



A Spatial Agent-Based Simulation Modeling in Public Health: Design, Implementation, and Applications for Malaria Epidemiology (Hardback)

By S. M. Niaz Arifin, Gregory R. Madey, Frank H. Collins

John Wiley Sons Inc, United States, 2016. Hardback. Book Condition: New. 236 x 162 mm. Language: English . Brand New Book. Presents an overview of the complex biological systems used within a global public health setting and features a focus on malaria analysis Bridging the gap between agent-based modeling and simulation (ABMS) and geographic information systems (GIS), Spatial Agent-Based Simulation Modeling in Public Health: Design, Implementation, and Applications for Malaria Epidemiology provides a useful introduction to the development of agent-based models (ABMs) by following a conceptual and biological core model of *Anopheles gambiae* for malaria epidemiology. Using spatial ABMs, the book includes mosquito (vector) control interventions and GIS as two example applications of ABMs, as well as a brief description of epidemiology modeling. In addition, the authors discuss how to most effectively integrate spatial ABMs with a GIS. The book concludes with a combination of knowledge from entomological, epidemiological, simulation-based, and geo-spatial domains in order to identify and analyze relationships between various transmission variables of the disease. Spatial Agent-Based Simulation Modeling in Public Health: Design, Implementation, and Applications for Malaria Epidemiology also features: * Location-specific mosquito abundance maps that play an important role in malaria

Reviews

Very helpful to all category of folks. It is actually rally exciting throug studying time. I am easily will get a delight of looking at a created ebook.

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