

POTENTIAL EXPANSION OF TROPICAL VIRUSES IN SERBIA AND EUROPE

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The current, hot topic is the risk of introducing new vector-borne diseases and harmful ectoparasites into Europe, or of the geographic extension of the existing ones. There are many doubts that global warming affects the transfer of a number of vector-borne diseases. Special emphasis was placed on spreading the Lyme disease, tick-borne encephalitis, West Nile fever and leishmaniasis, the recurrence of malaria and dengue fever. Climate models predict a 2-5°C temperature increase and a significant increase in rainfall in Europe in the following years. However, non-environmental variables such as socio-economic situation and agriculture should be considered.

The main problem can be expected when new viruses emerge. As they change, their mutations can enter into the population and thus have "the greater potential" for the spread of the epidemic. The control network of the health system in our country and in Europe is very dense, and the outbreak of the virus can be always registered, giving the authorities enough time to take measures.

Although modeling studies indicate that climate change could increase the risk of transmission of vector-transmitted diseases in Serbia and Europe, historical analyses indicate that, at least for malaria, socio-economic conditions in combination with effective surveillance and early treatment are likely to prevent further spread, which is the main task of the Public Health Institutes. Tropical medicine experts said that the so-called supervirus causes mutations of the virus, and represents the greatest danger for human population. The circumstances that allow such a development already exist, an additional climate change is not necessary. The challenge for future research is the mechanism of tropical viruses and their persistence in endemic foci in temperate climate area in Europe. *Acta Medica Medianae 2015;54(4):64-71.*