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Freedom of choice of specialist physicians is important to Swiss residents

A cross-sectional study

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Summary

QUESTION UNDER STUDY: To assess how important the possibility to choose specialist physicians is for Swiss residents and to determine which variables are associated with this opinion.

METHODS: This cross-sectional study used data from the 2007 Swiss population-based health survey and included 13,642 non-institutionalised adults who responded to the telephone and paper questionnaires. The dependent variable included answers to the question "How important is it for you to be able to choose the specialist you would like to visit?" Independent variables included socio-demographics, health and past year healthcare use measures. Crude and adjusted logistic regressions for the importance of being able to choose specialist physicians were performed, accounting for the survey design.

RESULTS: 45% of participants found it very important to be able to choose the specialist physician they wanted to visit. The answers "rather important", "rather not important" and "not important" were reported by 28%, 20% and 7% of respondents. Women, individuals in middle/high executive position, those with an ordinary insurance scheme, those reporting ≥2 chronic conditions or poorer subjective health, or those who had had ≥2 outpatient visits in the preceding year were more likely to find this choice very important.

CONCLUSIONS: In 2007, almost half of all Swiss residents found it very important to be able to choose his/her specialist physician. The further development of physician networks or other chronic disease management initiatives in Switzerland, towards integrated care, need to pay attention to the freedom of choice of specialist physicians that Swiss residents value. Future surveys should provide information on access and consultations with specialist physicians.

Key words: *population-based study; specialist physician's access; managed care; Switzerland*

Introduction

Switzerland is a federal state composed of 26 cantons, each acting autonomously and responsible for the organisation of healthcare within its boundaries. Since 1996, Swiss residents have access to universal health insurance coverage that includes a comprehensive basket of health benefits. Several health insurance schemes are offered to Swiss residents, among which, the possibility of restricting the choice of physicians in return for lower premiums (i.e. managed care models characterised by gate-keeping, such as physicians' network and health maintenance organisations-HMOs). Even though primary care is provided mainly by physicians working in independent private practices, a growing number of primary care physicians (PCPs) are members of one of the 86 physician networks. Indeed, approximately 50% of PCPs and 400 specialist physicians had joined such a network in 2007 [1]. However, despite this high participation of physicians in networks, less than 15% of Swiss residents opt for managed care health insurance schemes [2] and 58% did not intend to participate in such an alternative health insurance scheme [3].

Managed care models with access to specialist physicians dependent on the approval of primary care physicians (i.e. gate-keeping) represent one response to the challenge of managing chronic diseases appropriately [4]. Currently, revisions of the Health Insurance Law envision developing managed care in Switzerland, now broadly referred to as integrated care. Before implementing wide-scale primary care-based health insurance models involving gate-keeping, it may be useful to assess the population's values and preferences as well as associated factors. Indeed, further developments and implementation processes that take the opinion of the population into account may improve their design and acceptance. Recently, the opinion of Swiss physicians on the impact of managed care tools was assessed. While physicians generally expressed negative opinions on managed care tools, the impact of the use of guidelines, gate-keeping and healthcare networks was the least negatively perceived [5]. Not surprisingly, PCPs and physician members of healthcare networks were more fa-

vourable to gate-keeping and networks than those not integrated in such a scheme.

However, little is known about the importance that individuals attribute to the choice of specialist physicians [6, 7]. The objectives of this study were to assess how important the choice of specialist physicians is to Swiss residents, and then to determine which factors were associated with this opinion.

Methods

This cross-sectional study used self-reported data from the 2007 Swiss Health Survey (SHS), a national population-based survey described in detail elsewhere [8, 9]. In brief, the target population of the SHS is the non-institutionalised residents aged 15 years and older. A stratified random sampling, by canton, allowed selection of households with a fixed line telephone and then individuals (it is estimated that >90% of Swiss households have a fixed telephone line). Individuals who do not speak one of the three national languages (German, French or Italian), or who reported very poor health status, as well as asylum seekers, were excluded from the survey.

Information was collected through standardised telephone interviews (participation rate 66%) and respondents were asked to answer a self-administered questionnaire, which was returned by about 80% of the respondents to the main (telephone) questionnaire. We focused our analysis on 13,642 non-institutionalised adults aged ≥18 years who answered both the telephone and self-administered questionnaires.

The dependent variable included the response options to a new 2007 SHS question: "How important is it for you to be able to choose the specialist you would like to visit?"

very important / rather important / rather not important / not important ("Quelle est l'importance pour vous de pouvoir choisir le spécialiste que vous désirez consulter?" in French, and "Wie wichtig ist es für Sie, den Spezialisten, den Sie konsultieren möchten, selber auszuwählen?" in German). Independent variables, described in detail in table 1, pertained to three domains, socio-demographics (age; gender; marital status; profession; insurance coverage), health (subjective health; number of chronic diseases; any problem with activities of daily living; BMI; smoking status) and healthcare use during the past 12 months (number of physician visits; number of drug categories; any hospitalisation).

Crude and adjusted logistic regressions for the importance of being able to choose specialist physicians (very important versus rather important/rather not important/not importantwere performed. The final model was constructed including all variables associated with the dependent variable in bivariate analyses ($p < 0.15$). We then considered only the variables significantly associated ($p < 0.05$) with the dependent variable. Because age is an important factor, it has been kept in the final model although its adjusted OR was not significant. Indeed, age was confounded by the insurance type. Model checks included the Hosmer-Lemshow test and Pregibon residuals. To give an idea of the explaining power of the final model, we calculated the highest and lowest estimated probabilities that being able to choose specialist physicians was considered very important. A large difference between the highest and lowest probabilities indicates a high explaining power. The covariate patterns of the groups with the largest and smallest explaining power were also described.

We did not impute missing data (complete case analysis) since none of the variable had missing data >2.5%. Analyses were performed on weighted data (canton, age, gender) and took account of the sampling design.

Results

Characteristics of the population included in the analysis are described in table 1. In summary, 48% of the individuals were between 18 and 44 years old, 58% of them were married, 41% had a middle/high executive position, and a large majority reported having an ordinary health insurance (84%). Over 80% perceived themselves as being in good or very good health. In addition, while only 3% presented at least one (out of five) limitation in activities of daily living, 20% reported more than two chronic diseases. Finally, during the previous 12 months, 58% reported more than two outpatient consultations, 12% were hospitalised and 13% reported the use of ≥2 drug categories.

Almost half of the participants (45%) reported that it was very important to be able to choose his/her specialist physician. The answers "rather important", "rather not important" and "not important" were reported by 28%, 20% and 7% of the respondents, respectively. The proportion of individuals who judged being able to choose specialist physicians very important varied according to socio-demographic status, health status and health services consumption during the preceding 12 months (see table 1). Individuals using an alternative health insurance scheme (e.g. gate-keeping system, telephone call before consultation models) were less likely to find choosing specialist physicians very important (30% versus 46% for those with ordinary insurance). Also, 50% of participants with two or more chronic diseases compared to 40% of those without any chronic disease reported that they thought this possibility was important.

Crude and final adjusted odds ratios for the importance of being able to choose specialist physicians are presented in table 2. The adjusted model in table 2 shows that the strongest independently and statistically associated variables are: having an ordinary health scheme (OR 2.03), being in middle/high executive position (OR 1.39), being a woman (OR 1.34) and presenting two or more chronic conditions (OR 1.30). According to that same adjusted model, the estimated probabilities of finding this choice very important ranged between 17% and 67%. The latter group was composed of five women, aged 65–74 years, divorced, in middle/high executive position, with an ordinary insurance scheme, and reporting poorer subjective health, two or more chronic diseases as well as having had two or more outpatient visits during the preceding 12 months. In contrast, the former group consisted of twenty one single men aged 18–44 years, manual workers, with alternative insurance schemes, and reporting good health with no chronic disease and less than two outpatient visits in the preceding 12 months.

Discussion

This study illustrates that about half (45%) of Swiss residents find it very important to be able to choose their specialist physician. Independent factors significantly associated with the "very important" opinion are an ordinary health insurance scheme, female gender, middle/high executive position, being divorced or separated as well as measures of worse health status. With the exception of the health insurance scheme variable, the strength of these associations is, however, not very high.

The importance that Swiss residents attribute to the choice of specialist physicians mirrors figures showing that less than 15% of Swiss residents opt for gate-keeping health insurance schemes and that 58% would not favour such options [2, 3]. In these studies, male gender and good self-reported health were the characteristics shared both by individuals who thought it was not important to be able to choose specialist physicians and those opting for managed care health insurance. This may mean that individuals needing care may not choose health insurance schemes restricting access to specialists, reinforcing the risk of selection of low-risk insurees in gate-keeping insurance models [10, 11]. However, contracting gate-keeping insurance models does not mean that insurees are not allowed to choose specialist physicians; rather, they have no direct access to these specialists. Moreover, the choice of specialist physician can be discussed with the PCP in gate-keeping models. This may improve the communication between the PCP and the specialist, which in turn might prove very helpful in the management of patients with chronic diseases.

These Swiss results contrast with those from other countries showing that patients value the first contact and coordinator role of the PCP within gate-keeping models [12, 13], and that patients are more likely to opt for gate-keep-

Table 1: Characteristics of participants (Swiss Health Survey 2007, weighted results) and proportion of participants in each category of response, by level of covariate, %.

		All (n = 13642)	"Very important" (n = 6138)	"Rather important" (n = 3776)	"Rather not important" (n = 2720)	"Not important" (n = 1008)
Socio-demographics (n)						
Age (13,642)	18–44y	48.0	41.0	29.5	21.8	7.7
	45–64y	33.5	45.8	27.0	19.4	7.8
	65–74y	10.2	48.0	26.9	18.3	6.9
	≥75y	8.3	44.9	23.2	23.4	8.5
Gender (13,642)	Men	48.8	39.4	27.8	23.2	9.6
	Women	51.2	47.7	28.0	18.5	5.9
Profession (13,272)	Manual worker	26.0	39.1	26.9	24.3	9.7
	Small entrepreneur	8.1	41.2	24.3	24.1	10.3
	Employee	24.3	44.4	29.1	21.2	5.4
	Middle/high executive position	41.5	46.4	28.3	18.1	7.3
Marital status (13,634)	Single	27.4	39.1	30.1	22.7	8.0
	Married	57.8	45.2	27.6	20.0	7.3
	Widowed	6.1	45.3	22.5	22.8	9.5
	Divorced, separated	8.8	47.0	26.2	18.6	8.3
Insurance coverage (13,120)	Alternative scheme (gate-keeping system, telephone call before consultation)	16.0	30.3	27.8	30.6	11.4
	Ordinary scheme	84.0	46.1	28.0	18.9	7.0
Health						
BMI (kg/m^2) (13,521)	Normal weight	59.1	43.3	29.0	20.6	7.1
	Overweight/obese	37.7	43.4	26.2	21.7	8.8
	Underweight	3.2	50.5	28.7	14.8	5.9
Tobacco (13,640)	Not current smoker	72.8	43.4	28.3	21.2	7.2
	Current smoker	27.2	44.4	26.8	19.7	9.2
Activities of daily living* (13,640)	No limitations in ADL	97.3	43.5	28.0	20.8	7.7
	At least on ADL limitation	2.7	49.7	24.9	18.0	7.4
Number of chronic diseases (13,642)	0	52.7	40.5	28.8	22.6	8.1
	1	26.6	44.7	28.2	20.0	7.2
	≥2	20.7	50.4	25.0	17.1	7.4
Subjective health (13,637)	Very good/good	87.3	42.6	28.4	21.2	7.8
	Moderate/fair/poor	12.7	50.9	24.2	17.6	7.3
Healthcare use during past 12 m						
Ambulatory care visits (13,642)	0-1	42.2	39.0	29.7	22.9	8.4
	≥2	57.8	47.1	26.5	19.2	7.2
Number of drug categories (13,599)	0	64.8	41.2	28.6	22.3	7.9
	1	22.5	46.6	27.6	18.7	7.1
	≥2	12.8	50.3	25.1	16.8	7.8
Hospitalisation (any) (13,632)	No	88.5	43.0	28.5	21.0	7.6
	Yes	11.5	48.7	23.1	19.3	8.9

*: among the five following activities of daily living: bathing, dressing, eating, and getting in or out of bed.

ing if they present with a worse health status, are older and less educated [12, 14, 15]. In these cases of greater health services needs and use, patients seem to prefer to contact their own PCP rather than directly access specialists. However, patients do not favour gate-keeping if they cannot choose their PCP or if access to specialists is too restricted [12]. Indeed, they expect to get specialist care when they present with particular health problems or believe they need referrals [12, 13, 16]. In addition, patients may report positive referral experiences when these are initiated by a primary care physician, supporting the role of the latter as gatekeepers [17]. In the Netherlands, the healthcare system is based on general practitioners functioning as gatekeepers. Interestingly, Dutch patients do not always wish to choose secondary care providers [18]. Other authors have shown that even if patients seem to value both PCP and specialist care [13, 16], many report that they want their needs to be taken into account [19] and wish for specialist contacts [20] or unrestricted access to specialists [6]. Results from a Swiss qualitative study exploring the experiences and opinions of both diabetic patients and professionals show that diabetics express the need to visit a specialist, at least from time to time, especially if they feel that their PCP's specific diabetes knowledge is not up-to-date or not sufficiently accurate [21].

A large database combining a nationally representative sample of Switzerland, as well as the use of standardised questionnaires are the main strengths of this study. The limitations to consider while interpreting the results are the following. Firstly, the wording of the question of interest may not have been understood similarly by all participants. It could also have been interpreted as having free choice of the individual when a specialist is needed. Secondly, our analysis was limited by the items used in the SHS. For instance, it would have been very interesting to investigate the willingness to pay for direct access to specialist physicians. Thirdly, the overall participation rate of 66% cannot rule out selection bias and could be of concern. However, participation rate in the 2007 Swiss Health Survey is close to other national population-based surveys and rather high

Table 2: Crude and adjusted logistic regressions for the importance of being able to choose specialist physicians.

		Crude OR	(95% CI)	Adjusted OR	(95%CI)
Socio-demographics					
Age	18–44y	Ref	–	–	–
	45–64y	1.21	(1.09–1.35)	1.07	(0.95–1.21)
	65–74y	1.32	(1.15–1.52)	1.10	(0.94–1.29)
	≧75y	1.17	(1.01–1.37)	0.91	(0.76–1.11)
Gender	Men	Ref	–	–	–
	Women	1.40	(1.27–1.53)	1.34	(1.21–1.49)
Profession	Manual worker	Ref	–	-	-
	Small entrepreneur	1.08	(0.90–1.32)	1.11	(0.92–1.36)
	Employee	1.24	(1.08–1.42)	1.14	(0.98–1.32)
	Middle/high executive position	1.34	(1.19–1.52)	1.39	(1.23–1.59)
Marital status	Single	Ref	–	–	–
	Married	1.28	(1.14–1.43)	1.17	(1.02–1.33)
	Widowed	1.29	(1.08–1.54)	1.01	(0.80–1.25)
	Divorced, separated	1.38	(1.17–1.63)	1.20	(1.01–1.44)
Insurance coverage	Alternative scheme (gate-keeping system, telephone call before consultation)	Ref	–	–	–
	Ordinary scheme	1.96	(1.70–2.27)	2.03	(1.77–2.35)
Health					
BMI (kg/m^2)	Normal weight	Ref	–	–	–
	Overweight/obese	1.00	(0.91–1.11)	–	–
	Underweight	1.33	(1.03–1.74)		
Tobacco	Not current smoker	Ref	–	–	–
	Current smoker	1.03	(0.93–1.15)	–	–
Activities of daily living	No limitation in ADL	Ref	–	–	–
	At least one ADL limitation	1.28	(0.96–1.71)	–	–
Number of chronic diseases	0	Ref	–	–	–
	1	1.19	(1.06–1.32)	1.07	(0.95–1.20)
	≥2	1.49	(1.33–1.68)	1.30	(1.14–1.49)
Subjective health	Very good/good	Ref	–	–	–
	Moderate/fair/poor	1.39	(1.22–1.60)	1.22	(1.05–1.49)
Healthcare use during past 12 m					
Out patient visits	0/1	Ref	–	–	–
	≥2	1.39	(1.26–1.53)	1.24	(1.11–1.37)
Number of drug categories	0	Ref	–	–	–
	1	1.24	(1.11–1.38)	–	–
	≥2	1.44	(1.26–1.64)	–	–
Hospitalisation (any)	No	Ref	–	–	–
	Yes	1.25	(1.09-1.45)	–	–

---: variables not included in the final adjusted model.

[22]. Also, non-participation bias has not been shown to be related to the size of non-participation [23]. In addition, this nationally representative sample is the only one addressing managed care issues. These issues match the current political agenda and provide interesting results. Since this is the first time this question has been added to the SHS, the evolution of such analysis should be considered and extended in the future. Finally, the rationale of the individuals favouring the direct choice of a specialist physician remains unknown.

The effects of gate-keeping have been studied for more than a decade in various healthcare systems, particularly in the United States and in Switzerland [24]. Results suggest decreases in specialist visits and healthcare costs, with no evidence of a possible effect on quality of care. Indeed, whether gate-keeping achieves its goals of decreasing costs while maintaining or improving quality, remains unknown. In Switzerland, it has been shown that as much as an 18% decrease in costs, unrelated to risk-selection, could be reached [25]. No results on quality of care are available, however. Switzerland has a long history of unrestricted access to specialist physicians. The challenge is to show now that a modified version of physician networks, based on the principle of gate-keeping, can improve coordination and subsequent overall quality of care without unnecessarily and inappropriately restricting access to specialist physicians.

For the further development of integrated care networks, or other chronic disease management initiatives, efforts are needed to move towards more integration of care. Reinforcement of the PCP role within the Swiss healthcare system is also necessary, not only as a gatekeeper but also as a care integrator. In 2007, freedom of choice of specialist physician was valued by Swiss residents; an ordinary health insurance scheme is the most important factor associated with the freedom of choice of specialist physicians. How the growing enrolment in alternative health insurance schemes will modify this preference is unknown. Meanwhile, attention should be paid to the freedom of choice of specialist physicians that Swiss residents value, to appropriate incentives for individuals to enrol in managed care health insurance schemes, and to access and quality equity for all insurees. Future surveys should also bring additional information on access and consultations with specialist physicians.

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