Book Review

An Introduction to Infectious Diseases Modelling. By E. Vynnycky and R. White (400 pp.; £29.95; ISBN 978-0-19-856576-5 pb). Oxford: Oxford University Press, 2010.

This is a book that really introduces non-specialists to the growing field of Mathematical Epidemiology. Written by leading modellers, *An Introduction to Infectious Diseases Modelling* provides an excellent introduction to the area of mathematical models in transmissible diseases. It contains thoroughly revised applications of mathematical tools to several examples of infectious diseases.

The book is based on the material the authors developed for the successful summer course 'An introduction to infectious diseases modelling and its applications'; this is a course they designed and offered for the last 10 years at the London School of Hygiene and Tropical Medicine. It offers a step-by-step introduction to the mathematical techniques used to study the dynamics of infections, translating in a very efficient way the complicated mathematical equations used by professional modellers to a language public health specialists can understand. The result is that the reader really learns the core concepts of mathematical epidemiology but, perhaps more importantly, the content does not scare non-specialists, who, in the end will certainly start to appreciate the salient features of the subject.

Since the first edition of the seminal book by Bailey in 1957 *The Mathematical Theory of Infectious Diseases and its Applications*, there have been several attempts to provide readers without advanced mathematical training with introductory texts, all of them, in spite of being excellent consulting material, having questionable results from the pedagogical point of view. This book, therefore, is most welcome in filling this gap.

Of particular interest is the introductory chapter by Paul Fine, who provides in a very didactical way a fine-tuning of epidemiological concepts in the context of mathematical models.

Practically all areas of infectious diseases modelling are covered with the exception of vector-borne infections, the only aspect I miss in the book.

I am sure that public health specialists, epidemiologists, clinicians, veterinarians, statisticians, mathematicians, economists, and even professional modellers will profit from this book. I recommend it to all my students and now to the readers of *Epidemiology and Infection*.

EDUARDO MASSAD
(Email: edmassad@dim.fm.usp.br)