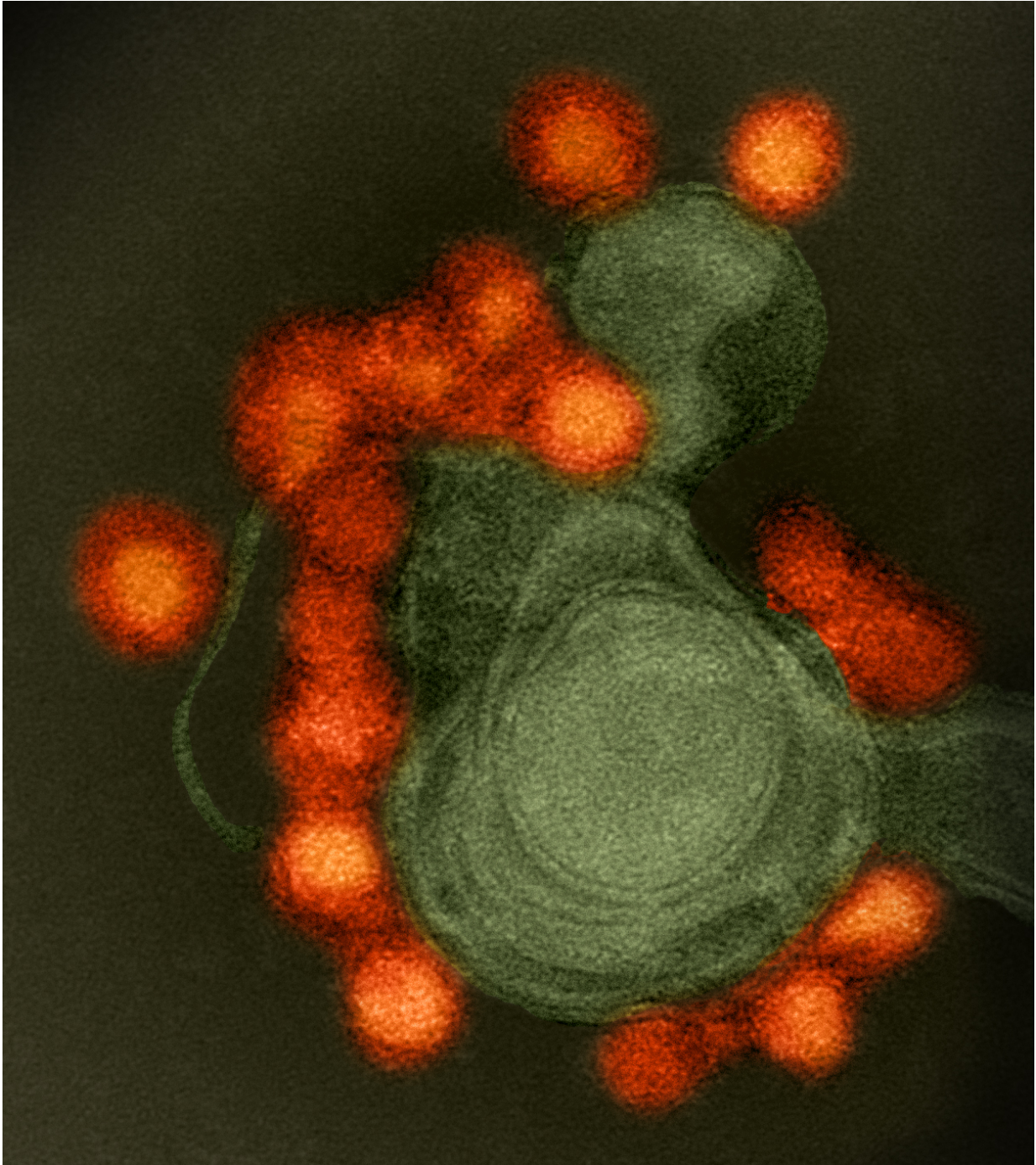


Knowing more about a virus threat may not satisfy you

March 10 2020, by Jeff Grabmeier



Transmission electron microscope image of negative-stained, Fortaleza-strain Zika virus (red), isolated from a microcephaly case in Brazil. The virus is associated with cellular membranes in the center. Credit: NIAID

People who rate themselves as highly knowledgeable about a new infectious disease threat could also be more likely to believe they don't know enough, a new study suggests.

In the case of this study, the infectious disease threat was the Zika virus. But the authors of the new study, published recently in the journal *Risk Analysis*, say the results could apply to the recent novel [coronavirus](#) (COVID-19) outbreak.

"The Zika virus and the coronavirus have important things in common," said Shelly Hovick, co-author of the study and assistant professor of communication at The Ohio State University.

"In both cases, they are shrouded in uncertainty and have received a lot of media attention. Our research looks at how people seek and process information when there is so much uncertainty."

One of the key findings of the new study: With [limited information](#) about Zika available, more knowledge was not that comforting.

"We found that the more people thought they knew, the more they realized they didn't know enough," said Austin Hubner, lead author of the study and a doctoral student in communication at Ohio State.

"With the Zika virus, even the experts themselves didn't know much at the time. That's the same thing we're seeing with the coronavirus, and that's scary for people who believe they are at risk."

For the study, the researchers conducted an [online survey](#) of 494 people of childbearing age living in Florida in December 2016.

Florida residents were recruited for the study because it had the highest number of locally transmitted cases of Zika in the United States at the

time.

Although most people infected with Zika don't have symptoms, [pregnant women](#) with the virus have a higher likelihood of their child being born with a specific birth defect.

Zika is primarily spread by mosquitoes, but it can also be transmitted from men and women to their sexual partners and through blood transfusions.

In the survey, respondents were asked a variety of questions about their knowledge and attitudes toward seeking information, how they processed what they learned about the Zika virus, and their plans for seeking more information.

As expected, participants who were pregnant or wanted to get pregnant (and men whose wives were in those situations) felt more at risk from Zika and were more likely to say they felt scared of Zika. But they weren't the only ones who felt worried about Zika.

"Novel risks like Zika or coronavirus may make some people react differently than well-known risks like cancer or the flu," Hovick said.

"Even if the data suggest someone is at low risk, the lack of information may make some people feel they are at high risk."

The findings showed that people who felt they didn't know enough about Zika didn't intend to spend more time than others seeking information. That was probably because they realized that there wasn't more information available, Hovick said.

But they did spend more time processing the information they uncovered and were more likely to agree with statements like "After I encounter

information about Zika, I am likely to stop and think about it."

These findings suggest it is important for public health agencies to continuously update the public, Hovick said. Those who are worried or concerned about risks such as Zika are likely to process the information they encounter deeply, but they may not seek information on their own.

Participants were also more likely to intend to seek information about Zika if they believed other people expected them to do so. They were more likely to want to search for information if they agreed with statements like "People in my life whose opinions I value seek information about Zika."

"We should aim not just to provide information, but also shape messages that encourage people to stay on top of the situation, particularly in high-uncertainty environments," Hovick said.

"You have to make it clear that seeking more knowledge is something that their friends and family expect of them."

Hovick said they have considered trying to replicate the study with the current coronavirus outbreak, but that Zika virus was slower developing.

"The coronavirus outbreak is moving so much more quickly. I'm not sure we could get the approvals and conduct the study in time," she said.

More information: Austin Y. Hubner et al, Understanding Risk Information Seeking and Processing during an Infectious Disease Outbreak: The Case of Zika Virus, *Risk Analysis* (2020). [DOI: 10.1111/risa.13456](https://doi.org/10.1111/risa.13456)

Provided by The Ohio State University

Citation: Knowing more about a virus threat may not satisfy you (2020, March 10) retrieved 24 April 2024 from <https://medicalxpress.com/news/2020-03-virus-threat.html>

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