

Improving Cervical Cancer
Prevention, Screening, and
Management:
A Toolkit to Build Provider Capacity

April 2023



This toolkit was produced for the Health Resources and Services Administration, Office of Women’s Health under contract number 75R60219D00017.

This toolkit includes information, guidance, and resources to assist providers with cervical cancer prevention, screening, and management. The views and content in these resources have not been formally approved by the Health Resources and Services Administration. Listing these resources is not an endorsement.

This toolkit is not copyrighted. Readers are free to duplicate and use all or part of the information contained in this publication.

Pursuant to 42 U.S.C. § 1320b-10, this publication may not be reproduced, reprinted, or redistributed for a fee without specific written authorization from HRSA.

Suggested Citation: Health Resources and Services Administration, Office of Women’s Health, Improving Cervical Cancer Prevention, Screening, and Management: A Toolkit to Build Provider Capacity. Maryland: 2023.

Table of Contents

Acknowledgments	V
Toolkit Acronyms	VII
Icon Glossary	VIII
Chapter 1: Introduction	1-1
Toolkit Structure	1-1
Staying Up-to-Date	1-1
Suggested Ways to Use the Toolkit to Build Provider Capacity	1-2
Action Items to Improve Cervical Cancer Care	1-3
Terms to Know	1-5
Chapter 2: Background	2-1
Current Landscape of Cervical Cancer Care	2-1
Toolkit Development	2-5
Chapter 3: HPV Vaccination	3-1
HPV Vaccine Dosage and Schedule	3-2
Strategies for Effective Vaccine Conversations	3-3
Provider Scripts	3-3
Provider Vaccination Interventions	3-6
Patient-Level Vaccination Interventions	3-7
Patient Materials	3-7
Additional Provider Resources	3-8
Chapter 4: Cervical Cancer Screening	4-1
Routine Screening Guidelines	4-2
Patient-Centered Exams	4-3
Provider Scripts	4-4
Provider Screening Interventions	4-8
Patient-Level Screening Interventions	4-9
Patient Materials	4-10
Additional Provider Resources	4-10

Chapter 5: Management and Follow-Up	5-1
Management Guidelines	5-2
Understanding Tests and Results	5-3
Provider Scripts	5-5
Surveillance After Treatment of CIN2 or CIN3	5-6
Provider Management Interventions	5-7
Patient-Level Management Interventions	5-7
Patient Materials	5-8
Additional Provider Resources	5-8
Chapter 6: Innovations and Change Management	6-1
Change Management Strategies	6-2
Initiating and Sustaining Successful Practice Change	6-2
The Role of Leadership	6-3
De-implementation	6-4
Future Directions: Self-Sampling	6-4
Tool for Assessing Organizational Capacity and Readiness	6-5
Training and Resources on Implementing Change Management Strategies	6-7
Chapter 7: Quality Improvement	7-1
Setting Goals and Objectives	7-2
Real-Time Monitoring and Evaluation	7-2
Quality Improvement Exercises	7-4
Reporting Data Findings	7-6
Training and Resources on Quality Improvement	7-7
Chapter 8: Establishing and Strengthening Partnerships	8-1
What Makes Strong Partnerships	8-2
Types of Partners	8-3
Engaging Partner Organizations	8-4
Engaging Patients and Communities	8-6
Resources for Developing Partnerships	8-7
Chapter 9: Patient Engagement	9-1
Steps to Improve Patient Engagement	9-2
Navigating Patients who Fall Out of the Care Continuum	9-3
Patient Outreach and Engagement	9-3
Training and Resources for Improving Patient Engagement	9-4

Acknowledgments

Federal Cervical Cancer Collaborative (FCCC) Members

This toolkit is a product of the FCCC, which includes the following members:

Health Resources and Services Administration

Office of Women's Health

Ellen Hendrix, MPH
Public Health Analyst

Jane Segebrecht, MPH
Public Health Analyst

Jessica Tytel, MPH
Deputy Director

Nancy Mautone-Smith, MSW LCSW
Director

Victoria Tims, MLIS
Management Analyst

Office of Intergovernmental and External Affairs

Cheryl Donald, LMFT MBA
Regional Administrator

Nidhi Jain, MD MPH
Medical Officer

Madeline Rossy, MD
Public Health Analyst

National Institutes of Health

National Cancer Institute

Veronica Chollette, MS RN
Program Director

Jennifer McGee-Avila, PhD MPH
Cancer Prevention Fellow

Elise Tookmanian, PhD
Scientific Communications Editor

Cristine Cochrane, BS MPH
Program Analyst

Rebecca Perkins, MD MSc
NCI IPA

Nicolas Wentzensen, MD PhD
Deputy Branch Director

Sarah Kobrin, PhD MPH
Branch Chief

Boston University
Professor of OBGYN

Justine Yu, PhD
Scientific Communications Editor

Jennifer Loukissas, MPP

Communications Team Director

Office of Research on Women's Health

Regine Douthard, MD MPH
Senior Medical Officer

Sarah Temkin, MD
Associate Director for Clinical Research

Office of the Assistant Secretary for Health, Office of Population Affairs

Mousumi Banikya, MD MPH CPH
Senior Advisor, Clinical and Scientific Affairs

Alicia Richmond Scott, MSW
Deputy Director

Centers for Disease Control and Prevention, Division of Cancer Prevention and Control

Mona Saraiya, MD MPH
Medical Officer

The FCCC acknowledges the following individuals who contributed to this toolkit by participating in the FCCC 2022 Roundtable Series and/or providing development, review, and/or consultation on these materials: Luis Acosta, Vince Aguon, Nelson Almodovar, Robby B. Amin, Laleh Amiri-Kordestani, Andria Apostolou, Frances Baerga, Leah Baker, Janos Baksa, Chris Bates, Jennifer Berktold, Bethany Berry, Achal Bhatt, Stephanie Blank, Nabal Bracero, Lee Ellen Buenconsejo-Lum, Arielle Buyum, Nicole Campos, Karen Canfell, Sigifredo Cardona, Philip E. Castle, Michael R. Caudle, Allison Caughey, Lauren Chambers, Sabrina Chapple, Alva Chavez, Laura Cheever, Sabrina Chmelir, Emi Chutaró, Marilu Cintron-Casado, Ana Claudio, Vivián Colón-López, Tina Comissiong Esq., Darielys Cordero, Natasha Coulouris, Megan Cotter, Maria Cristy, Terry Cuabo, Elisheva Danan, Joseph DeJames, Summer Dewdney, Sarah Diemert, Regine Douthard, Laurent Duenas, Jan Eberth, James Edilyong, Justa Encarnacion, Omayra Encarnación-Nova, Diana Espinosa, Elizabeth Estabrooks, Camille Fabiyi, Tina Fan, Lola Fashoyin-Aje, Tamkia Felder, Sarah Feldman, Lisa Flowers, Holly Fontenot, Lyna Fredericks, Carlos Garrido, Sue Ghosh, Dara Gideos, Kimberly Causey Gomez, Nicie Grier-Spratley, Jordan Grossman, Elizabeth Guerrero, Richard Guido, Carla Haddad, Paul Han, Diane Harper, Sally Haskell, Stephen Hayes, Shakela Hazell, Alexandra Hess, Tai Hunte-Ceasar, Marquita Iddirisu, Edolem Ikerdeu, Patricia Jeudin, Amanda Johnson, Pamela Kania, Shavell Karel, Saumya Khanna, Jane Kim, Elizabeth Kittrie, Erin Kobetz, Danielle Krol, Charles Kunos, Mary Beverley Anne Lansiquot, Ivy Claire Lapidez, Nancy Lee, Rebecca Levine, Sue Lin, Katherine Lloyd, Sandra Lloyd, Jennifer Delgado Lopez, Veronica Rivera Lopez, Doug Lowy, Ricky Lu, Gor Yee Lum, Kathy MacLaughlin, Sara Benitez Majano, Carol Mangione, Eunice Bonilla Marcucci, Abby Mariani, Lauri Markowitz, Charmaine Mayers, Mauricio Maza, Chima Mbakwem, Taisha Melendez, Stephanie Melkonian, Ana Joy Mendez, Janette Merrill, Noreen Michael, Noelle Miesfeld, Jacqueline Miller, Susan Monarez, Casey Monroe, Wanda Montalvo, John Moroney, Dana Mueller, Esther Muna, Elsie Negron, Diep Nguyen, Sangeetha Noble, Tony Ogburn, Kristin Oliver, Ellie Ongrung, John Orr, Ana Patricia Ortiz, Jorge Ostolaza-Bey, Neal Palafox, Heather Pangelinan, Electra Paskett, Tina Pattara-Lau, Nancy Peña, Suzanne Philippo, Jeffrey Quinlan, Kristine Qureshi, Lois Ramondetta, Victor Ramos, Martina Reichhardt, Lisa Richardson, Charissa Rivers, Hali Robinett, Lilliam Rodriguez, Maria Rodriguez, Rochelle Rollins, Josefina Romaguera, Lila Rutten, Dionisio Saimon, Omayra Salgado, Marta Sanchez, Ramon Sanchez, Lillian Santos, Debbie Saslow, George Sawaya, Mark Schiffman, Felix Schmidt, Virginia Senkomago, Julia Sheen, Jane Smith, Moletto Smith, Jocelyn Songsong, Marievelisse Soto-Salgado, Erin South, Sonia Spence, Sanya Springfield, Shannon Stokley, Alicia Suarez, Ianeta Timoteo-Liaina, Jasmin Tiro, Nena Tolenoa, Guillermo Tortolero, Edward L. Trimble, Pattie Tucker, Sandra Underwood, Susan Vadaparampil, Janis Valmond, Manuel Vargas, Cynthia Vinson, Grace Wang, Lesley Watson, Masserae Sprauve Webster, Claudia Werner, Tanchica West, Cosette Wheeler, Debra Wright-Francis, Fred Wyand, Carmen Zorrilla.

Toolkit Acronyms

Acronym	Meaning
AAP	American Academy of Pediatrics
ACOG	American College of Obstetricians and Gynecologists
ACS	American Cancer Society
AGC	Atypical glandular cells
AHRQ	Agency for Healthcare Research and Quality
AIS	Adenocarcinoma in situ
ASCCP	American Society for Colposcopy and Cervical Pathology
ASC-H	Atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion
ASC-US	Atypical squamous cells of undetermined significance
CDC	Centers for Disease Control and Prevention
CHW	Community health worker
CIN	Cervical intraepithelial neoplasia
CPCRN	Cancer Prevention and Control Research Network
EHR	Electronic health record (sometimes referred to as electronic medical record)
FAS	Freely Associated States
FCCC	Federal Cervical Cancer Collaborative
FDA	Food and Drug Administration
HEDIS	Healthcare Effectiveness Data and Information Set
HHS	Department of Health and Human Services
HPV	Human papillomavirus
HRSA	Health Resources and Services Administration
HSIL	High-grade squamous intraepithelial lesion
IT	Information technology
LGBTQIA+	Lesbian, gay, bisexual, transgender, queer, intersex, asexual
LSIL	Low-grade squamous intraepithelial lesion
NCI	National Cancer Institute
NIH	National Institutes of Health
NILM	Negative for intraepithelial lesion or malignancy
PDSA	Plan-Do-Study-Act cycle
QI	Quality improvement
SDOH	Social determinants of health
SMARTIE	Specific, Measurable, Attainable, Relevant, Time-Bound, Inclusive, Equitable
SWOT	Strengths, Weaknesses, Opportunities, Threats
USPSTF	U.S. Preventive Services Task Force

Icon Glossary



Action Items



Case Study



Communications and
Messaging



Guidelines and
Recommendations



HPV Vaccination



Innovations and
Change Management



Management and
Follow-Up



Materials and Tools



Partnerships



Patient



Provider



Provider Scripts



Quality Improvement



Resources



Safety-net Setting



Screening



U.S. Territories and
Freely Associated States

Introduction

This toolkit is a guide to help providers improve cervical cancer prevention, screening, and management through feasible, evidence-based practices that are responsive to the unique challenges faced in safety-net settings. The information in this toolkit can also be helpful to other settings of care seeking to improve cervical cancer care uptake and delivery.

Who is this Toolkit for?

This toolkit is intended for providers in safety-net settings who interact with patients or support patient care. In this toolkit, “providers” refers to anyone involved in cervical cancer prevention, screening, and management, including physicians, nurses, medical assistants, administrative staff, community health workers, patient navigators, care coordinators, and others.

Toolkit Structure

This toolkit offers practical guidance, tools, and trusted resources that safety-net settings can use to improve cervical cancer prevention, screening, and management. Chapter 2 provides background on cervical cancer; common barriers that patients and providers face to cervical cancer prevention, screening, and management; and facilitators and unique assets of safety-net settings that can help to overcome barriers. Chapters 3-5 have a clinical focus on the three major stages of the cervical cancer continuum: human papillomavirus (HPV) vaccination, screening, and management. These clinical chapters include information on guidelines and recommendations, scripts for discussing important topics with patients, interventions to support patients, interventions to support providers, links to patient materials, and additional informational resources. Chapters 6-9 provide supporting information and resources for safety-net settings interested in program improvement through implementing changes, conducting quality improvement activities, and engaging partners and patients.

Staying Up to Date

The information in this toolkit is up to date as of April 2023. Therefore, this toolkit makes recommendations based on the [2019 ASCCP \(formerly known as the American Society for Colposcopy and Cervical Pathology\) Risk-Based Management Consensus Guidelines](#). However, guidelines and best practices change as new evidence and innovations emerge. Chapter 6, Innovations and Change Management, provides links and resources to help access the latest information and steps to take to help you and your practice adapt to change.

Suggested Ways to Use the Toolkit to Build Provider Capacity

This toolkit was developed to support safety-net providers as they work to improve cervical cancer prevention, screening, and management by providing practical tools and resources for adhering to recently updated vaccination, screening, and management guidelines, as well as guidance on strengthening partnerships, and facilitating adoption of emerging innovations and principles of change management, quality improvement, and patient engagement. Due to the unique needs of each safety-net setting, this toolkit should be used as a complement to existing efforts to monitor and improve cervical cancer prevention, screening, and management. This toolkit will not provide guidance about cervical cancer treatment.

To Improve Quality of Care. This toolkit provides a range of practical tools, resources, and approaches to improve the quality of cervical cancer prevention, screening, and management services in safety-net settings.

To Train Staff. Providers can use and distribute resources and information from each chapter of this toolkit to key clinic staff, including physicians, nurse practitioners, physician assistants, nurses, medical assistants, administrative staff, community health workers, patient navigators, care coordinators, program partners, and others.

To Communicate and Engage with Patients. This toolkit includes provider resources and scripts on how to inform patients about HPV vaccination, cervical cancer screening, exam results, and follow-up. Additionally, the toolkit provides information to support patients' consistent engagement with screening and management guidelines.

To Evaluate Programs. Providers can use this toolkit to evaluate their current cervical cancer prevention, screening, and management processes and procedures and identify opportunities for improvement by learning more about current guidelines for cervical cancer prevention, screening, and management and understanding how to use quality improvement tools.



Action Items to Improve Cervical Cancer Care

The following is a comprehensive list of action items that may help safety-net settings improve cervical cancer prevention, screening, and management. Action items are also listed at the beginning of each chapter.



HPV Vaccination

- Rehearse or develop a script to recommend the HPV vaccine.
- Familiarize yourself with your state/local immunization registry.
- If possible, enable electronic health record (EHR) and patient portal reminders to tell you and your patients when they are due for HPV vaccination.
- If possible, implement standing orders for support staff to administer the HPV vaccine.
- Print and share patient- and parent-facing materials about HPV vaccination.
- Share best practices with colleagues.



Screening

- Review routine screening guidelines and ensure they are readily available during patient visits (see guidelines in Screening chapter).
- Review patient-centered exam principles and provider scripts.
- If possible, enable EHR and patient portal reminders to tell you and your patients when they are due for screening.
- Print and share patient-facing materials about cervical cancer screening.
- Share best practices with colleagues.



Management and Follow-Up

- Review the 2019 ASCCP guidelines for managing abnormal results using the website or the app.
- If possible, enable EHR reminders for patients when they are due for surveillance follow-up after an abnormal HPV or Pap test, colposcopy biopsy, or treatment.
- Print and share patient-facing materials about abnormal Pap and HPV results.



Innovations and Change Management

- Review the HPV Vaccination, Screening, and Management and Follow-Up chapters to determine if your organization needs to make changes to your practice.
- Get buy-in from organizational leadership for cervical cancer prevention, screening, and management improvement activities.
- Schedule biannual or annual department meetings to review new/evolving guidelines and discuss if practice changes are needed.
- Stay up to date on emerging and evolving science and technology.
- As new guidelines and technologies become available, de-implement old practices.



Quality Improvement

- Employ a dedicated Quality Improvement team.
- Review and implement guiding practices for developing, collecting, and tracking metrics.
- Review the kinds of data you have access to that can provide useful information about your organization's cervical cancer prevention, screening, and management activities.
- Set Specific, Measurable, Attainable, Relevant, Time-Bound, Inclusive and Equitable (SMARTIE) goals and create plans to improve processes related to cervical cancer.
- Use data to assess your progress toward your goals and adjust as needed.
- Share key findings with appropriate audiences.



Establishing and Strengthening Partnerships

- Identify opportunities to improve or expand your organization's current partnerships.
- Identify new partnership opportunities that will ultimately improve patient care and outcomes.
- Form new partnerships built on equity, respect, transparency, and trust.
- Partner with patients and community organizations and incorporate their feedback into clinical practices and quality improvement activities.



Patient Engagement

- Integrate culturally sensitive and inclusive principles into your care practice.
- Engage patients who have fallen out of the care continuum and catch them up on HPV vaccination and cervical cancer screening.
- Assess and explain patients' insurance coverage and be prepared to provide financial assistance options.
- Print plain-language patient information and education materials.

Terms to Know

Terms	Definitions
Cervical cancer	Cervical cancer is a cancer that starts in the cells of the cervix, the lower, narrow end of the uterus. ¹
Care continuum	The care continuum is the cycle of care, from prevention to treatment, that patients and providers navigate. For the purposes of this toolkit, the cervical cancer care continuum includes prevention, screening, and management after an abnormal screening. It does not include cancer treatment or post-treatment navigation.
Self-sampling	Self-sampling is a method of HPV testing where the patient uses a kit to self-collect a sample from the cervix. ²
Health equity	Health equity is the equal opportunity for all people to achieve the highest level of health, regardless of race, ethnicity, age, sexual orientation, gender identity, socioeconomic status, and other factors that impact health. ³
Health inequity	Health inequities are differences in health status or availability of health resources between different population groups based on their demographic characteristics, including their birthplace, current place of residence, profession, and age. ⁴
Social determinants of health	Social determinants of health (SDOH) are defined as “the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.” ⁵
Patients	For HPV vaccination, patients are people aged 9-26 years. For screening and follow-up, patients are people with a cervix aged 21 and older.
Providers	In this toolkit, providers are people who provide patients with cervical cancer services (e.g., vaccines, screenings, information) or support patient care, including physicians, nurse practitioners, nurses, physician assistants, medical assistants, patient navigators, community health workers, care coordinators, administrative staff, and others.
Safety-net settings	Safety-net settings are health care facilities and organizations that provide care to patients who are uninsured, on Medicaid, or otherwise considered vulnerable. ⁶
U.S. territories and Freely Associated States (FAS)	U.S. territories and FAS include Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Islands, which include American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Republic of the Marshall Islands, and the Republic of Palau.
Rural	Any population, housing, or territory that is not within an urban area is classified as rural. ⁷ The Health Resources and Services Administration (HRSA) includes an expanded definition here .

References

- ¹ National Cancer Institute. (2022, October 13). *What Is Cervical Cancer?* <https://www.cancer.gov/types/cervical>
- ² Yeh, P. T., Kennedy, C. E., de Vuyst, H., & Narasimhan, M. (2019). Self-sampling for human papillomavirus (HPV) testing: a systematic review and meta-analysis. *BMJ Global Health*, 4(3), e001351. <https://doi.org/10.1136/bmjgh-2018-001351>
- ³ Centers for Medicare & Medicaid Services. (2022, October 3). *Health Equity*. <https://www.cms.gov/pillar/health-equity>
- ⁴ World Health Organization. (2018, February 22). *Health inequities and their causes*. <https://www.who.int/news-room/facts-in-pictures/detail/health-inequities-and-their-causes>
- ⁵ Department of Health and Human Services. *Social Determinants of Health*. <https://health.gov/healthypeople/priority-areas/social-determinants-health>
- ⁶ AHRQ. *Topic: Safety Net*. <https://www.ahrq.gov/topics/safety-net.html#:~:text=Safety%20net%20practices%20are%20defined,Medicaid%20and%20other%20vulnerable%20patients.%22>
- ⁷ United States Census Bureau. (n.d.). *Rural America* [Story Map]. Retrieved February 16, 2023, from <https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=49cd4bc9c8eb444ab51218c1d5001ef6#:~:text=The%20Census%20Bureau%20defines%20rural,rural%20based%20on%20this%20definition>.

Background

Cervical cancer was once a leading cause of cancer death among patients with a cervix in the United States, but thanks to improvements in prevention, screening, and treatment, death rates have consistently declined over the past 40 years.^{1,2} HPV vaccination can prevent more than 90 percent of anal and cervical cancers attributed to HPV,^{3,4} and screening can detect precancerous cells to remove them before they turn into cancer.⁵ Despite these opportunities, gaps and disparities persist. Initial HPV vaccination rates lag behind other routine vaccines, and there is a gap between initiation of HPV vaccination and completion of the series.⁵ There are also substantial disparities in screening and cervical cancer death rates, with worse outcomes for patients who live in rural areas, experience poverty, live with disabilities, are people from historically underrepresented racial and ethnic backgrounds, are obese, or are sexual and gender minorities with a cervix.^{6,7,8} These disparities are the result of economic, social, geographic, systemic, structural, institutional, and interpersonal factors that affect how people are informed of care, how people access care, and the type of care they receive. Often, patients who are served by safety-net settings bear the burden of health inequities, and this toolkit aims to provide resources to address and overcome barriers in pursuit of health equity.



Safety-net Settings of Care

Safety-net settings of care provide services to patients who are uninsured or underinsured, including many who are medically underserved. These settings include:

- HRSA [Health Center Program recipients](#) and Federally Qualified Health Centers
- [Critical Access Hospitals](#) and [Disproportionate Share Hospitals](#)
- [Rural Health Clinics](#)
- [Ryan White HIV/AIDS Program providers](#)
- [National Breast and Cervical Cancer Early Detection Program sites](#)
- [Title X clinics](#)

Current Landscape of Cervical Cancer Care

Many barriers to cervical cancer prevention, screening, and management affect patients, providers, and health systems. Solutions to these barriers are also available to improve care. The Federal Cervical Cancer Collaborative (FCCC) released [a landscape analysis](#) describing barriers and facilitators to adopting new clinical guidelines in safety-net settings.⁹ The FCCC 2022 Roundtable Series also identified barriers and facilitators to cervical cancer care in safety-net settings, summarized in an [Opportunities Report](#). The following is a list of common barriers and facilitators. Barriers are often part of larger, systemic issues and may not be easily addressed by patients or providers individually. This toolkit provides information on barriers and facilitators that may affect care access and decision-making, and subsequent chapters suggest interventions to support patients and providers.

Common Barriers to Care

Patient-Level Barriers

- **Distrust and Fears:** Patients may have medical distrust or fears related to receiving cervical cancer care across the care continuum.
- **Lack of Knowledge about Factors Related to Health:** A lack of health care knowledge can contribute to a lack of understanding and the spread of misinformation about cervical cancer prevention, screening, and management.
- **Geographic and Transportation Barriers:** Patients may face geographic and transportation barriers, such as inaccessible or increasingly expensive transportation, and living in isolated communities, such as remote islands and rural areas.
- **Clinic Hours:** Regular business hours of 8 a.m.-5 p.m. limit accessibility, create scheduling challenges, and may generate out-of-pocket costs (e.g., transportation costs) and opportunity costs (e.g., lost wages) for patients.
- **Technology Access:** Broadband and cellular access might limit patient access to online patient portals, information sources, and telehealth appointments.
- **Financial Barriers:** Even considering Affordable Care Act coverage, insurance coverage and out-of-pocket costs, or fears of incurring these costs, may prevent safety-net patients from seeking and receiving care.
- **Language Barriers:** Patients whose primary language is not English may face barriers in seeking and receiving care or understanding information written in English.

Provider-Level Barriers

- **Reimbursement:** Providers may face barriers to providing services due to reimbursement restrictions or limitations.
- **Low Workforce Capacity:** Safety-net settings often have low workforce capacity due to a lack of administrative and clinical staff (e.g., lack of full-time OB-GYNs, insufficient number of pathologists and nurses, fewer providers in remote areas), which may impact appointment availability or limit providers' time for discussion with patients.
- **Health Information Systems:** The variability of available features in health information technology services across safety-net settings may impact providers' abilities to collect information needed for decision-making and care delivery. Safety-net providers may also lack access to facilitative features such as automatic EHR reminders when patients are due for services.



Barriers to Care in U.S. Territories and Freely Associated States

Each of these common barriers to care is relevant in the U.S. territories and FAS. These barriers may be exacerbated in such settings due to historical, geographic, social/demographic, and cultural dynamics, as well as frequency of certain types of natural disasters and other emergencies.

Facilitators to High-Quality Care

Patient-Level Facilitators

- **Cultural Humility:** Communication through culturally tailored messages and materials can improve patient engagement.
- **Appointment Reminders:** Text messages, emails, and phone calls can help patients avoid missed appointments.
- **Community Health Workers:** Safety-net settings can employ community health and outreach workers and patient navigators to reach patients.
- **Home Visits and Transportation Services:** Physical access barriers can be addressed by providing transportation assistance and home visits to homebound patients.
- **Health Education:** Group and one-on-one education can help increase health knowledge among patients and allay fears or mistrust in providers.
- **Public Health Messaging:** Communicating with patients through small media and mass/social media messages may be effective at reaching patients.

Provider-Level Facilitators

- **Patient Identification:** Providers can improve cervical cancer care by identifying patients who may be at high risk for cervical cancer.
- **Improved Communication and Coordination:** Clinic staff and providers can improve communication and coordination for better cervical cancer care.
- **Alerts and Reminders:** Automated alerts can remind providers when patients are due or overdue for prevention and screening services.
- **Provider Education and Training:** Providers can regularly review guidelines and attend trainings to improve the quality of care they provide to patients.
- **Provider Assessment and Feedback:** Safety-net settings can use individual- and clinic-level data to evaluate and assess clinical performance and identify opportunities for improving processes for cervical cancer care.

System-Level Facilitators

- **Reducing Barriers:** Safety-net settings can reduce structural barriers by having flexible clinic hours, increasing EHR capacity, using mobile clinics, and offering translation services. This includes addressing structural racism by taking steps to ensure all patients, regardless of race or ethnicity, have equal opportunity and access to resources.
- **Building Referral Pathways:** Safety-net settings can build referral pathways to partner organizations to safely and effectively exchange exam results and data on patient vaccination, screening, and follow-up outcomes.

Explore Telehealth Options

Health care providers interested in reducing patient access barriers to screening follow-up should explore the appropriateness and availability of telehealth options.¹⁰ Telehealth appointments are not appropriate for all clinical needs, but they may be appropriate for consultation (e.g., assessing eligibility, explaining screening to new patients) or delivering screening results, discussing follow-up steps, or explaining colposcopy and loop electrosurgical excision procedure procedures. Telehealth appointments can reduce transportation barriers, especially for patients in rural/remote areas and patients with busy work schedules, child or elder care needs, or mobility issues. Assess each patient's access to technology (e.g., broadband access, smartphone, computer, internet connection) and insurance coverage of telehealth appointments before scheduling. Find more information about telehealth options for patients and providers at www.telehealth.hhs.gov.



Resources

More information on the effectiveness of telehealth can be found here:

- ▶ [“Effectiveness of Telehealth for Women’s Preventive Services”](#) | Agency for Healthcare Research and Quality (AHRQ)
- ▶ [Association of Health Literacy and Area Deprivation with Initiation and Completion of Telehealth Visits in Adult Medicine Clinics Across a Large Health Care System](#) | JAMA



Assets of Safety-Net Settings

While safety-net settings and the populations they serve may experience barriers to care, these settings also have strengths which facilitate cervical cancer care delivery to underserved communities.¹¹

- Safety-net settings are often mission-driven and offer a wealth of accessible resources.
- Staff in safety-net settings are often trusted community members and uniquely positioned to form strong community-based partnerships.
- Safety-net settings have access to specific funding opportunities and resources through federal agencies, like the Health Resources and Services Administration and the Centers for Medicare & Medicaid Services.

Toolkit Development

This toolkit is a product of the FCCC. The FCCC is an offshoot of the Cancer MoonshotSM and is supported by a federal partnership between several operating divisions of the U.S. Department of Health and Human Services (HHS), including HRSA (Office of Women’s Health and Office of Intergovernmental and External Affairs), National Institutes of Health ((NIH) National Cancer Institute (NCI), Office for Research on Women’s Health), the Office of the Assistant Secretary for Health (Office of Population Affairs), and Centers for Disease Control and Prevention ((CDC) Division of Cancer Prevention and Control). The FCCC aims to implement the outcomes and realize the vision of the Cancer MoonshotSM in safety-net settings. The [Cancer MoonshotSM](#) aims to accelerate cancer research, improve cancer prevention and early detection, and make more therapies available to more patients.

The FCCC has three primary objectives:

1

Describe the current practices, challenges, opportunities, and innovations to strengthen cervical cancer prevention, screening, and management in safety-net settings that deliver care to people who are geographically isolated, economically, or medically vulnerable.

2

Identify best practices to include in technical assistance materials for safety-net providers.

3

Enhance coordination and partnership across stakeholder groups by identifying opportunities to strengthen cervical health services through partnerships, policy, programs, outreach, and education.

This toolkit was developed using findings from the FCCC 2022 Roundtable Series, input from safety-net providers, and published literature and resources on cervical cancer. The FCCC 2022 Roundtable Series convened cervical cancer experts from across the nation, federal agencies, and U.S. territories and FAS, including the U.S. Virgin Islands, Puerto Rico, and the U.S. Affiliated Pacific Islands.

References

- ¹ American Cancer Society. (2022, January 12). *Key Statistics for Cervical Cancer*. Retrieved September 29, 2022, from <https://www.cancer.org/cancer/cervical-cancer/about/key-statistics.html>
- ² NCI. *Cancer Stat Facts: Cervical Cancer*. Retrieved September 29, 2022, from <https://seer.cancer.gov/statfacts/html/cervix.html>.
- ³ American Cancer Society. *Prevent 6 Cancers with the HPV Vaccine*. <https://www.cancer.org/healthy/hpv-vaccine.html>
- ⁴ Centers for Disease Control and Prevention (CDC). (2022, October 3). *HPV-Associated Cancer Statistics*. <https://www.cdc.gov/cancer/hpv/statistics/index.htm#:~:text=In%20general%2C%20HPV%20is%20thought,than%2060%25%20of%20penile%20cancers>
- ⁵ Pingali, C., Yankey, D., Elam-Evans, L.D., Markowitz, L.E., Williams, C.L., Fredua, B., McNamara, L.A., Stokley, S., Singleton, J.A. (2021). National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13-17 Years – United States, 2020. *Morbidity and Mortality Weekly Report (MMWR)*, 70(35), 1183-1190. <http://dx.doi.org/10.15585/mmwr.mm7035a1>
- ⁶ McDaniel C.C., Hallam H.H., Cadwallader T., Lee, H.Y., Chou, C. (2021). Persistent racial disparities in cervical cancer screening with Pap test. *Preventive Medicine Reports*, 24(101652). <https://doi.org/10.1016/j.pmedr.2021.101652>
- ⁷ Yu, L., Sabatino, S.A., and White, M.C. (2019). Rural-Urban and Racial/Ethnic Disparities in Invasive Cervical Cancer Incidence in the United States, 2010-2014. *Preventing Chronic Disease*, 16, E70. <https://doi.org/10.5888/pcd16.180447>
- ⁸ Jackson, S.S., Han, X., Mao, Z., Nogueira, L., Suneja, G., Jemal, A., and Shiels, M.S. (2021). Cancer Stage, Treatment, and Survival Among Transgender Patients in the United States. *Journal of the National Cancer Institute*, 113(9), 1221–1227. <https://doi.org/10.1093/inci/djab028>
- ⁹ HHS FCCC. (2022, March). *Guideline Adoption in Safety-net Care: Understanding the Prevention, Screening, and Management of Cervical Cancer in Safety-Net and Health Resources and Services Administration-Supported Settings of Care*. National Cancer Institute. https://healthcaresdelivery.cancer.gov/cancer-moonshot/Moonshot_Cervical-Cancer-Landscape_Analysis.pdf
- ¹⁰ Lyles CR, Sharma AE, Fields JD, Getachew Y, Sarkar U, Zephyrin L. (2022). Centering Health Equity in Telemedicine. *Annals of Family Medicine*. <https://doi.org/10.1370/afm.2823>
- ¹¹ AHRQ. (2015, September). *Primary Care Practice Facilitation Curriculum*. <https://www.ahrq.gov/sites/default/files/wysiwyg/ncepcr/tools/PCMH/pcpf-module-5-working-with-safety-net-practices.pdf>.



HPV Vaccination

In the United States, HPV infects about 13 million people each year, and about 36,000 people will develop cancer as a result.¹ For both female and male patients, the HPV vaccine may prevent more than 90 percent of HPV-attributable cancers, such as oropharyngeal, cervical, anal, vulval, penile, and vaginal cancer,² and several types of genital warts.³

Several barriers to HPV vaccination exist at the patient, provider, and systems levels. However, providers can overcome or address many of these barriers. This chapter includes practical suggestions for how to address barriers by communicating clearly with patients and adopting interventions such as provider prompts and standing orders. It is important to ensure that all staff in the safety-net setting understand that HPV vaccination is cancer prevention.

What's in this Chapter

- Recommendations for who should receive the HPV vaccine, dosage, and scheduling
- Strategies for recommending the vaccine
- Provider scripts to talk about the HPV vaccine and address common concerns
- Patient- and provider-level interventions to increase vaccination rates
- Links to patient materials
- Additional provider resources



Action Items

- ❑ Rehearse or develop a script to recommend the HPV vaccine.
- ❑ Familiarize yourself with your state/local immunization registry.
- ❑ If possible, enable EHR and patient portal reminders to tell you and your patients when they are due for HPV vaccination.
- ❑ If possible, implement standing orders for support staff to administer the HPV vaccine.
- ❑ Print and share patient- and parent-facing materials about HPV vaccination.
- ❑ Share best practices with colleagues.

HPV Vaccine Dosage and Schedule

Who Should Be Vaccinated?

CDC recommends routine vaccination of preteens starting between ages 9-12 years, with routine catch-up through age 26. If you have a patient aged 27-45 years who has not received the HPV vaccine, use shared clinical decision-making to make a recommendation. Providers should not deny vaccination to any eligible patient who wants it.

Recommended Dosing Schedule Based on Age of Initiation

Ages 9 – 12	Ages 13 – 14	Ages 15 – 26	Ages 27 – 45
On-time for routine vaccination	Late for routine vaccination	Late for routine vaccination	Shared clinical decision-making
2 doses	2 doses	3 doses	3 doses

Note: Patients who are immunocompromised should receive 3 doses of the HPV vaccine regardless of the age of initiation.

Dosing Schedule

Recommended number of doses	Recommended dosing schedule	Minimum dosing interval
2	0, 6-12 months	<ul style="list-style-type: none"> Between first and second dosage, 5 months If the second dose is given before 5 months, a third dose should be administered a minimum of 5 months after the first dose and a minimum of 12 weeks after the second dose
3	0, 1-2, 6 months	<ul style="list-style-type: none"> Between first and second dosage, 4 weeks Between second and third dose, 12 weeks Between first and third dose, 5 months



Resources

Visit the following resources from CDC for more information on HPV Vaccination:

- ▶ [Administering HPV Vaccine: Dosage and Schedule](#)
- ▶ [Advisory Committee on Immunization Practices Shared Clinical Decision-Making Recommendations](#)

Strategies for Effective Vaccine Conversations

- Integrate vaccination into any appointment.
 - To reduce missed opportunities, recommend HPV vaccination during all appointments, including appointments for injury or illness, and well child/teen visits.
- Use evidence-based approaches, such as the announcement approach⁴ to make a strong recommendation.
 - Most patients and parents agree to vaccination when presented as, “Your child is/You are due for the HPV vaccine today.”
 - Be prepared to explain the efficacy, safety, and importance of HPV vaccination, and emphasize that vaccination is part of whole health and cancer prevention.
- Bundle with other vaccines.
 - If the patient is due for other vaccines (e.g., Tdap and meningococcal at 11-12 year well child exam), sandwich the HPV vaccine recommendation in the middle of the others.
- Answer patients’ and parents’ questions.
 - Ask patients and parents what questions they have and address any concerns that are raised.

Review Provider Scripts for ideas on how to recommend the vaccine and respond to questions and concerns.

Key Components of a Strong Recommendation

Providers should ensure that patients and parents know:

- **HPV vaccination prevents cancer.**
- It is important to vaccinate all patients regardless of gender or gender identity because HPV can cause cancer in both females *and* males.
- Focusing on vaccination at ages 9-12 maximizes the effectiveness of the vaccine by providing protection to the patient before exposure to the virus.



Resources

More information on recommending the HPV vaccine can be found here:

- ▶ [Adolescent #HowIRecommend Vaccination Video Series](#) | CDC

Provider Scripts

The following scripts may serve as a guide for your conversations related to the HPV vaccine.

Recommending the Vaccine

- “Your child just turned 9, so they are due for the HPV vaccine, which protects against cancer.”
- “I see that you have not received an HPV vaccine yet. I recommend we start that today.”⁵
- “Today, your child is due for three vaccines: Tdap, HPV, and meningococcal.”⁵

Responding to Common Concerns

The following language may be helpful as you respond to potential concerns from parents and patients about the HPV vaccine. Tailor your response based on the needs of the parent or patient and consider sharing personal anecdotes, if you are comfortable doing so, as this may increase confidence among patients and parents.^{6,7,8,9}

Vaccination Recommendations

Potential Concern	Response
“Why does my child/do I need the HPV vaccine?”	“The HPV vaccine prevents infections and precancers that eventually lead to cancer. The HPV vaccine helps protect people from ever developing those infections or precancers.”
“Why do they need HPV vaccine at such a young age?”	“It is important to vaccinate your child before they are exposed to HPV, and studies show the vaccine works best to prevent cancer when given on time. The HPV vaccine is given in two or three doses, depending on when the first dose is given. If you start vaccination before age 15, they will only need two shots.”
“Why do males need the HPV vaccine?”	“The most common HPV-related cancer in the United States is cancer of the back of the throat, which is more common in men than women. There is no screening to prevent it—the only prevention is with HPV vaccination. HPV infection can also lead to genital warts and cancers of the penis and anus.”
“Only women and girls need to get the HPV vaccine; men and boys don’t get it.”	“Everyone can get HPV and HPV-related cancers. Cervical cancer is the most common cancer in women, and cancers of the back of the throat are most common in men.”
“If a vaccine is not required, it’s really not important.”	“It is important that your child is protected from HPV, which can lead to cancers in men and women. HPV vaccines have been proven to prevent cancer.” <i>Note: To best support patients and parents in their decision-making, providers should be familiar with the vaccine requirements in their area.</i>

Safety

Potential Concern	Response
“I’m worried about the side effects of the HPV vaccine. Do you think it’s safe?”	“The HPV vaccine is approved by the Food and Drug Administration (FDA) and has been in use since 2006 with no serious side effects. Side effects can include a sore arm, and sometimes a headache or mild fever the next day. Rarely, people faint after receiving a shot. Because of this, we will have you/your child stay seated for a few minutes after vaccination.”
“Can HPV vaccine cause infertility in my child?”	“There is no link between getting the HPV vaccine and infertility. The HPV vaccine may protect fertility by preventing cancer and cancer treatments, which may limit your child’s ability to have children.”

Effectiveness

Potential Concern	Response
“How do you know the vaccine works?”	“We have data from the United States and several countries showing that the HPV vaccine prevents infections, precancers, and cancer.” ^{10,11,12,13}
“The HPV vaccine is not effective at preventing cervical cancer.”	“We have data from several countries, including the United States, showing that the HPV vaccine does prevent cancer.” ^{10,11,12,13}
“The HPV vaccine doesn’t protect against enough strains of human papillomavirus to be worth getting.”	“The HPV vaccine prevents certain cancers and warts caused by nine types of HPV, which are linked to about 90 percent of HPV-related cancers and 90 percent of genital warts.” ¹⁴

Risk

Potential Concern	Response
“I don’t see the need for the vaccine. HPV is uncommon, and I don’t think my child/I will get infected.”	“About 80 percent of people will be infected with HPV at some point during their life. We can’t predict whose infection will turn into cancer, but the vaccine can keep them from getting infected with HPV.”
“Is my child/Am I really at risk for HPV?”	“HPV is a very common infection in women and men that can cause cancer. Starting the vaccine series today will help protect your child from the cancers and diseases caused by HPV.”
“I’m worried my child will think that getting this vaccine makes it okay to have sex.”	“Studies actually show people who got the vaccine engaged in safer sex behavior (starting later, using condoms, and getting tested for cervical cancer) than those who didn’t.” ¹⁵



Resources

More information to help describe the importance of HPV vaccination to parents can be found here:

- ▶ [Talking to Parents about HPV Vaccine Tip Sheet](#) | CDC



Provider Vaccination Interventions

The following provider-level interventions have been shown to support providers and increase vaccination rates among patients. Visit [The Community Guide](#) for more information and links to published research.

- **Provider Reminders:** Remind providers that an individual is due for vaccination using notes in client charts, alerts in electronic medical records, and other methods.
- **Standing Orders:** Use standing orders “to assess a patient’s immunization status and administer vaccinations according to a protocol approved by an institution, physician, or other authorized provider.”
- **Provider Assessment and Feedback:** Assess and give providers feedback on vaccine delivery to patients.
- **Immunization Information Systems:** Use immunization information systems to increase vaccination rates by identifying disparities in vaccination coverage, facilitating vaccine management, supporting other interventions, such as client reminders.



Case Study

A provider-focused multi-component intervention was implemented in five health centers to increase HPV vaccination rates. The intervention included repeated contacts in the form of six to eight sessions; provider education focused on HPV-related cancers, vaccine efficacy and safety, and motivational interviewing principles for hesitant parents; individualized feedback for providers; and credits that could be used to maintain pediatric board certification. Overall, the rates of initiating HPV vaccination and completing the next needed HPV vaccine dose increased for both boys and girls.

▶ [Learn more about this intervention.](#)

Enhancing Access to Vaccination Services

Safety-net settings can increase patient access to vaccination through delivery at other sites such as mobile vans, home visits, and schools. Chapter 8 provides practical guidance on forming partnerships to increase vaccine access.



Patient-Level Vaccination Interventions

The following patient-level intervention has been shown to increase vaccination rates among patients. Interventions can be broad and intended to reach large groups of patients or tailored to focus on specific types of patients. Visit [The Community Guide](#) for more information and links to published research.

- **Client Reminder and Recall Systems:** Remind patients whose vaccinations are due and provide a recall to patients whose vaccinations are late through phone calls, letters, text messages, and other methods and include educational information about vaccination.



Case Study

A culturally sensitive, evidence-based education and reminder intervention was used with parents of preteen girls in a private pediatric practice in an urban area to increase HPV vaccination uptake and dose completion. The intervention included an FAQ brochure, which was combined with a one-on-one script, and a provider call, prompted by an electronic alert that a patient was due for the second and third doses. Parents who received the intervention were 9.4 times more likely to vaccinate their children and 22.5 times more likely to complete the series.

▶ [Learn more about this intervention.](#)



Patient Materials

The following patient education materials may be useful to help parents and patients understand more about the HPV vaccine. Review these materials and consider whether you would like to share these with patients or modify them to meet the unique needs of your patient population.

▶ Vaccines for Children Program (Spanish version)	▶ Vaccines at 11 to 12 Years (Spanish version)
▶ HPV Vaccine (Spanish version)	▶ 7 Myths about the HPV Vaccine: HPV Vaccine Facts and the Science Behind Them
▶ HPV Vaccine for Preteens and Teens (Spanish version)	▶ Human Papillomavirus
▶ HPV Vaccine Safety and Effectiveness (Spanish version)	▶ Prevent 6 Cancers with the HPV Vaccine



Additional Provider Resources

The following trusted resources may be helpful to providers seeking to increase HPV vaccination rates.

Fact Sheets and Information

- ▶ [HPV Vaccination at 9-12 Years of Age](#) | National HPV Vaccination Roundtable: *Evidence summary on HPV vaccination at ages 9-12.*
- ▶ [HPV Iceberg Infographic](#) | CDC: *Infographic on cancer protection provided by HPV vaccine.*
- ▶ [HPV Vaccine Schedule and Dosing](#) | CDC: *Information on HPV vaccination schedule and dosing.*
- ▶ [HPV Vaccine Safety and Effectiveness Data](#) | CDC: *Research and data about HPV vaccine safety and effectiveness.*
- ▶ [Human Papillomavirus Vaccines](#) | American Academy of Pediatrics (AAP): *Information and resources on AAP HPV vaccination recommendations.*
- ▶ [Human Papillomavirus Vaccine \(HPV\)](#) | American Academy of Family Physicians: *Information and guidance on making an HPV vaccination recommendation.*
- ▶ [Educating Adult Patients: Vaccination Resources](#) | CDC: *Ready-to-print patient education materials on adult vaccination.*
- ▶ [Increase the Proportion of Adolescents Who Get Recommended Doses of the HPV Vaccine](#) | Healthy People 2030: *Data on progress towards the Healthy People 2030 goal of increasing HPV vaccination among teens.*

Toolkits and Guides

- ▶ [HPV Educational Materials for Clinicians](#) | CDC: *HPV education materials for use with office staff and parents.*
- ▶ [HPV Vaccine Toolkit: Increasing HPV Vaccine Uptake Among Adolescent Clients in the Family Planning Setting](#) | Reproductive Health National Training Center: *Toolkit for increasing HPV vaccination rates in family planning settings.*
- ▶ [Cancer Prevention Through HPV Vaccination in Your Practice: An Action Guide for Physicians, Physician Assistants, and Nurse Practitioners](#) | National HPV Vaccination Roundtable: *Action guide for physicians, physician assistants, and nurse practitioners to increase HPV vaccination rates.*
- ▶ [Patient Care – Immunizations](#) | AAP: *Information and resource guide on AAP immunization recommendations.*

Trainings and Tools

- ▶ [Flyers/Posters for Preteens and Teens](#) | CDC: *Ready-to-print flyers and posters to promote HPV vaccination.*
- ▶ [Recommended Child and Adolescent Immunization Schedule](#) | CDC: *Immunization schedule for patients 18 years of age and younger.*
- ▶ [Adolescent #HowIRecommend Vaccination Video Series](#) | CDC: *Video library of seven clinicians' approaches to making HPV vaccination recommendations and answering parents' questions.*
- ▶ [How Nurses and Medical Assistants Can Foster Immunization Culture](#) | CDC: *Training for nurses and medical assistants on how to promote immunizations.*

- ▶ [You are the Key to HPV Cancer Prevention](#) | CDC: *Training for immunization providers on making effective HPV vaccination recommendations.*
- ▶ [Contacts for Immunization Information System Immunization Records](#) | CDC: *Contact directory for immunization information systems by U.S. state, territory, and FAS.*
- ▶ [HPV Roundtable: Resource Library](#) | National HPV Vaccination Roundtable: *HPV vaccination resource library.*
- ▶ [Tools to Improve HPV Vaccination in Primary Care](#) | HPV IQ at the UNC Gillings School of Public Health: *Tools for improving HPV vaccination through partnerships, using data, and incentivizing and training providers.*
- ▶ [Top 10 Tips for HPV Vaccination Success](#) | CDC: *Tip sheet for attaining and maintaining high HPV vaccination rates.*
- ▶ [Provider Resources for Vaccine Conversations with Parents](#) | CDC: *Resources and guidance for providers to navigate parent conversations for child vaccination.*

References

¹ CDC. (2021, July). *HPV Vaccine Safety and Effectiveness*. Fact Sheets to Promote Vaccination of Preteens, Teens, and Adolescents.

<https://www.cdc.gov/vaccines/partners/downloads/teens/vaccine-safety.pdf>

² *How Many Cancers Are Linked with HPV Each Year?* (2022, October 3). CDC. Retrieved January 11, 2023, from

<https://www.cdc.gov/cancer/hpv/statistics/cases.htm>.

³ CDC. (2022, April 18). *Vaccine Information for Young Women*. HPV. <https://www.cdc.gov/std/hpv/STDFact-HPV-vaccine-young-women.htm>

⁴ HPV IQ. (2020). *The Announcement Approach: Making Effective HPV Vaccine Recommendations*. Training Tools. <https://www.hpviq.org/wp-content/uploads/2021/01/AAT-Slides-and-Script-Excerpts-for-HPVIQ.pdf>.

⁵ NCI. (2014). *HPV Vaccination is Cancer Prevention*. DOSE HPV: Development of Systems and Education for HPV Vaccination – Program Materials. <https://ebccp.cancercontrol.cancer.gov/uploads/RTIPS/-RT=-/WHE/DoHHS/NIH/NCI/DCCPS/7588.pdf>

⁶ CDC. (2019, July). *Talking to Parents about HPV Vaccine*. HPV Educational Materials for Clinicians. <https://www.cdc.gov/hpv/hcp/for-hcp-tipsheet-hpv.pdf>

⁷ Penn Medicine. (2016, July 1). *6 Myths About The HPV Vaccine Dispelled*. Women's Health Blog. <https://www.pennmedicine.org/updates/blogs/womens-health/2016/july/6-myths-about-the-hpv-vaccine>

⁸ Conley, C.C. & Kasting, M.L. *7 Myths about the HPV Vaccine: HPV Vaccine Facts and the Science Behind Them*. Society of Behavioral Medicine.

<https://www.sbm.org/healthy-living/7-hpv-vaccine-myths>

⁹ HPV IQ (2020). *The Announcement Approach*. Training Tools. <https://www.hpviq.org/wp-content/uploads/2021/01/AAT-Handout-HPVIQ-2020.pdf>

¹⁰ Mix, J. M., Van Dyne, E. A., Saraiya, M., Hallowell, B. D., & Thomas, C. C. (2021). Assessing Impact of HPV Vaccination on Cervical Cancer Incidence among Women Aged 15-29 Years in the United States, 1999-2017: An Ecologic Study. *Cancer Epidemiology, Biomarkers & Prevention: A publication of the American Association for Cancer Research, cosponsored by the American Society of Preventive Oncology*, 30(1), 30-37. <https://doi.org/10.1158/1055-9965.EPI-20-0846>

¹¹ Falcaro, M., Castañon, A., Ndlela, B., Checchi, M., Soldan, K., Lopez-Bernal, J., Ellis-Brookes, L., & Sasieni, P. (2021). The effects of the national HPV vaccination programme in England, UK, on cervical cancer and grade 3 cervical intraepithelial neoplasia incidence: a register-based observational study. *Lancet (London, England)*, 398(10316), 2084-2092. [https://doi.org/10.1016/S0140-6736\(21\)02178-4](https://doi.org/10.1016/S0140-6736(21)02178-4)

¹² Lei, J., Ploner, A., Elfström, K. M., Wang, J., Roth, A., Fang, F., Sundström, K., Dillner, J., & Sparén, P. (2020). HPV Vaccination and the Risk of Invasive Cervical Cancer. *The New England Journal of Medicine*, 383(14), 1340-1348. <https://doi.org/10.1056/NEJMoa1917338>

¹³ Australian Government. (2022, August 18). *Cervical cancer in Australia statistics*. Cancer Australia. <https://www.canceraustralia.gov.au/cancer-types/cervical-cancer/statistics#:~:text=The%20number%20of%20new%20cases,per%20100%2000%20of%20females%20in%202018.>

¹⁴ NCI. (2022, September 12). *HPV and Cancer*. <https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-and-cancer>

¹⁵ Donken, R., Ogilvie, G. S., Bettinger, J. A., Sadarangani, M., & Goldman, R. D. (2018). Effect of human papillomavirus vaccination on sexual behaviour among young females. *Canadian Family Physician Medecin de Famille Canadien*, 64(7), 509-513.



Cervical Cancer Screening

Cervical cancer screening is highly effective at reducing cervical cancer diagnoses and deaths when performed at recommended intervals over time. Cervical cancer incidence rates dropped more than 50 percent from the mid-1970s to the mid-2000s,¹ and age-adjusted mortality has declined three-fold since screening programs were introduced.² Cervical cancer is most often diagnosed in people who have not been screened, were under-screened, or did not have appropriate follow-up care after abnormal screening results.³ Most women do not meet exit criteria to stop screening after age 65, and women over 65 account for one-fifth of cervical cancer cases and over one-third of cervical cancer-related deaths.⁴ Important screening inequities also exist among racial and ethnic minority patients,⁵ patients who are uninsured or on Medicaid,⁶ and patients in U.S. territories and FAS.⁷

Several barriers to cervical cancer screening exist at the patient, provider, and systems level. This chapter includes practical suggestions for how to determine who is eligible for screening, talk to patients about screening, and adopt interventions to increase screening rates.

What's in this Chapter

- Screening guidelines
- Strategies for patient-centered exams
- Provider scripts to explain cervical cancer screening and test results
- Patient- and provider-level interventions to increase screening rates
- Links to patient materials



Action Items

- Review routine screening guidelines and ensure they are readily available during patient visits.**
- Practice using patient-centered exam principles and provider scripts.**
- Print and share patient-facing materials about cervical cancer screening.**
- If possible, enable EHR and patient portal reminders to tell you and your patients when they are due for screening.**
- Share best practices with colleagues.**



Routine Screening Guidelines



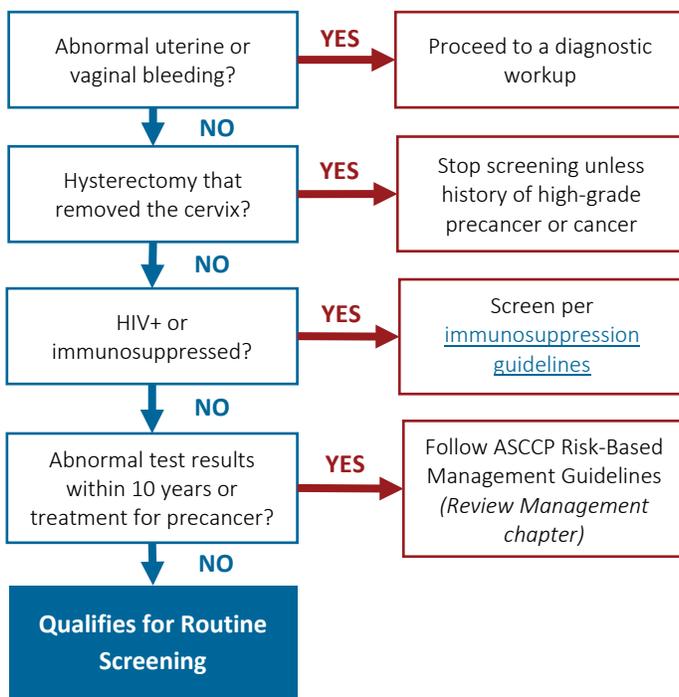
Average Risk Cervical Cancer Screening Recommendations

Age	USPSTF (2018)/ACOG (2021)	ACS (2020)
<21 years	No screening	No screening
21-24 years	Pap every 3 years	No screening
25-29 years	Pap every 3 years	Primary HPV every 5 years (preferred) Co-test every 5 years (if primary HPV not available) Pap every 3 years (if primary HPV is not available)
30-65 years	Pap every 3 years Co-test every 5 years Primary HPV every 5 years	Primary HPV every 5 years (preferred) Co-test every 5 years (if primary HPV is not available) Pap every 3 years (if primary HPV is not available)
>65 years	Discontinue if exit criteria met	Discontinue if exit criteria met

These guidelines are appropriate for people with a cervix aged 21 – 65 years old without symptoms, a history of HPV, or under surveillance based on past test results.*

Patients who qualify for routine screening should never go more than 3 years without a Pap test or 5 years without an HPV-based test (co-test or primary HPV).

Who is eligible for routine screening?



Exit Criteria

To discontinue screening after age 65, patients must have adequate negative screening within the past 10 years:

- **Either** three consecutive negative Pap tests and most recent test within 3 years;
- **Or** two consecutive negative primary HPV or Pap/HPV co-tests and most recent within 5 years;
- **And** no history of cervical intraepithelial neoplasia (CIN)2-3 or adenocarcinoma in situ (AIS) in the past 25 years.

Note: There are no exit criteria for patients with history of cervical cancer, HIV, ongoing immunosuppression, or in utero diethylstilbestrol exposure.

* The [2021 World Health Organization guidelines for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention](#) are available to providers and safety-net settings in U.S. territories and FAS.



Patient-Centered Exams

As a provider, it is imperative to take the following actions during *every* appointment to promote screening. Most patients will be willing to screen if reminded they are due. If screening is due or overdue, incorporate discussions about screening into every appointment to avoid missed opportunities. Because a patient's medical and social history may not be correct or may have changed since their last appointment:

- Talk with your patient to ensure that you are using the correct pronouns and use messages that are sensitive to the identity of the patient.
- Provide access to information (written and spoken) in the patient's preferred language as often as possible and be sensitive to any relevant cultural or personal preferences that could increase their comfort.
- Speak in plain language and avoid technical or medical jargon, while maintaining accuracy.
- Avoid unnecessary touching (e.g., ask the patient to move to the end of the table without touching them).

Screening Special Populations

The following actions can be incorporated into your practice to improve care for your patients.

- Improve screening for all patients by accommodating **physical or cognitive needs**.
 - Assess patients' physical needs and be prepared to accommodate their needs. For example, patients who are overweight or obese might benefit from the use of the lateral decubitus position or require gowns with different sizes.⁸
 - Assess patients' individual learning needs and be prepared to accommodate patients with learning or understanding difficulties (e.g., Down syndrome, autism spectrum disorder). Some patients may need assistance from or the presence of a support person during their exam.
- Have printed materials and interpreters available for patients who **speak and/or read another language**.
- Many patients may have experienced **trauma** that impacts their comfort with being examined.⁹ Ask about a patient's comfort without requiring them to disclose trauma and offer alternatives to improve their comfort.
- Address concerns for **lesbian, gay, bisexual, transgender, queer, intersex, asexual (LGBTQIA+) patients** by being clear, concise, and thorough when describing HPV and cervical cancer screening to women, non-binary, intersex, and trans men patients.¹⁰
 - A patient's gender identity or sexual orientation today may not be the same as it was in the past, so be sure to check that demographics are up-to-date in the chart at every visit.
 - Be prepared to answer questions about who is susceptible to HPV and what screenings are necessary based on patients' medical history.
 - Patients with a male designation on their insurance may have to contact the insurance company before screening to ensure coverage. Most companies will cover screening if the patient has a cervix.

Provider Scripts

Your patients may have questions about the types of tests they will have, the purpose of those tests, or what their results mean. The following scripts and additional resources may help you answer their questions. In addition to the information that follows, consider how you can inform your patients about steps they should take to get their results or how to reach out if they have additional questions in the future.

Describing Cervical Cancer Screening

- “Cervical cancer is preventable through regular screening and treatment of precancer.”
- “*Screening* means checking for a disease or for changes that may develop into disease before there are symptoms. Screening can help find changes in cervical cells so you can receive the proper follow-up care and treatment you need to stay healthy.”
- “Anyone with a cervix needs routine cervical cancer screenings even if they feel fine.”

Resources

More information to help describe cervical cancer screening to patients can be found here:

- ▶ [What Should I Know About Screening?](#) | CDC

Describing Screening Tests

- “The HPV test checks cells for infection with high-risk HPV types, which can lead to changes that can cause cancer.”
- “The Pap test collects cervical cells and looks at them for changes caused by HPV that may turn into cervical cancer if left untreated. It can also detect cervical cancer cells. A Pap test also sometimes finds conditions that are not cancer, such as infection or inflammation.”
- “The HPV/Pap co-test uses a Pap test and HPV test together to check for both high-risk HPV and cervical cell changes.”

Resources

More information to help describe screening tests to patients can be found here:

- ▶ [Understanding HPV and Pap Test Results](#) | NCI

Describing Screening Results

Below are examples of language to use when describing screening results to patients. When discussing test results, it is also helpful to discuss when the patient should return for other preventive health screenings.

HPV Test Results

- “A negative HPV test result means that high-risk HPV was not detected or below the pre-set threshold. The next time you need to get screened should be in 5 years. However, if you had a previous abnormal result you may need to repeat testing earlier.”
- “A positive HPV test result means that high-risk HPV was detected and above the pre-set threshold. It does not necessarily mean you have cervical cancer. [*Recommend next steps based on specific result.*]”
- “You may have a positive test result after multiple negative HPV tests. If you have a new sexual partner, then it is likely a new infection. However, if you are not sexually active or if you are in a monogamous relationship, a previous HPV infection may be active again. There is no way to differentiate a new infection from an old, reactivated infection.”
- “If your HPV test is neither positive nor negative, the lab sample may not have had enough cells or there may have been an error processing the sample, and you may need to repeat the test.”
- “HPV test results take 1 to 3 weeks to process. If you don’t hear from your health care provider, call and ask for your test results. Make sure you receive your results and schedule any necessary follow-up visits.”

Pap Test Results (i.e., “cervical cytology”)

- “A normal test result may also be called a negative test result, and it means no further action is needed at this time. You will need to come back for your next screening in 3 years if a Pap test alone was done or in 5 years if a Pap test and HPV were done together and both are normal. If you had an abnormal result in the past, you may need to come back sooner.”
- “An abnormal or ‘positive’ result does not mean you have cervical cancer. It means further or follow-up testing is needed. [*Recommend next steps based on specific result.*]”
- “If you had an unsatisfactory result, the lab sample may not have had enough cells or there may have been an error processing the sample. Usually, you will need to repeat the test.”
- “Pap test results take 1 to 3 weeks to process. If you don’t hear from your health care provider, call and ask for your test results. Make sure you receive your results and schedule any necessary follow-up visits.”



Resources

Read the following recommended resource to help describe test results:

- ▶ [Understanding Cervical Changes: A Health Guide](#) | NCI

Using Principles of Trauma-Informed Care in Discussions with All Patients

- When talking with patients who are uncomfortable with having a pelvic exam, let your patients know that their comfort is your priority.
 - “Please let me know if there is anything I can do to help you feel more comfortable.”
 - “If it makes you feel more comfortable, we can schedule a separate appointment for the pelvic examination.”
 - “You can stop the exam at any moment.”
- Before the exam, ask questions to find out what the patient needs to feel comfortable, and offer information that may help them prepare. Or be willing to reschedule the exam at another time if it would make them more comfortable.
 - “Would you prefer a female to perform the exam?”
 - “Would you like to have someone in the examination room with you?”
 - “For the pelvic exam, it might be more comfortable if you wore a dress or skirt. When it is time for the examination, you would only have to remove your underwear instead of undressing completely.”
- Acknowledge that pelvic examinations may be difficult for patients and normalize their experience. Offer alternatives to make them more comfortable.
 - Some patients may find it more comfortable to insert the speculum themselves. Be sure to have different sizes of specula available.
 - An anxiolytic medication may be taken prior to the examination in rare circumstances with the patient’s signed consent and chaperone present.
 - Offer an alternative positioning to the dorsal lithotomy position.



Resources

Read the following protocol to promote healthy relationships for all patients, including those who have experienced trauma:

- ▶ [Protocol for HRSA-supported Community Health Centers to Engage Patients through Universal Education Approaches on Exploitation, Human Trafficking, Domestic Violence and Intimate Partner Violence](#)

Using Gender Inclusive and Affirming Language

- At the beginning of all appointments, introduce yourself with your pronouns, then ask your patient for theirs. Incorporate gender-affirming language tailored to the individual throughout the appointment.
 - “Hello, I am Dr. [Name] and I use [she/her, they/them, he/him] pronouns. What is your name and your pronouns?”
- Ask open-ended questions about sexuality as it pertains to health.
 - “Are you having sex, and if so, what type of sex do you have?”
 - “How would you describe your sexual orientation?”
- Discuss screening recommendations for transgender men.
 - “Regular cervical cancer screening is recommended if you have not had genital reconstruction surgery or if you have had ‘lower’ surgery that did not remove the cervix.”



Resources

Read the following resources to stay up to date on how to use gender inclusive and affirming language:

- ▶ [Inclusive and Gender-Neutral Language](#) | NIH
- ▶ [Patient-Centered Care for Transgender Patients](#) | CDC
- ▶ [Promoting Cervical Cancer Screening Among Lesbians and Bisexual Women](#) | Fenway Institute

Provider Screening Interventions

The following provider-level interventions have been shown to support providers and increase screening rates among patients. Visit [The Community Guide](#) for more information and links to published research.

- **Provider Assessment and Feedback:** Assess providers in delivering or offering screening to patients and provide feedback about their performance.
- **Reminder and Recall Systems:** Remind providers when it is time for a patient’s cancer screening and provide a recall when a patient is overdue for screening.
- **Engaging Community Health Workers (CHWs) or Patient Navigators:** CHWs and patient navigators can be engaged to implement patient-level interventions to increase screening demand and improve access to screening services by implementing interventions that reduce structural barriers.
- **Multicomponent Interventions:** Combine two or more intervention approaches to increase community demand and access and provide delivery of screening services.

Project ECHO

Project ECHO is a telementoring program in which participants request support and share patient case studies with experts, who then offer guidance and feedback to implement best practices and improve care. The model has demonstrated success in training clinicians (e.g., physicians, nurses) and other care providers (e.g., CHWs) in a variety of care practices.

In 2018, the University of Hawai’i implemented the cancer prevention and management ECHO program focused on strengthening infrastructure and training in health systems in the U.S. Affiliated Pacific Islands. The hour long, monthly sessions cover topics including cancer prevention, risk reduction, screening, diagnosis, treatment, and more.

▶ [Learn more about this program.](#)



Case Study

In just 60 days, a health center in Tucson, Arizona increased cervical cancer screening by combining evidence-based interventions: provider training, team meetings, (bilingual) patient engagement tool, updating screening guidelines, eligibility screening tool, program registration log, and case log for case management. Using four Plan-Do-Study-Act (PDSA) cycles, the health center was able to increase the number of program enrollees, same-day Pap tests, and scheduled appointments by 47 percent.

▶ [Read more about this intervention.](#)



Resources

CDC’s Evidence-Based Cancer Screening Intervention Planning Guides:

- ▶ [Provider Reminders](#)
- ▶ [Provider Assessment and Feedback](#)



Patient-Level Screening Interventions

The following patient-level interventions have been shown to increase screening rates among patients. They can be broad and intended to reach large groups of patients or tailored to focus on specific types of patients. Visit [The Community Guide](#) for more information and links to published research.

- **Small Media:** Use printed materials and videos to inform and motivate patients to be screened.
- **Client Reminders:** Use written or phone messages to remind patients they are due for screening. Follow-up reminders, additional messages with further information, and assistance with scheduling appointments can help make this a more effective intervention.
- **Individual Education:** Talk with patients one-on-one about the benefits of screening and ways to overcome barriers.
- **Marketing:** Use social media or other marketing tools to spread awareness and include information about cervical cancer screening.
 - Reminder: January is Cervical Cancer Awareness month.
- **Support Groups:** Share available local and national patient support groups to encourage patients to advocate for their health.

Explore Telehealth Options

Telehealth appointments are not appropriate for all clinical needs, but they may be appropriate for consultations (e.g., assessing eligibility, explaining screening to new patients) or delivering screening results and discussing the next steps.



Case Study

St. James-Santee Family Health Center, a community health center in rural South Carolina, launched a program to increase breast and cervical cancer screenings. Its health education program promoted free Pap tests for Black and African American women in three rural counties. Nurses and case managers promoted the program at local events in community organizations and led workshops on cervical cancer screening. The campaign included local media (e.g., flyers) and handed out bracelets at events to remind women to get screened.

▶ [Learn more about this program.](#)



Resources

CDC's Evidence-Based Cancer Screening Intervention Planning Guides:

- ▶ [Patient Reminders](#)
- ▶ [Reducing Structural Barriers](#)

Patient Materials

The following patient education materials may be useful to help your patients understand HPV infection, cervical cancer screening, and their test results. Review these materials and consider whether you would like to share these with patients or modify them to meet the unique needs of your patient population.

<ul style="list-style-type: none">▶ Inside Knowledge about Cervical Cancer (Spanish version)	<ul style="list-style-type: none">▶ What Do My Cervical Cancer Screening Test Results Mean? (Spanish version)
<ul style="list-style-type: none">▶ What Should I Know About Screening? (Spanish version)	<ul style="list-style-type: none">▶ Cervical Cancer Risk Assessor (Spanish version)
<ul style="list-style-type: none">▶ HPV Infection Fact Sheet (Spanish version)	<ul style="list-style-type: none">▶ Basic Information About Cervical Cancer (Spanish version)

Additional Provider Resources

The following trusted resources may be helpful to providers seeking to increase screening rates in their practice.

Fact Sheets and Information

- ▶ [National Breast and Cervical Cancer Early Detection Program](#) | CDC: *Information about a breast and cervical cancer screening program for women with low incomes and who are uninsured and underserved.*
- ▶ [Cancer Resource Library](#) | CDC: *Videos, podcasts, graphics, blogs, and other information about cancer.*
- ▶ [Increase Proportion of Females Who Get Screened for Cervical Cancer](#) | Healthy People: *Information on progress towards the Healthy People 2030 goal of increasing cervical cancer screening.*

Toolkits and Guides

- ▶ [Cervical Cancer Social Media Toolkit](#) | American Indian Cancer Foundation: *Daily social media guidance for Cervical Cancer Awareness Month.*
- ▶ [Pap-a-Thon Toolkit: Hosting a Women's Community Health Event – Increasing Cervical Cancer Screening in Rural Tribal Communities](#) | National Native Network: *Toolkit for hosting a community event to promote cervical cancer screening in rural tribal communities.*
- ▶ [Clinician Guide for Trauma-Informed Care](#) | National Clinical Training Center for Family Planning: *Information about applying trauma-informed care during physical examinations in sexual and reproductive health settings.*
- ▶ [Providing Trauma-Informed Care](#) | American Academy of Family Physicians: *A written case scenario, list of signs and symptoms, and checklist of actions for physicians to provide trauma-informed care.*

Trainings and Tools

- ▶ [Prevent HPV & HPV Related Cancer](#) | Primary Prevent HPV Cancer: *Educational tool on HPV and cervical cancer screening.*

References

- ¹ *Cervical Cancer - Statistics*. (2012, June 26). Cancer.net. <https://www.cancer.net/cancer-types/cervical-cancer/statistics>
- ² Freeman HP, Wingrove BK. Excess Cervical Cancer Mortality: A Marker for Low Access to Health Care in Poor Communities. Rockville, MD: National Cancer Institute, Center to Reduce Cancer Health Disparities, May 2005. NIH Pub. No. 05–5282
- ³ American Cancer Society. (2019). *Key Statistics for Cervical Cancer*. Cancer.org; American Cancer Society. <https://www.cancer.org/cancer/cervical-cancer/about/key-statistics.html>
- ⁴ Mills, J. M., Morgan, J. R., Dhaliwal, A., & Perkins, R. B. (2021). Eligibility for cervical cancer screening exit: Comparison of a national and safety net cohort. *Gynecologic Oncology*, 162(2), 308–314. <https://doi.org/10.1016/j.ygyno.2021.05.035>
- ⁵ *Cancer of the Cervix Uteri - Cancer Stat Facts*. (2018). SEER. <https://seer.cancer.gov/statfacts/html/cervix.html>
- ⁶ Churilla, T., Egleston, B., Dong, Y., Shaikh, T., Murphy, C., Mantia-Smaldone, G., Chu, C., Rubin, S., & Anderson, P. (2016). Disparities in the management and outcome of cervical cancer in the United States according to health insurance status. *Gynecologic Oncology*, 141(3), 516–523. <https://doi.org/10.1016/j.ygyno.2016.03.025>
- ⁷ Van Dyne, E. A., Saraiya, M., White, A., Novinson, D., Senkomago, V., & Buenconsejo-Lum, L. (2020). Cancer Mortality in the US-Affiliated Pacific Islands, 2008-2013. *Hawai'i Journal of Health & Social Welfare*, 79(6 Suppl 2), 99–107.
- ⁸ Breitkopf, D.M. Lateral decubitus position to facilitate pelvic examination of the patient with severe obesity. *BMC Women's Health* 21, 143 (2021). <https://doi.org/10.1186/s12905-021-01289-2>
- ⁹ Bates, C. K., Carroll, N., & Potter, J. (2011). The Challenging Pelvic Examination. *Journal of General Internal Medicine*, 26(6), 651–657. <https://doi.org/10.1007/s11606-010-1610-8>
- ¹⁰ Dalke, K. (2020). *Affirming Care for People with Intersex Traits: Everything You Ever Wanted to Know, But Were Afraid to Ask*. <https://fenwayhealth.org/wp-content/uploads/13b.-Health-of-Intersex-People.pdf>



Management and Follow-Up

HPV infections are very common; more than 42 million Americans are currently infected with HPV, and about 13 million Americans become infected each year.¹ Most infections will become undetectable within a few years and not cause clinical problems. However, some persistent HPV infections may cause cervical precancer and require follow-up care and management to prevent cervical cancer. Providing care for patients who have a positive or abnormal cervical cancer screening test result has become more complex as it has become better informed by medical evidence. Furthermore, there are often barriers that prevent them from receiving the necessary follow-up care.

Several barriers to management after an abnormal screening result exist at the patient, provider, and systems levels. This chapter includes practical suggestions for how to determine and understand the right next steps for patients, talk about different kinds of tests and what results mean, and implement interventions to help patients access the right follow-up procedures at the right time.

What's in this Chapter

- Risk-based management guidelines
- Information to help providers understand and talk to patients about different tests and results
- Guidance for surveillance after cervical cancer
- Patient- and provider-level interventions to improve follow-up after abnormal screening results
- Links to patient materials



Action Items

- **Review the 2019 ASCCP guidelines for managing abnormal results using the website or the app.**
- **If possible, enable EHR reminders for patients when they are due for surveillance follow-up after an abnormal HPV or Pap test, colposcopy biopsy, or treatment.**
- **Print and share patient-facing materials about abnormal Pap and HPV results.**

What's Not in this Chapter

This chapter provides information on how to manage patients who have received abnormal cervical screening test results based on the 2019 ASCCP guidelines. This chapter does **not** give treatment recommendations based on diagnostic results. However, talking points on how to describe various procedures that treat high-grade cervical cell changes to patients are included.

Management Guidelines

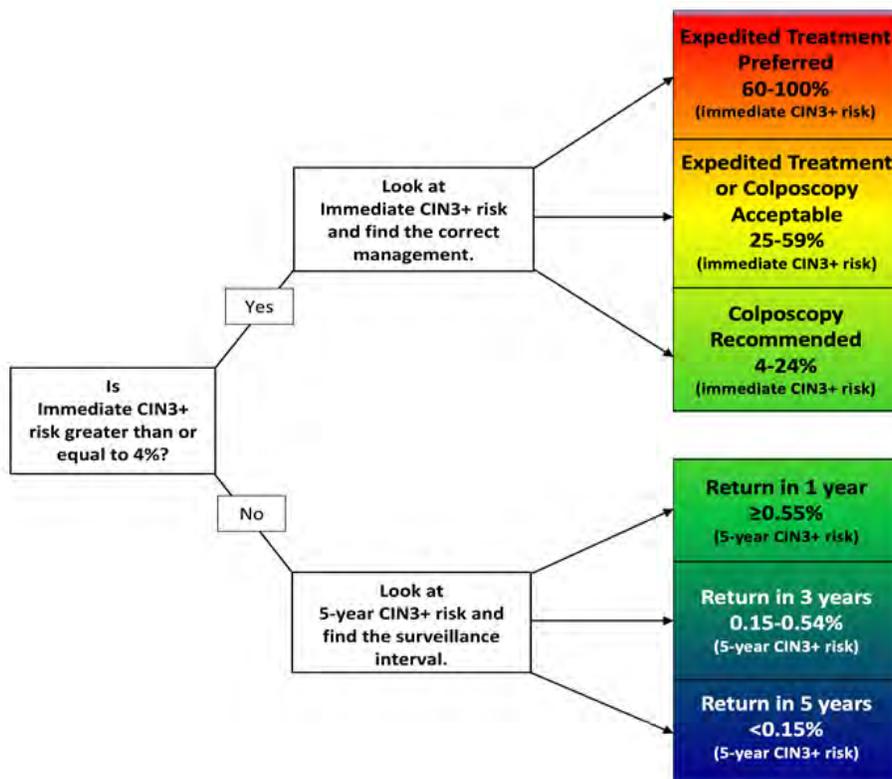
The 2019 ASCCP Risk-Based Management Consensus Guidelines² incorporate a risk-based management approach. **It is now best practice to use your patient's immediate and 5-year risk of developing cervical precancer or cancer based on current screening test results and previous screening test and biopsy results to guide management.**

Resources

- ▶ Access 2019 ASCCP guidelines at no cost on the asccp.org website or for purchase on the [ASCCP mobile app](#).
- ▶ A free cervical cancer risk assessor is available online at cervicalrisk.com (available [in Spanish](#)). This tool is informed by ASCCP guidelines and was developed with input from NCI, CDC, and the American Cancer Society (ACS).

Individual-Level Risk-Based Estimates

Clinical Action Thresholds based on Risk



This figure demonstrates how individual-level estimated [CIN3+](#) risk correlates with surveillance and treatment recommendations. For a given combination of current and historical results, the immediate CIN3+ risk estimate is determined. If this risk is 4 percent or greater, immediate management via colposcopy or treatment is indicated. If the immediate risk is less than 4 percent, the 5-year CIN3+ risk is examined to determine whether patients should return in 1, 3, or 5 years.

Essential Changes from Prior Management Guidelines³:

1. Recommendations are based on CIN3+ risk estimates, not on individual test results.
2. Guidance for expedited treatment is expanded (i.e., patients who would benefit from proceeding to excisional treatment without first requiring a biopsy).
3. Excisional treatment is preferred to ablative treatment for histologic high-grade squamous intraepithelial lesion (HSIL) (CIN2 or CIN3) in the United States. Excision is recommended for AIS.
4. Observation is preferred instead of treatment for histologic low-grade squamous intraepithelial lesion (LSIL) (CIN1).
5. All positive primary HPV screening tests, regardless of genotype, should have additional reflex triage testing performed from the same laboratory specimen (e.g., reflex cytology).
6. Continued surveillance with HPV-based testing at 3-year intervals for at least 25 years is recommended after treatment and initial post-treatment management of histologic HSIL, CIN2, CIN3, or AIS. For patients under age 65, screening may then continue at 5-year intervals. Continued surveillance beyond 25 years if the patient is older than 65 is acceptable if the patient's life expectancy and ability to be screened are not significantly compromised by serious health issues.
7. After an abnormal result, surveillance with cytology alone is acceptable only if testing with HPV or co-testing is not feasible. Cytology is less sensitive than HPV testing for detection of precancer so is recommended more often. Cytology is recommended at 6-month intervals when HPV testing or co-testing is recommended annually for surveillance. Cytology is recommended annually when 3-year surveillance intervals are recommended for HPV or co-testing.

Understanding Tests and Results

While most patients with abnormal cervical screening test results do not have cancer, it is crucial for them to receive follow-up care.⁴ The following information on the significance of cervical cancer test results may help you make recommendations for next steps while also considering individual risk factors:

HPV Test

HPV tests determines if high-risk HPV is present in your patient’s cervical cells.

Result	What Result Means
Negative	<ul style="list-style-type: none"> • No high-risk HPV detected.
Positive	<ul style="list-style-type: none"> • High-risk HPV detected. • May be reported as positive, negative, or genotyped to identify specific HPV strains. • Colposcopy is usually recommended for genotypes HPV 16 and HPV 18.

Pap Test

Pap tests determine if your patient's cervical cells are normal or abnormal.

Result	What Result Means
NILM (negative for intraepithelial lesion or malignancy)	<ul style="list-style-type: none"> Normal cervical cytology.
Unsatisfactory for evaluation	<ul style="list-style-type: none"> Inadequate cellular material to provide Pap results. Patient will need to repeat test in 2 to 4 months.
ASC-US (atypical squamous* cells of undetermined significance)	<ul style="list-style-type: none"> This is the most common and minor abnormal Pap test result. This may be a sign of HPV infection but often is due to other infections (e.g., yeast), hormonal changes with menopause, or a benign cyst or polyp.
LSIL (low-grade squamous* intraepithelial lesion)	<ul style="list-style-type: none"> LSIL is usually caused by an HPV infection. Often goes away on its own.
HSIL (high-grade squamous* intraepithelial lesion)	<ul style="list-style-type: none"> This result is more likely to be linked to precancer and cancer than LSIL. Risk estimate always leads to colposcopy at minimum.
ASC-H (atypical squamous* cells, cannot exclude HSIL)	<ul style="list-style-type: none"> Suggestive of HSIL, which has been linked to precancer and cancer. Risk estimate always leads to colposcopy at minimum.
AGC (atypical glandular** cells)	<ul style="list-style-type: none"> Changes in the glandular cells concerning for precancer or cancer. Risk estimate always leads to colposcopy at minimum.

*Squamous cells are cells that make up the tissue that covers the cervix.

**Glandular cells are cells that make up the tissue that covers the inner canal of the cervix and are also present in the uterus.

Colposcopy and Cervical Biopsy

Cervical biopsy samples are checked for cervical intraepithelial neoplasia (CIN), which describes how abnormal cells look under a microscope.

Result	What Result Means
Histologic LSIL (CIN1)	<p>Mild (low-grade) changes in the cervical cells.</p> <ul style="list-style-type: none"> Usually clears with time, does not require treatment.
Histologic HSIL specified as CIN2	<p>Moderate* changes in the cervical cells.</p> <ul style="list-style-type: none"> In nonpregnant patients, treatment is recommended (excisional treatment is preferred, ablation is acceptable). Close observation with colposcopy with biopsy every 6 months for up to 2 years may be performed if the patient's concerns about the effect of treatment on future pregnancy outweigh concerns about cancer.
Histologic HSIL unspecified, or specified as CIN3	<p>Severe* (high-grade) cell changes.</p> <ul style="list-style-type: none"> In nonpregnant patients, treatment is recommended (excisional treatment is preferred, ablation is acceptable).

*Moderate and high-grade changes can progress to cancer.

Provider Scripts

Your patient may have questions about their exam results: what they mean, the next steps based on results, and when they will need to return for screening. The following example scripts and additional resources may help you answer their questions. In addition to the information that follows, consider how you can inform your patients about steps they should take to get their results or how to reach out if they have additional questions in the future.

Describing HPV Infection

- “HPV infections are very common. Nearly everyone will get HPV at some point in their lives.”¹
- “About 13 million Americans become infected with HPV each year, and more than 42 million Americans are currently infected.”
- “An abnormal or positive HPV test and/or Pap test result means that you have an HPV infection, just like 42 million other Americans.¹ Your risk of having cancer right now is low, but it may be a sign that cancer could develop later, so it’s important to follow next steps.”
- “HPV can sometimes be an infection from a new partner, but HPV can also hide in the body and become active decades later. We don’t know how long you have had this particular infection.”

Describing Positive HPV Results

- “A positive human papillomavirus test means you have a common infection that, if it doesn’t clear up, may lead to cancer in the future. That doesn’t mean you have cancer at this time. HPV infections often become undetectable within a few years. However, it is crucial to adhere to the recommended follow-up.”
- “Your next steps will be based on your age, current screening test result, and any test results you’ve had in the past.”⁵

Describing Abnormal Cervical Cytology (Pap)

- “Cells that are infected with HPV will appear differently under a microscope than normal cells.”
- **ASC-US or LSIL that is HPV positive:** “The changes in your cervical cells are mild. You have an HPV infection, so we will do a colposcopy to make sure there are no precancerous cells.”
- **ASC-US or LSIL that is HPV negative:** “The changes in your cervical cells are mild and with your current negative HPV test, the follow-up recommendations will depend on your past Pap and/or HPV test results.”
- **Moderate to severe changes:** “The changes in your cervical cells are moderate to severe and require further evaluation with colposcopy and may require treatment to prevent cancer.”

Describing Colposcopy and Cervical Biopsy

- “A colposcope (a lighted, magnifying instrument) is used to examine the cervix, vagina, and vulva to check for cancerous cells.”
- “A small piece of cervical tissue (biopsy) will be removed from the cervix. These cervical cells are checked under a microscope for signs of disease.”

Describing Treatment of High-Grade Cervical Cell Changes

Once it is determined that a patient needs treatment, various excisional and ablative procedures are available:⁴

- “Loop electrosurgical excision procedure is a technique that uses an electric current to pass a thin wire loop to remove abnormal tissues. A local anesthesia is used to numb the area.”
- “Cryotherapy is when a cold probe is used to destroy abnormal tissue by freezing it. This procedure is done in your health care provider’s office, only takes a few minutes, and usually does not require anesthesia.”
- “Laser therapy is when a [laser](#), which is a narrow beam of intense light, is used to destroy abnormal tissue. This procedure may be done at the hospital with [general anesthesia](#) or in an outpatient setting with local anesthesia.”

Surveillance After Treatment of CIN2 or CIN3

Following treatment of CIN2 or CIN3, surveillance with HPV-based testing, defined as primary HPV test or Pap/HPV co-test, is required.⁶

Initial intense surveillance:

- HPV-based testing should be conducted 6 months after treatment.
- If the 6-month post-treatment test is negative, then continue HPV-based testing each year until there are three total consecutive negative results.

Subsequent surveillance:

- Conduct HPV-based testing every 3 years for at least 25 years.
 - If patient completes 25 years of subsequent surveillance and is under 65 years old, they must continue HPV-based testing every 3 years at least through age 65 and may continue beyond that for as long as they are in reasonably good health.
 - If patient passes age 65 during their subsequent surveillance, they must still complete 25 years of surveillance and then may continue beyond that for as long as they are in reasonably good health.

Abnormal results during surveillance are managed per the 2019 ASCCP Guidelines.



Provider Management Interventions

The following interventions can help safety-net providers improve management and navigation for patients after an abnormal screening result:

- **Structured Follow-up System:** Automate EHR alerts and reminders for negative and abnormal results. Connect with quality improvement (QI), Population Health, and Information Technology (IT) teams and EHR vendors. Use clear notations on medical charts to alert when a patient is due for follow-up.
- **Follow-up with Referring Organizations for Patient Results.** If possible, create a data-sharing or feedback loop with screening partners to automate reporting how results are shared with referring providers. If available, have social workers, patient navigators, and CHWs assist with follow-up and patient education.
- **Provider Assessment and Feedback:** Track screening and follow-up numbers for clinics and individual providers. Print a weekly or monthly list of patients who are due for follow-up appointments. Print a weekly or monthly list of patients who have missed appointments. Review data about screening and follow-up adherence as a team/department and implement processes to improve patient care.



Patient-Level Management Interventions

The following interventions can help patients after an abnormal screening result:

- **Client Reminders:** Implement patient reminders (e.g., call, text, mail letter) to increase follow-up rates and follow-up with patients who have missed an appointment.
- **Individual Education:** Have a one-on-one conversation with your patient about the next steps. Provide patients with educational materials before, during, and after visit (the end of this chapter has a list of trusted patient education resources). Discuss available support services like patient navigation, social work, child care, and transportation. The whole care team can be prepared to provide information about costs of follow-up (e.g., co-pays, referrals), insurance coverage, and assistance programs.
- **Reduce Structural Barriers:** Help patients schedule appointments. Use phone calls or virtual telehealth appointments to explain results, answer questions, and ensure adherence to follow-up. Expand clinic hours. Provide transportation and child care assistance. Provide interpretation and translation services. For example, consider addressing structural barriers through [enabling services](#), such as those advanced by the Health Center Program.

Patient Materials

The following patient education materials may be useful to help your patients understand HPV infection, cervical cancer screening, and their test results. Review these materials and consider whether you would like to share these with patients or modify them to meet the unique needs of your patient population.

▶ HPV and Pap Test Results: Next Steps after an Abnormal Cervical Cancer Screening Test (Spanish version)	▶ Understanding Cervical Changes: A Health Guide
▶ Cervical Cancer Risk Assessor (Spanish version)	▶ Colposcopy Overview (Spanish version)
▶ Abnormal Cervical Cancer Screening Test Results	▶ Colposcopy Frequently Asked Questions

Additional Provider Resources

The following trusted resources may be helpful to providers seeking to improve cervical cancer management in their practice.

Fact Sheets and Information

- ▶ [Summary of Current Guidelines for Cervical Cancer Screening and Management of Abnormal Test Results: 2016-2020](#) | Journal of Women’s Health: *Guidelines aimed to reduce unnecessary testing in low-risk patients and manage high-risk patients with more intensive follow-up.*
- ▶ [ASCCP Home Page](#) | ASCCP: *Website with resources and information on cervical cancer prevention, screening, and management.*
- ▶ [Cancer Support Groups](#) | NCI: *Information on cancer support groups and where to find them.*

References

- ¹ CDC. (2021). *HPV Infection*. Centers for Disease Control and Prevention. <https://www.cdc.gov/hpv/parents/about-hpv.html>
- ² Perkins, R. B., et al. (2020). 2019 ASCCP Risk-Based Management Consensus Guidelines for Abnormal Cervical Cancer Screening Tests and Cancer Precursors. *Journal of Lower Genital Tract Disease*, 24(2), 102–131. <https://doi.org/10.1097/JGT.0000000000000525>
- ³ American College of Obstetricians and Gynecologists. (2022). Updated Guidelines for Management of Cervical Cancer Screening Abnormalities. <https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2020/10/updated-guidelines-for-management-of-cervical-cancer-screening-abnormalities>
- ⁴ *Understanding HPV and Pap Test Results - National Cancer Institute*. (2014). <https://www.cancer.gov/types/cervical/understanding-abnormal-hpv-and-pap-test-results#hpv-test-resultsnbspwat-a-positive-or-negative-result-means>
- ⁵ *Abnormal Cervical Cancer Screening Test Results*. (n.d.) Retrieved October 3, 2022, from https://www.acog.org/womens-health/faqs/abnormal-cervical-cancer-screening-test-results?utm_source=redirect&utm_medium=web&utm_campaign=otn
- ⁶ Perkins, R. B., et al. (2020). 2019 ASCCP risk-based management consensus guidelines for abnormal cervical cancer screening tests and cancer precursors. *Journal of Lower Genital Tract Disease*, 24(2), 102.



Innovations and Change Management

Evidence-based best practices in cervical cancer prevention, screening, and management change over time as new research is conducted, innovations emerge, and guidelines are updated. Change management strategies can help safety-net settings prepare for and respond to new innovations, technologies, and guideline updates. Change management is when an organization works to enhance its processes and systems with the goal of sustaining changes long-term. Because change management can often require substantial institutional effort, this chapter will cover ways to initiate change management and how to address resistance.¹

What's in this Chapter

- Strategies to initiate and sustain practice change
- The role of leadership
- De-implementation
- Tools for assessing organizational capacity and readiness
- Upcoming innovation: Self-sampling
- Change management training and resources

Stay up to date!

Safety-net settings should keep abreast of changing cervical guidelines and emerging evidence. The following websites are good starting points for finding the most current guidelines and any recent FDA-approved devices or technologies.

- ▶ [Enduring Consensus Cervical Cancer Screening and Management Guidelines](#) | NCI
- ▶ [Recently-Approved Devices](#) | FDA
- ▶ [Recommendations](#) | U.S. Preventive Services Task Force (USPSTF)



Action Items

- **Review the HPV Vaccination, Screening, and Management and Follow-Up chapters to determine if your organization needs to make changes to your practice.**
- **Get buy-in from organizational leadership for cervical cancer prevention, screening, and management improvement activities.**
- **Schedule biannual or annual department meetings to review new/evolving guidelines and discuss if practice changes are needed.**
- **Stay up to date on emerging and evolving science and technology.**
- **As new guidelines and technologies become available, de-implement old practices.**

Change Management Strategies

Implementation is the process of carrying out planned, intentional activities which aim to turn evidence and ideas into policy and practice. De-implementation is the process of removing, replacing, reducing, or restricting an institutional practice.^{1,2,3,4,5,6} Change management will likely involve administrators, physicians, and other staff.

Prioritize the following approaches to help new changes be accepted within your organization:

- **Partner Engagement:** Create a coalition of influential members of your organization (e.g., organizational leadership, technical experts, and champions) and educate them on the value of the implementation/de-implementation plan to increase the likelihood of sustainable change being enforced long-term.
- **Assess Organizational Readiness:** Gauge how prepared your organization is for change related to cervical cancer prevention, screening, and management (e.g., understanding of change being proposed, disposition toward the change).
- **Staff Training:** Develop and enhance the skills and abilities of your team to implement sustainable change.
- **Environmental Cues:** Help staff remember to use updated practices with visual prompts and reminders, such as EHR prompts, posters, printouts on computer monitors, or flags or stickers on exam room doors or patient charts.
- **Monitor and Evaluate:** Use data and quality improvement methods to assess how practice changes related to cervical cancer are progressing. (Review the Quality Improvement chapter for more information.)

Initiating and Sustaining Successful Practice Change

Organizational change requires planning and consideration.^{3,4} The following steps can help a change management team effectively educate and engage staff at all levels in your organization to make practice changes related to cervical cancer prevention, screening, and management and sustain those changes long-term.

- **Create a sense of urgency:** If possible, use your organization's own data to demonstrate how cervical cancer impacts your patients and how new guidelines or interventions will improve patient outcomes.
 - Detail how other communities and organizations are currently addressing the issue.
 - Emphasize the value of leading the change and being seen as part of the solution.
- **Establish a change management group:** Regularly engage an influential group of executives, departmental leadership, team leadership, and champions to advocate for change and adaptation on a routine basis.
 - Build a coalition of board members, executive leadership, and departmental leaders around a clearly defined goal.
 - Establish forms of engagement (e.g., emails, workshops, surveys) and channels to regularly communicate and reinforce the change.

- **Present a clear change plan:** Clearly outline what the changes will be, the goal of making changes, steps for implementation, and benefits of changes, and address any objections to change.
 - State simply the change you seek (e.g., We will increase cervical cancer screening rates for all eligible patients by 30 percent by the end of the calendar year).
 - Outline how you will make the change (e.g., EHR updates, patient outreach, provider reminders).
 - Describe the benefits that will come from the change and incorporate available evidence (e.g., fewer deaths from cervical cancer).
- **Address barriers and remove obstacles:** Proactively identify and address barriers (e.g., financial, technological, provider hesitation/dissent) that may slow or inhibit change.
 - Assess stakeholder readiness at each level of the organization (i.e., board, executive leadership, departmental leadership).
 - Identify where technology, regulatory, and legal issues will complicate implementation.
 - Develop pragmatic strategies to address these obstacles.
- **Create quick wins:** Set attainable goals for providers and teams to meet, track progress toward goals, and celebrate early wins.
 - Make a list of potential initiatives and rank them according to their impact and ease of implementation.
 - Create a change program that begins with the high-impact, easy-to-implement initiatives.
- **Create new organizational values:** Maintain the new behaviors to ensure that they become engrained in the organization's values around cervical cancer prevention, screening, and management.

The Role of Leadership

Organizational leaders must be closely involved with change activities,^{2,4,6} so that new practices and processes related to cervical cancer align with the organization's mission, vision, and values. They can also ensure that the organization dedicates appropriate resources and time to implementing changes.

During the change management process, leaders should be able to do the following:

- Articulate what the change is and why it is necessary.
- Describe the strategy for change implementation and how it aligns with organizational mission, vision, and values.
- Provide support to frontline staff through encouragement, resources, and training.
- Provide enthusiastic support for change efforts.
- Use metrics and feedback to monitor and share progress.

De-implementation

When new evidence-based cervical cancer vaccination, screening, or management guidelines are published, safety-net settings must make changes to implement new guidelines and de-implement processes associated with previous (outdated) guidelines. De-implementing ineffective or outdated guidelines and practices will help improve cervical cancer care in your practice.⁷ Be aware that some health professionals might be hesitant to change their practice. Providing training, evidence sources, change management strategies, and emotional support can help overcome these fears.

Common Moments for De-implementation

- **Process is not up to date with the evidence base:** New screening guidelines are published. The safety-net setting must update intake forms, client reminders, EHR prompts, and education materials.
- **Process is not effective:** A safety-net clinic mails appointment reminder cards to patients' homes, but half of the postcards are returned as "undeliverable," and there is no change in the number of missed appointments.
- **Process is too complex:** When a patient is overdue for screening, there are many communication steps between various staff, and many patients never receive a reminder. It is time to simplify the process.
- **Process is too costly:** A safety-net clinic purchases and mails 5,000 high-quality brochures about the importance of cervical cancer screening to patients, but screening rates do not increase.
- **Process is not patient-appropriate:** Patient education materials about cervical cancer screening and follow-up are printed only in English and use technical, medical jargon that is difficult to understand.

Future Directions: Self-Sampling

HPV self-sampling (sometimes referred to as "self-collection") is a technique for cervical cancer screening that enables patients to collect their own specimen in private, at a time and place of their choosing.⁸ This is provided as an example of a potential landscape change that would warrant extensive change management.

Studies have shown that self-sampling is effective, and generally highly acceptable regardless of age, income, or country of residence.⁹ Benefits of self-sampling can include:

- Patient comfort and reduced anxiety
- Convenience and ease of use
- Privacy

Status of Approvals for Self-sampling

At the time of publication, the FDA has not approved self-sampling as an HPV testing method, and self-sampling has not been endorsed by national guideline groups, including USPSTF, ACS, or American College of Obstetricians and Gynecologists (ACOG). For updates on the status of FDA approval for self-sampling, visit the [FDA's website on approved devices](#) or the [NIH Enduring Guidelines page](#).[†]

[†] The [2021 World Health Organization guidelines](#), which approve of self-sampling, are available to providers and safety-net settings in U.S. territories and FAS. For sites following these guidelines, [information about self-sampling](#) is already available.



Tool for Assessing Organizational Capacity and Readiness

The following tool can help you assess your organization’s readiness for change related to cervical cancer prevention, screening, or management.¹⁰ Factors will vary for different interventions, and you may need to add or remove items from the list. Read each item and place a check mark to indicate whether you have it in place yet or not. Write down comments on the steps you will need to take.

Change Management Factors		Yes	No	Comments/Areas to Focus Future Efforts
<i>Staffing</i>	Leadership support of this intervention			
	Staff to deliver the intervention			
	Staff to supervise those who are delivering the intervention			
	Champions or implementation leads to support the intervention			
<i>Staff Training</i>	An outline of training objectives (knowledge, beliefs, skills)			
	Staff to deliver the training			
	A training plan (location, timing, curriculum)			
<i>Recruitment</i>	A process and materials to recruit, refer, and otherwise reach individuals who would benefit from the intervention			
	Partners to help reach individuals who would benefit from the intervention and/or support the intervention with resources			

Change Management Factors		Yes	No	Comments/Areas to Focus Future Efforts
Resources	Space for delivering the intervention			
	Necessary equipment or resources			
	System to document intervention processes and outcomes			

Capacities and Resources		Yes	No	Comments/Areas to Focus Future Efforts
Adaptation (if necessary)	Is the intervention appropriate and acceptable for the population and setting?			
	Plans for adapting the intervention to the population and setting			
Communication	Key stakeholders have been identified			
	A plan has been developed for communicating with stakeholders and keeping them engaged			
Monitoring and Evaluation	Metrics have been identified for evaluating implementation processes and outcomes			
	An evaluation plan has been drafted specifying what data will be collected when and to whom it will be reported			



Training and Resources on Implementing Change Management Strategies

The following resources can help safety-net providers and their organizations better understand how to develop and implement change management strategies.

Discussion Guides and Scripts

- ▶ [Motivational Interviewing Guide](#) | California Health Care Foundation: *Informative guide for how to better understand and use motivational interviewing.*

Toolkits, Implementation, and Planning Guides

- ▶ [Cervical Cancer Evaluation Measures](#) | CDC: *Provides baseline, process, and outcome measures for cervical cancer evaluation and improvement.*
- ▶ [IS4H Toolkit Knowledge Capsules: Change Management in Public Health Toolkit](#) | Pan American Health Organization: *How to develop change management strategies by considering the core elements of change management.*
- ▶ [Quality Improvement Strategies for Patient-Centered Medical Homes Implementation Guide](#) | Safety Net Medical Home Initiative: *How to develop, implement, and evaluate your quality improvement strategy.*
- ▶ [Steps for Increasing HPV Vaccination in Practice: An Action Guide to Implement Evidence-based Strategies for Clinicians](#) | ACS: *Step-by-step guide for clinicians to increase HPV vaccination rates.*

Trainings and Curricula

- ▶ [Putting Public Health Evidence in Action](#) | Cancer Prevention and Control Research Network: *How to develop capacity to use evidence-based approaches to improve community health.*
- ▶ [TeamSTEPPS 2.0: Change Management Module](#) | AHRQ: *How to develop and implement change management strategies in your organization.*

References

- ¹ Understanding Change Management in Public Health -Version 1.0 2. (2019). <https://www3.paho.org/ish/images/toolkit/IS4H-KCCM-EN.pdf>
- ² Implementation Safety Net Medical Home Initiative Tools to Make and Measure Improvement Implementation Guide Quality Improvement Strategy Pt 1. (2013). <https://www.safetynetmedicalhome.org/sites/default/files/Implementation-Guide-QI-Strategy-1.pdf>
- ³ TeamSTEPPS 2.0: Module 8. Change Management. (n.d.). www.ahrq.gov. Retrieved October 17, 2022, from <https://www.ahrq.gov/teamstepps/instructor/fundamentals/module8/igchangemgmt.html#igchgmt08>
- ⁴ Leadership and Change Management. (n.d.). California Health Care Foundation. Retrieved October 17, 2022, from <https://www.chcf.org/resource/opioid-safety-toolkit/leadership-change-management/#formcoalition>
- ⁵ Science of Improvement: Forming the Team | IHI - Institute for Healthcare Improvement. (n.d.). <https://www.ihl.org>. <https://www.ihl.org/resources/Pages/HowtoImprove/ScienceofImprovementFormingtheTeam.aspx>
- ⁶ Safety Net Medical Home Initiative. Altman Dautoff D, Van Borkulo N, Daniel D. Quality Improvement Strategy: Tools to Make and Measure Improvement. In: Phillips KE, Weir V, eds. Safety Net Medical Home Initiative Implementation Guide Series. 2nd ed. Seattle, WA: Qualis Health and The MacColl Center for Health Care Innovation at the Group Health Research Institute; 2013.
- ⁷ Norton, W.E., Chambers, D.A. Unpacking the complexities of de-implementing inappropriate health interventions. *Implementation Sci* 15, 2 (2020). <https://doi.org/10.1186/s13012-019-0960-9>
- ⁸ Fokom Defo, V., & Fokom DONGUE, J. (2020). Why Consider Self-Sampling for Cervical Cancer Screening in Low- and Middle-Income Countries?. *AMA Journal of Ethics*, 22(2), E116–E125. <https://doi.org/10.1001/amajethics.2020.116>
- ⁹ Yeh, P. T., Kennedy, C. E., de Vuyst, H., and Narasimhan, M. (2019). Self-sampling for human papillomavirus (HPV) testing: a systematic review and meta-analysis. *BMJ Global Health*, 4(3), e001351. <https://doi.org/10.1136/bmjgh-2018-001351>
- ¹⁰ Cancer Prevention and Control Research Network (2020). Putting public health evidence in action. <https://www.cpcrn.org/training>



Quality Improvement

Quality improvement (QI) is the use of a defined, strategic framework to analyze and improve processes and procedures to improve patient health. QI exercises help safety-net settings to better understand the current state of their processes and procedures, how well they are functioning, and to identify opportunities for improvement. Safety-net settings can use QI exercises to plan, organize, monitor, sustain, and scale new interventions or processes. The results of QI exercises facilitate easier transitions when organizational or team changes occur, such as implementation of new or changing technological innovations, adapting to changing guidelines, shifting health care team structures, and incorporating new workflows.^{1,2} The purpose of this chapter is to help providers and other safety-net staff think about how to set clear goals to improve their practices, and use data to help them assess progress toward those goals and achieve them.

What's in this Chapter

- Setting SMARTIE goals and objectives
- Real-time monitoring and evaluation information, including how to identify the right data
- Using data to advance health equity
- QI exercises
- Reporting data findings
- Links to training resources, curricula, and modules



Action Items

- ❑ **Employ a dedicated QI team.**
- ❑ **Review and implement guiding practices for collecting and tracking metrics.**
- ❑ **Review the kinds of data you have access to that can provide useful information about your organization's cervical cancer prevention, screening, and management activities.**
- ❑ **Set SMARTIE goals and create plans to improve processes related to cervical cancer.**
- ❑ **Use data to assess your progress toward your goals and adjust as needed.**
- ❑ **Share key findings with appropriate audiences.**

Setting Goals and Objectives

A great way to create well-written goals and objectives is to use the SMARTIE approach. SMARTIE language will help providers clearly communicate the direction of their QI efforts.

- **Specific:** What are you going to do, and for whom? Be as specific as possible!
- **Measurable:** How can you measure it? What data do you have to indicate what is happening now (baseline) and help you track when you have achieved your goal?
- **Attainable/Achievable:** Can you achieve it? Do you have the resources to support it?
- **Relevant:** Is this an important change for improving patient care? Talk to relevant stakeholders, including patients and providers, to help you determine relevance.
- **Time-bound:** When will this objective be accomplished?
- **Inclusive and Equitable:** How can you improve decision- and policy-making for traditionally marginalized people? How can you address systemic inequity and injustice?

Example SMARTIE Goal: By the end of the year, we will increase our clinic’s cervical cancer screening rate for non-English speaking patients from 28 percent to 60 percent.

Real-Time Monitoring and Evaluation

When conducting QI projects, using real-time data can help assess ongoing progress, identify emerging trends, and address any unintended consequences of new processes. A designated QI team can facilitate this process if resources are available.

Start simple. It is better to have a small dataset that is complete and accurate than a large one that is incomplete or inaccurate.

Use existing data. Collecting data does not need to be a resource-intensive process. When possible, use existing data and/or data that are easily accessible to save time and effort. Existing data sources related to HPV vaccination or cervical cancer screening might include Uniform Data System or Healthcare Effectiveness Data and Information Set (HEDIS) measures, insurance data, or claims data.

Explore different types of data. Safety-net settings might also consider collecting feedback from staff or patients using simple surveys. Social media data can provide insight into engagement and satisfaction, and website interaction or search data might highlight where patients have questions or look for resources.

Using EHR Data

EHR can often provide a wealth of information on your safety-net setting’s performance. EHR features can help safety-net teams collect, analyze, and visualize data related to vaccination, screening, and management.

- Engage representatives from your organization’s population health, QI, IT teams or departments, as well as EHR vendors or customer service teams, when possible, to create or enable data.
- Work with EHR experts to enable or create customized data collection and analysis features and templates that work seamlessly for your practice.

Using Data to Advance Health Equity

Safety-net settings provide services to diverse populations and play an important role in addressing health equity in their communities. Using data is a powerful way to highlight health disparities or inequities among patient populations, identify opportunities for closing those gaps, and advocate for resources to provide better care for all patients.

Health Disparities Data Resources

- ▶ [Uniform Data System](#): This is a HRSA core system of information appropriate for reviewing the operation and performance of health centers, and it includes tracking of cervical cancer screening.³ The data are used to improve health center performance and operation and identify trends over time.
- ▶ [HEDIS](#): This dataset is one of the most widely-used performance improvement tools in health care settings⁴ and includes more than 90 measures of care effectiveness, access, availability, experience, (risk-adjusted) utilization, and health plan descriptions.
- ▶ [National Healthcare Quality and Disparities Report](#): Each year, AHRQ measures trends in effectiveness of care, patient safety, timeliness of care, patient centeredness, and efficiency of care.⁵
- ▶ [Rural Health Information Hub](#): This national repository of clinical information on rural health issues provides guidance, tools, and case studies to address rural health needs.⁶ Website materials can be sorted by health care topics, population types, states/geography, and sources.
- ▶ [Ryan White HIV/AIDS Program Data Reports](#): This site includes client-level data submitted to the program's Services Report data system including demographic, socioeconomic, and HIV-related health outcomes data.



Guiding Questions to Help Identify the Right Data

- Who is going to use the data, and what do they need to learn from it?
- What data are readily available to you (e.g., can be pulled from the EHR)?
 - If the information you need is not readily available to you, would it be possible for you to gather it directly (e.g., could it be gathered through a survey)?
- What data will be most applicable across diverse settings (e.g., clinics, locations) and patient populations?
- How much effort will it take to gather the data?
- Are the data complete, reliable, and valid?
- Does your organization have the resources (i.e., funding, staff, time) needed to gather and make sense of the data?

Source: [Criteria for Selection of High-Performing Indicators](#)

Quality Improvement Exercises

QI exercises help providers in safety-net settings to better understand the current state of their processes and procedures, how well they are functioning, and to identify opportunities for improvement.

Gap Analysis

Providers can use a gap analysis to identify an organization’s current state, desired state, and areas of opportunity for closing the “gap” between current and desired states. This tool can help providers in safety-net settings make decisions about how to improve their cervical cancer care. For example, a gap analysis may help you create SMARTIE goals.

	Current State	Gap	Action Plan	Future State
Who	Which patients are affected now?	Which patients are not affected now?	How will we reach these patients?	Which patients will be affected?
What	What is the process now?	What is the process missing?	What will improve the process?	What will the process look like?
Where	Where is the missed opportunity?	Where are the differences?	Where will changes be made?	Where will we see change/improvement?
When	When is the process done?	When are changes needed?	When will changes happen?	When will we demonstrate change?
How	How will we make changes?	How will gaps be improved?	How will we roll out the changes?	How will we finalize changes?

SWOT Analysis

SWOT analysis is a tool used for strategic planning that can help you think about your organization’s current Strengths and Weaknesses, and Opportunities and Threats that are external but may affect organizational activities or goals.

- A SWOT analysis is most helpful when focusing on one objective, innovation, or process. For example, you could focus your SWOT analysis on information relative to achieving a SMARTIE goal.
- To conduct a SWOT analysis, gather diverse perspectives from across teams or departments within your organization (e.g., providers, administrators, frontline staff), partner organizations, and your patient population, if possible.
- Complete the table as a group and refine together or complete it individually and synthesize the findings when you have collected everyone’s input.

SWOT Analysis Template (with example questions)

<p>Strengths</p> <p><i>What resources do we have? What processes are working well?</i></p>	<p>Weaknesses</p> <p><i>What resources are we lacking? What processes need improvement?</i></p>
<p>Opportunities</p> <p><i>What (technological) innovations or new processes can we incorporate? What new partnerships could we establish?</i></p>	<p>Threats</p> <p><i>What regulations or guidelines are changing? What patient barriers are changing or emerging?</i></p>

PDSA Cycles

The PDSA cycle is a systematic model that helps safety-net settings implement plans and assess their progress, using data to adjust processes to improve health outcomes.^{7,8} Think of a PDSA cycle as a way to check and determine if the action plan for your gap analysis is working to help you achieve your desired future state.

PDSA Questions:

Plan	<ul style="list-style-type: none"> • What is the cervical cancer change or innovation you want to test? • What stakeholders will be involved in planning? • How can you pilot the innovation or improvement on a small scale? • How will you measure if you have been successful (i.e., what are your measures and indicators)?
Do	<ul style="list-style-type: none"> • When will you start your cervical cancer QI project? How long will you test it? • What data on cervical cancer vaccination, screening, or management will you collect? What is the source(s) of your data? • Who will collect the data, and how?
Study	<ul style="list-style-type: none"> • How will you determine if the innovation or improvement worked? • How will you know if it's ready to scale to your whole organization/population?
Act	<ul style="list-style-type: none"> • How will you implement the innovation or improvement into your organization/population? • If your innovation or improvement effort did not go as planned or was unsuccessful, what can you change (e.g., revise, re-design, re-measure) to improve the fit in your organization/population? • How will you de-implement any changes that did not fit your setting/population?

Reporting Data Findings

When you collect data about your QI projects or your organization's performance related to cervical cancer care, it is important to share your findings to demonstrate your progress and advocate for future changes.

Choose your audience: Consider who will benefit from seeing your cervical cancer data.

- Share project results and patient outcomes with administrative leadership, physicians, clinical and support staff, and funders.
- Share information about connections you build to support services or population health outcomes with patients and their families to demonstrate your organization's commitment to providing high-quality, life-saving care.
- Share information about local childhood vaccination rates with school administrators to support partnership efforts for vaccine administration.
- Share population health outcomes with local or state administrators to provide evidence for policy changes related to access or reimbursement.

Choose your message: Decide what your audience needs to hear and how they will best receive information.

- Share clear, concise, factual results supported by data.
- Use plain language to facilitate understanding and use clinical language only with clinical or other professional audiences.

Visualize your data: Help your audience understand your message by showing them evidence from your practice.

- Keep data simple – present only the essential information.
- Use clear, simple titles for your graph or chart.
- Help your audience interpret the information by specifying units of measurement and use the same scale when presenting multiple charts or graphs.



Training and Resources on Quality Improvement

The following resources can help safety-net providers and their organization better understand how to develop and implement QI strategies.

Tools and Templates

- ▶ [Cancer Patient Navigation Intake Form](#) | Evidence-Based Cancer Control Programs: *Template providing 10+ pages of examples of key variables related to demographics, referrals, and care.*
- ▶ [Evaluation Indicators](#) | CDC: *Defines types of program indicators and how to develop them for evaluations.*
- ▶ [Immunization Report Card Template](#) | HPV IQ: *This template can help organizations assess their HPV immunization performance and set goals for improvement.*
- ▶ [Plan-Do-Study-Act Directions and Examples](#) | AHRQ: *Worksheet with instructions and templates for completing a PDSA cycle.*
- ▶ [Writing SMART Objectives](#) | CDC Evaluation Guide: *Provides templates for writing SMART goals and objectives.*

Trainings and Curricula

- ▶ [Institute for Healthcare Improvement](#) | Institute for Healthcare Improvement: *Provides online courses and modules to build skills in QI, patient safety, leadership, and other topics.*
- ▶ [Public Health Foundation](#) | Public Health Foundation: *Provides resources and tools, including case studies, white papers, and examples that teach how to apply basic principles.*
- ▶ [Putting Public Health Evidence in Action](#) | Cancer Prevention and Control Research Network: *Modules, handouts, and resources about selecting, implementing, and evaluating evidence-based interventions.*

Other Helpful Resources

- ▶ [Cancer Data and Statistics](#) | CDC: *This website houses the official federal cancer statistics. It includes tools for visualizing cancer by state, demographics, and trend data.*
- ▶ [Cancer Facts and Statistics](#) | ACS: *“These regularly-updated publications present the most current trends in cancer occurrence and survival, as well as information on symptoms, prevention, early detection and treatment.”*
- ▶ [CDC Evaluation Resources](#) | CDC: *CDC provides a catalogue of resources for conducting strong evaluations, framework-based materials, a self-study guide, and other documents, workbooks, and tools.*
- ▶ [Compendium of Federal Datasets Addressing Health Disparities](#) | HHS Office of Minority Health: *This published compendium of federally-funded health equity datasets is useful for exploring data on SDOH.*
- ▶ [County Health Rankings and Roadmaps](#) | County Health Rankings: *This website produces reports of health outcomes, demographics, and quality of life by state, county, or zip code.*

- ▶ [Use Data](#) | HPV IQ: *This site provides information on choosing metrics and goals, communicating findings, and training related to HPV immunization.*
- ▶ [Applying the Value Transformation Framework in Federally Qualified Health Centers to Increase Clinical Measures Performance](#) | Journal for Healthcare Quality: *This article compares health centers that participated in applying the Value Transformation Network to increase clinical measures performance with health centers that did not.*
- ▶ [How to Increase Cancer Screening Rates: A Quality Improvement Toolkit for Busy Office Practices](#) | ACS: *This toolkit provides evidence-based action steps and tools to increase cancer screening rates.*
- ▶ [Using Graphs and Charts to Illustrate Quantitative Data](#) | CDC: *Describes different types of charts and graphs, with information on how to choose the best one to visualize your data.*
- ▶ [Analyzing Quantitative Data for Evaluation](#) | CDC: *Provides information on different types of data and how to analyze and interpret them.*

References

¹ Safety Net Medical Home Initiative. (2013). "Patient-centered interactions: engaging patients in health and healthcare." Safety Net Medical Home Initiative Implementation Guide (2nd ed.). Qualis Health and the MacColl Center for Health Care Innovation at the Group Health Research Institute.

<https://www.safetynetmedicalhome.org/sites/default/files/Implementation-Guide-Patient-Centered-Interactions.pdf>

² Safety Net Medical Home Initiative. (2013). "Quality improvement strategy: tools to make and measure improvement." Safety Net Medical Home Initiative Implementation Guide (2nd ed.). Qualis Health and the MacColl Center for Health Care Innovation at the Group Health Research Institute.

<https://www.safetynetmedicalhome.org/sites/default/files/Implementation-Guide-QI-Strategy-1.pdf>

³ Health Resources and Services Administration Bureau of Primary Health Care. (2022, October 13). Data and Reporting. <https://bphc.hrsa.gov/data-reporting>

⁴ National Committee for Quality Assurance. (2022). *HEDIS and Performance Measurement*. <https://www.ncqa.org/hedis>

⁵ AHRQ. (2022). National Healthcare Quality and Disparities Reports. Rockville, MD. <https://www.ahrq.gov/research/findings/nhqdr/index.html>

⁶ Rural Health Information Hub. (2022). RHI Hub. <https://www.ruralhealthinfo.org/>

⁷ Cancer Prevention and Control Research Network. (2022). Putting Public Health Evidence in Action. <https://cpcrn.org/training>

⁸ Cancer Prevention and Control Research Network. Putting Public Health Evidence in Action: Module 5 PDSA Cycle Tracking Form.

<https://cpcrn.org/cms/files/Module%205%20Handout%205%3A%20PDSA%20Cycle%20Tracking%20Form>



Establishing and Strengthening Partnerships

A **partnership** is a mutually beneficial relationship between two or more organizations that have agreed to work together toward a common goal.^{1,2} Partnerships can improve patient care and outcomes in any setting and may be particularly helpful in safety-net settings that serve patients who are uninsured or underserved, or face additional barriers to care.³ Partnerships may help provide additional support to help safety-net settings meet patient needs in conditions with minimal resources.

Partnerships include sharing resources, responsibilities, and power to create solutions.^{1,2,4} Partnerships may help with identifying and engaging patients, increasing patient awareness of and access to health care and wraparound services, and improving health care delivery through coordination and communication. Partnerships with other health care organizations may also improve communication and data sharing, thereby improving health care delivery. A clinic might partner with a hospital or cancer center to coordinate scheduling, issue follow-up referrals, or improve how exam results are shared back to referring providers.

Partnerships can help address **patient barriers** such as:

- Transportation
- Food insecurity
- Housing
- Cost

They can also address **provider barriers** such as:

- Patient identification and engagement
- Screening rates and referrals
- Data sharing
- Vaccine delivery
- Patient education



Action Items

- Identify opportunities to improve or expand your organization's current partnerships.
- Identify new partnership opportunities that will ultimately improve patient care and outcomes.
- Form new partnerships built on equity, respect, transparency, and trust.
- Partner with patients and community organizations and incorporate their feedback into clinical practices and quality improvement activities.

What's in this Chapter

- Characteristics of strong partnerships
- Information on the kinds of organizations with whom safety-net settings might consider partnering
- Guidance on how to develop partnerships
- Information on engaging patients and communities
- Links to toolkits on building partnerships

What Makes Strong Partnerships

Strong partnerships are developed intentionally and over time. Although there is no one-size-fits-all formula for a strong partnership, safety-net settings should consider developing a relationship based on values and characteristics of successful partnerships.

Characteristics of Successful Partnerships

- **Equity** is essential for effective partnerships, particularly when there may be a power imbalance between the partnering organizations. Developing a relationship based on equity means that partners share power, contributions, and voice based on individual needs.⁵ Equity also ensures that both partner organizations benefit from the partnership.
- **Mutual respect** lays the groundwork for a strong partnership. Respectful communication and resource sharing foster collaboration and build a strong foundation for partnerships.
- **Transparency** ensures that all partners have a realistic expectation of the partnership and its outcomes. Safety-net settings can exemplify transparency by being honest about their reasons for seeking a partner, expectations for roles and responsibilities, their available resources and capacities, and their limitations or anticipated challenges.⁵
- **Trust** is vital to a strong and collaborative partnership. It is built intentionally and it must be earned over time through consistent behavior.⁵ Equity, respect, and transparency all contribute to building trust.



Resources

More information on building partnerships using these values can be found here:

- ▶ [Fostering Partnerships for Community Engagement](#) | The Urban Institute

Types of Partners

Health Care Partners

Safety-net settings can partner with other health care settings to improve patient care delivery and expand availability of services. For example, a Title X Clinic may consider identifying a safety-net partner that has experience getting patients into the National Breast and Cervical Cancer Early Detection program.



Resources

CDC’s National Comprehensive Cancer Control Program works to increase HPV vaccination uptake at the local, state, territorial, and tribal levels. Learn more here:

- ▶ [National Comprehensive Cancer Control Program](#)
- ▶ [The Comprehensive Cancer Control Partnership](#)

Other Partners

Additionally, safety-net settings might consider partnering with other types of organizations, such as local schools and social services providers. These types of organizations might be able to engage hard-to-reach patients through patient identification, patient engagement and education, on-site clinical service delivery, and wraparound services. On-site clinical service delivery can include providing vaccines or screening at organization locations. By providing wraparound services, safety-net settings and partnering organizations can address a patient’s complex needs beyond clinical health care.⁶

How Partners Can Support Cervical Cancer Care

Partner Organization	Patient identification	Patient engagement and education	On-site clinical service delivery	Wraparound services
Local schools		X	X	
Colleges/universities		X	X	
Social services providers	X	X		X
Community-based organizations	X	X	X	
Faith-based organizations	X	X		
Local women’s groups	X	X		
Local LGBTQIA+ groups	X	X		
Tribal Health Departments/Centers	X	X	X	X
Local Health Departments	X	X	X	X

Engaging Partner Organizations

The partnerships life cycle contains three key phases: forming, building, and maintaining.^{4,5,7}

Forming Partnerships

Organizations interested in pursuing a partnership should first conduct a needs assessment to determine if a partnership is necessary for achieving outcomes, what your organization hopes to gain from a partnership, and if your organization is ready for a partnership. If so, your organization can begin identifying potential partners and planning to solidify shared goals and establish the roles and responsibilities of each partner.

Key Action Steps and Guiding Questions

- Conduct needs and organizational readiness assessments.
 - What resources or capacity do providers need to improve health care delivery?
 - What do patients need to receive better care?
 - How can a partnership help address those gaps?
 - What can your organization provide as a partner?
 - Are there any challenges that would present potential barriers to a partnership?
 - What are your capacities and limitations?
- Identify potential partners and begin outreach and engagement.
 - Do you have existing relationships with any organizations that can be further developed?
 - What kinds of organizations match your goals and needs?
- Host an initial planning call to identify shared goals, roles, and responsibilities with your partner.
 - What are the goals of this partnership?
 - How will each partner leverage its strengths to contribute to the goals of the partnership?
 - What are your partner's capacities and limitations?



Case Study

Three rural safety-net clinics in Colorado and Oregon used partnerships to improve cervical care coordination and increase patient access to services. Clinics developed agreements with specialty care providers, used warm handoffs, and introduced patients to specialty care providers during primary care visits to increase patient confidence and comfort. One clinic established a multidisciplinary community resource team consisting of primary care and specialty care staff, patients and families, and social service providers to improve care coordination and communication.

▶ [Learn more about this partnership here.](#)

Building Partnerships

Once an initial partnership is established, the next step is building its foundation. Establishing processes, infrastructure, and capacity needed for the partnership is part of the building phase.

Key Action Steps and Guiding Questions

- Create partnership agreements.
 - What is the timeline of the project or length of the partnership?
 - How can you create processes to accomplish the goals you have set?
 - What will communication look like?
 - What are the procedures to ensure accountability when mistakes or conflict occur?
- Foster a relationship that prioritizes equity, respect, transparency, and trust.
 - What power dynamics exist between partners, and how will they be addressed?
 - How will the partnership be mutually beneficial?
- Develop a shared understanding of the population you are serving.
 - Who are the patients you currently serve, and who do you need to reach?
 - Who are the patients your partner currently serves, and who do they need to reach?

Maintaining Partnerships

Partnership maintenance focuses on sustaining and evaluating the partnership to ensure that goals are being accomplished.

Key Action Steps and Guiding Questions

- Stay connected and engaged.
 - How often do partners meet to share information and provide updates?
 - What updates and accomplishments can be shared and celebrated?
- Evaluate the partnership regularly.
 - Is this partnership effective at accomplishing its goals?
 - Are all partners adhering to the partnership agreement?
 - What changes need to be made, formally or informally, to improve the partnership?
 - How can the partners continue to strengthen and sustain the partnership?

Partnership Documentation

- **Memorandum of Understanding:** Outlines an agreement between two or more organizations to guide the current and future partnership.¹ It can outline roles, responsibilities, goals, and processes for the partnership, such as communication and managing conflict.⁸
- **Data Use Agreement:** Protects nonpublic data when it is being shared between partnering organizations.
- **Business Associate Agreement:** Ensures that any business associate that will access protected health information will safeguard that information according to Health Insurance Portability and Accountability Act of 1996 standards.⁹



Resources

More information on evaluating partnerships can be found here:

- ▶ [Fundamentals of Evaluating Partnerships](#) | CDC

Levels of Partnerships

In this toolkit, the term “partnership” refers to and includes all levels of partnership, including cooperation, coordination, collaboration, and fully integrated partnership. Keep in mind that every partnership will have a different goal and not all partners need to be engaged on the same level. The different levels of partnership build on each other, and as each level progresses, partnering organizations gain a deeper understanding of each other and face increased challenges to address together.¹

- **Cooperation:** Organizations work independently and may nominally support each other but agree not to interfere with each other’s work.
- **Coordination:** Partners share resources and information to learn about each other’s services and motivations, and they take direction from an appointed coordinator to facilitate delivery of those services.
- **Collaboration:** Organizations develop a deeper understanding of each other’s values, and they create and work toward mutually beneficial processes or projects.
- **Integrated Partnership:** A partnership involves a high level of integration between organizations that share a mission, vision, and goals for achieving something that could not be achieved independently.



Questions to Ask New and Existing Partners⁷

- What is the purpose of the partnership?
- What does success look like for the partnership?
- What are the partnership’s activities and objectives?
- What roles will members fulfill?
- What resources or skills do partners need to fulfill their roles and responsibilities?

Engaging Patients and Communities

Partnering with patients and members of the community may help safety-net settings better address their cervical cancer health and social needs.² The goals of these partnerships can range from receiving input on cervical cancer care to prevention, education, advocacy, and research programs.² Safety-net settings might consider engaging with their patient population, the geographical community surrounding the health care facility, or a subset of the patient population (e.g., LGBTQIA+, immigrant, and refugee). This can be accomplished by seeking out individuals and organizations which represent the community and engaging them in partnership activities such as planning and QI activities related to cervical cancer. For more information on empowering individual patients to improve their clinical outcomes, see the Patient Engagement Chapter.

Benefits to engaging patients and community members:¹⁰

- Increase trust in the medical system
- Improving quality of care
- Enhancing cultural humility, a lifelong process of seeking to understand others’ beliefs and values¹¹

Opportunities to partner with patients and community members:

- Patient/Community Advisory Boards
- Community champions for vaccination and screening
- Focus groups for perspectives on QI activities
- Focus groups for feedback on social media and marketing materials

Important Considerations

Partnerships with communities and patients require a careful approach. There must be strong efforts to address power dynamics, compensate individuals for their time and input, and ensure that patients are benefitting from the partnership.⁵ Since there will likely be a great power imbalance between patients and providers, it is essential for patients' voices to be heard, understood, and incorporated into decision-making to ensure that the partnership does not treat communities and patients unfairly.



Resources for Developing Partnerships

Read the following resources for more information and practical tools to form, build, and maintain partnerships.

Toolkits, Implementation, and Planning Guides

- ▶ [Engaging Your Community](#) | John Snow, Inc: *Toolkit for developing strategic partnerships, effective outreach strategies, and clear communications for community engagement.*
- ▶ [Making Community Partnerships Work](#) | March of Dimes: *Toolkit for developing community-based partnerships to achieve a shared goal.*

References

¹ John Snow, Inc. (2012, January). *Engaging Your Community*. https://publications.jsi.com/JSIInternet/Inc/Common/download_pub.cfm?id=14333andlid=3

² March of Dimes. *Making Community Partnerships Work: A Toolkit*. <https://aapcho.org/wp/wp-content/uploads/2012/02/Giachello-MakingCommunityPartnershipsWorkToolkit.pdf>

³ California Health Care Foundation. (2017, November). *Addressing Social Factors in the Health Care Safety Net*. <https://www.fsg.org/wp-content/uploads/2021/08/Primed-Addressing-Social-Factors-in-the-Health-Care-Safety-Net.pdf>

⁴ The National Resource Center for Reaching Victims and National Children's Advocacy Center. (2020, October 14). *Building Partnerships Toolkit*. <https://www.reachingvictims.org/resource/building-partnerships-toolkit/>

⁵ Urban Institute. (2021, October). *Fostering Partnerships for Community Engagement*. https://www.urban.org/sites/default/files/publication/104935/fostering-partnerships-for-community-engagement_0.pdf

⁶ Rural Health Information Hub. (2018, June 21) *Rural Services Integration Toolkit*. <https://www.ruralhealthinfo.org/toolkits/services-integration/2/care-coordination/wraparound>

⁷ CDC. *Fundamentals of Evaluating Partnerships*. https://www.cdc.gov/dhds/docs/partnership_guide.pdf

⁸ IPV Health Partners. *Prevent, Assess, and Respond: A Domestic Violence and Human Trafficking Toolkit for Health Centers and Domestic Violence Programs*. <https://ipvhealthpartners.org/>

⁹ HHS. (2013, January 25). *Business Associate Contracts*. <https://www.hhs.gov/hipaa/for-professionals/covered-entities/sample-business-associate-agreement-provisions/index.html>

¹⁰ Institute for Local Government. *Partnering with Community-Based Organizations for More Broad-Based Public Engagement*. https://www.ca-ilg.org/sites/main/files/file-attachments/partnering_with_comm_based_orgs_final.pdf

¹¹ Yeager, K. A., and Bauer-Wu, S. (2013). Cultural humility: essential foundation for clinical researchers. *Applied Nursing Research: ANR*, 26(4), 251–256. <https://doi.org/10.1016/j.apnr.2013.06.008>



Patient Engagement

Engaging patients in health care includes empowering patients to make informed decisions about their health. Empowering your patients will make them more receptive to using health care services, including screening and any necessary follow-up steps, thus reducing the number of preventable deaths related to cervical cancer. Listening and validating patients' fears and addressing access barriers to care are crucial to ensuring that patients comply with vaccination, screening, and management guidelines. Patient engagement should be centered around developing individual relationships to improve clinical outcomes.^{1,2} Patients can also be engaged for larger-scale program improvement activities to optimize care and address social needs. For more information on partnering with patients and community members, see the Partnerships chapter.

What's in this Chapter

- Steps for improving patient engagement
- Inclusive language resources
- Navigating patients who fall out of the care continuum
- Tips for patient engagement and outreach
- Links to training resources and modules



Action Items

- ❑ **Integrate culturally sensitive and inclusive principles into your care practice.**
- ❑ **Engage patients who have fallen out of the care continuum and catch them up on HPV vaccination and cervical cancer screening.**
- ❑ **Assess and explain patients' insurance coverage and be prepared to provide information on financial assistance options.**
- ❑ **Print plain-language patient information and education materials.**

Steps to Improve Patient Engagement

Providers can engage patients by providing culturally sensitive care and incorporating inclusive language into discussions and materials.³ Providers can take the following steps to improve patient engagement in safety-net settings.

Assess patient access needs.

- Talk with each patient, assess individual access needs, and provide appropriate resources:
 - Internet/broadband access (for telehealth appointments, patient portals)
 - Health literacy levels
 - Preferred speaking or reading languages and need for interpretation (including sign language)
 - Finances and insurance coverage
 - Transportation needs
 - Child care and elder care needs

Provide culturally sensitive care.

- Cultural sensitivity requires an individual to understand and respect the values, attitudes, and beliefs that differ across patients' cultures and respond appropriately to those differences when communicating with patients.⁴
- Cultural barriers have often been linked to health disparities in populations (e.g., delay in screening, decrease in adherence to screening guidelines).

Use inclusive language.

- Increase patient's trust and comfort by using terms that address patients respectfully and adapt to the specific cultural, linguistic, environmental, social, and historical situation of each population or audience of focus.
 - Avoid jargon and use easy-to-understand language.
 - Use correct pronouns, as specified by the patient.
 - Use preferred terms for select population groups.
 - Also acknowledge that there is not always universal agreement on all terms.
 - Use person-first language when possible.
 - Update printed materials (e.g., posters, flyers, handouts) to include inclusive language and images.
- Inclusive language changes over time, and staff throughout the practice should stay updated on inclusive language.



Assessing and Explaining Insurance Coverage

- Staff in the safety-net setting can support patients by explaining [preventive services coverage](#), researching your patient populations' insurance landscape, and preparing materials ahead of time (e.g., brochures, applications) to discuss coverage.
- Connect patients to advocates, navigators, and financial resource counselors for additional support.
- Use straightforward language to explain insurance coverage and out-of-pocket costs.



Resources

More information on evaluating partnerships can be found here:

- ▶ [Preferred Terms for Select Population Groups & Communities](#) | CDC

Navigating Patients who Fall Out of the Care Continuum

Patients may fall out of the care continuum in a variety of places. For example, a patient may get their first dose of the HPV vaccine but not complete the series, or a patient may have an abnormal screening result but not receive the appropriate follow-up test. This can happen for a variety of reasons:

- Fears, doubts, mistrust, bad experiences
- Lack of follow-up or forgetfulness
- Moving/relocating
- Change in insurance coverage
- Confusion or fears about costs

The following can help prevent patients from falling out of the care continuum or re-engage patients:

- **Create a process** for identifying patients who are not up to date or adherent with follow-up.
 - Create EHR alerts noting when patients are due/overdue for HPV vaccination, screening, and follow-up.
 - Review patient records before/during routine appointments.
 - Use EHRs to identify patients without recent appointments and contact them to schedule an appointment.
- **Engage patients** by rebuilding trust and providing linguistically and culturally appropriate information about cervical cancer prevention and care.
- **Schedule appointments** for patients—internally or with referral organizations—to ensure that they are up to date with visits.

Patient Outreach and Engagement

The following interventions can help providers engage patients in a variety of settings.⁵ These interventions can be conducted independently or in partnership with other organizations. Review the Partnerships chapter for more information.

- Host or participate in health fairs or local events to increase awareness of services, provide information about cervical cancer, schedule appointments, and administer services like on-site screening when possible.
- Coordinate with faith-based organizations, women's groups, LGBTQIA+ groups, other local groups, or task forces to disseminate information about cervical cancer and safety-net services.
- Engage patients through your organization's or partner's social media channels.
 - Use catchy, encouraging language to remind patients to get screened and follow up with appointments.
 - Optimize when and how you use social media:
 - January is National Cervical Cancer Awareness Month!
 - Mail or email birthday cards to patients with screening and vaccine reminders.
 - Remind parents that back-to-school time means following up on vaccinations.



Training and Resources for Improving Patient Engagement

The following resources can help safety-net providers improve patient engagement within their practice.

Tools and Templates

- ▶ [Cervical Cancer Risk Assessor](#) | Boston University: *This website provides information in English and Spanish designed for patients and the general public to better understand cervical cancer screening and HPV vaccination.*

Discussion Guides and Provider Scripts

- ▶ [Talking to Parents about HPV Vaccine](#) | CDC: *Talking points on how to address parents' concerns and how providers can respond to their concerns effectively.*
- ▶ [A Provider's Quick-Guide to HPV Cancer Prevention for LGBTQ+ Patients](#) | Team Maureen: *This pamphlet discusses how to improve LGBTQIA+ care and provides definitions on sexual orientation and gender identities.*

Toolkits, Implementation, and Planning Guides

- ▶ [Reducing Structural Barriers Planning Guide](#) | CDC: *Planning guide for how to lessen or eliminate non-economic obstacles that make it difficult for people to access cancer screening.*
- ▶ [Cervical Cancer Awareness Month Social Media Toolkit](#) | George Washington University Cancer Center: *How to plan, implement, and evaluate your social media strategy.*
- ▶ [AHRQ Health Literacy Universal Precautions Toolkit](#) | AHRQ: *This toolkit helps providers improve communication with patients.*

Trainings and Curricula

- ▶ [Educational Materials for Your Office Staff](#) | CDC: *Educational resources on HPV vaccination, best practices for communicating with parents and patients, and tips for boosting vaccination rates.*
- ▶ [Curricula Enhancement Module Series](#) | National Cervical Cancer Coalition: *Modules about cultural competence, including self-assessments and tools for providers.*
- ▶ [Adolescent #HowIRecommend Vaccination Video Series](#) | CDC: *Conversational style videos and approaches to answering parents' questions or concerns about HPV vaccination.*
- ▶ [On-Demand Training](#) | Indian Health Service: *This webpage offers self-paced courses on topics such as trauma-informed care and cultural competency.*

Articles and Literature

- ▶ [The role of clinical champions in facilitating the use of evidence-based practice in drug and alcohol and mental health settings: A systematic review](#) | Society for Research Implementation Collaboration: *Examines*

the role and efficacy of clinical champions to facilitate the implementation and adoption of evidence-based practice and to overcome organizational barriers.

- ▶ [Effectiveness of Telehealth for Women’s Preventive Services](#) | AHRQ: *This report discusses the effectiveness of telehealth for women’s preventive services for reproductive health and interpersonal violence.*
- ▶ [Centering Health Equity in Telemedicine](#) | Annals of Family Medicine: *This article provides information on how to approach health equity in telemedicine.*
- ▶ [Integrating Social Care into the Delivery of Health Care](#) | National Academies: *This report provides information on integrating services that address SDOH into healthcare delivery to improve outcomes.*

Other Helpful Resources

- ▶ [Health Equity Guiding Principles for Inclusive Communities](#) | CDC: *How to adapt communication products to be culturally, linguistically, and historically appropriate.*
- ▶ [Free Educational Materials from the National Cervical Cancer Coalition](#) | National Cervical Cancer Coalition: *Fact sheets about HPV and cervical cancer topics free for download.*
- ▶ [Use Normalizing Language to Explain the Importance of Getting the HPV Vaccine to Adolescent Clients and Their Parents/Guardians](#) | Reproductive Health National Training Center: *Fact sheet on how to explain the importance of getting the HPV vaccine to adolescent clients and their parents/guardians.*
- ▶ [If You Have It, Check It: Overcoming Barriers to Cervical Cancer Screening with Patients on the Female to Male Transgender Spectrum](#) | National LGBT Health Education Center: *A PowerPoint presentation on how to overcome barriers to cervical screening with patients on the female-to-male transgender spectrum.*
- ▶ [Health Care for Transgender and Gender Diverse Individuals](#) | The American College of Obstetricians and Gynecologists: *This document offers guidance on providing inclusive and affirming care for transgender and gender diverse patients.*
- ▶ [Trauma Informed Care](#) | Indian Health Service: *This webpage provides information and resources about trauma-informed care.*
- ▶ [How Racism Leads to Cancer Health Disparities](#) | CDC: *This webpage provides information on how racism on different levels impact cancer disparities.*

References

- ¹ Peña, N, Alimena, S, Kenedy, L, and Feldman, S. (2022). Dana-Farber/Brigham and Women's Cervical Cancer Patient Navigation Toolkit.
- ² Freeman, H. P., and Rodriguez, R. L. (2011). History and principles of patient navigation. *Cancer*, 117(S15), 3537-3540.
- ³ Baezconde-Garbanati, L., Murphy, S. T., Moran, M. B., and Cortessis, V. K. (2013). Reducing the excess burden of cervical cancer among Latinas: Translating science into health promotion initiatives. *Californian Journal of Health Promotion*, 11(1), 45.
- ⁴ Ihara, E. (n.d.) Cultural competence in health care. *Georgetown University Health Policy Institute*. [www. https://hpi.georgetown.edu/cultural/](https://hpi.georgetown.edu/cultural/)
- ⁵ CDC. (2022). *Cancer Resource Library*. CDC. Retrieved October 20, 2022, from <https://www.cdc.gov/cancer/dccp/resources/index.htm>