Title: Comparative analysis of decision makers' preferences for equity/efficiency attributes in reimbursement decisions in three European countries

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Abstract
Background: In addition to cost-effectiveness, national guidelines often include other factors to be considered in reimbursement decisions. However, weights attached to these are rarely quantified, thus decisions may strongly depend on decision makers' preferences.

Objective: To explore the preferences of policy makers and health care professionals involved in the decision-making process for different efficiency and equity attributes of interventions and analyse cross-country differences.

Method: Discrete choice experiments (DCEs) were carried out Austria, Hungary, and Norway with policy makers and professionals (N=153 respondents). Interventions were described in terms of different efficiency and equity attributes (severity of disease, target age of the population and willingness to subsidize others, potential number of beneficiaries, individual health benefit, and cost-effectiveness). Parameter estimates from the DCE are used to calculate the probability of choosing a healthcare intervention with different characteristics, and to rank different equity and efficiency attributes according to their importance.

Results: In all three countries, cost-effectiveness, individual health benefit and severity of the disease are significant and equally important determinants of decisions. Besides, all countries show preferences for interventions targeting young and middle age population compared to those targeting population over 65. However, Austria and Hungary show preferences more oriented to efficiency than equity, while Norway shows equal weight in preferences for equity and efficiency attributes.

Conclusion: We found that factors other than cost-effectiveness seem to play an equally important role in decision making. We also find evidence of some differences in the weight of efficiency and equity attributes among countries in the way they prioritize health interventions.

Key words: priority setting, equity-efficiency trade-off, discrete choice experiment, reimbursement
JEL codes: D63, D71, I18

1. Introduction

In most developed countries reimbursement decisions are based on national guidelines, where cost-effectiveness of interventions (usually measured as the incremental cost-effectiveness ratio, ICER) plays a central role. However, considering factors other than cost-effectiveness also influence real-life reimbursement decisions in an effort to better reflect societal preferences. Based on an analysis of past reimbursement decisions of the National Institute for Health and Care Excellence (NICE) in the UK, a recent study shows that due to other factors entering the decision making process the actual cost-effectiveness threshold for reimbursement is higher than the stated threshold of £20K–£30K per QALY [1]. Such other factors often include potential number of beneficiaries, severity of disease, individual health benefit etc are explicitly specified in some reimbursement regulations or recommandations [2,3], while the WHO recently proposed a check-list, i.e. Priority Setting in Health Care (GPS-Health), for the incorporation of various equity criteria in decision making [4]. However, clear guidance of the relative importance of such factors and the weights attached to them rarely quantified [1,5].

In the absence of rational and transparent approaches to priority setting, decisions are partly made based on ad-hoc priority settings [6-9]. With the preferences of those involved in the decision making process playing an important role in decisions reached, few studies have attempted to elicit policy makers' preferences for developed countries in recent years [10-13], but without comparative analysis to explain differences or similarities in preference across countries.

This study aims to contribute to this literature by exploring the preferences of different health care actors involved in the decision making process (policy makers, professionals and researchers) for different attributes of health care interventions in three European countries: Austria, Hungary and Norway. These countries differ greatly in their level of economic development but also in the organization of their health care systems. Data from OECD Health Data (2014) place Norway and Austria among the countries with the highest health expenditure per capita and health expenditures as a proportion of GDP (Norway 4,810 USD PPP and 9.3% of GDP; in Austria 4,033 USD PPP and 11.1% of GDP), whereas Hungary spends much less on health care both in absolute and relative terms (1358 USD PPP and 8.0% of GDP). Regarding the participation of the public sector, Norway has the most expanded public healthcare system, with 88% of total healthcare expenditures being public, while it is much lower in Austria (76%) and Hungary (63%). At the same time, Norway has a decentralized tax-based national health care system with universal coverage under the responsibility of both municipalities (primary care) and national governance (specialist care), while Austria follows a universal social health insurance (SHI) model and similar to Hungary's mandatory social health insurance mechanism. However, with respect to financing, Hungary is closer to an NHS model, as health insurance contributions are administered by a single health insurance payer, i.e. the Health Insurance Fund Administration (NHIFA).

According to Austrian Social Insurance Law (Allgemeines Sozialversicherungsgesetz, 1995) reimbursement decisions of the Main Association of Austrian Social Security Institutions and the reimbursement recommendations of the Pharmaceutical Evaluation Board, should be based on (a) pharmacological analysis (comparison with therapeutic alternatives and perceived degree of innovation), (b) medical-therapeutic evaluation (target patient group, effectiveness, expected duration and treatment frequency) and (c) economic considerations (including budget impact and PE evidence)

[14]. Furthermore, for prescription of drugs falling into the “subsidized only under certain conditions”[1] category the prescribing physicians need to get reimbursement approval from the "head physician" of the sickness fund first [15,14].

In Hungary reimbursement decisions are made by the NHIFA based on recommendation of the Health Technology Assessment Committee [3]. Drug-related reimbursement decisions should be based on factors such as evidence-based effectiveness and safety, budget-impact, cost-effectiveness of the intervention and different aspects related to the disease (i.e. characteristics, size and distribution of target population and severity of disease). An explicit priority scoring system to be applied by the NHIFA for the evaluation of new hospital medical technologies was developed by the Ministry of Health in the decree of Ministry of Health 28/2010 (12/05/2010). The list includes 6 main items[2] (with 15 sub-items) with quantified weights [16,3,17]. Technologies are to be financed if they receive at least 60 points and reach at least 40% of achievable points of all the six criteria. However, recommendations and results of appraisals are not publicly available making it difficult to evaluate whether the defined criteria are consistently considered during decision making [18,3].

In Norway the Norwegian Patient Rights Act of 2001 identifies three prioritizing rules for reimbursement decisions, (a) the severity of the condition (most need first), (b) expected health outcome, and (c) proportionality between need and treatment (using cost-effectiveness analysis) [10]. In 2007, the Council for Quality Improvement and Priority Setting was established with advisory function in issues pertaining to quality and priorities in the health services [10,19].

Through comparative analysis among three European countries, we examine the preferences of different health care actors involved in the decision making process regarding equity and efficiency attributes of health care interventions using a discrete choice experiment (DCEs). DCEs enable us to elicit preferences and quantify the weights of different attributes of health care interventions in decision making. The complexity of the discrete choice experiments reflects the multi-dimensional real life decisions that policy makers are facing in their daily practice.

2. Method

2.1 Discrete choice experiment and design

DCEs are a frequently used stated preference method where respondents are asked to choose between pairs of hypothetical health care interventions [20]. Based on respondents’ choices one can elicit preferences, predict probabilities in choosing a given intervention and hence examine the effect that changes in intervention characteristics have on choices. In this study, interventions were described in terms of different efficiency and equity characteristics (i.e. attributes) that were defined in past studies [8,21,22] through two literature reviews [23,24] and adaptations proposed in focus groups of health programmers and experts. Following a standardized and validated framework ensured consistency and cross-country comparability. Equity attributes consisted of the severity of disease (severe, not severe), the target age of the population (young, middle, elderly) and willingness to subsidize others (less or more than 70% of the costs are covered by public resources). Efficiency attributes involved the potential number of beneficiaries (less or more than 100,000), the individual health benefit of the

[1] The Main Association of Austrian Social Security Institutions) based on the recommendations of the Pharmaceutical Evaluation Board classify the drugs into different reimbursement categories: red, green and yellow boxes.

[2] a, Priorities of the health care system b, severity of the disease, c, equity (size of the target population, accessibility)d, cost-effectiveness and quality of life (ICER, health gain per patient) e, budget impact, f, opinions from Hungary and abroad.

intervention (less or more than 5 years of full health, the cost effectiveness of the intervention (cost-effective, not cost-effective), with the threshold of 2 GDP/DALY[3]. The definition of attributes and attribute levels are presented in Table 1. Sawtooth Software was used to select 32 alternatives from the full fractional design (96 profiles) which led to 16 pair-wise choices ensuring level balance and near orthogonality.

2.2 Data collection

The same survey was conducted in all three countries. Surveys were translated in the respective native languages (and back translated to verify accuracy) and administered online with potential respondents invited to participate either through personal communication, open invitation email or snowballing. In all three countries policy makers were primarily targeted: 1) senior staff members at various political and legislative decision making levels, and executives of national research and planning institutions for health care in Austria; 2) policy makers and professionals at national and regional institutions in Hungary[4] and 3) senior members of the Norwegian Directorate of Health and senior public health academic officials in Norway. In addition, the target population also involved leaders of individual health care providers, professionals working in the pharmaceutical industry or consultancy as well as researchers and health care academics, whose opinion is potentially/indirectly considered in reimbursement decisions. For Austria, direct only invites were sent resulting in a response rate of 15%. For Hungary (directed open invites with a target of 50 respondents) and Norway (directed open invites and snowballing) make response rate calculation impossible. In total 153 questionnaires were returned (Austria: 69, Hungary: 52 and Norway: 32) providing a sufficiently large sample for estimation and validity purposes [25].

2.3 Model

DCEs are based on random utility theory and respondents choose the intervention that maximizes their utility, with utility weights attached to the attributes characterizing the intervention. Assuming a linear additive utility and extreme value type I errors conditional logits are estimated [26]. Testing for equality of error variances (or scale parameters) to ensure comparability of estimated preference weights across the three samples a heteroskedastic conditional logit is fitted [27]. Observed heterogeneity is included in the model through two-way interactions of all attributes with individual characteristics. The final model specification is determined through backwards selection (at 0.10 significance level). The significance of unobserved heterogeneity is tested by specifying mixed logits with random normally distributed parameters and comparing their fit against conditional logit models [28].

Following estimations, percentage changes in predicted probabilities for each attribute are calculated to allow for meaningful comparisons of preferences across attributes and countries [29]. DALY was chosen to define the cost-effectiveness threshold in this study, since the same standardized questionnaire was used previously in lower and middle income countries such as Brazil, Cuba, Nepal, and Uganda [22], where cost-effectiveness thresholds are mostly set by DALYs [30]. To examine the efficiency/equity trade-offs present in decision making and to obtain a measure of their magnitude,

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[4] E.g. National Health Insurance Fund, Ministry of Human Resources, National Institute for Quality and Organizational Development in Healthcare and Medicines.

purely equitable and purely efficient[5] hypothetical interventions are formed and their selection probabilities calculated. Taking the ratio of such probabilities and subtracting one provides an efficiency/equity ratio with a natural interpretation (i.e. the percentage increase in utility from choosing an efficient over an equitable intervention) [12]. The three mutually exclusive levels of age of target group necessitate different calculations for each of its levels.

3. Results

Descriptive statistics for each sample and overall are given in Table 2. Before moving on the estimation results, results from the heteroskedastic logit[6] reveal that the assumption of homoscedasticity across the three samples holds and hence separability is possible. Similarly, little significance is found for unobserved heterogeneity with conditional logits outperforming mixed logits according to BIC values.[7] Table 3 presents the conditional logit results, while predicted probabilities and ratios of predicted probabilities are given in Table 4.

Looking at each equity attribute in turn, we find Severity of disease to be among the most important factor (based on the size of the absolute value of the change in the probability of choosing a given profile) in all three countries with interventions targeting severe diseases having increased probabilities of selection by 6.9% (95% CI: 3.7 – 10.1), 8.2% (95% CI: 5.0 – 11.4) and 12.1% (95% CI: 5.5 – 18.6) for Hungary, Austria and Norway, respectively. Interventions targeting young and middle age population are highly preferred over interventions targeting elderly population (over 65), a results that holds across all countries. Compared to the base scenario interventions targeting populations over 65 are less likely to be chosen by 16.5%, 14.0% and 19.0% in Austria, Hungary and Norway, respectively, while the coefficients for interventions targeting middle aged population are all insignificant. Willingness to subsidize is significant for Norway, where the high levels of subsidization have a positive and significant effect of 7.2%, whereas the corresponding parameter is insignificant for Austria and Hungary.

Regarding efficiency attributes, Individual health benefits and Cost-effectiveness of interventions strongly influence respondents' decisions in all three countries. Changes in probability of selection for interventions with large individual health benefits were 13.7%, 8.0%, and 8.9% for Austria, Hungary and Norway, while the corresponding values for cost-effective interventions were 8.1%, 8.5%, and 6.9%, respectively. The average effect of the number of potential beneficiaries is positive and significant for Austria (6.8%), but not significant for Hungary and Norway.

Looking at the interactions with individual characteristics, we find significant differences between preferences of different socio-demographic groups. Cross-country patterns do not emerge with the exception of cost effectiveness having a relatively higher influence on the decisions of researchers compared to those of other stakeholders. Overall, men tend to place a reduced weight for some attributes in Austria and Hungary. Respondents' age (and through this their experience) is found to be influential only for Norway, where severity and willingness to subsidize others are less important in decision making for respondents under 40. Moving onto respondents' occupation, we find significant heterogeneity in preferences. In Hungary, respondents from the pharmaceutical industry and consultancy value cost-effectiveness, and subsidized interventions targeting high number of potential

[5] Purely equitable and purely efficient interventions are those where all equity attributes are set to one (with all efficiency attributes to zero) and those where all efficiency attributes are set to one (with all equity attributes to zero), respectively.

[6] Results are available from the authors upon request.

[7] Results are available from the authors upon request.

beneficiaries more than policy makers. Researchers place more weight on severity in Hungary and less weight on willingness to subsidize others in Norway, while healthcare professionals assign less weight on severity than policy makers in Austria.

The lower half of Table 4 presents the efficiency/equity ratios. Austria and Hungary have a clear preference for efficiency over equity while for Norway such distinction is much less pronounced with the two being almost equally important for healthcare actors. For example, in Austria and Hungary the probability of choosing the "purely efficient profile" is 47.7% and 37.4% higher than choosing the "purely equitable profile" for interventions targeting young population, while in Norway a difference of 7.4% is not statistically significant. The same stands for interventions targeting middle aged populations. Further, equity seems to be relatively more important when considering interventions for young than for elderly population in all the three countries. The probability of choosing the purely efficient profile compared to the purely equitable profile is higher for interventions targeting the elderly populations than for interventions targeting the young population (i.e. 90.4% vs. 47.7% in Austria, 71.8% vs. 37.4% in Hungary and 16.9% vs. 7.4% in Norway). However the equity/efficiency ratio for the elderly targeting interventions is estimated with a lot of uncertainty implying insignificant differences.

4. Discussion and conclusion

The need for achieving efficiency gains (either due to scarcity of resources or to control increasing health expenditure) have underlined the need for priority setting even in developed high-income countries. Although national guidelines potentially include a number of attributes to be considered during the decision making process, currently no methodology is available to order preferences and help policy makers choose those interventions mostly preferred by the society. The weights attached to different intervention attributes are rarely quantified in guidelines, which results in ad-hoc decisions by decision makers [8,1]. This paper offers a comparative analysis of efficiency and equity preferences of decision makers from three European countries (Austria, Hungary and Norway) with different health care systems.

Cross-country comparisons have been missing from the literature with most studies focusing on league tables of interventions [10,12]. Although different estimates are obtained for each country in our study, some generalizable results also emerge. Interventions targeting the elderly are less favoured compared to interventions targeting young and middle age populations. Similar conclusions were reached in previous studies focusing on both general population or policy makers as well, e.g. [8,31]. Further, for all three countries, equity attributes seem to be relatively more important when considering interventions targeting the young population than interventions targeting elderly.

Cost-effectiveness, individual health benefit and severity of disease are significant and equally important determinants of decisions, justifying the need for factors other than cost-effectiveness to also be taken into account in reimbursement decisions. On the other hand, size of target population has relatively small influence on choices contradicting priority settings guidelines which often consider this as an important factor. Willingness to subsidize others is revealed as a significant influence only for Norway, where the share of public financing in total health care expenditure is the highest among the three countries.

Furthermore, there is some heterogeneity in preferences according to the respondents' background, with policy makers placing lower weight on cost-effectiveness of an intervention in Hungary and Norway compared to other healthcare actors. Such discrepancies in preferences are important to consider, as might lead to a lack of consensus in financial decisions.

Finally, we quantify the presence of equity and efficiency attributes in preferences of healthcare actors. Although more research is needed in this area, significant relationships between health care systems and preferences for efficiency and equity are observed. With Austria and Hungary closer culturally, geographically and in terms of health systems structure showing preference towards efficiency, whereas Norway, with a tax-based national health care system displays a balanced preferences for both, efficiency and equity. Our findings confirm recent Hungarian guidelines which put relatively more weight on attributes considered as 'efficiency attributes' (e.g. incremental cost-effectiveness ratio, individual health benefit and size of target patient population together represent 38% of the maximum attainable score compared to severity of the disease, which is only 15% of the total scores) [3].

Our analysis is not exempt of limitations. Our samples are potentially not representative of the health policy maker, health professional and researcher populations in the three countries. However, to make underlying preference more explicit and condition of potential socio-economic differences observed heterogeneity (by age, sex and occupation) was incorporated. For Hungary, compared to Austria and Norway, the sample did not include healthcare professionals but professionals from the pharmaceutical industry and consultancy, which might be a reason behind the stronger preferences for efficiency attributes in Hungary. Small differences in the data collection methods for the three countries (snow-ball technique in Hungary and Norway vs directed invitations in Austria) might weaken comparability across samples, although formal testing showed lack of heteroskedasticity mitigating such concerns. Further, our design has necessary underlying assumptions of independence, comprehensiveness and exclusiveness of the selected criteria which however is potential restrictive as additional relevant attributes are identified in real-life settings.

In conclusion, it is crucial to explore decision makers' preferences, as in the absence of explicit priority setting guidelines, these might strongly influence reimbursement decisions. We find that factors other than cost-effectiveness (e.g. the severity of the disease, the target age of the population, or the size of the individual health) also play an equally important role in decision making. We also find evidence of some differences in the weight of efficiency and equity attributes among countries in the way they prioritize health interventions. However further research is needed to compare decision makers' preferences with the societal ones.

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Table 1 DCE Attributes and levels

Attribute	Level	Definition
Severity of disease	Not severe	Life expectancy without the intervention **> 2 years** without intervention
	Severe	Life expectancy without the intervention **< 2 years** without intervention
Number of potential beneficiaries	Few	Intervention would reach **< 100,000** individuals
	Many	Intervention would reach **> 100,000** individuals
Age of target group	Young	Intervention target age group between **0 and 14 years old**
	Middle-age	Intervention target age group between **15 and 59 years old**
	Elderly	Intervention target age group **older than 60 years old**
Individual health benefits	Small	Intervention produces **> 5 years** of healthy life per individual
	Large	Intervention produces **< 5 years** of healthy life per individual
Willingness to subsidize	< 70%	**< 70%** of healthcare services expenditures covered through subsidies
	> 70%	**> 70%** of healthcare services expenditures covered through subsidies
Cost-effectiveness	Not C-E	cost per DALY > GDP per capita
	C-E	cost per DALY < GDP per capita

Table 2 Descriptive statistics

	Austria	Hungary	Norway	Total
Male	45 (65.2%)	21 (40.4%)	14 (43.8%)	80 (52.3%)
Age				
Below 40	12 (17.4%)	21 (40.4%)	15 (46.9%)	48 (31.4%)
40 or older	57 (82.6%)	31 (59.6%)	17 (53.1%)	105 (68.6%)
Group				
Policy maker	34 (49.3%)	22 (42.3%)	13 (40.6%)	69 (45.1%)
Researcher	19 (27.5%)	6 (11.5%)	12 (37.5%)	37 (24.2%)
Health care worker	16 (23.2%)	-	7 (21.9%)	23 (15.0%)
Industry	-	24 (46.2%)	-	24 (15.7%)
# of individuals	69 (45.1%)	52 (34.0%)	32 (20.9%)	153 (100.0%)

Table 3 Conditional logit estimation results with individual characteristics interactions

Attributes\countries	**Hungary**	**Austria**	**Norway**
Equity criteria			
Severity of disease (Severe)	0.753***	0.721***	1.09***
	(0.183)	(0.135)	(0.215)
Age of target group: Middle	0.184	0.239	-0.266
	(0.135)	(0.154)	(0.171)
Age of target group: High	-0.760***	-0.725***	-1.080***
	(0.171)	(0.134)	(0.277)
Willingness to subsidize others (High level)	-0.244*	-0.033	0.606**
	(0.128)	(0.079)	(0.237)
Efficiency criteria			
Number of potential beneficiaries (Many)	0.263*	0.589***	0.249**
	(0.156)	(0.091)	(0.119)
Individual health benefits (Large)	0.901***	1.308***	0.766***
	(0.133)	(0.199)	(0.199)
Cost-effectiveness (Cost-effective)	0.959***	0.713***	0.581***
	(0.196)	(0.102)	(0.208)
Interactions			
Severity of disease * Male	-0.394*	-	-
	(0.226)		
Age of target group: Middle * Male	-	-0.555***	-
		(0.173)	
Individual health benefits * Male	-	-0.660***	-
		(0.214)	
Number of potential beneficiaries * Male	-0.521***	-	-
	(0.197)		
Cost-effectiveness * Male	-0.859***	-	
	(0.261)		
Severity of disease * Age(respondent)<40	-	-	-0.640***
			(0.245)
Willingness to subsidize others * Age(respondent)<40	-	-	-0.434*
			(0.259)
Number of potential beneficiaries * Industry	0.519***	-	-
	(0.187)		
Willingness to subsidize others *Industry	0.561***	-	-
	(0.175)		
Cost-effectiveness * Industry	0.625**	-	-
	(0.285)		
Severity of disease * Researcher	0.968**	-	-
	(0.385)		
Willingness to subsidize others * Researcher	-	-	-0.459*
			(0.235)
Cost-effectiveness * Researcher	1.093***	-	1.184***
	(0.381)		(0.389)
Severity of disease * Health care worker	-	-0.623***	
		(0.174)	
Number of respondents	52	69	32
Number of observations	1658	2208	1024
LogLikelihood	-400.51	-578.46	-249.89
Pseudo-R^2	0.3030	0.244	0.296
Wald Chi^2	118.97***	120.88***	63.68***

Clustered standard errors (clustered on individual level) in parentheses; *** p<0.01. ** p<0.05. * p<0.1

Table 4 Predicted probabilities and the effects of attribute level changes on predicted probabilities

	Hungary		**Austria**		**Norway**	
	Pr (st.err)	**%Δ to base [95% CI]**	**Pr (st.err)**	**%Δ to base [95% CI]**	**Pr (st.err)**	**%Δ to base [95% CI]**
Base case (at mean)	79.5% (4.1%)	-	74.9 (3.5)%	-	74.4% (4.4%)	-
Equity attributes						
Severity of disease	85.0% (3.4%)	**6.9% [3.7 10.1]**	81.1% (3.1%)	**8.2% [5.0 11.4]**	83.4% (3.5%)	**12.1% [5.5 18.6]**
Age of target group: Middle	84.7% (3.9%)	**6.6% [3.7 9.5]**	81.4% (3.1%)	**8.7% [3.9 13.5]**	77.4% (6.1%)	-4.0% [-3.7 11.7]
Age of target group: High	68.3% (6.9%)	**-14.0% [-22.7 -2.0]**	62.5% (6.1%)	**-16.5% [-25.7 -7.3]**	60.3% (8.1%)	**-19.0% [-33.5 -4.5]**
Willingness to subsidize others (High level)	77.4% (5.3%)	-2.6% [-6.9 1.7]	74.6% (4.4%)	-0.4% [-4. 3.4]	79.8% (4.2%)	**7.2% [0.2 14.1]**
Efficiency attributes						
Number of potential beneficiaries (Many)	81.6% (3.8%)	2.6% [-0.9 6.1]	80.2% (3.2%)	**6.8% [4.3 9.4]**	76.7% (4.7%)	3.1% [-0.7 6.8]
Individual health benefits (Large)	85.9% (2.8%)	**8.0% [4.0 12.1]**	85.2% (2.6%)	**13.7% [9.4 18.0]**	81.0% (3.5%)	**8.9% [4.2 13.5]**
Cost-effectiveness (Cost-effective)	86.2% (3.3%)	**8.5% [4.2 12.7]**	81.0% (3.3%)	**8.1% [6.4 9.9]**	79.6% (5.0%)	**6.9% [3.4 10.4]**
Equity/efficiency trade-off	**Pr (st.err)**	**Pr(eff)/Pr(eq)-1 [95% CI]**	**Pr (st.err)**	**Pr(eff)/Pr(eq)-1 [95% CI]**	**Pr (st.err)**	**Pr(eff)/Pr(eq)-1 [95% CI]**
Young						
Equity profile	65.5% (6.5%)		62.1% (4.6%)		79.0% (%)	
Efficiency profile	90.0% (2.1%)	**37.4% [13.6% 61.2%]**	91.6% (1.6%)	**47.7% [27. 68.2]**	84.9 % (3.4%)	7.4% [-4.5 19.3]
Middle-aged						
Equity profile	69.6% (9.2%)		67.5% (6.5%)		74.3% (7.7%)	
Efficiency profile	91.6% (2.5%)	**31.7% [3.2% 60.1%]**	93.2% (1.3%)	**38.2% [14.1 62.3]**	81.1% (6.8%)	9.2% [-8.9 27.4]
Elderly						
Equity profile	47.1% (10.7%)		44.2% (7.0%)		56.1% (7.9%)	
Efficiency profile	80.9% (4.8%)	71.8% [-5,8% 149,5%]	84.2% (4.0%)	**90.4% [19.0 161.8]**	65.6% (10.9%)	16.9% [-21.8 55.5]

Note: Significant variables (p value < 0.10) are in bold. Standard errors were calculated by bootstrapping. The effect of changing on attribute level on the probablilites of choosing a profile is calculated compared to the base scenario, where all attribute levels are set to the mean, while in the alternative scenario, the given attribute level is set to 1, while the others kept at mean. For the calculation of equity-efficiency ratio we compare the probability of choosing the pure efficient scenario (where all efficiency attributes are set to 1 and all equity attributes are set to 0) to the probability of choosing the pure equity scenario (where all efficiency attributes are set to 0 and all equity attributes are set to 1).