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Access points to the different levels of health care and demographic predictors in a country without a gatekeeping system. Results of a cross-sectional study from Austria

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Background: The challenges for health care systems are evident both in terms of costs and of healthy life expectancy. It was the aim of this study to assess the access points towards the different levels of care and predictors for consulting a specialist without having consulted a general practitioner (GP), a common way of access to the Austrian health care system, a system without gatekeeping function. **Method:** The database used for this analysis was the Austrian Health Interview Survey 2006–07, with data from 15 474 people. Statistical analyses included descriptive statistics as well as multivariate logistic regression models. Results: In the 12 months before the survey, 78.8% consulted a GP, 67.4% consulted a specialist, 18.6% visited an outpatient department and 22.8% had a hospital stay at least once. Overall, 15.1% visited a specialist, 8.5% an outpatient department and 8.1% a hospital without consulting a GP concomitantly. One of the main reasons for direct specialist use was a preventive check-up visit. Tertiary education and migration background increased significantly the chance of having been to a specialist without GP contact for both sexes. **Conclusion:** The overall access rates for specialists as well as the access rates for specialist without GP consultations were high. The findings point into the direction of a benefit through a structurally supported advocacy role for primary health care professionals. The knowledge gained could contribute to the health policy debate on the importance of coordination and continuity with special respect to demographic factors showing the importance of target-group–specific interventions.

Introduction

The challenges for health care systems worldwide have become evident both in terms of costs and in terms of healthy life expectancy of the population. Currently, the most promising way to face these challenges seems to be to strengthen the primary health care (PHC) sector, which is also a recommendation of the World Health Organization, by granting free and financially full-covered access to this sector and restricting the access to the more specialized levels of care.[1] The underlying reason for this recommendation is that scientific research has provided evidence on benefits of well-developed PHC systems, in terms of improved health outcomes, increased health equity and enhanced opportunities to control costs.[1–10] One hypothesis for the options PHC can enable is the concept of patient-centred care through need-based coordination and continuity of care by PHC professionals facilitated structurally by

list systems or gatekeeping systems.[1,11–13] According to the European definition 2011 of the Global Family Doctor Association (WONCA), coordination and continuity of care play '*[. . .] a key role to provide advocacy, protecting patients from the harm which may ensue through unnecessary screening, testing, and treatment, and also guiding them through the complexities of the health care system*'.[13] Some studies showed that, for example, primary care organizations with high coordination and continuity of care had lower rates of hospital admissions.[14–16] This is especially true for chronically ill or elderly patients who tend to have numerous contacts with the health care system and see a number of different physicians in different care settings if no 'coordinator' is available.[17,18] However, the evidence is not conclusive yet, especially not for Europe,[19–22] which means that further data from countries with different access models are important to foster the knowledge gain on optimal health care systems.

Austria, for example, is a representative of the Bismarck system, and free access to all levels of care is an intrinsic principle in the health care system.[23] The Austrian attempt to face the challenges of the health care system has so far been to focus on specialist-based care, which is represented, for example, through the absence of list systems or a gatekeeping system, the hospital-based 3-year postgraduate education for general practitioners (GPs) and the high number of specialists working in the ambulatory sector compared with GPs. The direct access to the specialists as well as to the GPs is—with some exceptions—free and financially covered, although there is the recommended possibility for a GP to refer a patient to a specialist.[23,24].

It is the overall aim of this analysis to describe the access points to a health care system without gatekeeping system, namely to GPs, specialists working in the ambulatory sector, outpatient departments and hospitals. In addition, we aimed to assess the utilization of specialists in the ambulatory and hospital sector without contact to a GP. Finally, to get an idea about the dimension and the demographic structure of the direct users of the secondary level of care, we assessed their demographic factors.

Methods

Subjects

The database used for this secondary analysis was the most recent Austrian Health Interview Survey 2006–07 available.[25] The questionnaire included 450 items regarding diseases, subjective health status, health behaviour, quality of life and health care utilization, as well as socio-demographic and socio-economic variables. It was designed based on the European Core Health Interview Survey.[26] The survey was commissioned by the Austrian Federal Ministry of Health, Family and Youth and was carried out by Statistics Austria.

The gross sample size was 25 130 people, >15 years of age. The subjects were interviewed between March 2006 and March 2007 by a total of 137 specially trained interviewers. The response rate was 63.1%; data of 15 747 subjects were eligible for analysis. The interviews were conducted face-to-face using computer-assisted personal interviewing. The sample was stratified by geographic region, with equal numbers of subjects being included in each region. To account for the stratification of the sample, the data were weighted by geographic region, age and sex to ensure representativeness.

Health care utilization variables

As health care utilization variables, we defined GP consultation, specialist consultation, outpatient department consultation, hospital stay (dayclinic as well as overnight stay), specialist consultation without GP consultation, outpatient department consultation without GP consultation and hospital stay without GP consultation, all within the same period of 12 months. The variables GP and outpatient department consultation were assessed with the questions 'Within the last 12 months, did you turn to a GP/outpatient department?' with answer categories 'yes' or 'no'. The dichotomous variable specialist consultation was built by taking all 'yes' answers to the questions 'Within the last 12 months, did you turn to an ophthalmologist/dermatologist/orthopaedic specialist/specialist in internal medicine/Ear, nose, throat (ENT) specialist/gynaecologist/urologist/other specialist?' as positive specialist consultations. The variable hospital stay was built by taking all 'yes' answers to the questions 'Within the last 12 months, did you experience a dayclinic stay/hospital overnight stay?' as positive hospital stay. The variables specialist consultation without GP consultation within the same period, outpatient department consultation without GP consultation within the same period and hospital stay without GP consultation within the same period were all three dichotomized by taking all persons who answered 'yes' to specialist consultation/outpatient department consultation or hospital stay into account and assessing the answer to the question 'Within the last 12 months, did you turn to a GP?' with answer categories 'yes' or 'no'.

Explanatory variables

We included socio-demographic data as explanatory variables: those were age, educational level, country of origin and place of residence. Age was stratified in four groups: 15–34 years, 35–54 years, 55–74 years and ≥75 years. Migration status was assessed with the question 'What is your country of birth?' Six categories were built out of this variable: Austria, EU15 countries except Austria but including the European Free Trade Association (EFTA) countries, the new countries of the EU27 states, former Yugoslavian states except Slovenia, Turkey and the last category was all other countries. Highest educational status was assessed in three categories: primary education (up to the age of 15 years), secondary education (apprenticeship or secondary school) and tertiary education (university or any further education). The place of residence was surveyed with the question 'In which federal state do you live?' The variable was dichotomized into two categories: living in the capital Vienna, which is at the same time a federal state and the only large city with ~2 million inhabitants, or not living in Vienna, which means that the dichotomization represents living in a metropolis or not.

As control variables for dichotomous regression models, the number of diseases diagnosed within the past 12 months was taken into account. The variable of the number of diseases was built by calculating a sum of the 'yes' answers to the following questions 'Within the last 12 months did you have allergic asthma/other forms of asthma/allergies/diabetes/cataract/tinnitus/hypertension/myocardial infarction/insult or cerebral haemorrhage/chronic bronchitis or emphysema/arthrosis or arthritis or rheumatoid arthritis/pain of the vertebral column/osteoporosis/aconuresis/cancer/gastric or intestinal ulcer/frequent headache or migraine/anxiety disorder or depression/extensive pain/other chronic diseases (up to three)?' with the answer categories 'yes' or 'no'. The reason for building and taking this variable as control variable for the regression model was to avoid a possible confounder. According to the literature, people with low socio-economic status and/or migration background have a higher probability to have a higher burden of diseases, which again has an influence on the utilization of the health care system.[2] Owing to the fact that we wanted to calculate the influence of demographic factors on direct utilization of the secondary level of care, we adjusted for this variable that includes all diseases surveyed.

In addition to the variables described above, the main reason for the last specialist consultation was assessed with the question 'What was the main reason for your last specialist (ophthalmologist/dermatologist/orthopaedic specialist/specialist in internal medicine/ENT specialist/gynaecologist/urologist/other specialist) consultation?' The answer categories for this question were as follows: accident or injury, disease or symptom of disease, follow-up consultation, preventive check-up consultation and other reasons (prescription, referral or medical certification, small surgery).

Statistical analysis

Descriptive analyses were conducted by means of cross-tabs. Group differences were assessed with the Pearson's Chi^2-test including the z-test with the Bonferroni method to adjust for multiple testing. Logistic regression models were used in which specialist with no GP consultation, outpatient department with no GP consultation or hospital stay without GP consultation, respectively, were defined as the dependent variables. All demographic variables (age, education, country of origin, place of residence) as well as the number of diseases were taken into the model simultaneously. All results were stratified by sex. The results of all regression models are presented as odds ratios with 95% confidence intervals. Nagelkerkes' R^2 (logistic regression models) is presented as a measure of model-fit.

SPSS Statistics 19.0 was used for all analyses.

Ethical considerations

The secondary analysis for this study was approved by the Ethics Committee of the Medical University of Vienna (EC # 770/2011).

Results

Cross-sectional data on reported utilization within the last 12 months before the survey showed that 78.8% ($n = 12\,195$) of all participants turned at least once to a GP, 67.4% ($n = 10\,425$) went to a specialist, 18.6% ($n = 2880$) attended an outpatient department and 22.8% ($n = 3527$) had any kind of hospital stay. Table 1 shows the percentage of participants with consultation or hospital stay according to the explanatory variables. All results are stratified by sex. Moreover, table 1 shows if there were statistically significant differences within the categories of variables according to GP/specialist/outpatient department consultation or hospital stay utilization.

Overall, 15.1% ($n = 1571$) of the persons who turned to a specialist, 8.5% ($n = 245$) of persons who turned to an outpatient department and 8.1% ($n = 286$) with a hospital stay had no GP consultation within the same period. Table 2 shows the percentage of patients with specialist/outpatient department consultation/hospital stay but no GP consultation at the same time in relation to the explanatory variables. Additionally, statistically significant differences are represented in relation to the variable category.

Table 3 shows the results of the multivariate logistic regression model for the demographic factors adjusted for the number of diseases within the previous 12 months. The odds-ratios are presented for specialist or outpatient department consultations without prior GP consultation.

The main reasons for the last specialist consultation without GP consultation within the same period ($n = 1571$) is shown in table 4 stratified for the different specialist groups and the sex of the patients.

Discussion

The present study is the most recent analysis concerning access points to a health care system like the Austrian, without a gatekeeping system for the patients. It shows that the utilization rates of GPs within 1 year (78.8%) are roughly comparable with other Western European countries like Norway (74.8%), Ireland (72.8%), Germany (67.9%) or France (80.5%), as a study of Stirbu and colleagues showed by referring to the different country survey data.[27] In contrast, the consultation rates related to specialists in the outpatient sector is high in Austria (67.4%), especially, compared with people living in a country with a gatekeeping system like Norway or Ireland (gatekeeping system for the public but not for the private sector), where the consultation rates in the same period of 12 months were 17% for Norway and 24.8% for Ireland.[27] Compared with a system without strong gatekeeping function for the GPs like in Germany, the numbers are similar to the Austrian data (74.7%).[27] This finding is of special interest in regard to US studies that question the benefits of a high use of specialists for the health of a population[28,29] and, in fact, the high specialist utilization in Austria is not reflected, for example, in a high valuation related to the health system quality indicator 'healthy life year expectancy at the age of 65 years'; Austria lies beneath the EU27 level.[30]

The higher demands could also result in higher costs for the whole health care system and, indeed, Austria is a country with high health care expenditures (11.0% of the GDP in 2009) compared with European countries with a stronger PHC system (in 2009: Ireland

Table 1 Percentage of participants with a consultation within the past 12 months before the survey

Demographic variables	Variable subgroups	GP consultation ($n = 12\,195$; 78.8%)		Any specialist consultation ($n = 10\,425$; 67.4%)		Outpatient department consultation ($n = 2880$; 18.6%)		Any hospital stay ($n = 3529$; 22.8%)	
		M	F	M	F	M	F	M	F
Sex	M (48.2%)	75.6%[a]		54.0%[a]		18.3%[a]		21.2%[a]	
	F (51.8%)		81.8%[b]		79.8%[b]		18.9%[a]		24.3[b]
Age	15–34 ($n = 4667$)	67.1%[a]	75.8%[a]	43.8%[a]	80.5%[a]	19.9%[a]	18.5%[a,b]	15.6%[a]	20.6%[a]
	35–54 ($n = 5661$)	73.3%[b]	77.1%[a]	48.1%[b]	82.2%[a]	16.6%[b]	17.6%[b]	19.1%[b]	20.2%[a]
	55–74 ($n = 3701$)	86.5%[c]	89.7%[b]	71.4%[c]	79.6%[a]	18.4%[a,b]	20.7%[a]	26.1%[c]	28.9%[b]
	75+ ($n = 1439$)	90.2%[c]	93.8%[c]	74.7%[c]	71.3%[b]	19.8%[a,b]	19.9%[a,b]	24.2%[d]	36.1%[c]
Education	Primary ($n = 4188$)	79.5%[a]	86.1%[a]	51.4%[a]	72.7%[a]	18.7%[a]	20.3%[a]	22.2%[a]	28.2%[a]
	Secondary ($n = 9836$)	74.8%[b]	80.3%[b]	52.8%[a]	83.0%[b]	17.9%[a]	18.2%[a]	21.3%[a,b]	22.5%[b]
	Tertiary ($n = 1450$)	73.3%[b]	75.2%[c]	68.1%[b]	85.5%[b]	20.5%[a]	18.4%[a]	17.7%[b]	21.4%[b]
Country of origin	Austria ($n = 13\,025$)	76.1%[a]	82.2%[a]	55.0%[a]	80.0%[a,b]	18.8%[a]	18.7%[a]	21.6%[a]	23.6%[a]
	EU15 ($n = 424$)	78.2%[a]	82.4%[a]	59.2%[a]	85.6%[b]	20.7%[a]	22.8%[a]	19.5%[a]	31.5%[a,b]
	EU27 new ($n = 432$)	69.9%[a]	75.5%[b]	56.1%[a,b]	81.6%[a,b]	15.5%[a]	15.9%[a]	17.6%[a]	21.2%[a]
	Former Yugoslavian ($n = 752$)	74.4%[a]	83.6%[a]	38.6%[c]	77.0%[a,b]	14.2%[a]	18.9%[a]	19.7%[a]	27.9%[a,b]
	Turkey ($n = 379$)	75.2%[a]	85.7%[a]	43.3%[b,c]	72.8%[a]	13.3%[a]	23.8%[a]	19.0%[a]	34.5%[b]
	Others ($n = 461$)	67.9%[a]	68.9%[b]	56.5%[a,b]	74.3%[a]	15.9%[a]	20.3%[a]	17.9%[a]	27.4%[a,b]
Vienna	Yes ($n = 3142$)	69.7%[a]	79.2%[a]	61.8%[a]	81.0%[a]	19.0%[a]	21.4%[a]	17.5%[a]	24.6%[a]
	No ($n = 12\,332$)	77.1%[b]	82.5%[b]	52.1%[b]	79.5%[a]	18.2%[a]	18.2%[b]	22.1%[b]	23.1%[a]

a, b, c: The minuscule letters behind the percentages represent a subset of the variable category that is not significantly different at a significance level of $P < 0.05$ if it is the same miniscule in the same column.

Table 2 Percentage of persons that had a specialist or outpatient department consultation or hospital stay and no GP consultation within the same period

Demographic variables	Specialist consultation ($n = 10\,425$) without GP contact (1571; 15.1%)			Outpatient department consultation ($n = 2880$) without GP contact (245; 8.5%)			Any hospital stay ($n = 3529$) without GP consultation (286; 8.1%)		
		M	F		M	F		M	F
Sex	M (38.6%)	15.2%[a]		M (47.4%)	9.5%[a]		M (%)	8.6%[a]	
	F (61.4%)		15.0%[a]	F (52.6%)		7.6%[a]	F (%)		7.7%[a]
Age	15–34 ($n = 2892$)	23.0%[a]	19.2%[a]	15–34 ($n = 897$)	12.6%[a]	11.7%[a]	15–34 ($n = 843$)	14.2% [a]	13.0% [a]
	35–54 ($n = 3684$)	17.4%[b]	19.9%[a]	35–54 ($n = 969$)	11.0%[a,b]	7.9%[a,b]	35–54 ($n = 1113$)	10.3%[a]	11.2%[a]
	55–74 ($n = 2806$)	8.9%[c]	8.0%[b]	55–74 ($n = 728$)	4.6%[c]	5.4%[b]	55–74 ($n = 1023$)	4.8%[b]	3.7%[b]
	75+ ($n = 1043$)	6.6%[c]	2.4%[c]	75+ ($n = 286$)	3.1%[b,c]	2.6%[b]	75+ ($n = 550$)	2.9%[b]	0.9%[b]
Education	primary ($n = 2727$)	12.3%[a]	9.7%[a]	primary ($n = 826$)	8.2%[a]	5.3%[a]	primary ($n = 1093$)	7.5%[a]	4.2%[a]
	secondary ($n = 6580$)	15.2%[a]	16.3%[b]	secondary ($n = 1772$)	8.5%[a]	7.9%[a]	secondary ($n = 2152$)	8.1%[a]	8.9%[b]
	tertiary ($n = 1116$)	20.0%[b]	23.5%[c]	tertiary ($n = 282$)	18.5%[b]	14.7%[b]	tertiary ($n = 283$)	15.9%[b]	15.9%[c]
Country of origin	Austria ($n = 8859$)	14.8%[a]	14.9%[a,b]	Austria ($n = 2445$)	9.3%[a,b]	7.8%[a,b]	Austria ($n = 2948$)	8.7%[a]	7.6%[a]
	EU15 ($n = 318$)	14.6%[a]	16.8%[b,c]	EU15 ($n = 93$)	13.9%[a,b]	7.0%[a,b]	EU15 ($n = 113$)	5.9%[a,b]	5.1%[a]
	EU27 new ($n = 305$)	19.0%[a,b]	18.5%[b,c]	EU27 new ($n = 68$)	6.9%[a,b]	2.6%[a,b]	EU27 new ($n = 85$)	3.0%[a]	3.8%[a,b]
	Former Yugoslavian ($n = 430$)	8.1%[a]	11.0%[a,b]	Former Yugoslavian ($n = 123$)	1.9%[b]	2.9%[b]	Former Yugoslavian ($n = 179$)	0	3.9%[a]
	Turkey ($n = 214$)	15.4%[a,b]	5.7%[a]	Turkey ($n = 68$)	25.0%[a]	2.5%[a,b]	Turkey ($n = 100$)	31.7%[b]	6.8%[a,b]
	Others ($n = 299$)	31.3%[b]	24.8%[c]	Others ($n = 83$)	10.5%[a,b]	20.0%[a]	Others ($n = 104$)	7.0%[a,b]	23.0%[b]
Vienna	yes ($n = 2262$)	21.5%[a]	16.7%[a]	yes ($n = 636$)	12.5%[a]	4.8%[a]	yes ($n = 644$)	11.9%[a]	7.6%[a]
	no ($n = 8163$)	13.7%[b]	14.5%[b]	no ($n = 2244$)	8.7%[a]	8.4%[b]	no ($n = 2885$)	8.0%[b]	7.7%[a]

a, b, c: The minuscule letters behind the percentages represent a subset of the variable category that is not significantly different at a significance level of $P < 0.05$ if it is the same miniscule in the same column.

Table 3 Influence of demographic variables on the absence of GP consultation parallel to specialist or outpatient department consultation or hospital stay

Demographic variables	Variable subgroups	Specialist consultation without GP consultation within the same period (OR and CI 95%)		Outpatient department consultation without GP consultation within the same period (OR and CI 95%)		Any hospital stay without GP consultation within the same period (OR and CI 95%)	
		M	F	M	F	M	F
Age	15–34	1.0	1.0	1.0	1.0	1.0	1.0
	35–54	0.85 (0.69–1.06)	1.26 (1.07–1.48)**	0.87 (0.56–1.35)	0.81 (0.51–1.29)	0.72 (0.46–1.11)	1.11 (0.75–1.66)
	55–74	0.53 (0.41–0.68)**	0.69 (0.55–0.87)**	0.46 (0.24–0.86)*	0.74 (0.42–1.29)	0.46 (0.26–0.82)**	0.58 (0.33–1.00)
	75+	0.45 (0.29–0.72)**	.27 (0.16–0.45)**	0.31 (0.08–1.16)	0.50 (0.18–1.34)	0.28 (0.11–0.72)**	0.17 (0.05–0.59)**
Education	Primary	1.0	1.0	1.0	1.0	1.0	1.0
	Secondary	1.30 (1.01–1.69)*	1.09 (.99–1.43)	1.12 (.67–1.89)	1.12 (.69–1.81)	1.27 (0.75–2.14)	1.16 (0.74–1.82)
	Tertiary	1.48 (1.06–2.07)*	1.48 (1.14–1.92)**	2.61 (1.34–5.07)**	1.99 (1.04–3.83)*	2.92 (1.43–5.99)**	1.65 (0.88–3.09)
Country of origin	Austria	1.0	1.0	1.0	1.0	1.0	1.0
	EU15	0.85 (0.47–1.69)	1.18 (0.80–1.75)	1.25 (0.45–3.44)	0.94 (0.33–2.69)	0.55 (0.14–2.22)	0.77 (0.26–2.33)
	EU27 new	1.74 (1.10–2.97)*	1.34 (.91–1.99)	1.28 (0.24–6.82)	0.53 (.07–4.27)	0.45 (0.04–4.75)	0.52 (0.13–2.15)
	Former Yugoslavian	0.52 (0.28–0.95)*	0.71 (0.48–1.06)	0.30 (0.06–1.63)	0.57 (0.12–2.82)	–	0.56 (0.19–1.70)
	Turkey	0.92 (0.50–1.66)	0.34 (0.16–0.75)**	3.05 (1.16–8.05)*	0.29 (0.03–2.46)	5.00 (2.23–11.19)**	0.58 (.19–1.76)
	Others	1.90 (1.26–2.85)**	1.49 (1.02–2.19)*	1.00 (.33–3.01)	2.97 (1.31–6.73)**	0.50 (0.14–1.81)	2.35 (1.16–4.76)*
Vienna	No	1.0	1.0	1.0	1.0	1.0	1.0
	Yes	1.63 (1.33–2.00)**	1.22 (1.02–1.44)*	1.34 (.85–2.10)	0.53 (.30–.92)*	1.39 (0.86–2.25)	0.75 (0.46–1.21)
Nagelkerkes R^2		0.122	0.148	0.092	0.125	0.136	0.200

CI, confidence interval; OR, Odds ratio.
Adjusted for the number of chronic diseases.
*Significant at $P < 0.05$.
**Significant at $P < 0.01$.

with 9.5%, Norway with 9.6% or Finland with 9.2% of the GDP).[31] At the moment, it is not possible to draw a causal relationship between the health care expenditures of a country and the kind of PHC system it offers. However, there is some evidence that provider continuity with a family physician is related to lower health care costs[7] and that strong PHC systems result at least in a slower increase in the overall costs for the ambulatory sector.[5,8–10,32]

Another noticeable finding of this analysis is that the high utilization of specialists in the ambulatory sector is not reflected in low hospital stay rates. To the contrary, people living in Austria had a high utilization rate of 22.8% hospital stays, compared with European Union (EU) countries like Denmark (~13% in 2008), the Netherlands (~11% in 2008), Ireland (~13.5% in 2008) or Finland with ~19% in 2008.[33]

Nearly every 6th person who consulted a specialist, every 11th person who consulted an outpatient department and nearly every 12th person with a hospital stay had no concomitant GP contact according to this survey (table 2). Unfortunately, we only have data on whether there was at least one contact (yes/no) with a GP/specialist/outpatient department/hospital but not whether there

Table 4 Main reasons for the last specialist consultation without GP contact within the same period of 12 months

Kind of physician	Female/male patients	Accident or injury	Disease or symptom	Follow-up consultation	Preventive check-up	Other reasons[a]
Gynaecology ($n = 735$)	F	0.1%	3.9%	58.3%	32.7%	5.0%
Urology ($n = 137$)	M	0.9%	17.4%	35.7%	40.0%	6.0%
	F	0	59.1%	36.4%	4.5%	0
	P-value	ns	s	ns	s	ns
Dermatology ($n = 280$)	M	3.5%	50.0%	18.3%	18.3%	9.9%
	F	5.1%	46.0%	21.2%	18.2%	9.5%
	P-value	ns	ns	ns	ns	ns
Ophthalmology ($n = 509$)	M	1.6%	13.3%	67.7%	10.5%	6.9%
	F	2.3%	12.6%	64.8%	13.4%	6.9%
	P-value	ns	ns	ns	ns	ns
Internal medicine ($n = 212$)	M	1.0%	20.4%	28.6%	38.8%	11.2%
	F	0	21.7%	32.2%	33.9%	12.2%
	P-value	ns	ns	ns	ns	ns
Orthopaedics ($n = 181$)	M	22.0%	60.6%	7.3%	3.7%	6.4%
	F	8.3%	58.3%	20.8%	1.4%	11.2%
	P-value	s	ns	s	ns	ns
ENT ($n = 145$)	M	0	71.0%	17.4%	10.1%	1.5%
	F	1.3%	72.7%	18.2%	5.2%	2.6%
	P-value	ns	ns	ns	ns	ns
Other specialists ($n = 115$)	M	3.4%	44.8%	39.7%	8.6%	3.5%
	F	0	37.9%	37.9%	12.1%	12.1%
	P-value	ns	ns	ns	ns	ns

a: prescription, referral, medical certificate, small surgery.
s, significant at a significance level of $P < 0.05$; ns, not significant at a significance level of $P < 0.05$.

were any more that followed, nor do we know the directionality or appropriateness of the consultations. Notwithstanding these limitations, it may be assumed that for these people the PHC professionals could not provide their above-cited key role of coordination to provide advocacy to avoid unnecessary screening, testing and treatment, and to guide the patients through the health care system.[13] On the other side, literature is pointing into the direction that coordination of care through strict gatekeeping systems in combination with long waiting lists for initial diagnosis-focused investigations in secondary care may reduce the cancer survival rates and, therefore, should still be questioned.[20]

Socio-demographic findings

Analysis of the differences in health services utilization between the sexes revealed that women consulted GPs, specialists or hospitals more often than men. Related to the literature, one of the various reasons could be a still strong gender-stereotypical influence on the health behaviour, as men stereotypically complain less about their health and visit physicians less often than women.[2,34] However, the gender-stereotypical influence alone cannot explain the much higher female/male specialist utilization ratio of Austrians (79.8%/54.0% = 1.5) (table 1) compared with that of other EU citizens, for example, the Dutch with a ratio of female (40.3%) to male (35.3%) of 1.1.[35] It could be assumed that one reason for this high utilization is that Austrian GPs, especially in urban areas, do not perform gynaecological check-ups although they legally could. In addition, in Austria there exists an opportunistic cervical cancer screening for women, which is recommended on a yearly basis,[36] in contrast to other EU countries with population-based and quality-assured screening programmes like Finland, the Netherlands or Sweden. There the recommendation for screening is on a 3–5-year basis reflecting the European recommendations.[36,37]

Other explanations for the direct utilization of the specialists in the ambulatory sector in Austria for both sexes can be gathered from table 4: with exception of the orthopaedic specialists, one of the frequent reasons for specialist visits without GP consultations was a 'preventive check-up visit'. For internal medicine, it was even the most frequent reason, and the reason 'disease or symptom of a disease' was on the third rank only. It was also noted that 40% of men marked preventive-check-up visit as reason for their urologist without GP visit, although there is no evidence for this procedure.[38] Moreover, the overall evidence for general preventive check-up consultations is weak.[39]

For both sexes, the main socio-demographic predictor for specialist consultation without GP contact was tertiary educational level (tables 2 and 3). In addition, migration status was a predictor for consulting specialists at any level of care without having seen a GP compared with Austrians (tables 2 and 3). While men born in Eastern-European (Odds ratio [OR] 1.74) or non-European (OR 1.90) countries more often went to a specialist without GP consultation, men born in Turkey more often went to the outpatient department (OR 3.05) or had a hospital stay (OR 5.00) without consulting a GP. To be a man from a former Yugoslavian country or a woman born in Turkey was an inverse predictor for consulting a specialist without GP consultation (table 3) and, finally, to be a woman from a non-European country was a predictor for specialist (OR 1.49), outpatient department contact (OR 2.97) and hospital stay (OR 2.35) without GP consultation (tables 2 and 3). These findings are supported by the Austrian 2003 report on migration.[40]

Strengths and limitations

The strength of the present analysis was the large sample size. The utilization of a comprehensive questionnaire and a consistent survey-interview team increased the likelihood for high data consistency. In view of the large number and random selection of survey participants, a high external validity of results for Austria may be assumed. One major methodological drawback of the analysis is the fact that this study is cross-sectional and therefore of limited explanatory power. Furthermore, results are based on descriptive and self-reported survey data rather than administrative data. However, the predominant limitations are the period of 12 months, and the fact that the data only reported whether or not a person had had at least one consultation with a GP, specialist, outpatient department or hospital within the past 12 months. We had no information on the number of consultations at each access point or the directionality

of the visits. Therefore, we could not analyse which consultation came first and, more important, the appropriateness of care used. And due to the fact that Nagelkerkes' R^2 for the logistic regression models is ~15% only, unobserved factors seem to explain a great amount of the variation in achievement.

Conclusion

All these results point into the direction of a benefit through a structurally supported advocacy role for PHC professionals, although there is still a huge lack of outcome and quality of care–focused health service and system research data.

Owing to the fact that Austria is not the only country with that kind of specialist-based care and access model, it could be assumed that these findings are of importance for countries with similar models like Germany or, partly, France and Belgium as well. Also for the USA, our analysis could be of interest owing to the fact that these results reflect the findings of several PHC-related studies performed in the USA, a country with a specialist-based care model too.

The knowledge gained through this analysis could contribute to the health policy debate on the importance of coordination and continuity at the primary care level with special respect to demographic factors showing the importance of target-group–specific interventions.

Conflicts of interest: None declared.

Key points

- For the first time, this analysis delineates the patients access points to the Austrian health care system, a system without a gatekeeping system.
- The overall access rates of specialists as well as of specialists without GP consultations are high and demographic factors can partly predict access points to the health care system.
- The high utilization rate of specialists working in the ambulatory sector is not reflected in low rates of hospital stays compared with other EU countries.
- The results point into the direction of a benefit through a structurally supported advocacy role for PHC professionals.
- The knowledge gained through this analysis could contribute to the health policy debate on the importance of coordination and continuity at the primary care level with special respect to demographic factors showing the importance of target-group–specific interventions.

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Health governance by collaboration: a case study on an area-based programme to tackle health inequalities in the Dutch city of the Hague

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Background: Area-based programmes are seen as a promising strategy for tackling health inequalities. In these programmes, local authorities and other local actors collaborate to employ health promoting interventions and policies. Little is known about the underlying processes of collaborative governance. To unravel this black box, we explored how the authority of The Hague, The Netherlands, developed a programme tackling health inequalities drawing on a collaborative mode of governance. **Methods:** Case study drawing on qualitative semi-structured interviews and document review. Data were inductively analysed against the concept of collaborative governance. **Results:** The authority's ambition was to co-produce a programme on tackling health inequalities with local actors. Three stages could be distinguished in the governing process: (i) formulating policy objectives, (ii) translating policy objectives into interventions and (iii) executing health interventions. In the stage of formulating policy objectives, the collaboration led to a reframing of the initial objectives. Furthermore, the translation of the policy objectives into health interventions was rather pragmatic and loosely based on health needs and/or evidence. As a result, the concrete actions that ensued from the programme did not necessarily reflect the initial objectives. **Conclusion:** In a local system of health governance by collaboration, factors other than the stated policy objectives played a role, eventually undermining the effectiveness of the programme in reducing health inequalities. To be effective, the processes of collaborative governance underlying area-based programmes require the attention of the local authority, including the building and governing of networks, a competent public health workforce and supportive infrastructures.

Introduction

Socio-economic inequalities in health are present in all European countries. People in lower socio-economic groups on average have a lower life expectancy, a worse perceived health status and higher morbidity rates.[1] Area-based programmes, i.e. a programme consisting of health-promoting interventions and policies aimed at deprived neighbourhoods, are one strategy to tackling health inequalities. Assumingly, they are effective in targeting the interventions to the local context, by involving local actors and residents in identifying local problems and delivering solutions.[2,3] Furthermore, they perfectly fit within the growing attention for the concept of social conditions being the main determinants of population health. Area-based programmes are mainly focused at health determinants in other sectors than health, including social security, urban planning and transport.[1]

In this context, collaboration with many partners—including citizens, community groups, professionals, public and private providers and business partners—is imperative. As such, area-based programmes fit within a model of collaborative governance, which can be defined as a governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus oriented and deliberative and that aims to make or implement public policy or manage public programs or assets.[4]