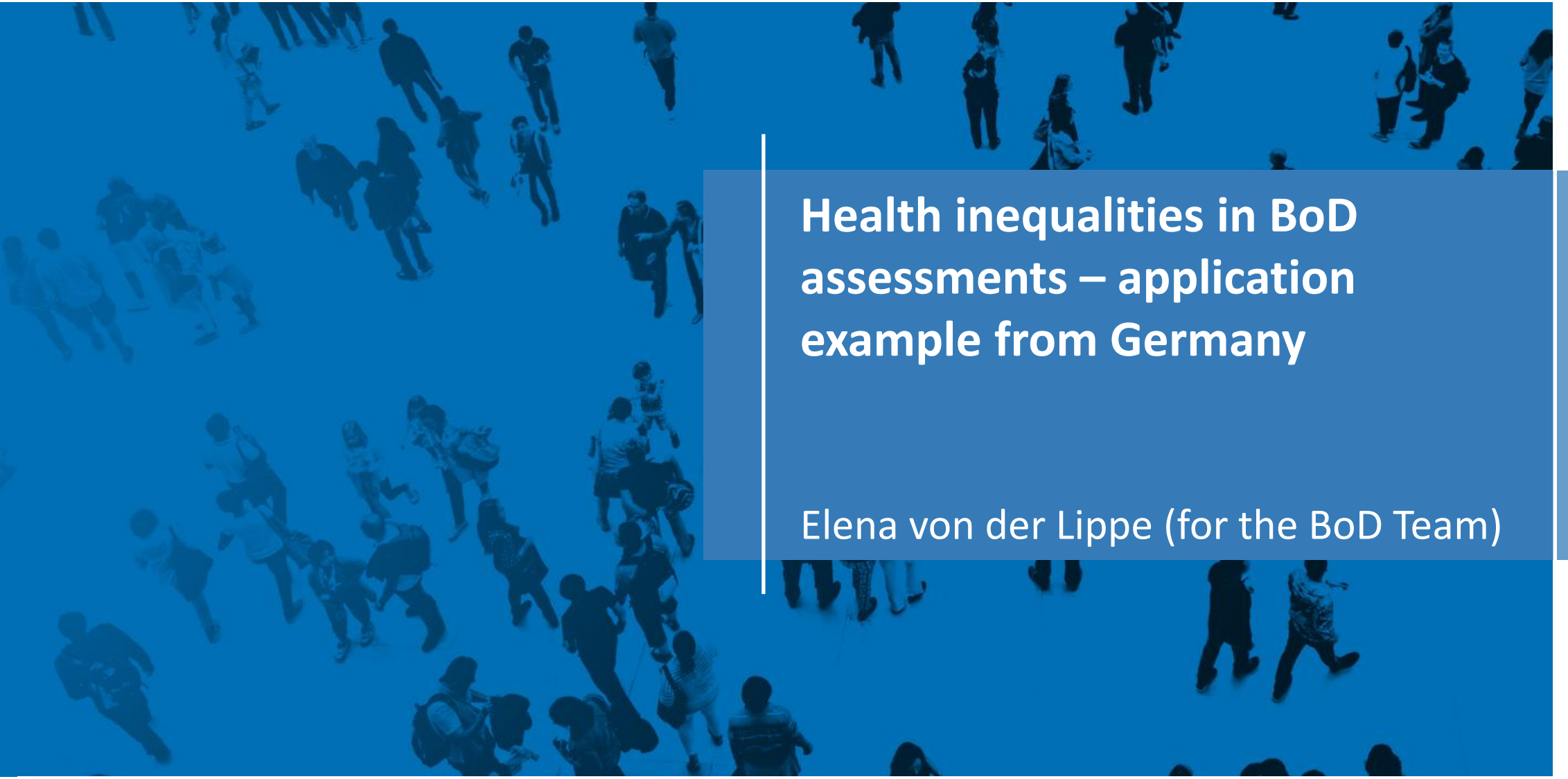


Health inequalities in BoD assessments – application example from Germany

Elena von der Lippe (for the BoD Team)

Regional BoD assessments in Germany



16 federal states

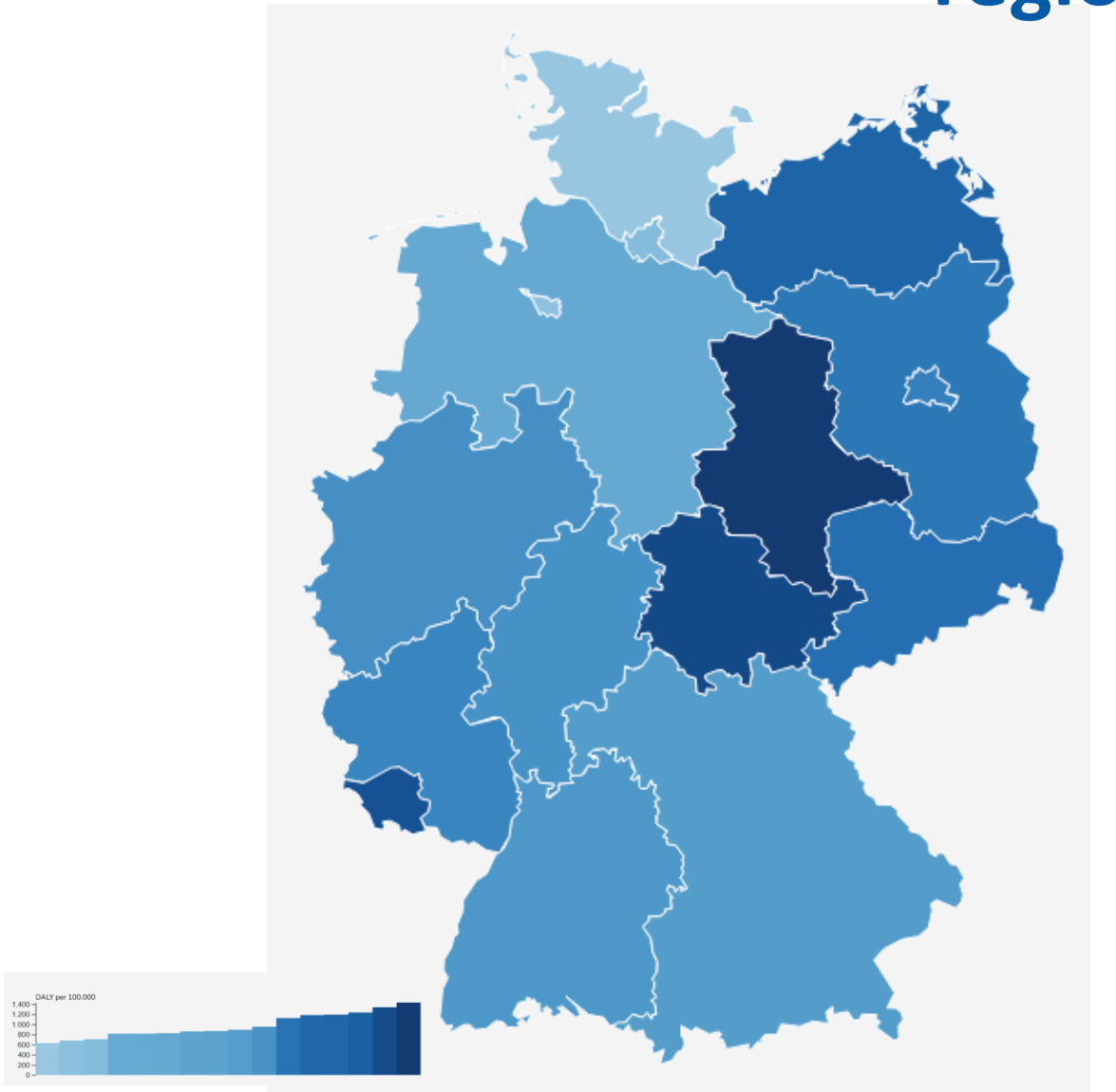
Can be further analyzed by the following regions

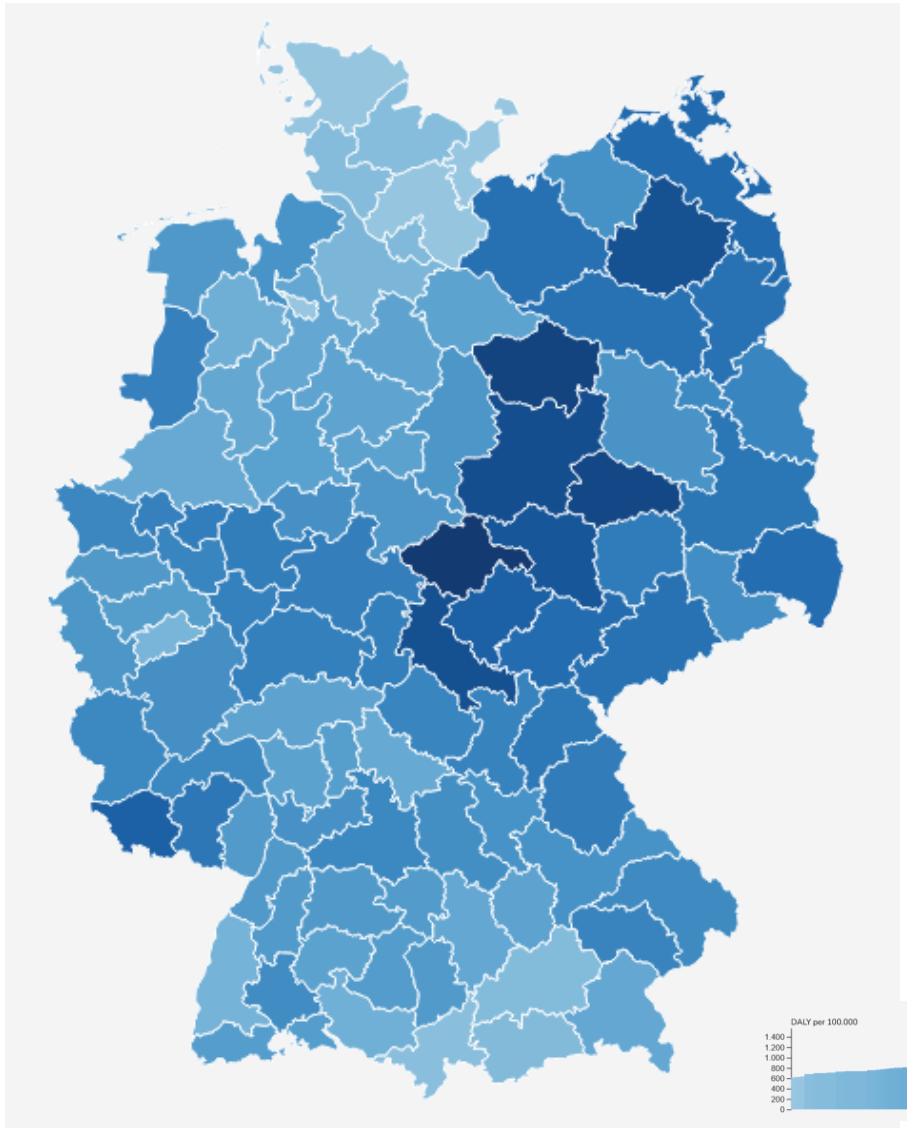
96 spatial planning regions



Source: freeusandworldmaps.com

DALY (age-standardised) due to Type 2 Diabetes on different regional levels





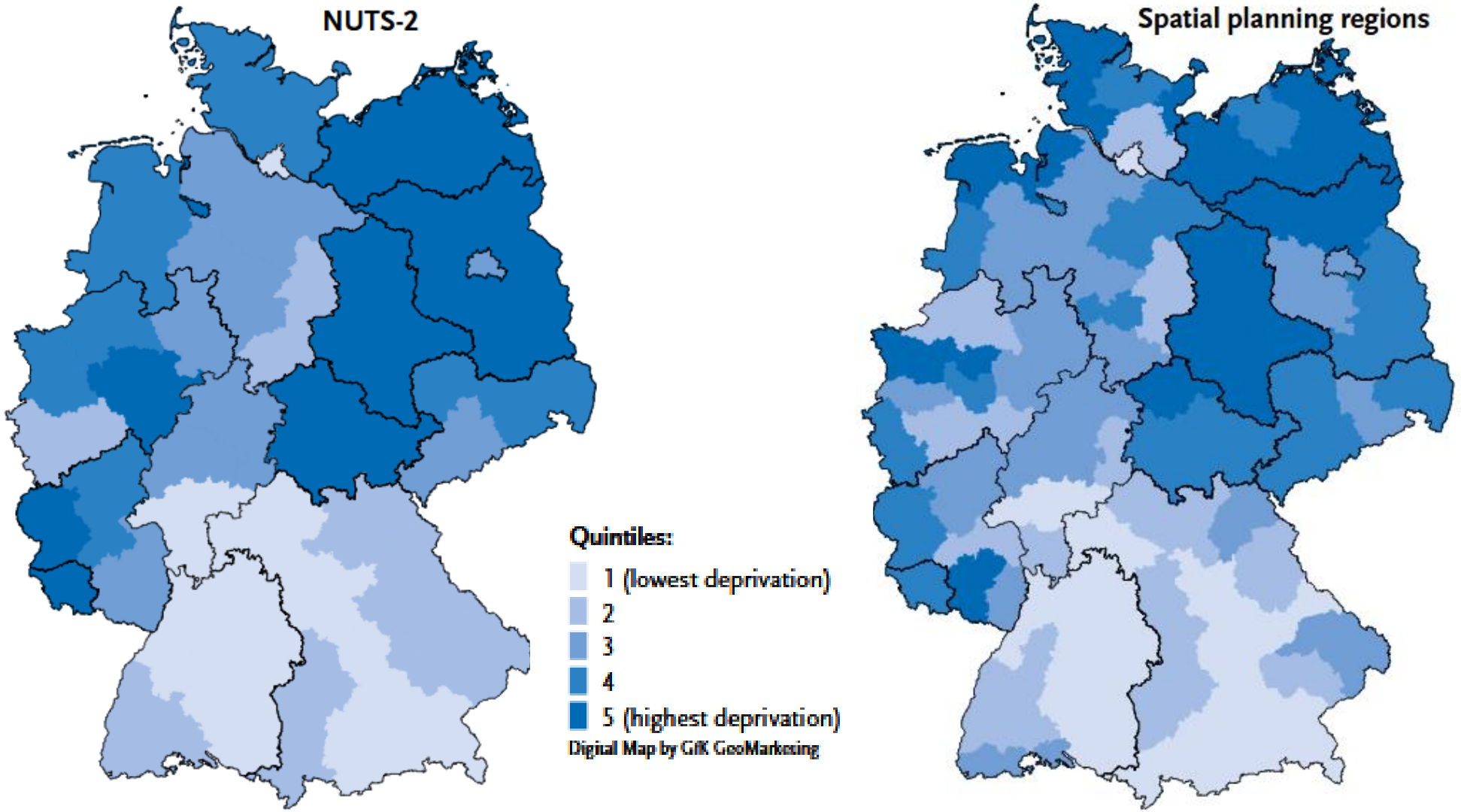
Source: Robert Koch-Institut (2023): Ergebnisdatensatz BURDEN 2020 – Krankheitslast in Deutschland und seinen Regionen, Berlin: Zenodo. DOI: 10.5281/zenodo.7646704

German Index of Socioeconomic Deprivation (GISD)

Dimension	Variable
Education 33.3%	Employees with university degree
	Employees without qualification
	School leavers without qualification (adj.)
Employment 33.3%	Employment rate
	Unemployment rate
	Gross earnings (log.)
Income 33.3%	Income tax (log.)
	Household income (log.)
	Debtor quota

Source: Michalski N, Reis M, Tetzlaff F, Herber M, Kroll LE et al. (2022). German Index of Socioeconomic Deprivation (GISD): Revision, update and applications. J Health Monit 7(S5): 2–23. DOI 10.25646/10641

GISD on selected regional levels

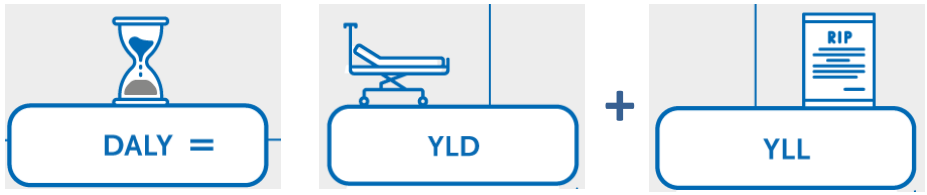


Source: Michalski N, Reis M, Tetzlaff F, Herber M, Kroll LE et al. (2022). German Index of Socioeconomic Deprivation (GISD): Revision, update and applications. J Health Monit 7(S5): 2–23. DOI 10.25646/10641

Combining information on BoD and GISD …

high burden

high deprivation



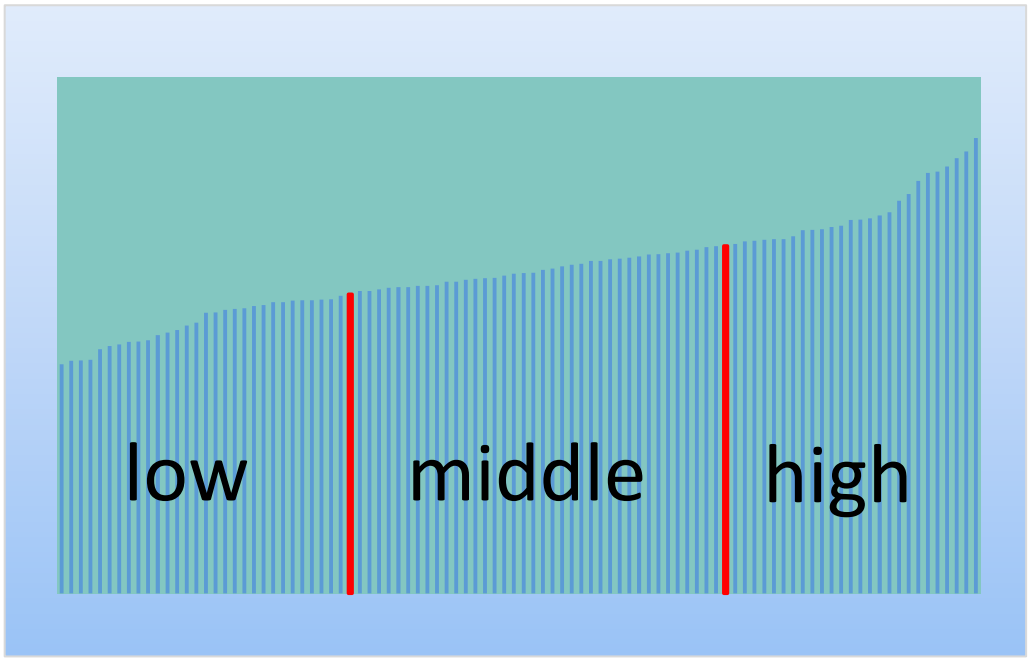


low burden

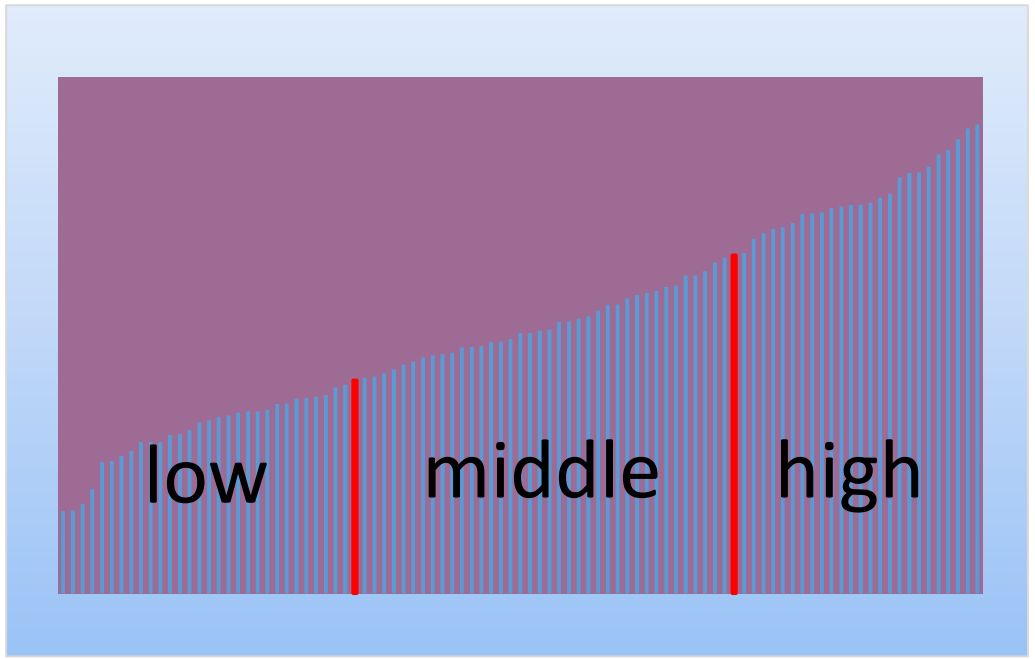
low deprivation

… by using a relational view between the two indicators

Estimating the terciles in DALY

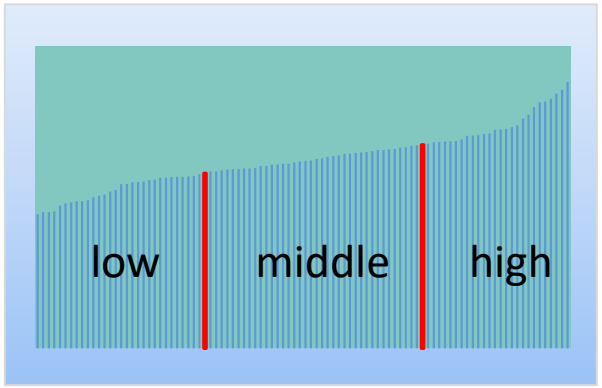


Estimating the terciles in GISD

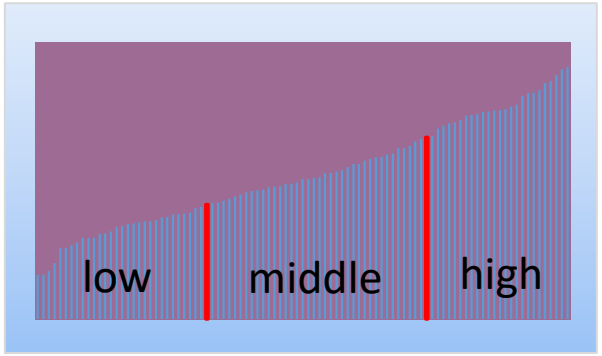


… by using a relational view between the two indicators

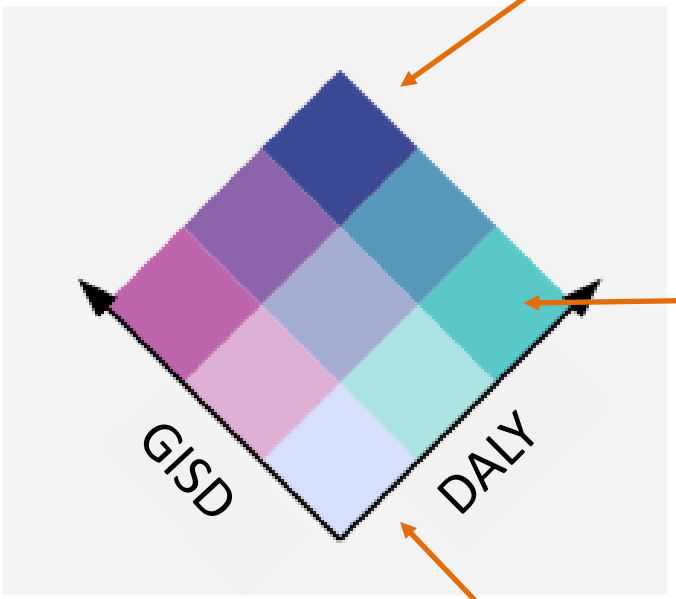
Terciles DALY



Terciles GISD



3x3 matrix

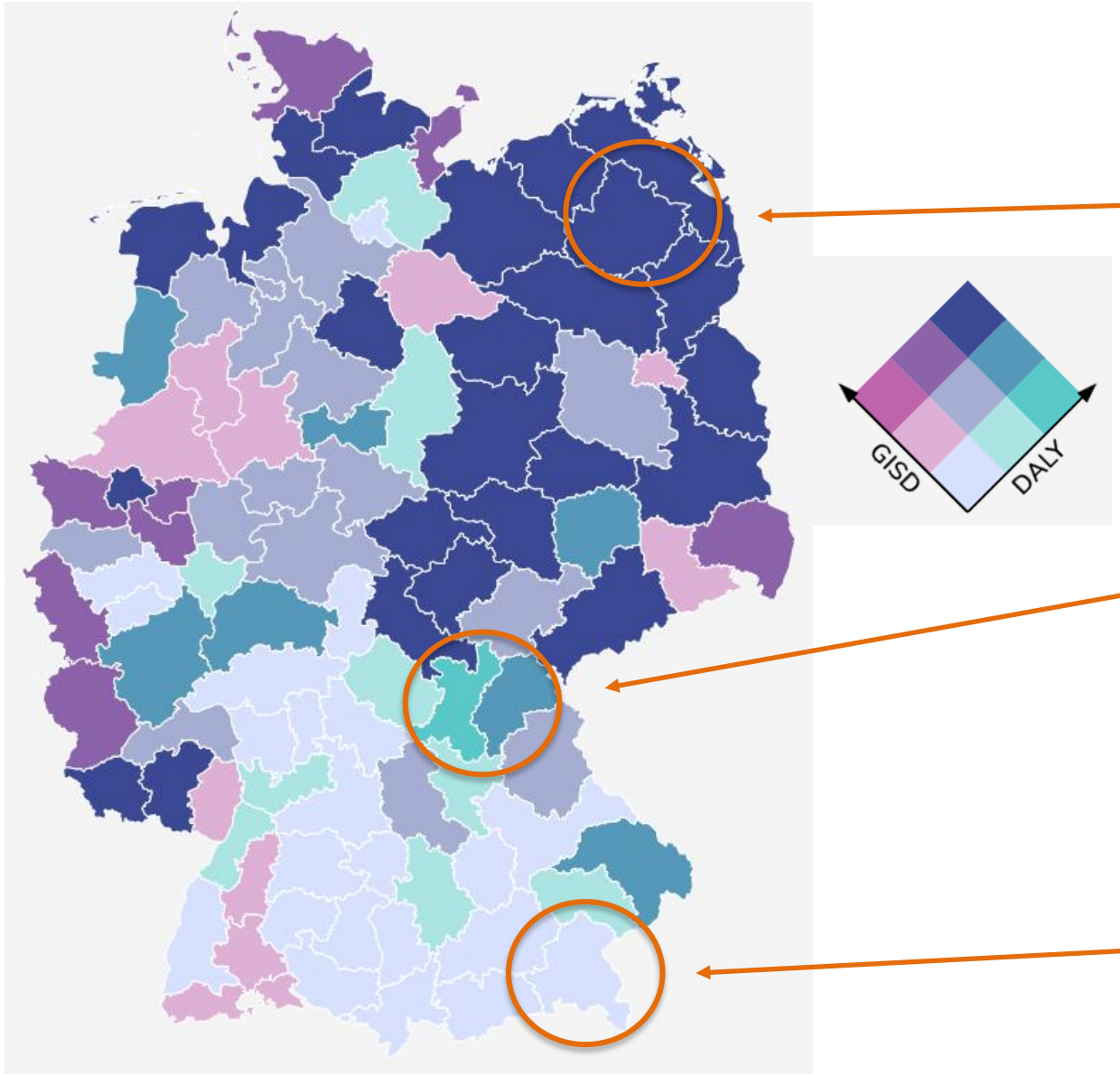


high burden, high deprivation

high burden, low deprivation

low burden, low deprivation

Mapping of BoD and GISD results in a bivariate map

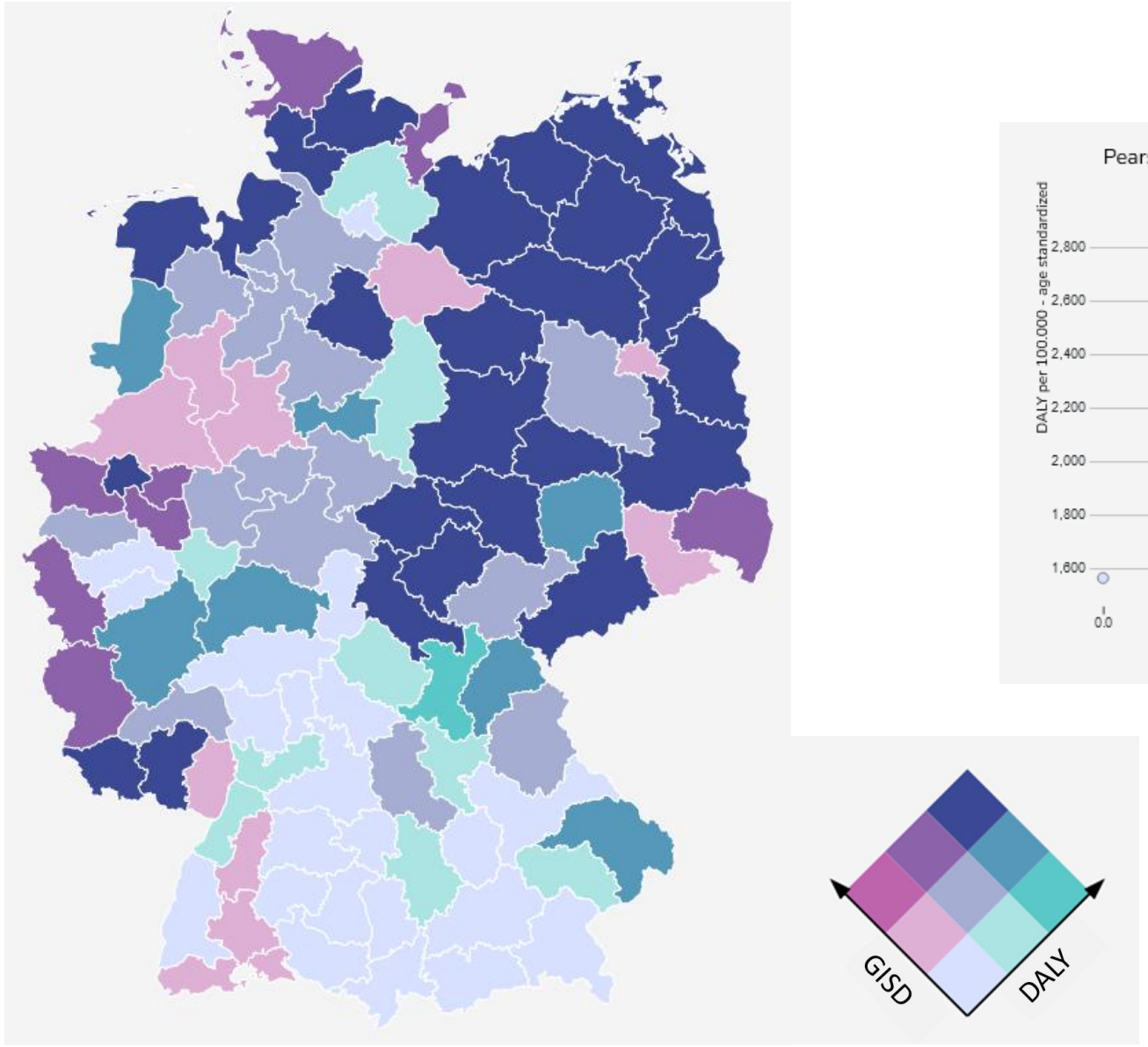


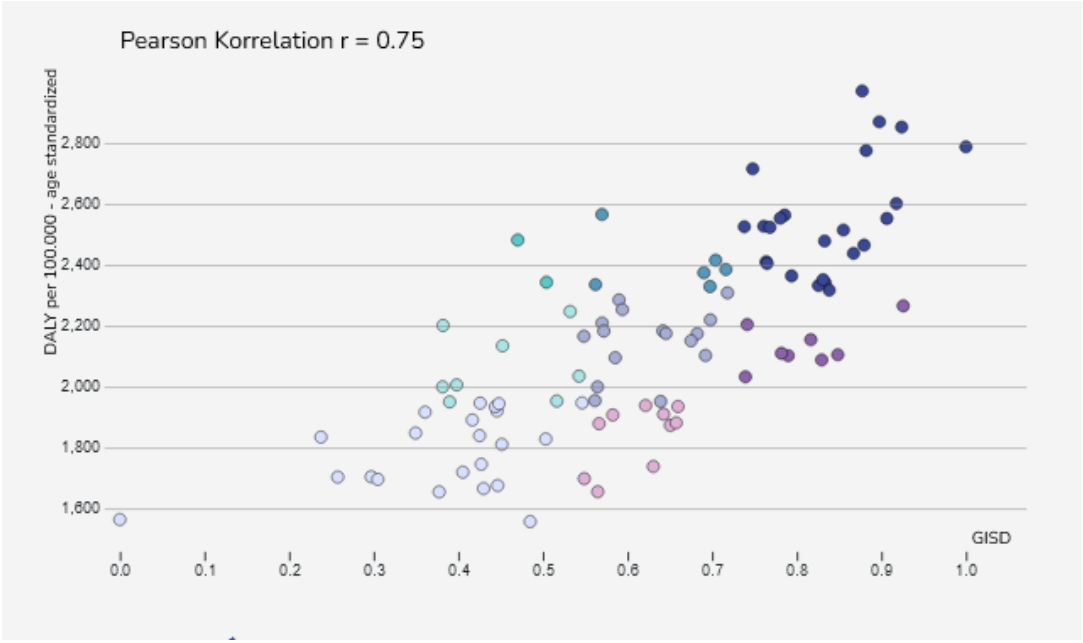
**high burden,
high deprivation**

**high burden,
low deprivation**

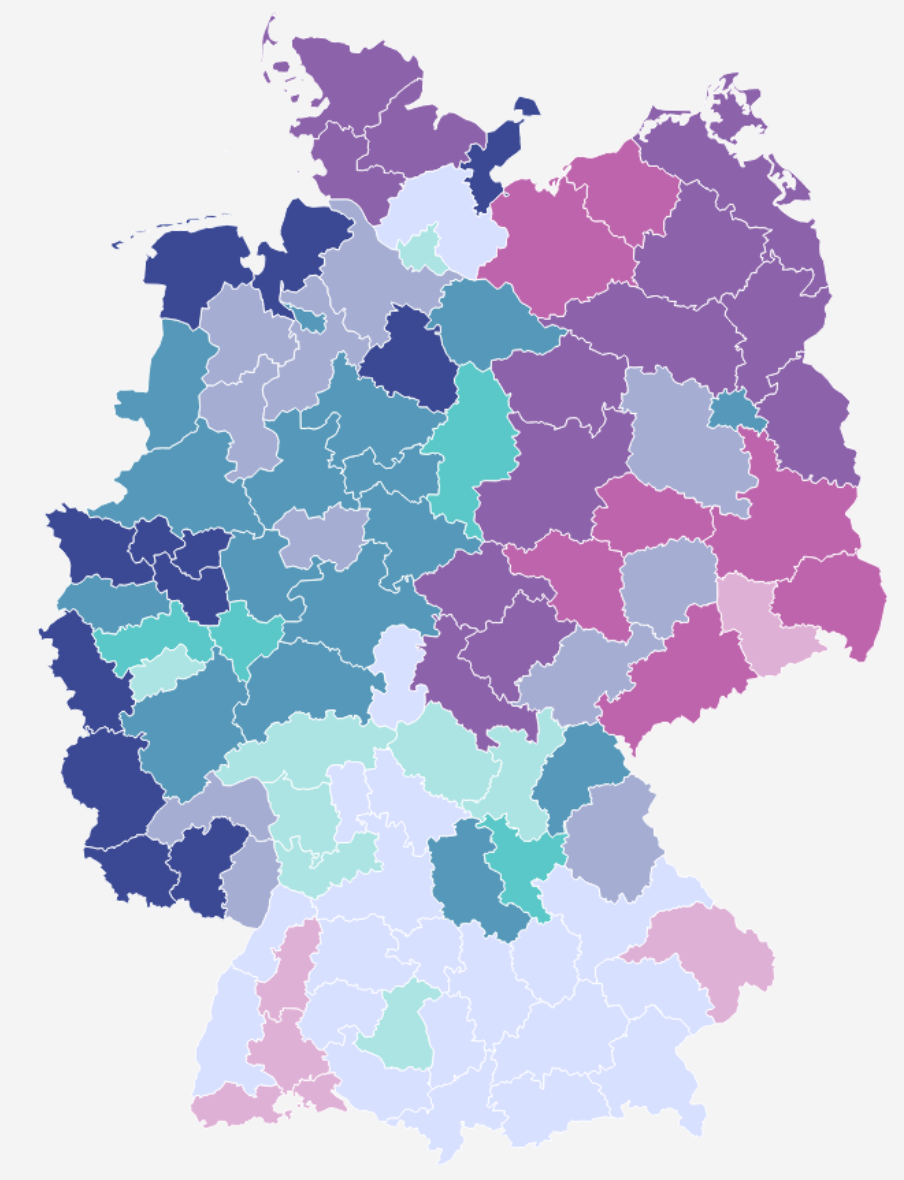
**low burden,
low deprivation**

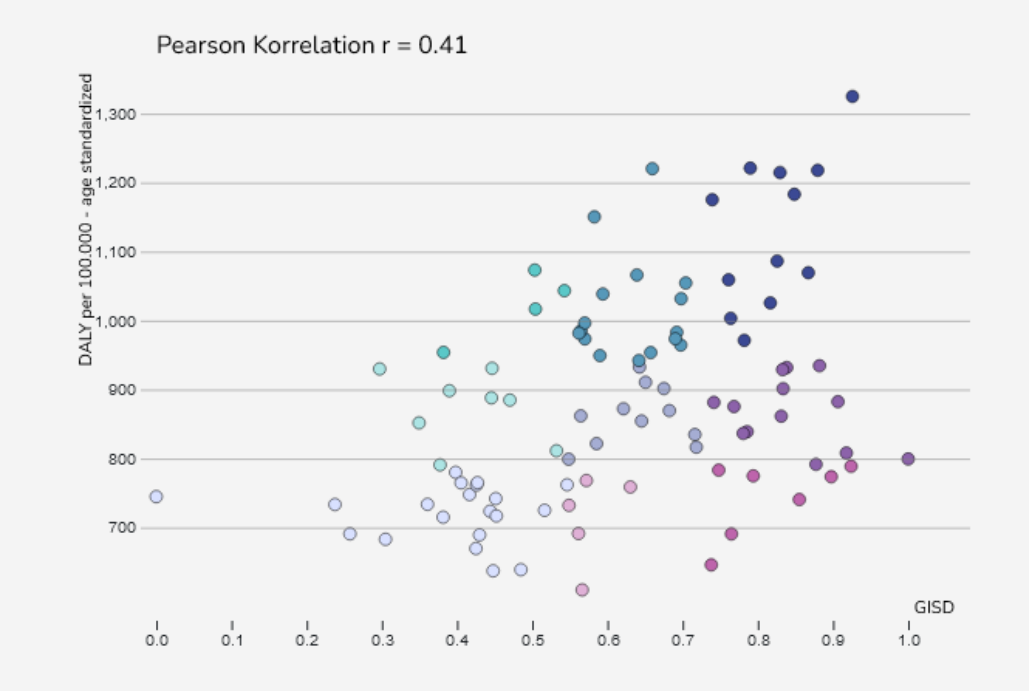
Ischemic heart disease

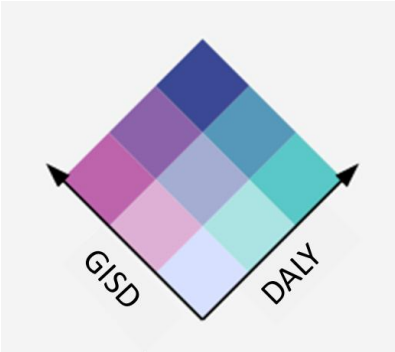




Chronic obstructive pulmonary disease

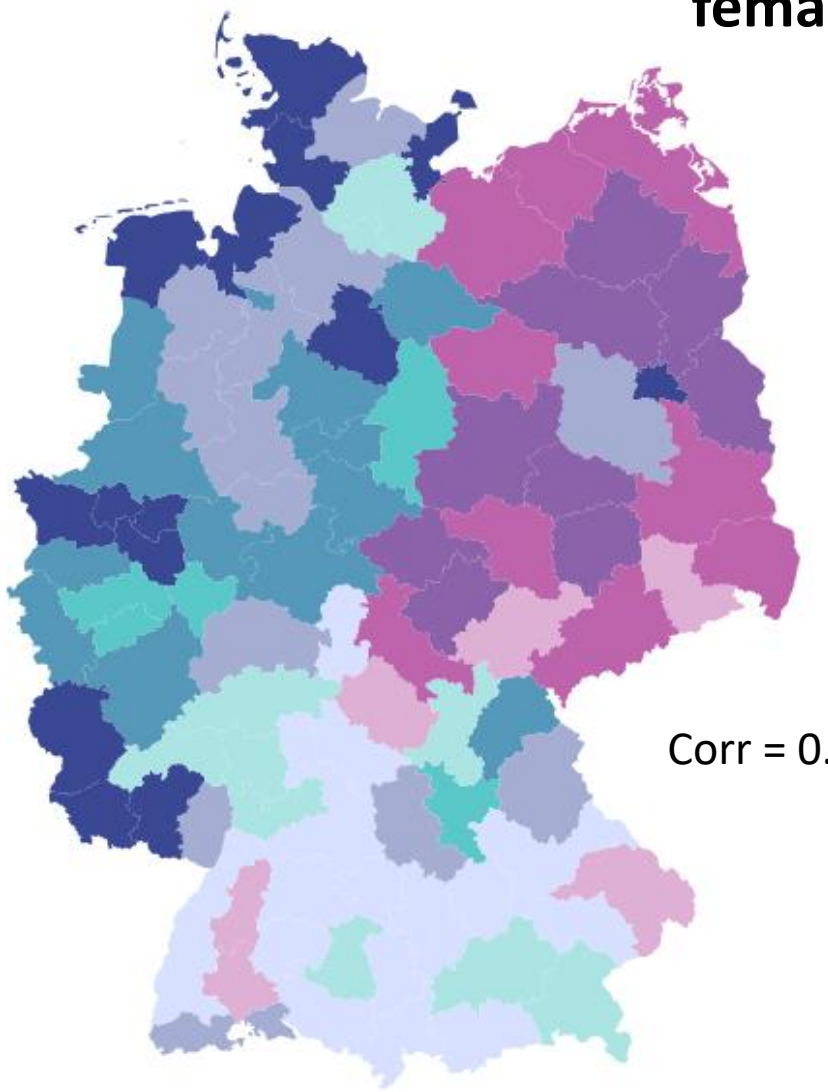




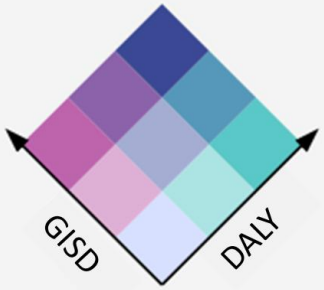


Chronic obstructive pulmonary disease by sex

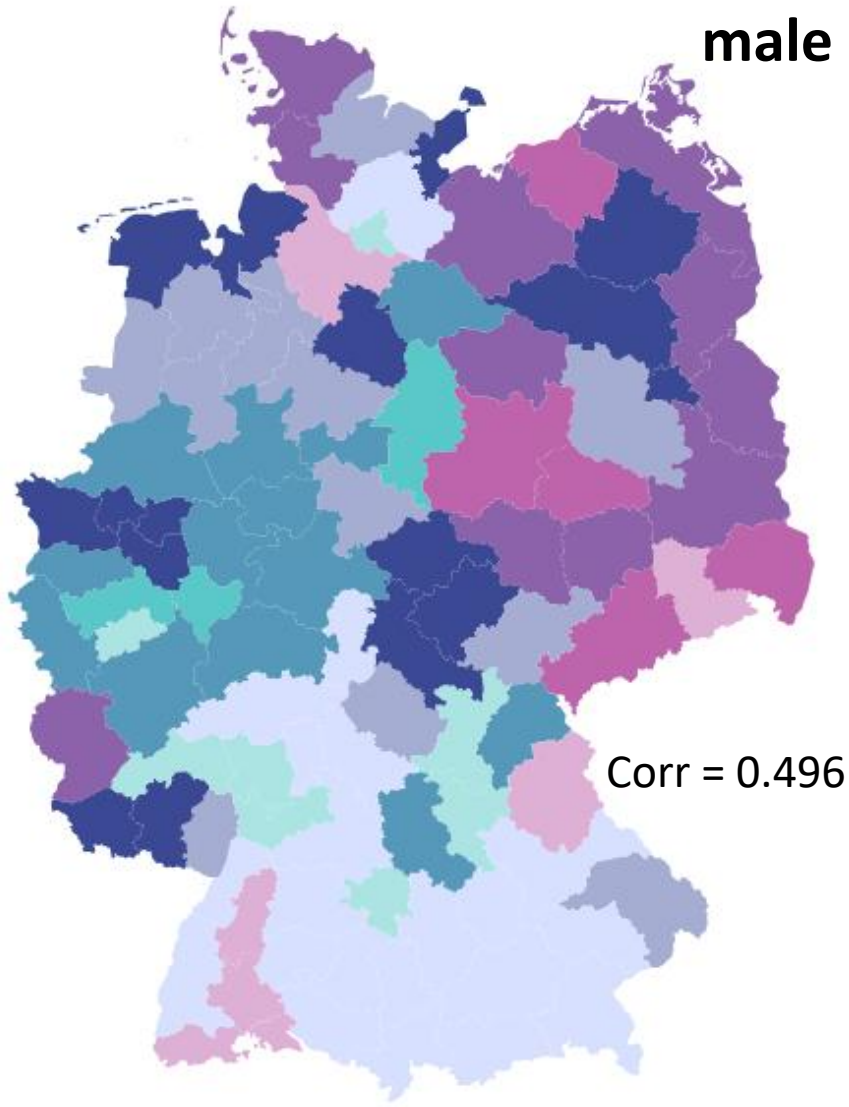
female



Corr = 0.249



male



Corr = 0.496

Thank you for your attention



daly.rki.de