Brigham and Women's Hospital
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Developments in Gynecologic Disease: What Primary Care Providers should know

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Colleen Feltmate M.D.

- SUNY Stony Brook MD Distinction in research
- BWH/MGH Ob/Gyn residency
- BWH Gynecologic Oncology Fellowship
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- Fellowship Program Director Gynecologic Oncology
- Director, Ambulatory Gynecologic Oncology
- **Clinical focus:** Minimally invasive surgical outcomes, surgical innovation
- **Research focus:** surgical outcomes, quality improvement

DISCLOSURES

Avania LLC- Data Safety Monitoring Board

OBJECTIVE:

- Review the ever-changing landscape for HPV related disease including screening (including self screening) and vaccination data
- Update providers on innovations to ovarian cancer
- Increase awareness of issues of racial disparities in Endometrial cancer
- Financial toxicity for patients with gynecologic cancers

KEY TAKE HOME POINTS

HPV testing in AVERAGE risk populations is the preferred method for screening cervical cancer in 25-65 yo with a cervix

Women who have an unknown pap smear history or who have persistent high risk HPV infections have a high risk for developing cervical dysplasia

The HPV vaccine is most effective when given before age 15. After age 26 there is little data supporting its effectiveness in large populations.

Women with abnormal bleeding need referrals to gynecologists as ultrasound is not a reliable method, especially in black populations

Newer drugs have a marked effect on survival in certain subsets of ovarian cancer patients

Women treated for gynecologic malignancies are at significant risk for financial toxicity and should be screened for financial insecurity

Case 1

30 year old G0 presents for cervical cancer screening. You offer her:

A. Cytology annually

B. Co-testing every 3 years

C. Co-testing every 5 years if all results are normal

D. Primary HPV testing if the lab has an FDA approved test every 5 years

✓ **E. Either c or d is acceptable**

Who is at risk for cervical cancer?

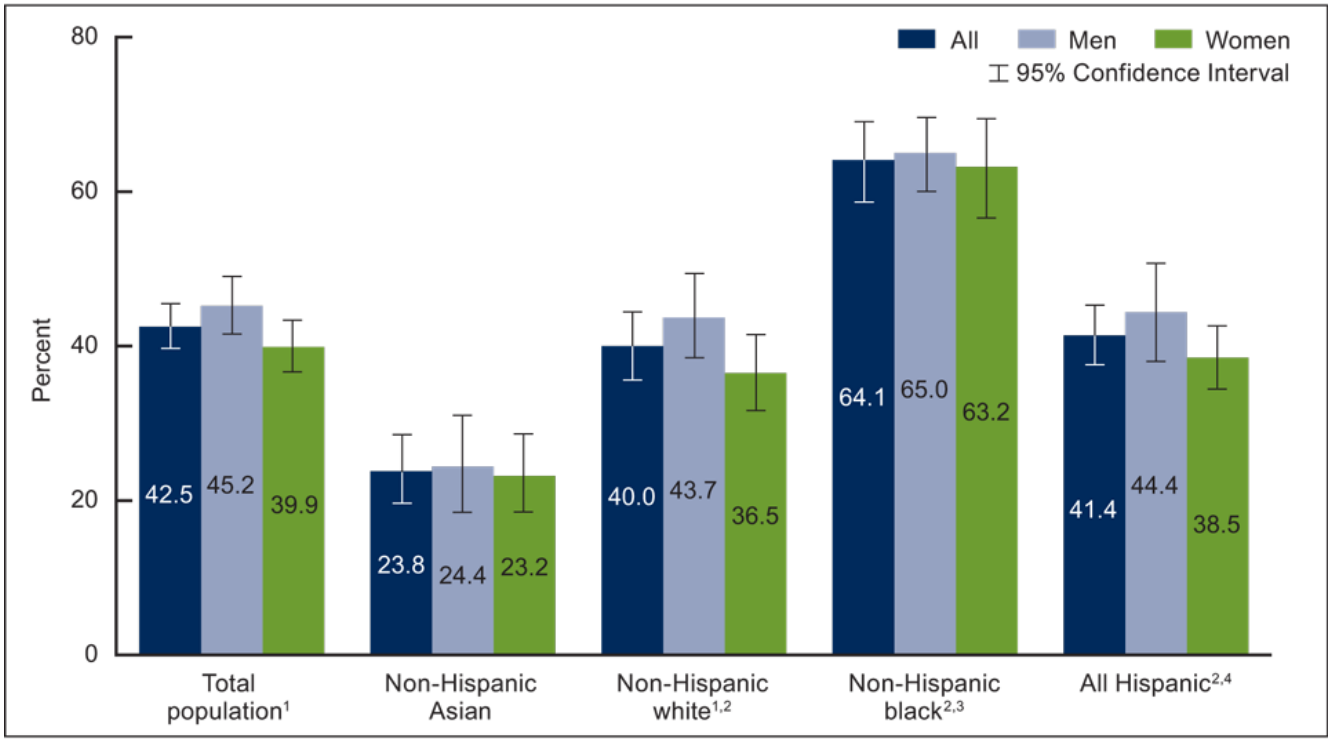
- Persistent high risk HPV infection (especially 16/18)
- Immunosuppression
- Intercourse ≤17 y/o or ≥6 lifetime partners
- OCPs
- High parity
- Smoking

Natural History of CIN/Dysplasia

- Most HPV infections “resolve”
- Dysplasia is linked persistent high-risk (oncogenic) HPV
- Higher levels of dysplasia are more likely to progress to cancer
- Prior abnormalities of Pap or HPV indicate patient is at higher risk of progression
  - May indicate a persistent HPV infection

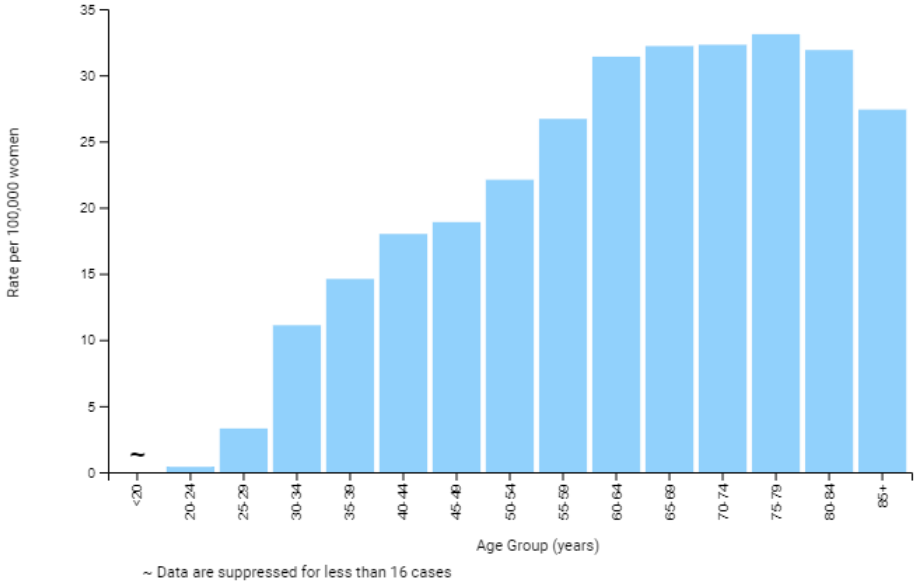
Prevalence of HPV infection among females in the United States

Figure 3. Prevalence of any genital HPV among adults aged 18–59, by race and Hispanic origin and sex: United States, 2013–2014

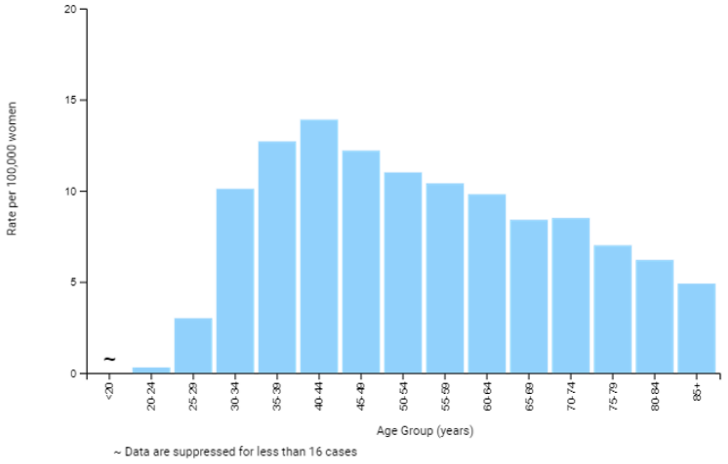


[1]Percentage for men is significantly higher than women.
[2]Percentage is significantly different from non-Hispanic Asian, all, men, and women.
[3]Percentage is significantly different from non-Hispanic white, all, men, and women.
[4]Percentage is significantly different from non-Hispanic black, all, men, and women.
NOTES: HPV is human papillomavirus. Any genital HPV means tested positive to one or more of the 37 HPV types from a penile or vaginal swab sample. Penile samples were available only for 2013–2104, so results presented were limited to that cycle. Access data table for Figure 3 at: https://www.cdc.gov/nchs/data/databriefs/db280_table.pdf#3.
SOURCE: NCHS, National Health and Nutrition Examination Survey, 2013–2014.

Rate of New HPV-associated Cancers By Age Group (years) All HPV-associated Cancers, Female, United States, 2020



Rate of New HPV-associated Cancers By Age Group (years)
Cervical Carcinoma,
Female, United States, 2020



Source - U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2022 submission data (1999-2020): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; https://www.cdc.gov/cancer/dataviz, released in November 2023.

Screening v Surveillance: An important distinction

Screening is testing for disease among patients with no symptoms and ALL normal prior results.

Surveillance is interval testing among women and people with a cervix who have a prior abnormal test result or have received treatment.

Women who do not qualify for routine "screening"

- Women who are immunosuppressed
- Women previously treated for CIN2/ CIN3 or any HPV related disease (vulvar, vaginal, anal)
- Women for whom you do not know their exact screening history also remain at higher risk and cannot return to "routine screening."
- Women who have any abnormal genital tract symptoms

New Screening and Management Guidelines: USPSTF, ACS, ASCO and ASCCP

Old:

- Based on cytology
- Algorithm based
- Relied on Expert opinion

New:

- Primarily HPV based with reflex to cytology or HPV16/18 genotyping
- Frequency and management are based on “risk” which relies on prior results

What is Primary HPV Screening?

- Primary HPV testing is testing for HPV first, followed by a triage test such as cytology and/or HPV genotyping, if the initial test is positive.
- The presence of a high risk HPV type indicates a risk for developing a cervical precancer or cancer—especially if the HPV test remains positive over time (years)
- There are only a few HPV tests that are currently FDA approved for primary testing.

- *Historically cervical cancer screening was done with either Pap testing (cytology) or Pap plus HPV test (co-testing)*

Advantages of Primary HPV Screening

Improved sensitivity for CIN3+ over cytology alone (↑detection by 50%)

- Minimal loss of sensitivity over cotesting for CIN 3+. Difference not statistically significant for cancer diagnosis

More efficient than co-testing

- Similar reduction in cancer but requires far fewer tests overall

Potential for self-collection

Improve access

Wright TC, et al. The ATHENA human papillomavirus study: design, methods, and baseline results. *Am J Obstet Gynecol*. 2012;206(1):46.e1-46.e11.

Wright TC, et al. Primary cervical cancer screening with human papillomavirus: End of study results from the ATHENA study using HPV as the first-line screening test. *Gynecol Oncol*. 2015;136(2):189-97.

Huh WK, et al. Use of primary high-risk human papillomavirus testing for cervical cancer screening: Interim clinical guidance. *Obstet Gynecol*. 2015;125(2):330-337.

Castle PE, et al. Variable risk of cervical precancer and cancer after a human papillomavirus-positive test. *Obstet Gynecol*. 2011;117(3):650-656.

Gage JC, et al. Reassurance against future risk of precancer and cancer conferred by a negative human papillomavirus test. *J Natl Cancer Inst*. 2014;106(8);dju 153.

Fontham ETH, Wolf AMD, Church TR, Etzioni R, Flowers CR, Herzig A, Guerra CE, Oeffinger KC, Shih YT, Walter LC, Kim JJ, Andrews KS, DeSantis CE, Fedewa SA, Manassaram-Baptiste D, Saslow D, Wender RC, Smith RA. Cervical cancer screening for individuals at average risk: 2020 guideline update from the American Cancer Society. *CA Cancer J Clin*. 2020 Sep;70(5):321-346.

Disadvantages of Primary HPV Screening

- Lack of specificity
- Requires integrated infrastructure
- Three tests are FDA approved for primary HPV testing (Cobas, BD Onclarity, Abbot Alinity)

1. Wright TC, et al. The ATHENA human papillomavirus study: design, methods, and baseline results. *Am J Obstet Gynecol*. 2012;206(1):46.e1-46.e11.
2. Wright TC, et al. Primary cervical cancer screening with human papillomavirus: End of study results from the ATHENA study using HPV as the first-line screening test. *Gynecol Oncol*. 2015;136(2):189-97.
3. Huh WK, et al. Use of primary high-risk human papillomavirus testing for cervical cancer screening: Interim clinical guidance. *Obstet Gynecol*. 2015;125(2):330-337.
4. Castle PE, et al. Variable risk of cervical precancer and cancer after a human papillomavirus-positive test. *Obstet Gynecol*. 2011;117(3):650-656.
5. Gage JC, et al. Reassurance against future risk of precancer and cancer conferred by a negative human papillomavirus test. *J Natl Cancer Inst*. 2014;106(8);dju 153.
6. Fontham ETH, Wolf AMD, Church TR, Etzioni R, Flowers CR, Herzig A, Guerra CE, Oeffinger KC, Shih YT, Walter LC, Kim JJ, Andrews KS, DeSantis CE, Fedewa SA, Manassaram-Baptiste D, Saslow D, Wender RC, Smith RA. Cervical cancer screening for individuals at average risk: 2020 guideline update from the American Cancer Society. *CA Cancer J Clin*. 2020 Sep;70(5):321-346.

FDA Approved Primary HPV Tests

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TABLE 1

Primary HPV Screening Tests Approved by the FDA

Test (year approved)	Genotyping	Approved for self-collection?
Roche cobas HPV test (2014)	HPV 16 and 18 Detects 12 other high-risk HPV types: 31/33/35/39/45/51/52/56/58/59/66/68 (pooled results)	Yes, using Evalyn brush, Copan 522C.80 swab (FLOQSwab), or Teal Wand
BD Onclarity HPV Assay (2018)	HPV 16, 18, and 45 Detects 11 other high-risk HPV types: 31, 51, 52, 33/58, 35/39/68, and 56/59/66 (pooled results)	Yes, using Copan 522C.80 swab
Abbott Alinity m High Risk HPV Assay (2023)	HPV 16, 18, and 45 genotyping not provided but can be added as additional testing; 11 others can also be added: 31/33/52/58 and 35/39/51/56/59/66/68	Yes, using simpli-COLLECT HPV Collection Kit or Evalyn brush

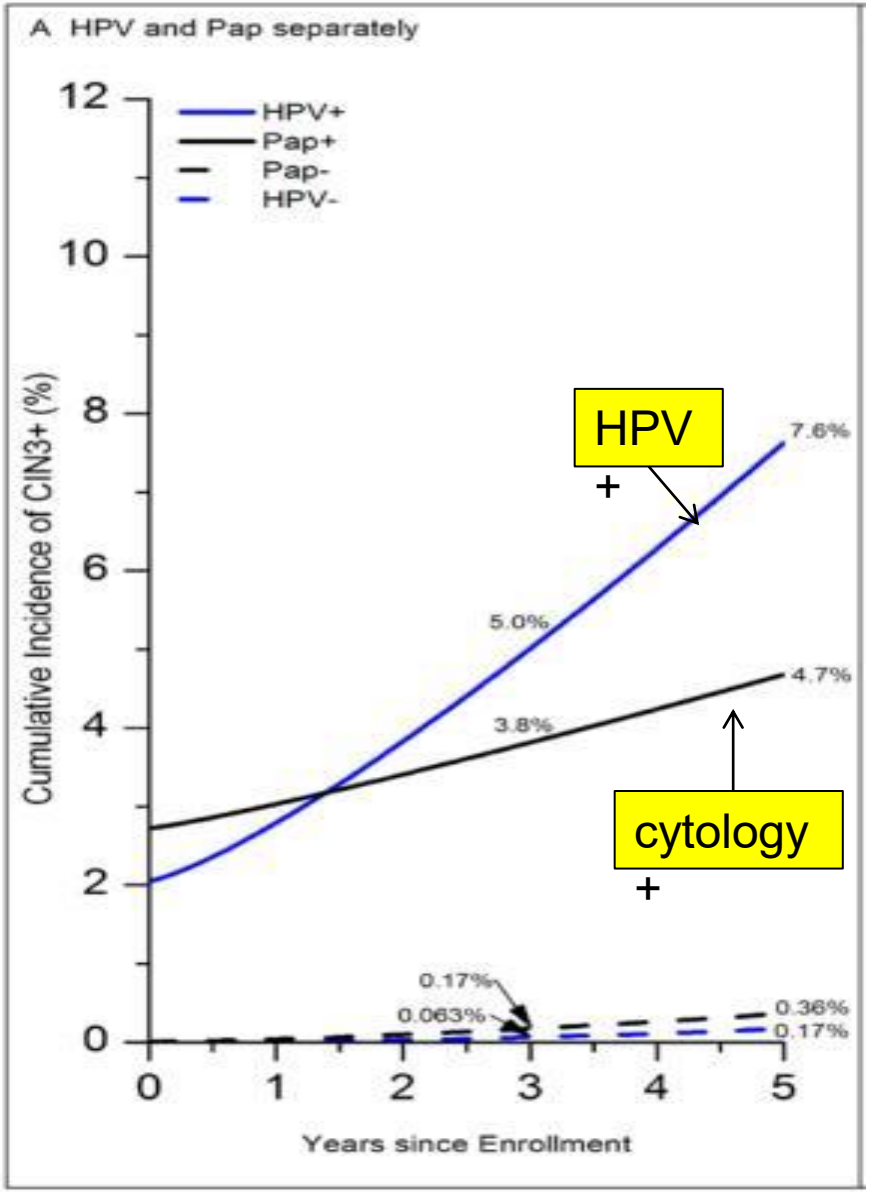
FDA = US Food and Drug Administration; HPV = human papillomavirus.

Information from references 19, 22, 25, and 26.

THE SWITCH: REFLEX CYTOLOGY V REFLEX HPV

HPV testing predicts future risk better than cytology

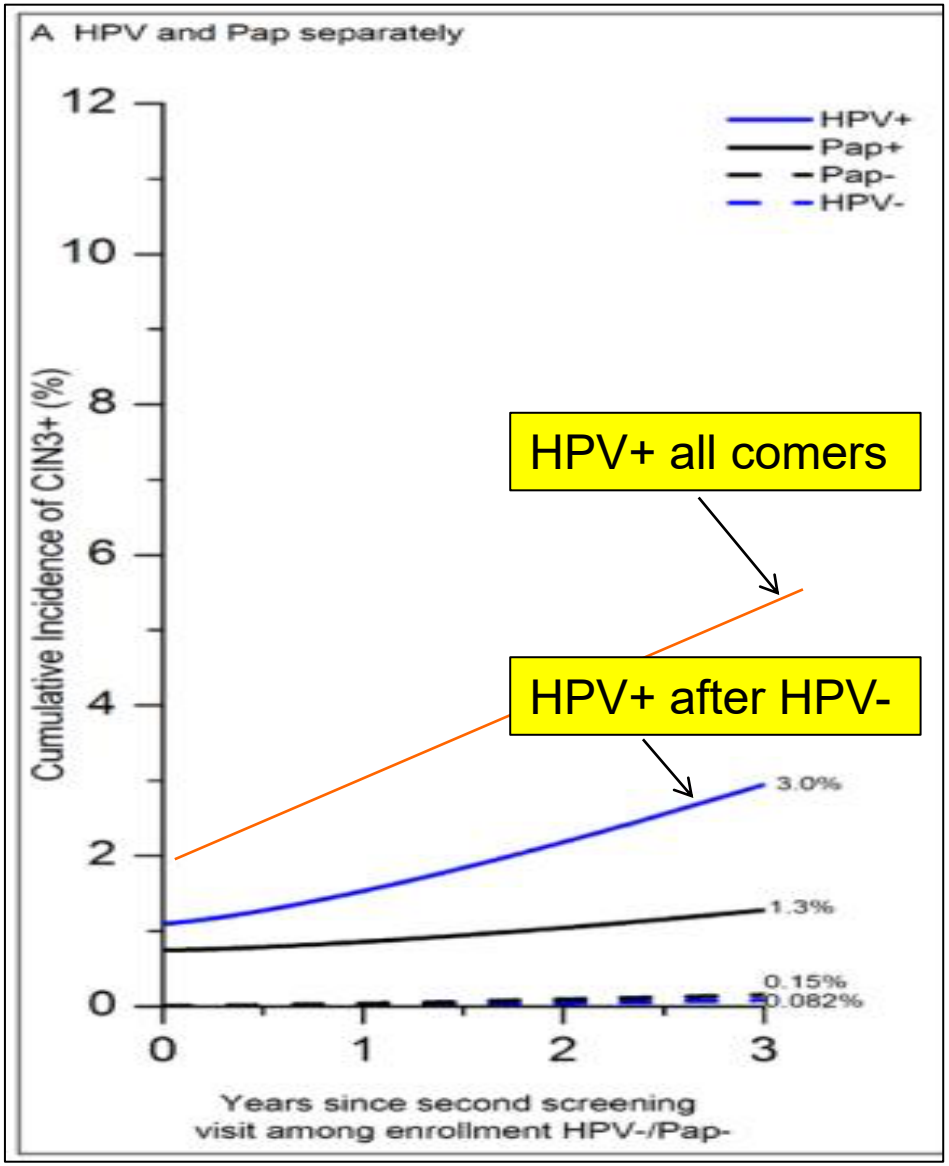
- 331,818 women over 2003-2009
- Followed for 5 years for CIN3+
- Both HPV and cytology predicted risk on the date of screening
- *HPV predicted 5-year risk of CIN3 and cancer*



Katki et al J Low Genit Tract Dis. 2013 Apr;17(5 Suppl 1):S28-35.

New HPV infection confers lower CIN3+ risk

- 331,818 women over 2003-2009
- Risk of CIN3+ at 3 years
  - 5% with unknown prior HPV result
  - 3% with negative prior HPV result



Katki et al J Low Genit Tract Dis. 2013 Apr;17(5 Suppl 1):S28-35.

Primary HPV Screening Compared to Co-Testing

Primary HPV screening results in similar reduction in cancer rates compared to co-testing, with far fewer tests

Strategy	Total Tests	Colpos	CIN 2,3	Cancer Cases	Cancer Deaths
No screening	0	0	0	18.86	8.34
Cyto q 3 y age 25-65	13,313	564	142	2.60	0.86
Cyto q 3 y from age 21 then Co-test q 5 y age 30-65	19,806	1,630	201	1.08	0.30
HPV q5 y age 25-65	10,954	1,775	195	0.94	0.28

*Per 1,000 persons with a cervix, screened over a lifetime.

Fontham ETH, et al. Cervical cancer screening for individuals at average risk: 2020 guideline update from the American Cancer Society. *CA Cancer J Clin*. 2020;70(5):321-346.

Will we miss HPV negative CIN2+?

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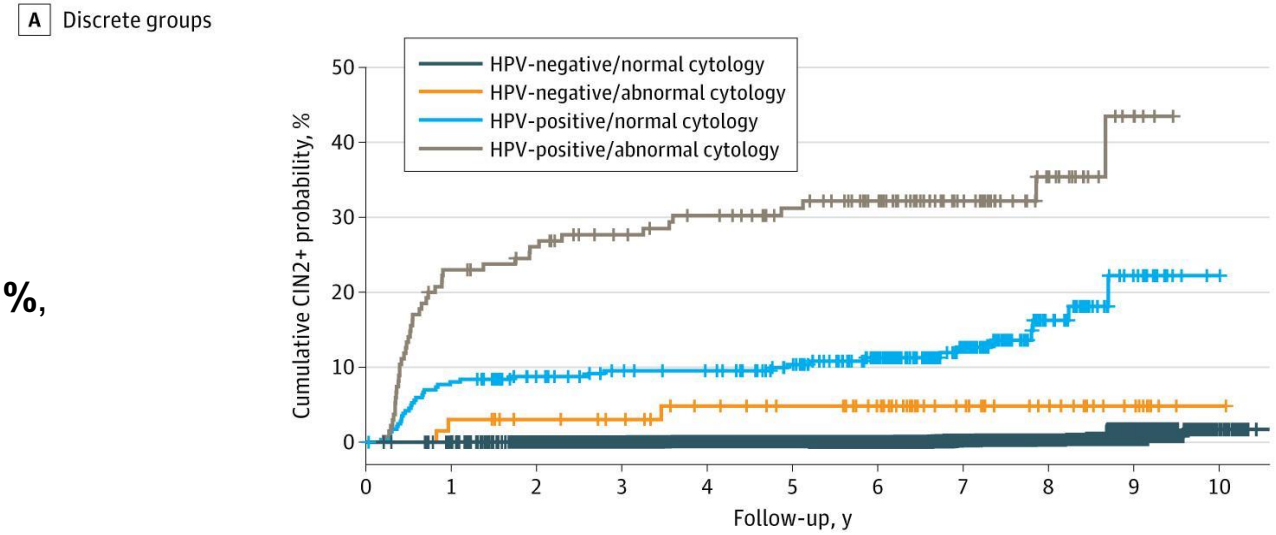
- Only **3 of 100 CIN2+ detections** over 9 years occurred in the HPV-negative/abnormal cytology group, and this subgroup comprised <1% of the population.
- The 9-year cumulative incidence of CIN2+ after a negative HPV test was **0.41%**,



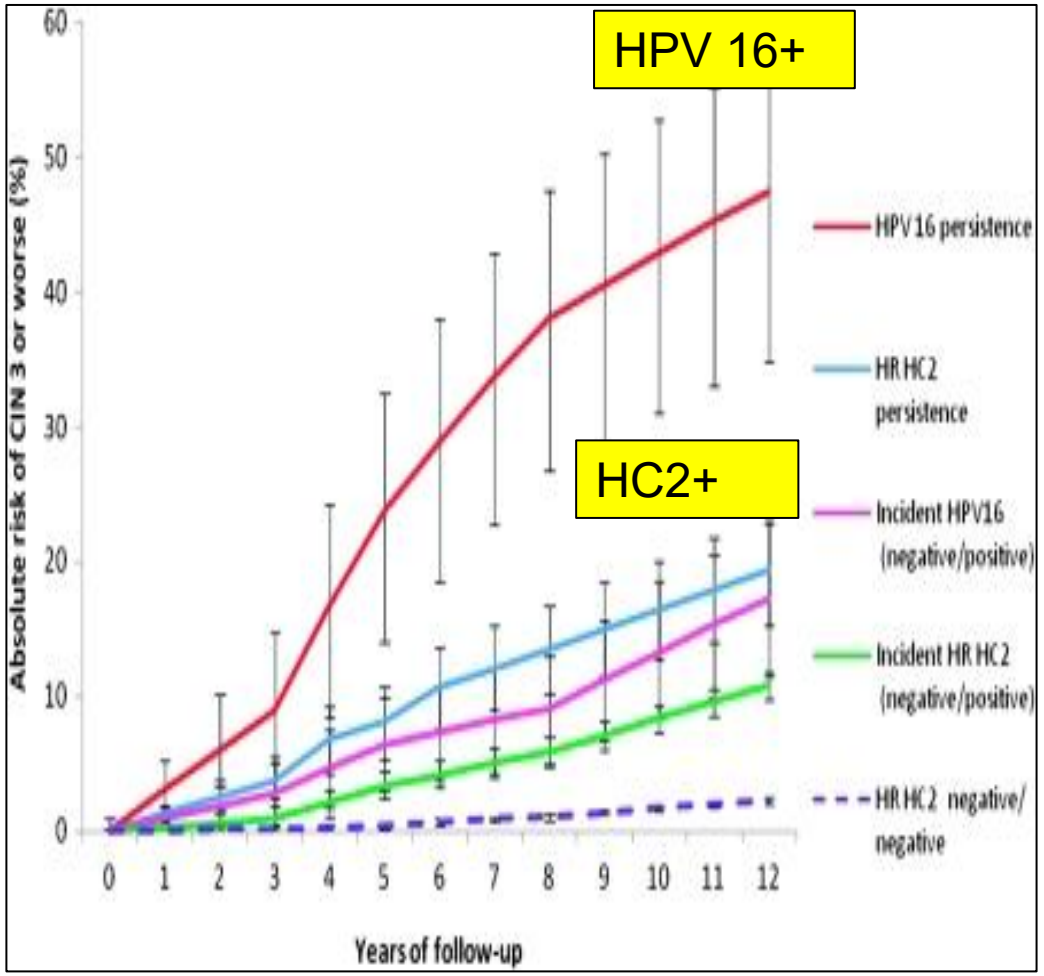
No. at risk

HPV-negative/normal cytology	6820	6808	6652	6140	5817	5468	4325	2843	1398	349	42
HPV-negative/abnormal cytology	67	64	60	57	51	47	41	26	18	9	1
HPV-positive/normal cytology	287	263	244	232	230	214	179	118	50	15	1
HPV-positive/abnormal cytology	135	103	95	86	80	71	60	36	18	5	0

HPV, Cytology, and Cotest Cervical Cancer Screening and the Risk of Precancer. JAMA Netw Open. March 1, 2026.

Long-term persistent HPV is especially high risk

- 8656 women age 20-29 underwent co-testing years 1 & 3
- Followed for 12 years for CIN3+
- Risk of CIN3+
  - 47% persistent HPV16+
  - 19% persistent HC2
  - HPV neg 2%
- *HPV history is an important risk modifier*



Kjaer, et al. J Natl Cancer Inst 2010 Oct 6; 102(19):1451-3

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WHAT ABOUT SELF-COLLECTION OF PRIMARY HPV TESTING?

Performance of Self-sampling Compared to Clinician-collected Samples

- A randomized, paired screen-positive, non-inferiority trial
- RCT of women in the Netherlands
- 187,473 women invited to participate:
- 8,212 participants randomly allocated to the self-sampling group
- 8,198 randomly allocated to the clinician-based sampling group.

HPV-positive cross-test results by study group and outcome

	Total	Self-sampling group	Clinician-based sampling group
CIN2 or worse	184/194 (95%)	106/110 (96%)	78/84 (93%)
CIN3 or worse	108/113 (96%)	69/72 (96%)	39/41 (95%)

Polman NJ, et al. Performance of human papillomavirus testing on self-collected versus clinician-collected samples for the detection of cervical intraepithelial neoplasia of grade 2 or worse: A randomised, paired screen-positive, non-inferiority trial. *Lancet Oncol*. 2019;20(2):229-238.

Two FDA-Approvals for Self-Swab

1. Self-collection in a healthcare setting
2. Self-collection at home through private company Teal

No home self collection available in the U.S. through healthcare systems yet

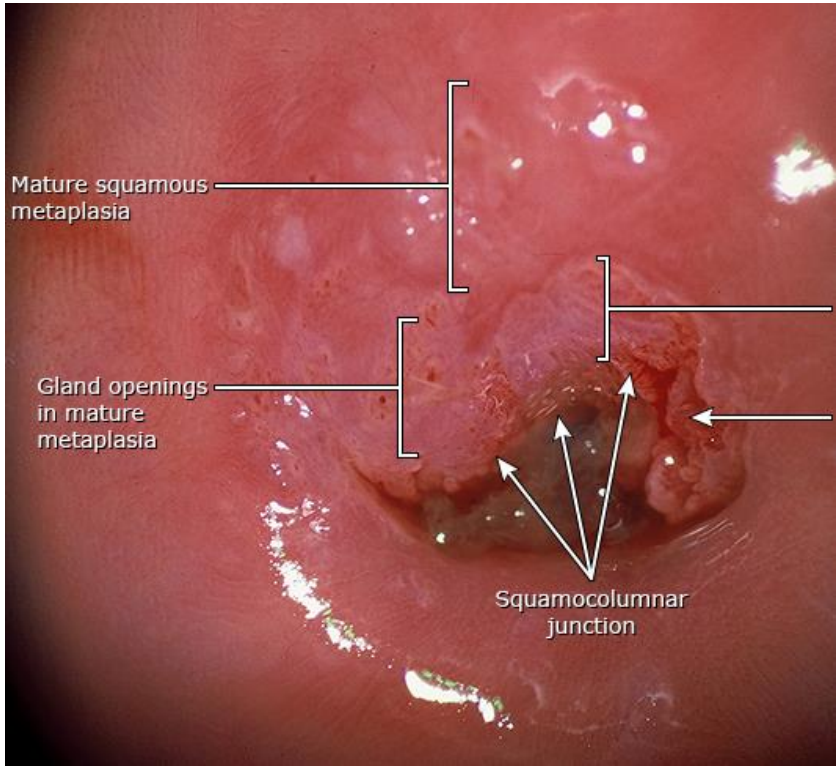
Where we are right now…

	US Preventative Services Task Force	American Cancer Society
Age to start screening	Age 21	Age 25
Age to end screening (if list of criteria are also met)	Age 65	Age 65
Screening test options and intervals	**Preferred**: Age 21-29: cytology alone (with reflex to HPV) every 3 years Age 30-65: clinician-collected primary HPV testing every 5 years **Acceptable**: Age 30-65: self-collected primary HPV testing every 5 years Age 30-65: co-testing every 5 years Age 30-65: cytology alone (with reflex to HPV) every 3 years	**Preferred**: Age 25-65: clinician-collected primary HPV testing every 5 years **Acceptable**: Age 25-65: self-collected primary HPV testing every 3 years Age 25-65: co-testing every 5 years Age 25-65: cytology alone (with reflex to HPV) every 3 years

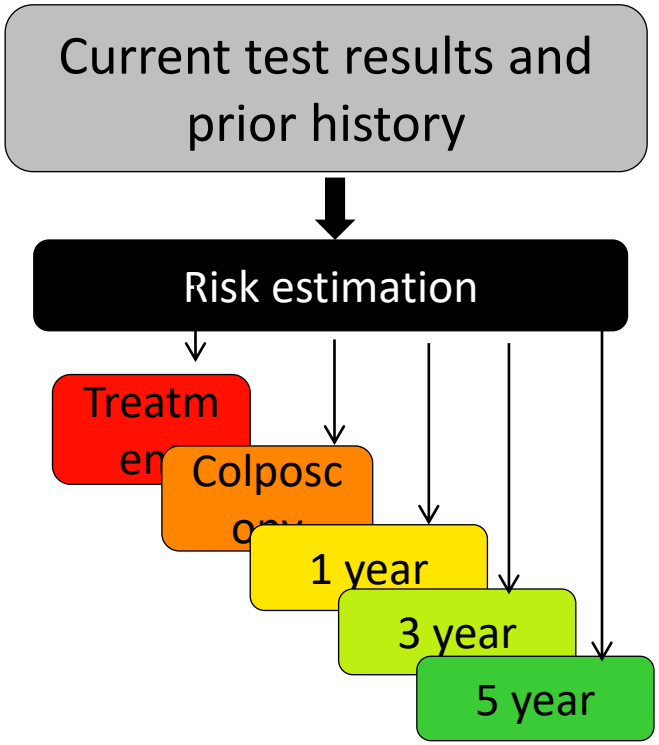
Preferred by both organizations: clinician collected sample

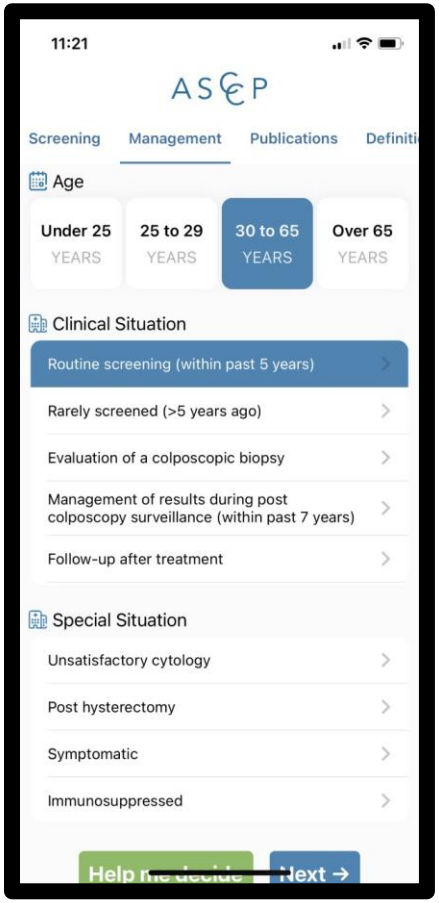
Your contribution to cervical cancer screening

- Thorough Ob/Gyn review includes history of prior paps KNOW WHO IS "AVERAGE" RISK
- Review of Family Hx of cancer
- Ask in ROS whether any bleeding or abnormal discharge (with or without intercourse)
- Ensure that the pap smears are ADEQUATE (containing cells from the transformation zone)
- Know when to REFER.



App/Website will Reduce Complexity: https://www.asccp.org/mobile-app





New Management Guidelines: Key Points

- Current test results in addition to prior HPV, cytology and histology results determine a risk group.
- New guidelines are based on a patient's risk, not just her most recent result.
- Patients with prior abnormal paps are considered surveillance patients and may never go back to 5-year screening intervals
- **Primary HPV** screening results in fewer overall test with equal efficacy in a **screening population**

If you get abnormal results with HPV positive testing, REFER IF YOU ARE UNSURE.

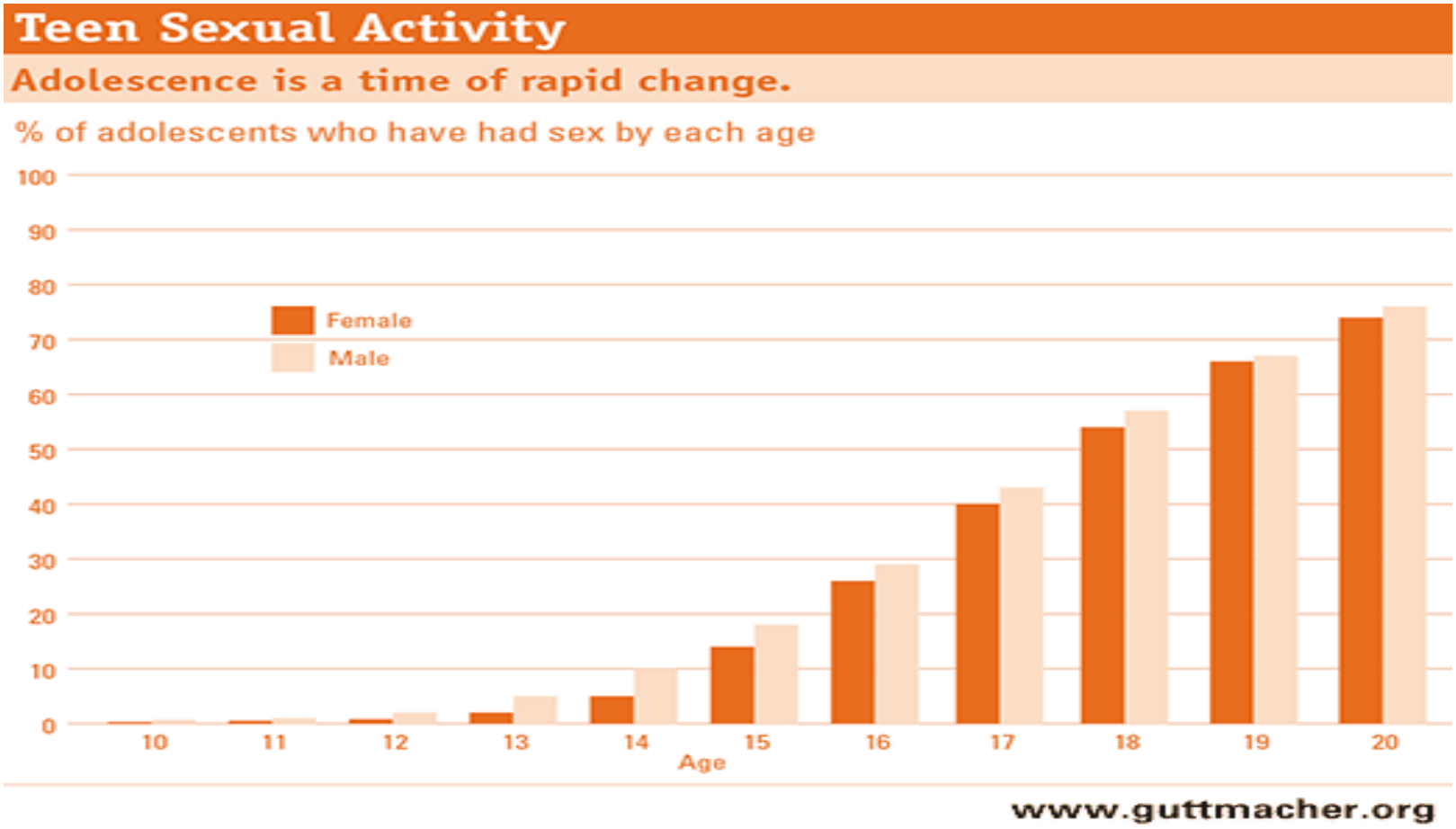
One last comment on HPV…

Primary Prevention:

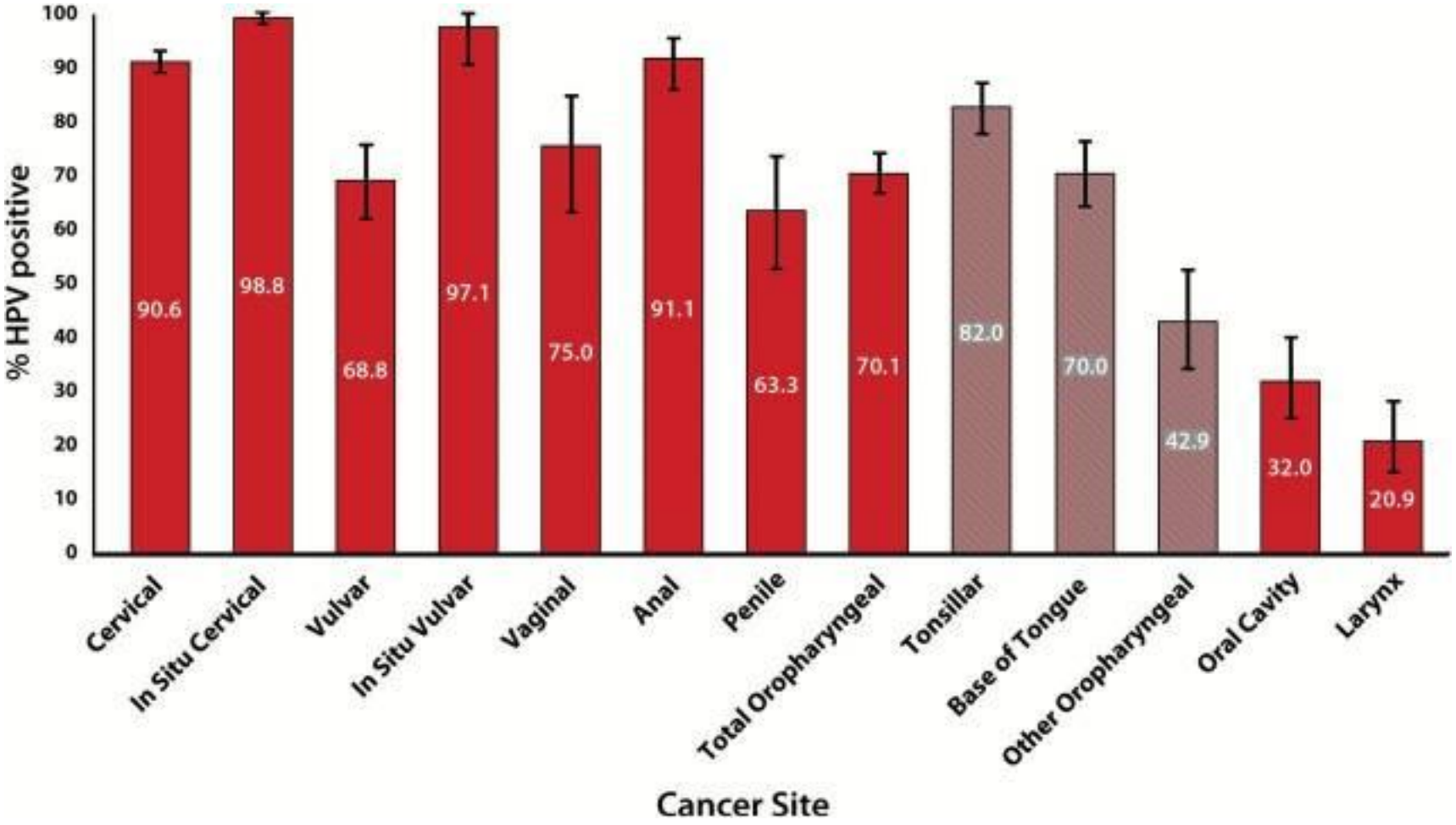
HPV vaccination

Prevent HPV infection before exposure

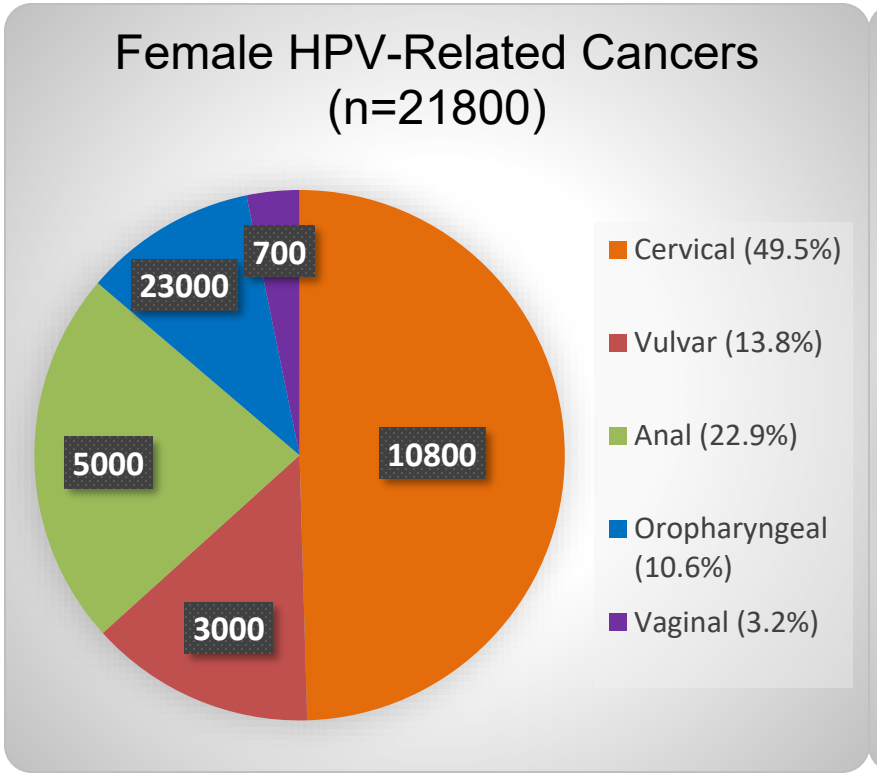
Rationale for vaccinating early: Protection prior to exposure to HPV

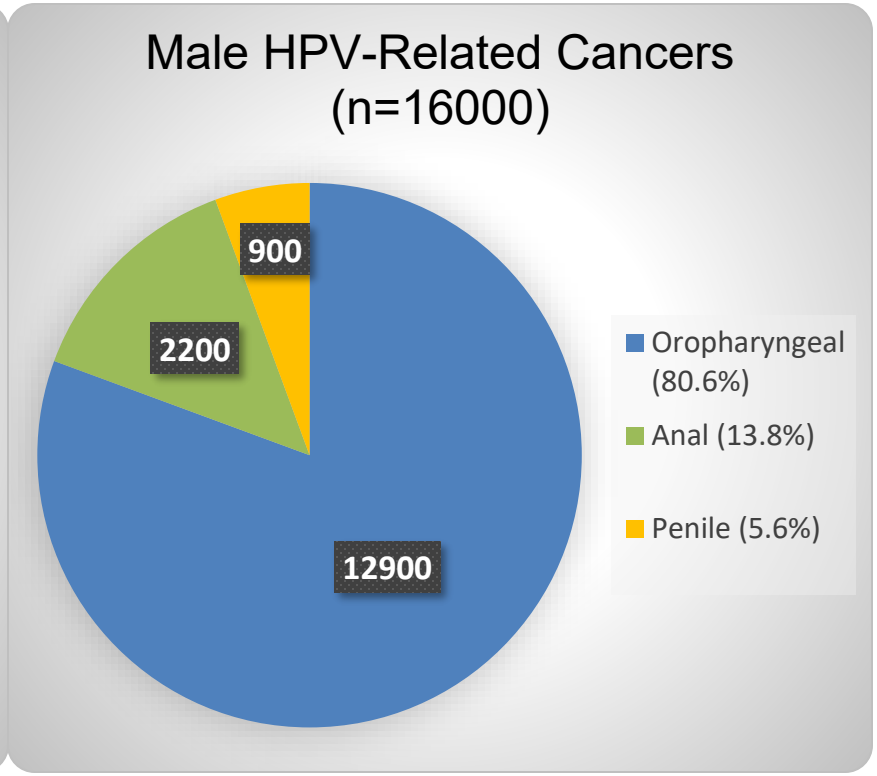


HPV Detection by Cancer Site



HPV-Attributable Cancers by Gender (U.S., 2017–2021)





Source: CDC – https://www.cdc.gov/cancer/hpv/statistics/index.htm

HPV Vaccination and Risk of Invasive Cervical Cancer

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

HPV Vaccination and the Risk of Invasive Cervical Cancer

Jiayao Lei, Ph.D., Alexander Ploner, Ph.D., K. Miriam Elfström, Ph.D., Jiangrong Wang, Ph.D., Adam Roth, M.D., Ph.D., Fang Fang, M.D., Ph.D., Karin Sundström, M.D., Ph.D., Joakim Dillner, M.D., Ph.D., and Pär Sparén, Ph.D.

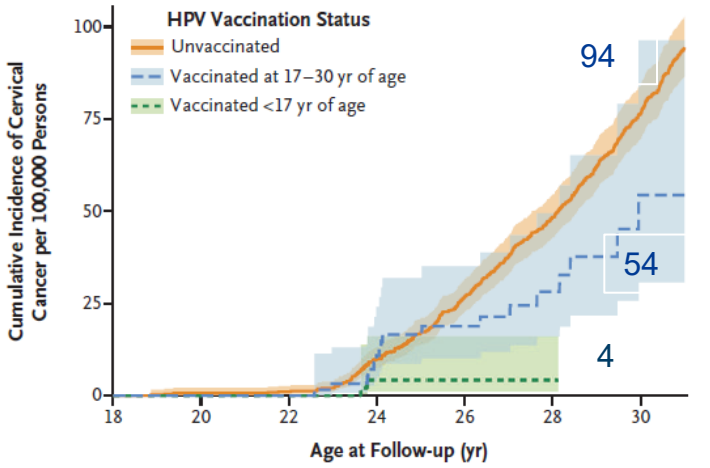


Figure 2. Cumulative Incidence of Invasive Cervical Cancer According to HPV Vaccination Status.

Age at follow-up is truncated in the graph because no cases of cervical cancer were observed in girls younger than 18 years of age.

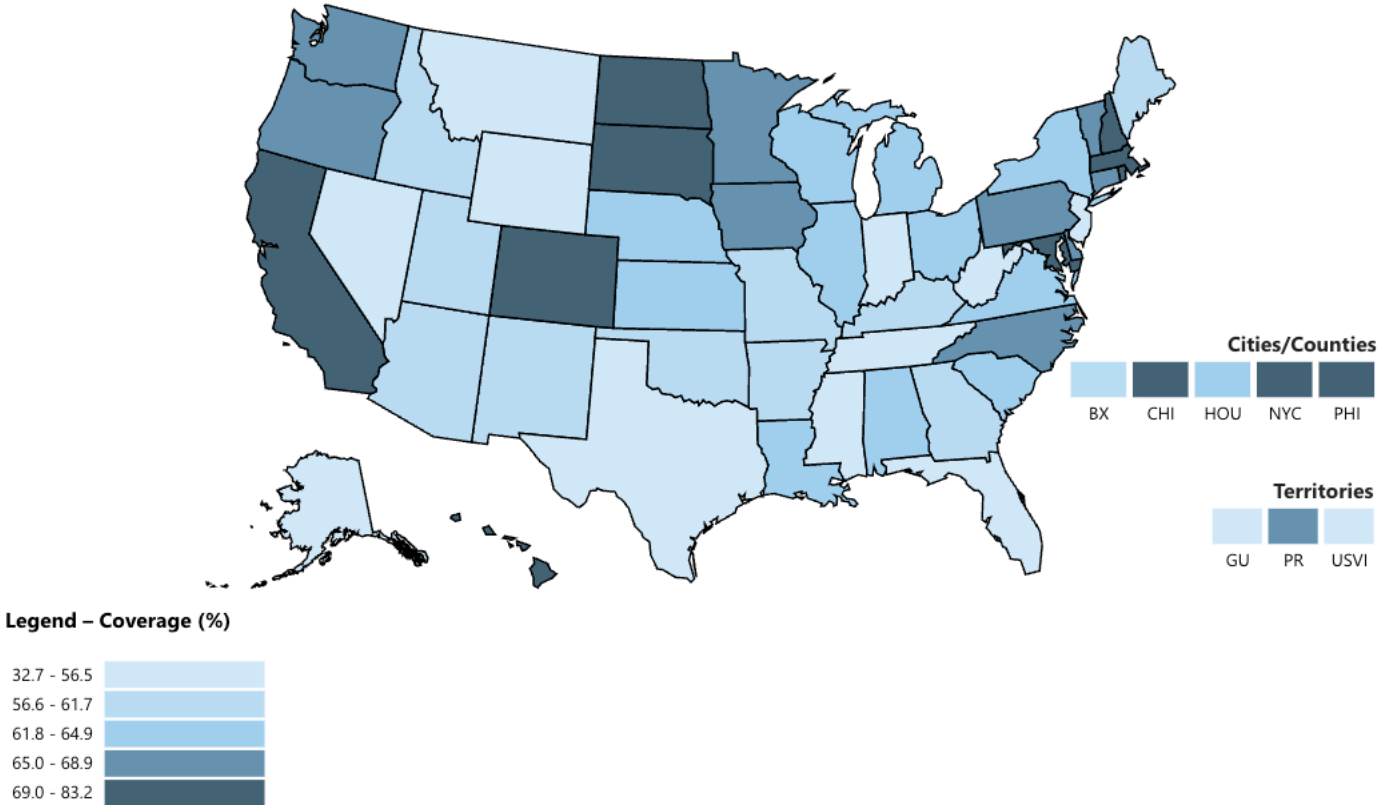
Table 2. HPV Vaccination and Invasive Cervical Cancer.

HPV Vaccination Status	No. of Cases of Cervical Cancer	Crude Incidence Rate per 100,000 Person-Yr (95% CI)	Age-Adjusted Incidence Rate Ratio (95% CI)	Adjusted Incidence Rate Ratio (95% CI)*
Unvaccinated	538	5.27 (4.84–5.73)	Reference	Reference
Vaccinated	19	0.73 (0.47–1.14)	0.51 (0.32–0.82)	0.37 (0.21–0.57)
Status according to age cutoff of 17 yr				
Vaccinated before age 17 yr	2	0.10 (0.02–0.39)	0.19 (0.05–0.75)	0.12 (0.00–0.34)
Vaccinated at age 17–30 yr	17	3.02 (1.88–4.86)	0.64 (0.39–1.04)	0.47 (0.27–0.75)
Status according to age cutoff of 20 yr				
Vaccinated before age 20 yr	12	0.49 (0.28–5.73)	0.52 (0.29–0.94)	0.36 (0.18–0.61)
Vaccinated at age 20–30 yr	7	5.16 (2.46–10.83)	0.50 (0.24–1.06)	0.38 (0.12–0.72)

* The adjusted incidence rate ratios were adjusted for age as a spline term with 3 degrees of freedom, county of residence, calendar year, mother's country of birth, highest parental education level, highest annual household income level, previous diagnosis in mother of CIN3+, and previous diagnosis in mother of cancers other than cervical cancer. The 95% confidence intervals were bias-corrected percentile confidence intervals that were estimated with the use of bootstrapping with a resampling frequency of 2000 times.

Lei J, et al. NEJM 2020;383:1340-48

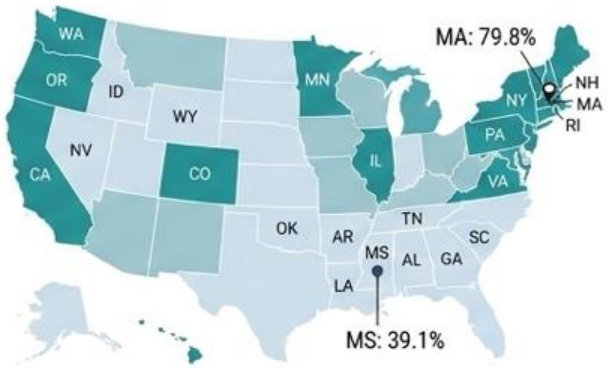
Up-to-Date HPV Vaccination Coverage among Adolescents Age 13-17 Years, 2021, National Immunization Survey-Teen



Source - U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2020 submission data (1999-2018): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; https://www.cdc.gov/cancer/dataviz, released in June 2021.

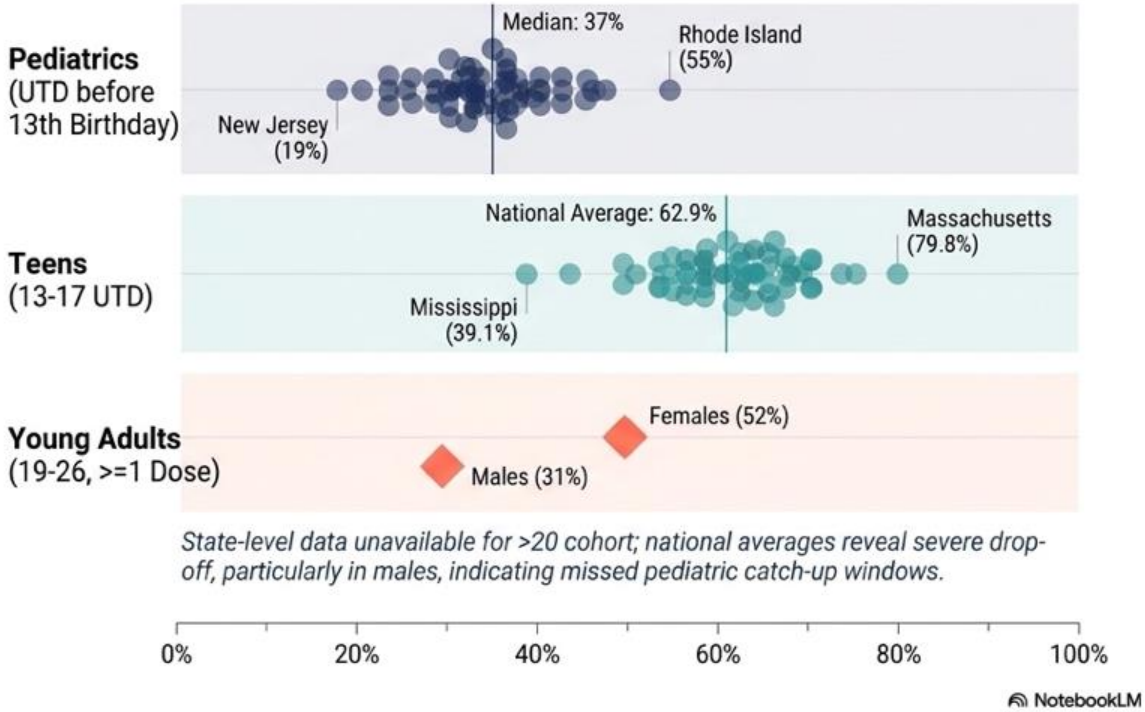
State-by-State HPV Immunization Coverage Across the Age Spectrum

Teen Up-To-Date (UTD) Coverage



National Average: 62.9% — Coverage is heavily concentrated in the Northeast and West Coast.

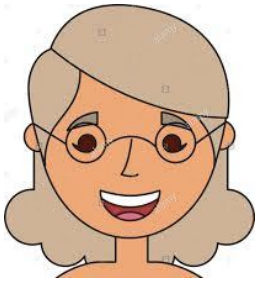
Demographic Distribution Dot Plot



Cervical cancer prevention across the lifespan

- **Ages 9-20**
  - **HPV vaccination**

- **Ages 21-26**
  - **Screening + catch-up vaccination**



- **Ages 27-65**
  - **Screening**
  - *May offer vaccination to select patients age 27-45 on an individual basis using shared clinical decision-making*

Case 2

A 62 yo woman presents urgently with new 3-week onset bloating, weight gain and “tight” pants. She is otherwise healthy. Her mother and maternal aunt had a history of breast cancer but no one has had testing in her family. Next steps might include?

A. Send her to a gynecologist
B. Draw a Ca-125
C. Refer to a genetic counselor
D. Obtain an ultrasound or CT scan

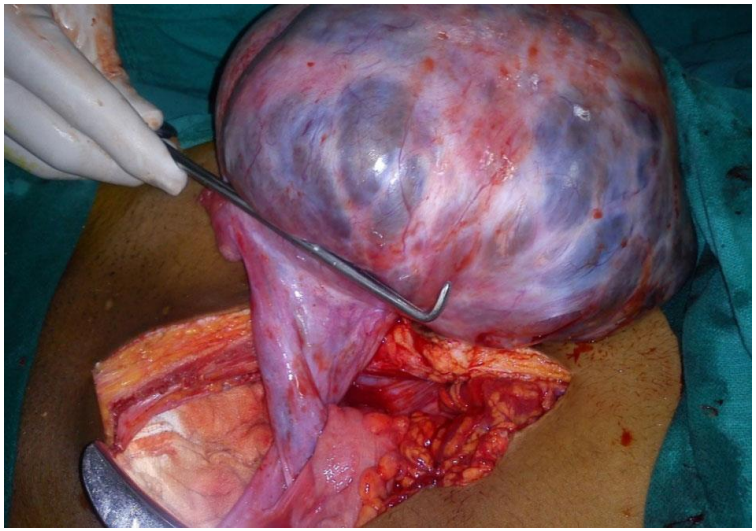
Case 2 (continued)

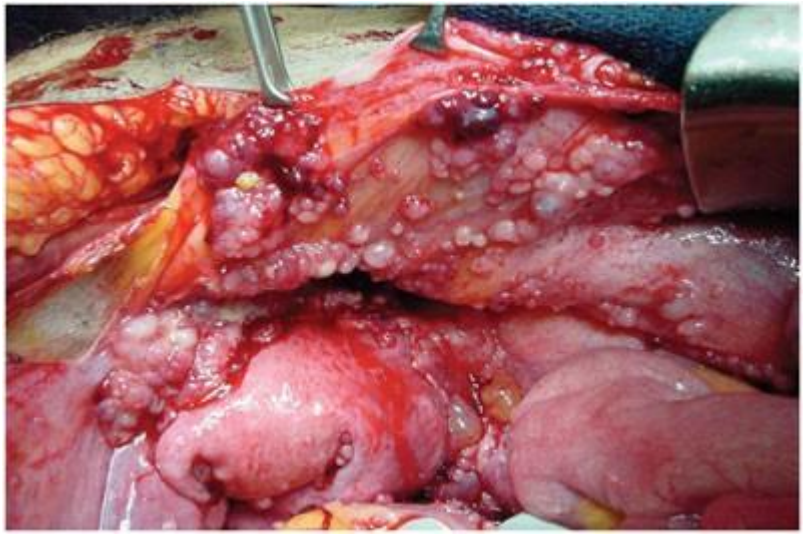
She ultimately has a CT which reveals ascites, diffuse tumor implants.
The gynecologic oncologist who assesses her must

A. Determine surgical resectability
B. Refer to a genetic counselor
C. Discuss the use of chemotherapy
D. All of the above ✓

A brief update on ovarian cancer

- Inverse relationship between residual disease and prognosis
- Complete resection associated with the best survival
- Molecular fingerprint is a driver for treatment



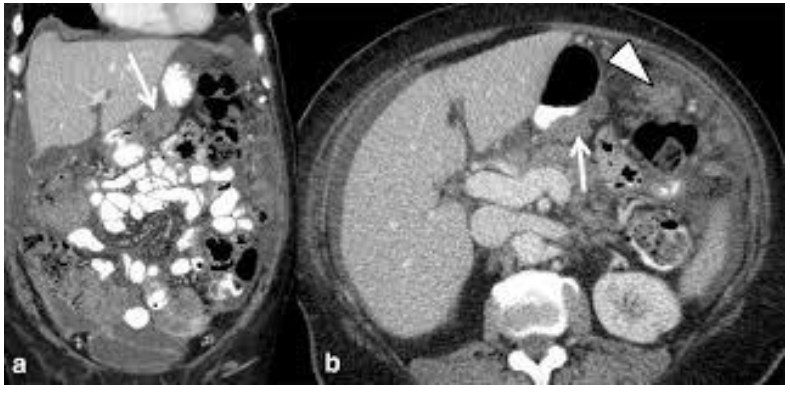


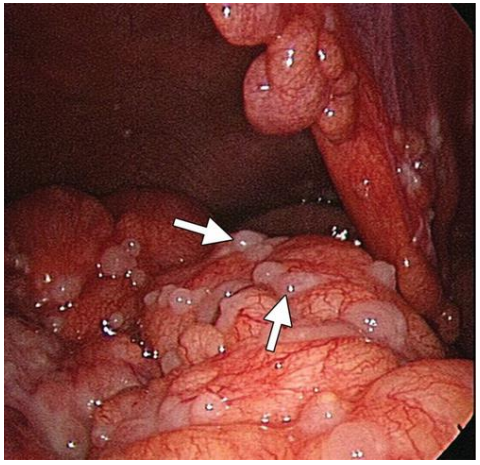
Treatment options for advanced FT/Ovarian cancer

Primary Surgery → Chemotherapy

Chemotherapy → Interval Surgery → Chemotherapy

Consideration of PARPi





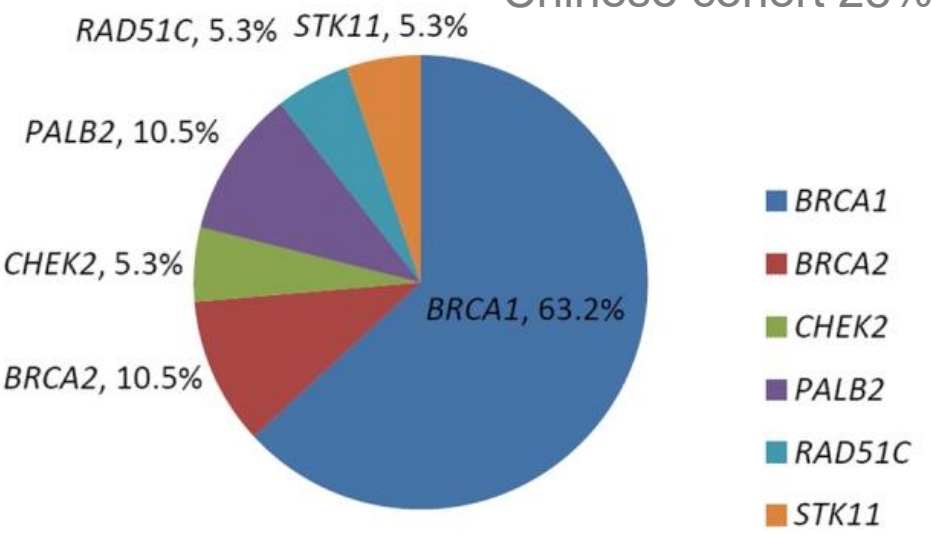
J Ovarian Res. 2019; 12: 80.

Published online 2019 Aug 31. doi: 10.1186/s13048-019-0560-y

Genetic Testing in Ovarian cancer Populations: A new normal

Fig. 4

Chinese cohort 28%



Germline mutations in 62 patients

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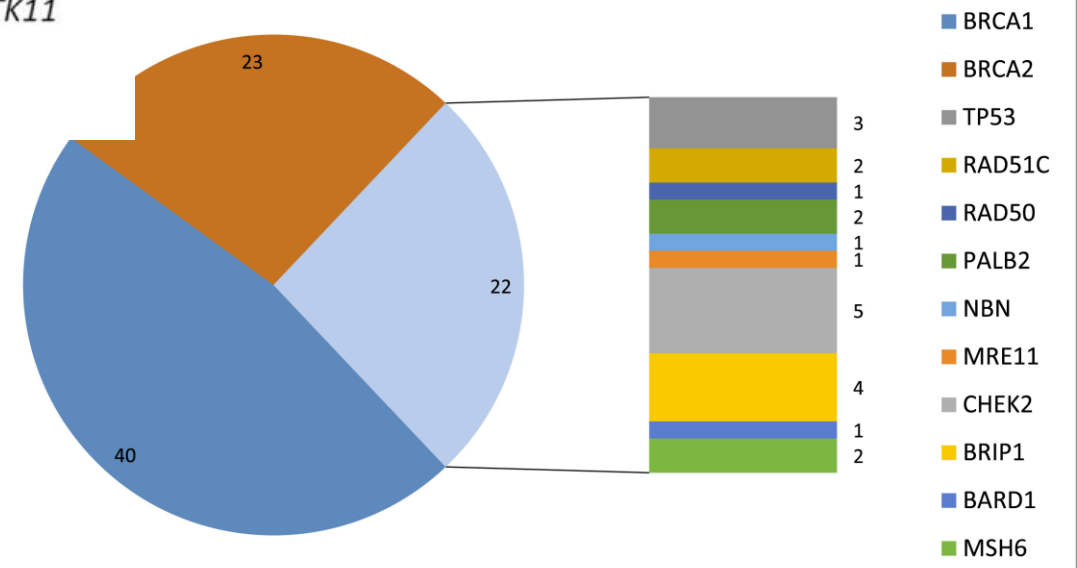
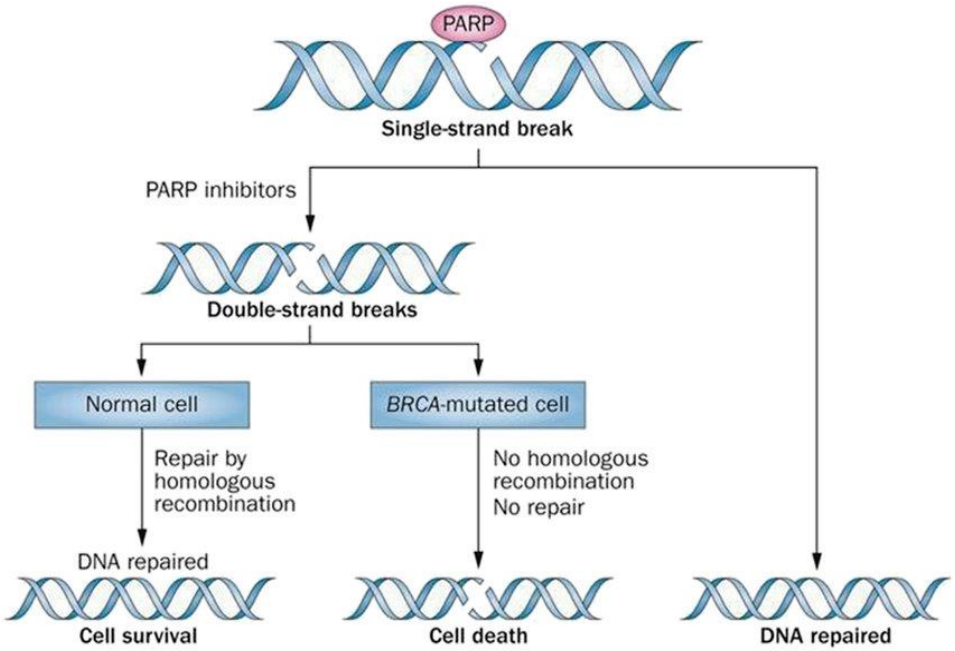
Hereditary Ovarian Cancer and Risk Reduction

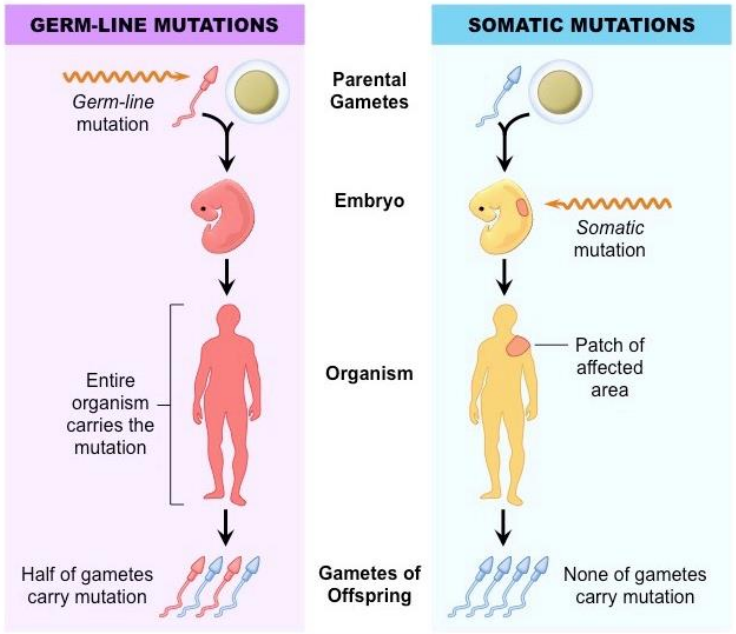
Lesley Andrews, MB.BS., M.Med [a, *], David G. Mutch [b]

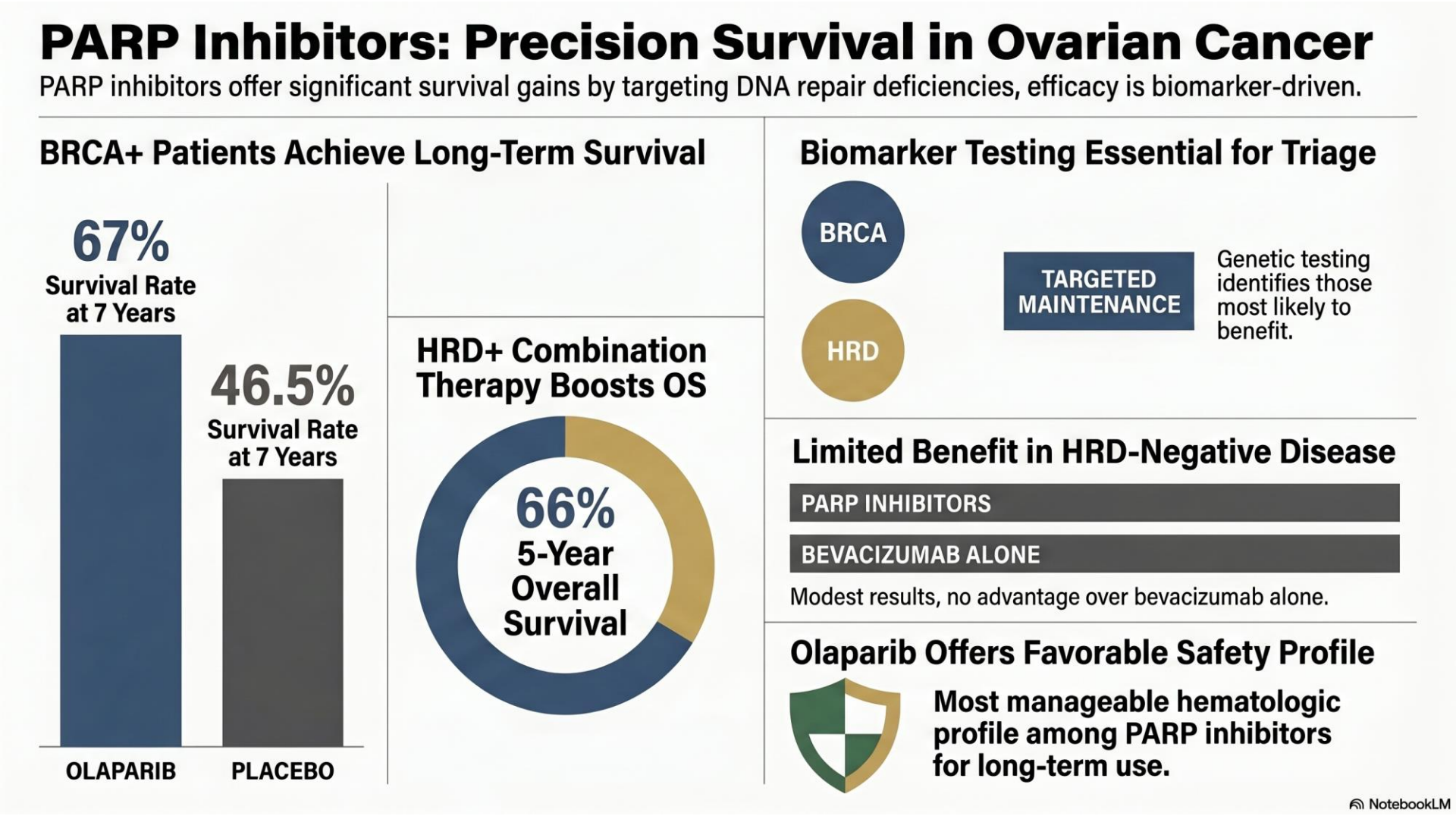
US Cohort 24%



Mechanism of DNA repair: the role of PARPi in homologous recombination (HR)



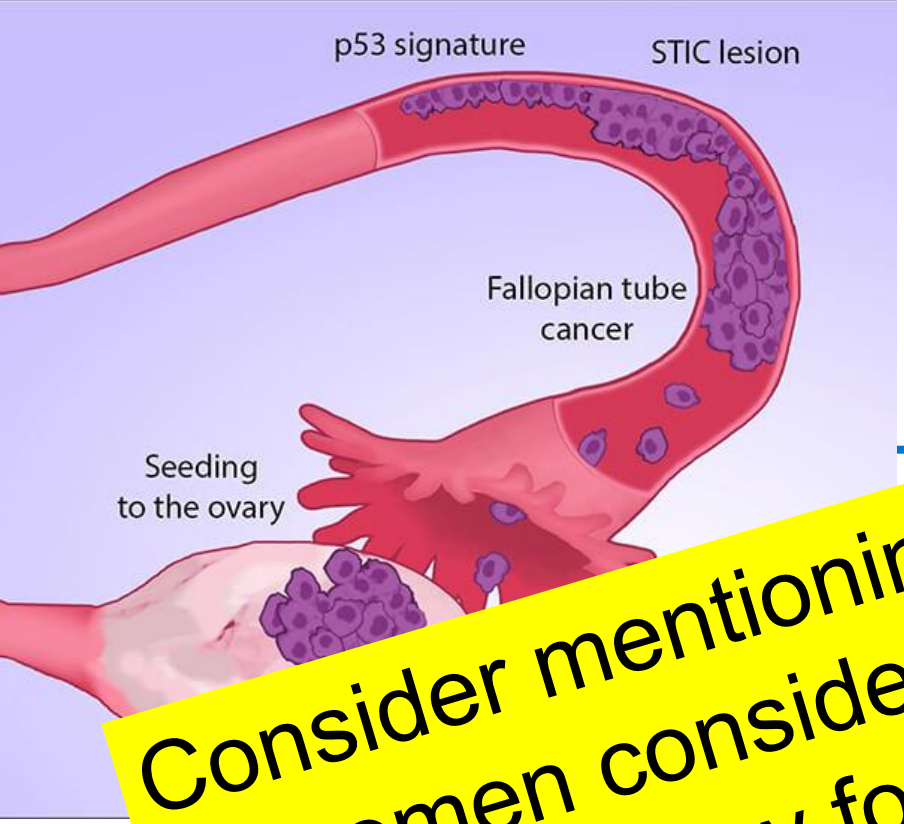




A qualitative study reported patients paid an average of **$227.50 per month** for their PARP inhibitor, with the annual drug cost described as approximately **$100,000**.

"Having Cancer Is Very Expensive": A Qualitative Study of Patients With Ovarian Cancer and PARP Inhibitor Treatment. Gynecologic Oncology. 2024. Smith AJB, O'Brien C, Haggerty A, Ko EM, Rendle KA.

Salpingo-Centric Model



Consider mentioning salpingectomy to women considering sterilization or having surgery for other reasons

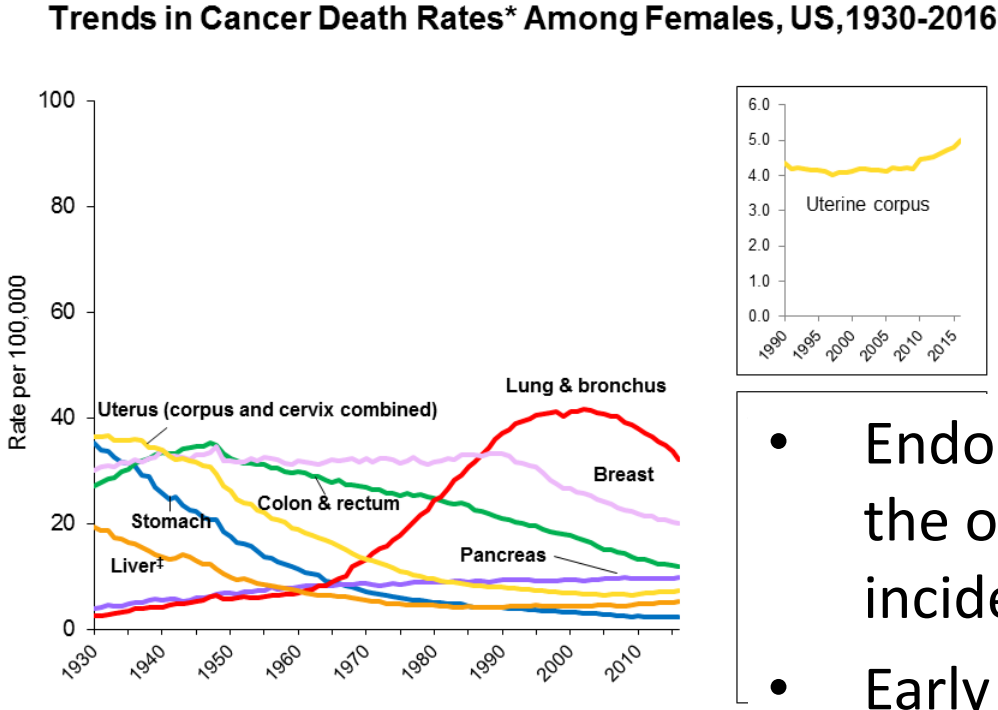
	GERM CELL	SEX CORD–STROMA	METASTASIS TO OVARIES
	65%-70%	15%-20%	5%
malignant ovarian tumors	90%	3%-5%	2%-3%	5%
Age group affected	20+ years	0-25+ years	All ages	Variable
Types	• Serous tumor • Mucinous tumor • Endometrioid tumor • Clear cell tumor • Brenner tumor • Cystadenofibroma	• Teratoma • Dysgerminoma • Endodermal sinus tumor • Chonocarcinoma	• Fibroma • Granulosa–theca cell tumor • Sertoli–Leydig cell tumor	

Case 3

A 57 yo African American woman presents with new complaint of one episode of PMP bleeding. She is otherwise healthy. She has an u/s which reveals fibroids and an endometrial strip of 4.2 mm. Next steps might include?

A. Send her to a gynecologist ✓
B. Reassure her that this can be normal with fibroids
C. Obtain an MRI
D. Repeat the u/s in 3 months

Key points on Endometrial cancer



*Age-adjusted to the 2000 US standard population. †Uterus includes uterine corpus and uterine cervix combined. ‡Incl and other biliary.
NOTE: Due to International Classification of Diseases coding changes, numerator information for colorectal, liver, lung, time.
Source: National Center for Health Statistics, Centers for Disease Control and Prevention, 2018.

- Endometrial cancer is one of the only cancers where incidence is increasing
- Early intervention equals improved survival
- Racial differences are now apparent and outcomes poorer

JAMA Oncology | Original Investigation

Estimated Performance of Transvaginal Ultrasonography for Evaluation of Postmenopausal Bleeding in a Simulated Cohort of Black and White Women in the US

Kemi M. Doll, MD, MS; Sarah S. Romano, MPH; Erica E. Marsh, MD; Whitney R. Robinson, PhD

Key Points

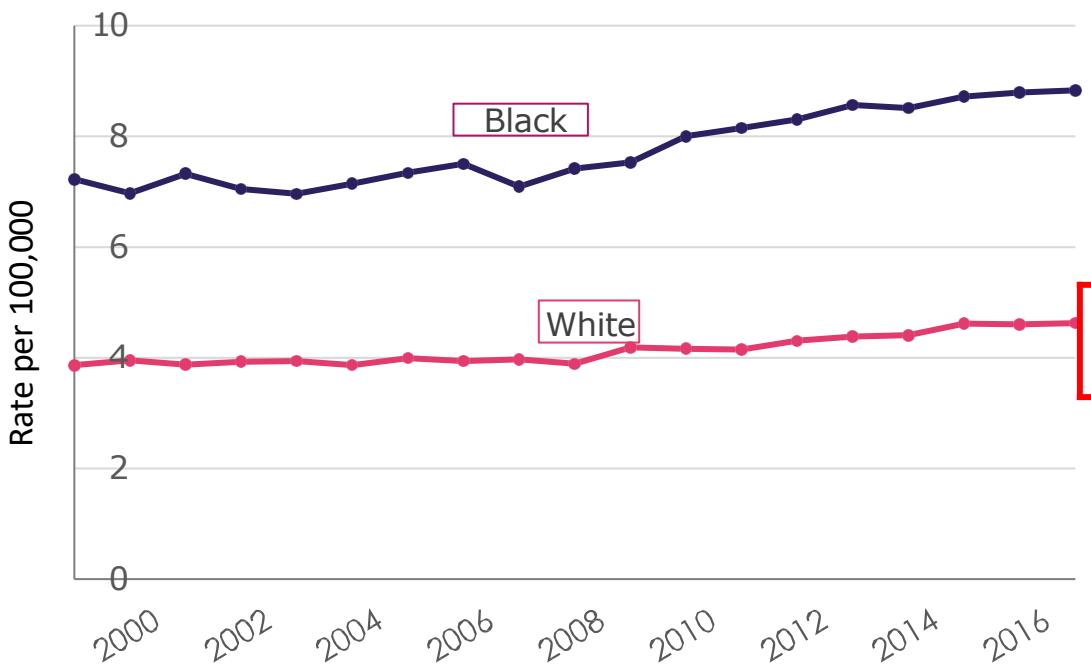
Question Do current guidelines that direct the use of transvaginal ultrasonography as a gateway to endometrial biopsy among women with postmenopausal bleeding perform differently by patient race?

Findings In this study of a simulated cohort of 367 073 Black and White women with postmenopausal bleeding, the use of 4-mm transvaginal ultrasonography endometrial thickness measurements to prompt biopsy resulted in a sensitivity of 47.5% among Black women compared with 87.9% among White women, with a negative predictive value of 92% among Black women vs 98% among White women.

Meaning The findings of this study suggest that adherence to current clinical guidelines results in systematic underdiagnosis in Black women with endometrial cancer owing to measurement thresholds that fail to account for uterine fibroids and nonendometrioid histologic type.

US Uterine Cancer Statistics by Race/Ethnicity: Mortality

For Black women, uterine cancer mortality has >> ovarian cancer mortality since **2005.**



Rank	Cancer	Black:White Mortality Rate Ratio
1	Stomach	2.3
2	Multiple Myeloma	2.2
3	Uterine **(Endometrial)**	2.0 **(1.2-2.8)**
4	Cervix	1.7
5	Breast	1.4
6	Colorectal	1.3

Guiaquinto, et al. *Obstetrics & Gynecology.* 2022.

Data from: SEER cancer statistics review 1975-2018, Available at: seer.cancer.gov

Giaquinto et al, *CA: A Cancer Journal for Clinicians*, 2022
Clarke et al, *JAMA Oncology,* 2022

Financial Toxicity in Gynecologic Oncology: A Clinical Brief for Providers

THE PATIENT PROFILE: WHO IS AT RISK?

50% Prevalence in Gynecologic Oncology

Roughly half of all GO patients experience financial toxicity, with cervical cancer patients facing the highest risk due to intensive treatment regimens.

The "Gender Penalty" in Financial Distress

Women are at higher risk due to the 92% wage gap, higher rates of part-time employment, and their roles as primary caregivers for children and elders.

High-Risk Demographics

Patients under age 65, non-White individuals, and those with high-deductible health plans (HOHPs) or no insurance are disproportionately affected.

CLINICAL & BEHAVIORAL CONSEQUENCES

7x Higher Risk of Care Delay

Patients experiencing high financial toxicity are seven times more likely to delay or avoid necessary medical care to save money.

5x Higher Medication Nonadherence

Cost-related coping mechanisms often lead patients to skip doses or fall to fiil prescriptions for life-saving therapies.

Increased Mortality Risk

Cancer patients who file for bankruptey have a 1.8x (79%) higher risk of mortality compared to those who do not.

Quality of Life Erosion

FT is significantly associated with higher levels of anxiety, depression, and post-traumatic stress among both patients and their family caregivers.

IMPACT OF HOSPITAL-DRIVEN INTERVENTIONS

Financial Navigators Hospitals/Clinics	**44% reduction in risk of death; improved GoL**
Medical-Legal Partnerships Hospitals/Insurers	**40% reduction in hospitalizations; improved health status**
Toxicity Tumor Board Multi-disciplinary Hospital Team	**$33,000 average cost avoidance per patient**

PROVIDER INTERVENTIONS

Universal Early Screening

Implement validated tools (like the COST measure) early in the disease process to identify patients at risk before financial crises occur.

Financial Navigation ROI

Referral to trained financial navigators has a 674% ROI and can reduce hospital bad debt by over $2 million per year.

Cost-Conscious Shared Decision Making

Openly discuss out-of-pocket costs during treatment planning and prioritize low-cost, high-value alternatives when clinically appropriate.

Practical Clinical Adjustments

Utilize virtual visits to reduce transportation/parking costs and coordinate care to minimize time away from work for the patient and caregiver.

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Liang MI, Harrison R, Aviki EM, Esselen KM, Nitecki R, Meyer L. Financial toxicity: A practical review for gynecologic oncology teams to understand and address patient-level financial burdens. Gynecol Oncol. 2023 Mar;170:317-327. doi: 10.1016/j.ygyno.2023.01.035. Epub 2023 Feb 7. PMID: 36758422.