



DOSE HPV: Development of Systems and Education for HPV Vaccination

Implementation Guide

I. Program Administration.....	02
II. Program Delivery: Materials	03
II a. Pre-Intervention.....	03
II b. Session 1.....	03
II c. Session 2.....	04
II d. Session 3.....	04
II e. Session 4.....	04
II f. Session 5-7.....	05
III. Program Delivery: Implementation.....	06
IV. Program Evaluation.....	07
V. Session Materials and Templates.....	08

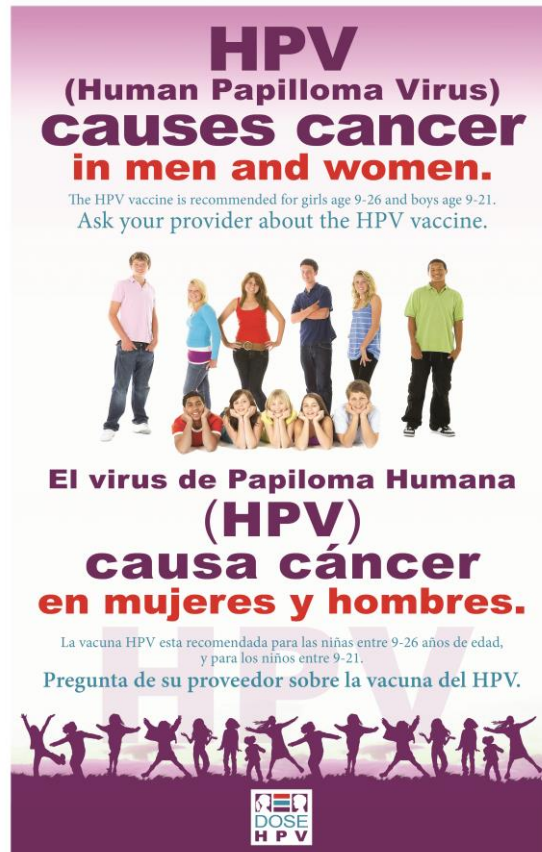


Figure 1. “HPV Causes Cancer” poster in English and Spanish

Note: All PowerPoint presentations and templates are available for download. Additional websites with resources which are continually updated are also included. You may choose to use alternative resources to meet the needs of your organization and audience.



I. Program Administration (Type of Staffing and Functions Needed)

Clinician champion (Requirements: MD, DO, or advanced practice nurse (NP or CNM) with time to devote to the project, access to staff, ability to take one leadership role in practice. Prior QI experience and/or training is helpful.)

- Introduces project to providers
- Delivers the intervention sessions or invites local speakers with expertise if desired
- Motivates staff and ensures program is completed, including scheduling sessions
- Supervises day-to-day activities of program involving physicians
- Assures availability of resources, usually IT, to perform data analysis on a regular basis
- This role is usually a physician, but can be a nurse in a leadership position

Data manager

- Obtain data on HPV vaccination rates
- Create feedback profiles for clinicians
- This role is usually filled by an administrative staff person.
- *If EMR data is not available, chart audits done by participating clinicians, or changes in the ratio of Tdap to HPV vaccine ordered may be used to assess baseline rates and changes during the intervention*
- *If EMR data is not used, the data manager position may not be necessary*

Nurse manager (usually RN or LPN, should be whoever manages vaccines for the practice)

- Ensures adequate vaccine supply
- Oversees any nurse activities
- Supervises day-to-day activities of program involving physicians

NOTE: It is recommended that the Clinician champion and/or the Nurse manager have some QI experience or training. Successful completion of previous QI initiatives, or formal training in established QI theories such as the Institute for Healthcare Improvement (IHI) model for improvement via their online open school, LEAN, Six Sigma, DMAIC or others are appropriate.



II. Program Delivery: Materials

(All listed materials can be viewed and/or downloaded from the RTIPs Products Page):

II a. Pre-Intervention: Data collection using *Sample Data Spreadsheet*

Prior to starting the intervention, your site will need to collect data on vaccination rates. The Data Manager will lead this task. The Clinician Champion and Nurse Manager will help to decide on the data parameters, then the Data Manager can pull the necessary data from the EMR. The data parameters are explained below.

- Define active patient
 - You will want to consider what your clinic considers an ‘active patient.’ Some clinics define this as a patient seen in the clinic in the past 12 months, others define it as a patient seen in the past 18-24 months. You want to be sure that you are only including active patients in your denominator so that you are not penalizing the practice for not vaccinating patients who are no longer active at the practice.
- Age Range
 - For this project we collected data on patients aged 11-26 so that we could observe all ages of patients eligible for vaccination. You should consider breaking your data up into age ranges that will help you better reflect your potential practice gaps. For example, gaps may be identified if you run data for boys and girls separately, in three age groups: 11-12, 13-17, and 18-26.
- Vaccine initiation vs. completion
 - Performance at each of the three doses of vaccination can provide valuable information for your project. Poor performance in initiating the vaccine might indicate an issue with provider/patient communication. Difficulty with completion may indicate a lack of reminder or recall systems.
- Monitoring Missed Opportunities
 - In an effort to personalize the data feedback experience, we began to provide groups with a specific list of patients seen in clinic in the previous month who were eligible for one of the three doses of HPV vaccine but did not receive it. Delving into the cases of specific missed opportunities creates a more vibrant discussion and provides specific examples of what went wrong. This can help generate a fruitful action plan discussion for improvement.

When developing your plan for collecting data, please refer to the *Sample Data Collection Spreadsheet* illustrating data collected during the intervention, and defining the numerator and denominator of each metric. You may modify the variables collected to meet your needs. Please refer to the materials in Session 1 and Sessions 5-7 for an example of how to present the data to your group as a PPT and then as individual feedback reports.



II b. Session 1: Introduction and data feedback, 45-60 minutes (Refer to Session 1 PPT in PDF attachments):

This presentation should be given by the clinician champion to the entire clinical team involved in vaccinations: physicians, nurses, practice/medical assistants, receptionists. At minimum, all primary care providers should be present. The purpose of this presentation is to introduce the intervention to the group and present the baseline data. The presentation gives an overview of the program, and should include baseline data from the clinic where the intervention will occur. The slides can include a comparison of individual performance among a group, as well as a comparison of the group performance to state and/or national performance. The example file included in this collection of materials is a template that you can be modified with your data. If data are available at the provider level, you may also present providers with their personal vaccination rates, see *Sample of individual provider feedback* for an illustration of how data can be presented.

II c. Session 2: HPV 101, 45-60 minutes (Refer to Session 2 PPT in PDF attachments):

This presentation should be given by the clinician champion, or a local expert in HPV vaccine or disease. This lecture describes HPV transmission, carcinogenesis, and epidemiology, safety and effectiveness of HPV vaccines, and effective ways to present HPV vaccines to parents. Additional options: If no one is locally available who feels comfortable giving the lecture, the entire presentation is available as a Boston University School of Medicine Continuing Medical Education accredited online video with Dr. Rebecca Perkins and Christine Baze (cervical cancer survivor).
BUSM CME website: “HPV is Cancer Prevention” BUCME.ORG
Specific Activity Website: <http://bucme.org/node/1018>

II d. Session 3: Motivational Interviewing, 45-60 minutes (Refer to Session 2 PPT in PDF attachments):

This presentation can be given by the clinician champion, or a local expert in Motivational Interviewing. Organizations may need to contract with a Motivational Interviewing expert for this session, and if so the contractor may want to use his/her own materials, which is acceptable. This powerpoint presentation teaches learners the basics of motivational interviewing techniques. This is particularly useful in navigating potential resistance from patients and or parents when discussing the initiation of the HPV vaccine.

II e. Session 4: Action Plan, 45-60 minutes (Refer to Action Plan Discussion Guide in attachments):

This session is usually led by the clinician champion, or a QI expert within the clinic or healthcare system. The session is a facilitated discussion is for the practice, as a group, to agree on actions they will take together to improve vaccination rates. The discussion guide can be used to guide providers in examining gaps in their vaccination rates and coming up with a realistic plan for improving rates.

- The actions used during the prior intervention were: commitment to making a strong provider recommendation to all patients at age 11, posters in exam rooms to remind patients and doctors about vaccination, counting vials to motivate staff



- to give more vaccines, enhanced reminder/recall, and coordination with an affiliated school-based health center.
- “HPV Causes Cancer” Posters have been created in English, English with Spanish, and English with Vietnamese. In the original intervention the posters were printed in 11 X 17 laminated mini-posters which were placed in the waiting and exam rooms. The purpose of the posters is to increase awareness of HPV and alert parents that there is a vaccine available which they can discuss with their provider, and also to cue providers to discuss vaccination. See page 1 of implementation guide which displays a photo of the English with Spanish version.
 - Other options for office changes can be found online at the American Academy of Pediatrics “HPV Champion Toolkit” in the “making a change in your office” section: <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Pages/HPV-Champion-Toolkit.aspx>.

II f. Sessions 5-7, 30 minutes each: Plan-do-Study-Act cycles (Refer to Sample of individual provider feedback and Sample PDSA cycle in attachments):

The clinician champion, nurse manager, data manager, and other practice staff involved in implementation of the action plan should plan and lead this session. Additional data must be collected for these sessions, so that progress can be measured and goals assessed at each session. The data manager is responsible for data collection and presentation. The *Sample of individual provider feedback* form in attachments illustrates how data were presented to providers and progress addressed in the intervention. The charts in the sample are generated from Microsoft Excel and pasted into Microsoft Word. The data is usually collected in the same way as the baseline data. The purpose of these sessions is for the group to come together to review the data of their individual numbers as well as those of the group. The group should also discuss what has and has not been working well with the changes they have made to improve practice. Plans should be made to address any problems encountered. An example of a PDSA cycle is available in the downloadable attachments (*Sample PDSA cycle*). Additional examples of PDSA cycles can be found in the downloadable files and online at the American Academy of Pediatrics “HPV Champion Toolkit” in the “making a change in your office” section: <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Pages/HPV-Champion-Toolkit.aspx>. The American Academy of Pediatrics Tip-in is also included in supplementary materials.



III. Program Implementation:

The program will take 9-12 months to implement. This includes approximately 7 hours of sessions, plus additional time from Clinician Champion, Nurse Manager, and Data Manager to obtain data, lead project, and implement action plan. The steps used to implement this program are as follows:

Step 1: The clinician champion works with the data manager to pull baseline data and creates slide deck for session 1. Format is agreed upon for monthly data reports. Clinician champion works with local CME provider to arrange credit for sessions, if available.

Step 2: Sessions 1-4 are given during regularly scheduled staff meetings. All staff, including physicians, nurses, medical assistants, and receptionists are encouraged to attend.

Step 3: Clinician champion and nurse manager work with staff to implement changes agreed upon in the action plan session. This is a good time to print and hang the “HPV Causes Cancer” posters in your clinic waiting rooms and exam rooms.

Step 4: Action plan is refined by the group during sessions 5-7, and clinician champion and nurse manager work with staff to implement any new changes. The group should continue to schedule these sessions until they are confident that their intervention has been effective and there has been sustained improvement.

Step 5: Data manager analyzes improvement in vaccination rates using monthly reports and works with clinician champion to create a sustainability plan so that performance can be monitored periodically in a maintenance phase. If working with a CME office, participating clinicians can claim their performance improvement AMA PRA Cat. 1 Credits. Participating clinicians can use data to receive Maintenance of Certification credits through their local CME office, or through online programs such as EQIPP, an American Academy of Pediatrics program that is free to members online at the American Academy of Pediatrics “HPV Champion Toolkit” in the “CME/MOC” section: <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Pages/HPV-Champion-Toolkit.aspx>.

For additional information on the implementation of this program, you can refer to the program publication in the Journal Vaccine:

Perkins R, Zisblatt L, Legler A, Trucks E, Hanchate A, Gorin S. Effectiveness of a provider-focused intervention to improve HPV vaccination rates in boys and girls. *Vaccines*. 2015: 33(9).



IV. Program Evaluation

We evaluated this program during each interaction with the participating clinic. In addition to the continuous monitoring of data, which evaluates the success of your interventions, we used a few different evaluation forms to collect more qualitative data as well.

- See attached *Sample session evaluation forms* for sessions 1-4. These forms are used to evaluate:
 - Clinician satisfaction with the specific sessions and the overall program
 - If the session successfully met its educational objectives. If participants overwhelmingly feel that the session did not meet its objectives you might consider adding additional education or an additional session to ensure the group achieves an adequate level of competence for each session's topic.
 - Compliance with ACCME criteria (if seeking CME accreditation with a local CME office).

- The *Sample of individual provider feedback* form is updated and used at each PDSA cycle to track an individual's vaccination performance over time. It can be used to demonstrate improvement in healthcare quality to fulfill MOC requirements if this is part of the intervention at your practice. This personalized visual feedback report has a powerful impact on providers.