A leading expert on global health expects COVID-19 cases in the United States will continue to decline through the summer.

“The challenge is: What comes after that?” Christopher J.L. Murray, MD, director of the Institute for Health Metrics and Evaluation at the University of Washington, told listeners during a recent JAMA Network™ livestream and podcast.

Dr. Murray said he doesn’t believe the spread of the variants will be fast enough by April to reverse the downward case trend we are seeing in COVID-19 cases as we head into the spring and summer. But he said he expects the variants will slow progress in driving cases down.

A physician and health economist whose career has focused on improving health globally by improving health evidence, Dr. Murray outlined these three challenges to making herd immunity a reality and preventing another wave of illness this fall or winter:

- Vaccines will not be as effective at preventing infection from the SARS-Co-V-2 B.1.351 variant that emerged in South Africa or the P.1 variant that emerged in Brazil, or future variants.
- Not enough individuals will receive the vaccine to achieve herd immunity.
- Those who had previous COVID-19 infections from one variant may not have protection from being reinfected with a new variant.

When vaccines were approved, everyone thought the U.S. would get to herd immunity by late summer or the fall because the number of people who have been vaccinated combined with the 20% of Americans who had already been infected and had immunity would push America to the level needed for herd immunity, preventing another wave next winter, Dr. Murray said.
“But if it turns out there isn’t cross-variant immunity, then the only way to get to the point where you don’t have a third wave next winter is through vaccination,” he said.

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Mitigating future waves

In a recent JAMA Viewpoint, “The Potential Future of the COVID-19 Pandemic: Will SARS-CoV-2 Become a Recurrent Seasonal Infection?” Dr. Murray and his co-author Peter Piot, MD, PhD, wrote that if new variants continue to appear, winter surges may become the norm.

They suggested five strategies to consider in the months ahead to help mitigate the consequences for communities and health systems if that happens:

- Intensify global vaccination efforts.
- Monitor the epidemic and the emergence of new variants and, if needed, accelerate the modification of vaccines to enhance their efficacy for the emerging high-risk variants.
- Manage and finance winter hospital surges. Elective procedures may need to be halted in peak months such as December and January. Hospitals may need to develop greater capacity to respond to surges with sufficient bed capacity and personnel.
- Reduce transmission in peak months through employer and educational institution action. For example, schools or employers could require masks during peak transmission months.
- Modify at-risk individuals' behavior. Higher-risk individuals may consider wearing masks in the winter or avoiding places where transmission risk is high.

Sequencing’s important role

During the podcast, Dr. Murray said he is encouraged that the federal COVID-19 relief package includes $200 million to boost sequencing the genomes of virus samples so the U.S. can better track variants. It’s an area where the U.S. has lagged enormously behind other nations.

Most of the sequencing in the U.S. has been done in academic labs and hasn’t been part of a systematic sampling like in the United Kingdom, making it challenging to know the variants’ U.S. prevalence.
“Quite possibly, there will be other variants that come along and that may be a sort of constant issue that we need to keep up with,” Dr. Murray said. “One of the strategies to deal with that has got to be more sequencing.”