



# Public Health and Epidemiology at a Glance

Second Edition

Margaret Somerville  
K. Kumaran  
Rob Anderson

WILEY Blackwell



**Public  
Health and  
Epidemiology  
at a Glance**



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**Second Edition**

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# Preface to the second edition



In this second edition, we are delighted to have been able to expand the content in line with the comments we have had from both students and teachers. That feedback tells us that many of you have found the book useful and we have not wanted to change too much as a result. The basic principles and concepts still stand – and our aim was always to provide that core understanding of public health rather than focus on topics subject to rapid change. Applying this principle has meant that we have still not described the NHS structures, something you told us you wanted – even if we could! We have always taken the view that by the time either this book is published or you graduate, the structures will have changed again. It is also apparent that the NHS structures in the different UK countries are increasingly diverse. Understanding the principal elements of providing a good health and public health system seems, therefore, more relevant.

Elsewhere, we have expanded our discussion of health inequalities – an issue that is likely to be with us for some time to come,

the determinants of health and epidemiological studies, added chapters on older people, maternal and infant health, improving services and the development of the subject and practice of public health. We have revised and updated existing chapters and also added new self-assessment questions.

Just as with the first edition, we hope that the book will continue to promote interest in public health as well as be useful. Again, we would urge anyone wanting to find out more to contact their local public health team and spend time with them to find out what working as a public health physician is like on a day-to-day basis: it can be very diverse given the variety of work that public health professionals are involved with.

Margaret Somerville  
K. Kumaran  
Rob Anderson  
Sandwood, March 2015



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evidence-based practice and statistics. Any misrepresentation of their original contributions to the teaching material is entirely our responsibility. We are also very grateful for the help and guidance from Wiley-Blackwell, particularly Laura Murphy and Elizabeth Johnston, in getting this book from ideas to finished product.

# About the authors



**M**argaret Somerville has recently retired as Director of Public Health and Health Policy for NHS Highland, a post she held from 2010 to 2014. Before that, she was Director of Public Health Learning at the Peninsula Medical School, where she led the development of the public health aspects of the undergraduate curriculum from its inception in 2002. As a public health consultant in Devon, she was also involved with screening programmes, developing and implementing evidence-based practice and undertaking research into housing interventions and health.

Rob Anderson is an applied health researcher and economic evaluator with over 20 years' experience in the United Kingdom and Australian healthcare systems. He teaches on the University of Exeter Medical School's course for medical undergraduates and is an editor of the Cochrane Public Health Group. His public health research has included evaluations and systematic reviews of screening programmes, oral health promotion, injury prevention, obesity prevention and the implementation of health promotion programmes in schools. He is based in the Institute of Health Research, University of Exeter Medical School, Exeter.

After completing his undergraduate medical degree in India, Kumaran underwent public health training in the United Kingdom.

During this period, he obtained an MSc in Public Health, a postgraduate certificate in clinical education and the membership of the Faculty of Public Health, UK. He then worked at consultant level in the United Kingdom for the Health Protection Agency and NHS Somerset where he was involved in service public health. He also held an academic post at the Peninsula Medical School where he was closely involved in the development and delivery of undergraduate and postgraduate public health teaching. He is now based in India working across the MRC and various Indian teams on collaborative projects relating to the developmental origins of health and disease. His role is to contribute to the development of future research strategy, acquisition of funding and translation of research evidence into public health practice and policy. His long-term interests include the application of multi-faceted, evidence-based population level interventions to improve foetal growth and long-term cardiometabolic health using a lifecourse approach, and teaching and training initiatives. He is currently Associate Professor, MRC Lifecourse Epidemiology Unit, University of Southampton, UK and Senior Scientist Public Health, Diabetes Unit, KEM Hospital Research Centre, Pune, India.



# Introduction



## Part 1

### Chapters

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