

Essential Public Health
Theory and Practice

Essential Public Health

Theory and Practice
Third Edition

Edited by

Kirsteen Watson

University of Cambridge and NHS England

Jan Yates

NHS England

Stephen Gillam

University of Cambridge



CAMBRIDGE
UNIVERSITY PRESS



Shaftesbury Road, Cambridge CB2 8EA, United Kingdom
 One Liberty Plaza, 20th Floor, New York, NY 10006, USA
 477 Williamstown Road, Port Melbourne, VIC 3207, Australia
 314-321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi - 110025, India
 103 Penang Road, #05-06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of Cambridge University Press & Assessment, a department of the University of Cambridge.

We share the University's mission to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9781009378291

DOI: 10.1017/9781009378260

© Cambridge University Press & Assessment 2024

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press & Assessment.

First Edition 2007

Second Edition 2012

Third Edition 2024

Printed in the United Kingdom by CPI Group Ltd, Croydon CR0 4YY

A catalogue record for this publication is available from the British Library.

Library of Congress Cataloging-in-Publication Data

Names: Watson, Kirsteen, 1980- editor. | Gillam, Stephen, editor. | Yates, Jan, editor.

Title: Essential public health : theory and practice / edited by Kirsteen Watson, Stephen Gillam, Jan Yates.

Description: 3. | Cambridge, United Kingdom ; New York, NY : Cambridge University Press, 2023. | Includes bibliographical references and index.

Identifiers: LCCN 2023024101 (print) | LCCN 2023024102 (ebook) | ISBN 9781009378291 (paperback) | ISBN 9781009378260 (epub)

Subjects: MESH: Public Health Practice | Community Health Services | Needs Assessment | Delivery of Health Care | Health Status

Classification: LCC RA418 (print) | LCC RA418 (ebook) | NLM WA 100 | DDC 362.1-dc23/eng/20230626

LC record available at <https://lcn.loc.gov/2023024101>

LC ebook record available at <https://lcn.loc.gov/2023024102>

ISBN 978-1-009-37829-1 Paperback

Cambridge University Press & Assessment has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

.....

Every effort has been made in preparing this book to provide accurate and up-to-date information that is in accord with accepted standards and practice at the time of publication. Although case histories are drawn from actual cases, every effort has been made to disguise the identities of the individuals involved. Nevertheless, the authors, editors, and publishers can make no warranties that the information contained herein is totally free from error, not least because clinical standards are constantly changing through research and regulation. The authors, editors, and publishers therefore disclaim all liability for direct or consequential damages resulting from the use of material contained in this book. Readers are strongly advised to pay careful attention to information provided by the manufacturer of any drugs or equipment that they plan to use.

Contents

List of Contributors	page vii
Foreword	
<i>Professor Sir Michael Marmot</i>	ix
Acknowledgements	xi
Introduction	
<i>Kirsteen Watson, Jan Yates and Stephen Gillam</i>	1
Part 1 The Public Health Toolkit	
1 Health Needs Assessment	
Stephen Gillam and Padmanabhan Badrinath	13
2 Health Information	
John Battersby	27
3 Epidemiology	
Stephen Gillam and Mary Fortune	47
4 Evidence-Based Health-Care	
Padmanabhan Badrinath and Stephen Gillam	82
5 Decision-Making and Priority Setting	
Kirsteen Watson and Stephen Gillam	95
6 Improving Quality of Care	
Nicholas Steel and Stephen Gillam	108
7 Management, Leadership and Change	
Kirsteen Watson and Jan Yates	124
8 Improving Population Health	
Peter Bradley and Jan Yates	145

9 Screening	
Sue Cohen and Jan Yates	163
10 Health Protection and Communicable Disease Control	
Beverley Griggs and Padmanabhan Badrinath	183
Part 2 Contexts for Public Health Practice	
Introduction to Part 2: What Do We Mean by Contexts in Public Health?	
Jan Yates, Kirsteen Watson and Stephen Gillam	204
11 The Health of Children and Young People	
Rebecca Roberts and Rajalakshmi Lakshman	209
12 Adult Public Health and Non-Communicable Diseases	
Sara Godward	231
13 Public Health and Ageing	
Lincoln Sargeant and Louise Lafortune	249
14 Health Inequalities and Public Health Practice	
Anne Swift	265
15 Health Policy	
Richard Lewis and Stephen Gillam	290
16 International Development and Public Health	
Gillian Turner and Jenny Amery	303
17 Planetary Health	
James Smith	323
Glossary	339
Index	351

Additional resources can be found at
<https://www.cambridge.org/essentialpublichealth>

Contributors

JENNY AMERY

Chair of Joseph Rowntree Charitable Trust
Formerly Chief Professional Officer Health and Education, UK Department for
International Development (DFID), and NHS Consultant in Public Health

PADMANABHAN BADRINATH

Assistant Professor, Department of Public Health and Primary Care, University of
Cambridge, and Interim Consultant in Public Health Medicine

JOHN BATTERSBY

Head of East of England School of Public Health, NHS England

PETER BRADLEY

Director of Public Health/Medical Officer of Health, Government of Jersey, Jersey

SUE COHEN

Independent Public Health Consultant

MARY FORTUNE

Senior Teaching Associate in Medical Statistics and Assessment, University of
Cambridge

STEPHEN GILLAM

General practitioner and public health specialist, University of Cambridge

SARA GODWARD

Training Programme Director, East of England School of Public Health, NHS
England

BEVERLEY GRIGGS

Consultant in Health Protection, Public Health Wales, Cardiff

LOUISE LAFORTUNE

Principal Research Associate, Cambridge Public Health, University of Cambridge

RAJALAKSHMI LAKSHMAN

Senior Clinician Scientist, MRC Epidemiology Unit, University of Cambridge

Consultant in Public Health Medicine, Cambridgeshire & Peterborough

RICHARD LEWIS

Visiting Senior Fellow, Nuffield Trust, London

REBECCA ROBERTS

Public Health Registrar, East of England Public Health Training Programme

LINCOLN SARGEANT

Director of Public Health, Torbay Council

JAMES SMITH

Assistant Director, Public Health Education Group, Department of Public Health and Primary Care, University of Cambridge

Sustainability Lead, Cambridge Public Health Interdisciplinary Research Centre, University of Cambridge

NICHOLAS STEEL

Professor of Public Health, University of East Anglia

ANNE SWIFT

Consultant in Public Health Medicine and Director, Public Health Education

Group, Department of Public Health and Primary Care, University of Cambridge

GILLIAN TURNER

Health Systems Consultant, Reading

Formerly Senior Health Adviser at the UK Department for International Development (DFID)

KIRSTEEN WATSON

Training Programme Director, East of England School of Public Health, NHS England

Assistant Director, Public Health Education Group, Department of Public Health and Primary Care, University of Cambridge

JAN YATES

Regional Head of Screening Quality Assurance, NHS England

Independent Consultant, Bernache Leadership

Foreword

A management consultant once told me that he had been brought in by a major city to develop a public health strategy. I asked him what he had recommended. ‘Anti-smoking and statins’, was the answer. ‘Did you get paid a lot for that?’, I asked.

Both the management consultant and the person who commissioned him would have done well to read this book. They might then have realised that their approach can be characterised as narrowly conceived preventive medicine – treating individuals to alter disease risk (statins) or attempting to change individual behaviours (anti-smoking). Both are worthy and necessary, but only part of public health.

When at the UCL Institute of Health Equity we have been asked by cities what they can do to improve health, we start with the goals of addressing health inequalities and sustainability. My own starting position is the Marmot Reviews: *Fair Society Healthy Lives* and *Health Equity in England: The Marmot Review 10 Years On*. Our findings and recommendations are based on a comprehensive review of evidence as synthesised, for example, by the Commission on Social Determinants of Health. Our domains of recommendations are not a world apart from chapters in this book: give every child the best start in life; education; employment and working conditions; minimum income for healthy living; healthy and sustainable places; taking a social determinants approach to prevention and lifestyle. We have characterised this as addressing the causes of the causes.

Even before working with local organisations and people to work out a strategy, and tactics, it is worth asking how we would know if we were making any difference. To do that, we need an assessment of where we are with health, health inequalities and the social determinants of health. In other words, we need a monitoring framework of the sort described here that shows whether the causes of the causes, health and health inequalities, are moving in the right direction.

We might well have been following the chapters in this book. As a community group said to me: our values determine what we want to measure. Getting the goals right, and then pursuing the steps necessary to achieve them, are essential components of public health.

If anyone doubted the importance of public health, such doubts were dispelled by the COVID-19 pandemic. Managing the pandemic should have been public health in action. In Britain, we were not well prepared, not least because public health budgets had been sharply reduced, and then the main public health agency was dismantled in the middle of the pandemic.

It was predictable that the pandemic would expose the underlying inequalities in society, and amplify them – so it proved. The pandemic emphasised the absolute necessity of following the principles and practical steps laid out in this excellent book. A well-resourced health-care system is absolutely vital, but public health, too, is essential. The more people have the knowledge and understanding contained in this book, the better off we will be as a society.

Michael Marmot

Acknowledgements

The editors would like to formally thank all of the authors for their thoughtful and knowledgeable contributions to this textbook, without which this third edition would not have been possible.

The editors and authors would like to thank family, friends and colleagues for their encouragement and ideas – and, of course, to thank our students.

Special thanks from the editors to our families for their patience and support: KW to Agnes, Callum, Stuart, Moi, Bill and Pat; JY to Rick; and SG to Val.

We are also grateful to Professor Nick Mays and Professor David Pencheon for their comments on Chapters 15 and 16 respectively.