APPENDIX A. SEARCH STRATEGIES

Database: Ovid MEDLINE(R) <1946 to July 2013>
Search Strategy:
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1 (pelvic exam$ or gynaecol$ exam$).mp. or exp Gynecological Examination/
2 pelvi$.mp. or exp Pelvis/
3 palpation.mp. or exp Palpation/
4 or/1-3
5 women$ health.mp. or exp Women's Health/
6 exp Female/
7 5 or 6
8 (asymptom$ or routin$ or screen$ or mandat$).mp. or exp Mass Screening/
9 4 and 7 and 8
10 ovar$ cancer.mp. or exp Ovarian Neoplasms/
11 exp Uterine Cervical Neoplasms/ or uter$ cancer.mp.
12 adnexa uteri.mp. or exp Adnexa Uteri/
13 vagin$ smear$.mp.
14 vagin$ disease$.mp. or exp Vaginal Diseases/
15 contracept$.mp. or exp Contraception/
16 contraceptives.mp. or exp Contraceptive Agents/
17 chlamydia.mp. or exp Chlamydia Infections/ or exp Chlamydia/
18 std.mp. or exp Sexually Transmitted Diseases/
19 or/10-18
20 9 and 19
21 limit 20 to English language
22 limit 21 to humans
23 case report.mp. or exp Case Reports/
24 case series.mp.
25 23 or 24
26 22 not 25
27 prostate.mp. or exp Prostate/
28 26 not 27

APPENDIX B. PEER REVIEW COMMENTS AND AUTHOR RESPONSES

REVIEWER COMMENT	RESPONSE
1. Are the objectives, scope, and methods for this review clearly described?	
Yes	None required (NR)
Yes. Very clear. The analytic framework seems somewhat atypical since KQ1 often pertains to the most direct evidence of screening benefit (indicated by KQ2 in the current plan).	NR
Yes. I think that the objectives and methods are clearly described. I do have two minor comments that might help further clarify the objectives: 1. I wonder if, in the Executive Summary, there can be a "Bottom Line" statement right after the Introduction so that readers will be able to quickly surmise the clinical implications of the review 2. I think in Key question 1, it might be helpful to highlight that the review seeks to assess the accuracy for detection of malignancies other than cervical cancer.	Thank you. The suggestions have been incorporated in the final version of the review.
Yes. The methods and scope are well described.	NR
Yes	NR
Yes The analytic framework is well described and complete. (Minor point: For KQ3 reword as "Harms from receiving exam" instead of from performing exam) The methods for assessing the risk of bias or quality of studies for KQs other than KQ1 are not given, and it seems that studies of all quality levels are included (more on this below). Some presentation of the methods with regard to study quality for all key questions should be included.	The studies were primarily survey studies. There is no established method for evaluating the quality of survey studies so we identified key elements of survey research and report on whether the included studies addressed those key elements. More detail is provided in the Methods section.
2. Is there any indication of bias in our synthesis of the evidence?	
No	NR
No	NR
No. I think the methods are solid. However, in the review of the potential psychological harms associated with pelvic exams, the authors state that the studies could not be pooled but then report median values across the studies. It's unclear how they obtained these median values.	The median is a descriptive statistic – the middle value of the values reported for a particular outcome. For example, 7 studies reported percentage endorsing fear etc. The middle value of those 7 percentages was 34%.
No	NR
No	NR
While there is not an indication of author bias in the synthesis, the report does in places draw conclusions based on studies with a high risk of bias. In some cases, it seems more correct to say that there is not sufficient evidence to draw a conclusion rather than making a statement of findings. For example, with regard to provider race and pelvic exam experiences, one study from 1973 with an n=163 is the basis for suggesting that patients seeing black providers experience more pain and discomfort than those seeing a white provider. I would hesitate to even hint at this with the evidence from that Paper – the study was conducted at one clinic and patients saw a limited number of providers – even if 20 different providers were seen, and half of these were black and half were white (I suspect it was far less), the experiences of these women speak to the examination practices of very few practitioners (trained more than 50 years ago, using speculums from 40 years ago). That the results can be generalized at all is suspect, given that clustering of patients by provider probably was not accounted for, and that they would relate to the experiences of women in the current era seems highly unlikely. (I recommend dropping that study from your review as not relevant.)	

REVIEWER COMMENT	RESPONSE
More broadly, the report would benefit from more careful accounting of the merits of the evidence from the studies identified and some summary of the strength of the evidence for conclusions drawn. A summary table evaluating the strength of evidence and conclusions for each KQ would be helpful. Where there no study quality criteria used to exclude studies? For example – one included study for psychological harms is from 1967 and has an n=40 and no response rate reported. This seems no better than a case report, and yet it is included. In fact, this study serves as the high end of the range of estimates for psychological harms – a misleading range perhaps. Another study, Robohm, is a mailed survey of 74 women with no response rate reported that has arguably little to offer in terms of generalizable accurate estimates	Thank you. The suggestions have been incorporated in the final version of the review. Specifically, we have provided an assessment of the quality of the survey studies (as noted above). We did not exclude studies based on study quality.
3. Are there any published or unpublished studies that we may have overlooked?	
No	NR
The Mayo Clinic physical exam studies from the 1970s included pelvic exams and may be useful.	Thank you for the suggestion.
No. The review seems to have been comprehensive.	NR
Not to my knowledge.	NR
Yes. I've attached several studies about receipt of clinical preventive services, including Pap smears, by BMI. 1. *Prev Med*. 2012 May;54(5):302-5. doi: 10.1016/j.ypmed.2012.02.010. Epub 2012 Feb 25. Prospective association between body mass index and receipt of preventive services: results from the Central Pennsylvania Women's Health Study (CePAWHS). Kraschnewski JL, McCall-Hosenfeld JS, Weisman CS. 2. *Am J Prev Med*. 2011 Nov;41(5):465-72. doi: 10.1016/j.amepre.2011.07.020. Preventive care in relation to obesity: an analysis of a large, national survey. Littman AJ, Koepsell TD, Forsberg CW, Boyko EJ, Yancy WS Jr. 3. *Obesity (Silver Spring*). 2010 Sep;18(9):1827-35. doi: 10.1038/oby.2010.40. Epub 2010 Mar 4. Obesity and receipt of clinical preventive services in veterans. Yancy WS Jr, McDuffie JR, Stechuchak KM, Olsen MK, Oddone EZ, Kinsinger LS, Datta SK, Fisher DA, Krause KM, Østbye T.	Thank you for the suggested references. We reviewed all these articles and they did not meet inclusion criteria.
This recently published article was not overlooked, but gives some additional information that might be useful to the report, particularly provider concerns about extended gynecologic screening intervals. Perkins RB, Anderson BL, Sheinfeld Gorin S, Schulkin JA. Challenges in cervical cancer prevention: a survey of U.S. Obstetrician-gynecologists. Am J Prev Med. 2013 Aug;45(2):175-81. doi: 10.1016/j.amepre.2013.03.019.	Included
4. Please write any additional suggestions or comments below. If applicable, please indicate the page and line numbers from the draft report.	
Looks great. No additional comments or corrections.	Thank you.
Lines were not numbered, so referral is to page and paragraph. - Page 3: KQ2. About 85% respondents in the Henderson survey reported bimanual exams as being "very important or important" to identify benign ovarian processes (eg, cysts). From a clinical perspective, providers might believe this will avoid subsequent ovarian torsion (a surgical emergency); this reasoning is articulated in the commentary to the 2011 Stormo article but is not specifically stated in the current study. The document should at least describe benign lesions specifically as an "other gynecologic condition". - Page 3: KQ2, benefits, ovarian cancer, the second paragraph ("There are likely…") This paragraph is about harms and seems misplaced in the benefits section.	

REVIEWER COMMENT	RESPONSE
- Page 8: “S” is missing from ASCCP acronym. - Page 13: Figure 2 is empty. - Page 14: The last sentence seems incorrect. The addition of CA-125 seems to increase the PPV of the exam: if a ‘positive test’ were defined as both a positive pelvic exam and a positive CA-125, the PPV would be 100%. That is, the only woman with a positive pelvic exam and a positive CA-125 was the one woman identified as having ovarian cancer. The confidence limit is certainly wide. - Page 17: The statement from ACS (Smith, 2011, mid-page) perhaps should be “asymptomatic ovarian cancer” not “symptomatic.” - Page 18: The potential benefit of screening for BV is not articulated in the document. Is it to prompt treatment to avert future PID? - Pages 24, 25, 26, 29, etc.: The small-case “k” is used where traditionally an “n” is used to denote sample size (or in this case the number of studies). This is confusing. - Page 29: Paragraph on specialty. Here, a study is described as “the Schmittdiel study” but the document does not use that style elsewhere (instead referring to studies by parenthetical reference and year rather than by first-author name). - Page 31: Sometimes the C in ACOG is “College” (page 31) and other times “Congress” (page 6) - Page 31: Schwartz et al showed that cervical cancer screening has limited provision of contraception; consider citing here (Contraception 72 (2005) 179– 181). - Page 37: The ACOG Bulletin on well woman exams also articulates reasons for doing the exam: “Concerns, such as individual risk factors, patient expectations, or medical–legal concerns may influence the decision to perform an internal pelvic examination or clinical breast examination.” Consider citing this bulletin in addition to Stormo and Stewart. - Page 37: Conclusion, first paragraph, last line. As indicated earlier, the Buys study included BME but no cancer found above and beyond those found by U/S or CA-125 (so dropped). By extension, the results of the trial could support a conclusion no effect of BME on ovarian cancer mortality. - Page 37: Conclusion. The first sentences of the first and third paragraphs are nearly identical. - Page 37: Conclusion. The last two sentences are important (and likely true) but seem out of scope for an evidence report. The authors seem to making judgments about the adequacy of evidence about both benefits and harms of screening pelvic exams, although the report states a striking lack of any evidence for any outcome. The authors further suggest that the net benefit is zero or in the direction of harm, thereby justifying a focus on practice change. This is all (very) likely true, but seems to be a conclusion that readers/interpreters of the report should make.	Thank you. These suggestions have been incorporated in the final version. Specifically, suggested references have been reviewed and included if relevant to the scope of the review. We have corrected the typographical errors and verified any confusing statements in the review.
Other relatively minor comments: 1. I found the report to be unnecessarily repetitive. I wonder if the final summary by question. I thought that the conclusion paragraphs succinctly summarized the findings already discussed in the main body. 2. As clinicians may use this document to inform their screening practices for both Chlamydia and cervical cancer screening, I wonder if it would be worthwhile to highlight in the executive summary that Paps should not be done in women < 21 years regardless of sexual activity and that Chlamydia screening should be performed in all sexually active women <25 – especially since these practices are commonly not followed. 3. I wonder if BV detection should even be included since most experts do not even recommend treating in asymptomatic, non-pregnant women (treatment in pregnant women, I believe, is controversial – a point worth potentially mentioning). If it is included, perhaps a discussion of the harms of detection should include the fact that treatment does not lead to improved outcomes, and may be associated with increased incidence of yeast infection (harms related to overdiagnosis or overtreatment). The authors mention this on p.32 in the summary but I think this should be discussed earlier on.	

REVIEWER COMMENT	RESPONSE
4. Since there are relatively few documented harms (or benefits), I think that KQ 2 and 3 could be combined. That is, what are the harms and benefits. Then KQ3a could just be the 3rd main question. This will, of course, require some edits to the conceptual/analytic framework. 5. Conclusion, page 5: I think it is worth mentioning that pelvic exams can also reduce likelihood for returning for future Pap smears which do have proven benefit. 6. Consider including the 2nd paragraph of the evidence report introduction in the executive summary intro. 7. The patient characteristics discussed all impact initial screening, not harms associated with screening. I think this could be more clearly stated – essentially that studies do not really assess association between demographic factors and harms of screening but rather focus on likelihood of undergoing screening. 8. The 2 paragraphs on page 32 regarding detection belong under question 1 (accuracy of diagnosis) and I think should also be placed within the main text, not the summary section.	Thank you. The suggestions have been incorporated in the final version of the review. Specifically, we have attempted to reduce the repetitiveness. for Item #3, we decided to include BV for completeness. For item #4, we considered this suggestion but decided to follow the original plan. We agreed with the suggestions in items 6 and 7 and have made changes to the review.
General comments—This is a good review and will be very important clinically. Please see comments below. I have gone through this carefully as I know it is likely to be published and may guide guideline development. It is an important topic. 1. I think you can develop the logic better that if TVUS has not been shown to be beneficial, given the PE's lower sensitivity/specificity (if this is true—I believe it is but maybe no data) that it is highly unlikely that a less sensitive and less specific test would be beneficial. 2. I don't understand the reason for separating harms as done in KQ 2 and 3. Also, I suggest you keep the same order—benefits/harms in KQ2 and 3 so it is easier to follow *Executive Summary* Line comments/edits: Page 1 28—Do you mean "adequate and negative"? 42-45—I believe psychosocial distress, deferral of care, avoidance of care are also harms. Page 2 10—Update search. P3 4—? for "identifying ovarian cancer"? 5—of rather than or? 9-13—Is surgery the "gold standard"? Did any studies compare pelvic exam to transvaginal us? What about PLCO? Be clear that the PPV pertains to diagnosing ovarian cancer. 16-21—Clarify the gold standard for dx BV 34—Isn't stating "this test has poor dx accuracy" one of the topics of the review? 35—State how many studies contribute to the statement "screening ….lead to unnecc…surger 1.5%" P4 2-3—I thought there were no screening trials? 24-33—During topic development, I recall that one of Carolyn Westhoffs comments in her review/editorial dealing with this topic was that the exam has been shown to deter women from seeking birth control. Did you find evidence about this? Also, reduced Pap testing is an important negative finding/harm. What was the effect size? 38-42—How many studies? *Introduction* P8 8— "adequate and negative"? 27—Is the correct acronym for the amer soc of clin path listed? 36—Ref TF also	Thank you. We have incorporated many of these suggestions in the final review (one exception- we kept the 2 harms section separate. PLCO is discussed in the discussion section; we changed the language to make sure it was clear that PPV pertains to diagnosis of ovarian cancer. We identified only 1 study that compared the pelvic exam to TVUS in asymptomatic women. This study concluded that about 20% of pelvic examinations differed from TVUS findings. We clarified that the gold standard for diagnosis of BV is the Amsel criteria. We clarified that there are no screening trials of pelvic exam Information about deterring women from further healthcare Is included in text - too complicated for the executive summary We have modified the statement about systematic review quality in the body of the report and in the executive summary. We did not assess the quality of the existing systematic reviews. **Regarding use of a biopsy as a gold standard:** We stand by our selection of biopsy as the "gold standard" for cancer detection whereby the diagnostic accuracy of the pelvic examination should be measured. This is consistent with the assessment of other cancer screening tests such as the digital rectal examination for prostate cancer and mammography for breast cancer. We understand that no studies have

REVIEWER COMMENT	RESPONSE
P9 25-27—Isn't this statement a result? *Methods* P11 22—High quality? Assessed how *Results* P14 11-18—I am struggling with how you are defining gold standard. I have never seen biopsy considered the gold standard for evaluating a screening test. The gold standard in screening typically is: follow-up time, a better study (imaging, in this case ? TVUS) or perhaps surgery that looks at both ovaries in this case. Were there no studies comparing the pelvic exam to TVUS? Sure would be easy to do this if it hasn't been done! 25— "benign abnormalities" such as???? Do any of the studies in this section provide any data on what happens to the women with no pelvic abnormalities on exam over the next years of fu? How many of these pts develop ovarian cancer? I am guessing this info is not provided. P16 14—Clarify what the gold standard is ? is there a reason to identify BV in asymptomatic, non-preg women? P18—Some mention of false reassurance in this section on harms would be good. I am sure there are no studies but the importance of it remains (and is plausible) P19 I am struggling with how harms in this section differs from harms in KQ2. Also, keep same order as in KQ2. 6-12—I think this is an overview. Aren't lines 10-12 results? P23 7-9—Comment—Perhaps because of the inclusion of the pelvic exam??? 18-22—Did any of the studies evaluate likelihood of return visits based on embarrassment/fear of the exam? P24 38-40—What does "k" mean? I am assuming it is the "n" P25 9-18—Is the thought process here that because overwt women have less intention to get an exam there is more distress caused by it? 20-27—Why does compliance matter? Can you connect this with your review? I don't see this as a review of compliance with exams. Is the point that you are making that because disabled people are as compliant as non-disabled that there is no difference in how they perceive the exam? I am not sure of the point of this paragraph 44—Survey? Prevalence studies? P26 27-33—Can you connect the logic here a little more clearly?	been designed to accurately assess the diagnostic accuracy of the pelvic examination against a biopsy gold standard. None of the studies have biopsied a representative cohort of women regardless of pelvic examination findings; nor have they followed women for a sufficient period of time to determine if interval cancers plausibly missed by a pelvic examination but present at that time arise. Thus the negative predictive value and the false and true negative value of the pelvic examination is not known. We also do not believe that other screening tests, such as TVUS, or CA-125 should be used as a gold standard because similar issues arise. No studies have biopsied women with normal TVUS or CA-125 results. The screening trial while, while providing sufficient follow-up to assess for development of ovarian cancer and ovarian cancer death is unlikely to provide sufficient information to allow these studies to be considered "gold standard". At best we could make some comments on the operating characteristics of pelvic examination versus other tests sometimes used to assess for ovarian cancer. In the ovarian cancer studies, patients were followed for 1 year. There is some uncertainty around the value of identifying BV so we decided to leave it in the report. We have clarified the harms sections. We have added information on the likelihood of return visits. "k" is used to indicate the number of studies; "n" indicates the number of patients We have removed this comment. We have removed this paragraph. We have modified the text to clarify these statements.

REVIEWER COMMENT	RESPONSE
Discussion In general, I think a stronger discussion in the more conventional/article type format would be better. If you feel the need to summarize, I think you would do it with bullet points or a separate section titled summary. As it is, it seems more like you are just repeating the results. I know this is going to be published somewhere so I think this is a really important part of the document. Also, somewhere, I would talk about the cost/charges of the exam and opportunity costs. Also, I think more discussion of absence of benefit with evidence of harm (again, where is the avoiding the exam, missing birth control stuff that Carolyn Westhoff talks about) is warranted. I think an article such as this will get lots of attention so anything you can do to develop the discussion will be good. P31 27—? For identifying other abnormalities such as…. P32 35-38—Does ACS have data to support the statement that the sensitivity and specificity of the exam are "poor"? I agree with this based on my fund of knowledge but am interested in where they get this data. I am assuming it is presumptive based on your review of not finding this info. P33 1-9—2 things in this paragraph. The first is as mentioned above, I think you can develop the logic much more strongly that if TVUS doesn't work that it is highly unlikely that the pelvic exam would work. The second is, in lines 7-9 you hint about sensitivity. Was there no info on sensitivity and spec from PLCO? P34 15—I would reword this to say, "to the best of our knowledge, this is the first systematic review to include and evaluation of the harms of the ….."	The discussion was re-written and now includes a section on costs. This is correct. One screening study is still underway. From PLCO there was no information for pelvic exam, only for TVUS and CA-125. We have modified this sentence.
Page 8 (top line): Please correct the name of the nominating office to "the VHA National Center for Health Promotion and Disease Prevention" Page 8 (middle of page): The abbreviations for American Society for Clinical Pathology and American Society for Colposcopy and Cervical Pathology should be, respectively, ASCP and ASCCP. Page 8 (next to last paragraph): would include reference for USPSTF recommendation Page 31 (first paragraph): Consider noting that the pelvic examination for cervical cancer screening needs to include only the speculum portion of the exam; inspection of the external genitalia and the bimanual portion of the exam are not indicated for cervical cancer screening. Page 33 (last paragraph): add "s" to Centers (for Disease Control and Prevention)	Thank you. All these comments are addressed in the final version.

REVIEWER COMMENT	RESPONSE
This important and timely review of the evidence for routine pelvic examination is well scoped and includes a broad literature dating back more than 60 years. The authors have included important contextual issues in the review. 1. In the introduction, page 7 line 32, the suggestion that “fear of the exam” seems a bit overstated without any evidence to cite. Perhaps it is better to say simply that discomfort with the internal examination might result in avoidance. As currently written, the introduction reads as though the reviewers may have some a priori assumptions going into the evidence review. Alternatively, consider citing references suggesting that women might avoid health care because of the pelvic exam. 2. The Singh study of 2000 asymptomatic women and the outcomes of pelvic examination could be further highlighted in the discussion, as it is important evidence of “yield” from routine assessment above and beyond what would be found with swab and urine samples. 3. Greater importance and space should be given to the decision to drop the pelvic examination arm from the PLCO trial. This should lead the discussion of the results on page 32 (line 27). The information provided by the PLCO trial is somewhat buried, when it can be read as strong evidence that the pelvic exam does more harm than good with respect to this outcome. Even the ultrasound and CA125 arms were not found sufficiently sensitive and specific for detecting ovarian cancer, and pelvic examination performed even more poorly – so much so that it was dropped from the trial. Instead of discussing this important evidence to begin, you state that the guidelines of professional organizations were made “in the absence of evidence” – in fact, the evidence of no benefit from the PLCO trial drives many of these guidelines, I believe. Based on my own research, screening for ovarian cancer is a main reason physicians conduct the pelvic exam – since this is such a strong motivation for screening, a more detailed discussion of these large trials should be given. When discussing the Specificity and Sensitivity of PE for BV, it would be helpful to point out in the discussion what the low sensitivity (69%) means pragmatically – relative to other screening tests, does this one have merit based on these values (especially when considering they are based on a population where nearly 1/3 were symptomatic). 4. The Fiddes 2003 study highlights the importance of age and parity for women’s experiences of the pelvic exam – you may want to discuss possible life stage differences in pelvic exam experiences in addition to the other subgroups you consider. Is more discussion, for example, of adolescents’ experiences versus adult women possible? 5. It is not clear whether the provider gender preference data reviewed is relevant to the KQs as scoped. Reporting on these preferences might make sense in the discussion on improving the pelvic examination experience. Given the absence of harms or benefits data related to provider gender, I do not think it does in discussion of the KQ results. Minor points: You should be able to find the RR for the BRFSS Survey online – it is listed as NR in your table (Watson-Johnson 2012). Page 8, line 36 – Consider adding the ages at which yearly screening is recommended to highlight the very life stage specific relevance of this issue. Page 8, line 40 – Better to cite the primary studies rather than the Westhoff article – hers is a very pointed argument review article. Since you are conducting an SER, it should be founded in original research. Page 34, line 7-8 – It is confusing that you say one study but then cite 2 studies. Where the estimates you cite there derived from both? Page 36, line 9 – I do not think that is a direct quote from our Paper – you can probably remove the quotes. Consider citing our more nuanced conclusions.	Thank you. We have modified the introduction and discussion sections as noted. We have clarified the information about the sensitivity and specificity of PE for BV. We have added information about age to the discussion although the focus of our literature search was on adult women so we can only comment on studies that stratified outcome reporting by age. We have removed the provider gender preference data as suggested. For the BRFSS Survey data, the response rates varied by state as noted in Watson-Johnson 2012. We calculated a weighted average response rate for the 11 states and 1 territory administering the SV module: 52.2%. However, since the analysis in the Watson-Johnson Paper is based on 88.2% of respondents and we focus on the women respondents, an exact response rate cannot be determined. We have added ages at which yearly screening is recommended. Thank you. We have modified the statement that was in quotes..

REVIEWER COMMENT	RESPONSE
For KQ#3 (harms) see Westhoff C and Clark C, BJOG 1992;99:329-332, Benign ovarian cysts in England and Wales and in the U.S. This international comparison provides indirect evidence that increased routine pelvic exams in the U.S. lead to an increased rate of surgery for asymptomatic ovarian cysts, without any benefit (such as downstaging of ovarian cancer diagnosis). Possibly relevant as a harm.	Thank you for the suggested reference. We have added this reference to the report.
5. Please provide any recommendations on how this report can be revised to more directly address or assist implementation needs.	
See above; clearly discern that this applies to bimanual exam, not Paps	
No comment	
Please see text edits/line edits/comments/addendum.	
You might consider discussing some of the clinical communication challenges that could emerge – our survey of clinicians found that they believe many of their patients expect the exam and are reassured by it. This may in fact be the case, especially for women who have become accustomed to the usual practice. Providers may need guidance, tools, and support to communicate the reasons for a major change in practice – otherwise the patients may feel underserved, and clinicians may not adopt new practices due to the negative perceptions it could breed. Perhaps the report should acknowledge the communication needs/challenges as well as the need for research in this area. There are also important implications for women's health care delivery patterns with a change in the annual gynecologic exam practice – women would not necessarily see ob/gyns as frequently. The paragraph on improving the pelvic examination experience seems a little out of place in its current placement in the text. It seems outside of the scope of the review, but if to be included, it might go into a section on clinical issues late in the discussion – not in the section discussing implications of the review findings.	Thank you. We incorporated these suggestions in the final version. The paragraph on improving the pelvic examination experience has been omitted.

APPENDIX C. USPSTF RECOMMENDATIONS FOR SCREENING FOR SEXUALLY TRANSMITTED INFECTIONS IN WOMEN

STI, Year[a]	Population	Recommendation	Timing of Intervention	Method of Screening	Grade[b]
Chlamydia, 2007[51]	Sexually active, non-pregnant women age ≤ 24 and older women at increased risk	Perform Screening	Not specified	NAAT	A
	Pregnant women age ≤ 24 and older pregnant women at increased risk	Perform screening	First prenatal visit	NAAT	B
	Women age ≥ 25 whether or not they are pregnant who are at increased risk	Do not perform screening			C
Gonorrhea, 2005[53]	Sexually active women (pregnant and non-pregnant) at increased risk	Perform screening	*Pregnant*: First prenatal visit and, if applicable, during third trimester *Non-pregnant:* Not specified	Vaginal culture OR NAAT OR Nucleic acid hybridization testing	B
	Woman at low risk	Do not perform screening			D
	Pregnant women not at increased risk	Insufficient evidence for or against screening			I
Hepatitis B, 2004[90]	General asymptomatic population	Do not perform screening			D
Hepatitis B, 2009[91]	Pregnant women	Perform screening	First prenatal visit	HBsAg testing	A
Herpes Simplex Virus, 2005[89]	Asymptomatic pregnant women	Do not perform screening			D
	Asymptomatic adolescents and adults	Do not perform screening			D
Human Immunodeficiency Virus, 2013[92]	Persons ages 15-65 years; younger and older adults at increased risk	Perform screening	One time screening of all persons and possibly annually (highest risk) or every 3-5 years (increased risk)	Repeatedly reactive immunoassay followed by Western blot or immunofluorescent assay OR rapid testing followed by conventional testing	A
	Pregnant women, including those who present in labor who are untreated and whose HIV status is unknown	Perform screening	During pregnancy, including women who present in labor	Repeatedly reactive immunoassay followed by Western blot or immunofluorescent assay OR rapid testing followed by conventional testing	A
Syphilis, 2004[93]	Persons at increased risk	Perform Screening	Not specified	VDRL or RPR followed by FTA-ABS or TP-PA	A
Syphilis, 2009[93]	Pregnant women	Perform Screening	During Pregnancy	VDRL or RPR followed by FTA-ABS or TP-PA	A
Syphilis, 2004[93]	Persons not at increased risk	Do not perform screening			D

[a]Year of USPSTF recommendation. At the time of publication, many of these recommendations are being updated; [b]Grade of USPSTF recommendation
USPSTF = United States Preventive Services Task Force; NAAT = nucleic acid amplification testing; VDRL =venereal disease research laboratory; FTA-ABS = fluorescent treponemal antibody absorption test; TP-PA = treponema pallidum particle agglutination assay; RPR = rapid plasma regain; HBsAg = Hepatitis B surface antigen