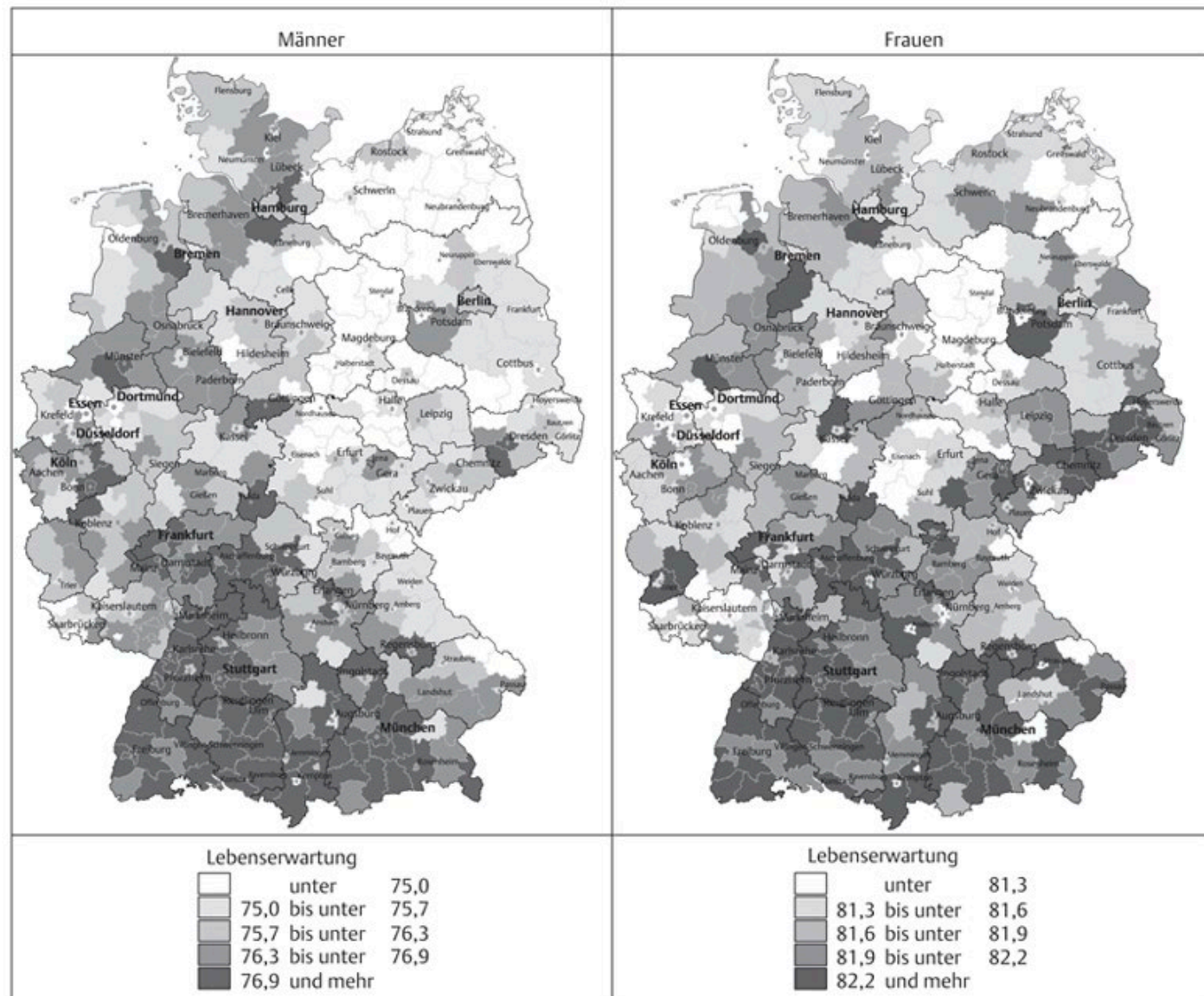


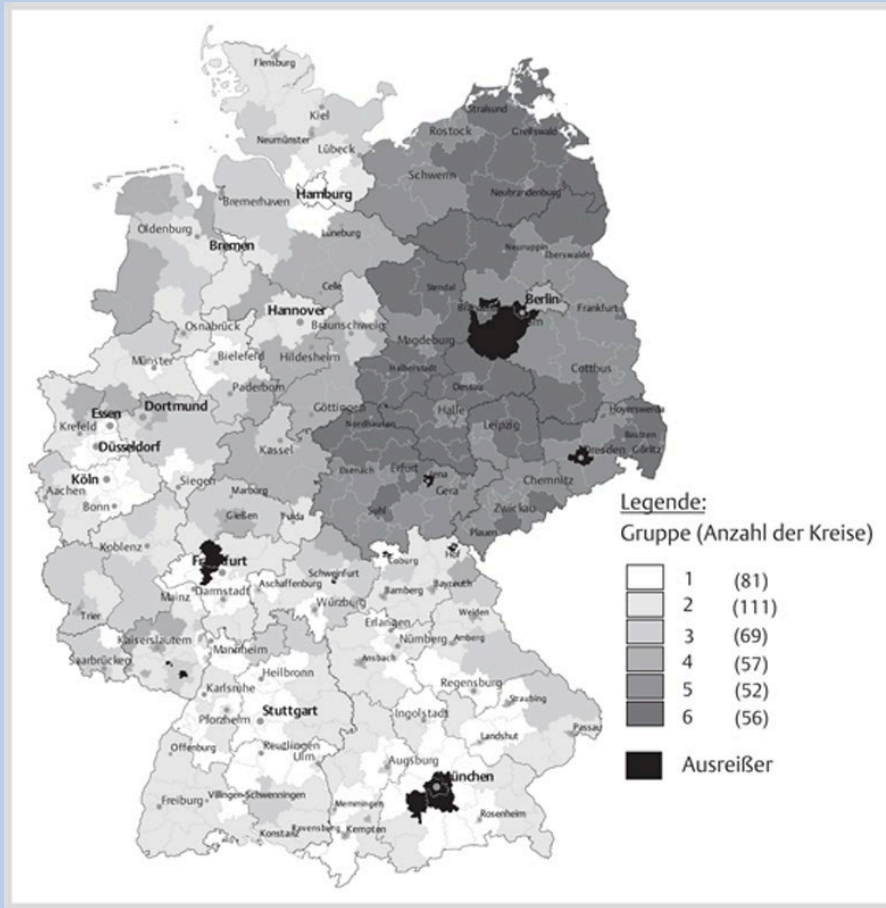
environMENTAL: Phenotyping regional sociobehavioral effects

Michael Rapp, MD, PhD
Social and Preventive Medicine
University of Potsdam

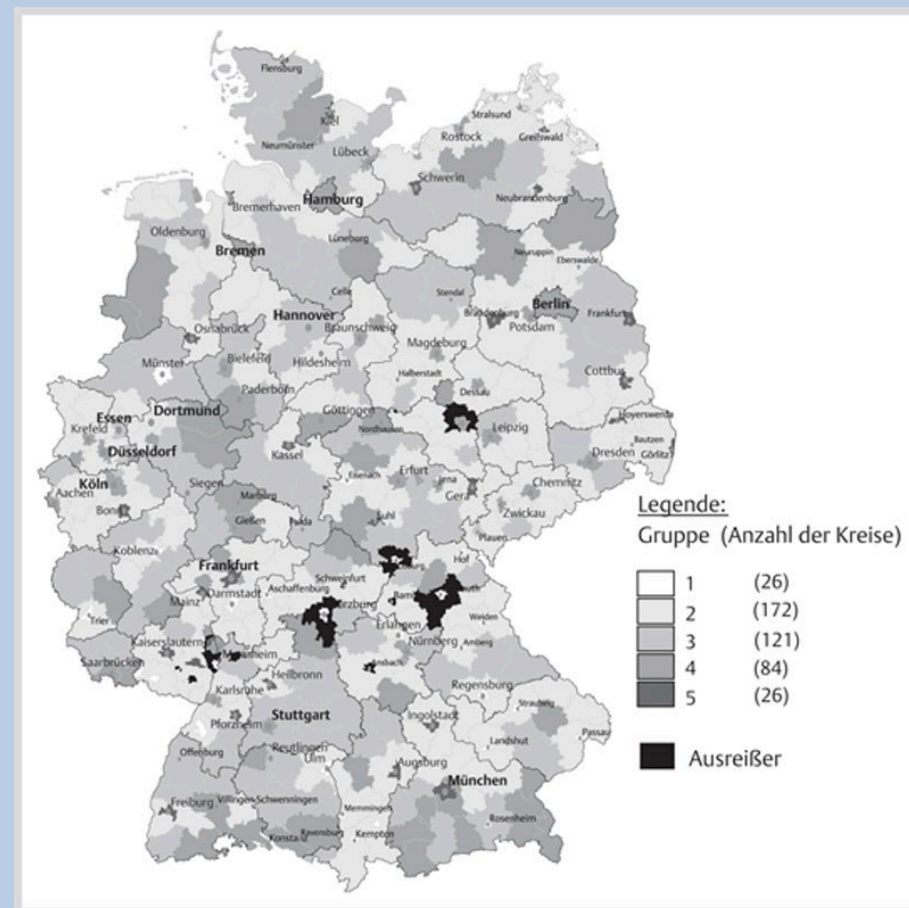
Life expectancy in Germany



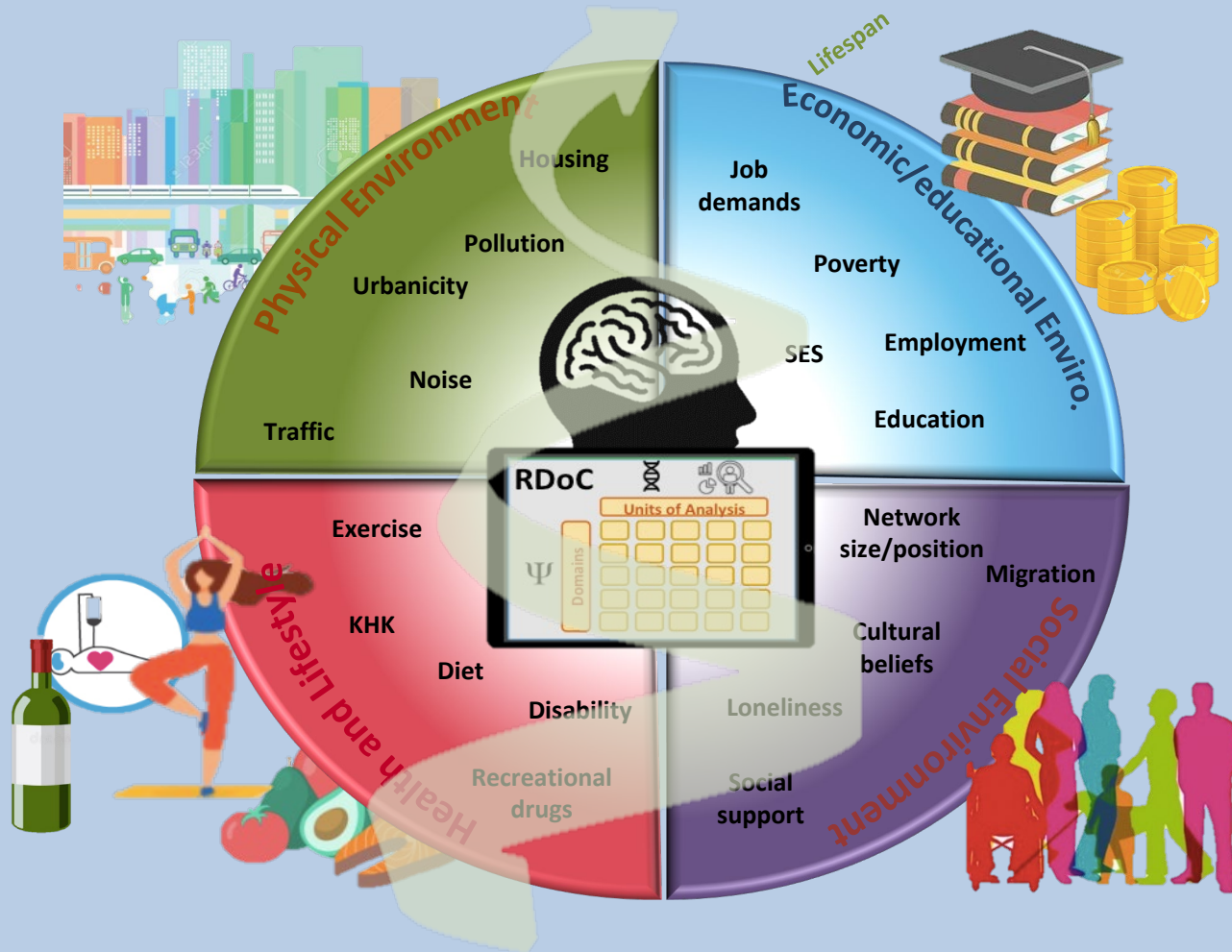
Regional SES

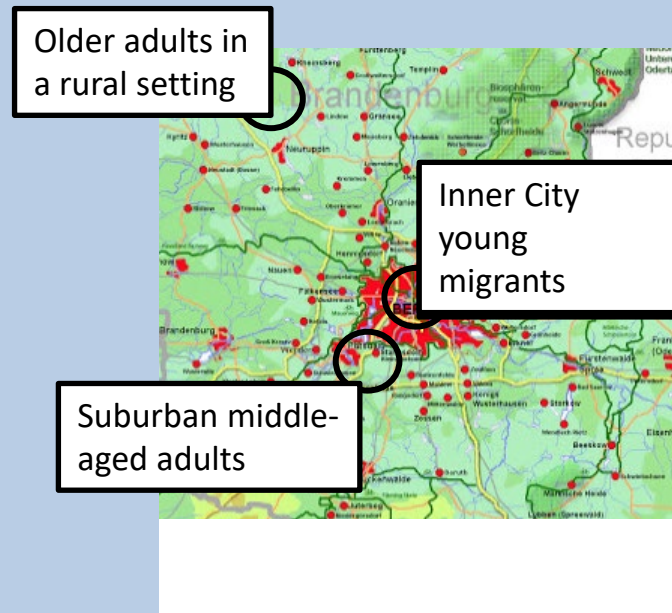
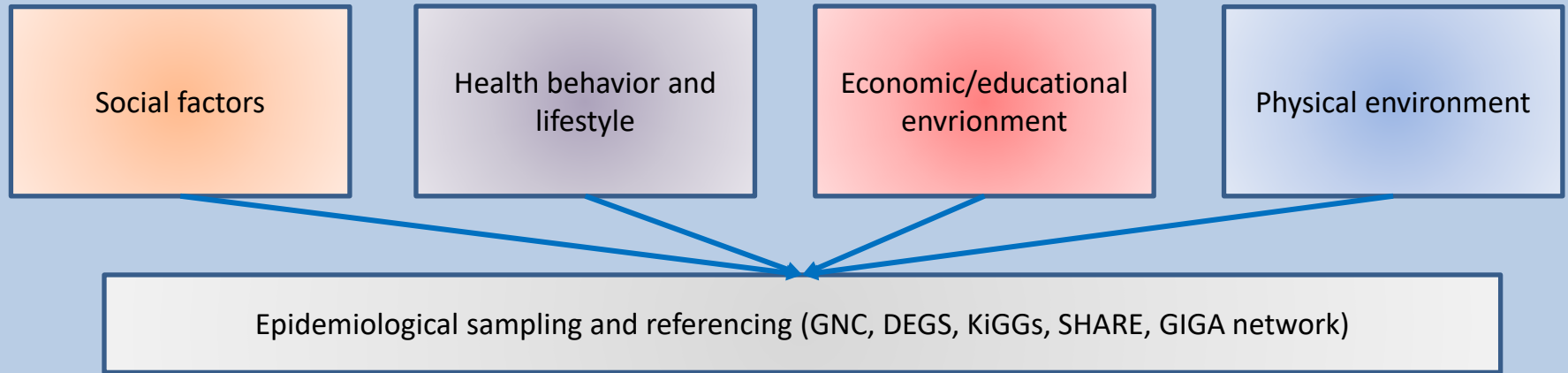


Health System



Addressing social diversity: Units of analysis





Translating epidemiological risk factors in regional samples.

Mental health and regional social deprivation: Depression in the inner city

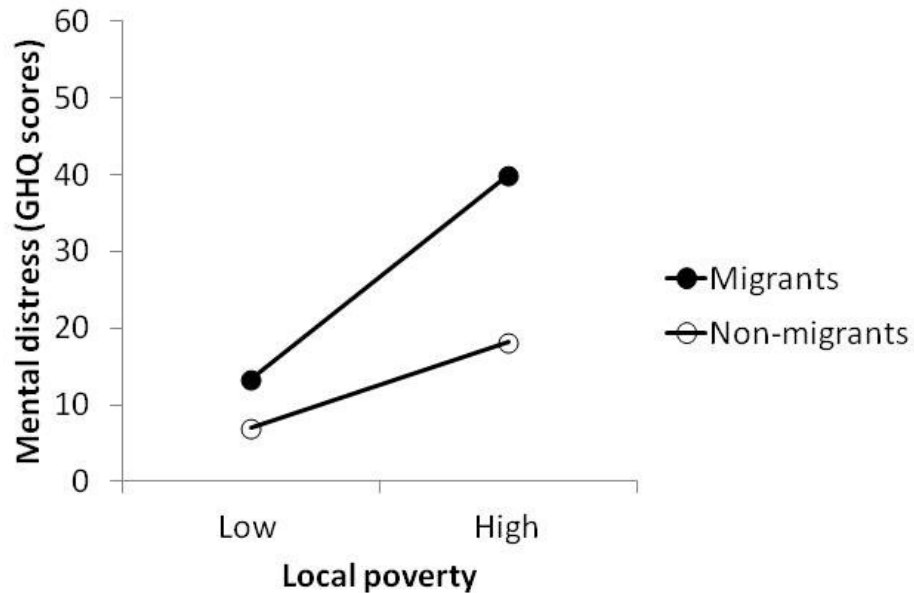


N = 428

Mental Health
(GHQ_28 scores)
= bar height

Social deprivation
(% unemployed in a
region; yellow < 20%;
red: > 40%)
= color

Inner city migrants are more vulnerable to regional socioeconomic deprivation



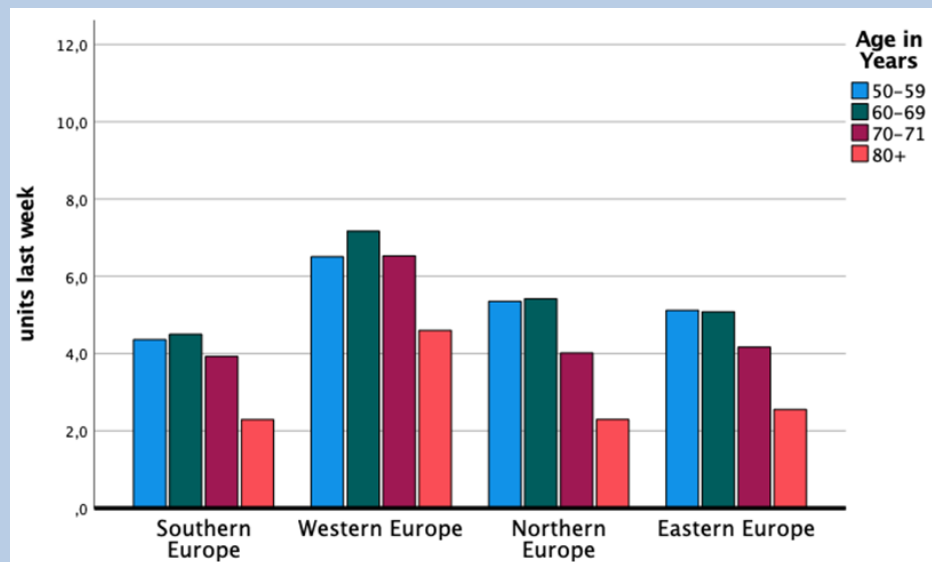
$$\text{GHQ}_{i,n} = \beta_i * \text{age}_{i,n} + \beta_i * \text{gender}_{i,n} + \beta_i * \text{education}_{i,n} + \beta_i * \text{income}_{i,n} + \beta_n * \text{ethnic density}_{i,n} + \beta_n * \text{social deprivation}_{i,n}$$

Rapp et al., World Psychiatry, 2015

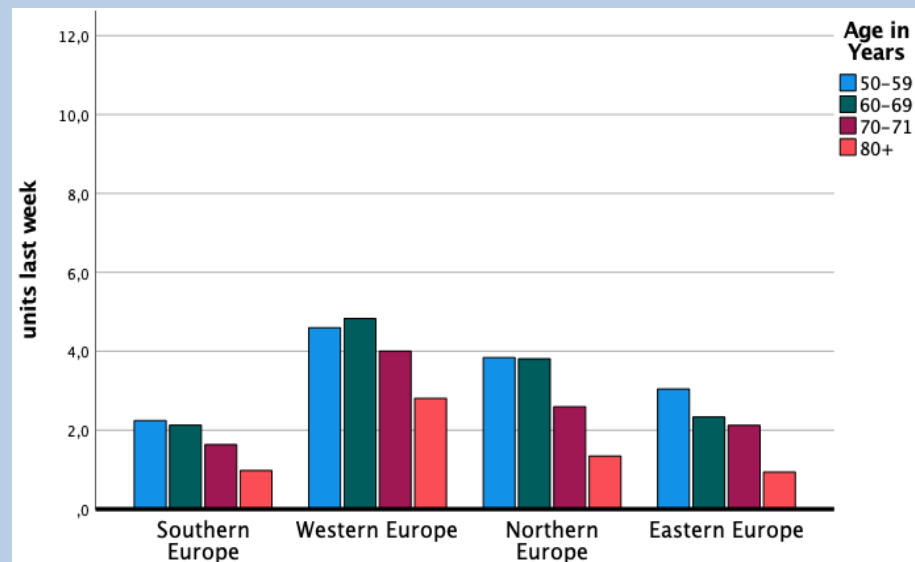
Gruebner, Rapp, et al. Deutsches Ärzteblatt International, 2017

Social context and mental health :

Risky alcohol consumption in middle-aged and older adults in Europe (SHARE study)



Men (N = 27.087)



Women (N = 35.918)

Rapp et al., in prep.

Heinz, Beck, Rapp, JAMA Psychiatry, 2017.

Predictors of risky alcohol consumption in middle-aged and older adults in Europe (SHARE study)

Variable	OR	95% CI
Female gender	0.298***	0.285 - 0.312
Age (Ref. 80+ yrs)		
50-59 yrs	2.253***	2.317 - 2.748
60-69 yrs	2.240***	2.067 - 2.428
70-79 yrs	1.731***	1.594 - 1.879
Education (in years)	1.028***	1.023 - 1.033
MS (Ref. married, living with spouse)		
Widowed/Divorced	0.870***	0.809 - 0.935
Annual household net income	1.000***	1.000 - 1.000
Heavy drinking parent	1.181**	1.042 - 1.340
Smoking	1.426***	1.367 - 1.487
Region (Ref. Southern Europe)		
Western Europe	1.835***	1.735 - 1.942
Northern Europe	1.660***	1.563 - 1.764

Social context and mental health :

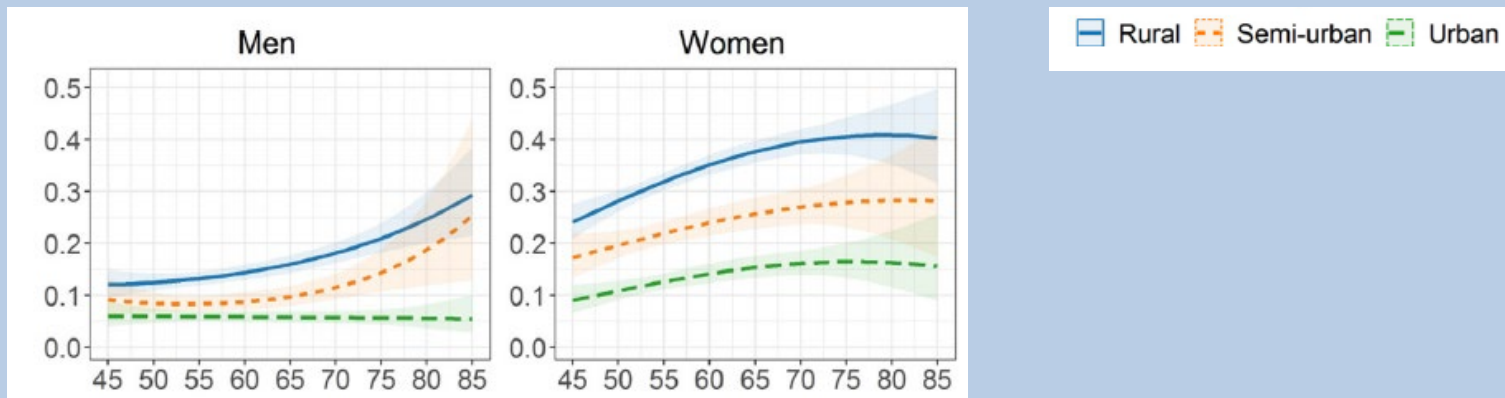
Vulnerability for depression in older adults

Migration Background (SHARE study)

Prevalence of depression (%)	Non-migrants (n= 24,622)	Migrants (n=2,140)	Adjusted* OR	Crude OR	95% CI	p values
All countries	24.2	30.6	1.35	1.38	1.21–1.51	<0.001
Southern Europe	31.4	35.5	1.15	1.20	0.78–1.70	0.278
Western Europe	22.3	29.9	1.38	1.49	1.21–1.56	<0.001
Northern Europe	17.9	31.7	1.85	2.13	1.39–2.46	<0.001

Aichberger, ..., Rapp, European Psychiatry, 2015.

Rurality



Hu et al., Plos One, 2019.

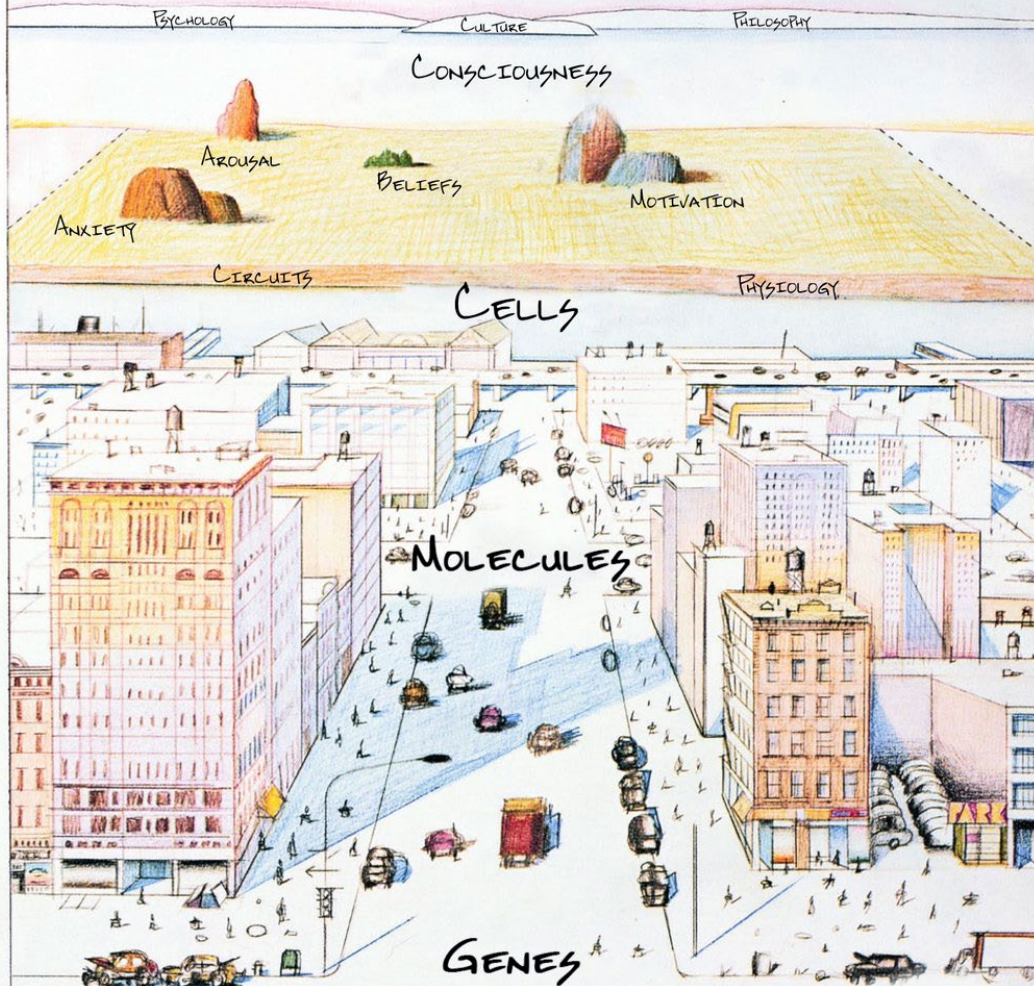
JAN. 25, 2016

\$100,000,000



Bundesministerium
für Bildung
und Forschung

RDoC



GENETICSHUMANAGENCY.ORG

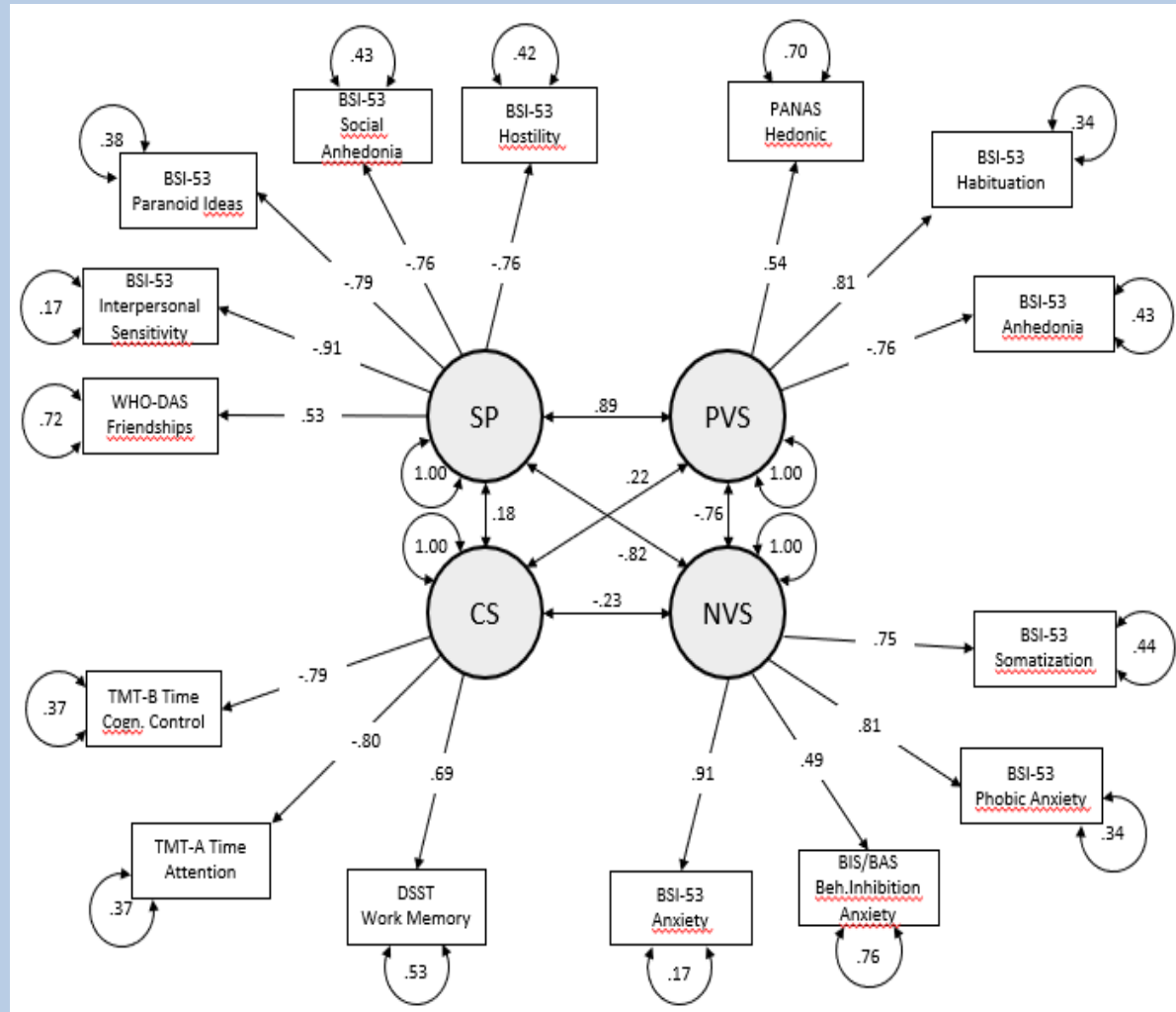
WITH APPOLOGIES TO STEINBERG

Forschungsnetz zu psychischen Erkrankungen



● Depression ● Angststörungen ● Krankheitsübergreifende Therapie ● Bipolare Störungen ● Psychotische Störungen
● Suchterkrankungen ● Schizophrenie ● Aufmerksamkeitsdefizit/Hyperaktivität ● Autismus

Transdiagnostic Phenotyping

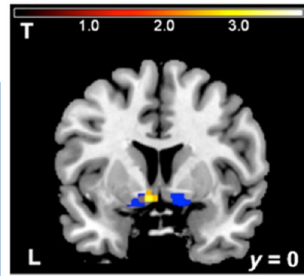


N= 1431.

PVS = Positive Valence Systems; NVS = Negative Valence Systems; CS = Cognitive Systems; SP = Social Processes

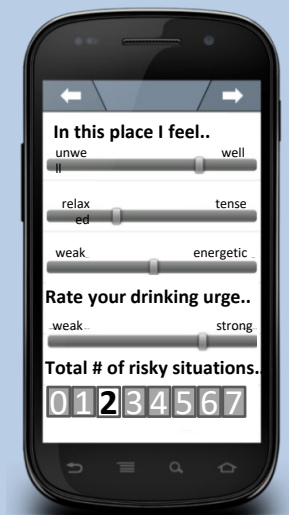
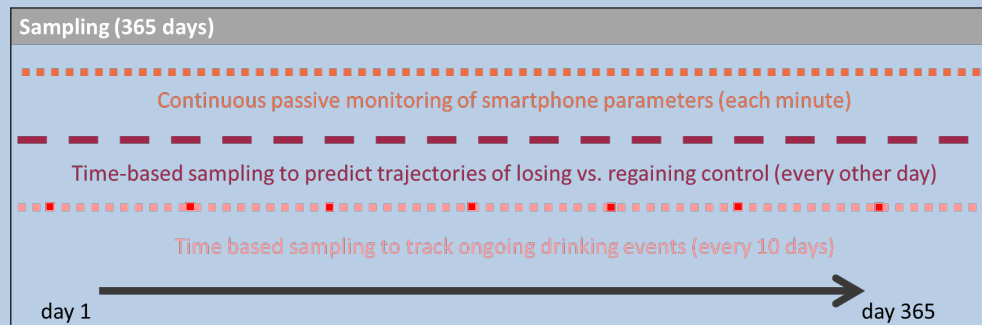
SFB-TRR 265 ReCODE: A showcase of a combined longitudinal prospective cohort study complemented by deep phenotyping via ambulatory assessments

Subjects	Baseline Month 0	Follow-up 1 Month 4	Follow-up 2 Month 8	Follow-up 3 Month 12
N = 300 16-32 years	- Sociodemographics - Neuropsychology - Psychometrics/ Psychopathology	- Neuropsychology - Psychometrics/ Psychopathology - RDoC	- Neuropsychology - Psychometrics/ Psychopathology - RDoC	- Neuropsychology - Psychometrics/ Psychopathology - RDoC
N = 300 33-49 years	- RDoC			
N = 300 50-65 years	- s/f MRI			

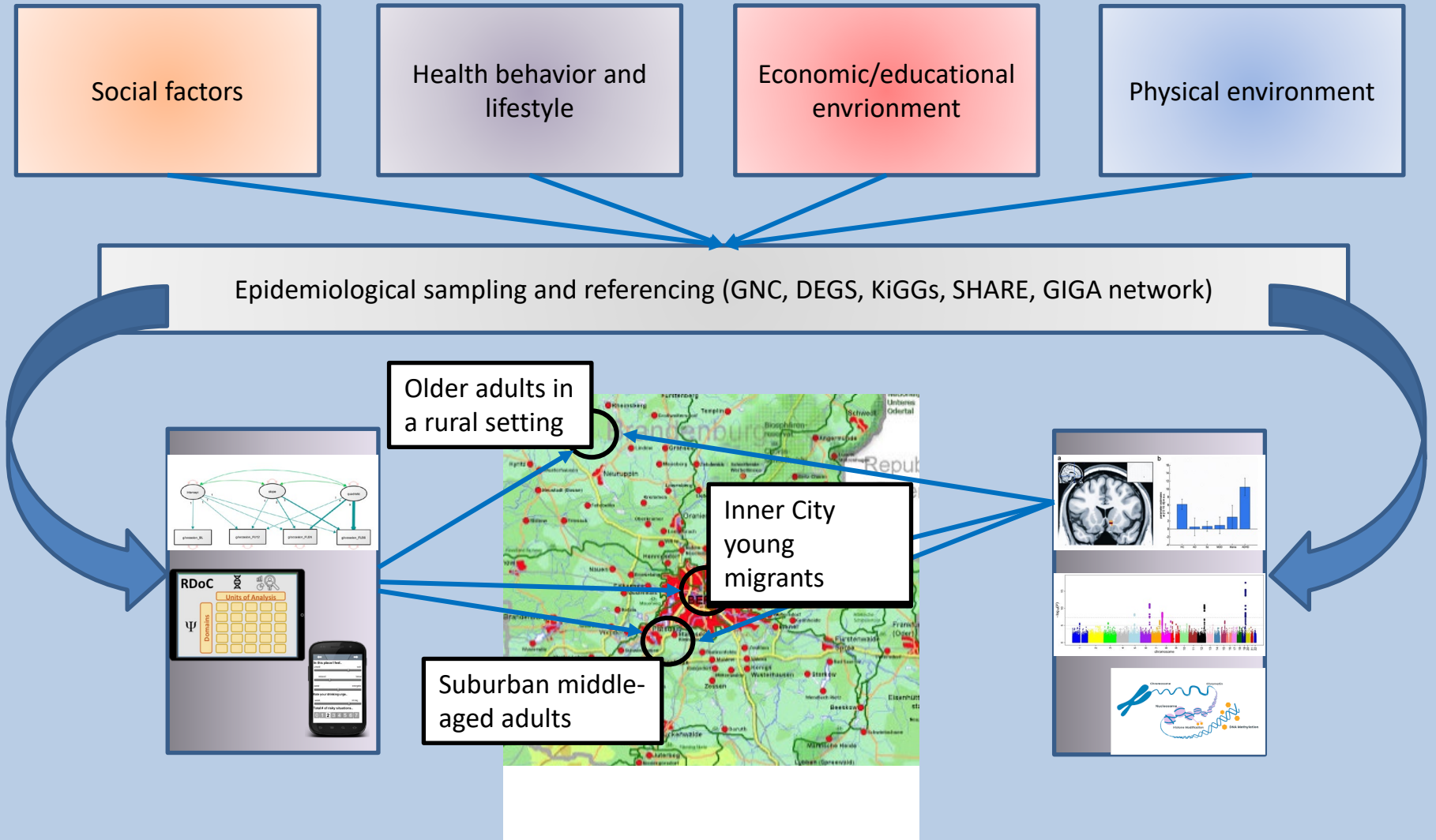


Ambulatory assessment

Data sampled every two days as well as triggered by alcohol use.



Targeted interventions addressing social diversity via



translating epidemiological risk factors in regional samples using a deep phenotyping approach.

Mechanisms of mental health



Innovative Prevention

