Abstract

The simultaneous estimation of infection rate, cure rate and detectability of parasitic infections is considered. A new method for this estimation based on a simple statistical model assuming constant transition rates between parasite states is proposed. Repeated observations on the infection status of the same individuals is required for this method. A maximum likelihood approach is used for parameter estimation and the calculation of standard errors of the estimates. The method is illustrated by a longitudinal study of the presence of Giardia lamblia infection in Kenyan children.