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Altri autori (Persone)	TchuencheJean Michel MukandavireZindoga
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	An avian influenza model and its fit to human avian influenza cases / Joseph Lucchetti, Manojit Roy and Maia Martcheva -- Gender differences in heterosexual transmission of HIV in urban and rural populations / Bernhard P. Konrad, Robert J. Smith and Frithjof Lutscher -- A partnership network simulation of the spread of sexually transmitted infections in Russia / Fatemeh Jafargholi and Chris T. Bauch -- Malaria control : the role of local communities as seen through a mathematical model in a changing population : Cameroon / Miranda I. Teboh-Ewungkem -- Application of optimal control to the epidemiology of HIV-malaria co-infection / F.B. Agusto -- Two strain HIV/AIDS model and the effects of superinfection / N.J. Malunguza ... [et al.] -- Modelling the transmission of multidrug-resistant and extensively drug-resistant tuberculosis / C.P. Bhunu and W. Garira -- HIV/AIDs and the use of mathematical models in the theoretical assessment of intervention strategies : a review / Zindoga Mukandavire ... [et al.] -- A model for the spread of HIV/AIDS in a two sex population / Ram Naresh, Agraj Tripathi and Dileep Sharma -- Fitting procedure for host-parasite systems / Henri E. Z. Tonnang and Jean M. Tchuenche.
Sommario/riassunto	This book is a collection that bears witness to the large interest in the subject of mathematical epidemiology. The materials presented

describe, thoroughly analyze and interpret the dynamics of some infectious diseases of global concern such as Influenza, HIV/AIDS, tuberculosis and malaria. The contribution and chosen approach are described in a way that is suitable to those who have some acquaintance with calculus and ordinary differential equations. Advanced undergraduate and graduate students, public health officials as well as researchers working at the interface between mathematics and biology, will find this book useful.