Top Ten Strategies For Reducing Missed Opportunities For Childhood Vaccinations
Kristie Marcelle

**Background:**
Various barriers and challenges exist for providers to successfully implement vaccine recommendations. For children aged 6-23 months who were due for vaccinations, providers missed at least one opportunity to vaccinate 62% of children.[1] Reasons for missed opportunities are varied and include not vaccinating during an acute visit, not realizing the child is due, parent hesitancy, or not giving all needed vaccines.


**Setting:**
Urban and rural pediatric practices in southern California (Orange County, Los Angeles), Georgia, Oklahoma, New Jersey, and New York (Brooklyn). Practices include private pediatric practices, federally qualified health centers (FQHCs), and academic settings.

**Population:**
Children aged 19-35 months

**Project Description:**
This was a 12-month learning collaborative based on the Institute for Healthcare Improvement’s Breakthrough Series Collaborative Model. Approximately sixty practices participated in the project utilizing in-person trainings, webinars, and data collection. With support from QI coaches and immunization content experts, practices conducted small tests of change using Plan-Do-Study-Act (PDSA) cycles.

The project measured the childhood composite series (4:3:1:3:3:1:4) and individual coverage rates of each individual vaccine in that combination. Monthly record reviews were also conducted to study missed opportunity rates and reasons. Key drivers of the project included team based care, regular use of the IIS, education on true contraindications, and employing communication techniques for hesitancy.

**Results/Lessons Learned:**
Final data results will be shared on vaccine coverage rates and missed opportunities. A “Top Ten” list of the most effective interventions from across the network will be shared. Lessons learned will highlight working with state/city IIS partners, data collection, vaccinating during acute visits, communication techniques and impact of practice-level and state policies (e.g., vaccination exemptions, dismissal policies for non-vaccinating families).
Background:
In an effort to improve HPV vaccine coverage rates, the California Department of Public Health (CDPH) VFC program sent an electronic letter to VFC sites reporting low levels of HPV vaccine administration.

Setting:
VFC clinic sites

Population:
VFC Providers

Project Description:
CDPH identified 515 VFC sites (of California’s 4,000 total VFC sites) that reported an HPV:Tdap vaccine administration ratio of ≤ 1:1 (below the desired 2:1 ratio). CDPH sent these sites a letter that (1) emphasized the importance of immunizing 11-12 year-olds against HPV, (2) highlighted the clinic’s reported HPV:Tdap vaccine administration ratio, and (3) encouraged the clinic to reach an HPV:Tdap vaccine administration ratio of 2:1 within six months after receiving the letter.

CDPH assisted clinics by providing tools for strengthening HPV vaccine recommendations and inviting sites to an educational webinar. VFC Representatives were instructed to discuss the letter when conducting routine VFC compliance or quality improvement (AFIX) visits at these 515 sites. Levels of intervention (letter only; letter and compliance visit; letter, compliance visit, and discussion; letter, AFIX visit, and discussion) were evaluated for effectiveness.

Results/Lessons Learned:
Of the 515 sites receiving the letter, VFC Representatives visited 26 sites for an AFIX visit and 179 sites for compliance with VFC requirements. They discussed the letter with clinic staff in 121 sites. At the end of six months:

- 298 (58%) of the 515 sites receiving a letter increased their ratio.

- The average HPV:Tdap ratio increased from 0.61 to 1.06 among sites receiving the letter.

- Of the 298 with improvements,
  - 61% (n=182) achieved ≥ 1:1 HPV:Tdap ratio
  - 18% (n=53) achieved ≥ 2:1 HPV:Tdap ratio

The group receiving the letter, an AFIX visit, and discussion saw the most sites improve (73%) compared to those receiving only the letter (55%); letter and compliance visit (60%); or letter, compliance visit, and discussion (63%).
Sanford Health’s HPV Improvement Project
Andrea Polkinghorn

Background:
Sanford Health is a large integrated healthcare delivery system that provides healthcare in nine states and three countries. Sanford has been the recipient of a grant from the South Dakota Comprehensive Cancer Coalition for the past two years, with a specific focus on increasing Human Papillomavirus (HPV) vaccination rates.

Setting:
In year one we piloted our project with seven primary care clinics; in year two, we added an additional 32 clinics. We pulled clinic and provider level data for HPV, Meningococcal, and Tdap.

Population:
All data was run for male and female patients, ages 11-26.

Project Description:
In person education was provided, in partnership with Merck to nursing staff and providers. Education included information about disease state, Gardasil vaccine specifics, how to offer the vaccine, how to answer patient or parent concerns, as well as Sanford’s “No Missed Opportunities” culture. Automated phone calls and reminder letters were sent to patients. Additionally, Sanford hosted “Someone You Love: The HPV Epidemic” movie screenings for the community and local colleges.

Results/Lessons Learned:
As of June, 2017 over 100,000 client reminders were disseminated. The seven primary care clinics saw a 22% decrease in zero doses of Gardasil, and a 15% increase in Gardasil series completion. Barriers experienced include the complexity of managing a grant for such a large number of clinics and awareness of patient populations throughout our network locations, who are resistant to HPV and/or all vaccines. In year two we applied a patient attribution methodology to our data. This methodology attributed each patient to the provider they were seeing most often. While this approach positively affected some clinics, it negatively affected others. However, this reporting method assists with negating non-active patients and aligns with our “No Missed Opportunities Culture”. In conclusion, provider assessment and feedback, client reminders, and education are vital to the success of improving vaccination rates.