NEW RESEARCH

Contributions of liquid-based (Papanicolaou) cytology and human papillomavirus testing in cotesting for detection of cervical cancer and precancer in the United States

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Quest Advanced™ Women's Health

Co-testing with Pap and HPV together identifies more cases of cancer and precancer than either test alone[1]

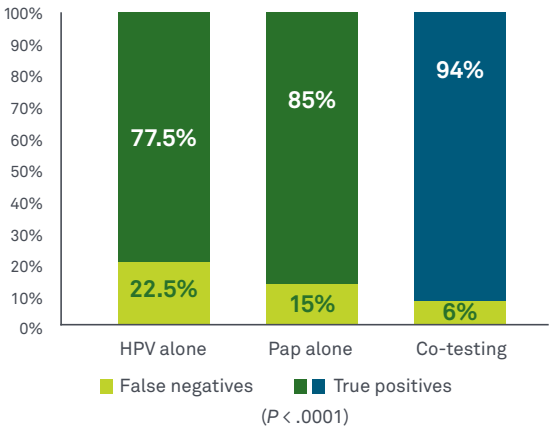
A recent Quest Diagnostics Health Trends™ retrospective, longitudinal study confirms the value of co-testing in women ages 30 to 65

94% of cancers were identified with co-testing <12 months to diagnosis[1]

99.7% of precancers were identified with co-testing <12 months to diagnosis[1]

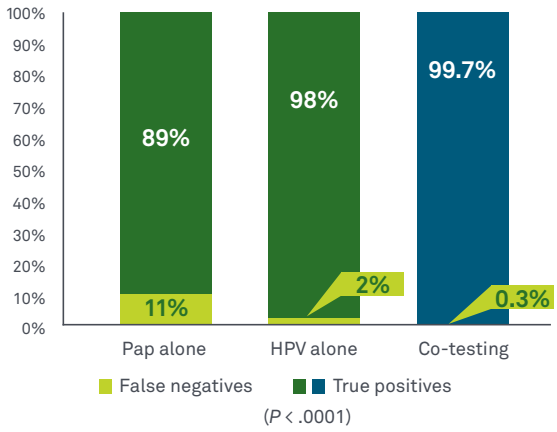
22.5% of cancers would not have been identified with HPV alone[1]

Data <12 months of cancer diagnosis



11% of precancers would not have been identified with Pap alone[1]

Data <12 months of precancer diagnosis



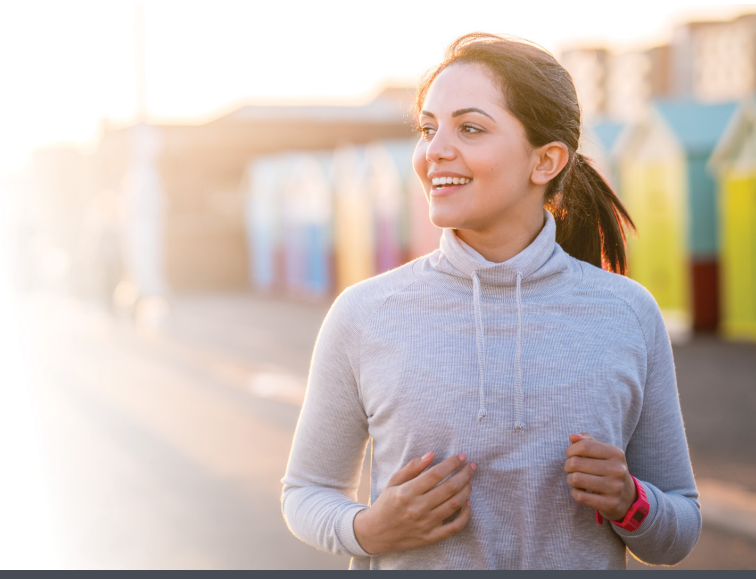
Cancer outcomes over the entire study period (9 years)[1]

HPV alone **54% more women** would not have been identified with cancer **with HPV alone** versus co-testing

PAP alone **50% more women** would not have been identified with cancer **with Pap alone** versus co-testing

- Adenocarcinoma (ADC) is on the rise.[2] HPV alone and Pap alone **failed to identify more than twice as many women** diagnosed with ADC as co-testing
  - **Co-testing identified 101 more cases** of ADC than HPV alone, and **108 more cases** versus Pap alone

Visit WhyCotesting.com to review the full study



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About the Quest Diagnostics Health Trends™ study

Retrospective, longitudinal analysis of women ages 30 to 65 who received co-testing with Pap and HPV together, and at least 1 biopsy prior to a diagnosis of cervical cancer or precancer (CIN3/AIS)[a].

- **Co-testing identified more cases of cancer and pre-cancer than either test alone**[1]
- This study:
  - Is inclusive of a highly heterogeneous female population
  - Is representative of the opportunistic cervical cancer screening experience realized by most women in the US

13 million
women ages 30 to 65

19 million
co-testing data points

625,000
co-tests followed by at least 1 cervical biopsy

Now more than ever, co-testing makes a difference

- Screening intervals have increased over time
- Depending on the patient's age and the guidelines, intervals include[3,4]:

Pap alone every 3 years | **Co-testing** every 5 years | OR | **HPV alone** testing every 3 or 5 years

- In most cases in the US, cervical cancer screening is opportunistic rather than well-organized[1,5]

Guidelines continue to support co-testing in women ages 30–65[3,4]

Quest Health Trends™ data is relevant to the development of cervical cancer screening guidelines and pertinent to your day-to-day patient care[1]

Ordering cervical cancer screening is efficient using one-click Smart Codes

Test code	Test name
91384	Image-Guided Pap with Age-Based Screening Protocols
91385	Image-Guided Pap with Age-Based Screening with CT/NG[b]
91386	Image-Guided Pap with Age-Based Screening with CT/NG, *Trichomonas*[c]

Both imaged and non-imaged Pap tests are acceptable under the American College of Obstetricians and Gynecologists (ACOG) recommendations. Non-imaged Paps, as well as additional testing recommended by ACOG, are available at Quest Diagnostics, and may be ordered individually. Go to **www.QuestDiagnostics.com/TestCenter** for our full test menu.

Ensure your female patients between the ages of 30 and 65 receive the best cervical cancer screening protection possible with **co-testing**

Visit **WhyCotesting.com** to review the Quest Diagnostics Health Trends™ study

[a] CIN3 = cervical intraepithelial neoplasia 3; AIS = adenocarcinoma in situ

[b] CT/NG: *Chlamydia trachomatis/Neisseria gonorrhoeae*

[c] CT/NG/Trich: *Chlamydia trachomatis/Neisseria gonorrhoeae/Trichomonas vaginalis*. Panel components can be ordered separately if not using Smart Codes. *Chlamydia/Neisseria gonorrhoeae* RNA, TMA, Urogenital (11363), *Trichomonas vaginalis* RNA, Qualitative, TMA, Pap Vial (90521)

References

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2. Adegoke O, Kulasingam S, Virnig B. Cervical cancer trends in the United States: a 35-year population-based analysis. *J Woman's Health (Larchmt).* 2012;21(10):1031-1037. doi:10.1089/jwh.2011.3385
3. US Preventive Services Task Force. Final recommendation statement. Cervical cancer: screening. Updated August 2018. Accessed July, 2020. https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/cervical-cancer-screening2
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5. Schiffman M, Kinney WK, Cheung LC, et al. Relative performance of HPV and cytology components of cotesting in cervical screening. *J Natl Cancer Inst.* 2018;110(5):501-508. doi:10.1093/jnci/djx225

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