Disclosure: Session B3

In compliance with continuing education requirements, all presenters must disclose any financial or other associations with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters as well as any use of unlabeled product(s) or product(s) under investigational use.

CDC, our planners, content experts, and their spouses/partners wish to disclose they have no financial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters.

Planning committee discussed conflict of interest with each presenter to ensure there is no bias.

Content will not include any discussion of the unlabeled use of a product or a product under investigational use.

CDC did not accept commercial support for this continuing education activity.
Maintenance of Certification Pilot to Increase HPV Vaccination

Marcie Fisher-Borne, PhD, MPH, MSW
Director of HPV Vaccination, ACS

Rebecca Perkins, MD, Msc
Associate Professor of Obstetrics and Gynecology, Boston University

Funded by CDC Cooperative Agreement #: NH23IP000953-04-00
Conflicts of Interest

- Drs. Fisher-Borne and Perkins have no conflicts of interest to report
Session Objectives

Describe collaborative intervention:

- **Setting**: Partners involved in this project
- **Program**: Sessions and timeline
- **Results**: Vaccination rate changes
- **Process outcomes**: Impact of program on participants’ behavior
12 FQHCs Systems began Fall 2016-Dec. 2017
45 clinic intervention sites

• Focus on preteens turning 13 in measurement year (n=3283)

• Pilot Quality Improvement Interventions

  • Focus on structured quality improvement

  • Providers receive Maintenance of Certification Part IV and 20 Performance Improvement CME Credits
Setting
## Key FQHC System Partners

<table>
<thead>
<tr>
<th>Health System</th>
<th>City, State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama Regional Medical Services</td>
<td>Birmingham, AL</td>
</tr>
<tr>
<td>Amistad Community Health Center</td>
<td>Corpus Christi, TX</td>
</tr>
<tr>
<td>Atascosa Health Center, Inc</td>
<td>Pleasanton, TX</td>
</tr>
<tr>
<td>CentroMed Health Center</td>
<td>San Antonio, TX</td>
</tr>
<tr>
<td>Daughters of Charity Health Center</td>
<td>New Orleans, LA</td>
</tr>
<tr>
<td>Family Health Center</td>
<td>Columbia, MO</td>
</tr>
<tr>
<td>La Esperanza Health and Dental Center</td>
<td>San Angelo, TX</td>
</tr>
<tr>
<td>NOELA Community Health Center</td>
<td>New Orleans, LA</td>
</tr>
<tr>
<td>Oklahoma City Indian Clinic</td>
<td>Oklahoma City, OK</td>
</tr>
<tr>
<td>Quality of Life Health Services, Inc</td>
<td>Gadsden, AL</td>
</tr>
<tr>
<td>Spring Branch Community Health Center</td>
<td>Houston, TX</td>
</tr>
<tr>
<td>Tyler Family Circle of Care</td>
<td>Tyler, TX</td>
</tr>
</tbody>
</table>
Program: DOSE HPV

- Evidence-based program to increase HPV vaccination rates
- Core principles: repeated contacts, education, QI support
- Incentives: MOC and CME credits for providers
Core Goals of VACS Pilot

• Increase **vaccine initiation and completion rates** in pilot sites
• Increase **FQHC capacity** through onsite Quality Improvement coaching
• Increasing **provider engagement** through Maintenance of Certification/CME credits
## ACS Health Systems Structure

<table>
<thead>
<tr>
<th>Hospital Systems</th>
<th>Primary Care Systems</th>
<th>State Health Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cancer Centers</td>
<td>• Federally Qualified Health Centers</td>
<td>• Comprehensive Cancer Coalitions</td>
</tr>
<tr>
<td>• Oncologists</td>
<td>• Primary Care Associations</td>
<td>• State Health Depts.</td>
</tr>
<tr>
<td>• Hospital-Affiliated Primary Care</td>
<td></td>
<td>• Insurers</td>
</tr>
</tbody>
</table>

**HPV VACs**
Vaccinate Adolescents against Cancers
ACS Staff Role

• Serve as a **QI practice coach**

• Integrate intervention **(8 MOC sessions)** into partner’s QI structure

• Deliver provider and staff training and recruit external presenters

• Link partner to external local, state, and national resources

• Collect **monthly data** and required paperwork

• Participate in **monthly learning collaborative**
Learning Collaborative for ACS Staff

- Data processing and troubleshooting
- System change and PDSA reporting
- Best practice sharing
- Case based troubleshooting
- Skills preparation
- Latest HPV vaccination research and QI resources
Steps for Increasing HPV Vaccination in Practice: An Action Guide to Implement Evidence-based Strategies for Clinicians


- Toolkit
- Road map
- Portal to resources
- Launched June 2015
- Tested and improved by 30 FQHC Pilots
Core Tool: 
Implementation Guide

HPV VACs Quality Improvement Partnership: Maintenance of Certification Pilot
Implementation Manual

This project is supported by grant # NH23IP000953-03-01, funded by the Centers for Disease Control and Prevention.

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint provision of Boston University School of Medicine and the American Cancer Society. Boston University School of Medicine is accredited by the ACCME to provide continuing medical education for physicians.
## Timeline: Early Implementation

<table>
<thead>
<tr>
<th>Month</th>
<th>Session</th>
<th>Topics &amp; Tasks</th>
<th>STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>December</td>
<td></td>
<td>Recruit QI Team and clinical champion</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Set dates for 2017 meetings</td>
<td></td>
</tr>
<tr>
<td>January</td>
<td></td>
<td>Complete HPV Vaccination Systems and Strategies Inventory (Data)</td>
<td>2</td>
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<tr>
<td></td>
<td></td>
<td>Support Provider Recruitment</td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td>Collect Baseline Rates (Data)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support Provider Recruitment</td>
<td></td>
</tr>
<tr>
<td>March</td>
<td>1</td>
<td>MOC Project Introduction</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Steps Action Guide</td>
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<tr>
<td></td>
<td></td>
<td>Baseline Data Overview</td>
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<td>April</td>
<td>2</td>
<td>HPV 101</td>
<td>3</td>
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<tr>
<td>May</td>
<td>3</td>
<td>Baseline Data Review and Processing (Data)</td>
<td>2, 4</td>
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<td></td>
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<td>Provider Data Review (Data)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Action Planning: Global AIM Measurement/Data Strategy</td>
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</tbody>
</table>
## Timeline: Session 4-8

<table>
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<th>STEPS</th>
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<tbody>
<tr>
<td>June</td>
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<td>Current State Process Mapping</td>
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<tr>
<td>July</td>
<td>5</td>
<td>Future State Process Mapping</td>
<td>4</td>
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<tr>
<td></td>
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<td>Strategy Selection</td>
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<td></td>
<td>PDSA #1 (Plan)</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>6</td>
<td>PDSA #1 (Do, Study and Act)</td>
<td>4</td>
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<tr>
<td></td>
<td></td>
<td>PDSA #2 (Plan)</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>7</td>
<td>PDSA #2 (Do, Study and Act)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PDSA #3 (Plan)</td>
<td></td>
</tr>
<tr>
<td>October</td>
<td>8</td>
<td>PDSA #3 (Do, Study and Act)</td>
<td>4</td>
</tr>
<tr>
<td>November</td>
<td></td>
<td>Complete HPV Vaccination Systems and Strategies Inventory Follow-up (Data)</td>
<td>4</td>
</tr>
</tbody>
</table>
HPV Initiation, Tdap, and MCV4 among all 12 MOC Pilot systems, implementing the intervention in 45 clinic sites.

HPV Completion among 10 MOC Pilot systems with complete data.
Increase >10% at both sick and well visits
Process Outcomes: Provider Survey
Provider Feedback (n=45)

91% of learners made changes in practice:

- Initiating vaccination at younger ages (starting at age 9 or 10)
- Changing verbal presentation of vaccine (framed in terms of cancer prevention, bundled recommendation, not differentiating the vaccine, i.e. “due for all routine vaccinations”)
- Strong recommendation at sick and wellness visits
- Implementing standing orders
- Implementing reminder/recall systems
Self-reported recommendation habits

- Age: 9-10, 11-12, 13+
- Importance: Extremely important, Very important
- Risk-based: No, Yes
Provider Feedback: Uncomfortable Conversations

- 20% of providers (n=9) reported that they anticipate having an uncomfortable conversation when they think about recommending the HPV vaccine for 11–12-year-old patients.
Conclusions

Successes

• DOSE-HPV disseminated through ACS-VACS FQHC network saw >20% vaccination rate increases

Challenges

• High-touch program, significant staff time
• 20% of providers still find conversation challenges
Thanks to:

- Emily Jansen, Program Manager, Office of Continuing Medical Education, Boston University
- Emma Trucks, Program Manager, Portfolio and Quality Improvement, Office of Continuing Medical Education, Boston University
- Anna Hassan, VACs Intervention Manager, ACS
- Sandy Preiss, VACs Data Manager, ACS
- Beth Dickson-Gavney, Senior Director of Primary Care, South Region
- Suncerria Tillis, Senior Director of Primary Care, South Region
- Our amazing ACS Primary Care Managers!
American Academy of Pediatrics

Improving HPV Vaccination Rates with Pediatricians

Melissa Ponce
Kateri C. Nelis, MS, MPH
AAP Mission

The mission of the American Academy of Pediatrics (AAP) is to attain optimal physical, mental, and social health and well-being for all infants, children, adolescents, and young adults.

To accomplish this, AAP shall support the professional needs of its members.
Project Overview

- Raise HPV immunization rates by creating and executing programs that aim to increase the number of pediatricians who implement immunization best practices

- Build sustainable peer-to-peer and quality improvement (QI) networks for immunization education and increased vaccination coverage; disseminate professional education and tools designed to assist pediatricians with the following:
  1) consistently make strong HPV vaccine recommendations
  2) effectively address parental questions
  3) implement HPV vaccination-related QI efforts (eg, decrease missed opportunities, use reminder-recall)
Project Goals

• Increase in providers making a strong HPV vaccine recommendation

• Increase in pediatrician knowledge of HPV vaccine

• Increase in opportunities available for clinician education and QI around immunizations

• Increase in local/regional efforts aimed at promoting a strong provider recommendation for immunizations

• Greater alignment of organizational and partner strategies for HPV vaccine uptake
The AAP developed a Hub and Spoke Model of Improvement to teach pediatricians and clinical and non-clinical staff across specialties quality improvement (QI) methodology.

Pediatricians and staff then apply QI knowledge to projects in their own practices and institutions to build state/regional capacity for improvement.

The goal is to build a critical mass of pediatricians trained in QI in order to improve children's health across a region on any given topic area.
Activity:
Host trainings on QI for AAP chapter leadership and QI champions

- 55 AAP chapters trained in ten districts
- Topics covered include foundational QI, the Model for Improvement, and QI tools (e.g., 5 whys, fishbone diagram)
- Provide ongoing and shared learning experiences
Hub and Spoke Activities

Activity:
Provide opportunities for AAP chapters and districts to implement HPV QI activities focused on:

- Improving series initiation by providing a strong recommendation for the HPV vaccine and/or
- Implementing a reminder/recall protocol for HPV vaccine series completion

Chapters choose from four HPV QI projects:
1. Education in Quality Improvement for Pediatric Practices (EQIPPP)
2. AAP Maintenance of Certification (MOC) Project
3. AAP HPV ECHO
4. Design Own QI Project
EQIPP

- [https://eqipp.aap.org/](https://eqipp.aap.org/)
  - Online learning program that incorporates QI principles and concepts with pediatric-specific clinical content to improve children’s health outcomes
  
  - Free with AAP membership and upon completion, eligible for Performance Improvement Continuing Medical Education (CME), Maintenance of Certification (MOC) Part 4, and Enduring Material CME
  
  - Utilizes the adolescent immunization module
AAP MAINTENANCE OF CERTIFICATION (MOC) PROJECT

• The MOC HPV QI project offers 25 MOC Part 4 credits to participating providers and focuses on initiation and/or completion of the HPV vaccination series

• Utilizes the AAP’s Quality Improvement Data Aggregator (QIDA)

• Project supports a strong recommendation and/or a reminder/recall intervention
AAP MAINTENANCE OF CERTIFICATION (MOC) PROJECT

• MOC Completion Requirements
  – Participation for six consecutive months
  – Submission of five data cycles (via QIDA)
  – Submission of five practice provider update surveys (via Survey Monkey)
  – Monthly QI team meetings to discuss Plan-Do-Study-Act (PDSA) cycles and QIDA data
A Total of 119 Practices Participated in the MOC Project in Year 1

HPV Vaccination Average Initiation Rates
2015-2016

Average Initiation Rate (Percentage)

Data Cycle 1 | Data Cycle 2 | Data Cycle 3
---|---|---
55.7 | 63.8 | 73.9

HPV Vaccination Average Completion Rates
2015-2016

Average Completion Rate (Percentage)

Data Cycle 1 | Data Cycle 2 | Data Cycle 3
---|---|---
62.2 | 67.7 | 73.4
YEAR 2 (2016-2017) MOC PROJECT RESULTS
A Total of 134 Practices Participated in the MOC Project in Year 2

HPV Vaccination Average Initiation Rates
2016-2017

HPV Vaccination Average Completion Rates
2016-2017

A Total of 134 Practices Participated in the MOC Project in Year 2
Project ECHO®
(Extension for Community Healthcare Outcomes)

- Hub and Spoke model
  - Hub: regional center where multidisciplinary team of subject matter experts is located
  - Spoke: community partner site at which individual or team of learners is located

- Designed to create knowledge networks and build capacity; bi-directional learning community

- Does not create a provider-patient relationship
The mission is to democratize medical knowledge and get best practice care to underserved people all over the world.
ANATOMY OF AN ECHO SESSION

• Welcome and Introductions

• Didactic (Faculty member)
  – 15-20 minute presentation followed by 5-10 minutes of questions

• Case Presentation (Spoke)
  – Short description of QI activities
  – Clarifying questions and discussion by all

• Summary and Close
AAP HPV ECHO

• Successes
• Challenges
• Lessons Learned
Design Own HPV QI Project

Projects include:

• Working with a university on education and messaging to improve HPV immunization rates for freshmen

• Educating pediatric residency programs on how to communicate effectively with parents and youth about vaccines and how to pull immunization rates from the state immunization registry

• Developing a course for a learning management system around HPV immunizations and recruiting practices across two states to participate in the course

• Launching a virtual learning collaborative across three states and working with pediatric residency programs
Overall Results of Hub and Spoke QI Activities, 2015-2017

• All chapters that implemented a HPV QI project noted a positive change or improvement via a strong provider recommendation and/or reminder/recall

• Estimated reach of the Hub and Spoke Initiative QI activities:
  o Number of Practices: 607
  o Number of Pediatricians: 1,741
  o Number of Other Participants: 3,379

• About 156 participants completed the EQIPP adolescent immunization course in 2016-2017

• Over 700 pediatricians completed the AAP HPV QI MOC project and received MOC Part 4 credit
Hub and Spoke QI Activities Highlights

1. All Staff Involvement
   • Practices expressed the importance of involving all staff in the clinic in the QI project, including front office staff.
   • Moving the full responsibility away from the providers to all clinic staff helped with increasing immunization rates and implementing systematic change.

Best Practices:
   • Front office staff would receive education on how to use key and consistent messaging on HPV and HPV immunizations.
   • All staff would receive education on HPV cancers.
   • During staff meetings or lunch and learns, practices would invite cervical cancer survivors to share their story.
2. Quality Improvement Coaching
   • Chapters that utilized existing QI experts or hired external QI coaches were more likely to note having a more successful experience with implementing their QI project.

Best Practices:
   • Hire an external QI coach or share a coach with another organization or QI project
   • Utilize an existing staff member as a QI expert
3. Collaboration

• Chapters created or utilized existing partnerships and collaborated with local and national organizations including local health departments and local immunization coalitions.

Best Practices:

• Chapters partnered with organizations, such as the American Cancer Society, to provide printed or electronic resources.
• Chapters partnered with their local health department to recruit practices to be involved in the HPV QI project.
Additional QI Project Implementation Strategies

- Practices raffled a gift card every month to adolescents who received all their recommended immunizations.
- Clinic staff utilized CDC posters in the waiting area to start the HPV vaccination conversation with parents.
- Some AAP chapters created HPV promotional materials that specifically addressed the needs of their state.
- Practices worked with their EHR to make it easier to see the immunization records of patients.
- Some HPV QI projects created their own virtual learning collaborative with participating practices that included webinars and phone calls.
AAP Resources

- AAP HPV Champion Toolkit: [www.aap.org/hpvtoolkit](http://www.aap.org/hpvtoolkit)

- A Guide to Adolescent Immunizations: *Flip Chart for Pediatric Offices and Parents*
AAP Resources

• HPV Vaccine: Same Way, Same Day™

For more information on the AAP HPV Hub and Spoke Initiative, contact HPV@aap.org.
AAP NATIONAL HPV PROJECT TEAM

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Funded by CDC Grant #1H23IP000950
Disclosures

Cynthia Rand
Has documented no financial relationships to disclose or Conflicts of Interest (COIs) to resolve.
The Academic Pediatric Association (APA)

- National organization with 2000+ members
- Members train most pediatric residents and many family medicine residents (plus medical students)
- Particular focus on improving health of vulnerable populations
- APA members are expert at QI, research, education, and advocacy
National Improvement Partnership Network (NIPN)

- Network of >20 states that have developed improvement partnerships (IPs) to advance quality and transform healthcare for children and families

- An IP is a regional collaboration of public and private partners that uses the science of QI and a systems approach to change healthcare practice

- QI projects in pediatric and family medicine practices, health departments
Continuity Research Network (CORNET)

- National practice based research network of pediatric continuity clinics
- Continuity clinics are training sites for pediatric residents (3 years, after 4 years of medical school)
- Affiliated with academic medical centers
- High proportion of children on Medicaid
- High proportion of minority patients
### QI Cohorts

<table>
<thead>
<tr>
<th></th>
<th>CORNET Cohorts</th>
<th></th>
<th>NIPN Cohorts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>States</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Sites</td>
<td>14</td>
<td>15</td>
<td>12</td>
<td>38</td>
</tr>
<tr>
<td>Participants</td>
<td>66</td>
<td>54</td>
<td>76</td>
<td>190</td>
</tr>
<tr>
<td>Estimated number of patients 11-17 years of age seen</td>
<td>20,220</td>
<td>49,290</td>
<td>80,000</td>
<td>38,320</td>
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#### Legend

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<thead>
<tr>
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<th>CORNET</th>
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<tbody>
<tr>
<td>1</td>
<td>Red</td>
<td>Green</td>
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<tr>
<td>2</td>
<td>Yellow</td>
<td>Blue</td>
</tr>
<tr>
<td>3</td>
<td>Orange</td>
<td>Purple</td>
</tr>
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</table>
Intervention

Monthly learning collaborative (via webinar), for 6 months, focused on:

1) QI training

2) Giving a strong recommendation for HPV vaccine
   - focus on 11-12 years, vaccinating males

3) Reducing missed opportunities for vaccination

4) Sharing best practices (prompts, standing orders, reminder-recall)
Measures

1) Monthly chart audits, with feedback
   • Measure missed opportunities for HPV vaccination
   • Prior to and during intervention

2) Office systems inventory to evaluate office practices (pre and post)

3) PDSA survey monthly during intervention
Teams included: ≥1 physician, resident physicians (for CORNET), nurses, medical assistants and others (e.g., receptionist)

QI champion at each site shared run charts of missed opportunities internally, communicated with team
## Practice Demographics, Cohort 2

<table>
<thead>
<tr>
<th>States</th>
<th>CORNET (n)</th>
<th>NIPN (n)</th>
</tr>
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<tbody>
<tr>
<td>Practices</td>
<td>15</td>
<td>60</td>
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<tr>
<td>Number of patients 11-17 seen annually</td>
<td>49,290</td>
<td>114,200</td>
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<table>
<thead>
<tr>
<th>FTE Type</th>
<th>CORNET (n)</th>
<th>NIPN (n)</th>
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<tbody>
<tr>
<td>Attending/MD, DO</td>
<td>66</td>
<td>168</td>
</tr>
<tr>
<td>Resident/Fellow</td>
<td>148</td>
<td>63</td>
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<tr>
<td>Mid-level (NP/PA)</td>
<td>11</td>
<td>60</td>
</tr>
<tr>
<td>RN/LPN</td>
<td>72</td>
<td>180</td>
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<tr>
<td>Medical Assistant/CNA</td>
<td>50</td>
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<tr>
<td>Other FTE’s</td>
<td>30</td>
<td>128</td>
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<tr>
<td>Pediatrics</td>
<td>15</td>
<td>39</td>
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<td>Family Medicine</td>
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<td>21</td>
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<table>
<thead>
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<th>Patient insurance (%)</th>
<th>CORNET (%)</th>
<th>NIPN (%)</th>
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<tbody>
<tr>
<td>Public</td>
<td>73%</td>
<td>45%</td>
</tr>
<tr>
<td>Private</td>
<td>24%</td>
<td>45%</td>
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</table>
Practice Adheres to One HPV Vaccination Schedule

- **Pre**: 59%
- **Post**: 97%

Results: Office Changes, NIPN
Results: HPV Vaccination Systems

NIPN

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
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<tbody>
<tr>
<td>Standing Orders for HPV</td>
<td>63%</td>
<td>68%</td>
</tr>
<tr>
<td>Reminder-Recall System</td>
<td>18%</td>
<td>20%</td>
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<tr>
<td>Provider Prompts</td>
<td>70%</td>
<td>77%</td>
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Strong Recommendation for Females by Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Pre</th>
<th>Post</th>
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<tbody>
<tr>
<td>9-10</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>11-12</td>
<td>65%</td>
<td>90%</td>
</tr>
<tr>
<td>13-15</td>
<td>88%</td>
<td>100%</td>
</tr>
<tr>
<td>16-18</td>
<td>87%</td>
<td>97%</td>
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</table>
Strong Recommendation for Males by Age

- 90% for 11-12 years old
- 98% for 13-15 years old
- 95% for 16-18 years old

% of Practices

Age

9-10: 3% Pre, 5% Post
11-12: 63% Pre, 90% Post
13-15: 83% Pre, 98% Post
16-18: 83% Pre, 95% Post

Pre vs. Post
Missed Opportunities: NIPN

Total Missed Opportunities (p chart)

- UCL: 72.6%
- CL: 65.6%
- LCL: 58.6%
- Intervention Start: 52.2%

Percent Missed Opportunities

Date 2016

## Missed Opportunities by Visit Type: NIPN

<table>
<thead>
<tr>
<th>Visit Type</th>
<th>Pre Missed Opportunities</th>
<th>Post Missed Opportunities</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well</td>
<td>45%</td>
<td>40%</td>
<td>5%</td>
</tr>
<tr>
<td>Acute</td>
<td>88%</td>
<td>80%</td>
<td>8%</td>
</tr>
<tr>
<td>Chronic</td>
<td>82%</td>
<td>79%</td>
<td>3%</td>
</tr>
<tr>
<td>Nurse</td>
<td>16%</td>
<td>17%</td>
<td>-1%</td>
</tr>
<tr>
<td>Other</td>
<td>51%</td>
<td>35%</td>
<td>16%</td>
</tr>
</tbody>
</table>
Results: Office Changes, CORNET

Practice Adheres to One HPV Vaccination Schedule

Percent of Practices

Pre: 53%
Post: 93%
Results: HPV Vaccination Systems

CORNET

Percent of Practices

- Standing Orders for HPV: 13% Pre, 33% Post
- Reminder-Recall System: 0% Pre, 7% Post
- Provider Prompts: 40% Pre, 80% Post

Legend: Pre - Pre-implementation, Post - Post-implementation
Strong Recommendation for Females by Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-10</td>
<td>0%</td>
<td>7%</td>
</tr>
<tr>
<td>11-12</td>
<td>87%</td>
<td>93%</td>
</tr>
<tr>
<td>13-15</td>
<td>87%</td>
<td>100%</td>
</tr>
<tr>
<td>16-18</td>
<td>93%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Strong Recommendation for Males by Age

CORNET

<table>
<thead>
<tr>
<th>Age</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-10</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>11-12</td>
<td>73%</td>
<td>87%</td>
</tr>
<tr>
<td>13-15</td>
<td>80%</td>
<td>93%</td>
</tr>
<tr>
<td>16-18</td>
<td>80%</td>
<td>93%</td>
</tr>
</tbody>
</table>
Missed Opportunities: CORNET

CORNET Missed Opportunity p Chart

Month/Year

Intervention


Missed Opportunities

0.000 0.100 0.200 0.300 0.400 0.500 0.600 0.700 0.800 0.900 1.000

0.47 0.56 0.66 UCL

LCL

0.43 0.53
Qualitative Comments: What worked best

“Empowering support staff to discuss vaccine before the patient had even seen provider”

“Reviewing vaccine records for EVERY visit”

“All physicians and nursing staff delivering strong and consistent provider recommendation for HPV starting at age 11”
Limitations

- Data relies on patients with visits; additional methods are needed to bring patients in for care

- Office systems survey completed by one individual in practice, may not represent all providers/staff
Conclusions

Training in giving a strong recommendation for HPV vaccine, combined with QI methodology:
- Reduces missed opportunities for HPV vaccination
- Improves consistency across a practice, with more providers recommending the vaccine at age 11-12

Challenges include:
- Getting to no missed opportunities

Keys to success include:
- Communication with entire office staff
- Empowering nurses to act as practice champions
- Single vaccination schedule
Our Team

Coordinators:
– Holly Tyrrell, MSSW
– Jen Le, BS

QI Coaching/reports:
– Rachel Wallace-Brodeur, MS, MEd

Data Analysis:
– Nick Goldstein, BA

Faculty
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– Cynthia Rand, MD, MPH
– Stan Schaffer, MD, MS
– Peter Szilagyi, MD, MPH

NIPN
– Judy Shaw, EdD, MPH, RN
– Wendy Davis, MD

Thanks to our practices for their hard work!