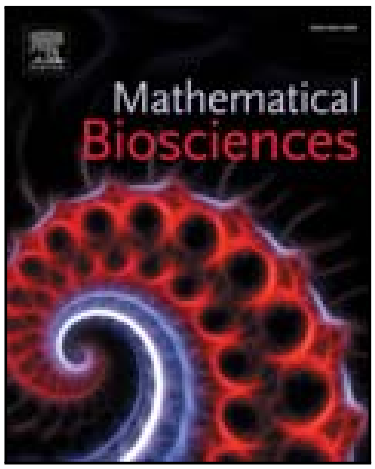

Sustainable thresholds for cooperative epidemiological models

Edwin Barrios, Pedro Gajardo, Olga Vasilieva

PII: S0025-5564(17)30552-7
DOI: 10.1016/j.mbs.2018.05.011
Reference: MBS 8081

To appear in: *Mathematical Biosciences*

Received date: 10 October 2017
Revised date: 16 May 2018
Accepted date: 21 May 2018

Please cite this article as: Edwin Barrios, Pedro Gajardo, Olga Vasilieva, Sustainable thresholds for cooperative epidemiological models, *Mathematical Biosciences* (2018), doi: 10.1016/j.mbs.2018.05.011

Highlights

- We focus on the transient states of diseases instead of seeking asymptotic stability and disease-free equilibriums.
- We access the trade-offs between different types of constraints arising in disease control.
- We present and justify a practical method for computing the set of sustainable thresholds.
- The introduced methodology can be used for a large class of epidemiological models.