National Institute for Health Research

Draft Final Report Peer Review Form

Policy Research Programme (PRP)

Thank you for agreeing to review this draft final report for the Department of Health Policy Research Programme. The Department very much appreciates you taking the time to undertake this vital part of the research process.

If you have any questions or experience any issues with submitting this form, please contact the PRP CCF on +44 (0) 20 8843 8027

Please return this form by: **19 September 2018**

PRP Reference Number: **104/0001 – Policy Research Unit in Economic Evaluation of Health and Care Interventions**

Project Title: **Quality review of a proposed EQ-5D-5L value set for England**

Reviewer Reference Number: **02**

Reviewer Expertise

Please indicate the nature of your expertise by double clicking on the appropriate tick-box(es) below and selecting 'checked':

- ☐ Patient, service user or carer with direct experience of this field
- ☐ Member of public with a more general view
- ☒ Researcher in the same/a very similar field
- ☒ Researcher in a broadly related field
- ☐ Clinician in the same/a very similar field
- ☐ Clinician in a broadly related field
- ☐ Methodologist
- ☐ Industry professional in the same/a very similar field
- ☐ Industry professional in a broadly related field
- ☐ Other (please see below)

If the tickboxes above do not adequately capture the nature of your expertise, please briefly provide details in the box below (or use it to give us more detail about your expertise if you wish):

(Max 20 words)

Were you in involved in the peer review of the original application for funding for this piece of work?

- ☐ Yes

☒ No

Wherever possible, you will be sent a copy of both the original application form and the research specification that this application responded to, for reference.

Confidentiality

Once you have completed this form, your responses will be used by the Policy Research Programme (PRP) to review the project's findings and assess its outcomes.

Your completed responses are considered confidential, and are therefore exempt under the provisions of the Freedom of Information Act (section 41).

Receipt of this document from the PRP Programme, and your subsequent completed return, form a 'mutual confidentiality agreement' covering your completed responses. This information will not be released without prior consent (except to the parties named below) unless required by law. To read more about our commitment to data security and confidentiality, please click on this link: **http://www.nihr.ac.uk/privacy-policy.htm**

Please treat this report and the associated application form as **confidential.**

How we will use your review

This form will be passed:

(i) **(unattributed) to the Chief Investigator** of the final report you are reviewing with the ratings summary and any conflicts of interest removed (questions 7 and 8 respectively). Please ensure that you **do not include any comments which you would not want to be seen by the Chief Investigator or which could identify you as the reviewer.**

(ii) **(in its entirety) to designated individuals of the Department of Health, who will also be made aware of your name, institution and area of expertise**. These individuals will learn your name in confidence.

Using this Form

Your expertise and experience have been recognised in asking you to review for us and both the researchers and colleagues at the Department of Health would benefit from your comments.

Please rate how the report addresses each of the criteria in the relevant sections below. The prompts are intended to help you focus on the areas addressed by the criteria, but please feel free to comment on additional aspects which you consider to be relevant.

Patient and public involvement in peer review (information for lay reviewers)

Additional information and guidance for patients, service users and carers on peer review is available from the Central Commissioning Facility's website: (**http://www.nihr.ac.uk/about-us/how-we-are-managed/managing-centres/nihr-central-commissioning-facility/ccf-ppi/resources-for-public-contributors.htm**)

An introductory leaflet for patients, service users and carers, entitled 'Getting going as a research reviewer' can be viewed at the following link: (**http://www.nihr.ac.uk/about-us/how-we-are-managed/managing-centres/nihr-central-commissioning-facility/ccf-ppi/**)

We would be grateful if you would provide us with your opinion on each of the following aspects of this study:

1. Evidence that the findings/outcomes of this research are relevant to the issues specified in the original research specification and reflect the programme of work described in the application form

A) Does the report demonstrate a clear understanding of the policy context of the question(s) and are the findings/outcomes clearly linked to this?
B) Are the findings/outcomes of this research placed in context of previous relevant research in this area such that added value is immediately evident?

(max 500 words)

I consider these reviewers to be among the very best researchers in the field. They are experts in the methodologies appplied, and they certainly understand the policy context. This becomes evident in their balanced discussion of some extremely important issues. I guess the key message from their detailed review is stated under Conclusion and Recommendations: "R1: A 5L value set for use in policy applications must be based on good quality data. A new programme of further development, including a new data collection initiative, should be considered to put EQ-5D-5L on a sufficiently firm evidential basis."

2. Effectiveness of the research design and work plan (including methods of data collection and analysis) in delivering high quality, fit-for-purpose findings/outcomes for policy-makers

A) Did the research design and methodology prove appropriate to deliver the work described in the application?
B) Were the analyses conducted appropriate in terms of being able to draw robust conclusions?
C) In light of the findings/outcomes presented, are there any particular strengths and/or weaknesses of the research design or analyses chosen?

(max 800 words)

The reviewers had access to the data, on which the value set was based. They appear to have had fruitful professional discussions with the research team behind the value set.
A) Yes
B) Yes
C) The strength lies in a very detailed inquiry into the (lack of) quality of the data. If I were to look for a weakness, I would have liked a bit more discussion on various reasons for the identified anomalies, however, I guess this might have been outside of their mandate.

3. Quality of research findings/outcomes
3a. General

A) Has this research yielded clearly defined and appropriately described findings/outcomes?
B) Are the conclusions logical and well thought out, and do they reflect the evidence presented in the report?
C) Can policy-makers have confidence in the quality of the findings presented?

(max 600 words)
I have full confidence in the reviewers qualifications and impartiality. I am impressed by the detailed investigation and the overall quality of their review. I therefiore think policy-makers should have confidence in the quality of the findings presented.

3b. Patient and public involvement

A) Where applicable, was there appropriate patient and public involvement in this research?
B) Did actual levels of involvement reflect those set out in the research application?
C) Could a greater emphasis on patient and public involvement have improved this study?
D) Is there evidence that findings will be shared with patients and the public (or have findings already been shared)?

(max 500 words)
N/A

3c. Intellectual property

A) Where applicable, are you able to identify any intellectual property (IP) produced or improved on during the course of this research?
B) Is there evidence of any plans to protect or exploit any such IP?

(max 500 words)
N/A

4. Likely impact of the research on policy and/or practice

A) Does the research described in this report have the potential to impact on health care and/or social care and/or public health policy and service delivery?
B) Does this research add to the knowledge base on health and well-being? Does the research add value or advance what is already known in this area?
C) Have target audiences been identified and effective methods of disseminating this research proposed to maximise impact?

(max 500 words)
N/A

5. The value of the output relative to cost (if cost of research provided)

A) To what extent is there evidence that the level of resources used to complete this study was appropriate and justified?

B) Has the research provided adequate outcomes for the funds spent?
C) If the researchers have suggested that any financial benefits may arise from their work, please indicate how realistic you feel these might be.

(max 500 words)
N/A

6. Suggestions for improvement to the research

A) Do you have any thoughts on how this research might have been improved? If so, please indicate whether you see these as critical factors.

(max 300 words)
I have no concrete suggestions for improvements in the current review. The reviewers have drawn attention to several worrisome issues that signal lack of understanding among respondents. Table 2.5 provides a detailed list of anomalous response types. While the review might have benefited from more discussion on what may have caused these anomalies, I appreciate their emphasis on a critical systematic inquiry into the lack of quality of the data.

In the following I would like to comment and elaborate on some matters that should be relevant for an eventual new data collection initiative.

Value sets for the 5L have now been published for 13 countries, and several more are in the pipeline. This immense research experience should give important lessons for future studies. However, to the extent that future data collections have to follow the given valuation protocol (EQ-VT), there appears to be limited scope for choosing alternative approaches, designs or methodologies. Thus, my following points represent suggestions on how to improve the reliability of the data to be collected.

1) When TTO is more informative than DCE, interviewers should be trained to spend more time explaining the TTO to respondents. Given that this theoretically preferred method is also the cognitively most demanding, researchers are faced with a fundamental problem: On the one hand economists often subscribe to the dictum that 'preferences are preferences' and 'there is no right or wrong answers'. On the other hand, the method used for eliciting preferences might simply be so complicated that respondents 'choose not to choose', i.e. they opt for short-cuts that reveal their answers are not reflecting a trade-off. Respondents whose answering clearly reflect such 'choice avoidance' should not be included.

2) The poor quality of the TTO data is a major concern. A new study should make explicit exclusion criteria. The challenge is to separate the obviously inconsistent choices from the seemingly inconsistent choices (i.e. respondents who do not interpret the level 5 description 'extreme' to be any worse than 'severe' at level 4).

3) To the extent that inconsistencies can be explained by the descriptive system rather than the valuation methodologies (see Table 2.9), I guess the EuroQol group should consider a new 4L version, by simply deleting the 5th level.

4) I agree with the concern that a very small proportion of the 86 health state combinations included in the TTO protocol are prevalent, or representative of those normally identified in CEA studies (p.23). Thus, the values assigned to the most prevalent health states are based on

modelling rather than reflecting preferences for these health states. Interestingly, in the study of the Dutch value set, the mean TTO values of the 86 included health states are compared with the modelled values of the same states. The larger the dicrepancies between observed means and modelled values in prevalent combinations, the more reason for concern.

5) Finally, while most researchers in the field acknowledged the problem with ceiling effect in the 3L version, it appears that the 5L solution has its own inherent problems. First, the new level 4 literally involves severe problems: its description 'severe' is interpreted as being no worse than level 5 'extreme'. Second, as pointed out by the reviewers, there is a misspecification of the valuation model that means mild impairments (level 2) will be systematically overvalued. Perhaps the simple solutions here would be to change the valuation model, and - again - to skip level 5. Of course, this latter point remains for the EuroQol group to decide.

7. Rating Summary:

Considering your answers to the questions above, please rate how well this final report addressed each of the criteria using the drop down boxes below:

Evidence of a clear focus on the issues specified in the research specification and the work described in the application form	**Excellent**
Quality of the research design and work plan including methods of data collection and forms of analysis in terms of work delivered	**Excellent**
Quality of research outcomes	**Excellent**
The value of the output relative to cost	**Excellent**
Likely impact of the research on policy and/or practice	**Good**

8. Conflict of Interest

We should know about any competing interests that referees may have. Are you aware of any potential competing interests that you may have? If you are in any doubt about any potential competing interest then please declare it. We will not reject your opinion simply because you declare a competing interest, but we would like to know about it, please.

Do you consider yourself to have a conflict of interest with the applicant(s) or institution: No

If yes, please give details:

(max 100 words)

Thank you again for taking the time to complete this review for us.