Question

• Does presenting the seasonal influenza vaccine as part of the regular pediatric vaccination schedule, as opposed to an optional and additional vaccination, increase the number of patients age 6 months through 35 months who receive the seasonal influenza vaccine?

Significance

• The Center for Medicaid and Medicare Services (CMS) monitors performance of healthcare centers that provide care for patients with Medicare and Medicaid. CMS requires two seasonal influenza vaccines for patients 6 months through 35 months as a measure of quality. Quality determines reimbursement for many health centers.¹

• Health Resources and Services Administration (HRSA) uses CMS criteria as a measurement of quality to determine the amount of funding given to HRSA-funded healthcare centers.²

• Funding by large governing bodies, like CMS and HRSA, is an important factor in the ability that some healthcare centers have to care for patients and provide resources.

• Funding and quality are important for Federally Qualified Health Centers, like Victor J. Cassano Health Center where this Quality Improvement project was implemented.

¹ Depending on the number of patients who receive the vaccine, the impact on overall vaccination rates could be significant. It is important to consider the potential for increased convenience and compliance for families, leading to higher vaccination rates overall. This approach could also help address disparities in vaccination rates among different populations.

² The CMS criteria set standards for healthcare centers to meet in order to receive funding. Meeting these criteria can impact the amount of funding a center receives, which is critical for their operations and ability to provide care.

³ To achieve the highest level of protection, it is recommended that children receive the seasonal influenza vaccine annually. This approach can help ensure that children are protected against the latest strains of the virus, as influenza viruses evolve each year.

⁴ These studies require additional office visits and therefore increased cost and time for patients. Additionally, these studies do not specifically focus on the pediatric population. This approach may be more feasible and cost-effective for healthcare centers with limited resources.

⁵ Funding and quality are important for Federally Qualified Health Centers, like Victor J. Cassano Health Center where this Quality Improvement project was implemented.
Methods

Introduction

At the start of the 2018-2019 influenza season, patients and staff were informed about the project with PowerPoint presentation and a song by the 2nd author (Figure 1).

Patient Population

- **Who:** Patients 6 months through 35 months old
- **When:** Regularly scheduled office visits between October 1, 2017 and March 31, 2018 was the “Control Group”. The “Test Group” was between October 1, 2018 and March 31, 2019
- **Where:** Victor J. Cassano Health Center Family Medicine Residency Clinic

Results

Discussion

Intervention

- At the start of the 2018-2019 influenza season, patients and staff were informed about the project with PowerPoint presentation and a song by the 2nd author (Figure 1).
- Physicians and staff were educated on presenting the influenza vaccine as a regularly scheduled vaccine, instead of an optional vaccine. For example instead of saying “Your child is due for Hep B, DTaP, and Polio today. We also have flu shots, would you like him/her to get that too?” The new way of presenting would be “Your child is due for Hep B, DTaP, Polio, and Flu today.”
- Throughout the season, physicians and staff were reminded to ensure continued compliance with the project.

Figure 1. Video made for the song lyrics written by Dr. Banczak to help physicians and staff remember the project. Video was presented prior to the start of the 2018-2019 influenza season to make physicians and staff aware of the project and the intended intervention.
Data Analysis

- Total number of pediatric patients seen in the office during the desired time frames were obtained from the electronic health record, NextGen, using I2I data collection software software.
- Total number of patients in the control group was 130 and in the test group was 125.
- Group sizes were similar to allow for more accurate analysis.
- Chi-Square analysis was performed using the data with a p-value of <0.05 considered significant.

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Test Group</th>
<th>Chi Square (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine during visit</td>
<td>71 (55%)</td>
<td>89 (71%)</td>
<td>7.4983 (0.0062)</td>
</tr>
<tr>
<td>No Vaccine</td>
<td>59 (45%)</td>
<td>36 (29%)</td>
<td></td>
</tr>
<tr>
<td>Total patient visits</td>
<td>130</td>
<td>125</td>
<td></td>
</tr>
</tbody>
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Figure 2. Number of pediatric patients, age 6 month through 35 months, seen in the clinic during the selected times. The control group are the visits between October 1, 2017 and March 31, 2018. The test group are visits between October 1, 2018 and March 31, 2019. The total number of patient visits are split between visits when patient received the flu vaccine and visits when the patient did not receive the vaccine. These groups were compared to get a Chi-squared value of 7.4983 with a p value of 0.0062.
Conclusions

• There was a statistically significant increase in the amount of pediatric patients age 6 months through 35 months that received the seasonal influenza vaccine during the 2018-2019 influenza season compared to the 2017-2018 season.
• The implemented change was easy and free which allows for application in multiple different health care environments.
• This study cannot account for confounding factors which include changes in parental opinion about the seasonal influenza vaccine or counseling changes from physicians and staff.
• Small changes to wording and presentation can allow for continued compliance with quality standards set up by governing bodies like CMS and HRSA.

Future Directions

• Efforts to remind physicians and staff of the changes made during last year’s influenza season are underway
• Other considerations are to apply these changes to the other FQHCs that are partnered with the Victor J. Cassano Health Center

References