## Transcript Details

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Targeting Prevalent Flu Strains Through Strategic Vaccine Selection

**Announcer:**

Welcome to *VacciNation* on ReachMD. On this episode, sponsored by CSL Seqirus, we'll discuss how we can target prevalent flu strains through strategic vaccine selection with Dr. Darvin Scott Smith, who's an Infectious Disease and Geographic Medicine Consultant at San Mateo Medical Center in California. Here's Dr. Smith now.

**Dr. Smith:**

So we can target the prevalent flu strains that are circulating by strategically selecting what's put in the vaccine. And in fact, that's what we do every year in order to ensure the best match and the best response to get optimal vaccine effectiveness. So what happens is the WHO does global surveillance. There's a network of public health organizations and a Worldwide Influenza Surveillance Network that reports what's out there. And then there is a recommendation that comes based on these twice-a-year observations, suggesting what the recipe for the vaccine should be, so which strains to be included. And that data analysis for strain selection is usually done by a committee that considers such factors as the genetic and antigenic characteristics of the circulating strains and their geography.

So every year, it has traditionally included four different strains: two from influenza A and two from influenza B. And then, various manufacturers will assemble this in their vaccines.

The impact of this approach where we annually reassess what's circulating in the world among people getting flu is that we'll better match against virulent strains. And so the vaccine will have a better efficacy. Ideally, it would be above 60 percent, and this reduces burden of disease within healthcare systems to have a more effective flu vaccine.

The approach of going out every year to reformulate vaccines obviously has some limitations because prediction is imperfect, and it takes time in order to do the observations and rework the vaccine every year. And sometimes that strain diversity results in vaccines that don't quite match what ends up circulating in the population.

The WHO back in February got together with the Vaccines and Related Biologic Products Advisory Committee to recommend not to include B/Yamagata lineage virus in the seasonal flu vaccines, starting this year. This is a new recommendation to have a trivalent instead of the usual quadrivalent vaccine, and because of its disappearance, this B/Yamagata virus is thought to maybe even have gone extinct since it's not been observed since March of 2020, and so it will not be included in the formulation of the vaccine.

So the idea here is to focus on what's circulating and to optimize resources that we use to formulate these vaccines. And I think the return to a trivalent vaccine after 10 years is a good idea because it will simplify things.

**Announcer:**

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