Arboviruses are a major public health concern in Texas, with endemic and non-endemic diseases collectively causing hundreds of cases in humans and domestic animals each year.

There are three mosquito-borne viruses spreading widely in tropical and subtropical regions of the Americas---dengue virus (DENV), chikungunya virus (CHIKV), and Zika virus (ZIKV)---that have the potential to emerge in Texas but have not yet established local transmission.

Risk maps are visual tools that can help decision-makers to identify geographic areas of high or low risk for disease activity. These maps are often based on statistical models that have been fit to historical data reflecting risk factors.

Here, we present a framework for mapping the risks of arbovirus introductions and transmission, to support surveillance efforts for DENV, CHIKV, and ZIKV in Texas.

To build a predictive model for county-level import risk, we combined a maximum entropy method with a novel model selection procedure to systematically identify the ten most informative predictor variables from among 76 candidates.