**FEATURED ICONS**

**FEATURES**

**NEWS**

- In a scenario with deliberately delayed influenza immunizations to avoid waning of protection, influenza-related hospitalizations would increase if 14% of older adults usually vaccinated in August or September did not get vaccinated for that season, researchers report. Ferdinands et al. used empirical data and a health state transition model to estimate the effects of not vaccinating until October 1. “Uncertainties about vaccine waning and effects of a delay on vaccine coverage suggest it is premature to change current vaccine recommendations, although it may be prudent to prevent a substantial shift toward early vaccination,” the group concluded (*Clin Infect Dis.* 2020;70(8):1550–1559).

**2020–21 INFLUENZA SEASON: FINDING THE RIGHT MESSAGE**

In a world subsumed with coronavirus and what will happen today, tomorrow, and next week, the 2020–21 influenza season seems a world away. We can’t be certain what the coronavirus will do over the summer, how long physical distancing will be needed, or what drugs or vaccines may prove safe and effective against coronavirus disease 2019 (COVID-19). We do know one thing: the influenza virus will be back in the fall.

With plenty of vaccine available for a population newly aware of respiratory viruses, the damage they can do in the human body, and what tens of thousands of deaths mean, this could be an opportunity to make a sea change in people’s views of the value of vaccines.
A CHALLENGING SEASON DESPITE GOOD VACCINE–VIRUS MATCH

For the 2019–20 season, influenza vaccines in the United States introduced two new A strains (A/ Brisbane/02/2018 (H1N1)pdm09-like virus and A/ Kansas/14/2017 (H3N2)-like virus); both B strains (B/Victoria and B/Yamagata virus) were retained from the prior season. Circulating strains worldwide and in North America were well matched to these strains in 2019–20, according to data from the World Health Organization (WHO; Figure 1).

The strains were also a good match for viruses circulating in the United States. The U.S. Centers for Disease Control and Prevention (CDC) announced an interim overall vaccine effectiveness (VE) of 45% for medically attended, laboratory-confirmed influenza virus infection at the midpoint of the season. The VE figures were very good in children, both overall (55%) and for the A and B strains individually (51% for the A/H1N1 strain and 56% for the B/Victoria strain). Those in the 18- to 49-year-old range had lower VE levels overall and for the A strain (25% and 5%, respectively); VE levels in adults 50 years or older were 43% overall and 50% for the A strain. All adults were combined in calculating B strain VE because of low numbers of people; that figure was 32%.

Despite this efficacy, the influenza season was a challenging one. As of the week ending April 4 (week 14 of 2020), the overall cumulative hospitalization rate for the 2019–20 season was 68.2 individuals per 100,000 population—the highest rate of any recent season except for the difficult 2017–18 season. Very young children (aged 0–4 years) and adults aged 18–49 years had the highest hospitalization rate on record, even greater than during the 2009 H1N1 pandemic. Children were particularly affected by the circulating influenza B viruses, which were the cause of 104 of 166 pediatric deaths; that is the largest number of pediatric deaths recorded in any recent season other than during 2017–18.

As shown in Figure 2, the percentage of deaths from pneumonia and influenza (P&I) rose in the first quarter of 2020. As the COVID-19 pandemic began to affect Americans in larger numbers during weeks 9–13, the percentage of P&I deaths rose from 7.4% to 10.0%, while those caused by influenza fell from 1.0% to 0.7%.

FIGURE 1. Global (a) and North American (b) Circulation of Influenza Viruses, 2019–2020
Source: FluNet (www.who.int/flunet), Global Influenza Surveillance and Response System. Copyright © 2020, World Health Organization. All rights reserved.

FIGURE 2. Pneumonia and Influenza Mortality, United States for the 2015–2016 Through 2019–2020 Influenza Seasons
After analyzing the subclades of the circulating strains worldwide, the WHO recommended the strains listed in Table 1 for the 2020–21 season. The A strains were again changed; the B strains remain the same. The U.S. Food and Drug Administration concurred with the WHO advice. Different A strains are being used for egg- versus cell- or recombinant-based production because of concerns about egg-adaptive mutations that could be affecting VE of some products.

For 2020–21, manufacturers are expected to match last season’s record output of influenza vaccine products (174.5 million doses in 2019–20, according to the CDC website). Preorders of product are now largely complete because of the long lag time needed for egg-based influenza vaccine production, but some manufacturers are extending preorder timing. Orders must be tailored to anticipated patient populations since doses and indications differ based on age and clinical characteristics.

During the 2009 H1N1 pandemic, shortages of influenza vaccine occurred; the degree to which the COVID-19 pandemic will create excess demand is unknown. Certainly, with the widespread morbidity and mortality of COVID-19 in long-term care facilities (LTCFs) and other congregate housing communities for older adults, administrators and geriatricians should be insisting on influenza vaccination of all vaccine-eligible residents, staff, and contractors this fall in order to create as healthy a community as possible.

In addition to quadrivalent standard-dose products (all of which will contain the 4 recommended strains this season), a growing array of enhanced influenza vaccine products is available. The CDC Advisory Committee on Immunization Practices (ACIP) expresses no preference for specific products; however, these enhanced products have been more effective in older adults in numerous studies. Vaccine providers and advocates should be sure that all older adults and LTCF administrators and medical directors know about the advantages of enhanced influenza vaccines in those aged 65 years or older.

A 4-fold increase in antigen doses, as found in Fluzone High-Dose products (Sanofi Pasteur), has been shown to improve a number of clinical outcomes in patients aged 65 years or older in comparisons with standard-dose formulations. This season, Fluzone High-Dose will be a quadrivalent product.

Similarly, adjuvanted influenza vaccine products have enhanced efficacy in older adults. New this season is Fluad Quadrivalent (Seqirus), an adjuvanted product indicated for use in adults aged 65 years or older; the trivalent Fluad product also remains available. It uses the MF59 adjuvant technology, an oil-in-water emulsion of squalene oil.
SPEND SOME TIME ON SHARED DECISION-MAKING

In preparing for the 2020–21 influenza season, the immunization community will need to anticipate limited resources if the COVID-19 pandemic continues over the summer and/or recurs in the fall. Even if the pandemic subsides, provider resources will likely be stressed when patients who missed their appointments while sheltering in place reschedule during the summer and fall.

Given this scenario, planning for early administration of influenza vaccine and potential shortages could be a wise move. As noted in this month’s featured news brief, waning influenza vaccine efficacy is a concern, but the simple fact is a missed opportunity to vaccinate in August or September translates into fewer immunized people over the season. Vaccinators may need to consider innovative administration schemes that avoid close personal contact, such as drive-through vaccinations.

Many patients have become accustomed to getting their annual influenza shot each fall. For older adults and younger individuals with certain other conditions, that should also mean making sure they are current on their pneumococcal vaccines. This is the first season since ACIP moved the 13-valent pneumococcal conjugate vaccine (PCV13) into its new shared clinical decision-making category. For those patients who agree with a strong recommendation to receive PCV13, it should be administered before the 23-valent pneumococcal polysaccharide vaccine (PPSV23) product. ACIP recommends administration of PPSV23 at least 1 year after PCV13.

For this influenza season, public health messaging can be respectively built around the COVID-19 pandemic experience. Vaccinators and those in the community who refer and advocate for full immunization will need to approach this situation with care, given the trauma of the pandemic and toll it has taken on everyone. But people everywhere now have an all-too-real perspective on the impact of infectious diseases and some insight into what it was like to live before the advent of vaccines and anti-infective agents—and immunization messages will be received within this new mindset.

Vaccine advocates will have much to promote in public health messaging and one-on-one communication in this environment. Despite a challenging flu season this past year, we don’t want to fill hospital and ICU beds with patients with influenza when a new wave of a COVID-19 is possible. At the individual level, people need to remember they could get both viruses (at the same time or at different times during the season), and those at risk have enough trouble withstanding just one. For older adults, enhanced vaccines with greater efficacy in this population will be widely available, offering greater protection for this high-risk group. A few extra minutes with vaccine-hesitant older adults could be critical in moving them toward getting their influenza vaccination and doing what they can to protect their health, and with that, lower odds of influenza infection, hospitalization, disability, or death during the upcoming season.

SOURCES AND RESOURCES