COVID-19 Vaccination in an Underserved Population of Children

- **Submitting Physician:** Jessica Boyd, MD
- **Location:** Unity Health Care, Washington, DC

**WHAT PROBLEM (GAP IN QUALITY) DID THE PROJECT ADDRESS?**

In under-served communities, patients were not confident about receiving the COVID-19 vaccine. Adolescents and younger populations in particular had low vaccine rates. In our area, students were planning to return to school in person and we decided it was critical to vaccinate this population as quickly as possible.

**WHAT DID THE PROJECT AIM TO ACCOMPLISH?**

We aimed to increase COVID vaccination amongst our adolescent patient population to 30% by the first month of school (September).

**MEASURES:**
- **Measure Name:** Adolescent COVID-19 vaccination rate
- **Goal:** 30%
- **Number of Records used for activity:** 7135
- **Data Source:** EHR

**DATA:**

![Adolescent COVID Vaccinations Graph](image)

**WHAT INTERVENTIONS OR CHANGES WERE MADE?**

1) We partnered with DC Health to provide us a supply of Pfizer vaccine as we had been using Moderna for adults across all of our clinics. We trained the staff on the specifics of handling Moderna and
conducted a FMEA to identify potential error opportunities and to ensure a safe kick off process and proactively monitored for potential timing and age errors.

2) We set up vaccine clinics at our school-based health clinics once a week and made them accessible to all of our adolescent patients.

3) We planned and executed vaccine events on the weekends to improve access and offered vaccines to families as well.

4) We held informational sessions with the community (and our staff) to improve vaccine education.

5) We set up a patient text outreach campaign encouraging adolescent patients to get the vaccine.

6) We developed several educational videos about COVID-19 and the COVID-19 vaccine (including a rap geared to kids).

7) We integrated the COVID-19 vaccine into pre-visit planning for pediatric clinics.

8) We held a large community back-to-school event and partnered with other community organizations to provide school supplies in a teen friendly environment, and we provided well-child checks, school immunizations, and the COVID-19 vaccine.

9) We developed a promotional campaign to improve vaccine confidence in our patients geared towards communities of color.

DESCRIBE THE IMPACT OF THESE CHANGES ON YOUR ABILITY TO DELIVER SAFE AND EFFECTIVE CARE. "WHAT LESSONS DID YOU LEARN?"

Improving vaccine confidence in under-served adolescent populations proved to be very challenging. These interventions had a significant impact on our ability to deliver safe and effective care:

- Our vaccine error rate (0.1%) was lower than the adult clinics when they started and improved over the three months with very few errors -- and no errors in latter months.
- We were able to reach more than 2000 children with our multi-channel campaign. We found radio ads, and webinars that aired on Facebook and local TV, to be very effective.
- Educational sessions and one-on-one discussions to build vaccine confidence were crucial and allowed us to leverage our knowledge as experts and trusted partners. The cultural congruence of our messaging was impactful. Reducing the appointment and clinic feel and creating more adolescent-friendly environments helped reduce hesitation.

Key Lessons:

- **Vaccine handling and safety.** We had to train and re-train the staff multiple times on the process because they were used to working with the Moderna vaccine and had some difficulty shifting to Pfizer. We even started the process with a failure modes and effects analysis and had to revisit this analysis and identify new opportunities to reduce errors. We ultimately ended up using dedicated staff and sites to manage the Pfizer vaccine, which may have limited some access to patients.

- **Access.** We are a large center with about 7000+ children eligible for the vaccines. We found that the majority of adolescents did not want to travel to the school-based health centers for the vaccines, yet they also weren't using pharmacies in their neighborhoods. We found some success in
holding weekend events tied to other things such as back-to-school giveaways or an opportunity to meet a sports figure. We believe when Moderna is approved for adolescents, we will be able to capture a larger segment of our population.

- **Outreach.** Outreach required a lot of work, but the more tailored we were with our messaging, and the more targeted answers we gave to concerns, the more successful we were. We also learned that it was one-on-one conversations with trusted providers that were most effective, so we had many pediatricians on hand at community events to help answer questions. Even while some didn’t get vaccinated the day of the event, they were getting vaccinated at other locations.

- **Clinic integration.** The more integrated we could be in our process in clinic, the greater success we had converting adolescents to want to get the vaccine who were already accessing the clinic for other services, instead of trying to get them to actively pursue an appointment.

**OUTCOME:**

Over the course of six months, the adolescent vaccination rate increased from 0% to 40.5%.

**QUESTIONS?**

To learn how to submit your own quality improvement work related to the COVID-19 pandemic, visit [https://www.abp.org/content/your-covid-19-improvement-project](https://www.abp.org/content/your-covid-19-improvement-project) or contact our MOC Support Center at 919-929-0461 or moc@abpeds.org.