

What patients think about choice in healthcare? A study on primary care services in Finland

Short title: What patients think about choice in healthcare?

Anna-Mari Aalto, National Institute for Health and Welfare, Finland

Marko Elovainio, University of Helsinki/ National Institute for Health and Welfare, Finland

Liina-Kaisa Tynkkynen, University of Tampere /National Institute for Health and Welfare, Finland

Eeva Reissell, National Institute for Health and Welfare, Finland

Tuulikki Vehko, National Institute for Health and Welfare, Finland

Miisa Chydenius, University of Tampere, Finland

Timo Sinervo, National Institute for Health and Welfare, Finland

Corresponding author:

Anna-Mari Aalto

National Institute for Health and Welfare

B.O.BOX 30,

Fin-00271 Helsinki, Finland

Tel: + 358 29 524 7252

email: anna-mari.aalto@thl.fi

Tekes – the Finnish Funding Agency for Innovation and **The Strategic Research Council (SRC)**
at the Academy of Finland (no 303606)

Word count 2974 (Abstracts, references and key points excluded)

Abstract

Background: The ongoing Finnish health and social service reform will expand choice by opening the market for competition between public and private service providers. This study examined the attitudes of primary care patients towards choice and which patient related factors are associated with these attitudes.

Methods: A sample of attenders during one week in health centers of 12 big cities and municipal consortiums (including 7 outsourced local units) and in primary care units of one private company providing outsourced services for municipalities (aged 18-95, n=8128) was used. The questionnaire included questions on choice -related attitudes, sociodemographic factors, health status, use of health services and patient satisfaction.

Results: 77% regarded choice to be important, 49% perceived genuine opportunities to make choices and 35 % were satisfied with the choice-relevant information. Higher age, low education, having a chronic illness, frequent use of services, having a personal physician and being satisfied with the physician and with waiting-times were related to assigning more importance on choice. Younger patients, those with higher education as well as those with chronic illness regarded their opportunities of choosing the service provider and availability of choice-relevant information poorer.

Conclusions: The Finnish primary care patients value choice, but they are critical of the availability of choice-relevant information. Choices of patients with complex health care needs should be supported by developing integrated care alternatives and by increasing the availability of information on existing care alternatives to meet their needs.

KEYWORD: choice, primary care, sociodemographic factors, use of health services, health status

Introduction

Patients' opportunity to make choices in health care has been advocated from the individual's perspective as a value of its [1] own and as a mean to empower patients in managing their own health. The opportunity to choose the care provider is related to trust in patient-provider relationships [2] and patient satisfaction [3] and may enhance commitment to care [4]. From the societal and health system's point of view choice of provider and competition among providers is expected to enhance quality and efficiency of services [1, 5]. Furthermore, choice is expected to promote legitimacy of the publicly funded health care system among citizens and tax payers [6].

The prerequisites for making choices among different providers in health care are that (A) citizens are aware of the opportunity, (B) they have genuine alternatives from which to choose and (C) they have choice-relevant information on the quality and the access to services [1]. Patients seem to value the opportunity to choose their care provider [7, 8], but the share of those who have actively utilized the opportunity usually remains rather low [9, 10]. Expanding choice has been shown to decrease waiting times for hospital treatment [11, 12]. In Sweden choice reform and changes in the reimbursement system and the introduction of free establishment for providers in health care has improved access to primary care [13, 14]. However, concerns have been expressed regarding the effects on socioeconomic and regional equity in the use of services [15, 16].

Extending patient choice in health care has had an important role in the European health system reforms. Opportunity to choose service provider is common in insurance based health systems [17], but also in countries with tax-based health systems, such as the UK and Sweden, where choice has been extended by opening health care market for competition. In Finland, residents have been able to choose since 1963 among private providers with partial reimbursement by the National Insurance Scheme [18]. However, in residence based publicly funded services choice was mainly not possible

until 2011. The new Health Care Act launched in 2010 allowed residents to choose their primary health care unit in publicly funded primary health care. In addition, patients were allowed to choose a specialized care unit in agreement with the referring physician when needed. First the choice was geographically restricted to an administratively defined area but in 2014 choice was extended to publicly funded health care services within the whole country [19].

The healthcare system in Finland is a unique combination of a universal tax-funded service system which is on the responsibility of the municipalities; a social and health insurance based private system; and an occupational healthcare system which is free at point of use and mainly responsible for primary care of employed population (figure 1). Currently the system is under-going a major structural reform that is aimed at addressing the problems arising from this fragmented organization of services, the multichannel funding system, municipalities' often inadequate resources and competence in organizing services as well as poor access to and inequity in the use of services. The principal change in the reform outlined by the current government is to centralize the organization of the services into larger units by transferring the responsibility for organizing health care and social services from around 300 municipalities to 18 counties. In addition, the reform aims at extending choice by opening the health care market for competition between public and private providers. The aim of the current study was to examine among patients in public primary care their experiences on opportunities to make genuine choices, sufficiency of choice –relevant information and perceived importance of choice, and how these experiences are related to patients' sociodemographic background, health status, use of services and patient satisfaction with choice attitudes.

Methods

Study sample

The sample was based on a patient survey carried out in publicly funded primary health care centres (HC) in 12 large cities or municipal consortiums. Seven local health care units of these 12 public HCs were outsourced to be operated by a private provider. In addition, the survey was also conducted in primary health care units of one large private company providing outsourced services for municipalities. The data collection was done during one week in autumn 2014. All together 9400 adequately filled in questionnaires were returned, and the total response rate was 35% of all questionnaires delivered in health care units. The response rate varied from 10% to 76 % between health care units. For the present study the sample was restricted to adult respondents (aged 18 years or older, , age range varied from 18 to 95 years, n=8128).

Measurements

Attitudes toward choice

Attitudes toward choice were measured by a 5-point scale (1=disagree, 2=partly disagree, 3=in between 4=almost agree 5=agree). The importance of choice was asked by a statement “It is important for me that I can choose ... a) the health care unit b) physician c) dentist d) nurse e) other health care professional. The opportunity to choose was asked by a statement “I have a genuine opportunity to choose ... a) the health care unit b) physician c) dentist d) nurse e) other health care professional. Sufficiency of choice-relevant information was measure by a statement “I have received sufficiently information on health units regarding ... a) quality of care, b) access to care and waiting times c) practicalities to change the health care unit (how to take action to change the health care unit). Composite scores for choice attitude scales were computed by calculating the mean of the item responses (reversed coding, 5 items for Importance and Opportunity subscales and

3 items for Information subscale). The internal consistencies (Cronbach's alpha) for the choice scales were 0.93, 0.91 and 0.89 respectively.

Sociodemographic factors

The sociodemographic factors used were age (<50/ 50-70 years/ >70 years), gender and education (elementary/ high school or vocational school/ college or polytechnic/ university).

Health status and use of services

Health status was assessed by asking "Do you have a chronic illness?" (yes/no). The variables related to use of health services were *frequency of visiting a doctor* ("How often have you visited a physician during the past 12 months?": 0-3 times/ 4-6 times/ more than 6 times), *having a personal doctor* ("Do you usually meet the same doctor when visiting the health care unit?": yes/no), *type of service provider* (administrative information: public/ private (outsourced)) and *change of HC* ("Have you changed health centre during the past 12 months?: no/ yes").

Satisfaction with services

Satisfaction with services was assessed using two scales. On the *Satisfaction with physician* scale the respondents were asked to assess the visit to the physician in terms of: a) physician conduct b) professional competence c) clarity of information given d) clarity of the care instruction e) instructions for health promotion f) interpersonal interaction g) length of the appointment h) general assessment of the physician appointment. The *Satisfaction with waiting time* scale included the items: waiting for a) physician's appointment b) nurse's appointment c) laboratory appointment. The response scale on both satisfaction measures was a 5-point scale (0= does not concern 1=very poor, 2= poor, 3= average, 4=good 5=very good). Composite scores for satisfaction sub-scales were computed by calculating the mean of the items responses. The internal consistencies for the

satisfaction scales were 0.94 and 0.77 respectively. Median split was used to dichotomize the satisfaction scales for the analysis.

Statistical analyses

The included 8128 respondents were nested in 13 service providers. Even though the focus of the study was in relationships between individual level variables, variation in these could partly be explained by provider (health center) level factors. Therefore the associations between dependent and independent variables were analyzed by mixed modeling, which takes into account the potential similarity of patients of a health care provider in relation to the total study population.

The univariate associations between choice-attitudes and sociodemographic factors, health-related factors and use of health services were analysed by univariate logistic regression analyses . Next multivariate logistic regression analyses with sociodemographic factors, health and use services as explanatory variables simultaneously were performed for each outcome variable (choice-related attitude variables). Univariate analyses will be commented in the text only when they differ from the results of the multivariate analyses. Finally, in an additional multivariate logistic regressions the associations of satisfaction variables with choice –related attitudes was examine adjusting for sociodemographic factors, health-related factors and use of health services. In case of *Satisfaction for physician* the analysis were restricted to those who had attended doctors’ appointment in the HC visit (n=4235).

We did additional sensitivity analyses to test whether the results differed according to gender.

Interaction term between gender and each independent variable at the time was included to the full models of each outcome variable. Since respondents interest in the topic can have on response rate [20] we additionally tested the effect of response rate in the health centre (below 50%/ 50% or higher)

on results was tested first by examining the prevalence of outcome variables according to response rate and secondly by including interaction term of the response rate and each independent variable to the full models of outcome variables.

The guidelines on patient consent have been met and the study has been approved by the ethical committee of the National Institute for Health and Welfare.

Results

Table 1 shows the sample characteristic. The majority of the respondents were women, 50 years or older, more than half of the sample reported having a long-standing illness. Majority regarded choice to be important, half of the respondents perceived genuine opportunities to make choices and 35 % were satisfied with the choice-relevant information.. Eight percent had changed their health care unit during the past 12 months.

Table 2 shows the results of multiple logistic regression analyses. Older respondents, and those with lower educational level and those who had a regular doctor rated the importance of choice and alternatives from which to choose higher and thought more often that they had sufficiently choice-relevant information than others. For the women the importance of choice was higher than for the men, while the men were more satisfied with choice-relevant information.

In the univariate analyses those with chronic illness expressed more often that choice was of importance (OR=1.75, 95% CL 1.57-1.93) , and assessed more often that they had sufficiently choice-relevant information (OR=1.27, 95% CI 1.15-1.41). Chronic illness was not related to choice opportunities in univariate analyses. However, in multivariate models adjusted for all independent variables these same patients rated the opportunity to choose lower and were less satisfied with

choice-relevant information than the others. Those with frequent use of services expressed more often that choice was important but they were less satisfied with choice relevant information.

The respondents in health care units managed by a private provider (i.e. outsourced units) rated their opportunity to choose the providing health care unit as higher and were more satisfied with choice-relevant information compared to respondents in public HCs. Those having changed health care unit during the past 12 months rated the opportunity to choose higher and were more satisfied with choice-relevant information.

Table 3 shows the association of patient satisfaction indicators with choice attitudes in fully adjusted models. Satisfaction with physician and waiting times were both related to higher perceived opportunities to choose from and higher perceived sufficiency on choice-relevant information. In addition, those satisfied with waiting time regarded choice more often of importance. However, sensitivity analyses according to gender indicated that satisfaction with waiting times was a significant predictor of importance of choice only among men (OR = 1.60 95% CI 1.29-1.99 among men, OR=0.95, 0.81-1.13 among women, gender interaction significant $p<0.01$). Sensitivity analyses did not show other significant gender differences.

Additional sensitivity analyses according to response rate yielded only one significant interaction. Men were more satisfied with choice relevant information than women in health centres with response rate above 10% (OR 1.43, 95% CI 1.19-1.72) compared to centres with lower response rate (OR=1.02, 95% CI 0.86-1.23, interaction term significant $p<0.05$).

We additionally tested the associations when adding random effects (municipality) using multilevel mixed-effects ordered logistic regression and the results were identical.

Discussion

The results of this study suggest that half of the patients in public primary care of big cities perceived opportunities for making choices, however the choice-relevant information on quality of care, access to services and practicalities of changing the health care unit was considered to be insufficient. Even though majority of the patients value the opportunity to choose their health care provider, only a small fraction of patients had actually changed their health care unit during the past year.

Our findings are in line with the previous research indicating the importance of choice for patients [7, 8]. Although some studies have suggested that those in better socioeconomic position utilize the possibility of choice in health care more actively [13, 21], the opportunity to choose service provider seems to be more important for the elderly, for those with lower education and for women [22-24] as found also in the current study. Morbidity is higher among the elderly and those with lower education, therefore the age and education-related differences in choice attitudes could reflect higher need for services among the elderly and those with lower education. However, in the present study age and education were related to positive attitudes towards choice even when health status and use of services were accounted for.

The importance of choice among the elderly and the less educated may also reflect their lower possibilities to choose. Due to the multichannel funding and delivery of health services via public sector, private sector and occupational health care, different patient and population groups have different possibilities to exercise choice in Finland. Due to the high out-of-pocket payments in the private sector these services are mostly available for those in higher socioeconomic positions [25] and occupational health services offer ambulatory care services which are free at the point of use to a large proportion of working-age employed people [26]. However, in the present study, elderly and

less educated patients also reported more often that they had a genuine opportunity to make choices and they also were more satisfied with choice-relevant information. Therefore, these differences may also reflect age and education differences in expectations towards health care.

Previous research has indicated educational differences in readiness to obtain, comprehend and make use of health-related information (*health literacy*) [27]. A Swedish study showed that those with higher education search for more choice-relevant information on waiting-times and competency of the personnel in health care units [24]. The present findings may therefore indicate lower perceived need for information among those with lower education, while those with higher education may be more likely to evaluate the availability of choice-relevant information. The comparative information on the quality of services between different service providers is scarce in Finland.

Although in the present study patients with chronic illnesses and frequent use of health services placed more value on choice, they were more critical towards their opportunities from which to choose and more dissatisfied with the availability of choice-relevant information. In a Swedish study patients suffering from chronic illnesses and compromised health status were less satisfied with their health care unit, but at the same time they expressed that changing their provider would be difficult and were therefore less willing to change [24]. Those with chronic illnesses value the continuity of care [28], and may therefore feel that ensuring the continuity is more important than the benefits brought by changing the care provider. In Finland all residents have been assigned to the nearest health care unit. Changing health care unit means usually longer travelling to the next health care unit, which may be strenuous for people chronic illnesses.

The role of choice in enhancing quality of care is based on the assumption that the threat of patients discarding providers of poor quality will motivate providers to improve their services. Quality of services is an important factor that people take into consideration when they choose their health care providers [8] and patient dissatisfaction has been shown to be related to willingness to travel beyond the local provider for treatment [22]. However, in the current study patients with a personal physician and those reporting higher satisfaction considered choice to be of more importance. These same patients regarded that they had genuine opportunities to choose from and they were more satisfied with choice-relevant information. Thus, the present results suggest that valuing opportunity to choose the provider does not necessarily stem from dissatisfaction with the current service provider. Instead, choice may also mean that the patients have chosen the current provider (i.e. they have chosen not to change it) or it may be an inherent value in itself for patients, regardless of intentions to act upon the opportunity.

The present study has limitations that should be considered in interpretation of the results. The sample was gathered from HCs of big cities. The possibilities to exercise choice may be poorer in remote and sparsely populated areas where the availability private and occupational services may be lower and due to long distances also the availability of alternative public health services may be poorer as well. Secondly, the sample was not a random sample; it comprised attenders in public outpatient care units during a one week period, therefore the share of those using HC services more frequently may be overrepresented in the sample. Although the data may not represent all patients, it represents the most typical attenders in care units. The response rate was relatively low as found also in other patient surveys [29], though surveys using reminders have achieved higher response rates [30]. In the present study reminders were not possible and the differences in response activity between HCs may be a result of how actively the personnel have distributed the questionnaires for the attenders. We have controlled the differences between HCs by analyzing the results using

multilevel modeling which accounts for the unit level variation. The sensitivity analyses indicated that low response rate may slightly under estimate the prevalence of high importance placed on choice as well as good perceived opportunities for choice. However, the additional sensitivity analyses to test the effect of response rate on the relationships of independent and dependent variables did not indicate any major effects of response rate to the results. In addition, the large sample size and measuring multiple confounders allowed us to control the potential biases in the sample by adjusting the analyses for multiple factors simultaneously. Fourthly, occupational health care, which in Finland is mainly responsible for the primary care of the employed population, was not included in the study. Therefore working aged adult population is underrepresented in the sample. The sample also did not include those using predominantly private health services, i.e., a selected group in terms of socioeconomic status [25].

In conclusion, *In conclusion, the users of the Finnish public primary care services are critical about available opportunities to make choices in health care and particularly about sufficiency of choice-relevant information on which to base potential choices.*” The users of the Finnish public primary care services value the opportunity to choose their care provider, but the availability of choice does not necessarily result in active change. Rather choice can also be expressed in a form of ensuring the current level of services and the continuity of care. Expanded choice is one of the major elements in the ongoing reform of the health and social service system in Finland, and it will profoundly change the relationship between the patients and the service providers. It is important that in the development of the choice system the specific features of the Finnish health system will be taken into account. Since the occupational health care is mainly responsible for the primary care of the employed adult population, opening the opportunities for choice concerns particularly citizen groups outside the labor market such as the elderly and the unemployed. These are the groups that are often suffering of chronic morbidity and other complex care needs. In the present study 60% of

the respondents had a chronic illness that typically requires regular monitoring and multiprofessional care emphasizing the importance of continuous and coordinated care practices. Choices available for these patient groups should be supported by developing integrated care alternatives and by increasing information on care alternatives that meet their needs.

Acknowledgements

The study has been supported by the Tekes – the Finnish Funding Agency for Innovation and The Strategic Research Council (SRC) at the Academy of Finland (no 303606)

CONFLICT OF INTERESTS

None declared.

REFERENCES

1. Victoor A, Friele RD, Delnoij DMJ, Rademakers JJDM. Free choice of healthcare providers in the Netherlands is both a goal in itself and a precondition: modelling the policy assumptions underlying the promotion of patient choice through documentary analysis and interviews. *BMC Health Serv Res.* 2012;12:441 DOI: 10.1186/472-6963-12-441.
2. Chu-Weininger MY, Balkrishnan R. Consumer satisfaction with primary care provider choice and associated trust. *BMC Health Services Research.* 2006;6:139 doi:10.1186/1472-6963-6-139.
3. Schmittiel J, Selby JV, Grumbach K, C.P.C. Q. Choice of a personal physician and patient satisfaction in a health maintenance organization. *JAMA* 1997;278:1596-9. doi:10.001/jama.997.03550190060045.
4. Saltman RB. Patient choice and patients empowerment in Northern European health systems: a conceptual framework. *I J Health Serv.* 1994;24:201-29.
5. Vrangbaek K, Robertson R, Winblad U, van der Bovenkamp H, Dixon A. Coice policies in Northern European health systems. *Health Economics, Policy and Law.* 2012;7:47-71.
6. Costa-i-Font J, Zigarette V. 'The Choice Agenda ' in Eropcan health Systems: The Role of Middle Class Demands.: London School of Economics (LSE): Europe in Question Discussion Paper Series. LEQS Paper 82/2014. Saatavana: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2522841 (Siteerattu 22.8.2014); 2014.
7. Glengård AH, Anell A, Beckman A. Choice of primary care provider: Results from a population survey in three Swedish counties. *Health Policy.* 2011;103:31-7.
8. Coulter A, Jenkinson C. European patients' views on the responsiveness of health systems and healthcare providers. *Eur J Public Health.* 2005;15:355-60.
9. Victoor A, Delnoij D, Friele R, Rademakers J. Determinants of patient choice of healthcare providers: a scoping review. *BMC Health Services Research.* 2010;12:271. DOI: 10.1186/472-6963-12-272.

10. Myndigheten for Vårdanalys. Vad vill patienten veta for att välja? Vårdanalys utvärdering av vårdvals information: Myndigheten för vårdanalys: Raport 2013:4; 2013.
11. Ringard Å, Hagen T. Are waiting times for hospital admissions affected by patients' choices and mobility? *BMC Health Services Research*. 2011;11:170. DOI: 10.1186/472-6963-11-170.
12. Dawson D, Gravelle H, Jacobs R, Martin S, Smith PC. The effects of expanding patient choice of provider on waiting times: evidence from a policy experiment. *Health Econ*. 2007;16:113-28.
13. Janlöv N, Andersson A, Beckman A, Sveréus S, Wiréhn A-B, Rehnberg C. Vem har vårdvalet gynnat? En jämförande studie mellan tre landsting före och efter vårdvalets införande i primärvården [Who has benefited from choice in health care? Comparative study between three counties before and after introducing choice in primary care, in Swedish]. Stockholm: Myndigheten for vårdanalys. Rapport 2013:1.
14. Janlöv N, Rehnberg C. Uppföljning av husläkarsystemet inom Vårdval Stockholm – år 2010 [Follow-up of the personal physician system in the health care choice system in Stockholm - year 2010, in Swedish]: Karolinska Institutet; 2011 www.folkhalsoguiden.se.
15. Isaksson D, Blomqvist P, Winblad U. Free establishment of primary health care providers: effects on geographical equity. *BMC Health Services Research* 16:28 DOI 10.1186/s12913-016-1259-z. 2016.
16. Beckman A, Anell A. Changes in health care utilisation following a reform involving choice and privatisation in Swedish primary care: a five-year follow-up of GP-visits. *Health Serv Res*. 2013;13:452 <http://www.biomedcentral.com/1472-6963/13/452>.
17. Wendt C. Mapping European healthcare systems: a comparative analysis of financing, service provision and access to healthcare. *Journal of European Social Policy*. 2009;19:432-45; 344247; DOI:10.1177/0958928709344247
18. Tynkkynen L-K, Chydenius M, Saloranta A, Keskimäki I. Expanding Choice of primary care in Finland: much debate but little change so far. *Health Policy*. 2016;120:227-34.
19. Terveysturvallisuuslaki [The Finnish Health Care Act]. Finlex 1326/20102010.
20. Martin C. The Impact of Topic Interest on Mail Survey Response Behavior. *J Market Res Soc*. 1994;36:327-38.
21. Ringard Å. Equitable access to elective hospital services: the introduction of patient choice in a decentralised healthcare system. *Scand J Public Health*. 2012;40:10-7.
22. Dixon A, Robertson R, Appleby J, Burge P, Devlin N, Magee H. Patient Choice. How patients choose and how providers respond. London: King Fund www.kingsfund.org.uk/publications 2010
23. Robertson R, Burge P. The impact of patient choice of provider on equity: analysis of a patient survey. *Journal of Health Services & Research Policy*. 2011;16, Suppl 1:22-8.
24. Lindström E, Tengvald K, Fernvall E, Nilbert M, Andersson C, Nylem K. Vem vill veta vad for att välja? - Om vilken information olika grupper av pesoner vill ha för att välja vårdcentral [Who wants to know what in order to choose? What kind of information do different population groups want to have in order to choose health care center? in Swedish]. Stockholm: Myndigheten för vårdanalys: Rapport 2014:1; 2014.
25. Blomgren J, Aaltonen K, Tervola J, Virta L. Kelan sairaanhoitokorvaukset tuloryhmittäin. Kenelle korvauksia maksetaan ja kuinka paljon? [Health Insurance Reimbursements according to income deciles. Who receive reimbursements and how much?, in Finnish] Helsinki: Kela: Sosiaali- ja terveysturvan tutkimuslustoista 93/2015; 2015.
26. Oksanen K, Sauni R, Koskinen A, Aalto A-M, Räsänen K. Työikäisten arviot avohoidon lääkäriissä käynneistä [Satisfaction with and perceived benefit of the latest physician visit among working-aged Finns, in Finnish with an English abstract]. *Suomen Lääkäril [The Finnish Medical Journal]*. 2015;70(42):2777-84a.
27. Rademakers J, Nijman J, Brabers AEM, de Jong JD, Hendriks M. The relative effect of health literacy and patient activation on provider choice in the Netherlands. *Health Policy*. 2014;114:200-6
28. Pandhi N, Saultz JW. Patients' Perceptions of Interpersonal Continuity of Care. *J Am Board Fam Med*. 2006;19:390 -7.

29. Naukkarinen E-L. Potilaan itsemääräämisen ja sen edellytysten toteutuminen terveydenhuollossa [Patient's Self-determination and its Prerequisites in Health Care, in Finnish with an English abstract]: Kuopio University Publications E. Social Sciences 157; 2008.
30. Kvist T. Hoidon laatu? Potilaiden ja henkilöstön yhteinen asia? [Quality of care - a common issue for patients and staff? in Finnish with an English abstract]: Kuopio University Publications E. Social Sciences 111; 2004.

Municipal health care	Expenditure of GP visits in 2015
<ul style="list-style-type: none"> • State and municipality tax funded • All municipality residents entitled, coverage appr. 50% • Largest share of all GP visits (appr. 70%) • User free - regulated, can be forfeited (maximum €32 p.a.) • Health centres administrative entities • Health stations are points of provision • System plagued by long waiting times 	€2 668M
<p data-bbox="284 533 919 562">Occupational health care *</p> <ul style="list-style-type: none"> • Employers pay largest share (88%) through National Health Insurance (NHI) • All employees (1,8M), parallel use of municipality services is possible • Share of all GP visits currently 28% • No user fee • 28% of services provided by health centres, 50% by occupational care centres • No waiting times 	€489M*
<p data-bbox="284 768 919 797">Private health care</p> <ul style="list-style-type: none"> • Service users receive appr. 20% reimbursement from NHI • Ability to pay is only restriction for use, parallel use of municipality services possible • Private GP visits 13,3/100 inhabitants in 2016 • User fees vary • Services provided by private clinics • No waiting times 	€464M

*includes curative and preventive care, student health care

Figure 1. The Finnish Primary Health Care System

Table 1. Sample characteristics

Age	%	(n)
less than 50 years	32.47	(2639)
50-70 years	39.22	(3188)
70+ years	28.31	(2301)
Gender		
<i>Female</i>	65.41	(5185)
<i>Male</i>	34.59	(2742)
Education		
Elementary	21.87	(1671)
High school/ Vocational school	36.23	(2769)
College/ Polytechnic	25.06	(1915)
Universoty degree	16.84	(1287)
Chronic illness		
no	37.66	(2861)
yes	62.34	(4735)
Visits to doctor/year		
0-3	66.15	(5136)
4-6	24.12	(1873)
6 +	9.72	(755)
Regular doctor		
<i>no</i>	51.54	(3570)
<i>yes</i>	48.46	(3356)
Health care provider		
<i>Public</i>	88.84	(7221)

<i>Private (outsourced)</i>	11.16	(907)
Changed Health care unit with in past 12 months		
<i>no</i>	91.67	(7295)
<i>yes</i>	8.33	(663)
Choice important (agree) ¹	77	(5718)
Opportunity to choose (agree) ¹	49	(3612)
Sufficiently choice-relevant information (agree) ¹	36	(2589)

¹ Values 3.51-5 on the sum scale ranging from scale 1
(disagree) to 5 (agree)

Table 2. Multiple logistic regression analyses with choice attitudes as dependent variables. Odds ratios (OR) and 95% Confidence Intervals (CI)

	Importance of choice		Opportunity to make choices		Sufficiency of choice-relevant information				
	OR	96% CI	OR	96% CI	OR	96% CI			
Age									
less than 50 yeras									
50-70 years	1.86	(1.59-2.17)	***	1.66	(1.44-1.91)	***	1.76	(1.52-1.05)	***
70+ years	2.60	(2.13-3.18)	***	2.63	(2.23-3.10)	***	2.44	(2.05-2.90)	***
Gender									
<i>Female</i>									
<i>Male</i>	0.60	(0.52-0.69)	***	0.95	(0.85-1.07)		1.21	(1.08-1.37)	**
Education									
Elementary									
High school/									
Vocational school	0.79	(0.64-0.97)	*	0.77	(0.66-0.90)	***	0.76	(0.65-0.90)	***
College/ Polytechnic	0.65	(0.53-0.81)	***	0.52	(0.44-0.61)	***	0.59	(0.50-0.70)	***
Universoty degree	0.47	(0.38-0.59)	***	0.39	(0.33-0.47)	***	0.48	(0.40-0.58)	***
Chronic illness									
no									
yes	1.23	(1.07-1.42)	**	0.87	(0.76-0.98)	*	0.87	(0.76-1.00)	*
Visits to doctor/year									
0-3									
4-6	1.22	(1.04-1.42)	*	0.93	(0.93-1.06)		0.79	(0.79-0.69)	***
6 +	1.45	(1.15-1.83)	**	0.85	(0.70-1.03)		0.79	(0.64-0.97)	*

Regular doctor*no*

<i>yes</i>	1.29 (1.13-1.48) ***	1.92 (1.71-2.15) ***	1.68 (1.48-1.89) ***
------------	----------------------	----------------------	----------------------

Health care provider*Public*

<i>Private (outsourced)</i>	1.19 (0.88-1.60)	1.39 (1.06-1.83) *	1.62 (1.19-2.19) **
-----------------------------	------------------	--------------------	---------------------

Changed Health**care unit with in****past 12 months***no*

<i>yes</i>	1.09 (0.86-1.37)	1.30 (1.06-1.59) *	1.77 (1.43-2.18) ***
------------	------------------	--------------------	----------------------

*p<.05; ** p<.01; *** p<0.001

Table 3. Logistic regression analyses with change attitudes as dependent variables and patient satisfaction as independent variables (analyses adjusted for age, gender, education, chronic illness, visits to doctor, regular doctor, service provider and change of health centre)

	Importance of choice		Opportunity to choose		Sufficiency of choice relevant information	
	OR	95% CI	OR	95% CI	OR	95% CI
Satisfaction with the doctor						
low	1		1		1	
high	1.10	(0.96-1.27)	2.16	(1.90-2.44) ***	2.37	(2.08-2.70) ***
Satisfaction with waiting times						
low	1		1		1	
high	1.17	(1.02-1.32) *	1.90	(1.69-2.13) ***	2.06	(1.83-2.32) ***

*p<.05; ** p<.01; *** p<0.001