

Socioeconomic Status and Health: An exploratory analysis for the Germany

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Motivation

- ▶ Individuals with higher Socioeconomic Status (SES) tend to display better health outcomes
- ▶ Correlational relationship well established in literature but (causal) mechanisms are hard to investigate due to endogeneity and long-term development (multiple generations)
- ▶ SOEP provides rich information on different areas that allows for granular examination
- ▶ Deaton (2003) exposes a few hypotheses
 - ▶ Education: with access to better education -> better health decisions
 - ▶ Irrationality: Too high discount rate -> failure to build capital & protect health
 - ▶ Absolute vs relative “income hypothesis” -> Evidence that not only level of wealth but also *ranking*, i.e., inequality, affect health outcomes

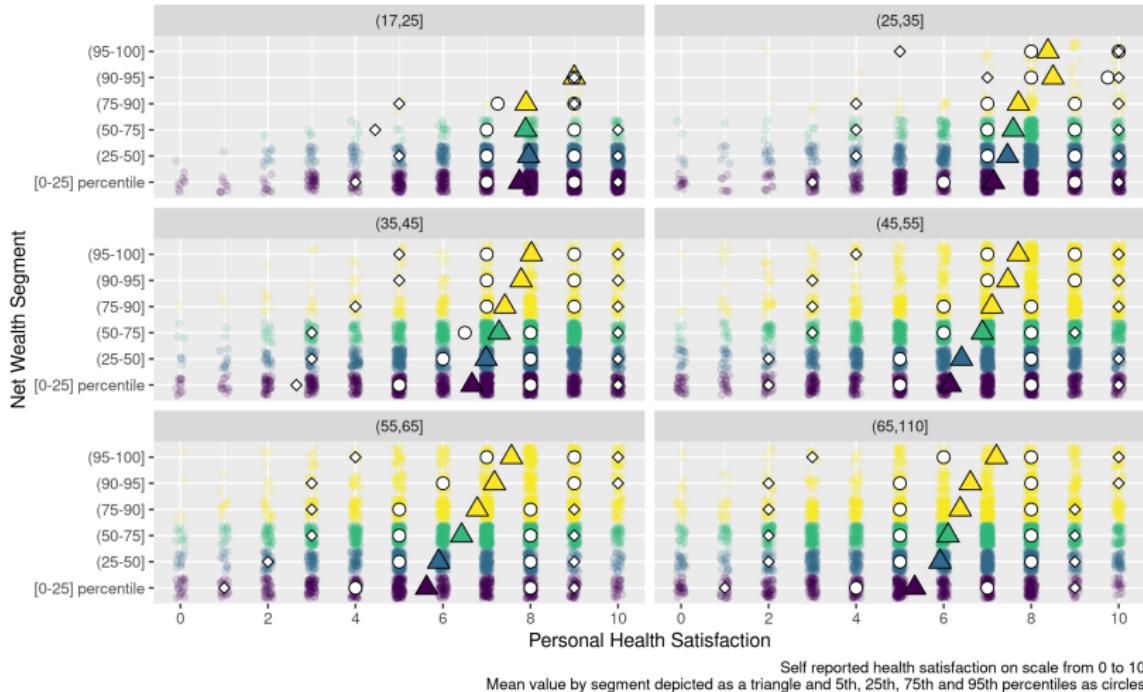
Data

- ▶ Cross-sectional SOEPv36 data from 2019 with 24.429 observations, including new sample on top-stakeholders (TS)
- ▶ Wealth module from 2017 for other samples
- ▶ INKAR data for granular geographic healthcare provision
- ▶ Item non-response imputed via Bayesian Networks implemented by Göbler (2019)
- ▶ Drawback: Health module (from 2018) with broader coverage of health variables not yet available for SOEP TS sample

Exploratory Visualisations I

Overall satisfaction with personal health

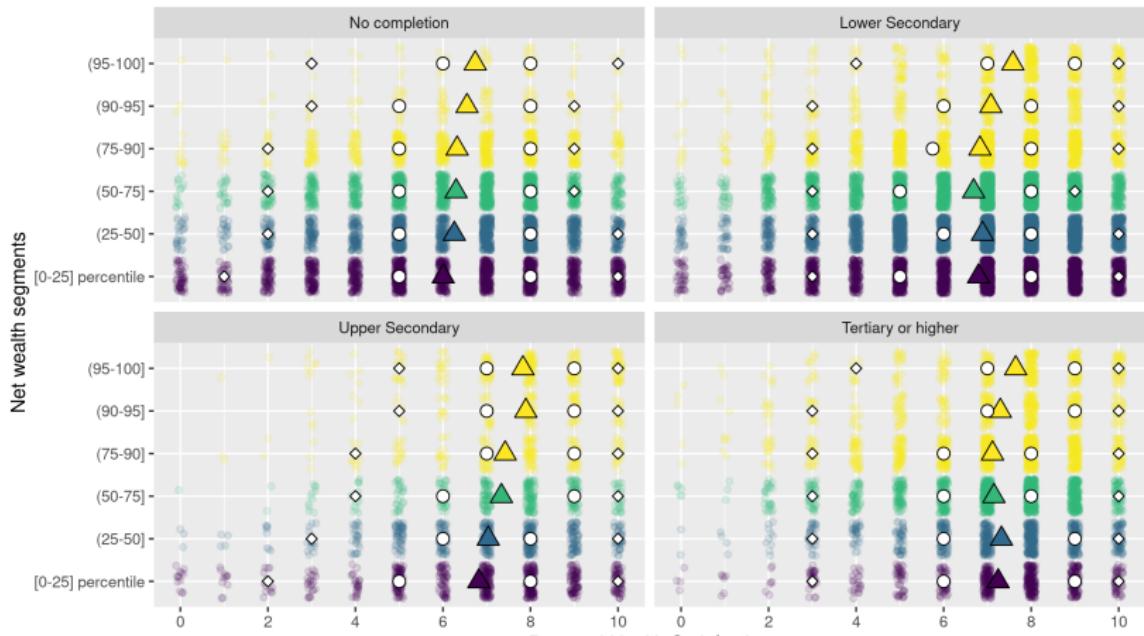
Decomposition by net wealth segments (y-axis) and age group (facets)



Exploratory Visualisations II

Overall satisfaction with personal health

Decomposition by net wealth segments (y-axis) and education (facets)

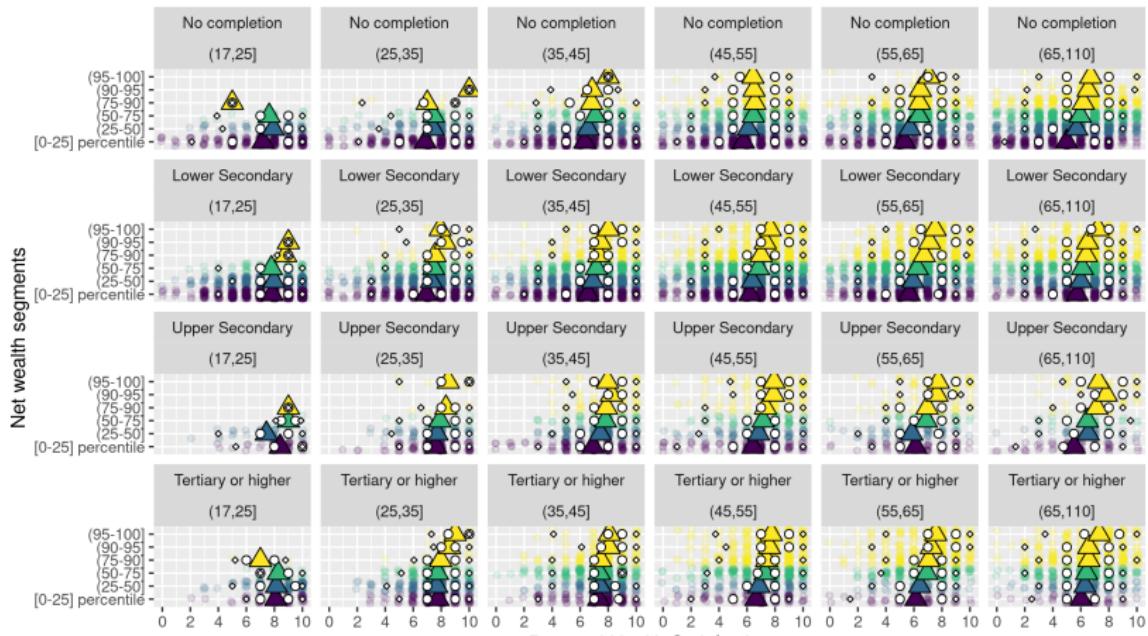


Self reported health satisfaction on scale from 0 to 10
Mean value by segment depicted as a triangle and 5th, 25th, 75th and 95th percentiles as circles

Exploratory Visualisations III

Overall satisfaction with personal health

Decomposition by net wealth segments (y-axis) across education and age group (facets)

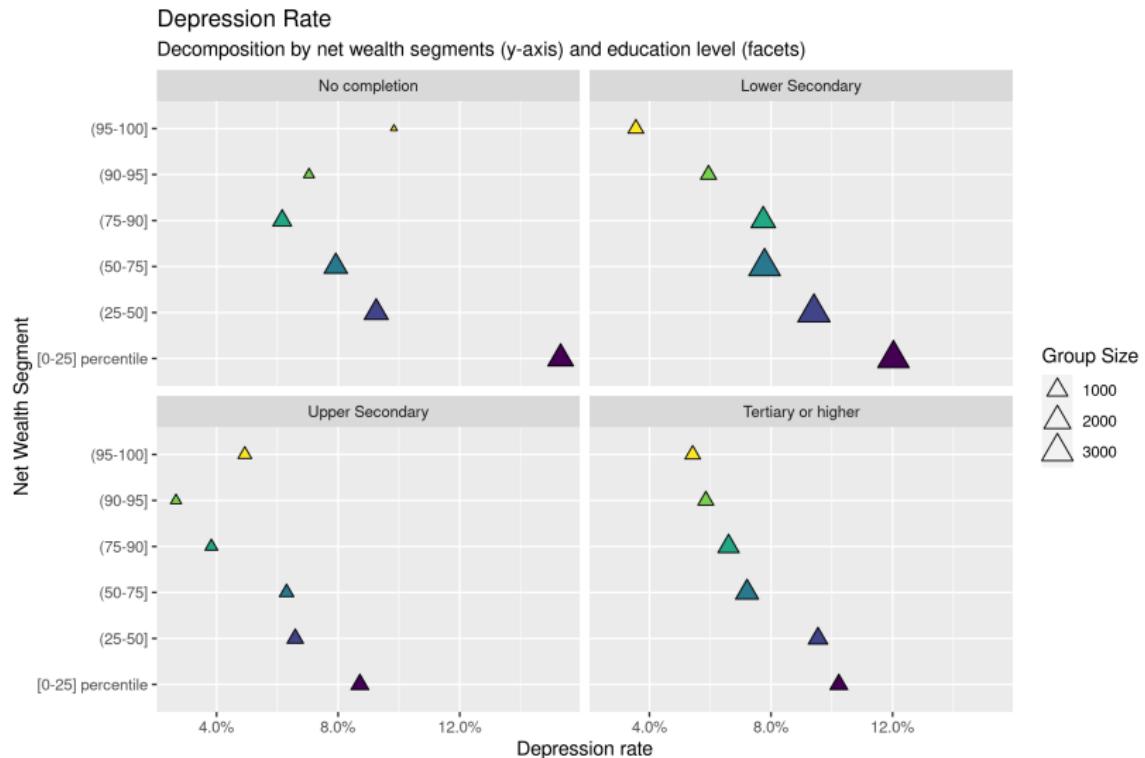


Self reported health satisfaction on scale from 0 to 10
Mean value by segment depicted as a triangle and 5th, 25th, 75th and 95th percentiles as circles

Exploratory Visualisations IV



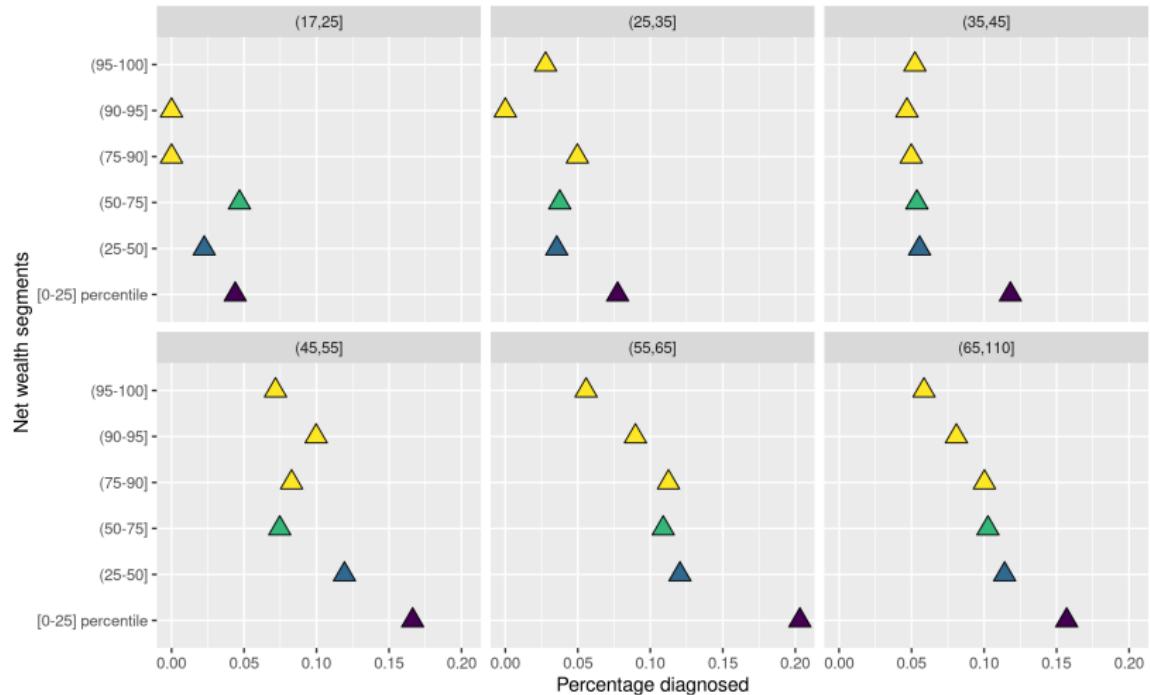
Exploratory Visualisations V



Exploratory Visualisations VI

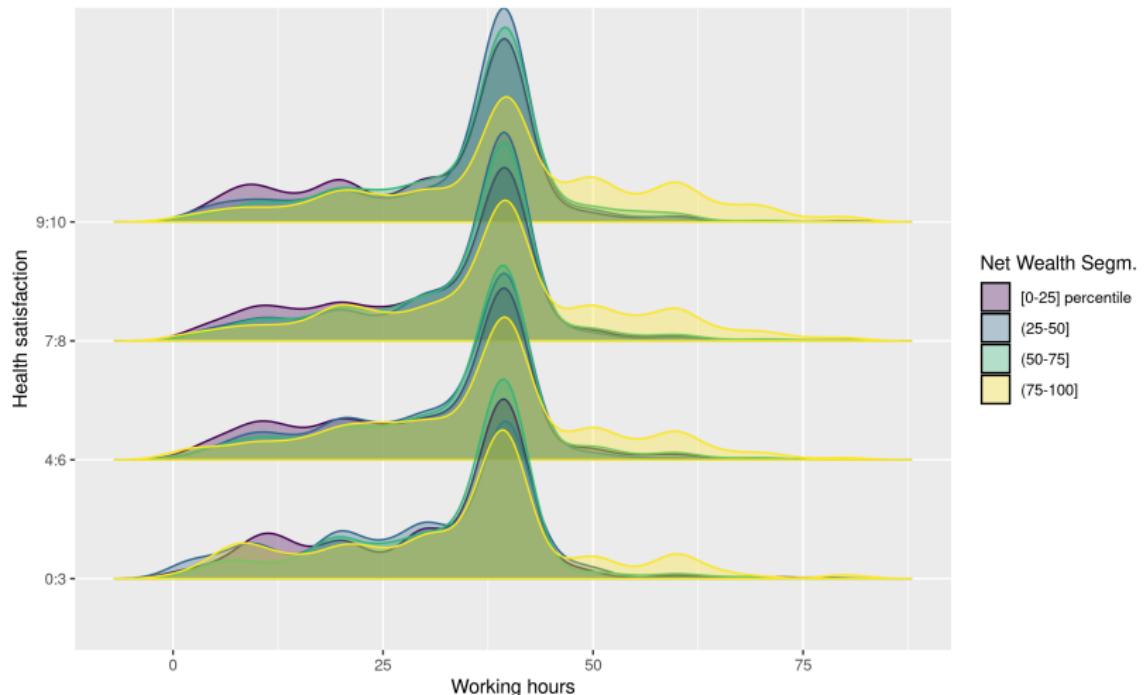
Ever diagnosed with Sleeping Disorder?

Decomposed by wealth segment (y-axis) and age groups (facets)



Exploratory Visualisations VII

Distribution of working hours by health satisfaction across wealth segments
(Only active in labour market individuals)

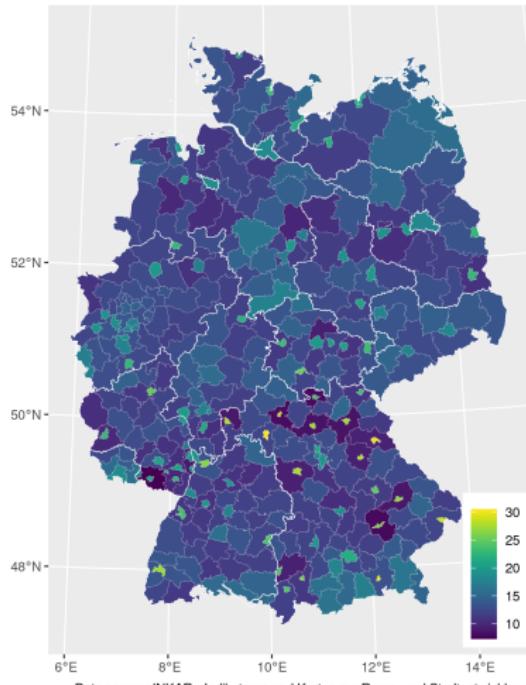


INKAR Indicators I

- ▶ Bundesinstitut für Bau-, Stadt- und Raumforschung im Bundesamt für Bauwesen und Raumordnung (BBSR Bonn) provides through INKAR (Indikatoren und Karten zur Raum- und Stadtentwicklung) regional indicators on several variables including healthcare provision.
- ▶ Healthcare provision displays regional heterogeneity that might play a role in health outcomes.
- ▶ Note: INKAR Data note yet merged with SOEP data

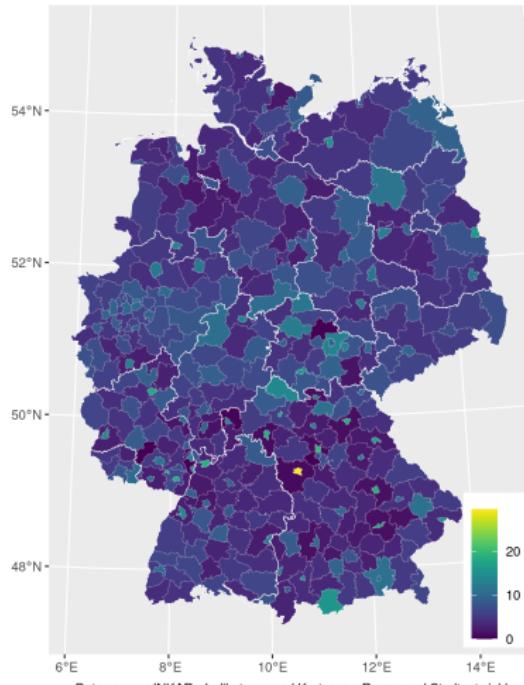
INKAR Indicators II

Health care provision in Germany
Medical doctors per 100.000 inhabitants



Data source: INKAR - Indikatoren und Karten zur Raum- und Stadtentwicklung

Health care provision in Germany
Hospital beds per 100.000 inhabitants



Data source: INKAR - Indikatoren und Karten zur Raum- und Stadtentwicklung

Outlook

Objectives

- ▶ Generate via Principal Components a physical, a mental and (possibly) a *social health* variables to consolidate available health information in fewer dimensions
- ▶ Investigate which variables more strongly predict health outcomes in these dimensions
- ▶ investigate how predictive are the physical and mental health variables on income and wealth outcomes.

Challenges

- ▶ Find a methodology that properly deal with endogeneity, confounder and collider biases (even if not aiming to infer causality)
- ▶ Still need to consolidate and focus on a overall research question.

References

- Deaton, Angus. 2003. "Health, Inequality, and Economic Development ." Journal of Economic Literature, 41 (1): 113-158.
- Göbler, K. (2019). A Novel Imputation Algorithm with Bayesian Networks". In: Mimeo.