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## Evidence is lacking to support pelvic examinations as a screening tool for non-cervical cancers or other conditions

**Mona Saraiya**

Division of Cancer Prevention and Control, Centres for Disease Control and Prevention, Atlanta, Georgia, USA

### Context

The pelvic examination (PE) includes a visual examination of external genitalia, the speculum examination, and the bimanual examination (BME).<sup>1</sup> Coupled with the Pap test, the PE is considered part of the annual well-woman examination. This systematic review evaluated the evidence for the PE to detect non-cervical cancers and benign conditions such as fibroids. This evidence review approach differs from those conducted by the US Preventive Services Task Force, which considers a particular examination or test for the prevention of a specific disease.<sup>2</sup>

### Methods

This systematic review assessed accuracy, benefits and harms of PE among asymptomatic, non-pregnant adult women. By harms, the review evaluated evidence for direct and indirect harms from examination findings.

### Findings

The authors identified 52 articles, of which 32 contained original data. Only three studies evaluated examination accuracy, but they were not well-designed screening trials with sufficient power to examine effectiveness of outcomes. Just one randomised controlled trial examined the role of BME for ovarian cancer screening. There were no ovarian cancers detected by the BME alone, so the examination was discontinued and could not be properly evaluated for ovarian cancer screening.<sup>3</sup> There were 15 low-quality studies that assessed harms. Across studies, a median of 35% of women reported pain and discomfort, and in most studies, pain and discomfort were associated with significantly lower intent to return for another examination. A median of 34% of patients reported fear, anxiety and embarrassment from the PE. One study found that the PE led to unnecessary surgery in 1.5% of women.

**Correspondence to:** Dr Mona Saraiya, Division of Cancer Prevention and Control, Centres for Disease Control and Prevention, 4770 Buford Hwy, Mailstop F76, Atlanta GA 30341, USA; msaraiya@cdc.gov.

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## Commentary

This timely systematic review identified very little evidence for the effectiveness of PE screening for prevention of non-cervical cancer or any benign conditions. The harms identified, however, were real, documented and not without significance. Women who feel pain and discomfort are less likely to return for a preventive care visit consisting of other evidence-based screening or care. PEs were also a barrier among obese women: a group of women that may benefit from chronic disease screenings or counselling.

Unfortunately, this review was not able to differentiate between the benefits and harms of the individual examination components (speculum, external genital examination and bimanual). The BME is often the component that is associated with the most embarrassment, pain or discomfort and may benefit from a more focused review. Cervical cancer was not examined as an outcome because of the assumption that the speculum examination is necessary for cytology collection, and cytology has been shown to be an effective screening test for cervical cancer.<sup>4</sup> Combining the speculum examination with the cytology for cervical cancer screening resulted in an unhelpful category that included two very different components of screening that are used for different reasons: the speculum examination is the method used to obtain the sample, while cytology is the test conducted on the sample.

This review was accompanied by a statement from a well-respected body of US internal medicine specialists that recommended against performing screening PE.<sup>5</sup> In a recent survey, a third of internists still used the PE routinely to screen for ovarian cancer, compared to 55% of family medicine physicians and 98% of obstetricians and gynaecologists.<sup>6</sup> In 2010, the most common reason for a visit to a US office-based obstetrics and gynaecology practice was for preventive care, and American College of Obstetricians and Gynecologists continues to recommend annual PE among most adult women despite the lack of evidence of its effectiveness.

In at least three European countries, the BME is for women with symptoms; it is not part of periodic examination of asymptomatic women.<sup>7</sup> In the UK the cervical cancer screening programme guidance recommends against a BME.<sup>8</sup> With approximately 63 million annual PEs in the USA a year, questions will rightly arise about the utility and value of this screening test.

## References

1. Committee on Gynecologic Practice. Committee opinion No. 534: well-woman visit. *Obstet Gynecol.* 2012; 120(2 Pt 1):421–4. [PubMed: 22825111]
2. U.S. Preventive Services Task Force. Screening for ovarian cancer: brief evidence update. Rockville, MD: U.S. Preventive Services Task Force; 2004. <http://www.uspreventiveservicestaskforce.org/3rduspstf/ovariancan/ovcanup.htm>
3. Buys SS, Partridge E, Black A, et al. Effect of screening on ovarian cancer mortality: the Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer Screening Randomized Controlled Trial. *JAMA.* 2011; 305:2295–303. [PubMed: 21642681]
4. Moyer VA, on behalf of the U. S. Preventive Services Task Force. Screening for cervical cancer: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2012; 156:880–91. [PubMed: 22711081]

5. Qaseem A, Humphrey LL, Harris R, et al. Screening pelvic examination in adult women: a clinical practice guideline from the American College of Physicians. *Ann Intern Med.* 2014; 161:67–72. [PubMed: 24979451]
6. Stormo AR, Hawkins NA, Cooper CP, et al. The pelvic examination as a screening tool: practices of US physicians. *Arch Intern Med.* 2011; 171:2053–4. [PubMed: 22158576]
7. Westhoff CL, Jones HE, Guiahi M. Do new guidelines and technology make the routine pelvic examination obsolete? *J Womens Health (Larchmt).* 2011; 20:5–10. [PubMed: 21194307]
8. National Health Service. A resource pack for trainers. Sheffield; NHS Cancer Screening Programmes: 2006. Taking samples for cervical cancer screening. NHSCSP Publication No. 23