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Willingness-to-pay Against Dementia

Abstract

Objectives: Preferences of both Alzheimer patients and their spouse caregivers are related to a willingness-to-pay (WTP) measure which is used to test for the presence of mutual (rather than the conventional one-way) altruism.

Methods: Identical contingent valuation interviews were conducted in 2000 - 2002 for 126 Alzheimer patients and their caregiving spouses living in the Zurich metropolitan area (Switzerland). We elicit WTP three hypothetical treatments of the demented patient. The treatment *Stabilization* prevents the worsening of the disease, bringing dementia to a standstill. *Cure* restores patient health to its original level. In *No burden*, dementia takes its normal course while caregiver's burden is reduced to its level before the disease.

Results: Different characteristics of therapies are reflected in differences in WTP values. Accepting WTP values as expression of preferences, one finds that patients do not rank *Cure* higher than *No burden*; implying that their WTP is entirely altruistic. Caregiving spouses rank *Cure* before *Burden*, some 40 percent of their WTP reflecting an altruistic motive again.

Discussion: The evidence suggests that WTP values are reliable measures of subjective preferences even in Alzheimer patients. Using this indicator, it is found that only caregivers have extra WTP for *Cure*, implying that curing dementia has value exclusively to them.

Introduction

Dementia refers to a group of diseases characterized by progressive deterioration in cognitive function. The symptoms are memory loss, disorientation, and inappropriate social behavior. Alzheimer's disease is the most common type of dementia. Informal care (usually by the spouse) constitutes a major part of care provided to patients with dementia. It is a well-established fact that providing care for a person with dementia is stressful and demanding (Bédard et al. 2000; Whitlatch 1998). Therefore, dementia affects two persons: the patient and the caregiving relative.

Curing dementia has two main effects. First, it improves the health status of the patient. Second, it reduces caregiver's burden and time needed to take care for the patient (see Figure 1). Patients and caregivers are affected differently by these two effects. The first concerns directly the patients, whereas the second accrues to the caregiver. The basic hypothesis to be tested in this paper is that these differences translate into differences in economic valuation, measured as willingness-to-pay (WTP). If this hypothesis can be accepted, the proposition to be tested is that WTP values reflect mutual altruism; indeed, patients may care about caregiver's burden and caregivers may worry about the patient's well-being (for an economic formulation of altruism, see Arana and Leon 2002). If the patient should value the reduced burden of the caregiver (the indirect effect in Figure 1), this would reflect altruism. To the extent that the caregiver values the improved health status of the patient, this could be a component of WTP due to altruism on his or her part. The objectives of this study thus are twofold, finding out whether the effects of treating dementia translate into WTP, and using WTP for testing for the presence of altruism specifically of husbands and wives in the presence of a fatal disease.

*** Figure 1 ***

Contingent valuation is increasingly used in health care to measure the value of non-market goods (Diener, O'Brien & Gafni, 1998; Klose 1999; Olsen & Smith 2001). It is based on asking persons directly about the amount they are willing to pay to reduce the risk of death or improve the quality of life. Most contingent valuation studies have estimated the value of an improvement of individuals' own health. Only few studies have examined WTP to protect another person's health (Agee & Crocker 1996; Liu, Hammitt, Wang and Lin, 2000; Viscusi, Magat & Huber, 1987). All of them estimate parents' WTP for the health of their children. For example, Liu et al. (2000) show that a mother's WTP to prevent her child from suffering a cold is about twice as large as her WTP to prevent herself from suffering a cold of comparable duration and severity. By way of contrast, this study seeks to determine WTP of both the caregiver and the patient for both the patient's health and the reduction of caregiver's burden. We are not aware of another study that distinguishes these two components of WTP in both the patient and his or her caregiver.

Two recent publications have used contingent valuation to estimate WTP in the context of dementia (König & Wettstein 2002; Nocera, Bonato & Telser, 2002). Nocera et al. (2002) base their investigation on responses from the general population to find out whether three programs against Alzheimer's Disease should be implemented from a societal point of view. Using the same data as this study, König & Wettstein (2002) analyze only caregivers' WTP. They estimate the WTP of informal caregivers for a reduction of their burden and conclude that caregiver's disutility from this burden is considerable.

The remainder of the paper is organized as follows. The next section presents hypotheses with regard to the ranking of treatments and differences between WTP of patients and caregivers. This is followed by a description of survey method and data. The fourth presents the aggregate WTP estimates that permit tests of the two maintained hypotheses. In the final section of the paper, some concluding remarks are offered.

Methods

Hypotheses to be tested

We elicit WTP for three hypothetical treatments of the demented patient (for their description, see Exhibit). The first (*Stabilization*) prevents the worsening of the disease, bringing dementia to a standstill. The interviewer explicitly informs the interviewee that the treatment leads to no improvement in the health state of the patient. In the second case (*Cure*), caregivers and patients are asked about their WTP for a hypothetical treatment that restores health status to its original level. The time required for care and the burden of the caregiver are reduced to the level before the disease. In the third case (*No burden*), dementia takes its normal course while caregiver's burden is reduced to its level before the disease.

*** Exhibit here ***

In all three cases, the respondents were told that the hypothetical treatment was expensive but not covered by health insurance. Therefore, they would have to pay it out of their pocket. Outcomes were presented as being certain and due to treatment (rather than behavioral adjustment).

Assuming egoism on the part of both patients and caregivers, the following rankings of treatments can be hypothesized.

HTE (Ranking of treatments, given egoism):

Patients' WTP: *Cure > Stabilization > No burden*

Caregivers' WTP: *No burden = Cure > Stabilization*

The first ranking follows directly from the differences in health status. The second ranking derives from the fact that *No burden* and *Cure* offer the same relief to the caregiver. Both are in terms of WTP values, which presupposes that WTP constitutes a reliable measure of preferences.

Assumption: Assume that the WTP values do not differ in a general way between patients and caregivers (such that e.g. patients value all alternatives five times higher).

Then, the following hypotheses can additionally be derived from HTE.

HDE (Differences between patients and caregivers, given egoism):

Stabilization: WTP of patients > WTP of caregivers

Cure: WTP of patients > WTP of caregivers

No burden: WTP of patients < WTP of caregivers

These differences can be justified by noting that patients are more directly affected than caregivers by the treatment alternatives that improve their health status (see Figure 1), viz. *Stabilization* and *Cure*. In the case of *No burden*, however, there is no benefit to the patient at all.

These hypotheses may be contrasted to those that obtain if both patients and caregivers are so perfectly altruistic as to fully adopt the other's point of view. This means that patients display the HTE of caregivers, while caregivers display the HTE of patients.

HTA (Ranking of treatments, given altruism):

Patients' WTP: *No burden* = *Cure* > *Stabilization*

Caregivers' WTP: *Cure* > *Stabilization* > *No burden*

If again WTP values are of similar magnitude in general (if the Assumption stated above holds), the HDE ranking above can be reversed to yield,

HDA (Differences between patients and caregivers, given altruism):

Stabilization:	WTP of patients < WTP of caregivers
Cure:	WTP of patients < WTP of caregivers
No burden:	WTP of patients > WTP of caregivers

The differences between the HTE and HTA rankings and the HDE and HDA rankings, respectively, will be exploited below to test for the presence of altruism.

Survey and WTP questions

The data set used in this paper comes from a larger study on 'Effects of training relative caregivers of patients with dementia'. It includes only patients in the mild to moderate stage of the disease because the training offered to spouse caregivers is thought to be ineffective for patients in the severe stage. The WTP questions analyzed below were developed with survey specialists and gerontologists and added on to the existing questionnaire of the larger study. A pretest comprising a dozen couples with an Alzheimer spouse suggested a few minor adjustments of the questionnaire. Patients and caregivers are from the Zurich metropolitan area in Switzerland and were interviewed between September 2000 and August 2002. Since more than 90 percent of the caregivers are spouses, we restrict the present analysis to couples to make the sample more homogeneous. The sample thus contains 126 pairs of patients with dementia and their spouse caregivers.

The WTP information comes from face-to-face interviews with patients and their caregivers. There is now wide agreement in the literature that face-to-face interviewing is the preferred method for obtaining reliable answers to WTP questions (Mitchell & Carson

1989, Ch. 5; Olsen & Smith 2001). In the present study, it had the benefit of keeping the difficulty of understanding low. Caregivers and their demented relatives were interviewed separately by a study nurse and a physician at the same time. They had to state their WTP independently of each other without any possibility of contact. Caregivers and patients answered the same questions, involving identical treatments and offered bids. A randomization of bids to prevent sequencing effects was not performed because the possible biases would be similar in the two groups; they should therefore be of limited relevance when the objective is to compare the WTP values of patients and caregivers.

The questions about WTP were put in two different ways. First, a payment card format was used, with prices of 5000, 10,000, 20,000, 50,000, 100,000, 150,000, 200,000, and 500,000 Swiss francs (CHF; 1 CHF = 0.7 US$ at 2003 exchange rates) for every hypothetical treatment. The lower limit of the interval is given by the amount where the respondent still answers with “yes” and the upper limit by the amount where he or she switches to "rather yes", "not sure", "rather no" or “no”. WTP values are simply equaled to interval midpoints. For example, a respondent saying “yes” at the amount of CHF 10,000 and switching to one of the other categories at CHF 20,000 is assigned a WTP of CHF 15,000. Respondents not willing to pay the lowest offered bid of CHF 5,000 are assigned a WTP of zero. While this biases aggregate WTP values towards zero, the bias occurs in both the patient and the caregiver group, with limited effect on the differences between then, the statistic of primary interest. Individuals answering “yes” at the highest proposed amount (CHF 500,000) were asked to specify the maximum amount they were willing to pay for the treatment. The second way to obtain WTP information was to ask respondents to directly state the maximum percentage of their wealth they were willing to give up to buy the hypothetical treatment. This order of the two approaches was chosen because several studies had shown that direct WTP questions create more non-responses and protest (Klose, 1999).

An alternative format would have been the “take-it-or-leave-it” approach. This is a very popular elicitation technique in contingent valuation surveys because it mimics a market transaction, where people are accustomed to deciding whether or not to buy a good at a specific fixed price. However, this alternative has an important drawback. It is inefficient in that more observations are needed for the same level of statistical precision because only a discrete indicator of maximum WTP is obtained rather than the actual maximum WTP amount (Mitchell and Carson 1989, Ch. 4). This loss of efficiency weighs heavily in view of the small number of respondents in this study.

On the other hand, the payment card format is vulnerable to range bias. This bias is to be expected if respondents consider the range of presented amounts as reflecting researcher’s knowledge about WTP values, causing them to use it as a frame of reference in answering the WTP question (Mitchell & Carson 1989, Ch. 11). Because of the smallness of the sample, it was not possible to control for range bias by confronting groups of subjects with different price ranges.

However, for the analysis of differences between the WTP of caregivers and patients, a potential range bias is not a major problem. Caregivers and patients receive the same bids. Thus, potential range bias in the direction of the offered bids would favor the null hypothesis of no difference between the WTP of caregivers and patients.

As noted above, respondents were also asked to state their WTP as a maximum percentage of wealth. This is the preferred measure because stated WTP for hypothetical treatment could be very high. However, WTP is likely to be influenced by ability to pay, which is limited by wealth. In accordance with Chiu et al. (1998), we conclude that in the context of high WTP values, the percentage of wealth appears to be a more meaningful measure than the absolute amount of money. This second WTP question was open-ended, so caregivers and patients directly stated the share of wealth they were willing to sacrifice. Therefore, these answers can be used to estimate WTP without any modification.

Data

Only 36 percent of patients are female. This low percentage results from the fact that only patients living at home and cared for by relatives were included in the study. The age of patients ranges from 52 to 91, with a mean of 75 years. The youngest caregiver is 42 and the oldest, 90 years old, with mean age at 71 years. On average, patients are thus 4 years older than their caregivers. 31 percent of patients have a Clinical Dementia Rating (CDR) score higher than 6. The CDR is a measure of care recipients' impairment (Hughes, Berg & Danzinger, 1982), has scores from 0 to 18, and is widely used in studies to gauge dementia progression.

Household wealth ranges from zero to CHF 10 million. Mean and median wealth are CHF 614,000 (US$ 430,000) and CHF 300,000 (US$ 210,000), respectively, indicating considerable skewness in the distribution of wealth. Out of the 95 caregivers, 17 percent are employed full-time or part-time. The employment status of the caregiver influences his or her opportunity cost of caregiving.

Results

Only couples that both answered the WTP questions are included in the analysis. Therefore, there is a one-to-one relationship between patients and caregivers.

Mean and Median WTP

Panel A of Table 1 shows results for mean and median WTP, measured as a share of wealth. To just prevent future worsening (*Stabilization*), patients are willing to sacrifice an average of 14 percent of their wealth, to be completely cured (*Cure*) an average of 22 percent, and to get relief for caregivers (*No burden*), 22 percent. The corresponding values for caregivers amount to 24 percent for *Stabilization*, 31 percent for *Cure*, and 18 percent for *No Burden*, respectively. Differences between the three treatments therefore are reflected in differences in WTP values, which therefore may mirror preferences in both groups.

In the payment card format, patients are willing to pay CHF 11,500 (US$ 8,100) for *Stabilization*, CHF 31,000 (US$ 21,700) for *Cure*, and CHF 33,100 (US$ 23,200) for *No burden*, respectively (panel B). The mean values for caregivers are much higher, viz. CHF 104,000 (US$ 72,800) for *Stabilization*, CHF 175,600 (US$ 123,000) for *Cure*, and CHF 52,900 (US$ 37,000) for *No burden*. Median values are lower throughout, pointing to considerable skewness in the distribution of WTP scores. In fact, the mean for caregivers is strongly influenced by one respondent who was willing to pay CHF 4 mn. (US$ 2.8 mn.) for *Stabilization* or *Cure*. On the whole, WTP values seem to be associated with differences in treatment that are relevant for preferences, justifying the use of WTP measures in the tests that follow.

Also, the Assumption stated in the Methods section need not be rejected, at least with regard to WTP expressed as a share of wealth. In panel A of Table 1, WTP values of caregivers are not consistently higher than those of patients across the three treatments (and only insignificantly so in panel B, according to median values and Wilcoxon test statistics). Therefore, deriving the hypotheses concerning differences between patients and caregivers (HDE, HDA) from differences in the ranking of treatments (HTE, HTA) can be justified.

Ranking of Treatment Alternatives

For WTP as a share of wealth (see panel A of Table 1, horizontal comparison), we use t tests to determine whether the differences between the three treatments are significant. Patient WTP for *Stabilization* is significantly lower than for both *Cure* (t = 3.9) and *No burden* (t = 3.1), while there is no statistical difference between *Cure* and *No burden* (t = 0.1). Caregivers also value *Stabilization* significantly less than *Cure*. Contrary to patients, however, they put a higher value on *Stabilization* than on *No burden* (t = 3.3).

As the distribution of the WTP in money amounts is skewed, we use the Wilcoxon signed rank test to evaluate the differences between the median values of the three treatments (see panel B of Table 1). The results are very similar to the results based on the share of wealth. The only difference is that for caregivers, median WTP for *Stabilization* and WTP for *No burden* are not statistically different.

Predicted and observed rankings are juxtaposed in Table 2. With regard to the three treatments (panel A), patients rank them as predicted by HTA, suggesting full altruism. In particular, patients do not exhibit WTP for *Cure* in excess of *No burden*. Therefore, patient's WTP consists of the indirect component only (see Figure 1 again). As to caregivers, the observed ranking again conforms to HTA rather than HTE, pointing to altruism. Specifically, caregivers do have a WTP for *Cure* in excess of *No burden*. This difference amounts to WTP for improving patient's health – the indirect component again. Their total WTP for *Cure* consists of about 60 percent for the reduction of their own burden (17.5/30.7 in panel A of Table 1) and 40 percent for improving their partner's health ((30.7 – 17.5)/30.7). Taken together, the results for patients and caregivers can be summarized in the provocative conclusion that curing dementia is only for the caregiver.

Differences Between Patients' and Caregivers' WTP

According to panel A of Table 1 (vertical comparison), WTP as a share of wealth is significantly lower among patients than caregivers for both *Stabilization* ($t = 3.2$) and *Cure* ($t = 2.5$). However, there is no significant difference between patients and caregivers for *No Burden* ($t = 1.2$). In money amounts, the median WTP of patients is significantly lower than that of caregivers for all three treatments (panel B). Since the share of wealth is the preferred indicator, the first ranking is entered as "observed" in panel B of Table 2. With one (insignificant) exception, HDA is confirmed and HDE contradicted, in accordance with perfect altruism on the part of both patients and caregivers.

One possible explanation for the lower observed WTP of patients could be that they have a higher rate of protest zeroes. Indeed, patients and caregivers differ in their number of zero responses. Among patients, a full 30 percent do not want to pay the minimum proposed amount of CHF 5,000 for *Cure*, possibly reflecting protest zeroes. Among caregivers, there are only three refusals. Refusals are more frequent for the two other, less valued alternatives, as one would expect of true zeroes. To control for the influence of protest zeroes, we excluded all couples with zero values. This amounts to assuming that all zeroes are protest zeroes and favors the null hypothesis that there is no difference between patients and caregivers. However, this exclusion does not affect the observed rankings of Table 2 and hence the evidence in favor of mutual altruism.

Discussion

In this study, 126 pairs of Alzheimer patients and their spouse caregivers stated their willingness-to-pay (WTP) for three hypothetical treatments of dementia. A first major result is that measured WTP may reflect preferences for these treatments both of caregivers and patients, in spite of cognitive impairment due to Alzheimer among the latter. For, differences in the characteristics of the proposed treatments clearly go along with differences in WTP values. A possible objection to this first conclusion is that the WTP values obtained especially for *Cure* are too low, amounting to less than one third of wealth on average (see Table 1, panel A). As dementia is a fatal disease, should respondents not be willing to spend their entire wealth for curing it?

Of course, the estimation presented may fall short of true values, but there are several good reasons for the true values to remain below wealth, in keeping with economic theory (Jones-Lee et al. 1985; Thaler and Rosen 1975). First, most patients are old. Therefore, curing dementia only means prolonging life for a few years. Second, because of age and other diseases, quality of life during these additional years may be low. Third, all participants in this study have a spouse, who on average is four years younger. Spending money on treatment thus means reducing the material welfare of a spouse who has less resources available per period to begin with. Fourth, most of the patients and caregivers are retired, usually without the possibility to relax the wealth constraint by earning additional income. During the face-to-face interviews, respondents mentioned these points when searching for their maximum WTP.

The second main finding is that the structure of the WTP values obtained points to mutual altruism. From the literature (e.g. Liu et al., 2000), unilateral altruism on the part of the (parent) caregiver in favor of the child is an established fact. However, this study suggests the existence of altruism also on the part of patients. First, their ranking of the three treatments is predicted by the altruism hypothesis HTA while contradicting the egoism alternative HTE (see Table 2 again). Specifically, patients put *No burden* first; they worry more about the burden of their spouse caregivers than their own health. Second, compared to their caregivers, they value the treatments again as predicted by the altruism hypothesis HDA rather than HDE. In particular, they are willing to pay the same amount as their caregiving spouses for the *No burden* alternative but less for the *Cure* and *Stabilization* options, which clearly would be in their self-interest.

Caregivers' altruism is documented by both rankings as well. They put the *Cure* alternative first and *No burden* last, although the two are equivalent in terms of their own situation; this is in accordance with HTA in Table 2. In addition, the fact that they are not willing to pay more than their spouse patients for the *No burden* therapy (HDA) points in the same direction.

Of course, hypothetical treatments being associated with hypothetical payments, there is always scope for inflating stated WTP. This tendency must be expected in particular when the alternative considered (helping a patient or a caregiver) is socially accepted ("yea-saying", "warm glow", see e.g. Blamey et. al., 1999). One can justifiably doubt that either partner of the couple would in fact sacrifice one third (or even more) of his or her fortune to have Alzheimer cured. Such an effect may indeed inflate patients' WTP sufficiently to exceed that of caregivers in the case of *No burden*, creating spurious evidence in favor of altruism. However, it is far from clear that the same effect should result in the equivalence element in the ranking *No burden* = *Cure* > *Stabilization* predicted by altruism (HTA in panel A of Table 2). On the whole, it seems difficult to explain the full set of observed rankings with reference to bias in WTP estimation.

Conclusions

Alzheimer patients constitute a group in society that importantly depends on informal care. Altruism is a likely motive to provide such care and has been established in parent-child relationships. In the context of Alzheimer disease, however, both patient and spouse caregiver are in similar (advanced) age. Their altruism might therefore be mutual, although the patient cannot express it easily through his or her activity.

An experiment with 126 Alzheimer patients and their caregiving spouses living in the Zurich (Switzerland) metropolitan area was conducted in 2000 – 2002 to throw light on this issue by confronting them with three hypothetical therapies, *Stabilization*, *Cure*, and *No burden* (for caregivers). The objectives were to find out whether preferences are reflected in the economic concept of willingness-to-pay (WTP) and to test whether the rankings of WTP values obtained conform to full altruism, in the sense that the patient adopts the preferences of the caregiver and vice versa.

The WTP values derived from the experiment consistently reflect differences in the characteristics of the three treatments, suggesting that they do mirror preferences. Also, these WTP values exhibit rankings that conform to the altruism hypothesis but contradict the egoism hypothesis both for patients and caregivers. First, patients rate *No burden* and *Cure* as equivalent (although *No burden* would not improve their health), while caregivers have maximum WTP for *Cure* (although this would not benefit them as much as *No burden*). Second, caregivers and patients are prepared to pay the same amount for *No burden*, whereas caregivers value *Cure* (in the interest of their spouse patients) higher than patients themselves. The startling implication is that curing Alzheimer disease would benefit caregivers rather than patients.

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Figure 1. Direct and indirect effects of curing dementia

Effects of treatment	**Patient's WTP**	**Caregiver's WTP**
Improved health status of the patient	Direct effect	Indirect effect
Reduction of caregiver's burden	Indirect effect	Direct effect

Table 1. Willingness-to-pay in percentage and money amounts of wealth

		Stabilization	Test[a]	*Cure*	Test[a]	*No burden*	Test[a]
A. Share of wealth (%):							
Mean	Patients	13.8	3.9**	21.6	0.1	21.9	3.1**
	Test[a]	3.2**		2.5**		1.2	
	Caregivers	23.9	4.4**	30.7	5.9**	17.5	3.3**
Median	Patients	10.0		10.0		10.0	
	Caregivers	10.0		20.0		10.0	
SD	Patients	2.1		2.8		2.9	
(Mean)	Caregivers	2.7		3.0		2.1	
Number of observations		96		95		94	
B. Money amount (CHF):							
Mean	Patients	11,500		31,000		33,100	
	Caregivers	104,000	7.1**	175,600	6.6**	52,900	1.5
Median	Patients	0	6.1**	7,500	0.1	7,500	4.9**
	Test[a]	6.7**		6.2**		2.9**	
	Caregivers	15,000		35,000		15,000	
SD	Patients	2,700		7,300		8,900	
(Mean)	Caregivers	39,400		42,100		10,000	
Number of observations		104		103		101	

a) *t* statistics (absolute values) for mean shares of wealth; Wilcoxon statistics for median money amounts; *: $p < 0.05$, **: $p < 0.01$.

b) Comparing *No burden* to *Stabilization*

Table 2. Predicted and actual rankings

	Hyp.	Predicted	Observed (from Table 1)
A. Treatments			
WTP of patients	HTE	*Cure > Stabilization > No burden*	*No burden = Cure > Stabilization*
	HTA	*No burden = Cure > Stabilization*	
WTP of Caregivers	HTE	*No burden = Cure > Stabilization*	*Cure > Stabilization > No burden*
	HTA	*Cure > Stabilization > No burden*	
B. Differences, patients. vs. caregivers			
WTP for *Stabilization*	HDE	Patients > Caregivers	
	HDA	Patients < Caregivers	Patients < Caregivers
WTP for *Cure*	HDE	Patients > Caregivers	
	HDA	Patients < Caregivers	Patients < Caregivers
WTP for *No burden*	HDE	Patients < Caregivers	
	HDA	Patients > Caregivers	Patients = Caregivers

Exhibit: Elements of the Questionnaire

Stabilization: Imagine that further cognitive impairment of your spouse could be prevented using a very expensive treatment that is not covered by health insurance. Thus there would be no further deterioration -- but no improvement either!

Cure: Imagine that the cognitive impairment of your spouse could be reverted using a very expensive treatment that is not covered by health insurance, resulting in the situation that obtained before the onset of the illness.

No burden: Imagine that there are ways not covered by health insurance to reduce your burden caused by the cognitive impairment of your spouse (which might become even more marked in the future), resulting in a burden as is usual between healthy partners.

All treatments: Would you want to opt for this treatment if you had to pay the following amounts just once ? Please consider that you will have that much less to spend for other purposes! *Bids offered*: 5000, 10,000, 20,000, 50,000, 100,000, 150,000, 200,000, and 500,000 Swiss francs. *Answers offered*: yes, rather yes, not sure, rather no, no.

All treatments: What percentage of your wealth would you be willing to pay for such a treatment?

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