



12th Annual Conference AIES

PRIORITIES AND EQUITY IN HEALTH CARE POLICY

**Is there migration-related
inequity in health care
utilisation in Germany?**



Outline

1. Motivation and research question
2. Inequity in utilisation or access to health care?
3. Determinants of utilisation: The “Andersen-Model”
4. Data and econometric method
5. Estimation results
6. Conclusion and discussion



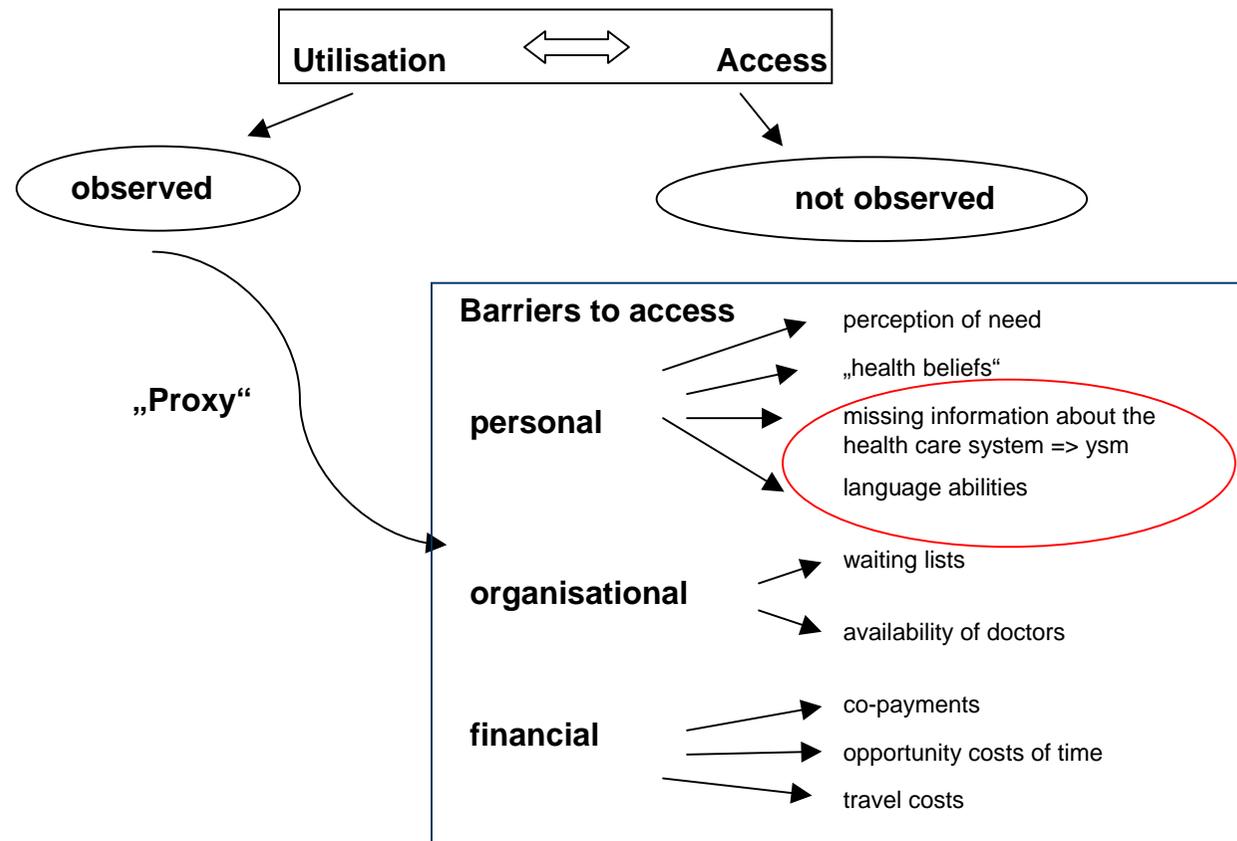
1. Motivation and research question

- evidence from other countries that migrants differ in their utilisation behaviour
 - => no empirical studies for Germany
- studies on inequity in utilisation usually concentrate on income-related inequity
 - => little attention to migration-related inequity
- lots of cross-section studies, only very few panel studies

=> What determines the utilisation behaviour of migrants in Germany?

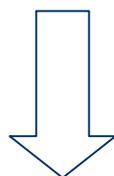
=> Role of duration of residence and language skills?

2. Inequity in utilisation or access to health care?



2. Inequity in utilisation or access to health care?

“Contact decision”



„inequity in access“

language skills
years since migration

access

„migration-related“

if

are significant predictors of

“Frequency decision”

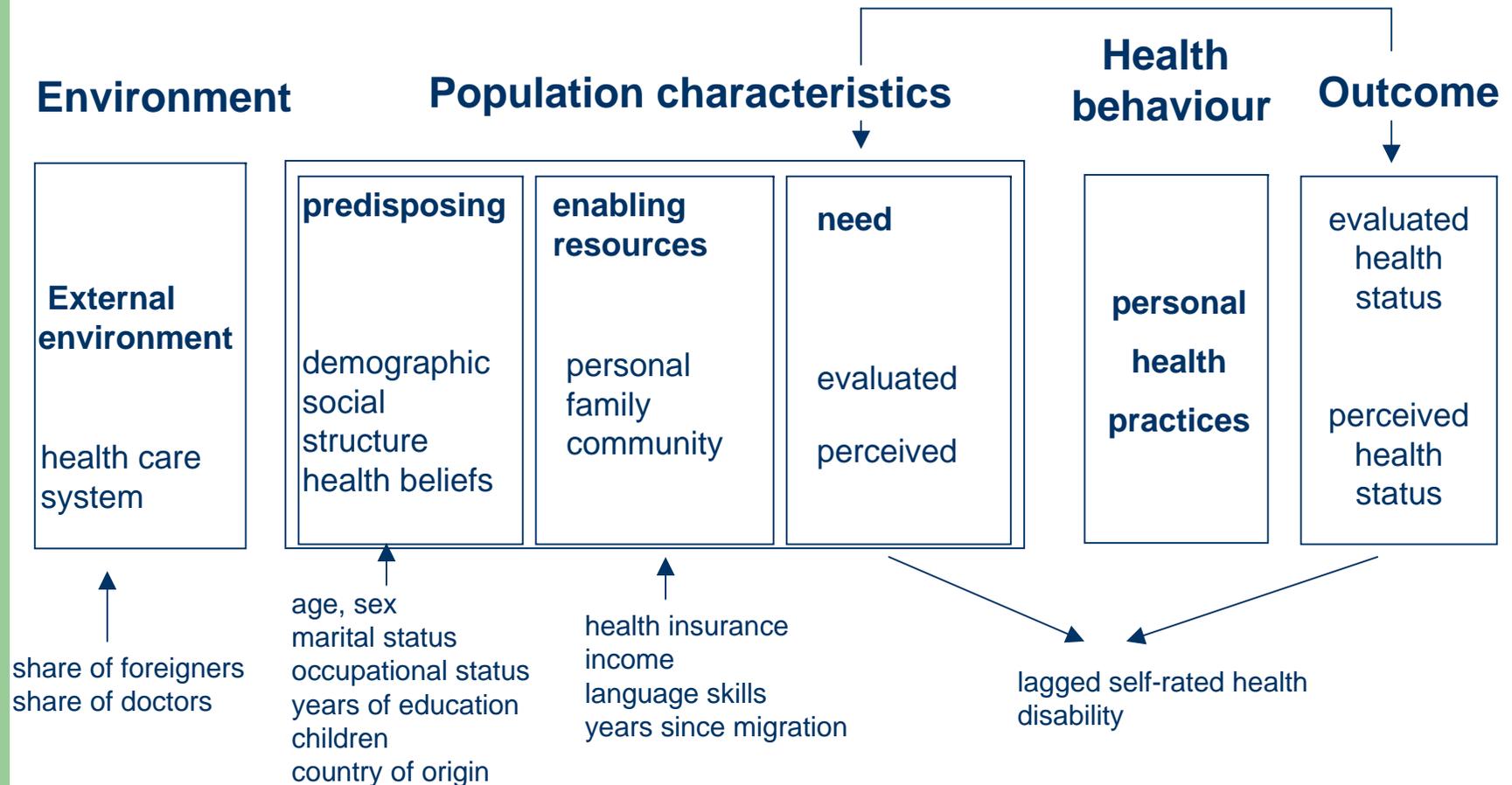


„inequity in utilisation“

language skills
years since migration

utilisation

3. Determinants of utilisation: The “Andersen-Model”





4. Data and econometric method

German socio-economic panel (SOEP)

- longitudinal survey of randomly selected private households and persons in Germany
- SOEP was started in 1984
- covers a broad range of variables
- ‘oversampling’ of two immigrant groups
 - **Former “guest workers”**
 - **“Aussiedler”**
 - ethnic Germans, who moved back to Germany after the fall of the iron curtain
 - get German nationality



4. Data and econometric method

Three migrant groups:

1) First generation migrants:

born abroad, no German nationality

2) Second generation migrants:

born in Germany, no German nationality

3) Ethnic Germans:

born abroad (Eastern European), German nationality



4. Data and econometric method

How is health measured?

-self-rated health (SRH):

*„How would you evaluate your present health? Is it
(1) very good (2) good (3) fair (4) poor, or (5) very poor?“*

- disability:

“Are you officially registered as having a reduced capacity for work or being severely disabled?“

How is utilisation measured?

- doctor visits:

*“Have you gone to a doctor within the last three months? If yes,
please state how often“.*



4. Data and econometric method

- Count data models
- „Hurdle model“
 - theoretical: principal-agent approach
=> contact and frequency decision
 - high proportion of zero users
 - very skewed distribution

- 1) random-effects probit model: contact decision
- 2) zero-truncated negative binomial model: frequency decision

- panel data:
 - => control for individual-specific unobserved heterogeneity

5. Estimation results: Contact decision

	1 st generation		2 nd generation		Ethnic Germans	
	men	women	men	women	men	women
years since migration	0.009**	0.000			0.013	0.005
German language skills very good / good	-	-	-	-	-	-
fair	0.034	0.032	-	-0.394*	0.081	0.071
poor/ very poor	0.039	-0.029	-0.054	-0.845**	-0.135	-0.412
Other European countr.						
Turkey	-0.224*	0.136				
Greece	-0.044	0.430***				
Italy	-0.219*	0.121				
Spain	-0.441***	0.033				
Former Yugoslavia	-0.315**	0.042				
Eastern European	-0.269**	0.112				
Other countries	-0.349**	-0.169				
# observations	8360	7652	1790	1724	2655	2954
# individuals	1246	1136	309	296	449	519

Source: SOEP 1994-2005, *** significant at 1%, ** significant at 5%, * significant at 10%
 controlled for age, marital status, children, occupational status, income, number of individuals in the household,
 lagged self-rated health, disability, years of education, share of foreigners, share of doctors, health insurance

5. Estimation results: Frequency decision

	1 st generation		2 nd generation		Ethnic Germans	
	men	women	men	women	men	women
years since migration	-0.008*	-0.002			-0.013	0.012*
German language skills	-	-	-	-	-	-
very good / good	-0.135*	-0.109*	-0.496*	-0.254	-0.010	-0.038
fair	-0.358***	-0.139*	-1.340***	-0.181	-0.107	0.658*
poor/ very poor						
Other European countr.						
Turkey	0.036	0.038				
Greece	0.025	0.183				
Italy	0.099	-0.051				
Spain	0.034	0.100				
Former Yugoslavia	0.082	0.028				
Eastern European	-0.303**	0.028				
Other countries	0.050	-0.293				
# observations	5094	5690	845	1124	1404	1835

Source: SOEP 1994-2005, *** significant at 1%, ** significant at 5%, * significant at 10%
 controlled for age, marital status, children, occupational status, income, number of individuals in the household,
 lagged self-rated health, disability, years of education, share of foreigners, share of doctors, health insurance



6. Conclusion and discussion

Inequity in access:

- => for 2nd generation women (language)
- => for 1st generation men (ysm)

Inequity in utilisation:

- => for the 1st generation men and women (language)
- => for the 2nd generation men (language)
- => for “ethnic women” (ysm)



6. Conclusion and discussion

- observation of illness period?
- general practitioner or specialist?
- hospital stays?
- individuals with migration background?

Appendix

contact decision with standard errors

	1 st generation		2 nd generation		Ethnic Germans	
	men	women	men	women	men	women
Years since migration	0.009** (0.004)	0.000 (0.004)			0.013 (0.009)	0.005 (0.007)
German language skills						
very good / good	-	-	-	-	-	-
fair	0.034 (0.050)	0.032 (0.057)	-	-0.394* (0.204)	0.081 (0.091)	0.071 (0.096)
poor/ very poor	0.039 (0.073)	-0.029 (0.073)	-0.054 (0.042)	-0.845** (0.380)	-0.135 (0.201)	-0.412 (0.254)
Other European countr.						
Turkey	-0.224* (0.121)	0.136 (0.130)				
Greece	-0.044 (0.139)	0.430*** (0.152)				
Italy	-0.219* (0.129)	0.121 (0.142)				
Spain	-0.441*** (0.160)	0.033 (0.177)				
Yugoslavia	-0.315** (0.136)	0.042 (0.147)				
Eastern European	-0.269** (0.131)	0.112 (0.130)				
Other countries	-0.349** (0.167)	-0.169 (0.163)				
# observations	8360	7652	1790	1724	2655	2954
# individuals	1246	1136	309	296	449	519

Frequency decision with standard errors

	1 st generation		2 nd generation		Ethnic Germans	
	men	women	men	women	men	women
Years since migration	-0.008* (0.005)	-0.002 (0.004)			-0.013 (0.013)	0.012* (0.006)
German language skills very good / good fair	-0.135* (0.071)	-0.109* (0.064)	-0.496* (0.285)	-0.254 (0.223)	-0.010 (0.150)	-0.038 (0.095)
poor/ very poor	-0.358*** (0.085)	-0.139* (0.075)	-1.340*** (0.240)	-0.181 (0.287)	-0.107 (0.300)	0.658* (0.380)
Other European countr. Turkey	0.036 (0.137)	0.038 (0.165)				
Greece	0.025 (0.149)	0.183 (0.167)				
Italy	0.099 (0.150)	-0.051 (0.165)				
Spain	0.034 (0.231)	0.100 (0.200)				
Yugoslavia	0.082 (0.155)	0.028 (0.174)				
Eastern European	-0.303** (0.154)	0.028 (0.166)				
Other countries	0.050 (0.250)	-0.293 (0.216)				
# observations	5094	5690	845	1124	1404	1835

Descriptive characteristics

	first generation	second generation	ethnic Germans
language skills			
very good	18.91	66.95	30.81
good	32.93	28.24	45.98
fair	30.79	3.67	20.39
poor	15.43	0.65	2.57
very poor	1.94	0.48	0.25
age	44.6	26.1	42.7
years since migration	22.7		11.4

Source: SOEP 1994-2005

Results contact decision

	first generation		Ethnic Germans		Second generation	
	men	women	men	women	men	women
age	-0.005 (0.014)	0.005 (0.014)	-0.033 (0.020)	0.002 (0.018)	0.005 (0.032)	0.013 (0.028)
age2	0.023 (0.015)	0.008 (0.016)	0.047** (0.022)	-0.000 (0.019)	0.009 (0.044)	-0.001 (0.036)
years_education	0.017 (0.011)	0.011 (0.012)	0.030 (0.019)	-0.001 (0.017)	0.004 (0.023)	0.035 (0.024)
lnincome	-0.023 (0.050)	0.017 (0.047)	-0.103 (0.098)	0.079 (0.077)	-0.077 (0.083)	-0.071 (0.079)
persons hh	0.011 (0.020)	-0.025 (0.022)	-0.014 (0.038)	-0.056 (0.037)	-0.007 (0.037)	-0.135*** (0.041)
srh good lag	-0.080* (0.044)	-0.073 (0.049)	-0.109 (0.077)	-0.028 (0.076)	0.092 (0.077)	-0.132 (0.087)
srh satis lag	0.106** (0.053)	0.126** (0.057)	-0.100 (0.093)	0.134 (0.085)	0.229* (0.117)	0.009 (0.119)
srh poor lag	0.425*** (0.070)	0.373*** (0.074)	0.334** (0.136)	0.264** (0.119)	0.373 (0.227)	0.528** (0.209)
srh bad lag	0.591*** (0.137)	0.759*** (0.162)	0.658** (0.265)	0.376 (0.245)	1.006 (0.641)	0.631 (0.421)

	first generation		Second generation		Ethnic Germans	
	men	women	men	women	men	women
married	0.165** (0.069)	0.127* (0.071)	0.107 (0.125)	-0.099 (0.103)	0.118 (0.114)	0.298*** (0.115)
training	0.001 (0.133)	0.036 (0.148)	0.142 (0.157)	-0.022 (0.142)	0.197 (0.123)	0.029 (0.124)
selfemployed	0.731*** (0.111)	-0.409*** (0.151)	-0.621** (0.285)	-0.140 (0.342)	-0.436** (0.222)	-0.664** (0.304)
pensioner	-0.172* (0.092)	-0.022 (0.108)	0.516*** (0.197)	0.155 (0.187)		0.205 (0.706)
public servant	0.355 (0.422)	-0.229 (0.800)	-0.480 (0.687)	0.643 (0.704)		
bluecollar	-0.111* (0.058)	-0.101* (0.056)	0.009 (0.114)	-0.211** (0.099)	0.215* (0.120)	-0.037 (0.130)
whitecollar	-0.243*** (0.092)	-0.117 (0.074)	-0.082 (0.166)	-0.253** (0.100)	0.034 (0.141)	0.013 (0.115)
shareforeigners	0.019 (0.013)	0.003 (0.013)	0.002 (0.019)	0.022 (0.019)	-0.017 (0.024)	0.035 (0.026)
sharedoctors	-0.001 (0.001)	0.002* (0.001)	-0.002 (0.002)	-0.000 (0.002)	-0.005** (0.002)	-0.004 (0.003)
disability	0.797*** (0.088)	0.725*** (0.133)	0.953*** (0.196)	1.312*** (0.281)	0.640* (0.349)	0.865** (0.368)
children young	-0.104* (0.058)	0.104* (0.063)	-0.126 (0.098)	-0.146 (0.096)	-0.070 (0.102)	0.171 (0.105)
children old	-0.078 (0.051)	0.001 (0.055)	0.026 (0.084)	-0.078 (0.081)	0.184* (0.104)	0.113 (0.110)
no insurance	-0.263 (0.243)	-0.452 (0.294)	0.720 (0.750)	-6.995 (7,744.)	-0.757 (0.545)	0.001 (0.627)
constant	-0.074 (0.575)	-0.472 (0.551)	1.316 (1.042)	-0.381 (0.826)	1.221 (0.963)	0.917 (0.855)