

Online Supplementary File 1:

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Article title: Identifying New Zealand public preferences for pharmacist prescribers in primary care—a discrete choice experiment

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1). Supplementary Appendix S1:

Methods:

2.1). Respondents:

The DCE respondents were NZ adults aged 18 years and older, and the sample frames were stratified according to age, and gender, and with a soft quota on ethnicity to broadly represent the NZ adult general population. The soft quota approach attempted to match the distribution of the ethnicity groups in NZ as closely as possible,

2.3). Reasons for DCE attributes and levels:

The waiting time, cost and operating hours attributes and levels were included as the researchers hypothesised that longer waiting time, higher cost and longer operating hours would influence respondents' preferences for prescriber type. The prescribing service attribute and levels were included to explore the influence of restrictive prescribing models on preferences for choosing a prescriber.

2.4). DCE study design:

The DCE did not include an opt out alternative as we wanted to maximise information obtained about respondents trade-offs [1], and including an opt out alternative could decrease the precision of the parameter estimates as respondents tend to select the opt out alternative when making difficult trade-offs on attribute levels [2,3].

The main study design optimised on a multinomial (MNL) model and evaluated for the mixed multinomial (mixed MNL) model. The design included six normally distributed Bayesian priors. Bayesian priors can be more robust than fixed priors as they take into account the uncertainty associated with parameter priors [4,5].

2.5). Analyses

The estimated DCE models were evaluated for goodness of fit using the log-likelihood ratio test, the McFadden's pseudo R-squared value, and the normalised Akaike's information criterion (AIC) value (AIC/N).

References:

1. Muhlbacher A, Johnson FR. Choice Experiments to Quantify Preferences for Health and Healthcare: State of the Practice. *Appl Health Econ Health Policy*. 2016;14(3):253-66. doi:10.1007/s40258-016-0232-7.
2. Veldwijk J, Lambooy MS, de Bekker-Grob EW, Smit HA, de Wit GA. The effect of including an opt-out option in discrete choice experiments. *PLoS One*. 2014;9(11):e111805. doi:10.1371/journal.pone.0111805.
3. Wang B, Chen G, Ratcliffe J, Afzali HHA, Giles L, Marshall H. Adolescent values for immunisation programs in Australia: A discrete choice experiment. *PLoS One*. 2017;12(7):e0181073. doi:10.1371/journal.pone.0181073.
4. Bliemer MCJ, Rose JM. Construction of experimental designs for mixed logit models allowing for correlation across choice observations. *Transp Res Part B Methodol*. 2010;44(6):720-34. <https://doi.org/10.1016/j.trb.2009.12.004>.
5. ChoiceMetrics. Ngene v1.2 User Manual & Reference Guide. Sydney, Australia: 2018.