

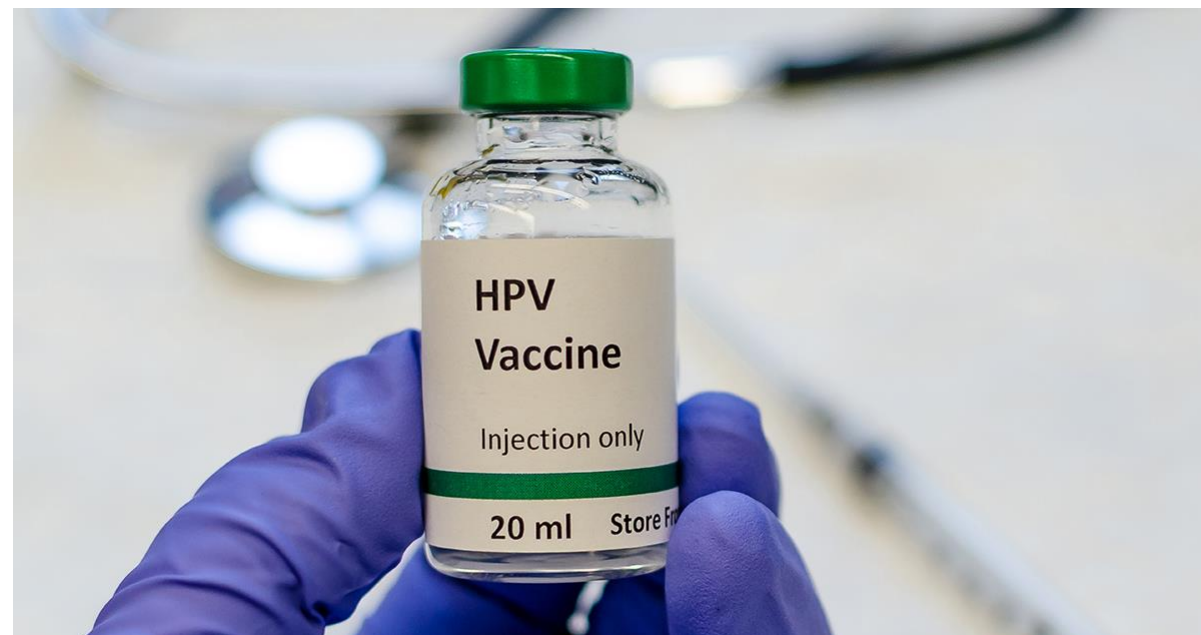
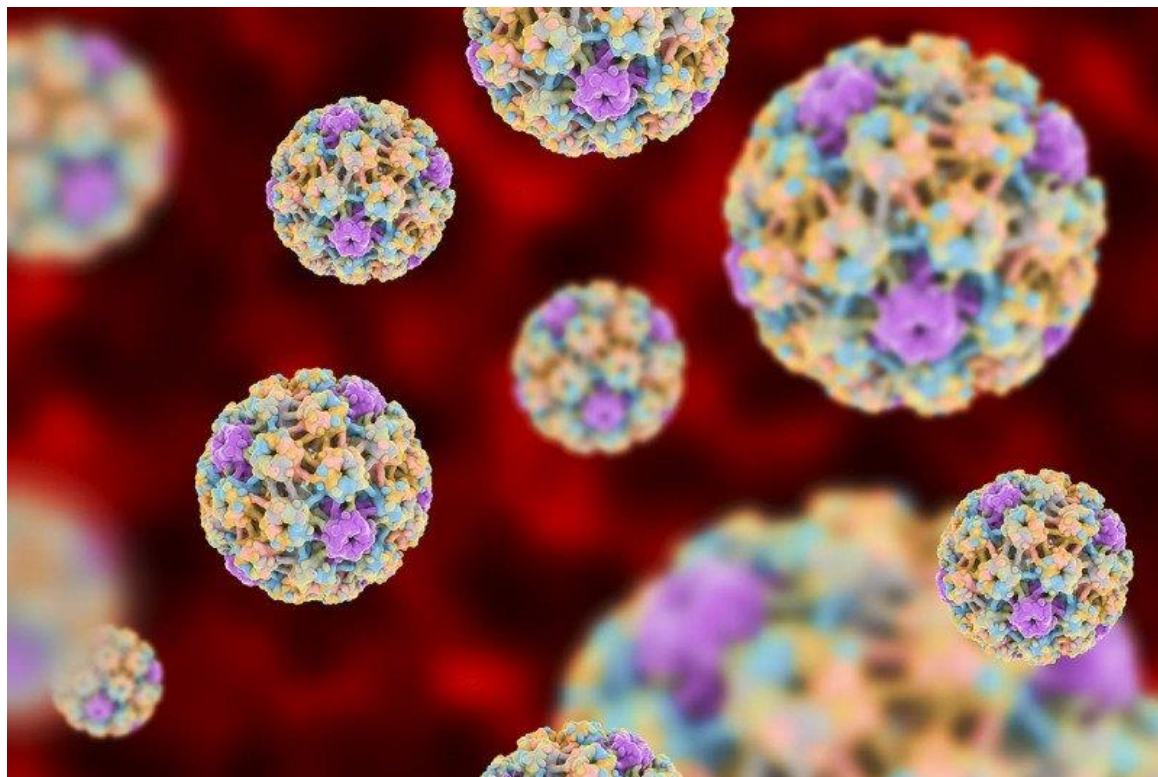


Improving HPV vaccine initiation in 9-10 year-old patients at a residency-based pediatrics clinic

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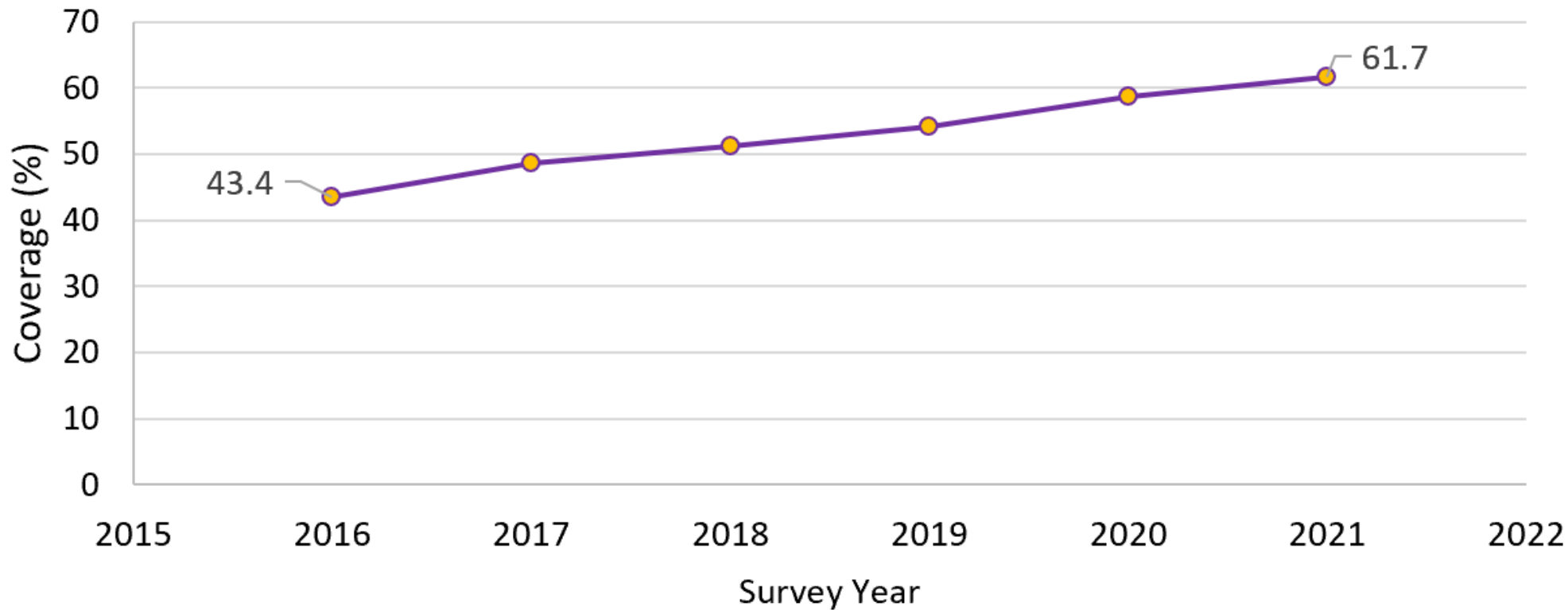
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Background



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Up-to-date HPV Vaccination Coverage by Year among Adolescents age 13-17 years, National Immunization Survey - Teen



Background

- What age should children receive HPV vaccination?
 - “The Advisory Committee on Immunization Practices (ACIP) **routinely recommends HPV vaccination at age 11 or 12 years;** vaccination can be given starting at age 9 years.”
 - “The American Academy of Pediatrics (AAP) **recommends starting** the series **between 9 and 12 years,** at an age that the provider deems optimal for acceptance and completion of the vaccination series”



American Academy
of Pediatrics



Younger age at initiation of the Human Papillomavirus (HPV) vaccination series is associated with higher rates of on-time completion



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- Retrospective study in population-based cohort of children and adolescents in Olmsted County, MN (n = 36,223)
- adolescents who started the HPV vaccine series at age 9 or 10 were **22 times more likely to complete the two-dose series by age 15** than those who initiated the series at age 11 or 12 (p<.001)

Aim Statement

Improve the rate of ECU pediatrics' patients who initiate the HPV vaccine at their age 9 or 10 well visit to 50%

Collaborative Team Members

- Shaundreal Jamison, Medical Director
- Sandy Goff, Nurse manager
- Tracey Findling, Nurse manager
- Betsy Heath, Patient Access Services manager
- Grant O'Brien, medical student



Parental surveys

- Selected questions taken from validated Parental Attitudes toward Childhood Vaccines survey instrument

Figure 1: Parental concern levels regarding efficacy and safety of vaccines (n = 39)

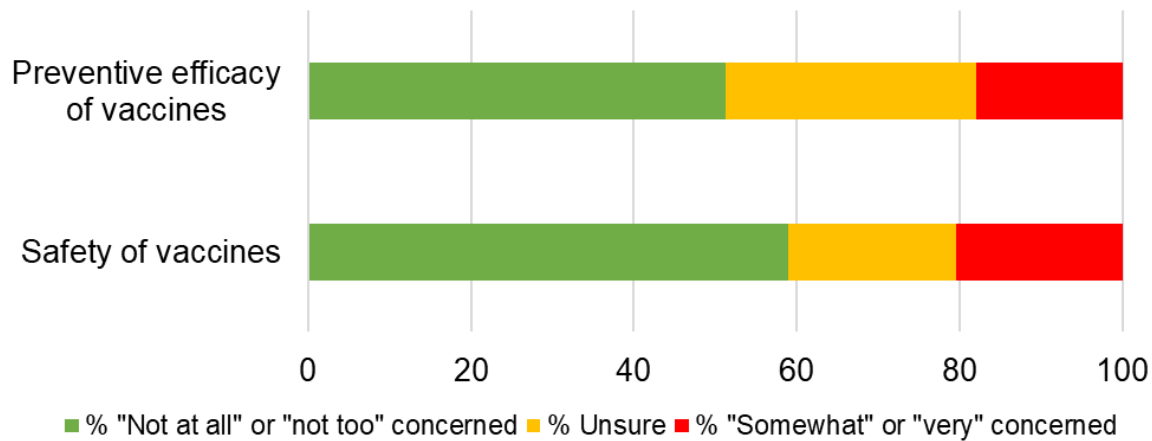
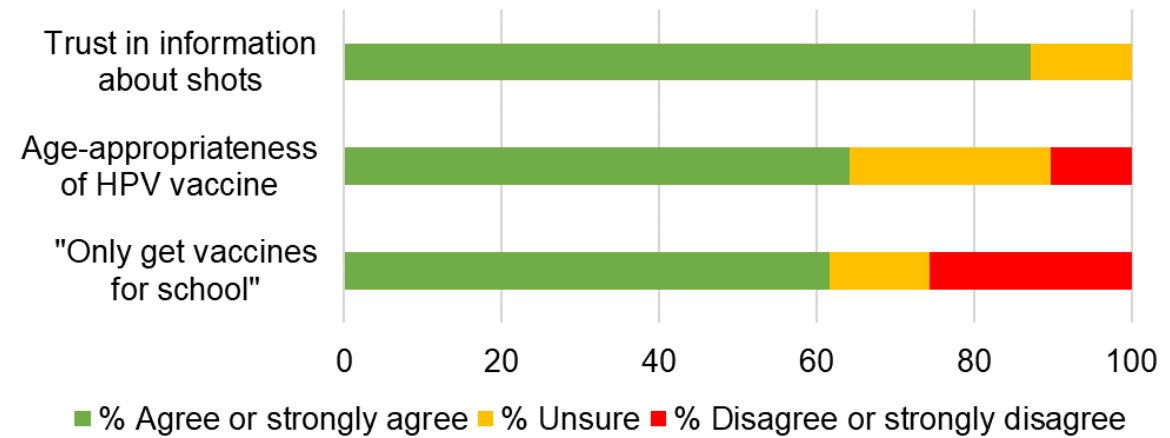


Figure 2: Parental agreement levels with ideas about vaccines (n = 39)



How will we know this change is an improvement?

○ Measures:

- **Primary:** percentage of 9-10 year-old patients who presented for their well visit and were documented as being offered and/or receiving the HPV vaccine (data source: chart review)
- **Secondary:** percentage of all patients affiliated with ECU Pediatrics clinic who have received at least 1 dose of HPV vaccine (data source: North Carolina Immunization Registry (NCIR))

Baseline Data

NCIR HPV vaccine initiation data: 9/8/21

	# received ≥ 1 HPV vaccine	Total # patients	% received ≥ 1 HPV vaccine
Age 9-10	41	2679	1.5%
Age 11-18	7021	11441	61.4%

Improvement Strategies Employed

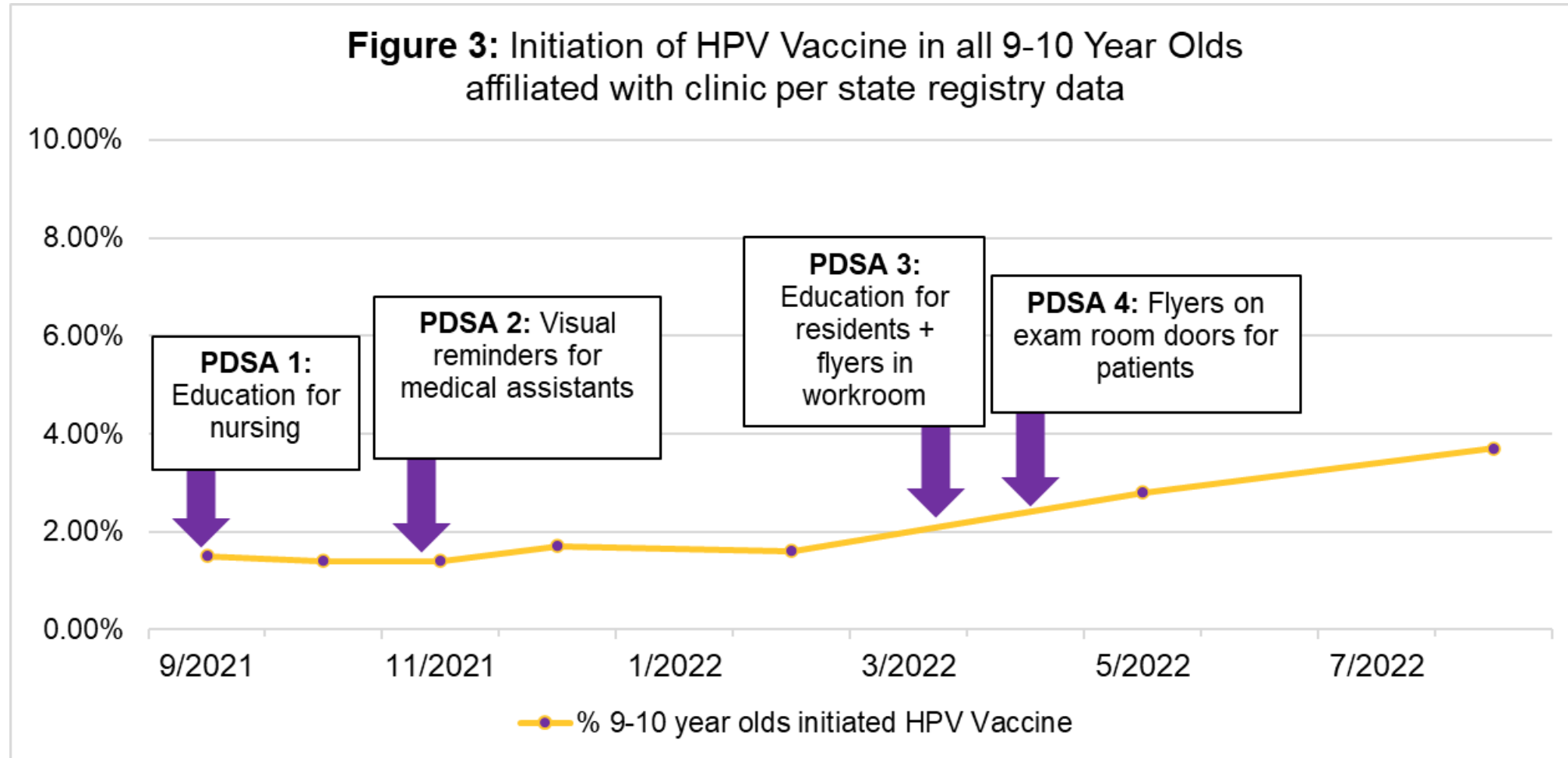
PDSA cycles:

1. Nursing staff was educated on best practices for effectively counseling parents about HPV vaccine
2. Visual reminders were posted for office medical assistants to mark 9-10 year-old patients as being due for the HPV vaccine
3. Pediatric residents underwent brief education on vaccine counseling and rationale for initiating at younger ages
4. Flyers visible to patients and providers were posted on exam room doors



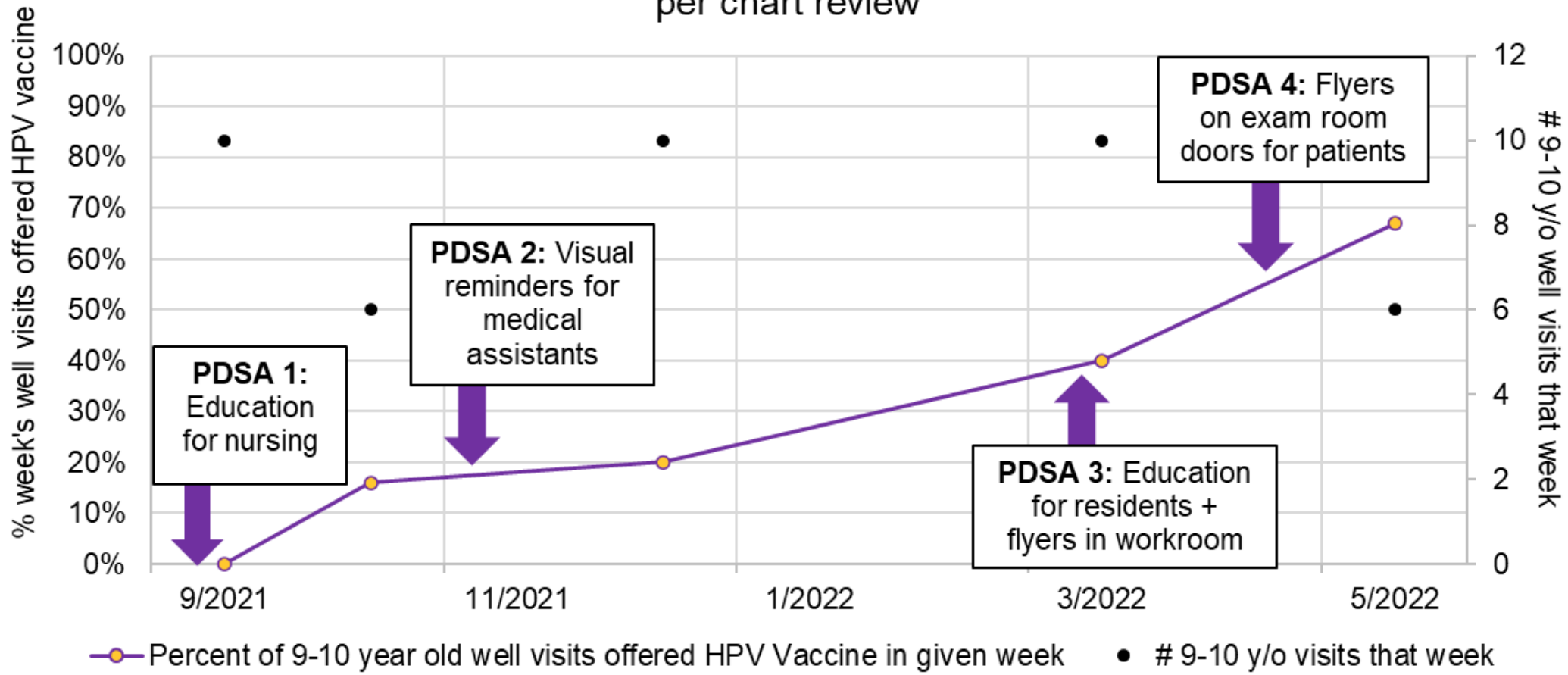
Outcomes

Figure 3: Initiation of HPV Vaccine in all 9-10 Year Olds affiliated with clinic per state registry data



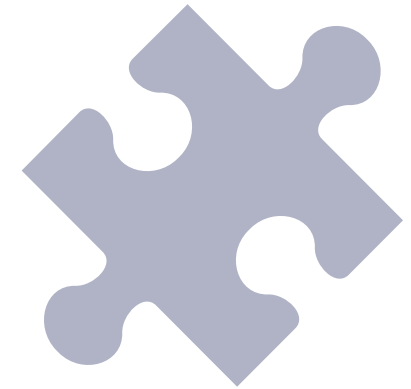
Outcomes

Figure 4: Percent of week's 9-10 year-old visits offered HPV vaccine per chart review



Challenges Encountered in QI Process

- NCIR only lists children as due for HPV vaccine once they turn 11
- 9-10 year-old well visits are relatively infrequent
- No visual reminders for vaccines in the EHR

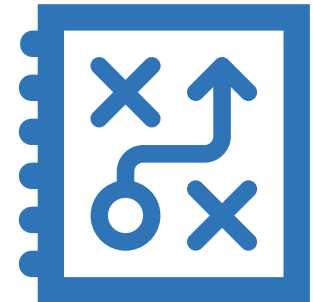


Lessons Learned

- Failure to offer the vaccine, rather than parents declining the vaccine, was the primary limiting factor of the impact
- Even before educational interventions, parents had largely positive views of HPV vaccine and immunizations in general
- Minor interventions can modestly improve the overall HPV vaccination initiation rate in 9-10 year-olds in a manner that should substantially increase completed HPV vaccination rates as they age into teenagers
- By involving all team members in the clinic in the project, culture of offering HPV vaccine to 9-10 year-old patients gradually became common practice
- Altering the state's immunization registry to automatically flag children as "due" for the HPV vaccine starting at age 9 could be the intervention with the most potential for impact statewide

Next Steps

- Advocate for NCIR to modify due date for HPV to age 9
- continue to monitor NCIR HPV vaccine initiation data



Questions?

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