



Hofstra Cultural Center Conference New Directions in American Health Care

Hofstra University, March 11 and 12, 2010

What do Citizens Want from Their Health Care System? Implications for Swiss Health Policy

by

Peter Zweifel, pzweifel@soi.uzh.ch



Outline

1. Introduction and motivation
2. The Swiss health care system
3. Discrete-choice experiments for measuring preferences
4. Measured preferences
5. Conclusion



1. Introduction and motivation I

- Policy makers not only of the United States but of virtually all industrial countries seek to curb the rise of health care expenditure
- One way to achieve this is to change the provision of health care services
- Following the lead of the United States, different forms of Managed Care (MC) have been introduced in several countries
- For instance, gatekeeping is the universal standard in the Netherlands
- In Germany, physician networks are being promoted



1. Introduction and motivation II

- But: Do these reforms match citizens' preferences?
- The “HMO backlash” in the United States suggests “No”
- Note: In our daily lives, we do not minimize cost but look for favorable performance-cost ratios
- If reforms fail to improve the performance-cost ratio of citizens, they meet with resistance
- Apart from expressing their dissatisfaction at the polls, citizens may seek care somewhere else (Canada, Italy)



1. Introduction and motivation III

- 'Performance' in the performance-cost ratio contains an important element of subjective valuation
- Taking preferences of consumers into account is crucial for gaining acceptance of reforms
- Preferences w.r.t. MC attributes in the provision of care have been measured in Germany, The Netherlands, and Switzerland
- Switzerland is of particular interest because its health care system is somewhat similar to that of the United States



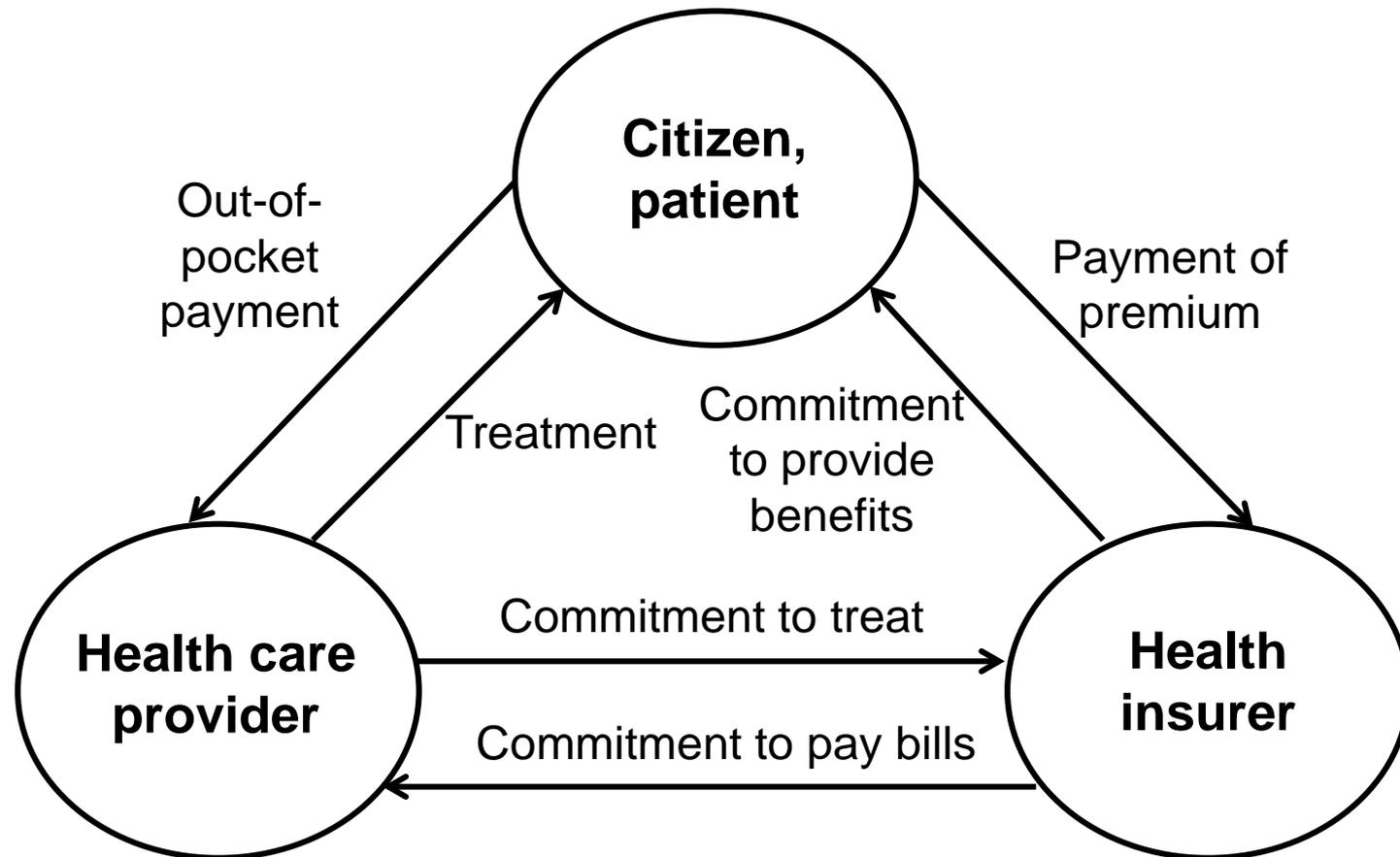
1. Introduction and motivation IV

This presentation seeks to attain the following objectives:

- (1) Provide some institutional background for understanding the Swiss status quo from which preferences will be measured
- (2) See how market experiments (in particular of the Discrete Choice type) can be used to measure preferences for the provision of health care, even in \$ terms
- (3) Gain insight into preference heterogeneity with regard to health care provision, which does not seem to be compatible with uniform national solutions typically proposed by policy makers

2. The Swiss health care system I

Consider the triangle of contractual relationships:





2. The Swiss health care system II

Relationship between citizens and health insurers:

- Mandate to buy coverage for a nationally uniform list of benefits
- Individual choice of 7.7mn. consumers between some 90 sick funds, no employer involvement
- Choice of annual deductible (\$400 up to 2,500) and between conventional fee-for-service and MC policies
- Community-rated premiums that differ between insurers
- Right to a premium subsidy if premium exceeds some 8 percent of taxable income
- Annual open enrolment
- Risk adjustment scheme penalizing funds who enroll an above-average share of low risks



2. The Swiss health care system III



Relationship between health insurers and health care providers:

- Any-willing-provider clause in favor of physicians, MC networks exempted
- Nationwide uniform relative fees (TARMED); MC exempted
- Mandatory cantonal hospital associations negotiating with cantonal health insurer associations
- Nationwide transition to DRG-based payment of hospitals by 2012
- Uniform positive list for pharmaceuticals
- “Domestic providers only” rule



2. The Swiss health care system IV

Relationship between health care providers and patients:

- Free choice of physician within canton, easily extended to country; MC policies excepted
- Free choice of hospital within canton, easily extended in the case of small cantons, also for MC policies
- Access to medical schools restricted, resulting in large inflows of foreign (mainly German) medical graduates
- However, transition from hospital service to private practice blocked for foreigners since several years



3. Discrete choice experiments for measuring preferences I



How to measure preferences?

- Using market observations (revealed preference):
willingness to pay > price paid
- Does not work in health because of insurance coverage and negotiated prices
- Using surveys (stated preference): market experiments

Use of market experiments?

- For new products, where market observations are not yet available
- For non-marketable products such as policy proposals

Main methods?

Contingent Valuation, Conjoint Analysis

3. Discrete choice experiments for measuring preferences II



Conjoint Analysis preferred for this research

Basic assumption: consumers value attributes of products

- Theory developed in the 1960s (Luce und Tukey, 1964; Lancaster, 1966)
- Popular in marketing studies

Adaptation for economic research:

- Foundation in decision theory provided by Louviere et al. (1982, 1983), Mc Fadden (1974)

3. Discrete choice experiments for measuring preferences III



Existing applications to Swiss health care:

Zweifel, P. et al. (2005), Consumer resistance against regulation: the case of health care, *J. Regulatory Economics*, 29(3), 319-32.

Becker, K. and Zweifel, P. (2008), Age and choice in social health insurance, *The Patient* 1 (1), 27-40.

Telser, H., Becker, K., and Zweifel, P. (2008), Validity and reliability in willingness-to-pay estimates: evidence from two overlapping discrete-choice experiments, *The Patient* 1 (4), 283-96.

3. Discrete choice experiments for measuring preferences IV



Description of product through attributes:

- Attributes must be relevant, realistic, and different between status quo und alternative
- Car example: horsepower, brand, color, leg room, trunk capacity, fuel efficiency, safety; price

This application:

- Attributes of new forms of provision of health
- Literature search, talks with experts, group discussions
- Political debate
- Pretest

3. Discrete choice experiments for measuring preferences V



Attributes are combined to form (hypothetical) products

- Variants are defined by different levels of attributes

Repeated choice between alternative and status quo

- Present investigation: Consumers are to choose between their current health insurance and an alternative
- Alternatives feature a changed setting for the provision of health care
- Each time, attribute levels change

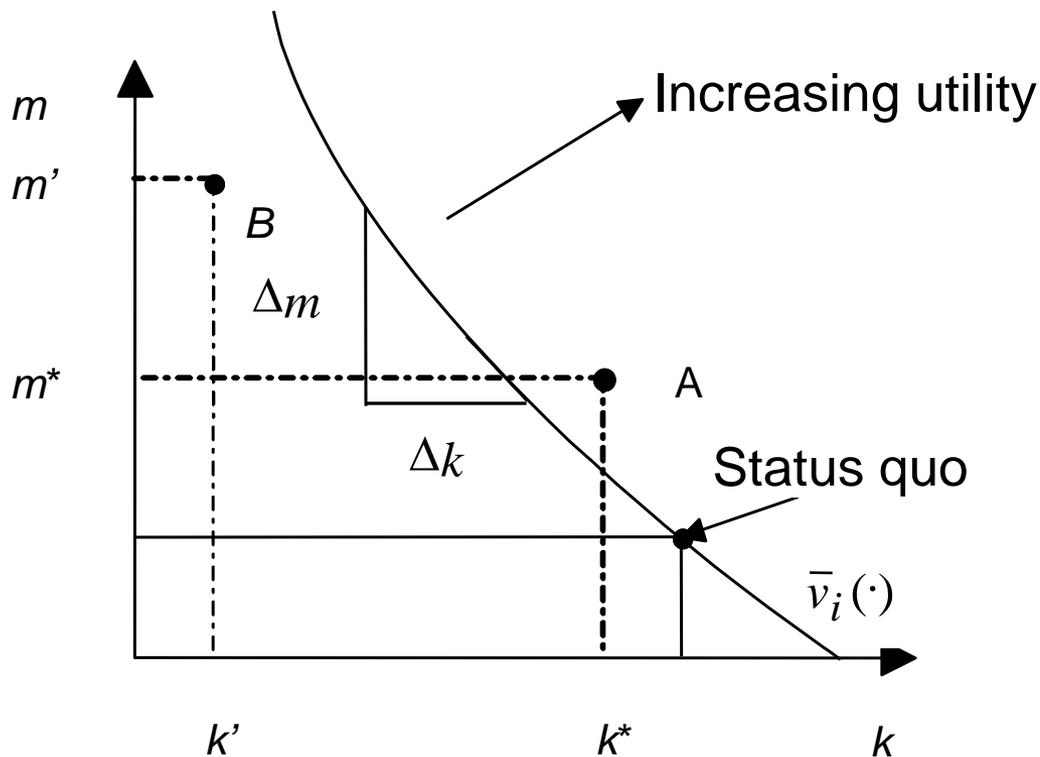
Behavioral assumption:

- Consumers opt for best choice, “utility maximization”

3. Discrete choice experiments for measuring preferences VI



Determining a person's indifference curve from repeated choices:



$\bar{v}_i(\cdot)$: locus of constant utility, indifference curve

m : freedom of physician choice

k : extra services provided by health insurer

3. Discrete choice experiments for measuring preferences VII



- Slope $\Delta m / \Delta k$ indicates the amount of extra services Δk that is just sufficient to compensate the consumer considered for the restriction of his/her physician choice
- The indifference condition guarantees acceptance
- Now let k = disposable income after having paid the insurance contribution
- Then, slope $\Delta m / \Delta k$ indicates the financial compensation required for accepting the proposed restriction of physician choice



3. Discrete choice experiments for measuring preferences VIII

- All possible combinations of attribute levels would cause an excessive number of alternatives
- Design optimization resulted in 40 choices, split into 4 sets containing 10 choices per respondent
- Preparation of experiment:
 - Package sent, with information about the Swiss health care system
 - Respondents had to verify their current premium
- Telephone interviews in Fall of 2003:
 - 1,032 adult respondents from German- und French-speaking Switzerland
 - 28 declined to continue the experiment
 - 9.8 out of 10 choices performed on average

3. Discrete choice experiments for measuring preferences IX



Choice example:

Status quo

Free physician choice
Medical innovations immediately
Pharmaceuticals according to nationwide benefit list
Free hospital choice (canton)
No long-term care coverage
Current premium (known)

Alternative

Physician list based on quality criteria
Delay of access 2 years
Only generics reimbursed
Only regional medical centers
Covered for an extra \$ 39/mo. paid by aged 50+
Reduction by \$ 46/month
(nationwide average was \$ 233/month in 2003)



4. Measured preferences I

Average WTP values (+: willingness to pay, -: compensation required)

	in \$/mo. ^{a)}	in % ^{b)}
Physician list based on cost only	-79	36
Physician list based on quality only	-41	18
Physician list based on cost & quality	-32	14
Access to medical innovation delayed 2 years	-50	22
Generics only	-2	1
No „petty drugs“ reimbursed	+5	-2
Choice of hospital restricted to regional centers	-28	13
Mandatory long-term care insurance	-19	9

Status quo bias	-45	20

a) 1 US\$ = 0.77 CHF at 2003 exchange rates

b) In % of the nationwide 2003 premium of \$ 223/mo.



4. Measured preferences II

Why these estimates make sense:

- A physician list exclusively based on cost criteria constitutes a very harsh restriction. It requires the highest compensation (36% of average premium)
- A physician list based on cost and quality criteria might come close to achieving a favorable performance-cost ratio. Compensation required drops to 14% of average premium
- Delayed access to medical innovation may jeopardize survival in some instances. Compensation required is substantial (22% of average premium)



4. Measured preferences III

Why these estimates make sense (cont'd):

- By way of contrast, generics contain the same active substance as the original product. Zero compensation required. Same for “petty drugs”
- Hospitalization is less likely by far than a physician contact. Compensation for restricted choice a low 13% of premium
- Mandatory long-term care insurance resisted because “kids may not care anymore”



4. Measured preferences IV

Hypothesis:

- Willingness-to-pay and compensation-required values differ between socioeconomic groups (preference heterogeneity)
- Differences are predicted to exist according to
 - gender (not confirmed)
 - age (confirmed)
 - health status (partially confirmed)
- Values shown relate to average individual in subpopulation considered and are subject to large standard errors



4. Measured preferences V

Values in \$/mo. according to age (+: willingness-to-pay, -: compensation required)

	Mean ^{a)}	25-39	40-64	64+
• Physician list (cost only)	-79	-62	-105	-116
• Physician list (quality only)	-41	-29	-55	-100
• Physician list (cost and quality)	-32	-22	-46	-57
• Access to innovation delayed 2 yrs.	-50	-35	-78	-62
• Generics only	-2	-7	+3	+2
• No „petty drugs“	+5	+2	+11	-15
• Choice of hospital restricted to regional medical centers	-28	-25	-35	-27

a) 1 US\$ = 0.77 CHF at 2003 exchange rates



4. Measured preferences VI

Why these estimates make sense:

- Quite generally, a change away from the status quo entails an investment. The payback period decreases with increasing age
- Also, medical services become more effective relative to one's own health-enhancing efforts with increasing age
- Compensation required for MC-type restrictions should rise with age
- Estimated values do rise with age for all types of physician list
- However, they are maximum for medical innovation in the 40-64 age group, who likely is most familiar with it
- Likewise, they are maximum for 'regional medical centers only' in the 40-64 age group, who often has strong community connections



4. Measured preferences VII

Values in \$/mo. (+: willingness-to-pay, -: compensation required)

	Mean ^{a)}	German-speaking	French-speaking
• Physician list (cost only)	-79	-62	-147
• Physician list (quality only)	-41	-29	-106
• Physician list (cost and quality)	-32	-20	-104
• Access to innovations delayed 2 yrs.	-50	-43	-90
• Generics only	-2	-4	+11
• No „petty drugs“	+5	+4	+10
• Choice of hospital restricted to centers	-28	-24	-56

a) 1 US\$ = 0.77 CHF at 2003 exchange rates



4. Measured preferences VIII

- Similar experiments were conducted in Germany (2005) and The Netherlands (2006)
- Preference heterogeneity was found w.r.t. the following attributes and socioeconomic characteristics:

Attribute	Socioeconomic characteristic	Germany	Netherlands	Switzerland
Free physician choice	Age	n.a. ^{a)}	✓	n.a. ^{a)}
Physician list	Age	✓	✓	✓
Physician list	Region	-	-	✓
Physician network	Education	✓	✓	-

a) Status quo in Germany and Switzerland



5. Conclusions I

- Health care reforms must increase citizens' performance-cost ratio to be successful
- 'Performance' is a matter of preferences and hence subjective
- Market experiments allow to measure preferences and to infer willingness-to-pay values
- In the case of Switzerland, all major attributes of Managed Care are negatively valued and therefore have to be compensated, e.g. through lower health insurance premiums



5. Conclusions II

- In Germany, restrictions of free physician choice would have to be compensated as well
- In The Netherlands, there is willingness-to-pay to return to free physician choice from gatekeeping (status quo)
- In all three countries, there is evidence of preference heterogeneity with regard to the provision of health care
- This speaks against uniform regulation at the national level
- The Netherlands and Switzerland give freedom of choice also to the poor because they subsidize their premiums

5. Conclusions III



Possible lessons for the United States are:

- Preferences of employed persons are imperfectly represented by employers' preselection of health insurance plans
- The high market share of Managed Care likely does not accord with consumer preferences (it is < 10 percent in Switzerland)

• Example:

	Plan A (generous)	Plan M (Managed Care)	Ratio
	Cost/mo.	Cost/mo.	
Gross monthly premium	\$ 800	\$ 400	2 : 1
Employer contribution	\$ 300	\$ 300	
Net monthly premium	\$ 500	\$ 100	5 : 1



5. Conclusions IV



Possible lessons for the United States:

- When it comes to the retired, implementation of Medicare by the States may reflect regional preference heterogeneity
- But there may well be other types of heterogeneity (gender, income, ethnic, old vs. very old)
- As to Medicaid, choice could be given to the poor through means-tested subsidies
- However, would there be a willingness-to-pay for such subsidies on the part of U.S. taxpayers?