## 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)	An assessment of the societal and individual preferences for fertility
	treatment in Australia: study protocol for stated preference discrete
	choice experiments
AUTHORS	Botha, Willings; Donnolley, Natasha; Shanahan, Marian Shanahan;
	Chambers, Georgina

# **VERSION 1 – REVIEW**

REVIEWER	Fernando Zegers-Hochschild Program of Ethics and Public Policies in Human Reproduction
	University Diego Portales
	Santiago, Chile
REVIEW RETURNED	19-Nov-2017

GENERAL COMMENTS	This, to my knowledge, is the first time that the question is raised as to whether regular citizens are in fact in favor or against using their money (taxes) in the treatment of persons suffering from infertility.  Furthermore, after this study one will learn whether there are preferences and restrictions as to who should be entitled to receive
	this benefit. It is possible that common citizens will be open to fund the building of families by any form of social relations; or restrict their acceptance to heterosexual couples and discriminate against same sex couples or single persons. It is also possible that women might have different perspectives than men.
	Indeed, as stated in the proposal, the benefits of a SPDCE are that the study question of WTP may be examined from multiple perspectives and not strictly associated with outcome.
	It is foreseeable that the information obtained from this study will contribute in developing evidence-based public policies concerning the role of society as a whole in the solution of individual problems. This is a major question since in this case, 75% of the population are responsible for only 15% of persons with infertility.
	I also believe that the way this study is structured with a sequential and progressive collection of information, e.g, Focus groups, pilot study, analysis of data and then the study itself; allows for adjustments to different ethnics and cultures. Conducting such study in a country with a population growth rate of 1.5 to 2 can be different than conducting similar study in a community with a population growth rate of less than 1.

I am unable to judge on the statistics applied to this methodology and on fine methodological appreciations, which would require an expert in these type of studies. However, to my understanding, the question asked and the methodology chosen will provide the scientific community and policy makers with new and valuable information to be used not only by countries which already have universal access to treatment. It will also help countries without
universal access to develop evidence-based decisions.

REVIEWER	Pamela M. White
	University of Kent
	Kent Law School
	Canterbury
	United Kingdom
REVIEW RETURNED	27-Nov-2017

GENERAL COMMENTS	A section on limitaitons of the technique used should be added to the paper.
	Overall the paer presents a new and important method. It should be published. the addition of few lines ergarding the limitration of the proposed technique would improve and balance the paper.

#### **VERSION 1 – AUTHOR RESPONSE**

### Response to Reviewer 1:

Thank you for your review of our paper. We appreciate the thoughtful and insightful comments.

#### Reviewer 2 comment

A section on limitations of the technique used should be added to the paper. Overall the paper presents a new and important method. It should be published, the addition of few lines regarding the limitation of the proposed technique would improve and balance the paper.

#### Response to Reviewer 2:

Thank you for the review of our paper and for your valuable comments. As suggested, we have now added a section on the limitations of the SPDCE approach in the context of our study. Please see the revised manuscript with changes marked in red and below:

#### Limitations of SPDCE approach in the context of this study

The SPDCE approach offers great potential for informing policy and addressing resource allocation questions related to the provision of fertility treatment. However, there are a number of methodological limitations that are common to all SPDCEs. In the context of our study, the first challenge relates to selecting a limited number of attributes and levels that are both practically feasible to include in a SPDCE and define the fertility treatment. There are likely multiple attributes and levels that could influence choices of fertility treatment from the perspective of both the general population and patients. However, only up to eight each with two to four levels are ideal 35 57. Too many attributes and levels can affect the statistical quality of the SPDCE design, and result in too great a cognitive burden on respondents to answer an excessive number of choice sets 56 58.

Furthermore, the SPDCE surveys will be undertaken in Australia, which could affect generalisability to other settings. Australia is a developed country with a relatively supportive funding environment for fertility treatment through the universal insurance scheme (Medicare).

Finally, the choices made by the participants based on the hypothetical scenarios presented in the SPDCE may not reflect real-life choices. However, the focus group discussions, careful development of the experimental design and analyses will minimise this risk, plus the comparison of the results of the SPDCE to the revealed preferences reflected by fertility treatment utilisation rates and government rebate will provide a mechanism for validating the results.

## **VERSION 2 - REVIEW**

REVIEWER	Pamela M. White Kent Law School Eliot College University of Kent
	Canterbury, UK
	CT3 7NZ
REVIEW RETURNED	14-Jan-2018
GENERAL COMMENTS	I am pleased to see the Limitations section added to the paper. I agree with the range of limitations noted in the paper with the following proviso. The definition of 'infertile' is not specified with the result it is not clear if the control sample and the target population will include LGBTQ individuals. I believe the paper needs to tell us

#### **VERSION 2 – AUTHOR RESPONSE**

who is being targeted for sample selection: heterosexual infertile couples and individuals or LGBTQ couples and individuals.

Reviewer: 2

Reviewer Name: Pamela M. White

Institution and Country: Kent Law School, Eliot College, University of Kent, Canterbury, UK

Please state any competing interests or state 'None declared': NONE

Please leave your comments for the authors below I am pleased to see the Limitations section added to the paper. I agree with the range of limitations noted in the paper with the following proviso. The definition of 'infertile' is not specified with the result it is not clear if the control sample and the target population will include LGBTQ individuals. I believe the paper needs to tell us who is being targeted for sample selection: heterosexual infertile couples and individuals or LGBTQ couples and individuals.

#### Response to reviewer 2

Thank you for this helpful and relevant comment. The following has been added in the manuscript to emphasize that our samples will not have restrictions based on sexual orientation.

"The general population sample will be representative of the Australian population which includes members of the lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ) community. Infertile individuals will be patients recruited from fertility clinics who may also include members of the LGBTIQ community who have access to a variety of treatment options such as donor and egg sharing programs".