

New Opportunities for Cervical Cancer Elimination

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Kepka Lab Research

At the intersection of...

- Population health & patient-centered care
- Prevention, screening, and survivorship
- Systems-level change & strategic interventions

Focused on...

- HPV-associated cancers
- HPV vaccination
- Messaging strategies

Passion for...

- Preventing cancer
- Reducing cancer burden
- Cancer health equity for all



World Health Organization's 2030 Cervical Cancer Elimination Strategy

90%

of girls fully vaccinated
with HPV vaccine by
age 15 years.

70%

of women are screened
with a high-performance
test by 35 years of age and
again by 45 years of age.

90%

of women identified with cervical
disease receive treatment
(90% of women with precancer
treated, and 90% of women
with invasive cancer
managed).

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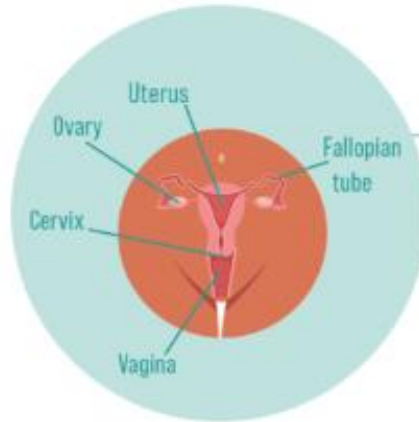
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OPERATION WIPE OUT aims to eliminate cervical cancer as a public health problem in Alabama by raising awareness about HPV and cervical cancer prevention and facilitating access to vaccination, screening, follow-up, and treatment.

We can eliminate cervical cancer as a public health problem in Alabama by:



VACCINATING MORE CHILDREN AND ADOLESCENTS AGAINST HPV

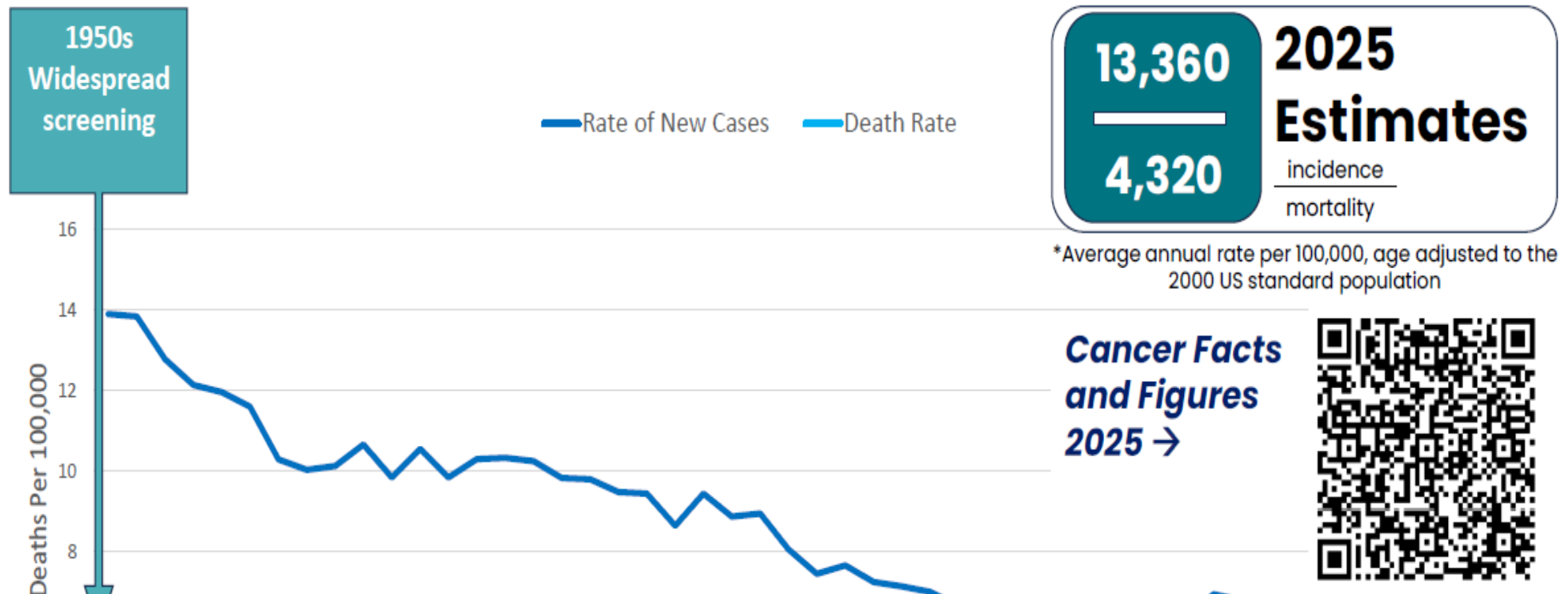


SCREENING MORE WOMEN FOR CERVICAL CANCER



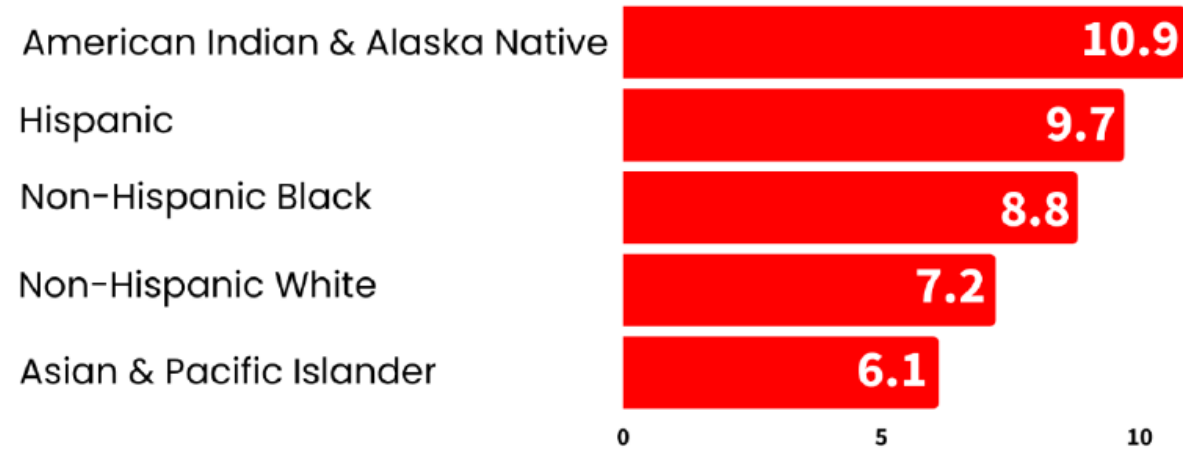
ENSURING THAT WOMEN WHO NEED FOLLOW-UP CAN ACCESS SERVICES

Cervical Cancer Incidence and Mortality



Cervical Cancer Incidence Rates

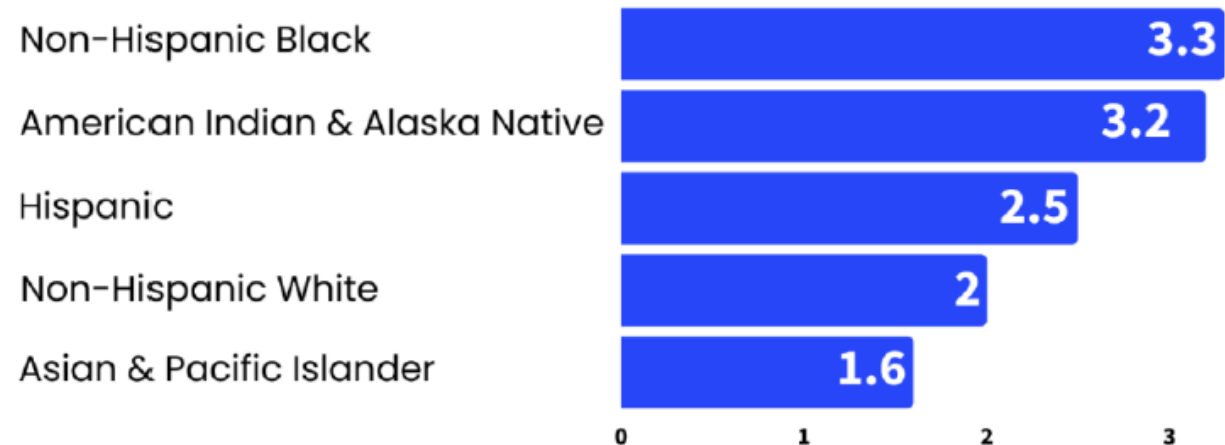
2015–2019, by Race/Ethnicity



Average annual rate per 100,000, age adjusted to the 2000 US standard population. Data sources: North American Association of Central Cancer Registries (NAACCR), 2022. Accessed at <https://cancerstatisticscenter.cancer.org/#!/cancer-site/Cervix>.

Cervical Cancer Death Rates

2016–2020, by Race/Ethnicity



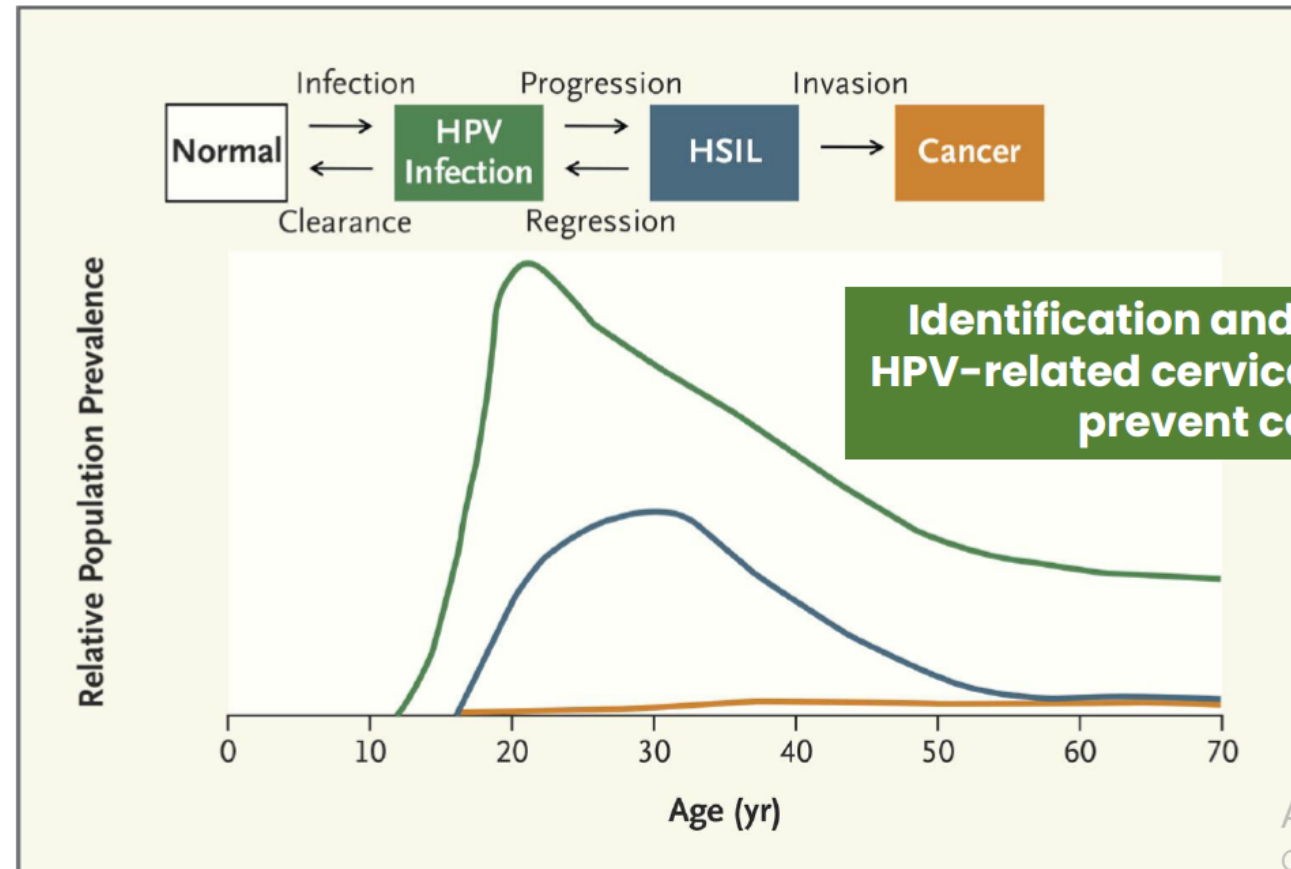
Average annual rate per 100,000, age adjusted to the 2000 US standard population. Data sources: National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention, 2022. Accessed at <https://cancerstatisticscenter.cancer.org/#!/cancer-site/Cervix>.

The Natural History of Cervical Cancer



HPV-Related Cervical Disease

Almost all cases of cervical cancer are caused by high-risk types of human papillomavirus (HPV)



Cervical Cancer Prevention in the Mountain West

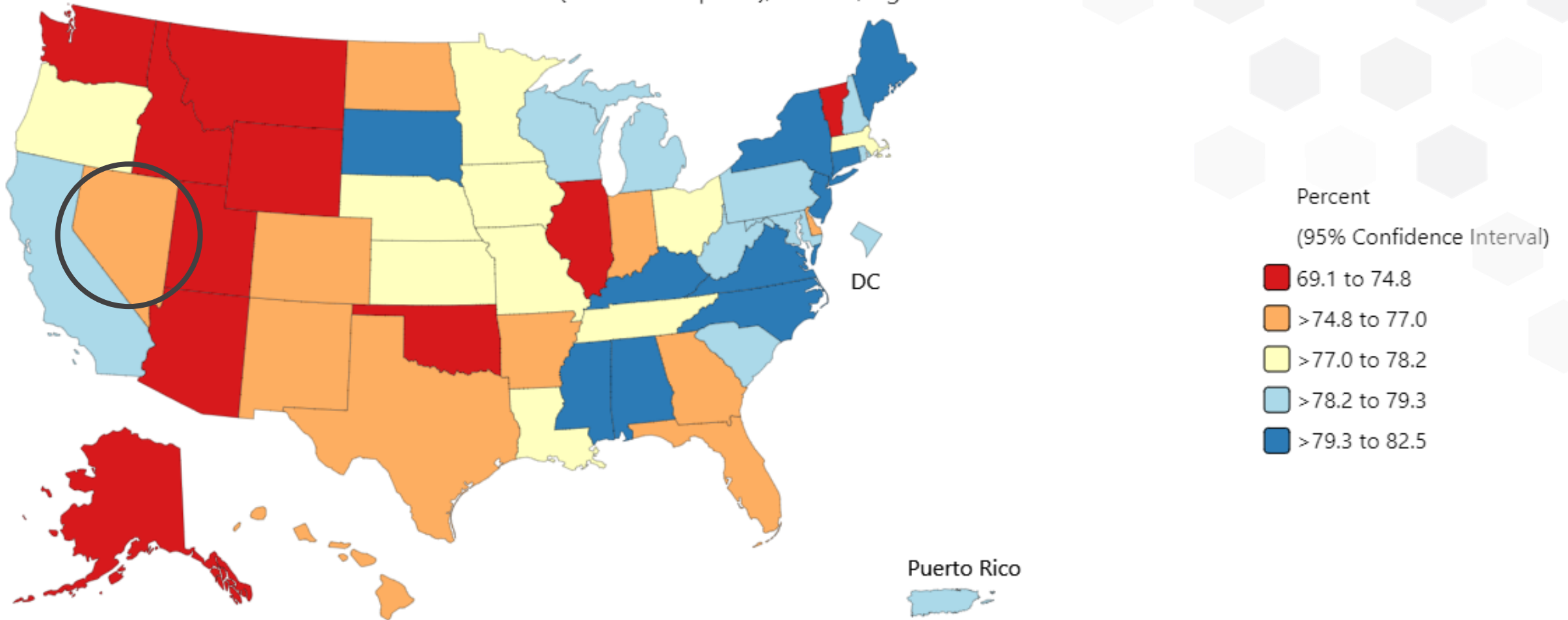


Screening and Risk Factors by State

(Directly Estimated 2020 BRFSS Data)

Pap Test in Past 3 Years, No Hysterectomy

All Races (includes Hispanic), Female, Ages 21-65



U.S. Cervical Cancer Screening Rates

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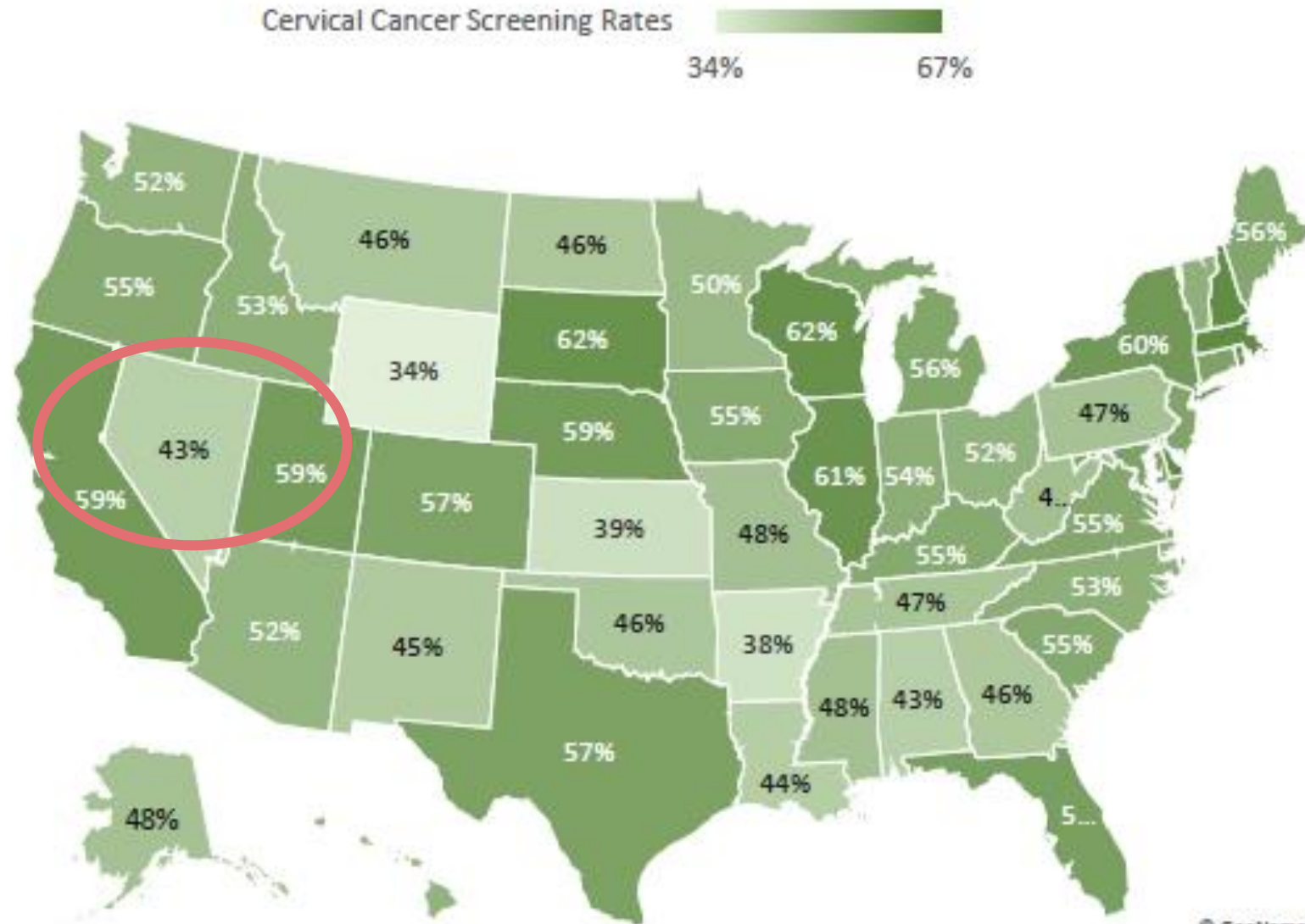
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2024 FQHC Cervical Cancer Screening Rates

HRSA Uniform Data System (UDS) Data

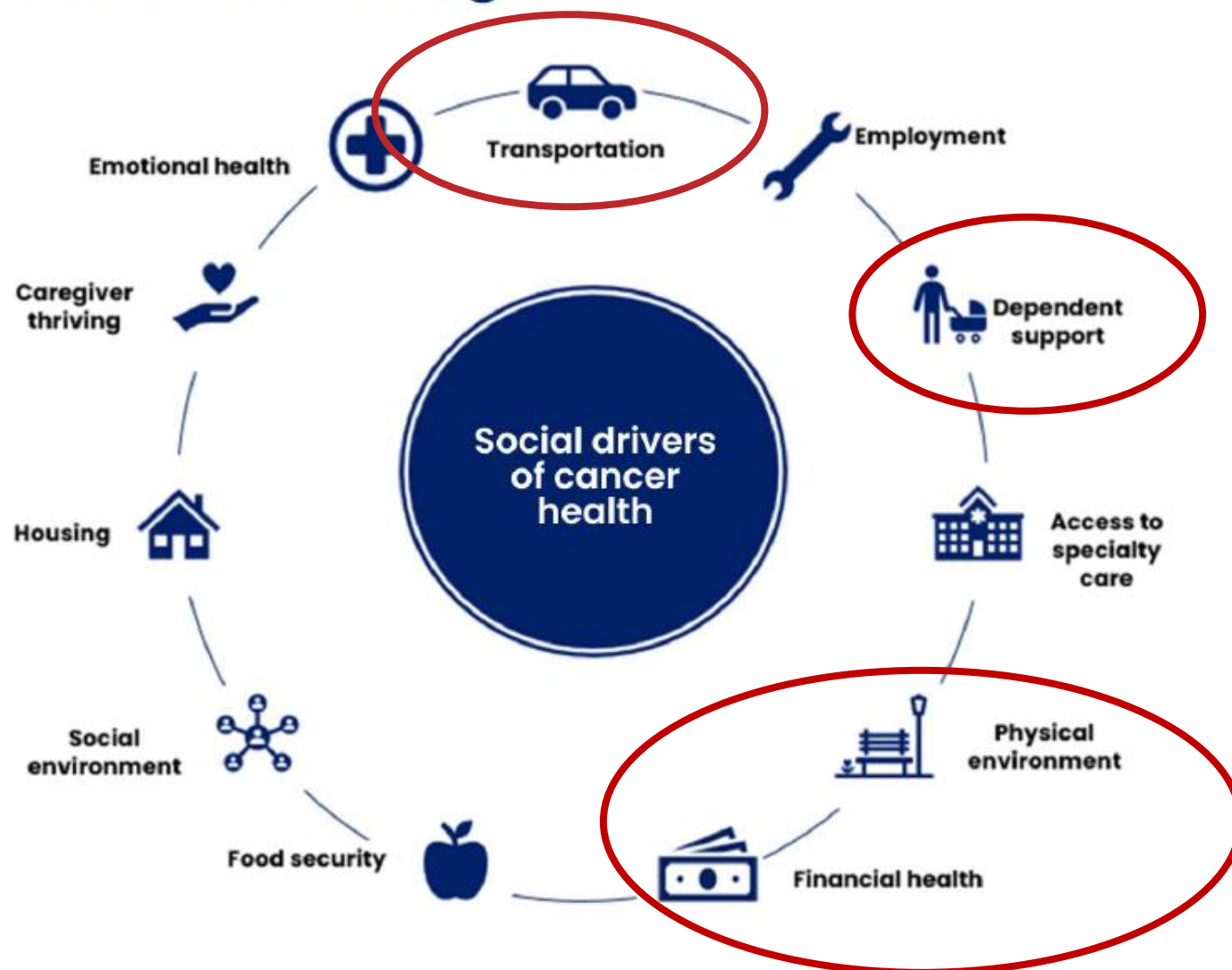




Rural and Frontier in the United States



Social Drivers of Health Are Often Barriers to Cancer Screening



Without access to resources that **protect, improve, and maintain good quality of life** people experience **cancer health disparities.**

Learn more about health equity and cancer disparities→



FDA Approves HPV Tests That Allow for Self-Collection in a Health Care Setting

July 24, 2024, by Sharon Reynolds

On May 14, the Food and Drug Administration (FDA) expanded the approvals of two tests that detect cancer-causing types of human papillomavirus (HPV) in the cervix. Both tests are used as part of screening for cervical cancer.

Under these expanded approvals, people can now be offered the option to collect a vaginal sample themselves for HPV testing if they cannot have or do not want a pelvic exam. However, the collection, which involves a swab or brush, must be done in a health care setting, such as primary care offices, urgent care, pharmacies, and mobile clinics.

The tests included in the approvals are Onclarity HPV, made by Becton, Dickinson and Company (BD), and cobas HPV, made by Roche Molecular Systems.

Until now, [screening for cervical cancer](#) in the United States has required a sample of cells collected from the cervix during a pelvic exam performed by a health care professional. But the availability of a self-collection option in health care settings should help widen access to screening, said Vikrant Sahasrabuddhe, M.B.B.S., Dr. P.H., of NCI's Division of Cancer Prevention.



For now, the option to self-collect a vaginal sample for HPV testing must be done in a health care setting.

Credit: iStock/SDI Productions

News | Articles | April 9, 2026

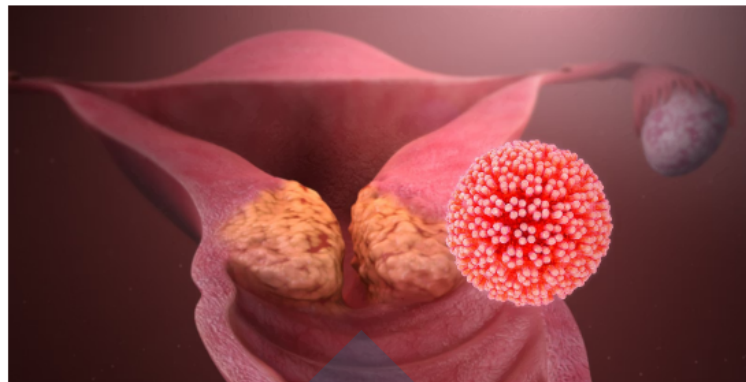
FDA Clears At-Home HPV Self-Collection Kit to Expand Cervical Cancer Screening Access

Author(s) [Cancer Network Staff](#)

Fact checked by: [Tim Cortese](#), [Ariana Pelosci](#)

The FDA has also approved the BD Onclarity HPV Assay for the screening of cervical cancer, with support from the SHIP trial evaluating at-home cervical cancer screening.

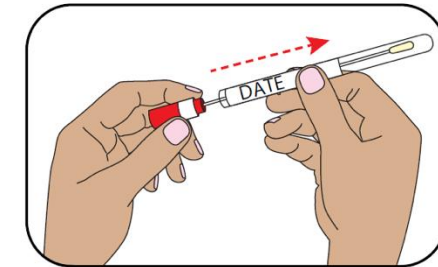
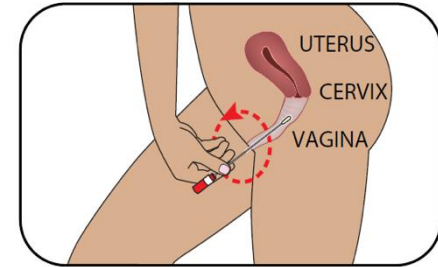
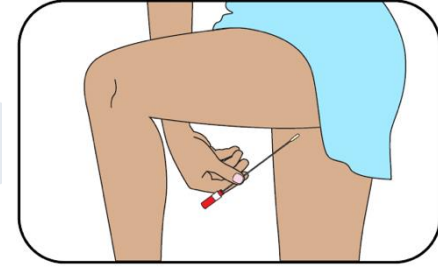
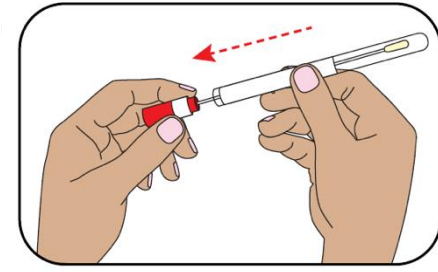
The FDA has cleared the Onclarity HPV Self-Collection Kit and approved the BD Onclarity HPV Assay with extended genotyping for at-home use, as tools for cervical cancer screening, according to a  release from Waters Corporation.¹



HPV Self-Collected Samples



- Self-collection is effective for cervical cancer screening.
- Self-collection in the healthcare setting received FDA approval.
- Patients can complete self-collection in a clinic bathroom or exam room.

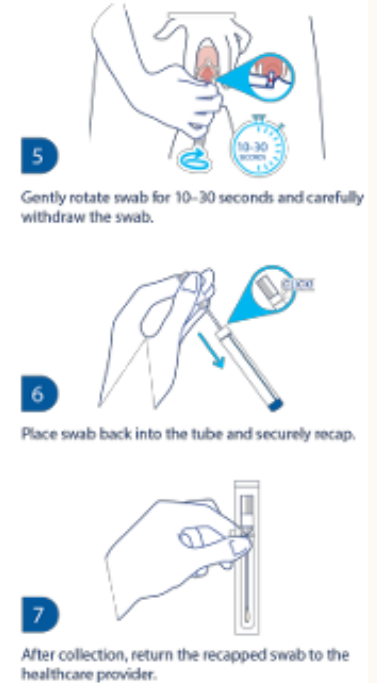
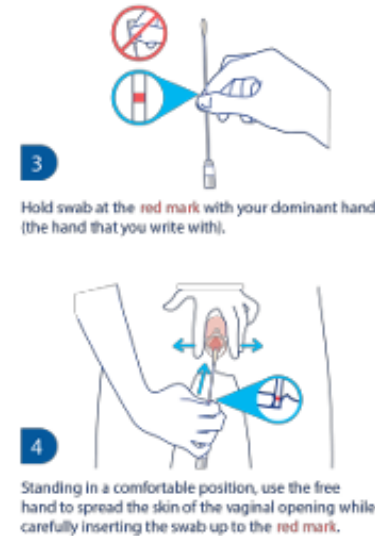
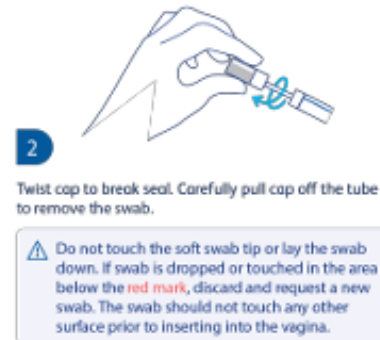


How is HPV self-collection test done?



In-clinic Patient Self-collection Steps for Copan Swab (device partnered with BD and Roche)

1. Wash hands
2. Open the swab carefully. Avoid touching the area below the **red** mark towards the tip.
3. Hold the swab at the red mark.
4. Use your other hand to spread the skin of the vaginal opening and carefully insert the swab into the vagina up to the red mark.
5. Gently rotate the swab for 10–30 seconds and then remove the swab.
6. Place the swab back in the tube and make sure the cap is secured.
7. Give your healthcare provider the recapped swab.



Pictures: adapted from Becton, Dickinson and Company (BD)

Not shown: Evalyn® brush approved for use with Roche

How effective is HPV self-collection testing?



Three meta-analyses have been done to evaluate HPV self-collection testing

- **More sensitive** at detecting CIN2+ than cytology alone in the first round of screening*
- **Comparable sensitivity** and **high agreement** with clinician-collected primary HPV testing samples



HPV self-collected screening is more sensitive and accurate than the Pap test alone and about as accurate as clinician-collected HPV testing.

**although less specific, so better suited to a screening test; a more sensitive test is better at ruling out a condition—a negative result is likely a true negative, while a more specific test is better at ruling in a condition— a positive result is more likely to be a true positive*

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Accuracy of human papillomavirus testing on self-collected versus clinician-collected samples: a meta-analysis

Dr Marc Arbyn, DrTMH, • Freija Verdoodt, PhD • Prof Peter J F Snijders, PhD • Viola M J Verhoeve, MD • Eero Suonio, MD • Lena Dillner, PhD • et al. [Show all authors](#)

Detecting cervical precancer and reaching underscreened women by using HPV testing on self samples: updated meta-analyses

Marc Arbyn,¹ Sara B Smith,² Sarah Temin,³ Farhana Sultana,^{4,5} Philip Castle,^{2,6} on behalf of the Collaboration on Self-Sampling and HPV Testing

INNOVATIVE TOOLS AND METHODS
Short Report



Meta-analysis of agreement/concordance statistics in studies comparing self- vs clinician-collected samples for HPV testing in cervical cancer screening

Marc Arbyn^{1,2} | Philip E. Castle^{3,4} | Mark Schiffman⁵ | Nicolas Wentzensen⁶ | Brandy Heckman-Stoddard³ | Vikrant V. Sahasrabudhe³

Which self-collection tests are FDA-approved for primary HPV screening?



Self-collection kits for the healthcare settings

Roche
cobas®
with Copan 522C.80 swab or
Evalyn® Brush

BD
Onclarity™
with Copan 522C.80 swab

Abbott
Alinity M
with simpli-COLLECT™ HPV
Collection Kit or Evalyn®
Brush

Device for home collection

Teal Health
Teal Wand™
**in CA, NY, FL*

**NEW: BD Onclarity FDA
Approved for Home Now Too**

Acceptability of Self Collection



Benefits

- Easy to perform
- Less embarrassment
- No or less pain
- Privacy

Harms

- Potential to miss physical exam findings

Patients report high acceptability across multiple settings



Self-collection may be more appealing to patients with limited mobility, history of sexual trauma, gender diversity, medical mistrust, or discomfort with speculum exams.

Where can cervical cancer screening be performed?



Before Self-Collection

- Healthcare professional with training to do a pelvic exam
- Often requires a standalone appointment
- Specialized office equipment

After Self-Collection

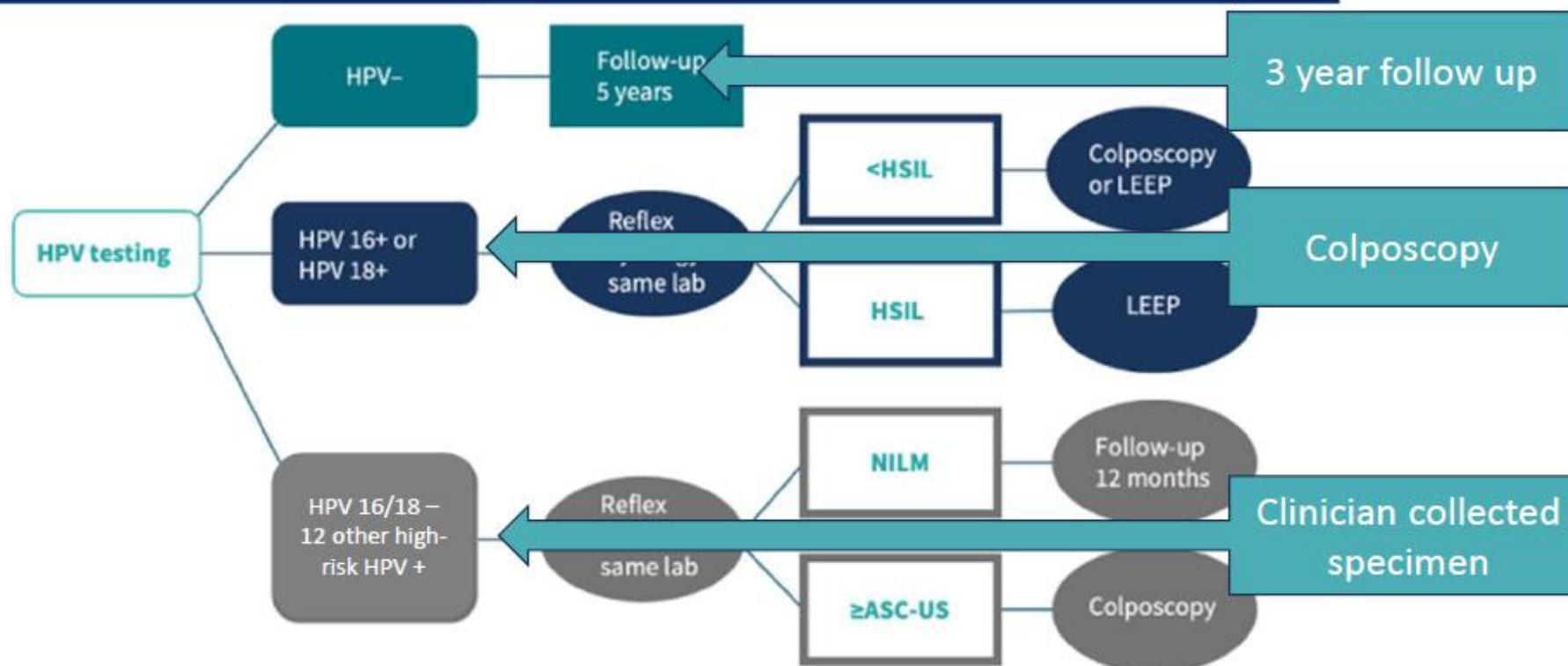
- Any healthcare professional
- Can be part of any appointment, lab, or radiology visit
- Any private setting



Clinicians who offer in-clinic self-collection do not need to do a speculum exam, freeing up time to address other patient concerns.

What changes about follow-up?

Algorithm for Primary HPV Screening



ACS-US, atypical squamous cells of undetermined significance; HPV, human papillomavirus; HSIL, high-grade squamous intraepithelial lesion; LEEP, loop electrosurgical excision procedure; NILM, negative for intraepithelial lesion or malignancy.

**This may change with more evidence and/or with USPSTF updates*

Enduring Guidelines: <https://dceg.cancer.gov/research/cancer-types/cervix/enduring-guidelines>



Build Connections

NEW HPV Self-Collection Implementation Data Layer

HPV Self-Collection Implementation Data Layer

Share Your Sites & Connect With Others

This new data layer within the NRTCC Cervical Cancer Data Dashboard is crowd-sourced to enable identification of organizations currently implementing self-collection for primary HPV to:

- Facilitate peer-to-peer networking
- Expand opportunities for shared learning and implementation planning.

Data Note

This data is gathered from a crowdsourcing application that allows health systems to add their sites to a map and should not be used to assess or monitor uptake of self-collection.

 **Submit
Your Site**

 **Connect
With Peers**





UTAH HUMAN PAPILLOMAVIRUS SELF-COLLECTION SUCCESS STORIES

Results

Results thus far...

- 262 HPV Self-Collection Kits Completed/Returned to Clinic
 - Complete either in clinic or at home
- 262 HPV Self-Collection Kits Mailed to University of Washington's Lab
- 262 Results Returned from Lab
- **48 Abnormal Results (18.3%)**



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English & Spanish Instructions

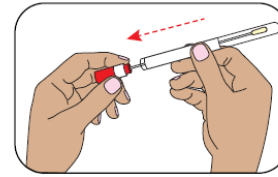
- Easy to follow written instructions
- Video instructions



HCI: HPV Self-Collection Kit on Vimeo

Instructions for Your Cervical Cancer Screening Kit

Please do not use this kit if you are pregnant.

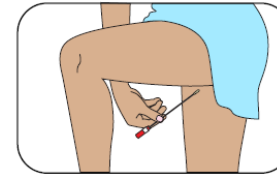


STEP 1

- Wash and dry your hands. Next, remove the tube from the kit.
- Twist the red cap and pull out the swab.
- Look at the swab and note the **red** mark close to the soft tip (pictured below).

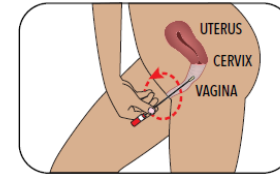


If you have any questions about collecting your sample or mailing it back, please call 1-800-XXX-XXXX



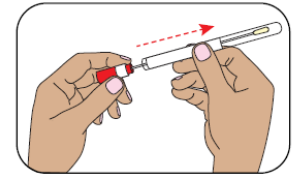
STEP 2

- Before you insert the swab, make sure you're in a comfortable position.
- This should not hurt; you will not need to reach your cervix, you will be swabbing your vaginal wall.



STEP 3

- Spread apart the skin outside your vagina with one hand.
- With the other hand, gently insert the swab into your vagina and aim to insert it up to the **red** mark.
- Gently rotate 10 - 30 seconds.



STEP 4

- Remove the swab, place it back in the tube, and close the tube. Wash your hands.
- Write the **date** you collected your sample on the tube.
- Place the tube in the biohazard bag, seal it, and insert into the prepaid mailing box.
- Peel the clear label from its backing and seal the box closed.
- Mail your sample or drop it off at the clinic within a week.



Scan this QR code to watch a short video on the test or go here: <https://research.kpchr.org/preventhpvcancers/Videos>

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Partnerships
are Key:
Recruiting
primary care
clinics in
Montana and
the Mountain
West

THANK YOU

*Questions?
Contact Us!*

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*Join us for
monthly meetings!*

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