

# The Austrian Health Care Structure Plan (**ÖSG**) and its Regional Implementation (**RSG**) – Update

Gerhard Fülöp / Andreas H. Birner  
Workshop 3, Vienna, 26 March 2018

# Integrated Health Care Planning in Austria – ÖSG and RSG

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## Fields of Planning

- Inpatient sector
- Outpatient sector
- Rehabilitation
- Interface management to long-term care

## „Austrian“ Level:

Austrian Health Care Structure Plan (ÖSG 2017)  
*Integrated Health Care Planning – Framework*

## „Länder“ (province) Level:

Regional Health Care Structure Plans (RSG)  
*Integrated Health Care Planning – detailed Regional Masterplans*

# Austrian Health Care Structure Plan – ÖSG 2017

Gerhard Fülöp  
Workshop 3, Vienna, 26 March 2018

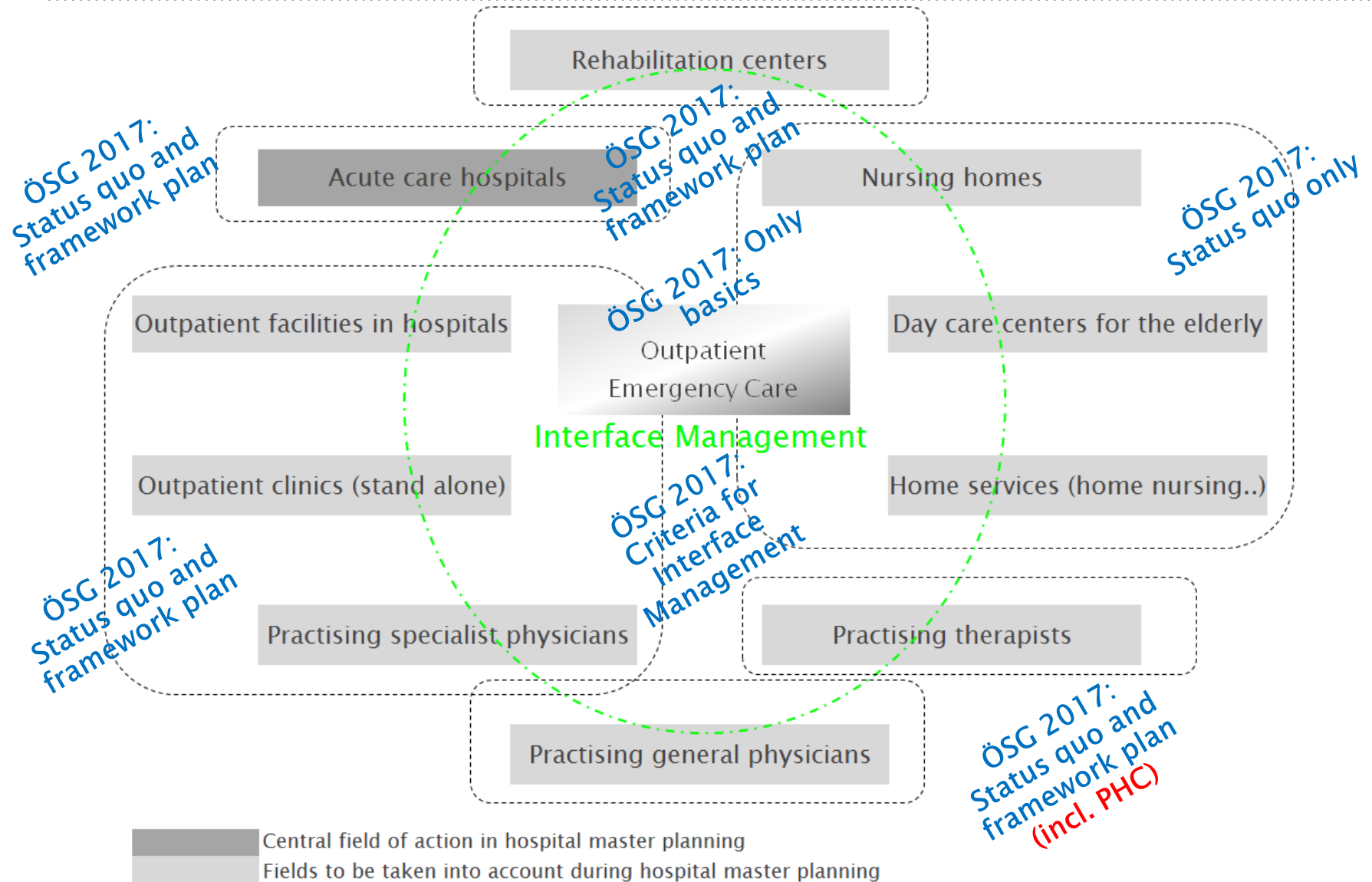


## ÖSG 2017 – Goals and Contents

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- ÖSG 2017 is a **joint integrative framework plan** (MoH, Länder, social insurance funds) for Austria → **obligatory basis** for integrative detailed planning at state level – “RSG”
- ÖSG 2017 contains **planning principles** and **benchmarks** for outpatient/inpatient acute care, for outpatient/inpatient rehabilitation and for biomedical–technical equipment
- ÖSG 2017 contains **quality criteria for all areas** of supply → ensuring same supply standards all over Austria in all areas
- ÖSG 2017 aims to ensure that health care is **distributed evenly** and **easily accessible** throughout Austria and is offered at a **high level of quality**
- Planning statements and implementation of quality criteria refer to year **2020** (in addition: orientation values for 2025)
- ÖSG 2017 has the “quality of an **expert opinion**” → selected contents will become binding in a regulation after evaluation

# ÖSG 2017 – Areas of Supply



# ÖSG 2017 – 32 Health Care Regions

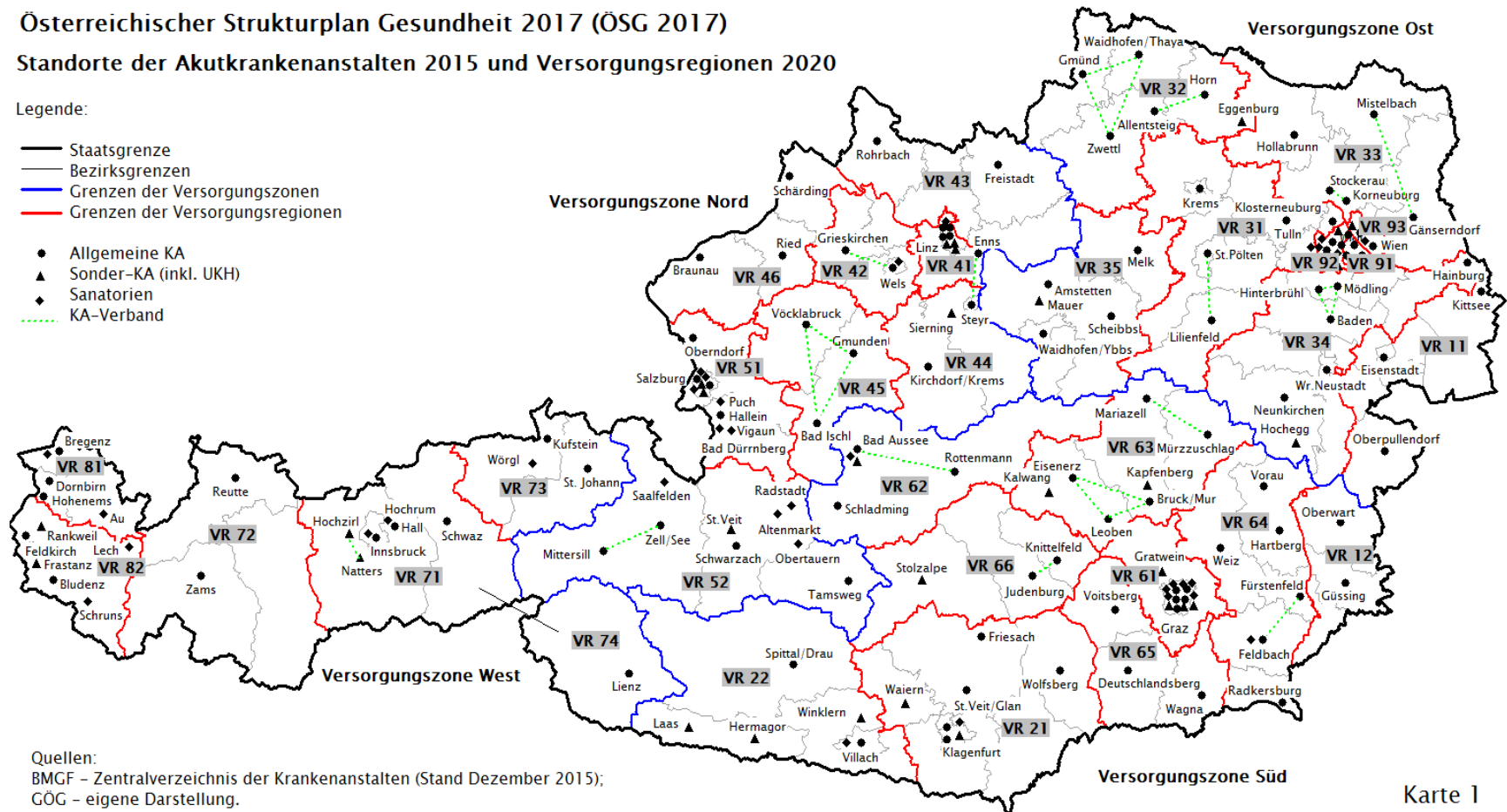
## Österreichischer Strukturplan Gesundheit 2017 (ÖSG 2017)

### Standorte der Akutkrankenanstalten 2015 und Versorgungsregionen 2020

#### Legende:

- Staatsgrenze
- Bezirksgrenzen
- Grenzen der Versorgungsregionen
- Grenzen der Versorgungsregionen

- Allgemeine KA
- ▲ Sonder-KA (inkl. UKH)
- ◆ Sanatorien
- KA-Verband



#### Quellen:

BMGF – Zentralverzeichnis der Krankenanstalten (Stand Dezember 2015);  
GÖG – eigene Darstellung.

# ÖSG 2017 – Planning Benchmarks

**Planungsrichtwerte für die Normalpflege- und Intensivbereiche in Akutkrankenanstalten (Planungshorizont 2020)**

Fachbereiche/Versorgungsbereiche	Err. (Min.)	BMZmin	BMZmax	
Intensivbehandlungsbereiche (INT/IS)	60	0,22		
Intensivüberwachungsbereiche (INT/UE)	45			
Kinder- und Jugendheilkunde (KIJU)	45			20
Kinder- und Jugendchirurgie (KJC)				20
Kinder- und Jugendpsychiatrie (KJP) <sup>1</sup>			0,04	30
Chirurgie (CH)		0,70	0,73	30
Neurochirurgie (NCH)		0,08	0,06	30
Innere Medizin (IM)		1,08	1,58	30
- davon Pulmologie (PUL) / Innere Medizin-Pneumologie (IM-PUL)		0,07	0,12	30

Acute care hospitals (beds)  
HW needs = f (locations, org. structures / , legal regulation of working hours, ...)

**Planungsrichtwerte für den gesamten ambulanten Bereich (Planungshorizont 2020)**

Fachrichtung/Fachbereich **	Err. (Min.)	VDmin	VDmax	VD2014	VDmin
Allgemeinmedizin (AM)**	10	34,8	64,7	49,8	
Kinder- und Jugendheilkunde (KIJU)**	20	4,1	7,7		
Kinder- und Jugendchirurgie (KJC)	*	*	*		
Kinder- und Jugendpsychiatrie (KJP) <sup>1</sup>	10	0,6			
Chirurgie (CH)	*				*
Neurochirurgie (NCH)	*				*
Innere Medizin (IM)**				1,7	6.800
- davon Pulmologie (PUL) / Innere Medizin-Pneumologie (IM-PUL)				1,9	54.000
Frauenheilkunde und Geburtshilfe (GYN)			11,9	9,2	11.000
Neurologie (NEU)			3,5	2,7	37.000
Psychiatrie (PSY)		2,4	4,4	3,4	30.000
Dermatologie (DER)	30	2,9	5,5	4,2	24.000
Augenheilkunde (AU)	30	4,3	8,0	6,2	16.000
Hals-, Nasen- und Ohrenheilkunde (HNO)	30	2,7	5,0	3,9	26.000

Outpatient care (FTE)  
HW needs = f (locations, accessibility, contracts with social insurance funds, ...)

Biomedical equipment (devices)

Gerätegruppe/Verfahren	Einwohner-richtwert <sup>2</sup>	Großgeräte pro 1 Mio EW <sup>2</sup>
Computertomographie (CT)	30.000–50.000	20,0–33,3
Magnetresonanztomographie (MR)	70.000–90.000	11,1–14,3
Emissions-Computer-Tomographie (ECT) <sup>3</sup>	80.000–100.000	10,0–12,5
Strahlentherapie (CTP) <sup>4</sup>	120.000–150.000	6,7–7,7

**Tabelle R1: Planungsrichtwerte\* für die stationäre Rehabilitation für Erwachsene (Alter ab dem 19. Lebensjahr) nach Rehabilitations-Indikationsgruppen, Planungshorizont 2020**

Rehabilitations-Indikationsgruppe	BMZ Soll 2020	BMZ 2014
Bewegungs- und Stützapparat sowie Rheumatologie (BSR)	44,7	45,4
Herz-Kreislauf-Erkrankungen (HKE)	18,3	18,7
Zentrales und peripheres Nervensystem (NEU)	18,5	18,4
Onkologische Rehabilitation (ONK)	6,5	6,6
Psychiatrische Rehabilitation (PSY)	16,7	13,5
Atmungsorgane (PUL)	5,6	5,8
Stoffwechselsystem und Verdauung	6,9	6,9
Zustände nach Unfällen und neurochirurgische Rehabilitation (UNC)	6,0	6,1
Spezialbereich Lymphologie (LYMPH)	1,2	1,2
gesamt	124,4	122,4

Inpatient rehabilitation for adults (beds)

**Tabelle R5: Bettenbedarf für Kinder und Jugendliche (0-18 Jahre) im Jahr 2020 nach Rehabilitations-Indikationsgruppen**

Rehabilitations-Indikationsgruppen (RIG)	Bettenbedarf 2020 (0-18 Jahre)
Krankheiten des Bewegungs- und Stützapparates sowie Rheumatologie (BSR)	22
Herz-Kreislauf-Erkrankungen (HKE)	15
Kinderchirurgische Erkrankungen (KJC)	28
Neurologische Erkrankungen (NEU)	95
Neurochirurgie (NC)	5
Pulmologische Erkrankungen (PUL)	30
Krankheiten des Stoffwechselsystems und der Rehabilitation nach Krebserkrankungen (ONK)	12
Kinder- und jugendpsychiatrische Erkrankungen (PSY)	20*
Entwicklungsstörungen und Erkrankungen im Bereich der pädiatrischen Versorgung sowie pädiatrische psychosomatische Erkrankungen (ESP)	68
gesamt	343*

Inpatient rehabilitation for children (beds)

**Tabelle R3: Planungsrichtwerte\* für die ambulante Rehabilitation\*\* für Erwachsene (Alter ab dem 19. Lebensjahr) nach Rehabilitations-Indikationsgruppen, Planungshorizont 2020**

Rehabilitations-Indikationsgruppe	2020	ambTP/EW 2014
Bewegungs- und Stützapparat sowie Rheumatologie (BSR)	4,8	
Herz-Kreislauf-Erkrankungen (HKE)	2,1	
Zentrales und peripheres Nervensystem (NEU)	0,7	
Onkologische Rehabilitation (ONK)	0,5	0,4
Psychiatrische Rehabilitation (PSY)	3,3	1,4
Atmungsorgane (PUL)	0,9	0,6
Stoffwechselsystem und Verdauung	0,8	0,4
Zustände nach Unfällen und neurochirurgische Rehabilitation (UNC)	0,0	0,1
Spezialbereich Lymphologie (LYMPH)	0,0	0,0
gesamt	13,8	10,5

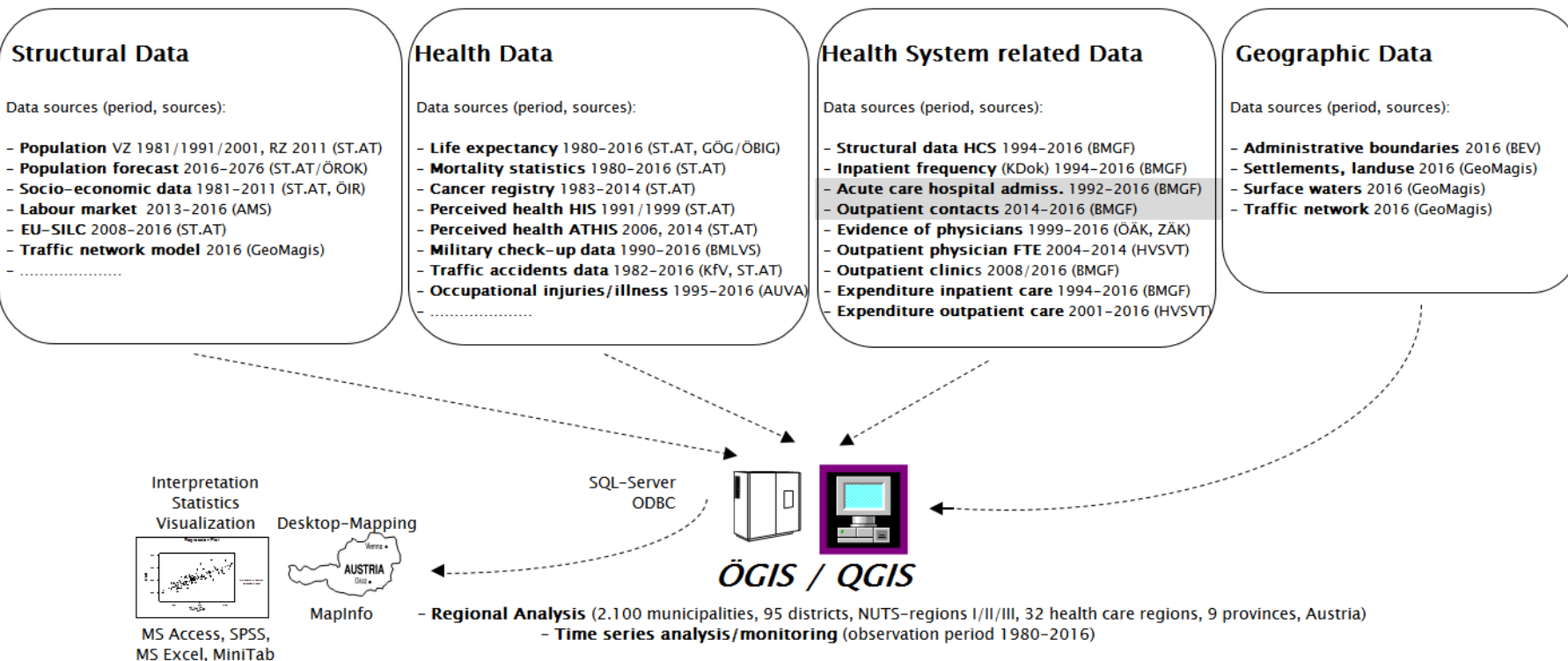
Outpatient rehabilitation for adults (treatment places)

# Austrian Integrated Health Information System – ÖGIS

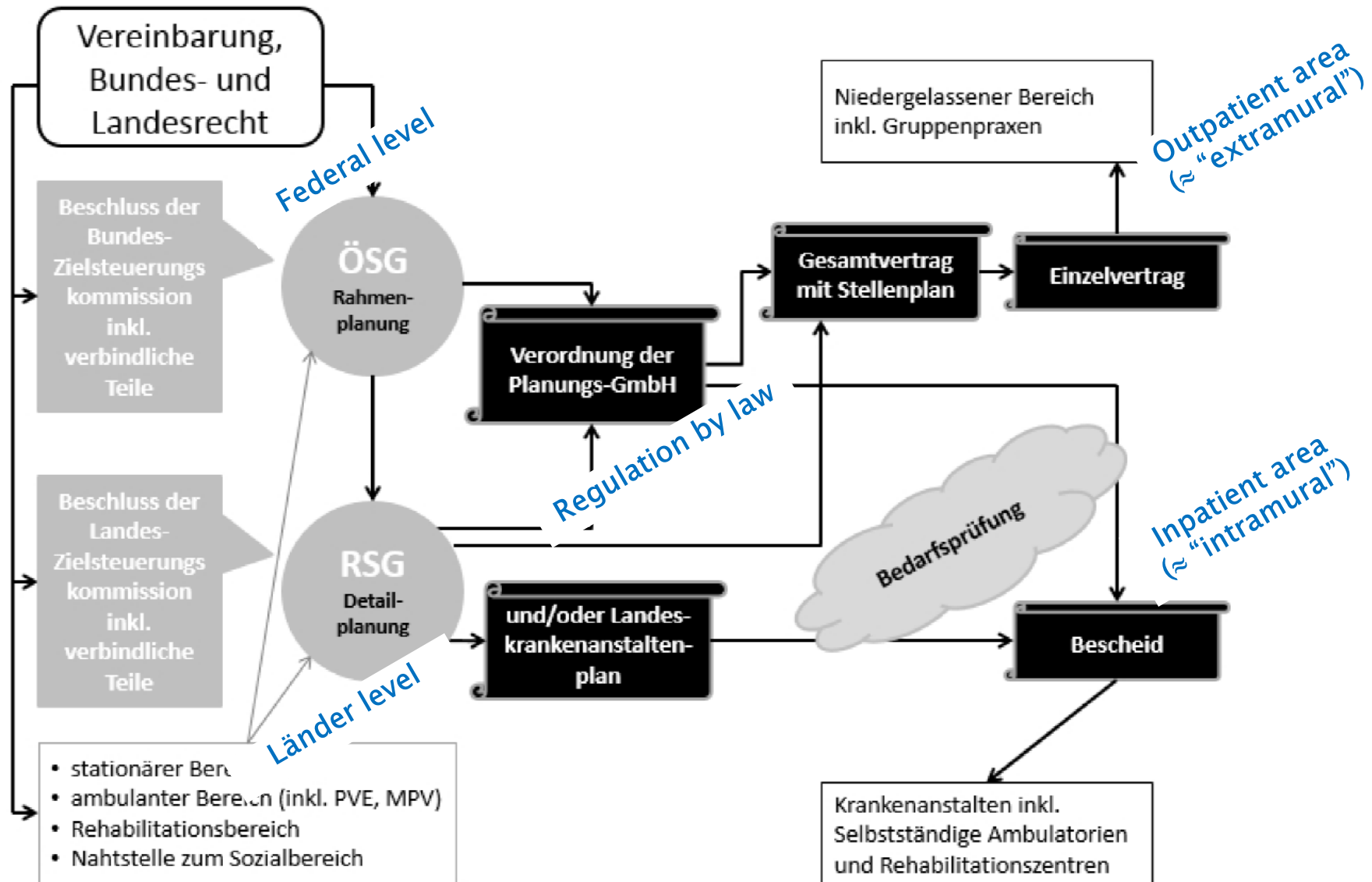
Gesundheit Österreich  
GmbH

## Austrian Health Information System ÖGIS

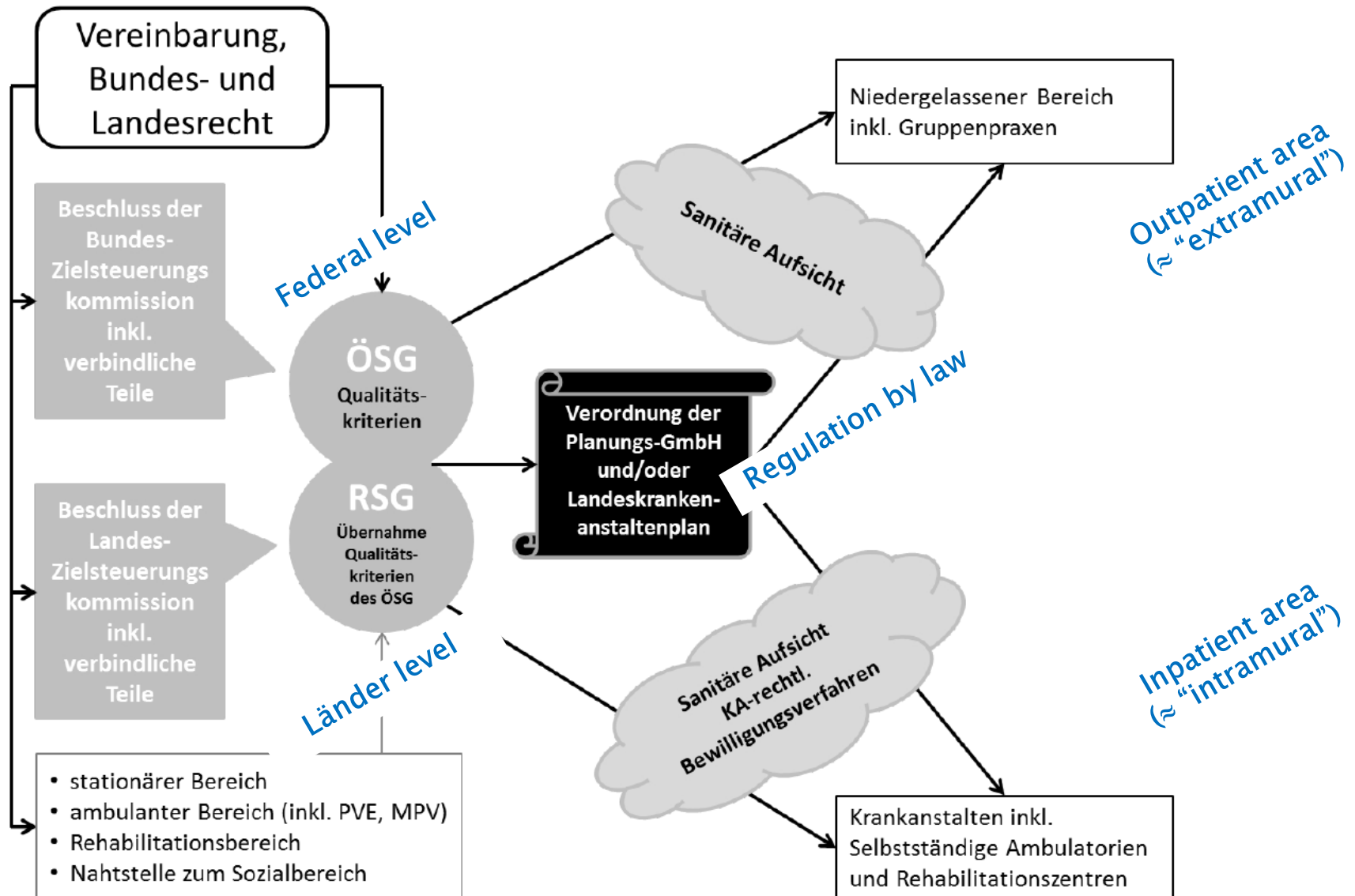
(as per September 2017)



# ÖSG 2017 – Legal Framework / HC Structure Planning



# ÖSG 2017 – Legal Framework / Quality Criteria



# Regional Health Care Structure Plans – RSG

Andreas H. Birner

Workshop 3, Vienna, 26 March 2018

# Regional Healthcare Structure Plan – RSG

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- » **Objectives and Contents**
- » Standards and Guidelines given by ÖSG
- » Data Base
- » Analysis and Planning

# Objectives

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## RSG – Objectives (“system-driven”)

- » Provincial governments, public health insurances (and hospital owners, health care providers) have the **possibility to design their regional health care landscape**

*with the intention to realise*

- » an integrated **planning** of the whole health care system in each health region
- » and its obligatory **implementation** by the institutions, which have direct responsibility for planning, financing, controlling and implementation
- » in the **framework of guidelines (ÖSG)** for quality and quantity from federal level

## RSG – Objectives (“care driven”)

- » **Adaptation of hospital admission rate and hospital day density** to the level of medically necessity
- » Shifting of medical treatments to the outpatient sector and **reduction of acute hospital beds** and **strengthening primary health care**
- » **Improvement of interface/continuity management**
- » Regional-wide assurance of a medically and economically sensible health care landscape  
→ **treatment at the right time, at the right place, with the adequate resources, state of the art = “best point of service”**

# Contents

## Analysis of Status Quo

*care density, supply and demand of services and capacities, structure quality*

» inpatient care (acute care hospitals)

» outpatient care

» hospital-sector

» non-hospital sector

» primary health care (esp. potential)

» biomedical equipment

» rehabilitation

» care for elderly and disabled persons

» interface/continuity management

## Planning (target year)

*estimation of needs; planning adequate structures, services and capacities*

→ planning hospital locations / landscape by qualitative and quantitative service provision planning

→ planning capacities of physicians per region

→ planning capacities of equipment

→ planning capacities of beds and outpatient accommodations

→ in coordination with the social sector

→ measures for improvement

# Regional Healthcare Structure Plan – RSG

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- » Objectives and Contents
- » **Standards and Guidelines given by ÖSG**
- » Data Base
- » Analysis and Planning

## Standards and Guidelines given by ÖSG (1)

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- **Framework for Capacity Planning:** standard values for inpatient and outpatient sector, rehabilitation sector and biomedical equipment
- **Supply-Matrix:** frame for the amount of service-bundles in acute care hospitals per health-region, province („Land“) and health-zone
- **Service-Matrix:** quality criteria for each single medical procedure in acute care hospitals and outpatient sector (partial, under construction)
- **Quality Criteria:** guidelines (in general and specific) for different forms of organisation as well as specific care models for disciplines and specific groups of diseases

## Standards and Guidelines given by ÖSG (2)

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- **Cross-sectoral Quality Criteria:** patient-safety, integrated health care, interface/continuity management
- **Biomedical Equipment plan:** location and capacity plan
- **Supraregional Healthcare Planning:** nationwide definition of locations for selected seldom and/or high-sophisticated services
- **RSG-Planning-Matrix:** standard-spreadsheets for the description of the health care-situation per region in total (as well as the interface to the sector of social care)

# Austrian Health Care Structure Plan (ÖSG 2017) Standard Values for RSG-Planning

**Planungsrichtwerte für die Normalpflege- und Intensivbereiche in Akutkrankenanstalten (Planungshorizont 2020)**

Fachbereiche/Versorgungsbereiche	Err. (Min.)	BMZmin	BMZmax	BMZ 2014	MBZ
Intensivbehandlungsbereiche (INT/IS)		0,22	0,36	0,18	6
Intensivüberwachungsbereiche (INT/UE)				0,10	4
Kinder- und Jugendheilkunde (KIJU)			0,20	0,16	20
Kinder- und Jugendchirurgie (KJC)		0,02	0,03	0,03	20
Kinder- und Jugendpsychiatrie (KJP) <sup>1</sup>		0,08	0,13	0,04	30
Chirurgie (CH)		0,42	0,70	0,73	30
Neurochirurgie (NCH)	60	0,05	0,08	0,06	30
Innere Medizin (IM)	45	1,08	1,81	1,58	30
- davon Pulmologie (PUL) / Innere Medizin-Pneumologie (IM-PUL)	*	0,07	0,12	0,12	30

hospital beds  
- short term

**Planungsrichtwerte für den gesamten ambulanten Bereich (Planungshorizont 2020)**

Fachrichtung/Fachbereich **	Err. (Min.)	VDmin	VDmax	VD2014	BEVmin
Allgemeinmedizin (AM)**	10	34,8	64,7	49,8	2.000
Kinder- und Jugendheilkunde (KIJU)**	20		7,7	5,9	17.000
Kinder- und Jugendchirurgie (KJC)	*	*	*	*	*
Kinder- und Jugendpsychiatrie (KJP) <sup>1</sup>			1,2	0,4	120.000
Chirurgie (CH)		7,1	7,7	5,9	*
Neurochirurgie (NCH)		*	*	*	*
Innere Medizin (IM)**		10,3	19,1	14,7	6.800
- davon Pulmologie (PUL) / Innere Medizin-Pneumologie (IM-PUL)	*	1,3	2,4	1,9	54.000
Frauenheilkunde und Geburtshilfe (GGH)	30	6,4	11,9	9,2	11.000
Neurologie (NEU)	30	1,9	3,5	2,7	37.000
Psychiatrie (PSY)	30	2,4	4,4	3,4	30.000
Dermatologie (DER)	30	2,9	5,5	4,2	24.000
Augenheilkunde (AU)	30	4,3	8,0	6,2	16.000
Hals-, Nasen- und Ohrenheilkunde (HNO)	30	2,7	5,0	3,9	26.000

"outpatient care units of  
physicians (PCU ~ FTE)"

**Planungsrichtwerte**

Gerätegruppe/Verfahren	Fähigkeit	Einwohner- richtwert <sup>2</sup>	Großgeräte pro 1 Mio EW <sup>2</sup>
Computertomographie (CT)		30.000–50.000	20,0–33,3
Magnetresonanztomographie (MR)	45	70.000–90.000	11,1–14,3
Emissions-Computer-Tomographie (ECT) <sup>3</sup>	45	80.000–100.000	10,0–12,5
Strahlentherapie (STR) <sup>4</sup>	90	130.000–150.000	6,7–7,7

biomedical  
equipment

**Tabelle R1: Planungsrichtwerte\* für die stationäre Rehabilitation für Erwachsene (Alter ab dem 19. Lebensjahr) nach Rehabilitations-Indikationsgruppen, Planungshorizont 2020**

Rehabilitations-Indikationsgruppe	BMZ Soll 2020	BMZ 2014
Bewegungs- und Stützapparat sowie Rheumatologie (BSR)	44,7	45,4
Herz-Kreislauf-Erkrankungen (HKE)	18,3	18,7
Zentrales und peripheres Nervensystem (NEU)	18,5	18,4
Onkologische Rehabilitation (ONK)	6,5	6,6
Psychiatrische Rehabilitation (PSY)	16,7	13,5
Atmungsorgane (PUL)	5,6	5,8
Stoffwechselsystem und Verdauungsapparat (STV)	9	6,9
Zustände nach Unfällen und neurochirurgischen Eingriffen (UCNC)		6,1
Spezialbereich Lymphologie (LYMPH)	2,2	1,2
gesamt	124,4	122,4

**Tabelle R5: Bettenbedarf für Kinder und Jugendliche (0-18 Jahre) nach Rehabilitations-Indikationsgruppen, Planungshorizont 2020**

Rehabilitations-Indikationsgruppen (RIG)	Bettenbedarf 2020 (0-18 Jahre)
Krankheiten des Bewegungs- und Stützapparates (BSR)	22
Herz-Kreislauf-Erkrankungen (HKE)	15
Kinderchirurgische Erkrankungen (KJC)	28
Neurologische Erkrankungen (NEU) <sup>1</sup>	95
Neurochirurgie (NC)	5
Pulmologische Erkrankung	30
Krankheiten des Stoffwechsels und des Verdauungsapparates (STV)	12
Rehabilitation nach Krebserkrankungen (ONK)	20*
Kinder- und jugendpsychiatrische Erkrankungen (KJP)	42
Entwicklungsstörungen und Erkrankungen im Bereich der sozialpädiatrischen Versorgung sowie pädiatrische psychosomatische Erkrankungen (ESP)	68
gesamt	343*

beds in rehabilitation hospitals  
(diff. adults and children/adolescents)

**Tabelle R3: Planungsrichtwerte\* für die ambulante Rehabilitation\*\* für Erwachsene (Alter ab dem 19. Lebensjahr) nach Rehabilitations-Indikationsgruppen, Planungshorizont 2020**

Rehabilitations-Indikationsgruppe	ambTP/EW Soll 2020	ambTP/EW 2014
Bewegungs- und Stützapparat sowie Rheumatologie (BSR)	5,4	4,8
Herz-Kreislauf-Erkrankungen (HKE)	2,1	2,1
Zentrales und peripheres Nervensystem (NEU)	0,6	0,7
Onkologische Rehabilitation (ONK)	0,5	0,4
Psychiatrische Rehabilitation (PSY)	3,3	1,4
Atmungsorgane (PUL)	0,9	0,6
Stoffwechselsystem und Verdauungsapparat (STV)	0,8	0,4
Zustände nach Unfällen und neurochirurgischen Eingriffen (UCNC)	0,0	0,1
Spezialbereich Lymphologie (LYMPH)	0,0	0,0
gesamt	13,8	10,5

outpatient  
rehabilitation  
accommodations

# Regional Healthcare Structure Plan – RSG

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- » Objectives and Contents
- » Standards and Guidelines given by ÖSG
- » **Data Base**
- » Analysis and Planning

## Data Base for Integrated Health Care Planning

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- » **Minimum Basic Data Set** for each hospital stay in an Austrian acute care hospital  
*(patient-, provider- and service-related data, diagnosis-code)*
- » **Austrian Hospital Statistics**  
*(hospitalbeds, costs, staff in heads and FTE, etc.)*
- » **Minimum Basic Data Set** for each outpatient-contact in Austrian hospital outpatient facilities or physicians in private practice (financed by social insurance)  
*(patient-, provider- and service-related data)*
- » **Accessibility model** for „motorized individual transport“ (distance in driving minutes)
- » **Population statistics** and population **forecasts** (diff. gender, 5-years age groups, lowest regional level as possible e.g. municipality)
- » **Other useful data / informations** (epidemiology, health related behavior, topography)

# Data Base for Integrated Health Care Planning

## Health Professions – Outpatient Short Term Care

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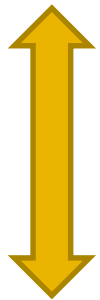
- » **Different Sub-Sectors (distribution of capacities of physicians)**
  - » outpatient departments in hospitals (22 %)
  - » health service doctors (70 %) und free doctors (5 %)
  - » Independent outpatient departments/medical institutes (3 %)
- » **Other Health Professions (than physicians)**
  - » psychotherapists, psychologists, other therapists (physio, ergo, logo, massage,..), midwives, (graduate) nurses, pharmacists, etc.
  - » currently insufficient data situation
- » **Physicians**
  - » list of doctors (Austrian Medical Chamber): headcount only; demography; time series possible
  - » „**physicians care untis**“ (PCU; ~ full time equivalents): care-effectiveness; limited compability of the sectors and incomplete coverage (free doctors, not all disciplines); no demography; no time series not possible;
  - » Austria: physician-focussed health system

# Data Availability

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## „inpatient sector“

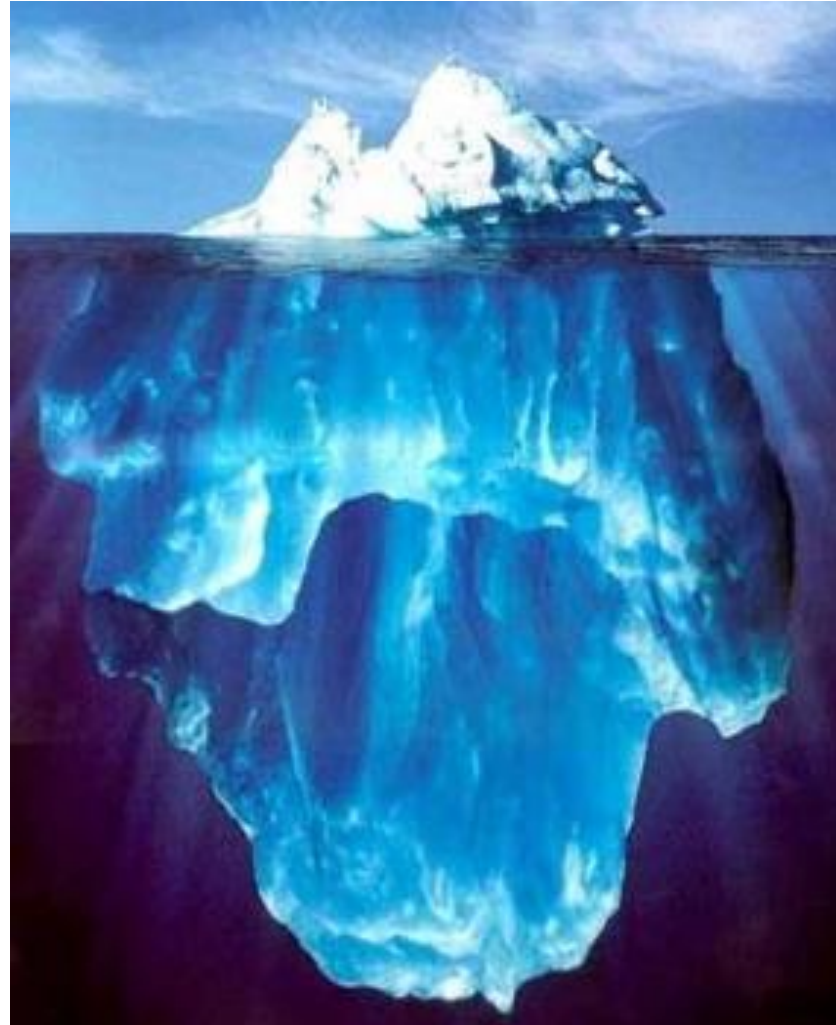
supply and utilisation of  
capacities and services as well  
as morbidity



*pseudonymized  
individual identifier  
(since year 2014)*

## „outpatient sector“

- supply of capacities only
- utilisation of capacities  
(contacts since year 2014)
- services (under construction)
- morbidity?



# Regional Healthcare Structure Plan – RSG

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- » Data Base
- » **Analysis and Planning**
  - » **Inpatient Care**
  - » Outpatient Care



# Regional Healthcare Structure Plan – RSG

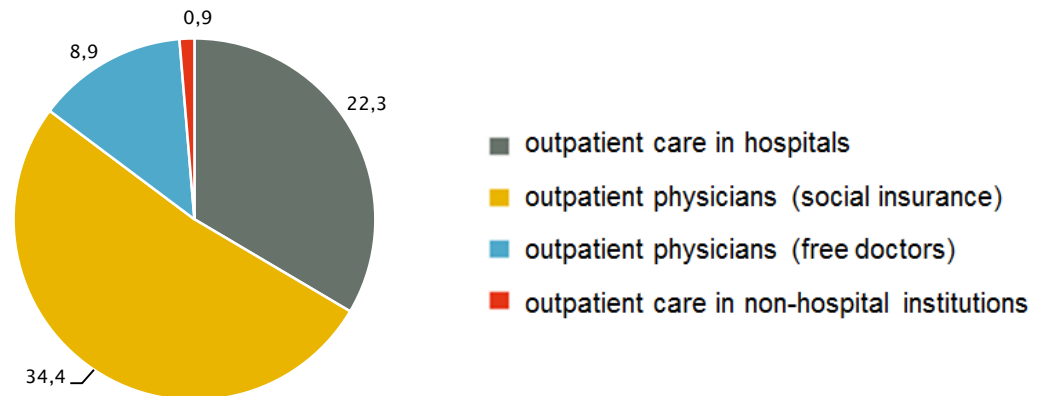
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- » Objectives and Contents
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  - » **Outpatient Care**

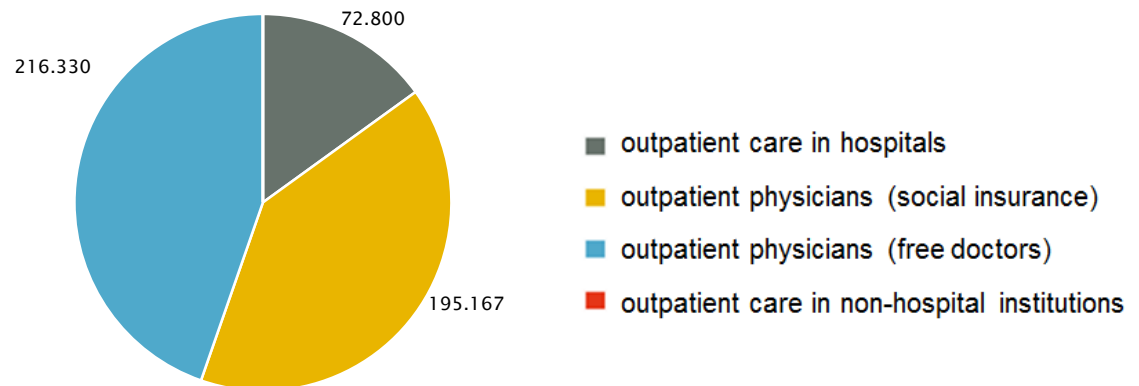
# Analysis – Sectoral Distribution

## Discipline xy

Supply:  
number of FTE  
breakdown by sectors



Utilisation:  
number of contacts  
breakdown by sectors

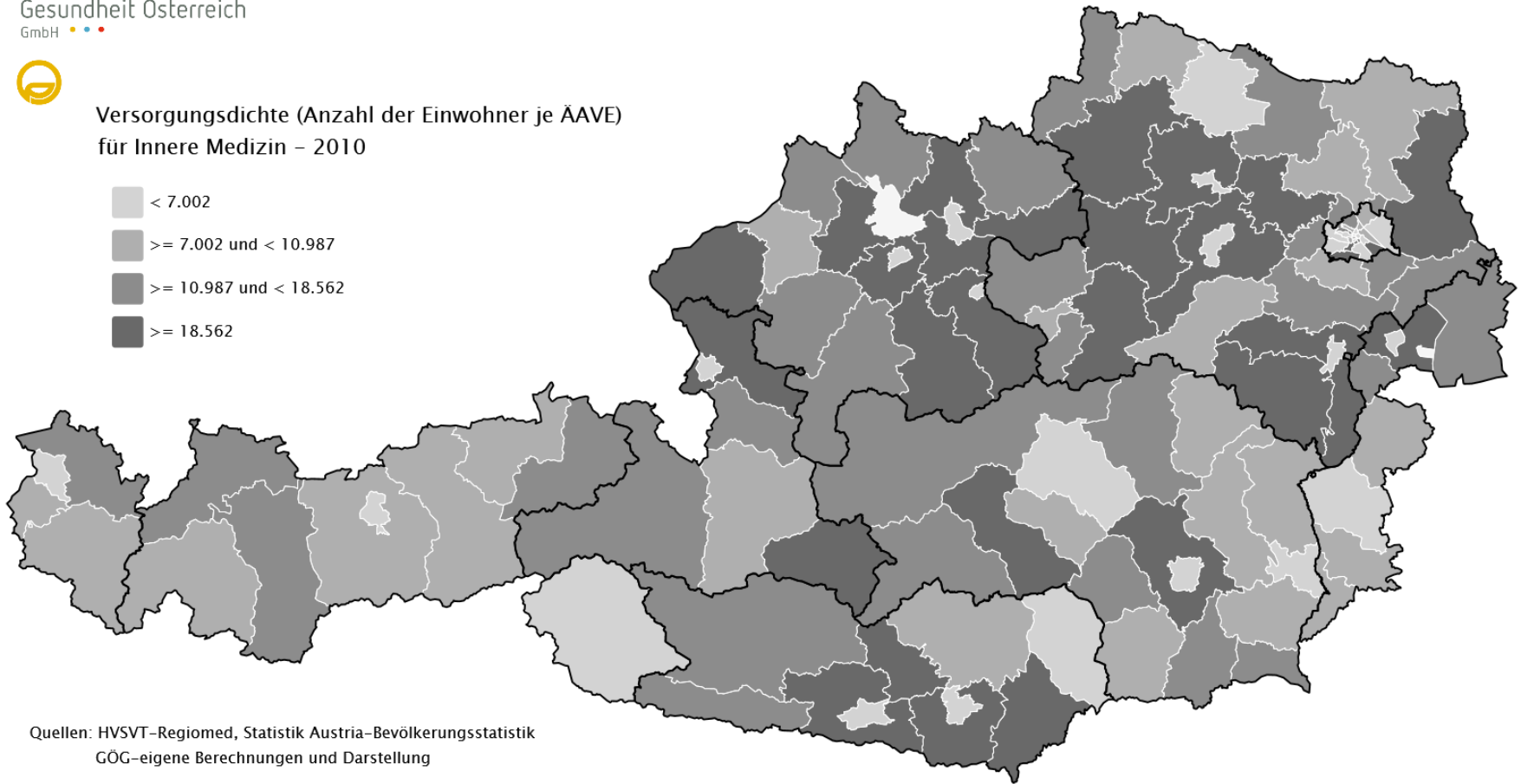
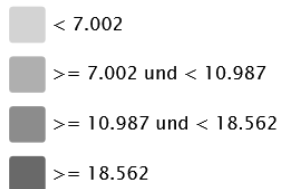


# Analysis: Care Density – Inhabitants per PCU (FTE)

Gesundheit Österreich  
GmbH



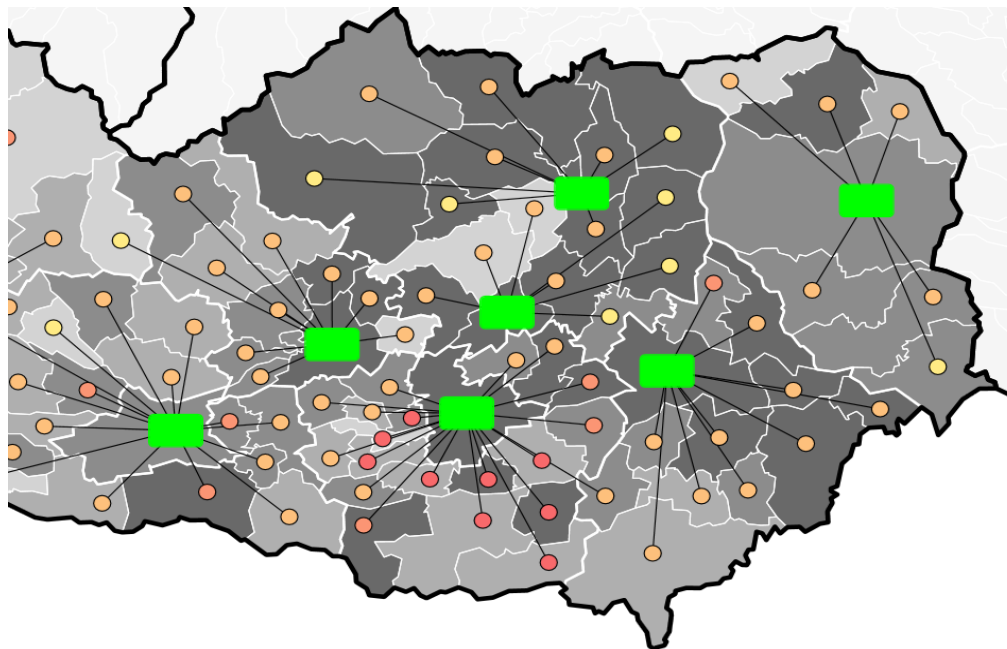
Versorgungsdichte (Anzahl der Einwohner je ÄAVE)  
für Innere Medizin – 2010



Quellen: HVSVT-Regiomed, Statistik Austria–Bevölkerungsstatistik  
GÖG-eigene Berechnungen und Darstellung

# Analysis: Outpatient Utilisation of Physicians Indicators

- „Source-related“ contact rates (contacts / 100.000 inh.)
- Display of patient flows
  - source related self provision rate (the higher this rate, the lower the „outcommuting rate“ in the region)
  - target related self provision rate (the lower this rate, the higher the „incommuting rate“ in the region)



pale = low contact rate  
dark = high contact rate

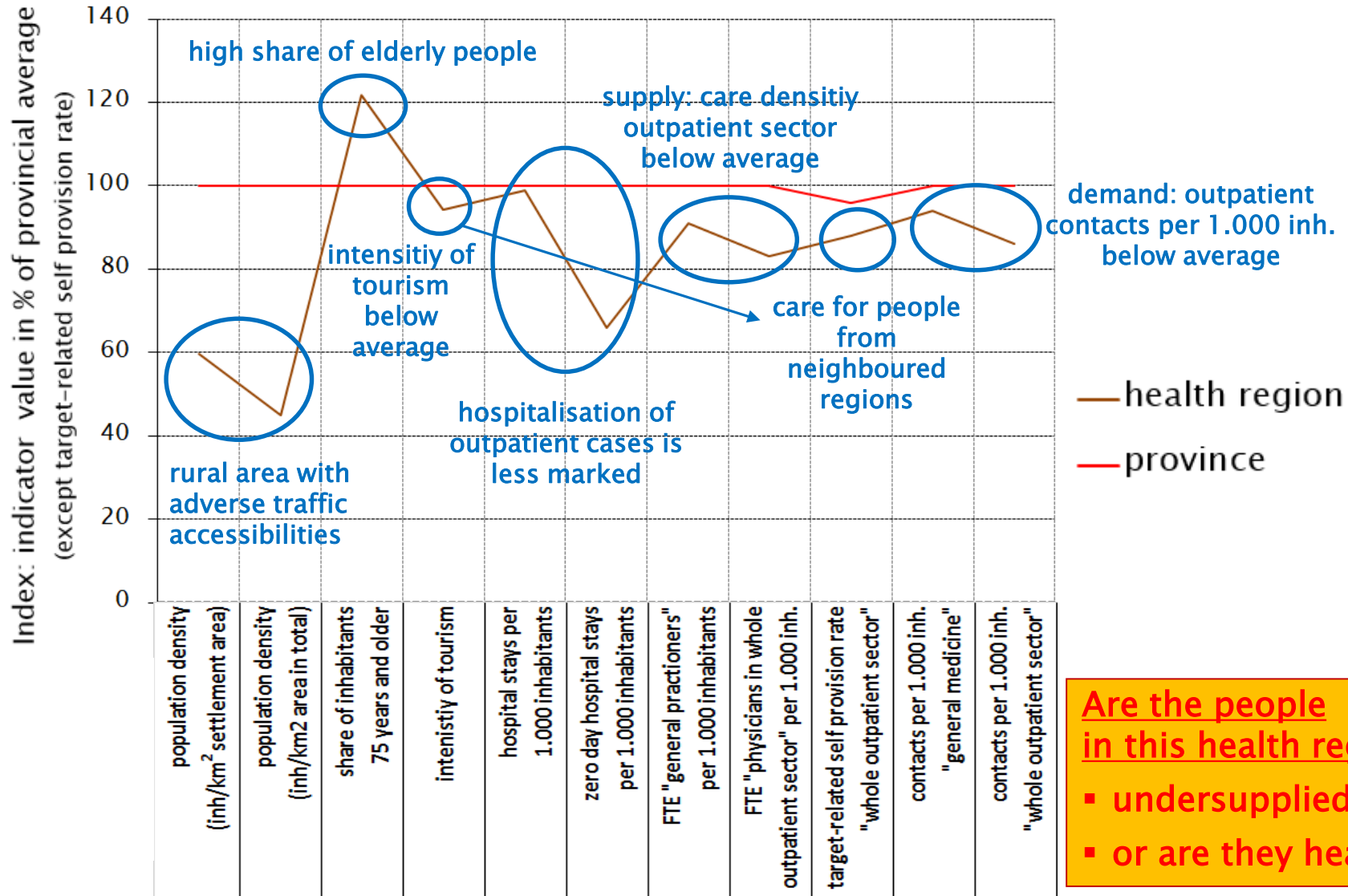
## Further Data – Requirements for Health Care Planning

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### Other useful data / informations

- » Epidemiology and health related behavior
- » Socio economic situation
- » Life expectancy and mortality
- » Geography / Topography / Climate conditions  
*(e.g. alpine regions in winter)*

# Regional Analysis – Regional Profiles: Over-, Under- or Inappropriate Supply?



Are the people in this health region

- undersupplied ?
- or are they healthier ?

# Regional Analysis – Regional Profiles: Circumstantial Evidence: Undersupplied or Healthier?

## *Live Expectancy at Birth 2002 –2014*

### Expected Life Years – male and female (Index, Austria = 100)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Austria</b>	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Province	101,5	101,2	101,6	101,5	101,3	101,5	101,7	101,6	101,4	101,5	101,3	101,5	101,3
<b>Health Region</b>	100,9	101,4	102,1	102,9	101,8	102,1	102,2	102,5	102,1	103,4	101,8	101,2	100,7

### Expected Life Years – male (Index, Austria = 100)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Austria</b>	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Province	101,9	101,9	102,2	101,7	101,5	101,7	102,1	102,0	101,6	102,1	101,8	102,2	101,4
<b>Health Region</b>	102,1	102,6	102,7	104,3	101,8	101,5	102,8	102,9	101,2	104,5	102,3	101,5	100,7

### Expected Life Years – female (Index, Austria = 100)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Austria</b>	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Province	101,2	100,6	101,1	101,3	101,0	101,4	101,4	101,2	101,2	100,9	100,9	100,8	101,1
<b>Health Region</b>	100,0	100,2	101,8	101,3	101,9	102,8	101,7	102,2	103,0	102,3	101,5	101,1	100,6

Source: ST.AT – Volkszählungen 2001, Bevölkerungsfortschreibung 2002–2014, Todesursachenstatistik 2002 –2014, GÖ FP-eigene Berechnungen

# Regional Analysis – Regional Profiles: Circumstantial Evidence: Undersupplied or Healthier?

## Mortality – Main Causes of Death 2003–2014

### Cases of Death per 100.000 Inhabitants (Index, Austria = 100)

	2003 – 2008							2009 – 2014						
	total	CS	MN	RS	DS	EC	of it Suizid	total	CS	MN	RS	DS	EC	of it Suizid
<b>Austria</b>	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Province	79	75	85	85	69	93	92	81	76	86	89	67	99	98
<b>Health Region</b>	81	79	81	89	62	107	79	85	87	82	93	63	110	62

### Cases of Death per 100.000 Inhabitants, age standardized<sup>1)</sup> (Index, Austria = 100)

	2003 – 2008							2009 – 2014						
	total	CS	MN	RS	DS	EC	of it Suizid	total	CS	MN	RS	DS	EC	of it Suizid
<b>Austria</b>	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Province	89	85	95	98	72	98	96	89	84	93	101	70	104	102
<b>Health Region</b>	84	80	85	95	62	112	88	85	85	83	91	65	112	68

<sup>1)</sup> standard population = population of Europe 2013

alle = alle Todesursachen (ICD-10 A00-Y89)

CS = Diseases of the circulatory system (ICD-10 I00-I99)

MN = Malignant neoplasms - cancer (ICD-10 C00-C97)

RS = Diseases of respiratory system (ICD-10 J00-J99)

DS = Diseases of the digestive system (ICD-10 K00-K93)

EC = External causes of morbidity and mortality (ICD-10 V01-Y89); Suicide (ICD-10 X60-X84)

Source: ST.AT - Volkszählung 2001, Bevölkerungsfortschreibung 2003-2014, Todesursachenstatistik 2003-2014, GO FP-eigene Berechnungen

# Regional Analysis – Regional Profiles: Circumstantial Evidence: Undersupplied or Healthier?

Selected Self Reports (inhabitants older than 15 years)

Health Behaviour and Selected Chronic Diseases 2014

Index, Austria = 100					
Region	self reported health status "very well" and "well"	regular physical exercise	balanced mixed diet (with fruits, vegetables, few meat)	"normal weight" BMI: 18,5 bis < 25	never or former smoker
Austria	100,0	100,0	100,0	100,0	100,0
Province	104,2	99,7	101,6	112,9	96,9
Health Region	104,4	110,7	107,5	108,5	95,0

Index, Austria = 100						
Region	Diseases of Heart and the Circulatory System	Chronic Pulmonary Disease	Diseases of the Musculoskeletal System	Diabetes	Allergies	Depression
Austria	100,0	100,0	100,0	100,0	100,0	100,0
Province	88,2	112,5	99,3	78,0	92,3	82,0
Health Region	69,9	57,7	83,9	49,2	46,4	28,1

Source: ST.AT-ATHIS 2014, "Die Österreichische Gesundheitsbefragung 2014"; GÖ FP-eigene Berechnungen

## Regional Analysis – Regional Profiles: **Circumstantial Evidence:** Undersupplied or Healthier?

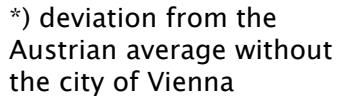
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Are the people in the health region

- undersupplied ?
- or are they healthier ?

Circumstantial evidence indicates that

- in the health region healthier people are living
- and that there is no situation of undersupply



# Data Analysis: Example – Daytime Variations

Comparison  
(weekdays in total) of

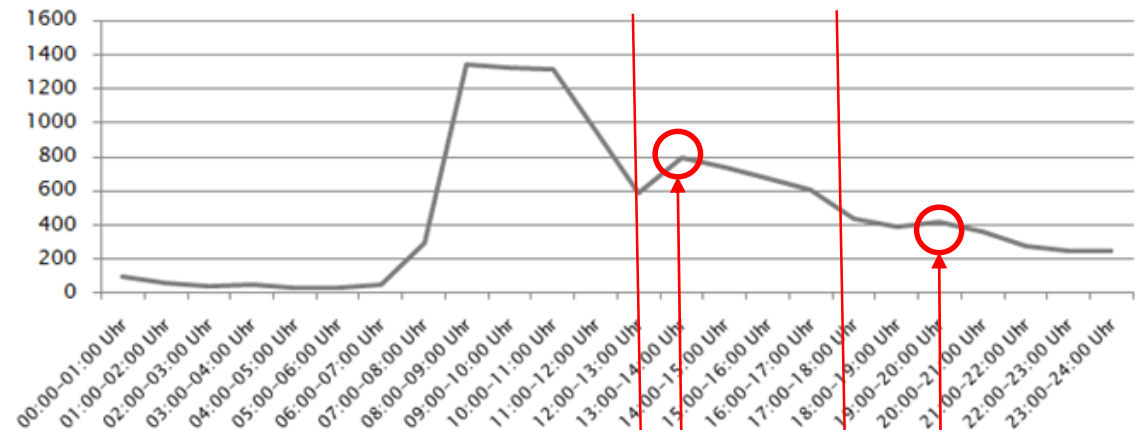
patient contacts in the  
outpatient facilities of the  
regional hospital

to

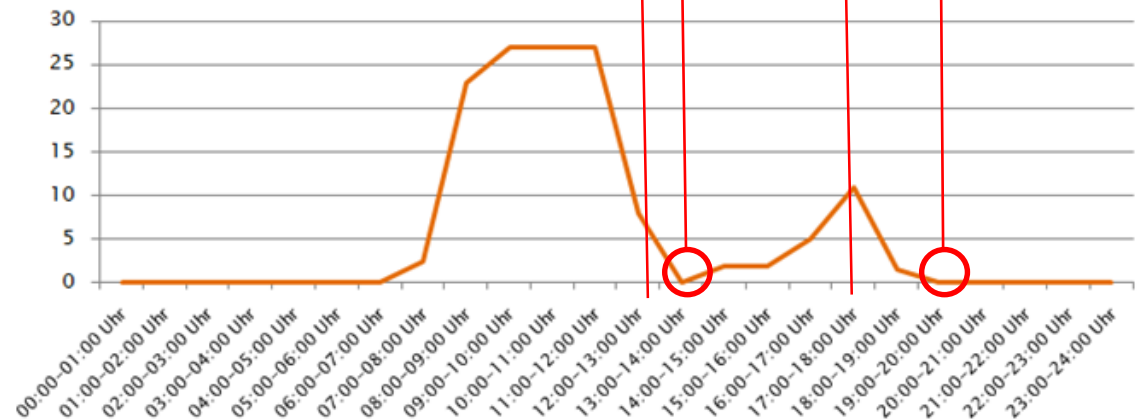
opening hours of  
physicians of the regional  
nonhospital outpatient  
sector

Internal  
Medicine

patient contacts in the outpatient facilities of hospitals



Opening hours in the nonhospital outpatient sector



# Planning: Outpatient Short Term Care – Planning Model “Physician Health Care”

Basis (IST):  
PCU (~FTE) – actual capacity value



1. reference value (BDoW):  
adjustment to reference value  
(Austrian average without Vienna– BDoW)

2. commuting-/tourism-factor (PuTF) :  
adjustment to the number of in- and  
outcommuters and number of tourists

3. shifting factor (ULF):  
inpatient to outpatient sector

4. demography factor (DF):  
adjustment to demogr. development  
(incl. epidemiology, patient behaviour, etc.)

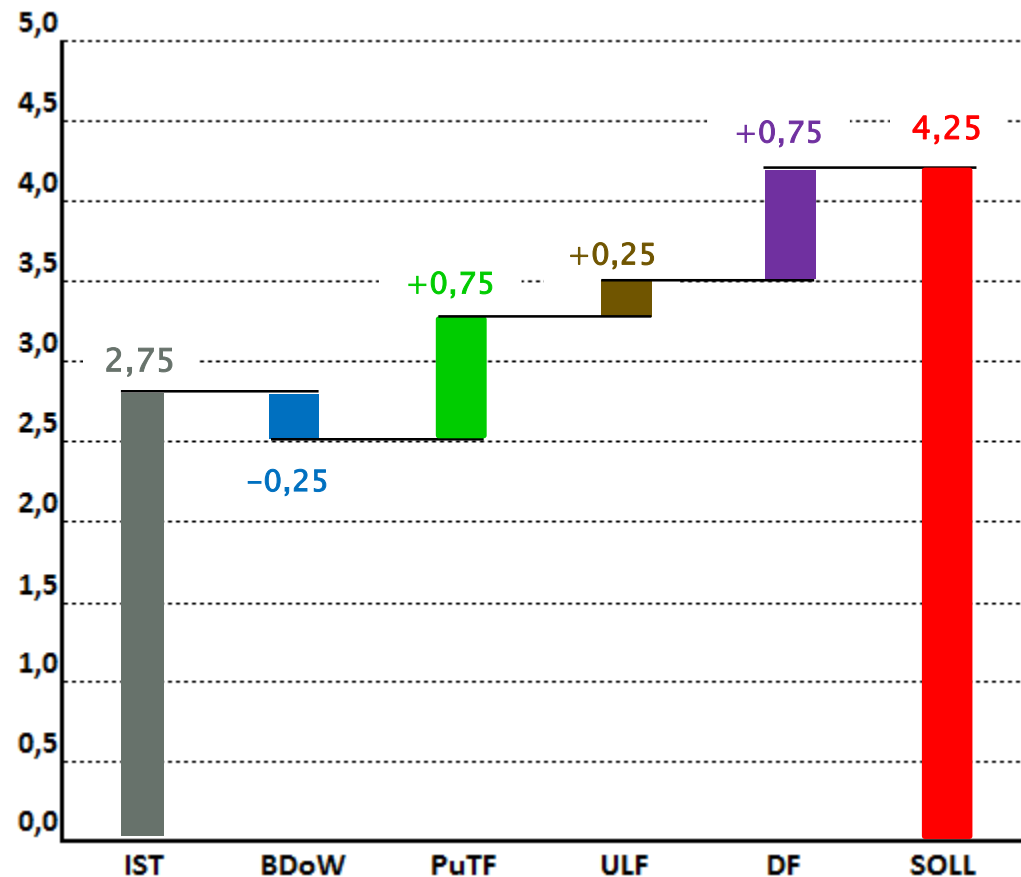


ideal typical result (SOLL)  
number of FTE  
target value 20xx

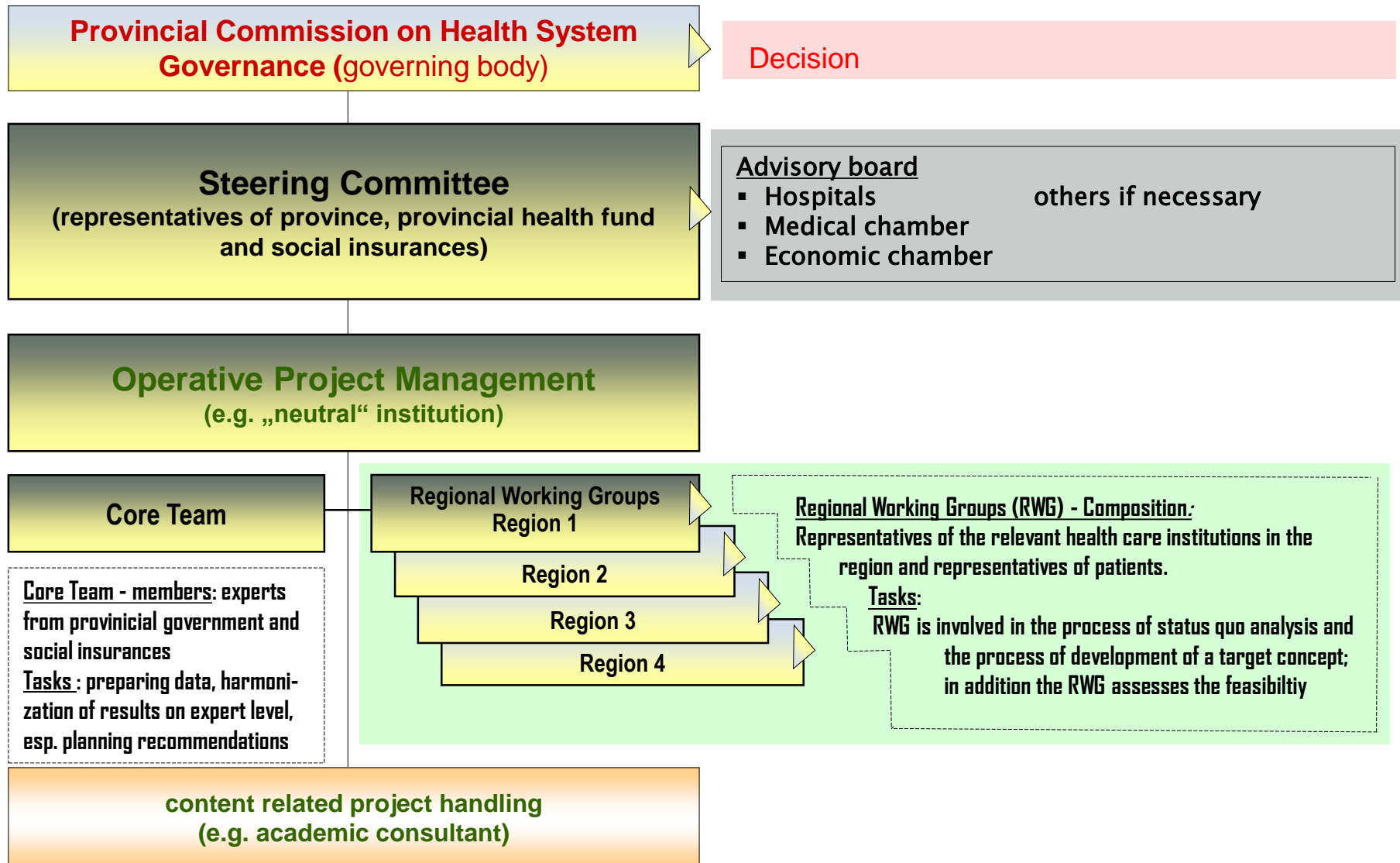


*input for discussion in regional conferences  
(consideration of regional specifics)*

number of PCU



# RSG: Architecture for Planning- and Negotiation Process (Example)



# Thank you very much for your attention!

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