

# Modellierung im Gesundheitssystem

E-health summit  
18.6.2015

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COI

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# CONFLICT OF INTEREST

I WORK IN THE AUSTRIAN SOCIAL INSURANCE.  
SO MY POINT OF VIEW IS THE RESPONSIBILITY  
OF A  
SUSTAINABLE  
APPROPRIATE  
SAFE  
EFFICIENT/EFFECTIV  
ACCESSIBLE AND  
ACCEPTABLE  
HEALTH CARE SYSTEM FOR ALL  
CITICENS/INSURED PEOPLE.



# CONFLICT OF INTEREST

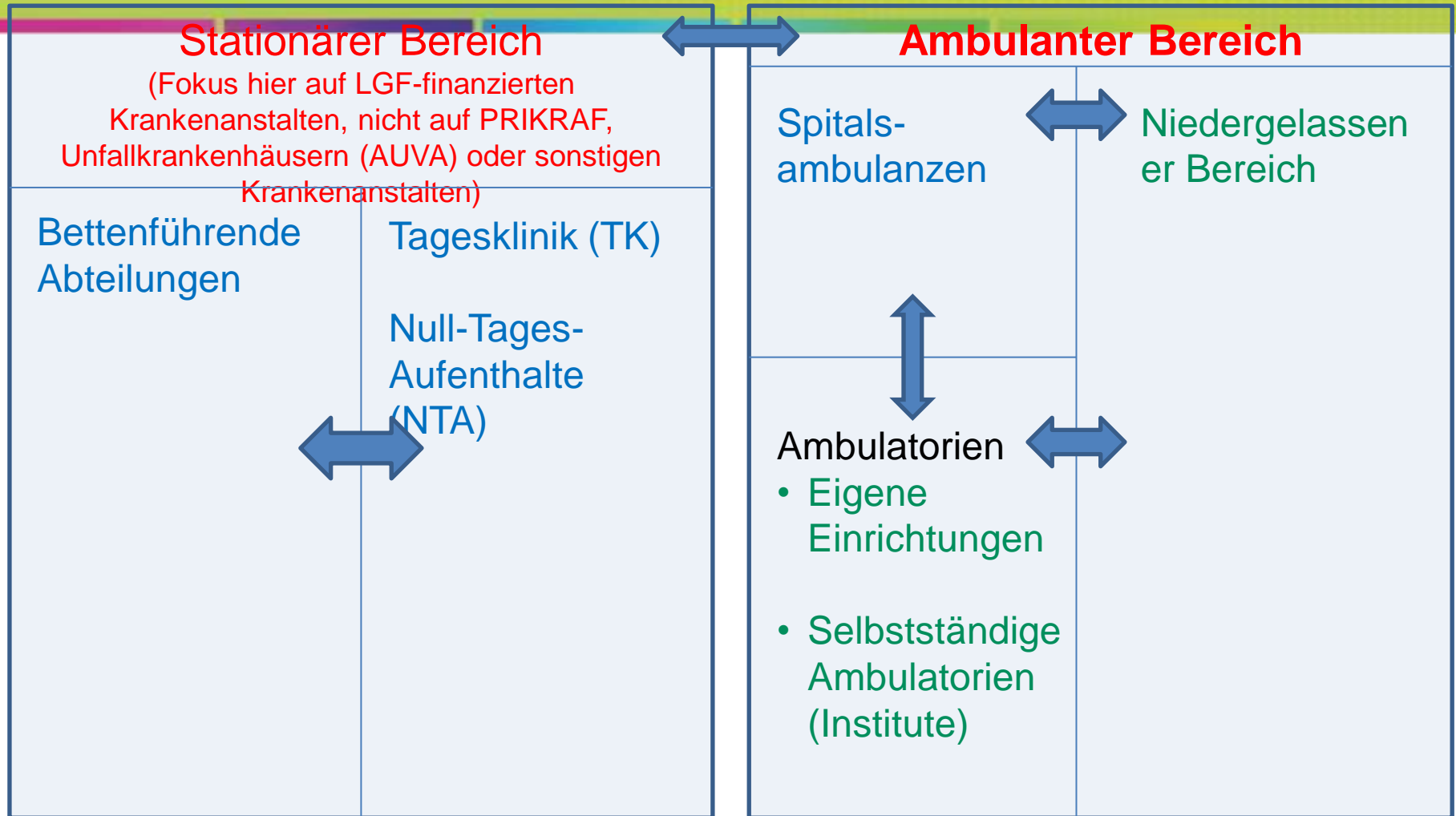
THATS THE PERSPECTIVE OF A PAYER WITH  
RESPONSIBILITY AND POLITICAL ACCOUNTABILITY

USUALLY I REFERE TO THE **AUSTRIAN** SYSTEM

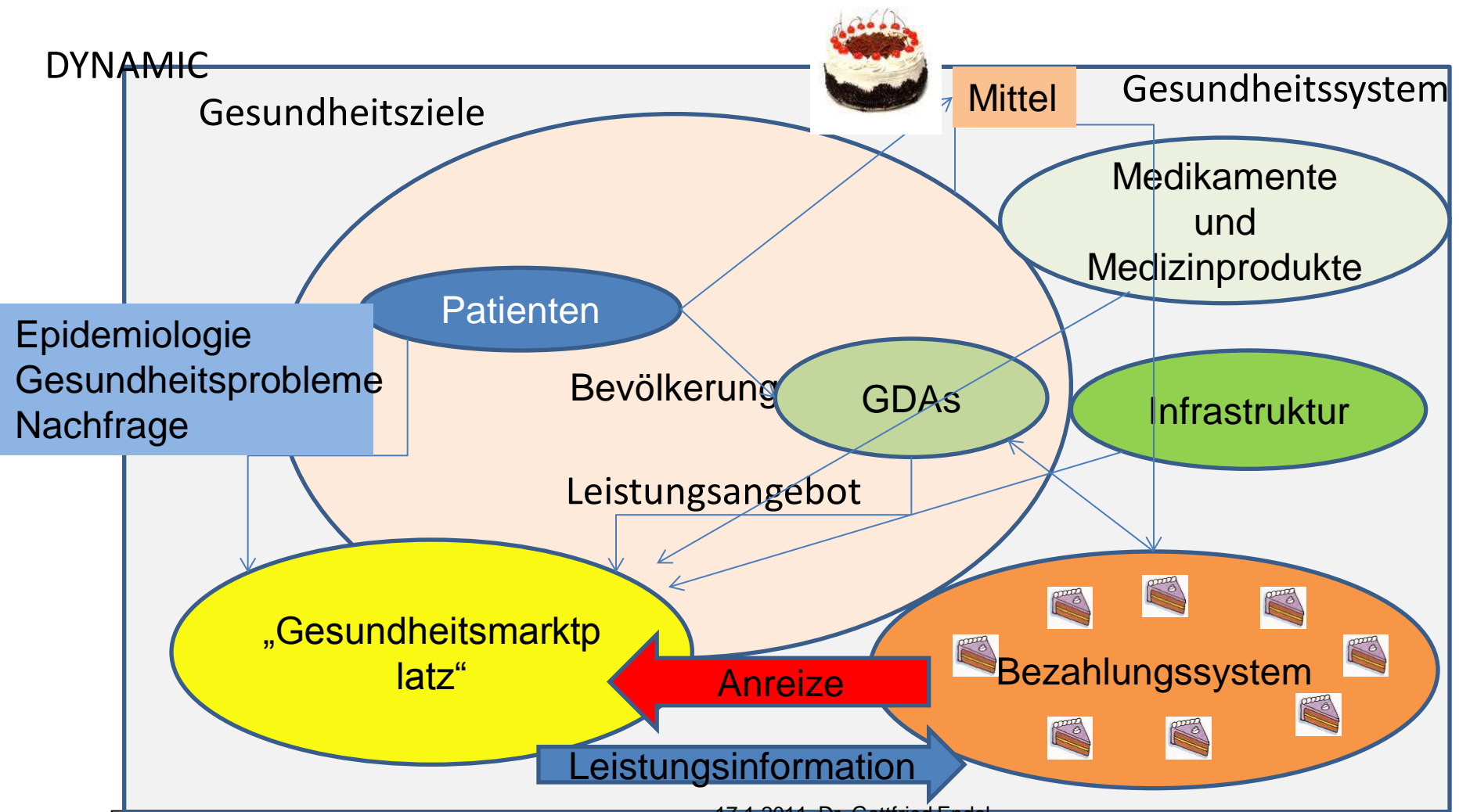
AS I AM NOT A NATIVE ENGLISH SPEAKER, PLEASE  
FORGIVE ERRORS IN GRAMMAR, SPELLING OR  
UNUSUAL WORDING

ALSO I DID NOT TRANSLATE ALL OLD SLIDES

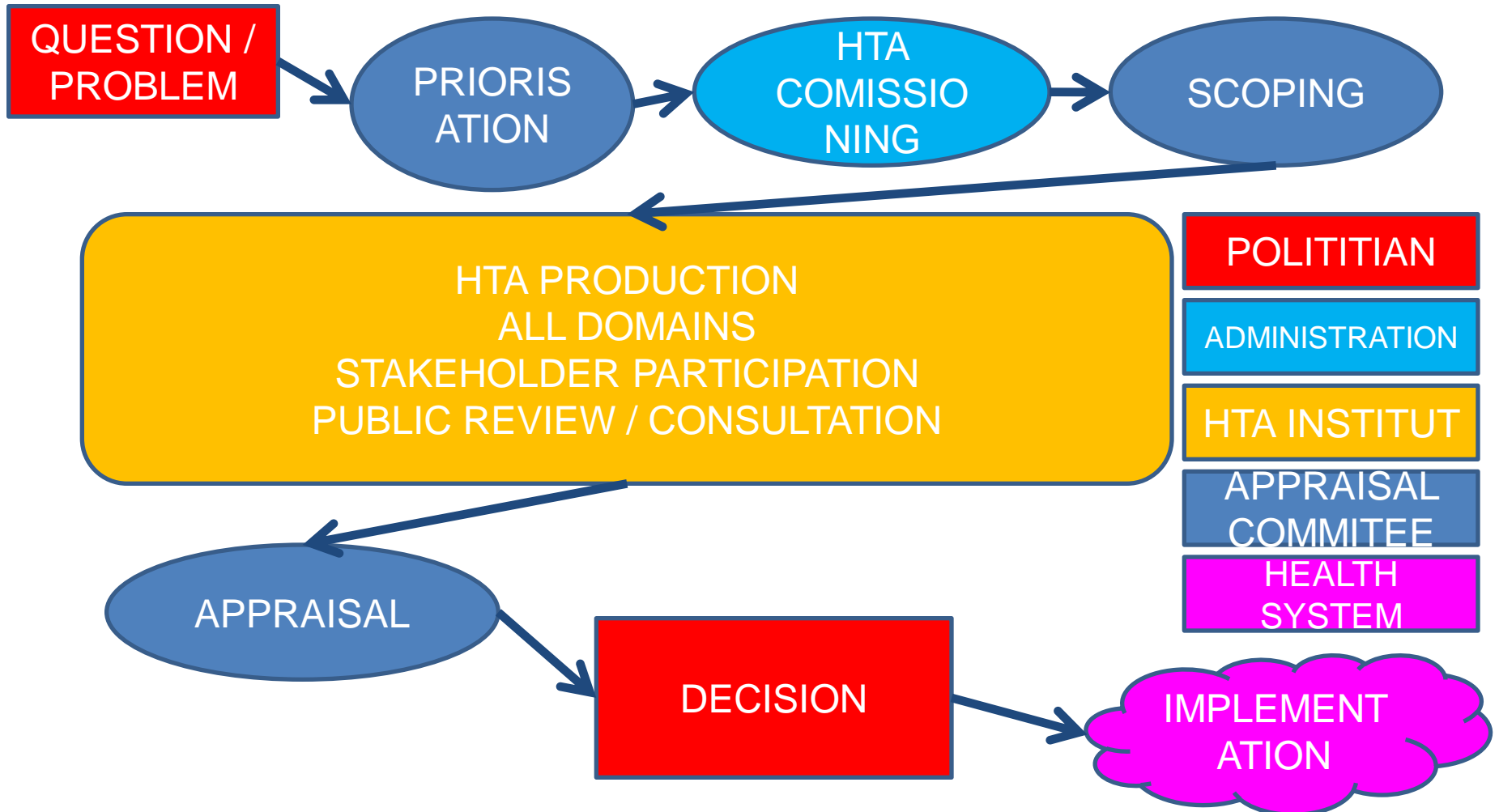
# Grobe Struktur des Gesundheitssystems



# DYNAMIC CONCEPT



# DECISION PROCESS



# Challenges to come

## Demographic changes

- Population → changing epidemiology and burden of disease
- Workforce
  - *„Baby-boomer“ generation is retiring*
  - *50% of contracted physicians (outpatient care) retire in the next 10 years*

## Societal change

- Different work-life balance
- Mobility as technological change
- Urbanization
- Spezialisierung



# Methods

## Modelling of

- Health service utilization
  - *Changes in Patient expectations*
  - *Changes in infrastructure*
  - *Changes in payment systems*
- Associations and feedback mechanisms of the changes
- Time horizon

# Proof of concept

## Modelling a region

- Eastern Tyrol
- Infrastructure and service utilization „as it is (was)“
  - System skewed towards specialists and hospitals
- Budget consumption as it was

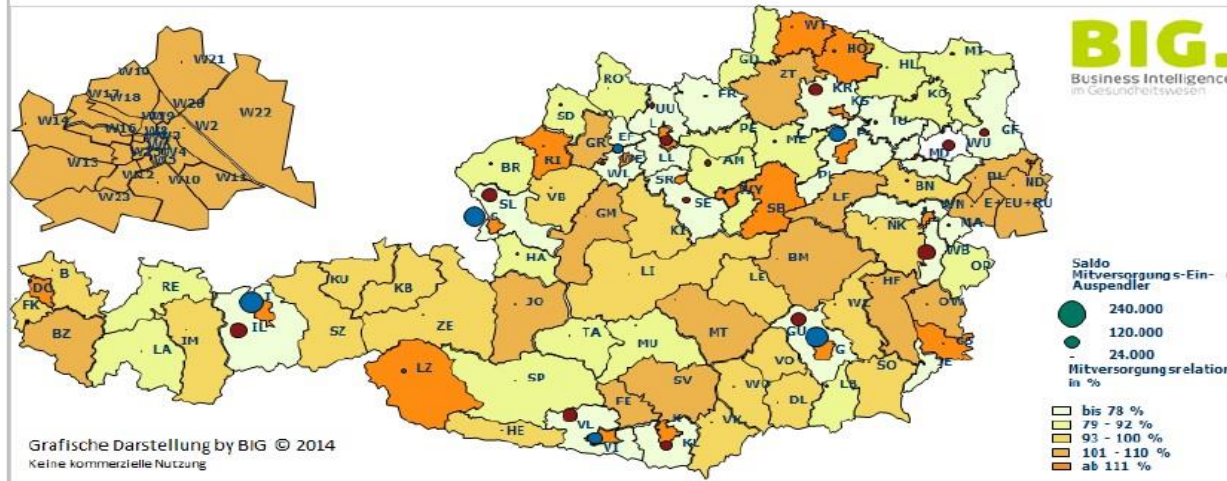
## Goals

- Strengthening primary care
  - Shifting resources to primary care (general practitioners)
- Changing organization of primary care
  - Shifting infrastructure from single doctor surgeries to multidisciplinary teams in group practice

# Regional approach

## Mitversorgungsrelation REGIOMED-FACHÄRZTE exkl. AM

Verhältnis der Konsultationen aus der Sicht des Praxisstandortes zu den Konsultationen aus der Sicht des Patientenwohntortes\*



\*Patientenwohntort: Ort an den die e-Card geschickt wurde.

Abbildung 24: Mitversorgungsrelation REGIOMED-Fachärzte exkl. AM<sup>79</sup>

AM

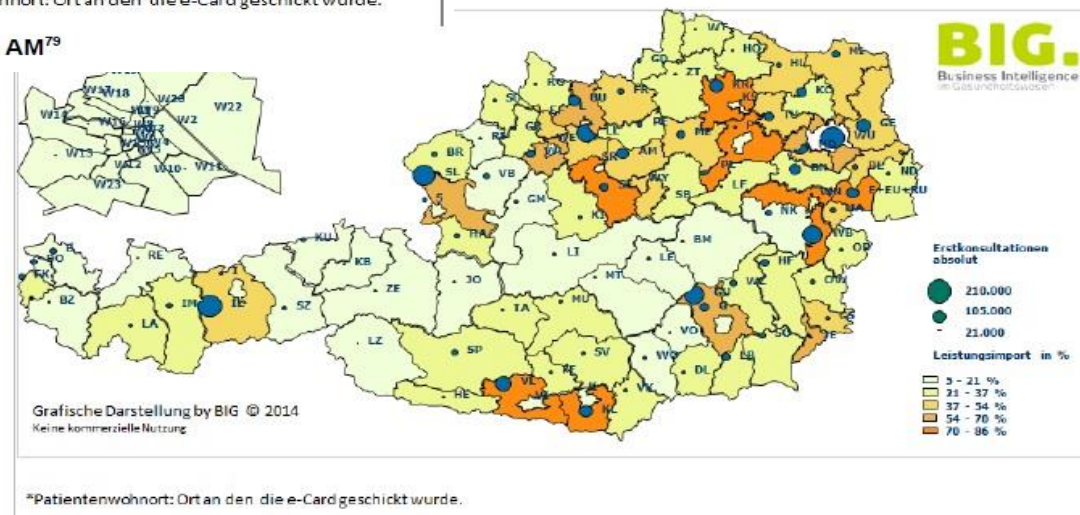
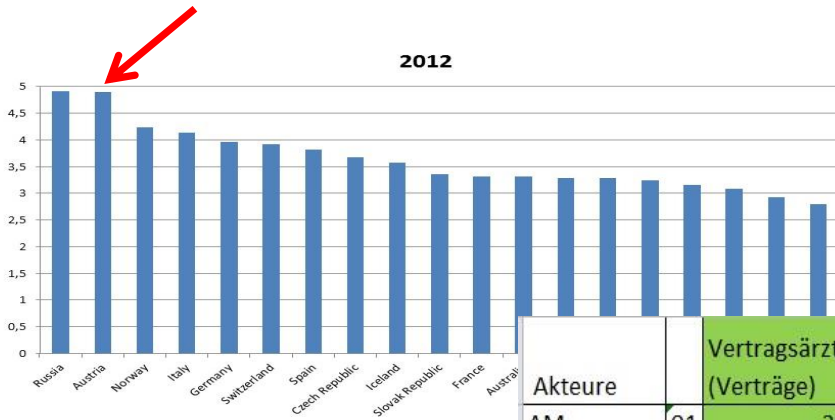


Abbildung 22: Mitversorgung durch andere Bezirke (Leistungsimport)<sup>77</sup>

# Infrastructure

## DoctorsTotal, Per 1 000 inhabitants, 2012

OECD data



Regional data

Akteure		Vertragsärzte (Verträge)	Vertragsärzte (AVE)	+ Wahlärzte (AVE)	Niedergelassene Ärzte (AVE)	Spitalsambulanzen (AVE)	= Summe (AVE)	Bandbreite
AM	01	25	22,1	0,2	22,2	2,8	25,1	16,9 : 31,3
AU	03	3	2,1	0,3	2,5	0,0	2,5	2,0 : 3,7
CH	04	0	0,0	0,0	0,0	1,8	1,8	1,9 : 3,5
DER	05	2	1,9	0,0	1,9	0,0	1,9	1,4 : 2,6
GGH	06	3	3,1	1,3	4,4	0,0	4,4	2,7 : 4,9
IM	07	4	3,7	0,5	4,2	3,7	7,8	3,7 : 6,8
KI	08	3	1,9	0,5	2,3	0,0	2,3	1,9 : 3,5
HNO	09	2	1,4	0,0	1,4	0,0	1,4	1,3 : 2,4
PUL	10	1	0,8	0,0	0,8	0,0	0,8	0,7 : 1,2
OR	12	1	0,2	0,2	0,3	0,0	0,3	1,5 : 2,7
UC	15	0	0,0	0,0	0,0	2,9	3,0	1,5 : 2,8
URO	16	2	1,9	0,0	2,0	0,0	2,0	0,9 : 1,8
ZMK	17	19	18,4	1,9	20,3	0,0	20,3	12,0 : 22,2
NEU	19	1	1,1	0,0	1,1	0,0	1,1	1,0 : 1,9
PSY	20	1	0,9	0,0	0,9	0,0	0,9	0,9 : 1,6
KJP	32	0	0,0	0,0	0,0	0,0	0,0	0,0 : 0,0
Gesamt	-	67	59,3	5,0	64,4	11,3	75,6	50,0 : 92,9

# Shift to GP's and change of PC

	AM = 0	AM = 50%	AM = 10%
AU	99,71	26,6	27,1
CH	97,59	48,7	57,0
DER	99,61	48,9	59,1
GGH	98,42	30,8	38,9
IM	99,28	67,9	85,9
KI	99,98	66,5	88,6
HNO	99,75	36,0	57,8
PUL	99,93	28,8	42,4
OR	93,76	57,1	85,5
UC	99,51	73,0	87,9
URO	97,55	31,4	52,2
NEU	99,39	43,2	48,9
PSY	93,81	37,7	41,5

Starting point

Conversion to employed shema

	A	B
1	Financial volume GPs	€ 5.183.000,00
2	Working hours GPs	46.130,1
3	Full time equivalent-financial	22,1
4	Full time equivalent-hours	27,9
5	Financial substitution_specialist	€ 4.103.000,00
6	Working hours substitution_specialists	13.998,3
7	Financial substitution_multiprofessional PC	€ 3.250.000,00
8	Working hours substitution_multiprofessional PC	39.039,4

Conservativ substitution of specialists

Substitution and additional services in PC

# Diskussion

Modellierung geeignet?

Evidenzlevel von Beobachtungen?

Alternativen?

Vielen Dank für ihre Aufmerksamkeit