



The financial burden of health care among the unprivileged in Austria: Evidence from the EU-SILC 2017 and 2022 data

Zuzanna Brzozowska, Gerald Gredinger, Florian Trauner

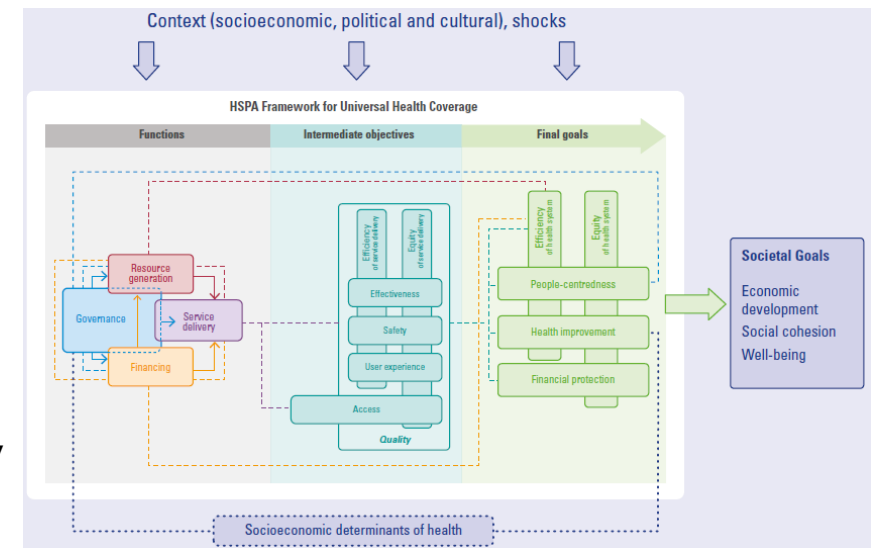
EU-SILC-Nutzer:innenkonferenz 2023, 22 September 2023

Gesundheit Österreich
GmbH ● ● ●

Motivation

- **Financial protection** is the only health system goal not covered yet by the Austrian health system performance assessment (HSPA) indicators or ‘Outcome Messung’
 - Financial protection is a fix part of HSPA frameworks, including the WHO HSPA framework which serves as a reference point for the Austrian one
- While nearly the entire population has access to public health care in AT, the out-of-pocket payments persistently remain above both the [EU](#) & [OECD](#) average, and are likely to further rise in view of the increasing shortage of contracted physicians ([European Health Observatory](#))

Financial protection is achieved when there are no financial barrier to access, and direct payments required to obtain health services (out-of-pocket health spending) are not a source of financial hardship. (WHO 2021)



Aims

- To check the possibility of constructing an indicator of financial protection (burden) which could be included in the Austrian HSPA (Outcome Messung)
 - Preferably one (composite) indicator
- To identify the most vulnerable groups
 - Preferably relatively easy for policy measures to target
- Once 2022 data available, to check how the numbers develop with time

Data

- EU-SILC 2017 (Health Module) & 2022 (in the near future)
- 2017 household sample: 6,090 HHs
- *Financial burden of health care*
 - Financial burden of dental care
 - Financial burden of medical examinations or treatments
 - Financial burden of medicines
- *Why not Unmet need for dental and health care*
 - Very rare in Austria
 - Financial reasons: 18 and 57 respondents, respectively

To what extent were the costs of ...
a financial burden to your household
during the past 12 months?

Heavy burden

Somewhat a burden

Not a burden at all

No one in the HH needed ...

Data: Challenges

(1) Dental care*: 18%

(2) Medical examinations or treatments: 11%

(3) Medicines: 7%

(1) x (2) x (3): 25% cases with at least one = not needed

Share of **at risk of poverty or social exclusion** HHs among those who declared:

	Dental care	Medical examinations or treatments	Medicines
Heavy burden	31%	36%	35%
Somewhat of burden	17%	16%	20%
Not a burden at all	19%	20%	18%
Not needed	25%	22%	25%

No one in the HH needed ... during the past 12 months

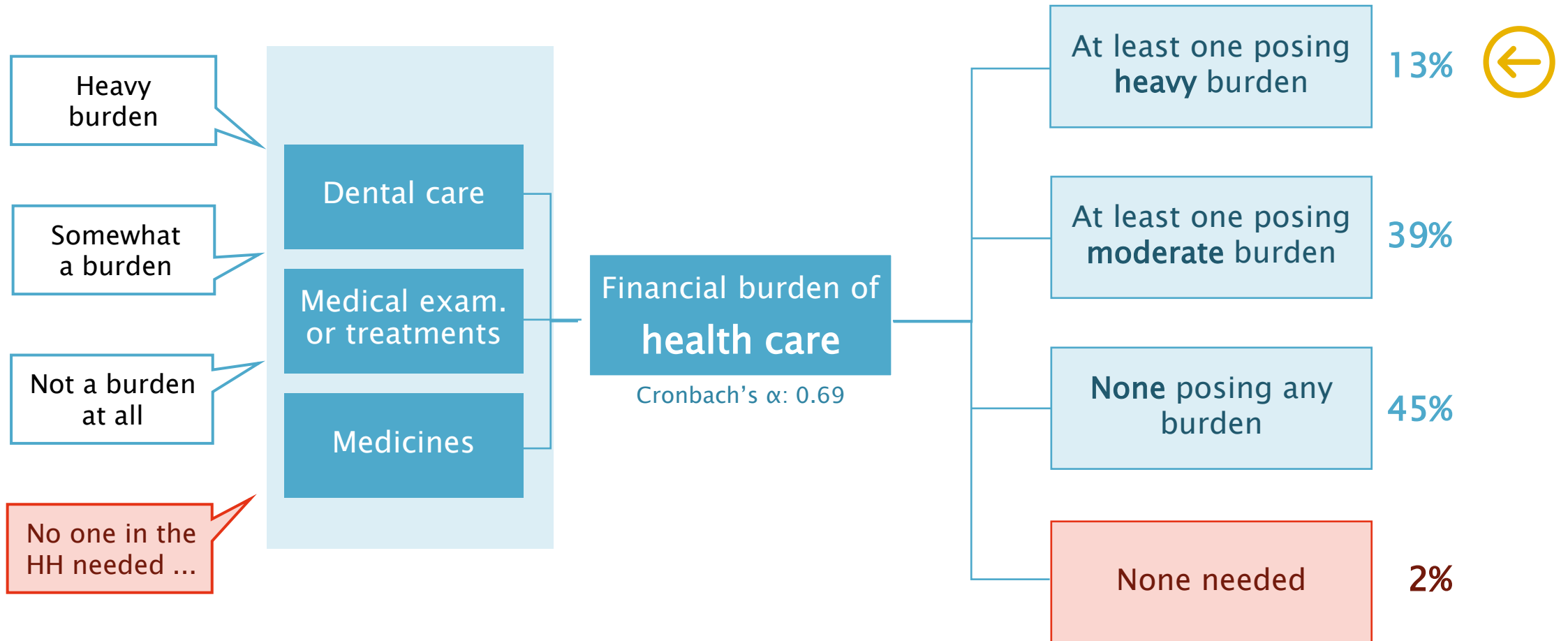


~~All in the HH are in excellent health and really did not need ...~~

*All descriptive statistics use weighted data.

Methods:

Financial burden of health care as composite indicator

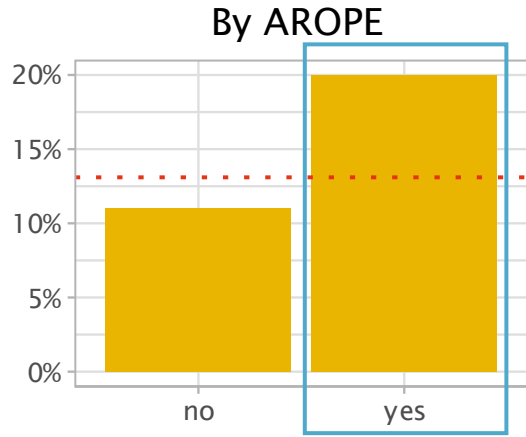
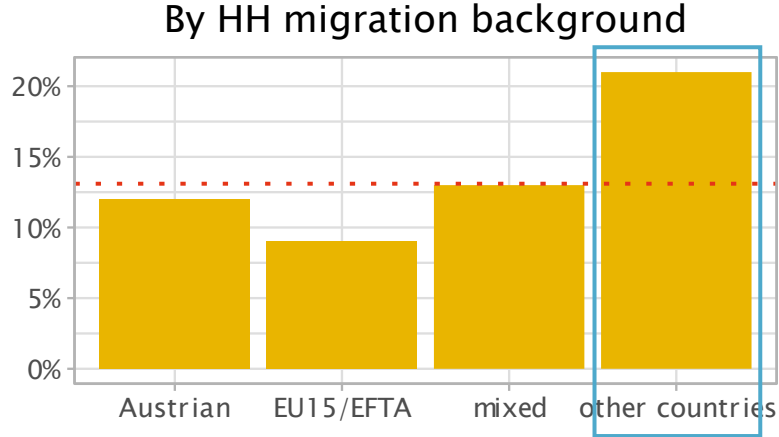
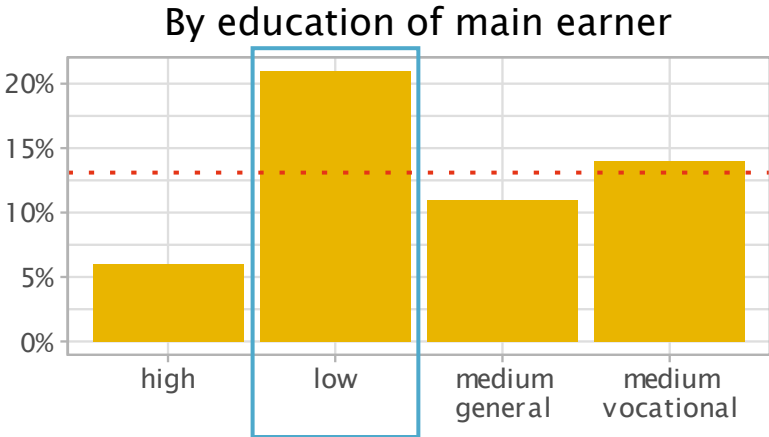
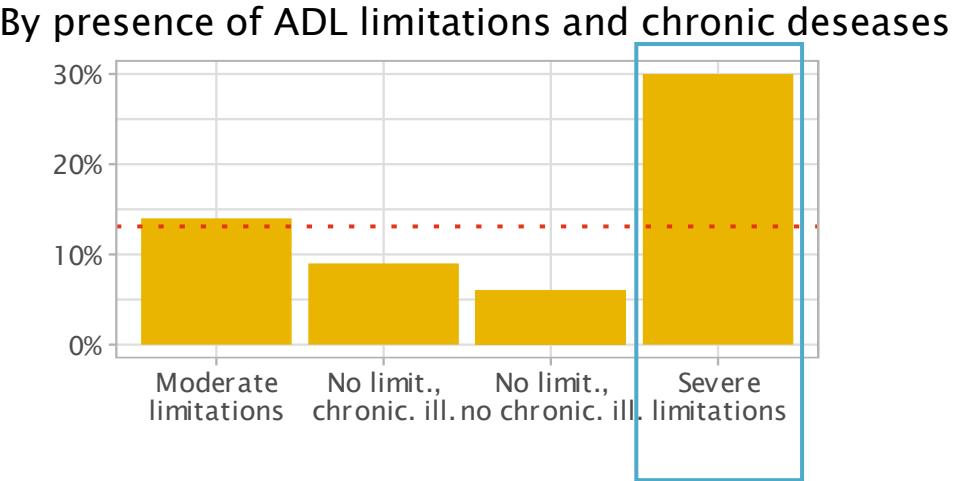
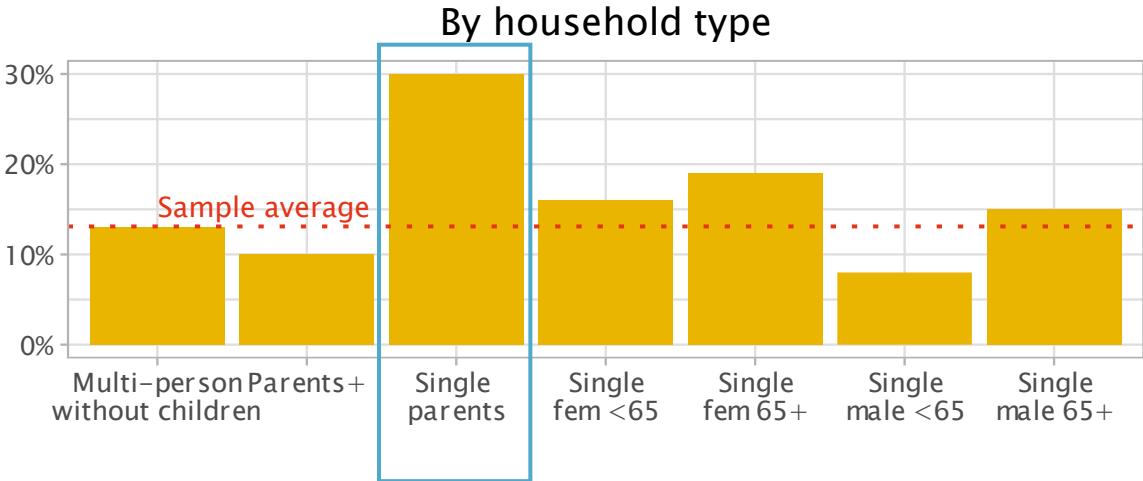


Methods: Who are the unprivileged? The choice of covariates

- **Household type**
 - Multi-person HH without children
 - Multi-person HH with children (*Parents+*)
 - Single parents
 - Single female HH aged <65
 - Single male HH aged <65
 - Single female HH aged 65+
 - Single male HH aged 65+
- **Household with at least one person with ADL limitations and/or chronic disease** (ADL = activities of daily living)
 - No limitations, no chronic disease
 - No limitations but chronic disease
 - Moderate limitations (with and without chron.ill.)
 - Severe limitations (with and without chron.ill.)
- **Educational level of the main earner**
 - high – medium general – medium vocational – low
- **Household at risk of poverty or social exclusion (AROPE)**
 - *at risk of poverty: <60 % of the national median equivalised disposable income after social transfers*
OR
 - *severely materially and socially deprived: cannot afford five or more of the thirteen standard deprivation item*
OR
 - *with a very low work intensity: a working time ≤ 20 % of total combined work-time potential during the previous year*
 - yes – no
- **Household composition w.r.t. migration background**
 - All without migration background (*Austrian*)
 - All members from EU15/EFTA countries (*EU15/EFTA*)
 - All members from other countries (*other countries*)
 - At least one member without and at least one member with migration background (*mixed*)
- **Household location**
 - urban (cities) – mostly rural – mixed

Descriptive results

Share of HH with *heavy financial burden of health care*



*All descriptive statistics use weighted data.

Multivariate analysis

- Initially, we ran **multinomial** model with the following categories of *financial burden of health care*:
none (ref.), moderate, heavy (excl. none needed)

- Poor model performance



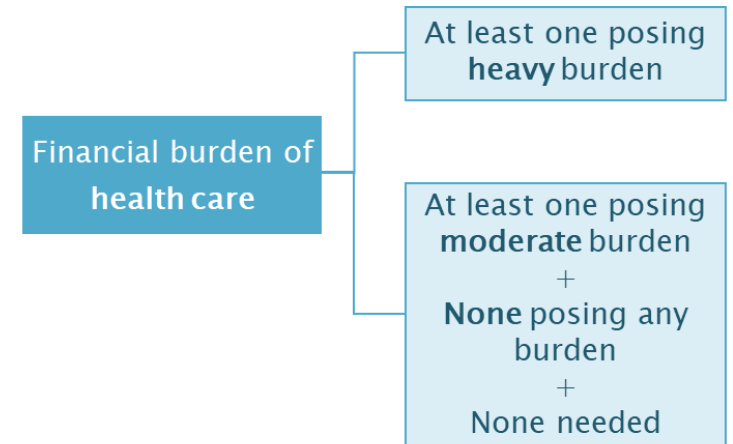
- Tested also: ordinal logit model -> did not meet the assumptions (Hosmer-Lemeshow test)
- Logit models estimating the odds of (1) moderate and (2) heavy burden against no burden separately showed that the problematic category is (1) moderate burden

- So, we revised our initial plan and focused on **heavy** burden:
logistic model with outcome *heavy financial burden of health care*
heavy against **anything else (ref.)**



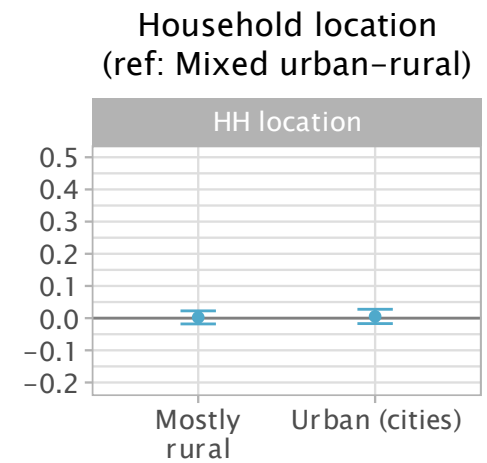
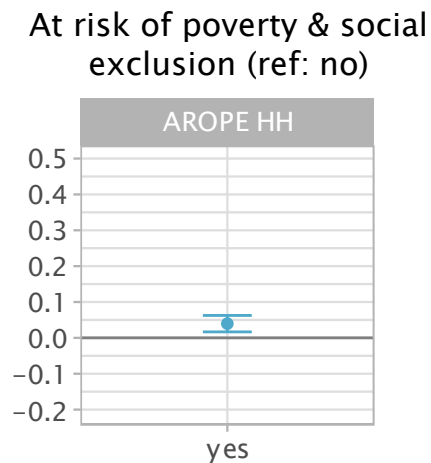
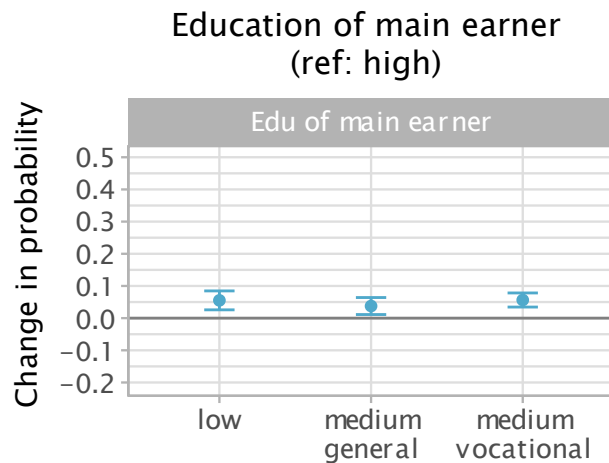
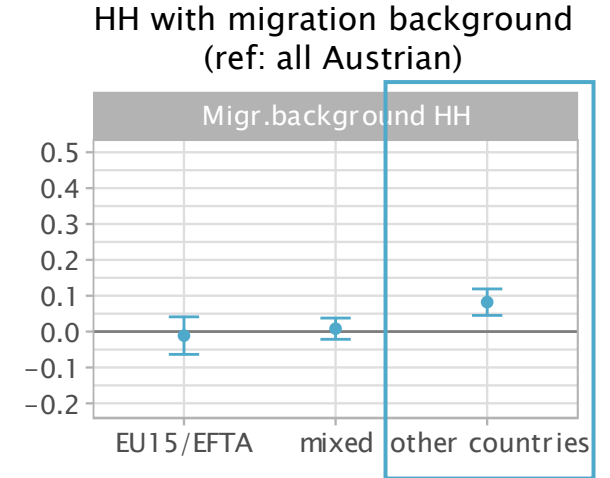
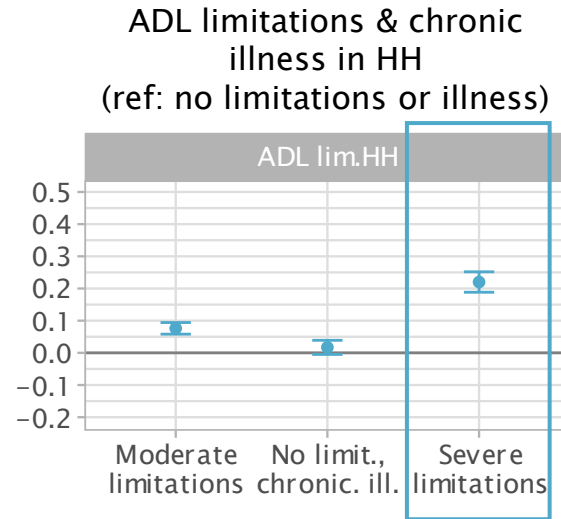
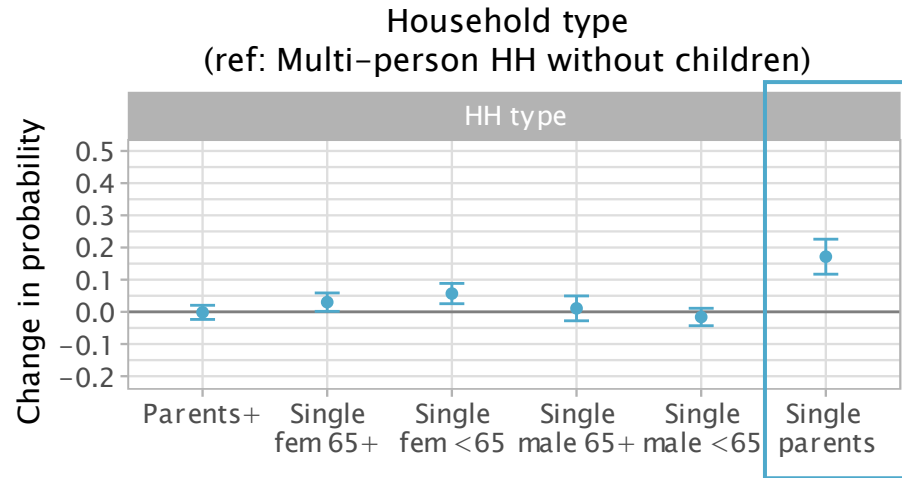
- Better performance
- Tested also: (biased reduced) penalized-likelihood logit models

- Covariates: household type, ADL limitations and/or chronic illness, migration background, educational level of the main earner, AROPE, HH location



Multivariate analysis results

Average Marginal Effects



Note: AME with 95% confidence intervals.

Conclusions

- For around 13% of households in Austria, **health care** poses a **heavy financial burden**



- Dental care
- Medical exam. or treatments
- Medicines

- The most vulnerable groups:
 - Single-parent households
 - Households with people with severe ADL limitations
- **Next steps**
 - Include 2022 data
 - Tune the model: new covariates?
 - Tune the indicator?
 - **Suggestions from the audience?**

Thank you!



zuzanna.brzozowska@goeg.at

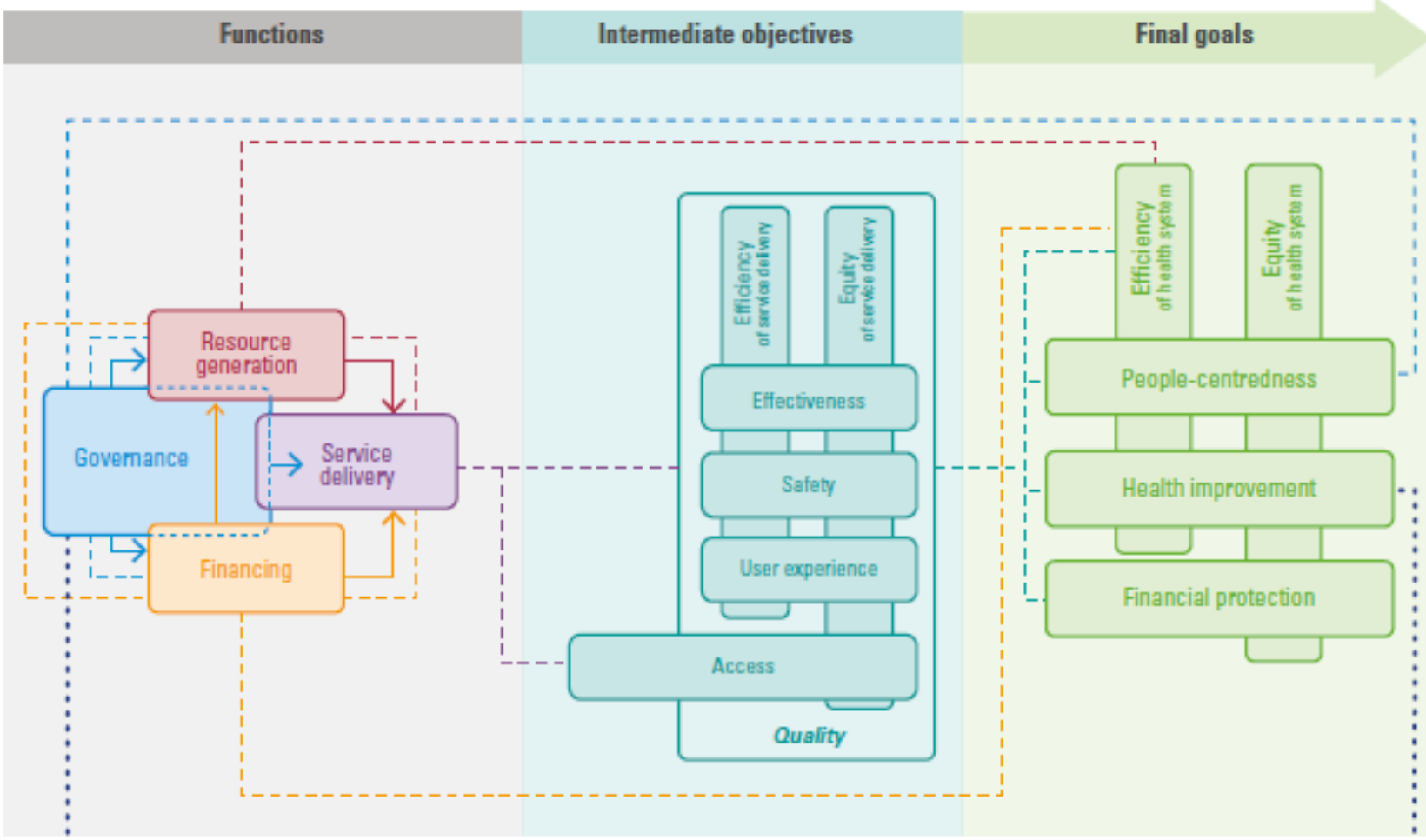
Appendix

WHO HSPA framework

Context (socioeconomic, political and cultural), shocks



HSPA Framework for Universal Health Coverage



Socioeconomic determinants of health

Societal Goals

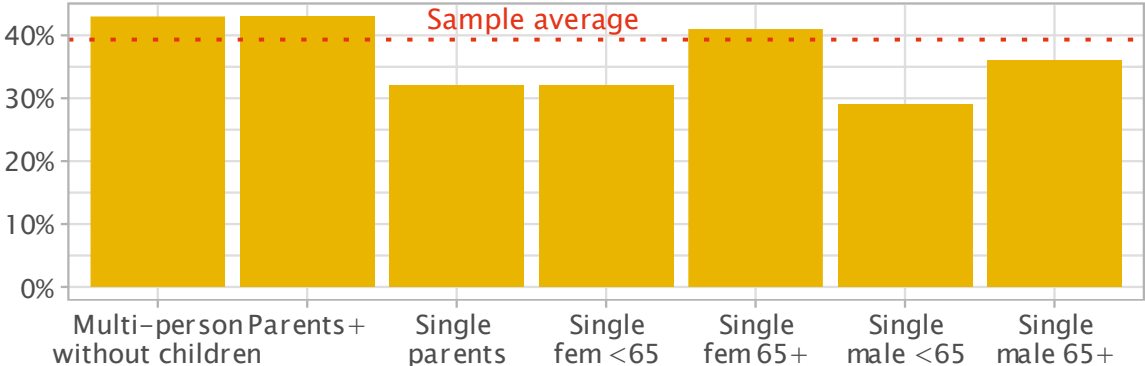
- Economic development
- Social cohesion
- Well-being

Sample characteristics (unweighted data): N = 6,090

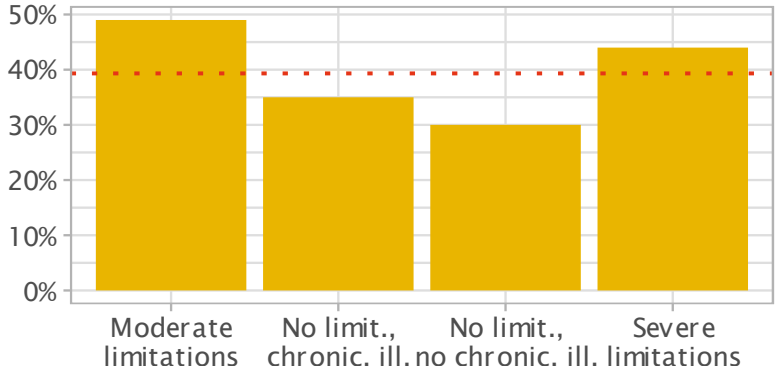
Financial burden of health care	At least one heavy	765
	At least one moderate	2385
	None	2810
	Not needed	130
Household location	Mixed	1447
	Urban (cities)	1949
	Predominantly rural	2694
Household type	Multi-person HH without children	2256
	Single female HH aged <65	729
	Single male HH aged <65	702
	Single female HH aged 65+	577
	Single male HH aged 65+	250
	Parents with children	1312
	Single parents	264
Education of the main earner	high	1040
	medium general	1071
	medium vocational	3223
	low	756
Household's migration background	Austrian	4931
	mixed	559
	EU15/EFTA	137
	other countries	463
Presence of ADL limitations and chronic illnesses in the household	No limitations, no chronic illness	2397
	No limitations but chronic illness	748
	Moderate limitations	2022
	Severe limitations	923
At risk of poverty and social exclusion	yes	1076

Share of HH with *moderate financial burden of health care*

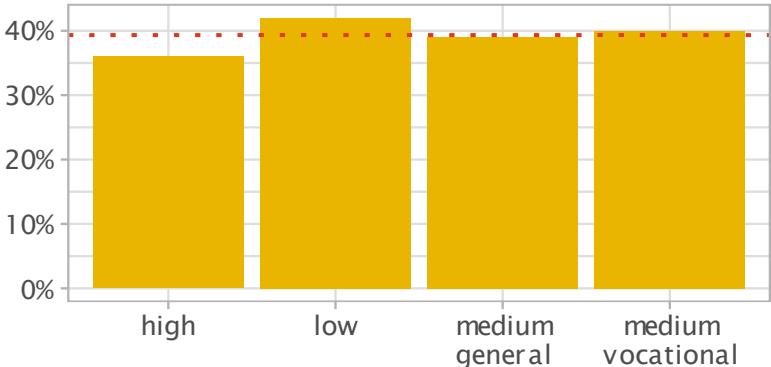
By household type



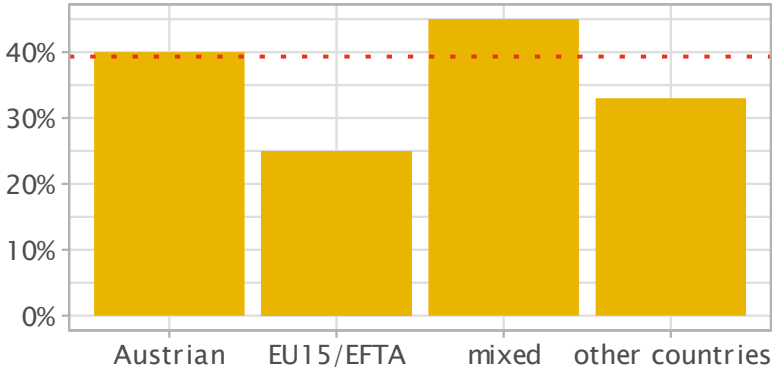
By presence of ADL limitations and chronic illnesses



By education of main earner



By HH migration background



By AROPE

