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Urn model simulations of a sexually transmitted disease epidemic. (English) Zbl 0827.92024

Summary: Two models are presented which were developed for studying the transmission of Chlamydia trachomatis (a sexually transmitted disease) in a closed university population. These models, which are based on the idea of urn models, are ideally suited for stochastic simulation. We develop the models and give a brief mathematical analysis. Stochastic simulation results are then presented and their epidemiological significance is discussed.

MSC:
92D30 Epidemiology
92-04 Software, source code, etc. for problems pertaining to biology

Keywords:
transmission of Chlamydia trachomatis; sexually transmitted disease; urn models; stochastic simulation

Full Text: DOI

References:
[19] Sattenspiel, L., The structure and context of social interactions and the spread of HIV, (), 242-259


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