

# UA mobile app tracks Zika virus for summer travelers

July 26 2017

---



The Kidenga app, developed by researchers at the UA Zuckerman College of Public Health, detects disease outbreaks by tracking mosquito activity and symptoms reported by users. The app currently tracks Zika, dengue and chikungunya -- viruses that are transmitted by *Aedes* mosquitoes. Credit: UA College of Public Health

Just because Zika isn't in the news as much lately, doesn't mean the mosquito-borne infection no longer is a health threat. Researchers at the University of Arizona Mel and Enid Zuckerman College of Public Health and public health officials continue to seek a better understanding of how Zika may spread and if and where it may become endemic.

With summer travel and mosquito densities starting to peak, risk of viral introduction and local transmission in the United States increases. Tracking the spread of Zika is vital to prevention efforts. The earlier transmission can be detected, the more quickly public health can respond and prevent viruses like Zika from spreading within communities. Yet it is difficult when only 1 in 5 individuals infected with Zika virus show symptoms of illness and even fewer seek care and are tested for the virus.

Kidenga is a community-based participatory science app developed by researchers at the UA Zuckerman College of Public Health to detect disease outbreaks by tracking mosquito activity and symptoms reported by users. The app currently tracks Zika, dengue and chikungunya—viruses that are transmitted by Aedes mosquitoes. All three viruses have similar symptoms, including sudden onset of fever, joint pain, muscle pain, headache, nausea, fatigue and rash.

Kidenga enlists the help of community members to report any symptoms of illness they or family members may have so researchers can identify early clusters of illness that might suggest transmission of Zika, dengue or chikungunya. The app also provides up-to-date information on current transmission and prevention strategies.

Since its launch in September 2016, Kidenga has received 1,300 weekly reports from users from 33 states and 116 counties. Eight percent of participants indicated they had a fever at least once.



The Kidenga app now is available in Spanish. Credit: UA College of Public Health

"While this is a solid start, greater participation is needed if outbreaks are going to be detected," said lead investigator Kacey Ernst, PhD, MPH, associate professor of epidemiology at the UA Zuckerman College of Public Health. "Now more than ever communities need to work together to identify and solve [public health](#) problems. As funding is stagnant or declining, novel ways to improve [health](#) with limited resources are required."

The Kidenga team is focusing on increasing participation in the U.S.-Mexico border region and Florida given the history of Zika transmission in these areas.

"Last year we were limited in our ability to reach communities in parts of the U.S.-Mexico border region because the app was only in English. With the launch of the Spanish version of the app we hope to increase participation and the chance of identifying any local transmission early," said Dr. Ernst.

Summer travelers can protect themselves by using the Kidenga app to find where [transmission](#) is occurring in addition to protecting themselves from mosquito bites. While pregnant women should take extra precautions due to the severe impacts on the fetus, anyone could become infected and potentially return home to spread the virus to the local mosquito population.

Kidenga is a collaboration between the UA College of Public Health and

the UA Bio Computing Facility at the Arizona Research Laboratories. The UA undergraduate students who developed the mobile device application come from the computer information science and engineering disciplines.

Provided by University of Arizona

Citation: UA mobile app tracks Zika virus for summer travelers (2017, July 26) retrieved 25 April 2024 from <https://medicalxpress.com/news/2017-07-ua-mobile-app-tracks-zika.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.