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Spatial heterogeneity and the design of immunization programs. (English) Zbl 0564.92016

Math. Biosci. 72, 83-111 (1984).

The paper deals with the situation when the population is subdivided into n groups and the transmission rate of an infectious disease among individuals within one group is different from the transmission rate between groups. An optimal eradication program is studied in which different groups are treated differently. It is shown that this program requires fewer immunizations than in the case we assume that the population is homogeneously mixed.

Reviewer: U.Wilczyńska

MSC:

92D25 Population dynamics (general)

Cited in **2** Reviews
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spatial heterogeneity; immunization programs; transmission rate within groups; transmission rate between groups; optimal eradication program

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