



Mission:
HPV **CANCER**
FREE

HPV VACs Program
Vaccinate Adolescents against Cancers

2021 Impact Report

*Advancing HPV Cancer Prevention
During a Pandemic*

Released June 2022



HPV Vaccination During the Pandemic



In 2021, we witnessed the development and rollout of a lifesaving vaccine for COVID-19 in record time. As a result, vaccination emerged as a highly discussed topic and the health care sector faced unprecedented challenges in public messaging and care delivery.

HPV vaccination progress was upended as families hesitated to come in for care. Health systems prioritized rollout of vaccination for adults, then age 12 and up and later ages 5-11. While all adolescent vaccination rates declined, HPV rates remain suboptimal to date compared to other routine vaccines. Public and commercial experts have estimated a current gap of three to four million missed doses for the HPV vaccine.

The COVID-19 pandemic decreased public HPV vaccine order rates for preteens and teens by 18% as compared to pre-pandemic.

In four years, the HPV vaccine will mark its 20th anniversary. As a nation, the US remains far from achieving Healthy People 2030 goals of 80% HPV vaccination rates in adolescents. It is estimated that 59% of teens were up to date with HPV vaccination before the pandemic. There is much ground to recover and gain.

The American Cancer Society (ACS) is a respected leader of national efforts to close the gap on HPV vaccination. Our work will be critical to keeping HPV vaccination a national cancer prevention priority.

Mission: HPV Cancer Free is ACS' nationwide campaign to increase HPV vaccination rates and decrease disparities. Our vision is a country that is HPV cancer free – starting with cervical cancer. In 2018, ACS issued a formal elimination statement affirming our commitment to work towards a reduction in the global burden of HPV disease. A campaign partner guide had been rolled out prior to the pandemic.

The **HPV VACS (Vaccinate Adolescents against Cancers)** program includes our work to improve rates through strategic partnerships. Quality improvement is the hallmark of this work, which is generously supported by private and public donors.

This report summarizes ACS' national and regional activities to increase HPV vaccination.

ACS is a respected leader of national efforts to close the gap on HPV vaccination.

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Want a two minute synopsis of ACS's HPV vaccination work?

Click on the linked photo.

For more information about the Interventions & Implementation team and our HPV vaccination work, email Interventions@cancer.org.

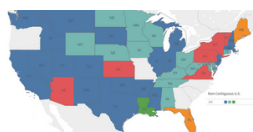
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ACS HPV Building Blocks

ACS invests in HPV vaccination as cancer prevention through a multi-pronged approach. This report highlights 2021 outcomes of regional and national efforts supported by ACS' Interventions & Implementation team, including our partnerships with providers and health systems, state and coalition engagement, and our national public awareness campaign.



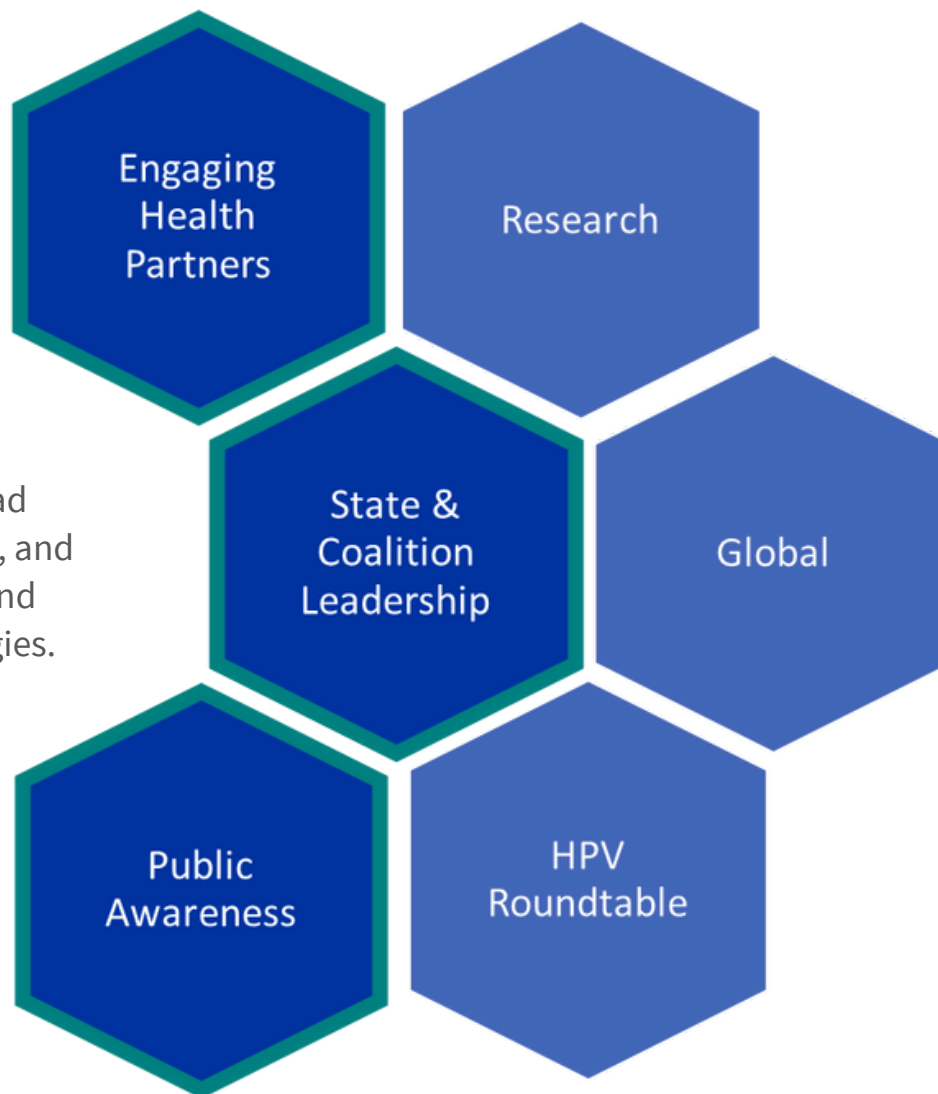
ACS collaborates with health system partners on 12-month projects. Using a quality improvement (QI) lens, systems select evidence-based interventions (EBIs) to increase HPV vaccination rates for 9- to 13- year-olds. ACS staff provide QI technical assistance.



ACS staff participate and lead HPV workgroups, coalitions, and summits to advance state and regional HPV uptake strategies.



ACS continues to develop educational materials and tools for partners to increase public education and awareness of HPV vaccination as cancer prevention.



2021 EXECUTIVE SUMMARY



HEALTH SYSTEMS:

ACS partnered with 43 health systems in 13 states, reaching more than 289,000 children ages 9-13 and maintained initiation and completion rates across projects.



HEALTH PLANS:

ACS launched a pilot program on HPV vaccination with 5 health plans across 7 states.



AGE 9 INITIATION:

Health systems increased HPV initiation rates 2% among 9-10-year-olds. ACS grew the number of partners collecting & reporting HPV initiation at age 9 by 29%.



COALITIONS:

69 ACS regional staff reported leading or co-leading local, state, or regional HPV coalitions or workgroups across 22 states.

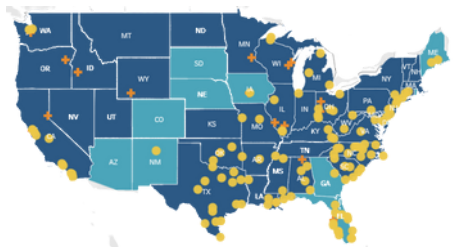


PUBLIC AWARENESS:

In the summer of 2021, ACS provided HPV vaccination information to parents via Pandora radio, reaching over 2 million listeners in English and Spanish.

Engaging Health System Partners to Increase HPV Vaccination

ACS has partnered with over 2,000 clinics to improve HPV vaccination rates since 2015.



Here are a few highlights:

Led Quality Improvement (QI) Projects Nationwide

Thirty-two ACS regional staff recruited 43 health systems, including 369 clinic sites, to prioritize interventions to improve HPV initiation and completion rates through quality improvement. Twenty-seven systems were Federally Qualified Health Centers (FQHCs), which primarily serve lower-income culturally diverse populations. Sixteen systems were integrated delivery systems (IDS) or a hospital. [Click here to learn more about QI \(p.3\) and the different system partner types \(p.5\).](#)

Provided Training & Technical Assistance

Through our efforts in 2021, partners trained 938 staff and 646 providers on HPV vaccination as cancer prevention. Partners reported implementing 189 evidence-based interventions (EBIs) to improve vaccination.

Evaluated Performance

Partners submitted quality improvement aim statements and HPV rate data at baseline and final. ACS monitored and evaluated rate data for trends and impact.

2021 QI Partners At A Glance

43

health systems

1/3

received funding
(\$19k on average)

369

clinics

189

EBIs implemented

289,612

active patients

1,584

providers & staff
trained

2021 Health System Impact



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[Click here to learn more about how HPV initiation and HPV completion are defined](#)

2021 WINS: Systems maintained or slightly improved rates

↑ 2%

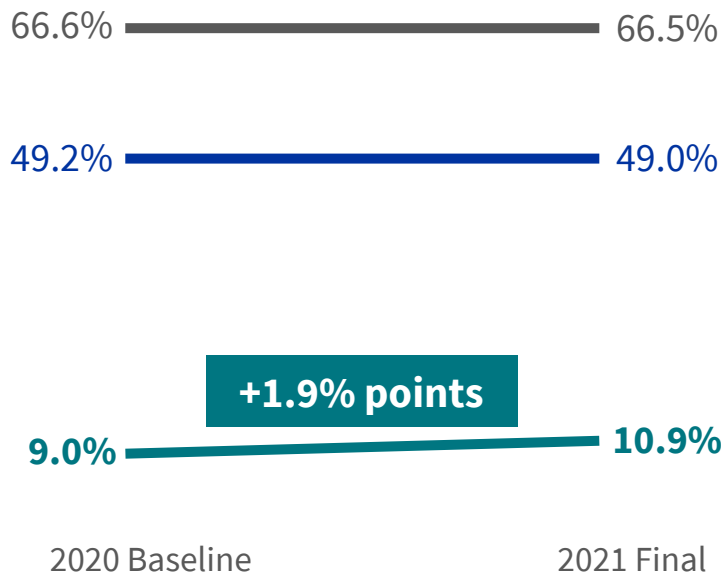
- Initiation rates at ages 9-10 grew 2%.
- Completion rates by age 13 grew 2%.



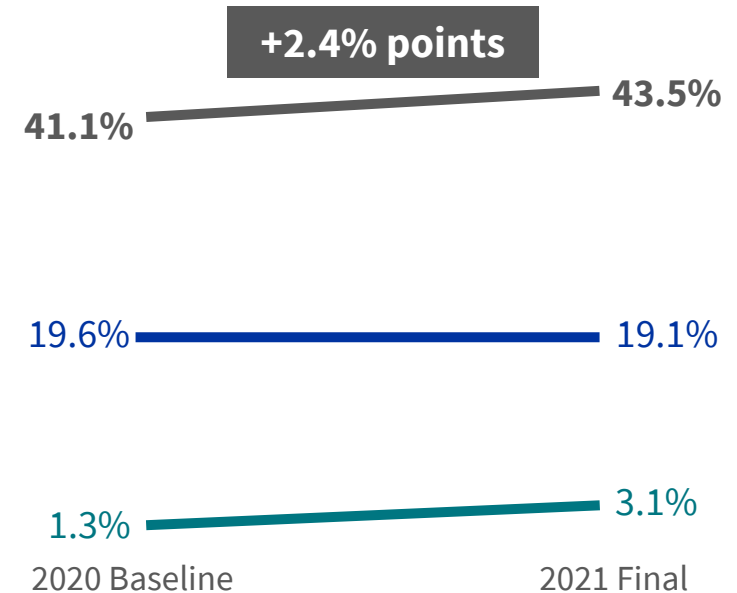
2021 CHALLENGES: Ongoing pandemic challenges

- COVID-19 vaccines rolled out and took precedence over routine practice.
- Variants emerged, including Delta and Omicron waves, during peak adolescent vaccination period.
- These issues compounded staff turnover/burnout and parental hesitancy to bring children for in-person visits.

HPV Initiation by Age



HPV Completion by Age



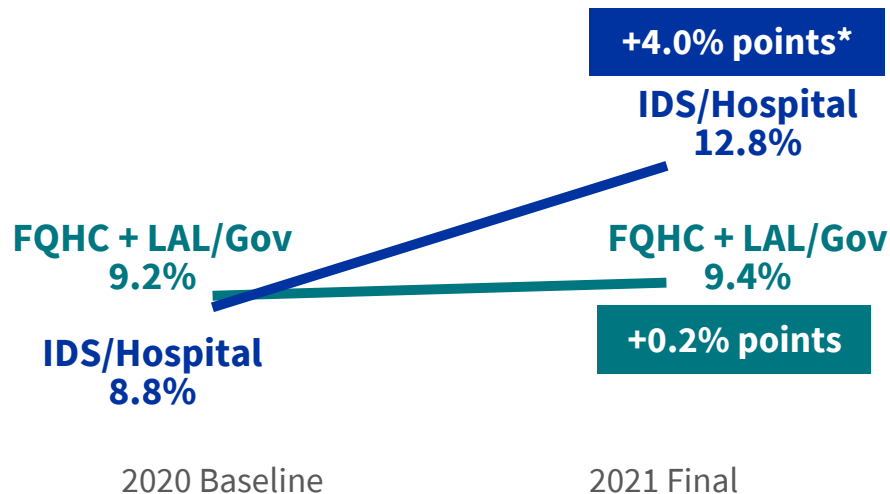
Ages 9-10 (n=35) Ages 11-12 (n=40) Age 13 (n=36)

Impact at Age 9

↑ 4%

Increase in HPV initiation rates for 9- to 10-year-olds in Integrated Delivery Systems (IDS)

Initiation @ Age 9



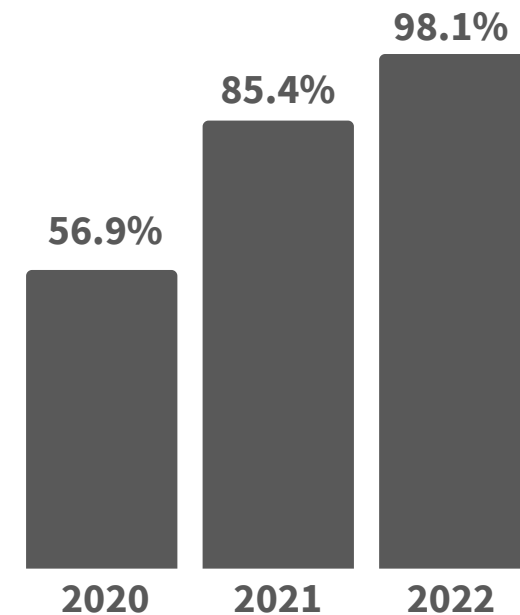
9- to 10-year-olds initiation rates by system type. FQHC + Lookalike/Gov n = 20; IDS/Hospital n = 15; * p < .05

IDS were more likely than FQHCs to improve initiation rates for 9- to 10-year-olds. This may be due to more integration with primary care, size of the system, more robust staffing, or organizational resources.

↑ 29%

Increase from 2020 in the # of partners collecting data on age 9 initiation, a major focus of ACS' work in 2021

Data Collection Starting @ Age 9



ACS updated HPV vaccination guidelines in 2020 to stress initiation at age 9. QI projects also began collecting rate data on ages 9-12 at this time. The earlier the HPV series is initiated or recommended, the more opportunities there are to vaccinate and begin to repair the damage of COVID-19 on HPV vaccination rates.

Spotlight: HPV QI Learning Collaborative Pilot with Dr. Naik



DR. RAJIV NAIK
Gundersen Health

Rajiv Naik, MD, a physician with Gundersen Health System, partnered with ACS on an **HPV QI pilot to increase HPV vaccination rates with 7,500 preteens through improved clinical processes and systems, with an emphasis on electronic health record enhancements through EPIC.** Dr. Naik worked side by side with ACS staff as a subject matter expert to create, deliver, and facilitate the project, sharing best practices to help the system prioritize opportunities and increase their HPV vaccination rates. The system partner co-designed the curriculum and shared data and progress.

LEARNING COLLABORATIVE FOCUS

- **Health equity** through the cancer lens
- Initiation at **age 9**
- **Improving** access
- Promoting a **pro-immunization culture**
- Using **population health** tools

IMPACT

- **17% increase** in initiation rates within 6 months
- Initiating HPV series at **age 9**
- **Stronger system engagement** as a result of monthly technical assistance calls
- **CME and MOC credits** awarded through Gundersen Health System

Rural Outreach & Disparities

One of the greatest indicators of HPV vaccination uptake is a patient's ZIP code. Rural disparities have been a long-standing concern with HPV vaccination. The COVID-19 pandemic has only exacerbated this challenge.

ACS is dedicated to supporting rural HPV vaccination projects across the US and every year our commitment grows.



HEALTH SYSTEM WORK IN RURAL COMMUNITIES:

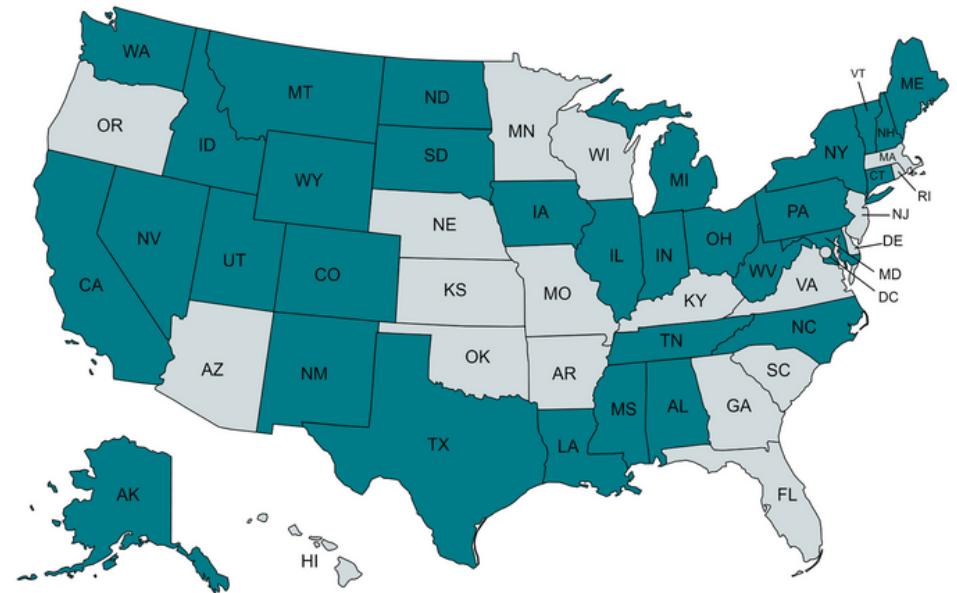
38%

of health systems partnering with ACS on quality improvement projects had at least one clinic in a rural setting (n=16).

OUR WORK IN RURAL COMMUNITIES:

ACS works to address rural disparities through diverse initiatives. In a recent staff survey, over 1/3 of ACS staff focused on HPV vaccination had partners in rural communities. These efforts spanned 31 states and focused on:

- Quality improvement (66% of staff*)
- State and local coalitions (58%)
- Learning collaboratives (26%)
- ECHO (21%)
- Research (18%)
- Other initiatives (8%)



*Of the 111 staff who reported having primary accounts working on HPV vaccination. Source: Biannual Staff Survey, Fall 2021

Rural Project at a Glance:

Iowa Cancer Prevention and Control Research Network



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The University of Iowa's Cancer Prevention and Control Research Network

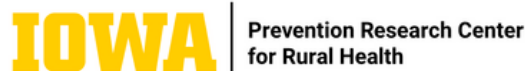
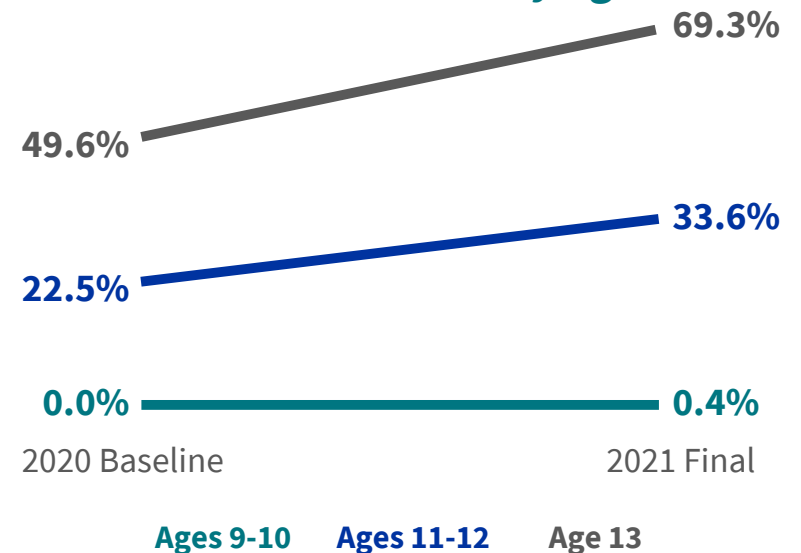
(UI CPCRN) focused on improving cancer outcomes in rural communities in Iowa. Through their partnership with ACS, UI CPCRN aimed to increase HPV vaccination uptake through quality improvement efforts. This project focused on addressing the unique challenges faced by rural health systems such as understaffing, client insurance barriers, EHR challenges, and provider accountability.

From baseline to follow-up, the collaborative increased HPV vaccination initiation rates in all age groups. Beginning at a 25% vaccination initiation rate for 9- to 13-year-olds, the aggregate group ended the year at a 35% rate. Below are initiation rates by age group.

PROJECT COMPONENTS

- **Staff training** on HPV 101 and *Communicating an Effective Recommendation*
- **Monthly learning collaborative calls** to share challenges and best practices
- Participation in **quality improvement processes** and data review to assess progress

Iowa HPV Initiation by Age



Health Plan Engagement



Health plans/payors have the potential to reach a vast number of adolescents, their parents, and providers to improve HPV vaccination rates nationwide. Plans can work across complex health systems, targeting entire states or regions through their efforts.

In 2021, ACS developed a project to impact HPV vaccination with payors by engaging national partners, building ACS staff capacity, and leading a pilot learning collaborative with participating plans.



1 Engaging National Partners

ACS worked with the National HPV Vaccination Roundtable and the National Committee on Quality Assurance (NCQA) to communicate the importance of getting adolescent immunization back on track in year two of the pandemic.

Hosted a **nationwide webinar** with NCQA and the HPV Roundtable



- **600** live attendees
- **59%** of post-event survey respondents noted improved ability to action plan for adolescent vaccination



Developed **joint messaging resources** for plans and health systems robustly used by partners

2 Building ACS Staff Capacity

ACS staff help health plans understand their potential impact on cancer prevention, early detection, and survivorship. It is imperative to grow ACS regional staff understanding of industry practices for broader impact.



Created an internal **Health Plan Advisory Workgroup** and convened a half-day **“think tank”** to prioritize efforts with health plans



Launched a **promotional package** for 2022 recruitment and provided **coaching** on data capture tools and processes

Health Plan Engagement

3

Piloting a Health Plan Learning Collaborative

ACS launched an HPV quality improvement (QI) pilot with a small number of health plans. The eight-month pilot initially included five plans serving seven states and more than 15,000 13-year-olds. Plans included Medicaid and commercial product lines. Three plans remained engaged the full pilot period, submitting data updates and sharing best practices.

Monthly calls covered topics such as:

- Effective communication with different populations
- HPV Roundtable materials
- Provider hesitancy and solutions
- Vaccine impact and rebound due to COVID-19
- Vaccine initiation at age nine

Pilot successes:

- **Commitment:** Plans invested time and shared data
- **Continuation:** Three plans continuing in 2022
- **Growth:** For 2022, ACS recruited 41 lines of service impacting 20 states & more than 200,000 13-year-olds.
- **Learning:** ACS tested QI efforts with plans to determine effectiveness, impact, and feasibility



5 health plans in 7 states, with Medicaid & commercial members



>15,000 active 13-year-old members in 2021



1 plan increased vaccination rates & 2 plans maintained rates

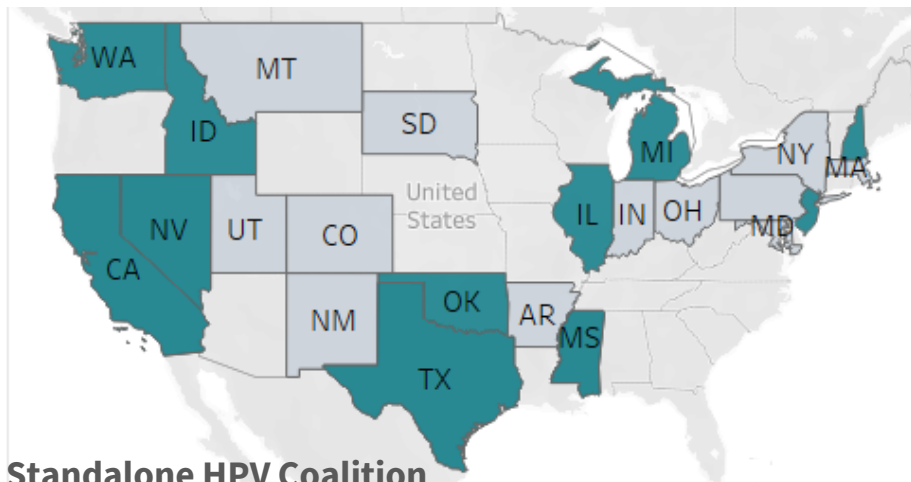


All plans reported COVID-19 challenges during the project

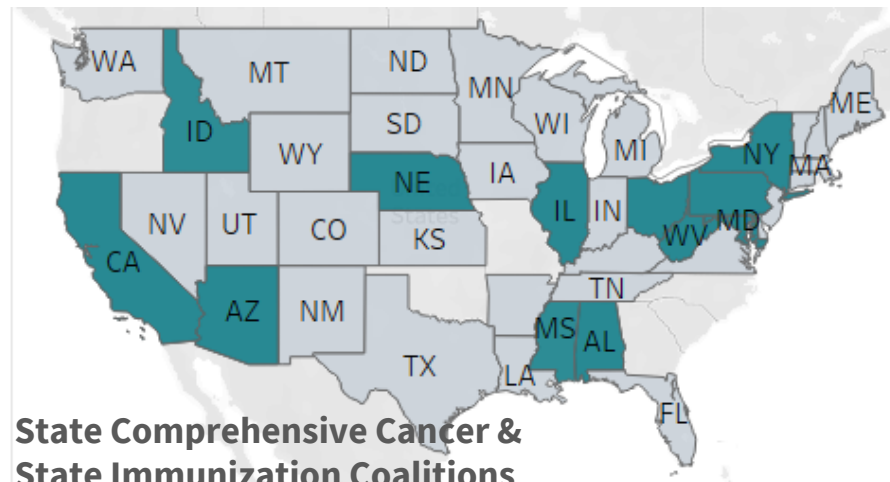
"I think that it really has been helpful. It made us focus on HPV in a way we wouldn't have beforehand."
-2021 Health Plan Partner

State and Coalition Leadership

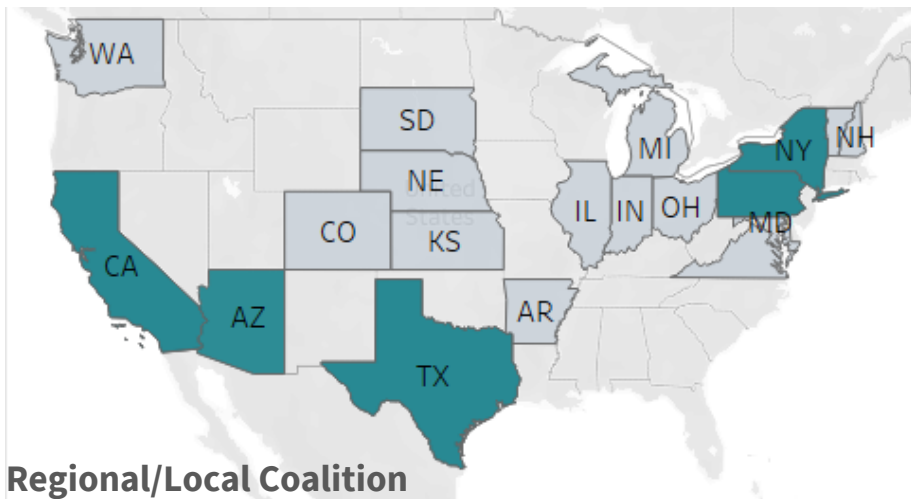
In a November 2021 survey, ACS staff reported high levels of engagement with coalitions working on HPV vaccination. **Sixty-nine staff indicated they partner with an HPV coalition or workgroup across 22 states.** Many staff serve in leadership positions or are active members for the four coalitions/workgroup types below. **Teal shading indicates leadership** of a coalition or workgroup, whereas **gray shading indicates coalition membership.** For more details about coalition leadership, [view our Tableau story.](#)



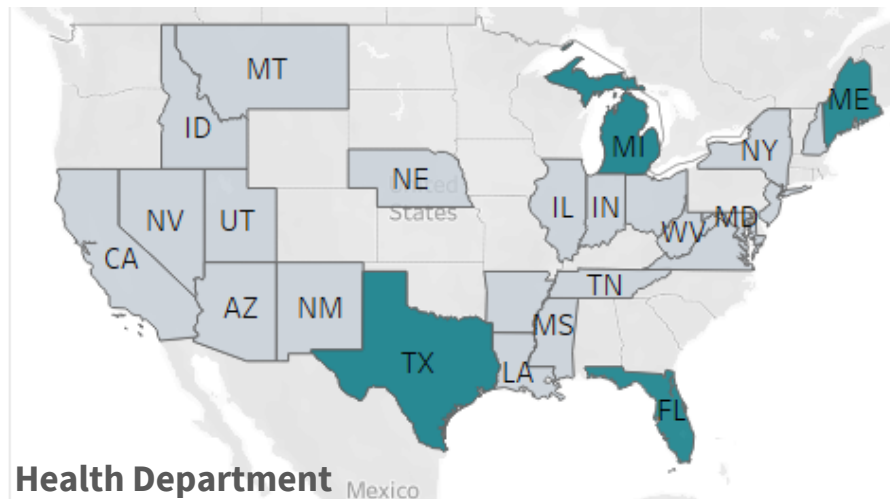
Standalone HPV Coalition



State Comprehensive Cancer & State Immunization Coalitions



Regional/Local Coalition



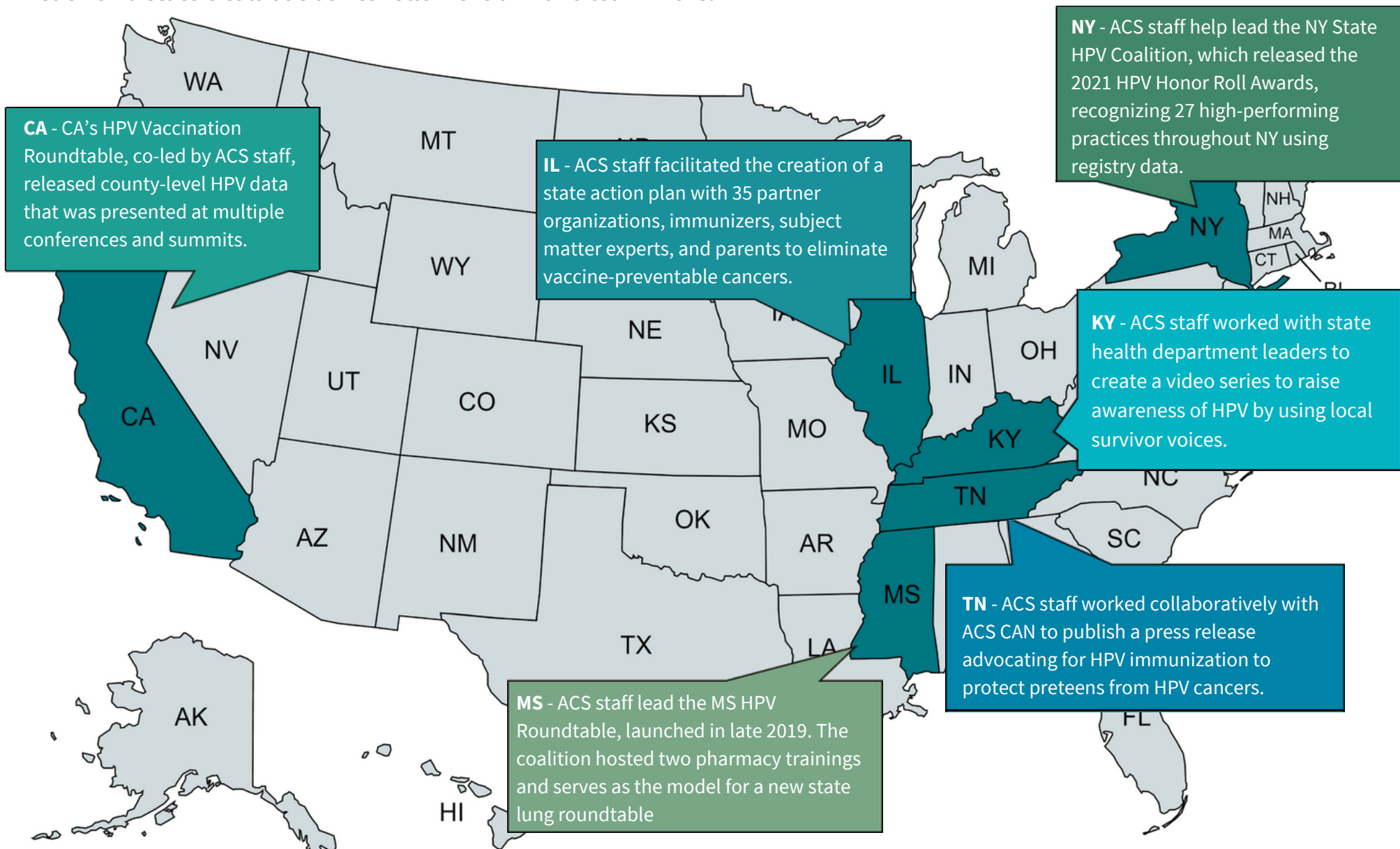
Health Department

Noteworthy State Initiatives in 2021



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ACS staff reported leading activities resulting in important advances in their respective states. Click on a state's call-out box to follow the link and learn more.



Catalyzing Regional Collaboration & Facilitating Networking



ACS' HPV VACs and the National HPV Vaccination Roundtable have a well-established track record of collaboration on state-level work. The HPV Roundtable's State Coalitions Task Group seeks to catalyze state coalitions and workgroups, which are often led by ACS regional staff.



There were two key areas of partnership in 2021:

NW/Northern Plains HPV Coalition Leadership Summit

ACS staff serving 8 states (AK, ID, MT, ND, OR, SD, WA, WY) informed planning and recruited coalition leaders to attend a January 2022 leadership summit, which was rescheduled twice due to the pandemic. Staff identified key leaders, surveyed coalition members, discussed agenda topics, and led follow-up conversations to catalyze regional momentum on HPV vaccination. View the plenary [here](#).

HPV Coalitions Jam Session

In Feb. 2021, ACS staff joined a peer-to-peer "listen and learn" session to share promising practices in HPV coalition engagement. Attendees met in breakout sessions based on their coalition type (immunization-related, stand-alone, or comprehensive cancer-related coalitions) and discussed strategies for future initiatives.



Public Awareness

Back-to-school vaccination season is typically July to September. These are the peak months to share educational messaging with parents and providers about the need for HPV vaccination in addition to other adolescent vaccines.

In 2021, ACS launched a multi-channel campaign beginning in May and continued through fall to reach parents preparing for back-to-school as well as those catching-up on missed vaccinations due to the pandemic. ACS added new outreach methods, including paid radio advertisements, and promoted cancer.org/hpv for parent-facing information.

Reach:

Organic Facebook and Twitter posts
119,745 impressions
878 interactions

ACS home page hero
142,345 impressions
482 click-throughs

Pandora streaming audio campaign generated a click-through rate **6x** greater than Pandora's benchmark reaching **> 2 million listeners.**



Training ACS Staff to Lead Change

ACS' relationships with our partners drive progress for our mission.



Advancing Mission: HPV Cancer Free requires an ongoing commitment to building ACS staff skills in quality improvement and strategic leadership.

This was especially true in 2021, when the pandemic began to change the way we communicate and hold meetings.

Enhancing regional staff capacity is crucial to:

- Effective QI coaching and project monitoring
- Identifying tools and resources to meet partner needs
- Successful recruitment of health care partners
- Understanding data collection and reporting

The national ACS Implementation & Interventions team trains regional ACS staff, collects data, develops educational and programmatic tools, and hosts events for external partners. Sample 2021 leadership activities follow.

Monthly & 1:1 Technical Assistance (TA)

Regional staff with QI projects received monthly TA that covered exploring data, creating an aim statement, facilitating process mapping, utilizing PDSA cycles, and executing evidence-based interventions. Staff working with coalitions could meet individually with the national strategic coalition lead to troubleshoot and plan strategy as an “on-demand” service.

Regional Quality Improvement Peer Coaches

In fall 2021, the Regional Quality Improvement Peer Coach role was formalized into a corps of twenty ACS regional staff leads. Peer coaches served their respective region by:

- providing project leadership and guidance
- increasing QI knowledge and confidence
- growing the collective QI portfolio of tools/resources
- magnifying the impact of QI work within and beyond ACS

Virtual Facilitative Leadership Training

In April 2021, 70 staff (10 peer leads and 60 ACS staff and key partners) joined a virtual facilitative leadership training. This training went beyond basic group information gathering, decision making, and meeting facilitation skills. The training delved into the science and art of group leadership, group dynamics, and virtual facilitation techniques and tools for engaging coalition and state roundtable partnerships. These skills remain vital to advancing mission priorities through remote work realities.

What's Ahead in 2022



HEALTH SYSTEMS:

QI partnerships with 47 health systems reaching >350,000 9- to 13-year-olds



HEALTH PLANS:

QI partnerships with 29 health plans including 41 product lines in 18 states, reaching 204,000 13-year-olds



NCQA:

New partnership with the National Committee for Quality Assurance to host provider & staff educational webinars



COALITIONS:

Leverage new state/county data sources to develop coalition strategies in key states with the greatest opportunities for adolescent immunization



PUBLIC AWARENESS:

Invest in a social media campaign to increase public awareness during summer 2022 back-to-school vaccination season

Thank You to Our Funders



Centers for Disease Control and Prevention

The HPV VACs program is supported in part by the Centers for Disease Control and Prevention of the US Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$890,000, with 100% funded by CDC/HHS. The report contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS, or the US Government.

Lyda Hill Philanthropies

The 2019-2021 *Mission: HPV Cancer Free Texas* project was supported by Lyda Hill Philanthropies (LHP), an organization committed to catalytic, solution-oriented initiatives by empowering nonprofit organizations and improving local communities. ACS received a two-year project extension (2022-2023) from LHP to continue our multifaceted approach to increasing HPV vaccination uptake.

Merck

Our health plan pilot project was supported in part by Merck funding.