

Choisy, M., J.-F. Guégan, and P. Rohani¹. 2007. Mathematical Modeling of Infectious Diseases Dynamics.

See https://www.researchgate.net/profile/Marc-Choisy/publication/282085494_Mathematical_modeling_of_infectious_disease_dynamics/links/5602a36d08ae0b84c4d2269e/Mathematical-modeling-of-infectious-disease-dynamics.pdf .
Accessed on 27 March 2023.

From Introduction: After presenting general notions of mathematical modeling (Section 22.2) and the nature of epidemiological data available to the modeler (Section 22.3), we detail the very basic SIR epidemiological model (Section 22.5). We explain the assumptions made about the biological processes and their consequences from an epidemiological perspective. We then review more complex models that allow the study of endemic diseases (Section 22.6) and recurrent epidemics (Section 22.7). Section 22.8 then focuses on the analysis of epidemiological data and the estimation of model parameters. The chapter ends with some examples of practical uses of models for the development of public health policies (Section 22.9). Technical aspects are treated in boxes.

Keywords: SIR model, infectives, incubation, stochastic, deterministic, model, nonlinear, system