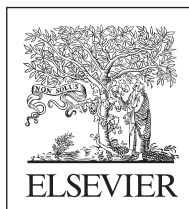
Elena A. Varavikova, MD, MPH, PhD

I. M. Sechenov Moscow Medical Academy
Moscow, Russian Federation

With Foreword by

John Last, MD, DPH, FRACP, FFPH, FRCPC, FACPM, FACE

MD (Hon) Edinburgh and Uppsala
Professor Emeritus, University of Ottawa
Ottawa, Ontario, Canada




AMSTERDAM • BOSTON • HEIDELBERG • LONDON • NEW YORK • OXFORD • PARIS
SAN DIEGO • SAN FRANCISCO • SINGAPORE • SYDNEY • TOKYO

Academic Press is an Imprint of Elsevier



Elsevier Academic Press
30 Corporate Drive, Suite 400, Burlington, MA 01803, USA
525 B Street, Suite 1900, San Diego, California 92101-4495, USA
84 Theobald's Road, London WC1X 8RR, UK

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Library of Congress Cataloging-in-Publication Data
Tulchinsky, Theodore H.

The new public health / authors, Theodore H. Tulchinsky, Elena A. Varavikova ; with foreword by John Last. – 2nd ed.

p. ; cm.

Includes bibliographical references and index.

ISBN 978-0-12-370890-8 (hardcover : alk. paper) 1. Public health. I. Varavikova, Elena. II. Title.

[DNLM: 1. Public Health—trends. WA 100 T917n 2009]

RA425.T77 2009

362.1—dc22

2008027586

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN 13: 978-0-12-370890-8

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Printed in the United States of America

08 09 10 9 8 7 6 5 4 3 2 1

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Dedication

We wish to dedicate this book to our families, professional colleagues, and friends who sustained and supported us in the hard labor for five years on the first edition and two years on the second edition through the ups and downs of such an endeavor.

Theodore Tulchinsky: I would like to dedicate this book to my family; to my wife, Joan, and our children Daniel, Joel, and Karen, and their children; to my late parents Ann and Harry Tulchinsky; and to my sisters Norma and Ruth and brother Gerald and their families.

Elena Varavikova: I wish to especially thank Natalya, Tatyana, Inna, and Harvey for their support and inspiration.

We jointly dedicate this book to all those who sustained us and contributed to its development and its translations into Russian and many languages of Eastern Europe and Central Asia, including Albanian, Bulgarian, Georgian, Moldovan, Macedonian, Mongolian, Romanian, and Uzbek. We make a special dedication to Milton and Ruth Roemer, whose contributions to public health in the United States and globally were enormous, and whose friendship and encouragement with this book were very special to its preparation.

Special Dedication

Milton and Ruth Roemer



This special dedication to Ruth and Milton Roemer is in recognition of their leadership in public health and health care organization, and also for their warm support and friendship while the first edition of this textbook was still in its early stages. Milton wrote the Foreword for the first edition, and Ruth helped us to connect with Academic Press of San Diego, our publisher.

Milton Roemer was a world-renowned scholar in many areas of public health, including international health, primary care, rural health, and health care organization. Roemer's many notable achievements included studies showing that in an insured population, a hospital bed built is a hospital bed filled—a finding that contributed to the enactment of certificate of need legislation and comprehensive health planning. This finding was so robust that it bears his name: Roemer's Law, as discussed in this book.

Ruth Roemer was a role model and leader in many public health issues such as tobacco control, mental

health, fluoridation of community water, and abortion rights. Her work from 1993 onward contributed to the WHO Framework Convention on Tobacco Control of 2003. Milton died in Los Angeles in 2001 at age 84, and Ruth in 2005, at age 89.

MILTON I. ROEMER

Milton I. Roemer, MD, MPH, was one of the most influential public health figures of the twentieth century; his work over more than six decades benefited the lives of millions of people all over the world. He worked in 71 countries and published 32 books and 430 articles on the social aspects of health services. During his career he consistently proved prescient in foreseeing health trends and possibilities, including development of HMOs, promoting the role of ambulatory care, and documenting the need for national health insurance for the entire U.S. population. He advocated development of doctoral training in health administration to prepare students for leadership in public health practice, and established an endowed fellowship to support students in the program.

Roemer received his master's degree in sociology from Cornell University in 1939, his MD from New York University in 1940, and a public health degree from the University of Michigan in 1943. He served at all levels of health administration—county, state, national, and international. As a medical officer of the New Jersey State Health Department, he supervised 92 venereal disease clinics. During World War II, he served as a member of the commissioned corps of the U.S. Public Health Service.

His 1948 book *Rural Health and Medical Care*, with F. D. Mott, was the first to systematically analyze rural health care needs and services in the United States. As county health officer of Monongalia County, West Virginia, he introduced public health innovations, including pioneering a cancer detection clinic for the mining community. Roemer was among the first to advocate integration of public health and medical care. In 1953, he was appointed director of medical and hospital services of the Saskatchewan, Canada, Department of Public Health, North America's first social insurance program for hospital care. After teaching at Yale and Cornell, Roemer came to the University of California–Los Angeles (UCLA)

School of Public Health in 1962, where he taught health administration, conducted research and continued to publish for 38 years. The capstone of Roemer's many publications was his two-volume work, *National Health Systems of the World*, a monumental comparative analysis of national health systems of countries of the world.

RUTH ROEMER

Ruth Roemer, JD, was a pioneer in public health law and advocacy whose career spanned more than 50 years. Roemer made lasting contributions in areas that included reproductive health services, environmental health, tobacco control, and health services organization. She remained an influential figure in public health well into her 80s, initiating what later became the International Framework Convention on Tobacco Control, adopted by the World Health Organization in 2003.

Born Ruth Joy Rosenbaum in Hartford, Connecticut, Roemer graduated from Cornell Law School and began her career as a labor lawyer. She switched to health law in the 1960s after participating in a landmark study of the laws governing admission to mental hospitals in

the State of New York. She joined the UCLA School of Public Health faculty in 1962, and promptly became principal organizer and vice president of the California Committee on Therapeutic Abortion, to provide public education and leadership in reform of California's century-old abortion law. The group spearheaded abortion law reform in California in 1967, 6 years before the U.S. Supreme Court's decision in *Roe v. Wade*. In ensuing years she made her mark with analyses of the functions, education, and regulation of health personnel and as an ardent campaigner for fluoridation of public water supplies in California and worldwide. In an early 1970s study she examined the gap between the advanced technology to roll back pollution and its application to protect people's health and living conditions. She pioneered with a seminal work on tobacco control with a world review of tobacco control legislation for the World Health Organization, first published in 1982. She was active in international tobacco control conferences, and helped prepare a document that led to WHO's first international convention on tobacco control and the treaty adopted in 2003. Ruth Roemer taught health law, ethics, and policy at UCLA.

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Foreword

The foreword to the first edition of this book (2000) was written by the eminent authority on public health, the late Milton Roemer. It is fitting that the authors have dedicated this edition to him and to his late wife Ruth Roemer, also a distinguished contributor to public health. It is an honor to be invited to follow where Milton Roemer led, and to contribute the Foreword to this second edition of the book.

I read the first edition with admiration and great interest. Admiration because the two authors had done such a splendid job in covering all the important bases so thoroughly; and with great interest because I had by then edited several editions of a large, comprehensive textbook of public health and preventive medicine; had written one of my own; and had been teaching, professing, and mentoring on many aspects of the subject for several decades.

This book is based on rich experience in public health, and on courses offered at the Hadassah-Hebrew University School of Public Health, and is published in both English and Russian, ready for use in graduate programs in Russia and elsewhere in the Slavic world as well as throughout the English-speaking world. The new edition again justifies the book's title, *The New Public Health*. There is up-to-date information on emerging public health problems, including SARS and avian influenza and its human variant, as well as the latest advice on old problems of hygiene and sanitation. It is an excellent text for learners with some uniquely valuable chapters and discussions of topics rarely covered in textbooks and monographs on public health sciences, the practice of public health in the field, and the organization and administration of public health services. It is gratifying to read a book that includes accounts of the history of public health, and that has chapters on economic, legal, and ethical aspects of public health, as well as very comprehensive and current accounts of all the widely recognized domains of the important set of disciplines and skills that make up this essential component of all organized human communities. The links to relevant websites that are scattered throughout the text and in the

reference lists are another valuable feature. It is useful to have a website for the book which includes a guide for teachers of general survey overview courses in public health, especially as that website provides links to case studies of classics of public health with a discussion of their current relevance.

As mentioned, the first edition of this book has been translated into Russian, Bulgarian, Romanian, Moldovan, Uzbek, and Mongolian and will soon be translated into Albanian and Georgian. It is used as a standard text throughout the countries of the former Soviet Union, in newly developing schools of public health, and in traditional hygiene training centers. This is important because of the great challenge of very high mortality rates from preventable chronic diseases. Change in the epidemiology and demography of these countries necessitates a reorientation of public health thinking toward health promotion and changes in management of the health system to address chronic diseases as well as communicable disease. This book serves this purpose very well indeed.

Many schools of public health focus on specialized and compartmentalized courses each with their own textbooks and monographs, but students often do not get a general overview of the field such as this book presents.

Therefore it is understandable that this book has been widely accepted and has become a standard course text. Graduate students in master's and similar courses in all the public health sciences, and their teachers and mentors have very good reason to be grateful to Drs. Tulchinsky and Varavikova.

John Last, MD, DPH, FRACP, FFPH, FRCPC,
FACPM, FACE
MD (Hon) Edinburgh and Uppsala
Emeritus Professor of Epidemiology and
Community Medicine
University of Ottawa
Ottawa, Canada

Preface to the Second Edition

The first edition of this book was published in Russian in 1999, followed by publication in 2000 in English. Since then it has been translated and published in Bulgarian, Uzbek, Macedonian, Mongolian, Moldovan, and Romanian and currently is being translated to the Albanian and Georgian languages. It has been used widely in schools of public health in the United States and Europe and in the translations in new schools of public health which have developed in those countries.

The phrase *The New Public Health*, not original to our first edition, was described in WHO publications and several texts in the United Kingdom and in Australia, but in more limited contexts than our intent. This book was originally prepared for publication in Russia where the idea of a New Public Health was and is sorely needed for the health of the population during a critical period of transition with high rates of preventable mortality. This book is primarily about ideas and experience of public health, both classical and new in recognizing the centrality of policy and management of health systems in the New Public Health.

A Teaching Guide based on this textbook was prepared and circulated, along with a model curriculum to all the new schools of public health using this textbook. We believe this has been helpful to the faculties and students of the new schools in Russia (Moscow, Chelyabinsk, and Tver), Kazakhstan, Uzbekistan, Albania, Macedonia, and Moldova, Mongolia, and others.

We are gratified that this book has had wide impact in many former socialist countries. It provided many veteran teachers with fresh material in their own language from the wide world of science and practice which were largely inaccessible in former days. It provided students in new schools of public health in those countries with access to modern material in public health when they lacked even the most basic of libraries and Internet connection. Working with best public health professionals of many countries we have learned a lot, through the teaching, work on the book translation, discussions of major concepts, current concerns, and country-specific issues.

The English edition is widely used in the United States and elsewhere as a general introductory text in schools of public health, which was our intent and hope. The second edition is meant to follow in this path.

Our reviewers from the United States and Europe, provided by our publisher, gave us extremely valuable feedback and professional opinion that inspired our work on the second edition.

A general textbook is needed for the many students coming into public health with undergraduate education insufficient to generally orient to public health studies; and that includes those coming from medicine and nursing as well as those from the social sciences.

As an introductory text, its merit, we hope, is in its wall-to-wall coverage, with clear recognition of the need of specialized textbooks in the individual fields of study making up public health such as epidemiology and research methods, qualitative research, and the social sciences, economics, and others. Our experience suggests that a standard textbook is especially important in development of a new school of public health and will provide overview of the main concepts and core subject fields anywhere.

Our intent was to emphasize “the broad view,” or “the big picture” with sufficient real-life examples to make it realistic and sufficient content to provide the student to the holistic picture and to introduce the many specialized aspects of public health. We have tried to maintain that approach in the second edition with old and new examples and references, and a stress on the historical process, as a basis for thinking of the future.

We hope this book helps teach students ideas and the concepts of public health along with the evolving technologies, experience, and ethical professional standards of this profession. There are so many controversies in public health that the new entry-level person may be confused without a sense of direction and methods to form judgments on these issues. We hope that we achieve a forward-looking approach as well as a review of past and present successes.

A quote from the *New England Journal of Medicine* of March 28, 2008, perhaps illustrates this objective:

Many important lifesaving advances have been made by taking one crucial step forward at a time. Consider the worldwide effort to eradicate polio . . . an essentially transformative idea — that had occurred centuries earlier in the mind of Edward Jenner, who observed that milkmaids who had been exposed to cowpox became immune to smallpox, a far more deadly disease.

How can we capture such transformative innovation in order to address the problems in global health? First, it is clear that innovation does not take place only in the United States or Western Europe . . . new ideas can be fleeting. . . . Innovation frequently arises from the lessons of repeated failure. . . . opportunities to capture novel approaches that can transform a field . . . can come from anywhere.

Each year, 9.7 million children die before 5 years of age, 4 million of them within the first month of life and the vast majority of them in the poorest countries in the world. . . . Most of these deaths can be averted with the application of existing tools, but in some cases only new ideas will provide practical and effective solutions.¹

Finally, we endorse the statement attributed to former U.S. Surgeon General C. Everett Koop that public health is needed by everyone all the time, while medical care is needed by many people some of the time. Of course both

are needed and a world facing preventable morbidity and premature death of millions annually from preventable disease means that training people in the ideas and ways of public health are essential to civil societies both local and global. We hope this book will help graduate and undergraduate students and practitioners of public health to understand this, to be better able to contribute to reducing this sad and unnecessary loss of health and of life.

Public health has proven its effectiveness in saving lives and improving quality of life. The context associated with this process is continuously expanding but needs a conceptual basis, which we call the New Public Health.

T. H. Tulchinsky, MD, MPH
E. A. Varavikova, MD, MPH, PhD
May 16, 2008

¹Yamada, T. 2008. In Search of New Ideas for Global Health. *New England Journal of Medicine*, 358:1324–1325.

Acknowledgments

The second edition of this textbook owes its genesis to the many people who contributed to the first edition published in 2000, including friends and colleagues: the Open Society Institute of New York, the American Joint Distribution Committee, the State University of New York at Albany School of Public Health, the University of California–Los Angeles (UCLA) School of Public Health, the Braun School of Public Health, Hebrew University–Hadassah, Jerusalem, the I. M. Sechenov Moscow Medical Academy, to those who translated this book into many languages of South East Europe and the former Soviet Union, to those who reviewed the first edition and provided many ideas for inclusion in the second edition, and to many supporters mentioned in the acknowledgments of that edition.

We wish to especially thank Joan Bickford (Winnipeg, Canada) whose support and assistance in important stages of preparation of this edition were of very great importance for us. Many others whose contributions to updating and revising this book have been enormously helpful include Igor M. Denisov (Moscow Medical Academy), Leon Epstein (Braun SPH), Becca Feldman (Braun SPH), Gary Ginsberg (Braun SPH), Soumik Kalita (Braun SPH), Maria Koleilat (UCLA SPH), Natalia Koroleva (London

School of Hygiene and Tropical Medicine), Meira Weinstein (Braun SPH), Denitsa Radeva (Braun SPH), Thaddeus David Ritch de Herrera (Braun SPH), Edward Salakhov (Semashko Institute, Moscow), Suzanne Wilnermanc (Braun SPH), and Yael Wolfe (Braun SPH).

Our warmest thanks go to Mara Conner, Renske Van Dijk, Julie Ochs, and the editorial staff of Life and Biomedical Sciences, Elsevier/Academic Press, who have worked with us closely and supportively through the process of preparing this book.

Of course, we could not have developed this second edition of our book without the encouragement and very constructive input of family, friends, colleagues, and students. We are deeply grateful for their support and contributions to the international flavor of the book. The common goal is to improve access to public health knowledge and to contribute to the development of public health in many countries globally. The final responsibility is, of course, with the authors.

T. H. Tulchinsky, MD, MPH
E. A. Varavikova, MD, MPH, PhD

Introduction to the First Edition

The idea for this book evolved from many years of teaching the principles of health organization to students of public health from Africa, Latin America, the Caribbean, Asia, the United States, eastern Europe, and Russia. It also emerged from the practice of public health in a wide variety of settings, including Canada, Israel, the West Bank and Gaza, the United States, Colombia, Azerbaijan, and Russia. While working together on a review of the health situation in Russia during 1992–1995 for the World Bank, we concluded that there was a need for a new textbook of public health bringing current thinking in the broad field to new students and veteran practitioners with an international orientation.

This book was originally prepared for publication in Russia where the idea that a New Public Health is sorely needed for the health of the population during a critical period of transition. This publication in the United States, we hope, will be relevant worldwide. Health systems everywhere are undergoing reform toward a population-based approach in addition to traditional individual care. Both the Russian and English editions are intended to reach people entering the field of public health as undergraduate students or entry-level graduate students who want or need an overview of the broad scope of the field. We also hope to reach physicians, nurses, managers, policymakers, and many others in the health field to define a new approach, linking the fields of public health and clinical services.

The term *New* in no way deprecates the known and trusted elements of the *Old* in public health. On the contrary, the New is a rediscovery and stands on the shoulders of the Old. The Greeks had gods of therapy and prevention in health, Aesculapius and Hygeia. The Mosaic law in health is based on the principles of *Pikuah Nefesh*, or sanctity of life, and *Tikkun Olam*, literally repairing the world in the sense of correcting the faults in human society. The ancient Greek and Mosaic traditions together with subsequent social organizational philosophies of health as a right and scientific advances provide the basis for the scientific and ethical approaches of the New Public Health.

Traditionally, *public health* has been defined as health of populations and communities. However, the NPH

focuses on health of the individual, just as for any other medical practitioner or health care worker, working both directly with individuals and indirectly through communities and populations. The indirect approach is to reduce the risk factors in the environment, whether physical or social, while the direct approach works with the individual patient or client as does a doctor treating the patient.

As medical science evolved, especially since the mid-twentieth century, the effectiveness of prevention and treatment services organized separately, sometimes with conflicting values, and mostly with separate financing and administrative modalities. The New Public Health is a synthesis of classical public health based on the experience of the past several centuries of applied public health with the biomedical, clinical, and social sciences; technology; management; and experience of health issues as they have developed and continue to develop.

The NPH includes all possible activities known to be useful and effective in promoting health and in the prevention, treatment, and rehabilitation of diseases for the individual, the community, and the population as a whole. It includes preventive medicine, environmental and community health, as well as personal health services. It provides standards relevant to any country whether developed or developing, but application of the specifics depends on the particular health problems and economic status of each country, or region within a country.

The NPH links traditional hallmarks of public health, such as sanitation, communicable disease control, maternal and child health, and epidemiology, with clinical services, health systems management, and health promotion. It recognizes that the health of the individual and the community is directly and indirectly affected by social and economic factors. An understanding of these concepts is essential to the design of effective health care interventions to prevent the occurrence of diseases or their complications. The NPH takes into account the realities of resource allocation and economic issues and priorities in health. It recognizes that resources for health care are limited even in the wealthiest societies, so that choices must be made as to the balance of programs and services provided, often made under the imperative of cost constraint and substitution of one type of service for another. Above all, it stresses that

society and the individual have rights and responsibilities in promoting and maintaining health through direct services and through healthy environmental and community health services.

Improving the health of the individual requires both the direct and indirect approaches. Examples cover a wide range of issues from control of infectious diseases, especially vaccine-preventable diseases, to nutrition, such as fortification of food and prevention of iron-deficiency anemia. Many issues in the New Public Health deal with both the individual and the community, including prevention of waterborne disease, assurance of access to medical care through health insurance, organization of home and chronic care, district health systems, prevention of asbestos-related disease, birth defects or thalassemia, development of new health professions such as community health workers, and many others.

The major components of public health each have records of great achievements and failures, but they are part of modern civilization and the desires of all other societies to emulate. While no one is exempt from death ultimately, no mother or father anywhere wants to lose a child, or a parent, especially from a preventable disease or condition. Yet, while we have learned, through a combination of science, political philosophy, and experience, that well-planned interventions can greatly reduce the risk of that happening, we have also failed to implement that knowledge as widely as we have implemented treatment services.

The New Public Health is not so much a concept as it is a philosophy which endeavors to broaden the older understanding of public health so that, for example, it includes the health of the individual in addition to the health of populations, and seeks to address such contemporary health issues as are concerned with equitable access to health services, the environment, political

governance and social and economic development. It seeks to put health in the development framework to ensure that health is protected in public policy. Above all, the New Public Health is concerned with action. It is concerned with finding a blueprint to address many of the burning issues of our time, but also with identifying implementable strategies in the endeavor to solve these problems.¹

The New Public Health incorporates a wide range of interventions in the physical and social environment, health behavior, and biomedical methods, along with health care organization and financing. The possibility to change not only individual lives but also the quality of life in communities draws health professionals from all walks of life who are dedicated to improving the public's health through a combination of their various disciplines. The social advocacy role with the application of up-to-date biomedical and social sciences makes this a challenging and rewarding field. Yet, public health is also the art of the possible. We cannot solve all problems of poverty and injustice, but we can improve survival and quality of life, step by step, one acre at a time, to achieve wondrous miracles as we enter the new century.

The New Public Health defines measurable targets of improved health of the individual and the community. It addresses both the social and physical environment as well as the personal services that address individual health needs. The NPH brings together aspects of public health that are community-oriented and personal care that is individual-oriented. One can no longer be separated from the other if we are to address the health needs of society in the twenty-first century.

T. H. Tulchinsky, MD, MPH
E. A. Varavikova, MD, MPH, PhD
June 2000

¹Ncayiyana, D., Goldstein, G., Goon, E., Yach, D. 1995. *New Public Health and WHO's Ninth General Program of Work: A Discussion Paper*. Geneva: World Health Organization.