Improving HPV Immunization Rates in a Large Pediatric Practice: Implementing Effective Quality Improvement

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Disclosures

• Speaker and consultant: Merck
• Speaker and consultant: Sanofi Pasteur

Learning Objectives

After this session the participants will:

• Define a method to track and report their HPV vaccination rates.
• Understand Implementation Science and its application to improvement in vaccination rates.
• Select 3 to 5 specific strategies to apply to their organization in a deliberate, planned intervention.
**The National Problem: Inadequate HPV Vaccination**

- HPV vaccine coverage from 2011-2014 has not increased substantially.
- HPV vaccination coverage for ≥1 dose could easily have reached 92.6%.
- Every year that increases in coverage are delayed, another 4,400 women will go on to develop cervical cancer.

Sources: MMWR July 26, 2013 / 62(29);591-595, MMWR July 31, 2015 / 64(29);784-792.

**Description of the Practice**

- **Orlando Health Physician Associates:**
  - Large multi-specialty healthcare group
  - 22 pediatricians, 2 pediatric ARNPs, 80 pediatric staff, 11 offices.
  - Over 57,000 active pediatric patients
  - Over 23,000 patients aged ≥11 years.
  - NCQA level three Patient Centered Medical Home (PCMH).

**Our problem (2013): Low Rates, Large Variation**

<table>
<thead>
<tr>
<th>Age</th>
<th>Any HPV</th>
<th>Any 3</th>
<th>any 2</th>
<th>any 1</th>
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<td>67</td>
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<td>101</td>
<td>87</td>
</tr>
</tbody>
</table>

This NIS data is 2012 data, reported in 2013.
**Critical Components**

- Know your rates.
- Set specific goals.
- Identify areas of weakness and/or opportunity.
- Implement effective and sustainable process improvement.

**Implementation and Improvement Science**

- QI Research: hypothesis and control group
- QI: PDSA (measure small, incremental change).
- Implementation Science: Strategic Parallel Processing (a larger scale alternative).
- Keep it simple with an eye to workload.
- Scalability
- Sustainability

**The Approach: Vaccination Rates Revealed**

- Departmental HPV vaccination rates reviewed September 2013
- Individual physician rates shared privately at first (September 2013).
- Individual physician rates subsequently shared with the department.
- Rates published monthly at first, now quarterly.
The Approach: Goal-Setting
How much? By when?

- 2013: Show Improvement
- 2015: Meet highest NIS Teen national immunization rates*.
- 2017: Meet Healthy People 2020 goals (80%)*

* for all patients 11-18

The Approach: Interventions

- Data verification and “clean-up”
- Physician education
- Staff education
- Physician incentives
- Pre visit planning
- Electronic follow up orders for doses 2 and 3
- Schedule doses 2 and 3 at the time of first dose
- Reminder Calls
- Manufacturer Tools
- Clinical Summaries
- Other

Physician Education Program

Key Points

- Multiple competing priorities.
- Physician unawareness.
- Physician discomfort.
- The need for “scripting.”

- Physician unawareness of routine 11-12 vaccination recommendation and its implications for clinical practice.
Health Care Provider Recommendations and Same-Day HPV Vaccination Rates

According to data from a market research study conducted by Merck in 2013 using online surveys of mothers of previously vaccinated or unvaccinated 11- to 18-year-old daughters and/or sons and who received a recommendation about same-day HPV vaccination (n=355):

- 80% (n=285) of mothers receiving a same-day recommendation had their son or daughter vaccinated that day.

*GARDASIL®9 (Human Papillomavirus 9-valent Vaccine, Recombinant) is indicated in boys 9 through 15 years of age only.

Staff Education Program

Key Points:

- Multiple competing priorities.
- Staff unawareness.
- General discomfort.

**UNTAPPED RESOURCE AND ENERGY IN STAFF: IMPLICATIONS OF EMPOWERMENT**
Physician Incentives

- Competition
- Wine
- Quality Bonus Structure

Daily Pre-visit Planning

Electronic Order Sets
Subsequent Doses Scheduled

- Second and third doses were scheduled the day dose one was administered.
- These appointments:
  - Print on patients’ clinical summaries
  - Generate reminder phone calls
  - Can be tracked if “no show” or cancelled
  - Can be reminded using manufacturer tools
- All practices committed to keeping schedules open at least six months ahead

Electronic Order Sets

- Patients receive a printed clinical summary
  - Diagnoses
  - Allergies
  - Meds
  - Vitals
  - Vaccines given
  - Orders
  - Follow-up appointments
Appointment Reminder Calls

Appointment Reminder Tools

Lessons Learned Phase One

- Highest rated interventions:
  - Physician and staff education programs
  - Scheduling subsequent doses real time
  - Manufacturer-supplied tools, especially magnets and cling posters

- Reveals:
  - Transparency, Competition, Reward: THE WHY?
  - Staff involvement: a critical resource
Phase Two

Sustainability lectures:
- Iterate guidelines and goals.
- Personalize prevention office by office.
- Establish office champions.

Patient/Parent Surveys:
- Identify best practices.

Focused physician education:
- Improved scripting
- Spread of best practices.

Sustainability Meetings

- Annual lunch meetings at each office.
- Review rates and progress toward goals.
- Review vaccine safety and efficacy with an eye toward personalizing disease prevention efforts.
- Practice responding to patient and parent questions and concerns.
- Re-supply of resources.

![HPV Rates Graph](image-url)
Phase Two cont’d

• Patient/Parent and Office Surveys:
  • Identify best practices.
  • Resident QI project.
• Focused physician education:
  • Improved scripting.
  • Spread of best practices.

Scripting

• Sandwich recommendations (Men, HPV, Tdap)
• “Same day same way:” no different than any other vaccine.
• Avoid tendency to offer TMI.
• Stress cancer-prevention.
• Be prepared with concise, accurate responses to questions: **“CLEAR RECOMMENDATION”**
  • CDC talking points
  • “Seat belt” analogy (prior to any risk)
  • Avoid profiling
  • Personalize your message
Tdap and MCV4 Rates

<table>
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<tr>
<th>Year*</th>
<th>Tdap %</th>
<th>Men %</th>
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<tbody>
<tr>
<td>2013</td>
<td>74</td>
<td>73</td>
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<tr>
<td>2014</td>
<td>80</td>
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<tr>
<td>2015</td>
<td>86</td>
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*Measured for August of each year

Take-Away: TO DO LIST

- KNOW YOUR RATES!
- Set specific goals
- Define a specific process

Define a CHAMPION
Physician and staff education
Incentives
Process Improvement