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User Pays in Primary Care

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Abstract: Governments can either meet increased demand and rising costs in the health sector by increasing funding or further rationing health care, the current British government tends to favour the former approach. Elsewhere, governments facing similar financial pressures have – given the realisation that the state has a limited budget – introduced cost-sharing as a cost containment policy. Within a primary care setting this involves the patient contributing towards the cost of a GP consultation. The suggestion of user charges in primary care is, however, not a new idea, and there exists some literature which reflects GP's opinions on charges, however, no literature currently exists which analyses charges from the perspective of users (possible payers) of health care. This paper presents the results of an initial pilot (required for ethical approval and GP collaboration) of a proposed larger study on the public's opinions on cost-sharing in a primary care setting. The questionnaire elicited data on personal characteristics and demographics, satisfaction ratings, health care consumption patterns and maximum willingness to pay for a GP consultation. The data are analysed to determine if there exists any relationship between age, income, health status, satisfaction, health care consumption and willingness to pay. Marginal willingness to pay for an increase in the quality of the service that is provided is also estimated, as is the effect that GP charges would have on the demand for substitute services (e.g. A&E and NHS Direct) and the uptake of private health insurance. In addition, the revenue generating capacity of such cost-sharing arrangements is estimated and presented.

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I. INTRODUCTION

An ageing population, increased expectations together with unforeseen advances in medical technology has resulted in ever increasing levels of health care expenditure. In 1999 the UK spent 6.9% of its GDP on health care compared with 5.8% in 1990 (OHE, 2000). Expenditure in the UK, however, is low in comparison with other countries in Europe (the EU average is approximately 9.0%), such that early in 2000 the Prime Minister pledged to substantially increase funding (Ferriman, 2000), in the hope of matching the EU average by 2006. This announcement, however, raised some concerns regarding where this additional funding would come from given the government's limited budget. Appleby and Boyle (2000) explored three possible avenues, whereby the government would either increase taxation, shift public spending or expand the private sector. By now it should be well known that the Labour government chose the first of these options.

The Chancellor in his most recent budget (HM Treasury, 2002) allocated an additional £2.4 billion to health spending in 2003-2004, such that total health care spending in 2003-2004 will be £72.1 billion. It is anticipated that spending will grow by 7.4% a year, over five years, so that by 2007-2008 health spending in Britain as a proportion of GDP will be 9.4%, and thus comparable with the rest of Europe. This expansion in funding is a result of a proposed increase in National Insurance contributions (NICs), as of April 2003 there will be a 1% increase in NICs. Not quite the tax increase envisaged by Appleby and Boyle, but not unsurprising given Labour's election promises regarding taxation.

As Appleby and Boyle suggest, an alternative solution to increased taxation is to increase private health care spending. Private financing of health care is common in the USA and Switzerland, and to a lesser degree in most other countries; indeed patient charges already exist in the UK for prescriptions, optical services and dentistry, and private insurance is becoming increasingly common (Laing and Buisson, 2001). Private financing in the form of user charges while generating revenue, could if introduced in a primary care setting, also solve the current excess demand for GP services. The government is attempting to ease this excess by increasing the supply of care by recruiting and retaining staff (DoH, 2000), while continuing to ration care using policies like deterrence, delay and denial (Klein *et al*, 1995). An obvious alternative to this, from an economics perspective, is to allow the market to equilibrate using the pricing mechanism, that is introduce cost-sharing and user charges (Healthcare 2000, 1995).

As suggested private financing is common elsewhere and a considerable number of countries have some form of cost-sharing arrangements in their primary care system. Ros *et al* (2000), reporting on cost-sharing arrangements and health care system characteristics in eighteen European countries, find that eleven have some form of cost-sharing for GP consultations. These range from copayments for consultations (for example in Ireland a GP consultation for those not exempt costs US$8, while in Norway a consultation costs US$17 but in the evenings or at weekends US$24) to coinsurance and deductibles (in France patients pay 30% of the cost of the consultation, while in Luxembourg they pay 5%).

With respect to the UK, the idea of charging patients for GP consultations has been debated previously. At the 1999 BMA Conference a GP raised a motion to introduce fees (BBC News, 1999a), but it was rejected on the grounds that it is counter to the NHS's philosophy of universal free health care (BBC News, 1999b). More recently, however, a survey of GPs reported some marginal support for a charge of £10 for a consultation (BBC News, 2000), and there appears to be support for charging patients for missed appointments (Beecham, 1999).

The argument in support of cost-sharing and user charges is that it encourages the responsible use of resources, by limiting wasteful and unnecessary activity, and therefore, contains costs. The counter-argument to this is that it results in higher expenditure in the long term, diverts care to more costly parts of the system, or it delays care to the point where treatment is more expensive than, say, prevention. Opponents would also argue that for cost-sharing to generate revenue, collection costs need to be low, however, if complex exemption systems exist in an attempt to maintain an equitable system, then collection costs are likely to be high and any cost-sharing arrangement's revenue generating ability low. This argument is evident from the limited revenue generated by prescription charges. Because nearly half the UK population are exempt from paying prescription charges, and 86% of all prescriptions dispensed in 1997 were exempt from charges, the revenue generated by prescription charges was only 6% of the general pharmaceutical services costs (OHE, 2000).[1]

These arguments and counter-arguments are, however, in their current state simply hearsay, formulated from evidence and experience of other health care systems or charges which exist elsewhere in the NHS. Ideally an experiment similar to that conducted by the

[1] Note that, dental charges, which have fewer exemptions, raised revenue which accounted for some 30% of the total cost of NHS dental care in 1997 (OHE, 2000).

RAND Corporation in the 1970's, would provide the best environment to test the effects of cost-sharing in the NHS; would user charges reduce demand, raise revenue, further exacerbate health inequalities? This research, attempts to answer these questions, but on a much smaller scale. A questionnaire has been designed to simulate the problem and hopefully provide some initial insight to the answers. The questionnaire elicits the public's (patient's) willingness to pay for primary care, along with health care consumption patterns, satisfaction ratings and demographic data, thus allowing the potential revenue generating capacity of part charges to be estimated, along with analysing the effects any payment would have on different socio-economic groups and demand in other areas of the health care system. It is proposed that the questionnaire (described in Section II) will be distributed to patients at the point of consumption, that is in GP practices, therefore, ethical approval is required, as is the involvement of a number of GPs. This pilot, therefore, served as a means of obtaining approval and GP collaboration, but the project is still very much in its infancy so suggestions and constructive criticism are welcome.

The paper proceeds as follows, Section II describes the questionnaire design and data collection. Hypotheses which will be tested with the larger data set are also discussed, though not necessary analysed due to the limited data set. Section III presents the results of some initial analyses, including partial correlations, and attempts to estimate a demand curve for primary care and thereby estimate the revenue generation capacity of GP charges. Justifications for willingness to pay values are also presented, and provide some insight to the nature of the demand curve. Section IV makes some very preliminary conclusions, which are followed by some thoughts on future research.

II. DATA AND METHODS

The pilot data were collected using a seven page questionnaire which is designed for self-completion. After discussions with colleagues on its content and design it was piloted on fifty members of the general public (namely academics, students and other university employees), all of who are either NHS patients or potential patients. A cover sheet enquiring on the questionnaire's usability, readability and content was also completed by the pilot sample; these comments and any feedback received in this forum will be used to further develop and refine the instrument.

The questionnaire currently asks standard demographic questions about gender, age, occupation, household income and education, as well as questions pertaining to health care consumption levels. The subjects were asked how often they visited the GP and dentist, what their experience was of their most recent GP visit (waiting times, length of consultation), how satisfied they are with this experience, whether they use other primary care providers, whether they are exempt from prescription charges and if they have private health insurance.[2]

Willingness to pay values were elicited by asking "… if GP consultations were charged for, what is the maximum amount of money you would be willing to pay for each visit to a GP?" A payment scale with values ranging from £0 to £50 was then provided, and any valuation over £50 could be expressed by writing the appropriate amount in a space provided. In order to distinguish between protest zero values and those with a marginal benefit which is close to zero, subjects were asked to provide a reason for their valuation. An additional willingness to pay value, which will be termed as a 'marginal willingness to pay for quality', was also elicited. The question suggested that paying for a GP consultation may lower demand thus possibly reduce the time one has to wait and increase the length of consultation, thereby improving the quality of care; patients were then asked if they would pay any more for an improvement in quality and if so how much more. Finally, the questionnaire enquired whether the subjects thought any charge should be means tested, whether the existence of a charge would make them more inclined to take out private insurance or make them use an alternative health care provider.

The pilot data were analysed using SPSS, and ideally the larger study will test hypotheses including: whether patients are willing to pay some positive amount for a GP consultation; if the amount patients are willing to pay is positively correlated with their income, socio-economic status, age, education or health care consumption levels; whether user charges will increase the demand for private insurance and/or the demand for alternative forms of primary health care, and whether patients are willing to pay more if charges increase the quality of care they receive. However, the pilot sample size and the non-representative nature of the sample does not allow for such hypotheses to be tested thoroughly (that is with multiple regression analysis). A number of results are presented to aid discussion, but please do not take them out of context given the nature of the sample data. Preferably discussions

[2] Note, in the larger study, data will be collected at the GP practice from patients waiting for an appointment, therefore, many of these questions will pertain to their actual experience.

would centre on whether the questions were posed in the correct context, especially as it is not a standard willingness to pay problem, the value is not an expression of a preference, it is far less hypothetical and GP charges have the potential to be a reality.

III. RESULTS

Of the fifty piloted questionnaires 56% were completed by females, 88% of respondents were (white) British, 46% were single and 44% married or living with a partner, 70% were employed, and 45% had household income greater than £40,000. The mean age of respondents was 34 years, and the average age at which they left full time education was 21 years.[3] Therefore, as initially suspected, the pilot sample is not representative of the general UK population – a greater majority are white, they are wealthier and better educated – not unsurprising given the questionnaire was piloted at the University of Nottingham. Further, the pilot sample had fewer GP consultations than the population average, the average number of GP visits in the past year was 2.1 (range 0 to 7), while OHE (2000) reports that the average number per person per year in 1998 was 4. However, with respect to dental visits the pilot sample frequented their dentist more over a two year period than the general population. The average number of dental visits was 2.8 every two years (range 0 to 10), whereas OHE report that in 1997 there were 510 courses of dental treatments per 1,000 of the population, resulting in a two year average of just over one visit per person.

With respect to their general health, Table 1 shows that the majority of the pilot sample regard themselves as in good or excellent health, though a number have long-term illnesses. The majority of the sample (60%) have an NHS dentist, but few receive free dental treatment or are exempt from paying prescription charges. More than half of the sample (27 people) have previously sought advice from a pharmacists, while fewer have sought advice from the 24 hour telephone service NHS Direct. A larger proportion of the sample (20%) have private medical insurance compared with the general population, 11.5% (CEA, 2000).

Table 3 reports satisfaction ratings from the subjects' last visit to a GP. It shows that the majority of the sample are satisfied with the length of consultation and quality of care they received, but not overly so. There does not appear to be as much satisfaction expressed with respect to the time they had to wait to see the GP (only 10% said they were very satisfied) or with the overall state of the NHS (48% reported a fair rating). The finding with respect to

[3] More details of these descriptive statistics can be found in Tables 1 and 2.

waiting is, however, not surprising given the average wait to get an appointment is over three and a half days (see Table 4), while the time the average person has to wait in the practice before seeing a GP is 17 minutes. It would appear we are some way off meeting the government's maximum waiting time target of 48 hours to see a GP (DoH, 2000).

All but one respondent provided an amount that they would be willing to pay to see a GP. These amounts ranged from £0 to £35, and the majority (78%) were positive, non zero values. The average willingness to pay was £10.06. A number (N=16) also expressed a 'marginal willingness to pay for quality', that is they were willing to increase their maximum value if cost sharing resulted in better service and care. The mean value for this additional maximum amount was £19.19, see Table 5.

Statistical analyses attempting to explain the willingness to pay values are provided in Tables 6 and 7. As expected, due to the size of the pilot sample and its nature, few significant relationships are evident. Gender, income, health status and satisfaction ratings do not appear to have any great influence on respondents' valuations. Similarly, the continuous variables, age, dental visits, waits for appointments and length of consultation, are not found to be significant influences. Education, however, is significantly correlated, it would appear that those who stayed in full time education longer provided higher willingness to pay values. This could be related to income, the better educated have higher earning potential, but in this current context, with a small sample, it is not possible to test multivariate relationships. Finally, the number of annual GP visits is marginally significant, such that those who visited the GP more often gave lower valuations. This could be because the respondents are considering the total budgetary impact of GP consultations, so are not just valuing one visit, but taking into account the number of visits they make a year. Alternatively, it could be related to income, in that those on low income generally have lower health status and, therefore, attend the GP more frequently (again a multivariate regression is required to test this).

Aside from the statistical explanations, respondents were asked to provide their own explanations for the values they gave. These reasons were numerous and varied. Some could be categorised as objections, ("People would stop going to see their GP over the age of sixteen, as they now don't visit the dentist" and "We pay national insurance therefore the service should be provided free") and unsurprisingly were from those respondents who gave zero willingness to pay values. A number of respondents gave reasons which correspond to

notions, not of willingness to pay, but ability to pay: "Unable to afford any more"; while some made comparisons with similar services: "About £1 per minute (£50 per hour) is a reasonable sum for a professional consultation (comparable with solicitors or non-NHS health professionals)". Other reasons include: "It seems a fair amount that I doubt would discourage me from seeking treatment for anything non-trivial" and "A reasonable amount that if means tested could be affordable yet stop time wasters from regularly visiting the GP". These accord to a value, which in the first instance, deters their own unnecessary use, and in the second instance, deters unnecessary use by others. Finally, a small number of those sampled gave reasons which could equate to an expression of marginal benefit. Consider the following: "Thinking back to my previous visits to GPs, I'd probably just substitute them with visits to the local pharmacists, I did not feel the GPs told me anything valuable therefore would not be willing to pay for the visits." This is not only an expression of marginal benefit, but of zero marginal benefit, therefore, highlighting the fact that it is important to understand the reasons behind people's valuations, as a zero valuation is not necessarily an objection or protest vote.

The efficiency gains that can result from cost-sharing are often at the expense of equity, hence the objections expressed by some of the respondents ("I believe the original concept of the NHS 'free for all at the point of access' is something we should maintain and would loathe to support charges for GP visits!"). However, when explicitly asked if charges should be means tested (described as lower or zero for those on low income) there was considerable support (see Table 8). This suggests that while most people are happy to pay some positive amount to consult their GP, it is not necessarily the case that they expect everyone to pay this amount, and would support some exclusion criteria.

Aside from equity, another issue that can negate efficiency gains is that consumers change their behaviour so to avoid paying charges, that is they look for other ways to fund the care or alternative sources of (free) care. To test this the questionnaire implied that private medical insurance may cover the cost of any charge, given this information 48% of the population indicated that they would be inclined to purchase insurance. Excluding those who already had insurance, this is an increase of 27%. While insurance is a likely consequence in a market with uncertainty and financial losses, it may result in further moral hazard problems, thereby not containing costs as effectively as first envisaged. Introducing charges may also simply shift demand to other areas of the health service. There are a number of places were patients can obtain primary care, other than traditional GP practices, including pharmacies,

Accident and Emergency and more recently NHS Direct. 72% of respondents indicated that if charges were introduced they would be more inclined to use an alternative provider. NHS Direct was the most popular alternative provider (75%) then a pharmacist (61%), and then A&E (25%). A number (4 respondents) also indicated they would use other alternative providers including homeopathy and the internet. The finding with respect to increased use of NHS Direct is interesting, as seeking advice from NHS Direct is not costless, calls are charged at the local call rate. While the finding that some people would use A&E as a provider of primary care is a concern, given that an A&E attendance is far more costly than a GP consultation (£61 compared with £15 (Netten and Curtis, 2001)), this behaviour would significantly reduce any efficiency gains.

This notion of efficiency gains is best understood by estimating the revenue generating potential of cost-sharing. The original maximum willingness to pay values have been used to generate a demand curve for GP consultations, this is presented in Figure 1.[4] The demand schedule can then be used to estimate the revenue maximising price. This was found to be £10 and as indicated in Figure 1, 54% of the sample are willing to pay this amount or more, therefore, 46% are not willing to pay this amount.

Making some assumptions and extrapolations, as well as taking some liberties given the size of the sample and its non-representative nature, one could suggest the following. If the government did change their health policy to include co-payments for GP consultations and set this payment at £10, then 46% of the British population would not be willing to pay this amount and, therefore, would not present at a GP surgery. Given that there were some 269 million GP consultations in 1998 (OHE, 2000), this would imply a reduction of 124 million consultations. 145 million consultation would still occur and be charged at £10, thereby raising £1.45 billion in revenue. While the reduction in consultations would lead to savings of £1.86 billion (assuming the average cost of a consultation is £15 (Netten and Curtis)). Further given that 11% of GP consultations lead to a referral to a hospital for tests, investigations and treatment, then the 124 million fewer GP consultations (assuming constant proportionality) would result in 14 million fewer referrals and additional savings. This, however, ignores the fact that a number of these non-presenters will in fact be in need of care, or require preventative care. It also ignores the fact that a number of these non-presented

[4] As an aside, Figure 2 shows the effect of including the additional information for those who are willing to pay more for quality, as expected, this demand curve lies to the right of the original demand curve.

would satisfy some exclusion criteria, and so in fact would present at a GP practice, for a zero or lower charge. In the European countries which have cost sharing arrangements, the exclusion criteria includes, children, beneficiaries, mother and child care, preventative care, pensioners, high users or the chronically ill (see Ros *et al*). Analysis of those in this small pilot sample who would be excluded if GP consultations were charged at £10, finds that five are students, another earns less than £10,000, one is over 60, and a further three have long standing illnesses. This suggests, as opponents argue, that the revenue generating capacity would be reduced.

IV. DISCUSSION

Cost sharing in a primary care setting has the potential to be a reality in the NHS. With thought and consideration it could be a credible alternative to further taxation increases to fund rising health expenditure. Part charges already exist elsewhere in the NHS, however, these have been levied with little rigor. Consumer/patient views on such charges, their effect on equity and their revenue generating capacity are rarely analysed pre-implementation. This project attempts to pre-empt any introduction of GP charges by undertaking these types of analyses, such that if required policy makers can be somewhat informed on the potential effects of user charges in primary care.

From analysing data obtained from a pilot questionnaire designed to test a number of hypotheses in this respect, it would appear that when explicitly asked most people are willing to pay some positive amount to consult a GP, the average willingness to pay being just over £10. Unfortunately, statistical analyses attempting to explain these valuations found few significant relationships. This is probably a result of the size and non-representative nature of the sample, and will hopefully be rectified by a larger sample. Time spent in full-time education and the number of annual GP visits were, however, found to be significantly correlated, having a positive and negative effect on willingness to pay values, respectively.

The pilot also showed that elicited explanations, as to why respondents gave the willingness to pay values they did, have the potential to be informative. Initial analysis of these reasons found that, as in other willingness to pay research, a number of valuations were protest votes (zero values) or based on the respondent's ability to pay. However, unlike in other willingness to pay research, and possibly a result of the fact that most people have experienced a GP consultation, a number of respondent's gave explanations which correspond

to expressions of marginal benefit. Therefore, as theory would suggest knowledge and familiarity of a product allows consumers to more accurately value its benefits. This is further evident from the fact that some respondents appeared to base their valuations on the price of similar services or the cost of similar professional advice. One respondent stated that paying to see a GP was conflicted with the founding principle of NHS, access according to need and not ability to pay; and while most people are willing to pay some positive amount, a number did indicate in their explanations that they thought this amount should be means tested. This response to equity was also evident from the large number of respondents who thought any charge, if levied, should be suitably means tested, either zero or lower for those on low income. Ideally the equity effects of charges would have been tested further, but the small sample size and limited variation in income and occupation data meant it was not possible to test propositions, such as Dixon and Mossialos' (2001) finding that user charges can restrict access to different socio-economic groups. Again it is hoped that analyses of this type will be possible with a larger data set.

The small pilot sample also provided evidence that charging for GP consultations would change people's consumption behaviour. Initial results suggest that copayments may increase the uptake of private insurance and have the potential to divert demand to other (free – or at least costless to the patient) areas of the health sector, both of which would negate any efficiency gains. This issue of shifting demand needs to be explored further, as if GP charges, do as theory would predict and the data suggest, shift some demand to A&E then it may be that charges need to be introduced in that setting also. In Ireland, a country which has copayments for GP consultations and also for A&E attendances, there was, when charges were first introduced, an unintended incentive for fee paying patients to attend A&E (charged at IR£6) rather than consult a GP for IR£10-20. It was found that a number of patients were bypassing traditional primary care and instead attending A&E (see Murphy *et al*, 1997). They have now attempted to rectify this by charging £IR12 for any first visit for any episode of care to an A&E department, unless the patient has a letter from a GP exempting them. This is a real world example of one of the problems that cost sharing can raise, but also how such problems can be solved; however, the issue for Britain would be how the public would respond to levying charges not only on GP consultations but also on A&E attendances.

Finally, the pilot data were used to estimate the potential revenue that could be generated by charging patients a revenue maximum price of £10. The simulation showed that

charges could be lucrative revenue earners for the government and also have the potential to save further expenditure by excluding those who are not willing to pay £10 a visit. A larger sample, together with some analysis of the effect of various exclusion and exemption criteria, is obviously required before any great faith can be placed in such simulations, but it is nonetheless an interesting exercise to undertake, especially given the current financial 'crisis'.

Obviously, given the size and nature of the data, the analyses undertaken in this paper are limited in their ability to explore the issues thoroughly. It is hoped that the larger study, whereby 2000 questionnaires are distributed to a number of GP practices in the Trent Region, will address the hypotheses of interest more effectively, and provide some insightful answers on the effects of user charges in primary care. However, it is expected than even this proposed analysis, with its larger sample size, will fail to address all the issues surrounding user charges. Once some indication of willingness to pay has been established it is hoped that subsequent research will explore more detailed issues, such as the non-homogeneity of GP consultations; that is whether willingness to pay is dependent on the type of service provided by a GP. It is expected that valuations will differ for preventative treatment, minor surgery and consultations which simply provide a repeat prescription. It is also expected that patients will express different willingness to pay values depending on whether their consultation is with a GP or a practice nurse.

The potential for research surrounding the issue of user charges in primary care would appear to be endless, but entirely necessary in our changing world, your help to develop this initial investigation would be greatly appreciated.

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Table 1: Sample frequencies

	N	%
Gender		
Female	28	56.0
Male	22	44.0
Ethnicity		
British	44	88.0
Other White	1	2.0
Indian	2	4.0
Other Asian	1	2.0
African	1	2.0
Other	1	2.0
Martial status		
Single	23	46.0
Cohabiting	22	44.0
Separated	5	10.0
Economically Active		
Employed	35	70.0
Self-employed	2	4.0
Retired	1	2.0
Student	12	24.0
Annual income		
< £10000	3	6.1
£10001-£20000	8	16.3
£20001-£30000	12	24.5
£30001-£40000	4	8.2
> £40,000	22	44.9
General Health		
Excellent	26	52.0
Good	21	42.0
Fair	2	4.0
Poor	1	2.0
Long-term illnesses		
Heart disease	1	2.0
Cancer	1	2.0
Asthma	4	8.0
Other	5	10.0
Have an NHS dentist	30	60.0
Receive free dental treatment	3	6.0
Exempt from prescriptions charges	4	8.0
Have private insurance	10	20.0
Sought advice previously from NHS Direct	13	26.0
Sought advice previously from a pharmacist	27	54.0

Table 2: Sample descriptives

	Mean	Standard Deviation	Minimum	Maximum
Age	33.8	11.8	20	60
Number with children	0.64	0.94	0	3
Age left full time education	20.9	3.6	15	26
Annual GP visits	2.1	1.8	0	7
Dental visits in two years	2.8	2.0	0	10

Table 3: Satisfaction ratings

	N	%
Satisfied with the amount of time you have to wait?		
Very satisfied	5	10.0
Satisfied	20	40.0
Fair	18	36.0
Unsatisfied	3	6.0
Very unsatisfied	4	8.0
Satisfied with the length of consultation?		
Very satisfied	5	10.0
Satisfied	32	64.0
Fair	10	20.0
Unsatisfied	3	6.0
Very unsatisfied	-	
Satisfied with the quality of care?		
Very satisfied	7	14.0
Satisfied	32	64.0
Fair	7	14.0
Unsatisfied	2	4.0
Very unsatisfied	2	4.0
Satisfied with the overall state of the NHS?		
Very satisfied	-	
Satisfied	13	27.1
Fair	23	47.9
Unsatisfied	11	22.9
Very unsatisfied	1	2.1

Table 4: Time to wait

	Mean	Standard Deviation	Minimum	Maximum
How many days to get an appointment?	3.60	1.90	1	7
How long to wait in the waiting room?	17.19	10.79	3	60
How long consultation with GP?	7.83	3.26	2	15

Table 5: Willingness to pay statistics

	Mean	Standard Deviation	Minimum	Maximum
Maximum willingness to pay (N=49)	£10.06	9.10	0.00	35.00
Marginal willingness to pay (N=16)	£19.19	12.13	5.00	50.00

Table 6: Mean willingness to pay and analysis of variance

	N	Mean	Sig.
Gender			
Female	28	£8.46	
Male	21	£12.19	0.157
Annual income			
< £10000	3	£6.33	
£10001-£20000	8	£13.13	
£20001-£30000	12	£7.83	0.570
£30001-£40000	4	£6.75	
> £40,000	21	£11.33	
General Health			
Excellent	26	£10.27	
Good	20	£10.30	
Fair	2	£10.00	0.751
Poor	1	£0.00	
Satisfied with the amount of time you have to wait?			
Very satisfied	5	£12.00	
Satisfied	19	£13.05	
Fair	18	£6.33	0.257
Unsatisfied	3	£10.00	
Very unsatisfied	4	£10.25	
Satisfied with the length of consultation?			
Very satisfied	5	£12.00	
Satisfied	31	£10.35	
Fair	10	£7.60	0.780
Unsatisfied	3	£12.00	
Very unsatisfied	-		
Satisfied with the quality of care?			
Very satisfied	7	£12.86	
Satisfied	31	£9.42	
Fair	7	£10.71	0.806
Unsatisfied	2	£13.00	
Very unsatisfied	2	£5.00	
Satisfied with the overall state of the NHS?			
Very satisfied	-		
Satisfied	12	£10.33	
Fair	23	£9.26	0.516
Unsatisfied	11	£12.73	
Very unsatisfied	1	£0.00	

Note: Using the F test of a oneway ANOVA

Table 7: Correlations with willingness to pay

	N	Correlation Coefficient	Sig.
Age	49	-0.204	0.160
Age left full time education	39	0.476	0.002
Annual GP visits	49	-0.233	0.107
Dental visits in two years	49	-0.043	0.768
How many days to get an appointment?	47	-0.001	0.994
How long to wait in the waiting room?	47	-0.035	0.817
How long consultation with GP?	47	-0.016	0.915

Note: Since the distributions are non-normal Spearmans's rho correlation coefficients reported.

Table 8: Changing behaviour

	N	%
Support means testing (N=47)	36	76.6
Purchase private insurance (N=48)	23	47.9
Use an alternative provider (N=47)	36	76.6
NHS Direct	27	75.0
Pharmacist	22	61.1
A & E	9	25.0
Other	4	11.1

Figure 1: Demand for GP consultations

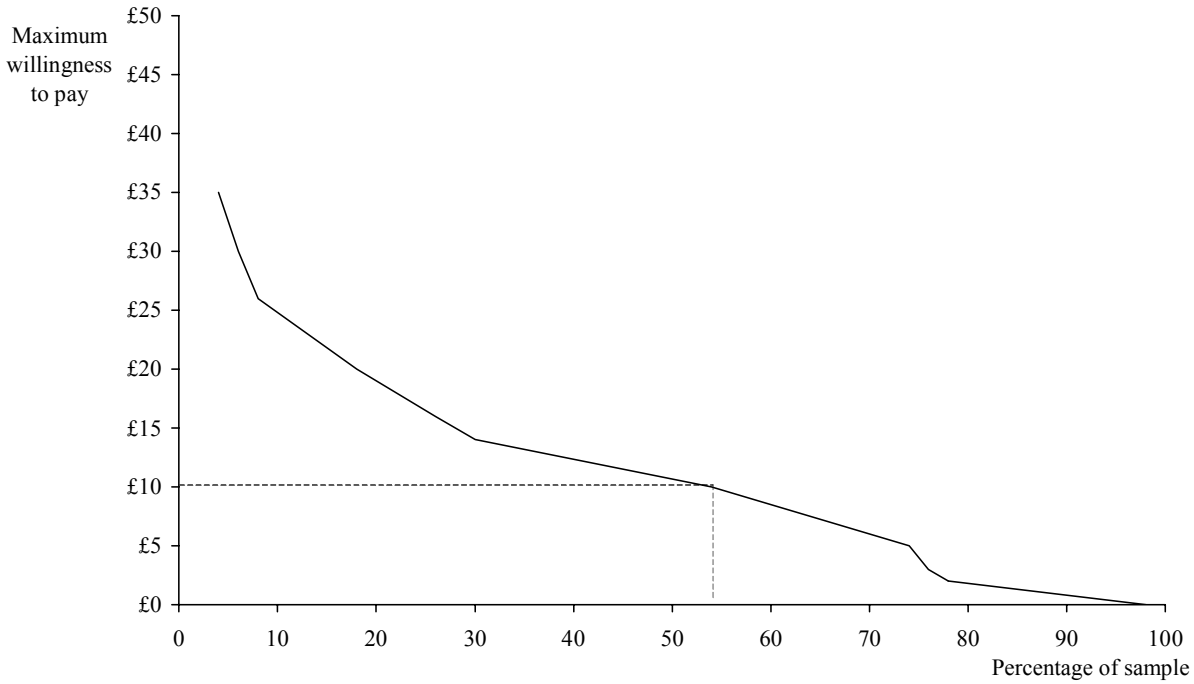

Figure 2: Effect of an increase in 'quality'