Identification of Gumel-Mickens HIV model with incomplete information on a population

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In this paper the Gumel-Mickens problem [1] is considered, which includes a population of four types: HIV Susceptible [2], infected-vaccinated and infected-non vaccinated population and uninfected vaccinated population. It is assumed that data on the total population infected vaccinated and infected, and un-vaccinated population is available. It is shown that in this case of incomplete information [3] it is possible to fully identify the mathematical model, i.e. find all coefficients of this model [4] and restore information about HIV-suspected and uninfected vaccinated population.

References

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