COVID-19 outbreaks in Michigan, Florida and other states have the whole country dreading a fourth surge in the pandemic. If that’s what it is, what should we do to stamp it out? And how does a late-stage response differ from an early one?

In a recent episode of the “AMA COVID-19 Update,” Harris Pastides, PhD, MPH, an epidemiologist and president emeritus of University of South Carolina, laid out best practices for public health officials and physicians on the front lines.

How to deal with the unknown

“If you look at the history of how epidemics or pandemics decline, there are always blips,” Pastides said. “The question with this one—with the outbreak in states like Michigan, Pennsylvania, New York and Florida—is whether this is, in fact, only a blip or a sign of worse things to come.”

But no matter how we describe the outbreak, COVID-19 vaccines remain the best tool in the public health toolbag for putting it down.

“Public health can squander and waste a lot of time wondering why,” he said of questions about the regionalism of outbreaks. The priority, instead, ought to be to “get everybody in those communities that are spiking vaccinated” immediately.

“Do it as quickly as possible,” Pastides said.

Look to history for guidance
This approach of vaccinating as many people as possible in an affected area isn't new.

“Let me take us back to the only infectious disease that was eradicated in our lifetimes … smallpox,” Pastides said. The lynchpin in the public health response, he noted, was something called the ring approach, in which the World Health Organization and its partners vaccinated a ring of people around each infected individual. “I can assure you that smallpox would still be with us if we had not taken that ring approach.”

Still, the U.S. runs into problems of geography—in particular, the size of the country and the divided responsibilities for responding to outbreaks.

“If the spikes are distributed very widely, let's say throughout Michigan—[it’s] very difficult to have a ring around Michigan,” he noted. “But if you have … pockets of where the virus and the disease is spiking in a community, be it urban or rural … this is a time for just putting the vaccine in the arms of people.”

Take a selfless approach

“I'm very optimistic,” Pastides said. “This pandemic is going away.” But he wasn't sure the end would come in the timeline imagined by some.

“Hopefully, we can all have a fun July Fourth weekend … or will it be much later than that?” he wondered.

The answer, he said, depends upon if we see continued surges and, if we do, how well the public health community intervenes.

Viruses “are among the most elemental forms of life that we know—barely above plant life. And just about the only thing they can do, when we are winning a war against them, is to mutate.”

Despite the persistence of the pandemic, everyone involved in the response to it should welcome scrutiny of their work, Pastides noted.

“Shakespeare, in ‘The Tempest’ said, ‘The past is prologue.’ And in this case, we hope not,” he said. “The only way to prevent that is to begin now—documenting, analyzing, assessing and reviewing—without great sense of fear and panic. Politicians generally don't like to be assessed in that way, but we do need to do that.”