



**Doctoral School of Management
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THESES SUMMARY

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Societal Aspects of the Distribution of Health Gains

Ph.D. dissertation

Supervisor:

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Associate professor

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Department of Public Policy and Management

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Content

I. Research Objectives and Antecedents	2
I.1. Subject Proposal.....	2
I.2. Research Objectives.....	3
I.3. Lessons of an Overview of Literature.....	5
II. Methods Employed	6
II.1. Preference Elicitation among General Practitioners – Discrete Choice Experiment.....	6
II.2. Attitude Study among Practitioners – Q-Method	10
III. Major Conclusions and Results	12
III.1. Preferences of General Practitioners.....	12
III.2. Attitudes of Practitioners	13
IV. Applicability of Results	15
Major References	17
Publications of the author on the subject	19
Acknowledgement	21

I. Research Objectives and Antecedents

I.1. Subject Proposal

The scarcity of economic assets may be posed as one of the basic tenets of economics as well as a practical reality. Only a part of social demands can be met. Issues of economic efficiency gain increasing significance in the process of health-care resource allocation, and cost efficiency joins the three basic considerations in health politics – safety, efficiency, and quality. [Gulácsi 2004] Questions of rationing are posed day by day in health-care. Is it worthwhile spending millions of forints on a child's organ transplantation, perhaps unsuccessful, or should the same sum be allocated to the treatment of adult women's osteoporosis or a national health programme? Each and every decision physicians and health politicians make involves a choice of patients, medical technologies etc., with various priorities in the background.

In principle, prioritisation in health policy is a systematic decision-making method aimed at allocating available resources according to needs. Decision-makers have to decide on which illnesses, patient groups and medical interventions to allocate such resources. [Baltussen 2006] Although there is no universal method for prioritisation, two generally accepted goals, alongside sustainable financing, can be formulated in health-care resource allocation: 1) maximisation of health gain¹ from available resources in society (equity consideration); and 2) reduction of social inequities in health (equity consideration). [Hauck et al 2004]

From the side of economics, prioritisation decisions are supported by health economical analyses, which measure, evaluate and compare the health efficiency and cost of specific medical procedures. [Baltussen 2006] In practice, however, social value judgments often run counter, and constrain, the central hypothesis of economic thinking – choice based on utility maximisation – and health policy decisions are often inconsistent with cost efficiency results. One possible explanation is that the normative basis of health economical analyses is health gain maximisation, while the social distribution of health gain is disregarded. The latter, however, is often an important factor influencing health politics. [Stolk 2005]

Wagstaff points out that equity and cost-efficiency considerations can be combined, in case a system of weights conditional on the illnesses, the patients' age, their social and economic condition, etc. are used. [Wagstaff 1991] These weights also reflect the extent of health loss society is prepared to endure for a more equitable health distribution.

A number of considerations in the social distribution of health gain, including, among others, patients' age and social role, have been successfully identified. [Nord 1999] Although these considerations have been widely examined abroad, uncertainty as to the intensity of preference for specific considerations continues to prevail. There is, however, a consensus in literature in that the above factors have a bearing on the social value of health gain. In view of this, people are likely to expect health policy decision-

¹ Health gain can be measured and made operational in several ways, such as life-year gain, quality adjusted life-year, etc. [Evetovits 2005]

makers also to uphold such considerations and bring their decisions on resource allocation in line with the value judgment of society. [Dolan 1998]

I.2. Research Objectives

The dissertation deals with the social aspects of health gain distribution. Its primary objective is to identify, from both theoretical and practical angles, those social values and equity aspects which are considered as important in the distribution of health gain among individuals (patients). Another target is to widen the body of theoretical knowledge of the subject with domestic empirical results. Results of two surveys conducted among Hungarian practitioners are described in the dissertation. Both surveys seek answers to the following fundamental question, albeit with different methods:

In Hungarian practitioners' view, what social considerations should be weighed in the distribution of health between individuals (patients)?

It is important to know doctors' preferences and opinions because, in the last analysis, they are the ones to make decisions in the health-care scheme. On the other hand, it is practitioners that find themselves most often in decision-making situations in health-care prioritisation, as they have to make such decisions on a daily basis. In examining the above question, I conducted the following surveys.

a) Preference assessment among general practitioners

This survey was conducted among Hungarian general practitioners with the so-called discreet choice method. The research aimed to identify preferences for those patient characteristics and illness characteristics that are judged as most important in the literature and in the respondents' decision-making as considerations for prioritisation. In our case, the general practitioners had to choose from among patients described with various patient and illness characteristics, whose treatment they would prioritise. In connection with the preference assessment, I set up two hypotheses.

Hypothesis 1

General practitioners have distinct preferences as to which patients' treatment they should give priority. It is to be expected that the two strongest considerations will be the patient's age and the severity of illness.

Hypothesis 2

Preferences for the social distribution of health gain are not homogeneous. Certain qualities of respondents, e.g. their age, are likely to cause differences in their preferences.

b) Attitude assessment among practitioners

Another part of my empirical work was carried out in the framework of an international survey, the EuroVaQ project. The EuroVaQ project, conducted with Q-method, aimed to explore those considerations (e.g. patient age, financial position, marital status) which health-policy decision-makers and members of the population deem important in the distribution of health services and in general, of health, among patients. In my own research, I added a new aspect to the international survey. Since, in case of attitudes, it may be supposed that the results obtained from different groups might be different, I set out to assess the opinion of another group of respondents, practitioners.

In the attitude assessment conducted with Q-method, however, I did not set up hypotheses on the expected results. This is because Q-method, as a tool to assess subjectivity and serving to identify and describe different opinion groups, is inappropriate for testing hypotheses. Q-method was originally employed in psychology and political sciences; its use in health politics has been rather limited. Thus, in the case of the second research, I set up a hypothesis about the applicability of the method in the area of public health.

Hypothesis 3

Distinct opinion groups among medical practitioners can be identified as to the viewpoints of distribution they deem important and as to the patient and illness characteristics they refuse to consider in patient prioritisation.

In both empirical works, points of consideration in health gain distribution were examined, although with different methodological approaches. The preference assessment conducted with discreet choice method yielded quantifiable results as to the direction and strength of preferences, but was unsuitable for the examination of all considerations in prioritisation and distribution. Patient characteristics had to be restricted to 6 to 10, as respondents in general are incapable of making a simultaneous weighing up of more characteristics. On the other hand, using the Q-method, it is possible to identify and describe various opinion groups, that is, similar and differing opinions, but no quantifiable results are obtained. An advantage of it is that the various viewpoints in patient prioritisation and distribution can be assessed in the widest possible circle. Participants and methods in the two surveys were different, so I can only undertake to examine the viewpoints of health gain distribution from two different approaches. No direct comparison of the results can be made.

I wish to point out that a systemic examination of the ethical and philosophical background of modes of

distribution was outside my concern in this dissertation. Nor did I discuss possible ways of aggregating individual preferences in the social welfare function or maximising social utility. Addressing both questions merit, in my view, separate studies.

I.3. Lessons of an Overview of Literature

Since the starting-point of our researches was an overview of literature, I give a brief summary of the viewpoints which, according to the literature, may have a bearing on the social distribution of health gain and patient prioritisation.² These viewpoints can be classified in the following categories. [Dolan et al 2005, Schwappach 2002, Smith 2005, Tsuchiya 2005]

- *Characteristics of patients.* These include the patients' age, financial situation and contribution to financing public services as active labourers, their social role, i.e. whether they have children and dependents. The health-related lifestyle of patients, their attitude to health and prior health-care consumption also belong here.
- *Characteristics of illness and their effect on patients' health status.* These include severity of illness, the pain it causes, the extent of health deterioration (the possible life quality of patients without treatment), chances of survival, and causes of illness (responsibility of the patients in it and their contribution to possible prevention). The incidence of the illness also belongs here (e.g. whether it is endemic).
- *Characteristics of treatment.* This category includes the efficiency of treatment (chances of acceptable life quality after treatment), probability of successful treatment, expected duration of health improvement (e.g. chances of longevity), expected health improvement versus prevention of further deterioration. Characteristics of treatment also include costliness, and given the health gain compared to costs, cost efficiency of the treatment, and probable limitations of access to treatment (e.g. waiting-list).
- *Other effects of illness unrelated to health.* These factors may include the general condition of patient's family members, nursing tasks falling on family members.

According to literature, preference assessments conducted on the above considerations of distribution led to three major conclusions. (1) A significant proportion of respondents frequently refuse rationing on any ground and flatly reject it. (2) People usually reject extremist resource allocation and tend to allocate some resources also to the less preferred group. (3) People are unwilling to show a health maximising attitude even if their attention is called to the fact that by their decision they have renounced a certain amount of health gain. Equity considerations, therefore, weigh in strongly in their system of preferences. [Schwappach 2002]

² Only the most important works in literature are referred here.

II. Methods Employed

The dissertation describes results of my own two researches – a preference assessment and an attitude assessment. The methods employed are described below.

II.1. Preference Elicitation among General Practitioners – Discrete Choice Experiment

Of the techniques based on choice suitable for preference evaluation, the discrete choice experiment (DCE) is regarded as the most established method economically. One important argument for it is that the decision situation respondents find themselves in is well known for most: they have to choose between two or more alternatives. [Ryan 1999b] DCE is based, on one hand, on the theory of probability choice and within that, the theory of random utility. On the other hand, it is consistent with Lancaster's theory of economic value in which a product is conceived of as a specific proportion of a set of attributes. [Lancaster 1966, Manski 1977] The composition of DCE can be summed up in five steps. [Ryan 1999a, 1999b]

1. *Selection of attributes.* For the purpose of assessing consumer preferences, the attributes the consumer has to weigh up in the course of selection have to be set. Patient age may be such an attribute.
2. *Setting attribute levels.* The concrete values which attributes may assume must be determined. Patients, for example, may belong in different age groups according to their age.
3. *Experimental design.* The 'products' to be compared are made up by combining attribute levels. In other words, particular product conceptions (patients in this case) are described by attribute levels. Decision tasks arise from these conceptions. The number of product conceptions figuring in the decision tasks, and the number of decision tasks in the questionnaire must also be determined in the experiment design. In the DCE design, the number of attributes and levels determine the total number of products by their combination. Since the number of possible products grows exponentially with the number of attributes and levels, the number of attributes and levels must be limited; in general, not all possible products can be introduced in the decision tasks. For shaping the experiment design, both manual and computerised techniques are available. [Chrzan 2000]
4. *Data collection.* In data collection, the socio-demographical characteristics worth collecting of the respondents (possibly enabling preference analysis by sub-groups) and the mode of survey (e.g. personal interview, questionnaire by mail) should be specified. Informing respondents of the decision tasks is part of data collection.

5. *Data analysis.* Econometric models are available for the analysis of discrete choices.³

Participants in my own survey were 200 Hungarian general practitioners active in adult care. They were selected from the address list of Progress Research Ltd. by random sampling stratified according to sex and the area (type of settlement) in which they practice. The following data were recorded of the GPs: sex, year of graduation (as approximate variable of age), number of years in practice, number of patients registered (number of patient cards).

Specification of attributes and levels was based on the relevant literature, to which the following points of consideration were added. (1) Since the number of attributes had to be limited, such decision aspects were used as can be basically described by the patients' social and economic characteristics and the expected result of treatments. Thus, the effect social and economic characteristics and the conduct of patients exercises on the practitioners' decision-making was not examined in this research. (2) In wording attributes and levels, we aimed at simplicity – the concepts used were easy to understand for the average practitioner. The attributes and levels figuring in the survey are shown in Table 1.

Table 1. Attributes and levels in the DCE survey

attributes	attribute levels
<i>Patient/disease characteristics</i>	
Age group	18 to 35 years 36 to 60 years over 60 years
Prevalence of the disease	frequent illness rare illness
Effect of disease on quality of life	significant deterioration no significant deterioration
Mortality of disease	low medium high
Co-morbidities	severe, chronic co-morbidity no severe, chronic co-morbidity
<i>Effect of treatment</i>	
Life-year gain	1 life-year gained by both spouses 2 life-years gained by one of the spouses
Restoration of original quality of life	partial full
Time horizon of avoidable complications	short term long term

³ A detailed review of them is offered in [Louviere et al 2000, Train 2003]

In the course of data recording, the so-called paper-and-pencil method was used, and the questionnaire was prepared with Sawtooth[®] software. The number of attributes and levels combined to produce altogether 576 patient conceptions ($2^6 * 3^2$). Since it was not possible to introduce them all to the respondents, patient conceptions to be used in particular decision tasks were selected with the help of the software. It is an expectation in DCE to compare as many products conceptions as possible in order to gain reliable results. The number of conceptions was increased in two ways. (1) In particular decision tasks, respondents had to choose between three married couples. (Married couples were used in the survey for the examination of the attribute *distribution of life-year gain*.) (2) Four versions of the questionnaire were prepared.⁴ Each version contained 15 decision tasks, thus the total number of different decision tasks was 60. Each version of the questionnaire was filled out by 50 general practitioners. Distribution of the questionnaire among the GPs was random. The instruction to the questionnaire on the decision situation is shown in Figure 1. Example of a decision task is shown in Table 2.

Figure 1. Instruction to the DCE questionnaire

Imagine that you treat **married couples. Both spouses suffer from the same illness.** The couples are childless.

It is assumed that you have a medicine with various beneficial effects and no major side effects.

A quantity of medicine **sufficient for the treatment only of one married couple** is available. **This medicine is the only possible treatment for the couples. You alone have this medicine.**

Various packs of cards are shown in the questionnaire, each describing three different married couples. There is no difference between them other than those specified on the cards.

Of the three possibilities (couples) on each page, **choose the one you would give the medicine to. You can only choose one couple on each page.**

Read all cards carefully. **Put X in the relevant box at the bottom.**

⁴ Analysis of more than one questionnaire in one data basis presents no problems. For its theoretical background, see [McFadden 1974]

Table 2. Example for a decision task in the DCE

Which couple would you give the medicine?

Couple 1	Couple 2	Couple 3
Aged between 18 and 35	Aged between 36 and 60	Aged above 60
Have common illness	Have rare illness	Have common illness
Significant deterioration of life quality caused by illness Illness of medium mortality	No significant deterioration of life quality caused by illness Illness of high mortality	No significant deterioration of life quality caused by illness Illness of low mortality
Have other severe, chronic illness	Have no other severe, chronic illness	Have no other severe, chronic illness
Administration of medicine ensures 1 life-year gain for both spouses	Administration of medicine ensures gain of 2 years for one spouse	Administration of medicine ensures gain of 2 years for one spouse
Administration of medicine ensures 50 per cent improvement of life quality deterioration caused by illness Medicine prevents later development of complications	Administration of medicine ensures restoration of life quality before illness Medicine prevents later development of complications	Administration of medicine ensures 50 per cent improvement of life quality deterioration caused by illness Medicine prevents later development of complications

Results were analysed by random parameter logit model, which is suitable for the analysis also in case respondents give more than one observations. This allows the examination of heterogeneity in respondents' preferences and tastes that may result from their individual, observed, characteristics.⁵ Two methods, accepted in the use of DCE, were employed in the validation of results.

- *Rationality of respondents.* Are answers, i.e. preferences, in accordance with some rational, *a priori* expectation, e.g. of utility maximisation?
- *Presence of dominant preferences.* Are there respondents who show dominant preferences, that is, do they always choose the alternative in which a specific attribute assumes their preferred value, independent of the level it is characterised by with respect of other attributes? [Scott 2002]

The survey was conducted by interviewers in April and May 2006. Respondents participated in it after preliminary agreement through the phone, and received material incentive. Refusal of participation was uncharacteristic, thus the results are probably undistorted by selection bias. NLOGIT 4.0 software was used for data analysis.

⁵ For the random parameter logit model in detail, see [Hensher et al 2005]

34, was based on one of the societal aspects of patient prioritization. The statements were composed in English originally, and were translated into Hungarian with the back-and-forward method. The arrangement of the 34 statements in the distribution chart (see Figure 2) was carried out on-line on a website. Participating practitioners were recruited from among my colleagues and acquaintances. The only criterion of selection was for the respondent to be an active practitioner. They were requested to fill the questionnaire by e-mail. In order to gain a fuller picture of respondents' views, after the arrangement of statements they were shown the two statements they most and least agreed with again, and they were requested to explain their reasons for the choice. Data were recorded in October and November 2008. They were analysed with PQMethod 2.11 software.⁶

⁶ The software with instructions for use is available at www.rz.unibw-munchen.de/~p41bsmk/qmethod/.

III. Major Conclusions and Results

III.1. Preferences of General Practitioners

Thesis 1. According to the preferences of the Hungarian general practitioners participating in the survey, ceteris paribus, they give preference to the youngest patients and to treatments which affect patients' life quality most beneficially. Preference for a treatment strengthens with the increase of illness mortality. They give preference to patients with no associated illness and with chance of a full restoration of the quality of life before illness. With respect to the distribution of life-year gain, results suggest that respondents prefer an even distribution of life-years (1 life-year gained by both spouses). Neither the frequency of the disease, nor term of avoidable complications weighed in strongly in their decisions.

It should be pointed out that the above results hold good in the context of the chosen attributes and levels. The magnitude of coefficients showed no major change in the tested statistical models, and the sign of the coefficients remained unchanged, i.e. there was no example for a change of direction in the preference for an attribute. The direction of preferences complied with our preliminary expectations, and the results show that respondents were willing to trade-off between attributes, an important criterion in DCE surveys. No single respondent had dominant preferences.

Our results are largely in accordance with international results, though it should be noted that most international surveys were conducted among the general public, and that results are strongly conditional on the wording of questions. Cultural and social differences between countries may also greatly influence results. The young age of patients, high mortality and significantly negative effect on life quality of the illness, as well as the aspiration for an even distribution of health gain are all in concord with the international results. [Ryynänen 2000, Nord 1995] In the international surveys, the role of health level attainable after treatment (characterised in our examination by a severe, chronic associated illness) in the distribution of resources among patients, was ambiguous. There are examples that the public tends to give priority to patients suffering from severe illness, irrespective of their previous health problems which may have affected the health state achievable after treatment. [Ubel 1999] In our survey, general practitioners' preferences differ from this. One possible explanation is that, contrary to the above survey, general practitioners did not have to choose between patients in danger of life. Life-saving is important enough to overwrite other considerations. Beyond this, members of the general public probably feel ill at ease to make discriminative decisions of this type [Sen 1997], in contrast with general practitioners who have to make such decisions as part of their job. This hypothesis seems to be supported by Ryynänen's results [2000], in which participating doctors and nurses gave less preference to treating patients with associated illness. The prospective appearance of avoidable complications (without treatment) does not seem to be a significant factor in preferences. General practitioners may have found other attributes more important, and took no notice of incidental future developments. Results may have been affected also by the fact that respondents were left to interpret the nature of complication (e.g. its severity), which may indeed prove a

limitation in our examination.

Thesis 2. General practitioners' preferences showed heterogeneity with respect to two attributes – effect on life quality and high mortality; in other words, their differences of individual taste had some bearing on their preferences.

The hypothesis on the heterogeneity of preferences could not be fully justified: the presence of differences of taste was successfully supported statistically, but their cause could not be explored. None of the personal characteristics recorded of the doctors (age, number of registered patients, etc.) were sufficient to explain individual differences in preferences in a statistically significant manner. Although in the course of model tests we found a statistical model which revealed a significant, positive connection between the age of the general practitioners and the high mortality of the illness, most models allowed no such conclusion to draw.

Of the limitations of our preference assessment, the following should be mentioned. (1) Social values and considerations other than those included in our examination also play a role in the distribution of health resources among patients. (2) We aimed at choosing attributes and levels all possible combinations of which amount to a real illness. Despite this, examples for some combinations can be found only with difficulty. An illness, for instance, which has high mortality, yet no significant effect on life quality, may seem unrealistic at first sight. Cardiac infarction, however, is an illness of this type. (3) Only major effects (individual effects of attributes) were examined in the study, but interaction between attributes may also influence decisions. (4) Generalisation of results is limited by several factors. On one hand, different preferences may be found if different groups of respondents, e.g. specialists, the general public, health policy decision-makers, participate. On the other hand, preferences are influenced also by factors characteristics of a given country and culture.

III.2. Attitudes of Practitioners

Thesis 3. As regards distribution of health services among patients, practitioners hold similar views in that the most important considerations are the priority of life-saving over other interventions, and access to health services ensured according to needs. Beyond these fundamental points reflective of the basic principles of medical science, differences of opinion occur in respect of the social considerations of patient prioritisation.

Life-saving was generally considered to be a doctor's most important and primary task. Illness prevention was generally viewed as an optimal solution both for the individual and the society, since it probably results in higher quality of life and less health costs. The principle of needs was supported by respondents mostly by the argument that all people are essentially equal. Similarly, there was consensus between

opinion groups also in that no personal characteristics of patients, e.g. sex and financial situation, should affect access to treatment. Furthermore, no groups of respondents would have given priority to patients with poor life quality *vis-à-vis* patients with medium life quality if, in the case of the former, only insignificant health improvement could be achieved. Importance of the quality of life is highlighted by the choice by all groups of those treatments which help patients reach acceptable health state again. On the basis of the other considerations, however, three opinion groups could be distinguished, the major characteristics of which are shown in Table 3.

Table 3. Comparison of opinion groups

Opinions distinguishing opinion groups	
1	<ul style="list-style-type: none"> • Preference for treatments ensuring health gain • Indifference towards high costs of small health gain • Refusal of consideration for burden falling on family • Importance of individual responsibility • Total refusal of consideration for job and contribution to health-care scheme
2	<ul style="list-style-type: none"> • Doctor's decision is primarily definitive • Treatment of deterioration of state as against stable state • Refusal of consideration for high cost of small health gain • Waiting-list on first come, first served basis • Indifference towards treatments ensuring more health gain • Indifference towards/moderate refusal of consideration for salaried job and contribution to health-care scheme • Indifference towards individual responsibility • Refusal of prioritisation of younger ones and parents with children
3	<ul style="list-style-type: none"> • Preference for treatments ensuring more health gain • Willingness to consider small health gain at high cost • No life-saving at any cost • Indifference towards consideration for salaried job • Higher importance of individual responsibility than in other two groups • Refusal of treatment of patient in worst state • Disagreement with prohibition of paying for preferential treatment

Of the 80 e-mailed invitations to participate, 33 questionnaires suitable for evaluation were returned (41 per cent). It should be stressed that this is a suitable sample in Q-methodology, and the Q-method calls for no representativeness of respondents. As for its limitations, it should be noted that the above results cannot be generalised with respect to the general public or other professionals, etc. Furthermore, Q-method serves to identify opinion groups and provides no information on the distribution and weight of these groups. One drawback of on-line surveying is the difficulty it might present to people who use the internet rarely or not at all. This may not have been a problem with our respondents in the medical profession. Finally, respondents could express their opinions on four statements – most agree with (+4) and least agree with (−4) –, which may also be counted as a limitation. A fuller picture of respondent attitudes could have been obtained by personal interviews.

IV. Applicability of Results

The researches described above on preferences and attitudes in health gain distribution have served a number of lessons. Similar researches ought to be conducted also in a wider range.

- With respect to resource allocation in health politics, insufficient transparency of decisions is a frequent problem. One reason for this is that, according also to the literature, social expectations and values connected with resource allocation are not sufficiently clarified. As tools for facilitating decision-making, similar researches could enhance transparency of decision-making in public policy. Acceptability of decisions could be increased by clarifying the role equity considerations play in decision-making.

- Several examples for the explicit use of equity considerations are found abroad. Directives on the most important basic principles have been developed in Sweden and the United Kingdom. The motivation behind the directives is the safeguarding of human rights and reduction of discrimination. Since the subject is still insufficiently researched and poses a multitude of ethical issues, basic principles primarily point to those characteristics on the basis of which no prioritisation of patients is to be made (e.g. race and sex), allowing for the consideration of such characteristics only if a given group's different response to medicinal treatment is scientifically established. It should be stressed, however, that such recommendations now form part of decision-making. In the United Kingdom, guidelines on social value judgments formulated by NICE [2008] should be followed by the relevant advisory and decision-making bodies.⁷ The guidance states that recommendations are necessary because, alongside considerations of scientific, medical and efficiency evidence, social considerations also play a role in health-care decision-making. On the other hand, there is no consensus whether, from an ethical viewpoint, fairness of distribution is served better by the utilitarian approach (health maximisation at a societal level from available resources) or by the egalitarian approach (all should have a 'fair' measure of access to available resources). While the former approach may easily work against minority interests, the latter is hard to maintain given the limited resources. According to the position taken by NICE, the problem can be resolved by supporting procedural fairness, i.e. decision-making along transparent, established basic principles.

- In making decisions on resource allocation, health economists in general follow two main lines of thinking with respect to equity and social considerations. One calls for a numerical expression by preference assessment tools of the weight a person described by specific characteristics (e.g. age, marital status) is given in social distribution, that is, individuals should be accorded different importance. The other trend holds that there is no need for a system of numerical weights, it is sufficient to acquaint

⁷ One of the tasks of the National Institute for Health and Clinical Excellence (NICE) is to develop recommendations and guidelines in all areas of health and health-care for the National Health Service.

decision-makers with social preferences and it is up to them to which extent they take them into consideration. In practice, health policy decisions are closer to the latter approach, partly because no sufficient body of scientific work is available on the basis of which an equity system of weights can be developed, and partly because, in my opinion, decision-makers prefer a degree of flexibility in the decision-making process. As mentioned in the previous point, agents in both science and health politics abroad take a keen interest in equity and social considerations in health distribution. It would be a great step forward if more researches were conducted in Hungary too, guidelines should be developed, and decision-makers could recognise that well-elaborated guidelines facilitate decision-making and increase acceptance of the decisions.

- For a wider knowledge of social expectations, examinations should be conducted in a variety of respondent groups. Exploration of opinions held by various groups of health workers, the general public, and health policy decision-makers may mark out further directions for research.
- Owing to methodological limitations, the preference assessment described above examined only a narrow range of social considerations. The exploration of the role other factors, such as patients' social and economic characteristics, life-style, health consciousness, etc., play in prioritisation decisions is called for.
- Both the preference assessment and the attitude assessment yielded useful results: one of them being the proof that the methods employed could be successfully used in other areas of health-care.
- The successful use of discrete choice experiment and Q-method offers several, so far unexplored possibilities. In recent decades, several health reform ideas have been developed in Hungary without knowledge of the opinions and preferences either of the medical profession or the population. Beyond issues concerning the entire service, these methods can be utilised also in more concrete cases. There are a fair number of studies in Western Europe, in which various methodologies were applied, including the discrete choice experiment I used, for the examination of considerations in organising specific health services deemed important by the inhabitants and patients who use them. Examples are the examination of preferences for screenings of cancer of colon and mammal cancer [Gyrd-Hansen 2001], and preferences of the elderly in organising social services. [Ryan 2006] Similar researches should be conducted also in Hungary, the results of which would contribute towards the development of a health-care scheme better adapted to patient needs.

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