



Experts call for new tools to diagnose vector-borne diseases

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Experts are calling on federal officials to prioritize tools to diagnose diseases from mosquitoes, ticks and other vectors.

The Centers for Disease Control and Prevention (CDC) gathered input from partner groups during an all-day meeting Thursday on its new strategy to fight vector-borne diseases like Lyme disease, West Nile, dengue and malaria.

There were nearly 1 million cases of vector-borne diseases in the U.S. from 2001 to 2023, and cases have doubled over the last two decades, according to the CDC. Puerto Rico recently declared dengue to be a public health emergency, and officials are watching for increased spread in the continental U.S. this summer.

Lyle Petersen, M.D., M.P.H., director of the Division of Vector-Borne Diseases in the CDC's National Center for Emerging and Zoonotic Infectious Diseases, said "the picture is bleak" and change will take time.

However, he said the country is at a turning point thanks to partnerships, political support, evolving technology and a new national strategy.

"I think we have increased capacity and momentum to make significant progress," he said. "... We have a strong and growing network of collaborators all working together to address these problems. We must draw on the universe of everyone's skill to really combat these problems, to make headway."

The [National Public Health Strategy to Prevent and Control Vector-Borne Diseases \(VBD\) in People](#) was created by 17 federal departments and agencies and released in February. It consists of five goals, 19

strategic priorities and 43 objectives.

The goals of the plan are to

- better understand when, where and how people are exposed to and get sick or die from VBDs;
- develop, evaluate and improve tools, methods and guidance to diagnose VBDs and their pathogens;
- develop, evaluate and improve tools, methods and guidance to prevent and control VBDs;
- develop and assess drugs and treatment strategies for VBDs; and
- disseminate and implement public health tools, programs and collaborations to prevent, detect, diagnose and respond to VBD threats.

Officials on Thursday also highlighted four of the key outcomes they are focusing on.

- Eliminate deaths from Rocky Mountain spotted fever in Arizona tribal communities by 2025.
- Eliminate sustained local spread of dengue by 2035.
- Reduce the number of Lyme disease cases 25% by 2035 compared to 2022.
- Reduce the annual number of West Nile virus neuroinvasive disease cases to below 500 by 2035.

“These four strategic public health outcomes make us sweat,” said Susanna Visser, Dr.PH., M.S., deputy director for policy and extramural program from the CDC’s Division of Vector-Borne Diseases. “ ... This is really important and we have to respond.”

Most of the working session was not open to the public. However, in summaries of the discussions afterwards, the groups consistently pointed to development of diagnostics as a crucial goal. There already is a [competition underway](#) to develop new diagnostics for Lyme disease. Experts at Thursday’s session also consistently called for more collaboration and physician education.

The CDC plans to share the input with the other agencies that created the strategic plan.

“The victories that we make aren’t going to happen tomorrow and they’re not going to happen easily,” Dr. Petersen said. “So, I think that steady effort of all of us ... is very critical to make a big difference.”