

Draft Paper presented at the 66th Health Economics Study Group Meeting,
University of Oxford, 5th-7th January 2005

Work in Progress Please Do Not Quote Without the Authors Permission

How deep is the public pocket for health? A 'league table' of willingness-to-pay values.

Tracey H Sach¹, Richard D Smith², David K Whynes³.

¹ Trent RDSU, B41 Medical School, School of Community Health Sciences, Queen's
Medical Centre, University of Nottingham, Nottingham, NG7 2UH.

E-mail: Tracey.Sach@nottingham.ac.uk

² Health Economics Group, School of Medicine, Health Policy and Practice,
University of East Anglia, Norwich, NH4 7TJ. E-mail: Richard.Smith@uea.ac.uk

³ School of Economics, University of Nottingham, University Park, Nottingham,
NG7 2RD. E-mail: David.Whyne@nottingham.ac.uk

Introduction

Despite the increasing popularity of contingent valuation (CV) in health care, little is known about the *relative* magnitude of values elicited across interventions, the comparability of these values (in terms of methodologies used to elicit them), or how the values are being used as a basis for policy. We address this gap by compiling a 'league table' of willingness-to-pay (WTP) values, which, as far as the authors are aware, has not been attempted before in this context. The potential advantages of the approach are that it: (i) enables findings to be put into a broader context such that the relative meaning of values elicited can be explored; (ii) may be able to help inform

decision-makers about health care resource allocation decisions; and (iii) may bring greater prominence to these values in a policy context.

However, there is also clearly a risk that many of the methodological limitations experienced in creating QALY league tables may also apply here (Drummond 1993 & 1995, Mooney 1994, Mauskopf 2003, Gerard 1994, Nutley 1998, Chapman 2000, Petrou 1993, and Mason 1993). As most of these limitations – different valuation techniques, time horizon, range of costs and consequences incorporated, population sample, etc – will be familiar to HESG members, we do not rehearse them here. However, an additional issue worth raising at this point is that many CV studies don't combine the WTP values with the costs of providing the intervention. Thus, without a cost-benefit ratio, one can in large part only present a league table of outcome values.

Whilst not under estimating these limitations, it is clear that if the growing number of studies in this area are to be used more widely there does need to be some means to assess, for example, the (i) relative magnitude of WTP for different interventions; (ii) relative magnitude of WTP for interventions across countries; (iii) comparability of study methodologies; and (vi) the implied level of overall health care expenditure.

In this paper we outline the methods used to identify and review the studies included, presents preliminary results and conclude with a discussion of the challenges in taking this approach and potential future directions for CV research.

Methods

Method for selecting papers to review

The review database compiled for previous reviews of CV studies in health care by one of the authors (RS) was updated, and now includes papers published from January 1985 to May 2004. Papers reporting values for health care programmes or dimensions of health elicited via a CV survey were included. These papers were mainly identified from a computerised bibliographic database search of Medline and EconLit conducted using keywords (singularly and in combination with health and health care), as follows: contingent valuation, willingness to pay and willingness to accept. Full

details, including abstracts, were downloaded and reviewed for appropriateness and relevance. Papers published after August 2001 were selected by one author (TS), doubled checked by another (RS) and a final selection made after discussion of any uncertain papers. In addition, the references of these papers were checked during the review process for any relevant papers that may have been missed by the search.

Exclusion criteria

Five 'exclusion criteria' were applied. First, papers which *did not report the results of a survey*. The majority of papers found addressed methodological or theoretical issues related to WTP for health (care) rather than report results from a specific WTP survey. Second, papers which duplicated, or reported less comprehensively, results based on the same data from *previously published* papers already included in the review. Third, papers which reported WTP results for the overall size of the health care sector, or the value of reduced waiting time, since these studies make no reference to any health *outcomes* or to any health care *programmes*. Fourth, papers using methods which do not directly ask for WTP (notably those papers estimating WTP indirectly as part of a discrete-choice experiment). Fifth, papers not published in the English language. The resultant papers were reviewed by TS and RS independently; agreement was reached by discussion where there were divergences in initial classification.

New fields

All papers were reviewed using criteria expanded from that used previously to include: Intervention/benefit being valued, whether quality of life (QALYs) was assessed, and how risk was presented, WTP values (mean, median, CI etc); price year and currency, cost of the intervention, cost-benefit ratio and mean/median income of sample. Analysis of these data is ongoing, and *preliminary* results only are presented.

Results

Background characteristics

202 papers met the review inclusion criteria and were reviewed (see table 2 for those completely reviewed to date). The most obvious result is the exponential growth over this period in the number of studies being published: from eight during 1985-1989 to 23 for 1990-1994, 48 during 1995-1999 and 123 from 2000-May 2004. Much of this growth continues to come from just a few countries – those typically involved since

the technique was being developed. These include: the USA, which accounts for 36% (72 papers) of papers identified in this review, and 34% (42 papers) of papers in the 2000-2004 period; the UK, contributing 17% (35 papers) of papers for the whole period with over half published since 2000 (18 papers or 15% of papers published since 2000); Sweden (16 papers or 8% of papers); and Canada (15 papers or 7% of papers). However, there are a whole host of studies over the last five years that are from countries new to the technique; including Belgium, Burkino Faso, China, Denmark, France, Ghana, Haiti, Hong Kong, India, Ireland, Japan, Kenya, Mexico, Nepal, New Zealand, Pakistan, Spain, Tanzania, The Netherlands and Thailand. This reflects the other demographic that, since 2000, there has been a more diverse research community using the method, compared to the early periods which tended to be dominated by a few researchers interested in developing the methodology.

'League table'

A 'basic' league table of WTP values is presented in Table 2 for the 141 studies fully reviewed to date. Given the wide and disparate range of data available for each study, it is hard to know what the most useful way to present this information would be, and is something we would welcome the opinion of HESG members on. However, due primarily to space restrictions, we have presented the most basic information for each paper reviewed here, and have split these values by disease category, rather than a 'pure' rank by WTP value. As discussed below, we have yet to consider 'adjustments' to the table, and it would be useful to get the views of HESG members on some of these possible adjustments. For instance, should we convert all values to a single currency, and if so using currency rates, PPP, from what year etc. Similarly, should we convert all values to a common base year, and if so what year and how? How do we account for technical change over time, perhaps reflected in changes in cost or redundancy of technologies – should we use studies only from the last 5 or 10 years? Should a 'league table' simply be a priority list based on most to least WTP (reflecting most to least 'valuable') or should we only use those with cost:benefit ratios/net benefit figures? Should such values be sub-categorized according to country or disease, or another 'stream'?

However, notwithstanding the lack of adjustment, from this table it is possible to gain a sense of the relative WTP values elicited for different interventions and across

different countries. However, it remains difficult to use this information to inform resource allocation decisions, as it ignores the cost implications of the intervention such that one does not know whether these benefits outweigh the respective costs.

Only 41 (29%) of the 141 studies included in table 2 of this review report the cost of the intervention and allow *estimation* of cost-benefit ratios; although only 11 (8%) integrate costs and benefits themselves into either a net benefit or cost-benefit ratio. These 11 studies are presented separately in table 3.

Study Methodologies

One of the major criticisms of QALY league tables is that they aren't comparing like for like. That is, studies used different methodologies, samples, time frames etc. This is also likely to be a problem when compiling a WTP 'league table' especially as the technique has changed over time; see table 1 for a comparison of methods across time for WTP studies. However, if one uses the 'league table' as a point of reference for debate and reflection on the development of the technique it could be quite useful regardless. For instance, it suggests that for table 2 to be useful more detail about methods (and which) would some how need to be integrated into this table without making the table any less user friendly.

The implied level of overall health care expenditure

Willingness to pay studies are believed to suffer from a number of biases; the most prominent of which in recent years being 'part-whole bias', where the value of the 'sum of the parts' exceeds the 'value of the whole'. Taking a health care sector perspective, this means that the sum of WTP values for individual interventions could exceed total NHS expenditure, or even total national income. It has been argued that this is a real dilemma facing the use of WTP studies in policy-making, as it reflects the 'partial equilibrium' sense in which values are obtained, whereby the respondent does not place a value over all possible alternatives relative to each other, but simply over the (usually single) intervention before them compared with the other goods and services their personal income could purchase (Olsen & Smith, 2001). To gauge the possible extent of this problem in practice, we could take the WTP values from individual studies, sum them and compare this to the total actually spent by the NHS to see if values elicited through WTP studies are unrealistically large or small.

However, this is difficult as not all studies explicitly state the price year used and because only a very small number of interventions have had WTP studies conducted on them. An alternative is therefore to compare WTP values to the amount actually spent by the NHS on these programmes, but we would be interested in HESG members views on the possibilities here.

There are, of course, other significant problems with doing this. For instance, most studies do not use general population samples, use different techniques, not all report price years etc etc. Also, although in our review exclusion criteria we rejected papers estimating the WTP for the overall size of the health care sector we would intend, eventually, to get these papers to use them as a comparative value to the values we get in this review to see if there is any consensus.

Discussion

The results presented in this paper should “be viewed as a stimulus for local discussion and debate” (Drummond et al. 1995, p.231). With this in mind there are a number of areas, in addition to those raised through the paper to this point, that we would appreciate comments on from HESG members. First, we would appreciate comments on how we might go about developing this work, for example:

- Is it too soon to adopt a ‘league table’ approach?
- If so, generally, how about for single disease areas, such as infertility, neoplasms?
- If not, how we should construct the ‘league table’ – for example, should we adopt the Harvard approach (Chapman et al, 2000) and have a sub-table with only high quality results displayed? If so what criteria determine quality?
- Whether our review criteria were appropriate – are there any CV studies published between 1985-May 2004 that we have missed?,
- How we might interpret the results,
- Whether we should use exchange rates or (health) purchasing power parities to convert WTP values to a common currency.
- What is the best means of calculating overall unified health care expenditure?

Second, should economists “do a NICE” on WTP – have a consistent format to follow when conducting these studies? Would this help studies play a greater role in policy?

The authors are also aware that this work may link to the research looking to find a social value of a QALY. For example, we have data from papers which obtain both WTP and utility weights (whether used to construct QALYs explicitly or not) and could thus produce an implied monetary equivalent of a QALY. What other lessons or implications which can be learnt from this review that would help that agenda?

References

- [Chapman RH, Stone PW, Sandberg EA, Bell C, Neumann PJ](#). A comprehensive league table of cost-utility ratios and a sub-table of "panel-worthy" studies. *Med Decis Making*. 2000 Oct-Dec;20(4):451-67.
- [Diener A, O'Brien B, Gafni A](#). Health care contingent valuation studies: a review and classification of the literature. *Health Econ*. 1998 Jun;7(4):313-26.
- [Drummond M, Mason J, Torrance G](#). Cost-effectiveness league tables: think of the fans. *Health Policy*. 1995 Mar;31(3):231-8.
- [Drummond M, Torrance G, Mason J](#). Cost-effectiveness league tables: more harm than good? *Soc Sci Med*. 1993 Jul;37(1):33-40.
- [Gerard K, Mooney G](#). QALY league tables: handle with care. *Health Econ*. 1993 Apr;2(1):59-64.
- [Klose T](#). The contingent valuation method in health care. *Health Policy*. 1999 May;47(2):97-123.
- [Mauskopf J, Rutten F, Schonfeld W](#). Cost-effectiveness league tables: valuable guidance for decision makers? *Pharmacoeconomics*. 2003;21(14):991-1000.
- [Olsen JA, Smith RD](#). Theory versus practice: a review of 'willingness-to-pay' in health and health care. *Health Econ*. 2001 Jan;10(1):39-52.
- [Petrou S, Malek M, Davey PG](#). The reliability of cost-utility estimates in cost-per-QALY league tables. *Pharmacoeconomics*. 1993 May;3(5):345-53.
- [Smith RD](#). Construction of the contingent valuation market in health care: a critical assessment. *Health Econ*. 2003 Aug;12(8):609-28.
- [Zarnke KB, Levine MA, O'Brien BJ](#). Cost-benefit analyses in the health-care literature: don't judge a study by its label. *J Clin Epidemiol*. 1997 Jul;50(7):813-22.

Table 1: Methodologies over time				
Criteria	1985-1989	1990-1994	1995-1999	2000+
Number of papers (% of total no.)	8 (4%)	23 (11%)	48 (24%)	123 (61%)
Type of study: Methodological	2 (25%)	6 (26%)	18 (38%)	18 (15%)
Empirical	4 (50%)	14 (61%)	16 (33%)	71 (58%)
Both	2 (25%)	3 (13%)	14 (29%)	32 (26%)
Journal type: Medical	6 (75%)	13 (57%)	19 (40%)	75 (61%)
Economics/methods focus	2 (25%)	10 (43%)	28 (59%)	48 (39%)
Survey method: Face-to-face	4 (50%)	9 (39%)	17 (35%)	51 (41%)
Telephone	0	0	9 (19%)	17 (14%)
Postal Self administered	1 (13%)	4 (17%)	11 (23%)	23 (19%)
Other Self administered	3 (38%)	8 (35%)	9 (19%)	24 (20%)
Can't tell	0	2 (9%)	2 (4%)	7 (6%)
Respondent type: Users	6 (75%)	12 (52%)	36 (75%)	64 (52%)
Convenience	2 (25%)	6 (26%)	4 (8%)	17 (14%)
General population	0	4 (17%)	6 (13%)	35 (28%)
Combination of the above	0	1 (4%)	2 (4%)	6 (4%)
Scenario Description: Provided	1 (13%)	6 (26%)	25 (52%)	39 (32%)
Not provided but question in text	0	4 (17%)	3 (6%)	29 (24%)
Not provided but diagram given	3 (38%)	5 (22%)	5 (10%)	12 (10%)
Not provided but question & diagram	2 (25%)	0	9 (19%)	18 (15%)
N/A	2 (25%)	8 (35%)	6 (13%)	28 (23%)
Health care financing explained: Yes	2 (25%)	7 (30%)	6 (13%)	27 (22%)
No	4 (50%)	10 (43%)	23 (48%)	55 (45%)
Partial	2 (25%)	6 (26%)	19 (40%)	40 (33%)
Payment Vehicle: Out of pocket	8 (100%)	17 (74%)	40 (83%)	61 (50%)
Tax	0	2 (9%)	3 (6%)	2 (2%)
Private insurance	0	0	0	3 (2%)
Voluntary donation	0	0	0	2 (2%)
Combination of the above	0	3 (13%)	2 (4%)	43 (35%)
Not available	0	1 (4%)	3 (6%)	9 (7%)
Risk included	1 (13%)	5 (22%)	18 (38%)	41 (33%)
Welfare measure: WTP	8 (100%)	22 (96%)	45 (94%)	121 (98%)
WTA	0	1 (4%)	0	0
WTP + WTA	0	0	3 (6%)	2 (2%)
Questionnaire format: Open	2 (25%)	3 (13%)	6 (13%)	18 (15%)
Bidding	0	4 (17%)	10 (21%)	13 (11%)
Payment card	3 (38%)	5 (22%)	9 (19%)	31 (25%)
Discrete	0	3 (13%)	11 (23%)	9 (7%)
Discrete with follow-up	0	1 (4%)	2 (4%)	7 (6%)
Other	0	2 (9%)	5 (10%)	8 (7%)
Not available	1 (13%)	1 (4%)	5 (10%)	16 (13%)
Combination of the above	2 (25%)	4 (17%)	0	20 (16%)
Specificity: WTP survey only	6 (75%)	16 (70%)	38 (79%)	76 (63%)
Part of another study	2 (25%)	7 (30%)	10 (21%)	44 (36%)
Reliability: Comprehensively assessed	0	2 (9%)	2 (4%)	3 (2%)
Vaguely assessed	0	2 (9%)	4 (8%)	4 (4%)
Not Available	8 (100%)	19 (83%)	42 (88%)	114 (93%)
Validity: Comprehensively assessed	0	2 (9%)	3 (6%)	15 (12%)
Vaguely assessed	1 (13%)	10 (43%)	23 (48%)	54 (44%)
Not Available	7 (87%)	11 (48%)	22 (46%)	52 (42%)

Table 2: Basic ‘League table’ of WTP values

Intervention	WTP value*		Price year/ currency	Country	Reference
Ears, Nose and Throat	Mean (other measure)	Median			
Hearing amplification: Programmable aid Standard aid Assistive listening device	\$2240 (\$0-\$5000) \$800 (\$0-\$3500) \$40 (\$0-\$500)		1999 US\$	USA	Yeuh, Arch Otolaryngol Head Neck Surg, 2001
Hearing aid	\$981.71		1999 US\$	USA	Chisolm, J Am Acad Audiol, 2001
Paediatric cochlear implant	£127	£50 (IQR £20-130)	2002 UK£	UK	Sach, Int J Pediatr Otorhinolaryngol, 2004
WTP for carrier screening for deafness genes	£42	£20	2001 UK£	UK	Ryan, 2003
Treatment for reflux oesophagitis: Short term treatment that increases probability of being symptom free; Long term treatment that reduces risk of relapse; Medication that can be taken with meals rather than 1 hour prior to meals	SEK 746 (SE88) SEK625 (SE97) SEK347 (SE38)		1995 SEK (Swedish Krona)	Sweden	Kartman, Health Econ, 1996
Respiratory disease					
Hypothetical cure for asthma - a once a day drug: Mild asthma Moderate asthma Severe asthma	Objective/Subjective disease severity \$90/£48 \$131/\$166 \$331/\$241		US\$	USA	Zillich, Pharmacoeconomic s, 2002
Reductions in the number of days experiencing symptoms of air pollution: Coughing, Shortness of breath Congested throat	1/3/7 days of symptoms HK160.5/509.6/620.2 HK197.1/607.8/914.3 HK 104.9/279.2/549.3	1/3/7 days of symptoms HK100/300/400 HK150/400/475 HK50/200/175	2001 HK\$ (HK\$12=£1)	Hong Kong	Yeung, Health Economics, 2003

Work in progress: Please do not quote without authors permission

WTP for medication that can prevent a person from developing respiratory diseases (Hypothetical)	176.6 RMB Yuan per year per person		2000 RMB Yuan	China	Yang, J Environ Sci (china), 2004
WTP for an influenza vaccination and new influenza medication (Neuraminidase inhibitors)	\$10.47 (just those that had vaccine) \$33.46		1999 US\$	USA	Steiner, Infect Control Hosp Epidemiol, 2002
WTP for a theoretical cure (drug) for COPD (Chronic Obstructive Pulmonary disease) without side-effects and WTP annually to stay healthy		NOK 200,000 or \$24,967 NOK 20,000 or \$2410	1994/5 Norwegian Kroner (NOK)	Norway	Stavem, Int J Tuberc Lung Dis, 2002
Hypothetical pneumonia vaccine: Life expectancy gains risk reduction		60/70 years old \$451/ \$291 \$296/\$280	1999 US\$	USA	Morris, Med Decis Making, 2001
Reduce risk of chronic bronchitis	\$460,000		1990 US\$	USA	Krupnick, J of Risk & Uncertainty, 1992
Reproductive health					
WTP for various maternal and infant health prepayment schemes services. WTP per episode: Antenatal examination (A) Antenatal health education (B) Hospital delivery (C) Postnatal examination (D) Postnatal health education (E) A+B+C+D+E A+C A+C+D C A+B+C+D A+B+C+E A+C+D+E A+C+E A A+B	3.20 Yuan 2.31 Yuan 233.00 Yuan 2.76 Yuan 2.38 Yuan 262.34 Yuan 240.12 Yuan 246.69 Yuan 223.00 Yuan 256.21 Yuan 255.77 Yuan 252.82 Yuan 246.25 Yuan 17.12 Yuan 26.24 Yuan		Chinese Yuan	China	Xu, Aust Health Review, 2002

Work in progress: Please do not quote without authors permission

Antenatal care (overall and GP/midwife vs. obstetrician led care)	£2,548 (95% CI £1,701-£5,183) with no difference between options		1993 UK£	UK	Ryan, Soc Sci & Med, 1997
WTP for invasive prenatal testing for chromosomal disorders.	(Distribution for all ages: 85 or 45% WTP Full cost \$1300, 69 or 37% WTP \$50-\$500, and 34 or 18% WTP \$0)		1997 US\$	USA	Caughy, Obstet Gynecol, 2004
Antenatal carrier screening for cystic fibrosis	£21 (95% CI £16.50, £27.00)	£20.5 (25%/57% percentile £10.50/£50.50)	1992 UK £	UK	Donaldson, Health Econ, 1995
Antenatal carrier screening for cystic fibrosis - 2 methods: 1) stepwise & 2) couple screening	£19 (95% CI £17.50, £20.50) £18 (£16.50,£19,50)		UK£	UK	Donaldson, Health Econ, 1997
WTP for treatment A (artificial rupture of the membranes followed by intravenous oxytocin) or treatment B (prostaglandin in E2 gel followed by oxytocin if necessary) to induce labour.	\$178 (95% CI: \$114, \$154) \$133 (95% CI: \$153, \$206)		Australian\$	Australia	Taylor, Health Expect, 2002
Hysterectomy by vaginal rather than abdominal approach Hysterectomy avoiding vertical incision Myomectomy avoiding vertical incision Myomectomy avoiding hysterectomy	\$644 (range \$200-2000) \$594 (range \$200-2000) \$792 (range \$200-2000) \$4150 (range \$300-15,000)		2001 NZ\$	New Zealand	Farquhar, BJOG, 2002
Cervical smear screen	£50.2	£45	1998 UK£	UK	Wordsworth, Cytopathology, 2001
WTP for new papanicolaou test technologies. 1) ex ante risk reduction from 1:37000 to 1:50000, 1:100000, 1:1000000, 0; 2) ex post risk reduction from 1:10,000 to 1:50000, 1:100000, 1:1000000, 0; 3) tax funded fall in number of deaths from 241 to 0, 120, 150, 190.	\$237, \$261, \$301, \$300 \$247, \$242, \$266, \$308 \$253, \$310, \$314, \$289	\$50, \$50, \$100, \$100 \$247, \$242, \$266, \$308 \$100, \$50, \$50, \$50	1000 US\$	USA	Raab, Am J Clin Pathol, 2002
Pap smear screening 10% improvement in accuracy 10% improvement in accuracy and STD test	£24.8 £15.30 £18.30		UK£	UK	Philips, Health Education Research, 2003

Private contraceptive (IUD)	\$24.61 (SD \$16.89)		1985 US\$	Israel	Gafni, J Soc Econ, 1987
Cyclofem vs Mesigyna as injectable contraceptive	(58.5% WTP £3.2)		Egyptian £	Egypt	Hassan, Contraception, 1994
WTP for IVF (In Vitro Fertilisation)	\$10,277 (range: \$0-\$100,000)	\$8,000	1999/2000 US\$	USA	Stavinoha, Investing in health: the social and economic benefits of health care innovation, 2001
WTP for a further attempt at in vitro fertilisation (IVF).	£4865-£4893 (depending on assumptions)		UK£	Scotland	Ryan, Health Econ, 2004
IVF	£5,035	£3,315	1995 UK£	UK	Ryan, Applied Econ., 1997
IVF	\$2,506 (SD2,097)	\$2,250	1994 Australian\$	Australia	Ryan, Health Econ, 1996
IVF probability of success: 10% 25% 50% 100%	Ex ante/ex post/ public programme \$865/\$17,730/ \$32 \$1,055/\$28,054/\$38 \$1,466/\$43,576/\$46 \$2,006/\$63,896/\$62		1992 US\$	USA	Neumann, Medical Care, 1994
IVF		£10,000	1992 UK£	Sweden	Granberg, Acta Obstet Gyn Scan, 1995
Oral sildenafil (Viagra) for male erectile dysfunction	(21.3% (30) wanted treatment free, 70.9% (100) wanted it free but were willing to pay some cost if required and 7.8% (11 men) felt ED shouldn't be funded by NHS and would be WTP for it 'at cost'.)		1999/2000 UK£	UK	Sairam, BMC Urol, 2002
Genitourinary system					
Reduce incontinence symptoms	SEK530	SEK240	1996 SEK (Sewdish Krona)	Sweden	Johannesson, British Journal of Urology, 1997

Diagnostic technology					
Ultrasound information	\$706 (SD \$1400)		US\$	USA	Weinstein Medical Care, 1985
Infectious and parasitic diseases					
A hypothetical HIV/Aids vaccine	6358 pesos (US\$669) with certainty 9858 pesos (mid-point of max WTP)		1999 Mexican Pesos	Mexico	Whittington, Vaccine , 2002
Voluntary HIV counselling	(50% WTP \$5.71, 80% WTP \$2)		1999 US\$	Kenya	Forsyth, Health Policy plan., 2002
WTP for routine varicella vaccination	729 NTD		2000/01 New Taiwan \$	Taiwan	Hsu, Vaccine, 2003
Hypothetical cure of hepatitis A disease symptoms.	\$3011	US\$2000 (IQR: \$500-5000)	2000 US\$	USA	Jacobs, Pharmaco-Economics, 2002
Hepatitis B vaccine	\$87.50 (SD44)		1988 Canadian \$	Canada	Pennie, Canadian J Pub Health, 1991
pain relief from shingles (herpes zoster): 1. no pain; 2. mild pain 2 weeks; 3. severe pain 2 weeks & mild pain 1 week; 4. severe pain 2 weeks & mild pain 1 month		Move from 2 to 1 = \$379 3 to 2 = \$737 4 to 3 = \$1,198	Canadian\$	Canada	Bala, J Clinical Epidemiology, 1998
WTP for 3 hypothetical vaccines that offer protection against related strands of a hypothetical infectious disease: Deput's A syndrome) Dupuits B syndrome) A composite vaccine that deals with both stains	£15.50 £23.40 £32.20		UK£	UK	Shiell, Journal of Economic Psychology, 2002
WTP for a vaccination for themselves WTP for a vaccination for someone in the poorest 20%	\$46.50 £35.60		2000 Canadian \$	Canada	Shiell, Journal of socio-Economics, 2003
Rotavirus vaccine 1 associated with 2800 cases of intussusception (vaccine 1) compared to vaccine with half the risk (Vaccine 2) Risk-free hypothetical vaccine (vaccine 3)	\$77 \$145	\$36 \$110	1999 US\$	USA	Sansom, Am J Epidemiol, 2001

Work in progress: Please do not quote without authors permission

1) Prevention of transmission of filarial lymphedema using DEC-fortified salt for the entire household 2) Treatment of filarial lymphedema per individual.	\$5.57/month/household = \$12.15 annually per person \$491/year/person including zero bids or \$805 where only positive WTP values used.		1997 US\$	Haiti	Rheingans, Filaria J, 2004
Insecticide-treated nets (ITN's): for oneself and for the poor	32.29 Naira (\$0.34) (\$0.05-\$5.37) 14.82 Naira (\$0.16) (\$0.00-\$5.37)		1998 Nigerian Naira (US\$)	Nigeria	Onwujekwe, Soc Sci Med, 2002
Insecticide-treated nets (ITN's): Bidding game Binary with follow up Structured haggling	Hypothetical/at point of purchase 162.0/167.5 Naira 195.1/220.9 Naira 190.4/194.6 Naira		Nigerian Naira	Nigeria	Onwujekwe, Soc Sci Med, 2004
Insecticide-treated nets (ITN's): for the poor for themselves for other household members	Binary with follow-up/open-ended 17.90/21.14 Naira 188.8/179.8 Naira 103.7/88.8 Naira		Nigerian Naira	Nigeria	Onwujekwe, Health Econ, 2004
ITN's (Insecticide treated nets) for malaria	107.3 KSH	50 KSH	2000 Kenyan KSH	Kenya	Guyatt, Trop Med Int Health, 2002
One treated mosquito net (TMN)	Rs57.4 (Rs73.1 excluding zeros)		1997 Indian Rupees	India	Bhatia, Health Policy plan., 2002
Future azithromycin treatment for trachoma	(38% WTP 0, 24% WTP between 1-100 Tanzanian shillings (TS), 15% WTP 100-499 TS and 23% WTP >500 TS).		? Tanzanian Shillings	Tanzania	Frick, Bull World Health Organ, 2003
Diagnostic test for H.Pluri	(52% WTP \$40 or money)		US\$	USA	Fennerty, Aliment Pharmacol Ther., 2001
Quality of care in terms of facility maintenance, supervision of personnel and drugs to treat: Diarrhoeal diseases, Acute respiratory tract infections, Malaria, Intestinal parasites and Sexually transmitted diseases		\$11.21 \$9.53 \$16.61 \$15.30 \$7.98 \$10.67 \$10.35	1994 US\$	Central Africa	Weaver, Soc Sci & Med, 1996
Anthelmintics (deworming drug intervention programme)	\$0.66 (\$0.02-2.27)		1996/97 US\$	Ghana and Tanzania	Brooker, Trop Med Int Health, 2001

Reducing the probability of getting flu: Public valuation – 20%, 40%, 60%, 70%, pooled Private valuation - 20%, 40%, 60%, 70%, pooled	1801, 3414, 5031, 5977, 3191 1548, 2839, 4130, 5107, 3191	1634, 3144, 4484, 5738, 3183. 1393, 2543, 3628, 4656, 2739	1998 Spanish Pesetas	Gran Canaria, Spain	Arana, Health Econ, 2002
Avoid sharps related injuries via a hypothetical injury-prevention device.		\$850 (\$1270 controlling for confounders)	2000/01? US\$	USA	Fishman, Am J Infect Control 2002
Parental WTP to avoid the pain and emotional distress experienced by their infants from injections.	\$30.28 per injection	\$8.14 per injection	1999 US\$	USA	Meyerhoff, Pediatr Infect Dis J, 2001
Blood products					
Autologous blood donation (own donation to a 'bank')		\$913	1995 US\$	USA	Lee, Health Policy, 1997
Disease free haemoglobin solutions (risk free blood) : 2 unit reduction in risk 6 unit reduction in risk		(10%/90% percentiles) \$4 (\$2, \$10) \$5 (\$2, \$10)	1990 US\$	USA	Eastaugh, Int J Tech Assess HC, 1991
Nervous system, mental and behavioural disorders					
Cholinesterase inhibitors in mild to moderate dementia. 1) Scenario A patient with mild dementia is stabilised with Cholinesterase inhibitors. 2) Scenario A with adverse effects 3) Scenario B - patient shows behavioural symptoms in addition to mild dementia and both can be stabilised with drug, 4) scenario B with adverse effects	\$4540 per year \$3686 per year \$5003 per year \$4486 per year		1999 Canadian\$	Canada	WU, CNS Drugs, 2003
1) care program for AD informal caregivers (AD = Alzheimer's disease), 2) An early diagnosis of AD and 3) Intensify research into AD.	Dichotomous choice/dissonance- minimising/payment card CHF 285-375/ 229-290/ 57-84 CHF 164-244/ 167-195/ 53-65 CHF 187-192/ 170-321/ 102-128	Dichotomous choice dissonance-minimising 218-166/60-242 3-46/ 38-50 95-184/ 114-142	2000 Swiss Francs	Switzer- land	Nocera, Int J Health Care Finance Econ, 2002
6-month treatment to eliminate their symptoms of depression.	\$270±187 per month baseline and \$214±174 at six months	\$200 per month	1999 US\$	USA	Untutzer, Psychiatr Serv, 2003
Moclobemide (selective serotonin reuptake inhibitor) versus tricyclic antidepressant	\$36-\$118 (depending on assumptions)		1992 Canadian \$	Canada	O'Brien, Pharmaco -Economics, 1995

Medication which reduces the side effects of schizophrenia	(% of income WTP: WTP with certainty: Total sample 5% ($\pm 7\%$), WTP with uncertainty: Total sample 2% ($\pm 4\%$))		US\$	USA	Sevy, Schizophrenia Bulletin, 2001
Hypothetical treatment for febrile seizures		(IQR for various risk reductions: 25%: \$0-20/month, 50%: \$0-25/month, 75%: \$0-30/month and 100%: \$25-200/month).	Canadian \$	Canada	Gordon, Pediatrics, 2001
Musculoskeletal system and connective tissue					
Osteoporosis - drug to reduce risk of hip fracture by 50% in four hypothetical cases 1) low risk <10% chance of hip fracture 2) slight risk 11-20%, 3) moderate risk 21-35% and 4) high risk >35% chance of having a hip fracture in lifetime. Before and after regulations and compared to a hypothetical drug	Before/ after regulations/ and for hypothetical drug \$52.87/ \$33.56/ \$36.07 \$56.97/ \$37.50/ \$39.72 \$67.84/ \$47.81/ \$49.82 \$77.27/ \$57.90/ \$62.90		US\$	Israel	Werner, Osteoporos Int, 2002
Alleviate symptoms of arthritis using an anti-heumatic agent, anti-TNF- α blockade	DKK 650 (\$93) per month		Danish Kroner (DKK)	Denmark	Slothuus, Soc Sci Med, 2002
Monthly treatment for osteoarthritis For relief For cure	Bidding game/discrete choice €81.9/ €64.2 €114.9/ €101.6		2001 Euro €	Belgium	Ethgen, J Rheumatol, 2003
Hypothetical cure for rheumatoid arthritis	\$5,423		1984 US\$	USA	Thompson, Am J Public Health 1986
Bone density testing	\$25		2000 US\$	USA	Lata, Menopause, 2002
BMD (bone mineral density) screening (osteoporosis)	Payment card/ open-ended £61.111 (95% CI £53.94,£68.28)/ £55.02 (£40.13,£69.91)	PC/OE (25 th -75 th %ile) £50 (£30,£75)/ £30.00 (£25,£65)	1994 UK£	UK	Donaldson, Applied Econ, 1997
Community pharmacy based Bone Mineral Density testing (BMD)	(41% WTP \$20 or more. 34% \$0-5, 26% \$10-15, 23% \$20-25 and 18% \$30-35.)		2002 US\$	USA	Cerulli, J Am Pharm Assoc (wash DC), 2004

Health care for the elderly					
Continuing care for elderly in either 1) hospital or 2) nursing home.	(10% value hospital <£215pw, 0% other values, with 61% not WTP anything and rest N/A) (1% value nursing home <£215pw, 32% £215-£234, 42% £235-254, 9% >£255, 5% N/A).		1986/87 UK£	UK	Donaldson, JHE, 1990
Neoplasms					
Mammography	\$130 for all		1999 US\$	USA	Wagner, Health Policy, 2001
Immediate results of mammography	(19 or 24% pay additional \$10, 9 or 11% pay £25)		US\$	USA	Raza, AJR Am J Roentgenol, 2001
Avoid a biopsy for breast cancer 100% accuracy 95% accuracy	\$611 \$308		1999 US\$	USA	Liang, Breast cancer Res Treat., 2003
Improve access to mammographic screening in rural areas of Australia: mobile screening van at least once a year or women could visit town x any time of year	\$148.09 (95%: \$131.13-\$166.66)		1996 Australian \$	Australia	Clarke, Health Econ 2002
Filgrastim - prophylaxis against febrile neutropenia after chemotherapy for cancer (per 10% reduction)	Insurance based / single payment \$1,200 /£3,298		1995 US\$	USA	O'Brien, Medical Care, 1998
Colorectal cancer screening : Faecal Occult Blood (FOB) test versus Flexible sigmoidoscopy (FS)	Open-ended(OE)/payment scale (PS) £66.3(5% trimmed)/£68.1 untrimmed £43.3(5% trimmed)/£70.1 untrimmed	OE/PS £30/ £50 £30/ £50	UK£	UK	Frew, Eur J Cancer, 2001
Docetaxel in treatment of advanced ovarian cancer	\$64 (95% CI \$33-92)	\$62 (95% CI \$0-125)	2003 Canadian \$	Canada	Dranitsaris, 2004, Pharmacoeconomic
Nutrition and food poisoning					
The elimination of the risk of poultry-borne illness through: irradiation, a hypothetical device and for non-irradiated poultry.	Open-ended(OE)/bidding format(BF) £1.15/ £2.06 £1.19/ £2.13 £0.88/ £1.65	OE/BF £1.5/£1.5 £1/£1 £0.5/£0.6	UK£	UK	Van Der Pol, Appl Health Econ policy, 2003

Prevention: a hypothetical medication to avoid illness from contaminated food and Treatment - a hypothetical medication to treat for contaminated food illness caught abroad.	\$223 (95% CI \$198-\$250) \$665 (95% CI \$547-\$809) Full sample \$361 (\$326-401)		1999 US\$	USA	Corso, Med Decis Making., 2002
Irradiation of poultry meat (to avoid food borne illness)	(Presented as proportions WTP or not)		1994 UK £	UK	Donaldson, Epidemiol. Infect, 1996
Fortification of flour with folic acid: In favour Opposed	£22.8 £11.90	£12.50 £6.30	2002 UK£	UK	Dixon, Health Expect, 2003
Health technology					
Kamaishi city tele-health system.	4519 (US\$37) per user per month		Yen ¥	Japan	Tsuji, J Telemed Telecare, 2003
Health monitoring devices in the home amongst the elderly	\$18.21	:\$15	1998 US\$	USA	Mann, J Long Term Home Health Care, 2002
Low versus high osmolality contrast media (low has lower risk of side effects)		\$50	1987 US\$	USA	Appel, Medical Care, 1990
Sleep disorders					
Polysomnography in children with obstructive sleep apnea syndrome.	\$762	\$703 non-adjusted	2001 NIS New Israeli Shekels 4.2 = \$1 USD	Israel	Tarasiuk, Sleep, 2003
Eye and adnexa					
Cataract surgery	\$7 (SD \$15) per case		? \$?	Nepal	Shrestha, Br J Ophthalmol., 2004
Characteristics of a better eye drop: including reduced dosing (once/twice a day), 2 medicines in one bottle, does not blur vision, no stinging or tearing, does not produce bad taste, does not cause drowsiness, Brand name rather than generic, does not inhibit sexual function.	Out of pocket (co-payment) \$56.22 (\$15.02)/ \$63.10 (\$18.33) \$57.60 (\$16.54) \$70.61 (\$22.32) \$61.86 (\$18.91) \$65.76 (\$20.48) \$68.52 (\$22.03) \$54.13 (\$17.92) \$68.28 (\$23.42)	\$50 (\$10.25)/ \$60 (\$15) \$50 (\$14.50) \$60 (\$20) \$60 (\$15) \$60 (\$15) \$60 (\$20) \$50 (\$10) \$60 (\$20)	2000/1 US\$	USA	Jampel, Arch Ophthalmol, 2003

Skin and subcutaneous tissue					
Lasertreatment for port wine stains and WTP for complete release from your disease for the rest of your life.	€16 per treatment and €192 for whole treatment		2001 €Euro	Germany	Schiffner, Br J Dermatol, 2002
Dermoscopical methods for detection of malignant melanoma: 1) NEI - naked eye inspection; 2) HDD - Handheld dermoscopy; 3) DD - digital dermocopy; 4) TD teledermoscopy; and 5) hypothetical method with 100% accuracy. WTP for avoiding a regular follow-up and WTP to dismiss a history of malignant melanoma	€13.70 (±16.70) €22.80 (±23.40) €3.80 (±46.10) €5.30 (±47.60) €2.10 (±76.10) €12.00 (±17.19) €9.00 (±131.50)		2001 €Euro	Germany	Schiffner, Eur J Dermatol, 2003
Imaginary therapy to cure psoriasis vulgaris	(% of income WTP = 13.8% pre-treatment and 11.5% post treatment)		1999-2001? € Euro	Germany	Schiffner, Br J Dermatol, 2003
Repairing pediatric facial lacerations: via: nondissolving sutures, dissolving sutures or tissue adhesive	0? \$25 (25%/75% percentiles 10,56) \$40 (25,100)		1993 Canadian \$	Canada	Osmand, J of Pediatrics, 1995
Allergies					
Alternative medicine for allergy: Complete healing	€1534 (range €1-€10,226) (for 81.5% sample WTP)	€409 (€153 higher than actually paid – 55.4% WTP > cost)	2001/2 €Euro	Germany	Schafer, Allergy, 2002
Multi-disease study interventions					
150 extra cancer treatments per annum, 100 extra heart operations per annum and the introduction of a helicopter ambulance service (15 lives saved).	Payment card and discrete choice £54.12/ £191.63 - £356.42 £51.81/ £181.74 - £332.20 £40.43/ £122.59 - 318.60		? UK£	UK	Ryan, Journal of health Economics, 2004

More heart operations, a new breast cancer treatment and a helicopter ambulance service. 3 levels of information given: 1) Standard info, 2) neutral information about what on average happens to patients after the intervention, 3) Positive information - could choose single room or not without additional cost.	FF339±491 FF306±306 FF251±308 Heart/breast/helicopter FF247±258/ FF255±288/ FF226±322 FF371±664/ FF302±278/ FF198±217 FF405±484/ FF353±340/ FF323±355		1998 French Francs (FF)	France	Protiere, Soc. Sci. & Med., 2004
Specific risk reduction that reflected vaccine effectiveness for each condition: Simple otitis media, complex otitis media, moderate pneumonia, severe pneumonia, meningitis, bacteraemia, fever & fussiness, All listed.	Parent / Community Mean (25 th -75 th percentile) \$100 (\$25-200) / \$100 (\$50-500) \$150 (\$50-500)/ \$200 (\$75-500) \$200 (\$100-500)/ \$300 (\$100-1000) \$400 (\$100-500)/\$400 (\$150-1000) \$400 (\$100-500) /\$400 (\$150-1000) \$250 (\$100-875) /\$300 (100-\$1500) \$25 (\$5-\$50)/ \$50 (\$25-\$200) \$250 (\$150-500)/ \$300 (\$150-700)		2001 US\$	USA	Prosser, Pediatrics, 2004
Hypothetical programmes: Expansions in 1) pain-relieving treatment programme for cancer patients; 2) cardiovascular operations and 3) community care services.	Mean (95% bootstrapped CI) £48.86 (£42.38-55.35) £44.02 (£37.91-50.45) £40.82 (£35.27-47.10)	£25 £20 £20	2000/1 Irish £	Ireland	O'Shea, Economic and social review, 2001
Heart disease, breast cancer and a helicopter ambulance service.	346FF (±525) 305FF (±295) 246FF (±292)		1998 French Francs	France	Luchini, Health Economics, 2003
Hypertension, diabetes, broken wrist and cancer of the uterus	DKK 167 DKK 151 DKK 119 DKK 248	DKK 50 DKK 30 DKK 26 DKK 100	1993? Danish Kroner (DKK)	Denmark	Gyldmark, Soc Sci Med, 2001

Helicopter ambulance, 80 heart operations, 250 hip operations	NOK316 (SE25) OK306 (SE25) NOK232 (SE21)	NOK200 NOK200 NOK150	1992 NOK Norwegian Kroner	Norway	Donaldson, Soc Sci & Med, 1998
Endocrine, nutritional and metabolic diseases					
Prevention and unspecified treatment: for blindness, foot ulcers, high blood cholesterol, high blood pressure, impotence, kidney disease, migraine, mild indigestion and sleeping problems.	Groups 1 / 2 / 3 / 4 £88.02, £33.22, £62.97, £125.51 £25.92, £20.98, £28.23, £27.50 £15.62, £16.05, £21.74, £19.27 £27.37, £17.67, £19.16, £20.64 £50.54, £17.31, £32.08, £38.98 £66.06, £41.76, £56.33, £82.84 \$14.33, \$11.14, \$18.27, \$20.51 £7.52, \$7.31, \$11.84, \$ 6.29, £13.49, £6.51, £17.49, £15.46	Groups: 1: impotent diabetic men 2: impotent single diabetic males 3: non-impotent diabetic men 4: Controls	? UK£	UK	Rance, Diabet Med, 2003
Reductions of risk of several diabetic complications: Retinopathy Neuropathy Diabetic foot Holistic WTP	Group 1 / 2 €26.03/ €33.11 €24.48/ €30.81 €35.45 (group 2 only) €46.63/ €35.64		? €Euro	Germany	Hammerschmidt, Health Economics, 2004
Diabetes disease state management programs	\$28.16	\$30	US\$	USA	Barner, Investing in health: the social and economic benefits of health care innovation, 2001
Hormone replacement therapy (HRT)	SEK3,508	SEK3,651	1995 SEK (Swedish Krona)	Sweden	Zethraeus, Health Econ, 1998
Digestive system					
Laparoscopic (rather than conventional/open) cholecystectomy: Outcome only Process and outcome	£247.13 (£179.64,£314.62) £183.33 (£95.02,£271.64)	(25/75% percentile) £200 (£100,£400). £100 (£35,£200)	1994 UK£	UK	Donaldson, Soc Sci & Med, 1997

Work in progress: Please do not quote without authors permission

antisecretory drugs for duodenal ulcer or reflux esophagitis	SEK138 (96% CI 101-175)		1995 SEK (Swedish Krona)	Sweden	Stalhammer, Med Dec Making, 1996
Medication and Pharmacy based interventions					
Prescribed non formulary medication and brand-name medication (per month)	(33% \$0, 33% \$1-5, 25% \$6-10) (50% \$0, 28% \$1-5, 12% \$6-10, 7% \$11-15, 4% \$16-20 and 1% >\$20)		2000 US\$	USA	Nair, J Manag Care Pharm., 2002
Pharmacist-provided follow-up services	\$34.50 per 30 minute consultation		2000 Canadian \$	Canada	Ali, Can J Clin Pharmacol , 2003
Written information in additional to verbal information from pharmacists	(80% WTP between \$0.5 and \$1.00)		1987 US\$	USA	Culbertson, Drug Intell Clin Pharm, 1988
Pharmacist counselling for non-prescription medicines	(56.5% WTP \$0.50 to \$1.50; 28.2% WTP \$1.51 to \$3.00; 15.3% WTP >\$3.00)		1992 US\$	USA	Gore, J Clinical Pharmacy, 1994
Occupational Health					
Occupational Health Service (OHS)		WTP: £300 per employee per year and WTA: £400 per employee per year.	2002 UK£	UK	Miller, Occupational Medicine, 2002
Dentistry					
Anaesthetic dental gel: General population Recall population	Out of pocket/ insurance based \$22.56/ \$3.28 \$16.67/ \$4.05	\$20/ \$10 per visit \$2 / \$2	1999 Canadian \$	Canada	Matthews, Pharmaco-Economics, 2002
Information from consultations					
Brief doctors notes, Nurse advice and Telephone prescription renewal	("a WTP \$10 for doctors notes, no WTP for nurse advice and neutral for telephone prescription renewal")		US\$	USA	Ellison, Leadership, 1994
Tape recordings of physician consultations	\$1.46		1989/1990 US\$	USA	Nathan, Arch Fam Med, 1994
Health care or health status					
Adolescent Health Service	(100% WTP \$5; 66% \$10; 50% \$15; 20% >\$20)		1982 US\$	USA	Fisher, J Pediatrics, 1985

Child health services: 1. day case vs overnight tonsillectomy; 2. hospital vs local clinics for bedwetting; 3. school health service covering all pupils vs those with special needs	£56 vs. £43 £10 vs. £44.57 £47.33 vs.£20.92	£45 vs.£27 £10 vs. £30 £20 vs. £10	1993/4 UK£	UK	Donaldson, Health Care Analysis, 1997
Supplemental health care (top up to social insurance system to see 1. specialist and 2. surgeon of choice)	(57.5% WTP NIS 0; 17.4% NIS 1,500; 8.5% NIS 2,500; 2.5% NIS 3,500; 14.1% NIS 4,500)		1989 NIS (New Israeli Sheqels)	Israel	Golan, Med Dec Making, 1993
Health care at the Government facility, per visit	Rs 22	Rs 20	1998 Pakistan Rupees RS. ?	Pakistan	Masud, J Ayub Med Coll Abbottabad., 2003
Individual and household membership of community-based insurance.	Bidding game: 3191 CFA (US\$4.25) per individual 9769 CFA (US\$13.03) per household	Take it or leave it: 2384 CFA (US\$3.17) 6448 CFA (US\$8.6)	2001 Franc CFA	Burkino Faso	Dong, Health Econ, 2003
Move from hypothetical health states to perfect health; Health states 1/2/3/4/5/6/7	Bidding game/open-ended 1 \$79.6, 2 \$88.5, 3 \$84.5, 4 \$109.1, 5 \$119.6, 6 \$134.3 and 7 \$145.4/ 1 \$100, 2 \$134.6, 3 \$102.6, 4 \$148.8, 5 \$177.7, 6 \$211.0 and 7 \$239.0.		1999 Canadian \$	Canada	Lachaine, Pharmaco- economics, 2003
Increased life expectancy beyond age 75 years		SEK 100	1995 SEK (Swedish Krona)	Sweden	Johansson, J of Public Economics, 1997
QALY (health status)	DKK 88,000 per QALY model 2a. Model 3a DKK 74,109 per QALY.		2001 Danish Kroner (DKK)	Denmark	Gyrd-Hansen, Health Economics, 2003
Anaesthesia					
Proven awareness monitor (Anaesthesia): High risk Low risk	\$100 (\$0-\$500) \$0.5 (\$0-\$100)		2001 Australian \$	Australia	Leslie, Anaesth Intensive care, 2003
A "depth of anaesthesia" monitor: Intraoperative awareness Postoperative pain Postoperative nausea and vomiting Postoperative grogginess		Median (range) \$34 (\$10-\$42) \$50 (\$20-\$100) \$33 (\$10-\$50) \$20 (\$0-\$50)	? US\$	USA	Gan, J Clin Anesth, 2003

Multimodal anti-emetic prophylaxis versus propofol-desflurane-fentanyl no antiemetic prophylaxis anaesthetic		£84 (£33-£184) £14 (£4-£30) median (25-75 Percentile)	? UK£?	Germany?	Eberhart, Anaesthesia, 2002
Migraines					
WTP for a hypothetical 100% effective drug for treatment of migraines and WTP for hypothetical drugs with one less than ideal attribute (only asked to patients suffering the particular attribute), these included: 1) no relief of nausea 2) no relief of photophobia 3) offered relief of ancillary symptoms but no relief of pain 4) offered relief only after 2 hours of onset 5) offered relief with inability to return to work afterwards 6) offered relief with a 50% chance of causing a rebound headache.	(as % of WTP for 100% effective drug) 74% 65% 58% 57% 49% 43%.	\$130 per month or \$1560 per person per year.	1999 US\$	USA	Lenert, Med Care, 2003
Environmental factors affecting health					
Radon remediation: single bounded One way double /one way resentment double bounded	£538.83 £766.75.		1999/2000? UK£	UK	Kennedy, Health Econ, 2002
Circulatory system					
Pharmacist health promotion programme for patients with hypertension.	\$0.54 per month (\$4.86 for whole 9 months)		1998 Canadian \$	Canada	Cote, Pharmaco-economics, 2003
Pharmacist clinics for hypertension, Geriatric hypertension, Anticoagulation, Heart education, Clinical pharmacy Total	\$29.58 (SD27.30) \$20.88 (18.43) \$17.46 (26.32) \$25.75 (32.35) \$16.39 (17.39) \$21.44 (25.77)	\$11	1991 US\$	USA	Reutzel, J or Res Pharm Econ, 1993
Antihypertensive treatment (reduce high blood pressure)	SEK4,500	SEK2,900	1989 SEK (Swedish Krona)	Sweden	Johanesson, JHE, 1991

Work in progress: Please do not quote without authors permission

Antihypertensive treatment (reduce high blood pressure)	SEK842 (SD 96)		1991 SEK (Swedish Krona)	Sweden	Johannesson, JHE, 1993
Non-pharmaceutical treatment (NPT) compared with drug treatment for hypertension (monthly visit by nurse, 6-month doctor visit, BP monitor, dietary advice, relaxation, physical exercise etc)	SEK374		1988 SEK (Swedish Krona)	Sweden	Johannesson, J Internal Medicine. 1991
Antihypertensive treatment (reduce high blood pressure)	\$94.67 (SD76)	\$50	1994 US\$	USA	Ramsey, Soc Sci & Med, 1997
Dietary advice versus antihypertensive drug treatment for obese men with mild hypertension	SEK5,556 SEK5,448		1991 SEK (Swedish Krona)	Sweden	Johannesson, J of Hypertension, 1992
Lipid (cholesterol) lowering	SEK349.40 (SD SEK281.14)		1991 SEK (Swedish Krona)	Sweden	Johannesson, Applied Econ., 1993
Reduction in angina attacks: 25% reduction 50% reduction 75% reduction	SEK1,145 SEK2,780 SEK2,621		1994 SEK (Swedish Krona)	Sweden	Kartman, Med Dec Making, 1996
Avoid angina symptoms' (no tech specified)	OE arithmetic/geometric mean \$40 per episode	Discrete choice \$200	US\$	USA	Chestnut, Med Dec Making, 1996
Community based scheme for cardiovascular disease (diet, smoking etc)	(Report no. respondents WTA one of three amounts offered)		1988 SEK (Swedish Krona)	Sweden	Lindholm, Int J Tech Assess HC, 1994
Drugs and poisoning					
Reduce travel time requirement and WTA compensation for a non-reduction in travel time for methadone maintenance clients.	WTP (WTA) \$4.35 (\$5.68)		1999 US\$	USA	Borisova, Health Econ, 2003
Poison control centres	\$2.54 (SD \$4.01)	\$0.75	1995 US\$	USA	Phillips, JHE, 1997

* WTP values will in time be converted into a common currency and inflated to a single price year.

Table 3: Net benefit values or cost benefit ratios

Author, year	Intervention	Cost (£)	WTP value (£)	NPV or CB ratio	Currency and price year
Cote, 2003	Pharmacist health promotion programme for patients with hypertension.	Publicly/privately Total cost \$30.70 (\$30.92) per individual if	\$0.54 per month (\$4.86 for whole 9 months)	1:9.6	Can\$ 1998
Donaldson, 1996	Irradiation of poultry meat (to avoid food borne illness)	<£1,784,103	Presented as proportions WTP or not	Positive -benefit = £1,784,103	UK£ 1994
Dranitsaris, 2004	Docetaxel in treatment of advanced ovarian cancer	Incremental cost of \$87	Mean \$64 Median \$62	-\$23 (95% CI -\$5,\$-5) -\$25	Can\$ 2003
Hsu, 2003	Routine varicella vaccination	Net cost NTD 281 million	729 NTD	NPV = NTD 272 million	New Taiwan Dollars 2000/01
Johaneson, 1991	Non-pharmaceutical treatment (NPT) compared with drug treatment for hypertension	SEK5,301	SEK374	Positive cost of SEK2,082	SEK (Swedish Krona) 1988
Lindholm, 1994	Community based scheme for cardiovascular disease (diet, smoking etc)	SEK467.330	Reports no. respondents WTA one of three amounts offered.	3:1 in favour of benefit	SEK (Swedish Krona) 1988
Miller, 2002	Occupational Health Service (OHS) by business unit: Retail CI direct England and Wales CI direct Scotland Refinery A Refinery B LPG BU CINE Supply and distribution LPG UK	Cost of actual OH premium: £97 £137 £129 £7 £23 £125 £103 £129 £108	WTP (WTA) £230 (£150) £250 (£325) £100 (£1000) £325 (£350) £450 (£625) £400 (£400) £50 (£30) £400 (£500) £520 (£575)	lower (upper) value added (£) for OH premium: £133 (£53) £113 (£188) £-29 (£871) £318 (£343) £427 (£602) £275 (£275) £-53 (£-73) £271 (£371) £412 (£467)	UK£ 2002?

	Lubes Air Marine GSP BPA	£148 £128 £164 £148 £97	£450 (£600) £230 (£231) £200 (£500) £200 (£500) £100 (£200).	£302 (£452) £102 (£103) £36 (£336) £52 (£352) £3 (£103)	
Nocera, 2002	1) care program for AD informal caregivers (AD = alzheimer's disease), 2) an early diagnosis of AD and 3) intensify research into AD.	Total maximum costs per annum: CHF298 million CHF175 million CHF561million	Total WTP CHF319 to CHF1568 million p.a. CHF17 to CHF919 million p.a. CHF561 to CHF1056 million p.a. Dependent upon elicitation method used.	Net benefit: CHF21 to CHF1270 million p.a. CHF-158 to CHF774 million p.a. CHF0 to CHF 495 million p.a.	Swiss Francs (CHF) 2000
Tara-siuk, 2003	Polysomnography in children with obstructive sleep apnea syndrome.	\$250	Mean WTP \$762 and Median unadjusted WTP £703	\$572 benefit per patient – 3.16 benefit to cost ratio.	NIS New Israeli Shekels (2001) 4.2 = \$1 USD
Wu, 2003	Cholinestrase inhibitors in mild to moderate dementia. 1) Scenario A patient with mild dementia is stablised with Cholinestrase inhibitors. 2) Scenario A with adverse effects 3) Scenario B - patient shows behavioural symptoms in addition to mild dementia and both can be stabilised with drug 4) scenario B with adverse effects	\$1675	Yearly mean WTP: \$4540 \$3686 \$5003 \$4486	Net benefit ranges between: \$1723 to \$4508 (Depending in income, presence or not of adverse effects and presence or not of behavioural symptoms in patient)	Can\$ 1999