

FROM THE AMERICAN ACADEMY OF FAMILY PHYSICIANS

# Improving Adult Immunization Rates Within Racial and Ethnic Minority Communities

Part 1: Quality Improvement, Recommended Vaccines, and Reducing Vaccine Disparities



## Introduction

In January 2021, the American Academy of Family Physicians (AAFP) began work on the quality improvement (QI) project, Improving Adult Immunization Rates within Racial and Ethnic Minority Communities. The project is funded by a grant from the Centers for Disease Control and Prevention (CDC) National Center for Immunization and Respiratory Diseases. The QI project aims to increase adult immunization rates in racial and ethnic minority communities by:

- Assessing current adult immunization rates
- Identifying barriers that affect vaccination rates
- Educating physicians and health care teams about adult immunizations
- Addressing misinformation and myths about vaccines
- Overcoming systemic barriers to vaccination
- Implementing evidence-based interventions to improve vaccination rates and measure success

Twenty-four family physician practices participated in the project using the QI process and other evidence-based improvement strategies, such as Plan-Do-Study-Act (PDSA) cycles to increase immunization rates in adult patients from racial and ethnic minority communities. Family physicians who provide continuity of care within the communities they serve are ideally suited to address gaps in immunizations.

This two-part supplement series will share information and lessons learned by our participating practices on their journey to improve immunization rates in racial and ethnic minority communities. Part one highlights QI processes to reduce vaccine disparities, identifies recommended adult vaccines, and discusses their importance among racial and ethnic minority communities. Part two (appearing in a future issue of *FPM*) will focus on communication strategies and overcoming myths, misinformation, and barriers to improving vaccine confidence and vaccination rates within these communities.

## Using Quality Improvement (QI) to Reduce Disparities

There are substantial disparities between whites and racial or ethnic minorities (Black and Hispanic) in adult vaccination coverage against pneumonia,<sup>1</sup> tetanus,<sup>1</sup> shingles,<sup>1</sup> influenza,<sup>2</sup> and COVID-19.<sup>3</sup> These disparities adversely impact health outcomes and inequities in racial and ethnic minority communities. It is crucial to close these coverage gaps to improve health for everyone.

Family physicians are uniquely positioned to address these disparities through strong patient-physician relationships and emphasizing health promotion and disease prevention, including routine adult vaccination practices. One way to ensure vaccination practices are effective is to test and study them through QI processes, such as implementing a PDSA cycle. QI can challenge assumptions and propose solutions to processes. For example, if poor data quality is a challenge to understanding patient health, a PDSA cycle might discover new ways to capture and share data. If a practice aims to

improve adult immunization rates among racial and ethnic minorities, establishing a culture of continual QI and quality data collection could help achieve that goal.

Data strategies using a PDSA cycle might include assessing baseline immunization, comparing the baseline to established quality benchmarks, setting performance goals, assessing performance after implementing evidence-based interventions, communicating results to key stakeholders, and sharing successes with others.

Quality data collection is just one way a practice can improve its processes and health outcomes for its patients. The following are QI examples one practice implements to improve vaccination rates and other health outcomes:

- Survey the entire staff for input
- Provide all-staff training about unconscious bias
- Interactive role-playing about making strong vaccine recommendations
- Electronic medical record (EMR) training for reconciling outside records
- Standing vaccine orders for nursing staff
- Update intake forms to ask about vaccine status
- Identify patient vaccine needs in daily clinic huddles
- Identify missed opportunities for depression screening
- Expand behavioral health providers and services to fit unique needs

## Recommended Adult Vaccinations

It is important to review patients' immunization status at least annually during preventive and other office visits, as well as your state's immunization registry, and document any missing doses of vaccines in the patient's EMR. A complete list of vaccines recommended for all adults is updated annually and available on the AAFP ([www.aafp.org/adult-vaccines](http://www.aafp.org/adult-vaccines)) and CDC ([www.cdc.gov/vaccines/schedules/hcp/imz/adult.html](http://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html)) websites. The following is an example of common vaccines one practice administers to adult patients and their strategies to improve adult vaccination rates.

### Influenza Vaccine

Our practice recommends the influenza vaccine to all adults annually who don't have a contraindication. We estimate the number of doses needed to cover our patient population in the spring, and they are shipped by the end of August. Following AAFP and CDC guidelines, we begin vaccination around the first week of September<sup>4,5</sup> and continue if the virus circulates in the community and we have non-expired doses. We may continue vaccinating for influenza as late as March the following year, but the best scenario for our community is to have the patient population vaccinated by late October. We stock the high-dose quadrivalent flu vaccine for patients 65 years and older, as this vaccine has four times the antigen to produce a more robust immune response.<sup>6</sup> If that form of the vaccine is not available, we offer a standard-dose quadrivalent vaccine to all patients.

### **Tetanus, Diphtheria, Pertussis (Tdap)/Tetanus and Diphtheria (Td) Vaccines**

The CDC recommends that any adult who has not received a single dose of tetanus, diphtheria, and pertussis (Tdap) should be vaccinated regardless of the timing of their previous tetanus and diphtheria (Td)-containing vaccine. We offer the Tdap every 10 years to our patients.<sup>7</sup> We have chosen to stock a single product instead of Td and Tdap. This helps reduce the risk of immunization administration errors and is acceptable. If a patient presents with an injury that could predispose them to a higher risk of tetanus, we offer the booster if it has been five years since their last dose.

### **Recombinant Zoster Vaccine**

It is recommended that patients 50 years and older receive two doses of the recombinant zoster vaccine (Shingrix) administered two to six months apart. This includes individuals who have previously received Zostavax,<sup>8</sup> a live attenuated vaccine no longer licensed for use in the United States. In the Medicare population, reimbursement for the zoster vaccine falls under their pharmacy benefits or Medicare Part D plan. It is not directly reimbursable to the medical practice or Medicare Part B,<sup>9</sup> so some practices do not keep it on hand. However, we have found that offering the vaccine to our patients 50 years and older but who are not yet covered by Medicare is an effective way to ensure full vaccination status as soon as they are at risk and we can overcome vaccine reimbursement issues. We also have found that our patients express more satisfaction when they receive a vaccine in their medical home administered by the staff they know and trust instead of at a pharmacy.

### **Pneumococcal Conjugate and Polysaccharide Vaccines**

We discuss pneumococcal polysaccharide vaccine (PPSV23) and pneumococcal conjugate vaccine (PCV) with all patients 65 years and older. Based on shared decision-making and CDC guidance, we offer PCV followed by PPSV23 one year later.<sup>10</sup> Certain conditions, including alcohol use disorder, chronic heart disease, liver disease, lung disease, or diabetes, can render persons 18-64 years at higher risk of disease secondary to *Streptococcus pneumoniae*.<sup>11</sup> We offer PPSV23 if the patient has not previously received a dose according to CDC guidance. Immunocompromised status is another indication for offering PCV and PPSV23 at a younger age.<sup>10</sup>

### **Human Papillomavirus (HPV) Vaccine**

We follow the CDC recommendation for catch-up vaccination with the human papillomavirus (HPV) vaccine in all patients 18-26 years who have not been previously fully vaccinated according to the recommended adolescent vaccine schedule. In patients 27-45 years, we assess their risk factors for a new infection with HPV if they have not been previously adequately vaccinated.<sup>12</sup> If we determine the patient is at a higher risk due to their lifestyle, we recommend administering the three-dose series.

### **COVID-19 Vaccines**

Due to the shorter period of developing, approving, and distributing the COVID-19 vaccines, it is understandable that many individuals have expressed skepticism about the efficacy of those vaccines. We explain that the COVID-19 vaccines went through the same rigorous clinical trials as previous vaccines and were developed with a technology that has been studied for years.<sup>13</sup> Our practice stocks one of two available mRNA vaccines since they can be safely stored in a standard vaccine freezer until their expiration date and in a vaccine refrigerator for up to 30 days. The mRNA vaccines are preferred due to the small increased risk of thrombosis with thrombocytopenia with the viral vector vaccine.<sup>14</sup>

## **Importance of Adult Immunizations Within Racial and Ethnic Minority Communities**

The COVID-19 pandemic highlighted the role of immunization in the collective well-being of communities, as well as the unfortunate disparities in immunization rates and health outcomes among minority groups. These disparities have been apparent throughout the pandemic but have been a reality for decades among patients in racial and ethnic minority groups.<sup>15</sup>

Vaccination among these groups is crucial because they often bear a disproportionate burden of comorbidities such as diabetes and heart disease. The mantra, "every visit is an opportunity," reminds clinicians about the importance of engaging patients in preventive care through relationship building with each interaction.

In addition to purposeful engagement, strategies to address health disparities in vaccination status should focus on utilizing technology and data and integrating effective communication with public health messages from community minority leaders. We'll examine the QI and other strategies one group of practices in Nashville and her community implements to improve vaccination rates and other public health measures among racial and ethnic minority groups.

### **Technology and Data**

The accurate and complete capture of race, ethnicity, and language (REAL) and social determinants of health (SDoH) data in EMRs provides practices with precise data they can act upon. One practice group utilizes the following technologies to capture actionable data:

- Configure outpatient whiteboards to identify patients with missing immunizations quickly
- Utilize Epic's integrated Care Everywhere and the Tennessee Immunization Information System (TennIIS)
- Streamline the technology for interpretive services for virtual visits
- Offer patient portals in English, Spanish, and Arabic
- Utilize a variety of digital tools such as patient portals, social media, television, text, and email to reach the widest audience

## Effective Messaging

Patients are more likely to accept a vaccine recommendation from trusted sources where relationships are built over time, such as their family physician or community leaders.<sup>16,17</sup> The community of Nashville has embarked on efforts to get community stakeholders involved in public health messaging and asked them to serve as ambassadors, using their long-standing community ties and social media reach. The community alternates messages from community leaders of different races and ethnicities in press conferences and has developed multilingual resources to further its reach.<sup>18</sup>

Nashville has held virtual and in-person meetings at trusted community organizations, such as joint town halls with faith leaders of local churches. In the Black community, strong recommendations around immunization and masking from pastors and medical leaders from the Meharry Medical Center, a historically Black medical college, have helped close the gap for vaccine disparities related to COVID-19 and other health issues. This has elevated Nashville's minority faith community's leaders as critical influencers and trusted representatives for information sharing and emergency response.<sup>19</sup> The goals of these efforts are to reverse health disparities and create opportunities for co-learning with other practices.

In part two of this *FPM* series, we will delve further into communication and messaging strategies one practice uses to relay vaccine information and learn how another practice overcomes myths, misinformation, and barriers to improving vaccination rates among its racial and ethnic minority community.

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*This publication is supported by a cooperative agreement (6 NU66IP000681-02-01) with the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services.*