Each year, the California Medi-Cal Drug Use Review (DUR) program issues an annual summary of updates on immunization guidelines, products, and/or research in collaboration with the California Department of Public Health (CDPH) Immunization Branch. For reference, the recommended immunization schedules for 2019 in the United States can be accessed on the Centers for Disease Control and Prevention (CDC) website:

- Persons aged 0 through 18 years
- Persons aged 19 years or older

Influenza Vaccine

As in prior years, routine annual influenza vaccination is recommended for everyone 6 months of age or older without contraindications. For the 2019 – 2020 season, standard-dose, unadjuvanted, and inactivated influenza vaccines are available in quadrivalent (IIV4) as well as trivalent (IIV3) formulations. Recombinant influenza vaccine (RIV4) and live attenuated influenza vaccine (LAIV4) are available in quadrivalent formulations. High-dose inactivated influenza vaccine (HD-IIV3) as well as adjuvanted and inactivated influenza vaccine (aIIV3) are available in trivalent formulations.

Vaccine viruses in 2019 – 2020 U.S. trivalent influenza vaccines include:

- An A/Brisbane/02/2018 (H1N1) pdm09-like virus (different strain from last season)
- An A/Kansas/14/2017 (H3N2)-like virus (different strain from last season)
- A B/Colorado/06/2017-like virus (Victoria lineage) (same as last season)

In addition to these viruses, quadrivalent influenza vaccines contain a B/Phuket/3073/2013-like virus (Yamagata lineage), which was in influenza vaccines last season.

All women who are pregnant or who might become pregnant during the influenza season should receive an age-appropriate IIV or RIV4 vaccine, administered at any time during pregnancy. LAIV4 should not be used during pregnancy.

Persons with a history of egg allergy of any severity may receive any licensed, recommended, and age-appropriate influenza vaccine (IIV, RIV4, or LAIV4). IIV and RIV4 have been previously recommended. Use of LAIV4 for persons with an egg allergy was approved by the Advisory Committee on Immunization Practices (ACIP) in February 2016.

Health care providers should offer vaccination by the end of October each year, if possible. Children 6 months through 8 years of age who require two doses should receive their first dose as soon as possible after vaccine becomes available to allow the second dose (which must be administered ≥4 weeks later) to be received by the end of October. Vaccination should be offered as long as influenza viruses are circulating and unexpired vaccine is available.

The CDPH Immunization Branch has made their webinar, “How to Increase Influenza Vaccine Coverage in Your Clinic,” available for on-demand viewing, with the presentation slides also available for review on the California Vaccines For Children (VFC) program website. The webinar highlights the importance of protecting patients against influenza, the efforts and guidance by the VFC program to improve influenza vaccine uptake, how clinics can best prepare for the upcoming influenza season, and strategies for increasing child immunization coverage.
For additional information about available formulations of influenza vaccine and updated recommendations for dosing in children, older adults, and among persons with a history of egg allergy, providers may refer to the *Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2019–20 Influenza Season*, published in the Morbidity and Mortality Weekly Report (MMWR), which is available on the CDC website.

**Hepatitis A (HepA) Vaccine**

On February 21, 2018, ACIP updated their recommendations for both HepA virus postexposure prophylaxis (PEP) and HepA virus preexposure prophylaxis for international travel.

For PEP, ACIP now recommends administration of the HepA vaccine to all persons 1 year of age or older. Among persons 40 years of age or older, immune globulin (IG) may be administered in addition to HepA vaccine, depending on the provider’s risk assessment (the dosage of IG has been updated to 0.1 mL/kg). ACIP determined that HepA vaccine for PEP provides advantages over IG, including induction of active immunity, longer duration of protection, ease of administration, and greater acceptability and availability.

The updated recommendation for HepA virus preexposure prophylaxis for international travel states that HepA vaccine should now be administered to infants between 6 and 11 months of age, traveling to countries wherein protection against HepA virus is recommended. However, the travel-related dose for infants between 6 and 11 months of age should not be counted toward the routine 2-dose HepA vaccination series, and the 2-dose series should still be initiated once an infant reaches 12 months of age according to the routine, age-appropriate vaccination schedule. All other recommendations for preexposure protection against the HepA virus for travelers younger than 6 months of age and travelers 12 months of age or older remain unchanged, except for the updated dosage of IG (0.1 mL/kg).

For complete recommendations, including a reference table for PEP and preexposure protection by age group and risk category, providers may refer to *Update: Recommendations of the Advisory Committee on Immunization Practices for Use of Hepatitis A Vaccine for Postexposure Prophylaxis and for Preexposure Prophylaxis for International Travel*, published in the MMWR, which is available on the CDC website.

In addition, in light of large outbreaks in California and other states, on October 24, 2018, ACIP recommended routine immunization against the HepA virus for all persons 1 year of age or older experiencing homelessness. Routine vaccination consists of a 2-dose schedule or a 3-dose schedule when combined hepatitis A and B vaccine is administered. Concern about loss to follow-up before HepA vaccine series completion should not be a deterrent to initiating the series, as a single dose of HepA vaccine can provide personal protection and contribute to herd immunity, although long-term protection might be suboptimal.

Preventing exposure to the HepA virus through vaccination is particularly advantageous in the population of persons experiencing homelessness due to potential difficulties implementing effective alternative prevention strategies, such as strict hand hygiene. Integrating routine HepA vaccination into health care services for persons experiencing homelessness can reduce the size of the at-risk population over time and thereby reduce the risk for large-scale outbreaks.

For complete recommendations, including the U.S. Department of Health and Human Services (HHS) definition of homelessness, providers may refer to the *Recommendations of the Advisory Committee on Immunization Practices for Use of Hepatitis A Vaccine for Persons Experiencing Homelessness*, published in the MMWR, which is available on the CDC website.
**Human Papillomavirus (HPV) Vaccine**
Routine vaccination against HPV is recommended at 11 or 12 years of age in order to prevent new HPV infections and HPV-associated disease; however, vaccination can be administered starting at 9 years of age.

In June 2019, ACIP recommended catch-up HPV vaccination for all persons 26 years of age or younger. ACIP did not recommend catch-up vaccination for all adults 27 through 45 years of age but recognized that some persons who are not adequately vaccinated might be at risk for new HPV infection and might benefit from vaccination in this age range; therefore, ACIP recommended shared clinical decision making regarding potential HPV vaccination for this population. HPV vaccines are not licensed for use in adults 46 years of age or older. Routine recommendations for HPV vaccination of adolescents have not changed.

For more information, including the considerations for shared decision making among adults 27 through 45 years of age who are not adequately vaccinated, providers may refer to the *Human Papillomavirus Vaccination for Adults: Updated Recommendations of the Advisory Committee on Immunization Practices*, published in the *MMWR*, which is available on the CDC website.

**Measles Virus**
In July 2019, the CDC released an update to its *Interim Infection Prevention and Control Recommendations for Measles in Healthcare Settings*, which is available on the CDC website. The CDC advises implementing this interim guidance in the context of a comprehensive infection prevention program to prevent transmission of all infectious agents among patients, health care personnel, and visitors. Recommendations include the following:

- Ensure that all health care personnel have presumptive evidence of immunity to measles.
- Minimize potential measles exposure by providing patients with suspected measles with arrival instructions when scheduling appointments, and by using triage stations to rapidly identify and isolate these patients.
- Adhere to the CDC’s *Guideline for Isolation Precautions: Precautions to Prevent Transmission of Infectious Agents*.
- Evaluate all exposed health care personnel, patients, and visitors for measles immunity.
- Group infected patients together, and create expedient patient isolation rooms in the event of an outbreak.

**New Pre-kindergarten (Childcare) and School Immunization Requirements in California**
As of July 1, 2019, two (rather than one) doses of varicella-zoster virus (chickenpox) vaccine are required for entry into transitional kindergarten (TK), kindergarten, or for 7th grade advancement. In addition, two doses of measles, mumps, and rubella (MMR) vaccine and three doses of hepatitis B vaccine are required for admission or transfer for most K-12 students.

Pre-kindergarten children entering childcare facilities are now required to have the varicella-zoster virus chickenpox vaccine at 15 months of age or older, rather than at 18 months of age or older. In addition, as pre-kindergarten children age into requirements, parents now have 30 days to submit updated records showing the child has met the necessary requirements.
Finally, for admissions with a medical exemption to a required immunization, the child’s parent or guardian must now submit a signed, written statement from a physician (MD or DO) licensed in California that accounts for all of the following:

- The specific nature of the physical condition or medical circumstance of the child for which a licensed physician does not recommend immunization
- Each specific required vaccine that is being exempted
- Whether the medical exemption is permanent or temporary
- If the exemption is temporary, an expiration date no more than 12 calendar months from the date of signing

For more information, providers may refer to the New Regulations (July 1, 2019) FAQs, which are available on the Shots for School website maintained by the CDPH Immunization Branch.