PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (**http://bmjopen.bmj.com/site/about/resources/checklist.pdf**) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Protocol for a randomized controlled trial evaluating the effects of screening and referral for social determinants of health on Veterans' outcomes
AUTHORS	Gurewich, Deborah; Kressin, Nancy; Bokhour, BG; Linsky, Amy; Dichter, Melissa; Hunt, Kelly J.; Fix, G; Niles, Barbara

VERSION 1 – REVIEW

REVIEWER	Delphine Le Goff University of Western Brittany, Department of general practice
REVIEW RETURNED	21-Dec-2021

GENERAL COMMENTS	Thank you for letting me review this protocol whose achievement may be an important step in a field which is sparsely explored. I am surprised that you do not describe your study as an implementation study as you link an RCT to a study of its barriers and facilitators which means it is clearly a hybrid type 1 implementation RCT. This could help your description of the range of objectives. In your abstract, P4L17, a rapid read of your sentence lead to think you are comparing CVD outcomes. Is it possible to separate your population from your outcomes? P4L20, it is impossible at this time of reading to understand what you mean by baseline outcomes. P4L23, using the word stakeholders could lead to the misunderstanding that you exclude patients from the qualitative data collection. Your abstract does not provide information about your interventions, the needed sample size and the primary outcomes that assess your success. Introduction: Your introduction does not cite any number. This impedes your reader to estimate the size of the problem. P5 L27, your wording is quite similar to one of your previous publications. Methods: P6 L18 details about clinical outcomes are missing for the understanding. P6L28, you refer to the SPIRIT checklist as a method guideline. This checklist improves the quality of your manuscript but this not your method. P6L41, did you think about including lost-to-follow-up patients because they often offer a different point-of-vue than people who completed the study. P6L55, you decided not to address overweight or obesity nor smoking status nor alcohol consumption? Did you consider using a CVD risk score? P7L15 why did you choose these nine unmet needs among others? P7L55 Are your RA trained in motivational interviewing? Do they have special skills that can compete with the social worker? P8L9 What is the standardizes bio-psychosocial

	assessment tool you plan to use? Your references are theoretical. P8L22 The numbers of the surveys are confusing me added to the number of objectives, number of tables and figures. Could they be named by letters? Could you clearly add them into your figure 2? P8L27, you plan to use Redcap. You may be experienced with this software but using it offline in our setting, we had unexpected difficulties, first by coding our questionnaires then by using the interface which was non-user-friendly finally by unexpected loss of data that forced us to have a paper duplicate of our data. P8L32 which clinical dat you will collect will be accurate? P8L37 You refer to a table 1. You have a paging problem as you have a table 1 P16 and a table 1 P21. Why don't you list your outcomes? Why are weight/tobacco/alcohol missing? P8L40 I am lost by the association of the objective and the RCT.P8L42, are these secondary outcomes missing from your table 1? P9L9, how many participants do you finally need to recruit? P9L26 I don't understand your sentence "in all models…". P9L32 the exploration of socioeconomics characteristics were unclear in the previous pages. P9L34 to 37 This part is unclear, why don't you cite your outcomes, why did you rephrase them as more distal? This part should focus on analysis and this part maybe appears in the wrong section. P9L43: Are you writing about OASIS? P9L45 why do a new survey appear in the analysis part? Could it be removed in the intervention part? P10 L10 Understanding your qualitative study would be easier if you added a paragraph about the theories and approaches underlying your analysis at first. Did you consider interviewing losts-to-follow-up? Why so many interviews? P10L31 how experienced are your RA in qualitative research? P10L38: how many people do you intend to recruit in your study? Do you plan to exceed the capacities of the social services you will use? To build your interview guide, you may find some specific items in the CFIR and Re Aim models? P16: there is an inappropriate alternance of legends and figures between your figures 1 and 2.

REVIEWER	Ellen L. Poleshuck Univ Rochester
REVIEW RETURNED	14-Mar-2022

GENERAL COMMENTS	This manuscript describes a protocol for an RCT of screening and referral for Veterans with unmet social needs. The study includes 3 arms of varying intensity of support. This is an important study with significant public health implications and publishing protocols of interventions addressing social needs is important. Several recommendations follow to allow for increased understanding of the study method: It would add to the scope and relevance of this paper if the background cited literature that included civilian populations. The SIREN website provides an excellent resource for relevant literature in this area: https://sirenetwork.ucsf.edu/tools/evidence-library Maslow's Model is certainly relevant to social determinants of health. At the same time, it does not provide any explanatory utility in understanding how the proposed interventions would benefit Veterans. Adding a theory and mechanistic model to explain how the investigators think their approach will benefit Veterans and why intensity of the intervention offered matters would be very helpful.

	Additional information about each of the arms would be helpful. How will the SW arm be standardized so it is a replicable treatment arm? Is there a fidelity check to ensure the social worker is following the guidelines? How is the Awareness Arm expected to improve outcomes? Does the screening arm meet the VHA's standard for usual care in response to unmet social needs? For ethical reasons, it is important that it not offer less than usual care. Greater specificity is required to describe how unmet needs (and change in unmet needs) will be measured. A standardized scale of social needs is recommended (Again, SIREN offers a table of standardized measures of social needs). Similarly, it is unclear how engagement in services will be measured. What are the specific questions being asked and is it based on self-report? Will efforts be made to engage unenrolled Veterans? Given the nature of the study questions, this seems relevant. What is the rationale for not sharing the findings with participants?

VERSION 1 – AUTHOR RESPONSE

REVIEWER: 1

I am surprised that you do not describe your study as an implementation study as you link an RCT to a study of its barriers and facilitators which means it is clearly a hybrid type 1 implementation RCT. This could help your description of the range of objectives.

> ***We appreciate the confusion since we used "effectiveness" on P6 L16 when we should have used "efficacy." We have since corrected that. We are testing two different interventions, not implementation strategies, and are using research staff, not VA actual clinical staff (i.e., we are not imbedding the intervention into actual VA workflows). Therefore, we are not assessing the feasibility of implementation, but are assessing the efficacy of different types of interventions and therefore we do not view this as a Hybrid 1 Implementation study. We added the qualitative phase to gain insight into observed outcomes, not to assess different implementation strategies.***

In your abstract, P4L17, a rapid read of your sentence lead to think you are comparing CVD outcomes. Is it possible to separate your population from your outcomes?

> ***We edited the abstract to make clear that we are comparing outcomes across study arms, not between Veterans with CVD and those with CVD-risk.***

P4L20, it is impossible at this time of reading to understand what you mean by baseline outcomes.

> ***We edited the abstract to clarify that we are referring to the health-related outcomes at baseline (i.e., adherence, utilization, and clinical outcomes).***

P4L23, using the word stakeholders could lead to the misunderstanding that you exclude patients from the qualitative data collection.

> ***We clarified that stakeholders includes Veteran participants.***

Your abstract does not provide information about your interventions, the needed sample size and the primary outcomes that assess your success.

We added information about the intervention and sample. It now reads: "880 Veterans experiencing one or more social needs will be randomized within each site (N=293 per site) to one of three study arms, representing referral mechanisms of varying intensity (screening only, screening and provision of resource sheet(s), screening and provision of resource sheet(s) plus social work assistance)." We also clarified that the primary outcome is connection to new resources to address social needs.

Introduction: Your introduction does not cite any number. This impedes your reader to estimate the size of the problem.

We added references and now provide a better framing of the size of the problem as follows: "The criteria ("means test") prioritizing access to VA services to those with financial need, in addition to those with service-related health conditions, results in many Veterans using VA health care services having low incomes, poor quality of life, and multiple comorbidities. For these reasons, Veterans are at especially high risk of experiencing unmet social needs. For example, up 24% have been reported to experience food insecurity."

P5L27, your wording is quite similar to one of your previous publications.

We re-worded this sentence so that it differs from wording we used in pervious publications.

Methods:

P6 L18 details about clinical outcomes are missing for the understanding.

We now define clinical outcomes as "blood pressure and A1c control."

P6L28, you refer to the SPIRIT checklist as a method guideline. This checklist improves the quality of your manuscript but this not your method.

We edited the text to read "The RCT protocol adheres to the Standard Protocol Items: Recommendations for Interventional Trials (SPIRIT)…"

P6L41, did you think about including lost-to-follow-up patients because they often offer a different point-of-vue than people who completed the study.

We had considered this and wish we could recruit from the pool of Veterans who are lost-to-follow-up. We realized that this is outside the scope of the current study but hope to include these Veterans in future studies.

P6L55, you decided not to address overweight or obesity nor smoking status nor alcohol consumption? Did you consider using a CVD risk score?

Yes, we did consider using the CVD risk score. However, we ultimately decided to focus on a subset of factors within the CVD risk score that are the most predictive of the outcomes under study: hypertension, diabetes, and hyperlipidemia. We elected not to include overweight/obesity as an additional CVD risk factors because the base rates among Veterans (78%) limits the predictive value. We did not include smoking because it is highly confounded with mental health disorders and is thus likely to be less responsive to addressing unmet needs than the CVD risk factors we included. We did not include alcohol consumption because we do not have an adequate measure for this factor. In addition, overweight/obesity, smoking status, and alcohol consumption are not included in the ACC risk calculator.

P7L15 why did you choose these nine unmet needs among others?

> ***We chose the nine unmet needs using the following criteria: 1) strength of the evidence linking the domain with CVD outcomes; 2) availability of a valid measure of the domain, 3) stakeholder priorities (input from VA providers, operational partners, and a Veteran Engagement Resource Group (VERG) Veteran consultant), and 4) ability to meet the need with available resources in VA and/or community. We added this information to the paper.***

P7L55 Are your RA trained in motivational interviewing? Do they have special skills that can compete with the social worker?

> ***The RAs are solely responsible for collecting information about social needs, they are not providing any assistance that would compete with the social workers.***

P8L9 What is the standardizes bio-psychosocial assessment tool you plan to use? Your references are theoretical.

> ***Since our initial submission, we modified this aspect of the intervention. The SWs will not be using a standard bio-psychosocial assessment tool. Their interactions with Veterans will draw on motivational interviewing techniques. This is explained and referenced in the paper.***

P8L22 The numbers of the surveys are confusing me added to the number of objectives, number of tables and figures. Could they be named by letters? Could you clearly add them into your figure 2?

> ***Excellent suggestion. We relabeled the surveys as Survey A, B, C in the text and added this to Figure 2.***

P8L27, you plan to use Redcap. You may be experienced with this software but using it offline in our setting, we had unexpected difficulties, first by coding our questionnaires then by using the interface which was non-user-friendly finally by unexpected loss of data that forced us to have a paper duplicate of our data.

> ***We appreciate this guidance and will consult with local colleagues who used REDcap and learn about their challenges, and how they addressed them.***

P8L32 which clinical data you will collect will be accurate?

> ***The clinical data for this study is from the medical record. This data is used routinely in research studies. See*** Insights From Advanced Analytics At The Veterans Health Administration (healthaffairs.org)

P8L37 You refer to a table 1. You have a paging problem as you have a table 1 P16 and a table 1 P21. Why don't you list your outcomes? Why are weight/tobacco/alcohol missing?

> ***We removed the reference to Table 1 in the fact sheet (P23) so that there is now only one Table 1, the Planned Outcomes table on P16. Table 1 on P16 lists all study outcomes. See response to prior comment re. why weight/tobacco/alcohol are missing.***

P8L40 I am lost by the association of the objective and the RCT.

> ***We made relatively substantial edits to help clarify the relationship between the objectives and the RCT. In sum, the RCT encompasses Objectives 1 and 2, with Objective 1 focused on baseline trial data (merged with data on study participants not***

eligible for the trial) and Objective 2 focused exclusively on trial participants and the full 12 months of trial data.

P8L42, are these secondary outcomes missing from your table 1?

Sorry for the confusion. The secondary outcomes are included in Table 1 but we now see that it was unclear. We reformatted the table and hope it has improved readability.

P9L9, how many participants do you finally need to recruit?

We added the number of participants we needed to recruit.

P9L26 I don't understand your sentence "in all models.".

We clarified the sentence to read "In all regression models…."

P9L32 the exploration of socioeconomics characteristics were unclear in the previous pages.

Sorry for the confusion. We referred to "socioeconomic characteristics" on P9L32 when we should have used "sociodemographic characteristics." We have corrected this in the revised manuscript.

P9L34 to 37 This part is unclear, why don't you cite your outcomes, why did you rephrase them as more distal? This part should focus on analysis and this part maybe appears in the wrong section.

We agree that the use of "distal" added confusion. We edited so that the text refers to "secondary outcomes."

P9L43: Are you writing about OASIS?

Thank you for calling this out. We are writing about OASIS and edited the text so it reads "OASIS framework" instead of "our conceptual model."

P9L45 why do a new survey appear in the analysis part? Could it be removed in the intervention part?

Good catch. This is not a new survey but is part of the index screen (Phone Survey A). We added language under Study Procedures and Randomization to make that clear.

P10 L10 Understanding your qualitative study would be easier if you added a paragraph about the theories and approaches underlying your analysis at first. Did you consider interviewing lost-to-follow-up? Why so many interviews?

Thank you for this suggestion. We re-located the text describing the Anderson model (the conceptual model guiding this phase of the study) so it is introduced earlier in the manuscript, in a new stand-alone section entitled <u>Evaluation Frameworks and Theory of Change</u>.

We did not consider interviewing participants who are lost to follow-up for the reason stated in an earlier response.

With respect to the qualitative sample (N=20 in each of 3 strata), given the expected heterogeneity of unmet needs in any given strata, we believe the sample size is reasonable. However, if thematic saturation is reached with a smaller sample, we will stop recruiting for the interviews. We clarified this in the manuscript.

P10L31 how experienced are your RA in qualitative research?

The study RAs are experienced in conducting qualitative interviews and will conduct the interviews under the guidance of a PhD trained anthropologist with extensive expertise related to qualitative methodology.

P10L38: how many people do you intend to recruit in your study? Do you plan to exceed the capacities of the social services you will use? To build your interview guide, you may find some specific items in the CFIR and Re Aim models?

We plan to recruit 880 people into the RCT (293 per study site).

Given the size of the trial and the breadth of services, we do not anticipate exceeding the capacities of the social services to which participants are referred but are sensitive to this concern. Several features of the RCT are designed to account for this: 1) For each need, the corresponding resource sheet will list an estimated 5 resources to address the need, which means no one agency or program will likely be the sole target for referrals for any given need; 2) to develop the resource sheets, we contacted each agency listed to be sure they are accepting referrals and we plan to confirm this information on a monthly basis; and 3) we plan to interview representatives of the VA and community agencies to which participants are referred to assess how they experienced the trial with respect to demand for services, among other things.

Thank you for the suggestion to potentially draw on the CFIR and RE-AIM models for the interview guides. We will look into that.

P16: there is an inappropriate alternance of legends and figures between your figures 1 and 2.

We apologize for that. We are guessing that something got messed up on the journal production side of things and hope that this will be corrected for the next round.

REVIEWER: 2

It would add to the scope and relevance of this paper if the background cited literature that included civilian populations. The SIREN website provides an excellent resource for relevant literature in this area:
https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsirenetwork.ucsf.edu%2Ftools%2Fevidence-library&data=05%7C01%7C%7C522432f6433d4262ea1808da320f527b%7Ce95f1b23abaf45ee821db7ab251ab3bf%7C0%7C0%7C637877338642158962%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=NcttyjbINnlZWQzDvvirKqqPDtSCxPtcccws%2BLAatEo%3D&reserved=0

Sorry for the confusion. The studies we cite in the background are based on civilian populations. We have clarified this in the revised manuscript. Thank you also for the suggestion that we access the SIREN website for additional relevant literature. This led to our adding a new reference to the background.

Maslow's Model is certainly relevant to social determinants of health. At the same time, it does not provide any explanatory utility in understanding how the proposed interventions would benefit Veterans. Adding a theory and mechanistic model to explain how the investigators think their approach will benefit Veterans and why intensity of the intervention offered matters would be very helpful.

We added a stand-alone section entitled Evaluation Frameworks and Theory of Change. In this section we better detail OASIS and how it is the basis of our theory of change (i.e., the mechanisms by which we posit S&R impacts outcomes).

The reason we hypothesize that the intensity of the intervention matters is because navigating the social service delivery system can be challenging and may be especially challenging for Veterans experiencing social needs. This means that simply making a Veteran aware of available resources to address needs (i.e., the Awareness Arm, the less intense arm) may be an insufficient mechanism to connect participants to resources. In contrast, being made aware of resources and assisted in navigating the social service delivery system (i.e., the Assistance arm, the more intense arm) may enable participants to overcome barriers and by extension increase the likelihood of connecting to resources. In the revised manuscript, we now detail this in the analysis section.

Additional information about each of the arms would be helpful. How will the SW arm be standardized so it is a replicable treatment arm? Is there a fidelity check to ensure the social worker is following the guidelines? How is the Awareness Arm expected to improve outcomes? Does the screening arm meet the VHA's standard for usual care in response to unmet social needs? For ethical reasons, it is important that it not offer less than usual care.

Thank you for this suggestion. We provided additional information about the study arms, as follows. For all arms, the RAs and SWs responsible for delivering the intervention are provided written Standard Operation Procedures (SOP) detailing their roles in the trial and training on their respective SOPs. The SWs additionally complete a training module on Motivational Interviewing. We will assess fidelity via REDCap and monitor the quality of calls with participants as part of regular weekly check-ins (likely reduced to monthly check-ins after the first few months of the trial).

With respect to how the Awareness Arm is expected to improve outcomes, please see our response to the prior comment.

With respect to the Screening Arm, we now clarify that this arm represents enhanced usual care. At present, comprehensive screening for social needs and providing resources is not part of VA usual care. Of note, we added the provision of a post card with a list of generic resources to the Screening Arm in direct response to ethical concerns raised by VA CIRB about screening for needs without offering anything in return.

Greater specificity is required to describe how unmet needs (and change in unmet needs) will be measured. A standardized scale of social needs is recommended (Again, SIREN offers a table of standardized measures of social needs). Similarly, it is unclear how engagement in services will be measured. What are the specific questions being asked and is it based on self-report?

We now clarify that unmet needs will be measured using standardized measures reproduced or adapted from previously validated measures. Table 1 details that unmet need reduction will be measured in two ways: 1) one or more of the index needs no longer identified as unmet at the 6-moth re-screen, and 2) percentage of index needs reported as met at the 6-month index re-screen.

Connection to resources will be defined as a Veteran connecting to one or more new resources since the index screen, as indicated by their responses to the question, "Since your conversation with the study RA on (insert Index Screening date), were you able to connect with any new programs or resources to help with (insert need(s) identified)?" This is now detailed in the section on Planned Outcomes.

Will efforts be made to engage unenrolled Veterans? Given the nature of the study questions, this seems relevant.

We agree, the nature of the study is relevant for unenrolled Veterans, but this is a VA-funded study, so by extension this study is restricted to VA enrolled Veterans.

What is the rationale for not sharing the findings with participants?

This was an error on our part, sorry. We edited this section to now read: We will disseminate findings via VA's Veteran Engagement in Research Group (VERG), as well to individual study participants upon request.

VERSION 2 – REVIEW

REVIEWER	Delphine Le Goff University of Western Brittany, Department of general practice
REVIEW RETURNED	09-Jul-2022

GENERAL COMMENTS	Thank you for letting me review this new version of your manuscript. I have one comment for the method section. I saw in appendix A that you will provide a compensation to the participating veterans and I do not read it in the method section. Did I miss this information? I then only have comments regarding readability. My main concern is the number of acronyms that are used: VA, SDH, SW, S&R, PC, CDW, ICD10, DM, RA, VERG, CIRB, SOP, VINCI, GLMM, DSMB, PI, PHI, PII, DAP, HIPAA, VHA, PQI, AHRQ, PDC. Some are scarcely used in your manuscript. Keeping the acronyms meanings in mind makes the reading sometimes difficult. Do you think you could drop some out? Page 4, line 20: problem with punctuation CVD. ref; Page 4, line 43: could you rephrase this sentence? Having a new information in round brackets makes the sentence difficult to understand. Page 7, line 25: there is an incomplete sentence in our least-intense arm Page 8, line 37: I feel it is confusing as you refer to the objective 2 as the RCT (information in round brackets). The objective 2 is achieved by the RCT but is not the RCT. You should maybe rephrase this sentence? Page 10, line 33: you refer to the survey 2 as Survey#2 and it seems it is the first time in the manuscript you used a #. Is it standardized in your manuscript? Page 10, line 39: you already have clarified the RA acronym in your manuscript Page 11, line 25: what HSR&D stands for? It seems it's the first time you use it Page 11, line 16: you already have clarified the VERG acronym in your manuscript Page 11, line 27: what is PI? Page 11, line 48: what are PHI and PII? Page 11, line 51: what is HIPAA? Page 11, line 50: By saying you won't share qualitative data, do you mean you will retain the verbatims but you will publish your qualitative results? Table 1: new abbreviations PQI, AHRQ, PDC Figure 2: An arrow coming from the C box is too long

REVIEWER	Ellen L. Poleshuck Univ Rochester
REVIEW RETURNED	27-Jun-2022

GENERAL COMMENTS	Thank you for responding comprehensively to the reviewer critiques. The concerns identified have been adequately addressed.

VERSION 2 – AUTHOR RESPONSE

REVIEWER: 1

Thank you for letting me review this new version of your manuscript.

I have one comment for the method section. I saw in appendix A that you will provide a compensation to the participating veterans and I do not read it in the method section. Did I miss this information?

> ***Good catch. We added information about Veteran compensation in the methods section.***

I then only have comments regarding readability. My main concern is the number of acronyms that are used: VA, SDH, SW, S&R, PC, CDW, ICD10, DM, RA, VERG, CIRB, SOP, VINCI, GLMM, DSMB, PI, PHI, PII, DAP, HIPAA, VHA, PQI, AHRQ, PDC. Some are scarcely used in your manuscript. Keeping the acronyms meanings in mind makes the reading sometimes difficult. Do you think you could drop some out?

> ***We agree. In the revised draft, we dropped acronyms that are used 3 or fewer times.***

Page 4, line 20: problem with punctuation CVD. Ref.

> ***We corrected the punctation problem on line 20 (i.e., eliminated the incorrect period).***

Page 4, line 43: could you rephrase this sentence? Having a new information in round brackets makes the sentence difficult to understand.

> ***We removed the information in parentheses (i.e., "means test"). We realized that the information is not needed and agree, it adds confusion.***

Page 7, line 25: there is an incomplete sentence in our least-intense arm

> ***We eliminated the incomplete sentence.***

Page 8, line 37: I feel it is confusing as you refer to the objective 2 as the RCT (information in round brackets). The objective 2 is achieved by the RCT but is not the RCT. You should maybe rephrase this sentence?

> ***We removed "(the RCT)" altogether. We think this is preferable to rephrasing the sentence.***

Page 10, line 33: you refer to the survey 2 as Survey#2 and it seems it is the first time in the manuscript you used a #. Is it standardized in your manuscript?

> ***This was error on our part to include "#." In the revised draft, were refer to "Survey 2" throughout.***

Page 10, line 39: you already have clarified the RA acronym in your manuscript.

> ***We corrected this and now use the acronym RA (i.e., don't spell out).***

Page 11, line 16: you already have clarified the VERG acronym in your manuscript.

To reduce the number of acronyms, we no longer use "VERG" since it appeared only 3 times in the manuscript. Instead, we spell out "Veteran Engagement Resource Group" in each instance, including here on Page 11.

Page 11, line 25: what HSR&D stands for? It seems it's the first time you use it.

HSR&D stands for "Health Services Research and Development Service." We now spell this out instead of using the acronym.

Page 11, line 27: what is PI?

PI stands for "Principal Investigator." We now spell this out instead of using the acronym.

Page 11, line 48: what are PHI and PII?

PHI and PII stand for "Protected Health Information" and "Personal Identifiable Information" respectively. We now spell these out instead of using the acronyms.

Page 11, line 51: what is HIPAA?

HIPAA stands "Health Insurance Portability and Accountability Act." We now spell this out instead of using the acronym.

Page 11, line 50: By saying you won't share qualitative data, do you mean you will retain the verbatims but you will publish your qualitative results?

By saying we won't share qualitative data, we mean the transcripts. We clarified this in the revised manuscript. We plan to publish the qualitative results.

Table 1: new abbreviations PQI, AHRQ, PDC.

We eliminated all 3 acronyms in Table 1 and instead spell each out.

Figure 2: An arrow coming from the C box is too long

We corrected the arrow in Figure 2.

REVIEWER: 2

Thank you for responding comprehensively to the reviewer critiques. The concerns identified have been adequately addressed.

Thank you for your excellent input. The manuscript was much improved as a result.