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Title:	DOES SENSITIVITY ANALYSIS VALIDATE BIOLOGICAL RELEVANCE OF PARAMETERS IN MODEL DEVELOPMENT? REVISITING TWO BASIC MALARIA MODELS
Authors:	Sinha, Somdatta (/jspui/browse?type=author&value=Sinha%2C+Somdatta)
Keywords:	Epidemiological models Malaria Disease
Issue Date:	2017
Publisher:	World Scientific
Citation:	Mathematical Biology and Biological Physics, pp. 187-203 (2017)
Abstract:	Several increasingly complex epidemiological models have been developed to understand the complicated transmission dynamics of malaria in human population over the past hundred years. The primary aim of these models is to offer a realistic account for the prevalence of malaria, by including more features of the host-pathogen interactions through inclusion of new parameters and interaction functions, and predict suitable control strategies. For this it is essential to identify the rank of model parameters representing these processes, according to their influence on model variables, so that those having stronger influence in the prevalence of the disease can be determined. It is, however, not clear how inclusion of new biologically realistic processes that change the model structure minimally in terms of dynamics and parameters, can affect the ranking of the common parameters, and thereby influence control policies.
Description:	Only IISERM authors are available in the record.
URI:	<a href="https://www.worldscientific.com/doi/10.1142/9789813227880_0011">https://www.worldscientific.com/doi/10.1142/9789813227880_0011</a> ( <a href="https://www.worldscientific.com/doi/10.1142/9789813227880_0011">https://www.worldscientific.com/doi/10.1142/9789813227880_0011</a> ) <a href="http://hdl.handle.net/123456789/3711">http://hdl.handle.net/123456789/3711</a> ( <a href="http://hdl.handle.net/123456789/3711">http://hdl.handle.net/123456789/3711</a> )
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