"A Stochastic Model of Tuberculosis Incororating Household Clusters"

By

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Tuberculosis (TB) is a slow, endemic disease, and individuals can remain latently infected for a long period of time. Numerous mathematical models have been developed to explain these characteristics. We studied a deterministic model of TB, which assumed that individuals have a much higher risk of infection from close contacts.   We then compared two stochastic approaches to the original model: finding the moments from the moment generating function and estimating the mean and variance from stochastic process simulations.