

THE IMPORTANCE OF PERSPECTIVE WHEN ELICITING PREFERENCES FOR HEALTH

— A STUDY OF THE WILLINGNESS TO PAY FOR HEPATITIS C TREATMENT



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Executive Summary

Background: The second generation antiviral therapy for individuals with hepatitis C (HCV) has been found to be a cost-effective treatment, but would result in a high budget impact. The Swedish national government made an agreement with the regions to help funding the new treatment, implying a societal perspective where it is relevant to search for the consumer value of treatment. The aim of this study is to estimate the value of HCV treatment by performing a willingness to pay (WTP) study from different perspectives.

Methods: The study is performed as a web-based survey of a sample from the Swedish general population (n=513), using the contingent valuation (CV) approach. A framework of perspectives was applied with respect to whom to pay for; her-or himself only (personal perspective), others only (social perspective), both her- or himself and others.

Results: The personal perspective resulted in the highest WTP estimates while the lowest WTP estimates was found for the social perspective. The WTP per HCV treatment varied between SEK 0.2 million and SEK 38 million. The WTP estimates were similar between the ex post perspective and ex ante perspective. Respondents believing that others would pay less than themselves had a higher WTP in all scenarios except the scenario with the social perspective.

Conclusion: This study shows that the value appears to be higher and more valid when individuals are asked to pay for themselves. This value may be driven by a will to secure access to the treatment when others are willing to pay less.

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Foreword

The issue of perspective continues to be an important area for health economic studies and debates. Should the analysis be based on the health care perspective, assuming the aim is simply to maximize health from a fixed health care budget, or on a societal perspective, assuming the aim is to maximize welfare from a flexible societal budget? When the second generation hepatitis C treatment was introduced, the government provided extra funding to cover the increase in cost for pharmaceuticals. This implies a more flexible budget, motivating the search for the change in welfare, i.e., the willingness-to-pay (WTP). The Swedish Institute for Health Economics (IHE) has performed a study of the WTP for hepatitis C treatment from different perspectives. IHE wants to thank all survey respondents for taking their time to respond to the questionnaire.

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Lund, July 2022

Peter Lindgren
Managing Director, IHE

1. Background

Hepatitis C (HCV) is caused by a virus, primarily transmitted through blood, and the infection is most prevalent among intravenous drug abusers. Most individuals with HCV develop a chronic infection that slowly progresses and can lead to liver failure and liver cancer. HCV is divided into different severity levels depending on the level of fibrosis progression in the liver tissue (F0-F4) (1). In 2011, the first generation of antiviral therapy was introduced, increasing the healing rate from around 50-60% to around 65-75% for one genotype of the virus when used in combination with interferon. The second generation of antiviral therapy was introduced in 2014-2015 and has been shown to result in a healing rate of over 90% (2).

When the second generation antiviral therapies for treatment of Hepatitis C (HCV) was introduced in Sweden, they were found to be cost-effective for all levels of fibrosis progression (1). Providing this treatment to all individuals living with the disease would however result in high upfront costs, given a short-term treatment and a high prevalence. The cost was approximately €100,000 per patient, at the time of introduction, leading to a potential aggregated cost of up to €4.5 billion. This almost correspond to the entire annual budget for pharmaceuticals in Sweden and raised concern that other health care would be crowded out given a fixed health care budget. A budget impact problem was raised. Reimbursement was therefore restricted to a subgroup of patients with higher levels of fibrosis progression (F3-F4) (1). However, this restriction was not considered to be enough to cover the additional drug costs within the current health care budget. To enable equal access to the second generation of antiviral therapies in Sweden, the national government made an agreement with the local regions (who are responsible for funding of health care) to help funding the new treatment (3). This resulted in an increase in the budget for health care taken from the consumption of other goods and services within the Swedish society.

When having a health care perspective (or a fixed budget), increasing spending will crowd out health care for other patients and it is relevant to look at the opportunity cost of treatment. However, in this case, extra government funding (or a flexible budget) will crowd out spending on other things and it is instead relevant to look at the consumer value of treatment, i.e. the willingness to pay (WTP) (4). People's preferences should play some part in the decision-making process. Therefore, health economists have in various ways elicited stated preferences that could inform priority setting.

The consumer value of treatment can be estimated from different perspectives. Dolan et al. 2003 (5) have developed a conceptual framework of different perspectives used when estimating preferences for health. First, there is the question of who you pay for? It could be for yourself (*personal perspective*). This answers the question of what value do you attach to treatment being available

should you need it? Another perspective is that of others (*social perspective*). This answers the question of what value do you attach to treatment being available to others should they need it? The third perspective include both yourself and others (*socially inclusive personal perspective*). The question to answer is what value do you attach to treatment being available to a group of people amongst whom might be find yourself?

In addition to these questions, there is the question of when you pay? It could be when you/others are at risk of becoming infected (ex-ante) or after you/others have been infected (ex-post). Dolan et al. 2003 conclude that the perspective taken is likely to have an effect on the result of the study and that there is a lack of research in this area (5).

The available research shows that the value of treatment varies depending on the perspective used. The *socially inclusive personal perspective* has usually been found to produce lower estimates compared to the *personal perspective* (6, 7), and the ex-post perspective has usually been found to produce lower estimates compared to the ex-ante perspective (8, 9).

However, the perspective varies simultaneously with the payment vehicle in these studies. Tax is used as the payment vehicle for the *socially inclusive personal perspective*, while insurance (ex-ante) or out-of-pocket payment (ex-post) is used as the payment vehicle for the *personal perspective*. This makes it difficult to separate out the variation in preferences that is due to variation in perspective. Gyrd-Hansen et al. 2016 showed that the WTP in the *socially inclusive personal perspective* was lower when using a uniform tax (everyone pays the same amount) compared to when using an individual tax (everyone pays their own amount). The main reason for this difference was that individuals wrongfully expected that others would pay less than themselves and therefore stated a lower amount in order not to force other (low-income) individuals to have to pay a similar amount (pure negative altruism) (10).

The aim of this study is to estimate the value of HCV treatment by performing a WTP study from the six different perspectives presented in the conceptual framework by Dolan et al. This is to our knowledge the first study applying all these perspectives in the same study. In contrast to previous studies, we aim at keeping the payment vehicle constant in order to avoid possible payment vehicle bias. We also study the existence of a risk elimination premium.

2. Methods

2.1 Study design

This study estimated the WTP for getting access to a more effective HCV-treatment using the Contingent Valuation (CV) approach. Methods used are based on the guidelines in Bateman et al. 2002 (11) and generally consistent with the most recent guidelines for stated preference studies in Johnston et al. 2017 (12). The study was based on a web-based survey to a randomly stratified sample from the Swedish general population and applies the conceptual framework of perspectives developed by Dolan et al 2003 (5) to empirically investigate the effect of the different perspectives regarding who to pay for and when to pay.

The sample was split into two groups that received separate versions of the questionnaire. The two versions were similar except that respondents receiving version one were asked to think of their WTP ex-ante, i.e. the WTP for a treatment when you are at risk of becoming HCV-infected. Respondents receiving version two were instead asked to state their WTP ex-post, i.e., the WTP for a treatment when you assume that you (and/or others) are HCV-infected.

Within each questionnaire, the respondents were asked to state their WTP in scenarios varying with respect to whom to pay for; i) both her- or himself and other people (*socially inclusive personal perspective*), ii) other people only (*social perspective*), and iii) her- or himself only (*personal perspective*). (Table 1)

To investigate if peoples' WTP differed depending on the size of the treatment effect (i.e., a test of scale sensitivity), half of the respondents in each sub-sample were asked to state their WTP for a treatment increasing the healing rate from 65% to 95% (version A) and half the respondents were asked to state their WTP for increasing the healing rate from 65% to 90% (version B). A scenario of risk elimination, i.e., WTP for increasing the healing rate from 65% to 100%, was also included to examine if this would have an impact on preferences.

Table 1. Different perspectives and scenarios included in the survey

Scenario	Questionnaire 'Ex post' ^a		Questionnaire 'Ex ante' ^b	
	Version A	Version B	Version A	Version B
	<i>Risk elimination*</i>	<i>Risk elimination*</i>	<i>Risk elimination*</i>	<i>Risk elimination*</i>
1: Socially inclusive personal	Assume you are HCV infected. What would you pay for treatment for yourself and others?	Assume you are HCV infected. What would you pay for treatment for yourself and others?	What would you pay for treatment being available to a group of people including yourself and others if needed?	What would you pay for treatment being available to a group of people including yourself and others if needed?
	<i>Risk reduction 30%**</i>	<i>Risk reduction 25%***</i>	<i>Risk reduction 30%**</i>	<i>Risk reduction 25%***</i>
2: Socially inclusive personal	Assume you are HCV infected. What would you pay for treatment for yourself and others?	Assume you are HCV infected. What would you pay for treatment for yourself and others?	What would you pay for treatment being available to a group of people including yourself and others if needed?	What would you pay for treatment being available to a group of people including yourself and others if needed?
3: Social	Assume you are HCV infected. What would you pay for treatment for others?	Assume you are HCV infected. What would you pay for treatment for others?	What would you pay for treatment being available to others if needed?	What would you pay for treatment being available to others if needed?
4: Personal	Assume you are HCV infected. What would you pay for treatment for yourself?	Assume you are HCV infected. What would you pay for treatment for yourself?	What would you pay for treatment being available if you should need it?	What would you pay for treatment being available if you should need it?

^aPayment vehicle = Annual general financial contribution for scenario 1-3. Out-of-pocket or annual repayments for 20 years for scenario 4.

^bPayment vehicle = Annual insurance premium for scenario 1-4.

*from 65% to 100% effect, **from 65% to 95% effect, ***from 65% to 90% effect

HCV = Hepatitis C

2.2 Questionnaire

The questionnaire, originally in Swedish, included background questions (e.g. sex, age, education, income) and questions about the respondents' risk perception. This included a test question designed to test respondents' understanding of the concept of risk, adapted from (13), where the respondent was asked which out of two persons had the highest mortality risk. The questionnaire also included information about HCV (including pie charts to illustrate the average risk and causes of HCV) and questions about the person's perception of HCV (including a question to estimate their own risk for HCV in terms of number per 100,000 in the next ten years).

In the main part of the questionnaire, the respondent was first introduced to the concept of WTP followed by questions about the persons' WTP for access to a more effective HCV-treatment from different perspectives. The WTP scenarios started by presenting the incidence of HCV in the ex-post version or the risk of HCV in the ex-ante version. The respondents' own estimated risk was presented in the ex-ante scenarios in addition to the average risk. Next, the outcome with and without the more effective treatment were presented in terms of the share of patients being cured. The share was displayed using 100 smileys, whereof X coloured pink to illustrate treatment success and 1-X coloured grey to illustrate treatment failure (see illustration of scenario 1 in Appendix 1). To simplify the task, the respondents were asked to assume that all patients with treatment failure would develop liver disease and die within 20 years based on the time it takes to develop liver cirrhosis (14).

A card-sorting procedure (11, 15) was applied to elicit respondents' WTP in the first scenario (WTP for eliminating risk, *socially inclusive personal perspective*). The respondents were presented to different amounts (SEK 10, 100, 2000 and 6000/year) with one amount at a time in a mixed order. For each amount, the respondent answered if he/she was willing to pay, not willing to pay or if he/she was unsure. Respondents were then presented with their implied WTP interval, i.e., between the highest amount they would pay and the lowest amount they would not pay and asked to state their WTP using an open-ended question (a 'bounded' open-ended WTP question). This amount was interpreted as the WTP of the respondent. Only open-ended questions were used to elicit WTP for the remaining three scenarios. The answer from previous scenarios were displayed above the open-ended question to make it possible for the respondent to compare their new answer to previous answers. The respondent was also asked to rate how certain he/she was that he/she would pay the stated amount on a scale from 1 (very uncertain) to 10 (very certain) (16).

A general financial contribution was applied as payment vehicle for the *social* and *socially inclusive personal perspective* in the ex-post version. The respondent was told that all Swedish adult citizens were asked to contribute once a year. For the *personal perspective* ex post, the payment vehicle applied was a lumpsum payment out-of-pocket or a loan with annual repayments over 20 years. In the ex-ante version, the payment vehicle was an annual insurance premium for all perspectives.

In the first WTP scenario, respondents were reminded of their budget constraint and asked to answer as if they would have to pay for real.

After having responded to all WTP scenarios, the respondent was asked a number of debriefing questions to gain insight into their considerations and thought processes when reporting WTP.

A translated English version of the questionnaire is included as Appendix 1.

2.3 Data collection

Data was collected using web-based questionnaires which were distributed to members of an internet panel. The panel, provided by Norstat, is recruited from a randomized sample of the Swedish general population by telephone and contains in total 67,000 persons. A stratified sample (based on age, sex and geography) of 2,044 persons was selected from the panel as to represent the Swedish adult general population (18 years and older). The web-based questionnaire was piloted in May 2018 and the main data collection was conducted between June 18th and July 28th 2018.

2.4 Analysis

The main analysis of WTP excluded protesters, defined as responders who were not prepared to pay in any of the scenarios because they think the government should pay (n=2 ex-ante A, n=2 ex-ante B, n=1 ex-post A, n=3 ex-post B), and outliers, defined as respondents who responded that they would pay SEK 1,000,000 per year (n=1 ex-ante B scenario 4, n=1 ex-post B scenario 1 and 4). This is standard procedure to limit the impact of extreme responses on the mean results (11). The threshold for certainty (that the amount would be paid) was set at 7 or above on a scale from 0 to 10, which has been supported by previous research (17). WTP is expressed in Swedish krona (SEK), 2018 prices (SEK1=€0.097, 2018-11-14).

The mean WTP for HCV-treatment (WTP_T) was calculated by dividing the mean WTP by the mean risk for an HCV-infection in the ex-ante scenarios. The risk for others was assumed to correspond to the risk of the general population at the time of the survey (20 per 100,000 per year (18)) and the risk for oneself was assumed to correspond to the respondents' subjective risk estimation. The WTP per treatment in the scenarios with a *socially inclusive personal perspective* was divided by the weighted average of the mean risk for an HCV-infection for oneself (r_{self}) and others (r_{others}) (Eq.1). The weight placed on the risk for oneself (w_{self}) was calculated as the ratio between the treatment cost for oneself and the treatment cost for oneself and others (Eq. 2).

$$WTP_T = \frac{WTP \text{ per year}}{(w_{self} \times r_{self} + (1 - w_{self}) \times r_{others})} \quad (Eq. 1)$$

$$w_{self} = \frac{WTP_{T, \text{personal}}}{(WTP_{T, \text{social}} + WTP_{T, \text{personal}})} \quad (Eq. 2)$$

For the ex-post perspective, the WTP per treatment was calculated by multiplying the WTP by the number of adults in the Swedish general population (8 million (19)) and dividing it by 2000 HCV treatments per year based on the incidence in Sweden at the time of the survey (Eq. 3). For the ex post *personal perspective*, the WTP per year was simply multiplied by 20 years, which was the stated period of payment for respondents choosing an interest-free loan. No discounting was applied as respondents could also choose to pay the amount as a lump sum.

$$WTP \text{ per treatment}_{ex \text{ post}} = \frac{(WTP \text{ per year} \times 8 \text{ million adults})}{2000 \text{ HCV treatments per year}} \quad (Eq. 3)$$

A Wilcoxon signed-rank test was used to test for significant differences within groups and a Mann–Whitney U test was used to test for significant differences between groups.

An OLS regression was performed using the logarithm of WTP for each scenario as the dependent variable and background variables, risk perception variables, HCV perception variables, and WTP perception variables as explanatory variables. The household income was transformed to a continuous variable using the midpoint in each interval from the pre-defined response alternatives. Next, the household income was divided by the household members weighted for consumption units (20).

3. Results

3.1 Sample

The questionnaire was sent to a sample of 2,044 persons. Out of the 513 respondents (25%) who completed the survey, 46 percent were women, the average age was 52 years, 56 percent had started a university education and the mean household income was SEK 46,700 per month. Except for estimated own risk of HCV infection, which was significantly higher in the B-versions of the questionnaire, no differences between groups responding to different versions of the questionnaire were observed (Table 2).

Table 2. Background characteristics of the respondents divided on type of version of web-questionnaire (n=513)

	Ex Ante A (n=125)	Ex Ante B (n=128)	Ex Post A (n=127)	Ex Post B (n=133)
Women, %	36	51	48	50
Mean age (SD)	55 (17)	51 (17)	53 (17)	50 (16)
University education (started), %	52	57	54	60
Employed, %	54	56	57	59
Household income, SEK/month (SD)	48 400 (20 559)	47 110 (22 030)	46 287 (21 571)	45 000 (21 096)
One or more children in household, %	20	24	28	25
More than 1 adult in household, %	77	77	69	67
Current or previous diagnosis of HCV, %	0	2	0	2
Other experience of HCV, %	9	9	12	8
Current health state, 0-100 (SD)	78.6 (17.2)	75.3 (18.1)	76.8 (17.3)	74.9 (22.4)
Health state in 10 years, 0-100 (SD)	72.1 (21.2)	69.4 (22.0)	71.3 (21.6)	71.7 (21.5)
Hypothetical VAS, 0-100 (SD)				
- chronic HCV infection in <i>early</i> state	56.8 (21.2)	58.3 (20.1)	56.0 (23.1)	56.2 (23.0)
- chronic HCV infection in <i>late</i> state ^a	28.6 (22.6)	29.8 (21.1)	26.1 (20.3)	27.1 (21.3)

	Ex Ante A (n=125)	Ex Ante B (n=128)	Ex Post A (n=127)	Ex Post B (n=133)
Estimated own risk of HCV infection coming 10 years compared to others, 1-7, 1=much lower, 7=much higher (SD)	1.9 (1.2)	2.0 (1.4)	1.8 (1.1)	2.1 (1.1)
Estimated own risk of HCV infection per 100,000 in 10 years	38 (112)	44 (113) ^b	34 (104)	48 (89) ^b
Anxiety of HCV, 1-7, 1=not at all anxious 7=very anxious (SD)	1.3 (0.7)	1.7 (1.4)	1.4 (0.9)	1.8 (1.2)
Extent to which I think I can affect my own risk of HCV, 1-7, 1=very low, 7=very high (SD)	5.2 (2.2)	5.0 (2.3)	5.3 (2.1)	5.2 (2.0)
Wrong answer to question on understanding of the concept of risk %^c	12	8	9	13

^asuch as liver cirrhosis and liver cancer

^bExcluded outliers with a subjective risk of 20 000 and 30 000 in Ex Ante B and 5000 in Ex Post B to make subgroups comparable.

^cThe respondent was asked which out of person 1 (5 out of 100) and 2 (10 out of 100) had the highest mortality risk.

HCV = Hepatitis C, SD = Standard deviation.

3.2 WTP

The rate of zero response was higher in the scenario where respondents were asked to pay for others only (*social perspective*), Figure 1. Consistent with expectations, the rate of zero response was also higher in the questionnaire versions with a lower treatment effect (version B). The share of respondents categorized as certain (7 or above on a scale from 0 to 10) was higher when respondents were asked to pay for her- or himself only (*personal perspective*), Figure 2. This share was also higher in the questionnaires with ex-post scenarios.

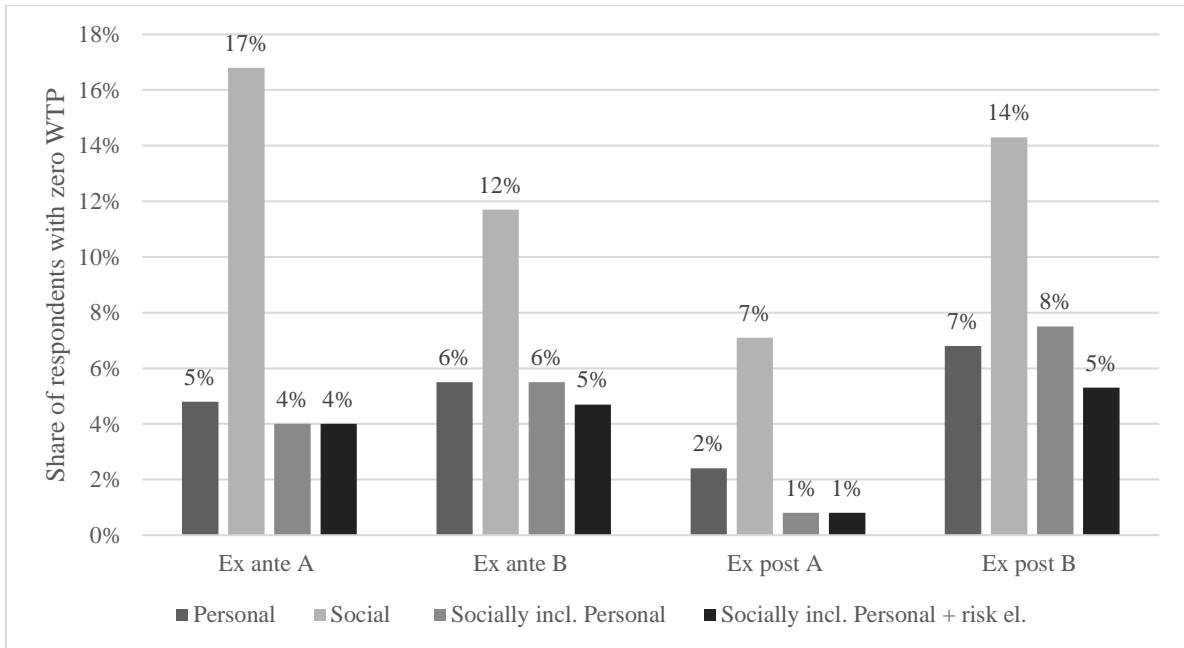


Figure 1. Share of respondents with zero WTP (A: risk reduction 30%, B: risk reduction 25%)

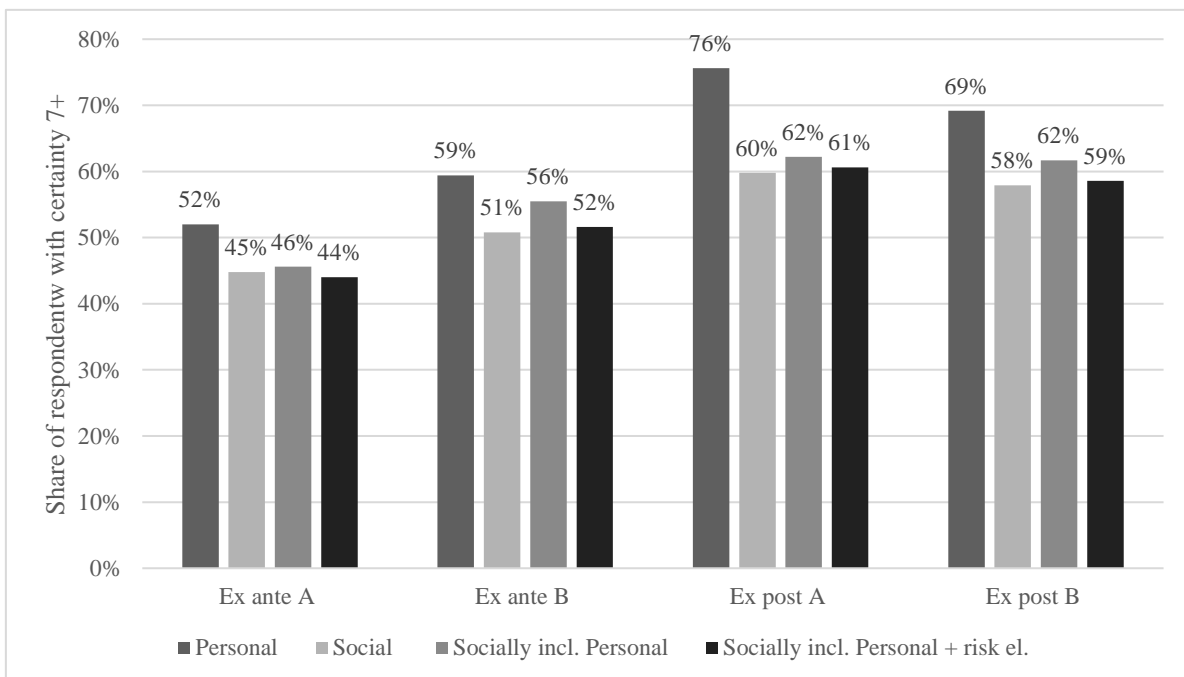


Figure 2. Share of respondents rating certainty that they would pay at 7 or above on a scale from 0 to 10 (A: risk reduction 30%, B: risk reduction 25%)

The WTP per year varied significantly with respect to whom you pay for (Table 3). Payment for her- or himself only (*personal perspective*) resulted in the highest WTP estimates while the lowest WTP estimates was found for payment for other people only (*social perspective*). The ex-post perspective generated a higher WTP per year compared to the ex-ante perspective, with the largest difference found for the personal perspective and lowest difference for the social perspective (not significant in

the B version of the questionnaire). The WTP was in general lower for the smaller risk reduction (version B), but none of the differences were significant. Eliminating risk (scenario 1) resulted in a significantly higher WTP.

Table 3. Mean WTP per year in SEK (Std.Dev.), median

SAMPLE	SCENARIO							
	(1) Personal	(2) Social	p (1=2)	(3) Socially incl. personal	p (1=3)	p (2=3)	(4) Socially incl. personal risk el.	p (3=4)
(1) Ex ante A	1542 (2975), 400	730 (1490), 150	0.0000	1247 (2131), 400	0.0000	0.0000	1391 (2330), 500	0.0014
(2) Ex ante B	1317 (2112), 500	708 (1330), 200	0.0000	1197 (1940), 500	0.0000	0.0000	1285 (2084), 500	0.0019
p (1=2)	0.4051	0.5404		0.6072			0.9311	
(3) Ex Post A	9432 (22391), 1000	1094 (2033), 300	0.0000	4205 (10742), 600	0.0000	0.0000	4477 (10836), 800	0.0073
p (1=3)	0.0001	0.0260		0.0018			0.0000	
(4) Ex Post B	7719 (22485), 1200	1738 (4935), 355	0.0000	3920 (10394), 500	0.0000	0.0000	4593 (11224), 600	0.0027
p (3=4)	0.6602	0.9757		0.4660			0.7252	
p (2=4)	0.0011	0.1413		0.0546			0.0158	

Test for difference using Wilcoxon signed-rank test or Mann-Whitney U test.

Respondents who assumed others would pay more than themselves had a lower WTP than the mean WTP and respondents who assumed others would pay less than themselves had a higher WTP than the mean WTP. The variation in WTP with respect to the assumption about what others would pay was larger in the ‘ex-post’ scenarios and in the scenarios where the respondent paid for her- or himself (Appendix 1).

The WTP per HCV treatment varied between MSEK0.2 and MSEK41 (Table 4). Compared to the WTP per year, the difference between the ex-post *personal perspective* and the ex-ante *personal perspective* was reversed and pronounced. The reason is that the treatment cost ex-post is paid individually out-of-pocket, while the treatment cost ex-ante is paid through an insurance premium. For the other perspectives, differences between the ex-post perspective and the ex-ante perspective

for the WTP per HCV treatment were reduced compared to the WTP per year. For the social perspective there was almost no difference in the WTP per treatment between the ex-post and ex ante perspective. For the socially inclusive personal perspective, the WTP per treatment was slightly higher in the ex-ante perspective. The WTP for eliminating risk was around 7-17% higher than the WTP for reducing risk.

Table 4. Mean WTP per treatment in million SEK (Std.Dev.), median

SAMPLE	SCENARIO							
	(1) Personal	(2) Social	<i>p</i> (1=2)	(3) Social incl. personal	<i>p</i> (1=3)	<i>p</i> (2=3)	(4) Social incl. personal risk el.	<i>p</i> (3=4)
(1) Ex ante A	40.6 (78.3), 10.5	3.6 (7.4), 0.8	0.0000	21.7 (37.1), 7.0	0.0000	0.0000	24.2 (40.6), 8.7	0.0013
(2) Ex ante B	29.9 (48.0), 11.4	3.5 (6.7), 1.0	0.0000	19.3 (31.2), 8.1	0.0000	0.0000	20.7 (33.6), 8.1	0.0019
<i>p</i> (1=2)	0.8838	0.5404		0.8637			0.5239	
(3) Ex Post A (3)	0.2 (0.5), 0.02	4.4 (8.1), 1.2	0.0000	16.8 (43.3), 2.4	0.0000	0.0000	17.9 (43.3), 3.2	0.0073
<i>p</i> (1=3)	0.0000	0.3062		0.0098			0.0038	
(4) Ex Post B	0.2 (0.4), 0.02)	7.0 (19.7), 1.4	0.0000	15.7 (41.6), 2.0	0.0000	0.0000	18.4 (44.9), 2.4	0.0027
<i>p</i> (3=4)	0.6602	0.9757		0.4660			0.7252	
<i>p</i> (2=4)	0.0000	0.6108		0.0004			0.0009	

Test for difference using Wilcoxon signed-rank test or Mann-Whitney U test.

The background characteristics of the respondents and the risk perception did not have an impact on the WTP (Table 5). Income was not significantly associated with WTP. However, with the exception of the scenario with the social perspective, the income coefficient was highly significant ($p < 0.001$) for all scenarios when excluding variables related to belief about what others would pay and limiting the analysis to a more “reliable” subsample of respondents, i.e., respondents who indicated a correct understanding of risk and who considered their own budget constraint (Appendix 1). It is a common assumption that there may be a less “reliable” subsample of respondents that does not understand or takes the questions seriously (11, 12). Experience of HCV was associated with a higher WTP in three out of four scenarios. Other HCV perception variables had no relation to WTP. For all scenarios

except the scenario with the *social perspective*, respondents considering the effect size of the treatment or their ability to pay for the intervention had a higher WTP compared to respondents that did not take these factors into consideration. For the scenario with the *social perspective*, WTP was higher among respondents considering additional factors not included in the scenario description or respondents believing that the study had an impact on decision-makers. Respondents who believed that others would pay more than themselves had a lower WTP in all scenarios ($p < 0.1$). Respondents who believed that others would pay less than themselves had a higher WTP in all scenarios except the scenario with the *social perspective*.

Table 5. Regression of \ln (WTP per year)

VARIABLES	Scenario 1: Socially incl. personal, risk elimination	Scenario 2: Socially incl. personal, risk reduction	Scenario 3: Social	Scenario 4: Personal
Background				
$\ln(\text{age})$	-0.246 (0.372)	-0.321 (0.393)	0.379 (0.482)	-0.518 (0.440)
$\ln(\text{age}-\text{mean age})^2$	0.0481 (0.0601)	0.00103 (0.0635)	0.0437 (0.0779)	-0.0774 (0.0711)
Female=1	-0.172 (0.209)	-0.0506 (0.221)	-0.128 (0.271)	-0.243 (0.248)
University education=1	0.124 (0.207)	0.0163 (0.219)	-0.366 (0.269)	0.204 (0.246)
Employed=1	-0.0120 (0.261)	0.0569 (0.276)	-0.179 (0.338)	-0.114 (0.309)
\ln (household income per consumption unit)	0.145 (0.262)	0.250 (0.277)	-0.0431 (0.340)	0.328 (0.312)
VARIABLES	Scenario 1: Socially incl. personal, risk elimination	Scenario 2: Socially incl. personal, risk reduction	Scenario 3: Social	Scenario 4: Personal
Risk perception				
No bicycle helmet=1	0.0109 (0.208)	-0.115 (0.220)	-0.136 (0.269)	0.0747 (0.246)
No bus belt=1	-0.366 (0.246)	-0.235 (0.260)	-0.219 (0.320)	-0.410 (0.292)
Smoke=1	0.138 (0.348)	0.000131 (0.368)	-0.205 (0.452)	-0.129 (0.412)

Risktaking in general (1-10)	-0.0562 (0.0711)	0.00834 (0.0752)	-0.0349 (0.0923)	-0.0534 (0.0845)
Risktaking driving car (1-10)	0.0173 (0.0394)	-0.000386 (0.0417)	0.0446 (0.0512)	0.0126 (0.0468)
Risktaking health (1-10)	-0.0252 (0.0651)	-0.0521 (0.0688)	-0.118 (0.0844)	-0.0844 (0.0771)
Risktaking sport (1-10)	-0.0662 (0.0645)	-0.114* (0.0683)	-0.0510 (0.0838)	-0.0116 (0.0767)
Wrong answer risk=1	-0.168 (0.313)	-0.316 (0.331)	0.154 (0.406)	-0.329 (0.371)

VARIABLES	Scenario 1: Socially incl. personal, risk elimination	Scenario 2: Socially incl. personal, risk reduction	Scenario 3: Social	Scenario 4: Personal
HCV perception				
Experience of HCV=1	0.718** (0.323)	0.543 (0.342)	0.820* (0.419)	0.654* (0.383)
ln (Own current health VAS 1-100)	-0.169 (0.345)	-0.0899 (0.364)	-0.553 (0.447)	-0.160 (0.408)
ln (Own future health VAS 1-100)	0.156 (0.256)	0.162 (0.271)	0.617* (0.332)	0.226 (0.303)
ln (HCV no symptoms VAS 1-100)	-0.191 (0.202)	-0.152 (0.214)	0.430 (0.263)	0.176 (0.240)
ln (HCV symptoms VAS 1-100)	0.0504 (0.121)	0.0309 (0.128)	-0.0402 (0.157)	-0.0338 (0.143)
Own risk for HCV (1-7)	0.0378 (0.102)	-0.0103 (0.107)	0.0205 (0.132)	0.0132 (0.120)
ln (own risk for HCV per 100,000 in 10 years)	-0.0112 (0.0609)	-0.0225 (0.0643)	0.0564 (0.0790)	0.0104 (0.0721)
Worry of HCV (1-7)	0.0125 (0.106)	0.0456 (0.112)	0.0908 (0.137)	-0.00671 (0.125)
Control HCV risk (1-7)	0.0555 (0.0458)	0.0274 (0.0484)	0.0240 (0.0594)	0.0352 (0.0542)

VARIABLES	Scenario 1: Socially incl. personal, risk elimination	Scenario 2: Socially incl. personal, risk reduction	Scenario 3: Social	Scenario 4: Personal
WTP scenario perception				
Consider effect of treatment=1	0.830*** (0.230)	0.852*** (0.244)	0.241 (0.299)	1.001*** (0.273)
Consider other factors=1	0.140 (0.298)	-0.157 (0.316)	0.924** (0.387)	0.350 (0.354)
Consider can afford=1	1.026*** (0.296)	0.912*** (0.313)	0.471 (0.384)	0.915*** (0.350)
Believe others pay more	-0.491* (0.251)	-0.494* (0.265)	-0.573* (0.326)	-0.530* (0.297)
Believe others pay less	0.927*** (0.235)	0.866*** (0.248)	0.111 (0.304)	0.897*** (0.279)
More than 50% die of HCV=1	0.229 (0.200)	0.227 (0.212)	0.363 (0.260)	0.363 (0.238)
Study has impact on decision maker=1	0.305 (0.196)	0.402* (0.207)	0.594** (0.254)	0.307 (0.232)
Ex ante B vs Ex ante A (ref)	-0.176 (0.276)	-0.129 (0.292)	0.166 (0.358)	0.00258 (0.327)
Ex post A vs Ex ante A (ref)	0.410 (0.279)	0.509* (0.295)	0.555 (0.361)	0.865*** (0.330)
Ex post B vs Ex ante A (ref)	0.457* (0.271)	0.342 (0.287)	0.604* (0.352)	0.823** (0.322)
Constant	4.421 (2.885)	3.887 (3.051)	0.638 (3.744)	2.482 (3.431)
Observations	413	413	413	411
R-squared	0.235	0.207	0.130	0.222
Adjusted R-squared	0.168	0.138	0.054	0.154

Standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1 HCV = Hepatitis C

4. Discussion

This study has estimated the WTP for HCV treatment from a societal perspective, i.e., the consumption value. In addition, the consumer's value of HCV treatment can also take different perspectives, with respect to whom to pay for and when to pay. This study shows that WTP varies depending on the perspective, with the highest WTP for a payment for her -or himself only when being at risk of illness, the *personal ex-ante (insurance-based) perspective*.

It appears that respondents give less consideration to the size of the benefit when paying for others only (*social perspective*). The WTP did not differ depending on the size of the treatment effect or differed in the wrong direction (higher WTP for less benefit). Moreover, respondents who took the treatment effect into consideration had a higher WTP in all scenarios except for the scenario with the social perspective and income was not related to the WTP in this scenario. These findings suggest that the WTP is not really a measure of the value of the intervention and imply that asking about the preferences for others only may not provide a good measure of the welfare impact on society. These findings are in line with a previous study, suggesting that altruistic preferences are a mixture of concern that does affect one directly (sympathy) and concern that does not affect one directly (commitment). Altruistic concern based on sympathy (the pleasure of giving to others) will enter the individual's utility function and the WTP will consequently reflect the altruistic value. However, altruistic concern based on commitment may not enter the individual's utility function as the choice one makes has less to do with utility and more to do with a sense of moral commitment. Consequently, the WTP is not primarily based on value but instead an expression of what one can donate or think is a fair share of the expected cost (21).

The WTP in the socially inclusive personal perspective was not, as might be expected, equal to the sum of the WTP in the personal and social perspectives. Instead, it was lower than the WTP for the personal perspective, which is consistent with the finding of other studies (6, 7, 10). This has previously been explained by the existence of pure negative altruism, i.e., lowering ones WTP in order not to force other (low-income) individuals to have to pay the same amount (10). However, this is true for scenarios with a coercive fixed payment such as tax and not for scenarios with a voluntary, individualized payment such as the payment vehicle used in this study. Evidence of the opposite of pure negative altruism was found in this study; individuals who expected others to pay less were willing to pay more. A possible explanation for this is that an individualized, collective payment creates uncertainty about how much will be paid and an incentive to pay more to ensure access to the treatment. However, individuals lowering their WTP from the personal to the socially inclusive personal perspective assumed other respondents would pay the same or less. Individuals assuming others would pay more did not change their WTP. This could indicate that the payment

vehicle in the socially inclusive personal perspective was interpreted by some respondents as a coercive fixed payment, leading to inclusion of pure negative altruism.

The difference between the ex-post and ex-ante perspective when paying for yourself and others (*socially inclusive personal perspective*) was relatively small. This implies that when framing the payment vehicle in terms of a collective payment for both perspectives, the result will be similar. It also implies that the ex-ante perspective is not an overestimate of the value due to a lack of understanding of the risk as has sometimes been argued (9). The remaining difference can be explained by the existence of risk aversion in the ex-ante perspective, i.e., the value of reducing the risk per se. For the personal perspective, there was a large difference between the ex-post and ex-ante perspective driven by the different payment vehicles (ex-ante: insurance, ex-post: out-of-pocket), which is similar to what has been found in previous studies (8, 9, 22). This implies that the ex-post personal perspective will underestimate the value because it is more dependent on the ability to pay.

There were several findings that support sensitivity to scale among the respondents, which is a standard test of validity in WTP studies. Within samples, the WTP for a risk elimination was higher compared to the WTP for a risk reduction. Across samples, the WTP was higher for the treatment with a larger effect (questionnaire version A). The difference was not significant but consistent for all scenarios except for the social perspective. Moreover, there was a clear trend for a lower share of zero responses for the treatment with a larger treatment effect. Additional support for the validity of the study includes a low share of zero responses, few protest responses, low share of respondents without a correct answer to question on risk understanding, a higher share of respondents being prepared to pay for lower amounts in the card-sorting procedure and a significant impact of income on WTP when restricting the sample in line with widely accepted criteria.

The response rate was 25%. This is low but consistent with response rates for similar surveys for online panels (17-39%) (10, 23). Consistent with other WTP surveys (24, 25), respondents had a slightly higher level of education and income compared to the general population, which might imply a somewhat overestimated WTP. There was a minor problem with the data collection for version A of the questionnaires (respondents could initially not answer by mobile phone) that had a negative impact on the response rate. Moreover, the estimated own risk of HCV infection was significantly lower in the sample for version A compared to the sample for version B. Consequently, there is a risk of confounding as the sample with a lower self-defined HCV risk was presented with scenarios with a higher risk reduction and vice versa.

The order of the scenarios was not varied in the questionnaire. However, the respondent could see her or his previous answer(s) when responding for each scenario to help the respondent compare the WTP of different scenarios. This is expected to reduce possible order bias, i.e., a tendency for the WTP in the first scenario to influence the WTP in subsequent scenarios.

This study applied a card-sorting procedure and bounded open-ended question in the first scenario to help the respondent identify his or her WTP interval and unbounded open-ended questions for the remaining scenarios to avoid respondent fatigue. By also displaying the respondents' own WTP responses for each previous scenario, this design appears to minimize the issues that is usually associated with unbounded open-ended questions, i.e., large share of zero response and extreme outliers.

Reviews of WTP estimates sometimes fail to take account of different perspectives and consequently present a wide variation in estimates, causing WTP to seem less precise or reliable as an approach for estimating the consumer value of new treatments. This study shows the importance of taking the study perspective into account when comparing studies, as well as when using estimates for policy purposes. Several important implications follow from the findings in this study. First, the WTP for others only appear to reflect a sense of moral obligation or an estimate of the fair share instead of value. This implies that the pure social perspective is not a good measure of the welfare impact of an intervention. Second, the WTP for yourself only when assuming a need of treatment (ex-post) will be an underestimation of the true welfare impact because the respondent must pay for the entire treatment her- or himself. Third, the socially inclusive personal perspective may be slightly underestimated due to the existence of pure negative altruism even when using an individualized payment vehicle. Fourth, the ex-post perspective may be slightly underestimated due to the exclusion of risk aversion. Consequently, the personal ex-ante (insurance-based) perspective may be the most accurate measure of the welfare change.

WTP estimated using the personal (or socially inclusive personal), ex-ante perspective has been applied for a long time in transport economics to estimate the value of reducing risk for a fatal road traffic accident (7, 26, 27). The result of these types of studies has been accepted by departments for road safety in several countries and used when deciding to invest in road safety improvements. In health economics, however, the use of WTP is rare and when used it is often derived from studies using a personal, ex-post perspective. Consequently, there is a difference between how the value of a life is valued in transport economics and health economics (28).

When hepatitis C treatment was introduced in Sweden, the cost was approximately €100,000 per patient, leading to a potential aggregated cost of up to €4.5 billion. This almost correspond to the entire annual budget for pharmaceuticals in Sweden and raised concern that other health care would be crowded out given a fixed health care budget. This reasoning has become relatively common within health economics and there are arguments for deriving the value of health care based on the opportunity cost of healthcare instead of WTP (29). This study shows, however, that the value to the Swedish people of introducing hepatitis C treatment is several times higher than its cost. Although affordability concerns are valid and needs to be considered, ignoring the improved value of new health care interventions out of budget concerns will lead to socially inefficient resource allocation and reduced incentives for inventing treatments with significant value to society.

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Appendix 1. Supporting information

Table 1. Mean WTP per year divided by scenario and respondent assumption about what others pay

Others pay...	(1) Personal		(2) Social		(3) Social incl. personal		(4) Social incl. personal Risk elimination	
	n	Mean WTP (SD)	n	Mean WTP (SD)	n	Mean WTP (SD)	n	Mean WTP (SD)
Ex Ante A								
More (M)	25	553 (756)	25	393 (733)	25	584 (849)	25	638 (847)
Same (S)	71	1856 (3,484)	71	826 (1,493)	71	1,330 (2,223)	71	1,584 (2,551)
$P(M=S)$		0.1332		0.2327		0.2153		0.1673
Less (L)	27	1,634 (2,666)	27	790 (1,944)	27	1,643 (2,593)	27	1,584 (2,569)
$P(S=L)$		0.7198		0.3898		0.3039		0.6670
$P(M=L)$		0.1164		0.7541		0.0464		0.1039
Ex Ante B								
More (M)	35	1,273 (2,403)	35	615 (1,228)	35	1,217 (2,164)	35	1,277 (2,369)
Same (S)	63	1,077 (1,567)	64	747 (1,419)	64	1,018 (1,759)	64	1,077 (1,795)
$P(M=S)$		0.3850		0.1653		0.5329		0.5500
Less (L)	27	1,934 (2,709)	27	738 (1,279)	27	1,595 (2,054)	27	1,790 (2,315)
$P(S=L)$		0.0255		0.8751		0.0954		0.0359
$P(M=L)$		0.1028		0.4408		0.0543		0.0305
Ex Post A								
More	20	1,131 (2,790)	20	754 (2,652)	20	1,532 (4,126)	20	1,264 (3,428)
Same	66	9,268 (24,243)	66	1,076 (1,875)	66	4,103 (13,658)	66	4,223 (13,645)
$P(M=S)$		0.0025		0.0172		0.0042		0.0035
Less	40	13,852 (23,837)	40	1,294 (1,964)	40	5,710 (6,681)	40	6,503 (7,119)
$P(S=L)$		0.0043		0.6535		0.0016		0.0014
$P(M=L)$		0.0000		0.0263		0.0001		0.0000
Ex Post B								
More	29	10,756 (37,778)	29	760 (2,216)	29	1,361 (2,867)	29	1,861 (4,712)
Same	71	3,146 (4,358)	71	1,158 (2,011)	71	2,575 (3,980)	71	3,470 (6,771)
$P(M=S)$		0.6021		0.3055		0.1580		0.2427
Less	29	15,879 (26,553)	30	4,056 (9,300)	30	9,577 (19,756)	29	9,853 (19,657)
$P(S=L)$		0.0004		0.0067		0.0032		0.0010
$P(M=L)$		0.0016		0.0013		0.0002		0.0001

SD = Standard deviation.

Table 2. Regression of ln (WTP per year) with trimmed sample (excluding respondents without a correct understanding of risk and not considering their budget constraint)

VARIABLES	Scenario 1: Socially inclusive personal risk elim	Scenario 2: Socially inclusive personal risk red	Scenario 3: Social	Scenario 4: Personal
Background				
ln (age)	-0.741* (0.404)	-0.667 (0.428)	0.776 (0.545)	-0.750 (0.467)
ln (age-mean age)^2	0.0843 (0.0645)	0.0439 (0.0683)	0.0994 (0.0871)	-0.0102 (0.0746)
Female=1	-0.285 (0.234)	-0.287 (0.248)	-0.252 (0.316)	-0.431 (0.271)
ln (household income per CU)	0.772*** (0.277)	0.790*** (0.294)	0.175 (0.374)	0.944*** (0.321)
VARIABLES	Scenario 1: Socially inclusive personal risk elim	Scenario 2: Socially inclusive personal risk red	Scenario 3: Social	Scenario 4: Personal
Risk perception				
No bicycle helmet=1	-0.00962 (0.236)	-0.138 (0.250)	-0.340 (0.319)	0.0466 (0.273)
No bus belt=1	0.0149 (0.274)	0.132 (0.291)	-0.0343 (0.371)	-0.0961 (0.317)
Smoke=1	0.436 (0.397)	0.488 (0.420)	0.0452 (0.536)	0.319 (0.459)
Risktaking in general (1-10)	0.0114 (0.0813)	0.0932 (0.0861)	0.0348 (0.110)	0.0736 (0.0942)
Risktaking driving car (1-10)	0.0177 (0.0441)	0.0181 (0.0467)	0.0536 (0.0596)	0.0377 (0.0510)
Risktaking health (1-10)	-0.114 (0.0746)	-0.167** (0.0790)	-0.131 (0.101)	-0.188** (0.0863)
Risktaking sport (1-10)	-0.115 (0.0749)	-0.168** (0.0793)	-0.0951 (0.101)	-0.106 (0.0866)
VARIABLES	Scenario 1: Socially inclusive personal risk elim	Scenario 2: Socially inclusive personal risk red	Scenario 3: Social	Scenario 4: Personal
Hepatitis C perception				
Experience of hepatitis=1	0.753** (0.364)	0.527 (0.386)	0.814* (0.492)	0.506 (0.422)
Own current health VAS 1-100	0.00338 (0.00855)	0.00229 (0.00906)	-0.0158 (0.0116)	-0.000883 (0.00989)
Own future health VAS 1-100	-0.00365 (0.00778)	-0.000272 (0.00824)	0.0202* (0.0105)	0.00232 (0.00900)
Hepatitis no symptoms VAS 1-100	-9.18e-05	0.00112	0.0172**	0.00909

	(0.00600)	(0.00636)	(0.00811)	(0.00694)
Hepatitis symptoms VAS 1-100	0.00260	0.00177	0.00153	-0.00101
	(0.00567)	(0.00601)	(0.00766)	(0.00657)
Own risk for hepatitis (1-7)	-0.0155	-0.0448	0.140	-0.0755
	(0.120)	(0.127)	(0.162)	(0.138)
Own risk for hepatitis (per 100,000 in 10 years)	-0.0190	-0.0438	-0.00431	0.0203
	(0.0699)	(0.0740)	(0.0944)	(0.0808)
Worry of hepatitis (1-7)	0.114	0.188	0.175	0.140
	(0.122)	(0.129)	(0.165)	(0.142)
Control hepatitis risk (1-7)	0.0638	0.0315	0.0110	0.0409
	(0.0531)	(0.0563)	(0.0718)	(0.0614)
VARIABLES	Scenario 1: Socially inclusive personal risk elim	Scenario 2: Socially inclusive personal risk red	Scenario 3: Social	Scenario 4: Personal
WTP scenario perception				
Consider effect of treatment=1	0.729***	0.725**	0.0808	0.845***
	(0.271)	(0.287)	(0.366)	(0.313)
Consider other factors=1	-0.173	-0.345	0.535	-0.0680
	(0.336)	(0.355)	(0.453)	(0.388)
More than 50% die of hepatitis=1	0.217	0.196	0.398	0.130
	(0.227)	(0.241)	(0.307)	(0.263)
Study has impact on decision maker=1	-0.244	-0.0233	0.548	-0.0908
	(0.560)	(0.593)	(0.756)	(0.647)
Scenario 1 vs Scenario 2	-0.0926	-0.128	0.115	0.163
	(0.316)	(0.334)	(0.426)	(0.365)
Ex post A vs Ex ante A	0.856**	0.903**	0.565	1.541***
	(0.330)	(0.350)	(0.446)	(0.382)
Ex post B vs Ex ante A	0.575*	0.383	0.521	1.178***
	(0.319)	(0.338)	(0.431)	(0.370)
Constant	0.923	0.728	-2.265	-1.232
	(3.112)	(3.297)	(4.204)	(3.600)
Observations	297	297	297	296
R-squared	0.164	0.158	0.104	0.194



Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Survey regarding the valuation of treatment for Hepatitis C

Situation 1 of 4: A COMPLETE cure for YOURSELF AND OTHERS

You have previously stated that your risk of hepatitis C is 1 in 100,000 over the next 10 years (i.e. 0.1 of 100,000 per year). The risk for others to get hepatitis C is 200 in 100 000 over the next 10 years (i.e. 20 per 100 000 per year). Suppose that those who receive hepatitis C have a maximum of 20 years left to live if a treatment cannot cure them. Imagine that you are able to pay for an insurance to give you and others access to an additional treatment that will cure everyone. The treatment is given as a tablet 1-2 times a day for 3-6 months. The treatment causes few side effects.

Without insurance	With insurance
<ul style="list-style-type: none"> ◦ If one gets hepatitis C you get a standard treatment X that cures 65% of those who get the disease. ◦ The remaining 35% are not cured and are most likely to develop liver problems that may lead to premature death within about 20 years. 	<ul style="list-style-type: none"> ◦ If one has hepatitis C you get a standard treatment X and supplementary Y that cure 100% of those who get the disease. ◦ No one will therefore develop liver problems and die prematurely because of hepatitis C. 

What is the highest amount you would be willing to pay for an additional treatment to be available to yourself and others who may need it?

The payment is made in the form of an annual amount paid through a private insurance. Suppose you get a new offer every year and therefore decide if you want to pay once every year.

When you answer, we ask that you:

- try to be realistic and think about how much you and your household can really afford and what you could otherwise spend the money on.
- answer as if you would need to take the consequences of your response, which means you would have to pay the amount you specify.

To help you answer the question, you will be shown a number of sums in a random order. Given your household's current income, state if you would be willing to pay the amount, or if you would NOT be willing to pay the amount or if you do not know / are unsure.

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Cancel and clear your answers

Figure 1. Scenario 1 in questionnaire (original version in Swedish)

Appendix 2. Questionnaire

Complete questionnaire in English (original version in Swedish)



The Swedish Institute
for Health Economics
Institutet för Hälso-
och Sjukvårdsekonomi

Survey regarding the valuation of treatment for Hepatitis C

Survey regarding the valuation of treatment for Hepatitis C

Background and purpose of the study:
The Swedish Institute for Health Economics (IHE) wants to investigate how you and other people in the population think about the risk of being infected with Hepatitis C and the value of being able to cure Hepatitis C. The study is part of a research grant received by IHE from *Riksbankens Jubileumsfond*.

How your responses are handled:
It will not be possible to link your response to you as a person, and your information will not be visible in the summary of the questionnaire. All information is treated confidentially and under the General Data Protection Regulation (GDPR).
It's possible to close the survey by closing down the web page and later resuming it by clicking the link in the mail again. If you pause the questionnaire, the answers will be saved until the page where you clicked "Next".

It is voluntary to participate:
It is entirely voluntary to participate. If you choose not to, it will not affect your treatments, either present or in the future.

Questions about the study:
If you have any questions about the survey, please contact
Sara Olofsson, Research Manager IHE, (telephone: +46 46-32 91 18, e-mail: so@ihe.se).
Frida Hjalte, Research Manager, IHE (telephone: +46 46-32 91 23, e-mail: fh@ihe.se).

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Cancel and clear your answers



Survey regarding the valuation of treatment for Hepatitis C

Before you answer this survey, we would like you to give us your consent regarding the participation in the survey "Survey regarding the valuation of treatment for Hepatitis C".

By clicking the box below I hereby confirm that:

1. I have read the content above, in which the study was presented.
2. I give my consent to the collection of my answers during the study.
3. I am aware that I cannot be identified in any future publications or reports.
4. I am aware that my participation is totally voluntary and that I can choose not to participate in this study without having to state any reasons and that this will not affect ongoing or future treatments.
5. I am aware that I can ask for future information regarding the study from the contact person.

I hereby give my consent to participate in the study.

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Survey regarding the valuation of treatment for Hepatitis C

Your age:

years

Gender:

Woman

Man

How many people living in your household are 18 years old or older, including yourself?

Choose...

How many people living in your household are younger than 18 years old?

Choose...

Which is the highest level of education that you have pursued?

Elementary school or equivalent

Upper secondary school or equivalent

University

Other

Which is your current main occupation?
Answer with the occupation with which you spend most of your time.

Employee

Self-employed

Retiree

Student

Unemployed

Sick

Other

How large is the total income before taxes of your household per month?

<input type="checkbox"/>	<19 900 SEK per month
<input type="checkbox"/>	20 000 SEK – 29 999 SEK per month
<input type="checkbox"/>	30 000 SEK – 39 999 SEK per month
<input type="checkbox"/>	40 000 SEK – 49 999 SEK per month
<input type="checkbox"/>	50 000 SEK – 59 999 SEK per month
<input type="checkbox"/>	60 000 SEK – 69 999 SEK per month
<input type="checkbox"/>	70 000 SEK – 79 999 SEK per month
<input type="checkbox"/>	>80 000 SEK per month
<input type="checkbox"/>	Do not know/Do not want to answer

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Survey regarding the valuation of treatment for Hepatitis C

Here we would like you to answer some questions about how you perceive risk and how risk-taking you are in different situations.

If you use a bicycle, do you wear a helmet?

- Yes, always
- Yes, sometimes
- No
- I do not use a bicycle

If you are traveling with the bus, do you use a seat belt?

- Yes, always
- Yes, sometimes
- No
- I do not travel with the bus

Do you have any of the following personal insurances?

- Sickness and accident insurance for yourself
- Sickness and accident insurance for your child(ren)
- Sickness insurance(not from your employer)
- Life insurance
- Dental insurance
- None of the insurances above

Do you smoke?

- Yes
- No
- Do not want to answer

How risk taking do you consider yourself to be?

1. Not at all	2.	3.	4.	5.	6.	7.	8.	9.	10. Very risk taking
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How willing are you to take risks: When you drive a car?

1. Not at all	2.	3.	4.	5.	6.	7.	8.	9.	10. Very willing	Irrelevant
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How willing are you to take risks: With your health?

1. Not at all	2.	3.	4.	5.	6.	7.	8.	9.	10. Very willing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How willing are you to take risks: When you are doing sport?

1. Not at all	2.	3.	4.	5.	6.	7.	8.	9.	10. Very willing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


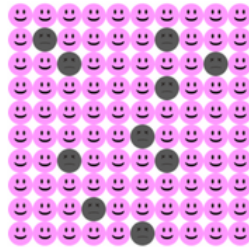
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Survey regarding the valuation of treatment for Hepatitis C

Consider two persons:

<p><u>Person 1:</u> Risk of dying = FIVE out of 100 in the coming ten years</p> 	<p><u>Person 2:</u> Risk of dying = TEN out of 100 in the coming ten years</p> 
---	---

Which person has the highest probability of dying in the coming ten years?

Person 1

Person 2

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Survey regarding the valuation of treatment for Hepatitis C

This part of the survey is about the disease Hepatitis C.
How many people do you think suffer from Hepatitis C in Sweden today?

4000

40 000

400 000

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Survey regarding the valuation of treatment for Hepatitis C

40 000 people suffer from hepatitis C today in Sweden.

Hepatitis C is a hepatic inflammation that is caused by a virus, and is transmitted primarily through blood. About 40 000 people suffer from the disease in Sweden today and about 2000 people are diagnosed each year.

Symptoms from hepatitis C

Most of the people getting with it do not show any clear symptoms and can be infected with it for a long time without knowing about it. One of the first symptoms is that the affected person gets tired. Other symptoms that may occur are cognitive impairment and depression. The infection can heal by itself but most people (80%) get a chronic infection that in the long term might damage the liver.

Hepatitis C can cause severe liver damage

About every fourth person with hepatitis C gets liver cirrhosis after 20-30 years. Liver cirrhosis means that the liver is unable to clean the body as normal and can lead to life-threatening conditions. Early symptoms of cirrhosis include fatigue, nausea and weight loss to later make the stomach and bones swelling, and problems with blood clotting and vomiting blood. In very late stages one can also get confused and even unconscious. If you have developed cirrhosis, you also have a slightly increased risk of liver cancer.

Hepatitis C can be cured but there is no vaccine

The infection can be treated with drugs and today there is the possibility to get cured. However, after being cured you can be infected again. There is no hepatitis C vaccine. The risk of hepatitis C infection is lower, the more people that are cured.

Do you have / have had a Hepatitis C diagnosis?

Yes

No

Do not want to answer

Do you have other experiences (eg, a friend or a relative who has been diagnosed or treated a patient) of Hepatitis C?

Yes

No

Do not want to answer

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Only one scale per question was shown. The double scales are included to show how respondents could respond.



Survey regarding the valuation of treatment for Hepatitis C

Below you will find a scale from 0 (dead) to 100 (the best health and quality of life you can imagine). Please put the cursor to the place on the scale to mark your opinion of your current health state.

A horizontal scale from 0 to 100. The top line has a slider at 18. The bottom line is empty.

Below you will find a scale from 0 (dead) to 100 (the best health and quality of life you can imagine). Please put the cursor to the place on the scale to mark where you expect your health state to be in 10 years.

A horizontal scale from 0 to 100. The top line has a slider at 9. The bottom line is empty.

Below you will find a scale from 0 (dead) to 100 (the best health and quality of life you can imagine). Please put the cursor to the place on the scale to mark where you expect your state of health with chronic Hepatitis C in early stage to be.

Hover over this text to get information about the symptom in the early stages.

A horizontal scale from 0 to 100. The top line has a slider at 12. The bottom line is empty.

Below you will find a scale from 0 (dead) to 100 (the best health and quality of life you can imagine). Please put the cursor to the place on the scale to mark where you imagine a health condition with chronic hepatitis C and liver problems such as cirrhosis and liver cancer to be.

Hover over this text to get information about the symptom in the late stage.

A horizontal scale from 0 to 100. The top line has a slider at 13. The bottom line is empty.

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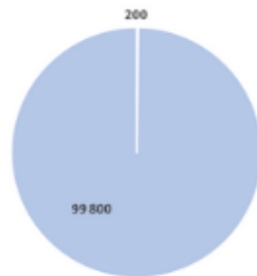
Survey regarding the valuation of treatment for Hepatitis C

The risk of infection with Hepatitis C in the next 10 years

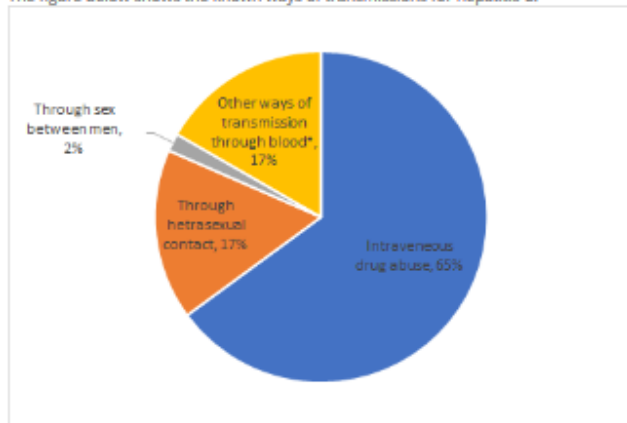
Hepatitis C is a blood infection. The most common way to get infected with Hepatitis C in Sweden is by sharing drugs with unclean syringes. In rare cases, Hepatitis C can also be transmitted through sexual contact if you receive blood from non-verified blood donors, via tattoo / piercing, or become infected during care-related work. In Sweden, however, all blood is checked for infection and the risk of being infected via a blood transfusion in Sweden is minimal. Should you, however, need blood transfusion or other blood product abroad, the risk may increase depending on the country.

The risk of infection with Hepatitis C for a person in Sweden is approximately 200 per 100,000 within a 10-year period. In order to better understand how many 100 000 people are, you can imagine a crowded arena twice as big as the Friends Arena or Ullevi Stadium or a city like Helsingborg or Linköping. This risk can be compared with the risk of being seriously injured in road traffic, which is approximately 1 000/100 000 in the next 10 years, that is: 5 times higher.

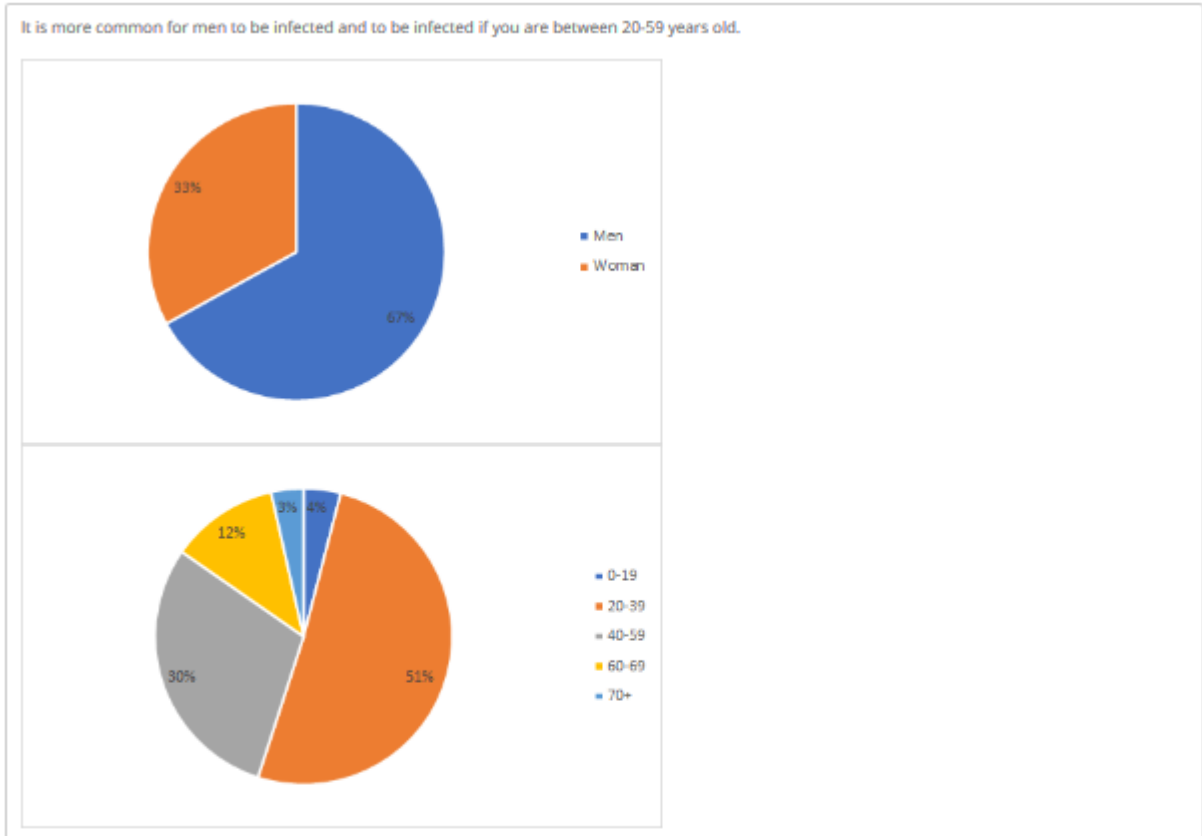
Among the 100 000 visitors, 200 will be infected with Hepatitis C over the next 10 years. This is illustrated in the circle below, where the blue surface represents those who will not be infected and the white cut represents those infected with Hepatitis C.



The figure below shows the known ways of transmissions for hepatitis C.



*Other ways of transmission through blood: transmissions from mother to child, health related infection, via contaminated blood / blood products, tattoo / piercing, occupational infections, from person to person (non-sexual) etc.



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Survey regarding the valuation of treatment for Hepatitis C

Over the next 10 years, the risk of infection with Hepatitis C is 200/100 000 for a person in Sweden. What do you think about your own risk of being infected with Hepatitis C in the next 10 years?

1. Much lower risk than average	2.	3.	4. Equal risk as average	5.	6.	7. Much higher risk than average
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How high do you think your own risk is to be infected with Hepatitis C in the next 10 years?

I think the risk is in 100 000

How worried are you to get infected with Hepatitis C?

1. Not worried at all	2.	3.	4.	5.	6.	7. Very worried
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you think that you can reduce your risk of being infected with Hepatitis C through your own behavior?

1. Very little/not at all	2.	3.	4.	5.	6.	7. To a large extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Survey regarding the valuation of treatment for Hepatitis C

Introduction to willingness to pay

To find out how much you think it is worth with a more effective treatment for hepatitis C we use a method that measures your value in Swedish crowns. This value is called for willingness to pay and assumes that the benefit gained from an action, service or service is related to how much you are prepared to pay for it.

The survey is not about pricing healthcare or about affecting future self-payments of medicines. The purpose is to get an idea of how much the population values medical improvements and under which circumstances this value is highest.

We will describe 4 hypothetical situations where we ask you to imagine that you could pay to give you and / or others access to an additional treatment that would increase the chance of being cured if you and / or others would be infected with hepatitis C.

Although the situations we describe can be perceived as unrealistic, we ask you to think about the situations we present as a thought experiment where we want to get your opinion of the value of increased chance of a cure under different circumstances.

There are no answers that are correct or incorrect. We only want to know what you think.

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WTP SECTION: EX ANTE VERSION A (RISK REDUCTION 30% IN SITUATION 2-4)

The respondents estimated risk was inserted in the scenario description, i.e. the risk that now states “1 in 100 000 over the next 10 years (i.e. 0.1 of 100,000 per year)” was specified according to the respondents own estimation.



Survey regarding the valuation of treatment for Hepatitis C

Situation 1 of 4: A COMPLETE cure for YOURSELF AND OTHERS

You have previously stated that your risk of hepatitis C is 1 in 100,000 over the next 10 years (i.e. 0.1 of 100,000 per year). The risk for others to get hepatitis C is 200 in 100 000 over the next 10 years (i.e. 20 per 100 000 per year). Suppose that those who receive hepatitis C have a maximum of 20 years left to live if a treatment cannot cure them. Imagine that you are able to pay for an insurance to give you and others access to an additional treatment that will cure everyone. The treatment is given as a tablet 1-2 times a day for 3-6 months. The treatment causes few side effects.

Without insurance	With insurance
<ul style="list-style-type: none"> o If one gets hepatitis C you get a standard treatment X that cures 65% of those who get the disease. o The remaining 35% are not cured and are most likely to develop liver problems that may lead to premature death within about 20 years. 	<ul style="list-style-type: none"> o If one has hepatitis C you get a standard treatment X and supplementary Y that cure 100% of those who get the disease. o No one will therefore develop liver problems and die prematurely because of hepatitis C.

What is the highest amount you would be willing to pay for an additional treatment to be available to yourself and others who may need it?

The payment is made in the form of an annual amount paid through a private insurance. Suppose you get a new offer every year and therefore decide if you want to pay once every year.

When you answer, we ask that you:

- o try to be realistic and think about how much you and your household can really afford and what you could otherwise spend the money on.
- o answer as if you would need to take the consequences of your response, which means you would have to pay the amount you specify.

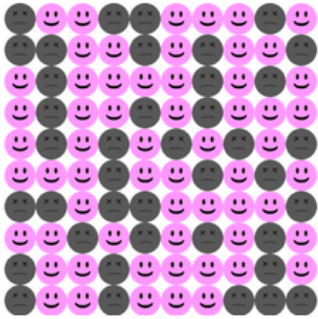

To help you answer the question, you will be shown a number of sums in a random order. Given your household's current income, state if you would be willing to pay the amount, or if you would NOT be willing to pay the amount or if you do not know / are unsure.

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Survey regarding the valuation of treatment for Hepatitis C

Without insurance	With insurance
<p>◦ If you get hepatitis C you get a standard treatment X that cures 65% of those who get the disease.</p> <p>◦ The remaining 35% are not cured and are most likely to develop liver problems that may lead to premature death within about 20 years.</p> 	<p>◦ If you have hepatitis C you get a standard treatment X and supplementary Y that cures 100% of those who get the disease.</p> <p>◦ No one will therefore develop liver problems and die prematurely because of hepatitis C.</p> 

Amount per year		
Would pay	Don't know	Would NOT pay
400 SEK per year	<input type="radio"/>	<input type="radio"/>

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Cancel and clear your answers

The question was repeated for the following amounts:

- 10 SEK per year
- 6000 SEK per year
- 2000 SEK per year
- 100 SEK per year

Follow-up question for those who answered "would pay" to at least one amount, or "do not know" to all the amounts (these respondents received no text that referred to amounts responded yes and no to).

Those who answered "Would NOT pay" on all amounts received no open question but went straight to the next situation.

IHE The Swedish Institute for Health Economics
Institutet för Hälso- och Sjukvårdsekonomi

Survey regarding the valuation of treatment for Hepatitis C

The highest amount you would pay is **2000** SEK per year.
The lowest amount you would not pay is **6000** SEK per year.
What is the highest amount you would be willing to pay? It can be the highest amount you have said you are willing to pay, the lowest amount you are not willing to pay or something between these two amounts.

Your willingness to pay to increase the chance of cure from 65% to 100% for YOURSELF AND OTHERS: SEK per year

How certain are you that you would pay this amount to give yourself and others access to the additional treatment?

1. Very uncertain	2.	3.	4.	5.	6.	7.	8.	9.	10. Very certain
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


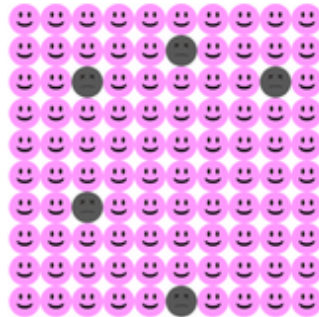
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Cancel and clear your answers

Survey regarding the valuation of treatment for Hepatitis C

Situation 2 of 4: A LARGER CHANCE for YOURSELF AND OTHERS to be cured

You have previously stated that your risk of hepatitis C is 1 in 100,000 over the next 10 years (i.e. 0.1 of 100,000 per year). The risk for others to get hepatitis C is 200 in 100 000 over the next 10 years (i.e. 20 per 100 000 per year). Suppose that those who receive hepatitis C have a maximum of 20 years left to live if a treatment cannot cure them. Imagine that you are able to pay for an insurance to give you and others access to an additional treatment that will increase the chances of being cured. The treatment is given as a tablet 1-2 times a day for 3-6 months. The treatment causes few side effects.

Without insurance	With insurance
<ul style="list-style-type: none"> If you get hepatitis C you get standard treatment X that cures 65% of those who get the disease. The remaining 35% are not cured and are most likely to develop liver problems that can lead to premature death within about 20 years. 	<ul style="list-style-type: none"> If you get hepatitis C you get standard treatment X and supplementary Y that cures 95% of those who get the disease. The remaining 5% are not cured and are most likely to develop liver problems that can lead to premature death within about 20 years.
	

What is the highest amount you would be willing to pay for additional treatment to be available to you and others who may need it?

Payment is made in the form of an annual amount paid through a private insurance. Suppose that you get a new offer every year and therefore decide if you want to pay once every year.

You have said that you were willing to pay:

10 SEK per year

to increase the chance of a cure from 65% to 100% for YOURSELF AND OTHERS

Your willingness to pay to increase the chance of a cure for 65% to 95% for YOURSELF AND OTHERS: SEK per year

How certain are you that you would pay this amount to give yourself and others access to the additional treatment?

1. Very uncertain	2.	3.	4.	5.	6.	7.	8.	9.	10. Very certain
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Cancel and clear your answers



Survey regarding the valuation of treatment for Hepatitis C

Situation 3 of 4: A LARGER CHANCE for ONLY OTHER PERSONS to be cured

Suppose you do not run any risk of hepatitis C. The risk of others getting hepatitis C is 200 in 100 000 over the next 10 years (i.e. 20 per 100 000 per year). Suppose now that those who have hepatitis C have a maximum of 20 years left to live if a treatment cannot cure them. Imagine that you have the option of paying for an insurance for others to access two additional treatments which means that there is a larger chance of being cured if one gets hepatitis C. The treatment is given as a tablet 1-2 times a day for 3-6 months. The treatment causes few side effects.

Without insurance	With insurance
<ul style="list-style-type: none"> If one gets hepatitis C you get standard treatment X that cures 65% of those who get the disease. The remaining 35% are not cured and are most likely to develop liver problems that can lead to premature death within about 20 years. 	<ul style="list-style-type: none"> If one gets hepatitis C you get standard treatment X and supplementary Y that cures 95% of those who get the disease. The remaining 5% are not cured and are most likely to develop liver problems that can lead to premature death within about 20 years.

What is the maximum amount you would be willing to pay for additional treatment to be available to those may need it?
 The payment is made in the form of an annual amount paid through a private insurance. Suppose you get a new offer every year and therefore decide if you want to pay once every year.

You have said that you would pay:	You have said that you would pay :
10 SEK per year	10 SEK per year
to increase the chance of a cure from 65% to 100% for YOURSELF AND OTHERS	to increase the chance of a cure from 65% to 95% for YOURSELF AND OTHERS

Your willingness to pay to increase the chance of a cure for 65% to 95% for ONLY OTHER PEOPLE: SEK per year



How certain are you that you would pay this amount to give others access to the additional treatment?

1. Very uncertain	2.	3.	4.	5.	6.	7.	8.	9.	10. Very certain
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey regarding the valuation of treatment for Hepatitis C

Situation 4 of 4: A LARGER CHANCE for ONLY YOU to be cured

You have previously stated that your risk of hepatitis C is 1 in 100 000 over the next 10 years (i.e. 0.1 of 100 000 per year). Now suppose that if you get hepatitis C, you have a maximum of 20 years left to live if a treatment cannot cure you. Imagine that you have the option of paying for an insurance that gives **you** access to an additional treatment which means that there is a greater chance for **you** to be cured. The treatment is given as a tablet 1-2 times a day in 3-6 months. The treatment causes few side effects.

With insurance	Without insurance
<ul style="list-style-type: none"> ○ If you get hepatitis C, you get a standard treatment X that cures 65% of those who get the disease. ○ The remaining 35% do not get cured and are likely to develop liver problems that may lead to premature death within approximately 20 years. 	<ul style="list-style-type: none"> ○ If you get hepatitis C, you get a standard X treatment and supplementary treatment Y that cures 95% of those who get the disease. ○ The remaining 5% are not cured and are likely to develop liver problems that may lead to premature death within approximately 20 years. ○ You can only get the treatment by purchasing this insurance 

What is the highest amount you would be willing to pay for the supplementary treatment to be accessible for you if you would need it?

Payment is made in the form of an annual amount paid through private insurance. Suppose you get a new offer to sign this insurance every year and therefore have to decided if you want to pay once a year.

You have reported that you would pay:	You have reported that you would pay:	You have reported that you would pay:
2000 SEK per year	1000 SEK per year	500 SEK per year
to increase the chance of a cure from 65% to 100% for YOURSELF AND OTHERS	to increase the chance of a cure from 65% to 95% for YOURSELF AND OTHERS	to increase the chance of a cure from 65% to 95% for OTHERS ONLY

Your willingness to pay to increase the chance of a cure from 65% to 95% for **ONLY YOU**: SEK per year

How certain are you that you would pay this amount to access the additional treatment?

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Very uncertain									Very certain



WTP SECTION: EX POST VERSION B (RISK REDUCTION 25% IN SITUATION 2-4)



Survey regarding the valuation of treatment for Hepatitis C

Situation 1 of 4: A COMPLETE cure for YOURSELF AND OTHERS

In Sweden, about 2 000 people are infected with hepatitis C each year. Suppose you are one of them and therefore have a maximum of 20 years left to live if the treatment cannot cure you. Imagine that you can pay a general financial contribution for you and others who have hepatitis C to get access to an additional treatment that will cure you all. The treatment is given as a tablet 1-2 times a day for 3-6 months. The treatment causes few side effects.

Without a financial contribution	With a financial contribution
<ul style="list-style-type: none"> You and others get a standard treatment X that cures 65% of those who get the disease. The remaining 35% are not cured and are most likely to develop liver problems that can lead to a premature death within about 20 years. 	<ul style="list-style-type: none"> You and others who have hepatitis C get a standard treatment X and a supplementary Y that cure 100% of those who get the disease. No one will therefore develop liver problems and die prematurely because of hepatitis C. 

What is the highest amount you would be willing to pay for the additional treatment to be available to you and others who have hepatitis C?

The payment is made in the form of an annual amount paid through a financial contribution. Suppose you and other adults in Sweden are being asked to make a new contribution each year and decide if you want to pay once every year.

When you answer, we would like to ask you to:

- think about being realistic and consider how much you and your household really can afford and what else you could spend the money on.
- answer as if you would have to take the consequences of your response, which means you would have to pay the amount you specify.

To help you answer the question, you will be shown a number of sums in a random order. Given your household's current income, state if you would be willing to pay the amount, or if you would NOT be willing to pay the amount or if you do not know / are unsure.

Föregående **Nästa**

Avbryt och rensa svar

Survey regarding the valuation of treatment for Hepatitis C

Without a financial contribution	With a financial contribution
<p>○ You and others get the standard X treatment that cures 65 % of those who get the disease.</p> <p>○ The other 35 % are not cured and are likely to develop liver problems that can lead to premature death within about 20 years.</p> 	<p>○ You and others who have hepatitis C get a standard treatment X and a supplementary Y that cure 100% of those who get the disease.</p> <p>○ No one will therefore develop liver problems and die prematurely because of hepatitis C.</p> 

Amount per year

Would pay	Don't know	Would not pay
400 SEK per year	☰	☰

Föregående **Nästa**

Avbryt och rensa svar

The question was repeated for the following amounts:

- 10 SEK per year
- 6000 SEK per year
- 2000 SEK per year
- 100 SEK per year

Follow-up question for those who answered "would pay" to at least one amount, or "do not know" to all the amounts (these respondents received no text that referred to amounts responded yes and no to).

Those who answered "Would NOT pay" on all amounts received no open question but went straight to the next situation.

IHE The Swedish Institute for Health Economics
Institutet för Hälso- och Sjukvårdsekonomi

Survey regarding the valuation of treatment for Hepatitis C

The highest amount you would pay is 2000 SEK per year.
What is the highest amount you would be willing to pay?

Your willingness to pay to increase the chance of a cure from 65% to 100% for YOURSELF AND OTHERS: SEK per year

How certain are you that you would pay this amount to give yourself and others access to the additional treatment?

1. Very uncertain	2.	3.	4.	5.	6.	7.	8.	9.	10. Very certain
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


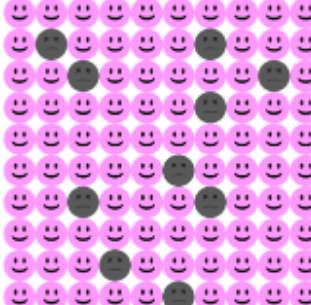
Föregående **Nästa**

Avbryt och rensa svar

Survey regarding the valuation of treatment for Hepatitis C

Situation 2 of 4: A GREATER chance FOR YOURSELF AND OTHERS to be cured

In Sweden, about 2 000 people with hepatitis C are infected each year. Suppose you are one of them and therefore, can live for a maximum of 20 years, if the treatment cannot cure you. Imagine that you can pay a general financial contribution so that you and others who have hepatitis C get access to an additional treatment that means that increases the chance of being cured. The treatment is given as a tablet 1-2 times a day for 3-6 months. The treatment causes few side effects.

Without a financial contribution	With a financial contribution
<ul style="list-style-type: none"> You and others get the standard X treatment that cures 65 % of those who get the disease. The other 35 % are not cured and are likely to develop liver problems that can lead to premature death within about 20 years. 	<ul style="list-style-type: none"> You and others receive the standard treatment X and the additional treatment Y that cure 90 % of those who get the disease. The other 10 % are not cured and are likely to develop liver problems that can lead to premature death within about 20 years. 

What is the highest amount you would be willing to pay for the additional treatment to be available to you and others who have hepatitis C? The payment is made in the form of an annual amount paid through a financial contribution. Suppose you and other adults in Sweden are being asked to make a new contribution each year and therefore decided if you want to pay once a year.

You have said that you would pay:

11 SEK per year

to increase the chance of a cure from 65% to 100% for YOURSELF AND OTHERS

Your willingness to pay to increase the chance of a cure from 65% to 90% for YOURSELF AND OTHERS: SEK per year

How certain are you that you would pay this amount to give yourself and others access to the additional treatment?

1. Very uncertain 2. 3. 4. 5. 6. 7. 8. 9. 10. Very certain


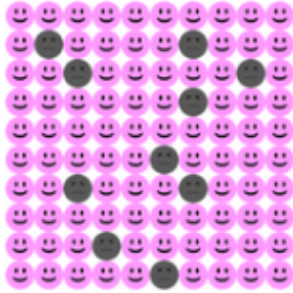
Föregående **Nästa**

Avbryt och rensa svar

Survey regarding the valuation of treatment for Hepatitis C

Situation 3 of 4: A GREATER CHANCE for ONLY OTHERS to get cured

Suppose you are not at risk of getting hepatitis C. In Sweden, about 2 000 people are infected with hepatitis C every year. Suppose that those with hepatitis C have a maximum of 20 years left to live if the treatment cannot cure them. Imagine that you can pay a general financial contribution so that those with hepatitis C will have access to an additional treatment that results in a greater chance of being cured. The treatment is given as a tablet 1-2 times a day for 3-6 months. The treatment causes few side effects.

Without a financial contribution	With a financial contribution
<ul style="list-style-type: none"> Those who have Hepatitis C get the standard treatment X that cure 65 % of those who get the disease. The other 35 % are not cured and are likely to develop liver problems that can lead to premature death within about 20 years. 	<ul style="list-style-type: none"> Those who have Hepatitis C get the standard treatment X and the supplementary treatment Y that cure 90 % of those who get the disease. The other 10 % are not cured and are likely to develop liver problems that can lead to premature death within about 20 years. 

What is the highest amount you would be willing to pay for the supplementary treatment to be available to those who have hepatitis C?

The payment is made in the form of an annual amount paid through a financial contribution. Suppose you and other adults in Sweden are being asked to make a new contribution each year and therefore decided if you want to pay once a year.

You have said that you would pay:	You have said that you would pay:
11 SEK per year	121 SEK in total
to increase the chance of a cure from 65% to 100% for YOURSELF AND OTHERS	to increase the chance of a cure from 65% to 90% for YOURSELF AND OTHERS

Your willingness to pay to increase the chance of a cure from 65% to 90% for OTHERS ONLY: SEK per year

How certain are you that you would pay this amount to give others access to the additional treatment?

1. Very uncertain	2.	3.	4.	5.	6.	7.	8.	9.	10. Very certain
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


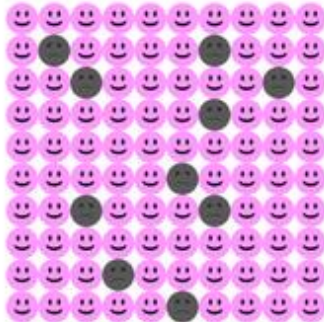
Föregående **Nästa**

Avbryt och rensa svar

Enkät om värdering av behandling vid Hepatitis C

Situation 4 of 4: A GREATER CHANCE for ONLY YOU to get cured

Suppose that **you** have Hepatitis C and that you have a maximum of 20 years left to live if treatment can not cure you. Imagine you can pay a general financial contribution so that **you** get access to an additional treatment that increases the chance of **you** getting cured. The treatment is given as a tablet 1-2 times a day for 3-6 months. The treatment causes few side effects.

Without a financial contribution	With a financial contribution
<ul style="list-style-type: none"> You get the standard treatment X that cure 65 % of those who get the disease. The other 35 % are not cured and will probably get liver problems that may lead to premature death within approximately 20 years. 	<ul style="list-style-type: none"> You get the standard treatment X and the additional treatment Y that cure 90 % of those who get the disease. The other 10 % are not cured and will probably get liver problems that may lead to premature death within approximately 20 years.
	

What is the highest amount you would be willing to pay to get access to the supplementary treatment?

The treatment is paid interest-free once a year for 20 years, but can also be paid as a lump sum.

You have said that you would pay:	You have said that you would pay:	You have said that you would pay:
11 SEK per year	121 SEK per year	123 SEK per year
to increase the chance of a cure from 65% to 100% for YOURSELF AND OTHERS	to increase the chance of a cure from 65% to 90% for YOURSELF AND OTHERS	to increase the chance of a cure from 65% to 90% for ONLY OTHERS

Your willingness to pay increase the chance of a cure from 65% to 90% for ONLY YOU: SEK per year (0 kr in total).

How certain are you that you would pay this amount to give yourself access to the additional treatment?

1. Very uncertain	2.	3.	4.	5.	6.	7.	8.	9.	10. Very certain
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Föregående **Nästa**

Avbryt och rensa svar

Follow-up questions for respondents willing to pay in at least one situation



Survey regarding the valuation of treatment for Hepatitis C

Did you take into account the size of the additional treatment effect when you responded?

Yes

No

Did you take other factors into account than those mentioned in the situations when you responded (for example the possible side effects, prevention other positive effects)?

No

Yes, please state which:

Did you take into account if you could afford to pay the amount?

Yes

No

What do you think other persons's willingness to pay is for additional treatments?

Higher than mine

Same as my own

Lower than my own

How many people of those who are infected by hepatitis C BUT ARE NOT CURED DESPITE TREATMENT do you think you will develop liver problems and die a premature death within 20 years?

All

More than 50 %

Half

Less than 50 %

No one

To what extent do you think your response can affect decision makers?

To a very large extent

To a large extent

To some extent

To a low extent

Not at all

Do not know

Previous

Next

Cancel and clear your answers

Follow-up questions for respondents never willing to pay



Survey regarding the valuation of treatment for Hepatitis C

Why did you not want to pay anything for the additional treatment?
State one or several reasons.

I think the risk is too small to be worth the cost

I think the difference between the treatments is too small to be worth paying for

I cannot afford it

I do not want to pay since it will not affect me

I think the cost should already be covered by the current level of tax income

I do not think the cost should be paid through insurance

Other reason, state which:

Did you take the effect of the additional treatment into consideration when you responded?

Yes

No

Did you take other factors into consideration when you responded than those specified in the situations (for example possible side effects, prevention other positive aspects)?

No

Yes, state which:

Did you consider if you could afford the amount?

Yes

No

What do you think other people's willingness to pay is for an additional treatment?

Higher than mine

Same as mine

Lower than mine

How many of those that are infected by hepatitis C BUT NOT CURED DESPITE TREATMENT do you think you will develop liver problems and die a premature death within 20 years?

All

More than 50%

Half

Less than 50%

No one

To what extent do you think your response can affect decision makers?

To a very large extent

To a large extent

To some extent

To a low extent

Not at all

Do not know

Previous

Next

Cancel and clear your answers

Final follow-up question (for all)



Survey regarding the valuation of treatment for Hepatitis C

How did you feel it was to respond to this questionnaire?

It was very easy

It was easy

Neither easy, nor hard

It was difficult

It was very difficult

If you have any other opinions or comments about the survey, please provide them below.

Previous

Skicka

Cancel and clear your answers

The Swedish Institute for Health Economics (IHE) is an independent research institute grounded in health economics. Together with clients from the public, private and civic sectors, we strive to provide evidence for sound decision making. We work in Sweden, rest of Scandinavia and internationally, studying a wide range of issues related to health and health care.

IHE specializes in applied policy analysis and health economic studies, using knowledge drawn from the cutting edge of international developments as well as independent in-house methods development. We have long experience of developing method for health economic evaluations and to conduct analysis of treatment alternatives to support decision making in the health care sector.

IHE constitutes one of the largest and most experienced health economic research groups in the Nordics. IHEs staff consists of experienced academic health economists and highly skilled multidisciplinary specialists in health economics, medical science, statistics and business administration.

In addition to project work, IHE organizes IHE Forum, an annual policy-oriented conference where actors across the health care system meet and discuss current topics. We also arrange open and bespoke courses in health economics to different stakeholders. Moreover, IHE organizes a network of Swedish health economists with annual meetings since 2002.



Informed decision making for health and welfare

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