

Foreword

The success of public health programs depends both upon the logical application of proven strategies and also upon a healthy understanding of what is unknown. The work depicted in this monograph provides an excellent example of displaying the known and unknown about the epidemiology of gonorrhea. The authors have modeled their data in a way that was extremely useful in formulating approaches to gonorrhea control at the national level. Their efforts are a good example of how mathematical modeling has more than just theoretical utility.

The authors' research has helped eliminate a number of misconceptions which we had about gonorrhea epidemiology. In large part because of this work, we now believe (1) that gonorrhea prevalence adjusts rapidly to both changes in sexual behavior and also activities of control programs, (2) that prevalence oscillates seasonally around an equilibrium state determined by the current social and medical conditions, and (3) that this equilibrium moves as epidemiological conditions change. These ideas are important in evaluating the effects of our programs and in formulating new approaches. The depiction of a highly sexually-active "core" population, which is highly infected and causes a large fraction of all new cases of gonorrhea, has been quite stimulating. This concept of the core, and the resultant emphasis on "efficient transmitters," was a major factor which influenced revision of national strategies to control gonorrhea. Academic experts and practical public health officials alike will find this monograph to be a very valuable example of the utility of modelling to influence disease control programs. Public policy decisions depend on accurate information processed through objective analytic minds; use of models--including the discipline of decision analysis--facilitates "scientific administration." With programs of national scope, such as STD control, application of macroscopic modeling has a broad influence and benefits large numbers of people.

Ending on a personal note, as past and present directors of the national STD control program, more than just the product of the modeling has proven beneficial. It was also the process of interacting with the authors which helped stimulate innovation and clarity of thought. We thank them not only for their work but for their insight.

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