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Choosing a GP

Experiences from the implementation
of a list patient system in Norway

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1. Introduction

When the list patient system was introduced in Norway in 2001, the population was requested to choose a general practitioner (GP). Prior to the reform they were asked to rank their three most preferred GPs in an entry form. Information from the entry form was input for the algorithm¹ that allocated GPs and inhabitants. The first aim of this paper is to explore what factors the Norwegian population considered to be important when they filled in the entry form and selected their preferred GP. We question whether they considered the GP's medical skill, practical matters or continuity of care, or if they felt that the opportunity set restricted their possibilities to make a choice.

The second aim of the study is to identify factors of importance to the outcome of the allocation process. Important questions are whether the whole population participates in the list patient system, what factors characterize those who refuse to participate, and what factors that determine whether individuals' are allocated to their first-choice doctor. The third aim of the study is to identify factors of importance as to whether people express satisfaction with their GP after the reform. We question whether predisposing factors, prior illness or individuals' preferences matter, whether characteristics of the personal GP are of importance and finally, whether the outcome of the allocation process and the organization of the local health care market influence individuals' satisfaction with their GP.

The Norwegian living conditions panel data set established by Statistics Norway in 1997 consists of a representative sample of 5000 individuals who are personally contacted every year. The questionnaire includes questions on health, job and housing that are repeated at regular intervals. Six months after the reform we asked this sample a sequence on their experiences from the implementation of the new organization in general practice, and also about their satisfaction with the GP they were assigned to due to the reform. The questions on the experiences from the implementation process are meant to capture what the sample considered to be important when they selected their

¹ The National Insurance Administration made an algorithm that allocated the population to the GPs.

preferred GP, while the questions on satisfaction capture different quality aspects of the GP and his or her practice.

Data from different years of the living conditions data set are merged with information on the sample's socio-demographic background and information on their resident municipality from Statistics Norway's data registers. For the first time, data from the panel are also merged with information on each individual's personal GP. These data are taken from the National Insurance Administration's registers. Because we have information from questions addressed to a panel of individuals in different years, and this information is merged with registered information on the individual, characteristics of his or her place of residence and characteristics of his or her GP, our data are rather unique. This makes it possible to follow each individual through the process of choosing a GP, and to find out whether their preferences were fulfilled and they were allocated the GP they requested. Accordingly we are able to identify what characterizes individuals who are satisfied with their GP. An important question is whether the implementation process influenced individuals' satisfaction with their GP and whether satisfaction with a GP can be explained by characteristics of the individual, characteristics of the assigned GP or if the organization of the local health care market has an influence on how satisfied the individual is with his or her doctor.

We conclude that individuals systematically and consciously selected a GP prior to the reform. But we also find that individuals' preferences for characteristics of the GP differ; if people are allocated their preferred GP they are satisfied even if others in the population are dissatisfied with this doctor. It also seems that the most important determinant of the strength in individuals' preferences is their need for health care. Another interesting finding is that individuals' preferences for the organization of general practice and the instability in the local health care market influenced the selection process and are reflected in the participation rate and in the outcome of the allocation algorithm. It also seems that characteristics of the GP are important determinants of people's satisfaction with the GP they were allocated. Last, but not least, it seems that people who were listed with their first-choice doctor are more satisfied than others. In most cases the

first-choice doctor was the GP the individual used as a personal doctor prior to the reform. Hence, what we probably measure is the influence of continuity of care on the satisfaction with a GP, i.e. that individuals who were assigned to the GP they were used to are more satisfied with their GP than others.

2. Data and method

According to Wolinsky et al. (1982) there are four major factors that are important for the consumers' choices of new doctors: predisposing factors like demographic and social structures, enabling factors like income and place of residence, the individuals' experiences with health service utilization, for instance related to prior illness, and last, qualitative evaluation of the individual's prior patient-practitioner relationships. This finding is in accordance with Bornstein et al. (2000) who identified three principal factors influencing peoples' choice of a doctor: professional skills, office management and personal characteristics. Table 1 presents an overview of the explanatory variables used in the different parts of our analysis. We group the variables in individual characteristics, enabling characteristics, characteristics of the GP and characteristics of the allocation process.

Table 1:

We merged the information given through the yearly interviews with information on the sample's socio- demographic background from Statistics Norway's data registers. The characteristics of the individuals are divided into three different groups. First, predisposing factors measured by age (AGE), gender (GENDER) and length of education (EDUCATION), second, prior illness measured by self-assessed health (HEALTH)², and third, preferences. The preference variables are taken from the 2001 version of the panel, where the sample was asked whether they prefer a female (PREFFEM) or a male GP (PREFMALE), and whether they prefer to use several doctors or only one doctor (PREFREFORM) for their health problems. The preference variables make it possible to both explore how preferences influence the individual in the selection process, and whether preferences have an influence on individuals' satisfaction with the GP.

In an analysis based on the data from the entry form we found systematic dependencies between characteristics of an individual and characteristics of his or her choice of a GP;

² AGE, EDUCATION and HEALTH are entered as respectively two, four and four dummies.

among other things, we found that the smaller the age difference is between a GP and an individual, the higher is the probability of choosing that GP, and that the probability of choosing a GP is higher if a GP and an individual are of the same gender (Lurås 2003). Because it seems that individuals have preferences for the GP's age (GPAGE)³ and gender (GPGENDER) we included these variables in the analysis. Whether a GP has achieved his or her preferred list size⁴ strongly depends on the number of persons who ranked the GP as their first-choice on the entry form (Lurås and Iversen 2002). Some GPs are rather popular and they are the first-choice doctor for a large number of people, while others have problems in achieving their stated list size. We include two dummy variables to take account of differences in the GP's popularity. TOOMANY equals one if the GP was allocated more than 100 extra people listed compared to what they stated ahead of the reform, and RATION equals one if the GP lacks more than 100 persons to achieve the preferred list size. To take account of the fact that some individuals in the sample may have ranked a rationed GP as their first-choice doctor we include the variable RATION in interaction with the variable FIRSTCHOICE as well. The interaction term is called PREFRATON.

Before the reform, the turnover among GPs was quite high in some Norwegian municipalities. The situation in these municipalities was that GPs were changing patients, and the preferred situation with inhabitants changing doctors because of dissatisfaction with their previous one was not achieved (Finnvold 1995, 1998, 2002). To describe the opportunity set the individuals face in their resident municipality we include a group of enabling variables. The enabling variables are two indicators of the turnover among doctors (SALARY and INTERNS)⁵ and one indicator of whether the individual had a personal doctor prior to the reform (NOTGP). The last variable is taken from an earlier version of the panel, while the others are taken from Statistics Norway's ordinary

³ GPAGE is entered as four dummies.

⁴ Before the reform the health authorities asked the GPs about the number of persons they would like to have on their list. After the reform the GPs are allowed to adjust their preferred list size continuously.

⁵ Finnvold (1995) used the share of GPs on fixed salary, SALARY, and the share of GPs that are interns, INTERNS, as indicators of turnover among GPs in the municipality.

registers. To take account of the population's access⁶ to general practice in the municipality we included the number of GPs in the population (GPDENSITY)⁷. In a previous analysis on Norwegian data Finnvold (1998) characterizes the typical dissatisfied patient as a person who lacked a stable relationship with a doctor. This is in accordance with a recent study (Kalda et al. 2003), which found individuals listed with their personal physician to be overall more satisfied with several aspects of primary health care than unregistered respondents. In most cases the first-choice doctor was the individual's personal GP before the reform. Hence, people who were given their first-choice doctor have experienced continuity of care. We include the variable FIRSTCHOICE to take account of whether the individual was assigned to their first-choice GP due to the allocation process, and we would expect that individuals who were listed with their first-choice doctor are more satisfied than others.

The living conditions panel data set has normally a response rate of around 70 %. However, the number of persons answering the different questions varies. Beyond the normal dropout rate, this happens because some questions are only asked if a person has visited his or her GP during the last six months. The yearly desertion from the panel is compensated for by recruitment of new individuals. This implies that an analysis based on the merging of different years of the panel has a lower response rate than an analysis based on the questions asked in 2002 only.

Table 2:

A description of the sample can be found in table 2. The sample is a representative selection of the Norwegian population according to the individual's age, gender, education and self-assessed health status. It is of special interest to note that 10 % of the sample would prefer to use more than one doctor for their health problem, i.e. they did not support the reform in general practice. We also observe that 7 % of the sample

⁶ A discussion of the use of GP density as an indicator of general access to general practice can be found in Iversen and Lurås (2002).

⁷ In the analysis of the selection process we included GPDENSITY, SALARY and INTERNS in 2000, while in the analysis of satisfaction with the GP we included GPDENSITY, SALARY and INTERNS in 2001.

preferred a male GP, while 9 % preferred the GP to be a woman. More than a quarter of the sample (28 %) reported that they did not have a personal GP prior to the reform and 84 % were assigned to their first-choice doctor due to the allocation process. A majority of the assigned GPs are aged 45 to 66 years and only 25 % are females. As can be seen, in 2002, 34 % of the GPs lacked more than 100 persons to achieve their preferred list size, while 13 % were allocated more than 100 persons extra on their lists compared with what they would prefer. In the period just after the implementation of the new system (2001), 40 % of the GPs in the sample lacked more than 100 persons and 13 % had too many persons listed. Hence, the GPs list sizes have smoothed out in the year after the reform.

Data were analyzed by using SPSS.

3. Results

3.1. The allocation process

In a survey carried out on people recently registered with a new GP, Salisbury (1989) found that the majority registered with the nearest doctor, that many did not register until they were ill, that most people only change doctors because they have moved and that more than a third of the sample knew nothing about the new practice they registered with. The results disclosed a remarkable lack of consumerist behavior in the process of choosing a GP, and Salisbury (1989) concludes that: “Choosing a doctor may be less analogous to the consumer’s choice of a new car but more like finding a local garage quickly when the car breaks down.”

Table 3:

We asked the sample about the importance of being assigned to their first-choice doctor, and the results show that nearly 70 % of the sample considers it very or quite important, while only 20 % considers it of no particular importance or no importance at all (table 3). If we look closer at those in the sample answering that it is very important to be allocated the first-choice doctor, we find that people with education at level 0 find it more important than people educated at respectively level 1 and level 2 (table A1). We also find that females consider it more important than men, and that the older the individual is and the poorer his or her self-assessed health is, the more important is the assignment of the first-choice doctor. Not surprisingly, individuals who want to use more than one doctor for their health problems find it less important to get listed with their first-choice doctor than individuals who prefer to use one personal doctor. People reporting that they did not have a personal GP ahead of the reform find it more important to get assigned to the first-choice doctor, and the higher the GP density in the municipality is the less important people find it to be allocated their first-choice. Hence, the poorer the access to general practice is, the higher is the probability of answering that the assignment of the first-choice is very important.

It then seems that individuals with a greater need of health care overall have stronger preferences for a special GP than the rest of the population, and that attitude and preferences concerning the reform have an influence on whether the individual finds the allocation process important. But it also seems that the organization of the local health care market or enabling factors are important explanations of how important people perceive the assignment of their first-choice doctor. This result can be seen in relation to the fact that 6.3 % of the sample refused to fill in the entry form and that the probability of not filling in the form is higher the younger the individual is, if the individual prefers to use more than one doctor for his or her health problem and if the individual lacked a personal doctor ahead of the reform (table A2).

From the literature on the importance of continuity of care (see for instance Hjortdahl and Lærum, 1992 and Kalda et al. 2003) we know that people prefer continuity in their relationship to GPs. We also know that professional relevant factors and management factors are important when people choose a doctor (Bornstein et al. 2000). The importance of continuity of care and the importance of the doctors' medical skill when people choose a GP were confirmed in our earlier study based on registered data from the entry form the inhabitants filled in prior to the reform (Lurås 2003). But in this study we were not able to take account of whether office management characteristics like waiting time to get an appointment, and location of the practice like the distance from the individuals' home have an influence on a person's choice of a GP. McGlone et al. (2002), Scott (2000) and Billingham et al. (1993) identified this to be important both when individuals choose to leave a doctor's practice and when he or she chooses a new doctor.

Following the literature and to confirm the results from our former study, we decided to include continuity of care measured as "the most important factor when I selected my personal doctor was that I could continue going to a doctor I knew from before", the GPs medical skill measured as "the most important factor when I selected my personal doctor was that the doctor had a good clinical reputation", and practical things measured as "the most important factor when I selected my personal doctor was distance and access", as answering categories on the question regarding why individuals ranked their first-choice

GP as number one. To take account of the individuals' opportunity set in the selection process we also included the answering category "I am not able to choose"⁸.

Table 4:

A majority (53 %) of the sample answered that the most important factor when they selected their GP was that they wanted to keep the doctor they knew from before the reform, and about 20 % answered respectively the GP's medical skill and practical matters (table 4). The results are summarized in table 5 (see also Table A3-A6 in appendix). We find that the younger the individual is the more important medical skill is and the less important continuity of care is when people made their initial choice, and the worse the self-assessed health is the more important continuity of care is. Females emphasize continuity of care, while men emphasize practical matters. Hence, predisposing factors and experiences from prior illness are explanations of which factors the individual emphasized as important in the selection process. Individuals preferring to use more than one doctor did not emphasize medical skill or continuity of care, but find practical matters to be important when they made their final choice

Table 5:

Table 6:

A majority of the sample (96.9 %) participate and only 2.8 % do not participate in the list patient system (table 6). The probability of not participating is higher if the individual opposed the new organization, if he or she were lacking a personal doctor before the reform, and if the turnover of GPs in the municipality was high prior to the reform (table A7). The organization of the local health care market influences whether individuals' first-choice doctor was achieved as well: if the individual lacked a personal doctor and the turnover among GPs was high before the reform, the probability of being assigned to

⁸ The answering categories on important factors connected to whether the individual's choose a certain GP can be found in the appendix.

the first-choice doctor is low (table A8). Hence, people's preferences and the instability in the local health care market influenced the selection process and are reflected in the outcome of the allocation algorithm and in the participation rate.

2.3. Predictors of satisfaction with the GP

According to Williams et al. (1991) four key dimensions of people's satisfaction with their GP are organizational aspects of care, practical matters as accessibility, availability and type of service provision, nature and quality of the doctor-patient relationship and last GPs' professional skills and quality of care. We included five statements on satisfaction with the GP (appendix A). The statements take account of different aspects of the relationship to a doctor and as such they cover different dimensions of how the population perceives the quality of the health service the GP provides. The claim "the doctor takes my questions and problems seriously" captures the individual's relationship to the GP, while "I have full confidence in the treatment my GP prescribes" gives information on how the individual perceives the GP's medical skill. The division in a personal and a technical aspect of how the GP performs his or her work is in accordance with Hulka et al. (1975) who reported that patients tend to distinguish between the doctor's medical skill and the doctor's interpersonal skills. Accessibility to the GP is measured in two different ways. We include a statement "the doctor does not give me enough time", to measure how the individual perceives the GP's use of time during the consultation, and the statement "I have to wait too long to get an appointment" to measure the general accessibility to the GP. We also include a statement "I can get a referral if it is necessary" to take account of the GP's role as a personal spokesman for the patient or the role as a gatekeeper in relation to the specialist health care. Table 7 sums up our results.

Table 7:

Those who prefer to use a female doctor and those who prefer to use more than one doctor for their health problem are less satisfied with the interpersonal skills of the GP

than others, and individuals who were allocated their first-choice GP are overall more satisfied with the personal relationship to their GP than individuals who did not get assigned to their first-choice (table A9). If the GP lacks patients to achieve the preferred list size, i.e. if the GP experiences rationing of patients, the probability of being dissatisfied with the doctor's interpersonal skills increases, but if the rationed GP was the initial choice the individual is satisfied.

Similar to how people perceive the GP's interpersonal skills, individuals who got their first-choice doctor are overall more satisfied with the GP's medical skill than others. If the GP experiences patient constraints and is not the first-choice doctor individuals are dissatisfied, while they are satisfied with the medical skill if the assigned GP is their first-choice doctor (table A10). We also find that prior illness has an influence on satisfaction with the doctor's medical skill: if the individual's self-assessed health is neither good nor bad or if it is bad, the probability of being dissatisfied increases.

Individuals who were assigned to their first-choice GP are overall more satisfied with the GP's role as a gatekeeper (table A11). Individuals with a GP experiencing patient constraints are overall more dissatisfied, but like the case regarding interpersonal and medical skill, this is not the situation if the rationed GP is the individual's first-choice. We also find that females overall are more satisfied with the GP's referral practice than men. Enabling characteristics measured as the share of GPs that are interns influence the population's satisfaction with the GP: if there are many interns in the municipality, individuals are more satisfied with the GP's interaction with the specialist health care. This may be caused by the fact that interns refer more than average.

The oldest persons in the sample are more satisfied with the GP's use of time during the consultation than the younger age groups, and the worse the individual's self-assessed health is, the more dissatisfied the individual is with the length of the consultation (table A12). However, it is important to note that we obtain information on perceived consultation length, which is closely connected to whether the individual feels that the GP shows attention to him or her during the consultation. Hence, we do not know if the

different groups objectively are assigned the same amount of time during a consultation or if some groups got longer consultations than others. The higher the GP density is the more satisfied the population is with the length of the consultation. Hence, better access to general practice measured as GP density in the municipality, has an influence on the population's satisfaction with the consultation length. This may be caused by the fact that GPs in municipalities with high GP density on average have shorter lists, which may imply longer consultations for the population. Once more we identify a negative effect of whether the GP experiences patient constraints: persons with a GP who lacks persons on the list are overall more dissatisfied with the consultation length than others.

If the GP lacks persons on the list people listed are overall more satisfied with the waiting time to get an appointment than if the GP has achieved the preferred list size (table A13). Males are more satisfied with the waiting time than females, and the older the individual is, the more satisfied he or she is with the waiting time. If the GP is a man, individuals are more satisfied with the waiting time than if the GP is a woman. It is important to note that we do not objectively measure waiting time. Hence, we do not know if the different groups have to wait the same amount of time or if some groups wait more than others to get an appointment. What we measure is most likely people's time cost or a kind of impatience, and the older you are the lower your time cost is and the more patient you probably are.

4. Conclusion

It seems that individuals with a greater need for health care had stronger preferences for a certain GP and to a greater extent than the rest of the population emphasized continuity of care to be important in the selection process. Individuals with less need for health care and those who opposed the reform had a lower probability of filling in the form and if they did, they found the assignment of the first-choice doctor unimportant. These groups found practical matters to be important in the selection process.

It's interesting to note that the population perceived the GP's medical skill rather unimportant when they decided which GP to rank first. But medical skill may be a crucial factor behind why people chose to stay with a certain doctor for a long period and ranked this doctor as number one. Hence, the GP's medical skill may be an underlying factor that is considered when the population answers that continuity of care is the most important factor when they selected their personal GP.

In contrast to Salisbury (1989) we conclude that individuals systematically and consciously made their GP choices and filled in the entry form ahead of the reform in general practice. But it is important to note that this does not mean that the population continues to have a consumerist behaviour after the reform. In another analysis based on the living conditions panel data set Finnvold and Svalund (2004) conclude that the population to a little extent changes doctors after the allocation process was completed.

While predisposing factors and prior illness have an influence on how the individual perceives the GP's medical skill, the GP's referral practice, the length of the consultation and the waiting time, these factors do not influence satisfaction with the GP's interpersonal skills. It is interesting to note that what decides whether a person is satisfied with the GP's interpersonal skills is related to characteristics of the doctor and not connected to predisposing factors and prior illness of the other part of the doctor - patient relationship. This result is in accordance with Bornstein et al. (2000).

Because we find that individuals who prefer to use more than one doctor for their health problem are not satisfied with the GP's interpersonal skills we conclude that individuals' preferences for the organization of general practice influence the perception of some quality aspects of the assigned GP.

It is interesting to note that people listed with a GP who has not achieved his or her preferred list size are less satisfied than others along four dimensions: the GP's interpersonal skills, the GP's medical skill, the GP's referral practice and the consultation length. We do not know the causality between the GP's skill and behavior and whether he or she experiences patient constraints: do these GPs experiences a shortage of patients because they behave in a way the patients did not like prior to the reform, or do they behave in a certain way because they experience patient constraints after the reform? However, from a previous analysis we know that the most important factor determining whether a GP experiences patient constraints is the number of persons that ranked the GP as their first-choice: if this number is low, the probability of lacking patients increases (Iversen and Lurås 2002). Hence, a possible hypothesis is that GPs experiencing patient constraints have some characteristics connected to personality or practice style that the population in general does not like. But for people who ranked a rationed GP as number one this result is not prevailing: if you were assigned your first-choice GP you are satisfied even if others in the population are dissatisfied with this doctor. Hence, people's preferences differ.

We find that individuals listed with GPs who lack patients are less satisfied with the experienced consultation length. This result is surprising because we would expect rationed GPs to have spare capacity, implying that they can offer their patients longer consultations than GPs not experiencing patient constraints. We may however, interpret the result in relation to the finding that individuals with a GP who lacks patients are more satisfied with the experienced waiting time than others. Hence, it seems that the rationed GPs use their spare capacity to offer persons on the lists a shorter wait, which implies that these persons express satisfaction with the waiting time. From Iversen and Lurås (2002)

we know that a shorter wait may imply that the level of service provision per person on the list increases as well.

People who are listed with their first-choice doctor are more satisfied with the GP's interpersonal skills, the GP's medical skill and the GP's referral pattern. Hence, along three dimensions they are more satisfied than others. In most cases the first-choice doctor was the GP the individual used as a personal doctor ahead of the reform. Persons who got their first-choice doctor have therefore most likely experienced the GP's practice style for a long period, and they rank this GP first because they both personally trust him or her and they feel confident about the way the GP handles their health problems, both personally and technically during the consultation, and how he or she interacts with the specialist health care. Hence, what we probably measure is the influence of continuity of care on the satisfaction with a GP, i.e. that individuals who got the GP they were used to are more satisfied with the assigned GP than others. One important question is whether those in the population who did not get listed with their first-choice doctor will be more satisfied with the GP's skill and referral pattern when they became more familiar with the doctor. This will be further explored in the next version of the living conditions panel data set.

One factor of importance as to why people were allocated to their first-choice doctor was the opportunity set of GPs in the local health care market prior to the reform, both the general access and the turnover and instability among GPs. But because better access to general practice, measured as GP density in the municipality, influences the population's satisfaction with the consultation length, it also seems that the organization of the local health care market influences individuals' perception of quality of the health service provision as well. Hence, enabling factors are important both in the allocation process and in terms of how the population perceives the quality of the health services the GPs deliver after the reform. This will be explored in a further analysis based on the living conditions panel data set.

References:

- Billinghamurst, B. and M. Whitfield, 1993, Why do patients change their general practitioner? A postal questionnaire study of patients in Avon, *British Journal of General Practice*, 1993, 43, 336-338.
- Bornstein, B., D. Marcus, W. Cassidy, 2000, Choosing a doctor: an explorative study of factors influencing patients' choice of a primary care doctor, *Journal of Evaluation in Clinical practice*, 6, 3, 255-262.
- Finnvold, J.E. (1995)
- Finnvold, J.E. , 1998, Kan misfornøyde pasienter gi oss bedre helsetjenester? *Samfunnsspeilet* 1998, 3, Statistics Norway.
- Finnvold, J.E. (2002)
- Finnvold, J.E. and J. Svalund (2004), Blanda resultat av fastlegereforma *Samfunnsspeilet* 2004, 4, Statistics Norway.
- Hjortdahl, P. , E. Lærum, 1992, Continuity of care in general practice: effect on patient satisfaction, *British Medical Journal*, 1992; 304: 1287 – 90.
- Hulka, B., L. Kupper, M. Daly, J. Cassel, F. Schoen, 1975, Correlates of satisfaction and dissatisfaction with medical care, *Medical Care* 1975; 13: 648 – 658.
- Kalda, R., K. Polluste, M. Lember, 2003, Patient satisfaction with care is associated with personal choice of physician, *Health Policy* 64 (2003) 55-62.
- Iversen, T. and H. Lurås, 2002a, The Importance of Micro-data for Revealing Income Motivated Behaviour Among GPs. In Lindgren, B. (ed) *Individual Decisions for Health*. London: Routledge.
- Iversen, T. and H. Lurås, 2002b, Waiting Time as a Competitive Device: An example from General Medical Practice, *International Journal of Health Care Finance and Economics*, 2, 189-204.
- Lurås, H., 2003, *Individuals' Preferences for GPs. Choice Analysis from the Establishment of a List Patient System*, Working Paper 2003:5, Health Economic Research Programme (HERO), University of Oslo.
- Lurås, H. and T. Iversen, 2002, Legemangelen som ble til pasientmangel: Variasjoner i listeønsker og pasientknapphet ved innføring av fastlegeordning, *Økonomisk Forum*, nr. 8, November 2002.

McGlone, T., E. Butler, V. McGlone, 2002, Factors influencing consumers selection of a primary care physician, *Health Marketing Quarterly*, Vol 19(3); 21-37.

Salisbury, C., 1989, How do people choose their doctor? *British Medical Journal* 1989; 299: 608-10.

Scott, A., 2000, Economics of General Practice, in A.J. Culyer and J.P. Newhouse *Handbook of Health Economics*, Volume 1, Elsevier Science B.V.

Williams, S. and M. Calnan, 1991, Key determinants of consumer satisfaction with general practice, *Family Practice* 1991; 8; 237-242.

Wolinsky, F. and S. Steiber, 1982, Salient issues in choosing a new doctor, *Social Science and Medicine*, Vol. 16; 759-767.

Tables:

Table 1: Background variables

Factors	Variables	Variable names	Data source
Individual characteristics <ul style="list-style-type: none"> • Predisposing • Prior illness • Preferences 	<ul style="list-style-type: none"> • Age • Gender • Education • Self-assessed health • Prefer many doctors • Prefer male GP • Prefer female GP 	AGE GENDER EDUCATION HEALTH PREFREFORM PREFMALE PREFFEM	Statistics Norway: Registered 2002 Registered 2002 Registered 2002 Panel 2002 Panel 2001 Panel 2001 Panel 2001
Enabling characteristics	<ul style="list-style-type: none"> • Did not have a personal GP before the reform • GP density in the municipality • Turn-over among GPs in the municipality before the reform 	NOTGP GPDENSITY SALARY INTERNS	Statistics Norway: Panel 2001 Registered 2002 Registered 2000
Characteristics of the GP	<ul style="list-style-type: none"> • Age • Gender • Whether the GP has fewer persons listed than preferred • Whether the GP has more persons listed than preferred 	GPAGE GPGENDER RATION TOOMANY	National Insurance Administration: Registered 2002 Registered 2002 Registered 2002 Registered 2002
Allocation process	<ul style="list-style-type: none"> • Whether the individual was assigned to their first-choice GP 	FIRSTCHOICE	Statistics Norway: Panel 2002

Table 2: Description of the sample

Variable	Mean (Stdev)
AGE <ul style="list-style-type: none"> • AGE1 (25-44) • AGE2 (45-66) • AGE3 (67-79) • AGE4 (80+) 	0.39 (0,49) 0.35 (0.48) 0.11 (0.31) 0.03 (0.16)
GENDER <ul style="list-style-type: none"> • FEMALE=1 	0.51 (0.50)
EDUCATION <ul style="list-style-type: none"> • EDUC1 (level1) • EDUC2 (level2) 	0.57 (0.50) 0.27 (0.44)
HEALTH <ul style="list-style-type: none"> • HEALTH1 (good) • HEALTH2 (neither good nor bad) • HEALTH3 (bad) • HEALTH4 (very bad) 	0.49 (0.50) 0.17 (0.37) 0.06 (0.24) 0.01 (0.08)
PREFREFORM	0.10 (0.29)
PREFMALE	0.07 (0.25)
PREFFEM	0.09 (0.29)
NOTGP	0.28 (0.45)
FIRSTCHOICE	0.84 (0.37)
GPDENSITY ⁹	9.03 (1.82)
SALARY	0.17 (0.21)
INTERNS	0.06 (0.09)
GPAGE <ul style="list-style-type: none"> • GPAGE1 (25-44) • GPAGE2 (45-66) • GPAGE3 (67-79) • GPAGE4 (80+) 	0.33 (0.47) 0.65 (0.48) 0.01 (0.11) 0.00 (0.00)
GPGENDER <ul style="list-style-type: none"> • FEMALE=1 	0.25 (0.44)
RATION	0.34 (0.47)
TOOMANY	0.13 (0.33)

⁹ The number of GPs per 100,000 inhabitants.

Table 3: How important was it for you to be assigned the physician you put down as your first-choice?

	Per cent	n
Very important	35,6 %	1136
Quite important	31,5 %	1005
Neither important nor unimportant	10,6 %	338
Of no particular importance	11,9 %	380
Of no importance at all	9,9 %	317
I don't want to answer	0,1 %	3
I don't know	0,3 %	8
Total	100 %	3187

Table 4: Which of the following factors were important to you when you selected your personal physician under the new system?

	Per cent	n
That the doctor had a good clinical reputation	19,6 %	626
Practical things like distance and access	20,2 %	645
That I could continue going to a doctor I knew from before	52,9 %	1685
None of the above / I am not able to choose	7,0 %	223
Total	100 %	3187

Table 5: Determinants of important factors in the process of selecting a GP

	Predisposing factors	Prior illness	Preferences	Enabling factors
Medical skill most important	Age: Age2: -	Health: Health2: -	Prefreform: -	
Practical matters most important	Man: +		Prefreform: +	NotGP: + Interns: -
Continuity of care most important	Age: Age3: + Age4: ++ Female: +	Health: Health2: +	Prefreform: -	NotGP: -
No choice			Prefreform: +	NotGP: +

Table 6:

	Per cent	n
Assigned a personal physician	96,9 %	3480
Not a participant in the system	2,8 %	99
Don't want to answer	0,0 %	1
I don't know	0,3 %	10
Total	100 %	3590

Table 7: Determinants of satisfaction with the GP

	Pre-disposing factors	Prior illness	Preferences	Enabling factors	First-choice achieved	Charact. of the GP
The GP's inter personal skills			Notreform: - Preffemale: -		First-choice:+	Ration: - Preffration:+
The GP's medical skill		Health: Health2:- Health3:--			First-choice:+	Ration: - Preffration:+
The GP's referral practice	Female:+	Health: Health3:+		Interns ¹⁰ : +	First-choice:+	Ration: - Preffration:+
The consultation length	Age: Age4:+	Health: Health2:- Health3:-- Health4:--		GPdensity ¹¹ : +		Ration: -
The waiting time	Age: Age1:--- Age2:--- Age3:-- Age4:- Female: -					Ration: + FemaleGP: -

+: Increased probability of being satisfied
- : Decreased probability of being satisfied

¹⁰ Means that the higher the share of interns in the municipality is, the more satisfied the individuals are.

¹¹ Means that the higher the GP density in the municipality is, the more satisfied the individuals are.

Appendix A: Questionnaire

For all participants

Phys1

Here are some questions concerning the introduction of the list patient system.
Have you been assigned a personal physician, or are you not a participant in the system?

- a. Have been assigned a personal physician
- b. I am not a participant in the system

If Phys1 = a

Phys2

Was the physician assigned to you

- a. your first-choice
- b. your second choice
- c. your third choice
- d. none of the above
- e. DON'T REMEMBER
- f. DIDN'T SEND IN THE FORM

If Phys2 ≠ e or f

Phys3

How important was it for you to be assigned the physician you put down as your first-choice? Was it very important, quite important, neither important nor unimportant, of no particular importance, or of no importance at all?

- very important
- quite important
- neither important nor unimportant
- of no particular importance
- of no importance at all

Phys4

Was the physician you were assigned to the same one you went to before the new system was introduced?

Phys5

We will now ask you to tell us which of the following factors were important to you when you selected your personal physician under the new system

- a. that the doctor had a good clinical reputation
- b. practical things like distance and access. HOW FAR IT IS TO TRAVEL TO THE DOCTOR, HOW EASY IT IS TO GET AN APPOINTMENT, AND WHETHER THE OFFICE HOURS ARE FLEXIBLE.
- c. that I could continue going to a doctor I knew from before
- d. NONE OF THE ABOVE / I AM NOT ABLE TO CHOOSE → Phys6a2

If Phys2 ≠ e or f, and Phys4 = no

Phys6a1

When you were selecting a personal physician, were you acquainted with any of those you could select from before?

If Phys2 ≠ e or f, and Phys4 = yes

Phys6a2

When you were selecting a personal physician, did you know any other possible doctors than the one you had had earlier?

If Phys6a1 or 6a2 = yes:

Phys6b.

How many of these doctors did you consider when choosing a personal physician? (Number)

Phys7

Have you had contact with the physician to whom you have been assigned?

If Phys7 = yes

I will now read some statements about your personal physician. For each statement please tell me if you fully agree, agree for the most part, NEITHER AGREE NOR DISAGREE (are neutral), disagree somewhat, disagree in full

- a. The doctor takes my questions and problems seriously
- b. I have full confidence in the treatment my doctor prescribes
- c. The doctor does not give me enough time
- d. I have to wait too long to get an appointment
- e. I can get a referral to a specialist if it is necessary

Appendix B: Tables

Table A1: The probability of answering that the assignment of the first-choice doctor is very important

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I. for EXP(B)	
						Lower	Upper
AGE1	,675	,188	12,939	,000	1,963	1,359	2,835
AGE2	,763	,188	16,466	,000	2,146	1,484	3,103
AGE3	1,256	,215	34,204	,000	3,510	2,305	5,347
AGE4	1,598	,314	25,869	,000	4,945	2,671	9,155
EDUC1	-,258	,124	4,313	,038	,773	,606	,986
EDUC2	-,395	,141	7,872	,005	,674	,511	,888
HEALTH1	,089	,108	,678	,410	1,093	,885	1,351
HEALTH2	,469	,135	11,988	,001	1,599	1,226	2,085
HEALTH3	,775	,181	18,290	,000	2,171	1,522	3,097
HEALTH4	1,282	,619	4,297	,038	3,606	1,072	12,122
FEMALE	,722	,091	62,867	,000	2,058	1,722	2,460
PREF	-,930	,222	17,540	,000	,394	,255	,610
REFORM							
PREFFEM	-,007	,148	,002	,965	,993	,743	1,329
PREF	,566	,167	11,520	,001	1,762	1,270	2,443
MALE							
GP	-,064	,031	4,211	,040	,938	,883	,997
DENSITY							
SALARY	-,389	,265	2,158	,142	,678	,404	1,139
INTERNS	,983	,626	2,465	,116	2,673	,783	9,120
NOTGP	-,996	,124	64,595	,000	,370	,290	,471
Constant	-1,661	,368	20,380	,000	,190		

Table A2: The probability of not filling in the form

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I. for EXP(B)	
						Lower	Upper
AGE1	-,188	,232	,655	,418	,829	,526	1,306
AGE2	-,921	,273	11,418	,001	,398	,233	,679
AGE3	-1,048	,429	5,959	,015	,351	,151	,813
AGE4	-1,714	1,050	2,664	,103	,180	,023	1,411
EDUC1	-,058	,297	,039	,844	,943	,527	1,689
EDUC2	-,139	,322	,186	,667	,870	,463	1,636
HEALTH1	-,183	,187	,950	,330	,833	,577	1,203
HEALTH2	-,121	,271	,199	,655	,886	,521	1,507
HEALTH3	-,945	,612	2,387	,122	,389	,117	1,289
HEALTH4	-3,967	8,624	,212	,646	,019	,000	414526,384
FEMALE	-,387	,182	4,534	,033	,679	,476	,970
PREF	1,293	,197	42,890	,000	3,644	2,475	5,367
REFORM							
PREFFEM	,013	,322	,002	,967	1,014	,539	1,907
PREF	-,337	,384	,768	,381	,714	,336	1,517
MALE							
GP	,015	,056	,072	,789	1,015	,910	1,132
DENSITY							
SALARY	,496	,429	1,339	,247	1,643	,709	3,809
INTERNS	-2,579	1,231	4,387	,036	,076	,007	,847
NOTGP	,751	,181	17,250	,000	2,119	1,487	3,020
Constant	-2,087	,655	10,142	,001	,124		

Table A3: The probability of answering that the doctor's medical skill is important when you selected your personal physician.

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I.for EXP(B)	
						Lower	Upper
AGE1	,015	,175	,007	,933	1,015	,721	1,429
AGE2	-,170	,179	,896	,344	,844	,594	1,199
AGE3	-,573	,239	5,764	,016	,564	,353	,900
AGE4	-,772	,418	3,415	,065	,462	,204	1,048
EDUC1	,046	,155	,087	,768	1,047	,772	1,420
EDUC2	,101	,171	,349	,555	1,106	,792	1,546
HEALTH1	-,219	,115	3,590	,058	,804	,641	1,008
HEALTH2	-,362	,161	5,059	,024	,696	,508	,955
HEALTH3	-,197	,219	,806	,369	,821	,534	1,262
HEALTH4	,032	,669	,002	,962	1,032	,278	3,827
FEMALE	,006	,099	,004	,948	1,006	,829	1,221
PREF	-,652	,226	8,359	,004	,521	,335	,810
REFORM							
GP	-,021	,034	,381	,537	,980	,917	1,046
DENSITY							
SALARY	,315	,274	1,323	,250	1,370	,801	2,344
INTERNS	,797	,685	1,355	,244	2,219	,580	8,489
NOTGP	,207	,118	3,087	,079	1,231	,976	1,551
Constant	-1,124	,394	8,149	,004	,325		

Table A4: The probability of answering that practical things are important when you selected your personal physician.

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I.for EXP(B)	
						Lower	Upper
AGE1	-,052	,177	,087	,768	,949	,670	1,344
AGE2	-,133	,182	,531	,466	,876	,613	1,251
AGE3	-,135	,230	,342	,559	,874	,557	1,372
AGE4	-,329	,392	,707	,401	,719	,334	1,551
EDUC1	-,009	,158	,003	,953	,991	,727	1,351
EDUC2	,253	,171	2,195	,138	1,288	,921	1,802
HEALTH1	-,049	,119	,166	,683	,953	,754	1,203
HEALTH2	,004	,161	,001	,980	1,004	,732	1,377
HEALTH3	-,150	,236	,405	,524	,860	,542	1,367
HEALTH4	-1,077	1,057	1,039	,308	,340	,043	2,704
FEMALE	-,426	,100	18,131	,000	,653	,537	,794
PREF	,511	,172	8,840	,003	1,667	1,190	2,334
REFORM							
GP	,048	,034	1,991	,158	1,049	,982	1,121
DENSITY							
SALARY	,484	,280	2,990	,084	1,623	,937	2,810
INTERNS	-5,877	,849	47,909	,000	,003	,001	,015
NOTGP	,886	,114	59,860	,000	2,424	1,937	3,034
Constant	-1,121	,397	7,969	,005	,326		

Table A5: The probability of answering that continuity of care is important when you selected your personal physician.

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I.for EXP(B)	
						Lower	Upper
AGE1	-,011	,150	,005	,942	,989	,736	1,328
AGE2	,185	,152	1,483	,223	1,204	,893	1,622
AGE3	,527	,188	7,829	,005	1,694	1,171	2,451
AGE4	,743	,307	5,867	,015	2,103	1,152	3,838
EDUC1	,075	,123	,372	,542	1,078	,847	1,371
EDUC2	-,215	,136	2,482	,115	,807	,618	1,054
HEALTH1	,173	,099	3,092	,079	1,189	,980	1,443
HEALTH2	,290	,130	4,974	,026	1,337	1,036	1,725
HEALTH3	,337	,180	3,514	,061	1,400	,985	1,991
HEALTH4	,460	,595	,597	,440	1,584	,493	5,087
FEMALE	,319	,081	15,429	,000	1,375	1,173	1,612
PREF	-,431	,166	6,734	,009	,650	,470	,900
REFORM							
GP	-,030	,028	1,126	,289	,971	,919	1,026
DENSITY							
SALARY	-,780	,243	10,292	,001	,459	,285	,738
INTERNS	2,415	,592	16,618	,000	11,186	3,503	35,719
NOTGP	-1,146	,104	121,813	,000	,318	,259	,390
Constant	-,109	,327	,112	,738	,896		

Table A6: The probability of answering that I am not able to choose when you selected your personal physician.

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I.for EXP(B)	
						Lower	Upper
AGE1	,030	,269	,013	,911	1,031	,609	1,745
AGE2	,002	,277	,000	,994	1,002	,583	1,723
AGE3	-,540	,401	1,814	,178	,583	,266	1,279
AGE4	-,817	,780	1,095	,295	,442	,096	2,040
EDUC1	-,395	,237	2,793	,095	,673	,423	1,071
EDUC2	-,115	,256	,204	,652	,891	,539	1,471
HEALTH1	,102	,184	,308	,579	1,108	,772	1,589
HEALTH2	-,163	,266	,377	,539	,850	,505	1,430
HEALTH3	-,547	,452	1,464	,226	,578	,238	1,404
HEALTH4	,218	1,073	,041	,839	1,243	,152	10,191
FEMALE	-,160	,156	1,046	,306	,852	,627	1,158
PREF	,825	,221	13,899	,000	2,283	1,479	3,523
REFORM							
GP	,033	,046	,534	,465	1,034	,945	1,131
DENSITY							
SALARY	,533	,381	1,953	,162	1,704	,807	3,599
INTERNS	1,195	,941	1,612	,204	3,303	,522	20,884
NOTGP	1,041	,167	39,022	,000	2,833	2,044	3,929
Constant	-3,008	,583	26,596	,000	,049		

Table A7: The probability of not participating in the system

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I. for EXP(B)	
						Lower	Upper
AGE1	-,300	,371	,655	,418	,741	,358	1,532
AGE2	-1,180	,471	6,273	,012	,307	,122	,774
AGE3	,367	,508	,523	,469	1,444	,534	3,905
AGE4	,859	,749	1,313	,252	2,360	,543	10,252
EDUC1	,436	,469	,866	,352	1,546	,617	3,875
EDUC2	,213	,542	,154	,694	1,237	,428	3,576
HEALTH1	-,448	,300	2,223	,136	,639	,355	1,151
HEALTH2	-,582	,425	1,880	,170	,559	,243	1,284
HEALTH3	-6,436	10,697	,362	,547	,002	,000	2040822,743
HEALTH4	-6,871	37,404	,034	,854	,001	,000	7149746716104360 0000000000000,00 0
FEMALE	,094	,291	,103	,748	1,098	,621	1,943
PREF REFORM	,155	,371	,174	,676	1,168	,564	2,418
PREFFEM	,089	,452	,039	,843	1,093	,451	2,653
PREF MALE	-,495	,738	,450	,502	,610	,144	2,589
SALARY	2,299	,451	25,998	,000	9,968	4,119	24,126
INTERNS	,166	1,372	,015	,904	1,181	,080	17,368
GP	,057	,063	,826	,363	1,059	,936	1,199
DENSITY							
NOTGP	1,254	,297	17,787	,000	3,503	1,956	6,273
Constant	-5,241	,950	30,439	,000	,005		

Table A8: The probability of being assigned to the first-choice doctor

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I. for EXP(B)	
						Lower	Upper
AGE1	-,019	,182	,010	,919	,982	,688	1,401
AGE2	,599	,194	9,514	,002	1,821	1,244	2,664
AGE3	,682	,266	6,603	,010	1,978	1,176	3,329
AGE4	,103	,386	,071	,790	1,108	,520	2,360
EDUC1	,138	,175	,617	,432	1,148	,814	1,619
EDUC2	-,007	,192	,001	,971	,993	,682	1,446
HEALTH1	-,008	,131	,004	,952	,992	,768	1,281
HEALTH2	,193	,186	1,080	,299	1,213	,843	1,747
HEALTH3	,013	,259	,002	,961	1,013	,609	1,684
HEALTH4	-,414	,696	,355	,552	,661	,169	2,583
FEMALE	,115	,116	,981	,322	1,122	,893	1,409
PREF	-,436	,181	5,822	,016	,647	,454	,921
REFORM							
PREFFEM	,135	,202	,445	,505	1,144	,770	1,701
PREF	,239	,235	1,033	,310	1,269	,801	2,011
MALE							
SALARY	-,707	,281	6,323	,012	,493	,284	,856
INTERNS	,523	,726	,518	,472	1,687	,406	7,001
GP	-,042	,034	1,583	,208	,959	,897	1,024
DENSITY							
NOTGP	-1,105	,120	85,344	,000	,331	,262	,419
Constant	1,971	,418	22,175	,000	7,175		

Table A9: The probability of answering fully agree or agree to the question “the doctor takes my questions and problems seriously”

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I.for EXP(B)	
						Lower	Upper
NOTGP	-,112	,271	,170	,680	,894	,526	1,521
AGE1	-,236	,441	,288	,592	,789	,333	1,872
AGE2	-,205	,453	,206	,650	,814	,335	1,977
AGE3	-,144	,535	,073	,787	,866	,303	2,469
AGE4	,245	,857	,082	,775	1,278	,238	6,850
EDUC1	-,307	,326	,891	,345	,735	,388	1,392
EDUC2	-,061	,376	,027	,870	,940	,450	1,964
HEALTH1	,059	,286	,043	,836	1,061	,605	1,860
HEALTH2	-,503	,323	2,427	,119	,605	,321	1,139
HEALTH3	-,278	,436	,406	,524	,758	,322	1,780
HEALTH4	-,554	1,116	,247	,619	,575	,065	5,118
FEMALE	-,006	,240	,001	,979	,994	,621	1,591
PREF	-,719	,363	3,912	,048	,487	,239	,994
REFORM							
PREFFEM	-,930	,332	7,856	,005	,394	,206	,756
PREF	,463	,530	,761	,383	1,588	,562	4,489
MALE							
RATION	-,911	,287	10,090	,001	,402	,229	,706
TOO	,694	,441	2,475	,116	2,001	,843	4,747
MANY							
FIRST	,948	,272	12,124	,000	2,580	1,513	4,399
CHOICE							
GP	,367	,295	1,548	,213	1,443	,810	2,570
GENDER							
GPAGE1	,913	,796	1,317	,251	2,493	,524	11,862
GPAGE2	,598	,780	,588	,443	1,818	,394	8,383
FIRST	1,395	,405	11,893	,001	4,037	1,826	8,922
CHOICE							
by							
RATION							
GP	,012	,077	,024	,878	1,012	,870	1,177
DENSITY							
SALARY	,005	,650	,000	,994	1,005	,281	3,592
INTERNS	,001	1,640	,000	1,000	1,001	,040	24,899
Constant	1,602	1,238	1,677	,195	4,965		

Table A10: The probability of answering fully agree or agree to the question “I have full confidence in the treatment my doctor prescribes”

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I.for EXP(B)	
						Lower	Upper
NOTGP	-,413	,234	3,126	,077	,661	,418	1,046
AGE1	-,187	,411	,206	,650	,830	,371	1,858
AGE2	-,432	,416	1,078	,299	,649	,287	1,467
AGE3	-,189	,489	,149	,699	,828	,318	2,157
AGE4	-,475	,635	,560	,454	,622	,179	2,158
EDUC1	-,420	,287	2,141	,143	,657	,374	1,153
EDUC2	-,451	,321	1,972	,160	,637	,339	1,195
HEALTH1	-,175	,264	,438	,508	,840	,501	1,408
HEALTH2	-,805	,294	7,513	,006	,447	,252	,795
HEALTH3	-,877	,357	6,014	,014	,416	,207	,839
HEALTH4	-,405	1,118	,131	,717	,667	,075	5,968
FEMALE	,052	,203	,065	,798	1,053	,707	1,569
PREF	-,500	,340	2,157	,142	,607	,311	1,182
REFORM							
PREFFEM	-,398	,314	1,605	,205	,672	,363	1,243
PREF	,380	,412	,848	,357	1,462	,652	3,279
MALE							
RATION	-,770	,266	8,412	,004	,463	,275	,779
TOO	,779	,408	3,653	,056	2,180	,980	4,847
MANY							
FIRST	,961	,246	15,225	,000	2,615	1,613	4,238
CHOICE							
GP	,183	,249	,537	,464	1,201	,736	1,958
GENDER							
GPAGE1	,286	,787	,132	,717	1,330	,285	6,219
GPAGE2	,304	,780	,152	,696	1,355	,294	6,248
FIRST	,643	,323	3,957	,047	1,902	1,010	3,583
CHOICE							
by							
RATION							
GP	,033	,073	,199	,655	1,033	,895	1,192
DENSITY							
SALARY	1,456	,765	3,626	,057	4,288	,958	19,188
INTERNS	,022	1,479	,000	,988	1,023	,056	18,561
Constant	1,977	1,154	2,934	,087	7,223		

Table A11: The probability of answering fully agree or agree to the question “I can get a referral to a specialist if it is necessary”

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I.for EXP(B)	
						Lower	Upper
NOTGP	-,235	,169	1,927	,165	,791	,568	1,102
AGE1	,074	,257	,083	,773	1,077	,651	1,782
AGE2	,364	,267	1,853	,173	1,439	,852	2,430
AGE3	,075	,311	,058	,810	1,078	,586	1,981
AGE4	,797	,544	2,152	,142	2,220	,765	6,443
EDUC1	,240	,193	1,540	,215	1,271	,870	1,857
EDUC2	,217	,217	,994	,319	1,242	,811	1,902
HEALTH1	,176	,161	1,197	,274	1,193	,870	1,636
HEALTH2	,222	,206	1,155	,283	1,248	,833	1,869
HEALTH3	,799	,322	6,145	,013	2,223	1,182	4,181
HEALTH4	1,212	1,094	1,228	,268	3,361	,394	28,680
FEMALE	,682	,143	22,738	,000	1,979	1,495	2,619
PREF	-,492	,261	3,568	,059	,611	,367	1,019
REFORM							
PREFFEM	-,258	,239	1,167	,280	,772	,483	1,234
PREF	,334	,278	1,443	,230	1,397	,810	2,411
MALE							
RATION	-,721	,201	12,819	,000	,486	,328	,722
TOO	,035	,215	,027	,870	1,036	,680	1,577
MANY							
FIRST	,794	,188	17,840	,000	2,212	1,530	3,197
CHOICE							
GP	-,045	,176	,064	,800	,956	,678	1,349
GENDER							
GPAGE1	-,259	,655	,157	,692	,772	,214	2,788
GPAGE2	-,197	,650	,092	,761	,821	,229	2,937
FIRST	,749	,244	9,458	,002	2,116	1,312	3,411
CHOICE							
by							
RATION							
GP	-,047	,050	,895	,344	,954	,864	1,052
DENSITY							
SALARY	-,286	,416	,473	,492	,751	,333	1,697
INTERNS	2,690	1,111	5,863	,015	14,739	1,670	130,086
Constant	,126	,876	,021	,886	1,134		

Table A12: The probability of answering fully agree or agree to the question “The doctor does not give me enough time”

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I.for EXP(B)	
						Lower	Upper
NOTGP	-,008	,153	,003	,959	,992	,735	1,340
AGE1	-,316	,220	2,073	,150	,729	,474	1,121
AGE2	-,293	,223	1,724	,189	,746	,482	1,155
AGE3	-,359	,261	1,883	,170	,699	,419	1,166
AGE4	-,897	,403	4,963	,026	,408	,185	,898
EDUC1	,064	,157	,164	,685	1,066	,783	1,451
EDUC2	-,005	,180	,001	,980	,995	,699	1,418
HEALTH1	,052	,144	,131	,717	1,054	,794	1,397
HEALTH2	,375	,171	4,780	,029	1,455	1,040	2,035
HEALTH3	,514	,213	5,853	,016	1,673	1,103	2,537
HEALTH4	1,551	,611	6,436	,011	4,717	1,423	15,635
FEMALE	,200	,118	2,871	,090	1,222	,969	1,541
PREF	,160	,242	,434	,510	1,173	,730	1,887
REFORM							
PREFFEM	,186	,191	,955	,329	1,205	,829	1,751
PREF	,125	,207	,362	,547	1,133	,755	1,699
MALE							
RATION	,443	,191	5,367	,021	1,558	1,071	2,267
TOO	,167	,161	1,075	,300	1,181	,862	1,618
MANY							
FIRST	-,078	,183	,180	,671	,925	,646	1,324
CHOICE							
GP	,151	,145	1,080	,299	1,163	,875	1,545
GENDER							
GPAGE1	,162	,575	,079	,778	1,176	,381	3,628
GPAGE2	,327	,570	,328	,567	1,386	,454	4,237
FIRST	-,417	,220	3,586	,058	,659	,428	1,015
CHOICE							
by							
RATION							
GP	-,099	,043	5,343	,021	,906	,833	,985
DENSITY							
SALARY	,203	,342	,353	,552	1,225	,627	2,393
INTERNS	,550	,835	,434	,510	1,733	,338	8,899
Constant	-1,059	,762	1,933	,164	,347		

Table A13: The probability of answering fully agree or agree to the question “I have to wait too long to get an appointment”

	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I.for EXP(B)	
						Lower	Upper
NOTGP	,215	,135	2,555	,110	1,240	,952	1,615
AGE1	-,531	,204	6,750	,009	,588	,394	,878
AGE2	-,544	,207	6,915	,009	,580	,387	,871
AGE3	-,699	,241	8,382	,004	,497	,310	,798
AGE4	-1,073	,350	9,398	,002	,342	,172	,679
EDUC1	,028	,141	,041	,840	1,029	,781	1,355
EDUC2	-,069	,161	,186	,667	,933	,681	1,278
HEALTH1	,163	,126	1,670	,196	1,176	,919	1,505
HEALTH2	,240	,154	2,419	,120	1,271	,940	1,719
HEALTH3	,120	,198	,365	,545	1,127	,765	1,662
HEALTH4	-,496	,703	,497	,481	,609	,153	2,418
FEMALE	,211	,104	4,088	,043	1,235	1,006	1,515
PREF	,227	,221	1,057	,304	1,255	,814	1,933
REFORM							
PREFFEM	,299	,174	2,971	,085	1,349	,960	1,895
PREF	-,121	,191	,399	,528	,886	,609	1,289
MALE							
RATION	-,523	,183	8,191	,004	,593	,414	,848
TOO	,064	,142	,203	,652	1,066	,807	1,409
MANY							
FIRST	-,121	,165	,537	,464	,886	,642	1,224
CHOICE							
GP	,410	,127	10,379	,001	1,506	1,174	1,932
GENDER							
GPAGE1	,742	,531	1,951	,162	2,099	,742	5,942
GPAGE2	,800	,527	2,303	,129	2,226	,792	6,258
FIRST	-,123	,211	,340	,560	,884	,585	1,337
CHOICE							
by							
RATION							
GP	-,045	,038	1,398	,237	,956	,888	1,030
DENSITY							
SALARY	,109	,306	,127	,721	1,115	,612	2,034
INTERNS	,909	,736	1,524	,217	2,482	,586	10,505
Constant	-1,157	,694	2,779	,096	,314		