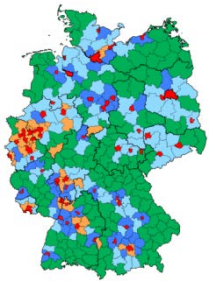
Kassenärztliche Bundesvereinigung
Körperschaft des öffentlichen Rechts

Capacity planning and workforce forecasting for ambulatory care physicians in Germany

Meeting of the EU Joint Action of
European Health Workforce Planning & Forecasting

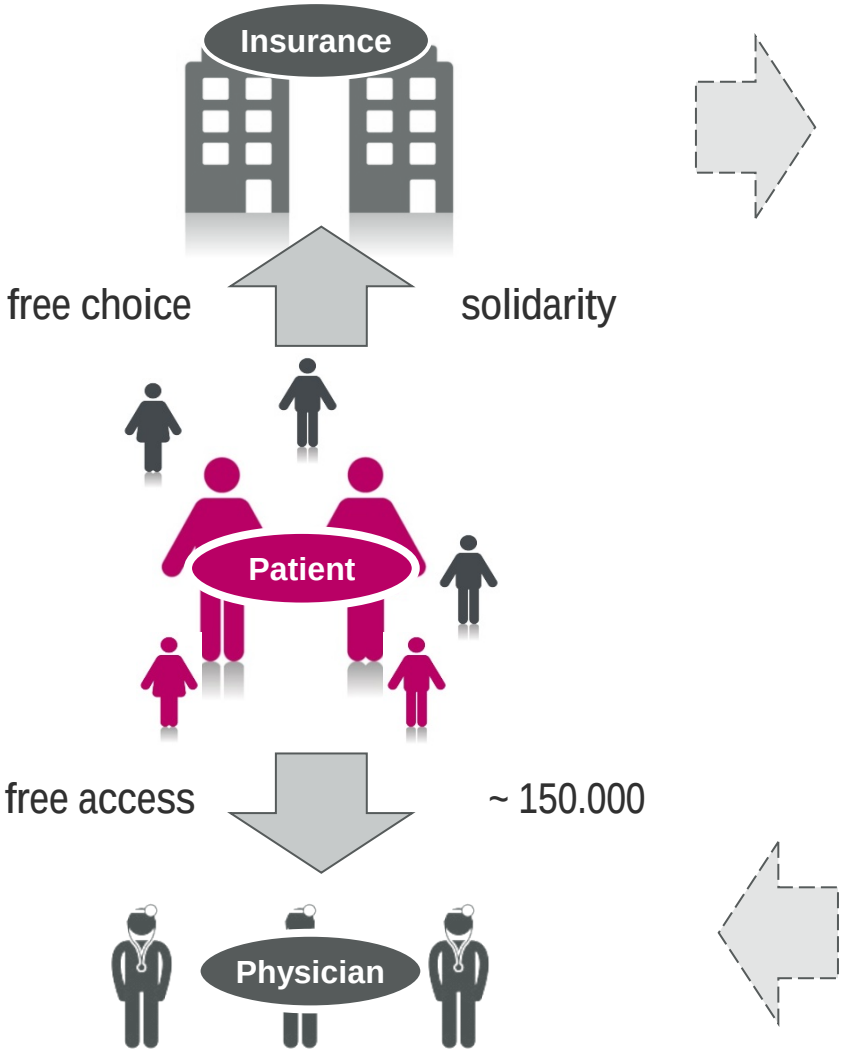
29. January 2014



Agenda

1. Introduction
2. Capacity Planning (status quo)
3. Workforce Forecasting (outlook)

Germany with an unique approach to ensure health care provision: self-administration of insured, physicians & hospitals



~ 150 sickness funds

contract

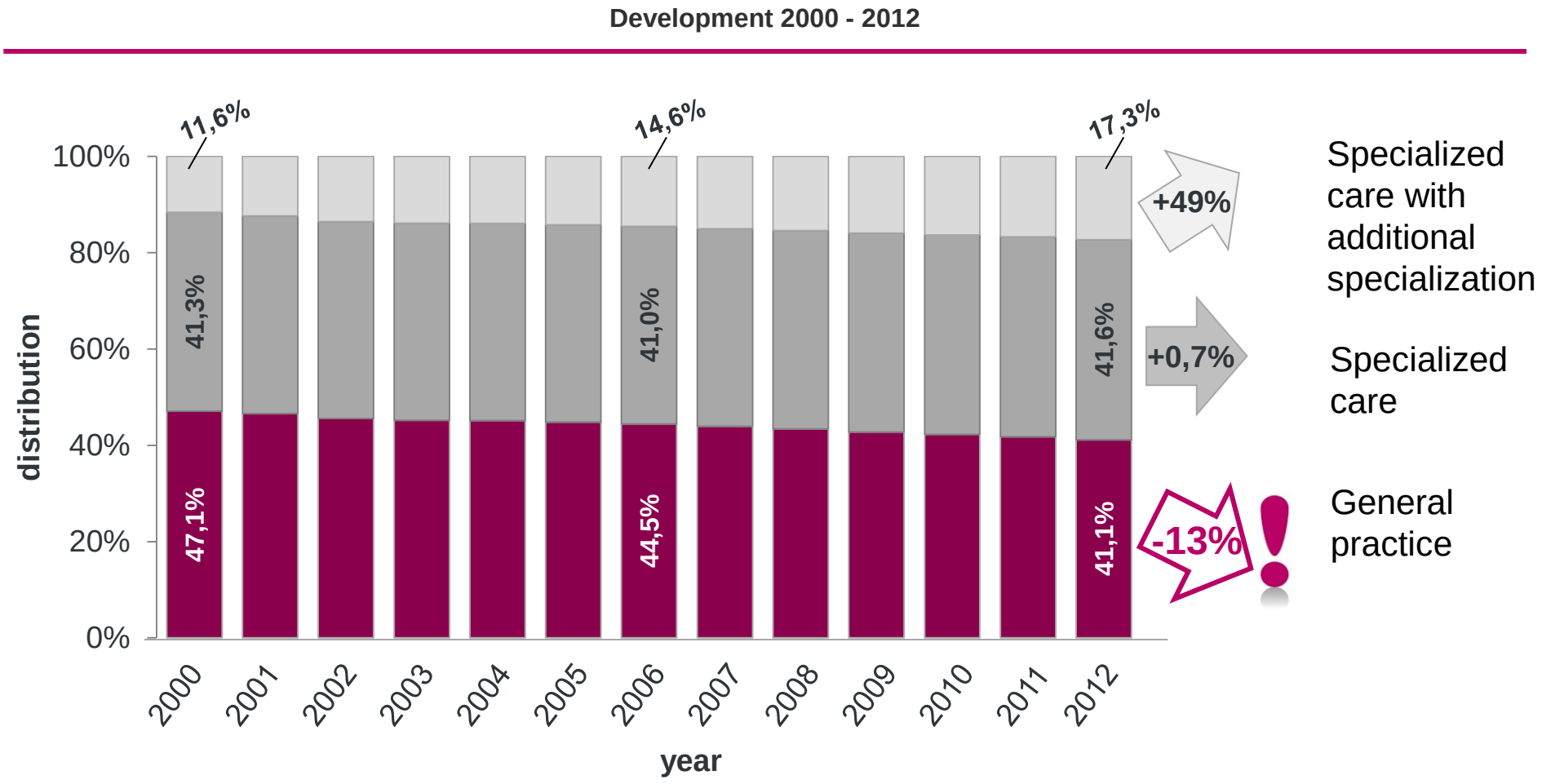
Association of Statutory Health Insurance Physicians (ASHIP)

- 17 associations in Germany
- Administered by out-patient physicians

- All medical specialties represented
- Provision of ambulatory health care and on-call service in all regions of Germany (legal mandate)
- Quality assurance, billing and remuneration
- National umbrella organization *Kassenärztliche Bundesvereinigung (KBV – ASHIP)*

General medicine less and less popular among young doctors

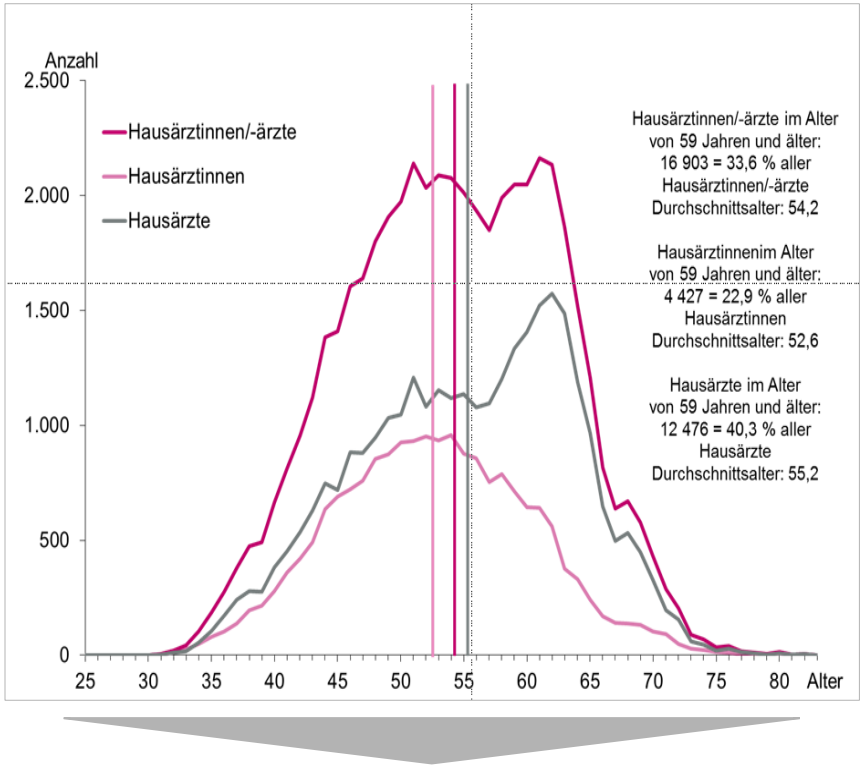
Changing mix of physicians over the past decade



Source: Federal registry of physicians, KBV

10 years into the future: Probable shortage of general practitioners and some other specialties

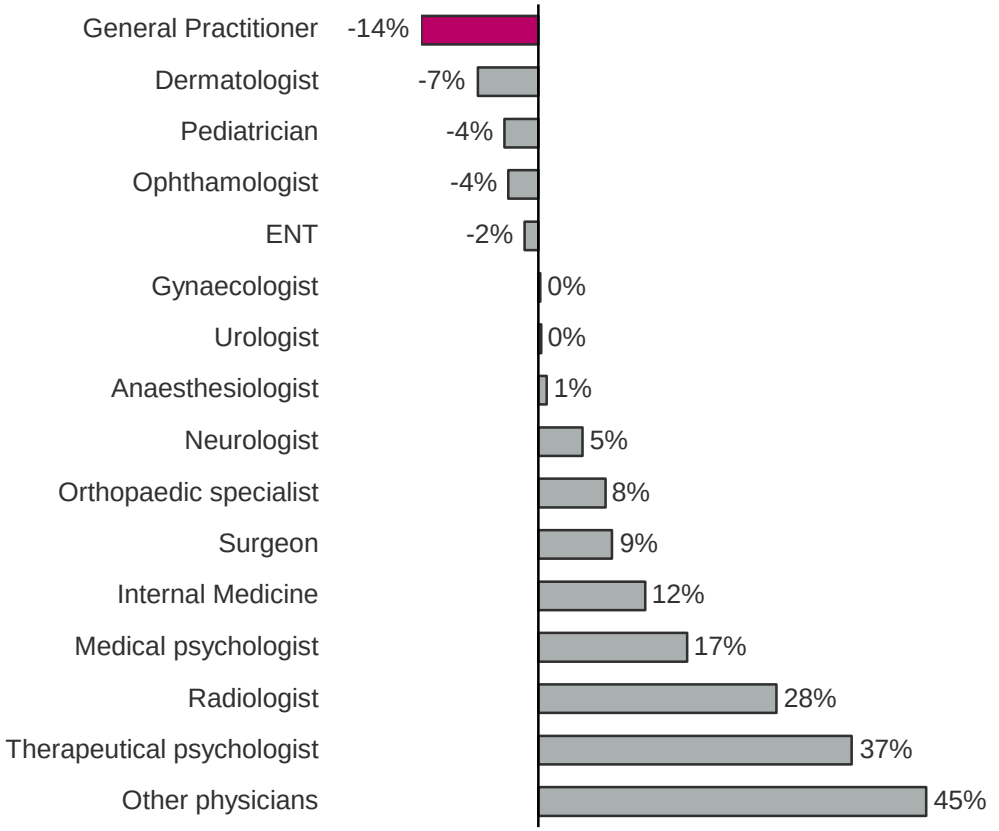
Age and gender distribution general practitioners[1]



- 42%

Retirement of GPs in next 10 years

KBV forecast 2012 - 2021



1. Number of KBV physicians including partner physicians

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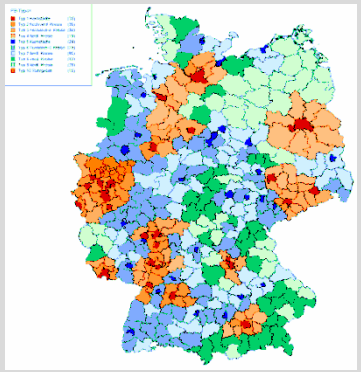
KBV is the main capacity planner for ambulatory health care in Germany

*"The Inverse Care Law is the principle that the availability of good **medical** or **social care** tends to vary **inversely** with the **need** of the population served"*



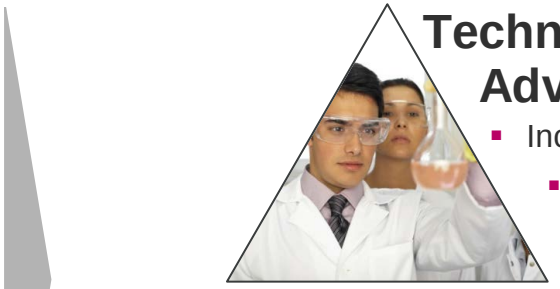
Current system of capacity planning

- Introduction in 1993
- 14 groups of doctors
- All planning based on districts
- 10 different types of districts

Some Results

- Generally good access to health care
- Unlimited growth of doctors stopped

Current changes and challenges demand for a reform



Technological Advances

- Increasing specialization
- Expansion of the ambulatory sector

Current Challenges

„New“ doctors

- Modern concepts of live
- Work life balance

Demographic Change

- Multimorbidities
- Expanding cities

Capacity planning is done separately for ambulatory care and the hospital sector in Germany

Out-patient (ambulatory)

- Based on a specific ratio “physician per resident” per region stratified by the mean age of population
- Almost all specialties included
- Size of „Planning regions“ differ in the degree of specialization

In-patient (hospital-setting)

- Based on a specific ratio “beds per resident” for each federal “Land” within Germany
- The distribution within a federal “Land” is negotiated politically among municipalities

Future workforce needs (physicians) has practically not been forecasted for ambulatory care so far

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Comparison of defined catchment population and actual ratio triggers the inflow of further physicians

Mechanism

1. **Definition of a planning region**
   → e.g. municipalities or districts
2. **Definition of the catchment population per specialty**
   → e.g. 6.916 residents per gynecologist
3. **Analysis of the actual ratio doctor-population** in each planning region
   → e.g. 122.356 residents and 23 gynecologists = 5.320 residents per gynecologist
4. **Comparison of defined catchment population and actual ratio** in percentage
   → e.g. 5.320 residents/gyn. compared to 6.916 residents/gyn. = 130 %
5.

0 % - 50/75 %	50/75 % - 100 %	> 100 %
undersupply ↓ **Licenses to practice are promoted**	**„regular“ supply** ↓ **regular number of licenses to practice**	**oversupply** ↓ **no licenses to practice** **(region “locked”)**

A federal guideline defines four levels of care provision per geographical area

General practice	Basic specialist care	Specialized specialist care	Further specialist care
„Mittelbereich“ (municipalities) *[small]*	**Districts** [*medium*]	**Planning regions*** [*bigger*]	**Federal “Land”** [*big*]
883	**372**	**97**	**17**

** Planning regions are defined by the Federal Agency for Construction and Regional Planning*

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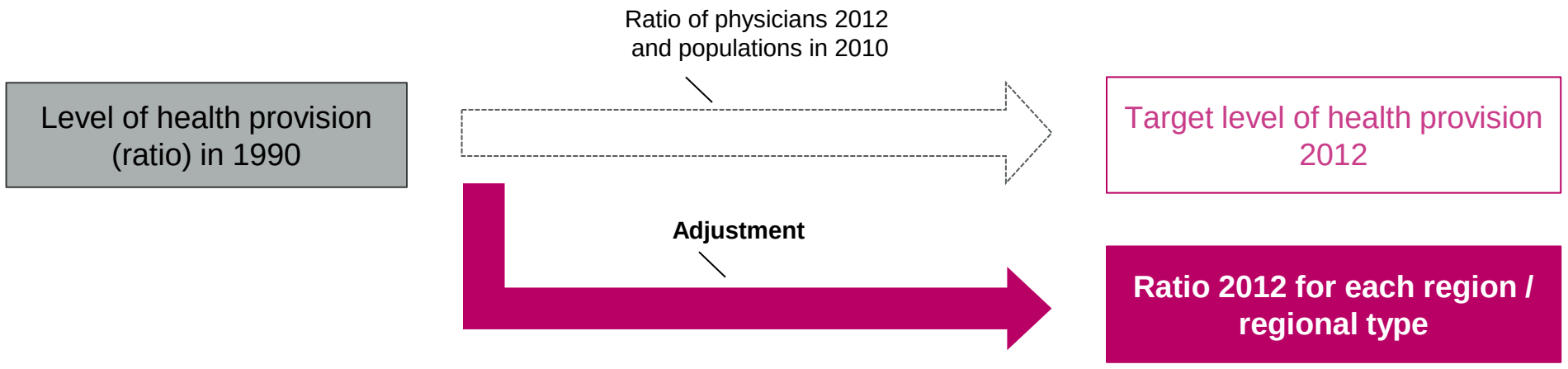
Ratio physician/ resident defines level of ambulatory health care for each specialty

- Ratio of physician/resident fixed artificially in 1990
- In 2012, new ratios were developed on the basis of actual data on the ratio physician/resident
- Some ratios are adjusted for political reasons; e.g. for psychotherapy due to historic imbalances

Exemplary ratios:

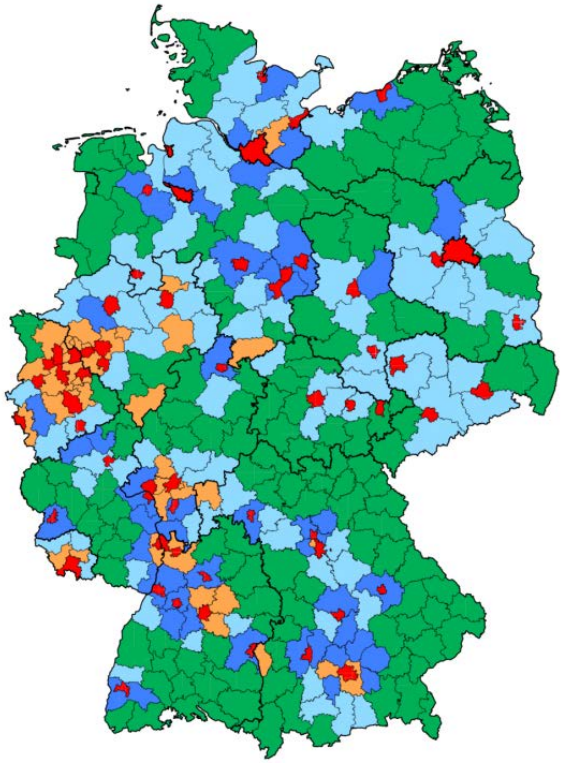
- *GP: 1,671*
- *Internal M 21,508*
- *Obst/gyn: 6,042*
- *Pediatrics 3,859*
- *Radiology 49,095*



Age-distribution and proximity to cities vary among regions

Technical adjustment of the physician/resident-ratio (examples)

Proximity to urban centers



Typ 1 urban area (61**)**

Typ 3&4 „co-supplied“ region (130)

Typ 5 „self-sufficient“ (140)

Age distribution

„Demographic factor“

Proportionate **high** level of patients > 65 years → higher need

Proportionate **low** level of patients < 65 years → lower need

Ratio adoption: +/- ~5%

Adjustment of Capacity Planning…
…meeting the (special) needs of regions

Federal level

General rules and mechanisms
(e.g. doctor groups, planning regions etc.)

Guideline for Capacity Planning by the Federal Joint Committee

State level

General adaptations of the federal rules to meet special needs of the state *(e.g. border of planning regions, morbidity, socioeconomic factors etc.)*

Capacity Plan of the KBV (ASHIP)

Local level

Special admissions on the local level in regions that are closed
(e.g. special treatments etc.)

Special admission

No fixed ratios - regional adaptation ensures that regional characteristics of health care can be taken into account

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KBV started new project on ambulatory health workforce planning in 2013

Previous internal KBV forecasting

- Use of a simple forecasting model in the past
- Preferred „method“: extrapolation of previous years

Forecast = status quo + inflow - outflow

- Limited flexibility and accurateness
- However: so far sufficient for planning needs

Model does not take into account new health needs due to demographic changes

New forecast planning

QuBe-Research Consortia:

Institut für Arbeitsmarkt- und Berufsforschung
Die Forschungseinrichtung der Bundesagentur für Arbeit
IAB

Bundesinstitut für Berufsbildung
BIBB
Forschen
Beraten
Zukunft gestalten

gws

Fraunhofer FIT

- Project initiated in 2013
- Assignment of external modelling experts
- Consortia under the guidance of the research institute of the German Federal Employment Agency (IAB)

3-step approach over a period of three years

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Promising starting point in Germany: large databases available on physicians

Statistics of the Federal Chamber of Physicians

Registry of German Medical Chamber

- All physicians (out-patient /in-patient/ administration/ others)
- By region
- By date of birth
- By gender
- By specialty & sub-specialty
- By nationality
- By inflow & outflow of physicians
- ...

> 100 data attributes

Federal Registry of Physicians (KBV)

Registry of outpatient-physicians

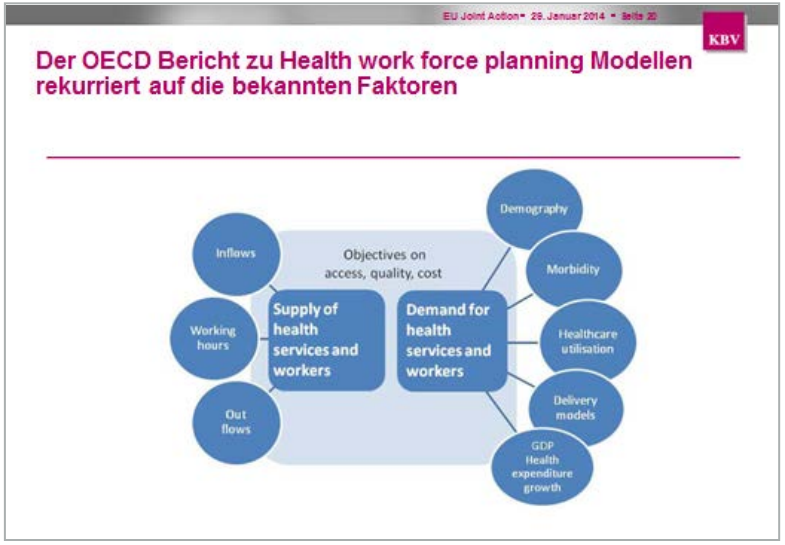
- Ambulatory care only
- By physician identification number
- By date of birth
- By gender
- By specialty
- By additional professional training
- By start & end of employment
- By type of employment
- …

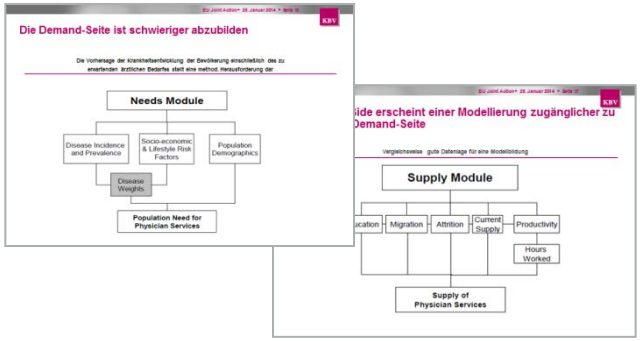
~ 60 data attributes

Data available since ~1929

First steps in workforce planning on the basis of known international best practice

Workforce planning approaches





Modification and enhancement of KBV-model

Supply

- adjustment for FTEs / working lifetime
  - Age of retirement
  - Part-time employment / gender shift
  - Salaried versus self-employment
  - single practice vs. group practice
- Outflow / inflow EU-countries
- Supply from medical universities
- *New*: regional forecast

Demand

- …

Basic hypothesis: current equilibrium of demand and supply

Dr. med. Branko Trebar, MPH
Abteilungsleitung

KBV

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Thank you for your attention!

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