



AMERICAN ACADEMY OF  
FAMILY PHYSICIANS  

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STRONG MEDICINE FOR AMERICA

**American Academy of Family Physicians  
Adolescent Immunization  
Office Champions Project**

Final Report

September 28, 2015

This project was supported by a Cooperative Agreement (1U66IP000676-01) from the Centers for Disease Control and Prevention (CDC).

## Introduction

The American Academy of Family Physicians (AAFP) was awarded a three-year cooperative agreement (1U66IP000676-01) through the Centers for Disease Control and Prevention (CDC). The goal of the partnership is to increase adolescent immunization rates through a multi-faceted approach within the patient-centered medical home (PCMH) model. To accomplish this, the AAFP conducted the Adolescent Immunization Office Champions Project, which focused on educating family physicians and their practice staff about effective evidence-based strategies to increase adolescent immunization rates.

## Project Objectives

The project objectives were to educate physician champions, office champions, and practice staff in 20 family physician practices on how to integrate immunizations into the practice's daily routine. The Adolescent Immunization Office Champions Project included a performance improvement activity, learning community, action plans and evidence-based strategies, which were specific to the individual practice. Key objectives addressed in this project included the following:

- Improving strong physician recommendations for adolescent immunizations
- Reducing missed opportunities to immunize
- Increasing parental awareness and acceptance of adolescent vaccines, including addressing myths and misconceptions
- Implementing evidence-based practices to improve vaccine coverage
- Sustaining action plan strategies in the long-term for continuous improvements

## Overview of the Project

Immunizations remain one of the greatest public health achievements of all time. National adolescent immunization data indicate that coverage levels have increased, but there is wide variation at the state and local levels. The Advisory Committee on Immunization Practices (ACIP) and the AAFP recommend that adolescents (11-12 years of age) annually receive meningococcal conjugate (MCV, 1 dose), tetanus, diphtheria and acellular pertussis (Tdap, 1 dose), human papillomavirus (HPV, 3 doses), and influenza (1 dose) vaccines. Family physicians have reported numerous barriers to providing all necessary immunizations to adolescents 11-12 years of age. The Adolescent Immunization Office Champions Project was a pilot that was designed to help family physicians improve their adolescent immunization rates, with the goal of expanding such efforts based on what was learned from this project.

## Project Methodology

The Adolescent Immunization Office Champions Project was a multi-faceted performance improvement activity focused on educating family physicians and their practice staff about effective strategies to increase adolescent immunization rates. The project involved a comprehensive educational approach consisting of the following five objectives:

- **Objective 1:** Recruit 20 family medicine practices and identify a physician and office champion
  - Twenty practices were recruited and physician and office champions identified
  - The AAFP METRIC® Adolescent Immunization module was completed
  - Action Plan and evidence-based interventions identified
  - Demonstrate improvement of adolescent immunization rates of at least 10% from baseline
- **Objective 2:** Develop a comprehensive educational program to integrate immunizations into the office routines and promote the importance of vaccines
  - A comprehensive practice manual on increasing adolescent immunization rates was developed and continually updated
  - A "Learning Community" was developed which facilitated sharing best practices
  - Educational conferences, hosted by AAFP, were held quarterly
  - An advisory group of family physician content experts guided the project activities
- **Objective 3:** Develop and implement a program evaluation methodology

- Pre- and post-surveys from each practice were conducted to evaluate the overall effectiveness of the project
- Assessment of the AAFP METRIC® Adolescent Immunization module; usefulness of educational/training materials; success in implementing individual practice interventions; implemented office system improvements; identified barriers to change and how those barriers were overcome; and sustainability of the system changes were completed
- **Objective 4:** Dissemination of results at national meetings to facilitate the sharing of best practices
  - Project results were disseminated through AAFP’s communication channels
  - Project results were presented at the Society of Teacher for Family Medicine (STFM) Conference on Practice Improvement (2013-2015) and the 2014 National Conference for Family Medicine Residents and Medical Students
  - Project results were presented at the CDC National Immunization Conference (NIC)
- **Objective 5:** Non-federal funding sources will be sought to supplement project activities and ensure continuation of activities beyond the cooperative agreement period
  - AAFP leveraged this grant activity and secured additional funding to support its immunization activities and goals

### Practice Recruitment

Practice recruitment efforts began in December 2012 with a call for applications for the Adolescent Immunization Office Champions Project. The project announcement was promoted through the following communication channels:

- AAFP News article
- 5,000 email solicitations to practice’s with low adolescent immunization rates
- Social Media (Facebook, Twitter, etc.)
- AAFP Chapter listserv (ChexMix)

Thirty-four applications were received during the recruitment phase. Twenty practices were selected in the United States with a wide geographic representation that included a range of practice types and sizes, and a variety of practice settings. The 20 practices were located in 17 different states as indicated by the map below.

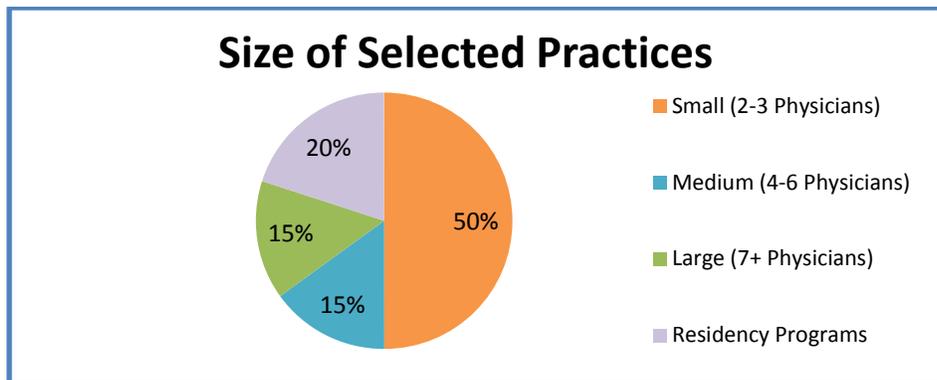


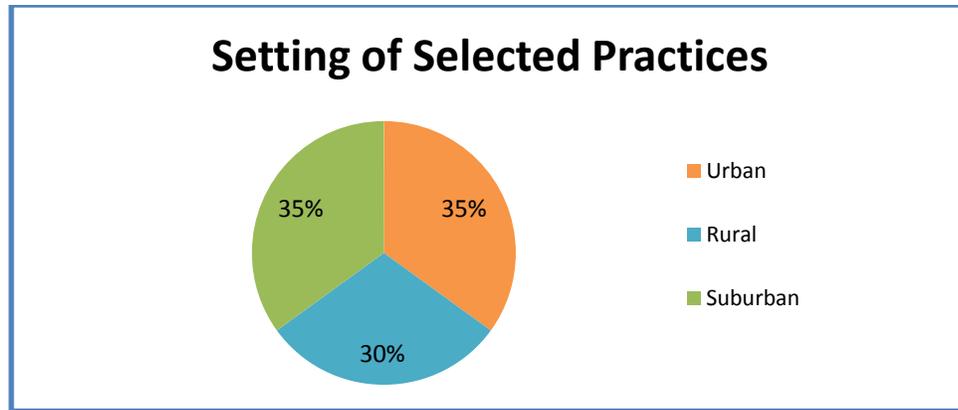
The selected practices were announced in January 2013, and the project training took place in March 2013. The practices began the METRIC® Adolescent Immunization module in April 2013 by conducting chart reviews on a sample of adolescent patient medical records (Stage A). The METRIC® module performed an analysis of the chart reviews and determined the baseline immunization rates. The project implementation phase (Stage B) began in June 2013 and concluded in December 2013. During this phase, action plans were developed and evidence-based strategies were implemented by each practice. The project’s post-intervention phase (Stage C) began in December 2013, and the practices conducted chart reviews on adolescent patient medical records to evaluate the patient’s immunization status. The METRIC® module was used to perform the analysis and determine if there had been an increase in adolescent immunization rates. The sustainability phase (Stage D) began in January 2014 and concluded in January 2015. During the sustainability phase, the practices evaluated their interventions, and again measured a sample of adolescent patient medical records to determine if the interventions and system changes were able to be sustained long term. (Note: The AAFP METRIC® Adolescent Immunization module was only used during the pre-intervention (Stage A) and post-intervention (Stage C) phases.)

In order for the 20 practices to be considered for the AAFP Adolescent Immunization Office Champions Project, they had to agree to the following:

- Physician champion had to complete the AAFP’s METRIC® Adolescent Immunization performance improvement module.
- Physician and office champions had to complete the office champions training program, including a Collaborative Institutional Training Initiative (CITI) course on human research subjects; attend teleconferences; and review a practice manual.
- Physician and/or office champions had to present an overview of the Adolescent Immunization Office Champions Project to the practice’s physicians and staff at a staff meeting in April or May 2013.
- Physician and office champions had to identify and implement system changes to better integrate adolescent immunization activities in the practice’s daily office workflow and create a culture that encourages immunizations.
- Physician and office champions had to allocate adequate time, resources, and support to fulfill the responsibilities of the champion role.
- The 20 practices had to participate in all four phases of the project, including the chart reviews and the surveys.

**Participating Practice Demographics**





## Project Timeline

### August 2012-December 2013 (Year 1)

#### August-November 2012

- Development and administrative work
- Project Planning

#### December 2012-April 2013

- Recruitment and selection of practices
- Preliminary paperwork completed
- Practice and Human Subject (Citi) training
- Materials mailed to selected practices
- Training teleconference held
- Physician or/or office champions completed office assessment survey

#### May-June 2013

- Practices began using the METRIC® Adolescent Immunization module by reviewing adolescent medical records (Stage A)
- Completed baseline chart reviews (Stage A) and submitted action plans
- Phone conferences with the physician and office champions
- First payment to practices for completing training and Stage A of the requirements

#### June-November 2013

- Implementation of practices' action plans and strategies (Stage B)
- Adolescent Immunization resources mailed
- Quarterly conference calls: Topic-Human Papillomavirus (HPV). Presenters: Jamie Loehr, MD, (family physician content expert) and Jill Roark (CDC content expert)
- AAFP Assembly: Office Champions Project presentation by Chris Lupold, MD, FAAFP
- Ongoing staff assistance
- Phone conferences with the physician and/or office champions

#### December 2013

- Implementation of action plans and strategies completed (Stage B)
- Completed post-intervention chart reviews (Stage C)
- Quarterly conference calls: Topic-Influenza. Presenters: Elizabeth Rosenblum, MD, (family physician content expert) and CDC content expert
- Society of Teachers for Family Medicine (STFM) Conference on Practice Improvement: Presented poster on Stage A data and disseminated materials.

**January 2014-December 2014 (Year 2)**January-February 2014

- Sustainability plan implemented (Stage D)
- Evaluation of action plans and system changes assessment
- Ongoing staff assistance

February-June 2014

- Second payment to practices for completing the implementation Stage C of the requirements
- Phone conferences with the physician and/or office champions
- Adolescent Immunization materials and resources mailed
- Ongoing staff assistance

July-December 2014

- Quarterly conference calls: Topic- Human Papillomavirus (HPV) vaccine for males. Presenters: Margot Savoy, MD, (family physician content expert) and CDC content expert
- Society of Teachers for Family Medicine (STFM) Conference on Practice Improvement: Presentation comparing pre-implementation phase (Stage A) and post-implementation phase (Stage C).

**January 2015-August 2015 (Year 3)**January-May 2015

- Sustainability plan (Stage D) completed and evaluated
- Completed sustainability chart reviews
- Third payment to practices for completing the sustainability Stage D of the requirements
- Dissemination of final results

June-September 2015

- AAFP Adolescent Immunization Office Champions summit in Kansas City, MO
- Sharing of best practices/successes with other immunization partners, including CDC staff
- Physician and/or office champions completed office assessment survey
- Distribution of final report
- End of project
- Society of Teachers for Family Medicine (STFM) Conference on Practice Improvement: Presentation of final results (December 2015)

**Project Materials**

Throughout the three years of the project, each practice was sent a variety of immunization resources and materials that consisted of the following:

- AAFP Adolescent Immunization Office Champions Project Practice Manual
- Patient education information from the CDC
- Immunization posters
- AAFP Immunization Office Champions Project tent cards, lanyards, tumblers, and memo cubes
- "Up to Date? Vaccinate!" pens, pencils, and lapel pins
- AAFP/CDC/American Academy of Pediatrics (AAP) Provider Resources for Vaccine Conversations with Parents toolkits
- Laminated recommended childhood, adolescent, and catch-up immunization schedules
- Immunization stickers
- Paul A. Offit, MD, Immunization books (5)
- "Vaccines-Calling the Shot" DVD

**Physician Champions and Office Champions Training**

Physician champions and office champions were required to review the AAFP Adolescent Immunization Office Champions Project Practice Manual. Physician champions were required to complete the AAFP METRIC® Adolescent Immunization module; review and report data from their adolescent patient charts; develop and submit their practice's action plan; and have a meeting with their clinic staff. The 20 practices were required to participate in teleconferences to train and educate them on implementing adolescent immunizations in their practice. During the first teleconference, AAFP staff provided an overview of the project and the METRIC® Adolescent Immunization module, including specifics on how to implement the project and details on expectations and deadlines. The AAFP consulted with advisory members comprised of family physician experts who provided guidance on adolescent issues. The advisory members also assisted with webinars that supported the project. Practices participated in three webinars presented by the following advisory members: Margot Savoy, MD, MPH, FAAFP; Jamie Loehr, MD; and Jill B. Roak, MPH, health communication specialist from the CDC's National Center for Immunization and Respiratory Diseases (NCIRD). They presented on HPV vaccinations for adolescents on two separate occasions. In early December 2013, Elizabeth Rosenblum, MD, presented about reminders and recommendations of the influenza vaccine to adolescents. All three of the webinars ended with a question-and-answer session.

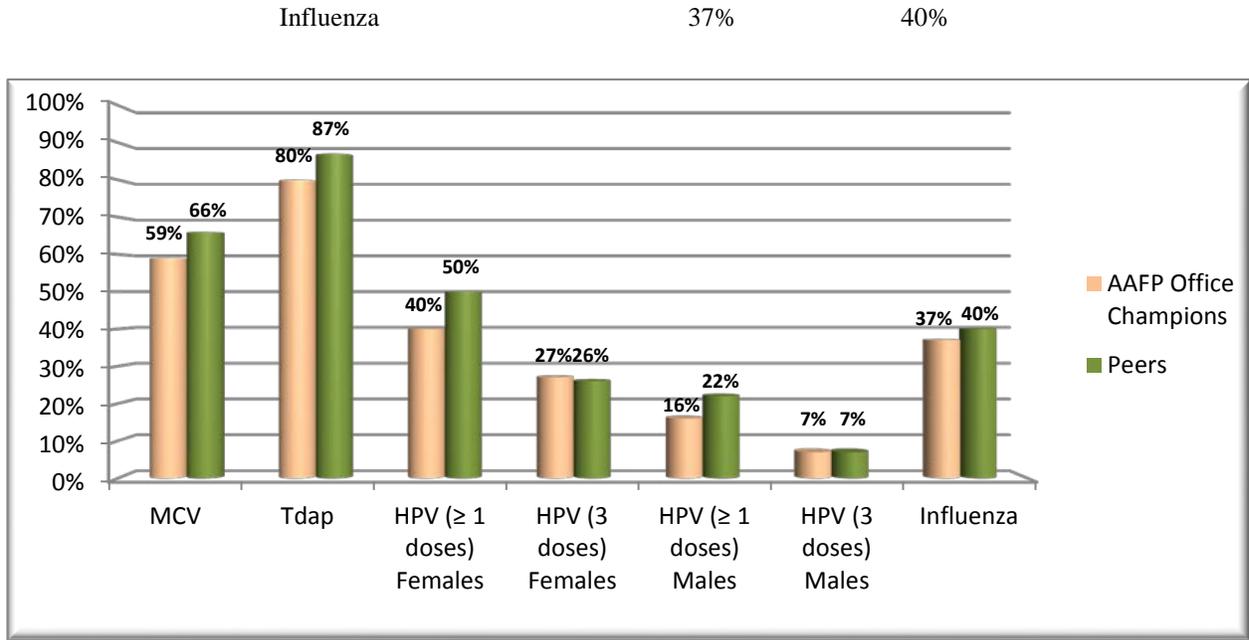
### **Pre-Project Chart Review and Implementation**

The pre-project chart review was completed by June 2013. Physician champions implemented the pre-project chart review during Stage A using the AAFP's Adolescent Immunization METRIC® module. The practices reviewed adolescent patient medical records, which met the inclusion criteria for the project. For each patient chart, the physician champion looked at whether the adolescent had received all immunization for which he or she was eligible. Chart review data was entered into the AAFP's Adolescent Immunization METRIC® module, which calculated immunization rates and comparison benchmarks with peer groups and the CDC's 2013 Teen National Immunization Survey data.

The AAFP's Adolescent Immunization METRIC® module compared the family medicine project teams' percentages against peers of family physicians that also completed Stage A of the AAFP's Adolescent Immunization METRIC® module. The pre-intervention chart review data revealed the following (averages of all 20 project teams):

#### Adolescent Immunization (Stage A Pre-Intervention)

	<u>AAFP Office Champions</u> (All 20 teams)	<u>Peers</u>
MCV	59%	66%
Tdap	80%	87%
HPV Females $\geq$ 1 dose	40%	50%
HPV Females 3 doses	27%	26%
HPV Males $\geq$ 1 dose	16%	22%
HPV Males 3 doses	7%	7%

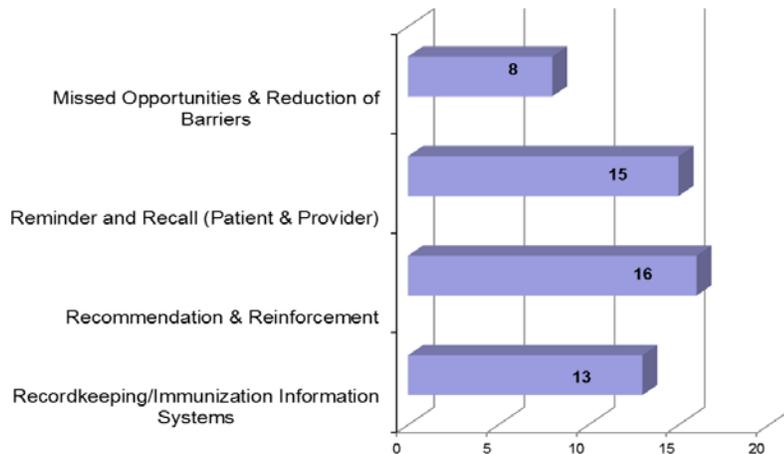


The 20 selected practices were asked to submit their action/implementation plans by July 2013. The Adolescent Immunization METRIC® module provided opportunities for the physician and office champions to learn about potential system changes and performance improvement strategies. The practice manual that was given to the project teams provided additional strategies and concepts for improvements. All 20 practices developed an action/implementation plan to address specific areas for improving adolescent immunization rates. Immunization data from pre-intervention (Stage A) was used as a baseline to inform the practices of the overall improvement process for implementing the intervention strategies.

Practices implemented their system changes (Stage B) between July 2013 and December 2013.

Common themes and strategies of the implementation plans included the following:

- Recordkeeping and immunization information
- Recommendations and reinforcement (strong physician recommendations)
- Reminder and recall (patient and providers)
- Reduction of missed opportunities and reduction of barriers to implementation



■ CDC: Number of Practices that Implemented Strategies (n=20)

- **Recordkeeping and Immunization Information Systems:** Using immunization registries, creating electronic medical records (EMR) alerts when vaccines are due, and utilizing state registries
- **Recommendations and Reinforcement:** Strong recommendations from health care providers for patients to receive the vaccine, and reinforcement of the need to return
- **Reminder and Recall (Patients and Providers):** Specific notification (telephone, email, etc.) to inform why vaccines are due and educational messages to providers regarding the importance of immunizations
- **Reduction of Missed Opportunities and Reduction of Barriers to Immunizations:** Standing orders, extended hours, educating health care providers of vaccine needs

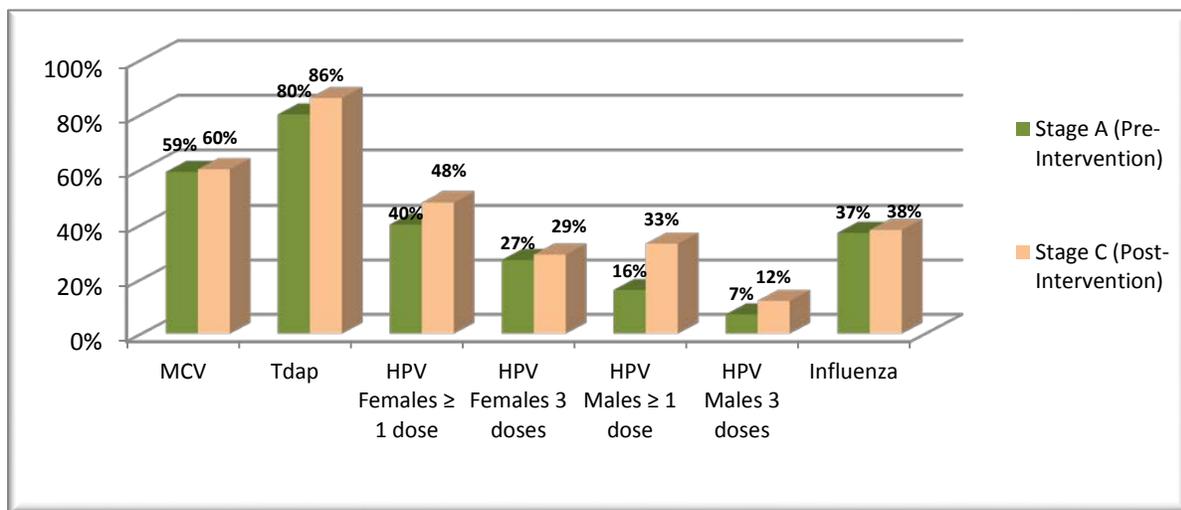
### Post-Project Chart Review

After the implementation of the practices’ system changes and strategies, 19 of the practices completed the post-intervention (Stage C) chart reviews. During Stage C, the practices reviewed adolescent patient medical records and recorded their data in the AAFP’s Adolescent Immunization METRIC® module. The physician champions were asked to follow the same chart review criteria process and answer the same questions as in the pre-project chart review. This reassessment was completed successfully by the practices, and the results identified opportunities for continued performance improvement and sustainment.

During this time, one practice ended their participation due to the practice indicating that they did not have a sufficient number of adolescents 11-13 years of age to meet the project chart review criteria.

### Post-Project Chart Review Results

The post-project chart review analysis from the Adolescent Immunization METRIC® module revealed the following results (average of 19 project teams). Post-intervention (Stage C) data was compared to pre-intervention (Stage A) baseline data.



### Stage A Baseline Results Compared to Stage C Post-Intervention Results

- MCV: Increased 1.70% over baseline
- Tdap: Increased 7.5% over baseline
- HPV Females ( $\geq 1$  dose): Increased 20% over baseline
- HPV Females (3 doses): Increased 7.41% over baseline
- HPV Males ( $\geq 1$  dose): Increased 106% over baseline
- HPV Males (3 doses): Increased 71.43% over baseline
- Influenza: Increased 2.70% over baseline

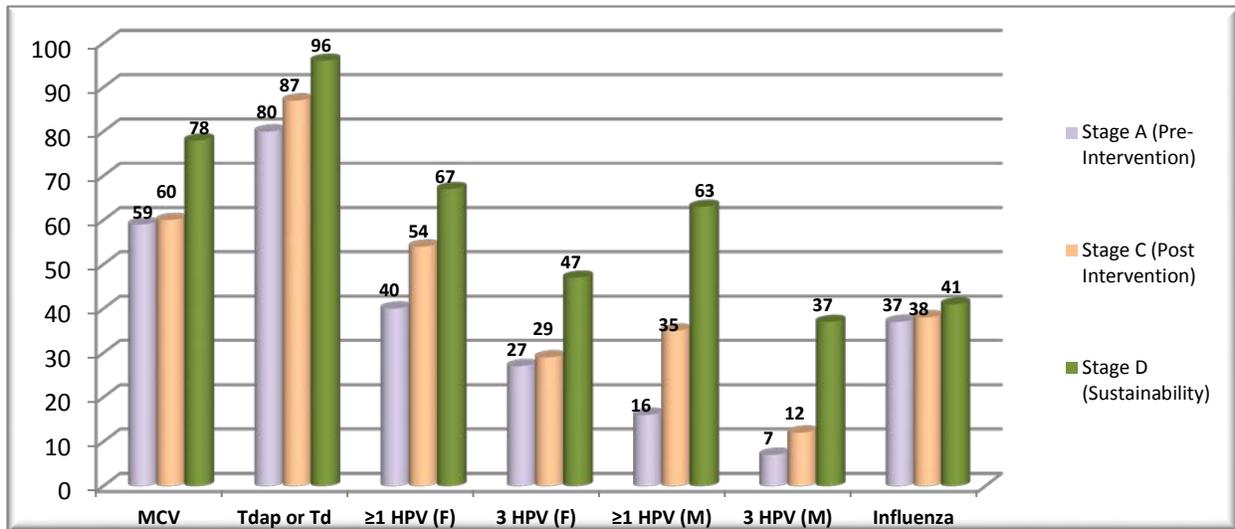
### Sustainability Phase and Program Evaluation

The sustainability phase (Stage D) of the project began January 1, 2014, and continued through January 1, 2015. Eighteen of the 19 practices completed stage D, which included the development of a sustainability plan to monitor the implemented interventions and system changes for 12 months. The purpose of the sustainability phase (Stage D) of the project was to ensure continued improvement within the practice. Specific objectives included:

- Continue buy-in and participation in the monitoring and evaluation of the system changes
- Practices evaluated their action plans, strategies, and interventions frequently
- Practices were able to demonstrate sustained and/or improved their immunization rates
- Practices conducted chart reviews for the third time to again measure and compare their results from pre-intervention (Stage A) and post-intervention (Stage C)
- Data collection tool was used to ensure comparability of the results
- Practices will continue to operationalize their action plans and strategies into their practice

### Sustainability Project Chart Review Results

Following the implementation of the sustainability plan, 18 practices measured for a third time, conducting chart reviews on a sample of adolescent patient medical records. The sustainability project chart review analysis from the data collection tool revealed the following results (average of 18 project teams). Sustainability (Stage D) was compared to post-intervention (Stage C) data, and pre-intervention (Stage A) baseline data.



Vaccines	Stage A (Pre-Intervention)	Stage C (Post-Intervention)	Stage D (Sustainability)
MCV	59%	60%	78%
Tdap or Td	80%	87%	96%

≥1 HPV (Females)	40%	54%	67%
3 HPV (Females)	27%	29%	47%
≥1 HPV (Males)	16%	35%	63%
3 HPV (Males)	7%	12%	37%
Influenza	37%	38%	41%

*"My practice still needs a better plan to administer influenza vaccines in the practice to adolescents, and determine if the vaccine was given elsewhere."*  
- 2013 to 2015 Adolescent Immunization Office Champions Project participant

### Adolescent Immunization Office Champions Conference

The AAFP held an education summit with the Adolescent Immunization Office Champions Project teams. Each of the physician and office champions were invited to attend the conference held June 13-14, 2015, in Kansas City, Missouri. Nine family physician champions and two office champions were able to attend the conference. In conjunction with the project teams, the conference attendees included two of the advisory members, two CDC staff, and internal AAFP staff (Practice Advancement, Government Relations, Strategic Partnerships, and Communications). The focus of the conference was to discuss and present on lessons learned, barriers, and successes.

Each practice was given the opportunity to present on their system changes and results. Some of the challenges and barriers highlighted by the practices were parents frequently declining the HPV vaccines for their adolescents, and incomplete vaccination records. The practices also shared some of the successes that occurred when implementing their system changes. Some practices noted that staff became more knowledgeable about the importance of vaccines and became comfortable recommending and promoting them. The practices were able to reduce missed opportunities by educating parents and patients on why vaccines are necessary.

During the course of the meeting, the attendees participated in group discussions about certain themes and how to improve those areas within family medicine. After the theme discussions, the participants suggested the following actions:

- Strong Recommendation
  - When family physicians are recommending vaccines, they need to inform the parents and patients that vaccines are needed today, and not make the statement a question or option.
  - It was suggested that family physicians need to require that all of the mandated adolescent vaccines be given, and not divert from the requirements because science has proven vaccines are safe.
  - It was suggested that a lead physician in the practice should remind other medical staff seeing patients to give a strong recommendation, and the recommendation should be delivered with confidence and conviction.
- Immunization Registries
  - When a patient relocates it would be a benefit to have a national vaccine registry.
  - There needs to be national standard, which requires health care providers (e.g. pharmacies, health departments, etc.) to enter vaccination information into their state or local immunization registry.

- Vaccine Hesitancy
  - When parents are hesitant, the family physician should find ways to breakthrough with the right argument for vaccination instead of quoting numbers/statistics.
  - If family physicians want to increase vaccination rates, they need to keep talking about them to parents and their patients.
  - Family physicians should consider adding personal stories and recommendations from their own family/children as part of the discussion.
- The Immunization Schedules
  - Family physicians would benefit if there was a "catch-up" schedule generator included in the AAFP's and CDC's immunization applets.
  - It was recommended that AAFP partner with interscholastic organizations to promote messaging on immunizations during sport physicals.

At the conclusion of the Adolescent Immunization Office Champions summit, a survey was provided to the participants and the overall responses of the conference were positive and helpful to AAFP staff.



*"I enjoyed hearing what the other clinics were doing to promote preventive care and ways I can add their tools to my clinic."*

- Adolescent Immunization Office Champions Project conference participant

### **Adolescent Immunization Office Champions Project Evaluation**

Eighteen of the 20 practices completed the project and received their administrative payments, resources, and recognition certificates. Qualitative and quantitative data was collected to evaluate the project outcomes, materials, sustainability, and the level of success for system changes implemented within the practice.

### **Online Pre- and Post-Project Survey**

In May 2013 and August 2015, physician champions were asked to complete an online practice survey to evaluate the overall effectiveness and sustainability of the Adolescent Immunization Office Champion Project. Twenty practices completed the pre-project survey, and eleven practices completed the post-project survey. The answers were compared and reviewed for statistically significant changes using paired samples t-test ( $P < .05$ ). The results were statistically significant.

Do you currently use standing orders (which allow non-physician clinical personnel to administer immunizations to patients without direct physician involvement at the time of the visit) in your office for adolescents?

Standing Orders	Pre-Project Survey	Post-Project Survey
Yes	40%	64%
No	60%	36%
Don't Know	0%	0%

In all exam rooms, do you post the current U.S. recommended immunization schedules?

Immunization Schedules	Pre-Project Survey	Post-Project Survey
Yes	5%	27%
No	95%	73%
Don't Know	0%	0%

Are your nursing and office staff trained to know how to determine valid and invalid contraindications to vaccinations, such as minimum intervals permissible between vaccinations?

Training	Pre-Project Survey	Post-Project Survey
Yes	65%	73%
No	25%	27%
Don't Know	10%	0%

Do you have a reminder and recall system in your practice to contact all patients who are due for vaccinations?

Reminder & Recall	Pre-Project Survey	Post-Project Survey
Yes	25%	73%
No	70%	27%
Don't Know	5%	0%

Prior to patient visits, does someone in your practice review the immunization records for each patient and flag charts of those who are due or overdue?

<b>Review immunization records</b>	<b>Pre-Project Survey</b>	<b>Post-Project Survey</b>
Yes	35%	73%
No	60%	27%
Don't Know	0%	0%

How comfortable does office staff feel discussing vaccine safety concerns with patients/parents?

**Pre-Project Survey**

Very Comfortable	0%
Comfortable	55%
Not very comfortable	45%
Not at all comfortable	0%

**Post-Project Survey**

Very Comfortable	36%
Comfortable	46%
Not very comfortable	18%
Not at all comfortable	0%

In your practice, how would you rate parents' acceptance to the following immunizations?

**Pre-Project Survey**

	Accept	Somewhat accept	Do not accept	Unsure
HPV for Females-Quadrivalent Human Papillomavirus (Gardasil® and/or Cervarix®)	50%	50%	0%	0%
HPV for Males-Quadrivalent Human Papillomavirus (Gardasil® and/or Cervarix®)	15%	65%	15%	5%
Tdap-Tetanus, diphtheria, pertussis (Adacel™ and/or Boostrix®)	100%	0%	0%	0%
Meningococcal (Menactra®, Menomune®, Menveo®)	75%	25%	0%	0%
Influenza (Afluria®, Agriflu®,	40%	60%	0%	0%

Fluarix®, Fluvirin®, Fluzone®, FluLaval®, FluMist®)				
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**Post-Project Survey**

	Accept	Somewhat accept	Do not accept	Unsure
HPV for Females-Quadrivalent Human Papillomavirus (Gardasil® and/or Cervarix®)	36%	64%	0%	0%
HPV for Males-Quadrivalent Human Papillomavirus (Gardasil® and/or Cervarix®)	9%	82%	0%	9%
Tdap-Tetanus, diphtheria, pertussis (Adacel™ and/or Boostrix®)	91%	0%	0%	9%
Meningococcal (Menactra®, Menomune®, Menveo®)	91%	9%	0%	0%
Influenza (Afluria®, Agriflu®, Fluarix®, Fluvirin®, Fluzone®, FluLaval®, FluMist®)	55%	46%	0%	0%

**Practice Recognition**

Recognition items, as described in the application, were mailed to all of the participating practices that completed the Adolescent Immunization Office Champions Project. A presentation of the final results and a list of the selected practices will be presented and distributed at the 2015 Society of Teachers of Family Medicine (STFM) Conference on Practice Improvement. Participating practices have been encouraged to disseminate their project results in their local communities, state chapters and other venues, such as their local news and patient newsletters.

**Limitations**

Listed below are some limitations that may have affected results of the pre-intervention, post-intervention, and sustainability chart reviews:

- Information technology (IT) issues occurred within the AAFP METRIC® Adolescent Immunization module, which may have caused difficulty when chart review data was entered into the module.
- HPV for males was a newly approved recommendation during the pre-intervention chart review criteria timeline.
- The chart review requirements were difficult for some of the practices because they didn't have enough 13-year-old adolescents who fit the chart eligibility criteria.
- Two practices withdrew from the project. One practice withdrew during the post-intervention phase and the second practice during the sustainability phase.

### Dissemination Activities

The AAFP Adolescent Immunization Office Champions Project results will be disseminated to AAFP members to facilitate adoption of key immunization strategies for increasing adolescent immunization rates. The AAFP will take advantage of appropriate communication channels for reporting lessons learned, barriers, and successes to key audiences.

Preliminary pre-intervention (Stage A) project results were presented as a poster at the STFM Conference on Practice Improvement in November 2013. A roundtable panel discussion occurred during the conference, which the preliminary results were highlighted and key improvement strategies were shared. The AAFP also conducted a lecture presentation at the STFM Conference on Practice Improvement held December 4 to 7, 2014, and strategies and lessons learned from this project were included in a presentation at the 2014 National Immunization Conference held September 29 to 30, 2014.

The final project results from all phases of the project will be disseminated via AAFP communication channels, such as the electronic news publication (AFP News), the chapter executive listserv and newsletter, and the AAFP's social medial channels. Also, the AAFP will conduct another lecture presentation of the final results December 3 to 6, 2015, at the 2015 STFM Conference on Practice Improvement.

### Summary of Key Findings

The sustainability project chart review data for adolescent immunizations revealed an increase over baseline (Stage A) and post-intervention (Stage C) results among all vaccines given to adolescents 11 to 12 years of age. Listed below are the project results that have occurred over baseline and the post-intervention phases:

#### Stage C Post-Intervention Results Compared to Stage D Sustainability Results

- MCV: Increased 30% over post-intervention
- Tdap: Increased 10% over post-intervention
- HPV Females ( $\geq 1$  dose): Increased 24% over post-intervention
- HPV Females (3 doses): Increased 62% over post-intervention
- HPV Males ( $\geq 1$  dose): Increased 80% over post-intervention
- HPV Males (3 doses): Increased 208% over post-intervention
- Influenza: Increased 8% over post-intervention

#### Stage A Pre-Intervention (Baseline) Results Compared to Stage D Sustainability Results

- MCV: Increased 32% over baseline
- Tdap: Increased 20% over baseline
- HPV Females ( $\geq 1$  dose): Increased 68% over baseline
- HPV Females (3 doses): Increased 74% over baseline
- HPV Males ( $\geq 1$  dose): Increased 294% over baseline
- HPV Males (3 doses): Increased 429% over baseline
- Influenza: Increased 11% over baseline

As noted by increases in the project adolescent immunization rates, the Adolescent Immunization Office Champions data suggest that the AAFP's METRIC® Adolescent Immunization module and strategies to create system changes played a key role in affecting changes in the practices' adolescent immunization rates for their patients.

In addition to the 20 practices conducting a quality improvement project utilizing the AAFP's METRIC® Adolescent Immunization module, qualitative survey data indicates that physicians and practice staff were significantly more comfortable discussing vaccine concerns with patients and understanding the contraindications for specific vaccine administrations. Parental and patient vaccine hesitancy continues to be a factor in the acceptance of vaccines, and family physicians play an important role in discussing the benefits and risks of immunizations. The physicians' strong recommendation for immunizations to parents/patients was a primary focus in the learning community interactions among the project champions and the advisory group of family physician experts. The AAFP/CDC/AAP Provider Resources for Vaccine Conversations with Parents toolkit provided excellent resources for understanding concepts related to communicating the benefits and risks of immunizations. Using standing orders and reminder/recall systems, and posting the recommended immunization schedules in patient exam rooms were also important interventions that were implemented and helped to achieve successful outcomes.

Data from this project indicate the following tools were considered most helpful:

- AAFP Adolescent Immunization Office Champions Project Practice Manual
- Laminated recommended childhood, adolescent, and catch-up immunization schedules
- AAFP/CDC/AAP Provider Resources for Vaccine Conversations with Parents toolkit

### Next Steps

The final project report and materials will be posted on AAFP.org for dissemination to family medicine practices nationwide. Future efforts will seek to obtain funding for using the Office Champions Project model to increase immunization rates and other clinical preventive services across the patient's lifespan. This model of performance improvement has been shown to be effective and will also be utilized for other population health activities.

The AAFP staff will work with some of the family physician champions to submit an article to the journal *Family Practice Management* (FPM) about the barriers and successes of implementing the AAFP Adolescent Immunization Office Champions Project into their practice.

Submitted by:

AAFP Adolescent Immunization Office Champions Project Team