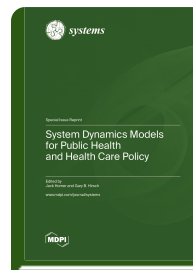*Special Issue Reprint*

System Dynamics Models for Public Health and Health Care Policy

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Edited by
Jack Homer
Gary B. Hirsch

System dynamics is a simulation modeling approach to strategic and policy analysis that has been applied to many health care and public health issues since the 1960s and has become increasingly prevalent since the 2000s. The ten articles in this reprint appeared in a Special Issue of *Systems* and cover a broad cross-section of relevant methodological topics as well as applications to specific health problems.

One methodological article describes the use of cascaded system archetypes, with an application to reducing hospital congestion. Another discusses Monte Carlo uncertainty analysis, with an application to the US opioid crisis. Three of the articles describe models of community response to severe shocks, including recovery from the COVID-19 pandemic. Two other articles address strategies for dealing with myriad chronic diseases and risk factors in a population. Other papers include in-depth analyses of prostate cancer screening, digital prosthetic services for lower-limb amputees, and the complex behavioral health challenge of youth homelessness.

This reprint provides an excellent snapshot of the current state of practice in system dynamics as it is applied to public health, health care delivery, and health policy. It offers practical policy guidance and will be of interest to both experienced practitioners and those new to the field.

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