

APPENDIX A. SEARCH STRATEGIES

OID MEDLINE and CINAHL

Search Terms	Description
1 Women/	MeSH Term
2 Women's Health/	MeSH Term
3 Women's Health Services/	MeSH Term
4 Transgendered Persons/	MeSH Term
5 (reproductive or reproduction or pregnan* or birth* or fertility or infertility or infertile or menstrual or menstruation or menses or urinary tract or sexually transmitted or hiv or cervical or ovarian or genital or gynecologic* or breast or congenital abnormalities).mp.	Search with .mp (see footnote) for any of the listed words related to women's health issues
6 1 or 2 or 3 or 4 or 5	Combine with "or" lines 1-5 above; carry forward all articles identified with one of the terms in lines 1-5
7 Veterans/ or Veterans Health/ or "United States Department of Veterans Affairs"/	MeSH term
8 (post deployment or post-deployment).mp.	Search with .mp for post-deployment
9 (VA or VHA or VAMC or veteran*).mp.	Search with .mp for Veteran health abbreviations or Veteran/Veterans
10 Hospitals, veterans/	MeSH term
11 7 or 8 or 9 or 10	Combine with "or" lines 7-10 above; carry forward all articles identified with one of the terms in lines 7-10
12 6 and 11	Combine with "and" lines 6 and 11; carry forward all articles from women's health terms and Veteran terms
13 ((women or LGBT or gay or lesbian or bisexual or female or transgender or transsexual or queer) and veteran*).ti,ab.	Search title and abstract for veteran "and" any of the terms in parentheses ("or")
14 12 or 13	Combine with "or" lines 12-13; carry forward all articles from overall search and focused search in line 13
15 Limit 14 to (English language and yr = "2008-Current")	Include only studies published in English and published from 2008 to the date of the search

.mp = multi-purpose (OVID); fields searched by a .mp search include Title, Original Title, Abstract, Subject Heading, Name of Substance, and Registry Word fields

MeSH = Medical Subject Heading (MEDLINE)



APPENDIX B. PEER REVIEW COMMENTS/AUTHOR RESPONSES

REVIEWER COMMENT	RESPONSE
1. Are the objectives, scope, and methods for this review clearly described?	
Yes	
Yes	
Yes	
No: While the review is clearly designed as a broad evidence map, rather than a systematic review, the framing for identifying gaps seems undermined by the statement that there were no key questions or analytic framework. Seems that given the findings of a very large literature (perhaps 2-3 times the size as may have been anticipated at the outset), there are advantages to this ESP's approach. Perhaps a better way to describe this at the beginning of the report (both Exec Sum and narrative) would be to indicate that while focusing on key topical areas may have yielded a more traditional synthesis, the stakeholders were interested in the field's growth and breadth, which the report aims to accomplish by organizing the review around healthcare topics and study characteristics. This information is there but somewhat awkwardly stated.	Thank you for the suggestion. We have revised the wording in the Introduction of the Executive Summary and Evidence Report.
Yes	
2. Is there any indication of bias in our synthesis of the evidence?	
No	
Yes: Bias towards "large sample size is better" ...this is problematic, particularly as studies featuring secondary data analysis of medical record data are compared with clinical trials for psychotherapy	Thank you for bringing this potential source of bias to our attention. Although large, multicenter trials and large medical record studies allow for greater confidence in and generalizability of the findings, for some research topics these types of studies are not feasible or appropriate. We have added in language to this effect in the section describing the results by "Sample Size" on page 46.
No	
No	
No	
3. Are there any published or unpublished studies that we may have overlooked?	
Yes - Impact of Smoking Cessation on Subsequent Pain Intensity Among Chronically Ill Veterans Enrolled in a Smoking Cessation Trial. Lori A. Bastian, MD, MPH, Laura J. Fish, PhD, Jennifer M. Gierisch, PhD, MPH, Karen M. Stechuchak, MS, Steven C. Grambow, PhD, and Francis J. Keefe, PhD J Pain Symptom Manage 2015;50:822 includes a gender analysis (see Table 3) of a VA-funded RCT	Thank you for bringing this article to our attention. We have determined that this study does meet our inclusion/exclusion criteria and have incorporated it into our evidence map. We believe it was not previously captured by our search because the abstract does not



	include any reference to women and there are no MeSH terms identified in PubMed. It is also possible that this December 2015 publication was released after our search dates.
No	
4. Additional suggestions or comments can be provided below. If applicable, please indicate the page and line numbers from the draft report.	
I am extremely impressed with the quality of this review and I think the summary of the results and recommendations are excellent. I was aware of one study (noted above) that included a gender analysis and was not included in the report but it is possible that it does not meet all of the eligibility criteria.	Thank you. As noted above, we have now included the identified study.
<p>This is a well-written and thorough description of a significant body of work. In particular, the authors are commended on the significant effort involved in reviewing and summarizing the notably large number of articles identification in this evidence map. This report will be very helpful to direct the areas in which the field needs to move.</p> <p>Page 12, line 51/52 & page 13 line 6-9: The authors note that not all abstract or full-texts were reviewed by two independent reviewers. It is understandable that this approach was taken given the large number of abstracts (2k+) and full texts (1k+). However, the rationale and approach as outlined in the discussion (page 44, line 30-44) should be included in more detail in the methods section as well.</p> <p>Page 12, line 28-30 and 13, line 7-9: For both abstract review and data abstraction – only a minority of studies underwent double review (20% for abstracts and 10% for data abstraction) Please include the error rate or the number of missed studies, as appropriate, or some additional description of frequency of errors identified in those studies that did undergo double review to help the reader understand the potential error rate overall.</p> <p>Page 12, line 31-49: The reason and number of exclusions at the full text level were given. Is similar information available at the abstract level? Specifically, it would be interesting to know the number excluded due to an absolute small n – especially as that may have excluded qualitative studies that could be of interest to researchers.</p>	<p>Thank you.</p> <p>Thank you for the suggestion. We added information to the Methods section.</p> <p>We did not track the error rates. However, we noted that most disagreement existed within subjective categories (especially combination and “other” categories), and for this reason those categories were subsequently double reviewed.</p> <p>We did not keep track of exclusions at the abstract level. It should be noted that at either abstract or full text review, studies are excluded if any one of the exclusion criteria are met. All of the reasons that a study would not be eligible are not recorded. To respond to the reviewer’s concern that small qualitative studies may have been excluded, please note that absolute small n was not an exclusion criteria, and very small qualitative studies were included. Small studies were only excluded if they included less than 100 participants total AND less than 10% of the study population was female. In a study of 50</p>



<p>Page 3/16: The healthcare categories used are not entirely intuitive. Given that the strategic priorities areas from the VA WHRN were referenced (on page 7, line 25-34), would consider reorganizing under those headings (keeping same headings but cluster under 6 SPAs).</p> <p>Page 12, line 33-47: would add that systematic reviews were also excluded</p> <p>Page 4, line 6-15: the wedge headings run together and are hard to read</p> <p>Page 5, Executive summary figure 4: the labeling of the pie wedges is confusing with multiple percentages being listed on the same wedge. Consider re-labeling potentially using total N of women or some other mechanism or just dropping the number referring to the % women in the study given that it is included in the legend.</p> <p>Page 23, figure 2: this is great!</p> <p>Page 25, line 7: it appears you are missing a citation after “LGBT population”</p> <p>Page 37, line 4-6: since you refer the efforts through the VA women’s health research network, it might be nice to add how many of these multi-site studies took place in the PBRN.</p> <p>Finally, since the bulk of included articles prevents any detailed summary or analysis of the findings, I’m wondering if there are other ways to capitalize on the work presented in this report. First, would consider including potential sub-topic areas where there appears to be sufficient evidence to support a systematic review and potential meta-analysis (could include this on page 9 under “opportunities for expanded reviews”).</p> <p>Second, it would be wonderful if the references could be annotated to show to which healthcare categories specific articles map, in particular if you could show which primary and secondary categories to which they mapped. Perhaps this would be well-suited to an appendix. I see that some of this information is listed on page 14 lines 19-4, but additional detail would allow other researchers to more fully benefit from your work and findings.</p>	<p>patients, this would require 5 women; in a small qualitative study of only 20 participants, we required at least 2 women.</p> <p>We developed the healthcare categories in consultation with our topic stakeholders and Technical Expert Panel members. We attempted to link our categories with the VA WHRN strategic priority areas in Table 2.</p> <p>This change has been made.</p> <p>We believe this might be an issue with translation from Word to PDF and we will verify that the final version is easy to read.</p> <p>We modified the pie charts for the final report. We left the labeling so the figure would be suitable for non-color printing. We have added a footnote to indicate that the numbers are numbers of studies.</p> <p>Thank you.</p> <p>The citation (Booth 2012) has been added.</p> <p>We did not extract this information.</p> <p>On the advice of several peer-reviewers, we have added in a list of suggested areas for future reviews.</p> <p>The reference numbers are linked to the healthcare categories in the opening paragraph of the results section. A complete Excel spreadsheet and linked EndNote file will also be provided to our topic nominators for use in future research.</p>
<p>The VA’s Evidence-Based Synthesis Program Center has provided a comprehensive overview of the content areas and types of studies related to women Veteran’s health published between 2008 and 2015. This will be a valuable resource for researchers and funding agencies to determine ongoing research priorities related to women veteran’s health. While it is understandable that all 437 articles could not be individually extracted, my interest in knowing the results of several of them was piqued. Beyond knowing more about the results of studies, my only request is whether more could be written about how this evidence synthesis fits within</p>	<p>Thank you.</p> <p>We created Table 2 to more clearly link articles within our healthcare categories to the planned research agenda</p>



<p>the research agenda established at the 2010 VA Women's Health Services Research Conference (a citation is provided, but it would be nice to know a little more about it here).</p>	<p>created by the 2010 VA Women's Health Services Research Conference.</p>
<p>TITLE: The title would benefit from something more descriptive and clear about what the report entails, e.g., Systematic review of the Women Veterans' Health Research Literature (2008-2015): Evidence Map of Healthcare Topical Coverage and Key Study Characteristics.</p> <p>EXECUTIVE SUMMARY: The VA Women's Health Research Network was established in 2010, not 2008. And it does not have as its primary goal supporting research-clinical partnerships. Its goal is to build capacity in the conduct of VA women's health research through education/training, technical support, mentorship and dissemination, as well as to foster inclusion of women Veterans in VA research through establishment of a VA Women's Health Practice Based Research Network. Together, these activities are designed to achieve the VA women's health research agenda and help move VA women's health research from purely descriptive and observational studies to interventional and implementation research over time. I suspect that is too much information for what you want to do here, so maybe a shorter version is to increase the research evidence base on women Veterans' health and health care needs and fill critical knowledge gaps capable of systematically improving women's health care and reducing sex/gender disparities.</p> <p>2nd parag: Veterans' health not Veteran's health.</p> <p>Exec Sum Table 1. Medical Topics -- wasn't clear why TBI and SCI were pulled out given small size of WV population in these highly specialized areas.</p> <p>See no primary care and no coordination of care. Where would those kinds of article go? Maybe it would be useful to put an "e.g.," after Healthcare Delivery if that's a "bucket" for these kinds of topics?</p>	<p>The title has been changed to: An Evidence Map of the Women Veterans' Health Research Literature (2008 – 2015)</p> <p>Correction made: 2008 changed to 2010 (typographical error)</p> <p>Adapted this description to replace language in text</p> <p>Corrected.</p> <p>Polytrauma and TBI were identified as specific gaps in the research about the health of women Veterans in the previous review by Bean-Mayberry, et al. Though the number of women Veterans affected by these conditions is currently small, the authors recognized the potential growth in this population with anticipated changes in combat participation by women Veterans.</p> <p>We initially attempted to identify medical topic articles that pertained to "primary care" issues, and after completing a small random sample, determined that it was not clear which clinical conditions should be deemed "primary care" and which should be categorized under "chronic conditions" given the significant overlap between these groupings. We found it was more straightforward to identify these articles based on the actual medical topic addressed, and thus developed the 14 medical conditions listed in Table 1. Articles that specifically addressed the delivery of primary care (including care coordination), were placed in a new category, titled, "Healthcare delivery," which also includes articles related to the delivery of mental health and emergency care. We included some reference to this in the Exec Summary discussion section on page 8, though for the purposes of</p>



<p>Exec Sum Fig 1 and Fig 2. These need sample sizes (or article #s as the case may be). Under Fig 2, why would trials and secondary analyses be combined? Seems an odd combination. What are you placing under Observational studies? An example in the narrative would help. Ah, is the secondary analyses mention about secondary analyses of trial data? If so, that needs to be clarified or the takeaway will be misleading. I see it is noted in the narrative. Hmm, maybe that's the best you can do. I am used to seeing tables and figures footnoted so that they are standalone in case someone views them without reading text, but if a question comes up, they'll just have to read the narrative. Same for Figs 3 and 4, recommending adding the article count like a sample size.</p> <p>Exec Sum Discussion: Parag 1, line 2 Veterans' health rather than Veteran's health.</p> <p>Shortfalls section, I could not figure out what "lacked organization within the literature" means.</p> <p>Under Shortfalls in Study Design...2nd parag, you say there are many additional interesting and relevant sources of variation ... that merit attention. What are they? Can you give at least one example? There's no other way to know what this means.</p> <p>3rd paragr, I am confused by the insertion of a value-judgment about "A trusted research-clinical partnership relies on transparency in research..." with respect to a focus on funding reporting. This seems odd, and probably the least important of determinants of such trust. Would recommend editing this out and indicating the importance of acknowledgment perhaps from a fiduciary responsibility and to demonstrate what is required to accomplish work in this area.</p>	<p>brevity, most description of topic assignments is found in the main report, on page 15.</p> <p>Thank you for the suggestion. We added number of articles to all of the figures. For Fig 2, we separated RCTs/CCTs from secondary analyses of trial data and corrected the numbers in the text. We also added information about the observational study category.</p> <p>Corrected Veteran's to Veterans'.</p> <p>Changed ""lacked organization within the literature" to "initially difficult to identify within the literature, as most studies about medical conditions could not be clearly classified using these categories. Ultimately, we separated the articles specifically related to prevention, long-term care or aging from those related to primary care and complex chronic conditions."</p> <p>Women Veterans are a diverse and varied population which includes multiple particularly vulnerable subpopulations such as homeless veterans, racial and ethnic minorities, survivors of MST, and combat veterans, as well as those facing additional stressors: parents, students, caregivers, etc. As the field of women Veterans' health research grows, there is room to shift the focus of research from comparing women to men, to understanding variation within the heterogeneous population of women Veterans. Added one example here: "For example, comparing racial or socioeconomic subgroups of women Veterans across or within health conditions may help identify or describe needs of particularly vulnerable populations."</p> <p>Replaced this sentence "A trusted research-clinical partnership relies on transparency in research, which includes an accounting of funding," with this statement: "Reporting the source of funding and role of the funder is considered a quality standard for both experimental and observational research studies," and citation of CONSORT and STROBE guidelines.</p>
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<p>Any reason to not add %s to Table 8 and 10 for example if not all of the tables?</p> <p>Table 11: were any of these classified/assigned under more than one category?</p> <p>Healthcare categories (page 24-): Reference inclusion mapped to statements is really key to report utility but not always consistently done (e.g., under Depression & Anxiety, 2nd to last sentence).</p> <p>Under Other MH Topics, you have an OEF/OIF paper, which is again why the question about how you assigned papers came up.</p> <p>Not called out but it appears that there is very limited comparative effectiveness work between VA and non-VA (came up when saw the top of page 27 on peripheral vascular surgery outcomes VA vs. university).</p> <p>page 32, tiny thing to move comma to before ref 399 instead of after.</p> <p>Study Design (page 33): notes 2 articles about "treat sexual trauma" but trauma is not a health condition, or so gets impressed upon me all the time so may want to double check how to describe.</p> <p>bottom of page 33, need and/or not and or.</p> <p>Fig 3, FYI that HSR&D funded WVs journal supplements in 2011, 2013, 2015 if it helps explain some of the bumps up.</p> <p>Summary and Discussion: Veterans' health again line 2.</p> <p>Advances in Key Research...: 2nd to last bullet should be complex chronic conditions/long term care and aging.</p>	<p>description is provided under Summary of Findings: Healthcare Categories: "Homelessness" on page 41.</p> <p>We added %s to tables where appropriate.</p> <p>Yes, as stated, "A study could be included in more than one category."</p> <p>We cited references for most statements that referred to less than 10 studies at a time. We assumed that lists of more than 10 references would be less useful to the reader. Operational partners will also have access to the full spreadsheet of included studies and be able to quickly identify studies using the sort/filter features.</p> <p>OEF/OIF Veterans were identified as by period of service and studies related to this population are described in some additional detail under "Priority Populations" on page 50. Because OEF/OIF was not a Healthcare topic, this article, which described determinants of mental healthcare use, but did not fit under a specific mental health topic, was categorized as "Other MH topics." Additional categorization elaboration was provided on page 19.</p> <p>This is an interesting observation. We did not specifically extract information related to comparative effectiveness between VA and non-VA care, so it would be difficult to draw a general conclusion about this type of research.</p> <p>Done.</p> <p>Changed from "treat sexual trauma" to "treat survivors of sexual trauma with or without PTSD."</p> <p>Changed to "and/or."</p> <p>Added notation related to this on page 49.</p> <p>Fixed.</p> <p>Fixed.</p>
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<p>Research Partnerships: This is definitely NOT what HSR&D or we mean by research partnerships--would recommend changing term to Research Funding.</p> <p>Shortfalls: page 42, 2nd paragr missing "of" between "key topic areas" and "primary care and complex chronic conditions",</p> <p>and again clarification of what you mean by "lacked organization within the literature".</p> <p>Top of page 43, 1st parag, need an e.g., on what "merits attention".</p> <p>Same concern about references to trusted research-clinical partnerships. odd use of term.</p> <p>2nd parag: delete 's on "women's Veterans"' (women Veterans').</p>	<p>Title changed to "Research Funding"</p> <p>Added "of"</p> <p>Edited as described above for Exec Summary.</p> <p>This section has been re-worded.</p> <p>As noted above, this statement has been re-worded</p> <p>Done</p>
<p><i>No additional comments</i></p>	
<p>Thank you for the opportunity to review this document. The recent explosion of research on women Veterans health and well-being is inspiring, and a well-crafted ESP report synthesizing this literature is much needed and will be much appreciated. The authors are to be commended for taking on the mammoth challenge of this review. The scope of the literature is unprecedented and the resulting report provides a strong first foundation for organizing a significant body of literature.</p> <p>My overarching critique of this work relates to the size of the document. Given the scope of the literature reviewed, the challenge is to provide a strong, coherent organization to the myriad of studies- - which other than the years published and the general inclusion of women Veterans- - are limited in their relationship to one another. The obvious criticism is that the scope and breadth of the report is so large that the document is difficult to read. The "take away" messages are hard to decipher and the synthesis is overshadowed by the very significant descriptive emphasis that was needed to simply organize the studies into categories. The reader is asked to absorb a considerable amount of information and runs the risk of becoming totally overwhelmed with detail. Given this, it would be interesting to consider another strategy for presenting the da ta, including parsing it into chapters unified by coherent literature themes, or producing separate reviews for subsections of the literature that warrant greater comment.</p> <p>A second, related "major" comment relates to the very limited attention to the synthesis of the literature, at least relative to the considerable space and attention allotted for descriptive categorization of the studies. This is a significant departure from prior ESP documents pertinent to women Veterans health. Likely this reflects the considerable scope of the literature reviewed, however, the reader is left with little guidance on "what to make of" all the literature categorized and reviewed in this report. More synthesis is desirable, but if that is beyond the scope of this project (and that would be understandable) perhaps setting the stage a bit better so that the reader has realistic expectations established in the first paragraphs might help. Additional thoughts about bolstering the structure of the report are presented below:</p> <p>More circumscribed comments are as follows:</p>	<p>Thank you.</p> <p>We appreciate the suggestions. We added bulleted "Key Messages" to help the reader.</p> <p>We agree that separate reviews for subsections of the literature will be needed, and suggest these in "Opportunities for expanded reviews."</p> <p>Given the volume of studies, we were not able to provide a synthesis of the study findings. We added information to clarify this.</p>



<p>1. Framing the purpose of the report. Whereas prior ESP reports on women Veterans health emphasized synthesis of a smaller, and more circumscribed literature, this report takes on the considerable task of reviewing more than 2,000 abstracts, reviewed more than 1,000 full documents, and included more than 400 studies in this ESP report. The scope, breadth and variability in this literature present a formidable challenge for a synthesized review, and the authors might consider discussing this point more directly up front. My concern is that this report represents such a stark departure in style and emphasis on synthesis and systematic review from prior ESP reports on women Veterans- -likely because of the sheer volume of literature- -that it runs the risk of confusing the reader who is expecting a rigorous systematic review complete with discussion of study quality, bias, and the like. It may help to orient the readers to the size and scope of the literature, the choices made by the authors to categorize the literature as a first step, and the authors' perspective on needed next steps (smaller, organized reviews of pockets of this literature?) in the first pages and executive summary.</p> <p>2. Justification of methodologic choices and omissions. There are many significant methodological choices that are unusual (i.e., omission of several hundred articles, the choice to omit metrics of quality, level of evidence and bias) for a review of this magnitude and not fully characterized or explained to the reader. Suggestions for greater discussion of these areas is presented below.</p> <p>a. The authors should provide the reader with a stronger rationale for why core elements of systematic review (i.e., comments on quality, level of evidence, bias) were omitted from this project. It is understandable that categorizing this large literature may have been a formidable task and that additional review regarding quality and bias may have legitimately been beyond the scope. The authors need to discuss their perspective on this more directly up front. Included in this discussion should be the authors' perspectives on when and how this report may aid researchers interested in women Veterans health as well as the limitations of the report regarding interpretation of the extant literature. Foreshadowing important next steps (i.e., smaller, more targeted and in-depth reviews of "pockets" of this literature) might be helpful.</p> <p>b. A broader discussion of how the authors chose to categorize studies is needed. In particular, categorization by study sample size given the very large number of papers derived from archival medical record data and the mixture of medical and mental health RCTs is potentially misleading. The reader is led down a path that seems to convey "bigger is better quality" when that cannot be concluded based upon the current review. There is considerable concern about the quality and accuracy of medical record data regardless of the data source (VA or otherwise) and there is no discussion of the possibility that many of these studies are over powered and reporting statistically significant but not clinically meaningful findings.</p> <p>c. Regarding mixing medical and mental health studies in a single category: labeling psychotherapy RCTs as "moderate" when they do not reach 1,000 patients seems very out of place. A psychotherapy trial with 1,000 people would not only prohibitively expensive and non-feasible, but would also be dramatically over powered and methodologically inappropriate.</p>	<p>As noted above, we added information to clarify the nature of this review. We also changed the title to An Evidence Map of the Women Veterans' Health Research Literature (2008 – 2015) which more accurately characterizes this type of review.</p> <p>Some of the choices were made because of the volume of literature and because of the nature of the review (an Evidence Map). We omitted studies that did not meet our <i>a priori</i> inclusion criteria.</p> <p>We changed the title to reflect that the report is an Evidence Map rather than a systematic review. We modified the Introduction to reflect this.</p> <p>We identified areas we feel are appropriate for future focused reviews.</p> <p>Thank you for bringing this potential source of bias to our attention. We categorized the studies using criteria typical of literature reviews: study design, sample size, etc. In most literature reviews or meta-analyses, larger studies are more heavily weighted due to higher statistical confidence. However, we agree with the reviewer that a more nuanced understanding of sample size is necessary when comparing studies of such significantly different designs. We have added in language to this effect in the section describing the results by "Sample Size" on page 46.</p> <p>We appreciate this concern as noted above. Though RCTs of both medical and mental health topics are described together in the section "Study Design," (page 42), this is primarily due to the extremely small number of</p>
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<p>Comparing psychotherapy trials or categorizing them alongside mammography trials seems problematic for a myriad of reasons.</p> <p>d. Much greater discussion of the omission of several hundred studies is needed.</p> <p>3. Important Caveats and Provisos. The authors' emphasis on study size and comparison groups (i.e., to male Veterans, female non-Veterans) is presented without context. This runs the risk of leading the reader overlooking a deeper issue- -which studies accomplished their stated research goals and answered their apriori hypotheses with integrity? Answers to these questions are not found in study sample size or comparison group choice, but rather a more careful examination of the match between these methodologic features of the study and the questions posed. Though this level of review may beyond the scope of this project, it would be helpful for the authors to provide caveats and provisos in places where over-interpretation of factors used to "group" the studies in this review (i.e., sample size) are heavily emphasized without contextual detail.</p> <p>In closing, I applaud the authors for their hard work. The task of organizing this literature presented a significant challenge. I think the document "has good bones", and perhaps a bit more refining and polishing will optimize its utility for contemporary researchers within VA.</p>	<p>RCTs relative to the total literature base. Our intention is not to compare the medical and mental health studies to each other based on strength or bias (as these were outside the scope of our evidence map), but rather to describe the RCTs related to women Veterans' health published during this time period. We also presented summaries of the literature by topic area, in which the mental health literature is described independently.</p> <p>We established <i>a priori</i> exclusion criteria in consultation with the topic nominators and Technical Expert Panel.</p> <p>We appreciate the reviewer's concern, and agree that ultimately, a review of study bias, quality and results will be needed to fully contextualize this research. Unfortunately, given the breadth of this topic, an in-depth assessment was outside the scope of our evidence map. We have tried to explicitly address this limitation in the introduction and conclusion sections of this report, and have added additional language regarding the interpretation of extracted criteria (<i>ie</i>, sample size, proportion women) within the summary of results.</p> <p>Thank you.</p>
<p>Major Comments: -----</p> <p>Executive Summary table 1 and figure 5; Table 1; Figure 1: A number of studies categorized under healthcare delivery evaluated the comprehensive women's primary care model. It is likely that these studies may have fit with the primary care and prevention category as well. The authors should describe the number and type (study size, study design, proportion of women) of studies categorized as healthcare delivery that fit with the primary care and prevention category. This information should be incorporated into the relevant figures (e.g., as footnotes), and information about the number of studies meeting this description should be added as footnotes to the relevant tables. For the figures, an adjunct to a footnote could be for the Healthcare delivery column to left-justify the circles for studies evaluating comprehensive women's primary care, and right-justify all other studies (or some other graphical representation of these categories).</p> <p>Page 8, 2nd paragraph; pages 41-42: One of the identified gaps is failure of significant growth in the primary care and prevention literature. The authors should comment on whether this key finding is sensitive to the choice of categorization of studies evaluating the comprehensive women's primary care model (which were categorized under healthcare delivery).</p>	<p>Thank you for the suggestion. We subdivided the Healthcare Organization and Delivery category to more explicitly identify those studies that address the delivery of primary and comprehensive care for women Veterans and provide findings on page 40.</p> <p>This section has been edited to more clearly identify research on the delivery of primary care as a growth area, while recognizing the lack of progress in prevention and primary care clinical topics.</p>



<p>Pages 8 & 33: Though a synthesis of the major findings of the published literature was beyond the scope of this systematic review, it would be informative if the authors added text and/or a table summarizing the findings of the RCTs/CCTs (with or without their associated secondary analyses), since this is often the highest quality evidence, and a study design that has been promoted for women Veterans research.</p> <p>Page 13: Describe whether the process for dual review was iterative (and if so, if it led to decreased discordant ratings over time) versus time-limited, and whether a kappa was calculated.</p> <p>Page 14: The authors note that hand searching of 11 systematic reviews yielded 5 references that were not detected with their search strategy. It would be useful to know the characteristics of those studies (e.g., MeSH terms), to determine if there were relevant terms that may have been omitted from their search strategy.</p> <p>Minor Comments: -----</p> <p>Page 3, Executive Summary Table 1: Include the total number of included references (n = 437) in either the title or column heading.</p> <p>Page 5, Executive Summary Figure 4: Use different fonts or some other means to distinguish between the categories and the proportions within categories.</p> <p>Page 8, line 19; page 42, line 27: Clarify what is meant by lacked organization.</p> <p>Page 8, line 30: Consider adding a statement about which mental health topics received the most coverage.</p> <p>Appendix A. Search Strategy: To enhance clarity for readers who are not familiar with this format for reporting a search strategy, add a text description of how the search terms were combined. For example, are 1-4 and 10 MeSH terms, key words, or some other category? Define the abbreviation mp.</p> <p>Appendix C, tables 1-3: For each table, add a row for the number of publications in each category.</p>	<p>Given the scope of the review, we chose not to summarize study findings. Reporting authors' conclusions without a full review and evaluation of the article could be misrepresentative of the study.</p> <p>The process was not iterative and we did not calculate a kappa.</p> <p>One of the studies had been excluded at abstract review. We reviewed the MeSH terms for the other 4 studies. They did not include terms for the combination of Women's Health AND Veterans. We did not include the MeSH term "Female" in our search because the term resulted in identification of a large number of studies that were not relevant.</p> <p>We added a row for "Total Number of Included Studies"</p> <p>We attempted to make the figure clearer by replacing the % of studies with the number of studies</p> <p>This has been changed and clarified in the text.</p> <p>A brief reference has been added.</p> <p>A text description has been added.</p> <p>Due to space limitations (being able to fit the table on one page) we are not able to add rows.</p>
<p>The authors are to be commended for the thoroughness of their systematic review and the highly readable and useful manuscript. Goals are clear and nicely met. To follow are a few considerations:</p> <p>In the executive summary: *you might consider adding a line that you did inter-rater reliability as you detailed later in the study selection section. *you might wish to make these tables more stand alone for those who glance to gather information quickly prior to going to the full review, e.g. if categories are mutually exclusive,</p>	<p>Thank you.</p> <p>Details have been added to the Methods section</p> <p>We added footnotes to the tables and figures to clarify the contents.</p>



<p>timeline of review, etc. Can be done in titles and legends.</p> <p>On p 7 the last sentence of the discussion section- clarify you mean shift in topic.</p> <p>p. 8 in gaps within specific healthcare topics- it is unclear what you mean by lack organization within the literature.</p> <p>The social and cultural transitions section is very nicely written.</p> <p>Veteran Engagement- This is presented with too broad a brush. That is, qualitative researchers will potentially view Veteran input to improve research design or study content as using stakeholders. I appreciate the shift to use of Veteran consumer group panels as a future and desired step but this section currently is written too black and white.</p> <p>Relatively few studies were community sample as opposed to VA enrolled sample so may wish to distinguish this more throughout/up front and then consider if this is something that would be useful to consider for next steps research and generalizability of findings to community samples or not.</p> <p>You clarify what other government funding sources are intermittently – but do not in table 12. Useful to be consistent in guiding the readers.</p> <p>Reviews of the health care categories is excellent.</p> <p>p. 41 Gaps within specific healthcare topics: You indicate two key areas have failed to show significant growth. Did they have sustained productivity?</p> <p>RE Research partnerships, p. 41- steady rise in non-VA government resources secondary to rise in deployed women and consequent risks/health outcomes and therefore relevant to DoD - or other logical reason?</p> <p>Growing VA trends are eScreening, use of online or app oriented treatment or symptom based interventions, interface of Veterans with My healthy Vet. It is surprising that none of the screening specific articles ended up including this work/meeting inclusion criteria. It is a relevant consideration for issues associated with access and engagement of Veterans. This might be considered for future directions within the screening context. It also fits with the social and cultural transitions that we have a younger, technology focused population.</p>	<p>Added.</p> <p>This language has been clarified.</p> <p>Thank you.</p> <p>We reviewed the included studies and did not find any that we considered to meet criteria for “Veteran engagement.” We have modified this paragraph.</p> <p>Thank you for the suggestion.</p> <p>We clarified this in Table 13 (formerly Table 12).</p> <p>Thank you.</p> <p>Long-term care and aging showed sustained productivity over time, while prevention and screening articles actually dropped in productivity over time. This is detailed in the section titled “Publication Year” and depicted in Figure 4. This is already addressed in the Discussion section.</p> <p>We have no specific data to support this statement.</p> <p>The authors and stakeholders did not identify the use of technology in women Veterans healthcare as a key area a priori, and therefore we did not flag whether included studies addressed this.</p> <p>We added a subcategory to Healthcare Organization and Delivery articles to specifically identify those that address virtual or telehealth methods for care delivery.</p>
<p>Page 1 line 19-20. WHRN was established in 2010 The goal of the network is broader than that stated: The Network enhances the conduct of VA women's health services research studies by building capacity, meeting field-based technical needs and reducing barriers associated with conducting</p>	<p>Date has been corrected. The description of the Women's Health Research Network has been expanded.</p>



<p>multi-site studies. http://www.hsrd.research.va.gov/for_researchers/womens_health/</p> <p>page 7 line 42 should state 4 areas have shown notable growth (including mental health) line 46 could state that mental health also showed a shift to interventions</p> <p>page 11 line 19 please expand description of the network as described above</p> <p>p 24 line 25 I would remove the word “only” and simply report that the study contained 34% women since this study obviously oversampled and included a significant number of women.</p> <p>p.24 lines 40-41 I would clarify that the 2007 RTC was VA funded. You note above that none of the primary trials were VA funded but I’m not sure if you are including the CSP trial that was conducted in 2007</p> <p>P.26 line 33. I think it would be helpful outline the % of women in the depression trials. I’m assuming there was a range since less than 50% is reported. Since the number of women Veteran patients is so low I think it would be more useful to report greater than 10% or between specific percentage categories the actual percentages throughout. Also the percentage of women in the studies is not consistently reported.</p> <p>P26 line 33 The sentence needs to be clarified. Specifically, what is being examined “the relationship between borderline personality disorder and depression with sexual assault and BMI” is not clear.</p> <p>P 26 line should determinants of mental health use be coded under access?</p>	<p>This section has been updated to more accurately reflect the areas of growth, including the shift to interventional research among mental health articles.</p> <p>The description of the Women’s Health Research Network has been expanded.</p> <p>“Only” deleted</p> <p>We reviewed the 2007 study and clarified the funding.</p> <p>We categorized studies as 10% or less, 11-50%, 51-99%, or 100% and therefore do not have specific numbers for all the studies. Given this particular request and the very small number of depression and anxiety studies, we added the percentage of women in those studies to the text.</p> <p>This has been clarified.</p> <p>Thank you, we agree – this article has been re-categorized under Access and Utilization: Barriers & Facilitators of Care.</p>
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APPENDIX C. SUMMARY TABLES AND FIGURES

Table 1. Overview of Studies by Healthcare Category

Table 2. Overview of Mental Health Studies

Table 3. Overview of Medical Studies

Figure 1. Mental Health Studies by Sub-category, Sample Size, Study Design, and Proportion of Women

Figure 2. Medical Condition Studies by Sub-category, Sample Size, Study Design, and Proportion of Women

Table 1. Overview of Studies by Healthcare Category

		Mental Health	Medical	Long-term Care/Adioma	Reproductive Health	Prevention/Screening	Healthcare Organization &	Rural Health	Access & Utilization	Post-deployment	Homeless-	Other	Total
Study Design	RCT/CCT	4	0	1	0	1	1	0	0	1	0	0	8
	Secondary or sub-group analysis of RCT/CCT	8	1	0	0	3	0	0	0	0	0	0	12
	Observational (prospective cohort)	13	5	1	0	0	1	1	0	0	2	0	23
	Observational (other)	177	69	11	22	14	24	2	23	14	9	10	375
	Qualitative	6	3	0	2	0	5	0	1	3	1	1	22
Sample Size	n < 100	28	7	2	3	1	10	1	2	3	1	1	59
	n = 100-1,000	81	13	3	6	5	8	0	4	6	5	0	131
	n > 1,000	98	58	8	15	12	13	2	18	9	6	10	249
	N/A	1	0	0	0	0	0	0	0	0	0	0	1
Percent Women	≤10%	33	29	1	0	6	6	1	2	1	6	1	86
	11-50%	61	26	1	2	4	2	0	8	10	3	2	119
	51-99%	14	6	1	1	1	1	0	3	3	0	2	32
	100%	99	16	10	19	6	12	2	10	4	3	6	187
	N/A (k = 13) or Not reported (k = 3)	1	1	0	2	1	10	0	1	0	0	0	16
Reported race in women Veterans		134	45	10	20	10	14	1	13	11	11	9	278
Reported age in women Veterans		147	49	12	22	11	14	2	15	11	11	9	303
Special Populations	Incarcerated	1	0	0	0	0	0	0	0	0	0	0	1
	LGBT	7	1	0	0	0	2	0	3	0	0	1	14
	Racial/ethnic minorities	5	1	0	1	1	2	0	2	0	0	0	12
	Homeless	5	0	0	0	0	1	0	1	0	12	1	19
	Non-VA users	3	0	1	1	1	3	0	3	0	0	1	13
	Physically disabled	1	2	0	0	0	0	0	0	1	0	1	5
	None	186	74	12	22	16	23	3	15	17	0	8	376
Research Setting	Single site VA	46	12	1	0	1	5	0	1	3	1	0	70
	Multi-site VA	51	10	1	9	3	13	1	2	2	2	1	95
	Administrative database VA	68	48	9	10	9	6	2	9	6	7	5	179
	Non-VA healthcare setting	0	1	1	0	0	1	0	2	0	0	0	5
	Non-healthcare based	36	5	1	3	3	4	0	9	7	0	4	72
	Multiple	7	2	0	2	2	2	0	1	0	2	1	19
Period of Service	OEF/OIF/OND/Persian Gulf	45	15	0	7	1	1	0	9	13	3	1	95
	Vietnam	10	0	0	0	0	0	0	0	1	0	1	12
	WWII	0	0	0	0	0	0	0	0	0	0	0	0
	Not specified	153	63	13	17	17	30	3	15	4	9	9	333
Population	Patients	207	78	13	22	17	22	3	24	18	12	11	427
	Clinics	7	2	1	1	1	7	0	0	0	0	0	19
	Providers	2	0	1	2	1	9	0	0	1	0	1	17
	Policy	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	1	0	0	0	0	0	0	0	0	0	1
Outcomes	Clinical	199	77	13	20	11	17	2	12	15	11	9	386
	Resource utilization	51	25	3	14	9	14	3	23	7	4	6	159
	Cost	1	3	0	0	1	0	0	3	1	0	2	11
	Other	11	0	2	3	3	12	1	1	0	0	1	34
Funding source	VA	145	51	9	20	10	25	2	19	9	6	6	302
	DOD	19	4	0	1	0	1	0	1	3	0	0	29
	Other government (eg, NIH)	25	16	5	2	6	1	0	3	1	3	3	65
	Foundation	6	9	2	0	3	1	0	1	1	1	0	24
	Industry	2	1	1	0	0	0	0	0	0	0	0	4
	University	4	8	1	2	0	1	0	1	0	0	1	18
	Not reported	47	14	2	1	3	5	1	3	7	5	2	90
	Unfunded	3	2	0	0	1	0	0	1	0	0	0	7



Table 2. Overview of Mental Health Studies

		Mental Health													Total	
		PTSD and Trauma	MST	Substance Abuse	Depression	IPV	Personality Disorders	Anxiety	Suicide	Disordered Eating	Reproductive	Serious Illness	Multiple Diagnoses	Other		Comorbid with Non-MH
Study Design	RCT/CCT	3	1	0	0	0	0	0	0	0	0	0	0	0	4	
	Secondary or sub-group analysis of RCT/CCT	6	1	0	0	0	0	0	0	0	0	1	0	0	8	
	Observational (prospective cohort)	4	7	0	0	0	0	0	0	0	0	0	0	2	13	
	Observational (other)	57	27	20	3	7	0	1	12	5	4	3	15	3	21	178
	Qualitative	1	1	0	0	2	0	0	1	0	0	0	0	0	0	5
Sample Size	n < 100	9	7	1	0	3	0	0	1	0	1	0	3	1	2	28
	n = 100-1,000	34	16	4	0	6	0	0	1	3	0	0	7	0	10	81
	n > 1,000	28	14	14	3	0	0	1	11	2	3	3	6	2	11	98
	N/A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Percent Women	< / = 10%	7	4	6	1	0	0	1	6	0	0	1	2	2	3	33
	11-50%	24	8	6	2	0	0	0	6	3	0	2	5	1	4	61
	51-99%	4	7	1	0	0	0	0	0	0	0	0	0	0	2	14
	100%	36	18	6	0	9	0	0	1	2	4	0	9	0	14	99
	N/A or Not reported	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Reported race in women Veterans		46	26	13	1	9	0	0	5	2	3	1	10	1	17	134
Reported age in women Veterans		51	25	15	1	9	0	0	8	2	4	1	12	2	18	147
Special Populations	Incarcerated	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
	LGBT	0	1	1	0	0	0	0	0	0	0	0	4	1	0	7
	Racial/ethnic minorities	2	0	1	0	0	0	0	0	0	0	0	1	0	1	5
	Homeless	1	3	0	0	0	0	0	0	0	0	0	1	0	0	5
	Non-VA users	1	0	1	0	1	0	0	0	0	0	0	0	0	0	3
	Physically disabled	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	None	67	33	17	3	8	0	1	13	4	4	3	9	2	22	186
Research Setting	Single site VA	18	12	3	0	3	0	0	0	1	1	0	3	1	4	46
	Multi-site VA	19	8	6	0	4	0	0	1	3	0	0	6	1	3	51
	Administrative database VA	17	10	7	3	1	0	1	9	0	3	2	4	0	11	68
	Non-VA healthcare setting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Non-healthcare based	17	7	2	0	1	0	0	1	1	0	1	2	1	3	36
	Multiple	0	0	2	0	0	0	0	2	0	0	0	1	0	2	7
Period of Service	OEF/OIF/OND	18	7	3	1	0	0	0	3	0	2	0	6	0	5	45
	Vietnam	9	0	0	0	0	0	0	0	0	0	0	0	1	0	10
	WWII	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Not specified	44	30	17	2	9	0	1	10	5	2	3	10	2	18	153
Population	Patients	71	37	19	3	9	0	1	13	5	4	3	16	3	23	207
	Clinics	1	1	3	2	0	0	0	0	0	0	0	0	0	0	7
	Providers	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
	Policy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Outcomes	Clinical	68	35	17	3	9	0	1	13	5	4	2	16	3	23	199
	Resource utilization	16	11	4	3	1	0	1	0	0	0	2	5	0	8	51
	Cost	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	Other	5	0	4	0	1	0	0	0	0	0	1	0	0	1	11
Funding source	VA	49	25	19	2	7	0	1	8	3	2	3	7	1	18	145
	DOD	14	1	0	0	0	0	0	1	0	0	0	2	0	1	19
	Other government (eg, NIH)	10	1	2	1	1	0	0	2	0	1	1	0	0	6	25
	Foundation	1	0	1	0	0	0	0	2	0	1	0	1	0	0	6
	Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	University	3	0	1	0	0	0	0	0	0	0	0	0	0	0	4
	Not reported	17	11	1	1	2	0	0	1	2	1	0	5	2	4	47
	Unfunded	0	1	0	0	0	0	0	0	0	0	0	2	0	0	3



Table 3. Overview of Medical Studies

		Medical Conditions													Total	
		Chronic Pain	Cancer	SCI	TBI	HIV	MS	Tobacco	Obesity	Diabetes	Hyper-tension	CVD	Ampu-tation	Coron-bridities		Other
Study Design	RCT/CCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Secondary or sub-group analysis of RCT/CCT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	Observational (prospective cohort)	0	0	0	0	1	0	0	3	1	0	0	0	0	0	5
	Observational (other)	5	6	1	5	4	4	4	6	2	0	11	1	7	13	69
	Qualitative	2	0	0	0	0	0	1	0	0	0	0	0	0	0	3
Sample Size	n < 100	3	2	0	0	0	0	1	0	0	0	0	0	0	1	7
	n = 100-1,000	1	1	0	1	0	0	2	2	0	0	2	0	1	3	13
	n > 1,000	3	3	1	4	5	4	3	7	3	0	9	1	6	9	58
	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent Women	< / = 10%	1	0	1	3	4	1	4	2	2	0	5	1	2	3	29
	11-50%	3	1	0	0	1	3	0	6	1	0	2	0	3	6	26
	51-99%	2	1	0	1	0	0	0	0	0	0	0	0	0	2	6
	100%	1	4	0	1	0	0	2	0	0	0	4	0	2	2	16
	N/A or Not reported	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Reported race in women Veterans		5	5	1	3	2	1	0	4	1	0	10	0	4	9	45
Reported age in women Veterans		6	6	1	4	2	0	1	4	2	0	9	1	4	9	49
Special Populations	Incarcerated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGBT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	Racial/ethnic minorities	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	Homeless	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Non-VA users	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Physically disabled	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2
	None	7	5	0	5	5	4	6	9	3	0	10	0	7	13	74
Research Setting	Single site VA	3	0	0	0	1	0	2	0	0	0	2	0	0	4	12
	Multi-site VA	0	0	0	3	1	0	1	0	0	0	3	0	0	2	10
	Administrative database VA	3	5	1	2	3	4	1	9	3	0	5	1	7	4	48
	Non-VA healthcare setting	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	Non-healthcare based	1	0	0	0	0	0	1	0	0	0	1	0	0	2	5
	Multiple	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
Period of	OEF/OIF/OND/Persian Gulf	2	0	0	2	0	2	0	2	0	0	0	1	3	3	15
	Vietnam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	WWII	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Not specified	5	6	1	3	5	2	6	7	3	0	11	0	4	10	63
Population	Patients	7	6	1	5	5	4	6	9	3	0	11	1	7	13	78
	Clinics	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2
	Providers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Policy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Out-comes	Clinical	7	6	1	4	5	4	6	9	3	0	11	1	7	13	77
	Resource utilization	2	4	1	2	1	0	0	1	2	0	4	0	3	5	25
	Cost	0	0	0	0	0	0	1	0	0	0	1	0	0	1	3
	Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Funding source	VA	5	2	1	5	3	4	3	7	3	0	6	0	6	6	51
	DOD	0	0	0	0	0	0	0	2	0	0	0	0	0	2	4
	Other government. (eg, NIH)	2	1	0	0	2	0	1	0	2	0	3	0	3	2	16
	Foundation	0	0	0	0	1	3	2	0	0	0	1	0	0	2	9
	Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	University	2	0	0	0	0	0	0	1	1	0	1	0	2	1	8
	Not reported	0	2	0	0	2	0	2	1	0	0	3	1	0	3	14
	Unfunded	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2



