

普通高等教育“十二五”规划教材
全国高等医药院校规划教材

英文版

EPIDEMIOLOGY 流行病学

留学生与双语教学用

主编 汪培山

Chief Editor Wang Peishan

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内 容 简 介

本教材系统地介绍了流行病学的基本原理和方法,内容简明易懂,每章后面附有重要专业词汇和部分练习题,适合初学流行病学的临床医学专业的留学生和本科生双语教学作为入门教材,也可以作为其他医学相关专业,如护理学、口腔医学、药学、公共卫生服务等专业的学生学习流行病学的教材。本教材也可以供卫生专业工作人员学习和应用流行病学参考。

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General Foreword

总序言

随着中国政治、经济、文化的快速发展,中国软实力和国际影响力的不断提升,《留学中国计划》的逐步实施,越来越多的外国人认识到留学中国的未来价值,来华留学生规模不断扩大。2013 年有来自 200 个国家和地区的 346 499 名外国留学生在我国 746 所高等院校和科研机构学习或进修,我国已经成为亚洲最大的留学目的地国家。

近年,来华学习医学的留学生人数增长尤为迅速,目前医学来华留学生人数已位居我国来华留学学生人数的首位,2013 年高达 21.76%,为 29 048 名。

为了维护我国高等教育的国际声誉,教育部高度重视医学来华留学生教育教学质量,不断加强对医学留学生教育教学的规范和管理,多种措施付诸实现。2007 年教育部即制定了《来华留学生医学本科教育(英语授课)质量控制标准暂行规定》,要求招生院校严格落实执行。2013 年 7 月教育部国际合作与交流司下达了《关于对招收本科临床医学专业(英语授课)来华留学生的高等学校进行专项工作检查的通知》,委托中国高等教育学会外国留学生教育管理分会组成专家组对招生院校进行专项工作检查。2013 年 8 月,全国性的“来华留学生(医学)教学专业委员会”成立大会暨第一次学术研讨会在天津医科大学成功召开。2014 年上半年,教育部国际合作与交流司又组织专家组对部分医学院校实施了飞行检查。2014 年 6 月,“来华留学医学教育 2014 学术研讨会暨首届医学院校国际教育学院院长论坛”在安徽医科大学举办。

来华留学生的教学质量是来华留学教育事业可持续发展的核心保障,来华留学生教育的教材建设是保障和提升教学质量非常重要的手段。适合医学来华留学生使用的教材的需求越来越迫切,临床医学专业的教材长期匮乏和不足,教材编写、教材内容、教材形式、教材版权等都需要进行整合和改进完善。

在教育部国际合作与交流司的指导下,中国高等教育学会外国留学生教育管理分会的支持下,众多医学院校的领导和专家经过多次讨论、磋商,决定成立“医学来华留学生教育教材建设专家指导委员会”,委托天津医科大学和清华大学出版社共同承担全国性临床医学专业英文版立体化教材编写和出版的具体组织工作。

天津医科大学有近 17 年的英语授课培养外国留学生的招生、教学历史,在全国医学来华留学生教育的实践方面开始较早,是教育部指定的第一批计划招生全英文临床医学专业的 30 余所院校之一,也是教育部首批批准的“来华留学教育示范基地”,设有教育部来华留学英语教学师资培训中心(医学),至今已举办 6 期培训班,为全国 52 所医科院校培训英语授课教师 364 人,所编教材在全国 30 余所西医院校教学中被借鉴或使用,在全国医学高等院校来华留学生教育教学领域里具有代表性和很大的影响力。

清华大学出版社在高等教育的综合出版领域里,仅次于高等教育出版社,排名我国第二位,是以出版全方位、多学科、立体化的高等教育教材为主的大社;上级主管单位为教育部,主办单位是清华大学,高质量、创新型、探究型的特色教材是其出版的重点任务,也是其肩负的社会职责所在,其所具有的强烈的社会责任感、主动性和积极性值得肯定。

据悉,该套教材近 50 种,主要供临床医学留学生和七年制或八年制医学生、医学本科生英语或双语教学使用。部分教材由我国长期从事医学来华留学生教育的教授学者编写,其余大部分教材是由清华大学出版社从多家国外出版社引进,改编出版,以适应我国的临床医学专业留学生课堂教学和临床实习所需。

该套教材的陆续出版,是我国对高校来华留学生教育教材系列化、专门化的首次探索。希冀其会对全面提升我国医学来华留学生教育质量水平,对规范我国医学来华留学生教育的教材建设,甚至对其他学科的留学生教材建设,起到积极的示范效应和引领性作用。

这是一个良好的开端,希望该套教材在今后教学中经过不断探索、不断总结,得到修订,日臻完善。

中国高等教育学会外国留学生教育管理分会

副会长兼秘书长

2014 年 10 月

贺向东

Preface

前 言

The main goal of public health is to prevent and control disease in human populations. To reach this goal, we attempt to understand the nature of diseases, explore the causes of diseases, take action (public health programs) and evaluate the effectiveness of the actions. Epidemiology plays a crucial role in realizing this goal and deciding which public health programs to develop as well as in evaluating those programs.

In recent decades, it appears that epidemiology has increasingly become a very important approach, not only for public health but also for clinical medicine and other areas of medical research and practice. Advances in computer design and availability and the development of advanced statistical methods and readily accessible powerful software have made it feasible to manage and statistically analyze very large databases. Epidemiological techniques have been applied to many areas of biomedical research and as a result, quite a few branches of epidemiology have emerged. Today, you might find epidemiologists who specialize in chronic disease or infectious disease epidemiology or in genetic epidemiology or in molecular epidemiology or in pharmacoepidemiology or nutritional epidemiology, to name only a few of the specialties.

The aim of this book is to provide an overview of principles of epidemiology for students of clinical medicine. It is also usable for the students of other health professions such as nursing, dentistry, pharmacy, public health service etc. It also can be used as the reference book for other health professionals. For medical students, this book assumes that they have successfully finished a short course of medical statistics.

In this textbook, most of the chapters in Part one are concentrated on the basic principles concepts and methodology of epidemiology (first 10 chapters). The remaining chapters in the second part consist of some applications of epidemiology. These may be selected by instructor for lecture or for used by students as self-readings.

It is important to note that this textbook just serves as an introduction of epidemiology. Because of the obvious constraints of any single textbook, it does not comprise an

exhaustive answer to many questions in epidemiology. I would appreciate any suggestions on what and how the contents of this book can be improved.

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致 谢

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I am grateful to my good friends, Professor P. Peter Wang and Professor Qi Xiuying for their wonderful contributions to this book. I want to thank all of the contributors, Dr. Xu Weili, Dr. Zhu Hong, and Dr. Song Fengju for their zealous support and wonderful work.

I also thank the editors of the publisher, especially Mrs. Li Jun, for helpful advice and support.

I would like to acknowledge many great professors and their books or articles that taught me about epidemiology. I especially recommend the book *Epidemiology* edited by professor Leon Gordis. I have recommended it as the main reference book for my students.

It is an honor to dedicate this book as a memorial to Professor Geng Guanyi, who brought me to the area of epidemiology. Professor Geng, who passed away in 1998, was the distinguished epidemiologist in China and the founder of School of Public Health, Tianjin Medical University.

I appreciate all of the help and comments from my students, including my Master students having worked as my teaching assistants and many international medical students in my classes.

I also very appreciate the contributions of Professor Pat West, Roy's wife, who is also a professor of epidemiology for her zealous work on typing and English editing on part of this book. I would like to thank all authors' spouses for their support.

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Finally I am very grateful to my family, particularly my wife, for their encouragement and support of time and patience.

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