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)	A systematic review of alcohol screening and assessment measures for young people: study protocol
AUTHORS	Toner, Paul; Boehnke, Jan Rasmus; McCambridge, J

VERSION 1 - REVIEW

REVIEWER	Joel Msafiri Francis National Institute for Medical Research, Tanzania Harvard T.H.Chan School of Public Health, USA
REVIEW RETURNED	25-Feb-2017

GENERAL COMMENTS	The protocol reads very well and the review will certainly advance the field. Only few issues for consideration: The search leaves the geographical focused databases from example, the Africa wide Information. I think, if possible, consider including such databases especially for Africa where some of the journals are not indexed in the medline. I am also wondering why the papers using biomarkers as comparator are left out? Often times, self-reports have been validated against biomarkers. It would be helpful to provide reasons for this decision. It is important to review the articles (citations) eligibility blindly- this is not indicated in the protocol. There is no mention of publication bias assessment. I think it is helpful to consider doing this.

REVIEWER	Dr Bob Patton University of Surrey, UK
REVIEW RETURNED	27-Feb-2017

GENERAL COMMENTS	A very well written protocol for a systematic review of alcohol screening and assessment measures for young people. My only concern regards the justification of the age range proposed for the review (aged 24 and under). The introduction focuses on drinkers aged up to 18 years, with no mention of older age groups. While I can acknowledge that definitions of adolescent / young people can vary, it would be useful to include some further detail as to why this particular threshold has been chosen for inclusion in your proposed review.

REVIEWER	MacArthur, George
	University of Bristol, UK
REVIEW RETURNED	13-Mar-2017

| GENERAL COMMENTS | This systematic review will evaluate alcohol screening and assessment measures for young people, and provide guidance on which measures currently in use perform best in those aged under 24 years. The protocol is well-written and informative and on an interesting topic, but would benefit from clarification or revision around a few points below.

Abstract
- Line 31, I think this should read 'in young people will inform policy…'

Introduction
- The introduction could benefit from setting the context more clearly and linking the sections together. It could be made clearer why there is a need for this review (e.g. through the section on target condition). Similarly, it would benefit from drawing out how the knowledge generated will affect practice in clinical and/or community settings or with different age groups; and how it is postulated that this knowledge will actually inform the development and/or conduct of new interventions.
- The rationale for including studies for young people aged 24 and under is not currently sufficiently clear to the reader. The authors mention guidance specifically emphasising a need for a tool assessing drinking of those aged under 18 years, yet will include studies aimed at those aged under 24. Since drinking practices/ thresholds/ settings for those aged 18-24 may be markedly different from those aged under 18, this decision should be justified and expanded.
- In addition, as you will investigate age, gender, ethnicity, setting etc in your analyses, some mention of the importance and/or relevance of such factors is warranted.
- In 'target conditions', please give greater clarity about what you mean by 'harmful drinking causing damage to physical or psychological health' and 'causing social consequences that are supported by epidemiological or other empirical evidence' and how these will be defined. Are the recommended limits on consumption that you mention to be based on UK guidance or recommended limits from elsewhere?

Methods
- I don't agree that there should be a limit based on English language as you may miss important studies.
- I would recommend including CINAHL and CENTRAL in your list of databases.
- In your search I would add in line 3 consump* or drink*. Have the authors used age limits previously? I am concerned that you may miss studies, particularly as there is no specific focus on adolescence.
- Dual data extraction should be conducted, rather than being checked by a second author.
- Quality thresholds described on page 6 should be justified.

What the review adds
- Page 8: I think this section could be expanded so that it is clearer to readers what research plans / research agendas you mean, how |

	the findings may be used; and also how or why (3) is important or helpful in terms of policy, practice and/or research.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1
The protocol reads very well and the review will certainly advance the field.

Thank you.

The search leaves the geographical focused databases from example, the Africa wide Information. I think, if possible, consider including such databases especially for Africa where some of the journals are not indexed in the medline.

Thank you for the suggestion. Experts in validation studies of alcohol screening and assessment measures for young people from each continent will be contacted to identify studies not picked up in the database search as referred to in the searching other resources section.

I am also wondering why the papers using biomarkers as comparator are left out? Often times, self-reports have been validated against biomarkers. It would be helpful to provide reasons for this decision.

Empirical evidence indicates that self-report measures perform better than alcohol markers or breath alcohol concentration. See Jackson et al. (2009), now cited as reference 10, and section on reference tests on page 6.

It is important to review the articles (citations) eligibility blindly - this is not indicated in the protocol.

Thank you for this. We have clarified the process used in the section on selection of studies on page 5.

There is no mention of publication bias assessment. I think it is helpful to consider doing this.

We thank the reviewer for pointing this out and agree that for most reviews this is a crucial step. Nevertheless, in this case we set out to perform a review that identifies studies that have provided minimal standards of evidence for reliability and validity for an instrument in the specified population. The usual techniques to estimate publication bias in meta-analytic results will not work under such circumstances since we do not expect (a) estimates of reliability and validity to be distributed unimodally or (b) not necessarily to converge to single estimates, since we are aggregating across a range of instruments. This is why we put so much emphasis on the quality assessment of the studies and their descriptive documentation, to make any information that could identify more general biases in our selection as transparent to the reader as possible.
However, the authors agree that the goal of the meta-analysis was not clearly stated and we have added an explanation in the new second paragraph of the meta-analysis section on page 8.

Reviewer 2
A very well written protocol for a systematic review of alcohol screening and assessment measures for young people.

Thank you.

My only concern regards the justification of the age range proposed for the review (aged 24 and

under). The introduction focuses on drinkers aged up to 18 years, with no mention of older age groups. While I can acknowledge that definitions of adolescent / young people can vary, it would be useful to include some further detail as to why this particular threshold has been chosen for inclusion in your proposed review.

Justification added in the first paragraph of page 3.

Reviewer 3
This systematic review will evaluate alcohol screening and assessment measures for young people, and provide guidance on which measures currently in use perform best in those aged under 24 years. The protocol is well-written and informative and on an interesting topic.

Thank you.

Abstract
Line 31, I think this should read 'in young people will inform policy…'

Agreed and altered as suggested.

Introduction
The introduction could benefit from setting the context more clearly and linking the sections together. It could be made clearer why there is a need for this review (e.g. through the section on target condition). Similarly, it would benefit from drawing out how the knowledge generated will affect practice in clinical and/or community settings or with different age groups; and how it is postulated that this knowledge will actually inform the development and/or conduct of new interventions.

These are helpful suggestions. New paragraph added on page 3.

The rationale for including studies for young people aged 24 and under is not currently sufficiently clear to the reader. The authors mention guidance specifically emphasising a need for a tool assessing drinking of those aged under 18 years, yet will include studies aimed at those aged under 24. Since drinking practices/ thresholds/ settings for those aged 18-24 may be markedly different from those aged under 18, this decision should be justified and expanded.

Justification added on page 3.

In addition, as you will investigate age, gender, ethnicity, setting etc in your analyses, some mention of the importance and/or relevance of such factors is warranted.

Paragraph added on page 3.

In 'target conditions', please give greater clarity about what you mean by 'harmful drinking causing damage to physical or psychological health' and 'causing social consequences that are supported by epidemiological or other empirical evidence' and how these will be defined. Are the recommended limits on consumption that you mention to be based on UK guidance or recommended limits from elsewhere?

Clarity provided in the edits in this section.

Methods
I don't agree that there should be a limit based on English language as you may miss important studies.

We agree that this is a study limitation and have explicitly added this as such. We highlight, however, that instruments validated in other countries and languages are not excluded if the report is written in English.

I would recommend including CINAHL and CENTRAL in your list of databases.

Thank you for the recommendation. We scoped candidate databases early in this project and are satisfied that addition of these databases will not yield quantity and quality of hits that would justify their use . CINAHL focuses on the British Nursing literature and CENTRAL on RCT designs.

In your search I would add in line 3 consump* or drink*. Have the authors used age limits previously? I am concerned that you may miss studies, particularly as there is no specific focus on adolescence.

Thank you, drink* is covered in line 7 and consump* brings in lots of irrelevant information (e.g. related to food) not associated with alcohol. Medline is the only database that is possible to use age limits.

Dual data extraction should be conducted, rather than being checked by a second author.

We acknowledge that dual data extraction is regarded as ideal in the CRD guidance (reference 15) we have followed. It also states that the needs of different reviews in this respect vary and that 'one researcher can extract the data with a second researcher independently checking the data extraction forms for accuracy and completeness'. This is the approach we have adopted and reported clearly in the protocol.

Quality thresholds described on page 6 should be justified.

Thank you for pointing this out, justification now added to the section on quality assessments on page 7.

What the review adds
I think this section could be expanded so that it is clearer to readers what research plans / research agendas you mean, how the findings may be used; and also how or why (3) is important or helpful in terms of policy, practice and/or research.

This is a helpful suggestion, and much more detail has now been added to this section.

VERSION 2 – REVIEW

REVIEWER	Joel Msafiri Francis National Institute for Medical Research, Tanzania Harvard T.H.Chan School of Public Health, USA
REVIEW RETURNED	03-Apr-2017

GENERAL COMMENTS	The protocol reads very well. Authors responded sufficiently to my observations in the previous version of the protocol.

REVIEWER	Dr Robert Patton University of Surrey, UK
REVIEW RETURNED	03-Apr-2017

| GENERAL COMMENTS | The authors have clearly addressed all of the concerns raised by reviewers. |

REVIEWER	MacArthur, George
	University of Bristol, UK
REVIEW RETURNED	25-Apr-2017

| GENERAL COMMENTS | The authors have responded thoroughly to the points raised and the paper reads well. I have no further comments. |