# ASCCP Guideline Changes and Management of the Abnormal Pap Test— Accurately Targeting Intervention

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# Background

- The Center for Lower Genital Tract Disease at Brigham and Women's Hospital is a referral center for the evaluation & management of abnormal Pap tests or HPV results.
- Staffed by residents and faculty from Harvard Medical School.
- Data on patient demographics, risk factors, clinical characteristics, as well as cytology and histology results is entered into a registry,





### Timeline

Abnormal Pap Smear Registry started (2006) Based on published literature and preliminary management discussion we implemented ASCCP guidelines in advance of publication (2010-2013)

2006:

Chapter 58 signed into Massachusetts state law requiring universal health insurance.

#### 2012: ACOG, ACS, UPSTF update screening guidelines

2013: ASCCP published management guidelines

2014: Affordable Care Act signed into law.

HPV testing approved (2003)



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### Background

- Updates to ASCCP management guidelines sought to minimize invasive procedures while still preventing cancer, and cancer precursors.
- These guidelines incorporated patient factors including patient age, Pap test screening history, and human papilloma virus (HPV) test result.

- Guidelines were based mostly on data from Kaiser.
- Further study is warranted to understand if they apply across a variety of populations and accomplish their goals.



### Objectives

• To examine how changes to the American Society for Colposcopy and Cervical Pathology (ASCCP) guidelines impact distribution of highgrade dysplasia and cancer as well as rates of intervention among patients with abnormal cervical cancer screening seen in an academic teaching clinic.





# Study Design





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## Study Design

- Study period January 1, 2008-December 31, 2017.
- Women referred to the Center for Lower Genital Tract Disease with abnormal Pap test or HPV screening identified.
- Women without documented cytology or histology results excluded.
- 5,625 women seen over 15,127 visits included in subsequent analysis.





### Patient Characteristics

• Median *patient age* was significantly higher over time (p<0.0001):



• There was decreased *ethnic and racial diversity* over time (p<0.0001):





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### **Patient Characteristics**

• Number of *unique patients* seen per year increased over time:



• Number of *patient visits* per year increased over time:





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### **Patient Characteristics**

• Fewer *pregnant patients* were served over time (p<0.0001):





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### Trends in Referral Pap Test

 There were no differences in rates of *high-grade cytology* at time of referral (p=0.61):



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### HPV Testing and Vaccination History

• *HPV positivity* at time of referral increased over the study period (p=0.0001):



• Rates of *unvaccinated patients* decreased over the study period (p<0.0001):





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### Trends in Histology

• Rates of *high-risk histology* were unchanged over time (p=0.70):





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### Trends in Intervention

• There was a lower mean *number of colposcopies* performed per patient over time (p<0.0001):





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### Trends in Intervention

 There was a lower mean *number of LEEPs* performed per patient over time (p<0.02):</li>



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### New Cancer Diagnoses

• There was no increase in *new cancer diagnoses* during the study period (p=0.29):



![](_page_16_Picture_3.jpeg)

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### Conclusions

- Fewer younger and pregnant patients were referred to clinic and subsequently underwent interventions.
- There was a lower rate of intervention (colposcopy, LEEP), but no apparent overall change in the number of cancers diagnosed.
- Findings suggest that guidelines have been successful in referring appropriate patients for evaluation, with on average fewer procedures performed.

![](_page_17_Picture_4.jpeg)