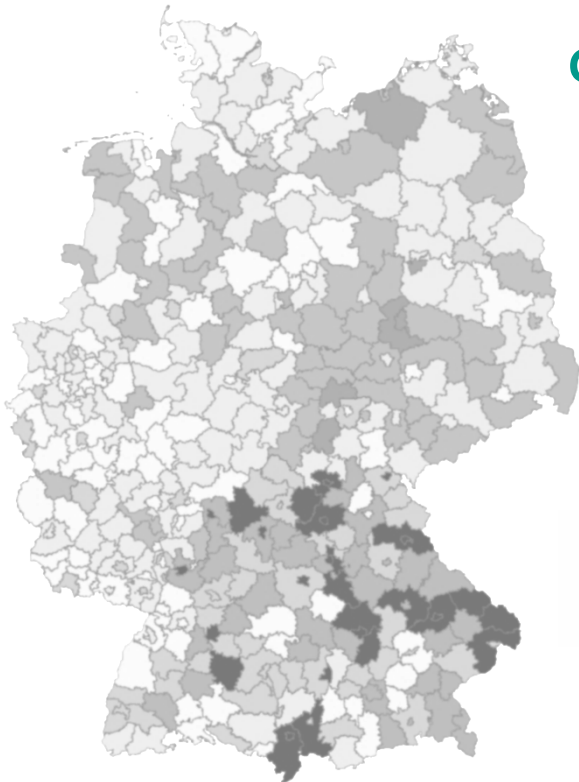# Small-area variation in prevalence and treatment of patients diagnosed with depression in Germany

An analysis of claims data from German statutory health insurance

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In Cooperation with:

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HEALTH ANALYTICS

– **Depressive disorders become increasingly important** in industrial countries
(12-months-prevalence rate: **7.7% in Germany**[1])

– **Data on prevalence** and its **regional variation** provide knowledge on **spacial
inequality in health care** and serves as a basis for **decisions on health service
provision**

– Although **treatment guidelines for depressive disorders**
provide **evidence-based treatment recommendations**[2],
we neither know

  ➢ **how many patients** with depression
    are **receiving appropriate treatment** in clinical practice

  ➢ nor if the rates of patients with **appropriate treatment
    differ between regions**

[1]Jacobi et al. (2014); [2]DGPPN et al. (2009) S3-Guideline/National Disease Management
Guideline Unipolar Depression. DGPPN, ÄZQ, AWMF - Berlin, Düsseldorf.
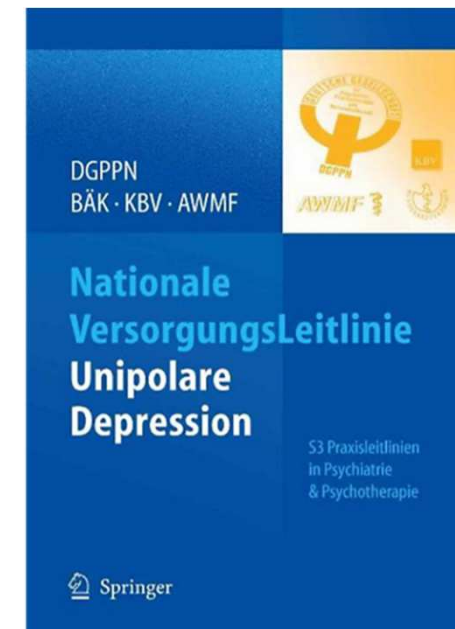
Objectives

(1) The **prevalence of different diagnoses of depression** in Germany

(2) **Regional differences** in the prevalence of diagnosed depression

(3) The **rates of appropriate treatment** (according to guideline recommendations)

(4) **Regional differences** regarding treatment rates

Methods

- **Data basis:** The data set consists **of 6.1 million insured adult-aged persons** in Germany (9% of the adult German population)

- Calculation of **12-months-prevalence rate:** All recorded **inpatient and outpatient sources** within the **four quarters of 2011**

- For **treatment adherence**, the span from **2010 to 2012** was analyzed

- **Regional analyses** are based on the **402 administrative districts in Germany** (age- and gender-standardized)

- In order to deal with small sample sizes, **small-area estimates** were conducted

Operationalization **diagnosis of depression**:

- **ICD-10: F32.x, F33.x, F34.1;** separate analyzes for **specified** and **unspecified diagnoses** (F32.8 /F32.9 / F33.8 / F33.9)
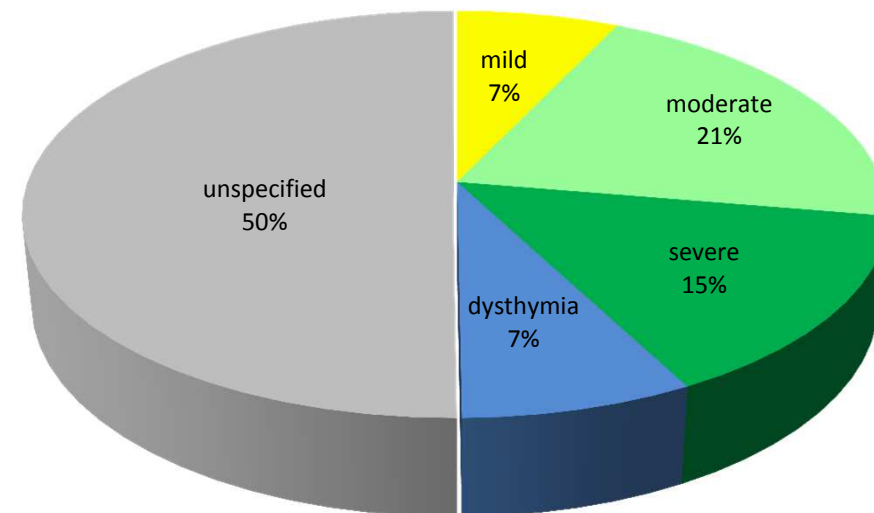
Operationalization of an „**appropriate**" treatment:

- An **appropriate treatment** was defined according to the **S3/National Clinical Practice Guideline**, considering both **type and dosage of treatment**

- e.g., **severe depressive disorders**: Combination of outpatient psychotherapy (at least over 2 quarters) and antidepressant prescription (at least 273 defined daily doses)

**12-months-prevalence of different depression diagnoses?**

– Of all insurants, **13.4%** held a **diagnosis of depression**

– **Distribution of the severity levels of depression:**

➤ **Half of the sample** held the diagnosis of an **"unspecified"** or **"other"** depressive disorder (F32.8/.9, F33.8/.9)

➤ **59% of all depression** diagnoses and more than **75% of the unspecified diagnoses** were made by **primary care physicians**

Faktencheck
Gesundheit
Depression

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Results – 2. research question

Prevalence of diagnosed depression and its regional differences

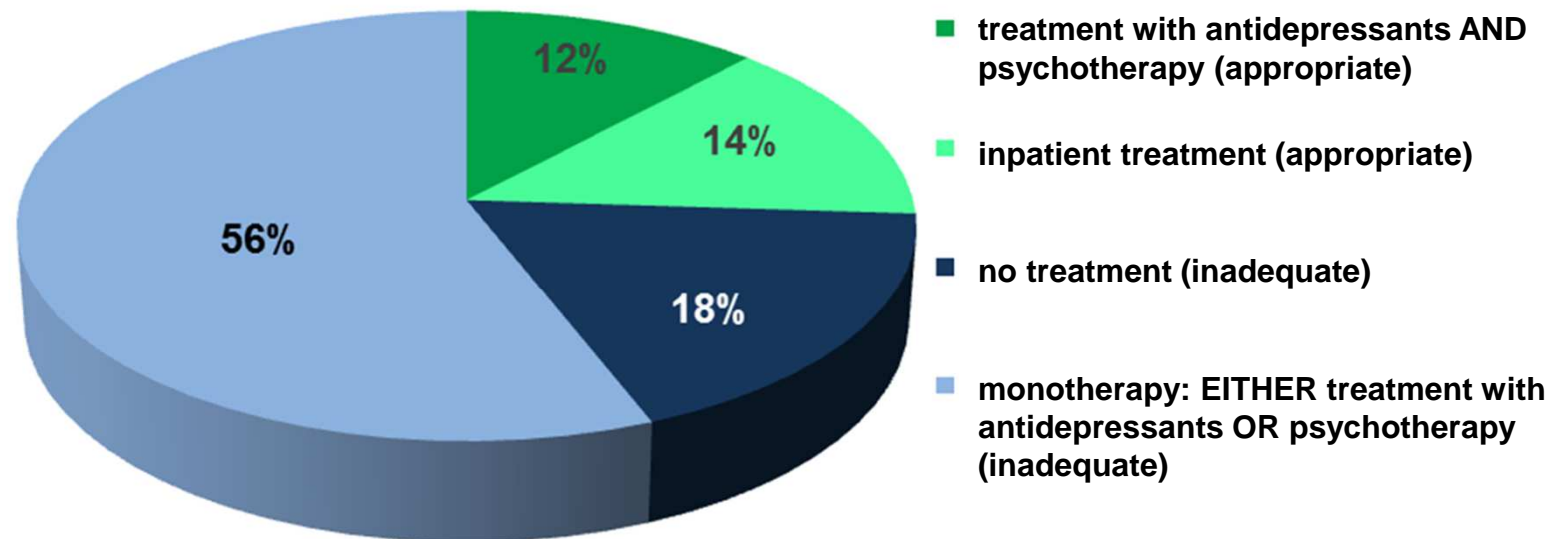|	
	≥ 6 % - < 8 %
	≥ 8 % - < 10 %
	≥ 10 % - < 12 %
	≥ 12 % - < 14 %
	≥ 14 % - < 16 %
	≥ 16 % - < 18 %
	≥ 18 %
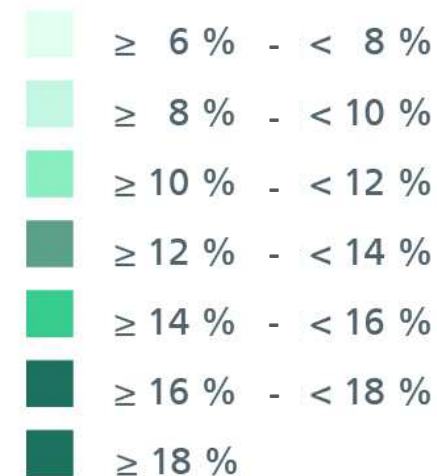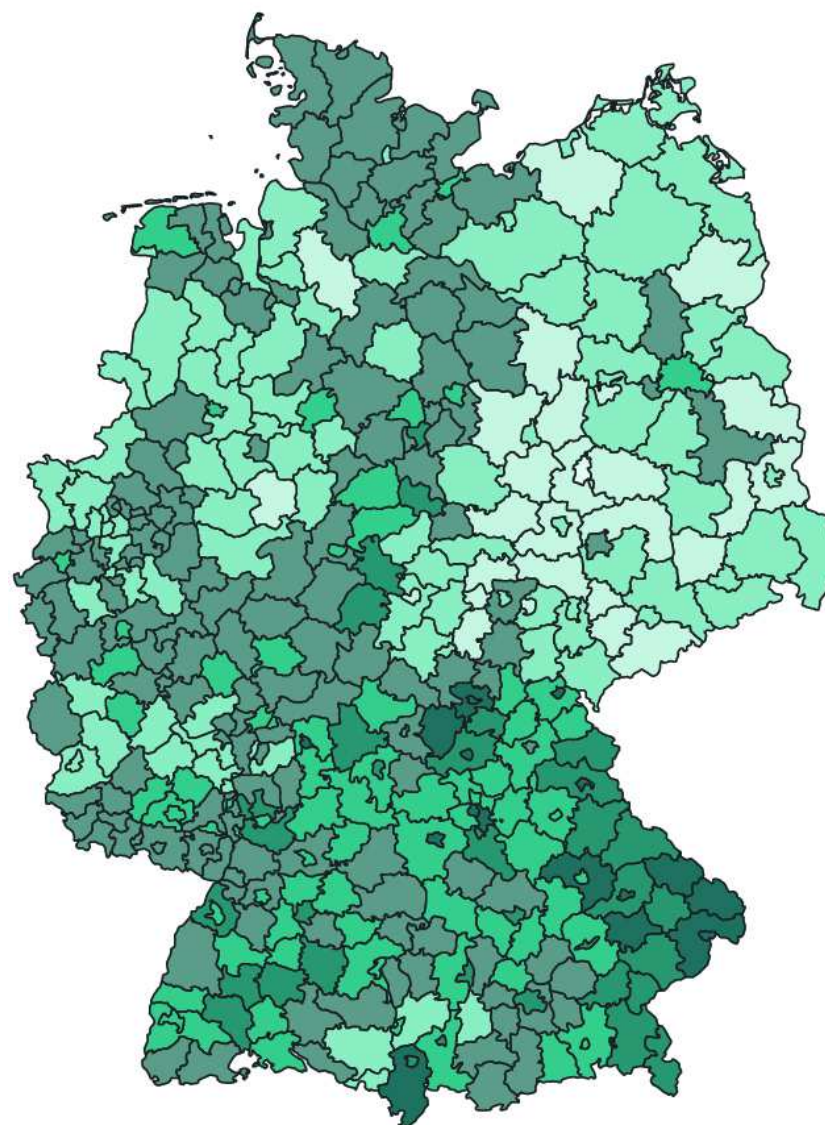
Correlation between the **prevalence rates** and the **density of outpatient medical care providers**: only weak positive relationship

Range: 7% - 21%

How many insurants receive what kind of / appropriate treatment?
Here shown: Insurants with a diagnosis of severe depression (ICD-10: F32.2 / F32.3 / F33.2 / F33.3)

- treatment with antidepressants AND psychotherapy (appropriate)
- inpatient treatment (appropriate)
- no treatment (inadequate)
- monotherapy: EITHER treatment with antidepressants OR psychotherapy (inadequate)

- Of those with a severe depression diagnosis, only 26% received appropriate treatment and 18% received no treatment
- Regarding all depression diagnosis: only half of the insurants obtaining health care received appropriate treatment

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Rate of received "appropriate treatment" and its regional differences

Here shown: Insurants with a diagnosis of severe depression (ICD-10: F32.2 / F32.3 / F33.2 / F33.3)

Legend:
- ≥ 10 % - < 15 %
- ≥ 15 % - < 20 %
- ≥ 20 % - < 25 %
- ≥ 25 % - < 30 %
- ≥ 30 % - < 35 %
- ≥ 35 %
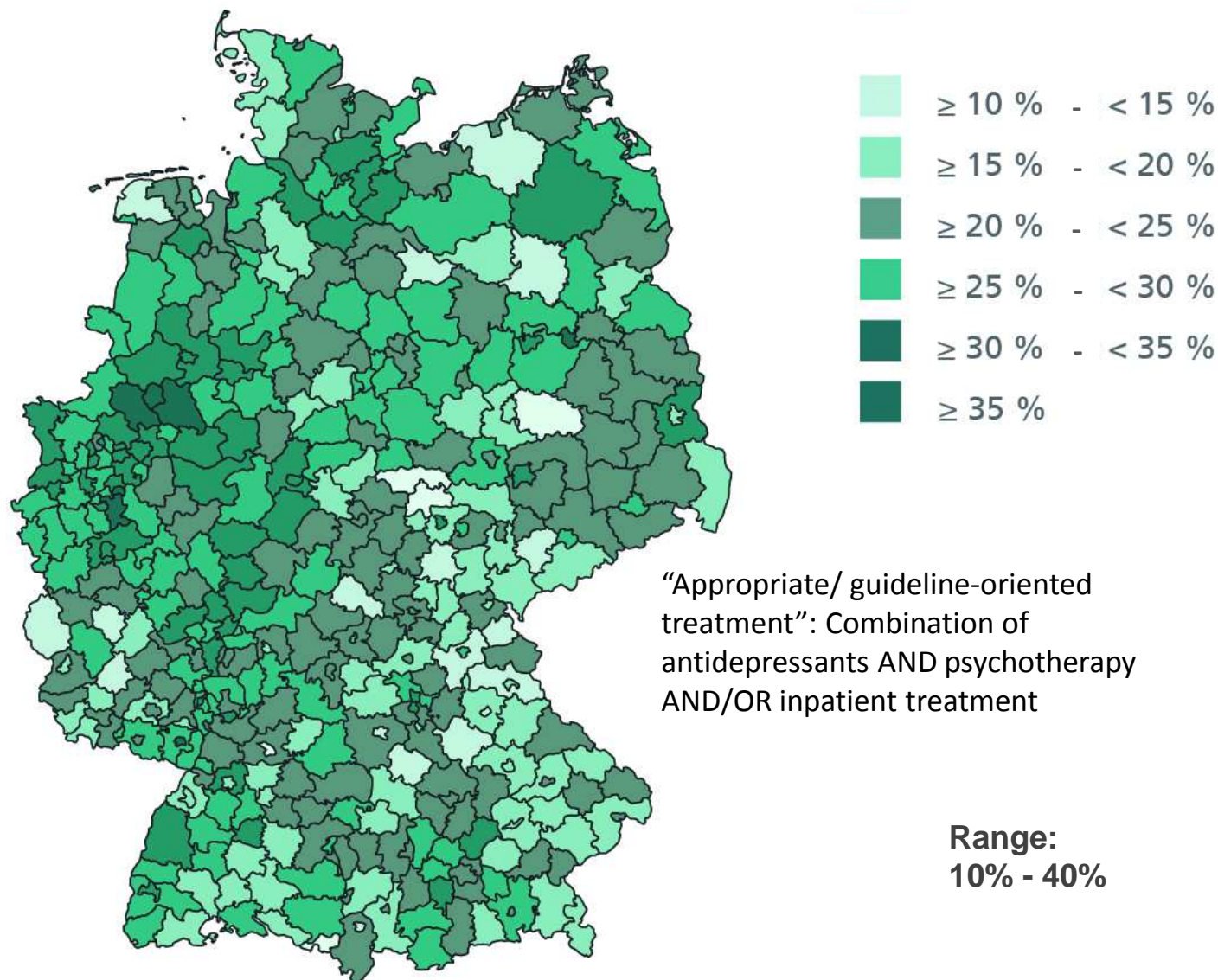
Correlation between **treatment rates** and the **density of outpatient specified medical care providers (psychiatrist etc.)**: moderate positive relationship

"Appropriate/ guideline-oriented treatment": Combination of antidepressants AND psychotherapy AND/OR inpatient treatment

Range: 10% - 40%

– High proportion of unspecified depression diagnoses and high regional variation of the prevalence rates -> indicating **low quality in diagnostic practice**

– Low rates of appropriate treatments and regional differences indicate **a lack of adherence to the guidelines in the clinical practice**

> Small-area analyses of claims data reveal **geographical inequalities**, which should be addressed in **public health policies and service provision**

> **Training for physicians**, **integrated care models**, but also more **research on the causes of regional variation** may contribute to more **valid detection rates** and thus, **adequate treatment for depression**

Thank you for your attention!

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Melchior, H., Schulz, H. & Härter, M. (2014). *Faktencheck Gesundheit: Regionale Unterschiede in der Diagnostik und Behandlung von Depressionen* (unter Mitarbeit von Jochen Walker & Matthias Ganninger). Bertelsmann Stiftung: Gütersloh. www.faktencheck-depression.de