

Characteristics of employment history and self-perceived barriers to healthcare access

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Background: Research suggests that people in disadvantaged social positions are more likely to perceive barriers to accessing healthcare, especially to specialists and preventive services. In this study, we analyze if adversity during past employment histories (e.g. spells of unemployment) is linked to subsequent subjectively perceived barriers in healthcare access. Further, we investigate if the associations vary according to national healthcare access and quality indicators. **Methods:** We use data from the Survey of Health, Ageing and Retirement in Europe with a study sample of 31 616 men and women aged 52–80 from 25 countries. Data include retrospective information on employment histories allowing us to derive characteristics of past careers, including the number of unemployment periods, main occupational position and pension contributions. Barriers to healthcare access are measured by self-perceived forgone care due to costs and unavailability of services. We apply multilevel Poisson regression for binary outcomes and test for cross-level interactions between career characteristics and national healthcare system characteristics. **Results:** Career characteristics are linked to later self-perceived healthcare access barriers, consistently in the case of cost barriers and less consistently for unavailability of services. Associations are similar for men and women, and persist after controlling for current income, wealth and subjective health. We find no cross-level interactions between career characteristics and country-level healthcare access and quality indicators. **Conclusion:** Self-perceived barriers to healthcare access are linked to people's past working lives. More in-depth investigation is needed to identify the reasons for the lingering effects of characteristics of employment history on reduced healthcare access.

Introduction

Across the globe, people in advantaged social positions have better access to healthcare.^{1–3} These social inequalities in healthcare access are perceived as unfair by many people^{4,5} and achieving universal health coverage has been a key objective of international organizations such as the World Health Organization (WHO). Yet, social inequalities in healthcare access continue to exist, and studies show differences in cancer diagnosis,⁶ survival rates after cancer diagnosis,^{7–9} complications after medical interventions¹⁰ and the average time of hospital stays¹¹ among socially disadvantaged people (measured by, e.g. disadvantaged socioeconomic position or employment status).

Social barriers in access to healthcare are often attributed to inadequate health insurance coverage. This problem is particularly evident in the USA, where many people face significant cost barriers to receiving medically necessary healthcare services.¹² However, access barriers to healthcare persist even in healthcare systems with universal coverage.¹³ These barriers are not perceived by everyone equally but are instead determined by a combination of supply side (accessibility) factors, including health care distribution in disadvantaged areas,¹⁴ discrimination against patients with low income or education,¹⁵ as well as demand side (ability) factors, including low health literacy and budget constraints, possibilities of getting time off work to visit health care facilities, specialist care utilization and the ability to pay out-of-pocket costs.^{13,16}

The literature on social inequalities in healthcare access has, however, at least two shortcomings. First, most existing studies analyze the

contemporaneous link between current social disadvantage and healthcare access barriers. The role of adversity during earlier life course on later barriers to access is often overlooked. Adversity experienced during past working careers may contribute to social inequalities in healthcare access because of the persistent impacts of disadvantage on the individual's expectations, locus of control, knowledge and orientation in the healthcare system, and health literacy. Importantly, these factors may imply the accumulation of a set of disadvantages emerging throughout entire working careers with long-lasting effects on perceived healthcare access barriers. In the present study, we aim to extend this research by exploring if characteristics of past employment histories are linked to later barriers to healthcare access. More specifically, we analyze if the number of unemployment spells, years out of work, involuntary job loss, number of job changes, the modal occupational position, downward mobility and pension contributions throughout entire working careers are linked to barriers to healthcare access due to costs and unavailability of services later on. Second, available studies often neglect the potential moderation of the association between individual disadvantage and healthcare access by health system characteristics.¹⁷ A notable exception found a weak relationship for the amount of out-of-pocket-spending and the probability of perceived barriers to healthcare access in European countries.¹⁸ Another study showed that a more accessible primary healthcare system was associated with lower inequalities in perceived healthcare barriers.¹⁹

Hence, knowledge is inconclusive for the question if the link between individual-level social characteristics and barriers to healthcare

access varies according to macro-level healthcare access and quality indicators (HAQs).²⁰ We sought to investigate if the associations between individual working careers and self-perceived barriers to healthcare access vary according to country-level indicators of healthcare systems.

Methods

Data source

We use data from the Survey of Health, Ageing and Retirement in Europe (SHARE), a longitudinal survey collecting data on different sociological, economic and health-related topics among nationally representative samples of European adults aged 50 or older in 2-year-intervals since 2004/05.²¹ In waves 3 (2008/09) and 7 (2017/18), SHARE collects retrospective data on previous employment histories using a calendar interview.^{22–24} In wave 3, data are available for 14 countries (Sweden, Denmark, Ireland, Germany, the Netherlands, Belgium, France, Switzerland, Austria, Italy, Spain, Greece, Poland and the Czech Republic). Because many new countries joined SHARE after that and due to new participants joining SHARE as ‘cohort refreshments’ during data collection, the retrospective survey was repeated in 2017/18 (wave 7) for all respondents who did not already participate in wave 3. Countries joining SHARE after wave 3 include Luxembourg, Estonia, Lithuania, Latvia, Hungary, Slovakia, Slovenia, Croatia, Bulgaria, Romania, Cyprus, Malta, Finland and Portugal. Samples in each country consist of a household probability.

Study sample

For our analyses, we consider retrospective data from wave 7 and, if data are unavailable from that wave, from wave 3. We link these data on previous life courses to data on healthcare access barriers from the next available wave in 2019/20 (wave 8). We exclude data from Portugal, as data were not collected in this country at wave 8, and we further restrict the data to European countries, excluding respondents from Israel. Data restrictions are as follows: first, we restrict the sample to men and women who provided information on their past employment history between age 25 and 50 ($n = 75\,977$). We restrict the sample to those who have been in paid work at least once between the age of 25 and 50 ($n = 68\,788$). Next, we included only respondents aged 52–80 when answering the healthcare access questionnaire in wave 8 ($n = 31\,702$). We include only respondents who provided information on current healthcare access barriers in wave 8 (31 616). The restrictions result in a final study sample of 14 429 men and 17 187 women.

Measures

Subjective barriers to healthcare access

We use three measures of self-perceived barriers to healthcare access, including barriers due to (i) *high costs*, (ii) *unavailability* and (iii) *high costs or unavailability*. Barriers to healthcare access due to high costs are measured by asking respondents whether or not there was a time in the past 12 months when they needed to see a doctor but could not because of costs. Barriers due to unavailability of healthcare is assessed by asking respondents whether or not they had forgone care due to unavailability within the last 12 months from a general practitioner, a specialist physician, or related to drugs or dental care. Our indicator of barriers to healthcare access due to high costs or unavailability is measured by combining the first two items.

Career characteristics

In the retrospective surveys in waves 3 and 7, all respondents provided the starting and ending dates for each job as well as the periods during which they were not in paid work, starting with the first job

after completing full-time education. Information included, e.g. the occupational position and pension contributions for each job, the reasons for ending jobs (e.g. being laid off) and the reasons for not being in paid work during the employment gaps (e.g. unemployment, home or family work, retirement). By reorganizing these data, we can describe entire employment histories with detailed information on each year between ages 25 and 50; importantly, derive specific measures characterizing individual employment histories covering a life span of 26 years. In case, respondents reported more than one employment situation for the same year, we prioritize non-employment spells.

We derive six measures characterizing the respondents’ employment history between the age 25 and 50. In doing so, we include unemployment spells in three categories (none, one, two or more), years out of work (due to, e.g. home or family work, work disability; again in three categories: none, 1–5, 6 or more), the number of involuntary job losses due to being laid off, a plant or office closure or because of the ending of a temporary job (categories: none, one, two or more), a measure whether respondents were mainly working in a job where they contributed to pension schemes (either public, private or occupational) or not, the modal occupational position, which is based on the 10 major groups of the International Standard Classification of Occupations (ISCO-88), regrouped into four categories: Legislators and Professionals (ISCO groups 1 and 2), Associate Professionals and Clerks (ISCO groups 3 and 4), Skilled Workers (ISCO groups 5–8 and 10, Elementary Occupations (ISCO group 9). We considered the most recent occupational position in the infrequent occasion, respondents had more than one modal position. Lastly, based on ISCO, we derive a measure of downward social mobility.

Healthcare system indicators

We use four indicators measuring different domains of national healthcare systems in Europe. The first two indicators reflect each country’s access to healthcare. Alongside the out-of-pocket-expenditure on healthcare in each country as % of total current health expenditure (WHO data for 2019), we rely on the HAQ,²⁵ a global indicator that considers different domains of healthcare access. Additionally, we consider the total healthcare expenditure within each country in % of GDP invested in all types of healthcare (WHO data for 2019) and the life expectancy for each country (Eurostat data for 2019). We use each macro indicator’s rank order to yield binary healthcare access indicators. Countries ranking 1–13 are considered ‘high healthcare access/quality’, and countries ranking 14–26 are considered ‘low healthcare access/quality’. The macro indicators and the corresponding rank order are presented in [Supplementary table S1](#).

Additional variables

We consider the age when answering the questions on healthcare access barriers (wave 8), education [according to the International Standard Classification of Educational Degrees (ISCED-97), regrouped into ‘low education’ (pre-primary, primary or lower secondary education), ‘medium education’ (secondary or post-secondary education) and ‘high education’ (first and second stage of tertiary education)], and respondents’ partnership situation between age 25 and 50 (a binary indicator of spending 75% of years with a spouse or not regardless of marital status). We further consider the current equivalent household income, wealth (both regrouped into country-specific tertiles) and self-perceived health (a binary indicator of good vs. less than good health) as potential mediators in the association between characteristics of past employment history and later healthcare access.

Analytical strategy

Following a sample description by sex in [table 1](#), we estimate a series of multilevel Poisson regressions for binary outcomes to consider the hierarchical data structure with individuals (level 1) nested within countries (level 2) ([table 2](#)). We estimate models separately for each career characteristic and each measure of healthcare access. All models were adjusted for age (linear and quadratic), partnership history, education and the time of retrospective interview (wave 3 or wave 7). The sample of the multivariable analysis varied according to the outcome and the career characteristic under study. We additionally test for the potential mediating role of current circumstances by considering equivalent household income and wealth in multivariable regression models (results not shown). Next, we present associations between the number of unemployment spells and healthcare access barriers for each European country in [figure 1](#). We also analyze cross-level interactions between the measures of individual employment history characteristics and the binary indicators of country-level healthcare access/quality in [table 3](#) by testing the significance of the product terms between career characteristics and macro indicators by contrasting models with and without interactions. We use Stata 16.1 for all analyses.

Results

The sample includes 14 429 men and 17 187 women with an average age of 68 (men) and 67 (women) years when answering the retrospective interviews. Ten percentage of the men and 15% of the women had at least one unemployment episode. While most respondents worked mainly as skilled workers, around 7% of the men and 11% of the women mainly worked in elementary occupational positions. Women were slightly more likely to report access barriers to healthcare than men (5% of the men and 7% of the

women reported healthcare access barriers due to high costs, and 4% of the men and 5% of the women did so for barriers due unavailability of services). See [table 1](#) for a detailed sample description.

Next, we present findings of the association between past career characteristics and subjective barriers to healthcare access separately for men and women in [table 2](#). It can be seen that career characteristics are linked to later healthcare access barriers for both men and women. For men, findings are more consistent in the case of cost barriers and less consistent for unavailability, whereas for women, we find a consistent link between employment history characteristics with later healthcare access barriers due to high costs as well as the unavailability of services. The combined indicator of barriers to healthcare access due to costs or unavailability is consistently linked to employment history characteristics for both men and women. Overall, results are most consistent in the case of unemployment and involuntary job loss. Pension contributions and years out of work (only if considering respondents who have been out of work for 6 years or more) are only linked to cost barriers. Interestingly, occupational position is only linked to healthcare barriers for women, with elementary occupations being at the highest risk, but not for men. When considering current wealth, income and subjective health as possible mediating factors, the estimates were attenuated but remain statistically significant in the majority of cases (results not shown).

In [figure 1](#), we present predicted probabilities of self-perceived healthcare access (high costs or unavailability) by unemployment spells for each country separately. Two findings deserve attention. First, overall access barriers due to costs or unavailability vary between countries and are highest in Greece. Social inequalities in access barriers, i.e. higher predicted probabilities in those who experienced a period of unemployment to those who did not are most pronounced in Luxembourg. For Cyprus, Latvia, Poland,

Table 1 Sample description: percentage (Col. %) or mean and standard deviation (SD)

	Categories or range	Men		Women	
		No	Col % or mean (SD)	No	Col % or mean (SD)
Age	52–80	14 429	68.1 (6.8)	17 187	67.4 (7.0)
Partnership	Living mostly as single	2963	20.5	3353	19.5
	Living mostly with partner	11 466	79.5	13 834	80.5
Education (126 missing)	Low	3684	25.6	4688	27.4
	Medium	7042	49.0	8009	46.8
	High	3642	25.3	4425	25.8
Survey	Wave 3	3061	21.2	3461	20.1
	Wave 7	11 368	78.8	13 726	79.9
Number of unemployment periods	None	13 005	90.1	14 685	85.4
	1	1225	8.5	2171	12.6
	2+	199	1.4	331	1.9
Years out of work	No years out of work	11 364	78.8	9662	56.2
	1–5 years out of work	2076	14.4	2995	17.4
	6+ years out of work	989	6.9	4530	26.4
Involuntary job loss	No job loss	11 704	81.1	13 691	79.7
	1 job loss	2137	14.8	2799	16.3
	2+ job losses	588	4.1	697	4.1
Main occupational position	Legislators and Professionals	2739	21.8	3494	23.8
	Ass. Professionals and Clerks	2604	20.8	4318	29.4
	Skilled workers	6334	50.5	5294	36.0
	Elementary occupations	872	6.9	1596	10.9
Downward mobility	No downward mobility	13 521	93.9	15 642	91.9
	Downward mobility	884	6.1	1377	8.1
Pension contribution	Mainly contributed	13 086	91.3	15 205	90.0
	Mainly not contributed	1242	8.7	1686	10.0
Access barriers due to costs	No	13 660	94.7	16 030	93.3
	Yes	769	5.3	1157	6.7
Access barriers due to unavailability (6 missing)	No	13 845	96.0	16 274	94.7
	Yes	581	4.0	910	5.3
Access barriers due to costs or unavailability	No	13 339	92.4	15 527	90.3
	Yes	1090	7.6	1660	9.7

Table 2 Association between career characteristics and healthcare access barriers for men and women: relative risks (RR), confidence intervals (95% CI) and *P*-values

		Men						Women					
		Access barriers due to costs		Access barriers due to unavailability		Access barriers due to costs or unavailability		Access barriers due to costs		Access barriers due to unavailability		Access barriers due to costs or unavailability	
		RR	CI (95%)	RR	CI (95%)	RR	CI (95%)	RR	CI (95%)	RR	CI (95%)	RR	CI (95%)
Unemployment periods	None (ref.)												
	1	1.56	(1.26, 1.93)	1.29	(1.05, 1.59)	1.47	(1.22, 1.76)	1.36	(1.13, 1.63)	1.06	(0.80, 1.40)	1.25	(1.05, 1.49)
	2+	2.68	(1.91, 3.77)	1.30	(0.68, 2.48)	2.00	(1.45, 2.76)	1.57	(1.24, 1.99)	1.57	(1.01, 2.43)	1.60	(1.22, 2.09)
Years out of work	None (ref.)												
	1–5	0.98	(0.78, 1.22)	0.91	(0.70, 1.17)	1.02	(0.83, 1.24)	1.11	(0.97, 1.27)	0.99	(0.86, 1.13)	1.04	(0.93, 1.17)
	6+	1.67	(1.26, 2.21)	1.24	(0.94, 1.63)	1.49	(1.15, 1.93)	1.26	(1.08, 1.47)	1.02	(0.83, 1.24)	1.16	(1.02, 1.32)
Involuntary job loss	None (ref.)												
	1	1.46	(1.27, 1.68)	1.31	(1.09, 1.57)	1.36	(1.20, 1.54)	1.13	(0.98, 1.31)	1.08	(0.89, 1.31)	1.09	(0.94, 1.27)
	2+	1.73	(1.22, 2.45)	1.20	(0.85, 1.69)	1.67	(1.29, 2.16)	1.74	(1.40, 2.17)	1.43	(1.00, 2.04)	1.60	(1.32, 1.93)
Main occupational position	Legislators and professional (ref.)												
	Ass. professional and clerks	1.01	(0.72, 1.41)	0.94	(0.69, 1.28)	0.90	(0.73, 1.12)	1.24	(1.04, 1.48)	1.06	(0.79, 1.41)	1.13	(0.99, 1.29)
	Skilled workers	1.28	(0.94, 1.74)	0.90	(0.69, 1.18)	0.96	(0.79, 1.18)	1.51	(1.21, 1.90)	1.23	(0.95, 1.60)	1.34	(1.11, 1.61)
	Elementary occupations	1.50	(1.04, 2.18)	0.92	(0.64, 1.33)	1.11	(0.88, 1.41)	1.81	(1.39, 2.35)	1.53	(1.11, 2.13)	1.64	(1.31, 2.05)
Downward mobility	No (ref.)												
	Yes	1.41	(1.19, 1.67)	1.29	(0.93, 1.77)	1.30	(1.09, 1.56)	1.46	(1.17, 1.82)	1.29	(1.07, 1.56)	1.35	(1.15, 1.59)
Pension contribution	Yes												
	No	1.34	(1.02, 1.78)	1.32	(0.97, 1.81)	1.28	(1.00, 1.64)	1.10	(0.97, 1.25)	1.22	(1.02, 1.46)	1.08	(0.97, 1.21)

Models are based on multilevel Poisson regression models for binary outcomes (with individuals nested in countries) and calculated separately for each career characteristic, adjusted for age (linear and quadratic), partnership situation, education and time of retrospective assessment (SHARE wave 3 or 7).

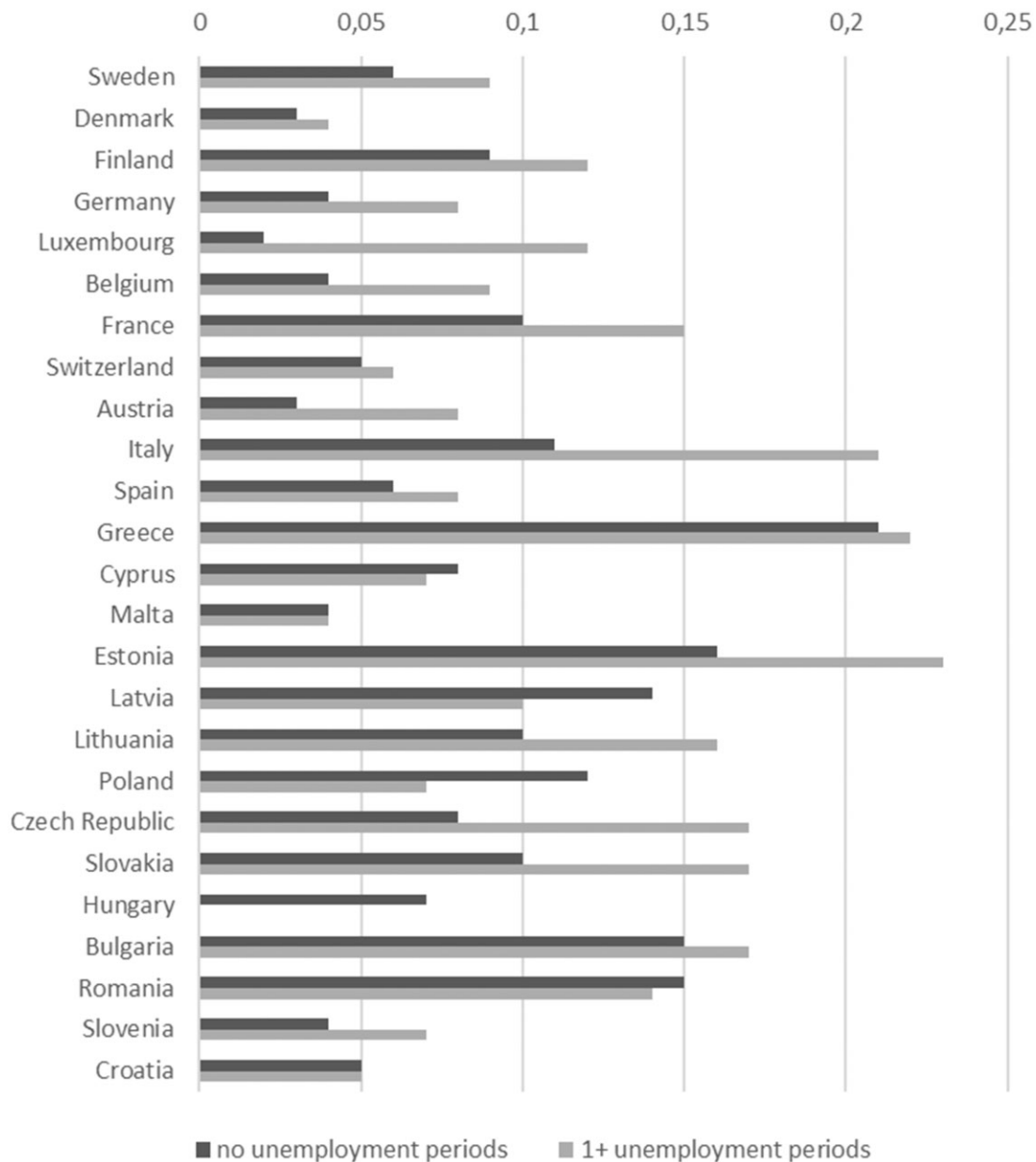


Figure 1 Predicted probabilities of healthcare access barriers by unemployment periods in 25 EU countries

Hungary and Romania we observe a higher predicted probability for access barriers for respondents without a past period of unemployment. Taken together, we did, however, not observe any clear pattern of differences by particular country groupings. The latter notion is confirmed by our multilevel analysis presented in [table 3](#), where we include cross-level interaction terms between several country-level HAQs with individual-level employment history characteristics. As is apparent from [table 3](#), none of the cross-level interactions were statistically significant, indicating that the link between unemployment and healthcare access barriers does not vary by the healthcare system characteristics under study.

Discussion

This study analyzed associations between career characteristics (between ages 25 and 50) and self-perceived healthcare access barriers later in life in 25 European countries. We also tested for the role of current wealth and income, and investigated if the association varied by country-level healthcare system indicators by including cross-level interaction terms in our regression models. Our findings indicate a link between characteristics of employment history and later

healthcare access, including unemployment periods, occupational position and contributions to pension schemes. The strength of the associations was attenuated but remained consistent even after control for current household wealth and income. Results are similar for men and women when measuring cost barriers and slightly more consistent for women for the unavailability of services. Interestingly, associations between career characteristics and healthcare access vary by country but not by healthcare system characteristics.

Overall, our findings align with previous research on social inequalities in perceived barriers to healthcare access.^{3,18,20,26,27} However, we add to existing research by investigating characteristics of previous employment histories and their interaction with country-level HAQs. Our results revealed that research on healthcare access barriers should be complemented by the in-depth investigation of earlier life course circumstances. On this note, our findings suggest that it is not only important to study which social groups are at elevated risk of facing healthcare access barriers, but that studies need to consider the long-lasting effects of earlier adversity and their role in explaining social inequalities in healthcare. Importantly, we have shown that the association is only partly mediated by contemporaneous wealth, income and health status. In fact, our findings

Table 3 Interactions between career characteristics and healthcare indicators

		(df)	Access barriers due to costs or unavailability
Number of unempl. periods	HCE	2	1.64 (0.440)
	OoP	2	1.79 (0.408)
	LE	2	2.01 (0.366)
Years out of work	HAQ	2	3.51 (0.173)
	HCE	2	0.37 (0.830)
	OoP	2	0.24 (0.888)
Involuntary job loss	LE	2	0.02 (0.988)
	HAQ	2	0.11 (0.948)
	HCE	2	0.53 (0.766)
Main occupational position	OoP	2	0.53 (0.767)
	LE	2	1.02 (0.601)
	HAQ	2	0.40 (0.817)
Downward mobility	HCE	3	0.04 (0.998)
	OoP	3	2.54 (0.469)
	LE	3	1.54 (0.672)
Pension contribution	HAQ	3	0.58 (0.902)
	HCE	1	0.00 (1.000)
	OoP	1	0.01 (0.939)
	LE	1	0.01 (0.930)
	HAQ	1	0.10 (0.753)
	HCE	1	0.58 (0.447)
	OoP	1	0.13 (0.715)
	LE	1	0.00 (0.951)
	HAQ	1	0.00 (0.955)

Results of tests of significance based on multilevel Poisson regressions: degrees of freedom (df), χ^2 and *P*-values.

Models are based on multilevel Poisson regression for binary outcomes (individuals nested in countries) and calculated separately for each career characteristic (included as random slope), adjusted for sex, age (linear and quadratic), partnership situation, education, retrospective survey (wave 3 or wave 7). HCE, Total Health Care expenditure; OoP, Share of out-of-pocket payments; LE, life expectancy; HAQ, Healthcare Access Quality Indicator.²⁵

indicate an important remaining direct link between past career characteristics and healthcare access. This link suggests that other relevant factors in addition to current circumstances might explain parts of the observed social inequalities in healthcare access. Future studies may investigate these pathways in more detail, including the role of chronic disease,²⁸ social capital,²⁹ trust in healthcare institutions and professionals, doctor-patient relationships, health literacy and utilization of healthcare services.³⁰ For the link between spells of unemployment and later healthcare access barriers, we speculate that unemployment might be associated with experienced unfavorable interactions with medical professionals in some countries, which may have shaped people's subsequent attitudes to healthcare. In some countries, spells of unemployment may also have resulted in temporary deficit of social connections, which may have led to a loss of attachment to norms related to medical activity.

Our findings are more consistent for social inequalities in healthcare access due to costs and less consistent when it comes to unavailability of services. One reason for this inconsistency may be the use of a relatively non-specific measure of availability. For example, it is possible that people do not access healthcare due to long waiting times or because the travel time to the healthcare facility is too long. Along these lines, future studies may more precisely analyze the different dimensions of inaccessibility due to the unavailability of services. Access barriers are associated with constraints on people's time budget,³¹ as well as with health literacy,³² healthcare seeking behavior³³ and political ideology.³⁴

We did not find variations in the association between career characteristics and access barriers by country-level healthcare system indicators. Previous research shows that the prevalence of perceiving healthcare access barriers is particularly high in countries with

unequal access to medical care and a low-quality healthcare system. However, when it comes to the details of these links and the question of which HAQs may mitigate social inequalities in access barriers, knowledge is scarce. In fact, a study on the role of total health expenditure and public health expenditure of the countries found—similar to our study—no buffering effect of the healthcare system indicator on the link between income and access barriers.²⁰ Social inequalities in healthcare access may in fact not only emerge within countries' healthcare system but may additionally arise from other social policies (e.g. social protection). It may hence be promising to target educational and social support policies as entry points to improved healthcare access of disadvantaged groups.³⁵ Even in countries with universal healthcare coverage, significant barriers to access remain, including the geographic maldistribution of healthcare services and poor working conditions of low-wage or precarious workers not being granted with the flexibility to take time off during the work day to utilize healthcare services.

Our study has several strengths and limitations. Strengths include a large study sample with a high-quality assessment of retrospective and prospective data within multiple European countries. However, we should consider at least seven limitations. First, barriers to healthcare access are affected by many individual factors that have been shown to be unequally distributed among socioeconomic positions, including healthcare utilization, health status and individual expectations.³⁰ Second, we have not considered the role of early health as potential antecedent variable and work disability during the observation period as a potential mediator. For instance, respondents with previous periods of unemployment may have been laid off because of serious illnesses. On a further note, severe illness—especially if persistent across the life course—increases the risk of greater healthcare needs, which consequently increases the probability of healthcare needs being unmet. Future research may incorporate these factors into their models in order to study the complex relationship between work, health and healthcare access. Third, with wealth, income and contemporaneous health, we consider only three possible mediators in the association between employment history characteristics and healthcare access barriers. In order to identify promising entry points for intervention measures, future studies may investigate the more mechanisms behind the association, including the role of health literacy, the evolution of individual expectations and cultural barriers. Fourth, concerning the retrospectively assessed data on individual employment histories, we need to consider possible recall bias within retrospective interviews. However, earlier research suggests that retrospective interviews provide reliable and valid information on previous employment histories when compared with other sources, including administrative data.^{36,37} Fifth, the social mobility and pension contribution measurement is based on simple binary indicators. The latter indicator measures, for instance, only whether respondents contributed to public, occupational, or private pension schemes, not adequately representing the variety of different pension schemes and their monetary value. Sixth, we measure subjective self-reported access barriers and cannot determine the role of objective healthcare needs and health seeking behavior. Finally, as no established cutoff values are available, we rely on the dichotomization of macro indicators based on the rank order of each country. Future studies may use healthcare system typologies (e.g. Reibling *et al.*³⁸) that are, however, only available for a few countries participating in SHARE.

In conclusion, our study adds to the literature on social inequalities in healthcare access barriers by linking characteristics of past employment histories with healthcare access later on and showing that this link is independent of current wealth, income and subjective health. Our findings are more consistent for barriers due to costs and less consistent for barriers due to the unavailability of services. In view of aging societies in Europe, our findings suggest the importance of linking adversity at earlier stages of the life course with later disadvantages in the healthcare system to understand the roots of these inequalities and to design healthcare that is universally accessible.

Supplementary data

Supplementary data are available at *EURPUB* online.

Funding

SHARE data collection has been primarily funded by the European Commission through FP5 (QLK6-CT-2001-00360), FP6 (SHARE-I3: RII-CT-2006-062193, COMPARE: CIT5-CT-2005-028857, SHARE LIFE: CIT4-CT-2006-028812) and FP7 (SHAREPREP: N°211909, SHARE-LEAP: N°227822, SHARE M4: N°261982). Additional funding from the German Ministry of Education and Research, the Max Planck Society for the Advancement of Science, the US National Institute on Aging (U01_AG09740-13S2, P01_AG005842, P01_AG08291, P30_AG12815, R21_AG025169, Y1-AG-4553-01, IAG_BSR06-11, OGHA_04-064, HHSN271201300071C) and from various national funding sources is gratefully acknowledged (see www.share-project.org). This study has been partly funded by the Heine Research Academies Düsseldorf. We acknowledge financial support from the Open Access Publication Fund of UKE—Universitätsklinikum Hamburg-Eppendorf and DFG—German Research Foundation.

Conflicts of interest: None declared.

Data availability

The SHARE data are distributed to registered users through the SHARE Research Data Center (see www.share-project.org for details).

Key Points

- People in advantaged social positions have better access to healthcare.
- Perceived barriers to healthcare access are linked to past working lives.
- We did not find variations in the association between career characteristics and access barriers by country-level healthcare system indicators.

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