Table. Select HEDIS Vaccine Measures[11-14]

Measure	Indicator
Prenatal Immunization Status	Influenza
	Tdap
Adult Immunization Status	Influenza
	Tdap
	Herpes zoster
	Pneumococcal
Childhood Immunization Status	DTaP
	Polio
	MMR
	HiB
	Hepatitis B
	Varicella zoster
	Pneumococcal
	Hepatitis A
	Rotavirus
	Influenza

DTaP, diphtheria, tetanus, and pertussis; HEDIS, Healthcare Effectiveness Data and Information Set; HiB, haemophilus influenza type B; MMR, measles, mumps, rubella; Tdap, tetanus, diphtheria, and pertussis.

virus (RSV), due to a combination of waning immunity and a higher prevalence of comorbidities within this demographic.[22] These factors increase the susceptibility of older adults to infections as well as elevate the likelihood of experiencing severe illness.[22] Programs aimed at boosting vaccine coverage rates among adults older than 50 years are limited, leading to suboptimal uptake of vaccines in this age group (**Figure 2**).[22-25] Infants and young children also face an increased susceptibility to VPDs due to an undeveloped and immature immune system; the risk is especially high among those born premature or with weakened immune systems.[26-28]

In May 2023, the FDA approved the first RSV vaccines for adults 60 years and older (Abrysvo; Pfizer) (Arexvy; GSK).[29,30] Prior to the vaccines' approvals, the results of a March 2023 survey revealed that most older adults were not aware of RSV vaccines, with only 35% of those 60 years and older having heard of an RSV vaccine.[31] In August 2023, Abrysvo received FDA approval for use in pregnant individuals at 32 to 36 weeks' gestation to prevent lower respiratory tract disease from RSV infection in infants from birth to 6 months of age.[32] Awareness and educational campaigns will be needed to socialize the launch of these novel RSV vaccines to increase uptake in their target populations.

HPV

More than a decade has passed since the Advisory Committee on Immunization Practices (ACIP) of the CDC recommended routine use of the HPV vaccine in male adolescents in 2011, expanding on its original recommendation for vaccination in female adolescents in 2007.[33,34] Currently, the CDC recommends routine HPV vaccination starting at age 9 years and catch-up vaccination for all individuals through age 26 years. Shared clinical decision-making is recommended for some adults through age 45 years who are not adequately vaccinated.[35] However, despite the public health commitment supporting ACIP's recommendation, coverage for HPV vaccination in the United States remains comparatively lower than that of other vaccines recommended for the same age group.[24] According to data from the 2017 National Immunization Survey-Teen, 88.7% of teens had received at least 1 dose of the Tdap vaccine, and 85.1% had received at least 1 dose of MenACWY (meningococcal ACWY) vaccine between the ages of 13 to 17 years.[36] However, results of the same survey revealed that only 65.5% of adolescents had received at least 1 dose of the HPV vaccine, and just 48.6% completed the HPV vaccine series.[36] These findings highlight a notable disparity, indicating that whereas Tdap and MenACWY coverage rates are high, many teens remain unprotected against HPV infections and HPV-related cancers. According to 2013-2018 data from the National Center for Health Statistics, HPV coverage rates are further eroded among young adults, with only 21.5% of 18-26-year-olds completing the vaccine series.[37]

Five main contributing factors for low HPV vaccination coverage as outlined by NVAC are: (1) differing perspectives on risks of getting an HPV-associated cancer vs the protective benefits offered by receipt of the vaccine, (2) a substantial percentage of adolescents do not regularly visit a primary care provider for preventive care, (3) parental refusal, (4) lack of a strong recommendation from a provider relative to other adolescent vaccines, and (5) lack of HPV vaccine mandates, such as a requirement for school entry (Figure 2).[22-25] Research also has identified parental concerns about the vaccine's cost and impact on their child's sexual behavior as potential barriers to vaccine uptake.[38] Among routinely recommended pediatric vaccines, the HPV vaccine holds the distinction of being the most expensive, at a list price of $286.78 per dose, given in a 2-3-dose series per indication.[39,40] Barriers to adult immunization differ from adolescents and may include a lack of perceived need for the vaccine in a married or monogamous relationship or the perception that their health insurance may not pay for the HPV vaccine.[41] Providing vaccine education to patients and caregivers, ensuring access to immunization, and safeguarding sufficient reimbursement by third-party payers play a pivotal role in facilitating health care providers' sustained ability to provide these vaccines.[24,38,39]

Influenza

Stark inequalities continue to exist in influenza vaccine uptake among racial and ethnic groups.[3,25] During the 2021-2022 influenza season, influenza vaccination coverage was 54% among White adults, whereas coverage for Black adults, Hispanic adults, and American Indian/Alaska Native adults trailed at 42%, 38%, and 41% respectively.[25] Racial and ethnic disparities in influenza vaccination rates stem from a multitude of factors, including limited access to health care and insurance, missed opportunities for vaccination, and misinformation that leads to distrust (Figure 2[22-25]).[22,25] Structural racism and prejudice can exacerbate these disparities, further eroding confidence in influenza vaccination.[42] Mistrust in the medical system in the historical