Author’s response to reviews

Title: Health state utilities for infertility and subfertility

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Response to reviewer comments REPH-D-18-00267
Health state utilities for infertility and subfertility

Reviewer #1: I think this is an important area to be studied. The title suggests the topic is health state utilities but the body of the paper includes questions on willingness to pay. I have two concerns about the methodology. Firstly, the authors allude to the challenges of doing this online, but I didn't see any reference comparing this method to the gold standard of face to face interviews. I think should be addressed. Simply saying that you had to discard many does not infer that the remaining were acceptable. Secondly, I would defer to experts in economic analysis, but I feel the questions regarding how much the government should pay were extremely simplistic. This should be properly vetted by a reviewer with more expertise in the field. I suspect the conclusions will not be supported by the research.
It is important for clinicians to have some appreciation of health economics and so I would encourage revision and publications. Since the audience is likely not expert in the field it is important that the weaknesses be spelled out in the paper and there be a broader discussion of comparable disutilities.

“We would like to thank the reviewer for the feedback provided to our manuscript. This is highly appreciated. Based on the comments, we made the following changes to the paper. We have elaborated further in the discussion on the difference between online and face-to-face interviews and backed this up with references. Furthermore, we commented on the questions regarding national reimbursement.”

Reviewer #2: This manuscript examines the topic of health state utilities for infertility and subfertility. This is an important topic for cost-effectiveness analyses to compare different fertility treatments and other ways of addressing infertility. It will be of interest to readers of Reproductive Health.
In an online survey of an online sample of 767 Dutch adults, the authors used accepted methods to understand people's evaluations of different health states, including the time trade-off method. Respondents were also asked about the level of health plan reimbursement that should be covered by Dutch national insurance.

In general, the paper is well-written. The authors make a compelling case for the gap that their research fills. The methods seem appropriate and are explained quite nicely. The results are easy to follow. The discussion is balanced. I have a few comments/suggestions.

“We would sincerely like to thank the reviewer for taking the time and effort to comment on our paper.”

The authors should reconsider repeated use of the value-laden word "suffer" when referring to the experience of infertility.

“We have removed the word suffer from the paper.”

Under respondents, the authors state that the sample was representative of the adult Dutch population in terms of age and sex. This seems somewhat limited, what other characteristics can they compare, especially regarding characteristics that may be related to the topic and cognitive task at hand (e.g., education, # of children, general health)? If the sample is not representative of the adult Dutch population on these characteristics, this should be stated.

“Our respondents were higher educated than the adult general population. There self-reported health on the VAS was lower than reported in another general population time trade-off survey. (Versteegh et al. ) Respondents above 45 years old had on average 1.6 children, which is similar to the general population in 2017 https://opendata.cbs.nl/#/CBS/nl/dataset/37422ned/table?ts=1554107457282. We have added this information to the paper.”

Under questionnaire, the authors state that "the questionnaire was validated by a gynecologist specialized in subfertility." It is unclear what is meant by this statement. If the authors mean that a gynecologist specialized in subfertility reviewed the questionnaire and provided comments based on their particular medical knowledge, this is certainly worthwhile to note, but cannot be considered "validation" of the questionnaire. There are many types of validity; review by a single content expert may offer some evidence of face validity of the questionnaire. Was the questionnaire evaluated by any patients before fielding it? Was there any pilot test? If not, this should be stated as a limitation.

“Thank you for your comment. The specialized gynaecologist was consulted to make as realistic as possible health state descriptions. We agree that the word validation may come across too strong. We have adjusted the wording in the paper. We did not involve patients in the development of the questionnaire. We have included this as a limitation.”

An additional reference that seems relevant to include: "Economic aspects of infertility care: a challenge for researchers and clinicians" by the ESHRE Capri Workshop Group et al.

“Thank you for pointing out this paper. It is indeed interesting and very relevant. We have included it in our paper.”