Reviewer’s report

Title: Effectiveness of stop smoking interventions among adults: protocol for an overview of systematic reviews and an updated systematic review

Version: 0  Date: 17 Sep 2018

Reviewer: Carrie Patnode

Reviewer’s report:

This systematic review protocol is very well-written and nicely lays out all methodologic considerations and plans. The protocol provides both definitive, a priori decisions for certain procedures and explains where flexibility will be required based in the identified evidence. My biggest concern, quite frankly, is the overlap between this work and our current update (using similar methods) that is underway for the U.S. Preventive Services Task Force (https://www.uspreventiveservicestaskforce.org/Page/Document/final-research-plan/tobacco-smoking-cessation-in-adults-including-pregnant-women-interventions). While our scope and methods are different in some cases (e.g., we have a broader scope in terms of including primary care referable interventions [e.g., MI interventions, stage-based approaches, incentive-based interventions]; our search was limited to 2014 to 2018, our review on ENDS evidence is solely based on a synthesis of primary evidence not bridging an existing review), my guess is that we'll have extremely similar included bodies of evidence and conclusions. I can reach out separately to share our progress to-date and brainstorm potential collaboration.

Otherwise, I have just a few minor comments. Good luck on the review!

Objective and Key Questions

-Here or elsewhere, you may want to provide rationale for choosing the overview of reviews methods (proliferation of trial evidence AND reviews [our existing review of reviews identified over 50 reviews synthesizing over 800 trials] and the general existing consensus by other guideline-making bodies that stop smoking interventions "work".

Stage 1

-Throughout the methods, I appreciate that you thoughtfully laid out all potential methodological options and rationale (e.g., for handling overlapping bodies of evidence, for handling discordant findings) and your proposed procedures related to each option/method.

-Searches: 2008 to current date. It would be nice to see rationale for choosing to go back so far in time (my guess is 10 years) given the overview of review methodology and your plans for handling overlapping bodies of evidence. As you are probably aware, there are literally hundreds of systematic reviews published since 2008 that will likely meet your criteria and will contain
considerable overlap. The burden of mapping this evidence is considerable. I think you should strongly consider a shorter time frame for your searches (5-7 years versus 10?) and only go further back in time if you determine that a review is lacking for a particular category of intervention or particular population of interest. I think it's extremely defensible given that we've already published (as has Cochrane for drug studies) more recent overviews of reviews. Else, we have numerous Excel spreadsheets that already examine the overlapping literature in these reviews if you do not want to re-create or use as a starting point.

-Pg. 21, Lines 459-468: I did not fully understand the "correction" that is made when applying the CCA method. First, I'm not clear why "cases where overlapping data...cannot be avoided". Is there some threshold by which you'll determine the overlap to be "considerable" such that one reviews "trumps" another? What if the difference is only 3 studies and it's defensible based on that review's inclusion/exclusion criteria? Second, the CCA "correction" needs further explanation. Where is the correction factor going if you're just reporting the effect estimates as reported by the included reviews? Is this really just a value that's reported to give the reader a sense of the overlap of the included bodies of evidence? I'm having a hard time figuring out how this is really a correction in a statistical sense.

-You may also want to discuss how you will handle selection of other published overviews of reviews. We have come across a LOT of these in our update. Will you just exclude them (and check their included reviews) because they do not meet your definition of a systematic review? But, it looks like you do plan to include network meta-analysis?

-For KQ1c, it would be nice to see if you have criteria for evaluating the credibility of reviews' subgroup analyses (meta-regression, stratified analysis).

-Can the first 2 I/E tables be combined? It seems like the only difference is the latter looking for evidence on effective BCTs (reviews limited to specific BCTs or reviews that provide evidence of effect modification). I think it would be easier on readers to combine the two tables and include the extra information in the Intervention row in the 2nd table in the 1st.

-There are many published reviews that limited their inclusion to a specific subpopulation (e.g., young adults, racial/ethnic minorities, smokeless tobacco users); I would suggest commenting on how these will be 'included' or otherwise incorporated into your synthesis.

-Finally, Cochrane keeps a very nice spreadsheet of their tobacco reviews and their plans and timelines for updating each review. They have shared a copy with us and would likely do the same for you. It's nice to see where updates are planned such that you don't go through a lot of work abstracting one review that is planned for an update during your review time frame.

Stage 2

-For I/E setting: Many of these studies will take place "in" research settings -- literally academic research settings recruiting smokers through mass advertising. Will studies in these "community" or research settings be included?
Citations:

-Citation 91 (Balshem): Do you mean to cite the AHRQ RoB paper (https://effectivehealthcare.ahrq.gov/topics/methods-bias-update/methods) or the Balshem paper on outcome analysis reporting bias in grey literature?

-Citation 95 (Fu) has been updated and is published on AHRQ's website (https://effectivehealthcare.ahrq.gov/topics/methods-quantitative-synthesis-update/methods)

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I am the author of the original USPSTF-commissioned overview of reviews on tobacco cessation and the current lead investigator for that update. The methods and likely timing of our overview of reviews and this planned review are strikingly similar.
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No