



Adolescent Immunization Resource Guide



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Managers

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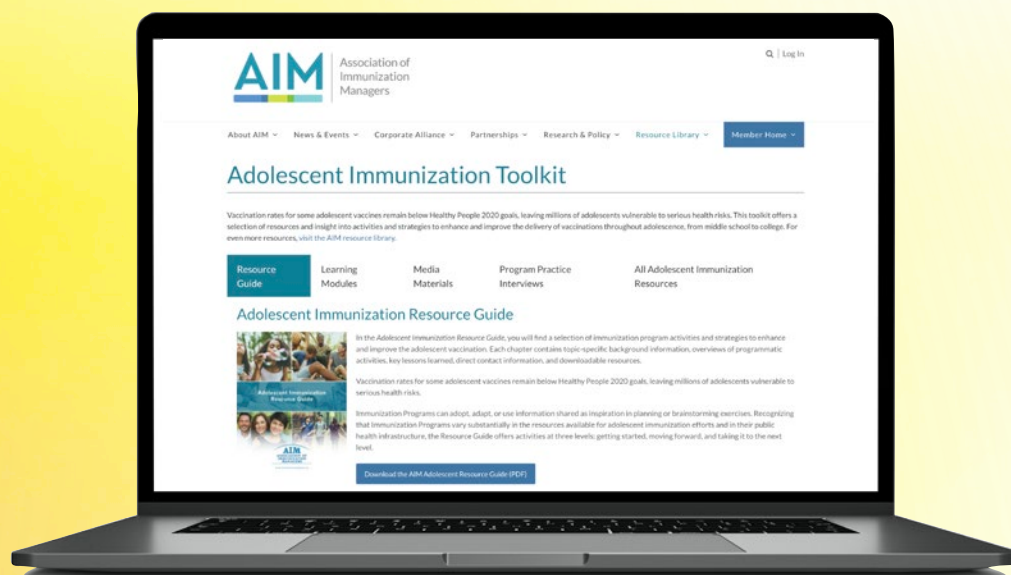
“The collection of strategies documented in this resource guide show that where there is a will, there is a way. We hope this guide will increase programmatic activity even higher to raise adolescent immunization coverage rates and reduce preventable disease in adolescents.”

— Claire Hannan, *AIM Executive Director*

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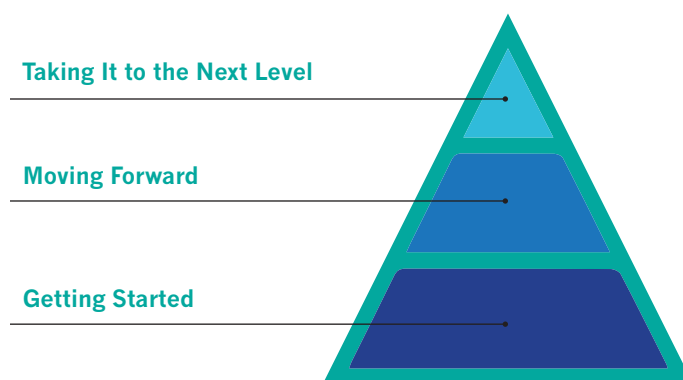
Resource
Library

Check back frequently as we are working to include the latest resources to enhance and improve the delivery of vaccinations throughout adolescence, from middle school to college.

Introduction

Vaccination is an essential part of keeping preteens and teens healthy and protected from serious diseases. However, some adolescent vaccination rates remain below Healthy People 2020 goals, leaving millions of adolescents vulnerable to serious health risks. As a result, Immunization Programs face substantial challenges as they work to develop and implement strategies to strengthen adolescent immunization delivery in their states, cities, and territories.

The AIM Adolescent Immunization Resource Guide characterizes a selection of the varied activities and strategies that Immunization Programs have employed to enhance and improve the delivery of immunizations to adolescents. These featured activities offer a menu of adolescent-focused strategies that Immunization Programs can adopt, adapt, or use as inspiration in planning or brainstorming exercises. Recognizing that Immunization Programs vary substantially in the resources available for adolescent immunization efforts and in their public health infrastructure, the resource guide offers activities at three levels:



- ◆ **GETTING STARTED** activities are generally targeted to a narrow purpose and require minimal immunization program staffing, funding, or infrastructure.
- ◆ **MOVING FORWARD** activities are more expansive in their purpose and scope, often leverage relationships with partner organizations, and require some staffing support and/or dedicated funds.
- ◆ **TAKING IT TO THE NEXT LEVEL** activities have greater complexity, build on earlier efforts and/or leverage existing infrastructure, often include multiple partners, and require considerable staffing and funding.

Beyond offering a plethora of ideas to consider, the activities featured in this Resource Guide also reflect lessons in leadership — the approaches used by Immunization Program Managers to move from the shaping of ideas and opportunities to tangible action. For many of the featured activities, the leadership of the Immunization Program Managers created a climate and programmatic perspective that allowed ideas and partnerships to flourish. Key aspects of program leadership include the following:

- ◆ **CHARTING THE COURSE** – Prioritizing adolescent immunization to reach new providers and venues, understanding different systems and policies, and establishing new partnerships. The magnitude of the task can feel overwhelming. Leadership is essential to help program staff recognize internal strengths and resources and begin a long-term process of planning, implementing, and refining a series of adolescent immunization strategies.
- ◆ **IDENTIFYING INITIATORS** – Opportunities to expand adolescent immunization activities arise in many forms: a policy change related to supporting school-based vaccinations, funding announcements that could support a new idea or a motivated provider interested in promoting immunization among peers. Leadership recognizes initiators and begins the discussion of how best to take advantage of new opportunities.
- ◆ **KEEPING SIMPLE THINGS SIMPLE** – Several featured strategies emanated from program staff identifying repeated requests for clarification and information. Transforming technical information into simple, clear, and accurate communication tools allows programs to meet the needs of providers in an efficient manner.
- ◆ **DRAWING ON PERSONAL RELATIONSHIPS** – Many of the featured strategies were derived from personal connections, both within government and through partner organizations. Leadership encourages Immunization Program staff to develop personal relationships within and outside the program, and to draw upon those relationships to support adolescent immunization activities.
- ◆ **FINDING THE WIN-WIN** – By encouraging and prioritizing the development of strategies to facilitate provider compliance with concurrent initiatives such as Medicaid and insurer quality improvement initiatives, Immunization Program leadership creates “win-win” opportunities for providers to benefit from their expanded involvement in the VFC program and immunization information systems.
- ◆ **SUPPORTING THE EFFORTS OF PARTNERS** – Working with partners can present challenges related to differing priorities, messages, and expertise. Leadership bridges those gaps through consistent opportunities for communication between program staff and partners, and sufficient technical support from the program for partner activities.
- ◆ **BEING REALISTIC** – Planning, implementing, and evaluating new activities can be daunting. Leadership facilitates this process by encouraging staff to work through imperfect conditions, establishing realistic goals for participation or impact, and debriefing with staff to expand successes and mitigate weaknesses.

In alignment with the AIM Leadership Institute, AIM offers this Resource Guide as a way for Immunization Programs to learn and grow from their collective experiences while utilizing leadership principles as they promote adolescent immunization.

How to Use This Guide

The AIM Adolescent Immunization Resource Guide contains descriptions of and lessons learned from adolescent immunization activities in selected Immunization Programs that were gathered starting in December 2016. The Resource Guide provides a snapshot of these efforts and serves as a guide for Immunization Program Managers to generate ideas and inform management strategies for promoting adolescent vaccinations across the nation and territories. The Adolescent Immunization Resource Guide covers the following topics, each with its own dedicated chapter:

Reach Teens Via School-Related Efforts	Engaging Teens Directly	Engaging Stakeholders
Inform and Educate Providers	Recommendations and Requirements	Engaging Parents
Immunization Information Systems	The Role of Pharmacies	Improving Clinical Practice

Each chapter first provides topic-specific background information, including relevant national standards and an overview of related programmatic activity across all Immunization Programs. Next are the detailed narratives of three adult immunization related activities, one for each level of engagement (Getting Started, Moving Forward, and Taking It to the Next Level). Each activity summary includes lessons learned, relevant resources used or created by the Immunization Program, and who to contact for more information. Throughout the Resource Guide, call-out boxes, charts, maps, and figures are displayed to share additional information on programmatic activities and the adolescent immunization landscape.

An online version of this guide is available at www.immunizationmanagers.org/AdolGuide. Users can download and print single chapters.

About This Guide

This Resource Guide was made possible through support from Sanofi Pasteur. It was prepared by AIM staff Katelyn Wells, PhD in collaboration with Sarah Clark, MPH and Anne Cowan, MPH from the Child Health Evaluation and Research (CHEAR) Center of the University of Michigan. The Immunization Program narratives are based on interviews starting in December 2016. The Resource Guide was released chapter by chapter starting in 2017 through 2019. Upon release of the final version of the guide in 2022, chapter links and resources were updated; however, the immunization program narratives remain as the original version.

The authors would like to thank the AIM members and partner workgroup participants who provided expert guidance into the content and format of the guide.

We are also grateful to the many Immunization Program managers and staff who took time out of their busy schedules to participate in online surveys and telephone interviews to help us better understand strategies and lessons learned for promoting adolescent immunization.

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Adolescent Immunization Resource Guide

Sharing what works. Achieving goals. Developing healthy communities.

Reach Teens via School-Related Efforts

CHAPTER 1



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Introduction

Targeting teenagers to receive vaccinations and/or vaccination information in school provides an opportunity to reach a broad swath of teens from all walks of life. American teenagers spend nearly 33 hours on average each week in school or in extra-curricular school activities such as sports teams or student organizations¹. Schools are an opportune place to reach the approximately 52 million children from all cultural, socioeconomic, and age groups who attend each day as well as being a familiar and trusted community environment². Other benefits of targeting teens in schools are: schools may have the space and capacity to host a school-located vaccination clinic and school nurses are trusted sources of health information for students and their families.

Guidance from the National Vaccine Plan³ calls for enhancing access to vaccinations in non-healthcare settings, such as schools. The Community Preventive Services Task Force recommends school-located vaccination programs for increasing vaccination rates and decreasing rates of vaccine-preventable disease and associated morbidity and mortality⁴.

Immunization Programs are involved in a wide range of efforts to reach teens in schools, such as making school coverage reports more accessible, targeting high school athletes, engaging with school-based health centers, and conducting school-located immunization clinics. The activities highlighted here related to targeting teens in school are:

- ◆ *Getting Started:* Updating vaccine language on high school sports physical form (Minnesota)
- ◆ *Moving Forward:* Helping schools fulfill state recordkeeping and reporting requirements (Alabama)
- ◆ *Taking It to the Next Level:* Immunizing students in school-located clinics during school hours (Rhode Island)



How Immunization Programs (IP) Support Targeting Teens in Schools (2016)



31

IP engage with the Department of Education to increase HPV vaccination rates



31

IP provide schools with education and resources about older adolescents (16-18 yrs.)



27

IP promote school clinics at high schools



25

IP provide adolescent coverage rates and/or exemption reports to the Department of Education

*Data from 2016 AIM Annual Survey, 61 of 64 Immunization Programs responded to survey

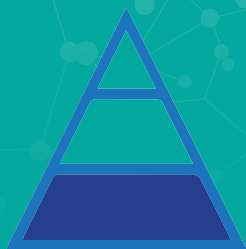
Resources for Reaching Teens via School-Related Efforts

Many organizations provide tips and tools for targeting teens in schools, including:

- National Association of School Nurses resources, including letters for parents/guardians with immunization information, a position statement on immunizations, and information on school-located vaccination:
<http://www.nasn.org/toolsResources/immunizations>
- American School Health Association resource *Give It a Shot: Toolkit for Nurses and Other Immunization Champions Working with Secondary Schools*:
<http://files.eric.ed.gov/fulltext/ED501888.pdf>
- Centers for Disease Control and Prevention webpage on flu information for schools:
<https://www.cdc.gov/flu/school/index.htm>
- Centers for Disease Control and Prevention webpage on vaccination rates and other information for school administrators and nurses:
<https://www.cdc.gov/vaccines/imz-managers/coverage/schoolvaxview/groups/school.html>
- Voices of Meningitis links specifically for nurses:
<http://www.voicesofmeningitis.org/resources-for-nurses.html>
- National Association of School Nurses position statement on school-located vaccination clinics:
<https://www.nasn.org/advocacy/professional-practice-documents/position-statements/ps-slv>
- National Education Association toolkit *Advocacy for Vaccines: A Leadership Guide for School Nurses and Allied Health Professionals*:
https://immunizenevada.org/sites/default/files/Advocacy/hin-toolkit-med1510_11-2.pdf



National Association of School Nurses toolkit *Fighting the Flu Happens at School*:
<https://www.nasn.org/programs/educational-initiatives/keep-flu-out-of-school>



Getting Started

Program: Minnesota

Activity: Updating vaccine language on high school sports physical form

Overview of activity

The Minnesota Immunization Program worked with the Minnesota State High School League to update language related to vaccines on their standard pre-participation sports physical examination form.

Ages targeted

Students in grades 7-12 who participate in school-based athletic activities.

Background/impetus for the activity

In Minnesota, any student in grades 7-12 participating in school-based sports must have documentation on file with his/her school of a physical examination done within the past three years. The Minnesota State High School League (MSHSL), a voluntary association of public and private schools that supports interscholastic athletic and fine arts programs, provides a standardized form for sport physicals that schools can make available to parents. For the 2015-16 school year, MSHSL-sponsored activities involved 525 member schools and over 300,000 students, a portion of which would be completing the physical form on a 3-year cycle.

The 3-page physical form includes two areas that address immunizations. These sections would typically be completed by a healthcare provider. Updating the immunization sections of the sports physical form was one of many ideas generated by a workgroup of diverse stakeholders, formed through the Minnesota Immunization Practices Advisory Committee (MIPAC), that was focused on ways to improve adolescent immunization rates.

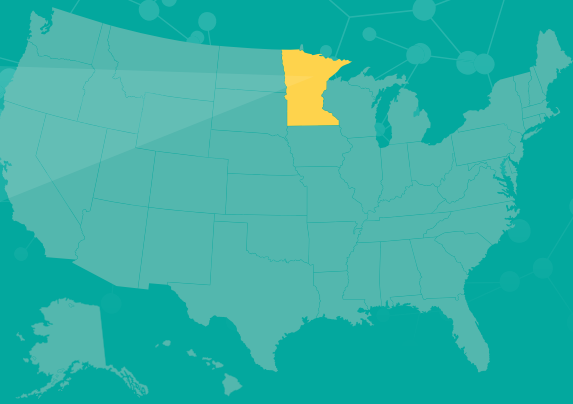
Description of activity

Several years ago, the adolescent immunization coordinator initiated contact with MSHSL's Medical Director to discuss potential changes to the immunization sections of the form. At the time, the form did not list all of the vaccines recommended for adolescents, and among those listed, it made a distinction between vaccines that were required for school and those that were simply recommended.

To implement changes, the coordinator worked with an MSHSL Associate Director. The language was initially changed to add MCV4 and HPV to the list of vaccines, and was subsequently changed to remove the distinction between recommended and required vaccines.

Role of Immunization Program and other agencies/groups involved

The Minnesota Immunization Program worked with the MSHSL to periodically update the immunization language on the form. The MSHSL reviews and updates the form annually and promotes its use statewide. Language changes must be approved by an MSHSL committee.



Dissemination

The MSHSL promotes use of the form among its member schools. The MSHSL website is public, and non-member schools can use the form as a template.

Intersection with other program activities

Although not the main purpose of this form, school nurses have noted that they use the form as a last resort to collect general vaccination information for students who have not turned in immunization records to school or have data missing in the state's immunization information system. However, because the form does not record detailed immunization data (i.e., provides checkboxes rather than space to record vaccine administration dates), the forms cannot be used to update students' immunization records.

Funding

Funding for this activity, which covers the staff time to coordinate with MSHSL, comes out of the Immunization Program's regular CDC immunization cooperative agreement.

Staffing

The adolescent immunization coordinator is the main Immunization Program staff person involved in this activity, which is incorporated into the coordinator's regular responsibilities.

Implementation status

The Immunization Program will revisit the form with MSHSL as needed when recommendations change (as they recently have with the HPV recommendation changing from 3 doses to 2 doses).

Successes

- The form now specifically identifies vaccines that are recommended across the adolescent years. Many families will interact with a healthcare provider to get this form completed during the middle and high school years, typically in 7th and 10th grades. It is one more way to bring attention to adolescent immunizations among families and providers.
- This form is also available to parents of homeschooled children who participate in extracurricular sport activities, which helps to raise awareness of immunization requirements among a population that is typically hard to reach with this information.
- Keys to success included creating a mockup of the form to show MSHSL exactly how the Immunization Program wanted the form to change and being persistent with follow-up.

Challenges

- The impact of the form on the immunization status of student athletes cannot be readily gauged. Schools do not have to use the MSHSL form, though according to the school health consultant for the Minnesota Department of Health, it is widely used by schools throughout the state.

- School nurses have expressed the concern that the checkbox format may collect less accurate data (i.e., more susceptible to being checked without verification) than if the form asked for actual vaccination dates.

Other lessons learned/Advice to other programs

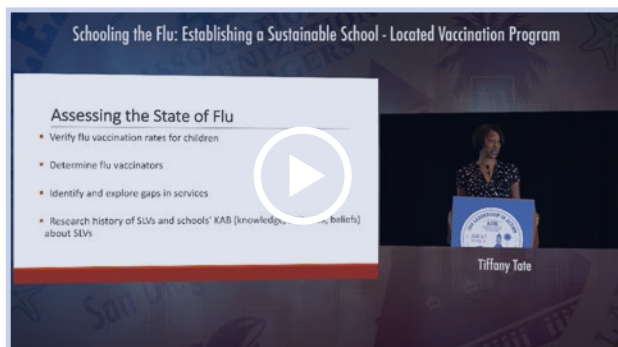
- Having a diverse group of stakeholders involved in generating ideas for addressing adolescent immunization can help immunization programs think “outside the box.” Making the change to this form is not something that the Immunization Program would likely have thought of on its own.
- Incremental improvements can be a valuable goal of immunization activities. The form is very dense and hard to read, and there are tight space constraints that limit the extent to which the Immunization Program can request changes. The current form is not ideal, but it is better than it was.
- Other immunization programs could consider requesting that vaccine administered dates be recorded on school physical forms rather than simple checkboxes, if possible.

Relevant resources

- MSHSL sports physical form:
<http://www.mshsl.org/mshsl/publications/code/forms/PhysicalExam.pdf?ne=5>

For more information

Minnesota Department of Public Health
Infectious Disease Epidemiology, Prevention and Control Division
(651) 201-5503



Visit immunizationmanagers.org/adolescents and select “Learning Modules”

Adolescent Learning Modules



Watch three short learning modules on developing a sustainable school-located vaccination (SLV) program, use of an application for electronic consent forms, and the immunization program perspective of valuable partnerships for SLV. Tiffany Tate of the Maryland Partnership for Prevention shares the benefits of establishing a school-located vaccination program, the keys to sustaining programs, tips for implementation—from billing to recruiting staff, and how to approach challenges with consent forms. Greg Reed with the Maryland Immunization Program shares the value of partnerships in establishing school-located vaccination programs and how to establish and maintain those partnerships.

“We engaged local health departments to provide adolescent vaccines during school clinics, which we feel is the most successful, as it directly gets vaccines into the patients.”

— John Joseph, *Ohio Immunization Program Manager*

Immunization Program Highlights



Moving Forward

Program: Alabama

Activity: Helping schools fulfill state recordkeeping and reporting requirements

Overview of activity

The Alabama Department of Public Health (ADPH) partnered with the Alabama State Department of Education (ALSDE) to give public schools the ability to print valid Certificates of Immunization for their students directly from the state immunization information system (IIS).

Ages targeted

This activity currently covers public school students in grades K-12.

Background/impetus for the activity

Alabama state law requires that every student have on file at his/her school a valid Certificate of Immunization (COI) documenting receipt of vaccines required for school entry (or an exemption form). Schools submit an annual School Entry Survey every fall in which they record for each grade K-12 the number of students with valid, invalid, and missing COIs, as well as exemptions. Based on data from the 2015-2016 School Entry survey, about 5% of all students (in public and private schools) had expired or missing COIs, with a wide range across individual schools. In January 2016, ADPH and ALSDE announced measures to help increase the number of children with valid COIs on file and improve the efficiency of the COI and reporting processes for schools.

Description of activity

ADPH is giving schools more access to the statewide IIS (i.e., Immunization Patients Resources with Integrated Technology, or ImmPRINT) to facilitate these improvements. Changes that ADPH has made include:

- A COI printed directly from ImmPRINT is the only department approved COI form. The COI was typically a paper form that parents submitted to their child's school. Screenshots or lookalike forms printed from electronic health records (EHRs) had been accepted previously, but are no longer allowable. Provider EHRs must use ImmPRINT, COI web service, or have an HL7 bidirectional interface with ImmPRINT.
- The COI form previously had to be printed on state-supplied, watermarked blue paper. The blue paper requirement is being phased out as inventory is depleted; the forms can now be printed on any regular paper.
- A school nurse access level was already available in ImmPRINT. To use ImmPRINT for generating COIs, a field was added to record a child's grade level. The COI template was added, with an expiration date that auto-populates with the date of the next required vaccine dose. In addition, a "Not Up to Date" report was added that school nurses can print.
- Nurses at public schools with existing access to ImmPRINT can print COIs directly from ImmPRINT for children who are up to date on their vaccines. School nurses can also print the Vaccine Forecaster and a Patient/Parent Card for students to take home for parent review. They also have the option of entering historical data and were given the ability to report duplicate patients.



- For the annual School Entry Survey that schools must submit every fall, ADPH is planning to transition away from collecting these data via an online survey to using data already available in ImmPRINT. For schools to take advantage of this, school nurses must log in to ImmPRINT to enter the school assignment for all of their students, and enter exemption information and historical data if known. This also would reduce double entry with ALSDE's own system for collecting immunization information; they have agreed to use ImmPRINT as the source of immunization data.

Role of Immunization Program and other agencies/groups involved

The ADPH Immunization Program meets regularly with ALSDE's State Nurse Administrator and two Nurse Managers to discuss and disseminate these changes. ADPH was responsible for making the necessary changes to ImmPRINT. ADPH field staff were trained to train lead school nurses (who are at the school system, city, or county level) on using ImmPRINT, who then are responsible for training individual schools' nurses.

Dissemination

Both the ADPH and ALSDE communicated these changes to city and county superintendents of education. The Immunization Program regularly communicates with ALSDE's nursing administrators, and they communicate with their local nurses. ADPH has spoken at the annual school nurse conference. ADPH regional field staff lead training for school nurses on using ImmPRINT.

Intersection with other program activities

Concurrent with this activity, ADPH worked to communicate with stakeholders that HIPAA allows the exchange of patient information for public health activities, including via ImmPRINT. Also, this work overlaps with ADPH's efforts to encourage healthcare providers with EHRs to report via an HL7 bidirectional interface.

Funding

The work done by the Immunization Program, including changes to their IIS, have been funded through the standard cooperative agreement with CDC.

Staffing

The Immunization Program Manager, Registry Branch Manager, and Data Quality and Surveillance Branch Manager interact with the ALSDE nurse administrators. The ADPH's 25 field staff, who also do VFC and AFIX visits, train local nurses on using ImmPRINT.

Implementation status

These changes are a work in progress for public schools. Future expansions are planned to cover K-12 students in private schools, children attending licensed day care facilities, and college-enrolled students.



Successes

- A selling point for school nurses is that they no longer need to communicate repeatedly with parents about bringing in a piece of paper.
- Once fully established, fulfilling annual immunization reporting to ADPH should be much easier for schools.
- The data that school nurses have should more accurately reflect the immunization status of their students, though it is too early to determine the impact on data quality.
- The switch from paper forms to ImmPRINT should provide an easier way for schools to track compliance with new or existing school immunization requirements. For example, middle school students are required to have a Tdap vaccine (6th grade) and a second varicella dose (if older than 13 years). The 2015-2016 School Entry Survey requested that schools record the number of students up to date on tetanus, diphtheria, and pertussis vaccines, which at the time meant reviewing this information on each individual COI.

Challenges

- Communication with ALDSE's nurse administrators can be challenging. They travel frequently so it can be difficult to maintain regular communication. Also, at times ALDSE may change things based on feedback from nurses in the field without first communicating the issues to ADPH. To improve this process, ADPH feels it should better document their meetings and decisions made (e.g., circulate meeting notes and relevant action items for approval).
- To be able to use ImmPRINT data for the annual School Entry Survey, schools must first set up some things in ImmPRINT (e.g., assign all of their students to the school, enter exemption status and grade), which can be burdensome particularly for larger schools. To reduce the burden, the state can help with ImmPRINT school assignments; schools can give an electronic list of students to ADPH with a few other fields and the state can make assignments electronically for those kids that match on those fields. In recent attempts, ADPH has gotten ~75% match, so those schools have to do manual assignments for only 25% of their students.
- Going forward, a challenge related to private schools is determining who should have ImmPRINT access if they have no medical staff. ADPH will likely restrict access to view and print only (no entering of historical data) if they do not have medical staff.

Other lessons learned/Advice to other programs

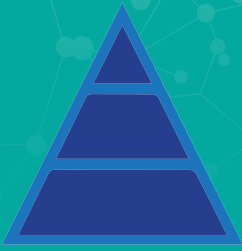
- Public schools already had view access to ImmPRINT, so they were already enrolled and familiar with it. Replicating this activity would be more work for immunization programs that first need to bring schools on board with their IIS.
- Starting the discussion at the top – i.e., working with school nurse administrators at the state level – is necessary for these changes to be widely adopted.

Relevant resources

- April 11, 2016 letter from ALSDE to City and County Superintendents of Education: <https://docs.google.com/document/d/1PS9N-Y419L6kGIzUWfkaUEjMe3n6L6ZsiZHQb7rguyQ/edit?usp=sharing>
- ImmPRINT COI template: https://www.alabamapublichealth.gov/immunization/assets/coi_sample_02152017.pdf

For more information

Alabama Department of Public Health, Immunization Division
(334) 206-2018



Taking it to the Next Level

Program: Rhode Island

Activity: Immunizing students in school-located clinics during school hours

Overview of activity

The Rhode Island Immunization Program runs a program called “Vaccinate Before You Graduate” that offers all routinely recommended and required immunizations at no out-of-pocket cost to students in middle school and high school through onsite clinics at participating schools.

Ages targeted

Middle school through high school-aged students.

Background/impetus for the activity

The Vaccinate Before You Graduate (VBYG) program began in 2001 as a catch-up program for Hepatitis B vaccine for 12th grade students, to ensure that students were fully immunized prior to graduation. The decision was made to offer vaccination clinics during school hours to address the barrier of students missing school and their parents missing work to obtain vaccines.

Description of activity

The Rhode Island Immunization Program contracts with a local mass immunizer, The Wellness Company, to run vaccination clinics inside schools during school hours. The clinics are coordinated with school nurses, which every school employs. Students (with parental consent) are eligible to receive vaccines. The Wellness Company, which is awarded the contract through an RFP process, has been involved since the beginning of the program and has continued to be the vendor best suited to support this work. The Wellness Company staff includes an administrator, program manager, and four registered nurses.

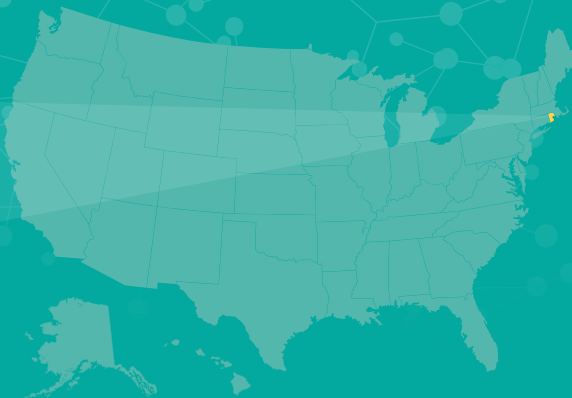
The VBYG program expanded in 2010 to include 9th-12th graders in all private and public schools. In September 2015, the VBYG program further expanded to include middle school students.

The Immunization Program is able to offer all routinely recommended and required vaccines at no out-of-pocket cost because Rhode Island continues to be a universal vaccine state. To offset some of the cost of the VBYG program, The Wellness Company began several years ago to obtain provider status with some of the insurance companies so that it can bill insurers for vaccine administration fees.

Role of Immunization Program and other agencies/groups involved

The Immunization Program establishes a relationship with schools that choose to participate by working with the superintendent, principals, and school nurses to get everyone on board. Then the Wellness Company works directly with the school nurses on every aspect of the school-located clinics. The number and frequency of clinics is determined by the participating schools. Doses-administered data from these clinics must be submitted to the state immunization information system, called KidsNet, within 48 hours. The Immunization





Program has a close relationship with contacts in the Rhode Island Department of Education, though the program is not directly involved with the VBYG program.

Dissemination

The Immunization Program supports a communications specialist dedicated solely to the Immunization Program who assists in developing materials that are used for the VBYG program, such as the consent form and a program announcement provided in four languages. The School and Adolescent Services Coordinator regularly communicates with school nurses, principals, superintendents, and school committees, including sending reports of data from the VBYG program (e.g., doses administered data by school). The Immunization Program also has discussed the VBYG program at statewide school nurse conferences and healthcare provider conferences.

Intersection with other program activities

Regular provider communications (e.g., VFC site visits) include information about the VBYG program. In a related effort, the Immunization Program holds school-located influenza immunization clinics during the fall that are open to the entire community and are typically held during after school hours. The Wellness Company is the mass immunizer for these clinics as well.

Funding

The contract with The Wellness Company is funded through the Immunization Program's federal Vaccines for Children (VFC) grant. Immunization Program staff time is also covered via regular CDC cooperative agreement funding. The initial expansion to middle schools was funded with PPHF HPV funding.

Staffing

The Immunization Program's School and Adolescent Services Coordinator is responsible for interfacing with The Wellness Company, initiating contacts with schools that would like to participate, and regularly maintaining communication with participating schools about the VBYG program.

Implementation status

The VBYG program is ongoing.

Successes

- In the 2015-16 school year, 103 of 151 eligible schools participated in the VBYG program with almost 5,000 doses of vaccine administered.
- The VBYG program's success has been built on frequent communication; Immunization Program staff are in touch with schools and the vendor every day. Transparency is important to keep things running smoothly and to maintain support for the VBYG program.

Challenges

- Some school nurses do not want to participate because of the added burden, which the Immunization Program addresses by providing necessary resources such as running KidsNet reports, creating various templates, etc.
- Some providers have occasionally voiced concerns about students being immunized outside of their primary care offices. To help address this concern, the Immunization Program requires the vendor to report doses administered to KidsNet within 48 hours, communicates about the VBYG program regularly (e.g., during provider site visits, monthly newsletter), and has developed a report in KidsNet that providers can run showing which doses were given by The Wellness Company. Some providers still find it to be a barrier that they have to go in and choose to run the report, so this is still a work in progress. The Immunization Program believes that providers have come to appreciate that the VBYG program is catching up students that likely would not have come to the provider office.

Other lessons learned/Advice to other programs

- The most important thing is to get buy-in right from the top from school officials.
- Most of the first year of the VBYG program was devoted to planning and initial conversations with all levels of school administrators and school nurses.
- For Rhode Island, it is important to use a local vendor so that clinics can be organized on very short notice.
- It is important to get the message across to providers that the Immunization Program is trying to complement the work that providers do, not replace it.
- Incremental expansions of the VBYG program have been a good way to work toward a sustainable model that works well for Rhode Island.
- Vendors need to be able to manage large quantities of vaccines, deal with proper storage and handling, be proficient in the logistics of running clinics, and be able to work well with school staff. It is very helpful if they can bill insurers.

For more information

Rhode Island Department of Health
Office of Immunization
(401) 222-4624

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- ¹ “Schools and Staffing Survey (SASS), 2011–12.” National Center for Education Statistics, U.S. Department of Education, https://nces.ed.gov/surveys/sass/tables/sass1112_20161012001_t1n.asp. Accessed December 13, 2016.
- ² “School Located Vaccination Position Statement-January 2013.” National Association of School Nurses. <https://www.nasn.org/advocacy/professional-practice-documents/position-statements/ps-slv>. Accessed December 13, 2016.
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- ⁴ “Vaccination Programs: Schools and Organized Child Care Centers.” The Community Guide, January 2009. <https://www.thecommunityguide.org/findings/vaccination-programs-schools-and-organized-child-care-centers>. Accessed December 13, 2016.

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Adolescent Immunization Resource Guide

Sharing what works. Achieving goals. Developing healthy communities.

Engaging Teens Directly

CHAPTER 2



Association of
Immunization
Managers

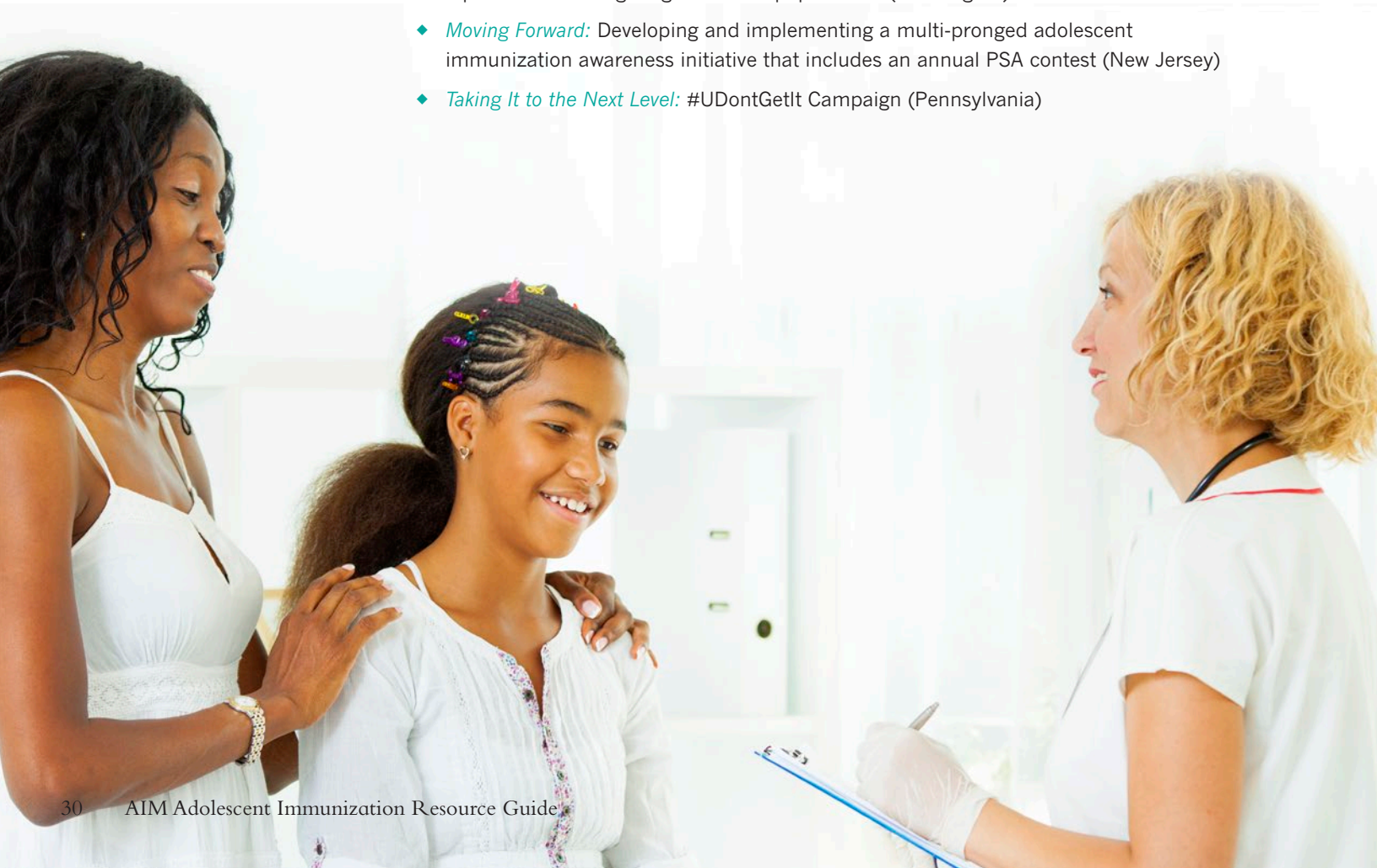
Introduction

To most teenagers, being healthy is a top priority. Results of a recent survey indicate that nearly all teens (91%) feel that staying healthy is extremely/very important. Other things that matter to members of this age group include doing well in school (94%), maintaining good relationships with parents (92%), and having friends they can trust (91%).¹ Furthermore, there is strong consensus among teens on the importance of vaccinations—73% of those surveyed said it is “extremely” or “very important” to receive all recommended vaccines to stay healthy.¹

While nearly 9 of 10 teenagers surveyed (87%) are confident in their ability to keep themselves healthy, 83% would like to learn more about how to be healthier.¹ However, some adolescents may lack basic information on why vaccines are needed, as well as which vaccines they need during adolescence.

Engaging adolescents to take part in decisions about their own health and providing vital information about adolescent vaccines directly encourages them to participate in the critical health care decisions that will govern their health for many years to come.² This can be approached in a variety of ways, such as social media campaigns and community initiatives (schools, college fairs, community centers). The following activities serve as examples of ways to engage teenagers:

- ◆ *Getting Started:* Supporting human papillomavirus (HPV) campaigns, developed with input from and targeting at-risk subpopulations (Washington)
- ◆ *Moving Forward:* Developing and implementing a multi-pronged adolescent immunization awareness initiative that includes an annual PSA contest (New Jersey)
- ◆ *Taking It to the Next Level:* #UDontGetIt Campaign (Pennsylvania)



Immunization Programs Using Social Media to Target Teens

2016 AIM Annual Survey, 61 of 64 Immunization Programs responded to survey

Tweens: 8-12 Years

f 33	24	pandora® 13
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Adolescents: 13-15 Years

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Older Adolescents: 16-18 years

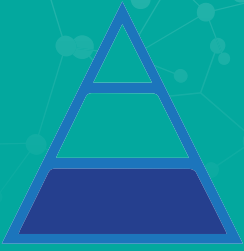
f 36	23	pandora® 12
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National Resources for Engaging Teens Directly

Many organizations provide tips and tools for targeting teens in schools, including:

- Immunization Action Coalition (IAC) Immunization Information for Teens (e.g., vaccine information, video links, resource links): <http://www.vaccineinformation.org/teens/>
- Children's Hospital of Philadelphia's Vaccine Education Center – Vaccines and Teens: The Busy Social Years: <http://media.chop.edu/data/files/pdfs/vaccine-education-center-vaccines-and-teens.pdf>
- The Nemours Foundation TeensHealth™: <http://kidshealth.org/en/teens/immunizations.html>
- American Academy of Pediatrics Social Media Toolkit (not teen focused but provides valuable information on social media, which is an effective way to reach teens): <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/immunizations/Practice-Management/Pages/Immunization-Social-Media-Toolkit.aspx>
- State Immunization Programs and Resources Targeting Teens*
 - » Alliance for Immunization in Michigan: <http://www.aimtoolkit.org/health-care/adolescents.php#materials-for-adolescents>
 - » Utah Department of Health Got Vaxed: <https://immunize.utah.gov/information-for-the-public/adolescent-immunization/vaccination-campaigns/>
- UNITY Consortium Educational Materials on Adolescent Immunization and Preventive Health
 - » Protect and Connect fact sheet provides tips on how parents can communicate with teens and how they can guide their child to make important health decisions and behaviors: http://www.unity4teenvax.org/wp-content/uploads/2018/10/unityfactsheet_061316_ConnectProtect_V3.4-1.pdf
 - » “You’re 16...We Recommend These Vaccines For You!”: <http://www.immunize.org/catg.d/p4022.pdf>



Getting Started

Program: Washington

Activity: Supporting HPV campaigns developed with input from and targeting at-risk subpopulations

Overview of activity

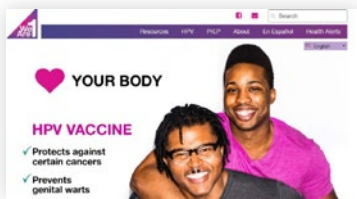
The Washington State Department of Health Office of Immunization and Child Profile provided funding to external partners to support development of HPV immunization campaign messages targeting two at-risk subpopulations of adolescents and young adults.

Ages targeted

Within the relevant subpopulation, one campaign targets all adolescents and the other aims to reach those aged 15 to 26 years.

Background/impetus for the activity

The Immunization Program received a 2-year HPV Prevention and Public Health Fund (PPHF) award in 2014. As part of its award activities, the program manager chose to support development of public campaigns relevant to specific populations. The program leveraged existing relationships with external partners to identify subpopulations that may be particularly vulnerable to HPV infection. The specific populations included tribal youths, adolescent/young adult men and transgender individuals at risk for HIV infection.



Description of activity

To support messaging targeted to tribal youth, the Washington Immunization Program provided funding to the American Indian Health Commission (AIHC) of Washington State. AIHC held two youth health summits involving youth from several tribes to explore their knowledge and attitudes on various health issues, including HPV infection and HPV vaccine. An important finding from the summit was that messages directed to boys seemed particularly needed, as boys were less aware that they should receive HPV vaccine. Therefore, AIHC staff developed messages that would appeal to tribal teenagers and help them understand the importance of HPV vaccination as cancer prevention.

To develop messaging for the HIV/HPV project, the program provided support to local public health partner, Public Health-Seattle & King County. This support was for enhancing an existing web-based campaign called “We Are 1” by adding “HPV is cancer prevention” messaging developed for HIV-positive and HIV-negative young gay and bisexual men and transgender individuals. The campaign targeted these populations in King, Pierce and Snohomish counties, the state’s most populous areas. Public Health-Seattle & King County and its “We Are 1” partners developed messaging based on feedback obtained through focus groups, key informant interviews, and street intercept interviews. They created a multi-media messaging campaign that included posters, digital media, and t-shirts.

Role of Immunization Program and other agencies/groups involved

For both activities, the Washington Immunization Program’s involvement was mainly to identify appropriate partner organizations and provide funding to the external partners involved.



For tribal youth, the program partnered with the AIHC, which works on behalf of the state's 29 federally recognized Indian tribes and two Urban Indian Health Organizations (UIHOs) to improve health outcomes for American Indians and Alaska Natives. The Immunization Program has a longstanding working relationship with the AIHC and its immunization subgroup. For this project, the AIHC was fully responsible for developing HPV campaign materials for adolescents based on tribal youth feedback.

The Immunization Program's involvement in the HIV/HPV project grew out of its work with state Department of Health (DOH) colleagues with overlapping interests around HPV (in reproductive health, cancer prevention, and STD programs). These colleagues connected the Immunization Program to contacts within Public Health-Seattle & King County who were involved with the "We Are 1" campaign. "We Are 1" is a coalition of community groups, agencies, and local health departments (covering King, Pierce, and Snohomish counties) that promotes men's health and wellness. The "We Are 1" coalition was responsible for developing and disseminating the HPV vaccine media campaign. Public Health-Seattle & King County also collected data on how exposure to the campaign affected knowledge and attitudes among the target population.

Dissemination

The AIHC is responsible for disseminating messages related to adolescent HPV vaccination among the tribes involved.

The "We Are 1" campaign is available online, and information about the campaign was disseminated by Public Health-Seattle & King County. Immunization Program staff helped broaden the reach of the campaign by sharing campaign materials statewide through local immunization coalitions, local health departments, the Immunization Action Coalition of Washington, and DOH reproductive health, cancer prevention, and STD programs.

Intersection with other program activities

These campaigns supplement the program's work to increase HPV immunization rates among adolescents and young adults. The program regularly partners with AIHC and Public Health-Seattle & King County on other immunization-related activities.

Funding

The Washington Immunization Program used funds from its HPV PPHF award to support these activities. Partners used the funds mainly to support the upfront work of needs assessment and developing messages and for disseminating messages.

Staffing

The HPV project coordinator from the Immunization Program was in regular monthly communication with the relevant partners about the development and implementation of their campaigns.

Implementation status

The AIHC continues to disseminate HPV campaign messages, and the “We Are 1” campaign remains active. As the HPV PPHF award has ended, the program no longer provides PPHF funding to AIHC and Public Health-Seattle & King County specific to these activities.

Successes

- Because HPV touches many areas beyond immunization, the Immunization Program has been able to broaden the range of partners with whom it regularly works. For example, the program has established stronger relationships with DOH colleagues who focus on aspects of HPV other than immunization, giving all parties a more well-rounded understanding of HPV disease and prevention.
- Both partners/projects successfully obtained input on HPV messaging from their respective target population and used these messages in HPV vaccine education campaigns. Both partners increased awareness among their populations of the importance of HPV immunization for cancer prevention.
- The “We Are 1” HPV online campaign generated more than 15.4 million impressions, more than 66,000 click throughs, and brought in many new users. In a survey of people in the target population, a high percentage reported awareness of the HPV vaccine, though a very small number had received the vaccine. Among those surveyed, 10% to 20% reported seeing the “We Are 1” HPV campaign materials. Of those who saw the materials, about 15% spoke to a medical provider about HPV vaccine as a direct result of seeing the advertisements.

Challenges

- Immunization staff members noted that it was difficult to accept the direct approach of the “We Are 1” campaign, which candidly focuses on sexual health and differs from mainstream HPV vaccine messaging targeting preteens. To address this challenge, the program was able to show that the campaign was developed with a strong base of formative assessment and pilot testing on which messages would be most effective with this population.

Other lessons learned/Advice to other programs

- Indian tribes are independent sovereign nations. There are advantages to working with organizations like AIHC, as many tribes can be reached through one entity.
- When working with external partners such as tribal organizations, the Immunization Program is not the lead, which is the goal, and needs to recognize that the partners own the process, priorities, and timetable.
- Although Immunization Programs can share campaign materials developed for the general population as a resource, it is important to understand what messages will resonate best with adolescents in specific subpopulations and to determine the most effective method of delivering those messages. It is important also to be open minded to targeted messaging and to recognize that not all messaging will be used for a general audience.

Relevant resources

- “We Are 1” campaign website: <http://we-are-1.com/hpv>

For more information

Washington State Department of Public Health
Office of Immunization and Child Profile
(360) 236-3595

“We worked with partners, including a local health jurisdiction and a community organization that is an immunization partner, called WithinReach, to train high school students to become peer advocates/champions to promote HPV awareness and vaccination.”

— Michele Roberts, *Washington State Immunization Program*



Program Practice Interviews



Watch a short video featuring Michele Roberts (WA) discussing the program's outreach to encourage HPV vaccination among tribal youth and high-risk adolescents.

immunizationmanagers.org/PPInterviews



Moving Forward

Program: New Jersey

Activity: Enhancing the Protect Me With 3+ Campaign

Overview of activity

The New Jersey Department of Health and Senior Services Vaccine Preventable Disease Program, together with the Partnership for Maternal and Child Health of Northern New Jersey (PMCHNNJ), developed and implemented a multi-pronged adolescent immunization awareness initiative that includes an annual PSA contest.

Ages targeted

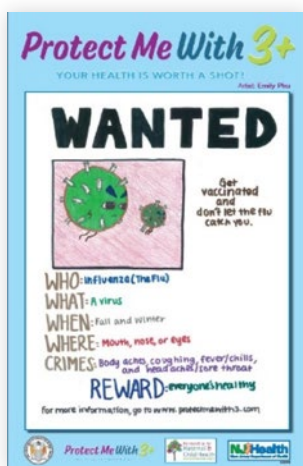
Youths in middle and high school (grades 5 through 12).

Background/impetus for the activity

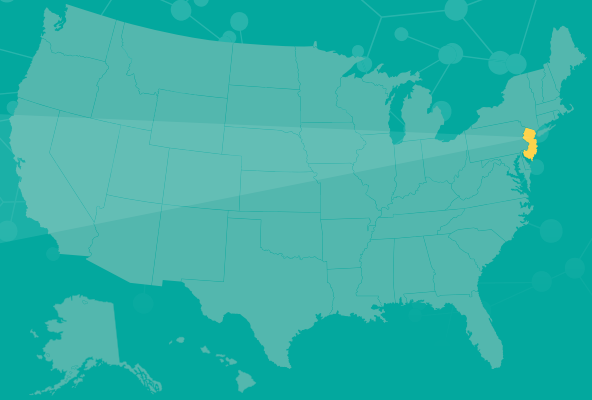
When looking into ways to increase low influenza and HPV vaccine coverage rates among New Jersey adolescents, the New Jersey Vaccine Preventable Disease Program identified a need for campaigns targeting adolescents and their parents that addressed the full complement of adolescent vaccines. The program was interested in reaching adolescents directly, and found that other adolescent health initiatives (e.g., tobacco control) were successful using social media. Based on these findings, the program worked with the PMCHNNJ to develop and implement an initial adolescent immunization campaign, including a video contest, a basic website, and limited social media postings. The initial campaign ran in 2012 and 2013.

Description of activity

In 2014, after evaluating the initial campaign, the program and the PMCHNNJ expanded the campaign into a multi-pronged adolescent immunization awareness initiative called “Protect Me With 3+”. The partners developed a comprehensive, medically accurate, plain-language educational website for both adolescents and parents, which is optimized for mobile devices. They implemented a yearlong social media campaign on the four most popular platforms (Facebook, Twitter, Instagram, and Tumblr), and expanded the annual adolescent PSA contest to include influenza vaccination (in addition to Tdap, HPV, and MCV4) and a poster contest option for students in grades 5 through 8. For 2016, additions to the campaign website included a tab with information directed at teachers and a Spanish language version.



The video and poster contests typically run for about four months. Adolescents register for and submit entries through the website, and parents sign online consent and photo release forms. Entries can be either a 30-second video (grades 9 through 12) or an 8.5 x 11 poster (grades 5 through 8 and 9 through 12) about one adolescent vaccine, based on information provided by the campaign website. All entries are reviewed by project staff and narrowed down to five finalists per category, which are then posted on the website for a two-week public voting period. Gift cards are awarded to the top three entries in each category, and an awards ceremony is held for the winners. Other prizes include a \$100 gift card for the classroom with the most eligible submissions, a prize drawing for students who submit entries by the early-bird deadline, and other random giveaways of items donated by sponsors.



Role of Immunization Program and other agencies/groups involved

The Immunization Program provides support and guidance on campaign content and promotion. The PMCHNNJ is one of the program's health services grantees. The program provides funding to the PMCHNNJ for various immunization-related activities, including the Protect Me With 3+ campaign. The PMCHNNJ works with a public relations (PR) firm, also based in New Jersey, to handle the website, press releases, communications, advertisements, and acquiring new sponsors.

Both program and PMCHNNJ staff are involved in reviewing all entries and selecting the finalists to ensure that the information is accurate. Additional health educators not directly involved with the project may be brought in to help select finalists. The program and the PMCHNNJ meet on a biweekly basis, and at the end of each contest cycle have a full day of debriefing to evaluate the campaign and determine improvements for the next year.

Dissemination

Information about the campaign is disseminated by the PR firm and through program contacts. For example, the firm targets promotion of the contest to certain schools (e.g., art schools, technical schools). Program staff presented to the New Jersey Education Association (NJEA), including mention of the campaign, and the PR firm purchased an ad in the NJEA program guide featuring the campaign. The contest itself, social media, online advertising, and local media coverage of the winning entries drive users to the website.

Intersection with other program activities

Winning entries are used to support other educational activities. Videos have been used at state immunization conferences, regional chronic disease workshops, immunization and cancer coalition meetings, and a summer camp. Videos were also featured by Value of Vaccination and the Immunization Action Coalition, broadening the campaign's reach to a national audience. Winning posters are professionally printed for distribution throughout the state, including to local health departments for distribution to schools during immunization record audit visits.

Funding

Funding support for this initiative comes from a mix of federal and state funds. The federal funds come through the program's regular CDC cooperative agreement. State funding, when available, varies by type and amount.

Staffing

The program's adolescent/adult immunization coordinator, health educator, population assessment coordinator, program manager, and the assistant program manager are the main staff members involved.

Implementation status

The Protect Me With 3+ campaign is ongoing.

Successes

- The contest raises awareness by requiring adolescents to use and promote the website in their PSA, having the public view PSAs to vote for a winner, and using winning PSAs for immunization outreach activities.
- The enhanced campaign is reaching greater numbers of adolescents. The number of submissions has expanded each year from 29 in the first year to 377 in the 2016-17 contest year. The increase in contest submissions is partly due to the poster option, which was able to better engage preteens.
- More than 492,000 people were reached through social media during the 2015-16 contest. There were more than 11,500 unique visitors to the website, more than 416,634 impressions through Twitter advertising, and more than 70,000 people reached through Facebook advertising.
- Several videos about HPV vaccine for males, a topic that has largely been missing from HPV campaigns, have been created by boys through this campaign. Videos are posted on the Protect Me With 3+ YouTube page, as well as on the campaign's website.

Challenges

- Initially the contest started in September/October. Through outreach to teachers, the program realized that moving the contest to later in the school year would improve teachers' ability to include it in their curriculum. Moving the start of the contest to November/December has improved participation.
- The program is not allowed to have its own Twitter or Facebook accounts. However, by working with and funding the PMCHNNJ, the program was able to promote the Protect Me With 3+ campaign with a campaign-specific Facebook page and Twitter account.
- The program found that it was not getting much "bang for the buck" from using Instagram and Tumblr, so it dropped use of these platforms starting with the campaign for the 2015-16 contest.
- With the growing number of contest submissions, the program may soon face staff time constraints for reviewing all entries. To address this issue, this year the program staff will prescreen entries as they come in rather than waiting until the submission deadline.
- Although there is a Spanish-language version of the campaign website, only English-language entries are currently accepted because the program does not have a staff member who is proficient in Spanish to prescreen Spanish-language videos and posters.
- Because the minimum age for many social media accounts is 13 years, the program had to adjust the requirements of the Children's Online Privacy Protection Act (COPPA) by obtaining parental consent for preteen students to participate.
- At this time, the program is unable to track the vaccination status of children participating in the campaign because of Institutional Review Board requirements and privacy concerns.

Other lessons learned/Advice to other programs

- Pre-planning is an important initial step to developing a similar campaign in other state health departments, including conducting a gap analysis to identify areas/populations to target for a campaign. In addition, given the level of effort involved with running such a campaign (e.g., maintaining the website and social media presence as well as outreach activities), identifying relevant internal and external partners is critical. External partners can also help to overcome internal barriers (e.g., not being able to have social media accounts or work directly with a PR firm).
- Lessons learned from each cycle of the contest are used to make improvements to the next round (e.g., adapting the website to become an educational resource), which is important for evolution of the program among this dynamic population.
- The program realized that video quality and access to video equipment was much better for high-school students than for middle-school students. Adding the poster contest to the campaign has improved participation of younger students in the contest.
- The program has found that videos are often created by teams, so the contest entry forms, including parent participation forms, needed to be adjusted to collect all the necessary information for multiple contributors. This also means that the number of submissions doesn't properly reflect the actual number of participants.

Relevant resources

- Protect Me With 3+ campaign website, including past video and poster winners: www.protectmewith3.com
(Note that items related to the contest, such as registration and consent forms, are active on the website only during the contest submittal period.)

For more information

State of New Jersey Department of Health
Vaccine Preventable Disease Program
(609) 826-4860

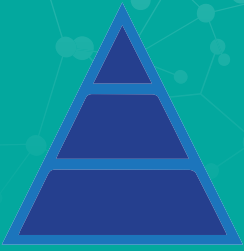


Program Practice Interviews



Watch a short video featuring Steven Bors (NJ) discussing the state's multimedia adolescent immunization awareness effort, Protect Me with 3+.

immunizationmanagers.org/PPInterviews



Taking it to the Next Level

Program: Pennsylvania

Activity: #UDontGetIt Campaign

Overview of activity

The Pennsylvania Department of Health Division of Immunizations supported a coalition-based immunization education campaign directed at adolescents.

Ages targeted

The initial campaign targeted adolescents aged 11 through 18 years, but was subsequently narrowed to 11 through 14 years of age.

Background/impetus for the activity

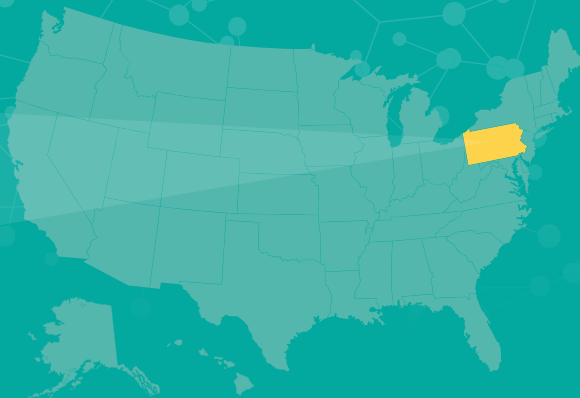
In 2013 through early 2014, the Pennsylvania Department of Health Division of Immunizations was exploring ways to increase adolescent immunization rates, as well as to provide support for activities conducted by its statewide coalition (Pennsylvania Immunization Coalition, or PAIC) and 18 regional immunization coalitions. The program decided to offer mini grants to regional and statewide coalitions to develop adolescent-focused immunization campaigns.



Description of activity

In 2014, the PAIC and 14 of the 18 regional coalitions applied for and received mini grants. Given the small monetary amount of the grants, the PAIC and 12 of the regional coalitions opted to pool their resources to conduct a unified media campaign, while the other two regional coalitions conducted their own local campaigns. For the unified campaign, a Pennsylvania-based social marketing agency was hired to develop the campaign with the goal of promoting Tdap, meningococcal conjugate, and HPV vaccines to adolescents aged 11 to 18 years, with a focus on areas with low coverage rates as well as minority and at-risk populations that were previously identified in a Pennsylvania-based “Pocket of Need” report. The campaign, entitled #UDontGetIt, featured brief PSA videos (30 to 90 seconds) that could be embedded in Twitter and Facebook posts, as well as posters and reminder postcards. The program sought advice from a focus group comprised of adolescents on the use of Facebook and Twitter, and the social marketing agency conducted a few focus groups within the target population to get feedback on images/artwork to use in campaign materials. There are several social marketing agencies in Pennsylvania that cultivate and maintain unbiased focus groups for hire. They are available to test proposed marketing campaigns by reviewing language level, slang, and appeal to a particular birth cohort.

In 2015, for the second round of mini grants, the PAIC and all 18 regional coalitions applied for and received mini grants and pooled their resources for the #UDontGetIt campaign. Based on lessons learned during the first round of the campaign, the age group was narrowed to 11 through 14 years, and campaign materials were reconfigured to be more appealing to younger teens. An inexpensive incentive – a colorful bracelet/wristband – was offered to adolescents who were up-to-date on their vaccines. In addition, the program partnered with the division of school health and expanded the reach of the program through the help of school nurses. Schools that agree to participate display the campaign posters



and can distribute the reminder postcards to encourage fulfillment of school immunization requirements (7th grade, Tdap and 1 dose MCV4).

A provider component was also added to the campaign initiative. At the Immunization Program's request, the state chapter of the AAP provided online webinars on adolescent vaccination to their members. T-shirts with the campaign logo were created and worn by school nurses and coalition members, and were also given as incentives to adolescents for being up-to-date.

Role of Immunization Program and other agencies/groups involved

The program provides the mini grants to the coalitions and works with the executive director of the PAIC to manage the project. The PAIC and participating regional coalitions promote the campaign within their jurisdictions. The social marketing company, which has worked with several state government agencies, created the campaign slogan and manages the campaign's social media presence (webpage, Facebook, Twitter). Other partners include the division of school health and the state chapter of the AAP. The division of school health is the conduit for communicating with school nurses about the campaign and conducted a survey of school nurses to evaluate the campaign. The state chapter of AAP conducts provider education on adolescent vaccination.

Dissemination

Project partners communicate regularly by email and conference calls. The program distributes campaign materials to participating schools. The Pennsylvania Department of Health presents information at the annual conference of the Pennsylvania Association of School Nurses and Practitioners, including immunization-related updates.

Intersection with other program activities

The program has collaborated with the PAIC and regional coalitions on adult influenza and pneumococcal campaigns.

Funding

The program provides mini grants to the participating coalitions through its federal cooperative agreement funding. Based on the state's procurement process, the program can award mini grants of up to \$10,000 without a formal RFP process, with a total budget up to \$50,000. Some of the regional coalitions contribute their own funds to the campaign, which allows them to conduct additional activities in their jurisdiction.

Staffing

The Public Health Program Administrator within the Pennsylvania Department of Health Division of Immunization co-manages this project with the executive director of PAIC.

Implementation status

The campaign kicked off in September 2014 and ran through January 2015 and then again January through March 2016. A third round is planned but the start date has not yet been determined. The program plans to offer the mini grants as long as there is funding available.

Successes

- Though the program had collaborated with many of the groups involved in the campaign, this was the first time all the coalitions plus a major provider organization worked together. The coalitions and the state chapter of the AAP now work together frequently on immunization projects.
- The program believes the campaign has successfully reached teens and prompted dialogue among them, and between teens and parents; adolescents utilized the campaign's social media accounts and responded and shared the information.
- Adolescent immunization rates are increasing, though the extent to which the campaign may have contributed to this increase cannot be determined.
- The program has had significant impact with this statewide campaign for a relatively small outlay of resources.
- The incentive bracelets were popular among middle-school students. The quantity was limited, which added a competitive component.
- In a survey of school nurses after the initial campaign, nearly 90% said they support continued participation.
- A coalition-based campaign gave the coalitions greater flexibility in promoting the campaign within their own jurisdiction and provided a local point of contact for the project.
- Realizing the cost of advertising and developing a campaign, the statewide immunization coalition urged the regional coalitions to work together and combine their financial resources. Working in partnership allowed them to make a greater impact within each coalition's jurisdiction, while using their grant funding most efficiently. This was particularly helpful in the rural counties, which make up more than half of the state, where promotional campaigns would be too expensive to conduct on their own.

Challenges

- Lack of support for HPV vaccine at high levels of state and local government, including some schools, has been a barrier to HPV messaging. For example, the campaign focused on the three routinely recommended adolescent vaccines, not just HPV, but a few schools did not participate because HPV was included.
- During the initial campaign, the state experienced a prolonged period of bad winter weather (e.g., snow, very cold temperatures) resulting in several school closures or delays, which made it difficult for the campaign to build momentum.
- Campaign timing issues: After the initial campaign, school nurses voiced a preference for the campaign to begin closer to the start of school, so the program planned to conduct the second round of the campaign earlier in the school year. However, because of a state budget impasse (the program does not have the authority to spend its federal funds until the state budget passes) the campaign was delayed and instead ran from January through March 2016. The third round of the campaign has been delayed due to changes within PAIC.

Other lessons learned/Advice to other programs

- Establishing a collaborative team with internal and external partners that support adolescent immunization from multiple angles (providers, schools, public health) helps campaigns like this be successful.
- The age group was narrowed to better focus the campaign and increase school participation. High school and middle school populations are quite different, so one set of messages would not be as effective for both groups. Also, middle schools were more interested in participating than high schools. Some of the regional coalitions also run their own campaigns that specifically target older adolescents (e.g., “Vaccinate Before You Graduate” campaigns).
- Pennsylvania immunization rates are lower among privately insured adolescents than VFC-eligible adolescents. As these children typically interface with schools and private providers, it is important for the campaign to be in schools and is the reason why the program enlisted the AAP to conduct provider education. Family physicians would also be a good target for educational campaigns. The program has a good working relationship with the state chapter of the AAP, but it has focused mainly on adult immunization to this point.
- School authority is decentralized in the state, so individual school boards determine participation in various initiatives. School nurse support for the campaign is important for getting school board support to participate.

Relevant resources

- Campaign website: www.udontgetit.org
- PAIC YouTube site with campaign-related videos:
www.youtube.com/channel/UC0t2fbu6wDEy_-qgLjY-HA
- Campaign poster and postcard (*available upon request*)

For more information

Pennsylvania Department of Health
Division of Immunizations
(717) 547-3470

REFERENCES

- ¹ Unity sponsored Adolescent Health and Immunization Survey conducted online within the US by Harris Poll (Fall 2016).
- ² Call to Action: Addressing New and Ongoing Adolescent Vaccination Challenges. National Foundation for Infectious Diseases, 2016. www.nfid.org/homepage/additional-offerings/call-to-action-adolescent-vaccination-challenges.pdf. Updated March 2016. Accessed July 1, 2017.

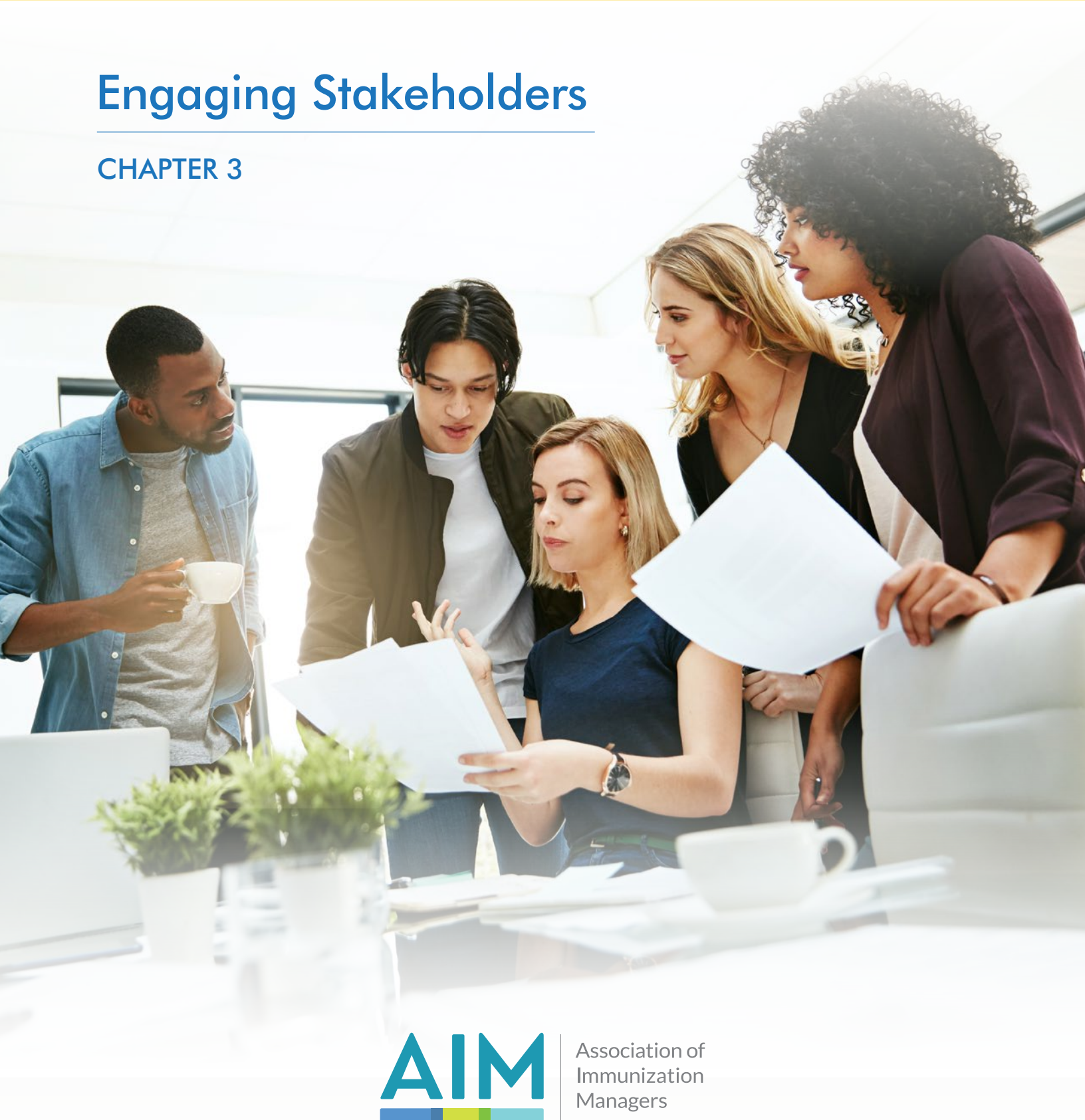
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Adolescent Immunization Resource Guide

Sharing what works. Achieving goals. Developing healthy communities.

Engaging Stakeholders

CHAPTER 3



Association of
Immunization
Managers

Introduction

A stakeholder is a person, group, or organization that has interest in an organization's mission and activities. Immunization Programs can pull together a variety of stakeholders to help develop and implement activities to increase adolescent immunization rates. Engaging immunization stakeholders—such as state and/or local immunization coalitions, local health departments, professional medical associations, community groups, and schools—allows for sharing of resources and leveraging skills and expertise. Considering stakeholder needs and interests throughout the process of implementing an activity is critical to success.

Recommendation 3.3 from the National Vaccine Advisory Committee's report on overcoming barriers to low HPV vaccination rates recommends engaging stakeholders by promoting collaboration among all stakeholders to coordinate communications and messaging that increases message consistency across professional organizations and their constituencies.¹ The US National Vaccine Plan, established in 2010, has a similar message and stresses the importance of obtaining broad-based input from stakeholders as well as the public when developing new immunization policies, and assessing existing ones. Stakeholder engagement is critical when it comes to the communication of vaccine benefits, risks, and recommendations, according to the National Vaccine Plan.²

Immunization Programs across the country work to actively engage stakeholders in adolescent immunization campaigns, such as supporting immunization coalition-led projects to increase coverage rates, establishing relationships with new partners involved in adolescent immunization (eg, cancer prevention programs), and forming groups with multiple internal and external partners to share ideas and collaborate on adolescent immunization activities.

The activities highlighted here related to engaging stakeholders are:

- ◆ *Getting Started:* Sustaining an HPV Stakeholder group (Michigan)
- ◆ *Moving Forward:* Establishing a statewide workgroup to address adolescent immunization (Montana)
- ◆ *Taking It to the Next Level:* Building on jurisdiction-specific connections through an HPV stakeholder group (Alaska)

Types of stakeholders with which Immunization Programs engaged to increase adolescent HPV vaccination rates (past 12 months)*

Cancer coalitions/alliances/organizations	59	STD/family planning clinics	39
Community health centers	51	Department of education	32
Local health departments	50	Community vaccinators	29
Local AAP chapters	47	Juvenile detention facilities	27
Local AAFP chapters	41	Pharmacies	20

*Data from 2016 AIM Annual Survey administered June-November 2016; 61 of 64 Immunization Programs responded to survey.

National Resources for Engaging Stakeholders Directly

Many organizations provide tips and tools for working with stakeholders/partners, including:

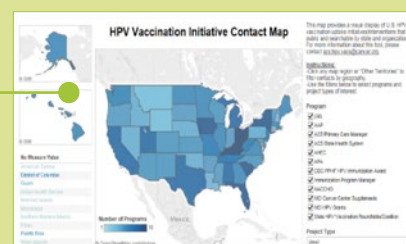
Centers for Disease Control and Prevention

- Establishing partner networks (from the HPV partner toolkit):
www.cdc.gov/hpv/partners/establishing-partners/index.html
 - Includes a poster of benefits to engage specific partners (shown at right):
www.cdc.gov/hpv/downloads/what-can-we-do.pdf
 - Includes information for developing a round table discussion:
www.cdc.gov/hpv/partners/establishing-partners/developing-roundtables.html
- Engaging stakeholders (from the perinatal hepatitis B program):
www.cdc.gov/hepatitis/partners/perinatal/pdfs/guide-to-life-chapter-3.pdf
- Identifying and determining involvement of stakeholders (from the STD program):
www.cdc.gov/std/Program/pupestd/Identifying%20and%20Determining%20Stakeholders.pdf



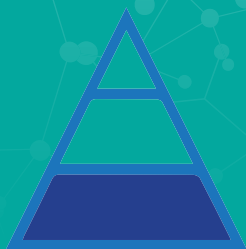
American Cancer Society

- Finding partner HPV vaccination initiatives/interventions through a searchable database (shown at right):
https://public.tableau.com/profile/mjcoursara1#!/vizhome/DraftBook_Edits/Dashboard
- Guidance for successful comprehensive cancer control coalitions:
www.ccnationalpartners.org/new-resource-9-habits-successful-comprehensive-cancer-control-coalitions



Other Public Sector Programs

- Introduction to stakeholder participation (Social Science Tools for Coastal Programs):
<https://coast.noaa.gov/data/digitalcoast/pdf/stakeholder-participation.pdf>
- Stakeholder engagement toolkit (Los Angeles Department of Children and Family Services):
<https://www.scribd.com/document/427088014/WPIC-DCFS-Stakeholder-Engagement-Toolkit>
- Increasing participation and engaging stakeholders (Community Tool Box, a service of the Center for Community Health and Development at the University of Kansas):
<http://ctb.ku.edu/en/increasing-participation-and-membership>



Getting Started

Program: Michigan

Activity: Sustaining an HPV stakeholder group

Overview of activity

The Michigan Immunization Program is currently planning strategies for sustaining its HPV stakeholder group now that the HPV-specific Prevention and Public Health Fund (PPHF) funding period is over.

Adolescent ages targeted

All adolescents and young adults.

Background/impetus for the activity

With 2014 PPHF HPV funding, the Michigan Immunization Program ramped up its efforts focused specifically on HPV vaccine, including convening an HPV stakeholder group. The group held five face-to-face meetings, with 45 to 80 participants per meeting. The initial goals of this group were to convene an array of partners to share strategies and needs related to increasing the timely administration of HPV vaccine. Non-traditional partners included external cancer-focused organizations, such as the Michigan Chapter of the American Cancer Society (MI ACS) and the Michigan Cancer Consortium. The program also sought to create new partnerships with health plans and health insurers to learn about their HPV vaccination efforts and to potentially have a positive impact on their clinics and providers.

As the PPHF HPV grant wound down, the program and the MI ACS began discussions about sustaining the group while adjusting to the loss of grant funds and addressing some of the challenges that emerged from the initial HPV stakeholder group.

Description of activity

The Michigan Immunization Program and the MI ACS are actively collaborating on identification of strategies for continuing an HPV stakeholder group. The current plan is to move toward a roundtable format, following the model of the HPV-focused roundtable of the national ACS. The HPV roundtable would have a more formal structure than the original group, including a steering committee, bylaws and a more formal commitment from group participants. The roundtable format would include workgroups designed to focus participants' efforts on particular topics. The list of potential topics under consideration include providers, resources, insurance, access, pharmacies, quality improvement measures, and advocacy.

The next step in moving to the roundtable format will be a conference call with participants from the initial stakeholder group who have agreed to take part in the steering committee. The call will focus on clarifying the structure and format of the new group. The program manager also intends to engage immunization champions within health systems who are not currently represented but have been suggested by others as potentially valuable contributors.



The members of the steering committee will need to address several questions in designing the HPV roundtable including:

- *To what degree are partners willing to participate?*

Moving forward, the goal is to have a more action-oriented group in which participants would devote time and energy to collaborative efforts. In the initial HPV stakeholder group, participants were committed to achieving goals within their own organization, but not necessarily in collaboration with other partners.

- *Who will provide administrative support?*

The Michigan Immunization Program hosted the original HPV stakeholder group. If MI ACS takes the lead on the roundtable, the structure may be more conducive to active participation, as the program would more closely match those of other MI ACS programs and the Michigan Immunization Program would not be responsible for leading every meeting.

- *What is the most effective format for the meetings?*

Participants in the initial HPV stakeholder group preferred having in-person meetings, but half-day meetings in Lansing, Mich., may have been a barrier to participation for some stakeholders. In-person meetings also require more time money compared with conference calls or virtual meetings.

- *What level of financial support will be needed and who will provide it?*

Although administering a roundtable group may not be costly, the cost will depend on the format of the meetings.

Role of Immunization Program and other agencies/groups involved

The Michigan Immunization Program hosted the initial HPV stakeholder group. A planning committee consisting of staff from the Michigan Department of Health and Human Services (MDHHS), including the immunization program, plus an external moderator from the University of Michigan, provided input on meeting agendas that primarily build off prior meeting's discussion and stakeholder updates.

Participants in the initial group included private providers (eg, pediatricians, general practitioners), public providers (eg, local health departments, federally qualified health centers, rural health centers, Indian Health Service clinics), internal cancer groups (eg, Comprehensive Cancer Control Program), external cancer groups (MI ACS, Michigan Cancer Consortium), some medical provider organizations (eg, Michigan Pharmacy Association), health plans, and health insurers. The roundtable group is expected to continue with the same types of participants, with the hope of having decision-makers at the table to facilitate an action-oriented focus.

The MI ACS is a major partner in forming the roundtable. The organization has proposed a strategic plan for the group, and MI ACS and the Immunization Program are organizing a steering committee.

Dissemination

The Immunization Program sent periodic informational messages to participants of the initial HPV stakeholder group via an email listserv. The party responsible for communicating with roundtable participants has yet to be determined.

Intersection with other program activities

The Immunization Program's work on the HPV stakeholder group overlaps with other existing HPV efforts. For example, the adolescent and adult coordinator regularly meets with an existing internal workgroup that consists of members from various supporting programs including Michigan's Cancer Control and Prevention, Michigan's Cancer Consortium Survivorship workgroup, Michigan Oral Health Coalition, and school-based health centers. The adolescent and adult coordinator also serves on the Michigan Cancer Consortium's HPV steering committee.

The Immunization Program hosts an adult immunization stakeholder group (supported by adult immunization PPHF funding). On two occasions, Immunization Program meetings were coordinated with the HPV stakeholder group meetings, and participants from each group were encouraged to attend both meetings.

Funding

The initial HPV stakeholder group was funded through an HPV-specific PPHF cooperative agreement. The Immunization Program expects to support continuing work with staff time (supported by main CDC cooperative agreement) and other in-kind contributions such as meeting space and educational materials.

Staffing

For the initial HPV stakeholder group, the program's adolescent and adult coordinator and the AFIX (assessment, feedback, incentive, eXchange) quality improvement (QI) coordinator created the meeting agendas, identified presenters, and prepared program grant updates and HPV coverage level data to provide at meetings. Another staff person, who was full-time on the HPV grant mainly to help with immunization registry-based HPV recall, helped with administrative duties associated with hosting the meetings (eg, conference space, food, RSVPs). Going forward, the program's AFIX QI coordinator and the adolescent and adult coordinator will participate in the new stakeholder group as part of their regular duties.

Implementation status

The initial HPV stakeholder group held its last meeting in March 2017. Discussions about the next iteration of an HPV group were initiated in January 2017 and are ongoing.

Successes

- The initial stakeholder group provided a helpful way for partners to stay up to date on the activities and achievements of other groups within their organization that are supporting HPV vaccination, and building connections between different stakeholders.
- The participation of an external facilitator/moderator brought a skill set to the meetings that the program did not otherwise have previously, which helped to spur discussion during meetings.

Challenges

- Efforts to involve the state chapter of the American Academy of Pediatrics in the HPV stakeholder group have been unsuccessful.
- Identifying the ideal contacts to invite from health plans and health systems has been challenging. For health plans, the program first asked the state Medicaid section for plan representatives working on quality improvement initiatives or in director/decision-maker roles. However, the representatives sent by these health plans and systems were often lower-level staff members rather than decision makers. While it is helpful to have their representation, it is not as helpful for driving change and moving past barriers. For health systems, pharmaceutical contacts have sometimes suggested decision makers to contact. Involving decision makers will be the goal for the new stakeholder group.

Other lessons learned/Advice to other programs

- There are other models for stakeholder groups that can encourage active participation. For example, the Immunization Program structured participation in its adult stakeholder group such that in exchange for a stipend of \$5,000, participating organizations agreed to develop an action plan, spend the stipend on adult immunization activities, attend stakeholder meetings, and host the program's adult immunization standards module.
- An advantage to not having the Immunization Program lead a stakeholder effort is that the stakeholder group can tackle things that the Immunization Program cannot do as a government entity. For example, the advocacy workgroup on the HPV roundtable could work to educate state legislators about HPV vaccine, which the Immunization Program is not be able to do.
 - » For programs that want to start a new stakeholder group (or jumpstart an existing one), it is important to define goals and objectives and determine priorities. Use the SMART (specific, measurable, achievable, realistic, and time-based) system to set goals and keep track of progress. Decide whether the group will be more for information sharing or more action oriented, and whether it will be driven by the Immunization Program or more of a collaboration among partners. If the program is a collaboration, ensure partners understand their role and expected commitment from the start.

For more information

Michigan Department of Health and Human Services
Division of Immunization
(517) 373-3740



Moving Forward

Program: Montana

Activity: Establishing a statewide workgroup to address adolescent immunization

Overview of activity

The Montana Immunization Program has established a workgroup to address adolescent immunization in the state.

Background/impetus for the activity

This workgroup was formed to address adolescent immunization rates and to follow up at the state level with the CDC's HPV Call to Action. In addition, some existing partners had received funding to work on HPV activities and the program was increasingly fielding requests to provide resources and information. The workgroup allowed partners to come together to leverage resources and provide a consistent message about adolescent immunization throughout the state.

Description of activity

In 2015, the Montana Immunization Program formed a workgroup of internal and external partners throughout the state that had a stake in adolescent immunizations or a specific interest in HPV vaccination. The purpose was to establish a unified message regarding adolescent immunization throughout the state and to inform all parties of the partner group activities.

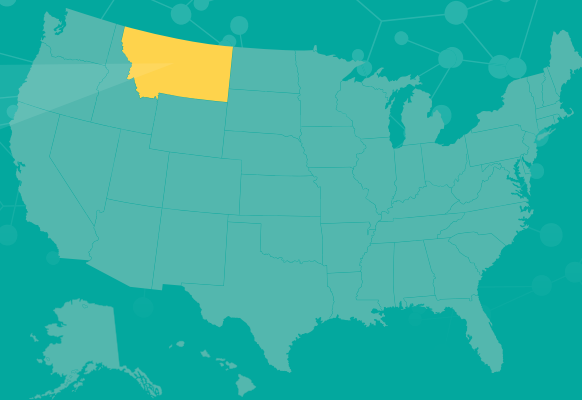
Prior to the first meeting, the Immunization Program asked its partners to provide perspective on adolescent immunization including activities currently underway, a list of all successful and unsuccessful efforts related to HPV immunization, and suggestions to increase coverage rates.

The workgroup held an initial in-person meeting, at which the Immunization Program established the ground rules and planned direction of the workgroup. Participants identified and prioritized topics to address, including provider and parent education, adolescent AFIX, school clinics, and other strategies to reach adolescents outside of primary care clinics. The workgroup developed next steps for each topic.

The workgroup has been meeting for about 18 months. Initially, meetings were held approximately every 6 weeks to establish the structure and next steps, and to keep the momentum going. Following the first in-person meeting, all subsequent meetings have been held by webinar. The workgroup is planning to meet twice a year in the future.

Role of immunization program and other agencies/groups involved

The Montana Immunization Program initiated and is currently leading this workgroup. External partners include the state chapters of the American Academy of Pediatrics and American Academy of Family Physicians, the Montana Public Health Association, several local health departments, private providers and nursing staff, and multiple health plans (public and private). Internal partners within the Public Health and Safety Division of the Montana Department of Public Health and Human Services include the cancer control, oral health, and women's and men's health programs.



Dissemination

The Montana Immunization Program communicates with workgroup members, including the distribution of meeting minutes, by email. The program provides updates on the workgroup during monthly calls with local health departments and through its annual regional workshops.

Intersection with other program activities

Discussions during the workgroup meetings have had a valuable impact on other program activities. For example, the Immunization Program recently launched a multiyear adolescent immunization campaign. Information from the workgroup was incorporated into the design of the campaign. Another idea discussed in the workgroup was peer-to-peer feedback as part of AFIX site visits, which the program is currently developing.

Information that the Immunization Program collected through other projects has been helpful for workgroup members. For example, to address questions related to vaccinating adolescents/young adults who are no longer eligible for coverage through Vaccines For Children (VFC), the program shared information from its billing project regarding vaccine accessibility and financing for this population.

Funding

Funding for the adolescent projects comes to the Montana Immunization Program through a state general fund appropriation that is used to support adolescent immunization. A portion of the funding goes toward the state vaccine program for under-insured adolescents. The funds were initially given to the program several years ago during the early push for HPV vaccine. The funding has been stable, but it is always subject to review when the state legislature meets (every 2 years).

Staffing

The workgroup is coordinated by the program's staff member whose responsibilities also include being the adolescent immunization coordinator. This is one of many responsibilities and represents a small portion of the staff member's time. However, the workgroup overlaps with other program activities, so pinpointing the actual time dedicated to this specific program is difficult.

Implementation status

The workgroup was originally planned to run for a year, but now expects to continue to meet for as long as needed. The Immunization Program is revisiting the workgroup's membership and will invite additional relevant partners if anyone was previously overlooked. For example, the Immunization Program invited and is working to increase engagement with the Indian Health Service-Billings Area Office.

Successes

- Establishing the workgroup gave the Montana Immunization Program a mechanism for enhancing partner collaboration and generating support for addressing adolescent immunization from partners.
- The workgroup has provided a valuable way to share partner resources and ideas with a small outlay of program resources.
- As a result of a multiyear adolescent immunization campaign that the program recently launched the program is drawing new partners into the workgroup and generating enthusiasm for adolescent immunization.

Challenges

- It is challenging for people to commit to in-person meetings due to the geographic size of Montana, so the program holds most meetings by webinar and/or telephone. The initial meeting was an in-person session that gathered the stakeholders for a day-long discussion, but the remaining meetings have been 1-hour webinars, which has resulted in less participation.

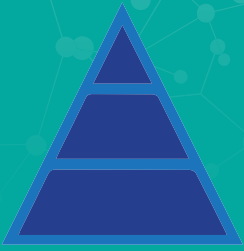
Lessons learned/advice to other programs

- It is important that the person facilitating the workgroup is organized and can keep the workgroup on track.
- Having established goals and strategies provides those who are invited to participate in the workgroup with a well-defined list of responsibilities associated with participation.
- Workgroups may need to meet more frequently during the early stages of formation to define objectives and establish momentum.
- To build engagement with each partner to support active participation in adolescent immunization activities, the Immunization Program periodically contacts partners individually to discuss their thoughts on the program and planned activities.
- For this workgroup, it was important for the Immunization Program to educate partners on what actions were feasible. For example, it was suggested that VFC eligibility be expanded to age 20 years, but that is outside the scope of the Montana Immunization Program. However, the program was able to share resources on payment options for young adults and other relevant information.

For more information

Montana Department of Public Health and Human Services
Immunization Program
(406) 444-5580





Taking it to the Next Level

Program: Alaska

Activity: Building on jurisdiction-specific connections through an HPV stakeholder group

Overview of activity

The Alaska Immunization Program formed a new HPV joint initiative workgroup to provide input on HPV PPHF grant activities and increase collaboration across partners related to increasing HPV immunization rates.

Background/impetus for the activity

The Alaska Immunization Program was awarded a 2-year HPV-specific PPHF grant (2014-2016) to increase HPV vaccination coverage among adolescents. As part of the activities specified in the grant, the Immunization Program initiated an HPV-focused stakeholder group.

Description of activity

The CDC grant materials provided suggestions for partners to invite when forming an HPV-focused stakeholder group, and the Immunization Program also included specific state and local agencies to address the unique needs of its jurisdiction.

Several meetings were held during the grant period, mainly by telephone, and the stakeholder group provided input and feedback on the content and format of several HPV-related activities including:

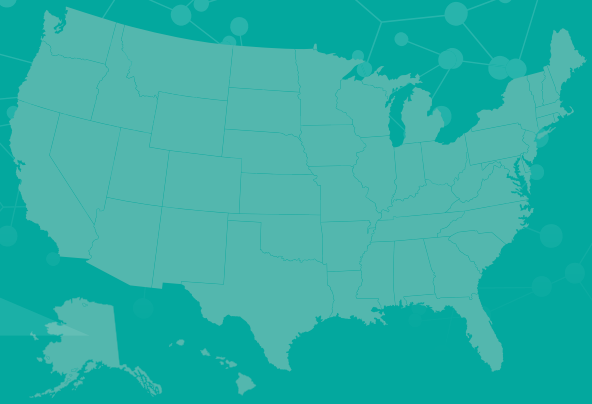
- Educational materials targeting immunization providers
- A public media campaign, which included CDC materials that were adapted to the specific needs of the Alaska Immunization Program and two videos with Alaskan residents
- A reminder/recall postcard (focused on HPV vaccine but including Tdap and MCV as well)

Role of immunization program and other agencies/groups involved

The Alaska Immunization Program initiated and manages the HPV stakeholder group. Partners in the stakeholder group include: the Alaska Native Tribal Health Consortium; the CDC Arctic Investigations Program; internal partners in the division of public health (cancer control and prevention, public information office, public health nursing, adolescent health, and school health); the Anchorage Health Department; the state chapter of the AAP; the Anchorage School District Health Services Division; the Vaccinate Alaska Coalition; the Alaska Area Health Education Center; the state chapter of the American Cancer Society; and Let Every Woman Know, a nonprofit gynecologic cancer group.

Alaska's vast geographic area and significant Alaska Native/American Indian population bring unique immunization challenges. A few state-specific and local partners on the stakeholder group help to address these challenges:

- Anchorage School District: the largest school district in the state; administers vaccines and conducts special projects related to adolescent immunization (eg, offering vaccines to students during parent-teacher meeting times).
- Municipality of Anchorage Health Department: Anchorage is the largest population center in Alaska and is the only borough in the state with independent health powers.



- Alaska Native Tribal Health Consortium: a nonprofit tribal health organization that partners with the 13 tribes and tribal health organizations in the Alaska Native Health Care System to provide health care to the Alaska Native/American Indian population throughout the state, especially in the widespread rural areas.
- Public Health Nursing: the services provided by this program, which is within the division of public health, include staffing a network of public health centers and offices in 16 communities and providing nurse visits to approximately 280 additional small communities and villages.

Dissemination

The Alaska Immunization Program has provided project update presentations at events run by stakeholder partners. This has resulted in increased awareness of resources among relevant partners. For example, the Alaska Cancer Prevention and Control Program recently asked permission to include some of the Immunization Program materials in its cervical cancer screening awareness efforts to combine the messages of screening and vaccination.

Intersection with other program activities

As noted above, the HPV stakeholder group provided input on materials developed for other HPV-related activities undertaken by the Immunization Program (public media campaign, reminder/recall effort, and provider education materials). Using the provider materials that were developed, the program distributed HPV vaccination toolkits to health care providers who administer the HPV vaccine.

Funding

The stakeholder initiative was supported by an HPV PPHF grant. The grant has ended, but continued support will come through the Immunization Program's CDC cooperative agreement.

Staffing

The joint workgroup currently has one full-time staff member – the education and training manager – whose time is dedicated to providing support to the workgroup. Initially, the program also had a public health advisor, but his position has been eliminated.

Implementation status

Though the HPV PPHF grant has ended, the Immunization Program plans to continue operating the HPV stakeholder group. The initial focus of the group was to provide input on PPHF grant activities, but will now shift slightly to focus on keeping each other informed and working together on future activities. The Immunization Program will remain the administrator of the group, but will not necessarily be the impetus for all of the group's activities.

Successes

- Establishing the HPV stakeholder group was particularly helpful in raising awareness of each other's activities across all of the cancer-related partner groups.
- Through this stakeholder group, the Immunization Program developed new relationships with the American Cancer Society, Alaska Division of Public Health Cancer Prevention and Control, Alaska Adolescent Health Program, and Let Every Woman Know.
- Working with the Alaska Area Health Education Center was a relatively new and valuable collaboration.
- Overall communication among partners increased outside of workgroup activities.
- In keeping with the trend to do more with less, this group helped partners combine activities and identify potential redundancies. For example, both the Alaska Immunization Program and the Chronic Disease Prevention and Health Promotion Program were preparing guidance on the change in HPV vaccine dosing schedule and will now combine these efforts.

Challenges

- Given competing priorities among all involved partners, it is challenging to coordinate in-person meetings for the stakeholder group, resulting in less frequent meetings than originally planned. The program utilizes informal communication by email and generally holds meetings via conference call.

Other lessons learned/Advice to other programs

- Forming a stakeholder group requires significant, focused effort in the beginning to launch the group and initiate activities.
- Though it would depend on what an immunization program is trying to accomplish, it would be difficult for a truly effective stakeholder group to operate with anything less than one part-time employee (ie, 20 hours/week). Once the group achieves some momentum, a staff member is necessary to keep the group organized and maintain the activities. However, the responsibilities can have significant overlap with other programmatic activities. Partners not yet involved in the Alaska Immunization Program's HPV stakeholder group that should be considered include:
 - » dental providers
 - » pharmacists (they don't participate in VFC in Alaska, but older adolescents are a population they might potentially serve)
 - » representatives from private practice (the group has good representation of service areas that reach out to the public in Alaska, but not much on the private side).

Relevant resources

- **HPV campaign materials developed with stakeholder group input:**
<http://dhss.alaska.gov/dph/Epi/iz/Pages/hpv/default.aspx>

For more information

Alaska Department of Health and Social Services
Immunization Program
(907) 269-8000

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- ² DHHS. The 2010 National Vaccine Plan. www.hhs.gov/sites/default/files/nvpo/vacc_plan/2010-Plan/nationalvaccineplan.pdf. Accessed on July 30, 2017. Last reviewed on November 14, 2016.



This Resource Guide was made possible through support from Sanofi Pasteur.

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Sharing what works. Achieving goals. Developing healthy communities.

Inform and Educate Providers

CHAPTER 4



Association of
Immunization
Managers

Introduction

The teenage years are a time of rapid development and growth. During this time, one of the main pillars of preventive care for adolescents is vaccination. Each visit to a provider office is an opportunity to vaccinate against a variety of diseases. To ensure that adolescent patients receive proper care, providers need to have the correct information about adolescent vaccinations both within their practice and in the general population.

According to physicians, 78% of teens have received the vaccinations recommended for this point in life.¹ However, adolescent vaccination rates are not at an optimal level, and in some cases, are far below Healthy People 2020 immunization goals.²

A challenge to increasing adolescent vaccination rates is obtaining a strong recommendation from the health care provider. For example, in a recent study on provider perspectives, only ~60% of pediatricians and family physicians strongly recommended the HPV vaccine for 11-through 12-year old girls.³ Another study found that a major reason teenagers didn't receive a Tdap vaccination was the lack of a health care provider recommendation.⁴

Educating providers on the need for a strong recommendation, and the best way to provide a recommendation, is critical to increasing adolescent vaccination rates. Additionally, helping providers understand how to approach vaccine-hesitant parents of adolescents, and how to have potentially difficult conversations about teenage behaviors in relation to the HPV vaccine, can help increase adolescent vaccination rates.

Immunization programs play an important role in helping providers stay up to speed on vaccines needed for adolescent patients, by conducting quality improvement exercises like AFIX and highlighting teens in the provider practice who may not be fully vaccinated. The following activities serve as examples of ways to inform and educate providers:

The activities highlighted here related to engaging stakeholders are:

- ◆ *Getting Started:* Establishing a Statewide Immunization Conference (Kentucky)
- ◆ *Moving Forward:* “We Are the Key to Cancer Prevention” HPV Vaccination Campaign (West Virginia)
- ◆ *Taking It to the Next Level:* “Just Another Shot: Reframing the HPV Vaccine” Videos for Providers (Minnesota)

How Immunization Programs Inform and Educate Providers (2016)

2016 AIM Annual Survey, 61 of 64 Immunization Programs responded to survey



52

Assess adolescent coverage during provider AFIX visits



51

Provide CDC 'You are the Key to Cancer Prevention' resources to providers



40

Provide support to providers to implement IIS/reminder recall



38

Conduct provider education webinars focusing on HPV



36

Offer provider CME/CNE programs about HPV vaccine



Resources for Providers

Many organizations provide tips, tools and education for providers to improve adolescent immunization rates:

Immunization Action Coalition

- IAC Needle Tips, April 2017:
“16-Year-Old Immunization Platform Highlighted in 2017 US Child/Teen Schedule”
<http://www.immunize.org/nslt.d/n70/n70.pdf>
- “Suggestions to Improve Your Immunization Services” (General info)
<http://www.immunize.org/catg.d/p2045.pdf>
- Customizable reminder postcard for 2nd dose of MCV4 (MenACWY)
<https://www.give2mcv4.org/essential-tools/reminder-postcard/>

Immunization Action Coalition MenACWY Give 2 Doses

Find tools to explain meningococcal vaccine recommendations and assist in improving adolescent coverage for all recommended vaccines.

- “Top 10 Ways to Improve Adolescent Immunization Rates”:
<https://www.give2menacwy.org/pdfs/top-10.pdf>
- Recommending MenACWY: What to Say and How to Say It Talking Points for Healthcare Professionals
<https://www.give2menacwy.org/pdfs/recommending-menacwy.pdf>
- Top 10 Ways to Improve Adolescent Immunization Rates: Strategies and Tips to Raise Adolescent Immunization Rates in Provider Medical Settings
<https://www.give2menacwy.org/pdfs/top-10.pdf>
- MenACWY: You’re Not Done If You Give Just One Fact Sheet and Call to Action for Healthcare Professionals to be Sure to Give dose #2 of MenACWY at Age 16
<https://www.give2menacwy.org/pdfs/menacwy-factsheet.pdf>

American Academy of Family Physicians Foundation

- AAFP Foundation “At a Glance” Teen Vaccination Fact Sheet:
One-page resource for providers specific to the 16-year-old immunization platform visit
www.aafpfoundation.org/content/dam/foundation/documents/what-were-doing/awards-grants/hov4t/ResourceLibrary/HOV4T_physician_fact_card.docx

American Academy of Pediatrics

- “The Need to Optimize Adolescent Immunization” (in Pediatrics, 2017): Clinical report focusing on the epidemiology of adolescent vaccine-preventable diseases and reviewing the rationale for the adolescent immunization schedule
<http://pediatrics.aappublications.org/content/early/2017/02/02/peds.2016-4186>
- “Practical Approaches to Optimize Adolescent Immunization” (in Pediatrics, 2017): Clinical report focusing on increasing adherence to universally recommended vaccines in the annual adolescent immunization schedule
<http://pediatrics.aappublications.org/content/139/3/e20164187>

Resources for Providers...cont'd

HPV IQ

- Website designed for public health professionals and primary care providers who want to increase and improve the delivery of the HPV vaccine to adolescents
www.hpviq.org

Within Reach

- E-Learning Course: “You Are the Key to HPV Cancer Prevention”: Continuing education course designed for health professionals who work with adolescents and their parents. This course helps providers frame the HPV vaccine conversation, encourages providers to make a strong vaccination recommendation and offers responses for parents’ most common questions
www.cardeaservices.org/resourcecenter/you-are-the-key-to-hpv-cancer-prevention

Sanofi Pasteur

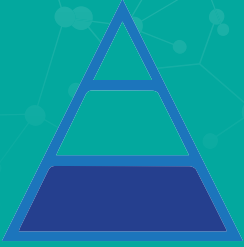
- Implementing the 16-Year-Old Immunization Visit: A How-To Tool for Health Care Practices: One page fact sheet that provides 6 steps to implementing the 16-year-old immunization visit
https://www.okaap.org/wp-content/uploads/2018/10/All-Fact-Sheet-2_Implementing-the-16-Year-Old-Immunization-Visit.pdf
- The Importance and Potential of the 16-Year-Old Immunization Visit: One page fact sheet that provides information on adolescent rates and key elements of the 16-year-old immunization visit
<https://www.izsummitpartners.org/content/uploads/2018/09/Importance-Potential-of-16-yr-old-Imm-Visit.pdf>

UNITY Consortium

Find resources to help healthcare providers deliver a confident, concise, and consistent recommendation for routinely recommended vaccines to adolescents (11-, 12-, and 16-year-olds).

<http://www.unity4teenvax.org>

- Adolescent Immunization: Understanding Challenges and Framing Solutions for Healthcare Providers
<http://www.unity4teenvax.org/unity-whitepaper-final-may-2017>
- NEW Provider Pocket Guide
https://www.unity4teenvax.org/wp-content/uploads/2020/01/19_%E2%80%9CNew%E2%80%9D%E2%80%93Provider-Pocket-Guide.pdf
- Pursuit of the Three Cs: Confident, Concise, and Consistent: Health Care Provider Recommendations for Adolescent Vaccines (Videos)
https://youtube.com/playlist?list=PLGYEj_FUoqYyrsahczO4-tml0IMaBxauq
- Provider Recommendation Video Worksheet
<http://www.unity4teenvax.org/wp-content/uploads/2015/03/Video-2-Worksheets-January-2017.pdf>
- Sample Recommendation Language and FAQs
<http://www.unity4teenvax.org/wp-content/uploads/2017/11/Three-Cs-FAQs-November-2017.pdf>
- Parental Disposition and Motivational Interviewing for Hesitant or Refusing Parents
<http://www.unity4teenvax.org/wp-content/uploads/2015/03/Motivational-Interviewing-January-2017.pdf>



Getting Started

Program: Kentucky

Activity: Establishing a statewide immunization conference

Overview of activity

The Kentucky Immunization Program initiated a statewide immunization conference, including sessions on adolescent immunization and expanding the reach of provider education efforts.

Ages targeted

All adolescents

Background/impetus for the activity

The Kentucky Immunization Program holds regional trainings for VFC providers on vaccine storage and handling, but felt that there was a need to reach a broader group of immunization providers in the state with immunization-related education to help improve coverage rates, especially among adolescents and adults. The program leveraged internal expertise and external connections with the Kentucky Rural Health Association (KRHA) to launch a statewide immunization conference.

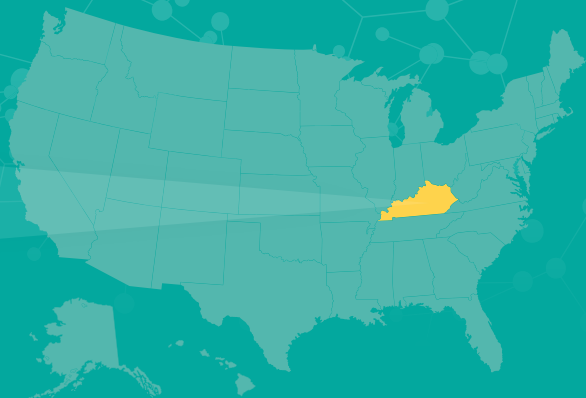
Description of activity

In 2015, the Kentucky Immunization Program collaborated with KRHA to hold its first statewide immunization conference. The 3-day conference (first and last day are half days) was held in the state's two biggest cities (Louisville in 2015, Lexington in 2016). The conference content covered all vaccine-preventable diseases, including adolescent immunization-specific sessions. A major focus has been HPV vaccine, given low coverage rates in the state.

To establish the format and content for the conference, Immunization Program staff attended several other state immunization conferences to see their format, talk with coordinators, hear their speakers, and collect materials, which were then discussed by the Kentucky conference planning group. Planning for the first conference took about 11 months. About two weeks after each conference, the program conducted a "hot wash" to review conference evaluations, and started planning for the next one.

The conference includes guest speakers and many exhibitors. To encourage provider attendance, the Program recruited nationally recognized speakers. The program and KRHA identified potential speakers based on appearances at other national conferences (e.g., the National Immunization Conference) and recommendations from other program partners. In addition, some speakers are from the Centers for Disease Control and Prevention (CDC).

Attendees have been a mix of physicians, nurses, physician assistants, office managers, local health department staff, and pharmacists, among others. The Kentucky Immunization Program offers continuing education credits for conference sessions to as many provider



types as possible. The program also includes the conference in TRAIN, the public health training network.

Role of Immunization Program and other agencies/groups involved

KRHA is the lead agency for organizing and running the conference. Their responsibilities include exhibitor registration and logistics of exhibit space, attendee registration, and printing of the conference program.

The Kentucky Immunization Program helps pull together the information for the conference program and the session presentations. It also contacts potential speakers and arranges transportation for confirmed speakers. The Program also organizes the continuing education credits portion of the conference.

The statewide immunization coalition, formed in 2015, is also involved. In addition, the Program works with the state's Area Health Education Center (AHEC) to establish continuing education credits for physicians. Dr. Gary Marshall, author of "The Purple Book" (a vaccine handbook for clinicians) and a pediatrician at the University of Louisville, is a valuable partner to the program and suggests possible speakers.

The partners have monthly telephone calls to plan the conference, with more frequent calls as the conference gets closer.

Dissemination

The Program advertises the conference through its connections with relevant state provider organizations, including those that represent medical licensing, pediatricians, family physicians, obstetricians/gynecologists, public health, pharmacists, nurses, and hospitals. The Program emails these organizations, who then forward the information to constituents and/or advertise in newsletters. The Program also advertises the conference via its VFC provider email listserve and the landing webpage of its new immunization registry. KRHA advertises the conference to its members and partners, including state medical professional organizations, universities with medical programs, the Kentucky Public Health Association (KPHA), and the Kentucky Cancer Consortium.

Intersection with other program activities

The annual immunization conference is in addition to the annual regional trainings for public and private VFC providers. The main focus of the VFC trainings is vaccine storage and handling, but the trainings also provide education on vaccine-preventable diseases, with a recent focus on adolescent vaccines (HPV, MCV4, Tdap).

Partnering with KRHA has led to other provider education opportunities. For example, the Program Manager provided an HPV-related presentation at KRHA's annual meeting and to college students at Kentucky State University. For these talks, the Program has adapted the national "HPV You Are the Key" presentation to include Kentucky-specific data. KRHA also sponsored a one-day HPV summit in June 2016, in collaboration with the Immunization Program and the Division of Women's Health.

Funding

The Program initially used grant funds to establish the state immunization conference. Currently, funding support comes mainly from KRHA, as well as exhibitor fees, sponsor support, and registration fees. The Kentucky Immunization Program is responsible for funding staff support for conference-related activities and some printing of educational materials, through CDC cooperative agreement and state funds.

Staffing

Immunization program staff involved with conference planning and manpower include the Program Manager, VFC Coordinator, Immunization Nurse, Immunization Epidemiologist, field staff, and the CDC Public Health Advisor.

Implementation status

The second annual statewide immunization conference was held in November 2016 and a third conference was held in December 2017.

Successes

- Between 2015 and 2016, attendance grew from 200 to 300 attendees, and conference evaluations were very positive in both years. For 2017, the program is planning for another jump in attendance.
- The conference has the support of the Commissioner of the Department for Public Health.
- The program's connections with state provider organizations have been valuable for advertising the conference beyond VFC providers.
- Conference feedback identified provider education needs (e.g., how to talk to vaccine-hesitant parents).

Challenges

- Striking a balance on session scheduling can be tricky. At the first conference, the Program learned that speakers and sessions were spaced too close together to allow for questions, so now more time is built into the schedule for attendee questions.
- The Program would like to hold the conference in different areas of the state to balance the travel burden for providers, but is limited by the logistics of bringing in out-of-state speakers who need to be within a reasonable driving distance of an airport. The eastern part of the state is the area most impacted by this limitation.

Other lessons learned/Advice to other programs

- Conference attendees are given a "bingo card" to get punched at each exhibitor's table. Once their card is full, they drop it in a container, from which a prize winner is drawn at the end of the conference (the 2016 prize was an iPad). This encourages attendees to visit the exhibits, which in turn encourages exhibitors to participate in the conference and also encourages attendees to stay until the end of the conference.

- Providing attendees with continuing education credits encourages attendance. The Program provides these credits for as many types of providers as possible.
- For programs just starting out with conference hosting, it is valuable to have or seek a partner with conference organization experience. Based on experience with its own annual conference, KRHA had several tips for holding a successful conference. In addition, clearly defining the roles of each partner helps the process run smoothly.
- Use connections at high levels to secure experienced speakers. Obtain support from senior public health leadership.
- Quality speakers encourage attendance. In Kentucky, each conference featured Dr. Daron Ferris, Director of HPV Epidemiology & Prevention Program at the Georgia Cancer Center. He treats gynecological cancers and has clinical stories and photos that hold attendee interest.
- Programs should allow sufficient time for planning. Significant lead time is necessary to secure speaker calendars and desirable meeting space.
- To help establish the first conference, there was no registration fee for attendees. Conference attendees were asked about willingness to pay and the majority of respondents were fine with paying a fee. The conference now charges a registration fee to attend.

Relevant resources

- **2016 Kentucky Immunization Conference sponsor form:**
[www.kyrha.org/resources/Documents/Sponsor%20form%20\(1\).pdf](http://www.kyrha.org/resources/Documents/Sponsor%20form%20(1).pdf)

For more information

Kentucky Department for Public Health
Immunization Program
(502) 564-3261

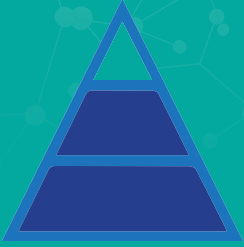


Program Practice Interviews



Watch a short video featuring Margaret Jones (KY) discussing the development of Kentucky's statewide immunization conference.

immunizationmanagers.org/PPInterviews



Moving Forward

Program: West Virginia

Activity: “We Are the Key to Cancer Prevention” HPV vaccination campaign

Overview of activity

The West Virginia Immunization Program conducted an HPV vaccination campaign to encourage providers to address cancer prevention with HPV vaccination.

Adolescent ages targeted

All adolescents, especially those due for HPV vaccine doses

Background/impetus for the activity

The West Virginia Immunization Program and its partners developed a provider education campaign to increase providers use of evidence-based strategies to increase HPV vaccination, make effective vaccine recommendations, and address cancer prevention. The campaign was designed to address low HPV vaccine coverage rates (only 39% of girls and 27% of boys ages 13 to 17 in West Virginia completed the HPV vaccine series in 2015) and high incidence of HPV-associated cancers (West Virginia has the third highest incidence in the US of HPV-associated cancers among both females and males).

Description of activity

Together with the state immunization coalition (the West Virginia Immunization Network, or WIN), the state chapter of the American Cancer Society (WVACS), and the West Virginia Comprehensive Cancer Program, the West Virginia Immunization Program developed a four-component HPV vaccine campaign directed toward providers. The four components are: (1) take the pledge, (2) track improvement, (3) get access to training opportunities and resources, and (4) get recognized.

For the first component, providers take a pledge to join the “We Are the Key to Cancer Prevention” campaign. By signing the practice-level pledge, providers indicate they will strive to achieve an 80% coverage rate for recommended doses of HPV vaccine in both males and females at 11 to 12 years, to protect these patients from HPV-related cancers. The pledge, signed by a medical director or physician, is completed online and rewarded with a displayable certificate. In the second component, practices track improvement through quarterly reports comparing HPV dose distribution to previous quarters. The data are drawn from the West Virginia Statewide Immunization Information System (WVSIS). In the third component, practices receive access to HPV-related training opportunities and resources, such as webinars and a quarterly HPV newsletter. The fourth component is an HPV Vaccination Honor Roll on the campaign website recognizing practices that have signed the pledge.

The educational component utilizes existing resources developed by other organizations (e.g., CDC, AAP), as well as those developed by campaign partners for broader purposes. For example, WIN hosted a webinar on the revised HPV vaccine dosing recommendation and created a poster on HPV vaccination targeted to college students (to address a lack



of materials promoting HPV vaccine to that age group). WIN also developed a video series called “Faces of Vaccine-Preventable Diseases,” which includes cervical cancer and HPV as well as HPV-associated head and neck cancer in males.

Role of immunization program and other agencies/groups involved

The campaign is jointly sponsored by WIN, WVACS, the West Virginia Cancer Program (which is within the West Virginia Department of Health), and the West Virginia Immunization Program. All partners were involved in planning the campaign, and communicate through conference calls and email.

The Program coordinates the quarterly reports drawn from WVSIS and communicates with VFC providers about the campaign. To produce the quarterly reports, the Program worked with its registry vendor to adjust the functionality to pull the data needed. WIN maintains the campaign website as part of its overall website responsibilities for the coalition. It also hosts HPV-related training opportunities and prepares a quarterly HPV newsletter highlighting new resources on improving HPV vaccination rates. The WVACS and West Virginia Cancer Program provide educational materials and communicate with constituents about the campaign.

Dissemination

The West Virginia Immunization Program sent information about the campaign to its 416 public and private VFC provider sites. Partner organizations have disseminated campaign information to constituents (e.g., WIN marketed it to its 800-member listserve). WIN also promoted the campaign and held HPV vaccine-related sessions at several state conferences (e.g., the American Academy of Family Physicians, AAP, Public Health Nurses Association, immunization summit).

Intersection with other program activities

The Program promotes the campaign to VFC providers through regular communication and site visits. In 2017, the Program initiated adolescent AFIX at provider site visits, including an emphasis on tracking and improving HPV vaccine coverage rates.

Funding

Funding for these activities comes from multiple partners. The West Virginia Immunization Program provides staff support and funding for HPV and other immunization-related training through support from the CDC cooperative agreement and state line-item funds. In addition, the West Virginia Cancer Program contributed one-time funds toward the project.

Staffing

The Program Manager was involved in planning the campaign and oversees its implementation. WVSIIIS staff generate the quarterly HPV reports from WVSIIIS. The Program's Health Educator, hired in 2017, is heavily involved in the campaign. This position had been vacant for two years.

Implementation status

Campaign development started in 2015. The campaign officially launched in late summer/early fall 2016 and is ongoing.

Successes

- The West Virginia Immunization Program and WIN have worked very closely on many projects but this was the first time these programs collaborated with the WVACS and the West Virginia Cancer Program. These new partnerships benefit not only this campaign by reinforcing the campaign focus on preventing cancer, but also establish a foundation for future collaboration.
- When the partners developed the idea for the campaign, they did not have anything in their budgets to support it. The campaign was successfully designed for a limited budget by building on existing activities, training opportunities, and available resources.
- In the first year of the campaign, 28 provider sites signed the pledge, including 16 local health departments. Other signers include academic institutions, community health centers, primary care practices, school-based health clinics, a hospital, a university health service office, and a health educator.

Challenges

- Response to the campaign has been lower than hoped, even with the option for providers to opt out of the honor roll and/ quarterly reports. To address this challenge, the West Virginia Immunization Program is intensifying its outreach. In 2017, the program visited a majority of VFC provider sites and included a presentation on the campaign.

Other lessons learned/advice to other programs

- A good start is to identify all potential internal partners within the state health department, such as cancer prevention and health promotion, determine which ones bring complementary strengths to the table, and try to "get them in the tent." The Immunization Program offers leverage and a very strong relationship with VFC provider sites as well as its major programmatic focus on childhood vaccinations.
- Programs should review the functionality of immunization information systems to identify changes needed to create high-quality reports so that provider sites can monitor progress.

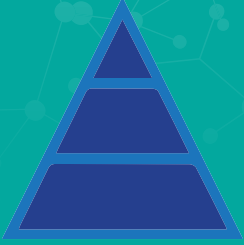
Relevant resources

- WIN HPV resources webpage
<https://wvruralhealth.org/programs/win/members-health-care-providers/resources/hpv-resources/>
- WIN's YouTube channel, with videos from the Faces of Vaccine-Preventable Diseases project:
www.youtube.com/user/ImmunizeNowWV
- "We Are the Key to Cancer Prevention" enrollment including the pledge language:
<https://www.surveymonkey.com/r/H2N85MC>

For more information

West Virginia Department of Health and Human Services
Division of Immunization Services
(304) 558-2188





Taking it to the Next Level

Program: Minnesota

Activity: “Just Another Shot: Reframing the HPV Vaccine” Videos for Providers

Overview of activity

The Minnesota Immunization Program created a video for health care providers on vaccinating adolescents with HPV vaccine.

Ages targeted

All adolescents

Background/impetus for the activity

Based on the gap in coverage rates between HPV vaccine and other adolescent vaccines (MenACWY and Tdap) and evidence showing that health care providers’ approach to HPV vaccine influences acceptance, the Minnesota Immunization Program sought to develop an education tool to improve provider HPV communication.

Description of activity

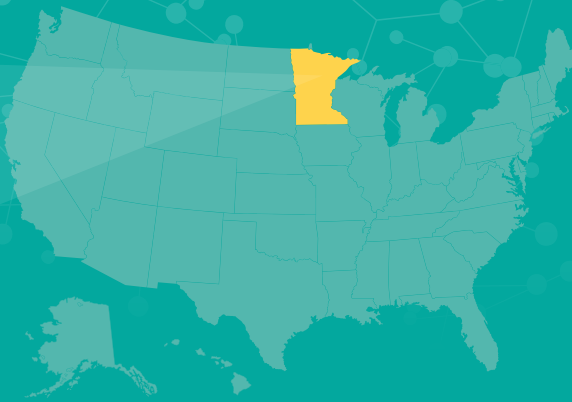
The Minnesota Immunization Program created a video demonstrating positive ways to discuss HPV vaccine with adolescents and parents. The program developed the script, issued an RFP for a professional video production firm, and recruited a practicing family physician (Dr. Jon Hallberg), well-known locally as a Minnesota Public Radio medical correspondent, to serve as narrator. Video development began in October 2013 and the video was posted online in late 2014.

The 12-minute video begins with an introduction by the narrator, followed by three humorous vignettes that parody—using non-HPV vaccines—the ways in which health care providers often discuss HPV vaccine (e.g., less urgent than other vaccines). After each vignette, the narrator explains how the parody illustrates ways in which providers present HPV vaccine to patients and parents without strongly recommending it.

Next are four model clinical encounters in which providers demonstrate positive ways to recommend HPV vaccine and answer common questions from patients and parents. The vaccine is recommended at both acute and preventive visits and to both boys and girls. Each of the model encounters addresses a theme (It’s Effective, It’s Necessary, It’s Safe, It’s Valuable). The four encounters are also available as individual two-minute video segments for targeted use.

Role of immunization program and other agencies/groups involved

The Program developed the script, hired and managed the video production firm, attended the filming, provided feedback on video editing, and promoted use of the video. Internal partners included the Minnesota Department of Health’s legal counsel, which provided contracting advice, its communications office, and the Comprehensive Cancer Control Program, which was represented on the project team.



The video production firm hired the actors, coordinated filming, and edited the videos. The Program's CDC project officer provided feedback on script. Two local clinics allowed use of exam rooms as sets for filming. Many external health care providers provided feedback, either on the script or the rough cut of the video, and one practicing family physician acted as narrator.

Dissemination

The finished video is posted on YouTube and as a resource on the Minnesota Immunization Program's web page for health care providers serving adolescents. The program widely promoted the video to public and private providers, including via monthly newsletters, social media, and the biennial statewide immunization conference. Several state partners and coalitions (e.g., the Minnesota chapter of the AAP, Minnesota Public Health Association, Minnesota Cancer Alliance) also promoted the video to their audiences. The web page with the videos includes instructions for contacting the Program to obtain electronic files of the videos and embedding the videos on a website. The Program also made DVDs available.

Intersection with other program activities

The Program promoted the videos during AFIX and VFC site visits, as appropriate, and through other provider education opportunities (e.g., statewide immunization conference).

Funding

This activity was funded using 317 and HPV Prevention and Public Health Fund (PPHF).

Staffing

The program's HPV PPHF leadership team was involved with putting the video together, including the Adolescent Coordinator, AFIX Coordinator, IIS staff, communications staff, and the Education and Partnerships Unit Supervisor.

Implementation status

Video development is complete. Online availability and sharing of the video is ongoing.

Successes

- As of May 18, 2017, YouTube viewer counts were 4,783 views for the full video; and for the standalone segments: 1,067 for *It's Effective*, 655 for *It's Necessary*, 536 for *It's Safe*, 564 and *It's Valuable*.
- The videos are posted on the Program's HPV Vaccine Video for Health Care Providers website (see Resources section), which had 5,196 views between January 1, 2015, and June 20, 2017.

- The video has been shared and used widely by others, including the CDC, other immunization programs, state and local health departments, private and public health clinics, national and state-level provider organizations (e.g., AAP), universities, and cancer researchers, among others.
- In a brief survey that the Program conducted among those requesting the video, the video was rated 9.2 on a 10-point scale for overall usefulness. The Program also received positive feedback on the video via email.
- Dr. Hallberg's many contributions (e.g., clinical perspective, professional delivery, technical savvy) were invaluable for creating a high-quality end product.

Challenges

- The actors were unfamiliar with the subject matter and needed on-the-spot coaching to know which words to emphasize and which lines contained terminology that should not be paraphrased. Though the program was not always fully satisfied with the actors' delivery, it was not feasible to continue to reshoot. In hindsight, the program would have included in the budget and timeline a rehearsal session with the actors to resolve these issues up front.

Other lessons learned/Advice to other programs

- Getting feedback on the script from external health care providers helped to make the dialogue more realistic.
- Featuring a family physician as spokesperson was important because Minnesota's lowest HPV vaccination rates are in rural areas, where there are more family physicians than pediatricians. Having a physician with existing visibility in the state was also very helpful.
- The program received some comments from users of the videos that the model encounters are a bit long and that it is unrealistic to have all encounters end in vaccine acceptance. If re-doing the project, the program would consider making additional model encounter videos of shorter duration and including some encounters in which the provider must respond to parents declining vaccination.

Relevant resources

- Link to full video and stand-alone segments on the Program's HPV Vaccine Video for Health Care Providers webpage: <https://www.health.state.mn.us/people/immunize/hcp/hpvideos.html>
- Contact health.wevaxteens@state.mn.us to obtain the video files for use in professional education programs.
- The Program's web page for health care providers serving adolescents: www.wevaxteens.com.

For more information

Minnesota Department of Public Health
Infectious Disease Epidemiology, Prevention and Control Division
(651) 201-5503

REFERENCES

- ¹ Unity Consortium, Harris Poll, 2016
- ² Office of Disease Prevention and Health Promotion. (2017). Immunization and Infectious Disease. In Healthy People 2020. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives>
- ³ Bernstein HH, Bocchini JA, AAP COMMITTEE ON INFECTIOUS DISEASES. The Need to Optimize Adolescent Immunization. Pediatrics. 2017;139(3).
- ⁴ Bernstein HH, Bocchini JA, AAP COMMITTEE ON INFECTIOUS DISEASES. Practical Approaches to Optimize Adolescent Immunization. Pediatrics. 2017;139(3).



Adolescent Immunization Resource Guide

Sharing what works. Achieving goals. Developing healthy communities.

Recommendations and Requirements

CHAPTER 5



Association of
Immunization
Managers

Introduction

The Advisory Committee on Immunization Practices (ACIP) is responsible for creating policy recommendations on the use of vaccines and related agents for effective control of vaccine-preventable diseases. Immunization Programs are responsible for implementing new or revised ACIP recommendations in their jurisdictions. Implementing new or updated ACIP recommendations can permeate many facets of the Immunization Program, such as educating teens, parents and health care providers and updating the Immunization Information System (IIS), and Vaccines for Children (VFC) policy and procedures. Each of these items requires planning and coordination across the Immunization Program, with providers, schools, parents, and other community partners.

In addition to implementing ACIP recommendations, Immunization Programs must also implement state/local/territorial vaccination requirements. Many of the requirements are based around entry into childcare, elementary school, middle school or college, as well as participation in certain extracurricular activities like sports teams or clubs.

The activities highlighted in this chapter relate to implementation of recommendations and requirements:

- ◆ *Getting Started:* Getting a jump start on new or revised ACIP vaccine recommendations (North Dakota)
- ◆ *Moving Forward:* Implementing a new school requirement for meningococcal conjugate vaccine (New York State)
- ◆ *Taking It to the Next Level:* Updating VFC policy and school requirements for meningococcal B vaccine (Indiana)





National Resources for Immunization Recommendations and Requirements

- ACIP main website:
www.cdc.gov/vaccines/acip/
- ACIP meetings:
www.cdc.gov/vaccines/acip/meetings/meetings-info.html
- ACIP recommendations and guidelines:
www.cdc.gov/vaccines/hcp/acip-recs/
- ACIP VFC resolutions:
www.cdc.gov/vaccines/programs/vfc/providers/resolutions.html

Child Care/School/College Vaccine Mandates

- Immunization Action Coalition (IAC) webpage on state mandates, including vaccine-specific mandates by state:
www.immunize.org/laws/
- IAC webpage contains links to other resources, including state-specific exemption information and policy statements from various groups on vaccine exemptions:
www.immunize.org/laws/#exempt
- Public Health Law Program data on state health care worker and patient vaccination laws:
www.cdc.gov/phlp/publications/topic/vaccinationlaws.html
- National Conference of State Legislatures (NCSL) webpages on vaccines and immunizations and state legislation and statutes for HPV vaccine (requires NCSL membership):
 - » www.ncsl.org/research/health/public-health-and-prevention/vaccines-and-immunizations.aspx
 - » www.ncsl.org/research/health/hpv-vaccine-state-legislation-and-statutes.aspx
- Association of State and Territorial Health Officials (ASTHO) webpage on state legislative tracking, of which immunizations and vaccines are a subtopic:
<https://www.astho.org/Programs/Immunization/Legislative-Tracking/>

Growing Support for 16-year-old Immunization Platform



In February 2017, the Centers for Disease Control and Prevention (CDC) updated the immunization schedule for children and adolescents, adding a separate column for age 16.¹ The header of the “16 yrs” column is shaded similarly to the “4–6 yrs” and “11–12 yrs” column headers, and the words in the row for meningococcal conjugate vaccine (MCV4) now read “2nd dose” instead of “booster.” These changes draw attention to the need for a second dose of MCV4 vaccine at this age but also emphasize age 16 as an immunization platform.

Several groups have expressed support for an immunization platform at age 16 years, including AIM, the National Foundation for Infectious Diseases, the Society for Adolescent Health and Medicine, and the Adolescent Immunization Initiative.²⁻⁵ This platform will help establish age 16 as a milestone for receiving vaccinations, as well as, provide guidance and other elements of preventive care relevant for older teens.

The expected benefits of an age-16 platform from an immunization standpoint include:

- + administering an on-time second dose of MCV4;
- + providing an opportunity to discuss and/or administer meningococcal B (MenB) vaccine;
- + reviewing and addressing the need for seasonal influenza vaccine and catch-up doses of other vaccines (eg, human papillomavirus (HPV), varicella, hepatitis A, and hepatitis B vaccines); and
- + ensuring that vaccines are given while adolescents are still VFC eligible or covered by parental insurance.

Immunization Programs play a critical role in supporting efforts to increase immunization rates in older adolescents, such as educating providers and families of the importance of immunization at this age, promoting use of reminder/recall, and implementing new school requirements.



AIM Back to School/Catch-Up Immunization Webinar

AIM hosted a webinar with partners from CDC, Unity Consortium, National Association of School Nurses (NASN), and Immunize Nevada to share strategies and activities for back-to-school immunizations during the COVID-19 pandemic and the necessary catch-up childhood immunizations that were delayed due to the pandemic.

<https://www.immunizationmanagers.org/resources/building-a-dream-team-immunization-and-communication-collaboration-communicate-health/>

Observations from an AIM Focus Group on Adolescent Immunization



This information is based on feedback from a focus group consisting of seven Immunization Program Managers. The group discussed opportunities and challenges in promoting adolescent vaccination, especially a 16-year-old platform, and the critical role for Immunization Programs. Additional information about the focus group is available in an issue brief published in the Journal of Public Health Management and Practice:

https://journals.lww.com/jphmp/FullText/2018/11000/Public_Health_Opportunities_to_Improve.9.aspx



Immunization Programs Supporting Providers

Potential Strategies for Improvement:

ADOLESCENT WELL VISIT

- ✚ Consider sending notices about school immunization requirements in early spring or throughout the year instead of the end of the school year. Sending adolescent reminder/recall notices throughout the year may increase awareness about the 16-year-old platform.

Potential Strategies for Improvement:

IMMUNIZATIONS AND NON-TRADITIONAL PROVIDERS

- ✚ Share materials with provider organizations for inclusion in their newsletters to educate providers about adolescent immunization and the new 16-year-old platform.
- ✚ Work with internal partners in dental health and STD prevention to expand the reach of adolescent immunization promotion beyond primary care providers.



Immunization Programs Tracking Adolescent Vaccination Rates

Potential Strategy for Improvement:

STATE-LEVEL ADOLESCENT IMMUNIZATION RECORDS

- ✦ Encourage CDC partners to expand NIS-Teen to measure MCV booster dose coverage at age 16 on a state by state basis.
- ✦ Share local coverage rate estimates to encourage reporting of adolescent data and heighten visibility of adolescent immunization, including the 16-year-old platform.



Immunization Programs Educating the Public

Potential Strategy for Improvement:

EDUCATIONAL MATERIALS FOR OLDER TEENS

- ✦ Develop information packets to address transition to early adulthood; emphasize adolescent responsibility for their own health care and the importance of receiving immunizations while still covered by VFC or parents' insurance.
- ✦ Keep the audience in mind when creating information packets by using content and images relevant to older teens, eg, sports physicals, or driver licensing.

Potential Strategy for Improvement:

LIMITED BUDGETS

- ✦ Use digital advertisements at high school sporting events to promote immunization in this demographic.
- ✦ Create educational slide deck presentations on immunizations and on STDs for health education teachers to use in their classrooms.
- ✦ Encourage and work with national partners to produce adolescent immunization campaigns.



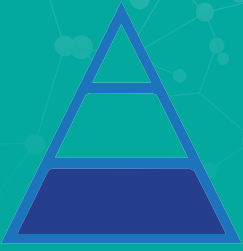
Immunization Programs Addressing School Requirements

Potential Strategy for Improvement:

EDUCATING PARENTS

- ✦ List all vaccines recommended for adolescents, not just those required for school, in communication to parents about school requirements.
- ✦ Have reminder/recall notices refer parents to providers or public health departments to identify needed vaccines, rather than listing specific vaccines.

1. Robinson CL, Romero JR, Kempe A, Pellegrini C; Advisory Committee on Immunization Practices (ACIP) Child/Adolescent Immunization Work Group. Advisory Committee on Immunization Practices Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger – United States, 2017. MMWR Morb Mortal Wkly Rep. 2017;66(5):134–135. Available at: www.cdc.gov/mmwr/volumes/66/wr/mm6605e1.htm.



Getting Started

Program: North Dakota

Activity: Getting a jump start on new or revised ACIP vaccine recommendations

Overview of activity

The North Dakota Department of Health Immunization Program Manager listens to ACIP meetings via the CDC webcast link (www.cdc.gov/vaccines/acip/meetings/webcast-instructions.html) to quickly disseminate to providers information related to new or revised immunization recommendations and begin planning programmatic adjustments.

Ages targeted

All adolescents (no specific ages)

Background/impetus for the activity

When the ACIP makes a new or revised vaccine recommendation, Immunization Programs must disseminate this information to their providers and make decisions about the adjustments needed in program processes (eg, IIS forecasting) and educational materials. North Dakota Immunization Program's approach is described using two recently revised ACIP adolescent vaccine recommendations as examples:

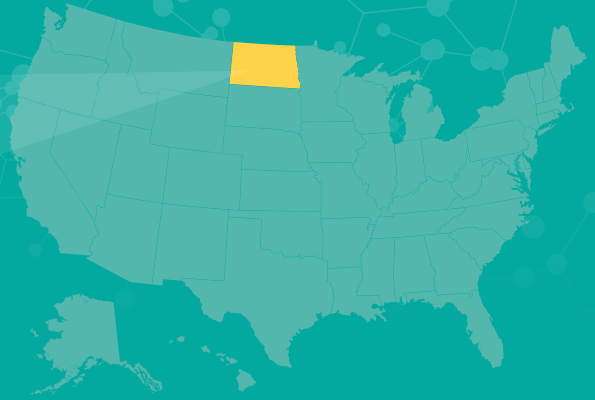
- In June 2015, ACIP revised its recommendation for MenB vaccine, expanding from the existing recommendation for routine use in certain medically at-risk populations and outbreaks, to also include a “permissive” recommendation for individuals aged 16 to 23 years of age, with a preference for vaccination at 16 to 18 years.
- In October 2016, the ACIP lowered the recommended number of HPV vaccine doses from 3 to 2 doses for adolescents who initiate the vaccination series by aged 14 years.

Description of activity

When a new or revised vaccine recommendation is scheduled for discussion at an ACIP meeting (held three times per year), the Program Manager listens to the relevant portions of the live meeting webcast. After the meeting, the Program Manager writes a brief summary of the recommendation and related ACIP discussion. This summary is shared with program staff and is sent to the program's public and private VFC providers.

The Immunization Program staff internally discusses what needs to be done in response to the recommendation, including revising or developing educational resources and making changes to the North Dakota Immunization Information System (NDIIS). The program also solicits feedback from the state Immunization Advisory Committee (NDIAC), especially from provider members regarding how they expect to implement the recommendation and any potential issues they foresee.

Changes to NDIIS may be needed to reflect new or updated ACIP recommendations such as revisions to the vaccine ordering system, forecasting algorithm, reminder/recall protocol, and algorithm for generating coverage rate reports. Changes to the forecasting algorithm take the longest to implement, as they are done by an outside vendor that supports IIS forecasting in several states. The program pays the vendor a flat annual maintenance fee



for their services, so ACIP recommendation changes do not affect cost to the program for forecaster revisions.

Some of the decisions and issues specific to the new MenB permissive recommendation addressed by the Immunization Program include:

- The Immunization Program recommends to its providers that they keep some MenB vaccine in stock, even if they do not plan to routinely recommend the vaccine, in case of patient/parent request.
- The program sought feedback from the NDIAC on how to address MenB vaccine forecasting in the NDIIIS, given that it is a permissive recommendation and NDIIIS cannot forecast a permissive recommendation differently than a routine recommendation. The options were to forecast MenB vaccine either for all adolescents aged 16 to 23 years or only for those adolescents who received a first dose (ie, forecasting subsequent doses). The NDIAC decided to have NDIIIS forecast the vaccine for all adolescents, in part to prompt providers to discuss the availability of the vaccine with patients and parents.
- The NDIIIS forecaster had to take into account that the two available MenB vaccine products were not interchangeable and initially had different schedules. NDIIIS forecasts the next dose as the same brand as the first dose received; if the other brand is used for the next dose, then the forecaster will show that additional dose(s) of that brand are needed.
- The program decided not to include MenB vaccine in its quarterly reminder/recall of adolescents aged 12 to 17 years, because nearly every adolescent aged 16 to 17 would be included. This would be costly, and because the vaccine is not routinely recommended for all adolescents, it could also be confusing to parents.

Some of the decisions and issues specific to the revised HPV recommendation addressed by the Immunization Program include:

- The Immunization Program decided to exclude HPV from its quarterly adolescent reminder/recall efforts until the forecaster is ready, because the program does not want to recall adolescents for a third dose who are no longer recommended to receive one.
- The program will change how it calculates and reports HPV coverage rates, which affects the coverage rate reports that it posts on its website as well as those that are generated for quarterly provider site rate report cards and AFIX visits.

Role of Immunization Program and other agencies/groups involved

The Immunization Program is responsible for implementing new or revised ACIP recommendations in the state and disseminating relevant information to public and private immunization providers. The North Dakota state chapters of the American Academy of Pediatrics (AAP) and American Academy of Family Physicians (AAFP) are not as active as in other states, so the Immunization Program is the main resource for providers (other than for those in large health systems).

Dissemination

The Immunization Program uses its VFC provider listserv to communicate guidance on new and revised ACIP recommendations to its providers. Other dissemination tools include monthly “Lunch and Learn” webinars, a quarterly newsletter, and biennial immunization conferences. Non-VFC providers are more difficult to reach, but they also may attend the lunchtime programs and the state immunization conference. The program also reaches out to various associations (eg, Pharmacy Association, Long Term Care Association, NDAAP) to provide education at their conferences. The Immunization Program also notifies North Dakota Medicaid of changes/additions to ACIP recommendations to ensure rapid coverage on the Medicaid formulary.

Intersection with other program activities

New or revised ACIP recommendations must be integrated into all of the program’s activities relevant to the recommendation, including parent and provider education efforts, NDIIS, and VFC policy and procedures.

Funding

This activity is funded as part of the Immunization Program’s CDC cooperative agreement.

Staffing

All staff are involved in implementing new or revised ACIP recommendations as part of their normal duties. The Immunization Program Manager listens to and summarizes relevant ACIP meetings. All staff members are trained to address questions and answers/calls to the program’s toll-free number, and an increased amount of staff time is devoted to answering the increased volume in calls following a recommendation change. NDIIS staff test the vendor’s forecaster changes before putting it into production.

Implementation status

This activity occurs as needed, ie, whenever ACIP updates vaccine recommendations.

Successes

- Listening to the ACIP discussion related to new or revised recommendations can provide a deeper understanding of the issues and rationale, which is helpful for addressing provider questions.
- The program has a very small staff; training all staff to answer provider questions helps improve their own understanding of the recommendation and distributes the workload of responding to provider calls.
- The NDIIS uses [CDC’s Clinical Decision Support for Immunization](https://www.cdc.gov/vaccines/programs/iis/cdsi.html) (<https://www.cdc.gov/vaccines/programs/iis/cdsi.html>), which has reduced the amount of staff time to provide cases for the immunization forecaster to the vendor. Additionally, all Immunization Program staff test forecaster changes in the NDIIS test environment, which ensures issues are identified prior to production.

Challenges

- Permissive recommendations, such as for MenB vaccine, generate a high volume of provider calls with questions and requests for guidance, which require extra communication and call response by the program. To help providers make their own decisions, the program explains the rationale for the recommendation being permissive rather than routine.
- Permissive recommendations can lead to differential implementation across providers.

For example, the largest health system in North Dakota has its own immunization advisory committee, which decided to routinely recommend MenB vaccine for all of its patients aged 16 to 23 years. Interpretation of MenB vaccine coverage data will need to take into account these differences.

- Addressing recommendations for vaccines with more than one brand that are not interchangeable is more challenging, such as for MenB vaccine. IIS forecasting must take into account that a person who receives two different brands will require additional doses. Also, providers do not want to stock multiple brands in their offices. In addition, availability was an issue for one of the MenB vaccine brands after its FDA approval and ACIP recommendation.
- Providers do not usually like to implement ACIP recommendations until they are published in Morbidity and Mortality Weekly Report (MMWR), but the CDC encouraged immediate implementation of the 2-dose HPV recommendation. This led to a lot of questions and confusion among providers.
- When changes to IIS forecasting algorithms are complicated, such as for the 2-dose HPV vaccine recommendation, it can take several months for the vendor to complete the revisions. Providers generally follow the NDIIS forecaster, so although the recommendations changed for HPV vaccine, since the forecaster wasn't updated immediately, providers continued to administer three doses. The program develops guidance materials for providers in the interim, such as an HPV vaccine algorithm flowchart that it posted on its website.

Other lessons learned/Advice to other programs

- Participating in meetings at which new and revised recommendations are discussed (eg, ACIP meetings and AIM calls that occur after ACIP meetings) helps programs to stay informed. Providers should not hear about ACIP updates before the Immunization Program. Also, it can take up to 90 days for ACIP meeting minutes to be published online, so listening to the webcasts is the fastest way to get the information.
- It is helpful to review ACIP meeting agendas beforehand to identify the specific items of interest. The meetings last two days and it is not usually feasible to listen to the entirety.
- IIS staff should be included in conversations about upcoming or recent ACIP recommendation changes so that the IIS can be updated in as timely a manner as possible.

Relevant resources

- North Dakota HPV algorithm flowchart: www.health.nd.gov/sites/www/files/documents/Files/MSS/Immunizations/Providers/HPVAlgorithm.pdf
- North Dakota Immunization Coverage Rates: www.ndhealth.gov/Immunize/NDIIS/Rates.aspx
- North Dakota Lunch and Learns: www.ndhealth.gov/Immunize/Providers/Education.aspx
- NDDoH Vaccine Management Policy (page 15 – Men B inventory): www.health.nd.gov/sites/www/files/documents/Files/MSS/Immunizations/Providers/2020%20Vaccine%20Mgmt%20Policy%20Final.pdf

For more information

North Dakota Department of Health
Immunization Program
(701) 328-3386



“One of our most successful strategies involving older adolescents (age 16–18 years) was revising school requirements to include the second dose MCV4 and the HepA vaccines for high school seniors—which in turn creates a platform for HPV and MenB administration.”

— David McCormick, *Indiana Program Manager*



Moving Forward

Program: New York State

Activity: Implementing a new school requirement for meningococcal conjugate vaccine

Overview of activity

In response to a new school-entry requirement affecting adolescents, the New York State Department of Health Bureau of Immunization took a variety of steps to support its implementation.

Ages targeted

Public and private school students entering grades 7 and 12.

Background/impetus for the activity

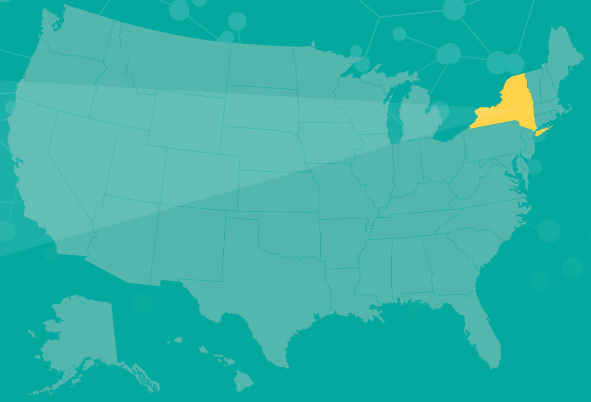
In New York State, new school immunization requirements must be added by the state legislature; then regulations consistent with statutory requirements may be revised or promulgated. In June 2015, the state legislature passed a bill to require meningococcal vaccine for students entering grades 7 and 12, effective Sept. 1, 2016. The bill was signed into law in October 2015. The New York State Department of Health Bureau of Immunization was not involved in initiating the new law, but did support the bill. Once the bill passed, the Bureau took many steps to ensure smooth implementation of the new requirement.

Description of activity

Once the bill passed the legislature, the Immunization Bureau began drafting amendments to the public health regulations related to school immunization requirements. To amend the regulations, the Bureau referred to language used for prior school immunization requirements and to the ACIP recommendations. Although the law refers generally to “meningococcal vaccine,” the requirement is written specific to meningococcal conjugate vaccine (MCV4). For the 2016-2017 school year, one dose of MCV4 is required before grade 7 and a total of two doses are required before grade 12 (unless the first dose was received on or after a student’s 16th birthday). The one-dose MCV4 requirement steps up a grade each year (eg, for the 2017-2018 school year, one dose is required for entry into both grade 7 and 8).

Soon after the bill was passed, the Bureau sent a letter to health care providers and schools that included basic information on the new requirement, so they could prepare for its implementation. A second letter was sent as a notification of the 45-day public comment period for the proposed regulation and to provide more detail on the requirement.

The Bureau looked at MCV4 coverage rates in both NIS-Teen and the New York State IIS (NYSIIS). In 2014, NIS-Teen data, the New York State-specific rate for one dose at aged 13 to 17 years was comparable to the national average (75% vs 79%, respectively, with overlapping confidence intervals), while the rate for two or more doses at aged 17 (available at the national level only) was 29%; NYSIIS rates were similar. The Immunization Bureau also developed and ran various test scenarios (eg, unusual schedules) in NYSIIS to anticipate implementation issues. The Bureau used these data to create outreach materials designed to increase awareness of the second dose recommendation.



To educate health care providers, school staff with immunization-related responsibilities, and parents about the new requirement, the Immunization Bureau:

- Updated a chart prepared annually for schools that summarizes and explains school-entry requirements (April 2016)
- Developed frequently asked questions (FAQs) documents for both health care providers and schools (April 2016)
- Held a webinar for health care providers discussing the new school immunization requirement, the ACIP recommendations, and best practices for getting adolescents immunized (January 2016)
- Held a webinar for schools focused on the new school immunization requirements and how to implement them (March 2016)
- Created a flyer for parents (see image at left) that was posted on the Bureau's website and made available to schools and health care providers as parent handouts; it was translated into five languages (January-February 2016)
- Developed a new website specifically focused on the meningococcal school requirement (January-February 2016)
- Conducted a media campaign (February-May 2016) with television, radio, digital, and social media messaging, as well as a smaller online campaign in Summer 2016 for a back-to-school reminder
- Distributed copies of the parent flyers to local health departments (LHDs) during an annual meeting (March 2016) and asked them to hand deliver them to health care providers

To monitor uptake and compliance with the new requirement, the Bureau monitors MCV4 coverage in NYSIIS and plans to look at data from its Annual School Survey.

Role of Immunization Program and other agencies/groups involved

The Bureau was responsible for amending the regulations, developing and sending materials to health care providers and schools, and setting up NYSIIS to monitor coverage rates. These regulations were adopted in accordance with the requirements in the New York State Administrative Procedure Act (SAPA).

Throughout the process the Immunization Bureau worked very closely with the State Education Department, especially on the language of the regulations. The Bureau also worked with the New York City Department of Health and Mental Hygiene, which is a separate CDC awardee but is covered by the same statewide school requirements, on the wording of the new regulations and supporting materials. Together the three parties held a number of calls with the state association representing private and parochial schools to inform and gather feedback from its members on the new requirement.

The Bureau also worked with its LHD partners, who have in-depth knowledge of their school populations. The LHDs worked closely with schools in their jurisdiction to support efforts to get adolescents immunized.

The media campaign was managed internally through the state's Bureau of Marketing and Creative Communications, a division of the Public Affairs Group. They created the advertisements and contracted with a video production company to produce the video advertisement, and with a media buyer for advertising placement. Printing of materials was done in house. Bureau staff conducted the webinars.

Dissemination

The Bureau disseminates information about new school immunization requirements to providers and schools through existing listservs, by posting on its public web page, and through the state's health commerce system (HCS); HCS accounts are required for all schools and medical professionals.

Intersection with other program activities

Addressing the new school immunization requirement overlapped with the regular duties of the Immunization Bureau's NYSIIS and school assessment staff.

Funding

The media campaign was largely supported by state funds, with support for staff time and a small amount for the media campaign supported by the Bureau's CDC cooperative agreement.

Staffing

Key staff members involved included the Immunization Program Manager, the Bureau's Adult and Adolescent Immunization Coordinator and School Assessment Coordinator, NYSIIS staff, and the Division of Legal Affairs.

Implementation status

The media campaign has ended, although the Bureau will continue social media postings (eg, Facebook, Twitter) during back-to-school time. The Bureau conducts an annual webinar on school requirements for the upcoming school year, which is usually held in March for the start of the school year in the fall. The Immunization Bureau also annually updates materials such as the immunization chart and FAQs documents.

Successes

- It was helpful for the Immunization Program to have nearly a year's head start from the time when the bill initially passed the legislature to the date of implementation.
- Based on feedback from school nurses, the lead time gave them ample time to screen students' records in NYSIIS and alert parents that doses were needed.
- The parent flyer has been well received by parents and schools. Also, several Immunization Programs have asked permission to adapt the flyer for their own school requirements. The Bureau also received positive feedback on the media campaign and webinars.
- The LHDs were an important partner. Many were very proactive in holding clinics in the schools, working closely with schools to promote clinics in other locations, and extending their usual immunization clinic hours. They vaccinated large numbers of adolescents in a short period of time to ensure that they met the new requirement.
- NYSIIS has been a great tool to monitor progress, and NYSIIS coverage data are encouraging. As of December 2016, coverage of one dose had improved 8 percentage points from the prior year. For students in grade 12, looking at either two doses or one dose at aged 16 years or older, coverage had increased by 28 percentage points, which far exceeded the Bureau's expectations.

Challenges

- The Bureau was surprised by the number of calls it received regarding adolescents who had received two doses of MCV4 prior to aged 16 (which means they needed a third dose). The Bureau thought this would be a rare situation related to medical indications. The issue seems to be that some providers gave the first dose earlier than aged 11 to 12 years and then gave the second dose 5 years after that, prior to aged 16.
- Most public schools have school nurses, but private schools often do not have any medical personnel on staff. NYSIIS indicates whether doses are valid or invalid and whether the series is complete, but if a student's information is incomplete in NYSIIS or the school does not use NYSIIS, nonmedical staff may have difficulty interpreting whether students meet the requirement.
- There were some concerns about students in grade 12 potentially not qualifying to graduate if they missed too many days of school due to noncompliance with the meningococcal vaccine requirement. The second MCV4 dose is challenging in part because students are not required to receive a physical for grade 12, and older adolescents often do not routinely visit a health care provider other than the subset requiring sports physicals. Anticipating this challenge, the Bureau sent information to providers specific to the second dose in February 2016, including the rationale for the second dose recommendation and helpful handouts from the Immunization Action Coalition's Give2MCV4.org project. These materials were well received.
- The Tdap (grade 6) and MCV4 (grade 7) school-entry requirements are required at different grades. Therefore, guidance and clarification about this was provided to schools, providers, and parents.
- NYSIIS does not record a student's grade level, so age is used as a proxy for calculating coverage rates in NYSIIS. For students in grade 7, the proxy is ages 12 years and 0 days to 12 years and 364 days, with a similar range for 17-year-olds representing 12th graders, understanding that some children in those groups are actually in the grade above or below.
- While the law refers to "meningococcal vaccine" generally, the Bureau specifies in its materials that the MenB vaccine may not be substituted in place of the required MCV4 vaccine.

Other lessons learned/Advice to other programs

- Engage partners (eg, providers, schools, LHDs) as broadly and early as possible. The more time they are given to prepare for new school requirements, have their questions answered, and disseminate information to parents, the less chance that the requirements take anyone by surprise.
- When preparing for implementation of new school requirements, it is helpful to add more staff, if possible, to handle incoming calls. The Bureau experienced very high call volumes in the summer and fall, even with all the materials that were disseminated.
- Keep an eye on vaccine supply. The Bureau notified its VFC providers in early summer, to encourage them to have an ample supply of meningococcal vaccine in stock. With the recent emphasis on reducing wastage, providers are sometimes too conservative in their vaccine orders. There were occasional concerns about providers running out of vaccine, but for the most part, the Bureau believes this messaging was effective.
- IIS can be very helpful to support new school requirements, such as to explore potential implementation issues and monitor the impact on coverage rates.

Relevant resources

- School and provider materials related to the new school requirement:
www.health.ny.gov/prevention/immunization/schools/school_vaccines/
- Flyer for parents on new requirement:
www.health.ny.gov/publications/2169.pdf

For more information

New York State Department of Health
Bureau of Immunization
(518) 473-4437



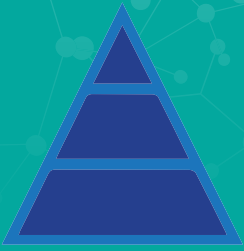
Program Practice Interviews



Dr. Elizabeth Rausch-Phung (NY) discussing the program's implementation of a new school requirement for meningococcal vaccination for students entering 7th and 12th grades.

immunizationmanagers.org/PPInterviews





Taking it to the Next Level

Program: Indiana

Activity: Updating VFC policy and school recommendations for MenB vaccine

Overview of activity

The Indiana State Department of Health Immunization Program implemented a requirement for VFC providers to stock MenB vaccine and planned to require or recommend the vaccine for incoming students in grade 12.

Ages targeted

Adolescents aged 16 to 18 years

Background/impetus for the activity

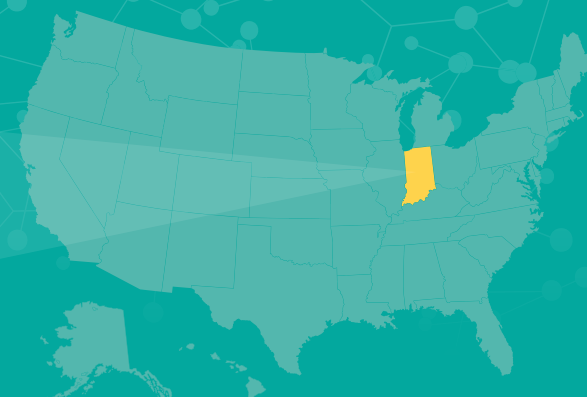
In June 2015, the ACIP revised its recommendation for MenB vaccine, expanding from the existing recommendation for routine use in certain medically at-risk populations and outbreaks, to also include a “permissive” or Category B recommendation for individuals aged 16 to 23 years, with a preference for vaccination at 16 to 18 years of age.

Description of activity

As with any change in vaccine recommendations, the Indiana Immunization Program responded to the MenB permissive recommendation by reviewing information about the vaccine and disease incidence in the state, the language of the ACIP recommendation, the state administrative code relevant to vaccines, and VFC program policies. Based on the VFC provider agreement, which states that providers must offer all ACIP recommended vaccines and makes no distinction between Category A versus Category B recommendations, the program’s interpretation was that VFC providers must stock MenB vaccine. In addition, the program wanted to minimize missed opportunities and felt that the ACIP language regarding “individual clinical decision” signified that a provider should administer the vaccine if they determine that a patient needs or wants the vaccine. The program also checked with the Indiana Department of Insurance and its Medicaid program to ensure that the MenB vaccine and an administration fee would be covered by insurance. Taking all of this information into account, the Immunization Program communicated to its VFC providers that they must stock the MenB vaccine and discuss MenB with all patients aged 16 to 18 years. The program communicated multiple times with providers about the new requirement and asked them to comply within 60 days.

The Immunization Program requires providers to stock at least one box of 10 doses, unless they can show proof that they would not see at least five patients aged 16 to 18 years in a 2-year span. A few providers with eligible patient populations that did not stock MenB vaccine were suspended from the VFC program. Due to the cost of MenB vaccine, the program asks providers to stock only one of the two brands. However, the program does require LHDs or other providers with documented patients to carry both products. For example, providers who are attempting to do catch up college students (up to aged 19 years) in their county.

With respect to school requirements, the program has a committee that discusses changes to school requirements. The committee was aware that the MenB vaccine was in the pipeline, and the program started informing schools that MenB vaccine could be required for school



2017-2018 School Year School Entry Immunization Requirements		2018-2019 School Year (Proposed) School Entry Immunization Requirements	
Below are the number of doses and each vaccine required for school entry. Changes for this year include the Hepatitis A vaccine for grades K–3.		Below are the number of doses and each vaccine required for school entry. Changes for this year include Hepatitis A for grades K–4, 6 and 12th grade and Meningococcal Serogroup B vaccine for 12th grade.	
3 to 5 years old		3 to 5 years old	
3 Hep B (Hepatitis B) 4 DTaP (Diphtheria, Tetanus & Pertussis) 3 Polio (Inactivated Polio) 1 MMR (Measles, Mumps & Rubella) 1 Varicella		3 Hep B (Hepatitis B) 4 DTaP (Diphtheria, Tetanus & Pertussis) 3 Polio (Inactivated Polio) 1 MMR (Measles, Mumps & Rubella) 1 Varicella	
K-3rd grade		K–4th grade	
3 Hep B 5 DTaP 4 Polio		3 Hep B 5 DTaP 4 Polio	
		2 MMR 2 Varicella 2 Hep A (Hepatitis A)	
Grades 4 to 5		Grade 5	
3 Hep B 5 DTaP 4 Polio		3 Hep B 5 DTaP 4 Polio	
		2 MMR 2 Varicella 2 Hep A*	
Grades 6 to 11		Grade 6	
3 Hep B 5 DTaP 4 Polio 2 Hep A*		3 Hep B 5 DTaP 4 Polio 2 Hep A	
		2 MMR 2 Varicella 1 Tdap (Tetanus & Pertussis) 1 MCV4 (Meningococcal)	
Grade 12		Grades 7 to 11	
3 Hep B 5 DTaP 4 Polio 2 Hep A*		3 Hep B 5 DTaP 4 Polio 2 Hep A*	
		2 MMR 2 Varicella 1 Tdap (Tetanus & Pertussis) 1 MCV4 (Meningococcal)	
		Grade 12	
		3 Hep B 5 DTaP 4 Polio 2 Hep A	
		2 MMR 2 Varicella 1 Tdap (Tetanus & Pertussis) 2 MCV4 (Meningococcal) 2 MenB (Meningococcal B)*	
<p>Hep B The minimum age for the 3rd dose of Hepatitis B is 24 weeks of age.</p> <p>DTaP Four doses of DTaP/DTP/DT are acceptable if 4th dose was administered on or after child's 4th birthday.</p> <p>Polio Three doses of Polio are acceptable for all grade levels if the third dose was given on or after the 4th birthday and at least 6 months after the previous dose with only one type of vaccine used (all OPV or all IPV). For students in grades kindergarten through 5th grade, the final dose must be administered on or after the 4th birthday, and be administered at least 6 months after the previous dose.</p> <p>Varicella Physician documentation of disease history, including month and year, is proof of immunity for children entering preschool through 7th grade. Parental report of disease history is acceptable for grades 8-12.</p> <p>MCV4 Individuals who receive dose 1 after their 16th birthday only need 1 dose of MCV4.</p> <p>Hep A The minimum interval between 1st and 2nd dose is 6 calendar months. K-3 is required.</p> <p>*For grades 4-12, two doses of Hep A are recommended.</p> <p>MenB A complete series of Meningococcal Serogroup B vaccine.</p> <p>*For grade 12, a complete series of MenB is recommended.</p>		<p>Hep B The minimum age for the 3rd dose of Hepatitis B is 24 weeks of age.</p> <p>DTaP Four doses of DTaP/DTP/DT are acceptable if 4th dose was administered on or after child's 4th birthday.</p> <p>Polio Three doses of Polio are acceptable for all grade levels if the third dose was given on or after the 4th birthday and at least 6 months after the previous dose with only one type of vaccine used (all OPV or all IPV). For students in grades kindergarten through 6th grade, the final dose must be administered on or after the 4th birthday, and be administered at least 6 months after the previous dose.</p> <p>MCV4 Individuals who receive dose 1 on or after their 16th birthday only need 1 dose of MCV4.</p> <p>Hep A The minimum interval between 1st and 2nd dose is 6 calendar months. Two doses of Hep A is required for K-4, 6th and 12th grades and recommended for 5th grade and grades 7-11.</p>	
Indiana State Department of Health, Immunization Division (800) 701-0704		Indiana State Department of Health, Immunization Division (800) 701-0704	

entry at some point in the near future. When the ACIP issued a permissive recommendation, the committee first decided to not include MenB as a school requirement. However, the committee then reviewed the relevant state administrative code, which is broadly written to say that all school-aged children shall be protected against “meningitis,” which would include MenB disease.

The Immunization Program does not need legislative approval to update the list of vaccines required for school entry but must give 2 years’ notice of new requirements. The program is required to release the 2-year schedule every November, showing new requirements as recommended for the upcoming year, and as required for the following year. For example, MenB vaccine for incoming seniors is recommended for the 2017-2018 school year and required in the proposed 2018-2019 schedule (see image above). This requirement complements the existing grade 12 requirement for a second dose of MCV4 vaccine and a new requirement for Hepatitis A (HepA) vaccine in grades 6 and 12. The congruence of dose spacing between the HepA, HPV, and MenB vaccines enhances the program’s efforts to spur vaccine series completion among adolescents.

The program received significant provider pushback on the MenB school requirement. Providers felt the state was overriding “individual clinical decision” and going over and

above the ACIP/CDC recommendation. The state chapter of the AAP also did not support the requirement. After substantial discussion, both parties agreed the program will change the 2018-2019 requirement to a recommendation with documentation of parent refusal after consulting with a physician.

Role of Immunization Program and other agencies/groups involved

The Immunization Program determines and implements changes to its VFC provider policies so they are consistent with new ACIP recommendations, and develops new school requirements in conjunction with its school requirements advisory committee. The committee usually meets in July to discuss current recommendations and then solicits comments. Participants on this committee include the Indiana Immunization Coalition, the Indiana Department of Education, the Indiana School Nurses Association, and one or two provider representatives (typically a LHD and a private provider). Based on the program's discussions with the state chapter of the AAP on the MenB vaccine school requirement, a member of the AAP state chapter will now also sit on this committee.

Dissemination

The program communicated information about the MenB VFC policy and related educational materials to providers via the program's monthly newsletter, email blasts, and mailed letters. School requirements are sent to each school corporation operating in the state via the superintendent and school nurse. School requirements are also sent to health care professionals through the Indiana Professional Licensing Agency.

Intersection with other program activities

The MenB VFC policy change occurred during influenza season, during which the program has frequent interactions with providers. The program used these opportunities to discuss the MenB vaccine, such as clearing up confusion between the MCV4 and MenB vaccines. The program also uses influenza vaccine orders as a compliance tool. The program has put a hold on providers' influenza vaccine orders to ensure compliance with IIS reporting, dose-level accountability, and stocking of VFC vaccines, including MenB vaccine.

The Immunization Program added information on MenB vaccine into its vaccine training workshop ("Immunizations from A to Z"), which providers are encouraged to complete at least once every 2 years.

The Indiana system IIS, known as CHIRP (Children and Hoosier Immunization Registry Program), was updated for MenB ordering and forecasting. However, MenB vaccine is not yet included in the program's centralized reminder recalls. The program is making changes to the IIS to accept parent refusal information via HL7 messaging, instead of via manual entry, in case the MenB school requirement is revised per the agreement with the state chapter of the AAP.

Funding

Program activities related to the VFC policy change and school requirements for MenB vaccine are funded through its CDC cooperative agreement.

Staffing

Program activities related to the VFC policy change and school requirements for MenB vaccine involve the Program Manager, VFC coordinator, and IIS staff. In addition, the chief nurse consultant acts as the program's liaison with school nurses.

Implementation status

The VFC policy for MenB vaccine is in place. MenB is not a required vaccine for school, but it is still on the school vaccine chart as recommended.

Successes

- Between January and June 2016, the proportion of VFC providers stocking MenB vaccine increased from less than 10% to more than 90%, and the number of doses administered per month went from fewer than 500 to more than 2,500 doses.
- Using influenza vaccine orders as a compliance tool has been successful because providers are highly motivated to have influenza vaccine in stock. (Influenza vaccine orders have been held for 43 providers)
- Discussions with the state chapter of the AAP regarding their concerns with the MenB vaccine school requirement led to a unique compromise solution and strengthened this partnership going forward.

Challenges

- In its initial communications with providers about the requirement to stock MenB vaccine, the program did not take into account that some providers do not see patients aged 16 to 18 years. After pushback from these providers, the program adjusted the requirement to exclude providers who could provide evidence that they did not see the relevant patient population.
- The program experienced barriers in trying to communicate the updated VFC policy for MenB vaccine to its providers. For example, the program used its VFC listserv to email providers, but found that these emails often were not read, and that some email addresses were invalid or were for generic practice email accounts that were not regularly monitored. In addition, a practice's VFC contact was often not the person making vaccine stocking decisions, so the information did not always reach the most appropriate person. The program determined that letters sent by postal mail, targeted to the medical director, were the most effective way to communicate this VFC policy change.
- From the Immunization Program's perspective, federal guidance did not address whether Category B recommendations should be treated any differently under the VFC program. The program proceeded with its policy based on its interpretation of the VFC provider agreement. The program had put considerable effort into ensuring provider compliance with stocking all VFC vaccines (eg, rotavirus and HPV vaccines), and thought that having a different policy for MenB vaccine would be unfair and inconsistent.
- Many providers were confused about the difference between the MenB and MCV4 vaccines, which the program addressed via educational materials and discussions with providers.
- Many VFC providers called to express their disagreement with the requirement to stock a vaccine that had received a Category B recommendation from the ACIP. The program was able to resolve most of these calls by sharing data on MenB disease in the state (eg, most of the recent meningitis cases in the state were caused by MenB) and reminding providers that the recommendation states the vaccine should be offered if the patient wants it after discussing it with the provider.
- The program's requirement to stock a box of 10 doses was challenging at first because the first few shipments of one of the available brands had a very short shelf life. To minimize vaccine wastage, the program worked with providers to move vaccine among neighboring providers, if necessary.

- Medicaid initially declined some claims for MCV4 and MenB vaccines given in the same visit. The two vaccines have the same billing code. The program worked with Medicaid to create an identifier for providers to use in these situations, so that Medicaid could tell that it was two different vaccines given in the same visit, not the same vaccine being billed twice.

Other lessons learned/Advice to other programs

- Programs should review data on the types of meningitis disease circulating in their state. The Indiana Immunization Program was unaware that MenB was circulating in the state before looking at the data, but nearly 80% of the 15 meningitis cases seen in Indiana in 2014-2015 were caused by MenB. If a state finds that MenB is circulating in the state, these data can help support MenB vaccine policies.
- Based on the program's experience establishing a MenB vaccine school requirement, the state chapter of the AAP will now be represented on the program's school requirements committee to ensure that its perspective is taken into account, and that it can keep its membership informed.
- Programs should ensure that existing partners are sufficiently informed and involved with changes to program policies and requirements, especially in unique situations (eg, Category B vaccine recommendation).
- The program's goal is to maintain an effective delivery system for viable vaccines to the eligible population. In doing so, it must balance broad provider participation against issues of provider compliance. Indiana is willing to lose some providers who are unwilling to comply in order to have an immunization system of greater integrity. To ensure that provider dropout does not contribute to decreased access to immunization providers, the program monitors access and potential pockets of need via program data (eg, from IIS) and communication with LHDs, which are on the frontlines.

Relevant resources

- Indiana Immunization Coalition MenB campaign: <http://vaccinateindiana.org/beware-of-b/>

For more information

Indiana State Department of Health
Immunization Division
(317) 233-1325

This Resource Guide was made possible through support from Sanofi Pasteur.

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- ¹ Centers for Disease Control and Prevention (CDC). Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger, United States, 2017. Available at: www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf. Updated Jan.1, 2017. Accessed Dec 31, 2017.
- ² National Foundation for Infectious Diseases. Call to Action: Addressing new and ongoing adolescent vaccination challenges. Available at: www.adolescentvaccination.org/resources/call-to-action-adolescent-vaccination-challenges.pdf. Released March 2016. Accessed Dec. 31, 2017.
- ³ Society for Adolescent Health and Medicine. Position statement: Establishing an immunization platform for 16-year-olds in the United States. *J Adolesc Health*. 2017;60(4):475–476.
- ⁴ Adolescent Immunization Initiative. Rationale for an immunization platform at 16 years of age. Available at: www.give2m4.org/content/uploads/2017/03/rationale-for-16-year-old-immunization-platform.pdf. Released February 2017. Accessed Dec. 31, 2017.
- ⁵ Association of Immunization Managers. Issue brief: Public Health Opportunities to Improve Late-Adolescent Immunization *Journal of Public Health Management and Practice*. 24(2):190–192, March/April 2018. <https://www.immunizationmanagers.org/resources/journal-of-public-health-management-and-practice-public-health-opportunities-to-improve-late-adolescent-immunization/>

Press release: AIM Commends Establishment of 16-year-old Immunization Platform Visit. March 2017. Available at: [<https://www.immunizationmanagers.org/resources/aim-commends-establishment-of-16-year-old-immunization-platform-visit/>]. Released March 2017. Accessed Dec. 31, 2017.

Adolescent Immunization Resource Guide

Sharing what works. Achieving goals. Developing healthy communities.



Engaging Parents

CHAPTER 6



Association of
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Managers

Introduction

Parents play a critical role in the health and wellness of their children, including ensuring their teen has received all ACIP-recommended adolescent vaccines. Based on recent survey data, approximately two-thirds of teens reported being anxious about making decisions related to their health. Many teenagers turn to their parents for information about their health, and almost all teenagers reported that they were comfortable asking their parents questions and trust them when it comes to issues about their health.¹ When it comes to vaccination, 87% of parents said they feel responsible for their teen receiving all recommended vaccines.¹ Teenagers also believe that parents should be primarily responsible for their children getting all recommended vaccines from childhood through adolescence.¹

Even though parents are working hard to keep their children healthy, some parents are unaware of the importance of adolescent immunizations. Twenty-three percent of parents surveyed said they believe vaccines are for babies, and not as important for teenagers.¹ Therefore, it is important for immunization programs to conduct outreach initiatives to the public to increase awareness for adolescent vaccines, as well as targeted messaging on specific vaccines such as HPV.

The activities highlighted in this chapter relate to engaging parents:

- ◆ *Getting Started:* Protect Their Future poster (Georgia)
- ◆ *Moving Forward:* HPV public awareness campaign (Massachusetts)
- ◆ *Taking It to the Next Level:* Adolescent vaccine public awareness campaign (Texas)

¹ Unity Consortium survey conducted online by Harris Poll in 2016 among 506 teens aged 13–18, 515 parents of teens, and 405 primary care physicians.



Resources for Public Education Campaigns (General/Parent Audience)

CDC Resources

- For Immunization Partners: Preteen and Teen Immunization Resources
www.cdc.gov/vaccines/partners/teens/index.html
- For Parents of Preteens and Teens (ages 7 through 18 years):
Information and resources on HPV, flu, meningococcal, and Tdap vaccines
www.cdc.gov/vaccines/parents/diseases/teen/index.html

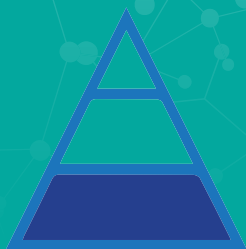
Selection of State-Specific/Other Resources

- Alaska Department of Health and Social Services, HPV Resources:
<http://dhss.alaska.gov/dph/Epi/iz/Pages/hpv/default.aspx>
- Alliance for Immunization in Michigan, Adolescents, Materials for Parents:
<http://www.aimtoolkit.org/health-care/adolescents.php>
- California Department of Public Health, Preteen Vaccine Week resources:
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Campaigns.aspx>
- EverThrive Illinois, HPV Social Media Toolkit:
<https://everthriveil.org/our-work/immunizations/>
- Florida Department of Health, Immunization Flyers (see Adolescent Immunizations section):
<http://www.floridahealth.gov/programs-and-services/immunization/publications/flyers.html#adolescent>
- Georgia Department of Health, Preteen Vaccine Awareness Week (March 13-17, 2017) Campaign Toolkit:
<http://www.gaaap.org/wp-content/uploads/2016/03/2017-Preteen-Vaccine-Awareness-Week-Campaign-Toolkit-FINAL-002.pdf>
- Hawaii Department of Health, Vaccines & Immunizations, Preteens & Adolescents
(see links to flyer and poster at bottom of page)
<http://health.hawaii.gov/docd/vaccines-immunizations/recommendations-by-age/preteens-adolescents/>
- Immunize Nevada, You Are the Key for an HPV Free NV campaign
<http://www.immunizenevada.org/news/immunize-nevada-launches-hpv-free-nv-campaign>
- Iowa Immunization Program, Adolescent Immunization Brochure
<http://idph.iowa.gov/Portals/1/Files/IMMTB/Adolescent%20Brochure.pdf>
- Montana Department of Public Health and Human Services, Teen Vax Challenge
<http://dphhs.mt.gov/publichealth/Immunization/AdolescentVaccines>
- North Dakota Department of Health, Immunization PSAs (including for adolescent vaccines)
<http://www.ndhealth.gov/Immunize/PSA/>
- South Carolina Department of Health and Environmental Control, Vaccines for Preteens and Teens brochure
<https://scdhec.gov/sites/default/files/Library/ML-025592.pdf>
- Brochure in Spanish: <https://scdhec.gov/sites/default/files/Library/ML-025593.pdf>
- Poster: <https://scdhec.gov/sites/default/files/Library/ML-025536.pdf>
- South Dakota Department of Health, HPV is Cancer Prevention infographic
https://doh.sd.gov/documents/Family/Immunize/HPV_Infographic.pdf
- The Arizona Partnership for Immunization (TAPI), Information for Parents of Teens
<http://www.whyimmunize.org/protectmewith3/>

[48]

The number of Immunization Programs that conduct outreach and education to increase the public knowledge of HPV vaccine.

Data from the 2016 AIM Annual Survey; 61 of 64 Immunization Programs responded to the survey



Getting Started

Program: Georgia

Activity: “Protect Their Future” poster



Overview of activity

The Georgia Department of Public Health Immunization Program created a poster to educate parents about vaccines recommended for children ages 11 to 18 years.

Ages targeted

All adolescents (no specific ages)

Background/impetus for the activity

Beginning with the 2014-2015 school year, the first adolescent vaccines to be required for students entering seventh grade –Tdap and meningococcal conjugate (MenACWY) vaccines – were added to the list of vaccines required for school entry in Georgia. Within a similar time period, the Georgia Immunization Program received Prevention and Public Health Fund (PPHF) funding to focus on improving rates of HPV vaccination. To educate parents of adolescents about the new school requirements and HPV vaccination, the Program decided to develop a poster as part of a bundle of educational materials.

Description of activity

The Program wanted the poster to mention all vaccines recommended for adolescents, not just those required for school, including catch-up and influenza vaccines. The poster was designed utilizing the blue and green color scheme and “Immunize Georgia” graphic element that are used consistently in Program communications, such as for its annual immunization conference. A flyer-size version and a Spanish version of the poster were also produced.

Role of Immunization Program and other agencies/groups involved

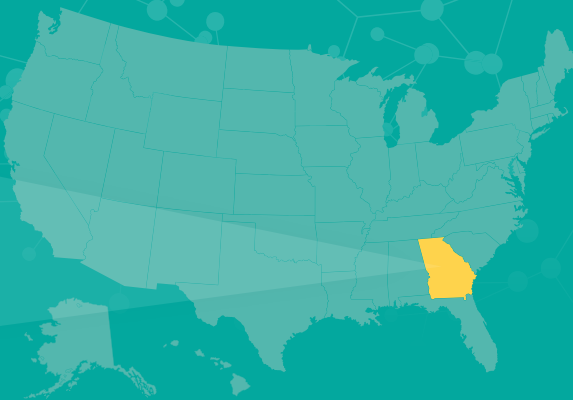
The Immunization Program developed the content for the poster and a public relations/marketing firm, with which the program has a contract for ongoing work, designed the poster. Spanish translation was done through a department-approved vendor. The poster received final approval from the Department of Public Health’s Communications Office.

Dissemination

The Program provided copies of the poster to its 18 public health districts and field staff, and from there the poster was disseminated to the state’s 159 public health clinics and private provider offices. The Program also distributed posters to school nurses for displaying in their school clinics. Additional copies are available upon request from the state education nurse, and the poster is also downloadable from the Program’s website.

Intersection with other program activities

Beginning in 2016, the Program released its annual Georgia Adolescent Immunization Study, in part to track the impact on immunization rates of the new MenACWY and Tdap vaccine school requirements.



Funding

A small amount of funding to cover printing and Spanish translation costs came from the Program's CDC cooperative agreement.

Staffing

Immunization Program staff provided content for the poster to the marketing firm and reviewed drafts of the poster as part of their regular duties. Staff involved included the Education Section Manager, Nurse Consultant, Program Director, Deputy Director, and Adult and Adolescent Coordinator.

Implementation status

The poster was initially completed in 2014. The program plans to update to the poster to reflect more recent ACIP recommendations.

Successes

- For a relatively small effort and expenditure, the program was able to produce a simple yet informative poster for parents of adolescents.

Challenges

- New or revised ACIP recommendations may make existing materials out of date. The program needs to revise the current version of the poster to take into account newer ACIP recommendations.

Other lessons learned/Advice to other programs

- It is best to keep posters simple in both graphic design and wording.
- Use pictures of healthy, happy adolescents that represent the diversity of the target population.

Relevant resources

- "Protect Their Future" poster:
<https://www.immunizationmanagers.org/documents/georgia-protect-their-future-poster/>
- Georgia Adolescent Immunization Study (2016):
<https://dph.georgia.gov/sites/dph.georgia.gov/files/2016GAIS.pdf>

For more information

Georgia Department of Public Health,
Immunization Section
(404) 657-3158



Moving Forward

Program: Massachusetts

Activity: HPV public awareness campaign

Overview of activity

The Massachusetts Immunization Program implemented a targeted advertising and Twitter campaign to raise HPV awareness among parents of adolescents.

Ages targeted

All adolescents (no specific ages)

Background/impetus for the activity

The Massachusetts Immunization Program implemented a communications campaign targeted toward the public as one component of its PPHF HPV funding award. Given disparities in HPV-related cancers among minority populations, the program was particularly interested in reaching African American and Spanish-speaking populations.

Description of activity

The Program hired an advertising company to use CDC-developed public service announcements and other materials for placement on television, radio, and social media to educate parents about the benefits of HPV vaccination. The primary target for the campaign was parents of African American and Latino adolescents, with the general public as the secondary target. The Program and the company worked together to identify the target audience, campaign timeframe and overall media strategy, and decided which CDC materials were most appropriate for the target populations. These decisions were discussed with the HPV stakeholder group formed under the PPHF HPV grant, and were outlined in a media plan for the campaign. The campaign used a 30-second television ad, two 30-second radio ads and online banner/panel ads, all available in both English and Spanish; the ads were placed in a wide range of both English and Spanish-language media. For example, television program placement included *Ellen*, *Good Morning America*, *Keeping Up with the Kardashians*, the *Real Housewives* franchise, and men's World Cup soccer matches.

The program supplemented the paid media portion of the campaign with a Twitter campaign. The program developed 20 tweets, one of which was posted daily on the Twitter account for the Massachusetts Department of Public Health (DPH), managed by the DPH Communications Office. At the time, the DPH Twitter account had approximately 16,000 followers (now more than 25,000).

Role of Immunization Program and other agencies/groups involved

The Immunization Program developed the campaign with input from the HPV stakeholder group and was responsible for the Twitter portion of the campaign. An advertising agency was hired in April 2014 through a request for quotation (RFQ) process. The agency had experience placing ads to reach minority populations and was therefore responsible for identifying and purchasing specific television, radio and digital ad spots, and provided metrics to the program on the campaign's reach. A contractor that provided overall project coordination for the HPV grant worked closely with the Program, the DPH Communications



Office, and the advertising agency on the planning and launch of the campaign. The communications office approved all of the materials used in the campaign and hosts the DPH Twitter account.

Dissemination

HPV-focused ads were placed on television, radio, and websites, and tweets were posted daily during the campaign.

Intersection with other program activities

The HPV stakeholder group was involved with the media campaign. The Twitter portion of the campaign provided a base for future Twitter campaigns. For example, the program's outreach coordinator plans to write a blog (or series of blogs) on a certain immunization issue, which will post on a DPH website, and will then develop a supporting Twitter campaign that links to the blog.

Funding

The 2014 HPV campaign was funded through an HPV-specific PPHF cooperative agreement.

Staffing

The Immunization Program contracted with Jon Snow Inc. to provide project management support for the larger HPV-specific PPHF grant funding, including this HPV public awareness campaign. The Medical Director of the Immunization Program provided both clinical and educational guidance for the HPV public awareness campaign throughout the grant cycle. The Immunization Outreach Coordinator, who plans all the strategic outreach to the public and to providers regarding vaccines across the lifespan, began working at the Immunization Program at the conclusion of the PPHF grant and wrote the final report for CDC.

Implementation status

The HPV awareness campaign took place June through July 2014.

Successes

- The reach of the 2014 campaign was even greater than anticipated. For example, the net audience for the television and radios ads was more than 2.4 million people, and the number of impressions for the month of tweets was more than 28,000.
- Connections established via the HPV stakeholder group and its involvement in the media campaign have helped to identify materials used in more recent campaigns. For example, through one partner (the Boston Area Health Education Center), teens created videos in both English and Spanish promoting HPV vaccination. The Immunization Program links to this video on its website and incorporated it in its January 2017 Cervical Cancer Awareness Month social media campaign.

Challenges

- At the time of this campaign, Twitter limited tweets to 140 characters, and DPH imposes additional limits (eg, need to include a link), which left 117 characters available for messages. Developing a clear message that adhered to this limit could be challenging.

Other lessons learned/Advice to other programs

- The timeframe of the campaign (June-July) was chosen to reach parents when they would be most likely to bring their children to a health care provider (eg, to get summer camp or sports physicals).
- The Program made a conscious decision to use the portion of PPHF HPV funding budgeted for a communications campaign on better placement of advertisements across various media rather than for customizing CDC materials.
- Hashtags used in tweets need to be monitored. Last year, the Program used a hashtag (#VaxWithMe) in a tweet related to National Infant Immunization Week, and that particular hashtag evolved to be mostly against vaccination.
- Publicly available social media toolkits can provide ideas for wording of tweets and other social media posts.
- Establishing a good relationship with a health department's communications office can help make the approval process run more smoothly.

Relevant resources

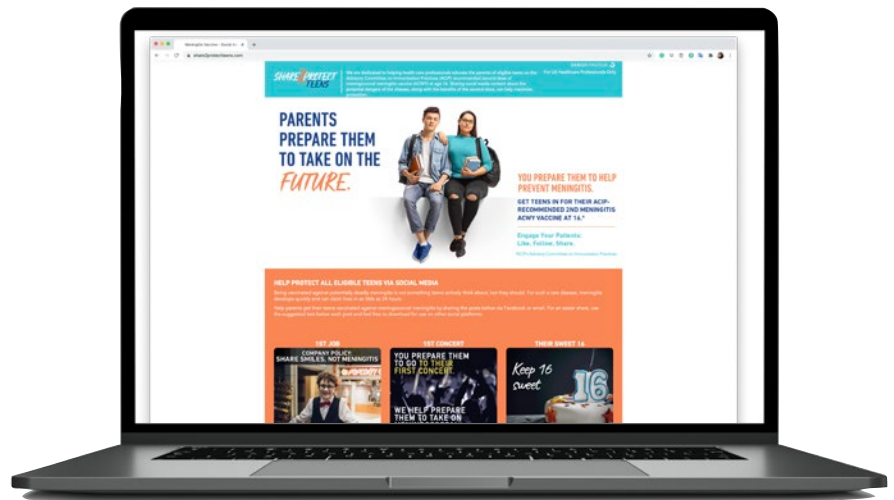
- Massachusetts DPH blog related to immunizations:
<http://blog.mass.gov/publichealth/category/the-importance-of-immunizations/>
- Massachusetts DPH tweets related to HPV:
<https://twitter.com/search?f=tweets&q=%40MassDPH%20hpv&src=typd>
- Cervical Cancer Awareness Month Social Media Toolkit for 2017, George Washington Cancer Center:
<https://www.nevadacancercoalition.org/sites/default/files/Cervical%20SocMedia%20Toolkit%202019%20FINAL.pdf>
- Massachusetts Immunization Program's media plan for 2014 HPV Vaccination Awareness Campaign:
<https://www.immunizationmanagers.org/documents/massachusetts-hpv-public-awareness-campaign/>
- Media/Communication Plan template, George Washington Cancer Center:
<https://smhs.gwu.edu/cancercontroltap/resources/cdc-mediadcommunication-plan-template>

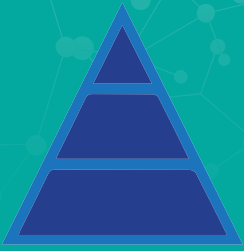
For more information

Massachusetts Department of Public Health
Immunization Division
(617) 983-6800

HELP PROTECT ALL ELIGIBLE TEENS VIA SOCIAL MEDIA.

The Share2Protect Teens website provides non-branded social media posts that immunization programs and providers can download and share via email or Facebook to get teens in for their ACIP-recommended meningitis ACWY vaccine at 16-years-old.





Taking it to the Next Level

Program: Texas

Activity: Adolescent vaccines public awareness campaign

Overview of activity

The Texas Department of State Health Services (DSHS) Immunization Unit used the findings of a marketing research study as the basis of a recurring public awareness campaign about adolescent vaccines.

Ages targeted

All adolescents (no specific ages)

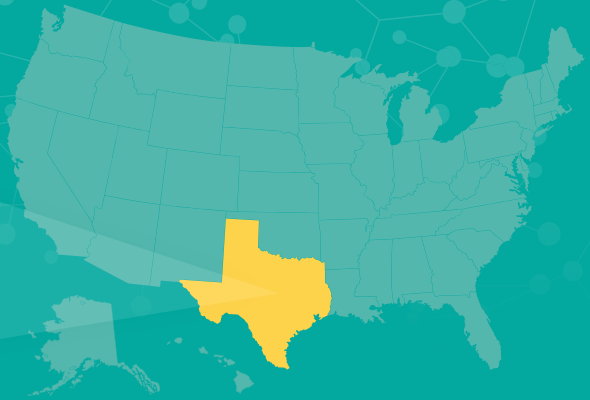
Background/impetus for the activity

The Texas Immunization Unit analyzed adolescent vaccine coverage data to identify specific areas of the state where vaccination coverage rates were especially high or low. El Paso (higher rates) and Dallas (lower rates) were identified as the cities in which to conduct further qualitative research to determine best practices and barriers to adolescent vaccines, particularly for HPV vaccine.

Description of activity

In 2013, the Immunization Unit contracted with a Texas-based marketing research firm to conduct a marketing research study. The study evaluated best practices and marketing messaging for the general public on adolescent immunizations, with a focus on HPV vaccine. Separate focus groups were held in Dallas and El Paso with health care providers and parents of adolescent children. In-depth interviews were also conducted with stakeholders in the two cities.





The Program utilized the study findings to design a public awareness campaign to promote all ACIP-recommended adolescent immunizations, with a focus on HPV vaccine. The Program contracted with a media services company to develop the marketing message and the campaign deliverables, as well as purchase media space. Incorporating humor and relatable, slice-of-life moments, a 15-second television ad and a 30-second radio ad were developed to focus on the HPV vaccine as a cancer-prevention strategy. The ads were produced in both English and Spanish. In addition to the television and radio ads, online and mobile banner ads were embedded in certain websites (eg, Facebook, WebMD); individuals clicking on the ads were directed to the adolescent immunization page on the Program's website.

The Program relaunched the campaign in 2014. In addition to utilizing the ads developed for the 2013 campaign, the program worked with the media services company to develop four posters on adolescent immunization, one each for HPV, meningococcal conjugate (MenACWY), and Tdap vaccines, as well as a general preteen vaccines message poster.

Role of Immunization Program and other agencies/groups involved

The Immunization Unit was involved with all phases of the campaign, including analysis of vaccine coverage rate data, focus group preparation, and design of the ads. A contractor carried out the marketing research study, another company developed and conducted the media campaign, and a third company conducted the most recent iteration of the media campaign. All of the contractors had worked with the Program before and had experience with the Program's target audience. The communications office of the Texas DSHS approved materials for public release.

Dissemination

Television ads appeared during shows such as the *TODAY show*, *Modern Family*, *Rachael Ray*, *The Simpsons* and various Univision programming. The radio ads were heard on regular and satellite radio stations during typical morning and evening commute times, midday, and weekends. Online advertising included mobile, banners and pre-roll videos. The campaigns ran for six weeks. The television ads are available on the DSHS YouTube channel, and the radio ads are available from the DSHS website. The posters were distributed to health care provider offices for display and are also available for order from the Program's website.

Intersection with other program activities

A provider component of the campaign included online ads placed on websites frequented by health care providers. Also, to support a legislatively required strategic plan for cervical cancer that was released by DSHS in December 2016, Program partners have asked the Immunization Program to air the HPV commercials again.

Funding

The campaign was initially funded as part of the Program's CDC cooperative agreement. PPHF funds have also been used to support the campaign.

Staffing

Within the Immunization Unit, this campaign was led by the Public Information, Education, and Training Group, and also involved staff from the Assessment, Compliance, and Evaluation Group.

Implementation status

The campaign was launched in 2013 and re-aired in 2014 and 2016. The plan is to expand to a broader campaign for ages 0 to 18 years and to supplement the materials with newly developed brochures.

Successes

- More than 5.6 million people were reached during the six-week period. The total number of impressions exceeded 40.2 million. The program has generally had very positive feedback on the ads, and has fielded requests from local public health and from other states to share the ads.

Challenges

- Though contractors did a significant portion of the work, it required more effort than expected on the part of Program staff to provide input and guidance to the contractors. One staff member worked full-time on day-to-day interactions with the contractors, and other staff assisted as needed.

Other lessons learned/Advice to other programs

- Programs need to determine how to balance their available funding between creative development of new or adapted materials versus desired placement of media buys and length of the campaign.
- Timing and placement of advertisements depends on the target audience (eg., family-friendly television shows, midday versus evening time slots). Also, diversifying the timing and placement of ads within the same campaign can broaden its reach. In addition, where relevant, ads can be targeted by geographic location.
- Having a staff member with marketing or media expertise to interact with the contractors is very helpful.
- For Programs with limited resources, an online campaign is most cost effective. Also, having additional content on a Program's webpage to which the ads can point is a good way to provide more details.

Relevant resources

- English television ad on the DSHS YouTube Channel:
www.youtube.com/watch?v=f9L9MCduZt8&list=PL7xet9qFzOjXezDhuHWkaWzmCbtVvyfNw&index=4
- Spanish television ad on the DSHS YouTube Channel:
www.youtube.com/watch?v=tEub0CNE_sc&index=8&list=PL7xet9qFzOjXezDhuHWkaWzmCbtVvyfNw

For more information

Texas Department of State Health
and Human Services, Immunization Unit
(800) 252-9152

“In all of our adolescent media campaigns, we strive to ensure that the messages we produce are evidence-based, locally relevant, and build a sense of urgency on behalf of adolescents and their parents.”

— Nancy Ejuma, *Texas Immunization Program Director*

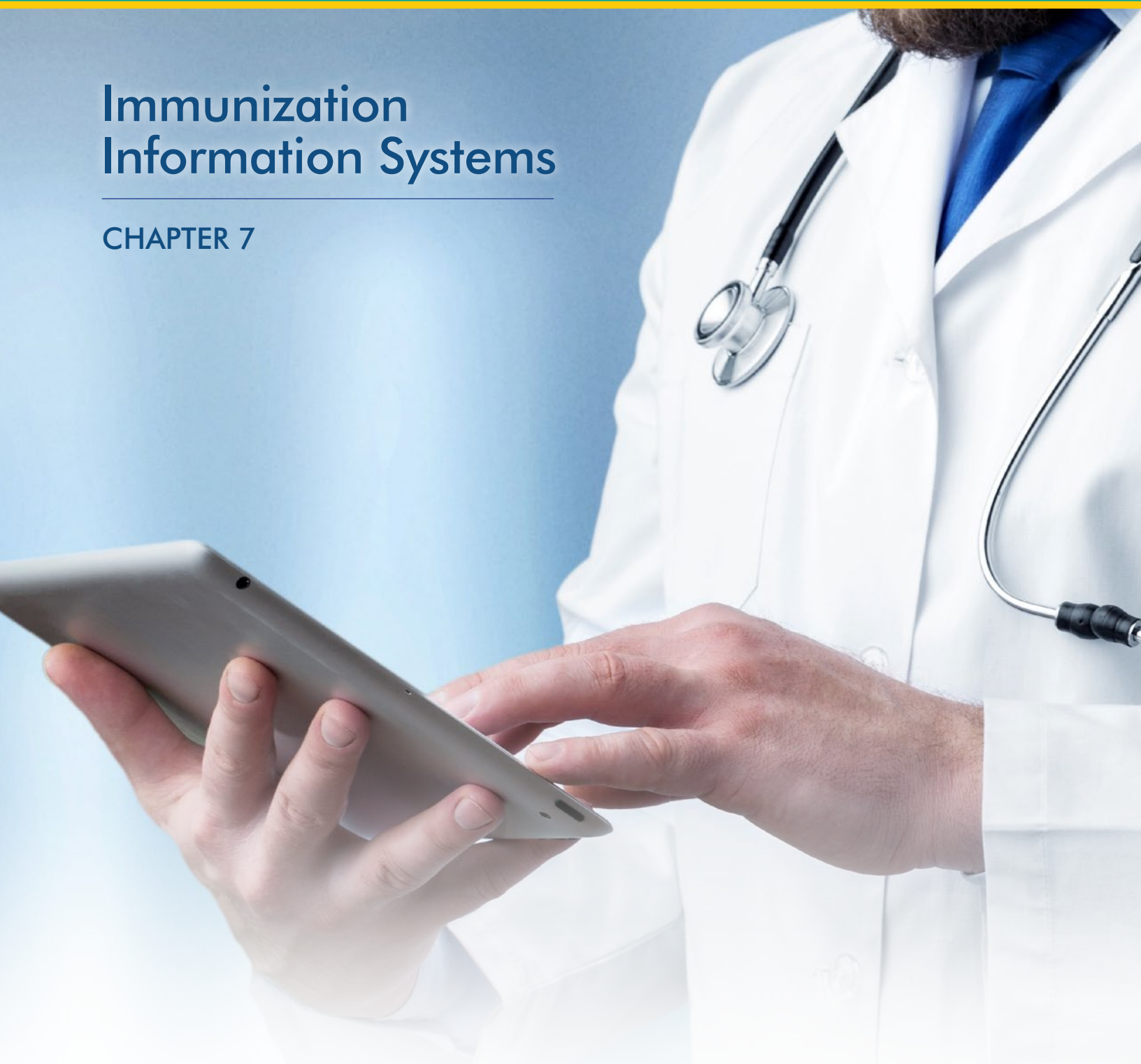
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Immunization Information Systems

CHAPTER 7



Association of
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Introduction

Immunization information systems (IIS) are computerized databases that record immunization doses administered by participating providers to people residing within a specific jurisdiction. The IIS can be a powerful tool to track and analyze patterns in immunization rates, identify missed opportunities to vaccinate, and identify underserved populations—all with the ultimate goal of increasing immunization rates.

The IIS can be used in many ways to increase vaccination rates in teens. Immunization programs can centrally track rates, send reminders or other education outreach to teens and their families. Providers can review their patient population for those eligible for adolescent vaccines, track and manage their vaccine inventory, monitor for missed opportunities and send reminders that a teen is due for immunizations. In the case of public access to the IIS, teens and their parents can check vaccination status on their own and be prepared to talk to their provider about immunizations. Additional modules in the IIS can allow specific institutions such as schools, local health departments and prisons to monitor vaccination rates of their populations and target activities to increase vaccination rates among adolescents.

The Community Preventive Services Task Force recommends several IIS practices as methods to increase vaccination rates, including reminder/recall, provider assessment and feedback, provider reminders, vaccine management, and vaccine preventable disease (VPD) outbreak response.¹ Immunization Programs can use data from the IIS to conduct centralized reminder/recall to inform families that their teen is due for or past due for a recommended vaccination by sending postcards, texts, letters, and emails or by making telephone calls. Pairing the IIS with a provider feedback strategy such as AFIX can help providers identify adolescent patients who are passed due for vaccines and reduce missed opportunities to vaccinate. IISs are also used to manage vaccine inventory and can provide guidance to providers on how much vaccine should be ordered based on their patient information, therefore ensuring providers have enough vaccine on hand. The activities highlighted in this chapter relate to how Immunization Programs can support IIS reminder/recall for adolescents:

- ◆ *Getting Started:* Centralized, local health department-based adolescent recall (Illinois)
- ◆ *Moving Forward:* Quarterly adolescent immunization recall (North Dakota)
- ◆ *Taking It to the Next Level:* Development of IIS-based text message recall functionality (New York City)



¹Community Preventive Services Task Force. Recommendation for use of immunization information systems to increase vaccination rates. J Public Health Manag Pract.. 2015;21(3):249-252. Available at: http://journals.lww.com/jphmp/Fulltext/2015/05000/Recommendation_for_Use_of_Immunization_Information.3.aspx.



DATA HIGHLIGHT:

How Many Immunization Programs Conduct Centralized Reminder Recall?

n=54

		N/A: Do not conduct	Postcard	Texting	Letter	Telephone	Email
	Adolescents 11-12 yrs	61%	19%	2%	13%	11%	2%
	Older Adolescents 16-18 yrs	59%	13%	2%	17%	13%	2%

**Data from the 2017 AIM Annual Survey: 55 of 64 Immunization Programs responded to the survey.*

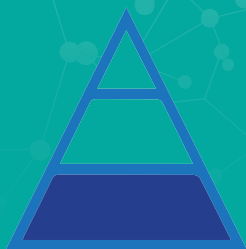


American Immunization Registry Association (AIRA)
repository of information:

<http://repository.immregistries.org/resources/search/adolescent>

AIRA 2009 MIROW guide on Reminder/Recall:

<http://repository.immregistries.org/resource/reminder-recall-in-immunization-information-systems-1/>



Getting Started

Program: Illinois

Activity: Centralized, local health department-based adolescent recall

Overview of activity

Using its IIS, the Illinois Department of Public Health (IDPH) Immunization Section worked with local health departments (LHDs) to conduct a centralized recall of adolescents who had initiated but not yet completed the HPV vaccine series.

Ages targeted

Adolescents age 11 through 18 years

Background/impetus for the activity

In 2014, the Illinois Immunization Program received an HPV-specific Prevention and Public Health Fund (PPHF) award. One of the activities under this grant was conducting IIS-based recall of adolescents for HPV vaccine. The Illinois Comprehensive Automated Immunization Registry Exchange (I-CARE) is a homegrown IIS. Though there is no state mandate for immunization providers to report to I-CARE, reporting is a requirement for participation in the Vaccines for Children (VFC) program.

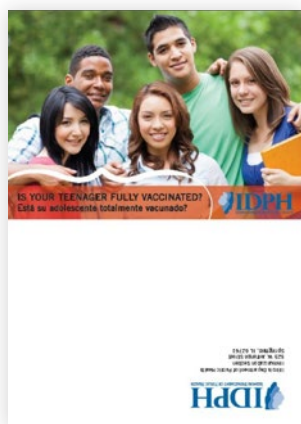
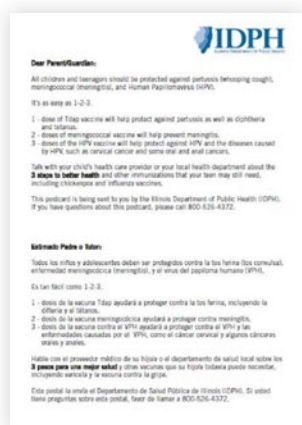
Description of activity

In 2015, the Illinois Immunization Program began recruiting volunteers among its 96 autonomous LHDs to conduct centralized recall for adolescents age 11 through 18 years who had initiated but not yet completed the HPV vaccine series. Participating LHDs received training from state program staff on using I-CARE's reminder/recall functionality and were asked to refresh their I-CARE active patient list. LHDs were instructed to identify patients as "active" if they had visited the LHD clinic for any service within the past 3 to 5 years (LHDs determined the specific timeframe within the 3- to 5-year window).

The Immunization Program then generated an Excel file of mailing addresses for recall-eligible adolescents from I-CARE and shared this file with an outside vendor to prepare mailing labels. The outside vendor also was responsible for supplying the bifold postcard, which was modelled after the HIPAA-compliant version used by the City of Chicago Immunization Program. The postcard included a picture representative of the state's adolescent population, and contained a general message (in English and Spanish) about vaccines recommended for adolescents. Postcards were sent in May 2016. HPV coverage rates were measured in September 2016.

Role of Immunization Program and other agencies/groups involved

The Immunization Program managed the project as part of its HPV PPHF grant activities. Its partner, EverThrive Illinois, was responsible for adapting Chicago's version of the postcard for the state's use, and working with an outside vendor to prepare the recall mailing. LHDs that agreed to participate were responsible for refreshing their patient list and running an adolescent coverage level report in I-CARE, as well as being prepared for a potential uptick in demand for adolescent vaccines.





Dissemination

Postcards were mailed to parents of adolescents. The Program communicated regularly with participating LHDs throughout the project.

Intersection with other program activities

In conjunction with the recall project, I-CARE was updated to include functionality for public and private providers to run adolescent coverage level reports.

Funding

The recall effort was funded by a 2014 HPV-specific PPHF award.

Staffing

Program staff recruited and trained LHDs, made necessary updates to I-CARE, downloaded the recall mailing list from I-CARE, and helped prepare mailing pieces. Program staff also responded to any telephone calls from parents related to the recall and received undeliverable postcards.

Implementation status

The recall effort has been completed. The program is not planning any additional centralized recall efforts, but provides technical assistance for LHDs or other providers who need help with their own recall.

Successes

- 26 LHDs agreed to participate and 37,000 postcards were mailed.
- 12% of adolescents who were mailed a postcard received a follow-up HPV vaccine within 4 months.

Challenges

- Mailing address is not a required field in I-CARE to create a patient profile. The Program wants to capture as much data as possible, and if a complete address was a mandatory field, many patients' data would not be accepted into I-CARE. In some cases, there may be an existing, duplicate record in I-CARE that contains more complete information, to which incoming records with incomplete addresses can be matched.
- LHD-based recall can be challenging because LHDs are usually not the medical home for adolescents. If providers are not reporting doses administered to I-CARE, then LHDs will not have accurate information on immunization status, and therefore some adolescents identified as being "active" patients for an LHD may not actually be eligible for recall because they have received the recommended doses elsewhere.

Other lessons learned/Advice to other programs

- The Program found this to be a good one-time experience, but generally thinks that reminder/recall is best handled at the provider level versus a centralized effort. Provider-level reminder/recall gives providers more control over the process and puts the responsibility on them to monitor their coverage levels and manage their active patient lists. Providers also have the option to run reminder/recall from their own electronic health records (EHRs).
- Addresses were not validated prior to generating the recall list, and the undeliverable rate was 16%. A portion of the undeliverable notices were due to invalid mailing addresses (versus outdated addresses for the intended recipients). The Program now uses geocoding data provided free of charge by the Illinois Department of Transportation to verify that addresses in I-CARE are valid. This process determines whether an address is deliverable, not whether a specific person resides at that address. Validating addresses helps avoid spending time and money on undeliverable mail pieces.

For more information

Illinois Department of Public Health
Immunization Section
(217) 785-1455



Louisiana Reminder Recall Project – 2020

On June 18, 2020 AIM held a Reminder Recall Webinar to share information about the Louisiana adolescent reminder/recall postcard campaign that was implemented to support their July 1, 2019 school entry requirement for 2nd dose MenACWY. Watch the webinar archive to learn how Louisiana was able to increase the 16-year-old second dose MenACWY by 26% in just 10-weeks.

www.immunizationmanagers.org/resources/reminder-recall-webinar/





Moving Forward

Program: North Dakota

Activity: Quarterly adolescent immunization recall

Overview of activity

The North Dakota Department of Health (NDDoH) Immunization Program implemented a centralized, statewide recall of adolescents age 12 to 17 years using data from their immunization registry in an effort to increase immunization rates.

Ages targeted

Adolescents age 12 to 17 years

Background/impetus for the activity

In 2012, the NDDoH Immunization Program received a PPHF funding award specific to adolescent recall. The Program applied for the funding to address low adolescent immunization rates, as well as low utilization by immunization providers of the state registry's reminder/recall functionality. Coverage rates for adolescents age 11 to 18 years, according to data from the North Dakota Immunization Information System (NDIIS), were: 58% for at least one dose of Td/Tdap vaccine; 56% for at least one dose of MCV4; and 12% for three doses of HPV vaccine. Healthy People 2020 goals are 80% for Tdap and MCV4 and 60% for HPV series completion.

Description of activity

In April 2013, the Immunization Program initiated a centralized, statewide recall effort of adolescents 12 to 17 years. The Immunization Program utilized information from the NDIIS to recall adolescents age 12 to 15 years who were at least 30 days overdue for their first dose of Tdap, first dose of MCV4, second or third dose of HPV, or first or second dose of varicella vaccines. A parallel recall was conducted for adolescents age 16 to 17 years who were at least



immunizationmanagers.org/PPInterviews

Program Practice Interviews



AIM collected short video clips of Immunization Program Managers detailing activities designed to increase awareness and vaccination rates of adolescent vaccines. Each clip covers the basic program activities, working with partners, and unique factors. The program managers also detail their lessons learned.

The video clip focusing on IISs features details about the North Dakota Centralized Reminder/Recall for Adolescents. Molly Howell, North Dakota Immunization Program Manager, discusses the state's immunization reminder/recall project aimed at increasing vaccination rates in adolescents age 12 through 17 years of age.



30 days overdue for their first dose of Tdap, second dose of MCV4, second or third dose of HPV, or second dose of varicella vaccines.

Recall was initially conducted by telephone, using an automated dialing system, and regular mail, using postcards. Every adolescent eligible for recall received both a call and a postcard. Both methods used a general notice informing the parents/guardians that their adolescent was due or past due for immunizations, and advised them to contact a health care provider or local public health unit. To conduct the recall, NDHS staff utilized existing reminder/recall functionality in the NDHS to identify adolescents who were at least 30 days past due for the vaccines of interest and then exported their contact information to a spreadsheet. Address information was checked against the US Postal Service National Change of Address (NCOA) dataset, while telephone data were submitted to Thomson Reuters for updating. Updates to contact information identified through this process were entered into NDHS.

The Immunization Program has made several improvements to the adolescent recall process over time, and now mails letters instead of postcards and has discontinued telephone recall.

Role of Immunization Program and other agencies/groups involved

The Immunization Program planned and implemented this activity. The ND Immunization Advisory Committee provided input into the design and wording of postcards and letters, and the decision on which vaccines should be included in the recall. When the recall effort included telephone calls, the Program sent telephone data to a third-party autodialer service. Mailed notices were, and continue to be, sent out through the state's Central Duplicating Services.

Dissemination

Beginning with the initial recall effort, the Immunization Program has informed health care providers prior to recall notices being distributed via its VFC provider listserv, so that they can prepare for parent calls and have an adequate vaccine supply on hand. The Program informs providers which vaccines are included in the recall and encourages them to use the forecasting tool in the NDHS to determine which vaccines are needed by individual patients. The Program now also issues a public news release about upcoming recalls.

Intersection with other program activities

Over time the Immunization Program has added recall efforts targeted to infants, kindergarten-aged children, seventh graders, and adolescents who have not initiated the HPV vaccine series. The Program is also piloting adult recall in three counties (for pneumococcal and zoster vaccines).

Funding

The recall effort was initially funded by a 3-year PPHF cooperative agreement, and now relies on PPHF funding in the general immunization cooperative agreement.

Staffing

For the ongoing recall effort, NDIIS staff run each recall report, send the spreadsheet to Central Duplicating Services to process for distribution, and enter into the NDIIS the address changes identified from the NCOA dataset. Program staff also handle parent telephone calls and provider questions related to the recall effort.

Implementation status

The adolescent recall effort began in April 2012, with the first recall notices distributed in April 2013. The recall effort is ongoing and typically is conducted quarterly.

Successes

- During the initial PPHF grant period, approximately 424,000 individual recalls were conducted.
- Statewide immunization recall has been an effective method of increasing adolescent vaccination rates. During the initial grant period, significant increases in immunization rates were seen in the NDIIS:
 - Adolescents age 13 to 15 years: from 72% to 78% for at least one Td/Tdap dose; 68% to 77% for at least one MCV dose; for HPV series completion, 23% to 36% in females and 4% to 27% in males; and 54% to 76% for at least two varicella doses.
 - Adolescents age 16 to 18 years: from 69% to 76% for at least one Td/Tdap dose; 60% to 75% for at least one MCV dose; for HPV series completion, 31% to 43% in females and 4% to 27% in males; and 39% to 66% for at least two varicella doses.
- Data quality in the NDIIS has improved due to address submission to the USPS NCOA, with more than 13,000 addresses updated in the NDIIS. In addition, more than 9,500 adolescents in the NDIIS were marked as “moved” or “gone elsewhere” (MOGE). Less than 0.5% of postcards or letters mailed were returned to the NDDoH as undeliverable; children with undeliverable recall notices are marked as lost-to-follow-up in the NDIIS.
- The Immunization Program conducted a provider satisfaction survey regarding the recall effort, and the feedback from providers was mostly positive. Providers indicated that they like recall being conducted centrally, and that the recall effort has helped spread out demand for adolescent immunization beyond the summer months. Providers also expressed interest in recall for other populations, which the Immunization Program has since implemented.

Challenges

- The initial recall effort used postcards with a broadly worded recall notice; Program staff and providers fielded numerous calls from parents wondering which vaccines their adolescent needed. As a result, the Program switched to using letters to allow for dissemination of additional information because letters can specify adolescents’ names and which vaccines are due. Postage costs are higher for letters than postcards, but the burden on staff for fielding calls has been greatly reduced.
- Providers do not always utilize the forecasting functionality in the NDIIS, and there have been some issues with providers telling parents that their adolescent is up-to-date, leading parents to call the Program wondering why they received a recall notice. The issue has most often occurred with the second doses of MCV4 and varicella vaccine. To address the issue, the Program continues its provider education efforts around current ACIP recommendations and NDIIS functionality.
- The Immunization Program has inadvertently recalled deceased children. Though deceased individuals are removed from the NDIIS based on vital records data, sometimes

records have slipped through the cracks based on the timing of adding records to NDIIIS. An ongoing process was created to ensure this situation does not occur. An ongoing challenge is that the Program is not notified of out-of-state deaths.

- The Program realized that because local Air Force bases do not enter vaccine doses into the NDIIIS, there is no historical data for those adolescents and therefore recall may not be accurate. For this reason, individuals with Air Force base addresses are excluded from recall efforts.

Other lessons learned/Advice to other programs

- After a few quarters of the recall effort, the State Attorney General's Office advised the NDDoH that automated phone calls could not be used to contact parents for immunizations per the state's "Do Not Call" Law. The autodialer portion of the recall effort was therefore discontinued. Before launching a similar effort, Immunization Programs should check whether the recall could violate any state laws.
- Some parents are uncomfortable with receiving recall notices by telephone and wondered how the NDDoH accessed their phone number. Programs should take this into consideration when deciding on which contact methods to use.
- The Immunization Program, together with the ND Immunization Advisory Committee, decided not to include the first dose of HPV vaccine in the recall. Coverage rates were so low that most adolescents would have been included in the recall (increasing the cost), and the Program wanted to avoid potential pushback from parents that could negatively impact their seeking other recommended vaccines. The Program now conducts a separate recall effort specific to initiating the HPV vaccine series.
- For parents/guardians who do not want to receive recall notices, the Immunization Program created an opt-out form on its website, which provides a simple way for parents/guardians to permanently opt-out of the recall if they so choose.
- Recall efforts that include 18-year-olds should be sent to the adolescent directly, not the parent, as they are considered an adult.
- It is important to notify providers prior to distributing recall notices, so they can prepare for an increase in phone calls from parents with questions and appointment requests, and have an adequate supply of vaccine.
- Using a tool, such as USPS NCOA, to identify address changes prior to distributing recall notices helps to minimize undeliverable mail and associated costs.

Relevant resources

- North Dakota Immunization Recall website, which includes information on all of the Program's recall efforts, including sample letters and overall schedule: www.health.nd.gov/immunize/ndiis/reminder-recall

For more information

North Dakota Department of Health
Immunization Program
(701) 328-3386

“Reminding and recalling adolescents using an IIS can provide an opportunity to assess the entire health of an adolescent—extending health benefits beyond immunizations.”

— Rebecca Coyle, MEd, *Executive Director*
American Immunization Registry Association (AIRA)



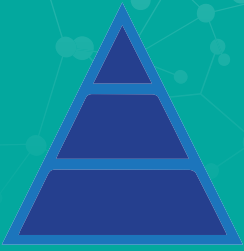
AIM Adolescent Reminder Recall Postcards

Download 5 different version of AIM's adolescent reminder recall postcards. The templates are available in design files and customizable PDFs so you can tailor to your specific information and design needs.



Visit www.immunizationmanagers.org/AdolGuide and select 'Media Materials'





Taking it to the Next Level

Program: New York City

Activity: Development of IIS-based text message recall functionality

Overview of activity

The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) Bureau of Immunization developed text message recall functionality in its IIS.

Ages targeted

All ages, including adolescents.

Background/impetus for the activity

The NYC Bureau of Immunization implemented text message recall functionality in its IIS, called the Citywide Immunization Registry (CIR), with support from PPHF for increasing adolescent immunization rates. Text message functionality was a target for CIR improvements based on:

- Pew Research Center data demonstrating the popularity of texting, especially among underserved populations;
- Data from a survey of NYC parents indicating that text messages are their preferred method for receiving reminder/recall notifications;
- Published evidence on the effectiveness of text messages to increase vaccination; and
- Challenges associated with other types of provider-based recall, such as mailing costs and provider staff time for making calls or preparing mailings.

Description of activity

Prior to implementation of text message functionality, the CIR supported telephone- and mail-based reminder/recall. Beginning in March 2013, the Immunization Program began implementing the option to send text messages. The Program made “back end” programming changes to the CIR, modified the CIR’s online user interface known as the Online Registry, and established a connection with a mobile platform vendor for text message distribution. Text message recall was piloted with five private provider facilities during June and July 2015, and was launched for use by all providers on August 27, 2015. The text messaging service is free for providers.

One of the key CIR updates for supporting text messaging was to create separate fields in the database for mobile and landline telephone numbers. To initially populate the mobile number field for existing CIR records, the Program sent a list of the last known home phone numbers of patients age 0 to 18 years to a third-party vendor who identified which numbers were for mobile phones. About 1.1 million (80%) of the existing home phone numbers were determined to be mobile numbers. These numbers were then used to populate the new mobile number field for the corresponding patients. To enable providers to report mobile phone numbers, the field was added to the “Update Patient Information” screen in the Online Registry. To facilitate data entry, the user can indicate that the home number is the same as the mobile number, in which case the home number automatically populates the mobile phone number field.



Home Phone	<input type="text" value="(917) 123-4567"/>	<input checked="" type="checkbox"/> Cell/Mobile & Home Phone are the same Selecting checkbox will copy the Cell/Mobile Phone number and the Home Phone number to both fields.	Patient's status is set to accept text messages: †
NEW Cell/Mobile	<input type="text" value="(917) 123-4567"/>		Yes <input checked="" type="radio"/> No <input type="radio"/>
NEW Email	<input type="text"/>		If you change the patient's status for receiving text messages, all other patients with the same cell/mobile number will automatically be set to the same status. <i>All patients are opted in by default to receive text messages.</i>

Another field added to the “Update Patient Information” screen was text opt-out status. All patients with a mobile number in CIR are defaulted to receive text messages (i.e., opt-out status is “no”). Providers can manually change a patient’s opt-out status from this screen at any time if the patient does not want to receive text messages or if the provider wants to obtain patient consent before sending text messages. Providers can view their list of patients in the online registry and view the status “Accepts Text (Yes/No)” for each record:

Remove	CIR Id	Active	Imm Status	Last/First	Gender	DOB	Address	Home Phone	Mobile Phone	Accepts Texts	Last Accessed
<input type="checkbox"/>	908776826	Yes		Test, Test	M	01/01/1977	01 Test Street New York, NY 10000	347-123-4567		No	11/14/2017
<input type="checkbox"/>	908485215	Yes		Test, Test	M	06/03/1984	123 Test, 2 Bronx, NY 10000		917-319-0521	Yes	11/14/2017

Providers can set up text message recall jobs in the online registry by selecting “text message” as the recall contact method, and then by choosing:

1. Which patients to recall, either from a previously generated list of patients or by selecting recipients based on age, gender, and vaccine options;
2. The date for one-time text messages or the date range for recurrent messages, which are sent every 28 days and include patients who newly meet the initial recall selection criteria; and
3. Wording of the message, either a default message or a custom message of 130 characters (See default message wording in screen image to the right.).

The text message includes directions for recipients to opt out of receiving future messages (i.e., respond “STOP”) (Recipients are informed they may opt in again by replying “Oops.”). Those who opt out via text message reply are tracked by both the mobile platform vendor and the CIR. Texted replies can be reviewed and managed for follow-up through an online dashboard provided by the mobile platform vendor.

Select message (default recommended.) This message will be sent to each patient on your recall list.

☒ Use default message
 Fill in the fields for the sample message provided.

☐ Use custom message
 Type in your custom message. Make sure to include your facility name.
 (Messages are limited to Latin alphabets.)

Your child born in
 CIR will insert patient birth YEAR here
 is overdue for immunization. Call

FACILITY NAME (up to 30 characters):

 Characters remaining: 30

at **CONTACT NUMBER:**
 to schedule.

130 character limit

Characters remaining: 130

NOTE: To allow patients to opt out of receiving text message reminders, the line "To stop reminders, text STOP" will be added to the end of your message.

Patients who text "STOP" will not receive any future text messages via the CIR.

Please note that it is your responsibility to adhere to the laws, rules, and regulations that apply to the disclosure of confidential and sensitive information in the content of your custom text message.

Role of Immunization Program and other agencies/groups involved

The Program worked with the CIR's computer consulting vendor to develop and implement text message functionality in the CIR, and with the NYC DOHMH legal team to determine permissible text message content and the allowable parameters for consent. DOHMH colleagues provided access to a mobile phone number verification vendor who made the initial identification of mobile numbers in the home number field of existing CIR records. A mobile platform vendor, Mobile Commons, was selected and continues to provide text message distribution and tracking.

Dissemination

The Program has used multiple channels to inform providers about CIR's text message recall functionality, including Assessment, Feedback, Incentives, and eXchange (AFIX) visits, on-site trainings, webinars, presentations to physician organizations (e.g., local American Academy of Pediatrics chapter), the NYC Coalition for Childhood Immunization Initiatives, and special projects with hospital networks. In addition, the Program has developed detailed guidance for providers on using the text message recall functionality that is available on its website. As part of these outreach efforts, the Program has been encouraging providers to add mobile phone numbers to the CIR, which can be done manually through the online registry or by populating the field in electronic health record (EHR) data automatically submitted to the CIR via Health Level Seven International (HL7) messaging. The online registry includes prompts to add mobile numbers.

Intersection with other program activities

Use of the CIR is well integrated with the full scope of the Program's programmatic activities. This effort overlaps most closely with provider education efforts and AFIX visits. Text message functionality is an important tool for outbreak response and emergency preparedness activities.

Funding

This activity was funded with a combination of a 2012 PPHF grant for utilizing IISs to improve adolescent immunization coverage and a 2013 PPHF grant specific for increasing HPV vaccination coverage in adolescents. Annual operational costs are approximately \$10,000 for a yearly subscription with a mobile platform vendor. This subscription allows up to 100,000 text messages to be sent per month.

Staffing

Within the Program, this effort was largely managed by one full-time staff person with input from several other Program staff. Additional staff were involved in provider trainings and outreach.

Implementation status

CIR text message recall functionality is up and running. Plans for future CIR enhancements include adding text message reminder functionality, email reminder/recall capability, and options for conducting reminder/recall in other languages such as Spanish.

Successes

- Following initial implementation, approximately 200 providers were trained on sending text message recall via the CIR during September and October 2015.
- As of March 2017, 145 unique facilities have used text message recall at least once, accounting for more than 1,200 recall jobs and nearly 280,000 individual text messages sent. The types of providers utilizing the text message feature include private provider offices, federally qualified health centers, and hospitals.
- The proportion of opt-out replies has been low at approximately 7.6%.
- Since the time when recall by text message became an option, more providers have used text message recall than letter recall, more text recall jobs than letter recall jobs have been run, and more patients have been sent texts than letters.
- An evaluation of 171 text message recall jobs, completed by 62 facilities during August to December 2015, found that 11% (3,414/31,388) of patients receiving text messages were vaccinated within 28 days compared to 6% (2,345/39,502) of patients who were eligible for recall but not texted.

Challenges

- The Program had to do significant work related to the legal considerations of sending unsolicited text messages. At the time, the NYC DOHMH did not have any policy or clear guidelines related to text messaging. Federal communications law prohibits sending unsolicited texts, but the NYC Legal Department determined that the NYC Health Code provides the authority to do so. In the event that the Program's unsolicited recall texts may have prompted widespread opposition, the Program decided to purchase its own text short code (a 5-digit number identifying the text sender), through its mobile platform vendor, Mobile Commons, rather than utilize the existing short code used by the DOHMH.
- Prior to developing text messaging, the CIR database did not capture the patient's mobile phone number in a separate field. When the texting functionality was added, the CIR's processing of HL7 messages received from provider EHRs was changed to allow the identification and utilization of the patient's mobile phone number. HL7 includes more contact types than the CIR database structure allows. To appropriately populate the mobile phone field in the CIR, a series of business rules were developed that

determined which contact type (e.g., mother, father or guardian) was to be used as the source to populate the mobile phone number field in the CIR for the pediatric patient. Further, mobile phone number is not a required field so it is still scarcely populated in HL7 messages from provider EHRs. The Program plans to establish a contract with a mobile number validation vendor to continue to identify newly reported phone numbers as mobile numbers to populate and update the mobile phone number field in the CIR.

- A recent analysis of failed text messages revealed that certain mobile carriers or plans do not enable receipt of text messages from short codes. This accounted for most of the undelivered messages which, for some carriers, resulted in a message failure rate of more than 30%.
- The Program required several rounds of testing to address unanticipated programming challenges related to communication between servers (data goes from the CIR server to a DOHMH central IT server, to the Mobile Commons server, then to an SMS aggregator and finally to patients' mobile phones).

Other lessons learned/Advice to other programs

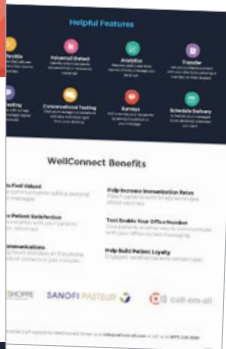
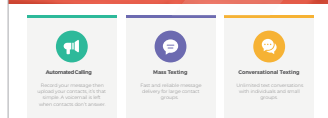
- Success of text message recall is dependent on the extent to which a mobile phone number field is populated within an IIS. Sending existing phone number data to a third-party mobile phone number validation vendor can jumpstart populating the mobile phone number field in the IIS.
- The CIR's current text message recall system does not fully support bidirectional communication between providers and patients. Immunization program staff must monitor patient responses and follow-up with providers, if needed.
- Immunization Programs will need to determine their own policies and legal authority around patient consent for text messaging.
- Plans for developing text message functionality should include consideration of the costs for long-term use of a mobile platform vendor to distribute and track text messages.

Relevant resources

- BriefText Messaging Guide for CIR:
www1.nyc.gov/assets/doh/downloads/pdf/cir/txt-messaging-guide.pdf
- Presentation at 2016 AIRA National Meeting on implementation of text message recall in CIR:
<http://repository.immregistries.org/resource/track-b-iis-fundamentals/>
- CIR Recall Guide (section specific to text messaging found on pages 51-72):
www1.nyc.gov/assets/doh/downloads/pdf/cir/cir-recall-guide.pdf
- 2016 AIM Bull's Eye Award Submission Form:
https://practices.immunizationmanagers.org/content/uploads/2017/04/New-York-City_Text-Message-Recall_2016.pdf

For more information

New York City Department of Health and Mental Hygiene
Bureau of Immunization
nycimmunize@healthy.nyc.gov



Automated patient reminders through calling, mass texting, and conversational texting. Free resources and training materials available at VaccineShopper.com.

<https://bit.ly/2Z20Xxq>

Adolescent Immunization Resource Guide

Sharing what works. Achieving goals. Developing healthy communities.

The Role of Pharmacies

CHAPTER 8



Association of
Immunization
Managers

Introduction

The number of pharmacies providing immunizations to adults has been increasing since the 1990s, and as of 2019 all 50 states allow pharmacists to administer vaccines to adults.ⁱ Pharmacies are familiar, convenient, and accessible immunization venues for adults, and have the potential for expanding immunization access to children and adolescents. State laws vary in age and other restrictions regarding administration of vaccines to children and adolescents.

Allowing pharmacies to participate in the Vaccines for Children (VFC) program has the potential to increase coverage rates, especially in populations who have reduced access to immunizations or those who would not seek care or interact with traditional health care providers who offer vaccination. Despite these benefits, pharmacy participation in the VFC program is low. Certain barriers to including pharmacies in the VFC program include concern from the pharmacies' perspective relating to the volume of work needed to comply with VFC program requirements and billing and reimbursement differences with private insurance and/or Medicaid. Concerns from the VFC perspective include lack of standardization in immunization information system (IIS) reporting by pharmacies, and adherence to the strict vaccine storage and handling requirements.ⁱⁱ Immunization Programs interact with pharmacies in ways other than VFC enrollment to help increase awareness of vaccines and improve coverage rates. Immunization Programs can share information about recent changes in Advisory Committee on Immunization Practices (ACIP) recommendations and requirements or other educational resources, work with pharmacies related to pandemic influenza preparedness, encourage pharmacies to share data with the IIS, and many others.

The activities highlighted in this chapter relate to pharmacies:

- ◆ *Getting Started:* Piloting expansion of VFC enrollment to pharmacies (Michigan)
- ◆ *Moving Forward:* Enrolling pharmacies in the VFC program (Nevada)
- ◆ *Taking It to the Next Level:* Evaluating impact of a new pharmacist vaccination law (Oregon)

ⁱ American Pharmacists Association. Pharmacist authority to immunize – by type of immunization. January 2018. Access November 7, 2018. <https://aphanet.pharmacist.com/sites/default/files/files/practice/07-2020/pharmacist-administered-vaccines-june-2020.pdf>

ⁱⁱ ASTHO. Key Considerations for Pharmacies and the Vaccines for Children (VFC) Program: Summary of Interview and Survey Findings, September 2015. Accessed November 7, 2018. http://www.mysocietysource.org/sites/HPV/ResourcesandEducation/Lists/Clearinghouse/Attachments/516/ASTHO%20VFC%20Pharmacy%20Report_Executive%20Summary.pdf

National Resources: The Role of Pharmacies

APhA HPV Immunization: Pharmacist Resource Center

A resource compiled by the American Pharmacists Association (APhA) and the National Association of Chain Drug Stores (NACDS) to support pharmacists' activities, as part of the immunization neighborhood, focused on increasing public awareness, access to, and administration of HPV vaccine.

<http://hpv.pharmacist.com/?dfptag=imz>

American Pharmacists Association

Immunization Center

<https://www.pharmacist.com/immunization-center>

ASTHO Report

Key Considerations for Pharmacies and the VFC Program: Summary of Interview and Survey Findings (September 2015).

http://www.mysocietysource.org/sites/HPV/ResourcesandEducation/Lists/Clearinghouse/Attachments/516/ASTHO%20VFC%20Pharmacy%20Report_Executive%20Summary.pdf

Pharmacist Vaccination Laws

A dataset, with maps, that explores laws that give pharmacists authority to administer vaccines, and laws that establish requirements for third-party vaccination authorization, patient age restrictions, and specific vaccination practice requirements, such as training, reporting, record-keeping, notification, malpractice insurance, and emergency exceptions (Jan. 1, 2016).

<http://lawatlas.org/datasets/pharmacist-vaccination>

American Immunization Registry Association

White Paper: Survey of Immunization Reporting to Immunization Information Systems by Major US Pharmacies—

A Summary of the Methods, Successes and Challenges of Pharmacy-IIS Interface (January 2014).

http://repository.immregistries.org/files/resources/5835adc2a9a72/survey_of_immunization_reporting_to_immunization_information_systems_by_major_u_s_pharmacies_.pdf

How Immunization Programs Collaborate with Pharmacies on Adolescent Vaccination Initiatives (n=54)*

26

Share information and materials with pharmacies

16

Discussed topics with pharmacy board

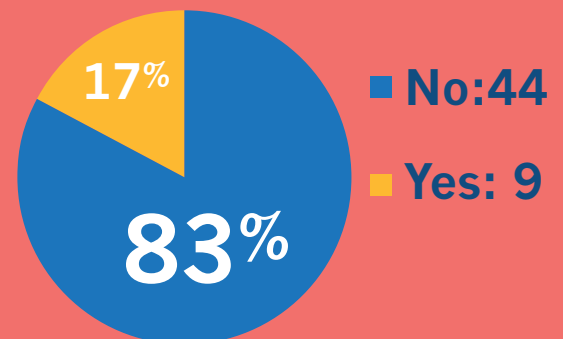
34

Pharmacies enter data into IIS

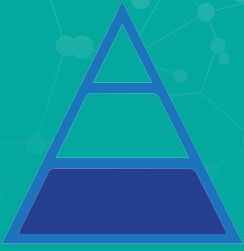
27

Exchange data between Immunization Program and pharmacy

Number of Immunization Programs Enrolling Pharmacists as VFC Providers (n=53)*



*Data from the 2017 AIM Annual Survey: 55 of 64 Immunization Programs responded to the survey.



Getting Started

Program: Michigan

Activity: Piloting expansion of VFC enrollment to pharmacies

Overview of activity

The Michigan Department of Health and Human Services (MDHHS) Immunization Program piloted expansion of VFC enrollment for pharmacies in areas where access for adolescent vaccination was limited.

Ages targeted

All adolescents (and young adults)

Background/impetus for the activity

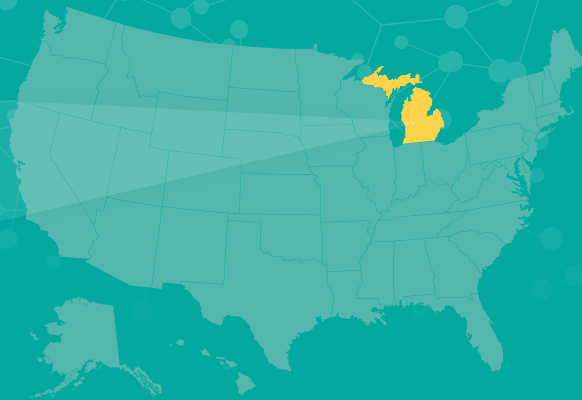
While considering ways to increase access to vaccines for adolescents, the Program wanted to explore the idea of pharmacists enrolling as VFC providers in areas with a limited number of vaccine providers. At the time, the Michigan Medicaid program (ie, the Medical Services Administration, or MSA) allowed reimbursement to pharmacies only for influenza vaccine administered to Medicaid-enrolled adults. The Program initiated discussions with MSA regarding expanding pharmacist administration of vaccines; this would require MSA to reimburse pharmacies for administration of adolescent vaccines and for the pharmacies to obtain vaccines through the VFC program. MSA's pharmacy provider liaison group also encouraged MSA to allow pharmacists to bill Medicaid for vaccines.

Description of activity

Effective June 1, 2015, MSA announced a Medicaid policy allowing reimbursement to pharmacies for administration of all ACIP-recommended vaccines to individuals age 19 and older, including HPV vaccine for both males and females through age 26. In addition, a provision was included for adolescents age 11 to 18, whereby pharmacy providers selected by the MDHHS could enroll in VFC to provide vaccines to Medicaid-enrolled adolescents. Per this new Medicaid policy, selection into the VFC program was to be based on location in underserved areas and ability to meet the VFC program's requirements.

To identify candidate pharmacy providers, the Immunization Program asked its local health departments (LHDs), which are responsible for VFC providers in their jurisdiction, to identify pharmacy providers in geographic areas of need with whom they had an established relationship. To reduce the burden on LHD staff for enrolling pharmacies in VFC, a state-level field representative was responsible for VFC enrollment activities for any selected pharmacies.

An initial pharmacy provider was identified and enrolled in VFC. Subsequently, once this provider started billing Medicaid for vaccines administered, the Program learned that the new Medicaid policy allowed reimbursement for vaccine administration only for Medicaid beneficiaries enrolled in fee-for-service (FFS), not those enrolled in Medicaid managed care plans. Nearly all Medicaid enrollees age 18 and under are enrolled in managed care plans, making the reach of this policy unexpectedly very limited. Once the Immunization Program learned the pharmacy policy applied only to Medicaid FFS, the Program went back to its



MSA contacts to make the case for including Medicaid managed care. These contacts then went to their administration, which rejected expansion of the policy in order to keep Medicaid managed care enrollees in their medical homes.

Role of Immunization Program and other agencies/groups involved

The Immunization Program initiated discussions with MSA about the expansion of VFC to pharmacy providers, and helped a state-assigned representative with VFC enrollment tasks. LHDs were responsible for identifying candidates for VFC enrollment among pharmacy providers in their jurisdiction.

Dissemination

The Immunization Program communicated with LHDs about the new Medicaid policy and requested they identify any potential candidate pharmacies for VFC enrollment. Enrollment activities were handled by a state-level field representative to eliminate overburdening the LHDs.

Intersection with other program activities

In January 2016, the Immunization Program created a two-page information sheet to educate pharmacists about HPV vaccination in Michigan. The Michigan Pharmacy Association (MPA) distributed the information sheet to its members via their electronic newsletter. MDHHS sent the sheet to key immunization stakeholders, presented the information at partner meetings and posted it on its website.

Funding

The Program's work on this activity was funded through its regular cooperative agreement with CDC.

Staffing

The Immunization Program Manager and Education and Outreach Section Manager were involved with this activity, such as interfacing with MSA and the LHDs. A field staff person conducted the VFC enrollment activities for the one pharmacy provider that was enrolled.

Implementation status

The Medicaid policy remains in place. Given the limitations of this policy, and lack of LHD identification of other potential pharmacy provider candidates, the Immunization Program has not pursued VFC enrollment of any additional pharmacy providers.

Successes

- The one VFC-enrolled pharmacy continues to participate in the VFC program, at its own cost, despite the major policy limitation. The pharmacy is a local, independent hometown pharmacy that was already a community vaccinator. They chose to continue their

participation in VFC and offer adolescent vaccines with the understanding that they would most likely lose money. Since enrolling in 2015, they have administered 18 doses of HPV, 14 doses of influenza, 18 doses of Tdap, 22 doses of MCV4, and six doses of hepatitis A vaccine. They even offer extended hours for parents to allow them an opportunity to have their adolescents vaccinated. The MDHHS considers them to be a great vaccination partner. The Program continues to allow them to re-enroll and has not had any VFC compliance issues with this pharmacy.

Challenges

- When the Immunization Program first began to explore the option of enrolling pharmacies in VFC, it ran into opposition from the state chapter of the AAP and the School Community Health Alliance of Michigan (SCHA-MI). Their position was that adolescent vaccination should happen in the medical home; the Program's counterargument was that sufficient vaccination was not happening in the medical home, especially in areas of geographic need, and that additional points of access could help improve adolescent vaccination rates, especially for HPV vaccine.
- Given the very low proportion of Medicaid beneficiaries enrolled in FFS in Michigan, pharmacy providers participating in VFC would be unable to bill Medicaid for vaccine administration fees for most Medicaid-enrolled adolescents.
- Before the limitations of Medicaid's policy were understood, some pharmacy representatives were advocating for very broad pharmacy enrollment in VFC (eg, all pharmacies in the state, all branches of a particular retail chain). However, the Immunization Program contracts with its LHDs to conduct VFC compliance visits and oversee VFC compliance, which would be impossible for them to manage for all of the large "big box" pharmacies. MDHHS would have to determine an alternative way to manage the influx of thousands of chain pharmacies into the VFC program.

Other lessons learned/Advice to other programs

- Other programs may have more success with enrolling pharmacies as VFC providers, if they have a much larger proportion of Medicaid beneficiaries enrolled in FFS or their Medicaid program allows reimbursement for vaccine administered to adolescents enrolled in Medicaid managed care plans.

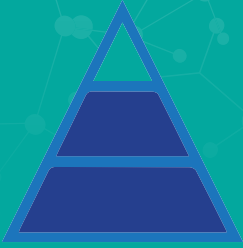
Relevant resources

- MDHHS MSA Medicaid Policy Bulletin on expansion of coverage for pharmacy administration of vaccines (June 1, 2015): http://www.michigan.gov/documents/mdch/MSA-15-08_488415_7.pdf
- MDHHS Information Sheet – HPV Vaccination Snapshot: Pharmacies (January 2016): http://www.michigan.gov/documents/mdhhs/HPV_Snapshot_Pharmacy_512272_7.pdf

For more information

Michigan Department of Health and Human Services
Division of Immunization
(517) 373-3740





Moving Forward

Program: Nevada

Activity: Enrolling pharmacies in the VFC program

Overview of activity

The Nevada Department of Health and Human Service Immunization Program enrolled pharmacies in the VFC program in response to a new state Medicaid requirement.

Ages targeted

All adolescents

Background/impetus for the activity

Effective April 17, 2012, the Nevada Medicaid and S-CHIP (called Nevada Check Up) programs began allowing reimbursement to pharmacies for administration of adult and childhood vaccines. Pharmacies were required to enroll in VFC to obtain vaccine product (at no cost to the administer), which was to be offered to Medicaid/Check Up enrollees age 18 and younger.

Description of activity

In response to this policy, the Nevada State Immunization Program (NSIP) contacted several pharmacies about participating in VFC. Interest was limited, but included a local, independent pharmacy in southern, rural Nevada, and several stores from a national retail pharmacy company.

The pharmacy in southern, rural Nevada enrolled in VFC in part to address health care provider shortage issues in that area of the state and has been the main vaccine provider in that area. This provider successfully participated in VFC for about 5 years, but recently dropped out when its ownership changed.

NSIP worked with the national pharmacy company to select several stores in zip codes serving lower income individuals that also had buy-in among staff, most of which were in urban Clark County (Las Vegas). The stores operated as “specialty providers” under VFC, and the focus of their participation was to serve as an access point for adolescents. The stores stocked HPV, MenACWY, and Tdap vaccines, and influenza vaccine in season; a few stores also stocked varicella and MMR vaccines. Several issues arose during their VFC participation—including conflict/duplication between VFC and corporate requirements (eg, for temperature logs), turnover among retail pharmacists, and confusion regarding Medicaid billing and reimbursement (eg, FFS vs managed care policies). The NSIP determined the stores were not using their VFC vaccines because store staff said they were not receiving Medicaid reimbursement for adolescent vaccines. After participating for about 1.5 years, the pharmacy chain dropped out of VFC, and the NSIP redistributed its remaining doses of VFC vaccines to other VFC providers.

Role of Immunization Program and other agencies/groups involved

NSIP worked closely with its immunization coalition (Immunize Nevada) to initiate and implement this activity.



Dissemination

NSIP communicated directly with pharmacy providers about the option of enrolling in the VFC program. NSIP was familiar with several pharmacy providers from H1N1 response activities. In addition, the Nevada Board of Pharmacy disseminated information to its members and facilitated teleconference Q&A calls between its members and NSIP.

Intersection with other program activities

NSIP/Immunize Nevada produced an educational handout to give parents at back-to-school time that included information on where they could receive vaccines, including at pharmacies. Also, NSIP coordinates community-based vaccination clinics that bring together both a VFC vaccinator (for VFC eligible children) and pharmacies (for privately insured children and adults).

Funding

NSIP's work on this activity was funded under its regular cooperative agreement with CDC.

Staffing

The VFC Coordinator was the main NSIP staff person involved with this activity.

Implementation status

The Medicaid policy remains unchanged. Pharmacies may participate in VFC, but no pharmacies are currently enrolled. Answers to Medicaid reimbursement issues are still unclear.

Successes

- NSIP was able to enroll several pharmacies in the VFC program after the Medicaid requirement was implemented.
- Though not able to sustain a pharmacy presence for vaccinating Medicaid-enrolled adolescents, NSIP actively partners with pharmacies in a variety of other areas (eg, adult vaccination, community clinics), and pharmacies are involved in vaccinating adolescents not covered by VFC

Challenges

- It has been difficult to communicate with Nevada Medicaid on vaccine reimbursement challenges, as these challenges are a lower priority for Medicaid than other issues.
- Also, Medicaid managed care vs fee-for-service reimbursement policies may have a differential impact on pharmacies depending on where they are located; most Medicaid managed care organizations (and large retail pharmacies) are concentrated in the urban areas of the state.

- Vaccines are not the primary focus of the pharmacy retail environment, and therefore the burden of meeting VFC provider requirements may seem out of scale with their day-to-day priorities. As younger pharmacists, who are more likely to have experienced vaccine training as part of their curriculum, enter the workforce, providing vaccines to publicly insured patients may become a higher priority.

Other lessons learned/Advice to other programs

- Before recruiting pharmacies to the VFC program, Immunization Programs should ensure that their Medicaid program's reimbursement and billing policies are clear, including whether both FFS- and managed care-enrolled Medicaid populations are covered. This may require working directly with Medicaid MCOs to understand their policies.
- Enrolling pharmacies in VFC may work best in health care provider shortage areas, where taking adolescents out of a medical home is less of a concern and pharmacies may be more accustomed to taking on a bigger health care load (eg, chronic disease management and counseling).

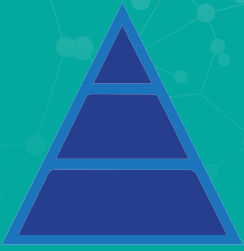
Relevant resources

- Announcement of Medicaid and Nevada Check Up reimbursement for pharmacist-administered vaccines (May 2, 2012): https://www.medicaid.nv.gov/Downloads/provider/NVRx_Admin_Izs_20120502.pdf

For more information

Nevada Division of Public and Behavioral Health,
Immunization Program
(775) 684-2225





Taking it to the Next Level

Program: Oregon

Activity: Evaluating the impact of a new pharmacist vaccination law

Overview of activity

The Oregon Immunization Program evaluated the impact of a change in Oregon pharmacy law on adolescent influenza vaccination.

Ages targeted

Adolescents 11 to 17 years

Background/impetus for the activity

Prior to 2011, pharmacists in Oregon could vaccinate children younger than 18 years only by prescription. Changes to Oregon pharmacy law effective in 2011 allowed eligible pharmacists to vaccinate adolescents 11 years and older under a statewide protocol covering all ACIP-recommended vaccines. The protocol was developed jointly by the Oregon Board of Pharmacy (BOP) and the Oregon Public Health Division. Immunizing pharmacists are certified by BOP, and are required to report vaccines administered to adolescents through Oregon's ALERT immunization information system (ALERT IIS). The Oregon Immunization Program wanted to assess whether adding pharmacists to the mix of providers who immunized adolescents would increase the total number of adolescent immunizations, rather than simply shift immunization venues.

Description of activity

In 2015, the Immunization Program designed a two-part study to explore the impact of the revised law on adolescent immunization rates and site of vaccination. For the first part, the Program looked at changes in influenza immunization volume and rates across multiple influenza seasons (2007 through 2014) among adolescents ages 11 to 17. To control for externalities that could impact immunization rates (eg, season-to-season variation), rates for the 11- to 17-year-old population were compared with those for children ages 7 to 10 years before and after the change (2007–2010 vs 2011–2014). For the second part, the Program examined adolescent vaccination in the 2013 to 2014 influenza season to explore whether vaccinations administered at pharmacies added to overall immunization totals or shifted the venue from non-pharmacy (ie, clinic) sites. Data for these analyses were pulled from ALERT IIS for the region designated for CDC Sentinel Site activity (a contiguous six-county area surrounding Portland, which captures more than 95% of the state's population of both children and immunization providers).

The Program found an overall upward trend in influenza immunizations between 2007 and 2014 for both age cohorts studied (ages 7–10 and 11–17). The increase was much greater among those ages 11 to 17. Adolescent influenza immunizations also increased for both pharmacy and non-pharmacy sites, with a large increase among pharmacy sites following implementation of the revised pharmacy law. Analyses showed that pharmacies added to the total of influenza vaccines administered to adolescents rather than shifting administration away from other sites.



Role of Immunization Program and other agencies/groups involved

This activity was conducted within the Immunization Program.

Dissemination

The Program published the results of this study in the Journal of the American Pharmacy Association, and has presented the findings to various stakeholders, including the Oregon BOP, state provider conferences, and Medicaid managed care plans (called Coordinated Care Organizations).

Intersection with other program activities

The Immunization Program has also examined the role of family versus individual patterns of immunization, and has found strong evidence that having a common immunization venue for parents and (older) children, such as at pharmacies, is supportive of increased immunization.

Funding

This evaluation was funded as part of the Immunization Program's Sentinel Site cooperative agreement with CDC.

Staffing

This study was designed and completed by the Program's Sentinel Epidemiologist, with strong support from other Immunization Program staff.

Implementation status

This activity has been completed and the results have been published. Note that Oregon pharmacy law has been further amended to allow pharmacists to vaccinate children age 7 years and older (effective in 2015).

Successes

- The findings support the Immunization Program's communications to stakeholders regarding the importance of including pharmacists as adolescent immunization providers, such as by countering the argument that pharmacist-administered vaccines will take the place of those administered in the medical home.

Challenges

- This study focused on administration of influenza vaccination to adolescents. Expanding pharmacist administration of non-influenza vaccines to adolescents faces different and stronger barriers. For example, ALERT IIS data show that 12% of seasonal influenza vaccine received by adolescents is administered at pharmacies, versus less than 1% of HPV vaccine.

- Even with data showing the value of utilizing pharmacies to increase access to vaccines for adolescents, pharmacist vaccination is hindered by the lack of insurance coverage, among both private insurance and CCOs, for vaccines administered by pharmacists. It has been a major challenge to convince health plans to include pharmacists as vaccinators (i.e., allow pharmacists to be reimbursed for administering vaccines). CCOs would also need to get their participating pharmacists enrolled in VFC so that they could obtain VFC vaccine for Medicaid-enrolled adolescents.

Other lessons learned/Advice to other programs

- This activity was possible in part because ALERT IIS data were available to support it.
- Pharmacist authority to immunize differs across states, and may impact the extent to which pharmacists are involved with immunizing adolescents in a particular state.
- Insurers may apply different considerations to paying pharmacists to immunize than they do for medical clinics.

Relevant resources

- More details on the methodology for and results of the evaluation were published in the *Journal of the American Pharmacists Association* (Robison SG. Impact of pharmacists providing immunizations on adolescent influenza immunization. overdose simulation. J Am Pharm Assoc. 2016;56(4):446-449.: [http://www.japha.org/article/S1544-3191\(16\)30027-9/pdf](http://www.japha.org/article/S1544-3191(16)30027-9/pdf)

For more information

Oregon Health Authority
Oregon Immunization Program
(971) 673-0300

This Resource was made possible through support from Sanofi Pasteur.



Adolescent Immunization Resource Guide

Sharing what works. Achieving goals. Developing healthy communities.

Improving Clinical Practice

CHAPTER 9



Association of
Immunization
Managers

Introduction

Improving clinical practice is done primarily through the implementation of a continuous quality improvement process (QI). The key to any continuous QI initiative is using a structured planning approach to continuously evaluate and improve the current practice processes to achieve the desired outcome.¹ Immunization QI projects are often selected because immunization is a dynamic, critical, and measurable area of health care. CDC encourages health care providers to consider immunization QI projects that:

- Implement measurable increases in adult immunization rates,
- Bring about measurable increases in HPV vaccination rates, particularly co-administration rates with other adolescent vaccines at the 11-12-year-old visit,
- Bring about measurable increases in vaccination rates of pregnant women, specifically against influenza and pertussis, and/or,
- Reduce disparities in immunization rates, whether associated with race, ethnicity, lack of insurance coverage, or any other factor resulting in suboptimal rates.²

The 64 state, local, and territorial immunization programs (IPs) have historically conducted a continuous QI process called the Assessment, Feedback, Incentive, and eXchange of information (AFIX) program, but as of July 2019, AFIX has been replaced by the Immunization Quality Improvement for Providers (IQIP) program. IQIP is CDC's national Vaccines for Children (VFC) immunization QI program that promotes and supports implementation of provider-level strategies. IQIP is designed to help increase on-time vaccination of children and adolescents.³

Immunization programs can increase vaccine uptake by using strategies that prioritize improving and enhancing immunization workflow. The activities highlighted in this chapter related to improving clinical practice include:

- ♦ *Getting Started:* Physician detailing visits regarding HPV vaccine (New Mexico)
- ♦ *Moving Forward:* AAP partnership to educate providers about QI (Mississippi)
- ♦ *Taking It to the Next Level:* Expanding a QI initiative to include adolescent ages 13-18 (Philadelphia)

AIM QI Webinar

Learn more about the changing healthcare environment and the role of QI.

On November 5, 2019 AIM partnered with Sanofi Pasteur to review how the changing healthcare landscape impacts providers' QI efforts and how these changes can help immunization programs achieve their goals of increasing immunization rates, improving IIS participation, and increasing VFC participation.

Presenters Dr. Sharon Humiston (Children's Mercy), Kevin Farrell (Sanofi Pasteur), and Kristina Berte (Sanofi Pasteur) provided QI insight and offered an example from Texas Children's Hospital. The event was part of Sanofi Pasteur's benefits as a platinum member of AIM's Corporate Alliance Program. The event was for educational purposes only and does not include brand-specific information.



<https://www.immunizationmanagers.org/resources/qi-in-the-changing-healthcare-landscape/>

Resources and Tools for QI



■ CDC Immunization Quality Improvement for Providers (IQIP)

IQIP is CDC's national Vaccines for Children (VFC) provider-level immunization quality improvement (QI) program. IQIP promotes and supports implementation of provider-level strategies designed to help increase on-time vaccination of children and adolescents. <https://www.cdc.gov/vaccines/programs/iqip/>

■ AAP EQIPP Online QI Learning System for Pediatricians

Education in Quality Improvement for Pediatric Practice (EQIPP) has information, tools, and guidance, including one module on immunization. Maintenance of Certification and continuing education credit available. <https://brightfutures.aap.org/states-and-communities/implementation-models/Pages/EQIPP-Online-Modules-.aspx>

■ AAP Immunization QI Resources

AAP offers physicians Part IV Maintenance of Certification Credit with their Education in Quality Improvement for the Pediatric Practices Immunization course. <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/immunizations/Practice-Management/Pages/quality-improvement.aspx>

■ The 4 Pillars™ Practice Transformation Program for Immunization

A guide for physicians and their support staff through clinical QI. The step-by-step guide from the University of Pittsburgh reflects evidence-based research to improve immunization rates in outpatient practice settings. In addition to the QI program, vaccination resources, videos, links, and flyers are available in the toolkit. <http://4pillarstoolkit.pitt.edu/>

■ National Foundation for Infectious Diseases (NFID) Adolescent Immunization Website, Tools, and Resources for Providers

NFID's tools and resources are designed to help professionals implement key strategies for improving adolescent vaccination rates. <http://www.adolescentvaccination.org/professional-resources/hcp-tools-resources>

■ National Immunization Partnership with the Academic Pediatric Association (NIPA)

The NIPA toolkit provides virtual training and tools for improving HPV immunization rates in practice-based settings. https://apps.academicpediatrics.org/nipa/index.cfm?page=HPV_vaccination

■ National HPV Vaccination Roundtable Resource Library

Search this CDC-funded database containing QI resources: <https://www.hpvroundtable.org/resource-library>

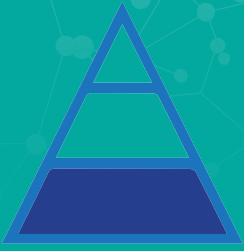
■ Evidence-based Tools for HPV Vaccine QI via UNC Gillings School of Global Public Health: <https://www.hpvqi.org/>

■ MedConcert™ Online QI Tool

This website provides a central platform for individual and organizational data collection, performance measurement, and real-time gap analysis across all areas of care. American Board of Internal Medicine Maintenance of Certification credit is available. <https://www.medconcert.com/>

■ Institute for Healthcare Improvement (IHI) Online QI Courses for Providers

IHI offers a full catalog of more than 30 online courses for providers. <http://www.ihl.org/education/ihlopenschool/courses/Pages/default.aspx>



Getting Started

Program: New Mexico

Activity: Physician detailing visits regarding HPV vaccine

Overview of activity

The New Mexico Immunization Program partnered with a local pediatrician to conduct educational one-on-one “detailing” visits to provider offices regarding HPV vaccine.

Ages targeted

All adolescents

Background/impetus for the activity

In 2011, the New Mexico IP began discussing ideas to improve practice-level adolescent immunization rates—especially for HPV vaccine—with its AFIX staff and existing physician consultant. One idea was to implement physician-led practice education activities, which had been used by another state IP. Based on these discussions, the IP worked with its partners to conduct several HPV-specific physician detailing visits.

Description of activity

The IP’s physician consultant agreed to visit individual practices and developed a standard presentation for the detailing visits, with input from the IP.

The IP developed a priority list of candidate sites for the detailing visits based on high patient volume, low HPV coverage rates (based on past AFIX visits), and broad geographic distribution. This list was then given to the physician consultant and the New Mexico Immunization Coalition (NMIC), who contacted the practices to gauge interest and arrange the detailing visits.

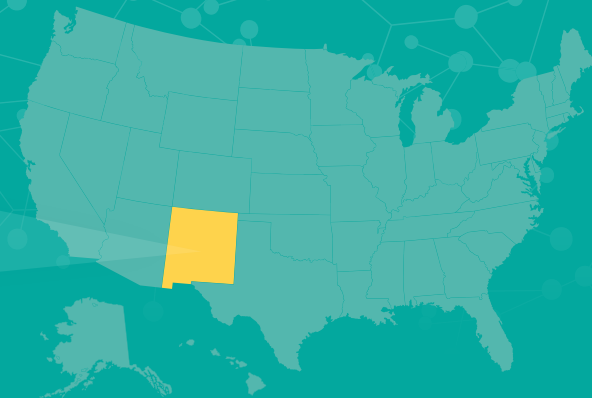
During a detailing visit, the physician consultant typically gave the presentation over lunch, the meal being provided through the NMIC. The presentation covered providing strong vaccination recommendations at ages 11-12 years, practice-focused strategies to educate staff and improve routine HPV vaccination within the practice, and using all available opportunities to educate clinicians and parents about the importance of on-time HPV vaccination.

Role of immunization program and other agencies/groups involved

- The IP identified a priority list of candidate sites for the detailing visits and gave feedback on the physician consultant’s presentation.
- The physician consultant developed the presentation and conducted the detailing visits.
- The University of New Mexico (UNM) is the IP’s contractor for the NMIC.
 - » NMIC staff assisted the physician consultant, who was on the UNM faculty, with visit logistics (e.g., contacting practices, lunch arrangements).

Dissemination

Provider sites were contacted individually about participating in the detailing visits.



Intersection with other program activities

While physician detailing visits were taking place, the IP began conducting adolescent AFIX visits separately to improve adolescent immunization rates.

Funding

This activity was initially supported through the IP's regular CDC cooperative agreement. Starting in 2013, a portion of this activity was funded through a Prevention and Public Health Fund (PPHF) sub-award specific to improving adolescent immunization rates.

Staffing

The IP's AFIX coordinator was the primary staff person.

Implementation status

The PPHF funds that supported the detailing visits ended in September 2015. The physician consultant continues to provide HPV vaccine-related education to providers through the program's partner organizations: the UNM's Area Health Education Center (AHEC) has partnered with the NMIC on a grant to educate health care providers about HPV vaccine, funded by the National AHEC Organization.

Successes

- Ten detailing visits were completed during the PPHF funding period.
- Detailing visits were generally well-received by providers and their staff.
- Though the direct impact of this activity on immunization rates is difficult to separate from other possible influences, there was at least one case in which a practice (an Indian Health Service clinic) decided to focus on increasing their adolescent HPV coverage rates after hearing the presentation. Subsequently, the practice saw an improvement in rates.

Challenges

- In some areas of the state where there had been negative publicity around HPV vaccine, it was challenging to find practices willing to participate, as they were resistant to both the detailing visit and recommending HPV vaccine to their patients.

Other lessons learned/advice to other programs

- Developing relationships with active and engaged partners, like the immunization coalition, contributed to the success of its recent efforts to increase adolescent immunization rates.
- The state's Immunization Practices Advisory Council has been the hub of collaborative activities among the UNM, the NM chapter of the AAP, and the Department of Health, and others.

[For more information](#)

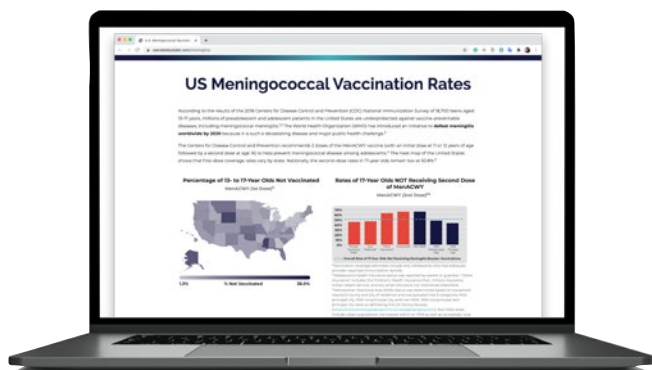
New Mexico Department of Health
Immunization Program
(505) 476-1451

“We will achieve high HPV vaccination rates by listening carefully to parents’ and teens’ fears and communicating clearly—using non-medical language—about the benefits of the vaccine. We have this amazing vaccine that can prevent six cancers and a lot of other misery. And we have parents who want the best for their kids and their communities. Harness that power by learning how to listen to their stories and respond with empathy, not by knowing all the answers.”

— Erica Martinez-Lovato, *New Mexico Immunization Program Manager*

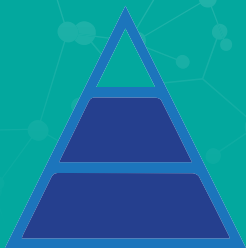


U.S. MENINGOCOCCAL VACCINATION RATES



Find interactive maps and figures depicting the percentage of 13- to 17-year olds not vaccinated against menACWY (1st dose) and the rates of 17-year-olds not receiving the second dose of menACWY. You can search by state and find information about adolescents' health insurance status and Metropolitan Statistical Area (MSA) status.

vaxratesbystate.com/meningitis



Moving Forward

Program: Mississippi

Activity: AAP partnership to educate providers on QI

Overview of activity

The Mississippi Immunization Program partnered with the state chapter of the American Academy of Pediatrics (MS AAP) to educate providers about immunization-related QI activities.

Ages targeted

All adolescents

Background/impetus for the activity

To address low immunization coverage rates among adolescents, the Mississippi IP discussed ideas to improve rates at the practice level. The IP was interested in promoting QI strategies using a model other than AFIX visits to individual practices. Discussions were held internally and with external partners, such as the MS AAP and the state chapter of the American Cancer Society (MS ACS).

Description of activity

The IP partnered with a part-time physician consultant for the Mississippi State Department of Health (MSDH) and the MS AAP to conduct presentations around the state on improving adolescent immunization rates. Any practice known to be providing pediatric care was invited to participate, and practices were encouraged to have a physician and other staff members (e.g., nurse managers, office managers) attend. Invitations were sent to VFC and non-VFC providers and AAP members and non-members. Meetings were free of charge. Three meetings were held (January, February, and May 2016), and a total of 18 practices participated.

At the start of each meeting, participants were given information on their practice-specific coverage rates and a survey to assess whether their practice was currently doing any immunization QI activities. The physician consultant then provided an overview of statewide coverage rates and Healthy People 2020 goals for HPV, Tdap, and MCV4 vaccines, as well as the background on the diseases they prevent. The IP's VFC coordinator then spoke about immunization-related QI strategies, such as conducting reminder/recall and running coverage reports through the state's immunization information system (the Mississippi Immunization Information Exchange, or MIIX). Each meeting lasted approximately 60-90 minutes. At the end of the meeting, participants were given a handout on HPV vaccine and cancer prevention from the MS ACS.

Following the meetings, the IP monitored the adolescent vaccine coverage rates of the participating practices over time (at 3 months, 6 months, 9-12 months). At the MS AAP meeting, the IP awarded the practice that showed the most improvement in rates in the 12 months since they attended a presentation. The IP also provided feedback on each practice's rates since the presentation was given.



Role of immunization program and other agencies/groups involved

- The IP developed the QI presentation and prepared meeting materials (e.g., practice-specific coverage rate reports, survey for participants). The IP has monitored changes in rates at participating practices and communicated these data to the practices.
- The part-time MSDH physician consultant, who consults for both the immunization and epidemiology programs, developed the presentation on adolescent vaccines.
- The MS AAP handled the logistics of setting up the meetings, including sending out invitations, reserving the venues, and providing food for participants.
- The partners held regular meetings to arrange and conduct the practice education meetings.

Dissemination

The MS AAP sent out invitations to pediatric providers. Educational materials were provided to participants at the in-person meetings. The IP communicated directly with individual practices on any change in their adolescent vaccine coverage rates.

Intersection with other program activities

The IP and the physician consultant gave a similar presentation to residents at the University of Mississippi School of Medicine to educate them on immunization-related QI processes.

Funding

This activity was funded mainly through the IP's regular immunization cooperative agreement with CDC. The MS AAP's portion was funded through their own grant funding from CDC.

Staffing

The VFC coordinator and the physician consultant developed and gave the presentations. A part-time contract nurse assisted with running the practice-specific coverage reports from MIIX and preparing the presentations.

Implementation status

All three meetings have been held. Feedback to practices on any subsequent changes in their adolescent vaccine coverage rates is forthcoming. Their focus is to use a top-down approach (i.e., targeting administrators down to clerical level personnel) while continuing to target medical providers.

Successes

- The meetings were well received by participants, and all but one of the 18 clinics have shown a steady increase in immunization rates for each vaccine.

Challenges

- The program hoped for greater geographic reach for this activity, but there was not enough interest from a few areas of the state. The activity was implemented in central and southern areas of the state.

Other lessons learned/advice to other programs

- Though many of the immunization-related QI activities that the program covered in these presentations are also included in AFIX, the IP wanted to make the materials and terminology easier to understand. The IP also wanted participants to feel like the activities were simple enough to incorporate into their clinical practice.
- Because different staff members may be responsible for different types of activities, the program separated the discussion of QI strategies into administrative activities and clinical/medical activities.
- It was noted that participants in the same practice often answered the survey questions differently if they didn't first confer with each other. For those that did, the discussion often illuminated incorrect assumptions. For example, the physician may have thought certain activities were being done that staff said were not. It proved to be a learning experience for physicians and their staff.
- Also observed was a different dynamic within smaller independent practices versus larger practices. Smaller practices seem to feel more personal ownership of their processes and have a greater degree of control over making improvements. For multi-site practices, staff at individual clinics seem less committed to making improvements and have their policies and procedures set at a higher level. One takeaway is that educating larger practices on immunization-related QI strategies should include those at a higher administrative/decision-making level.
- Partners were very important for the success of this activity. The MS AAP liaison was very proactive and had a strong working relationship with the program and the MSDH physician consultant. The physician consultant, who is a pediatric infectious disease specialist, is a long-standing, well-respected member of the medical community in the state.

Relevant resources

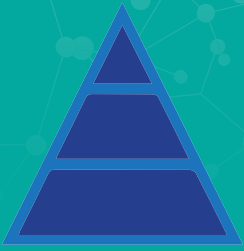
- Survey instrument ("Immunization Quality Improvement Recommendations")
<https://drive.google.com/file/d/1F7l7qhuQ8GL97hy29GJAXVXLVgOZqFWj/view?usp=sharing>

For more information

Mississippi Department of Public Health
Division of Immunization
(601) 576-7751

“Throughout the initiative, whenever I said “quality improvement,” clinicians and staff would tune out. But really, QI is about identifying one thing to change, making that change, and figuring out whether it made things better. It might be a systemic change—like checking vaccination records for “every patient, every time,” or it might be stating the patient’s age when you make your presumptive announcement about the vaccine. It’s that simple—and it is rocket science. If we could use QI to get to the Moon and Mars, surely we can use it to improve HPV vaccination rates. ”

— Erica Martinez-Lovato, *New Mexico Immunization Program Manager*



Taking it to the Next Level

Program: Philadelphia

Activity: Expanding QI initiative to include adolescent ages 13-18

Overview of activity

The Philadelphia Immunization Program added adolescent AFIX to its combined VFC/AFIX provider site visit process.

Ages targeted

Adolescents ages 13–18

Background/impetus for the activity

In 2013, the Philadelphia Immunization Program applied for and received an HPV-specific PPHF funding award. Despite a concern with the completeness of adolescent data in its immunization information system (IIS), called KIDS Plus, the IP included adolescent AFIX as an activity under this PPHF award as a way to jumpstart adolescent AFIX among the IP's VFC providers.

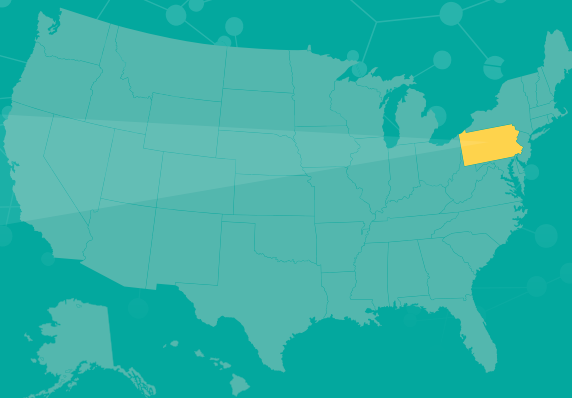
Description of activity

When considering the parameters for adolescent AFIX, the IP decided to include a large age cohort (ages 13-18) and every routinely recommended vaccine (HPV, MCV, Tdap, and catch-up Hepatitis B, MMR, and varicella). Based on the model for pediatric AFIX, the IP established a process for conducting adolescent AFIX and initiated this process for its VFC provider sites. The process included the following steps for eligible* VFC providers:

- A “provider quality assurance nurse” called the VFC provider to schedule an AFIX visit.
 - » Adolescent AFIX visits are combined with pediatric AFIX where applicable.
- About a month before the scheduled visit, the IP pulled a list of the practice’s patients ages 13-18 from KIDS Plus. Patients are assigned to a practice in KIDS Plus based on the site of their last reported dose. This list was sent to the provider to review (i.e., to identify those they no longer consider their patients, to update addresses and vaccination records, etc.) and return to the IP in 2-3 weeks.
- After the provider returned its patient list, IP staff updated the patient data in KIDS Plus. Then the nurse reran the list and conducted another adolescent coverage assessment a few days before the visit.
- At the visit, IP staff went through the standard AFIX protocol with the provider.

*Providers were required have at least ten patients ages 13-18 years to be eligible for an adolescent AFIX assessment.

The IP has established a two-tiered process of official and “unofficial” AFIX. For official AFIX, the IP enters the visit data into the online AFIX tool and targets 25-30 percent of its VFC providers annually. Providers receiving official AFIX must review and return their patient lists. For the remaining “unofficial” VFC providers, the IP does not necessarily use the online AFIX tool but still provides them with a coverage assessment. They will also clean up the KIDS Plus patient records for those providers willing to review and return their patient list.



Role of immunization program and other agencies/groups involved

The IP initiated and developed the adolescent AFIX process.

Dissemination

VFC providers were informed of the additional adolescent AFIX component in the standard letter they receive upon scheduling their VFC/AFIX site visit.

Intersection with other program activities

Concurrent and complementary activities under the HPV PPHF funding award included peer-to-peer physician education visits and centralized IIS-based reminder/recall.

Funding

Though adolescent AFIX was included as an activity under the program's HPV-specific PPHF funding award, it did not have a significant cost impact. The activity was added to the existing duties of staff conducting pediatric AFIX, which the IP already supports via its regular CDC cooperative agreement.

Staffing

The IP has three nurses responsible for provider quality nurses and one staff member responsible for data entry and preparing for and conducting VFC/AFIX site visits.

Implementation status

Adolescent AFIX was integrated into VFC/AFIX activities in 2014 and is ongoing.

Successes

- The IP conducted 122 adolescent AFIX visits during the PPHF HPV grant cycle, which is 60 percent of the 203 total VFC providers in Philadelphia that administer HPV vaccine.
- Providers have responded positively to seeing adolescent vaccine coverage assessments, which have shown areas for improvement (e.g., delay in starting age for HPV vaccine series) that they may not have recognized previously.
- This effort has greatly helped to increase completeness of adolescent data in KIDS Plus.

Challenges

- Initiating adolescent AFIX required significant time on the part of providers for reviewing their adolescent patient lists. These lists could contain hundreds of patients, some of whom hadn't been seen at the clinic for many years. To reduce the impact on providers, the IP eased in the requirements for patient list review. In the first year, providers were given the option of returning a corrected patient list, and many did not. In the second year, practices were strongly encouraged to provide an updated list, and more of them did. Currently, providers who are receiving official AFIX visits must return their patient lists.

- Initiating adolescent AFIX also required significant time on the part of IP staff; when a practice returned a corrected patient list to the IP, the changes had to be entered into KIDS Plus in time for the corrected coverage reports to be ready for its site visit.

Other lessons learned/advice to other programs

- In hindsight, the IP could have developed a better dissemination plan and given providers more advance notice.
- When doing adolescent AFIX, IPs should think through their goals and priorities to help determine how broadly to define the parameters. The Philadelphia IP included every VFC provider, a broad age cohort, and a comprehensive list of vaccines; starting on smaller scale might be a better fit for some programs. For example, an IP might want to focus on older adolescents to “catch” them before they age out of VFC.
- Having a process for adolescent AFIX has allowed the IP to give every provider some type of an adolescent assessment in a given year.

For more information

Philadelphia Department of Public Health
Immunization Program
(215) 685.6784

¹ NLC. https://www.healthit.gov/sites/default/files/tools/nlc_continuousqualityimprovementprimer.pdf

² CDC. <https://www.cdc.gov/vaccines/ed/quality-improvement-proj.html>

³ CDC. <https://www.cdc.gov/vaccines/programs/iqip/at-a-glance.html>





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