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Equal access for equal need:
Eliciting public preferences for access to health treatment by employment status

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Abstract

The National Health Service in the UK is set up under the principle of "equal access for equal need", where those with identical *medical* needs should be given equal priority in receiving health care. However, *non-medical* needs may also be relevant in health care decision-making. This paper considers how members of the general public value access to a health service given equal medical needs, where some service users have additional non-medical needs. There are three primary research questions. First, are public preferences regarding access to a health care service symmetric and inequality averse? Second, are public preferences asymmetric across different needs groups? And third, which individual characteristics of respondents are predictive of different public preferences in this domain? An online survey of the UK general public was conducted in January 2017 using binary choice questions. The hypothetical scenarios involved allocating extra resources from a social perspective, to reduce the waiting time to access a mental health service for the unemployed, for the employed, or for both groups. Based on a valid sample of 662 respondents, the study found that the three main preference categories were: inequality averse and symmetric, inequality averse and asymmetric in favour of the unemployed, and inequality seeking and asymmetric in favour of the unemployed, with the first group being the largest. Respondents' current labour market status was found to explain their preferences so that those who were currently job-seeking were more likely to demonstrate preferences that favoured the unemployed, and those who were currently unemployed were less likely to demonstrate asymmetric preferences that favoured the employed. The implications from these findings are that health policies in the UK that support equal access for equal medical need are likely to be received most favourably, yet a non-trivial minority may support policies favouring those with other, non-medical needs.

Keywords

United Kingdom; equal access for equal need; public preferences; social perspective; equity-efficiency trade-off; work and health; unemployment; mental health

Introduction

1.1 Background

One of the seven key principles that guide the National Health Service (NHS) in England states that "Access to NHS services is based on clinical need, not an individual's ability to pay" (NHS England, 2015a), and this is often rephrased as "equal access for equal need" (Department of Health, 2017). The principle implies that those with identical medical need should be given equal priority in receiving health care. However, while this principle rules out access based on ability to pay, it does not say anything about access based on non-medical need. There is a large academic literature discussing what is (or should be) meant by "need" – but while the debate has focused on what constitutes *medical* need (for example, pre-treatment health status, or capacity to benefit; see Culyer & Wagstaff, 1993; Oliver, 2004), much less attention has been devoted to *non-medical* need.

This paper considers how members of the UK general public value equal access to a mental health service where some service users have additional, defined non-medical needs. To the best of our knowledge, this is the first study that attempts to elicit public preferences regarding possible aversion to unequal access to health care services.

1.2 Conceptual framework

To explore public preferences regarding *access* to health care, this work builds on research methodology from the existing consequentialist literature that captures the distributional preferences in health *outcomes* (Abásolo & Tsuchiya, 2004; 2013; Dolan & Tsuchiya, 2009). One distributional preference is "aversion to inequality", which means that if a given level of total good is distributed unequally, then there is another distribution that is equally good as the first which distributes a smaller level of total good more equally (Atkinson, 1970). Another distributional preference is "symmetry", which means that if people's situations were reshuffled, this should have no impact on the resulting social welfare.

Imagine two homogeneous groups X and Y, of equal size, that have the same levels of medical need: group X has no other need(s), while group Y has additional non-medical need(s). If non-medical needs are not relevant to the decision-maker, then X and Y are interchangeable, so that horizontal equity

(equal treatment of equals) requires that groups X and Y be treated equally (equal access for equal medical need): we refer to this as symmetry. If non-medical needs are also relevant, then X and Y are not interchangeable, so that vertical equity (unequal treatment of unequals) requires that group Y be given priority over group X (unequal access for unequal overall, medical plus non-medical, need): we refer to this as asymmetry.

Thus, this study applies the above framework to examine whether people support aversion to unequal access to health care, and whether they support asymmetric access to health care when one party has additional non-medical needs. To illustrate, Figure 1(a) is an abstract representation of levels of access to services, where the horizontal and vertical axes represent the level of access for groups X and Y, respectively. Point E represents a situation where both groups have some equal level of access. Point 1 represents a situation where the total level of access across the two groups is the same as at point E, but group Y has better access than group X. The three downward sloping lines represent different social welfare contours through point E, and illustrate that a symmetric social welfare contour needs to be inequality seeking in terms of access (s) if point 1 is to be preferred to point E. Figure 1(b) represents two social welfare contours that are *asymmetric* regarding access in favour of group Y. This illustrates that if the contours are asymmetric, point 1 can be ranked above point E, regardless of attitudes to inequality (unless strongly inequality averse to cancel out the asymmetry). Thus, in this space "equal access for equal *medical* need" implies a symmetric and inequality averse social welfare contour, while "unequal access for unequal *medical and non-medical* need" implies either (i) a symmetric and inequality seeking contour or (ii) an asymmetric contour in favour of those with additional needs. The last two contours may both rank point 1 above point E, but their ranking of point 2 (where levels of access of groups X and Y at point 1 are swapped) will disagree: (i) a symmetric and inequality seeking contour will rank points 1 and 2 equally better than point E; while (ii) an asymmetric contour in favour of those with additional needs will rank point 1 above 2.

1.3 Aims of the paper

To operationalise this, we use access to cognitive behavioural therapy (CBT), and a hypothetical

policy programme that, amongst those waiting to receive CBT, identifies those who are also unemployed in order to fast-track their access ahead of those who are in employment. Thus, group X consists of those who are seeking CBT, but have no other apparent needs, while group Y consists of those who have the same medical needs as those in group X, but who are also unemployed. There are three main possibilities. If the public interprets "equal need" to mean medical need only, then the hypothetical policy would be rejected in favour of equal access regardless of employment status – this would be "symmetric inequality aversion". On the other hand, if the public interprets "equal need" to include wider non-medical need, then it may be acceptable to give the unemployed better access to CBT – in other words, "asymmetry in favour of the unemployed". However, the public may prefer instead to give higher priority to those holding down a job despite similar mental health difficulties – viz. "asymmetry in favour of the employed".

Thus, this paper reports on an attempt to elicit public preferences for equal access to CBT by employment status. There are three research questions:

1. Are public preferences regarding access to CBT symmetric and inequality averse?
2. Are public preferences regarding access to CBT asymmetric across employment groups?
    - And if so, is it asymmetric in favour of the unemployed, or in favour of the employed?
3. Which respondent characteristics are predictive of different public preferences in this domain?

The study elicits public or societal preferences regarding access to health care by asking respondents to make judgements across alternative policies based on what they regard is best for society, as opposed to which policy would personally benefit them most (Tsuchiya & Watson, 2017). The study conducts an online survey of the UK public, where the main decision tasks are designed to distinguish between the relevant public preferences.

Method

2.1 The online questionnaire

2.1.1 Introduction to the survey and practice tasks

The survey was developed through a pilot phase with ten non-academic staff recruited at the University of Sheffield (mean age = 44.4 years, SD age = 11.0 years, 50/50 gender split) in December 2016.

These participants completed the survey on a range of devices (laptop, tablet, and smartphones) in the presence of a researcher, followed by a 30-minute interview about the topic. They were invited to comment on their understanding of the survey and its adequacy for the research purposes. Several changes were made in light of this pilot work, including revisions to the graphical aids, revisions to survey questions, and the survey being made unavailable for completion on smartphone devices, due to legibility of the graphical aids.

At the start of the survey, participants were given some background information on the known relationship between mental health and unemployment and that anybody may become unemployed through no fault of their own. Following a brief description on the effectiveness of CBT, participants were asked to imagine they were being consulted by the government on decisions to allocate extra funds for the provision of CBT, which could not be used for anything else. They were introduced to the idea of the government helping the unemployed by giving them access to CBT through reduced waiting times from referral to treatment, and told about the various policy options that they could demonstrate a preference for in this survey: viz. either to benefit the employed and unemployed equally, or to target the support at either the unemployed or employed groups unequally. The two groups were described as follows:

- The *employed*: "working age adults who are in-work, are not claiming any unemployment benefits, and have been diagnosed with a common mental health problem that is responsive to CBT".
- The *unemployed*: "working age adults who are not in-work, are claiming unemployment benefits, and have been diagnosed with a common mental health problem that is responsive to CBT. Due to their diagnosis they are identified as at-risk for long-term unemployment (of 12 months or more)".

Participants were told that there were no right or wrong answers, and that the questions were not about which policy would benefit them more, but about what kind of public services they thought the government ought to provide (the full instructions given to participants are provided in the online Supplement [INSERT LINK TO ONLINE FILE C]).

For simplicity, participants were asked to assume for the purpose of this survey that the two groups were equal in size, and that the two programmes cost the same. With a graphical aid, participants were

131 presented with sequential decision tasks between two policy options (i.e., Option A and Option B) that
132 differed in the reduction (in weeks) in waiting time for CBT for each group from a common baseline. In
133 each task, participants were asked to choose whether they preferred Option A, Option B, or if they thought
134 Option A and Option B were equally good. Upon selecting an option, participants were given real-time
135 feedback on-screen that quantified what their choice meant for CBT waiting times for the employed and
136 unemployed groups. They were then asked to confirm their choice, before moving on to the next task.
137 Two practice questions featuring graphical aids with additional annotations (see Figure 2) preceded the
138 actual tasks.
139 *2.1.2 The main tasks*
140 An overview of the structure of the main tasks is in Figure 3. Following the practice questions,
141 participants were provided with two different baseline frames in waiting times for CBT of 6 and 18 weeks.
142 These were taken from the latest UK NHS Improving Access to Psychological Therapies (IAPT) published
143 targets of (i) 75% people to begin treatment within 6 weeks of referral, and (ii) 95% within 18 weeks (NHS
144 England, 2015b). To control for ordering/learning effects across the baseline frames, half the participants
145 were given the 6-week frame first followed by the 18-week frame, and half were given the opposite.
146 Within each frame, participants completed between three and four decision-making tasks,
147 following different dynamic piping (or routing) depending on their answers. The piping was designed to
148 identify social preferences at the individual respondent level. Figure 4 (not shown to respondents)
149 illustrates the set of options used in the 6-week frame: the number of weeks of wait for the employed
150 group is plotted along the horizontal axis, and for the unemployed group along the vertical axis. Assuming
151 waiting to access CBT is undesirable, the best situation is no wait, which is the top right hand corner (0,0).
152 The baseline wait, in this case 6 weeks for both groups, is the bottom left hand corner (-6,-6). Throughout,
153 Option A always entailed a reduction of 3 weeks for both groups: A (-3,-3).
154 Each frame had two modules: in the first module, represented by blue circles, Option B always
155 involved a reduction of 2 weeks for the employed group, and varied the reduction to the unemployed
156 group between 3 and 5 weeks; and in the second module, represented by green circles, Option B always

involved a reduction of 2 weeks for the unemployed group and varied the reduction to the employed groups between 4 and 5 weeks. (The same set of absolute reductions in waiting times across decision tasks was used for the 18-week frame.) The aim is to identify (or at least, narrow down) for each respondent the shape of the social welfare indifference curve through point A. For example, a respondent indifferent between A and B11 and between A and B23 has an inequality averse and symmetric social preference. In the first task in the first module, Option B involved reductions of 2 weeks for the employed and 4 weeks for the unemployed (B12). Thus, the two policies, A and B, were equal in terms of overall number of weeks of wait reduced, but differed in the distribution of reduction in waiting times (A reduced by equal amounts for both; B reduced more for the unemployed). If the respondent preferred Option A, then Option B was made more attractive by increasing the reduction in waiting times for the unemployed (B11). Alternatively, if the respondent preferred Option B, then Option B was made less attractive by reducing the reduction in waiting times for the unemployed (B13). Once indifference is reached, or a maximum of two tasks per module were answered, the respondent moved on to the next module (B22), and then to the next frame. In total, there were 14 different pipings per frame (full details are available from authors on request).

Finally, participants from the main launch (see below) completed a catch task that was designed to catch-out participants who may have been responding carelessly. Participants completed a task where Option B (a reduction of 4 weeks for both groups) was clearly superior to Option A (a reduction of 3 weeks for both groups), either in a 6-week or 18-week framing, consistent with the last framing they had seen.

2.1.3 Background measures

The main tasks were followed by a series of background questions. We also recorded information on the time taken to complete the survey, and the device used to complete the survey.

Demographic/survey variables. We collected data on participants' gender, age, region of residence, employment status, and experiences in oneself and in family or close friends of: unemployment, mental health diagnoses, mental health treatment, and cognitive behavioural therapy.

Attitudinal questions. Ten questions were designed, based on pilot work, to probe the underlying attitudes of survey respondents towards mental health and unemployment on a 5-point Likert scale (1 =

strongly agree, 5 = strongly disagree). The order these questions were presented to participants was randomised.

Life satisfaction. Four questions from the Understanding Society: UK Household Longitudinal Study (UKHLS; University of Essex, 2016) were used to assess participants' self-reported satisfaction with their health, job (if applicable), household income, and life overall, on a 7-point Likert scale (1 = not satisfied at all, 7 = completely satisfied).

General health. One question from the UKHLS was used to assess participants' overall perception of their health on a 5-point Likert scale (1 = excellent, 5 = poor).

Psychological distress. Psychological distress was measured using the 6-item Kessler Psychological Distress Scale (K6; Kessler et al, 2002) covering six symptoms of psychological distress (nervousness, hopelessness, depression, etc) on a 5-point Likert scale (1 = all of the time, 5 = none of the time).

Disclosure question. Participants from the full launch (see below) were explicitly asked at the end of the survey which of three non-mutually-exclusive statements described how they made their decisions in the main decision tasks (whether on the basis of what would benefit them personally; on what they thought the government ought to do; and/or as quickly and with as little effort as possible). They were reassured that their participation or reward would not be affected by their answer to this question.

2.2 The procedure

Ethical approval was granted by the Department of Economics Ethics Sub-Committee at the University of Sheffield, in accordance with the University of Sheffield Research Ethics procedure prior to data collection (project reference number: 011967). Following piloting, recruitment for the main survey was conducted using an online commercial survey panel, ResearchNow, in January 2017, with a target of 1000 participants who reside and are eligible to vote in the UK. The only quotas applied were a 50/50 gender split, and a roughly equal distribution into three age-bands of: 18-35, 36-55, and ≥ 56 years.

Data collection had two phases. In the first phase (or soft-launch) the data for 101 participants were collected and screened by the researchers. The soft-launch participants gave their informed consent, before providing their age, gender, and the device they were completing the survey on (screening

questions). Eligible participants then completed the main tasks before completing the background measures above, and questions about experience of unemployment, mental health diagnoses, treatment, and CBT in themselves and in somebody close to them. Respondents who completed the whole survey in less than a third of the median time (as set by the survey company) were regarded as speeding and were excluded.

In the second phase (or full survey), two changes were made as a result of screening the soft-launch data, where Option A (equal split between the groups) was the modal response. First, this modal preference for Option A may have reflected genuine preferences or a bias towards the left/first option. In order to address this concern, the catch task described above was included. Second, this modal preference for Option A may have represented the cognitively easiest strategy rather than a genuine preference. In order to address concern, the disclosure question (see above) was added. In both phases, participants who completed the survey were rewarded with a pre-set incentive from the online survey panel.

2.3 Analyses

2.3.1 The valid sample

Respondents were excluded for the following reasons: failing the catch task, straight-lining the attitudinal questions (i.e. giving the same response to all questions), and admitting to answering the survey "as quickly and with as little effort as possible". The main analyses are carried out using the remaining, valid sample. (For reference, all results of the full sample are reported in the online supplement [INSERT LINK TO ONLINE FILE B]). *2.3.2 Dependent variable: the nine categories of public preferences*

Of the 14 pipings (per frame), 11 allow categorising the responses with respect to the three inequality preferences (averse/neutral/seeking) and the three symmetry preferences (asymmetric in favour of the unemployed/symmetric/asymmetric in favour of the employed), resulting in nine possible mutually exclusive combinations (e.g. inequality averse and asymmetric in favour of the unemployed), representing a particular type of social welfare indifference curve through point A. Each respondent can be classified in only one category per frame. Due to the limited number of tasks asked in each frame to limit participant burden, three of the 11 pipings were tentative (e.g. "inequality averse and *possibly* symmetric"), and each

of these was allocated to one of the nine categories based on judgement.

To answer the first and second research questions on the nature of public preferences regarding access to CBT, frequencies of the responses are reported by these nine categories. To answer the third research question concerning the individual characteristics that predict differences in public preferences, multinomial logit regressions were used to model the distribution of the preferences across the nine categories, in terms of the respondent's background characteristics and attitudes. Stata v.15 (StataCorp) was used.

2.3.3 Explanatory variables: individual level background characteristics

To capture current employment status five dummy variables were used: student, job seeking, sick or disabled, retired; and not in the labour force. This left the base as employed. Broader experience of unemployment, either in the past or via friends and family, were also included as dummy variables. Personal experience of mental health difficulties was modelled via dummy variables for ever being diagnosed, or having friends or family who have ever been diagnosed, with a mental health problem. Subjective measures of the respondent's self-reported levels of general health and life satisfaction were re-coded into three categories, with the base being the highest level of health or satisfaction. Age, age squared and a dummy for belonging to one of the attitude clusters (see below) were also included.

2.3.4 Explanatory variables: clustered attitudes

In order to make sense of the ten item attitudinal responses, data from the valid sample were subjected to a two-step cluster analysis on SPSS v. 22 (IBM Corp., Armonk, NY, USA), whereby the optimal number of clusters was defined empirically (using the BIC), and then an algorithm determined which cluster a participant best fit into. This produced two attitudinal clusters (see results). A dummy variable for membership of cluster 2 was included in the multinomial regressions.

2.3.5 Multinomial logit regression

A multinomial logit specification was chosen to accommodate the categorical dependent variable with no natural ordering. Following the results of a likelihood ratio test, the baseline analysis used observations from the 6-week and 18-week frames pooled (with a dummy to indicate the frame). As the

errors were likely to be correlated at an individual level across the frames, the model was clustered by personal identification number.

Results

3.1 Descriptive statistics

A total of 1254 participants attempted the survey. Of these, 116 participants' data were deleted as they failed to fully complete the survey. There were an additional 38 who completed the survey but were not included in the sample either for speeding (n=34) or for possible duplication (n=4), resulting in 1000 respondents in the full sample. The mean age of the full sample was 45.81 years (SD = 15.07 years). The majority (622) were in employment of some form; 814 had some experience of unemployment, either personally or through a family member or close friend; and 489 had either received, or had a family member or close friend who received, a diagnosis of a mental health problem. Furthermore, 254 participants had either received, or had a family member or close friend who received, CBT for a mental health problem. See Table 1 for details.

Of these, 662 constitute the valid sample. The breakdown of excluded respondents is: failing the catch task (n=321; see Supplemental Table 1 [INSERT LINK TO SUPPLEMENTAL TABLE 1 IN ONLINE FILE A]), straight-lining the attitudinal questions (n=3; Table 2) and admitting to answering the survey "as quickly and with as little effort as possible" (n=14; table 2). The valid sample has a higher proportion of those aged 56+ ($\phi = 1.11$, $p = .027$), the retired ($\phi = 0.87$, $p = .083$), and less young people ($\phi = 0.83$, $p = .095$), compared to the full sample (see Table 1 – full results available from the authors).

Table 2 illustrates that the valid sample may have slightly more left-wing attitudes than the full sample, and reported higher psychological distress ($d = 0.09$, $p = .069$), but were similar in self-reported health and life satisfaction. Participants in the valid sample on average spent longer on the survey than the full sample, by 46 seconds ($d = 0.08$, $p = .101$). Furthermore, more participants in the valid sample (67%) declared that they had answered the survey based on "what [they] thought the government ought to do", as per the survey instructions, than the full sample (56%, $\phi = 2.03$, $p < .001$).

In the cluster analysis, two clusters emerged as optimal for the valid sample data. The first (cluster

1) was more populous (n=432) and tended towards the right wing spectrum, with more agreement with statements such as "Those in work and paying into the system should be given priority" and "Unemployment benefits in the UK are too high and discourage people from finding jobs". The second (cluster 2) tended towards the more left-wing spectrum, with more agreement with statements such as "Anyone can experience long-term unemployment through no fault of their own" and "The government has a responsibility to help everyone find a job who wants one". (See Supplemental Table 3 for details [INSERT LINK TO SUPPLEMENTAL TABLE 3 IN ONLINE FILE A]).

3.2 The main results

Table 3 shows the distribution of observations across the nine preference categories of inequality aversion and symmetry, for the valid pooled sample. One hundred and sixty observations in the 6-week frame and 155 observations in the 18-week frame were not able to be categorised (see Supplemental Table 2 [INSERT LINK TO SUPPLEMENTAL TABLE 2 IN ONLINE FILE A]). Only a single observation (in the 6-week frame) fell in category seven: this observation was therefore dropped for the multinomial logit model.

3.2.1 Are stated public preferences averse to inequality in access to the service?

Most observations (774, 76.7%) demonstrated a degree of inequality aversion, with a smaller amount (218, 21.6%) demonstrating inequality seeking, and a negligible proportion categorised as inequality neutral (17, 1.7%).

3.2.2 Are stated public preferences symmetric across employment groups?

The majority of observations (531, 52.6%) were classified as asymmetric in favour of the unemployed, with a smaller amount categorised as symmetric (411, 40.7%), and a few responses as asymmetric in favour of the employed (67, 6.6%). The modal response overall was one of symmetric inequality aversion (393, 38.9%).

3.2.3 What respondent characteristics predict differences in public preferences?

The results of the multinomial logit model are displayed in Table 4. All estimates demonstrate deviation from the baseline group of "equal access for equal need" (or symmetric inequality aversion). There was a positive effect of age squared on being inequality averse and asymmetric in favour of the

unemployed (b = 0.001, p < .05). When combined with the age coefficient this indicates that participants beyond middle age were increasingly less unlikely to fall in this category than symmetric inequality aversion, although age does not appear in general to be highly predictive of preferences.

Students were less likely to be inequality neutral and symmetric (b = −14.612, p < .001). Jobseekers were: more likely to be inequality averse and asymmetric in favour of the unemployed (b = 0.972, p < .05); less likely to be inequality averse and asymmetric in favour of the employed (b = −14.393, p < .001); and more likely to be inequality seeking, either in favour of the unemployed (b = 1.556, p < .01) or in favour of the employed (b = 2.076, p < .05). People who were off work due to disability or sickness were more likely to be inequality neutral than inequality averse and symmetric (b = 2.031, p < .05). This group were also less likely to be inequality seeking and in favour of the employed (b = −13.576, p < .001), as were those who reported not being in the labour force (b = −14.991, p < .001).

People with the lowest level of life satisfaction were more likely to demonstrate inequality aversion and symmetry in favour of the unemployed than inequality aversion and symmetry (b = 0.617, p < .05), as were those with the worst level of general health (b = −0.689, p < .05). Finally, people who endorsed attitudes tending towards the left-wing were less likely to be asymmetric in favour of the employed (b = −0.759, p < .05), or inequality neutral and symmetric (b = −1.840, p < .05) than inequality averse and symmetric.

Discussion and conclusion

An equity principle of the NHS is “equal access for equal need”. This paper examined whether members of the public would interpret “need”, to access a health care service, as solely *medical* need, or also allow for *non-medical* need. Health economists have long debated the relative merits of access versus outcomes in health policy. Targeting equal access has been criticised by consequentialists who regard access as a means to an end, in this case, health (Culyer & Wagastaff, 1993). Depending on the baseline distribution of health and capacities to benefit, achieving equal health outcomes would require unequal access to (and use of) services and support. In this respect, the current survey goes further: the hypothetical intervention proposes unequal access to health care despite *equal medical need*, because the

parties have *unequal non-medical need*.

The first research question explored whether public preferences regarding access to CBT were consistent with the principle of "equal access for equal *medical* need" but not additional employment need (symmetric and inequality averse with respect to access). This was indeed the modal response (38.9%) across the possible preference categories. The modal preference here suggests a concern for equality (three quarters of observations were averse to unequal access), but for most, this concern is blind to non-health needs such as unemployment.

One possibility is that participants were refusing to treat access to health care as a means to address non-health needs. In addition, several alternative interpretations are possible. For example, participants might, in principle, consider some non-health needs in determining access to health care, but may not have placed a high enough value on unemployment to warrant supporting unequal access to the mental health service under our scenarios. It is conceivable that participants viewed holding down a job with a mental health problem as an equal or greater challenge than being unemployed with a mental health problem (e.g. Nystuen, Hagen, & Herrin, 2001). The attitudinal responses differed regarding whether the unemployed (vs. the employed) should get extra help from the government, with the more populous (and right-wing) cluster disagreeing. Additional work could investigate whether the same pattern of responses is observed when comparing health needs with alternative (but often related) non-health needs, such as escaping debt or socioeconomic deprivation.

The second question of interest was whether participants' preferences regarding access to health care were asymmetric in favour of the unemployed or the employed. When the two groups were given the same priority, we referred to it as symmetry, and when the two groups are given different priorities, we referred to this as asymmetry. While symmetric and inequality averse preferences was the modal response, the majority (61.1%) of observations deviated from this. The second most populous category was asymmetric in favour of the unemployed (32.4%), followed by inequality seeking and in favour of the unemployed (20.2%). Thus, where preferences deviated from symmetry by employment status, support to access CBT was greater for the unemployed than employed group. This is generally consistent with the

observed attitudinal responses, where even the right wing cluster tended to agree rather than disagree with statements like “a mental health problem makes it difficult for someone to get a job”. It is also consistent with other UK surveys of the general population, which suggest people generally tend to view unemployment as a negative experience (e.g. Ipsos MORI, 2009).

It is conceivable, therefore, that a majority of the sample could be moved to support preferential access to mental health care for the unemployed, depending on the circumstances. For example, if the benefit to the unemployed was large enough and/or the resources were ring-fenced in such a way that they could only be used to benefit one party more than the other. Complex situations such as this may occur in practice, since the numbers of employed and unemployed people with long-term common mental health problems are, in reality, unequal (TUC, 2017). While the complexities and online administration of this survey necessitated simplified assumptions, further empirical work in this area that explores varying the proportion of employed and unemployed people would be of interest.

A related point is whether participants actually assumed all other things (aside from employment status) were the same across the two groups in the scenarios. There were a number of things that are implicitly assumed to be the same for both groups, but were not explicitly stated so. For example, we did not say the health effect of treatment was the same for the unemployed and employed. Nor did we say that the number of unemployed who can return to work by being treated was the same as the number of employed who can remain in work by being treated. We did not explicitly rule out the possibility that those who were unemployed might have a more severe mental health difficulty than those who remained in employment. There are practical limitations to the additional considerations and interpretations that a survey can explicitly rule out, and those that were brought up at the pilots have been addressed. However, there remains the possibility that not all respondents interpreted the two groups to be identical, except from employment status, and if so, the proportion of respondents with symmetric preferences regarding access would be overestimated.

Of particular interest is the role of individual responsibility. Respondents in the more populous right wing attitudinal cluster were less likely to agree that “anyone can experience long-term

unemployment through no fault of their own". If participants viewed the long-term unemployed as responsible for their own situation, then it may be deemed reasonable to reject unequal access in favour of the unemployed, not because health care resources should only be used for health benefits, but because the two groups are not equal: under this reasoning, the unemployed might be needier, but they would also be blameworthy. The perception of personal responsibility may also lead to preferential support for the employed (at the expense of the unemployed). A possible extension of this work could incorporate (perceived) responsibility and effectiveness of CBT in improving both mental health and (re)employability.

The final research question explored the participants' characteristics that were related to their stated preferences. There was a shift from the populous baseline (of "equal access for equal *medical* need") towards being inequality averse or seeking *and* having asymmetric preferences in favour of the unemployed (implying "unequal access for unequal *overall* need"). The multinomial logit results suggested that *current experience* (or employment status) mattered: those who were currently job-seeking were generally more likely to demonstrate preferences that favoured the unemployed (with some heterogeneity favouring support for the employed in the 13 observations falling in category 9), and those who were currently unemployed on disability or sickness grounds, or not in the labour force, were less likely to be inequality averse with asymmetric preferences in favour of the employed, compared to those currently working. While these effects may be partly driven by respondents answering the question based on what would benefit them personally, the majority of the valid sample (66.5%) reported answering the questions "based on what I thought the government ought to do", suggesting that these respondents were at least aware that the questions were asking for their societal preferences. Elsewhere, experience of unemployment has been found to be a significant determinant of public preferences for welfare state policies relating to the unemployed (Blekesaune & Quadagno, 2003; Neumann, Buss & Bahr, 2016).

Having a *history* of unemployment had no significant effect on stated preferences. This is consistent with the wider economics literature that suggests that observed individual decision-making and preferences can be influenced by state (or in-the-moment) factors, and that we tend to be present-biased when making distributive decisions (e.g. Frederick, Loewenstein, & O'donoghue, 2002; Loewenstein, 2000).

417 It may also reflect the fact that those that were job-seeking but have since found re-employment prefer
418 that people in these two groups should be treated equivalently. Most employed people are confident that
419 they would be able to find work within 12 months if they were made unemployed (Ipsos MORI, 2009).
420 Having a history of mental illness did not significantly affect participants' preferences.
421 People who reported being in the best (vs. worst) state of health, and those who reported having
422 the worst (vs. best) life satisfaction were more likely to be inequality averse and have asymmetric
423 preferences in support of the unemployed (vs. the symmetric baseline). Dissatisfaction with life may reflect
424 discontent with the status quo, and a preference for more social support for marginalised groups, such as
425 the unemployed. It is conceivable that those in the best health may perceive themselves as less needing of
426 the health service (rather than upholding the belief that mental health problems can happen to anyone),
427 and thus may perceive themselves in a more favourable position to show preferences that support a
428 particular social group (rather than equal access for all). Finally, those endorsing more left-wing attitudes
429 were also less likely to demonstrate asymmetry in favour of the employed. This suggests that the
430 preferences observed may be reflective of a wider world-view that the long-term unemployed need extra
431 help from the government.
432 Policy makers may be interested that although the aversion to inequality outweighed any
433 preference toward the unemployed, the majority did consider employment status in their allocation
434 decisions. In the valid pooled sample 531 observations were asymmetric in favour of the unemployed, 67
435 asymmetric in favour of the employed and only 411 symmetric between the two groups. This supports a
436 conceptualisation of equity for health care allocation which is broader than equal access for equal medical
437 need. Methods which attempt to operationalise this include, but are not limited to, multi-criteria decision
438 making, explicit equity weighting and the use of inequality indexes such as Atkinson or Gini. Secondly,
439 policy support is dependent on in-state situation; logically one would expect support for policies for
440 unemployment to increase in times of recession, whereas gaining support for a pro unemployed policy
441 during a period of low unemployment may present more of a challenge.

Some limitations of the current data need to be acknowledged. First, the findings should be thought of as indicative rather than representative of the wider UK population's views. While preferences from a breadth of participants have been collected, the valid sample statistically significantly deviates from the projected characteristics of the UK population in terms of gender, and the full sample in terms of age (see Supplemental Table 4 [INSERT LINK TO SUPPLEMENTAL TABLE 4 IN ONLINE FILE A]). However, it should also be noted that respondent gender and age were not strong predictors of the preferences. Second, coefficient estimates should be treated with caution as results were sensitive to model specification and some of the categories in the multinomial model are based on a small number of observations, thus may be unstable. Another point to note is that the way the policy is framed may have a systematic effect on responses, and this is an interesting empirical question that was not explored in the current research. Instead, all participants were given the same prior information (see the online supplement [INSERT LINK TO ONLINE FILE C]).

Beyond policy implications, the research also has a clear methodological implication that should be borne in mind when designing future survey studies using online panels. In particular, the large proportion of participants that were excluded from the valid sample as a result of failing a data quality check should be noted. While having the ability to screen out participants who potentially provided a lower-quality response should be seen as a strength of the research, such a large exclusion rate does raise questions about data quality per se using online panels to assess stated preferences. A recommendation would be for researchers to collect additional data above their target sample size to account for potential poor quality data, and based on the current study, this figure may be as high as 30%.

To conclude, the study has developed an online survey of the UK general public to elicit their stated social preferences to examine how they interpret the "equal need" in "equal access for equal need", using access to CBT as an example, and employment status as an additional non-medical need. The study found that the three main preference categories were: inequality averse and symmetric (implying "equal access for equal medical need"), inequality averse and asymmetric in favour of the unemployed (implying "unequal access for unequal overall need"), and inequality seeking and asymmetric in favour of the

468 unemployed (consistent with “unequal access for unequal overall need”), with the first group being the
469 largest. The most preferred use of additional resources in our hypothetical scenarios was to spread it out
470 evenly across everybody waiting for CBT, than to reserve it for the unemployed.
471

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508

509 **TABLES AND FIGURES**

510 **Table 1: Demographic and background characteristics of the survey sample.**

	Full sample (n=1000)		Valid sample (n=662)		Categorised*, 6-week frame (n=502)		Categorised*, 18-week frame (n=507)	
Variable	n	%	n	%	n	%	n	%
Gender	1000	100	662	100	502	100	507	100
Male	500	50	334	50.5	261	52.0	255	50.3
Female	500	50	328	49.5	241	48.0	252	49.7
Age	1000	100	662	100	502	100	507	100
Aged 18-35	327	32.7	190	28.7	154	30.7	156	30.8
Aged 36-55	364	36.4	232	35.0	158	31.5	166	32.7
Aged ≥ 56	309	30.9	240	36.3	190	37.8	186	36.5
Employment status	1000	100	662	100	502	100	507	100
Employed	622	62.2	390	58.9	278	55.4	287	56.6
Student/training	37	3.7	24	3.6	22	4.4	21	4.1
Unemployed (job-seeking)	55	5.5	33	5.0	30	6.0	30	5.9
Unemployed (disability/sickness)	58	5.8	34	5.1	23	4.6	28	5.5
Retired	186	18.6	147	22.2	121	24.1	116	22.9
Not in the labour market	42	4.2	34	5.1	28	5.6	25	4.9
Ever job-seeking	603	60.3	418	63.1	323	64.3	322	63.5
Friends/family ever job-seeking	742	74.2	501	75.7	380	75.7	383	75.5
Ever diagnosed with a mental health problem	239	23.9	168	25.4	131	26.1	129	25.4
Friends/family ever diagnosed with a mental health problem	417	41.7	296	44.7	225	44.8	219	43.2
Life satisfaction [1-7 Likert, 7=completely satisfied]								
1 Life satisfaction (6, 7)	416	41.6	279	42.2	213	42.4	211	41.6
2 Life satisfaction (5)	283	28.3	190	28.7	141	28.1	148	29.2
3 Life satisfaction (1, 2, 3, 4)	301	30.1	193	29.2	148	29.5	148	29.2
General health [1-5 Likert, 1=excellent]								
1 General health (1, 2)	463	46.3	292	44.1	217	43.2	221	43.6
2 General health (3)	317	31.7	215	32.4	163	32.5	165	32.5
3 General health (4, 5)	220	22	155	23.4	122	24.3	121	23.9
Attitude cluster 1000 (1)	255	25.5	201	30.4	162	32.3	159	31.4
Attitude cluster 1000 (2)	479	47.9	321	48.5	238	47.4	244	48.1
Attitude cluster 1000 (3)	266	26.6	140	21.1	102	20.3	104	20.5
Attitude cluster 662 (1)	-	-	432	65.3	315	62.7	325	64.1
Attitude cluster 662 (2)	-	-	230	34.7	187	37.3	182	35.9

511 *Note.* Subset of the valid sample providing observations that are able to be categorised for both inequality preferences and symmetry
512 preferences in a given frame. Attitudinal cluster 1000 uses the full sample. Attitudinal sample 662 uses the valid sample.

513 **Table 2. Attitudinal and background questions**

Variable	Full sample (*N*=1000) *M*	Full sample (*N*=1000) *SD*	Valid sample (*N*=662) *M*	Valid sample (*N*=662) *SD*
Time to complete (minutes)	10.47	8.94	11.23	9.43
Attitudinal questions [1-5] (1 = *strongly agree*)				
Anyone can experience long-term unemployment through no fault of their own	1.86	0.93	1.80	0.92
A mental health problem makes it difficult for someone to get a job	1.89	0.82	1.80	0.78
In my view, CBT does not work for common mental health problems	3.02	0.90	3.13	0.88
The long-term unemployed should do more to help themselves	2.44	1.01	2.46	1.01
Employers tend to discriminate against those with mental health difficulties	2.17	0.87	2.09	0.83
Mental health treatment should be prioritised based on clinical considerations only	2.36	0.95	2.36	0.96
The long-term unemployed need extra help from the government	2.31	1.02	2.25	1.00
Those in work and paying into the system should be given priority	2.90	1.14	3.02	1.16
Unemployment benefits in the UK are too high and discourage people from finding jobs	2.80	1.26	2.86	1.32
The government has a responsibility to help everyone find a job who wants one	2.04	0.97	1.95	0.94
Kessler Psychological Distress Scale (K6) [6-30]	23.19	6.10	23.73	5.82
Overall health [1-5] (1 = *excellent*)	2.75	1.06	2.79	1.04
Satisfaction [1-7] (1 = *not satisfied at all*)				
Health	4.99	1.45	4.99	1.43
Income	4.73	1.54	4.72	1.55
Job (0 = *n/a*; valid *n* = 658, 413)	4.90	1.41	4.90	1.39
Life overall	4.98	1.41	4.99	1.37
	n	%	*n*	%
Participant's motivations ("I answered the decision tasks")	899	89.9	561	84.7
(1) based on what would suit me best personally	321	35.7	152	27.1
(2) based on what I thought the government ought to do	500	55.6	373	66.5
(3) as quickly and with as little effort as possible	18	2	0	0.0
(1) and (2)	51	5.7	36	6.4
(1) and (3)	2	0.2	0	0.0
(2) and (3)	2	0.2	0	0.0
(1) and (2) and (3)	5	0.6	0	0.0

Device survey completed on	1000	100	662	100
Tablet	81	8.1	53	8.0
Laptop	544	54.4	363	54.8
PC	375	37.5	246	37.2

Note. Percentages for subcategories (indented) represent proportion of valid cases. Values in square brackets indicate potential scale range, when applicable. Probability estimates for Cohen's d taken from t-tests of group means, which assume equal variance.

Table 3: Observations distribution in the nine preference categories for the valid pooled sample

	Asymmetric in favour of the employed	Asymmetric in favour of the unemployed	Symmetric	Total
Inequality averse	54	327	393	774
Inequality neutral	0	0	17	17
Inequality seeking	13	204	1	218
Total	67	531	411	1,009

Note. This table shows the observations for the pooled data. A number of observations were not able to be classified for both symmetry and inequality, 160 observations in the 6-week frame and 155 observations in the 18-week frame.

Table 4: Multinomial logit results: valid pooled sample

Multinomial logit results valid sample	2 (obs=327)	3 (obs=54)	4 (obs=17)	8 (obs=204)	9 (obs=13)
Male	0.100	0.016	1.199†	0.214	0.145
Age	-0.086†	0.149†	0.082	-0.095†	0.296
Age^2	0.001*	-0.001	-0.001	0.001†	-0.003
Student	-0.254	-0.292	-14.612***	-0.408	1.088
Jobseeking	0.972*	-14.393***	0.886	1.556**	2.076*
Sick or disabled	0.945†	0.706	2.031*	0.607	-13.576***
Retired	-0.437	0.061	-1.516	-0.462	0.049
Not in labour force	0.294	0.656	1.527†	0.103	-14.990***
Ever job-seeking	0.131	0.677†	0.253	0.453†	-0.259
Friends/family ever job-seeking	-0.086	-0.115	0.468	-0.073	0.798
Ever diagnosed with mental illness	-0.167	0.225	-0.171	-0.479	-1.125
Friends/family ever diagnosed with mental illness	-0.148	0.116	-0.452	-0.430†	-0.056
2 Life satisfaction	0.373	-0.670	-1.312	-0.084	-1.830
3 Life satisfaction	0.617*	0.268	0.669	0.176	0.487
2 General health	-0.042	-0.198	0.593	0.224	0.569
3 General health	-0.689*	-0.790†	-0.367	-0.349	-0.565
Attitude cluster 2 dummy	0.140	-0.759*	-1.840*	0.173	-0.521
18-week frame dummy	0.093	0.116	-0.432	0.063	1.208†
_cons	1.312	-5.580**	-5.626*	1.073	-10.703*
Observations = 1008, individuals = 570					

Category 1: (baseline, obs = 393) Inequality averse and symmetric; **Category 2**: Inequality averse and asymmetric in favour of the unemployed; **Category 3**: Inequality averse and asymmetric in favour of the employed; **Category 4**: Inequality neutral and symmetric; **Category 8**: Inequality seeking and asymmetric in favour of the unemployed; **Category 9**: Inequality seeking and asymmetric in favour of the employed; **Categories 5 & 6** omitted as no observations, **Category 7** omitted as only 1 observation.
$^{\dagger}p < .10$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

Figure 1(a) Symmetric contours **(b) Asymmetric contours**

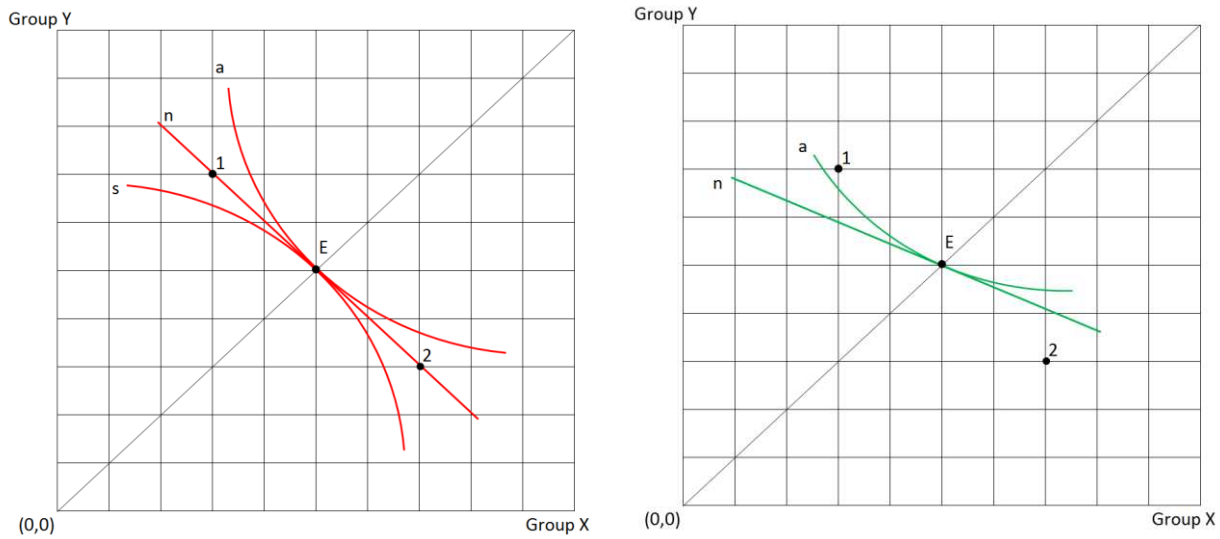


Figure 2: Example used to illustrate the task

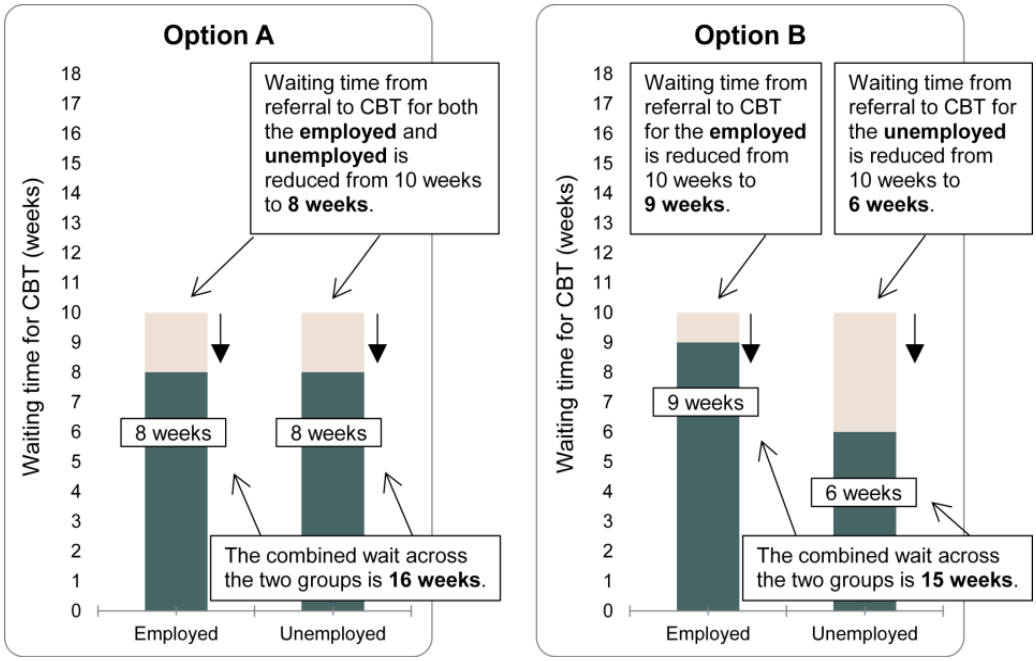


Figure 3: Overview of the online decision task

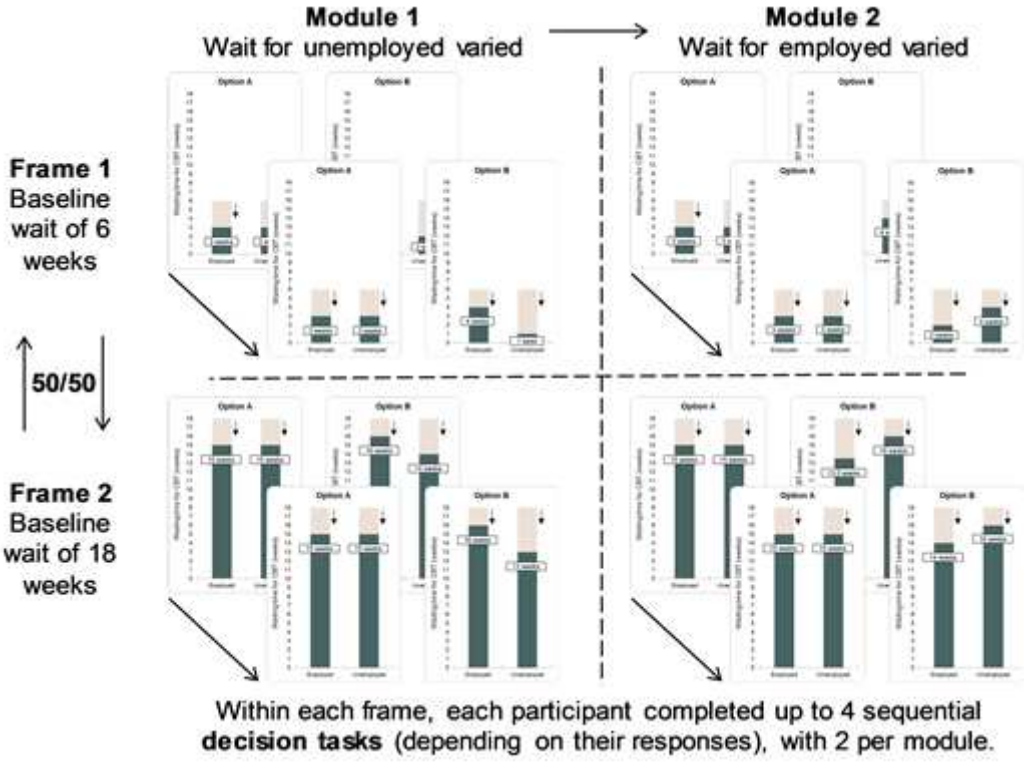
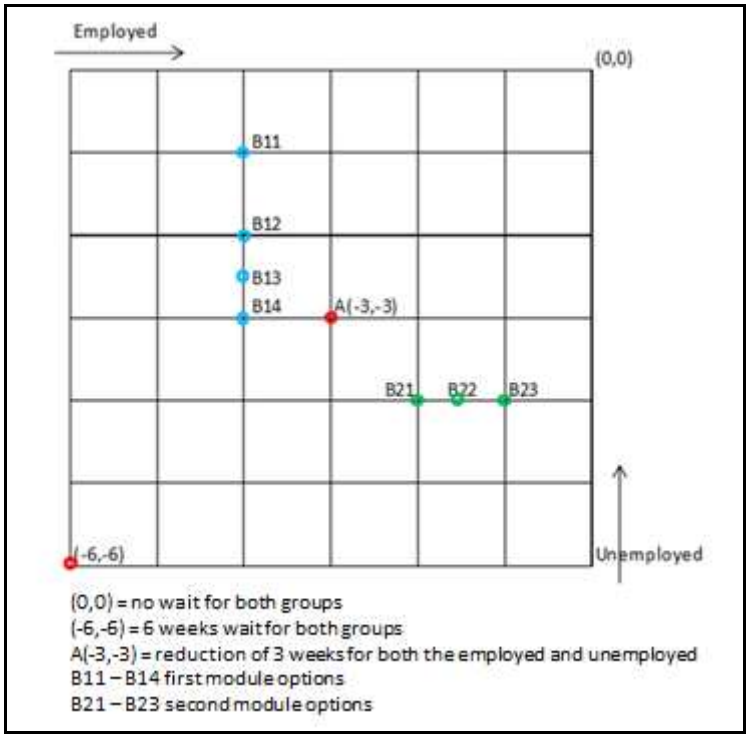


Figure 4: The options in the 6-week frame: number of weeks to wait



ONLINE SUPPLEMENT

ONLINE FILE A: SUPPLEMENTAL TABLES

Supplemental Table 1: The catch task

	n (%) chose			time (secs)		
Decision task	Option A	Neither	Option B	Median	*M*	*SD*
Full sample (*N* = 899 of 1000)						
6-week catch question						
A (3, 3) | B (2, 2)	68 (15.1)	94 (20.9)	288 (64.0)	8.14	11.74	27.86
18-week catch question						
A (15, 15) | B (14, 14)	65 (14.5)	94 (20.9)	290 (64.6)	7.63	11.66	22.81
Valid sample (*N* = 662)						
6-week catch question						
A (3, 3) | B (2, 2)	0 (0.0)	0 (0.0)	279 (100.0)	9.43	12.85	25.51
18-week catch question						
A (15, 15) | B (14, 14)	0 (0.0)	0 (0.0)	282 (100.0)	9.52	14.15	33.84

Note. Numbers in parentheses in left-hand column represent number of weeks' wait in that task for the employed and unemployed, respectively. Percentages represent proportion of valid cases.

560 **Supplemental Table 2: Preference distributions in the main decision tasks**

	Full sample (*N*=1000)		Valid sample (*N*=662)		Excluded (*N*=338)	
Preference group	*n*	%	*n*	%	*n*	%
Asymmetric in favour of the employed	201	10.1	167	12.6	34	5
Asymmetric in favour of the unemployed	153	7.7	140	10.6	13	1.9
Inequality averse						
and asymmetric in favour of the employed	88	4.4	54	4.1	34	5
and asymmetric in favour of the unemployed	368	18.4	263	19.9	105	15.5
and **possibly symmetric**	**596**	**29.8**	**392**	**29.6**	**204**	**30.2**
and symmetric	9	0.5	1	0.1	8	1.2
and asymmetric in favour of the unemployed, and violates monotonicity	27	1.4	9	0.7	18	2.7
and locally maximin, and asymmetric in favour of the unemployed	219	11.0	55	4.2	164	24.3
Inequality neutral & symmetric	27	1.4	17	1.3	10	1.5
Inequality seeking	12	0.6	8	0.6	4	0.6
and asymmetric in favour of the employed	22	1.1	13	1.0	9	1.3
and asymmetric in favour of the unemployed	86	4.3	67	5.1	19	2.8
and possibly symmetric	1	0.1	1	0.1	0	0
and asymmetric in favour of the unemployed, and violates monotonicity	191	9.6	137	10.3	54	8.0

561 *Note*. In this table preference groupings across the 6- and 18-week frames have been combined, so totals sum to N*2, and
562 percentages are absolute values / N*2. Percentages sum to greater than 100 due to rounding. Bolded category indicates modal
563 preference group.
564
565

Supplemental Table 3: Mean (*SD*) agreement to the attitudinal statements, as a function of cluster

Attitudinal questions [1-5] (1 = *strongly agree*)		*M* (*SD*) Cluster 1 (*n* = 432)	*M* (*SD*) Cluster 2 (*n* = 230)
1.	Anyone can experience long-term unemployment through no fault of their own.	2.14 (0.94)	1.16 (0.37)
2.	A mental health problem makes it difficult for someone to get a job.	2.08 (0.76)	1.27 (0.48)
3.	In my view, CBT does not work for common mental health problems.	3.05 (0.79)	3.28 (0.99)
4.	The long-term unemployed should do more to help themselves.	2.19 (0.87)	2.97 (1.05)
5.	Employers tend to discriminate against those with mental health difficulties.	2.34 (0.83)	1.63 (0.60)
6.	Mental health treatment should be prioritised based on clinical considerations only.	2.44 (0.91)	2.20 (1.04)
7.	The long-term unemployed need extra help from the government.	2.57 (0.95)	1.65 (0.80)
8.	Those in work and paying into the system should be given priority.	2.63 (1.05)	3.77 (1.00)
9.	Unemployment benefits in the UK are too high and discourage people from finding jobs.	2.32 (1.05)	3.87 (1.16)
10.	The government has a responsibility to help everyone find a job who wants one.	2.20 (0.96)	1.47 (0.70)

Note. N=662 from the valid sample.

Supplemental Table 4: Comparison of sample age and gender distributions to UK ONS 2017 projections

	ONS 2017 projection	Valid sample (n=662)	Full sample (n=1000)	ONS vs. valid sample	ONS vs. full sample
Gender					
Male	32595110 (49.3%)	334 (50.5%)	500 (50.0%)	$\chi^2(1) = 1390.8$ $p < .001$	$\chi^2(1) = 0.14$ $p = .703$
Female	33456386 (50.7%)	328 (49.5%)	500 (50.0%)		
Age					
18-35	15621995 (30.0%)	190 (28.7%)	327 (32.7%)	$\chi^2(2) = 0.68$ $p = .712$	$\chi^2(2) = 12.35$ $p = .002$
36-55	17596286 (33.8%)	232 (35.0%)	364 (36.4%)		
56+	18876744 (36.2%)	240 (36.3%)	309 (30.9%)		

Note. Yates' continuity correction applied to chi square test for 2*2 tables. ONS = UK Office for National Statistics. Data at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/z1zippedpopulationprojectionsdatafilesuk.

ONLINE FILE B: ADDITIONAL ANALYSIS USING THE FULL SAMPLE

The analyses were repeated for the full sample. Observations were pooled across frames, allocated to the nine categories, and the multinomial logit model was applied. The only difference from the valid sample model was that there were three attitudinal categories for the full sample.

Across the two frames, a total of 1634 observations from the full sample were classified into one of the nine preference categories (see Supplemental Table 5). A number of observations were not able to be classified for both symmetry and inequality. These totalled 189 observations in the 6-week frame and 177 observations in the 18-week frame. The modal preference (by a small margin) is inequality averse and asymmetric in favour of the unemployed, followed closely by inequality averse and symmetric. The same three combinations have zero or one observation only, and therefore dropped from the regression analysis. The results of the multinomial logit model is reported in Supplemental Table 6. Job-seeking remains the most significant factor explaining the divergence from the baseline (inequality averse and symmetric).

Supplemental Table 5: Observations distribution in the nine preference categories for full sample

	Asymmetric in favour of the employed	Asymmetric in favour of the unemployed	Symmetric	Total
Inequality averse	88	614	605	1307
Inequality neutral	0	0	27	27
Inequality seeking	22	277	1	300
Total	110	891	633	1,634

Note. This table shows the observations for the pooled data. A number of observations were not able to be classified for both symmetry and inequality, 189 observations in the 6-week frame and 177 observations in the 18-week frame.

Supplemental Table 6: Multinomial logit results for full pooled sample

Multinomial logit results full sample	2 (obs=614)	3 (obs=88)	4 (obs=27)	8 (obs=277)	9 (obs=22)
Male	0.173	0.017	0.694	0.131	0.541
Age	-0.077*	-0.016	-0.012	-0.095*	-0.168
Age^2	0.001*	0.000	0.000	0.001*	0.002
Student	0.159	-0.584	-13.599***	0.057	-0.317
Jobseeking	1.061**	-0.157	0.396	1.591***	1.946**
Sick or disabled	0.629†	0.468	1.598*	0.515	0.791
Retired	-0.441	-0.215	-1.369	-0.305	-1.288
Not in labour force	-0.018	0.648	1.471*	0.223	-13.919***
Ever job-seeking	0.131	0.448	0.049	0.462*	-0.242
Friends/family ever job-seeking	-0.015	-0.097	0.628	-0.282	0.436
Ever diagnosed with mental illness	-0.398*	-0.064	-0.818	-0.566*	-1.455
Friends/family ever diagnosed with mental illness	-0.229	-0.141	-0.121	-0.280	-0.178
2 Life satisfaction	0.215	-0.522	-0.690	-0.073	-1.691*
3 Life satisfaction	0.391†	0.310	0.313	-0.112	-0.229
2 General health	-0.022	-0.072	0.325	0.133	0.286
3 General health	-0.325	-0.722†	-0.132	-0.095	0.188
Attitude cluster 2	-0.053	0.637†	1.380	0.083	0.860
Attitude cluster 3	0.347	0.640†	2.251*	-0.320	0.766
18-week frame dummy	0.120	0.143	-0.212	0.057	0.416
_cons	1.349	-2.043	-5.175	1.227	-0.618
Observations = 1633, individuals = 896					

Category 1: (baseline, obs = 605) Inequality averse and symmetric; **Category 2**: Inequality averse and asymmetric in favour of the unemployed; **Category 3**: Inequality averse and asymmetric in favour of the employed; **Category 4**: Inequality neutral and symmetric; **Category 8**: Inequality seeking and asymmetric in favour of the unemployed; **Category 9**: Inequality seeking and asymmetric in favour of the employed; **Categories 5 & 6** omitted as no observations, **Category 7** omitted as only 1 observation.
†$p < .10$, * $p < .05$, ** $p < .01$, ***$p < .001$

ONLINE FILE C: SCREENSHOTS FROM THE ONLINE SURVEY

Thank you for agreeing to take part in this survey. Please take the time to read the following information carefully:

A lot of people experience unemployment at some point of their working lives through no fault of their own. Roughly half of the newly unemployed will find a new job within three months, but around 10% of people, for various reasons, experience **unemployment of 12 months or more**.

Long-term unemployment is known to have a **detrimental effect** on people's sense of wellbeing. It has knock-on effects on household finances and relationships, and the wellbeing of any children.

Having a **mental health problem** increases the chances somebody will become unemployed in the first place, and unemployment itself can lead to mental health difficulties, or make pre-existing mental health difficulties worse. Mental health difficulties can prolong unemployment further.

The government would like to give these people extra help, by providing access to **cognitive behavioural therapy (CBT)**. CBT is a popular psychological therapy that has been shown to be effective in treating common mental health problems. In the real world, this treatment is not necessarily suitable for all people with mental health difficulties, or for all people at risk of long-term unemployment.

In the following questions, you will see highly simplified **hypothetical scenarios**. We would like you to imagine that you are being consulted by the government on decisions to allocate extra funds for the provision of CBT. These funds cannot be used for anything else.

One policy option is to use the extra funds to help **all** working age adults currently on the NHS waiting list to receive CBT. These will include both the employed and unemployed. If you choose this option, then the waiting time for both the employed and unemployed will be shortened by the same amount, for example, from 10 weeks to 8 weeks.

Another policy option is to use these funds to **target** people who are unemployed and are facing a higher risk of long-term unemployment because of their mental health. If you choose this option, then the waiting time of the unemployed group will be shortened substantially, for example, from 10 weeks to 6 weeks. The employed group's waiting time will also be shortened (because now there are fewer people waiting), but by a lesser extent than in the first option, for example, from 10 weeks to 9 weeks.

Other combinations are also possible. We want you to consider the options of treating the employed and unemployed groups on the waiting list in the **same way**, or **targeting** people who are at risk of long-term unemployment, because you think they have higher needs. Or, you might think that people who are holding down jobs with mental health difficulties have even higher needs, so you may want to target those people, instead.

The questions are not about which policy might personally benefit you more – they are about what kind of public services you think the government ought to provide. **There are no right or wrong answers**, and we want to learn about your views.

In this survey you will be asked **two practice questions**, up to **nine main questions**, and then a series of **background demographics questions**.

The next page will provide an example and the first practice question.

In this survey, we want you to imagine that you are being consulted by the government on the choice between two policy options. The policy options will improve the provision of cognitive behavioural therapy (CBT) in the UK and reduce waiting times from referral to treatment. **Both options cost exactly the same.**

The '**employed** group' in this survey represents working age adults who are in-work, are not claiming any unemployment benefits, and have been diagnosed with a common mental health problem that is responsive to CBT.

The '**unemployed** group' in this survey represents working age adults who are not in-work, are claiming unemployment benefits, and have been diagnosed with a common mental health problem that is responsive to CBT. Due to their diagnosis they are identified as at-risk for long-term unemployment (of 12 months or more).

For this survey, please assume that the two groups are an **equal size**.

Without the policy, in this case everybody's waiting time for CBT is 10 weeks.

Consider two options:

In **Option A** both the employed and unemployed groups' waiting times for CBT are reduced from 10 weeks to 8 weeks. The combined wait across the two groups is 16 weeks.

In **Option B** the **employed** group's waiting time for CBT is reduced from 10 weeks to 9 weeks, and the **unemployed** group's waiting time is reduced from 10 weeks to 6 weeks. The combined wait across the two groups is 15 weeks.

This table will be displayed again at the top of the next page.

How much does each group benefit?

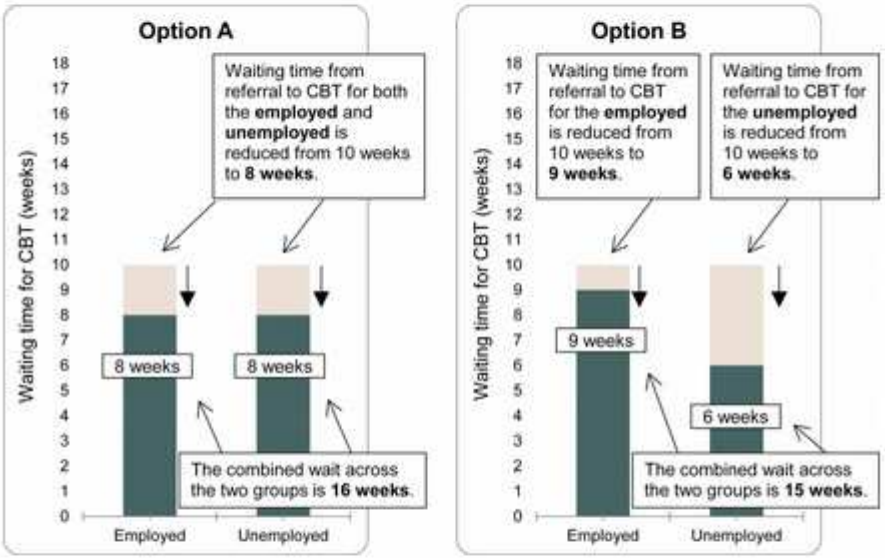
Policy option	Population group	Change in waiting times for CBT
Option A	Employed	Reduced from 10 weeks to 8 weeks
	Unemployed	Reduced from 10 weeks to 8 weeks
Option B	Employed	Reduced from 10 weeks to 9 weeks
	Unemployed	Reduced from 10 weeks to 6 weeks

We want you to choose between the two options.

When making your decision, it is important to remember the following:

- We cannot pay for both options – a choice must be made.
- "Equally good" means you don't mind which one is chosen.
- Both options cost exactly the same.
- The only difference between the two options is the change in CBT waiting times for the employed and unemployed groups.

Which option should the government choose?



Please indicate whether you prefer Option A or Option B, then, when you are ready, click on the button at the bottom right of the page to confirm your choice.

- Option A
- Option A and Option B are equally good
- Option B

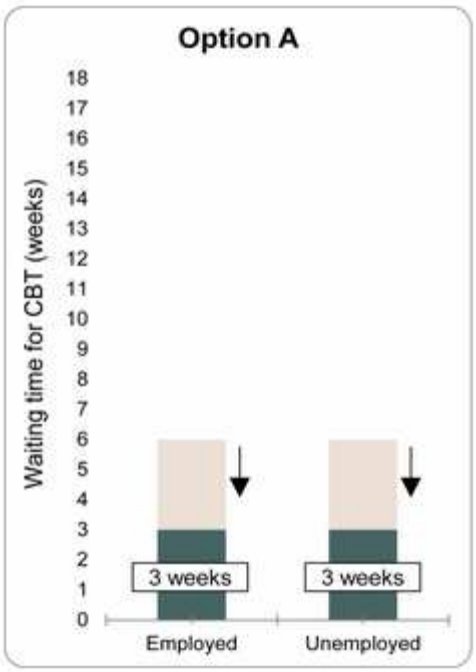
You have chosen **Option A**. In this option the waiting time for CBT for both **employed** and **unemployed** people will be reduced from **10 weeks to 8 weeks**.

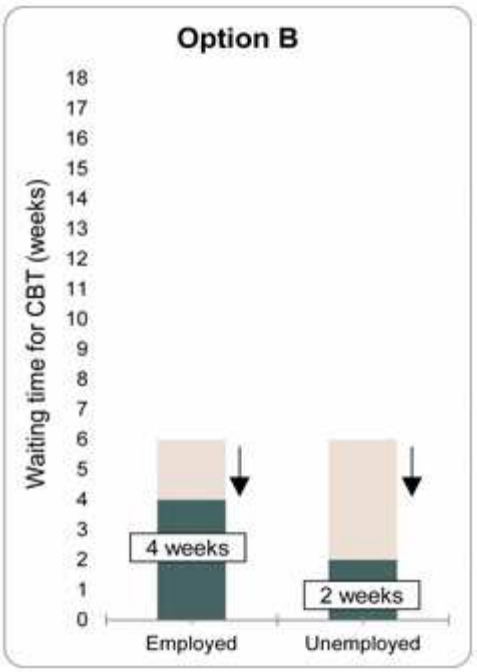
Confirm choice

614

Without the policy, in this case everybody's waiting time for CBT is 6 weeks.

The labels on the graphs below show the number of weeks wait for the employed and unemployed groups if that policy option (Option A or Option B) was chosen.





Please indicate whether you prefer Option A or Option B

Option A

Option A and Option B are equally good

Option B

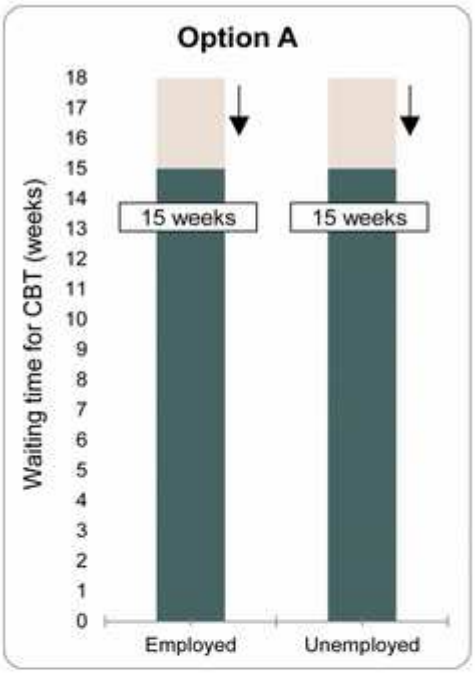
Confirm choice

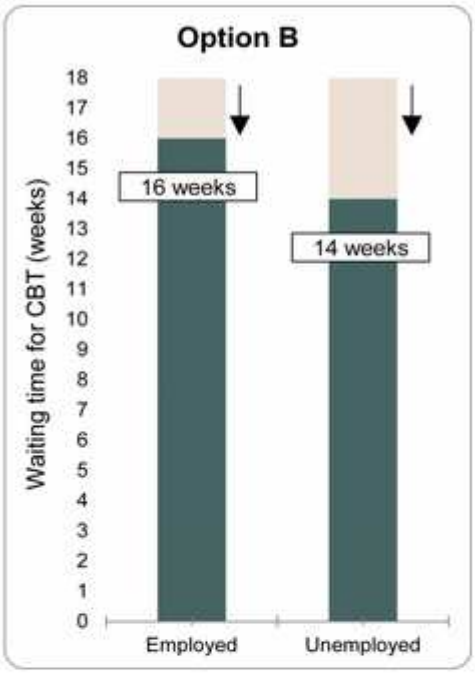
615
616

617

Without the policy, in this case everybody's waiting time for CBT is 18 weeks.

The labels on the graphs below show the number of weeks wait for the employed and unemployed groups if that policy option (Option A or Option B) was chosen.





Please indicate whether you prefer Option A or Option B

Option A

Option A and Option B are equally good

Option B

You have chosen **Option B**. In this option the waiting time for CBT for **employed** people will be reduced from **18 weeks to 16 weeks**. The waiting time for CBT for **unemployed** people will be reduced from **18 weeks to 14 weeks**.

These page timer metrics will not be displayed to the recipient.

First Click	0 seconds
Last Click	0 seconds
Page Submit	0 seconds
Click Count	0 clicks

Thank you. That is the end of the main questions.

Please now complete the following questions.

Please indicate how much you agree or disagree with the statements below, using the 5-point scale (Strongly agree to Strongly disagree).

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Anybody can experience long-term unemployment through no fault of their own.	○	○	○	○	○
A mental health problem makes it difficult for someone to get a job.	○	○	○	○	○
In my view, CBT does not work for common mental health problems.	○	○	○	○	○
Employers tend to discriminate against those with mental health difficulties.	○	○	○	○	○
Those in work and paying into the system should be given priority.	○	○	○	○	○
Mental health treatment should be prioritised based on clinical considerations only.	○	○	○	○	○
The long-term unemployed need extra help from the government.	○	○	○	○	○
Unemployment benefits in the UK are too high and discourage people from finding jobs.	○	○	○	○	○
The long-term unemployed should do more to help themselves.	○	○	○	○	○
The government has a responsibility to help everyone find a job who wants one.	○	○	○	○	○

Finally, please answer this question.

What you tell us here is important to our analysis - It will NOT affect your participation or incentive.

Which of the following statements describe how you made your decisions in the **main questions** (decision tasks)?

Please select all that apply:

- I answered the decision tasks based on what would suit me best personally.
- I answered the decision tasks based on what I thought the government ought to do.
- I answered the decision tasks as quickly and with as little effort as possible.