ABSTRACT

We use mathematical modeling to explore the ramifications of targeting preventive disease measures to undernourished children. We consider a malaria model with superinfection and heterogeneous susceptibility, where a portion of this susceptibility is due to undernutrition (as measured by weight-for-age z scores). The portion of the total susceptibility that is due to undernutrition is estimated from a large randomized trial of supplementary feeding. We compute the malaria morbidity and mortality for a variety of policies involving supplementary food and insecticide treated nets.
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