

HPV VACs

Vaccinate Adolescents against Cancers



Activity and Impact Report



2017-2018

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Contents

Executive Summary.....	2
Introduction	3
Infographic	4
Clinical Quality Improvement Efforts.....	5
Maintenance of Certification Pilot.....	6
External Evaluation Summary of Maintenance of Certification Pilot	6
Data Capacity Mini-Grants	11
Quality Improvement Partnerships and Comparison of Primary Care Interventions	13
2015-17 FQHC Pilot: Wrapping up and Disseminating Results.....	15
Primary Care Systems Training and Technical Assistance	16
State-level Partnership and Coalition Building	17
Health Plan Engagement.....	19
Strategic State Partnerships.....	20
State Health Systems Training and Technical Assistance	21
Hospital Systems Engagement.....	22
HPV Vaccination Activities to meet Commission on Cancer Standards.....	24
HPV Vaccination Activities in Hospital-Affiliated Primary Care Networks.....	25
Hospital Systems Training & Technical Assistance	27
Mission: HPV Cancer Free Public Health Campaign.....	28
Campaign Volunteer Engagement	31
Campaign Baseline Survey: Staff HPV Knowledge, Confidence, and Concerns	32
Internal Prioritization: Fundraising for HPV Vaccination Work	34
Internal Prioritization: Staff Time Dedicated to HPV Vaccination	35
Integration: Cross-vertical Training, Technical Assistance, and Partnership.....	36
Partnership and Prioritization Funding.....	38
Program Leadership: The VACs Team and Advisory Groups	39
Primary Care Advisory Group.....	39
State Health Systems Advisory Group	39
Intervention Tools and Resources	40
APPENDIX A: HPV Vaccination Leadership Positions Held by Cancer Control Staff	44
APPENDIX B: 2017 HPV VACs Primary Care Programmatic Activity Timeline.....	46
APPENDIX C: 2017 HPV VACs State and Hospital Programmatic Activity Timeline.....	47
APPENDIX D: Partnership and Prioritization Funding	48

Executive Summary

During 2017 and through May 2018, the American Cancer Society's HPV VACs program continued to expand HPV vaccination efforts throughout the organization.

Clinical quality improvement continued to be a core focus for VACs in 2017. Thirty-nine partner FQHCs, with 119 participating clinic sites, took part in three intervention cohorts in 2017. The first cohort of 17 **Quality Improvement (QI) Partnerships** was light-touch, with a flexible structure and technical assistance as needed. The second cohort included 10 **Data Capacity Mini-Grants** to improve FQHC capacity to collect and use HPV vaccination data. The **Maintenance of Certification (MOC) Pilot** cohort involved 12 FQHCs in an in-depth learning collaborative that included Maintenance of Certification (MOC) and Continuing Medical Education (CME) credits, as well as monthly learning collaborative calls, monthly data reporting, and an implementation manual. **These 39 partner FQHCs increased their HPV vaccine series initiation rates by an average of 16 percentage points from baseline.** FQHCs in the more intensive cohorts saw larger vaccination rate increases. See sidebar for details.

Series initiation rate increase:

MOC Pilot: **+23** percentage points

Data Mini-Grant: **+17** points

QI Partnership: **+6** points

Series completion rate increase:

MOC Pilot: **+21** percentage points

Data Mini-Grant: **+17** points

QI Partnership: **+16** points

Hospital-affiliated primary care networks have the potential to make a huge impact on HPV vaccination, serving millions of adolescents around the country. In 2017, **108 partner hospitals conducted HPV vaccination activities in hospital-affiliated primary care networks.** Seven percent of ACS Hospital Systems staff had a leadership role in these activities, while 50% provided consultation, technical assistance, and/or input on strategy. VACs is making this work a priority in 2018, with plans to offer HPV vaccination training to Hospital Systems staff nationwide.

State Health Systems (SHS) staff continued to leverage relationships with key partners to champion HPV vaccination at the state-level. In 2017, SHS staff held a total of **37 leadership positions in HPV vaccination** working groups, coalitions, and other bodies in 31 states. VACs also provided funding of up to \$5,000 each for 16 Partnership and Prioritization projects with Health Systems staff in 2017. Many SHS staff used these funds to revive state HPV stakeholder groups, conduct provider trainings, and more.

To build the capacity of the regional staff who make this work a reality, VACs conducted several in-person trainings across verticals in 2017. In partnership with the Health Systems learning team, 60 PC staff received intensive QI coach training. In partnership with the Organizational Development team, 57 SHS staff, GHQ directors, Hospital Systems staff, and one clinical champion from MD Anderson received in-depth facilitation training. Finally, 49 Hospital Systems and SHS staff, primarily from the North Region, participated in the first training focused on HPV vaccination interventions in hospital-affiliated primary care networks. VACs also created or updated over 40 tools and resources since January 2017 to fulfill needs expressed by regional staff. With all this engagement, regional Health Systems staff spent more time than ever on HPV vaccination efforts – equivalent to nearly 32 full-time staff.

Finally, 2017 marked the internal launch of *Mission: HPV Cancer Free*, ACS' enterprise-wide public health campaign to make HPV cancer prevention a priority for the nation. VACs worked with GHQ and regional leadership to build an intentionally integrated foundation for this campaign, including strategic planning, a regional team structure, a kickoff event featuring Gary Reedy and the Senior Leadership Team, and countless resources. *Mission: HPV Cancer Free* is both a platform for large-scale impact and a vivid demonstration of ACS' prioritization of HPV vaccination as a public health imperative.

Introduction

During 2017 and through May 2018, the American Cancer Society's HPV Vaccinate Adolescents against Cancers (VACs) program continued to expand HPV vaccination efforts throughout the organization. Primary Care (PC) Systems staff strengthened partnerships with Federally Qualified Health Centers (FQHCs) to prioritize HPV vaccination. State Health Systems (SHS) staff partnered with various organizations and led efforts to increase HPV vaccination at the state-level. The national HPV VACs program team, located within the Cancer Control Interventions team at Global Headquarters (GHQ), supported field staff by designing and disseminating interventions, building intervention tools, facilitating training, providing technical assistance (TA), and collecting data to make programmatic improvements. The HPV VACs team began to build the foundation for stronger relationships with Hospital Systems staff, with a hospital-focused HPV vaccination training series completed in October 2017. Finally, the *Mission: HPV Cancer Free* public health campaign was launched internally in November 2017, helping to prepare the entire ACS workforce to embrace our public health mission to be HPV Cancer Free.

This report provides an overview of cancer control and emerging national campaign work during 2017 and into 2018. Data in the report come from numerous sources, including Siebel, VACs' fall 2017 survey of PC, SHS, and hospital managers, clinical outcome data, a survey of all ACS staff, findings from external evaluation processes, and more. For any questions about data sources or methodology, please contact VACs Data Manager, Sandy Preiss. For overarching questions regarding the VACs program, please contact VACs Program Director, Marcie Fisher-Borne.

Preventing Cancer Through Vaccination

The HPV vaccine delivers on a dream many have held for decades: a cancer prevention vaccine. We can help prevent six types of cancer with the human papillomavirus (HPV) vaccine, an opportunity to put a stop to more than 31,500 new cases of cancer each year in the United States.

The HPV vaccine helps prevent infection by high risk types of HPV that cause most cervical, vaginal, vulvar, anal, penile, and throat cancers.

American Cancer Society Staff Make an Impact on Health Systems

Over 400 ACS staff partner with primary care practices, health plans, immunization programs, state-level organizations, and hospital systems to increase HPV vaccination by leading:

- **Clinical quality improvement (QI) efforts** in clinics using evidence-based interventions (EBIs) to increase HPV vaccination
- **Partnership and consultation** with state-level organizations to increase HPV vaccination through health behavior change, health systems practice change, and policy change
- **Hospital systems engagement** in implementing QI efforts, meeting Commission on Cancer (CoC) accreditation standards, and achieving prevention care goals

Note: many of the document links in this report are only accessible to ACS staff. Some are only accessible to ACS Health Systems staff. Please email ACS.HPV.VACs@cancer.org to request a copy of a resource.

DURING 2017, HEALTH SYSTEMS STAFF ACROSS THE COUNTRY:



Trained over **5,000** providers and staff on preventing cancer with HPV vaccination

Engaged **341** partner health systems on HPV vaccination



Partnered with **42** health plans implementing interventions to increase HPV vaccination



Partnered with **102** hospital-affiliated primary care networks implementing interventions to increase HPV vaccination

Helped partner FQHCs increase series initiation rates by an average of **16** percentage points and series completion rates by an average of **18** percentage points



Held **77** leadership positions in HPV vaccination coalitions, QI teams, and other bodies

Engaged FQHCs in HPV QI interventions:

- 179** clinical partners engaged
- 69** conducted QI projects
- 41** collected outcome data
- 10** data capacity mini-grants
- 12** participated in MOC/CME pilot



Committed over **1,100** hours each week to HPV vaccination efforts (equivalent to **31.7** full-time staff)



Secured nearly **\$1 million** in regional funding for HPV vaccination work

Clinical Quality Improvement Efforts

ACS PC staff provide direct support to FQHCs and other clinical and non-clinical partners to increase HPV vaccination. This support includes:

- Coaching practices through systems change using evidence-based quality improvement (QI) processes
- Identifying HPV vaccination champions to strengthen QI teams
- Leading evidence-based HPV vaccination interventions
- Increasing immunization data accessibility and utilization

In 2017, PC staff engaged **179 partner FQHCs and other clinical partners** in HPV vaccination efforts, as well as **26 non-clinical partners**, such as Primary Care Associations (PCAs). This included QI projects to increase HPV vaccination rates with 69 clinical partners. As part of this work, PC staff have worked with partners to implement **162 evidence-based interventions (EBIs)**, such as provider training, client reminder and recall, practice policy change, and provider prompts. The outputs of these interventions included sending roughly **9,000 client reminders** and **training over 2,300 health care providers and staff**.

Among the 69 partner FQHCs, 41 (with 119 participating clinic sites) **submitted outcome data** in the form of vaccination rates calculated via the HPV VACs Systems and Strategies Inventory. According to these data, **partner FQHCs increased their HPV vaccine series initiation rates**

by an average of 16 percentage points from baseline in 2017. Three intervention cohorts of varying intensity resulted in average HPV series initiation rate increases ranging from 6 to 23 percent.

The first cohort of **17 QI Partnerships** (42 participating clinic sites) was less structured, with staff receiving technical assistance as needed. The second cohort included a series of **Data Capacity Mini-Grants** given to 10 of the partner FQHCs (30 participating clinic sites). The third cohort, a **MOC Pilot** in partnership with Boston University, involved 10 partner FQHCs (45 participating clinic sites) in an in-depth learning collaborative that added Maintenance of Certification (MOC) and Continuing Medical Education (CME) credits to the intervention model, as well as monthly learning collaborative calls, monthly data reporting, and provided an implementation manual. See pages 6-15 for details.

PC staff around the country held 20 leadership positions related to HPV vaccination in 2017. The most common organizations where PC staff held leadership positions were state comprehensive cancer control HPV workgroups (n=8), state HPV coalitions (n=3), and FQHC QI teams (n=3). [See Appendix A for a detailed list of all HPV vaccination leadership positions held by ACS Health Systems staff.](#)

In 2017, PC staff reported an average of **five hours per week** working on HPV vaccination efforts – up from 4.1 hours in 2016. This is **equivalent to over 11 PC staff working full-time** on HPV vaccination. These figures do not include senior directors and most senior managers.



Frances Villafane (PC Manager, South Region, third from left) led La Esperanza Clinic in San Angelo, Texas through the 2017 VACs Maintenance of Certification Pilot

Maintenance of Certification Pilot

In 2017, VACs partnered with Boston University and Dr. Rebecca Perkins to launch a MOC Pilot intervention that added MOC and CME credits to the successful HPV VACs project model. **Twelve partner FQHCs in the former Mid-South and High Plains Divisions** were selected to pilot the MOC model. Participating PC staff received additional in-person training in December 2016 and implemented the intervention with partner FQHCs from January to December 2017.

As part of the MOC Pilot, ACS staff led partner FQHCs through a structured QI project where participating providers received MOC Part IV credit through the American Board of Family Medicine or the American Board of Pediatrics, as well as 20 Performance Improvement CME credits. In total, **488 providers and staff were trained**, with **48 providers claiming CMEs and 19 providers claiming MOC credit** through the pilot.

As part of the MOC Pilot, ACS staff:

- Participated in monthly virtual learning collaborative meetings
- Led partner FQHCs through the QI process
- Trained FQHC providers and staff on HPV vaccination
- Guided partner FQHCs through implementation of interventions
- Integrated eight MOC project sessions into partners' QI structures
- Provided in-person and virtual technical assistance to FQHC project leadership between MOC sessions

*MOC Pilot systems increased their HPV series initiation rates by an **average of 23 percentage points**.*

The VACs team contracted RTI International to conduct an external evaluation of the MOC Pilot. [Their full evaluation report is available here](#). A summary of the report is included below.

External Evaluation Summary of Maintenance of Certification Pilot

In 2017, ACS engaged RTI International to evaluate the MOC Pilot intervention at 12 partner FQHCs, as well as to provide quantitative technical support. This report provides findings from various MOC Pilot program activities: MOC case studies conducted by RTI at two participating clinics, learning collaborative calls, a survey of providers claiming MOC and/or CME credit as part of the project, and quantitative analyses of key project outcomes. This executive summary provides a brief overview of main findings.

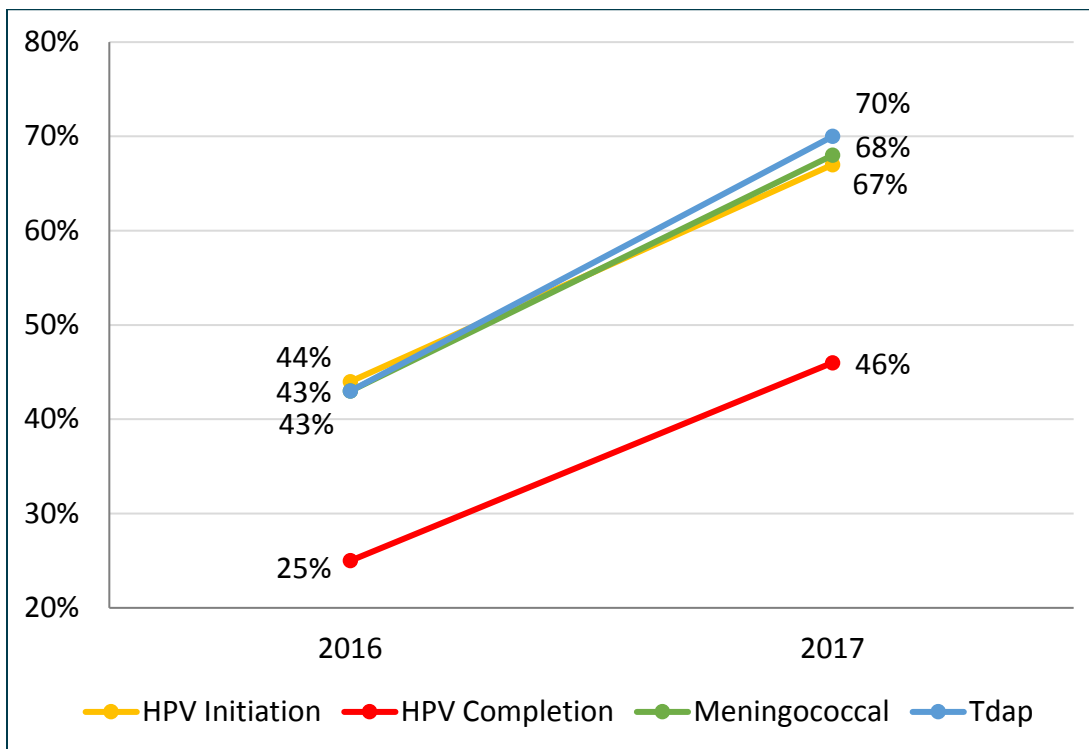
Project Outcomes

ACS compiled and analyzed system-level vaccination rate data from all 12 partner FQHCs participating in the MOC Pilot. This analysis assessed change in HPV vaccination rates between two timepoints—baseline (at project initiation in 2016) and follow-up (after project completion in 2017)—among active patients turning 13 during the reporting year.

Key findings from these outcome analyses include:

- Statistically significant increases of more than 20 percentage points, on average, in both HPV vaccine series initiation and completion rates, with similar increases observed to meningococcal and Tdap rates
- Every partner FQHC increased its HPV vaccine series initiation rate, although the magnitude of the change ranged widely between the partners

Mean Vaccination Rates among MOC Pilot FQHC Systems



Case Studies of MOC Pilot Sites

RTI conducted site visits at two partner FQHCs implementing the MOC Pilot to understand how the implementation was progressing and to help ACS and the partner FQHCs understand what was working well, what wasn't, and how the program may be improved. RTI visited the Daughters of Charity Services in New Orleans, Louisiana and La Esperanza Clinic in San Angelo, Texas.

Key themes across these case studies include:

- A high-performing, engaging ACS PC staff member is the most positive influence on the success of the HPV MOC pilot
- Motivated and dedicated clinic staff are significant facilitators of project success
- Getting buy-in from senior clinic leadership prior to launching a project such as the MOC Pilot is critically important
- The MOC Pilot's data requirements are significant, and partner FQHCs struggle to keep up
- Parental resistance to the HPV vaccine is seen as a factor at both clinics
- The development and dissemination of HPV vaccination materials written at lower reading levels and in Spanish would be highly beneficial
- Although learning collaborative calls are useful to PC staff, they could be significantly improved

RTI recommends the following enhancements for implementation of the MOC Pilot and similar programs in the future:

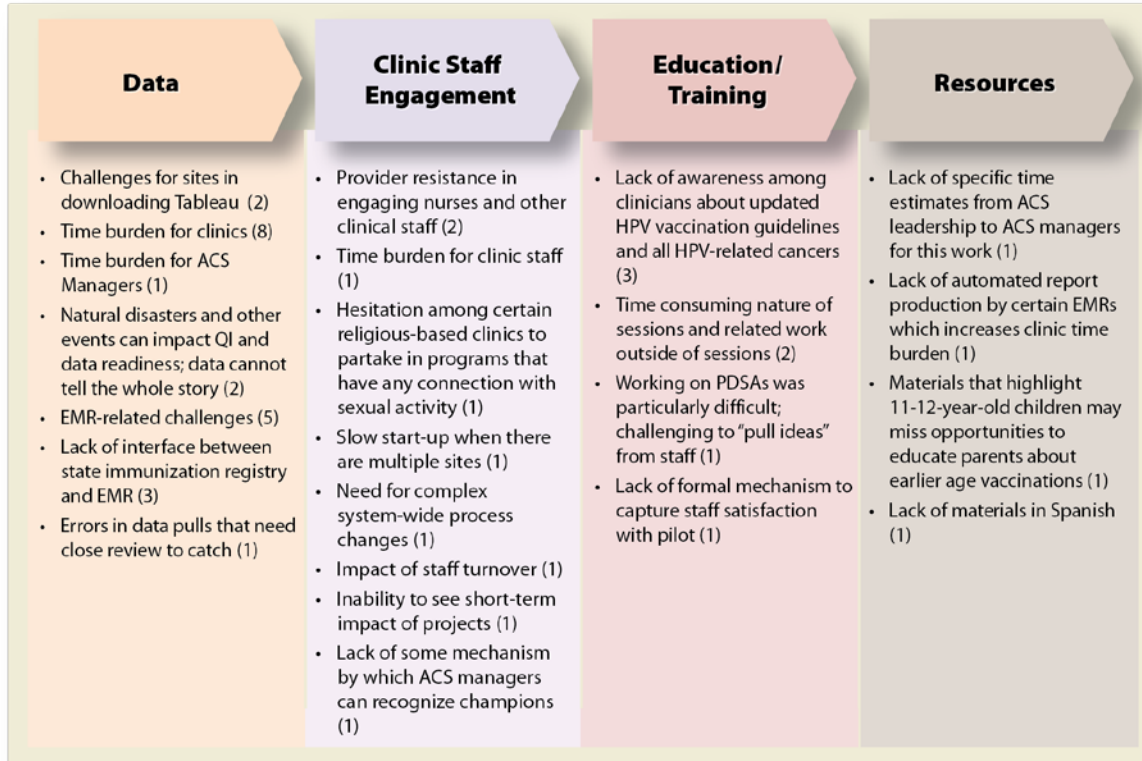
- **Develop and disseminate useful HPV vaccination materials:**
 - Develop HPV vaccination materials in languages other than English, including Spanish

- Develop HPV vaccination materials for low-literacy populations
- Encourage clinics to be creative about where they place HPV vaccination materials
- Develop HPV vaccination materials that clearly address major parental concerns about the HPV vaccine
- **Support and learn from PC staff:**
 - Develop short learning/sharing sessions where PC staff can share their approaches with each other
 - Revisit and restructure learning collaborative calls with a renewed awareness of the diverse background of PC staff and the volume of information presented on these calls
 - Get feedback from PC staff on how resources, such as the Implementation Manual, can be improved
 - Develop strategies to reduce the workload on PC staff
- **Support partner FQHCs:**
 - Provide training and more support to partner FQHCs on heavy data collection requirements
 - Consider including a role-playing session as a core component of training sessions

Qualitative Analysis of Monthly Learning Collaborative Calls

RTI International reviewed and analyzed the content of 12 MOC learning collaborative calls. These calls took place from November 2016 to January 2018 and included PC staff and GHQ VACs team leads. Important facilitators and barriers discussed on these calls about data, partner staff engagement, education/training, and resources are summarized in **Figures ES-1** and **ES-2**. RTI included all facilitators and barriers that were discussed on more than one call, along with other selected issues. The number in parentheses indicates the number of monthly learning collaborative calls on which this topic was mentioned.

Key Barriers Discussed During Learning Collaborative Calls



Key Facilitators Discussed During Learning Collaborative Calls

Data	Clinic Staff Engagement	Education/ Training	Resources
<ul style="list-style-type: none"> • Use of Tableau for data review/shared learning among ACS managers and sharing with clinics (3) • Use of site-level data (vs. aggregate only) to guide QI (1) • Review of dummy systems & strategy inventory with clinics (1) • Strong clinic engagement in data issues, including regular QI team review (6) • Flexibility of ACS managers in working with specific clinic situations (1) • Availability of ACS leadership to support ACS managers (3) • Updated EMR software (2) • Shared learning during LC calls (2) 	<ul style="list-style-type: none"> • Clinic staff access to devoted, flexible ACS Manager to trouble-shoot issues and help maintain project schedule (4) • High motivation among clinic staff and QI team members (2) • Incentivization of care providers with Continuing Education Credits and optional Board Certification maintenance (2) • Allowance of sufficient time for clinic staff/QI team to ask questions and receive training about the pilot and pilot activities (2) • Engagement of diverse clinic and QI teams (2) • Buy-in/engagement of clinic leadership (2) • Ability to join project sessions virtually (2) • Clinic staff empowerment (2) • Opportunities for staff learning and professional growth (2) • Intimate knowledge of vaccine processes among staff (1) • Screening of Someone You Love for clinic staff (2) • Staff prioritization of QI and excitement about QI processes (2) • Engagement of dentists as HPV vaccine champions (1) • Project's exclusive focus on HPV and a specific patient population age-wise (1) 	<ul style="list-style-type: none"> • Existing awareness of clinic staff of cancers related to HPV (1) • Assurance through disclosure forms that content is independent and unbiased (1) • Staff passion and engagement that leads to productive sessions (3) • Maintenance of staff engagement in sessions through creative techniques (2) • Attendance by a variety of clinic staff (1) • Use of role playing (1) • Strong understanding by ACS managers of unique clinic contexts (1) • Availability of email template to help providers claim credit (1) 	<ul style="list-style-type: none"> • Attendance of confidence-building in person session in Atlanta for ACS managers (1) • Access to detailed MOC implementation guide (3) • Development of "elevator speech" for ACS managers to use with clinics (1) • Availability of annotated disclosure forms (1) • Value of SharePoint page as "one stop shop" of resources (1) • Value of Tableau as an information visualization tool (4) • Tailored HPV 101 slides without sexual activity references for religious-based clinics (1) • Offering an inventory data guide to clinics (1) • Allocation of clinic staff for inventory related work (1) • Value of learning collaborative calls (4) • Value MOC Collaborative FAQ document with respect to MOC/CME questions • User-friendly vaccination materials for families (3) • Availability of ACS VACs team (1)

Sustainability was discussed during a few calls toward the end of 2017 as PC staff began to meet with their partner FQHCs to develop formal sustainability plans. PC staff mentioned the following as key facilitators for sustainability:

- Work with partner FQHCs to develop contingency plans in case staff turnover or other changes occur midway during project implementation
- Use the potential impact of the project to continue to motivate partner FQHC staff
- Use tools learned on this project in other health areas
- Involve partner leadership and board members
- Offer partner FQHCs continued access to ACS PC staff

The most significant barriers to sustainability are the time burden on partner FQHCs and the inability to see improvements quickly despite meeting project goals.

Summary of Findings from Provider Survey

ACS and BU conducted a short, online survey of 45 providers upon submission of their claims for MOC and/or CME credit as part of the project. This survey assessed both project perceptions as well as HPV vaccination-related attitudes and behaviors.

Key findings from analyses of survey responses include:

- The vast majority of responding providers had very positive perceptions of the overall project and believed that project sessions' learning objectives were met
- The extent to which providers felt that the project improved an ACGME (Accreditation Council for Graduate Medical Education) competency varied across the six competencies: providers reported that the educational activities impacted patient care and communication skills the most and professionalism the least
- Most responding providers reported changing their practice, system care, and/or patient care based on what they learned from the project
- Nearly all providers reported recommending the vaccine in a timely manner (i.e., in terms of patient age) and vaccine administration at the current visit (i.e., vs. giving patients a choice on administration timing)
- Most providers reported recommending the HPV vaccine as extremely important, in a comparable manner to other vaccines, and ordered first or in no particular order among the vaccines for adolescents
- More than one-third of providers reported recommending vaccination more often for patients they perceived as being at a higher risk of getting HPV
- One-fifth of responding providers reported anticipated discomfort with conversations recommending the vaccine

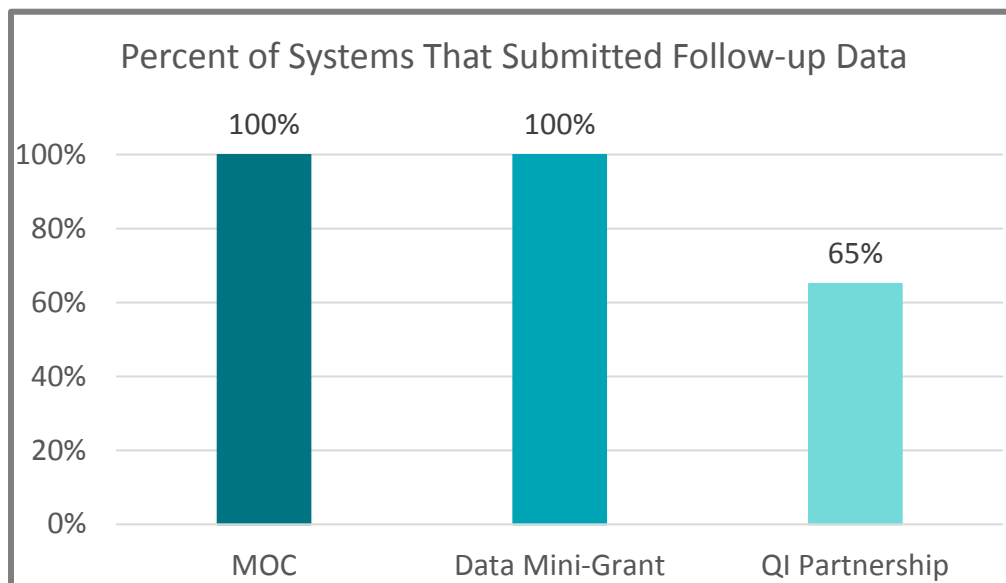
Conclusion

Taken together, the various components presented in this report strongly indicate that the MOC Pilot was highly successful. Based on findings from these various components, enhancements can be made in certain areas to further improve both processes and outcomes for future, similar projects. These range from ensuring that PC staff receive the additional support they need to fulfill their numerous responsibilities, to providing support to partner FQHCs to mitigate challenges with their electronic health record (EHR) systems.

Data Capacity Mini-Grants

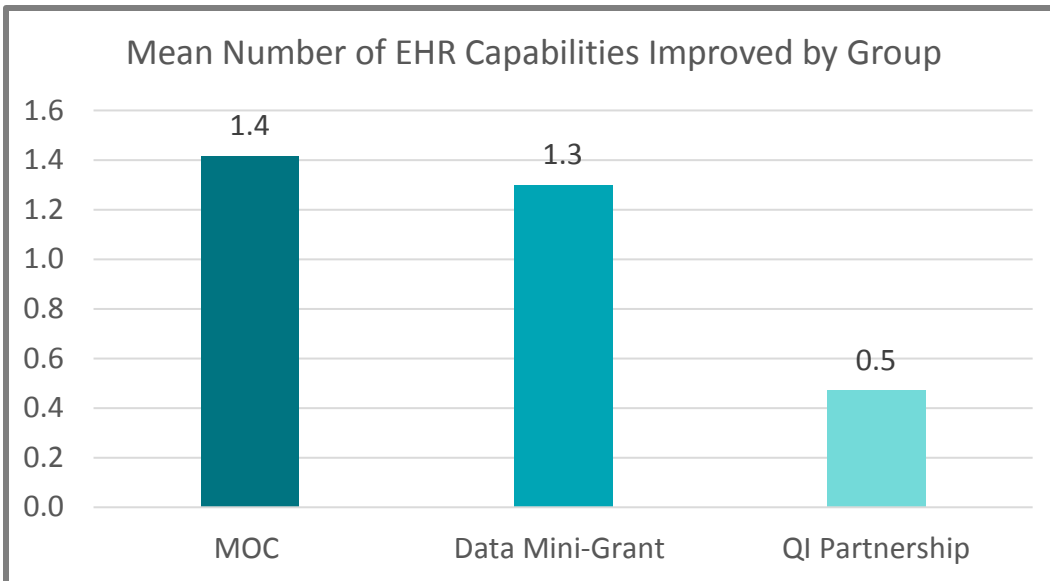
In 2017, the HPV VACs program awarded \$5,000 Data Capacity Mini-Grants to 10 partner FQHCs (30 participating clinic sites) that were already conducting HPV vaccination QI Partnerships. The partner FQHCs could choose to use the funds for data cleaning, EHR modification, report building, or any other task that directly improved the partner's capacity to collect and use HPV vaccination data. FQHCs were invited to submit applications for funding to the VACs program after submitting baseline Inventories and agreeing to submit follow-up data. Award spending took place between May and September 2017. A corporate donation to ACS (part of the ACS CHANGE program) provided funding for the mini-grants.

The idea for Data Capacity Mini-Grants emerged from the results of the 2015-2017 HPV VACs FQHC Pilot, which compared outcomes among groups that received either \$90,000, \$10,000, or no funding. Results from the FQHC Pilot showed that project activities and intervention outcomes did not depend on funding, but the unfunded group did have significant challenges in data collection. More unfunded sites were unable to submit accurate vaccination rates than funded sites. The Data Capacity Mini-Grants were thus conceived to test whether a small amount of funding specific to HPV vaccination data could resolve the data collection challenges that unfunded sites encountered.



All 10 partner FQHCs that received data capacity mini-grants submitted follow-up vaccination rate data. This compares to 100% of MOC partners and 65% of partners engaged in a QI Partnership that did not receive funding. These results suggest that the Data Capacity Mini-Grants were very successful at increasing partner's capacity to collect and use HPV vaccination data.

To measure the impact on partner FQHCs' data capacity, we assessed each partner's HPV vaccination-related EHR capabilities at baseline and follow-up, both for the Data Capacity Mini-Grant recipients and partner FQHCs in other intervention cohorts. We measured six EHR capabilities, ranging from prompting providers to deliver the HPV vaccine, to providing various HPV vaccination reports (see the [HPV VACs Systems and Strategies Inventory 2.0](#), questions 22-28, for details). For most of the EHR capabilities, more than half of all partner FQHCs already had the capability at baseline, so the overall number of EHR capabilities improved was relatively small. Nevertheless, the comparison shows a noticeable difference between groups.



On average, the Data Capacity Mini-Grant recipients and the MOC Pilot partners added substantially more EHR capabilities than the QI Partnership group. While the MOC Pilot did not have funding specifically for this purpose, the intensity of the project likely means that internal investment was made to improve data capacity. These results suggest that the Data Capacity Mini-Grants were equally effective as the MOC Pilot’s more in-depth intervention at helping partner FQHCs increase data capacity.

Finally, mini-grant recipients gave positive feedback on the project. Nine of the 10 partners agreed that the mini-grants were extremely useful in helping partner FQHCs deal with HPV vaccination-related data challenges. Recipients almost unanimously stated that the mini-grants significantly impacted a range of issues, including fully implementing their software systems, cleaning and validating data, streamlining data, and assisting care teams in recognizing when patients have not complied with HPV vaccination. Five of the 10 recipients also mentioned that the mini-grants positively impacted other adolescent vaccinations, helping providers deliver a bundled “11-year-old special” in addition to the HPV vaccine.

“The mini-grant was extremely successful at helping us meet some of our data challenges. It allowed us to fully implement and explore the functionality of our Population Health Management system...it also allowed us to defray staff costs with data validation and scrubbing.”

Overall, the results of the Data Capacity Mini-Grants are very encouraging. It appears that small, targeted grants such as these are the “sweet spot” for providing funding to partner FQHCs doing targeted HPV vaccination interventions: enough to attain the benefits of increased engagement and data submission, while remaining relatively easy to fund, manage, and scale up. Data Capacity Mini-Grant recipients also increased HPV vaccination rates nearly as much as MOC Pilot partners. See below for further discussion.

Quality Improvement Partnerships and Comparison of Primary Care Interventions

In addition to the 12 MOC Pilot partners and the 10 Data Capacity Mini-Grant recipients, an additional 17 partner FQHCs (42 participating clinic sites) submitted Systems and Strategies Inventories and conducted less-structured HPV QI Partnership projects in 2017. ACS PC staff supporting these projects had been trained in QI and HPV 101 and had access to VACs tools, quarterly QI meetings, and individual technical assistance. However, they did not follow a fixed intervention manual and timeline as in the MOC Pilot, or receive project funds as in the mini-grants. Project activities varied widely in this group. Some were unable to implement an intervention at all due to personnel changes. Others secured outside funding and used numerous implementation strategies.

The differences between the three clinical QI cohorts in 2017 invite comparison. Following are general traits of each of the cohorts:

- **QI Partnerships:** No structured intervention. Both GHQ and PC managers invested less time and resources. PC staff received minimal technical assistance support.
- **Data Capacity Mini-Grants:** No structured intervention. Mini-grants of \$5,000 provided to partner FQHCs. PC staff received somewhat more technical assistance support.
- **MOC Pilot:** Both GHQ and PC managers participated in a structured, manualized intervention with monthly calls for all participating ACS staff. This model was the most time and resource intensive.

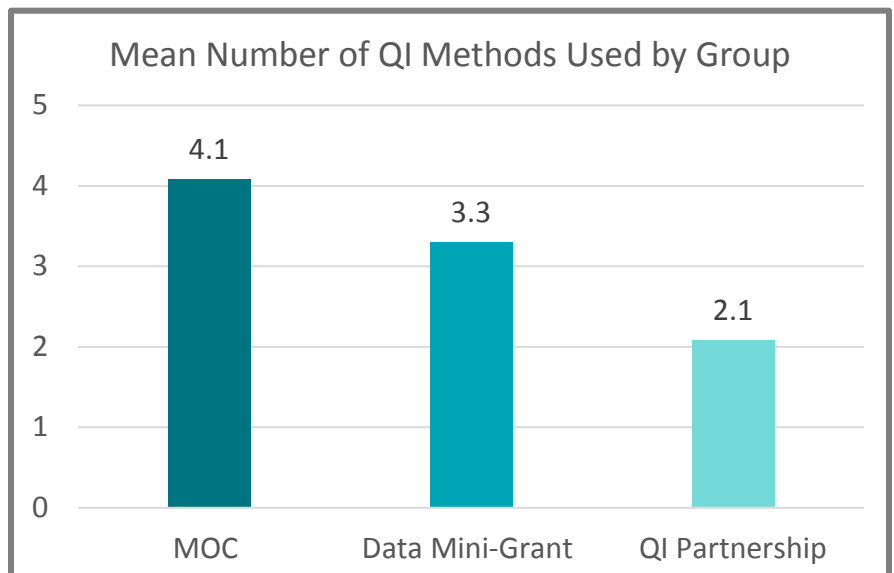
From the above characteristics, we can ask:

- *How did project activities and outcomes differ among these groups?*
- *What were the marginal returns on increased investment in some groups?*

Project Activities: Evidence-Based Interventions and QI Methods

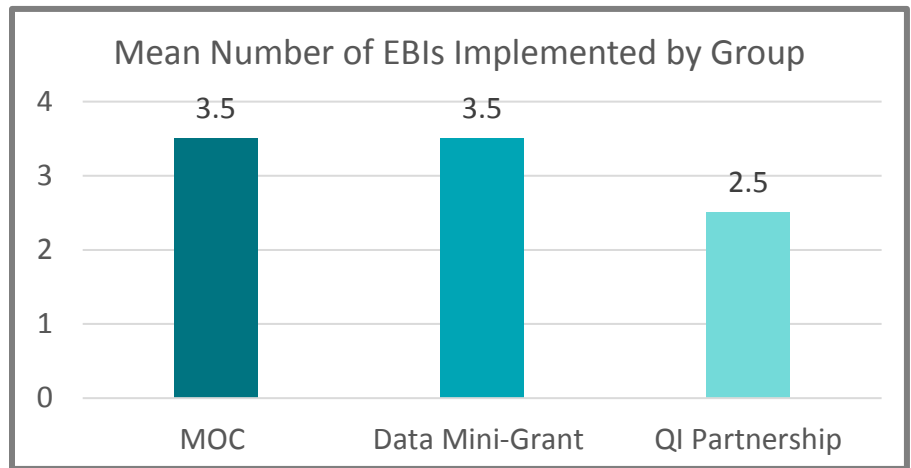
The number of QI methods and EBIs used by each cohort are both proxies of overall project activity. In both cases, the MOC Pilot and Data Capacity Mini-Grant cohorts had a higher level of project activity than the QI Partnership cohort.

At follow-up, we measured whether each partner FQHC had used 10 common QI methods, such as AIM statements and PDSA cycles, over the course of the project (see the [HPV VACs Systems and Strategies Inventory 2.0](#), question 55, for details). These results show that the more intensive the project, the more QI methods the partner FQHCs typically used. Partners in the MOC Pilot cohort used nearly double the number of QI methods as QI Partnership partners, and Data Capacity Mini-Grant partners fell roughly between the two. Here, project activity was roughly proportional to the level of project investment and structure.



Using Community Preventive Services Task Force (CPSTF) definitions, the VACs team also measured whether each partner FQHC had used seven EBIs recommended in the Community Guide, such as client reminders and provider assessment and feedback, over the course of the project (see the [HPV VACs Systems and Strategies Inventory 2.0](#), question 56, as well as [CPSTF Findings for Cancer Prevention and Control](#), for details).

These results differed somewhat from the use of QI methods. The between-cohort differences were not as large, and Data Capacity Mini-Grant recipients used just as many EBIs as MOC Pilot partners. However, both of those groups still implemented more EBIs than the QI Partnership cohort. Here, project activity still appears to increase with further investment and structure, but the relationship is weaker than with QI methods.



Project Outcomes: HPV Vaccination Rates

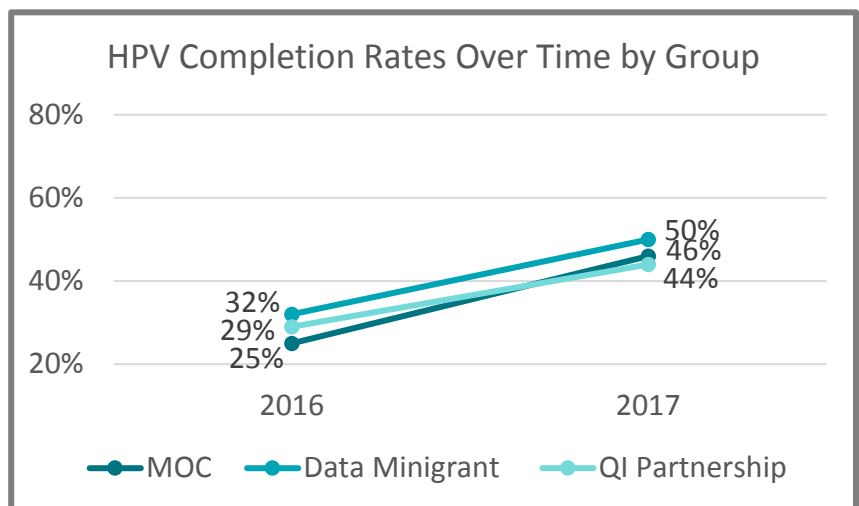
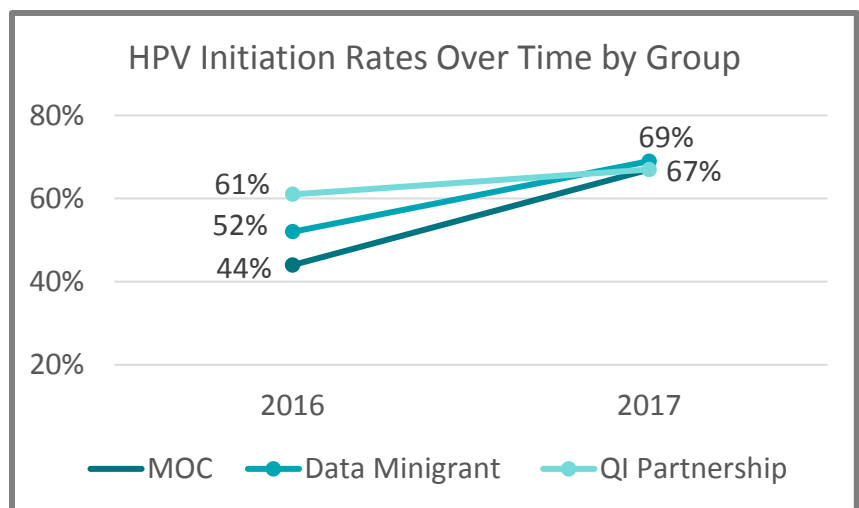
Partner FQHCs participating in the more-intensive projects also demonstrated increased HPV vaccine series initiation rates. Differences in HPV vaccine series completion were less stark.

Series initiation rate increase:

- MOC Pilot: +23 percentage points
- Data Mini-Grant: +17 points
- QI Partnership: +6 points

Series completion rate increase:

- MOC Pilot: +21 percentage points
- Data Mini-Grant: +17 points
- QI Partnership: +16 points



However, much of the increase in series completion rates may be due to the change to a 2-dose HPV vaccination schedule between baseline and follow-up. In previous projects, partner FQHCs had difficulty improving series completion rates within a 1-year project period due to the necessary gap between doses. In current projects, all cohorts made large gains in series completion. While many of these gains may be due to a different definition of series

completion at baseline and follow-up, they may also indicate that partner FQHCs are able to increase series completion rates faster now that they only deliver two vaccines to most patients. Future projects will shed further light on this dynamic.

Overall, these results suggest that greater project intensity and structure is associated with greater increases in HPV vaccination rates. However, selection bias also may account for some of the difference between cohorts, as partner FQHCs were not randomized among these three cohorts. Partner FQHCs in more intensive projects tended to have lower baseline vaccination rates, which may have made large gains easier to attain. Alternatively, systems with a higher internal commitment to increasing HPV vaccination rates may have self-selected into the more intensive projects.

Regardless of these limitations, with a trained and trusted ACS PC staff member and many tools and resources available, partner FQHCs are still able to implement interventions and increase HPV vaccination rates in a relatively unstructured format. Ongoing VACs clinical projects are working to hone in on the ideal level of intensity and autonomy for ACS' clinical QI work.

2015-17 FQHC Pilot: Wrapping up and Disseminating Results

Nine of the 30 VACs FQHC Pilot partners continued their work into 2017, wrapping up their projects by June 30. These nine partner FQHCs received \$90,000 each in VACs funding for a 2-year project period.

The VACs FQHC Pilot as a whole was very successful. Project partners increased their HPV vaccine series initiation rates by an average of 15.4 percentage points from 2014 to 2016. For details, see the [HPV VACs 2016-17 Activity and Impact Report](#) and the [HPV VACs FQHC Pilot Evaluation Report](#).

The first peer-reviewed article on the VACs FQHC Pilot was published in March 2018 in *Academic Pediatrics*.¹ Two other manuscripts on the FQHC Pilot are in progress for submission in 2018.

¹ Fisher-Borne M, Preiss A, Black M, Roberts K, Saslow D. (2018). Early Outcomes of a Multilevel Human Papillomavirus Vaccination Pilot Intervention in Federally Qualified Health Care Centers. *Academic Pediatrics* 18(2): 79-84.

Primary Care Systems Training and Technical Assistance

HPV VACs FQHC Maintenance of Certification Learning Collaborative

Starting in 2016, the MOC leadership team, including staff from both HPV VACs and Boston University, led monthly 60- to 90-minute collaborative calls for ACS PC staff involved in the MOC Pilot. These calls continued through 2017 and included a 3-month follow-up call in spring 2018. Each meeting included best practice sharing, troubleshooting data and project implementation challenges, and the introduction of new tools. The leadership team met monthly to plan the collaborative calls and strategize, as needed. Both the MOC Pilot and collaborative calls are being evaluated to assess value and potential expansion outside of the MOC Pilot.

QI Coach Trainings

Through a partnership with the Health Systems learning team and *HealthTeamWorks*, a contracted vendor, ACS PC staff supporting FQHCs and their supervisors received additional in-person training to enhance their QI coaching skills. There were five total in-person 3-day trainings. Each training included approximately 20 PC staff who either supervised staff or directly managed a relationship with a potential HPV VACs partner FQHC. Training dates included:

- **QI Coach 101:** September 2017
- **QI Coach 101:** July 2017
- **QI Coach 101** March 2017
- **QI Coach 102:** December 2016
- **QI Coach 101:** November 2016

QI Coach Training Webinars

All PC staff who participated in the in-person QI coach trainings were invited to participate in four QI coach webinars facilitated by the Health Systems learning team, *HealthTeamWorks*, and HPV VACs. Topics included creating a QI team, utilizing data tracking resources, attaining leadership support, meeting facilitation, and case studies. Calls occurred in August, September, and November of 2017 and in February 2018.

HPV VACs Virtual Boot Camp

There were 39 PC staff identified who were either new staff or veteran staff who had not had the opportunity to participate in HPV Vaccination Boot Camp training in-person. To fill this gap, the VACs Interventions Manager facilitated four virtual 1-hour training sessions in March and April 2018. The curriculum included reviewing HPV 101, discussing the *Mission: HPV Cancer Free* public health campaign, exploring EBIs for increasing HPV vaccination rates, guidance on data sources, and peer learning case studies. Each session included pre-work and follow-up components.

CHANGE Grant Funding for HPV Vaccination Projects

Three FQHC systems were awarded ACS NFL CHANGE grant funding of \$75,000 beginning October 1, 2017, until March 31, 2019, to implement HPV vaccination interventions. PC staff who supported these systems received one-on-one and team technical assistance to ensure alignment of CHANGE grant processes with HPV VACs projects. The Interventions Manager led quarterly technical assistance calls with these three PC staff.

State-level Partnership and Coalition Building

ACS SHS staff partner and consult with health systems and maintain a state-wide presence and influence on their state's population health. SHS staff aim to influence the behavior of large populations including the public and medical professionals. SHS staff use a three-pronged approach to address the health of a state: health behavior change, health systems practice changes, and policy change.

In 2017, SHS staff **collaborated with 98 state-level organizations** across 43 states on HPV vaccination initiatives. Partnership activities included training providers and staff, launching statewide interventions to increase vaccination rates, and supporting state HPV stakeholder groups.

SHS staff also planned or conducted initiatives to increase HPV vaccination with **42 partner health plans**, including 17 commercial plans and 25 Medicaid plans. These initiatives included provider education, client reminders to vaccinate, quality measure programs, and provider assessment and feedback.

In 2017, SHS staff spent an average of **7.7 hours per week** working on HPV vaccination efforts – up from 4.9 hours in 2016. This is **equivalent to over nine SHS staff working full-time** on HPV vaccination!


SHS staff held a total of 37 leadership positions in HPV vaccination working groups, coalitions, and other bodies in 31 states during 2017 (some states have multiple groups working on HPV). The most common organizations where SHS staff held leadership positions were state comprehensive cancer control HPV workgroups (n=20), state HPV coalitions (n=9), and state immunization coalitions (n=3). [See Appendix A for a detailed list of all HPV vaccination leadership positions held by ACS Health Systems staff.](#)

Examples of the wide variety of HPV opportunities State Health Systems staff are engaged in include:

New York – An HPV summit was hosted in September 2017. The summit led to the creation of the New York State HPV coalition. The coalition formation is being led by ACS staff Michael Seserman and Kwame Sheehy along with 16 organizations on its steering committee. So far, the state partnership has created a new logo, a new website (www.nyshpv.org), three different subcommittees that focus on providers, parents, and policy-based strategies, a New York City Regional Committee, and submitted an initial application to a state foundation to implement three projects. Following a planning retreat in April 2018, the coalition will develop a New York state HPV action plan.



Photos from the New York State HPV Summit, September 2017



HPV PROVIDER CHAMPIONS IN GEORGIA

Sumter Pediatrics

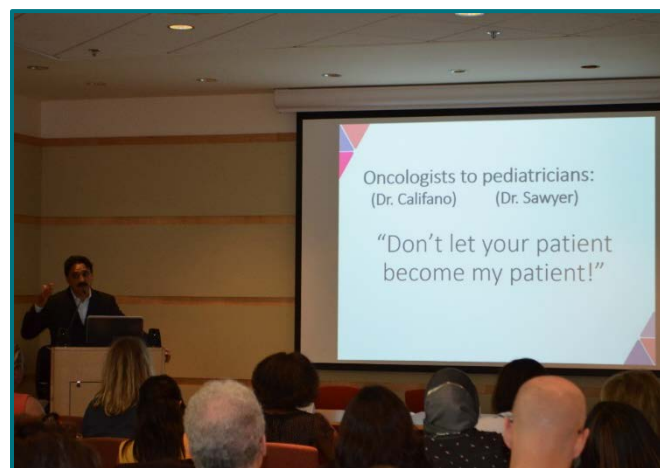
The multiple locations of Sumter Pediatrics all abide by the same philosophy: check GRITS every time a patient is seen. Administering during sick visits are not only permissible, but encouraged. The Sumter team prefers to be flexible with their patients and do not find it necessary to schedule separate appointments. The HPV series may be started during a sick visit and then completed at the next wellness visit if time intervals line up. The less scheduling restraints, the better. All the physicians are trained at the Americus location before branching out to either the Leesburg or Montezuma locations, to ensure the same procedures are performed at each location. That cohesive care is what has made series completion so seamless within the Sumter Pediatric group.

Sylvester Pediatrics

To say that Sylvester Pediatrics is deeply rooted in their community, would be an understatement. The small staff of five have been working together for nearly 15 years. Their focus of overall wellness has led to a concentration on preventive medicine, which of course includes the HPV series. Dr. Grace Davis always presents HPV vaccine as "part of your routine vaccines" and relays personal stories to soothe concerns her parents may have. Though transportation can be a challenge in this rural part of Georgia, the team at Sylvester Pediatrics will use all possible means to keep adolescents on their vaccination schedule. Even reminding patients while shopping in the local Wal-Mart! That's what happens when the pediatrician becomes a part of the family. And that is exactly what the staff at Sylvester Pediatrics have become.

Georgia – Kelly Durden worked with the Georgia HPV Workgroup to identify, interview and spotlight HPV champions. The criteria for being a champion included being above the national average for the completed vaccination series, an active commitment to continue increasing their practice completion rates and overall willingness to increase the state’s HPV vaccination completion rate. The workgroup identified and held nine interviews with champions. Highlights from the interviews were included in the *Immunize Georgia* newsletter provided by the Georgia Department of Health, pictured to the left.

California – A San Diego HPV vaccination forum titled *Same Day, Same Way: Leading Your Organization in HPV Cancer Prevention* occurred in June of 2017. This forum was planned by a local access to care coalition, with leadership from ACS, to target organizational leaders in making HPV vaccination a priority within their health organization. There were 50 attendees ranging from FQHCs, community researchers, health plans, county health and human services, California Department of Public Health staff, and others from local non-profits. Meeting topics included an update on head and neck cancers, HPV vaccination rates, provider resources, the Steps Guide, and the HPV VACs program. Participants were asked to complete a “Call to Action” form indicating how they will prioritize HPV vaccination in their organization in the next three months. Members of the coalition will be following up with participants, as needed.



Arizona – ACS, the Arizona Family Health Partnership, and the Arizona Chapter of the National Cervical Cancer Coalition joined forces to provide four HPV vaccination educational sessions targeting clinicians and health system support staff. The educational sessions used the CDC’s “You Are the Key to HPV Cancer Prevention” slide deck and included personal stories of survivors’ experiences with HPV cancers. Clinicians were provided the CDC slide deck and ACS resources to share with other providers in their area. This collaboration trained 64 clinicians and health care staff through three in-person sessions and one online session.

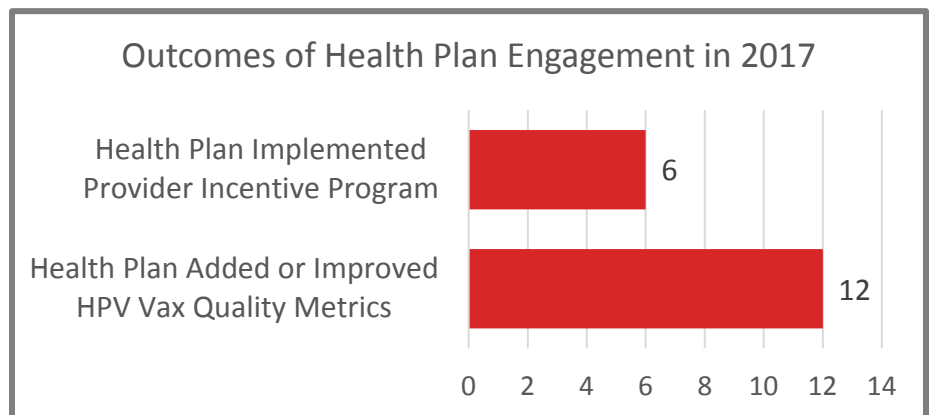
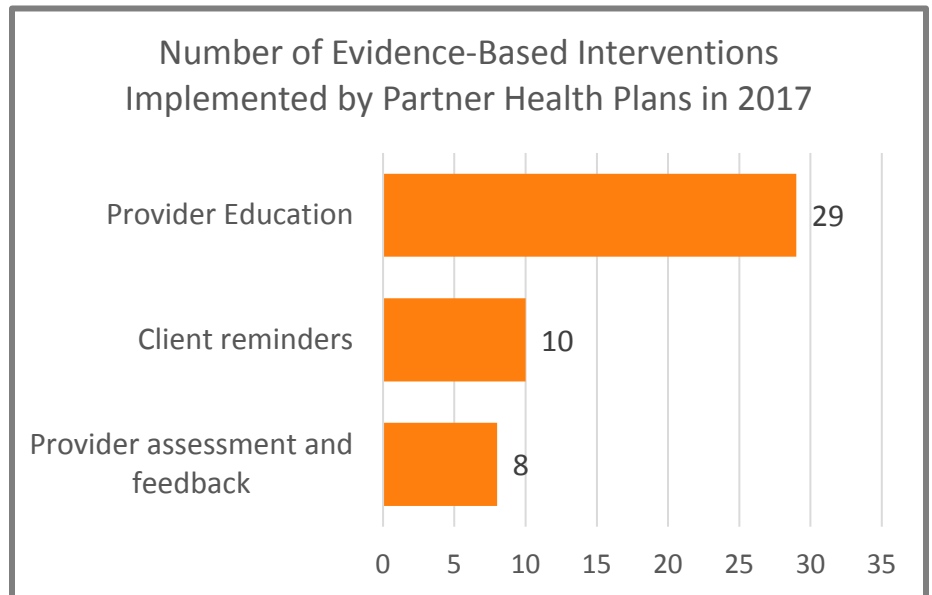
Health Plan Engagement

Health plan partnerships offer the opportunity to reach large populations with interventions to increase HPV vaccination rates. SHS staff engage health plans on a variety of cancer prevention and early detection initiatives, including HPV vaccination.

In 2017, the VACs team collected data on the HPV vaccination activities that ACS partner health plans were undertaking. Overall, 42 health plans have been engaged in HPV work. Provider education was the most common initiative (n=29), including activities such as presenting HPV 101 to health plan staff and assisting health plan staff in arranging a viewing of the film *Someone You Love*. Client reminders (n=10) and provider assessment and feedback (n=8) were also undertaken by several health plans. Two health plans also worked with ACS to use media, including a Facebook campaign, to promote the vaccine.

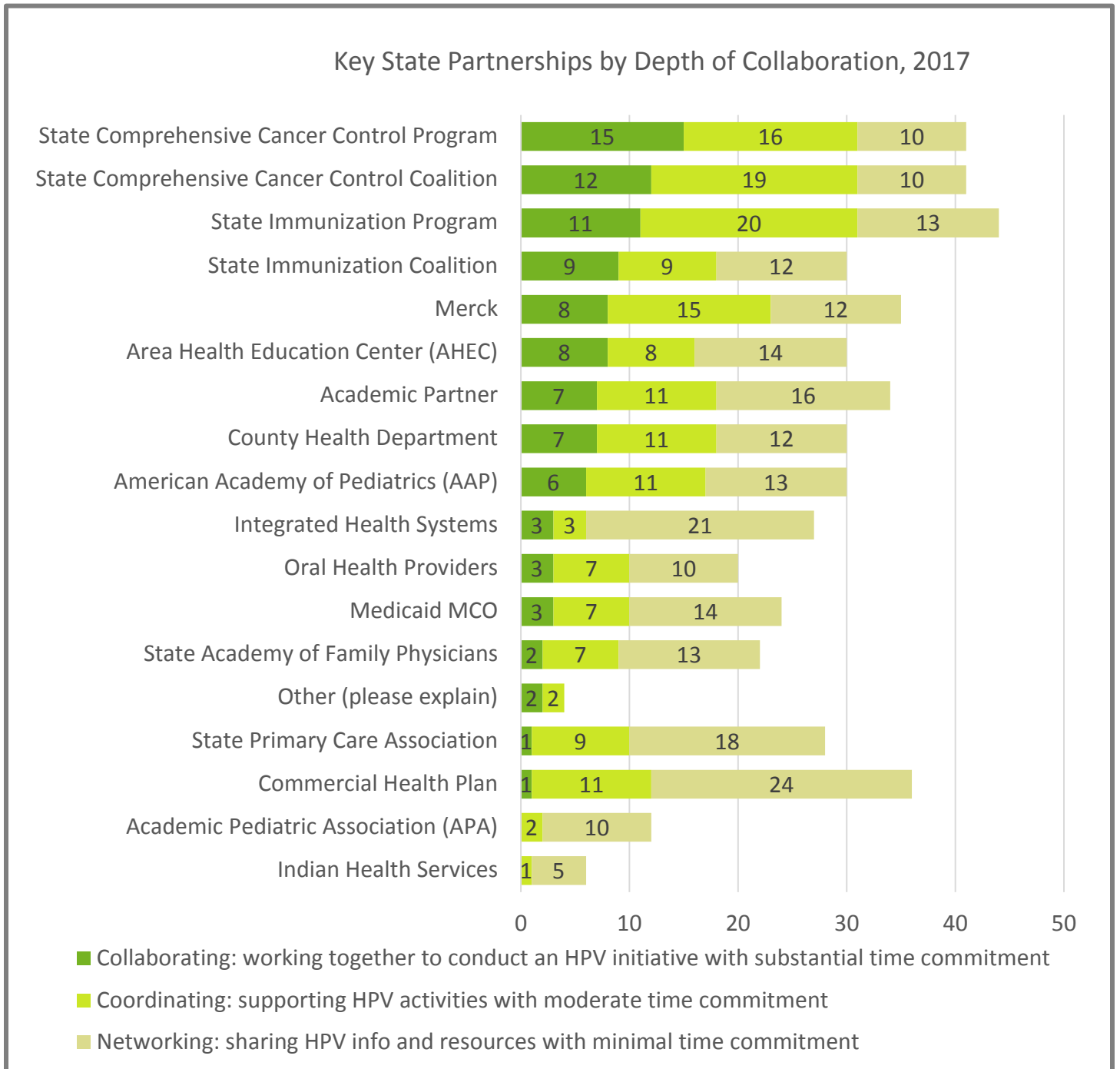
Six health plans implemented provider incentive programs for HPV vaccination in 2017, and 12 added or improved HPV vaccination quality metrics. It is unclear how much of an influence ACS HPV vaccination prioritization work had on these outcomes as several factors likely contributed to these changes. The creation of the HEDIS

adolescent vaccination metric, which groups HPV with Tdap and meningococcal rates, along with other adolescent vaccination reports, certainly motivated health plans to act on HPV vaccination quality measures. Indeed, most SHS staff indicated that ACS had little direct role in the process leading to health plans' implementation of these programs and metrics, though staff should expect that more partner health plans will prioritize HPV vaccination as a health issue as HPV work and partnerships are strengthened. Nonetheless, this demonstrates that health plans are willing and able to act to increase HPV vaccination rates when they realize the issue's importance. There is one example of ACS direct influence on health plan engagement. In Iowa, Christy Manternach, SHS Manager, led a collaboration between three Medicaid managed care organizations (MCOs) to take on low HPV vaccination rates as a performance improvement project.



Strategic State Partnerships

SHS staff partner with a variety of state-level organizations. State health department branches are the most common partners. Ninety percent of SHS staff are working with their state immunization program, and 84% are working with comprehensive cancer control. Approximately two-thirds of SHS staff are working with another cluster of key partners, including academic partners, Area Health Education Centers (AHEC), and American Academy of Pediatrics (AAP) chapters. The chart below shows key partnerships nationally, organized by the depth of their relationship with SHS staff.



State Health Systems Training and Technical Assistance

State Health Systems Facilitation Training

VACs provided two HPV vaccination facilitation training sessions in July and October 2017. Twenty-three ACS staff attended the July training and 34 attended the October training, including SHS staff, GHQ directors, Hospital Systems staff, and one clinical champion from MD Anderson Cancer Center.

Facilitation training continues to be well received and frequently requested by field and GHQ staff.

On a 5-month follow-up survey, **100% of respondents agreed that**

facilitation training had been useful to their work over the previous five months.



Facilitation Office Hours and Virtual Support

For each of the two in-person facilitation trainings, VACs provided follow-up virtual training sessions on project management, best practices for virtual meetings, Skype online features and functionality, and several sessions of open facilitation office hours. The office hours calls gave the training cohort a chance to talk openly about successes and barriers in using their facilitation skills in practice.

SHS Monthly Office Hours

VACs began holding optional office hours calls with SHS staff across the country in February 2018. The calls provide a chance for staff to hear about the latest tools and to discuss HPV vaccinations successes and barriers with their SHS counterparts across the country. Between 15-20 people have attended the calls each month.

North Region Integrated Delivery Systems (IDS) Training

The North Region IDS training, held in Minneapolis in December 2017, focused on HPV vaccination opportunities with hospital-affiliated primary care networks. The training was attended by all SHS and Hospital managers in the North Region. Senior directors from other regions were also invited to attend to learn and provide feedback for future trainings. See the [Hospital Systems Training and Technical Assistance](#) section below for further details.

State Health Systems Virtual Boot Camp

VACs facilitated four hour-long virtual training sessions over a 4-week period in April and May 2018. Participating SHS staff were either new hires or did not attend a previous HPV VACs Boot Camp in person. The curriculum included HPV 101, discussion about the *Mission: HPV Cancer Free* public health campaign, exploring EBIs for increasing HPV vaccination rates, data analysis, immunization registries, building effective coalitions, and peer learning case studies. Each session included pre-work and follow-up work to increase engagement.

Hospital Systems Engagement

Hospital Systems staff partner and consult with hospital systems to provide support and guidance in implementing high-quality cancer care. Hospital Systems staff engage partners in implementing QI processes and care plans, meeting Commission on Cancer (COC) accreditation standards, prevention goals, and patient care goals, and offer guidance for patient support services. With large patient populations and close relationships with large primary care networks, working with partner hospital systems has great potential for impacting HPV vaccination rates.

The HPV VACs team worked to build the foundation for stronger relationships with Hospital Systems staff in 2017, with a national web training series, new tools and resources, additional data collection, and an in-depth, in-person training for North Region Hospital Systems staff on implementing HPV vaccination interventions in hospital-affiliated primary care networks.

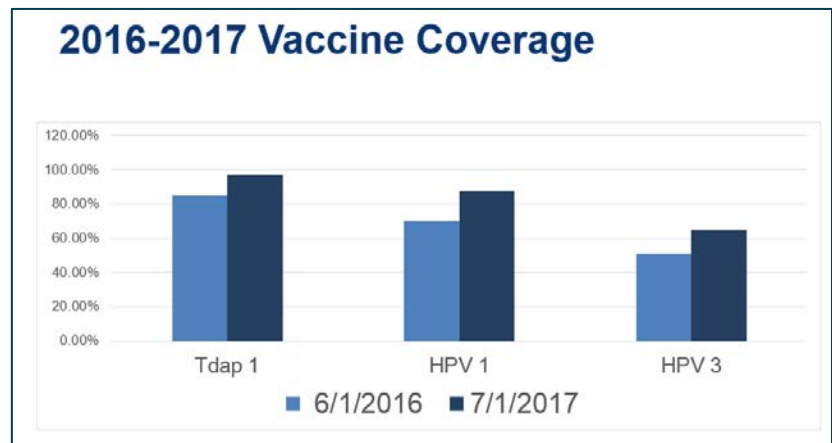
In 2017, Hospital Systems staff influenced **74 partner hospitals** to choose HPV vaccination activities to meet CoC standards. Hospital Systems staff also supported HPV vaccination activities in **hospital-affiliated primary care networks with 108 partner hospitals**.

Around the country, Hospital Systems staff held 20 leadership positions related to HPV vaccination in 2017. The most common leadership positions were on hospital HPV committees (n=8), state comprehensive cancer control HPV workgroups (n=5), and state HPV coalitions (n=4). [See Appendix A for a detailed list of all HPV vaccination leadership positions held by ACS Health Systems staff.](#)

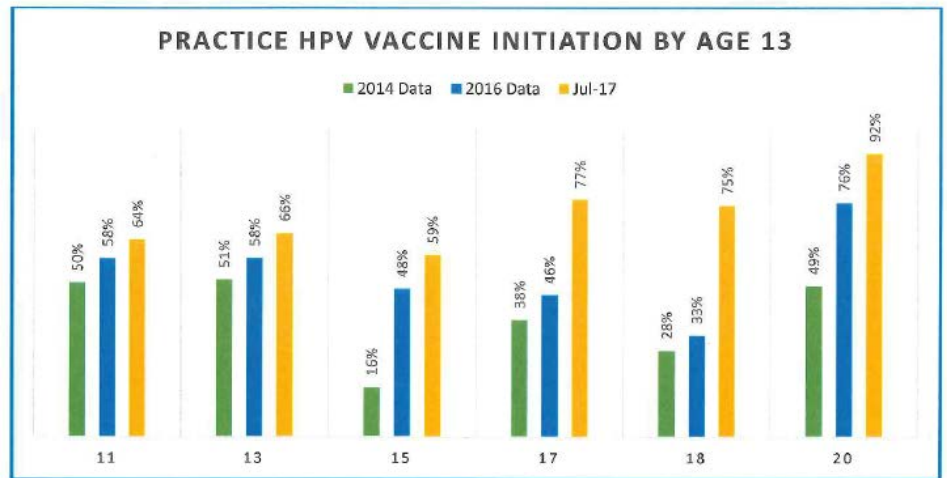
In 2017, Hospital Systems staff spent an average of **three hours per week** working on HPV vaccination efforts – up from two hours in 2016. This is **equivalent to more than 10 Hospital Systems staff working full-time** on HPV vaccination.

Examples of the wide variety of HPV opportunities Hospital Systems staff are engaged in include:

Louisiana – Ochsner Health Systems made HPV vaccination, and adolescent vaccination in general, a priority starting in the summer of 2016. The project focused on implementing standing orders, vaccination education, immunization registry usage, vaccination access, and parent reminder/recall. As of January 2018, Ochsner has seen a 25% improvement in on-time HPV vaccination rates.



Missouri - On August 30, the Washington University Pediatric and Adolescent Ambulatory Research Consortium hosted a dinner to share information and experiences from their 3-year-long HPV vaccination pilot project. The project began in 2014 with provider and parent surveys to assess barriers to HPV vaccination. With those findings, they assembled an advisory group which consisted of physicians and parents to develop



materials and intervention strategies to work with physicians/practices. Each practice that participated attended the dinner to share their experiences and which interventions worked best for their population. Physicians whose practices did not participate in the pilot project also attended the dinner to learn from their peers' success. The chart above shows the data collected over the course of the project along with baseline HPV rates from 2014. As you can see, significant progress was achieved with HPV vaccination rates during the project.

Indiana – Josh Kellems, PC manager, and Rachelle Anthony, Hospital Systems manager, worked with a pediatric practice in the La Porte Hospital Physician Network on an intervention to increase HPV vaccination rates. Baseline data showed that 25% of 11- and 12-year-old male patients and 27% of 11- and 12-year-old female patients had

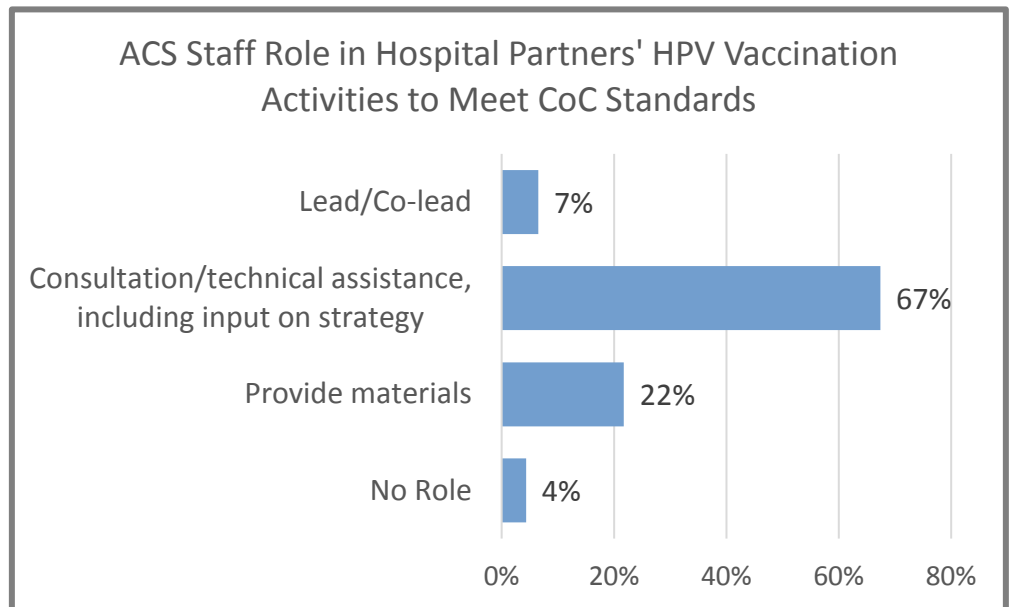


started the HPV vaccine series in 2016. After collecting HPV vaccines series initiation rates, La Porte's HPV workgroup and ACS staff trained pediatric providers on HPV vaccination, recommendation strategies, and age guidelines using the "You Are the Key to HPV Cancer Prevention" slide deck from the CDC. In August, 26 clinical staff were trained during two independent sessions. The first two sessions were so well received that the group decided to hold additional training with the providers and support staff of the La Porte Physician Network's OBGYN practice. An additional 19 providers, nurse practitioners, RNs, MAs, and schedulers were trained in September.

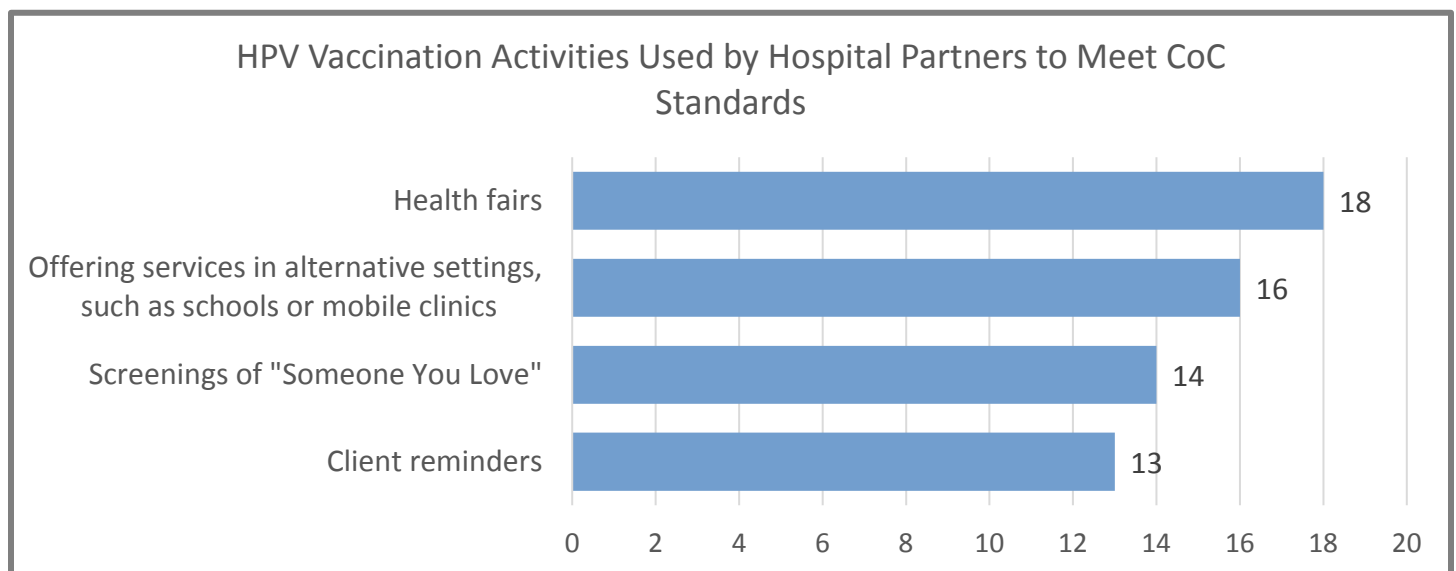
HPV Vaccination Activities to meet Commission on Cancer Standards

The CoC standard 4.1 requires that cancer committees “offer at least one cancer prevention program designed to reduce the incidence of a specific cancer type and targeted to meet the prevention needs of the community.” Several interventions to increase HPV vaccination rates satisfy standard 4.1. Hospital Systems staff have been encouraging partner hospitals to choose HPV vaccination activities to meet this standard and supporting the ensuing activities.

In 2017, **92 partner hospitals used HPV vaccination activities to meet CoC standard 4.1.** ACS Hospital Systems staff influenced the partner to make this decision in 80% of those cases (n=74). Most Hospital Systems staff then had an active role in the activities, with only four percent of staff having no role. However, few staff led or co-led the activities, with most having an intermediate depth of engagement.



The most common HPV vaccination activities used by partner hospitals to meet CoC standard 4.1 are shown in the chart below. Some of the HPV vaccination activities that satisfy CoC standard 4.1 are not among the most effective, EBIs, however. Health fairs, in particular, are very popular but have not been shown by research to increase HPV vaccination rates. Future advocacy with the CoC to better align the standard with the most effective HPV vaccination interventions will be an advantageous strategy.

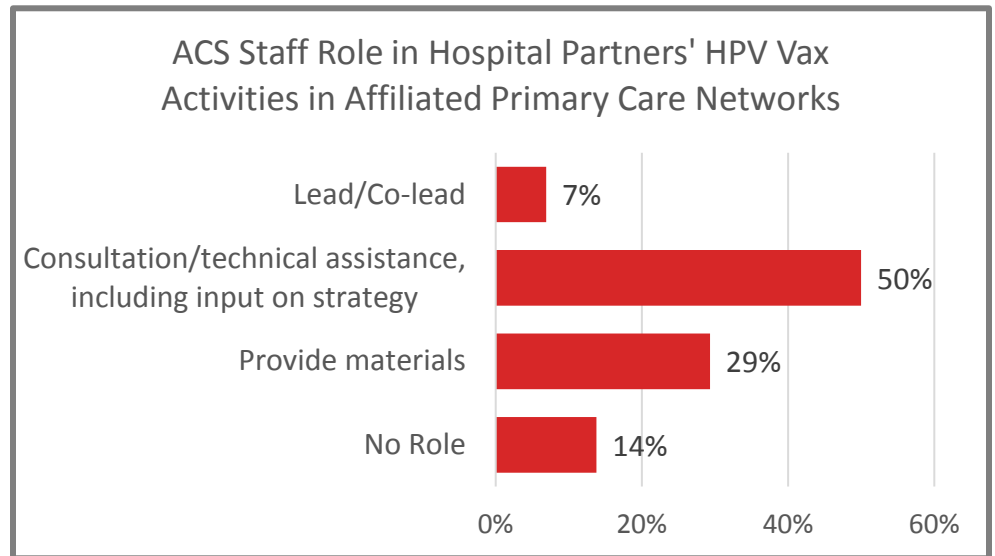


HPV Vaccination Activities in Hospital-Affiliated Primary Care Networks

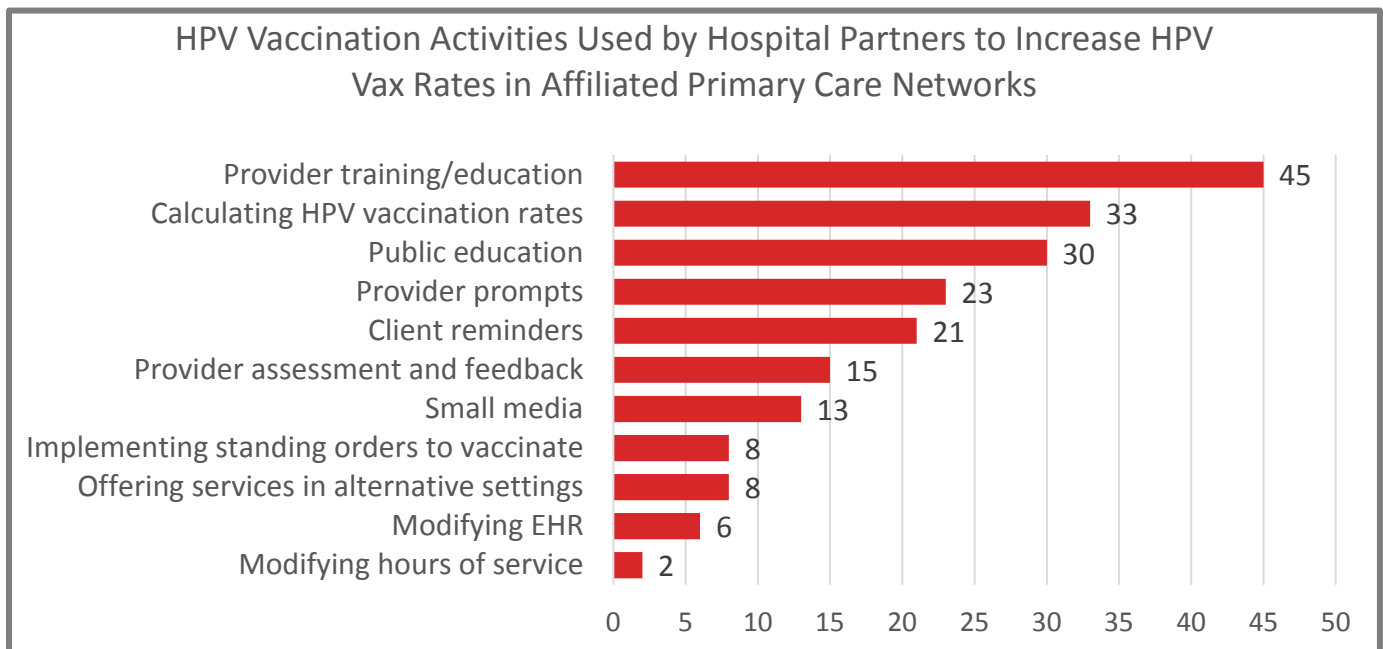
Hospital systems are a critical partner to eliminate HPV vaccine-preventable cancers. Hospital-affiliated primary care networks – often referred to as integrated delivery systems (IDSs) – provide health care to millions of adolescents around the country. Because of this reach, activities to increase HPV vaccination rates in IDSs have the potential for huge impact. The VACs team is making this opportunity a core focus in 2018.

North Region leadership and the VACs team held an IDS-focused training for North Region Hospital Systems and SHS staff in December 2017. This training and subsequent work in the North Region allow the VACs team to pilot test and further develop a strategy on how to engage IDS in HPV work.

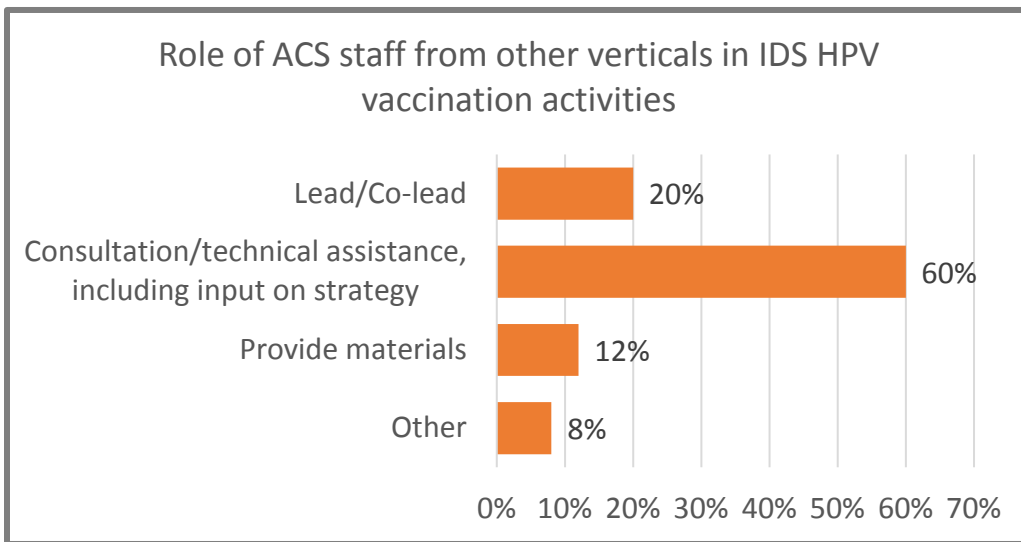
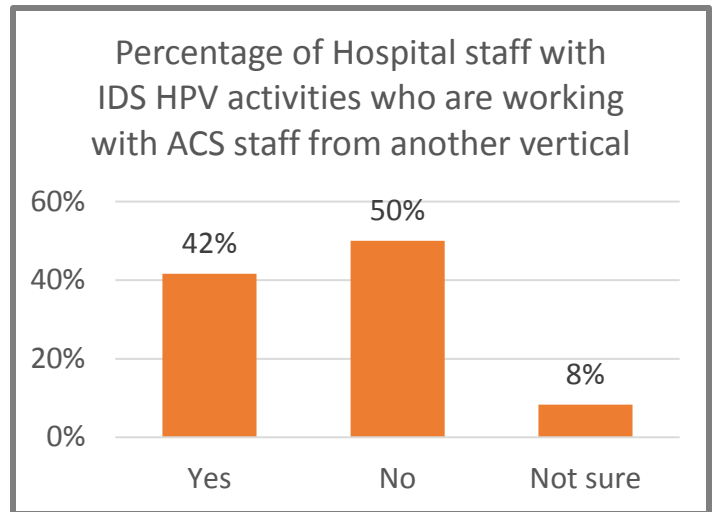
In 2017, Hospital Systems staff reported that **108 partner hospitals conducted HPV vaccination activities in hospital-affiliated primary care networks.** Sixty of the 135 staff surveyed (44%) had at least one such partner. Among those staff, only four (7%) had a leadership role in the activity, while 30 (50%) provided consultation, technical assistance, and/or input on strategy.



While many partner hospitals adopted evidence-based strategies to increase HPV vaccination rates, as referenced in the chart below, some of the 30 partners who used public education could be convinced to focus on more impactful strategies with further training. Selection of EBIs will be a core component of future VACs IDS training.



The nature of IDS work also made it an ideal area for cross-vertical collaboration. Of the 60 Hospital Systems staff with partners who conducted HPV vaccination activities in primary care networks, **60%** (n=25) collaborated with ACS staff from another vertical. Both SHS and PC staff were involved in these collaborations. In fact, 12 of the 60 Hospital Systems staff (20%) reported that ACS staff from another vertical led or co-lead the activity – three times the number of Hospital Systems staff that reported leading or co-leading the activity themselves. This suggests that there is an opportunity for Hospital Systems staff to grow into leadership roles as they receive targeted HPV vaccination training.



“HPV has received much attention recently and more hospitals are starting to take a look at how they can implement a strategy in their hospitals.”

With HPV vaccination work in IDSs poised to grow over the coming years, many Hospital Systems staff are confident that their accounts are ready to start intensive HPV vaccination QI projects. **Approximately 40% of ACS Hospital Systems staff stated that they have at least one account that is ready to undertake such a project.** When asked to justify why staff most commonly attributed readiness to the partner hospital’s awareness of HPV as a major health issue and HPV vaccination as a solution.

Hospital Systems Training & Technical Assistance

North Region IDS Training

Training for Hospital Systems and SHS staff was provided for the North Region in December 2017. The training was attended by 49 staff including Hospital Systems senior directors from other Regions. The training focused on HPV vaccination resources, HPV science and foundational knowledge, account management, and creating a better understanding of IDS priorities. Hospital Systems staff in attendance focused their planning efforts on a single account. Accounts were selected before the training based on readiness, impact, and level of existing relationships. Participants spent a portion of the meeting creating an engagement plan for their key accounts.



Ninety-six percent of training participants reported that the training would be useful to their work in 2018.

Written feedback included comments such as *“It was helpful to know what evidence-based interventions we are focused on for HPV work... it was EXTREMELY helpful to get to know our Cancer Control colleagues across our Region.”* Feedback from this training will provide direction for additional Hospital Systems training planned in 2018.

North Region Office Hours Calls

In addition to the in-person training provided in December of 2017, VACs staff provided three follow-up technical assistance calls with North Region Hospital Systems and SHS staff. The calls focused on discussions and activities to engage large hospital systems around HPV vaccination. The calls also provided a platform to disseminate new tools, work through hospital scenarios, hear case studies from other Regions, and discuss successes and barriers.

Hospital Learning Series

After an initial assessment of Hospital Systems staffs’ HPV vaccination activities demonstrated a need for training and technical assistance, VACs provided six webinar sessions open to all Hospital Systems staff. Sessions included:

- May 2017: Foundation of Facts
- July 2017: How can Hospital Systems Increase HPV Vaccination?
- August 2017: Leveraging Enthusiasm
- October 2017: What Gets Measured Gets Done: Know Your Rates
- October 2017: Prevention in the Context of Population Health, with guest speaker Julie Sievert
- November 2017: Case Study: Top Concerns for Hospitals, with guest speaker Adele Allison

South Region HPV Vaccination Presentation

Anna Hassan, VACs Interventions Manager, was invited to present on HPV vaccination at the annual South Region Hospital Systems meeting in New Orleans in December 2017. Content included HPV 101, data sources for HPV vaccination rates, EBIs, and implementation of HPV vaccination projects within hospital systems.



Mission: HPV Cancer Free Public Health Campaign

As one of the most respected cancer organizations in the world, ACS is uniquely positioned to lead the fight against HPV cancers.

In 2017, ACS created *Mission: HPV Cancer Free*, a public health campaign to make HPV cancer prevention a priority for the

nation. ACS has prioritized HPV vaccination as a public health imperative. Through the global public health campaign *Mission: HPV Cancer Free*, ACS is building a movement to increase HPV vaccination rates for preteens and reduce gender and geographic disparities in the U.S. Together with dynamic national partners, key stakeholders, national and regional ACS staff, and dedicated volunteers, ACS is building upon existing work to create a world that is HPV Cancer Free.



Since spring 2017, HPV VACs, and GHQ and regional leadership began setting up an intentionally integrated foundation so the *Mission: HPV Cancer Free* campaign launch had comprehensive support. There are four key leadership teams which spearheaded this process:

- **Enterprise HPV Campaign Leadership: Core Team** – 21 GHQ leaders from across the ACS organization
- **Regional HPV Campaign Teams** – Six cross-functional teams of up to 11 people from ACS and key volunteers
- **National HPV Volunteer Workgroup** – Led by Ruth Hong, Dr. Marcie Fisher-Borne, and volunteer chair Kris Scharingson
- **HPV Experts & Interventions Team** – HPV team led by Dr. Debbie Saslow and Dr. Marcie Fisher-Borne

A unique feature of the *Mission: HPV Cancer Free* campaign is the cross-functional regional team model. These teams include representatives from ACS areas such as Community Development, communications, and area executive directors that traditionally have not been integrated into public health campaign efforts. The six regional campaign teams foster innovation and help identify and drive the most impactful opportunities in each Region while building an approach that allows for local context and feedback from areas of ACS outside of Cancer Control.

The campaign timeline began in 2017 with two key dates: an internal launch featuring the senior leadership team and live-streamed to ACS staff across the country in November 2017, and a public-facing external launch planned for June 2018.





CEO Gary Reedy speaking on the importance of HPV vaccination to the ACS mission at the *Mission: HPV Cancer Free* kickoff event in Atlanta, livestreamed to thousands of ACS staff around the country.

The internal launch event was held in Atlanta on November 29-30. The event brought together approximately 120 ACS staff, volunteers, and HPV vaccination experts to launch the *Mission: HPV Cancer Free* campaign to staff across the ACS enterprise. The two-day event was highlighted by survivor speakers and a live-stream of ACS leaders and volunteers, including CEO Gary Reedy. A comprehensive *Mission: HPV Cancer Free* campaign playbook was launched to help support the campaign.

Since the internal rollout in November 2017, regional campaign teams have developed Region-specific action plans aligned with national campaign goals, objectives, and strategies. This regional planning process encourages autonomy and localized planning of campaign activities while maintaining consistent strategy and audience alignment.

The campaign has **three core external audiences** to maximize impact on HPV vaccination rates.

Providers & Health Systems	Parents	Volunteers
<ul style="list-style-type: none"> • Clinical Practices: FQHCs, Primary Care • Pediatricians and Provider Associations • Integrated Delivery Systems and Health Plans • State Immunization Branch and Comprehensive Cancer Control Programs • Academic Partners 	<ul style="list-style-type: none"> • Parents/Guardians of 9- to 12-year-olds • Parents/Guardians of teens • Family members who influence health decisions 	<ul style="list-style-type: none"> • Clinical champions, HPV cancer survivors, caregivers, and parent champions • Existing ACS volunteers

In addition to the core audiences, the campaign features **five key strategies**



The regional teams began meeting in January 2018 to develop HPV vaccination regional strategic plans. These plans outline the tactics and tasks needed to execute the five key campaign strategies in each Region’s unique context. These plans were finalized in spring 2018 and will be distributed to staff and ACS area boards prior to the campaign external launch in June 2018.

The VACs team developed two online training modules for staff outside the Cancer Control department. As an early step in their campaign activities, Regions were asked to train all staff with this baseline HPV vaccination knowledge.

The VACs team also created a campaign scorecard with 10 key performance indicators (KPIs) for Regions to track their progress on campaign strategies. KPIs include innovative measures such as the percentage of staff with HPV in their performance goals, the number of cancer.org/HPV hits, and the percentage of the public aware that there is an HPV vaccine.

North Central Region Mission: HPV Cancer Free Campaign Scorecard					
Scope	Objective	Metric	2017	2018 Q1	GOAL
Enterprise-wide	Engage ACS staff	Percentage of staff who have completed HPV Pathways training	-	4%	
		Percentage of staff who completed HPV campaign survey	83%	-	
		Average staff HPV knowledge score	4.8	-	
		Percentage of staff with HPV in goals & objectives	3%	38%	
Raise funds for HPV vaccination work	Restricted funding raised for HPV vaccination work	-	-		
Cancer Control	Clinical QI	Number of clinical partners implementing EBIs to increase HPV vaccination rates	9	6	
	State-level partnership	Percentage of states where SHS manager is collaborating with all five key stakeholder groups	57%	-	
Communications & Marketing	Public education & awareness	Percentage of the public aware there is a HPV vaccine	-	64%	
		Number of cancer.org/HPV visits	-	218	
Volunteer Engagement	Volunteer	Number of volunteers engaged in HPV vaccination activities	-	Pending	
Rainbow unicorns	Be awesome!	Bonus points	-	50	

All materials for the campaign can be accessed by ACS staff on [the campaign Society Source page](#).

Campaign Volunteer Engagement

As a global grassroots force, ACS relies on the strength of its 1.5 million dedicated volunteers to attack cancer from every angle. Volunteers have been critical to every major achievement we celebrate today and ACS believes volunteer engagement will be an important factor to the success of the *Mission: HPV Cancer Free* campaign. In June of 2017, meetings began at GHQ to bring together key volunteer and staff leadership to understand the drivers for volunteer engagement within the campaign. Ruth Hong, Director of Strategic Partnerships for Volunteer Engagement, and Marcie Fisher-Borne, Director of the VACs Program, have led these efforts.

Integrated Volunteer and Staff Partnership Approach

Key volunteer stakeholders urged VACs leadership to create a model that prioritized both volunteer and staff engagement. **The two following structures were implemented to ensure volunteer leadership:**

- **Regional HPV Campaign Leadership Teams** are comprised of staff and volunteer champions empowered to develop regional campaign action plans and determine how to best engage an integrated volunteer and staff talent force. Teams will assess the progress of plans, build the capacity of staff and volunteers, align activities with national campaign goals, share promising strategies, serve as role models, and tell the data-driven story of impact and success.
- **The National HPV Cancer Free Workgroup** began meeting in December 2017. The group of nine volunteer leaders supports the enterprise and Regions in campaign volunteer engagement efforts. The workgroup will raise visibility, drive volunteer engagement strategies, develop resources, foster connectivity among Regions, and share best practices. Members agreed to a 1-year appointment and were nominated by GHQ and regional leadership.

Two key volunteer strategies were identified as areas of focus for the first year of the campaign:

- Increase HPV vaccination literacy among ACS volunteers and drive actions to support the campaign
- Mobilize volunteer roles at all levels of the organization to advance campaign goals and strategies

Core volunteer roles for the campaign include:

- **Clinical Champions** are health care professionals including pediatricians, primary care providers, oncologists, and nurses who champion the HPV vaccine and serve as subject matters experts and spokespersons. Clinical champions raise visibility of the *Mission: HPV Cancer Free* prevention priority, engage health care professionals, and assist with developing and delivering awareness and trainings.
- **Parents, Cancer Survivors, and Supporters** are passionate, connected advocates who will help amplify messages about the vaccine as cancer prevention, promote awareness, and serves as spokespersons.

HPV VACs Training Support for Volunteers

More than one-third of Cancer Control staff responding to the VACs fall 2017 staff survey believed that ACS volunteers could best be engaged to support future HPV VACs efforts by being activated and educated to provide community outreach and raise awareness about HPV vaccination. Since that time, the volunteer engagement team has been working to fully integrate volunteers into the broader HPV VACs platform.

"We should train [volunteers] on HPV Myths/Facts, CDC 6 reasons to vaccinate, and give them local HPV data (county level vaccination rates)."

Campaign Baseline Survey: Staff HPV Knowledge, Confidence, and Concerns

Leading up to the internal *Mission: HPV Cancer Free* public health campaign launch, the VACs team conducted a baseline assessment of ACS staff’s knowledge, confidence, and concerns related to HPV vaccination. With support from communications, marketing, and other departments, VACs attained a **67% response rate across the organization**, with over 3,300 ACS staff participating. All the Regions had at least a 74% response rate, and the **South Region achieved a remarkable 100% response rate**.

This survey had two goals:

- Assess needs and focus areas for campaign design
- Set baseline to measure campaign impact

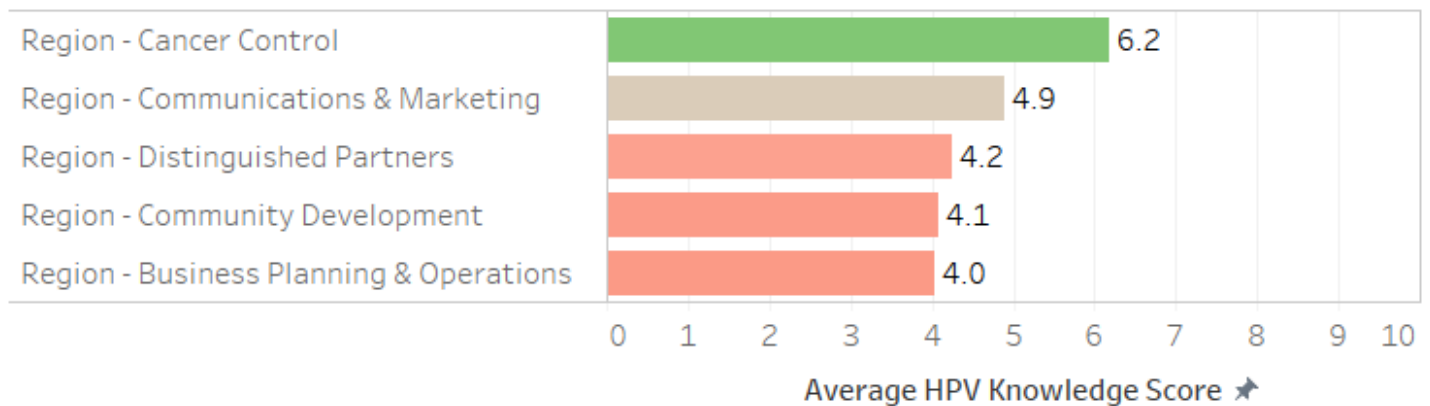
Data gathered via this survey were essential in designing the educational components of the campaign. The VACs team will be excited to see how the metrics have improved upon the completion of the 1-year follow-up survey in fall of 2018.

The survey assessed three constructs among ACS staff:

- **Knowledge:** Eight questions covered a wide range of important HPV vaccination facts
- **Confidence:** Six questions assessed confidence level doing a range of HPV vaccination-related work
- **Concerns:** Four questions determined whether staff held common concerns about the HPV vaccine

For each construct, questions were combined and standardized into a 10-point index, or “score.”

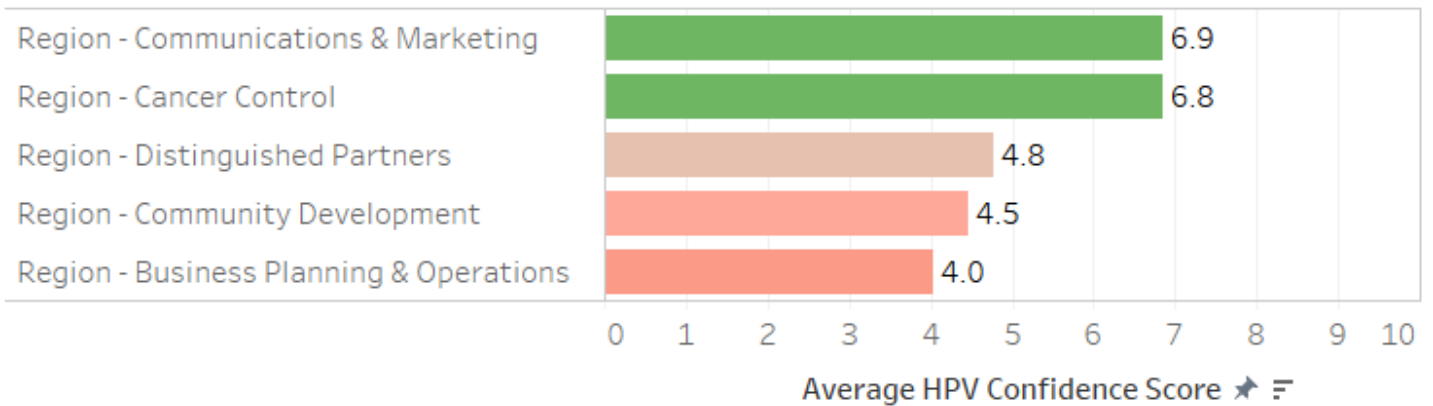
Figure: HPV Knowledge Score by Regional Department



Across all ACS staff, the average respondent got 3.6 out of eight HPV knowledge questions correct, for an average HPV knowledge score of 4.5. Cancer Control staff—many of whom have been trained on HPV vaccination 101—scored much higher than other departments, providing evidence that the HPV vaccination training works. This bodes well for an increase in HPV vaccination knowledge as other departments are trained.

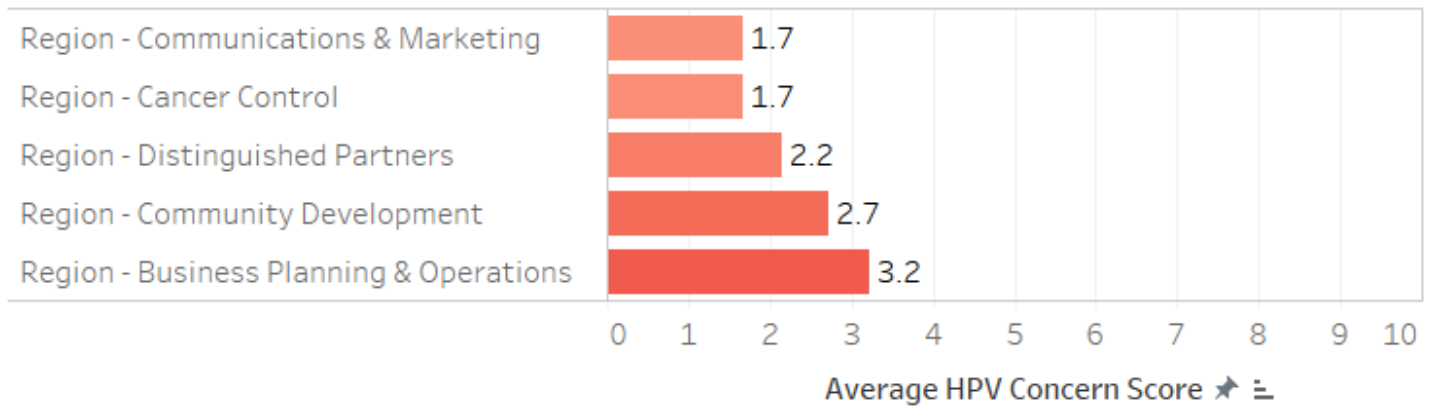
ACS staff were very confident in finding VACs resources on HPV vaccination but less confident in other areas. Only 27% were moderately or very confident discussing concerns about HPV vaccination with a member of the public. Again, Cancer Control staff scored higher, in this case along with Communications and Marketing.

Figure: HPV Confidence Score by Regional Department



Finally, ACS staff had a surprising level of concern about HPV vaccination. In particular, 18% of staff had concerns about the safety of HPV vaccination. This reinforced the plan to launch the campaign internally and train staff prior to the outward-facing launch of the campaign. Again, staff with prior exposure to HPV vaccination training had fewer concerns, showing promise that the overall level of concern will drop as other departments are trained on basic HPV vaccination knowledge.

Figure: HPV Concern Score by Regional Department



This is the first time ACS staff have been systematically assessed on an aspect of cancer content. Regional campaign teams were provided a detailed dashboard of survey results for use in their campaign action planning. The process of training all ACS staff on HPV vaccination is underway, with two video modules on Society Pathways already being utilized across the organization. The VACs team is excited to see how these scores improve at follow-up, demonstrating an important part of the internal impact of the *Mission: HPV Cancer Free* public health campaign.

Internal Prioritization: Fundraising for HPV Vaccination Work

The VACs fall 2017 health systems survey asked staff to report **HPV vaccination funding opportunities generated in the field** during 2017, as the work continues to grow and generate new opportunities for private and public funding. To help support the grant development process for HPV vaccination activities, a funding and grants guidance document was created.

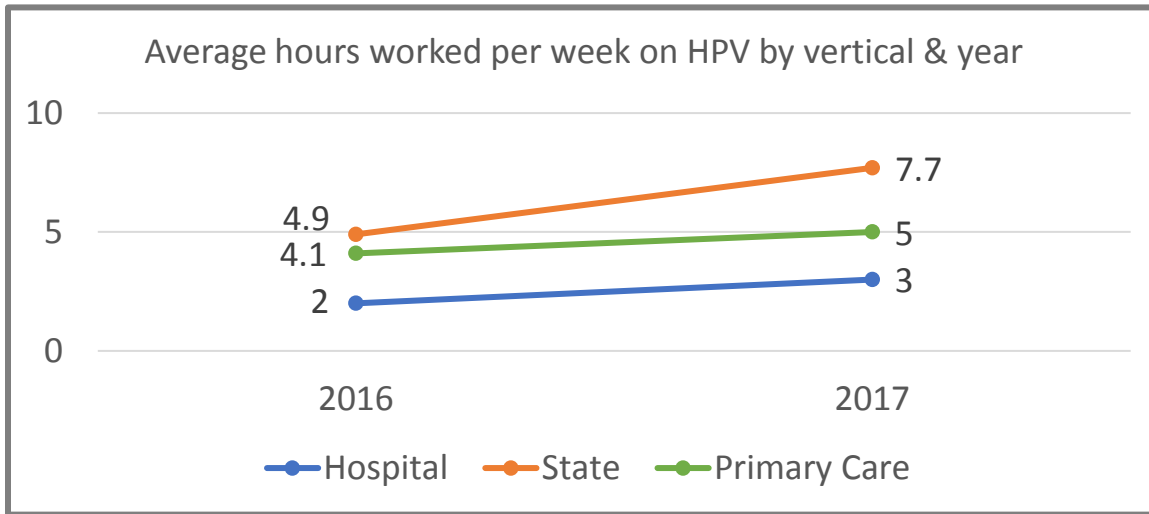
In total, field-initiated grants in 2017 resulted in almost **one million dollars** in funded HPV vaccination efforts. Please note, this list includes updates provided by regional leadership to VACs GHQ staff and may not fully reflect all new or in process funding related to HPV vaccination. Field staff also reported numerous pending awards not included in the below list. Funding opportunities secured include:

Region	Funding Source	Amount
South	A two-year grant from Methodist HealthCare Ministries for HPV vaccination projects in the San Antonio, Texas began in 2016.	\$500,000
South	Texas Department of Health, 1-year grant	\$188,000
South	Moody Foundation, Texas statewide HPV efforts	\$35,000
Southeast	Palm Healthcare Foundation, Florida	\$100,000
Southeast	Florida Department of Health, 1-year ending June of 2018 to focus on HPV VACs projects in two FQHCs	\$30,125
West	Group Health Foundation, Washington	\$60,500
West	A one-year grant from Oregon Health & Science University's Community Partnership Program	\$25,000
Northeast	Stabler Foundation	\$25,000
North	Comp Cancer Consortium, Iowa	\$20,000
North Central	Cincinnati Children's Hospital	\$5,000
TOTAL		\$988,625

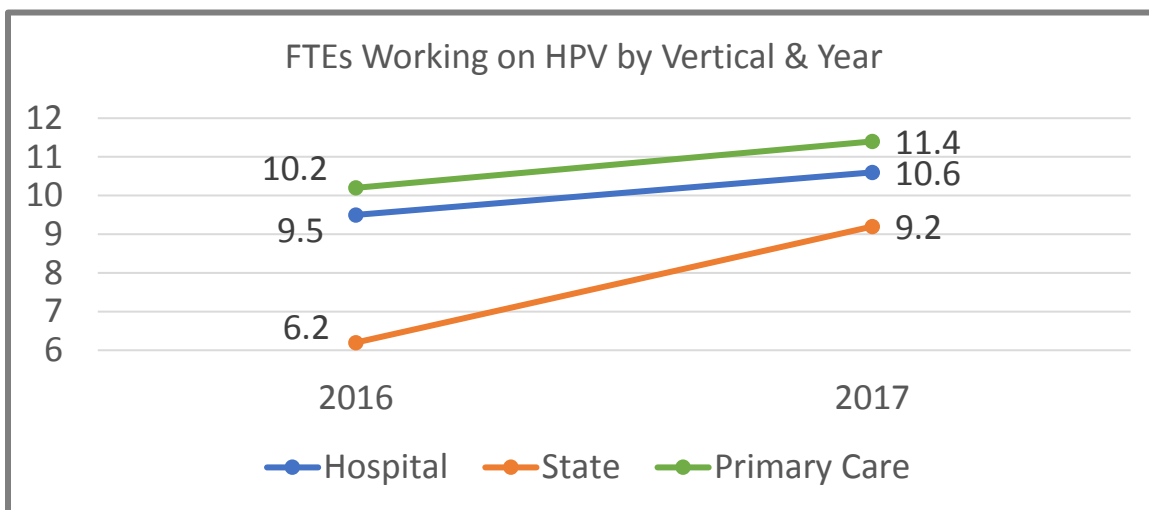
Internal Prioritization: Staff Time Dedicated to HPV Vaccination

One of the HPV VACs program’s key goals is to support the internal prioritization of HPV vaccination (within ACS). The launch of the *Mission: HPV Cancer Free* public health campaign is a significant step toward that goal. Within three years of VACs’ inception, ACS senior leadership have made HPV vaccination a public health priority across the enterprise.

In addition to this impressive indicator, VACs measured the amount of time that Health Systems staff dedicate to HPV vaccination activities as a proxy for internal prioritization within the Health Systems department. In 2017, staff in all verticals increased the average amount of time dedicated to HPV vaccination efforts. This increase was most marked in SHS, where HPV vaccination is now approaching one-quarter of the average manager’s time.



In total, **269 Health Systems staff reported working 1,189 hours per week** on HPV vaccination efforts—equivalent to nearly **32 employees** working full-time on HPV vaccination. This is a substantial increase from 26 full-time equivalents (FTEs) in 2016. Sixty-five percent of Health Systems staff have HPV vaccination in their performance goals, ranging from 54% of Hospital Systems staff to 93% of SHS staff.



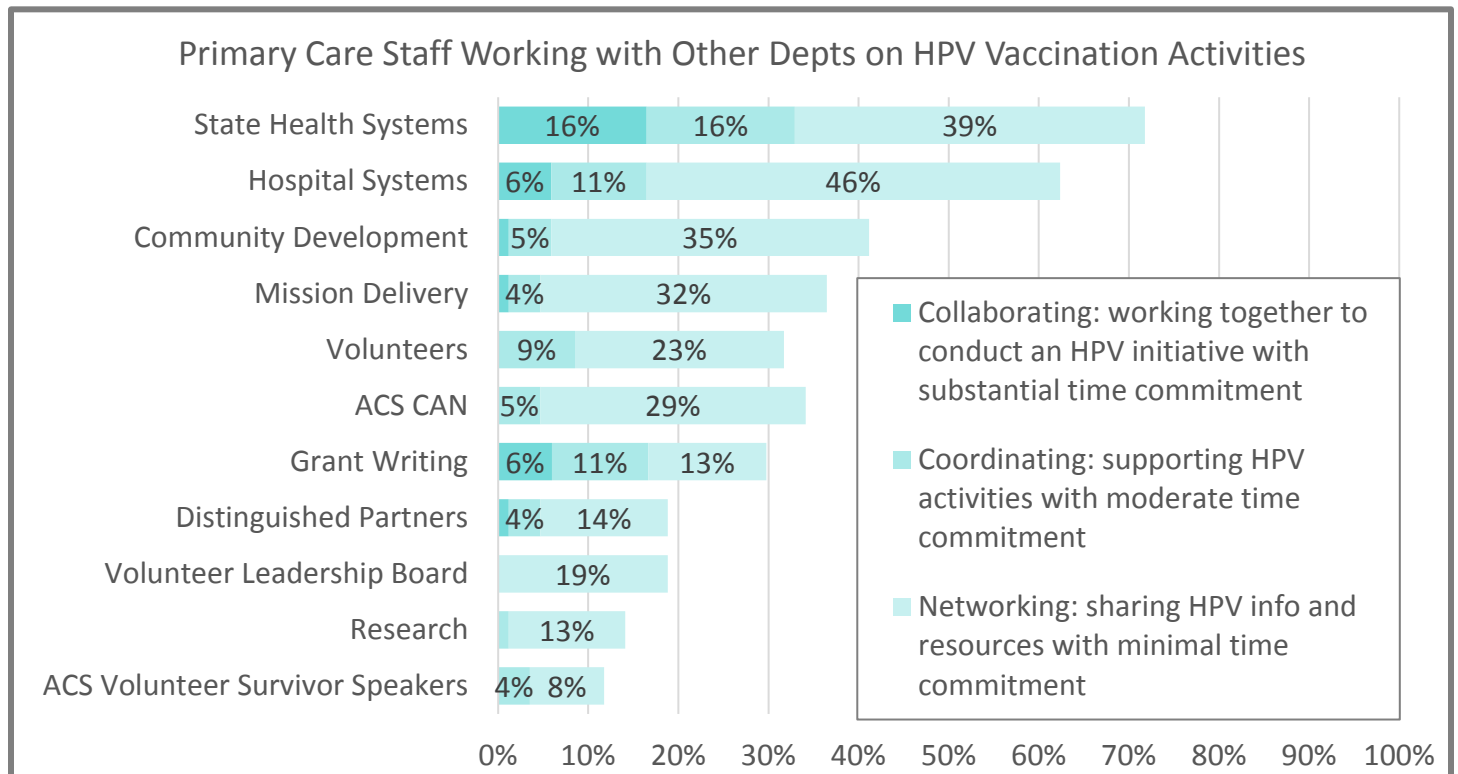
Dual role staff are excluded from these charts, so the sum of values differs slightly from totals reported in the text.

Integration: Cross-vertical Training, Technical Assistance, and Partnership

HPV vaccination provides an excellent opportunity for collaboration across verticals and departments due to the often-overlapping nature of the work. For instance, clinical QI spans Hospital and PC scopes, provider training is part of all verticals' HPV work, and increasing parental knowledge involves the communication channels and community connections of other departments.

With the launch of *Mission: HPV Cancer Free* and its regional planning process, integration of other departments in HPV vaccination work is set to increase exponentially. As other departments are trained and involved in the regional plans developed by regional campaign teams, the VACs team expect to see cross-department collaboration continue to increase.

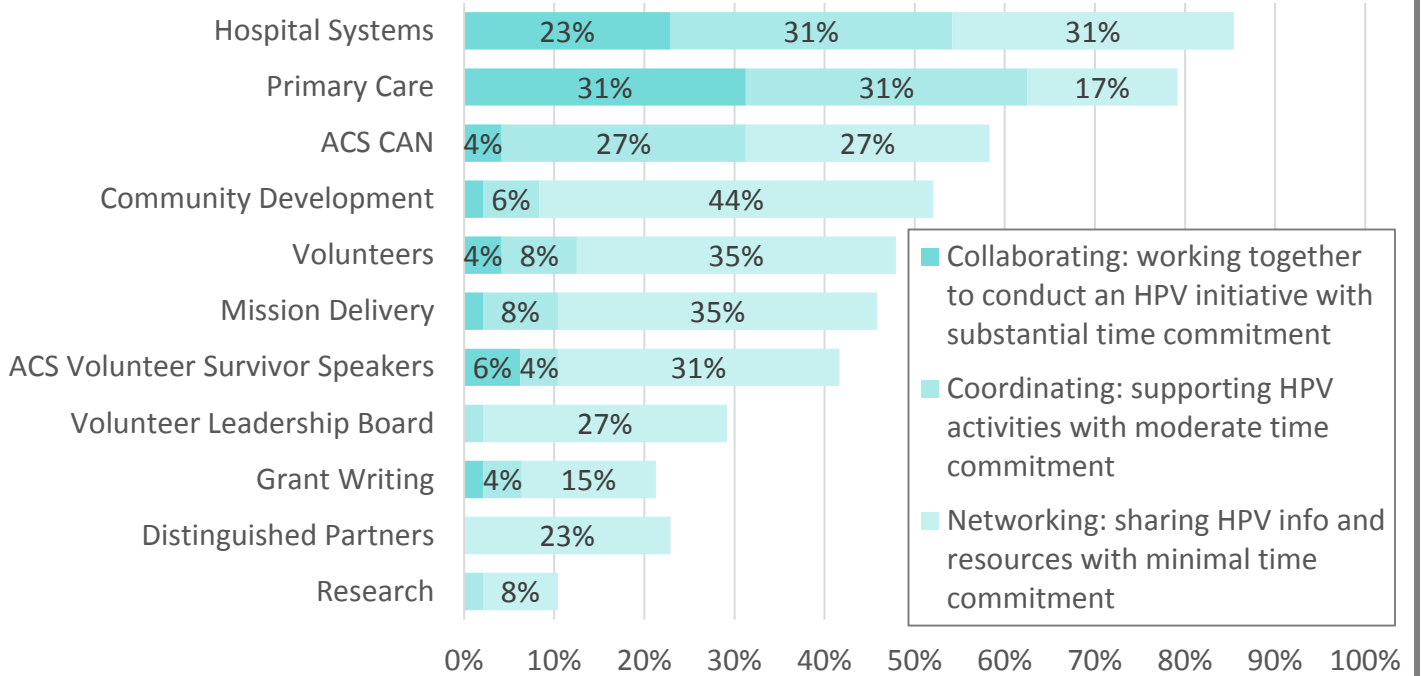
Already, more Health Systems staff are collaborating on HPV vaccination activities with other Health Systems verticals and other departments. For instance, in 2016, 53% of PC staff reported partnering with SHS staff on HPV vaccination activities, and 47% reported partnering with Hospital Systems staff. In 2017, **72%** reported working with SHS staff, and **63%** with Hospital Systems staff.



Collaboration outside of Cancer Control is also increasing. In 2016, approximately 10% to 15% of Health Systems staff reported working on HPV vaccination with other departments like ACS CAN, Major Gifts, and Community Development. In 2017, roughly one-third of Health Systems staff are at least networking on HPV vaccination with these departments.

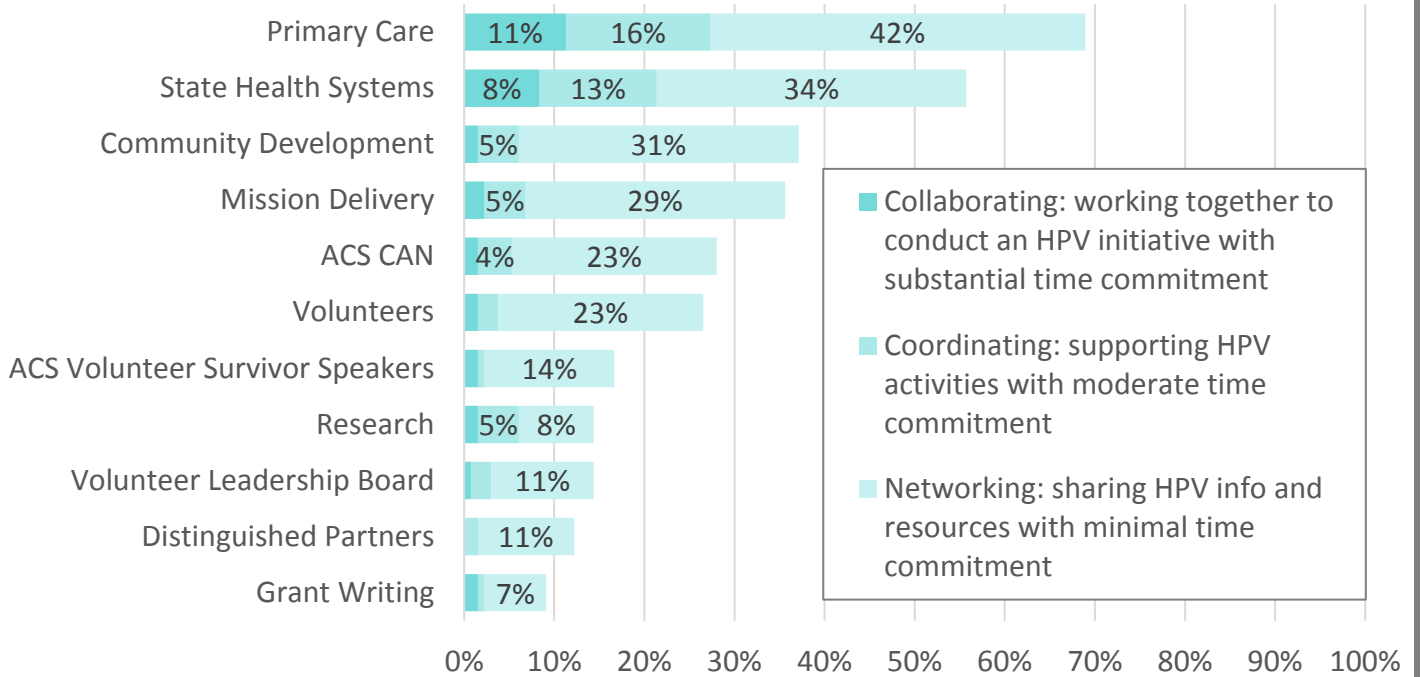
SHS staff continue to lead the way in internal and external partnerships on HPV vaccination due to the inherently collaborative nature of their work. Over three-quarters of SHS staff are working with Hospital Systems and PC on HPV vaccination and over half are working with ACS CAN and Community Development.

SHS Staff Working with Other Depts on HPV Vaccination Activities



2017 was the first year VACs collected internal partnership data for Hospital Systems staff. Even with minimal HPV training, most Hospital Systems staff are working with PC and SHS colleagues on HPV vaccination. This finding is also reflected in the prevalence of cross-vertical collaboration on IDS work (see [HPV Vaccination Activities in Hospital-Affiliated Primary Care Networks](#)).

Hospital Staff Working with Other Depts on HPV Vaccination Activities



Partnership and Prioritization Funding

In 2017, VACs provided a small amount of funding to 16 Health Systems staff for various activities related to sharing best practices, strengthening state-level relationships, or increasing partners' prioritization of HPV vaccination efforts. The funding opportunity was available to all verticals, and activities that involved ACS staff from multiple verticals were prioritized. Staff could request between \$500 and \$5,000, depending on the nature of the activity. The table below lists all funded projects. For more detail on the funded projects, see Appendix D and the SHS and Hospital Systems sections above. All highlighted case studies in the SHS and Hospital Systems sections received Partnership and Prioritization Funding.

Region	State	Vertical	Description
WER	AK	State, Primary Care	Convened a kick-off meeting to re-establish a group of stakeholders working on HPV vaccination projects.
SOR	AZ	State	Educated more than 60 clinicians and health support staff providing Title X family planning services across Arizona.
WER	CA	Primary Care, Hospital	Held a San Diego local HPV Vaccination Forum with 50 attendees to support the state cancer plan.
WER	CA	State	Meeting to explore a statewide HPV Roundtable and facilitate the development of a collaborative plan around increasing HPV vaccination in California.
SER	GA	State	Supported interviews with nine practices and physicians to understand best practices, assess resource needs and engage champion providers.
WER	GU	State	Enabled 45 additional attendees at the <i>Guam Health Providers Cancer Symposium</i> focused on HPV vaccination and cervical cancer.
NCR	IL	Primary Care	Presented on HPV vaccination efforts at 2017 National Rural Health Conference.
NCR	IN	Primary Care, Hospital	Trained 45 providers and staff on HPV vaccination in fulfillment of the cancer program standard 4.1.
SOR	MS	State, Primary Care, Hospital	Convened key state partners/stakeholders to discuss evidence-based strategies to improve HPV vaccination rates in Mississippi through a series of meetings.
NOR	MO	State	Meeting to share best practices from the Washington University Pediatric and Adolescent Ambulatory Research Consortium's HPV vaccination project.
WER	NV	Primary Care	In-person and virtual HPV vaccination lunch and learn for more than 40 providers, public health nurses, and staff.
NER	NY	State	Held HPV Vaccination Summit with more than 100 health care champions and stakeholders in a six-county catchment area.
WER	OR	State	Offered an HPV provider training in rural Oregon at LaPine Community Health Center to enhance QI efforts.
SER	SC	State, Primary Care	Held HPV panel discussion during the cancer track at the South Carolina Primary Health Care Association's 2017 annual clinical network retreat.
SOR	TX	Primary Care	Attended the 2017 Texas Association of Community Health Centers' Clinical Conference to share HPV vaccination resources and best practices.
NOR	UT	State, Primary Care	Held five provider trainings for 69 VFC providers and staff of rural or low-vaccinating clinics in Utah.

This funding mechanism served as a “proof of concept” for providing small amounts of project-specific funding directly to field staff. Eleven of the 13 recipient staff who responded to a follow-up survey (85%) completed all planned project activities. Ten of the 13 surveyed recipients (77%) found the funding to be “*very important*” for making project activities happen. Similarly, only two of the 13 surveyed recipients (15%) stated that they probably or certainly would have been able to complete the same activities without VACs Partnership and Prioritization Funding. Six of the 16 funded projects (38%) supported statewide coalitions or roundtables and related statewide cancer plans. Several of these gathered stakeholders to create or reinstate a state coalition/roundtable and others allowed action planning or implementation of HPV vaccination activities included in a state's cancer plan.

Program Leadership: The VACs Team and Advisory Groups

The HPV VACs team sits in the Cancer Control department at ACS GHQ within Prevention and Early Detection's Cancer Intervention team. The HPV VACs GHQ team includes:

Anna Hassan, Interventions Manager, HPV Vaccination
Debbie Saslow, Senior Director, HPV-Related and Women's Cancers and Co-PI for HPV VACs
Marcie Fisher-Borne, Director, HPV Vaccination and Principal Investigator for HPV VACs
Matt Allison, Senior Program Manager, HPV Vaccination
Nikki Stephens, Program Coordinator, HPV Vaccination
Nina DaSilva Batista, Project Manager, HPV Vaccination
Sandy Preiss, Data Manager, HPV Vaccination

Primary Care Advisory Group

Anna Rosenbaum, Senior Manager, Primary Care Systems, West Region
Deb Dillingham, Senior Director, Primary Care Systems, North Central Region
Jennifer Nkonga, Director, HPV Roundtable, Health Systems & Provider Engagement
Jill Giomboni, Health Systems Manager, Primary Care Systems, Northeast Region
Megan Keating, Health Systems Manager, Primary Care Systems, North Region
Nurez Madhany, Health Systems Manager, Primary Care Systems, Southeast Region
Shimeka Chretien-Bass, Senior Manager, Primary Care Systems, South Region

State Health Systems Advisory Group

Andy Cobb, Senior Director, State Health Systems, Southeast Region
Bridget Kiene, Manager, State Health Systems, West Region
Katie Crawford, Manager, State Health Systems, North Central Region
Lori Blanton, Senior Director, State Health Systems, South Region
Sarah Shafir, Strategic Director, State and National Systems
Tamara Robinson, Manager, State Health Systems, North Region

Intervention Tools and Resources

To support all Health Systems staff and their HPV vaccination efforts, the following program tools were created or modified from May 2017 to May 2018. Note: the document links below are internal to ACS staff only and some resources may only be available to Health Systems staff. Please email ACS.HPV.VACs@cancer.org to request a copy of a resource.

<u>5 Key HPV Vaccination Strategies</u>	Core strategies for the <i>Mission: HPV Cancer Free</i> public health campaign. These strategies will drive HPV vaccination rate change to prevent HPV cancers.
<u>Align HPV with IDS Priorities</u>	This document outlines 10 key hospital priorities and includes resources, sample discovery questions, and key talking points to help staff align HPV vaccination work with existing health system priorities.
<u>Blue Cross Blue Shield HPV Dashboard</u>	This dashboard provides an overview of BCBS Association HPV vaccination data to help staff understand rates in a state or metropolitan statistical area, develop data questions, engage partners, and decide where to take a deep dive.
<u>Don't Wait to Vaccinate</u>	This one-page infographic addresses current HPV vaccination recommendations pertaining to age and the importance of on-time vaccination.
<u>Engaging Survivors on a Speakers' Panel</u>	This document organizes tips and best practices for planning and facilitating a survivor speaker panel. [Updated]
<u>HPV 101 - Training</u>	An eLearning for staff to hear directly from the HPV VACs team about what the Human Papillomavirus is, what ACS is doing to tackle HPV, and how HPV vaccination can reduce HPV cancer incidence. Currently developing a version for campaign volunteers.
<u>HPV & HPV Vaccine Core Messaging</u>	Overview of the key messages and language for use in talking about HPV vaccination and HPV cancers for the <i>Mission: HPV Cancer Free</i> public health campaign.
<u>HPV Landscape Dashboard</u>	This dashboard provides an overview of HPV cancer and vaccination data in a state or Region. Click here for the public version of the HPV Landscape Dashboard.
<u>HPV Landscape Dashboard – How To</u>	A guidance document for using the HPV Landscape Dashboard, including how to download software needed to view dashboard. Click here for the video tutorial.
<u>HPV Onboarding Training Curriculum – Manager</u>	Manager companion guide for the self-guided learning curriculum for both new and existing staff. This guide mirrors the staff guide and includes suggested talking points and notes to increase conversation around HPV vaccination resources.
<u>HPV Onboarding Training Curriculum - Staff</u>	Self-guided learning curriculum for both new and existing staff to be completed under the direction of their manager. Featuring top resources and information around HPV vaccination for all staff.

<u>HPV Triple AIM Infographic</u>	Explains how HPV vaccination affects the Triple AIM. For use with external health care audiences. [Updated]
<u>HPV Vaccination Funding Guidance</u>	Provides guidance on selecting grant opportunities related to HPV vaccination. Includes information on successful project strategies and sample projects.
<u>HPV Vaccination Report Card</u>	This tool is used to collect baseline and goals for a practice. It can be valuable for discovery meetings to summarize steps toward success, as well as educate providers on the “announcement approach.”
<u>HPV Vaccination Systems & Strategies Inventory</u>	The Inventory is a tool for setting baselines for a partner’s systems, policies, and rates. The new 2.0 version serves as baseline or follow-up and has simplified data. [Updated]
<u>HPV VACs Facilitation Toolkit</u>	This toolkit guides all Health Systems staff through the basics of meeting design and facilitation so that meetings are effective and engaging. [Updated]
<u>HPV VACs Program Overview</u>	Document for staff and volunteers to provide an overview of the HPV VACs program and strategies.
<u>HPV VACs QI Partnership Project Sheet</u>	This customizable document provides an overview of an HPV VACs QI Partnership and helps staff recruit partners to implement HPV vaccination QI projects. [Updated]
<u>HPV VACs Staff & Partner Newsletters</u>	The HPV VACs team publishes staff and partner newsletters that announce new resources, share best practices, and highlight HPV vaccination efforts of ACS staff and their partners.
<u>HPV VACs Talking Points: Working with Merck</u>	This document provides useful tips and talking points for staff as they engage in meetings and partnerships with Merck. [Updated]
<u>Just the Facts – for parents</u>	This tool provides the facts parents need to bust common myths about HPV vaccination.
<u>Just the Facts – for providers</u>	This tool arms providers with the facts they need to bust common myths about HPV vaccination. [Updated]
<u>Let’s Talk about That: Addressing Concerns Video</u>	An interview with Dr. Debbie Saslow and Dr. Marcie Fisher-Borne addressing common questions staff and volunteers may face when advocating for the HPV vaccine.
<u>Maintenance of Certification (MOC) Pilot Project Overview</u>	This customizable document provides an overview of an HPV VACs MOC partnership and helps staff recruit partners to implement the MOC pilot.

<u>Mission: HPV Cancer Free Call to Action</u>	This tool provides key educational opportunities and ways for all ACS staff to get engaged in the <i>Mission: HPV Cancer Free</i> public health campaign. Department-specific calls to action are included.
<u>Mission: HPV Cancer Free – Campaign Resource Guide</u>	This guide provides resources for ACS and partner communications staff to educate parents and raise awareness about the importance of HPV vaccination.
<u>Mission: HPV Cancer Free External Field Guide</u>	This guide provides an overview of activities and tools that ACS staff and volunteers can use to launch and drive HPV campaign work outside ACS.
<u>Mission: HPV Cancer Free FAQ</u>	Answers to frequently asked questions about the HPV campaign, including what it is, the strategy, the role of the Regions, the role of volunteers, and more.
<u>Mission: HPV Cancer Free Overview</u>	This document describes the <i>Mission: HPV Cancer Free</i> public health campaign. Note: this version is for internal ACS use only. <u>Click here</u> for a separate version to share with external partners.
<u>Mission: HPV Cancer Free Overview Video</u>	This video describes the <i>Mission: HPV Cancer Free</i> public health campaign. <u>Click here</u> for the Spanish version.
<u>Mission: HPV Cancer Free Campaign Playbook</u>	The Campaign Playbook contains information about the <i>Mission: HPV Cancer Free</i> public health campaign including goals and strategies, information on the Regional Campaign Teams, and links to campaign tools.
<u>Mission: HPV Cancer Free Campaign Scorecard</u>	The Campaign Scorecard tracks progress on key performance indicators within and across each Region in moving regional action plans, and the overall campaign goals and objectives, forward.
<u>MOC Pilot Implementation Manual</u>	This manual is a tool for ACS staff implementing a MOC Pilot project and provides detailed instructions and specific resources for pilot implementation. [Updated]
<u>National Partner Map</u>	The National Partner Map outlines major activities and initiatives in each state and includes key contacts to help in state and regional planning.
<u>Planning a Reminder Recall Intervention for HPV Vaccination</u>	This tool aids ACS staff and their partners with best practices for starting a reminder/recall intervention. [Updated]
<u>Policy Approaches & Resources for HPV Vaccination</u>	Provides guidance to staff around state and national policies for HPV vaccination. Includes frequently asked questions about HPV vaccination policies and resources.
<u>Protecting Our Children from HPV</u>	This one-page infographic aligns HPV vaccination with the many choices parents make every day to protect their children from harm.

<p><u>State of HPV Vaccination - Training</u></p>	<p>An eLearning for staff on the current state of HPV vaccination in the U.S., dosage guidelines, and interacting with health care providers.</p>
<p><u>Steps for Increasing HPV Vaccination in Practice</u></p>	<p>This action guide provides steps and links to key resources to support clinical projects to increase HPV vaccination rates. [Updated]</p>
<p><u>Take a Shot at Cancer</u></p>	<p>This low-literacy handout for parents provides general information about the HPV vaccine, HPV cancers, and current dosage recommendations. The handout also serves as a reminder for series completion.</p>
<p><u>Talking about HPV Vaccination</u></p>	<p>Provides pointers on talking about HPV vaccination in one’s work and personal life. Click here for accompanying motion graphic video.</p>
<p><u>Vaccination Reminder Cards</u></p>	<p>Reminder cards are customizable to include specific partner information and can be co-branded. In addition to English, low literacy versions are available in Amharic, Arabic, Haitian Creole, Spanish and Vietnamese. [Updated]</p>

APPENDIX A: HPV Vaccination Leadership Positions Held by Cancer Control Staff

Hospital Systems

Name	State	Position	Type of Organization
Samantha Coleman	AK	Member	State HPV Coalition
Hannah Nein	CO	Member	State Comp Cancer HPV Workgroup
Jackie Woods	CO	Member	State Comp Cancer HPV Workgroup
Liddy Hora	IA	Co-lead	State Comp Cancer HPV Workgroup
Tina Schaal	ID	President	State Comp Cancer Coalition
Rachelle Anthony	IN	Member	State HPV Coalition
Rachel Serio	MD	Member	Hospital HPV Committee
Suzi Ford	MD	Member	State Comp Cancer HPV Workgroup
Megan Landry	MI	Member	Hospital HPV Committee
Amber Badolato	MO	Member	Hospital HPV Committee
Katie Wrenn	MO	Member	Hospital HPV Committee
Jenny Ozier	MS	Co-lead	State HPV Coalition
Sara Anderson	ND	Member	State Comp Cancer HPV Workgroup
Amy Magorien	OH	Member	Hospital HPV Committee
Janet Pulliam	OK	Member	Hospital HPV Committee
Laura Potter	OR	Co-lead	Hospital HPV Committee
Laura Potter	OR	Member	State HPV Coalition
Elise Allen	TN	Member	Local HPV Coalition
Velma Perez	TX	Consultant	Hospital HPV Grant Team
Daisy Drinkard	TX	Member	Hospital HPV Committee

Primary Care

Name	State	Position	Type of Organization
Chris Varela	FL	Member	HPV Cancer Free Regional Campaign Team
Megan Keating	ID	Member	State Immunization Coalition Steering Committee
Tarneka Manning	IL	Member	Local HPV Coalition
Emmanuel Zambrano	IL	Leader	Local HPV Coalition
Tierra Pinkins	IN	Co-lead	State HPV Coalition
Dave Egli	MI	Member	State Comp Cancer HPV Workgroup
Chiquita Chanay	MS	Co-lead	State HPV Coalition
Amy Wen	NY	Member	State Comp Cancer HPV Workgroup
Andrea Anderson	OH	Member	State Comp Cancer HPV Workgroup
Kasey Volpe	OK	Member	FQHC Quality Improvement Team
Jenica Palmer	OR	Member	State HPV Coalition
Kate Mastalski	PA	Member	State Comp Cancer HPV Workgroup
Kim Hale	SC	Member	State Comp Cancer HPV Workgroup
Kim Hale	SC	Member	State Immunization Coalition
Laura Wood	TX	Member	HPV Cancer Free Regional Campaign Team
Laura Wood	TX	Member	FQHC Quality Improvement Team
Frances Villafane	TX	Leader	FQHC Quality Improvement Team

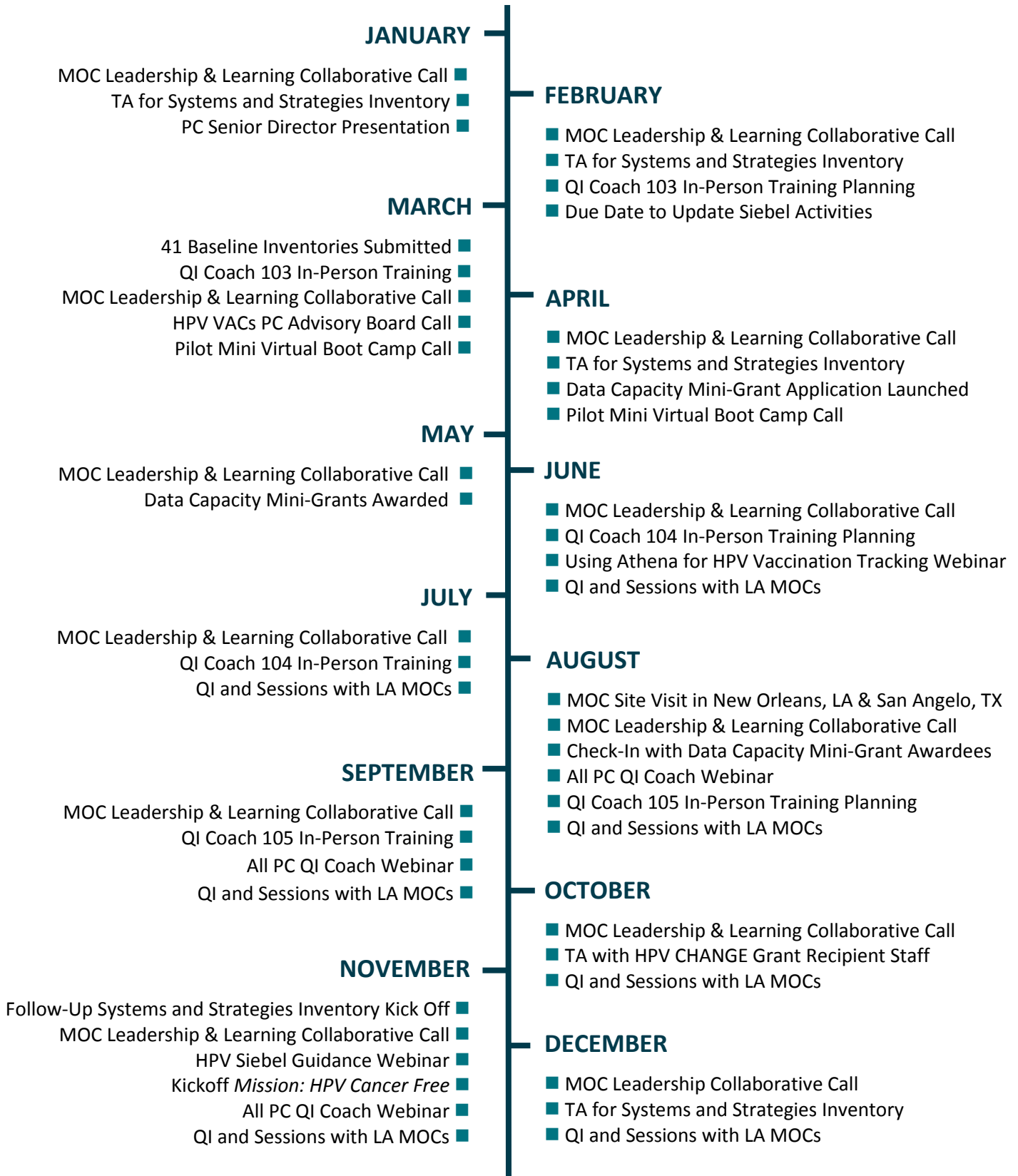
Lindsay Snow	UT	Co-lead	State Comp Cancer HPV Workgroup
Audrey Fine	WA	Member	State Comp Cancer HPV Workgroup
Shauna Shafer	WV	Member	State Comp Cancer HPV Workgroup

State Health Systems

Name	State	Position	Type of Organization
Raquel Arias	CA	Co-Chair	Local HPV Workgroup
Raquel Arias	CA	Leadership Committee Member	State HPV Coalition
Lori Ludlow	CA	Lead	State HPV Coalition
Kathleen Connors-Juras	DE	Leadership Committee Member	Comp Cancer HPV Workgroup
Kelly Durden	GA	Chair	State HPV Subcommittee
Marisha Artero	GU	Leadership Committee Member	Comp Cancer HPV Workgroup
Tenaya Jackman	HI	Leadership Committee Member	Comp Cancer HPV Workgroup
Christy Manternach	IA	Co-Chair	Comp Cancer HPV Workgroup
Megan Czarniecki	ID	Co-Chair	State HPV Coalition
Adam Nation	IL	Chair	State HPV Coalition
Dan Leong	KS	Education Chair	Comp Cancer Workgroup
Dan Leong	KS	Education Chair	State Immunization Coalition
Elizabeth Holtsclaw	KY	Co-Chair	Comp Cancer HPV Workgroup
Kathleen Connors-Juras	MD	Leadership Committee Member	Comp Cancer HPV Workgroup
Tom Rich	MI	Co-Chair	State HPV Coalition
Kelli Wright	MO	Leadership Committee Member	Comp Cancer HPV Workgroup
Allison Tyler	MS	Co-Chair	Comp Cancer HPV Workgroup
Shannon Bacon	ND	Leadership Committee Member	Comp Cancer HPV Workgroup
Tamara Robinson	NE	Leadership Committee Member	Comp Cancer HPV Workgroup
Justin Pentenrieder	NH	Co-Chair	Comp Cancer HPV Workgroup
Natasha Coleman	NJ	Leadership Committee Member	State HPV Coalition
June Hunter	NV	Co-Chair	Comp Cancer HPV Workgroup
Michael Seserman	NY	Chair	State HPV Coalition
David Dude	OK	Leadership Committee Member	Comp Cancer HPV Workgroup
Bridget Kiene	OR	Co-Chair	State HPV Coalition
Alesia Mitchell-Bailey	PA	Co-Chair	Comp Cancer HPV Workgroup
Melissa Campbell	RI	Co-Chair	Comp Cancer HPV Workgroup
Jill Ireland	SD	Leadership Committee Member	State Immunization Coalition
Jill Ireland	SD	Leadership Committee Member	Comp Cancer HPV Workgroup
Carol Minor	TN	Leadership Committee Member	Comp Cancer HPV Workgroup
Greg Parkington	TX	Chair	State HPV Coalition
Greg Parkington	TX	Leadership Committee Member	State HPV Workgroup
Beth Brunner	WI	Chair	State Coalition
Beth Brunner	WI	Leadership Committee Member	Comp Cancer HPV Workgroup
Michelle Chappell	WV	Chair	Comp Cancer HPV Workgroup
Michelle Chappell	WV	Board Member	State Immunization Coalition
Jana Gurkin	WY	Co-Chair	Comp Cancer HPV Workgroup

APPENDIX B: 2017 HPV VACs Primary Care Programmatic Activity Timeline

2017



APPENDIX C: 2017 HPV VACs State and Hospital Programmatic Activity Timeline

2017

JANUARY

- TA Webinar for SHS Staff
- Developed Grand Rounds Tools
- Kansas HPV Planning Meeting
- Mid-South Strategic Planning Visit

MARCH

- Development of National Partnership Map
- TA Webinar for SHS Staff
- Hospital-Based and Cancer Center HPV Vaccine Uptake Initiative Webinar
- SHS Year 4 Planning Session

MAY

- Partnered with CCC National Partners on HPV Workshop
- HPV Roundtable State Coalition Iowa Workshop
- TA Webinar: HPV 101
- SHS Advisory Board Call

JULY

- TA Webinar: Hospital HPV Strategies
- SHS Facilitation Training
- North Region Hospital Data Webinar

SEPTEMBER

- Virtual Facilitation and Sustain Momentum Webinar
- TA Webinar: NIS Teen Data
- AAP QI Training
- State of MS Strategic Planning Session
- Facilitation Training Office Hours
- HPV Campaign Kick-off Call
- SHS Advisory Board Call
- West Region SHS Strategic Planning Session

NOVEMBER

- Health Systems Webinar: Top Hospital Concerns
- Kickoff *Mission: HPV Cancer Free*
- HPV Roundtable: State Coalition Meeting
- Comp Cancer SHS Integration Standing Call

FEBRUARY

- TA Webinar: Sanford Health HPV
- Facilitation Learning Collaborative Call
- High Plains Training: Steps Guide with CoC
- Texas HPV Roundtable Planning Call

APRIL

- 6 Month Assessment of SHS Staff Activities
- Launched Low-Literacy Reminder Cards
- TA Webinar: Understanding Oropharyngeal Cancer
- 4-Division SHS Planning Meeting
- TA Webinar: Hospital Tools

JUNE

- TA Webinar: Using Athena EHR
- North Region Site Visit for HPV IDS Planning
- Trial of SHS Virtual Facilitation Training
- North Region Webinar: Overview of the VACs Model

AUGUST

- South Region Influencer Training
- TA Webinar: Leveraging Enthusiasm
- SHS Advisory Board Call
- Trial of SHS Virtual Facilitation Training
- Facilitation Training Office Hours

OCTOBER

- Health Systems Webinar: Know Your Rates
- SHS Facilitation Training
- Facilitation Training Office Hours

DECEMBER

- Health Systems Webinar: Social Media
- SHS Advisory Board Call
- North Region IDS Training for SHS and Hospital
- Facilitation Training Office Hours
- Facilitation Training Project Management Webinar

APPENDIX D: Partnership and Prioritization Funding

Staff Lead	Region	State	Vertical	Description
Abby Struffert	WER	AK	State, Primary Care	Convened a kick-off meeting to re-establish a group of stakeholders working on HPV vaccination projects. Outcomes included the decision to support a CME project in partnership with AHEC, hold a summit in 2018, and continue to meet quarterly.
Lisa A. Hall	SOR	AZ	State	ACS, the Arizona Family Health Partnership and the Arizona Chapter of the National Cervical Cancer Coalition joined forces to provide HPV vaccination educational sessions targeting clinicians and health support staff providing Title X family planning services across Arizona. This collaboration reached more than 60 clinicians and health care staff through three in-person sessions and one online session, which offered CME credit.
Karina Moyano	WER	CA	Primary Care, Hospital	The San Diego local access to care coalition, Cancer Care Access Partnership (CCAP), led by ACS, held a local HPV Vaccination Forum to support the state cancer plan. There were 50 attendees ranging from FQHCs, community researchers, health plans, county health and human services, California department of public health staff, and others from local nonprofits. Agenda items included an update on head and neck cancers, HPV vaccination rates, provider resources, review of the Steps Guide, and information on the HPV VACs program.
Lori Ludlow	WER	CA	State	In partnership with the California CCC Program stakeholders gathered to explore a statewide HPV Roundtable and facilitate the development of a collaborative plan around increasing HPV vaccination in California. This work supports the California Dialogue on Cancer (CDOC) HPV/Cervical Cancer Workgroup. Stakeholders included representatives from the California Department of Health's (CDPH) Immunization and Sexually Transmitted Diseases branches, county health departments, the California Immunization Coalition, the ACS, academic institutions, and others. During the meeting, the decision was made to establish a statewide HPV roundtable, steering committee, and workgroups.
Kelly Durden	SER	GA	State	Funding supported phase two of the HPV Provider Champion Project, a part of the Georgia HPV workgroup's HPV Action Plan, implemented under the Georgia Cancer Control Consortium. This phase included interviewing nine practices and physicians who agreed to participate in this project with the overarching objectives: 1) to understand their best practices 2) to garner what other resources and/or tools they need to amplify their impact and 3) to engage champion providers to help their peers improve rates.
Marisha Artero	WER	GU	State	The <i>Guam Health Providers Cancer Symposium</i> , focused on HPV vaccination and cervical cancer, was held in partnership with the University of Guam Cancer Research Center, Department of Public Health Social Services Guam Breast & Cervical Cancer Early Detection Program, Guam Comprehensive Cancer Control Coalition, Guam Medical Society, Guam Nursing Association, Guam Cancer Care, Guam Regional Medical City, American Medical Center, FHP Health Center, and the Noncommunicable Disease Consortium. ACS support enabled the number of attendees to increase from 50 to 95. Health care professionals in attendance discussed cancer incidence and vaccination rates, guidelines, cultural factors affecting vaccination, and received HPV vaccination resources.
Caleb Nehring	NCR	IL	Primary Care	Caleb Nehring, Health Systems Manager, presented on the HPV vaccination work carried out in southern Illinois during the 2017 National Rural Health Conference in Memphis, Tennessee. Caleb shared best practices and the process used to form three regional HPV vaccination coalitions and to educate health care providers through two HPV cancer prevention conferences in central and southern Illinois.
Josh Kellems	NCR	IN	Primary Care, Hospital	As part of a long-term project focused on increasing HPV vaccination rates within their pediatric provider network, La Porte Hospital and ACS staff carried out several provider and staff trainings in fulfillment of the cancer program standard 4.1. <i>You Are the Key</i> curriculum was used to educate 45 providers and staff during three training sessions, including staff of their OBGYN practice. In addition, all staff received HPV vaccination resources.
Chiquita Chanay	SOR	MS	State, Primary Care, Hospital	The Mississippi Primary Care, Hospitals, and State Health Systems managers convened key state partners/stakeholders to discuss evidence-based strategies to improve HPV vaccination rates in Mississippi through a series of meetings. A meeting with leadership at the Mississippi State Department of Health (MSDH) discussed some of the perceived barriers to HPV immunization in the state. Through this meeting, several opportunities for partnership with ACS were identified. Also, a meeting was held with the leadership of a large federally qualified health center; leadership from the state Medicaid program; and a local pediatrician. Clinical barriers and the importance of HPV vaccination in Medicaid programs were discussed. In addition, Dr. Wharton presented at the Mississippi Primary Health Care Association's Annual Conference on the trends in immunization coverage and strategies to improve vaccination rates. CME credit was offered.
Katie Wrenn	NOR	MO	State	Meeting to share best practices and local data from the Washington University Pediatric and Adolescent Ambulatory Research Consortium's HPV vaccination project. Physicians and nurse practitioners in attendance learned effective strategies and identified factors in the system of vaccine

				delivery that act as barriers and facilitators for vaccine use according to national guidelines. Participants discussed best practices and pragmatic strategies they could use to increase use of HPV vaccine in their practices.
June Hunter	WER	NV	Primary Care	An HPV vaccination lunch and learn was held in Reno, Nevada through collaboration with Northern Nevada HOPES, High Sierra AHEC, and Nevada Primary Care Association. The simultaneous in-person and virtual training session utilizing <i>You Are the Key</i> content was attended by over 40 primary care physicians, mid-levels, county and state public health nurses, and administrative staff and live-streamed statewide. CME credit was offered.
Michael Seserman	NER	NY	State	The Capital Region HPV Vaccination Summit brought together more than 100 health care champions and stakeholders in a six-county catchment area to build relationships, identify barriers, develop strategies to increase vaccination rates, increase community awareness, and share EBIs. Topics included public health policy, school-based efforts, and public education. Evaluation results and feedback were positive from both internal and external partners. In addition, a statewide HPV coalition was formed. Sixteen different health organizations were represented at the coalition's inaugural meeting where vision and mission statements were created, a structure approved, and co-chairs identified.
Bridget Kiene	WER	OR	State	HPV provider training in rural Oregon at LaPine Community Health Center. Michelle Berlin, Co-Director of the Center for Women's Health at OHSU, delivered the training based on the <i>You Are the Key</i> curriculum. The training was strategically planned to engage the entire health system to enhance their HPV clinical QI efforts.
Tracie Lewis	SER	SC	State, Primary Care	An HPV panel discussion was held as an add-on event to the cancer track during the South Carolina Primary Health Care Association's 2017 annual clinical network retreat. The panel highlighted successfully implemented EBIs, in partnership with ACS, that have increased HPV vaccination rates. Speakers included two medical researchers, two HPV cancer survivors, staff from a pilot FQHC, and two Medicaid plan QI representatives. ACS staff also worked with the Medicaid plans in attendance to offer provider feedback assessment of their current vaccination rates. Evaluations were collected which were very favorable in increasing knowledge of EBIs, provider messaging, and overall awareness of HPV vaccination.
Laura Wood	SOR	TX	Primary Care	ACS Primary Care staff in Texas attended the 2017 Texas Association of Community Health Centers' Clinical Conference to share HPV vaccination resources and results and best practices learned through clinical QI projects addressing HPV vaccination rates. Conference attendees representing 65 FQHC/look-alike health centers in Texas received ACS HPV vaccination materials, information on several QI projects within FQHCs, including one that combined the MOC pilot with focused community education in three South Texas health centers, and contact information for ACS staff who can support clinics in their own HPV vaccination work.
Shay Bilinski	NOR	UT	State, Primary Care	In collaboration with the Utah Department of Health, Crossroads Area Health Education Centers, and Intermountain West HPV Vaccination Coalition, five provider trainings were held for rural or low-vaccinating clinics in Utah. Workshops were conducted in all regions of the state from the most southeastern corner to the most northwestern corner in towns as small as a few thousand persons. Sixty-nine VFC providers and staff, representing 32 clinics, attended to learn about HPV and HPV vaccination, the Utah Department of Health's Immunization Campaign, QI tools for HPV interventions, and state immunization registry use.