



Performance Management in Accountable Care Organizations in the U.S. and Germany:

From External Reporting Requirements to Enabling Internal Performance Management in Physician Practices



The
**COMMONWEALTH
FUND**

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Rationale for the project

- Performance management systems (PMSYS) are an essential tool to improve quality & efficiency of Accountable Care Organizations (ACOs) and control affiliated physician practices¹
- Definition PMSYS

PMSYS refers to a set of metrics used to quantify and improve both the efficiency and effectiveness of organizations.

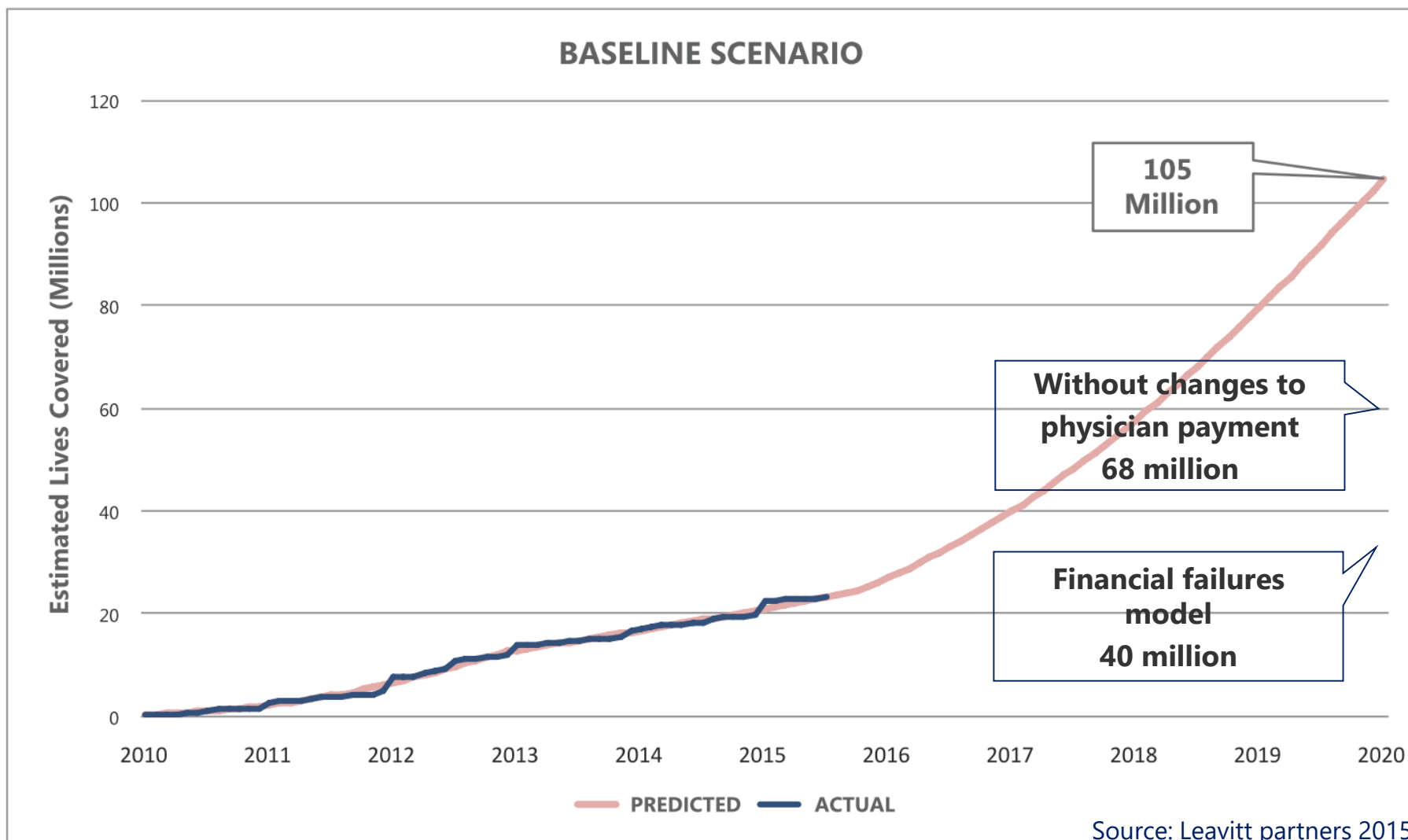
It includes:

- a set of measures +
- all processes connected to the use of these measures (e.g. feedback reports, peer reviews, decision support systems)

¹Bohmer, 2011; Mechanic & Zinner, 2012; Porter, 2010; Wagner et al., 2001

What are Accountable Care Organizations?

CMS definition: ACOs are “[...] groups of doctors, hospitals, and other health care providers, who come together voluntarily to give coordinated high quality care to the Medicare patients they serve [...] When an ACO succeeds in both delivering high-quality care and spending health care dollars more wisely, it will share in the savings it achieves for the Medicare program.”²



Rationale for the project

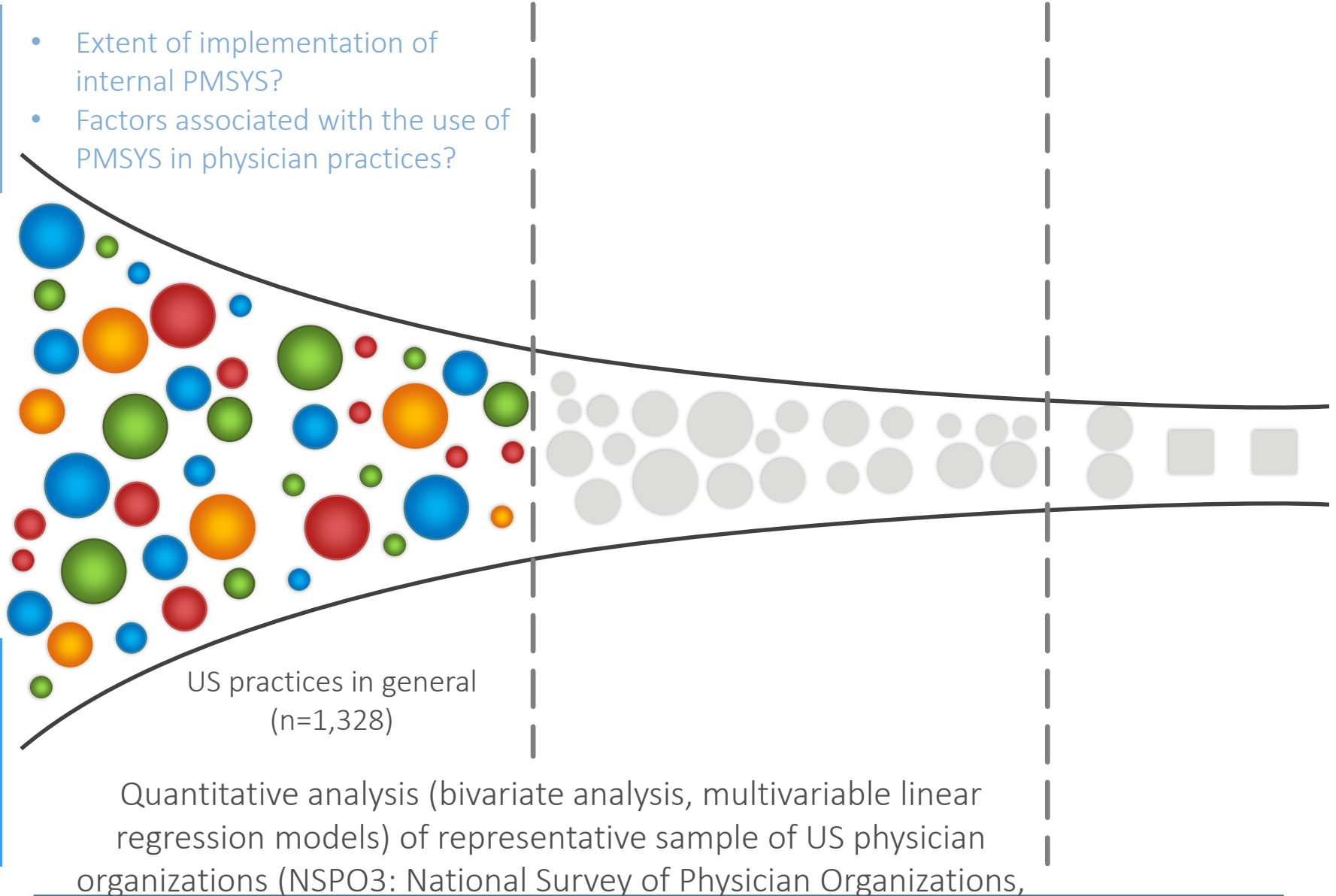
- Political and scientific discussion predominantly conducted from an external reporting view in the U.S.
- Sparse information about:
 - extent of PMSYS implementation in physician practices in general and especially in ACOs
 - interplay of external reporting requirements and internal PMSYS
 - other external factors and organizational capabilities influencing the use of PMSYS
 - success factors and barriers of internal PMSYS implementation and use

Study Aims and Design I

AIMS

- Extent of implementation of internal PMSYS?
- Factors associated with the use of PMSYS in physician practices?

STUDY DESIGN



Construction of PMSYS index for quantitative analysis

PMSYS robustness index subcomponents	Question content/criteria	Scoring rules
a) performance feedback for chronic conditions	Practice IPA PHO* provides performance feedback to physicians on the quality of their care for patients with the following chronic conditions: <ul style="list-style-type: none"> • asthma • congestive heart failure • depression • diabetes 	if "yes" to: 4 items = 100% 3 items = 75% 2 items = 50% 1 items = 25%
b) performance feedback for preventive services	Practice IPA PHO* provides performance feedback to physicians on the quality of their care for the following preventive services: <ul style="list-style-type: none"> • breast cancer screening • tobacco cessation interventions 	if "yes" to: 2 items = 100% 1 items = 50%
c) PMSYS integration into the IT system	Practice uses the electronic medical record <ul style="list-style-type: none"> • to collect data for clinical quality measures • for potential drug interactions • for prompts and reminders • for alerts on abnormal test results 	if "yes" to: 4 items = 100% 3 items = 75% 2 items = 50% 1 items = 25%
d) regular review, update and established continuous quality improvement process	Practice uses the following formal and systematic quality improvement system: <ul style="list-style-type: none"> • Plan-Do-Study-Act (PDSA) • Lean production techniques • Six Sigma • any other formal and systematic quality improvement systems. 	if "yes" to: 4 items = 100% 3 items = 75% 2 items = 50% 1 items = 25%
(subcomponent a + b + c + d) / 4		

Conceptual Framework: The Influence of Organizational Capabilities and External Factors on the Implementation of PMSYS and Performance Outcomes

External factors:

- Main independent variables:
 - external evaluation by health plans or other entities
 - public reporting requirements
 - P4P incentives
 - provision of data by health plans
 - quality improvement learning (QI) collaboratives
- Control variables:
 - payer mix
 - minority mix
 - regional influences

Organizational Capabilities:

- Main independent variables:
- organizational characteristics:
 - participation in an Accountable Care Organization
 - Independent Practice Association/Physician Hospital Organization affiliation
 - Internal capabilities:
 - Health information technology (HIT) functionality,
 - Electronic chronic disease registries
- Control variables:
- ownership
 - practice size
 - speciality mix

Implementation of Performance Management Systems (PMSYS) – robustness criteria:

a) conceptual criteria for the system of measures in the PMSYS

The system of measures should be:

- balanced (comprehensive set of measures of different dimensions of performance)^a
- Flexible
- simple to understand and use
- aligned with strategy
- able to illustrate causal relationships & describe the care / business model
- applied in depth (vertical level of detail of measures implemented) & breadth (horizontal scope of processes, departments etc. included)

b) PMSYS process model criteria

The PMSYS-process should:

- involve key stakeholders & balance their needs
- have set timescales
- enable strategy/vision & objective definition
- consider organizational structure & cultural issues
- organizationally integrate the PMSYS (strategic planning & control system, budgeting & resource allocation, incentive & payment system, IT-system^b)
- involve internal & external benchmarking as well as public reporting
- enforce regular review & update and facilitate continuous learning^c
- ensure fast accurate feedback to involved parties (communication & reporting)^a
- enable performance measure development & protection against manipulation & adverse effects
- be efficient and economically viable^b
- protect privacy

Performance Outcomes

Notes: ^arepresented by PMSYS index subcomponent(s) performance feedback for chronic conditions and for preventive services, ^brepresented by PMSYS integration into the IT system PMSYS index subcomponent, ^crepresented by regular review, update and established continuous QI process PMSYS index subcomponent.

Study Aims and Design II

AIMS

- Extent of implementation of internal PMSYS?
 - Factors associated with the use of PMSYS in physician practices?
- Extent of implementation of internal PMSYS in ACOs?
 - Factors associated with the implementation and use of PMSYS in physician practices in ACOs?
 - Identify positive deviants (PDs)
 - Characterize PDs

STUDY DESIGN

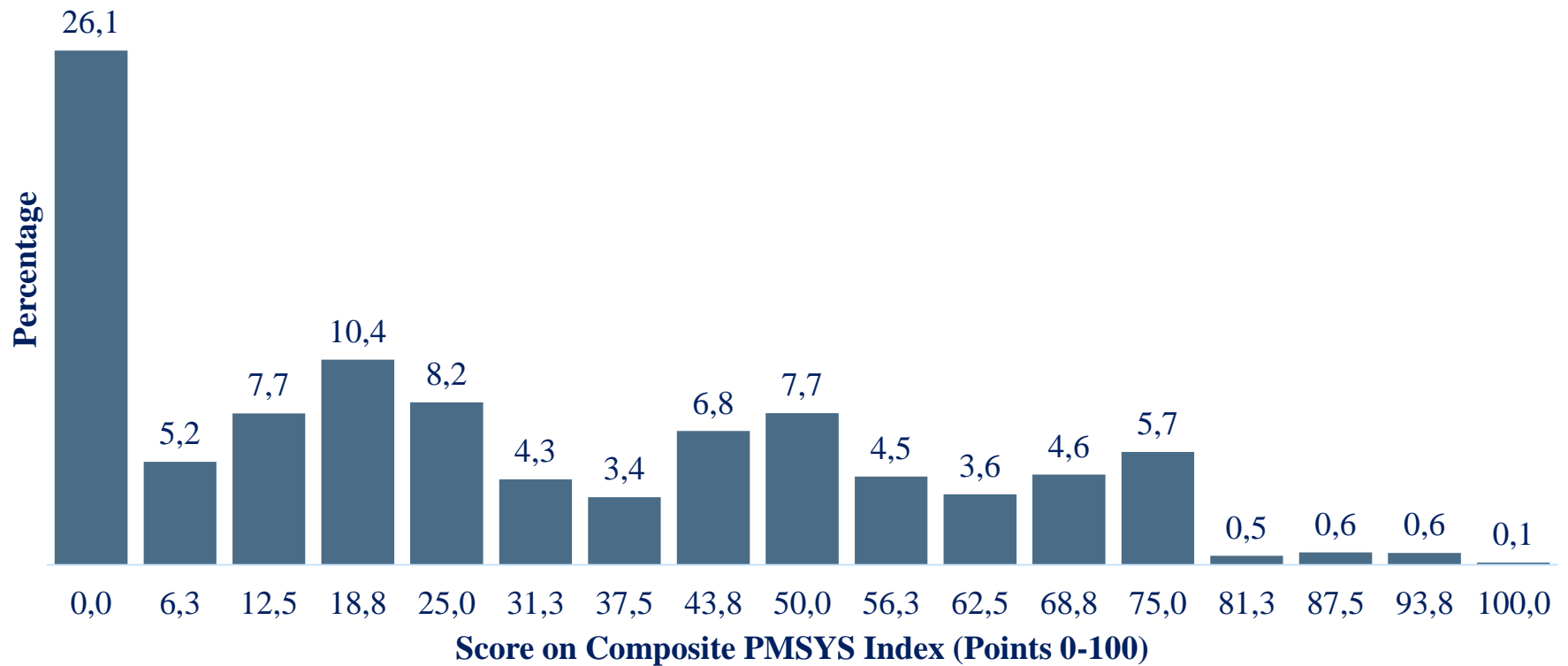
US practices in general
(n=1,328)

US practices affiliated with an ACO
(n=316)

Quantitative analysis (bivariate analysis, multivariable linear regression models) of representative sample of US physician organizations (NSPO3)

Findings of the quantitative analyses I

Most physician organizations in the US have underdeveloped PMSYS (on average only 26% of the PMSYS processes implemented).



Findings of the quantitative analyses II

Physician practices in ACOs used significantly **more** PMSYS processes than practices not affiliated with ACOs (on average 53% vs. 23%)

Greater use of PMSYS processes in physician organizations in general, as well as in ACO practices was significantly associated with:

- **greater** non-financial external incentives
 - › evaluation by health plans or other entities
 - › public reporting requirements
 - › receipt of performance data by health plans
- **affiliation** with a **network** (Independent Physician Association or Physician Hospital Association)
- **greater** HIT functionality and use **electronic** chronic disease registries

P4P incentives were not associated with an overall greater use of PMSYS in general and even **negatively** associated in the ACO physician practice subgroup-analysis.



Findings of the quantitative analyses III: subdimensions

Greater P4P and public reporting incentives for physician practices only positively associated with PMSYS – IT integration subdimension

– even negative association with review, update und QI subcomponent.



positive association

Provision of health plan data and QI collaboratives

→ Extrinsically induced performance measurement (P4P and public reporting incentives) fosters the technical adoption of practices relevant to meeting external requirements for reimbursement, but not the cultural changes necessary to also make performance measurement and continuous improvement to an integral part of the organizational culture?

Provision of health plan data and QI collaboratives that target the intrinsic motivation are better options for that?

Study Aims and Design III

AIMS

- Extent of implementation of internal PMSYS?
- Factors associated with the use of PMSYS in physician practices?
- Extent of implementation of internal PMSYS in ACOs?
- Factors associated with the implementation and use of PMSYS in physician practices in ACOs?
- Identify positive deviants (PDs)
- Characterize PDs
- How are PMSYS used in ACOs?
- What are barriers & success factors?
- How did PDs overcome barriers?
- Relationship between external PM policy vs. internal PM?

STUDY DESIGN

US practices in general
(n=1,328)

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Quantitative analysis (bivariate analysis, multivariable linear regression models) of representative sample of US physician organizations (NSPO3)

Qualitative in-depth study of physician organizations affiliated with an ACO
(n=4; 2 NSPO3 PDs, 2x high reputation cases: US IDS + German *Gesundes Kinzigtal*, 39 interviewed persons (25 interviews) + live demos of all PMSYS)



General findings of the qualitative study

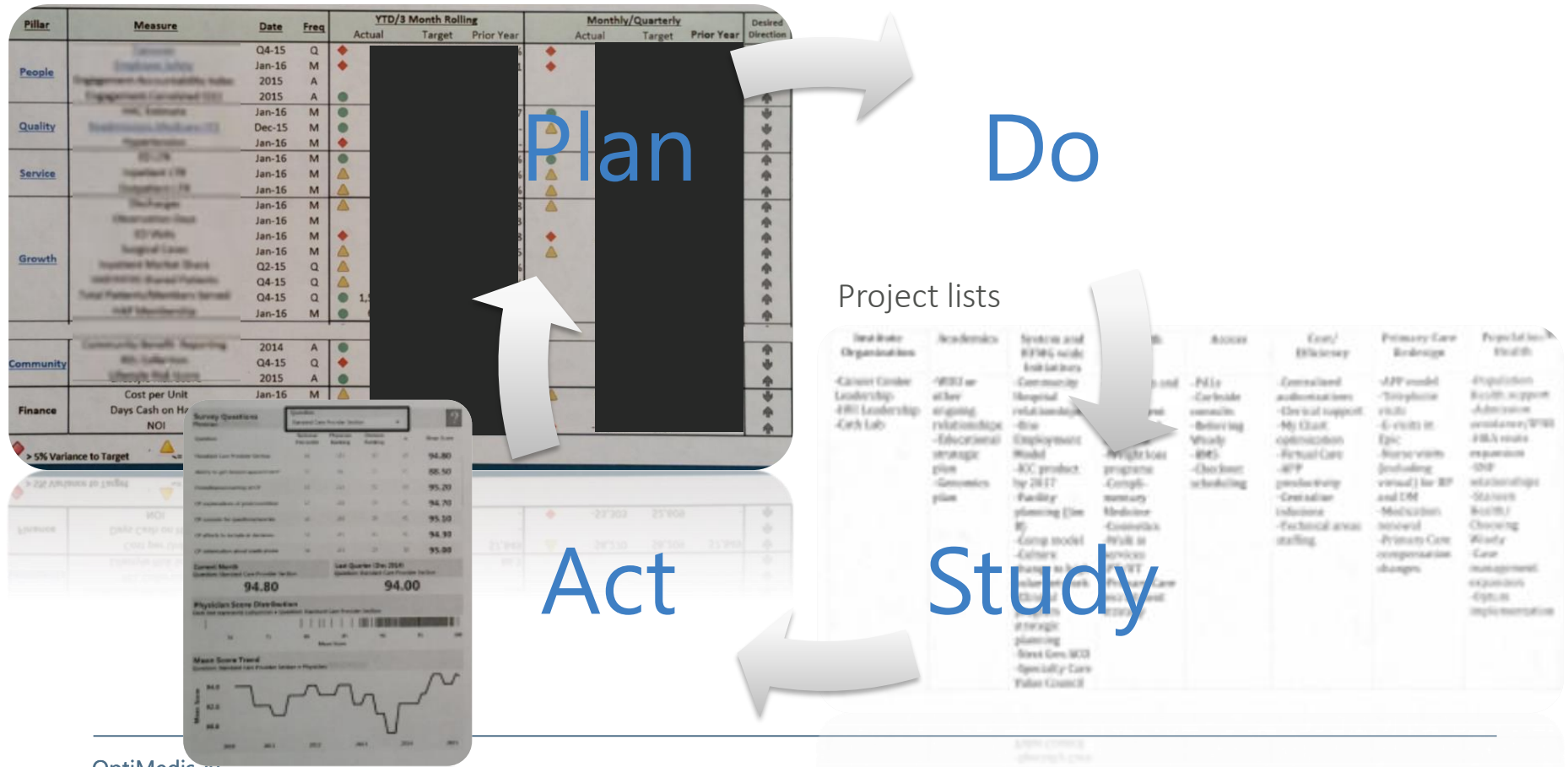
Qualitative study supports quantitative findings:

- A culture of quality drives PMSYS
- P4P incentives play a minor role
- Internal – NOT external – measures are used to manage
- Measurement proliferation → internal clearing house

General findings of the qualitative study

Tight link between measurement and management

- › Sophisticated, efficient, centralized, but also personalized outreach + inreach systems
- › Support physicians with staff for PMSYS use
- › Great utilization of technical support solutions (e.g. reminders, patient lists)



Lessons learned for Policy and Practice

Policy

- Adverse effects of P4P incentives & extensive external reporting requirements!?
 - P4P vs. intrinsic motivation
 - tame measurement burden
- Strengthen networks
- Incentivize inclusion of underperforming practices in networks (e.g. geographically value based models)
- Foster HIT & chronic disease registries

Practice / ACOs

- Focus on performance measurement that has the biggest impact for the organization and is actionable
- Utilize intrinsic motivation
- “Make it easy, to do the right thing”
 - Sophisticated, efficient, centralized, but also personalized outreach + inreach systems
 - Physician extenders
 - Technical support solutions (e.g. reminders, patient lists)
- Still room for improvement:
 - Struggle of timely feedback
 - PMSYS utilization rate by frontline staff
 - Physician level reporting solutions (IT)

In-depth analysis of one ACO – The German ACO Gesundes Kinzigtal

Internationally recognized best-practice ACO model: Gesundes Kinzigtal

CASE STUDY:

Gesundes Kinzigtal Germany

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Accountable Care NEWS

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This case study is part of the *Accountable Care in Practice: Global Perspectives* series produced by Duke University's Robert J. Margolis, MD, Center for Health Policy and supported by the Commonwealth Fund. The series explores how organizations across the world have taken steps to improve health outcomes by adopting accountable care policy reforms within diverse organizational and environmental contexts. The aim is to assist US stakeholders to apply the results of these reforms. We consider the critical success factors with each organization's implementation process that could be translated in the US. Additional resources, including an explanation of the accountable care framework, can be found at the Duke-Margolis website.

Measuring the Care Population Health

by Alexander Pimperl, Ph.D., Timo Schulte, MBA, Axel Mühlbacher, Ph.D., Magdalena Rosenmöller, Ph.D., M.D., MBA, Reinhard Busse, M.D., MPH, FFPH, Oliver Groene, Ph.D., MSc, M.A., Hector P. Rodriguez, Ph.D., MPH, and Helmut Hildebrandt, Ph.D. (h.c.)

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Special Issue on Health Systems Strengthening (Ljubljana Charter 1996–2016)

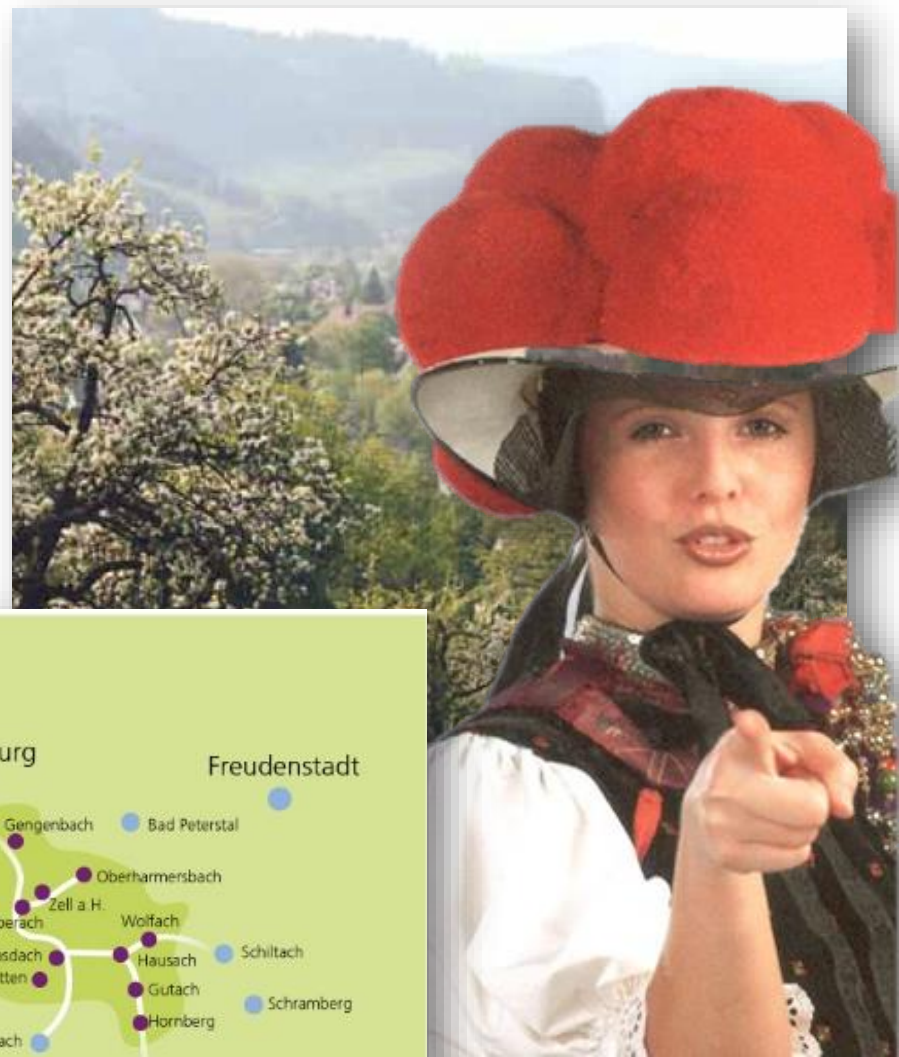
PEOPLE-CENTRED POPULATION HEALTH MANAGEMENT IN GERMANY

By: Oliver Groene, Helmut Hildebrandt, Lourdes Ferrer and K. Viktoria Stein

Summary: Since 2006 the Gesundes Kinzigtal (GK) model has demonstrated how a people-centred focus on population health management can lead to significant gains in achieving the Triple Aim of better population health, improved experience of care, and reduced per capita costs. Through a strong management organization, a sophisticated data management system, and a trusting relationship between network partners and the communities, the GK model has been able to provide better outcomes for all partners involved.

Gesundes Kinzigtal: a geographically defined Shared Savings contract

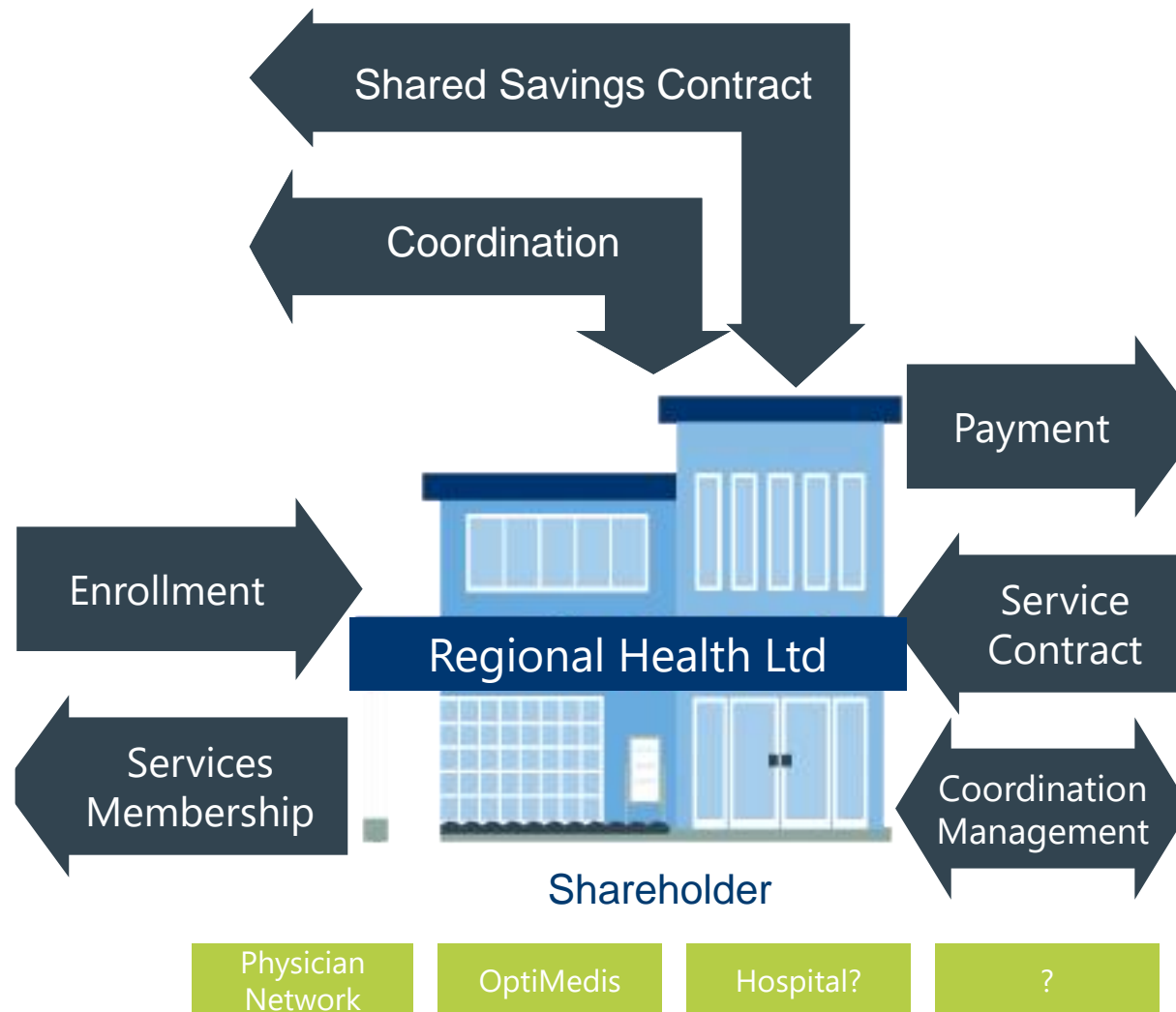
- Start: 2006 – 10 year contract
- Shared Savings contract: Accountability for medical and economical results of a geographically-defined population of 33,000 insurees (two statutory health insurers AOK & LKK)
- Aim: Set incentives to focus on population health, vulnerable patients and include all providers – good or bad performers – avoid risk-selection.



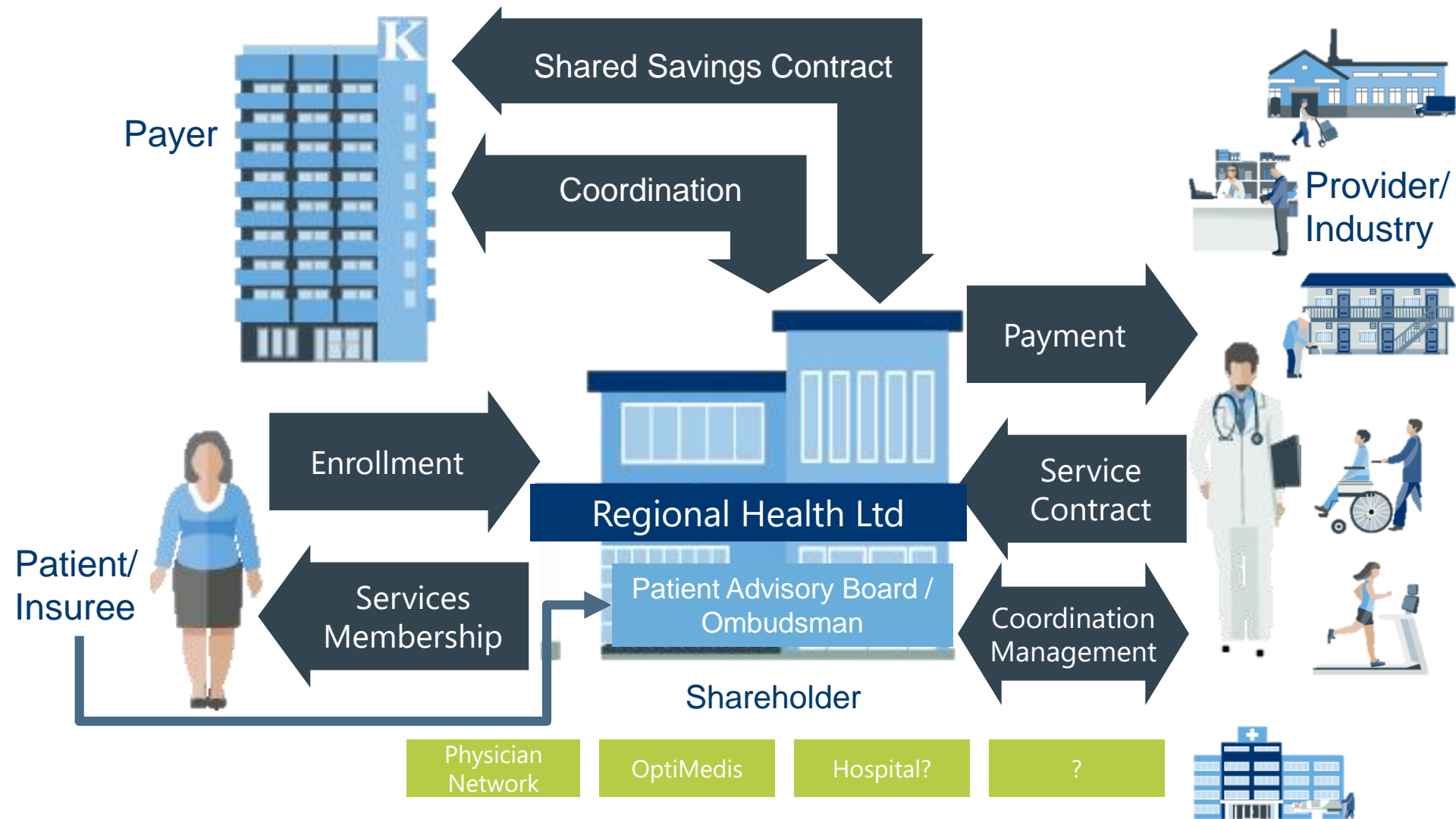
Disruption of the traditional health care systems through an integrator / Accountable Care Organization



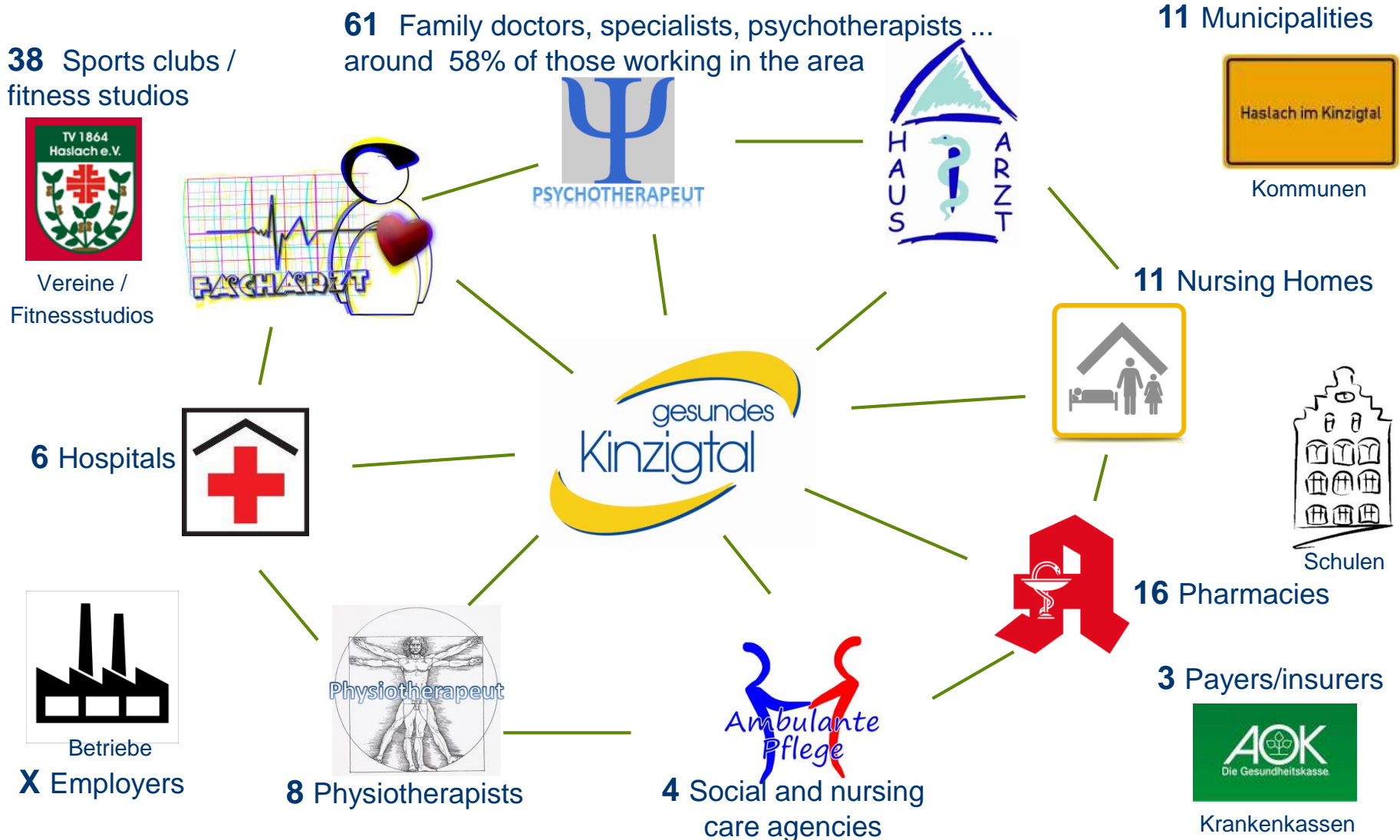
Disruption of the traditional health care systems through an integrator / Accountable Care Organization



Disruption of the traditional health care systems through an integrator / Accountable Care Organization



Integrator of Health-Network across the Boundaries of Professions and Institutions >250 cooperation partners



Range of evidence-based and locally adapted interventions have been implemented in Gesundes Kinzigtal



Gesundes Kinzigtal

Primary prevention

Health trainings /
group activities

Club sports

Course offers
(e.g. aqua fitness)

Health programs

Heart failure

Metabolic syndromes

Back pain

Psychic crises

Depression

Geriatric care

etc.

Supporting infra:

Incentive program

Quality indicators

“World of health”

Health management

etc.

Committed network partners

Hildebrandt H, Schulte T, Stunder B. Triple Aim in Germany: Improving population health, integrating health care and reducing costs of care in the Kinzigtal-region – lessons for the UK? Journal of Integrated Care, Vol. 20 Iss: 4, pp.205 - 222 (2012). Emerald Group Publ. DOI: 10.1108/14769011211255249

Various public festivities and exhibitions

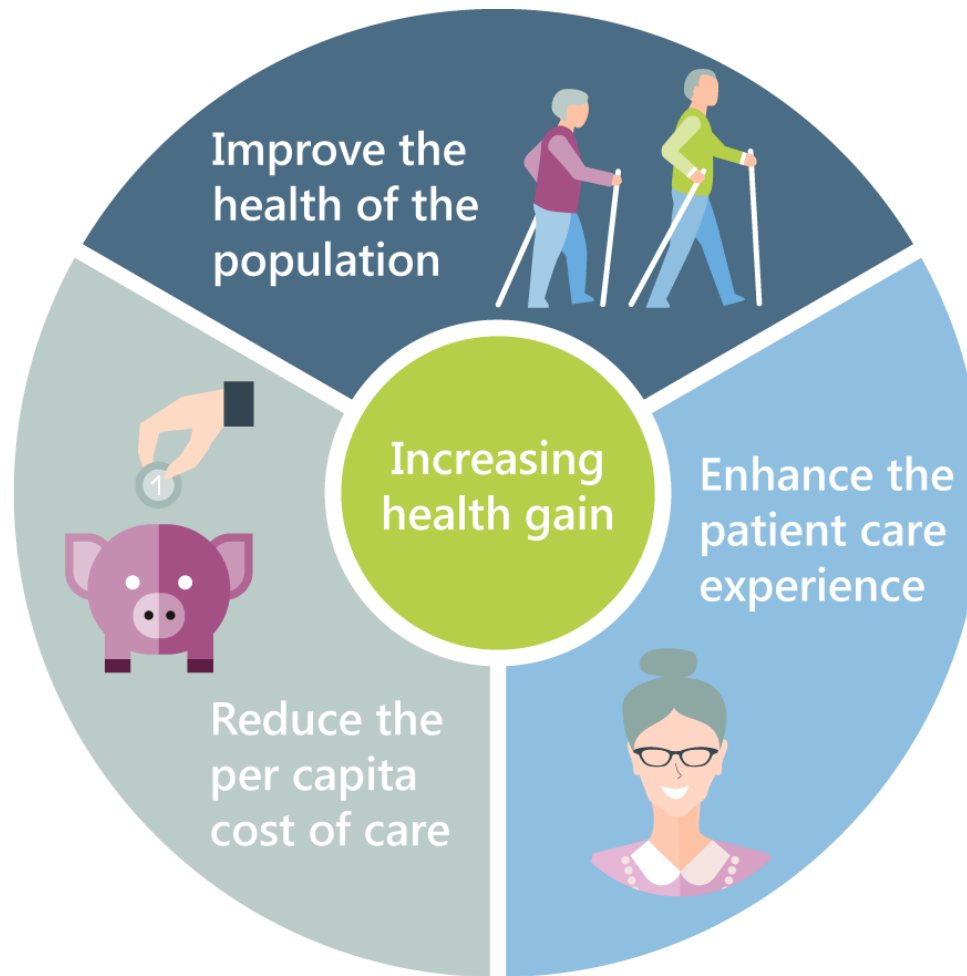


... to be present in the community and working closely together with municipalities, local authorities, regional sport clubs and other associations

- 2007: „Fest der Gesundheit“, Haslach
- 2010: „Fest der Gesundheit“, Gengenbach
- 2011: „Transparente Mensch“, Haslach
- 2012: „Fest der Gesundheit“, Haslach
„Begehbare Darm“, Haslach
- 2013: „Kinderfest“, Haslach



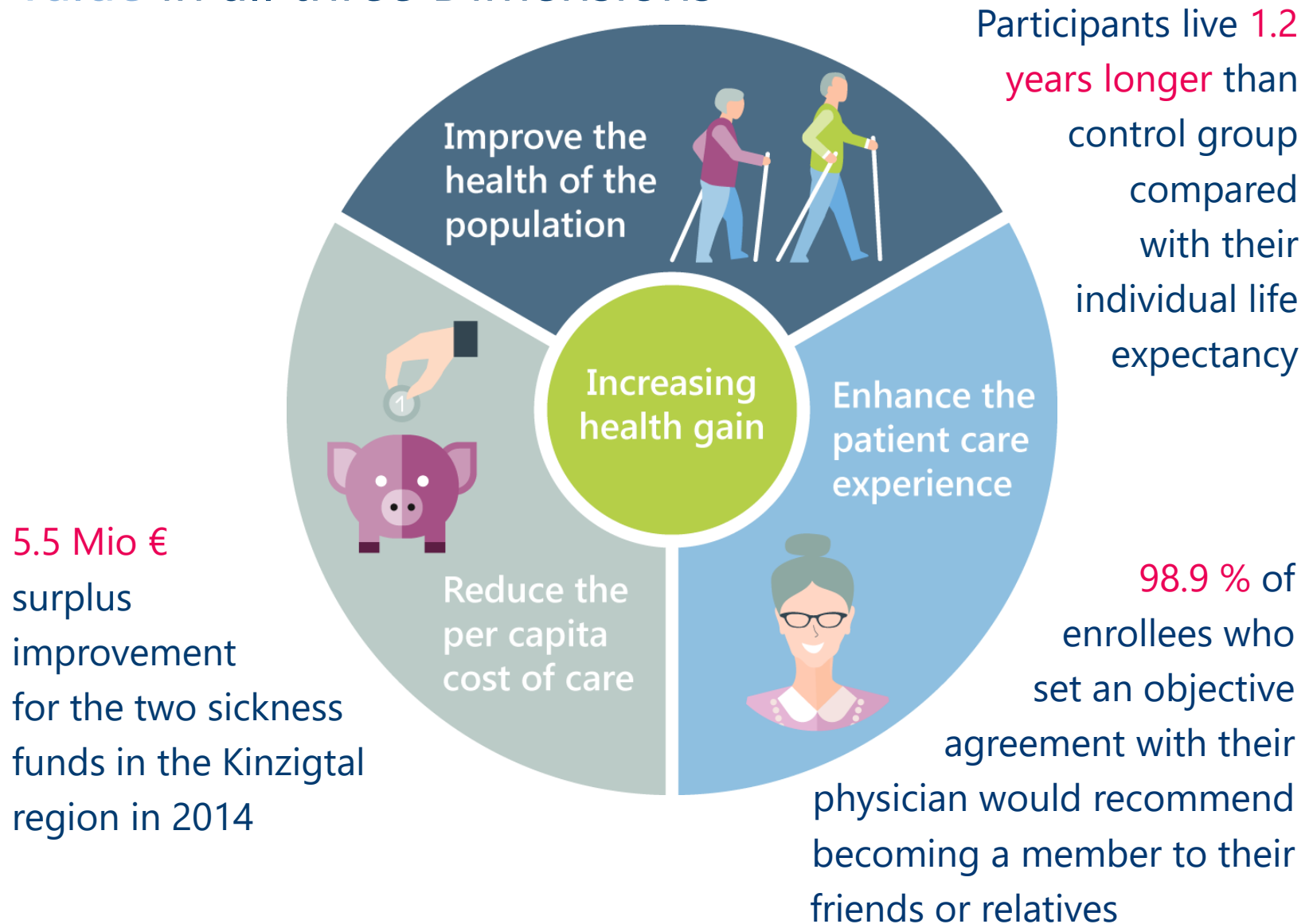
The Triple Aim vision of Gesundes Kinzigtal: Improve health care in three dimensions



Based on the Triple Aim principles of Donald M. Berwick

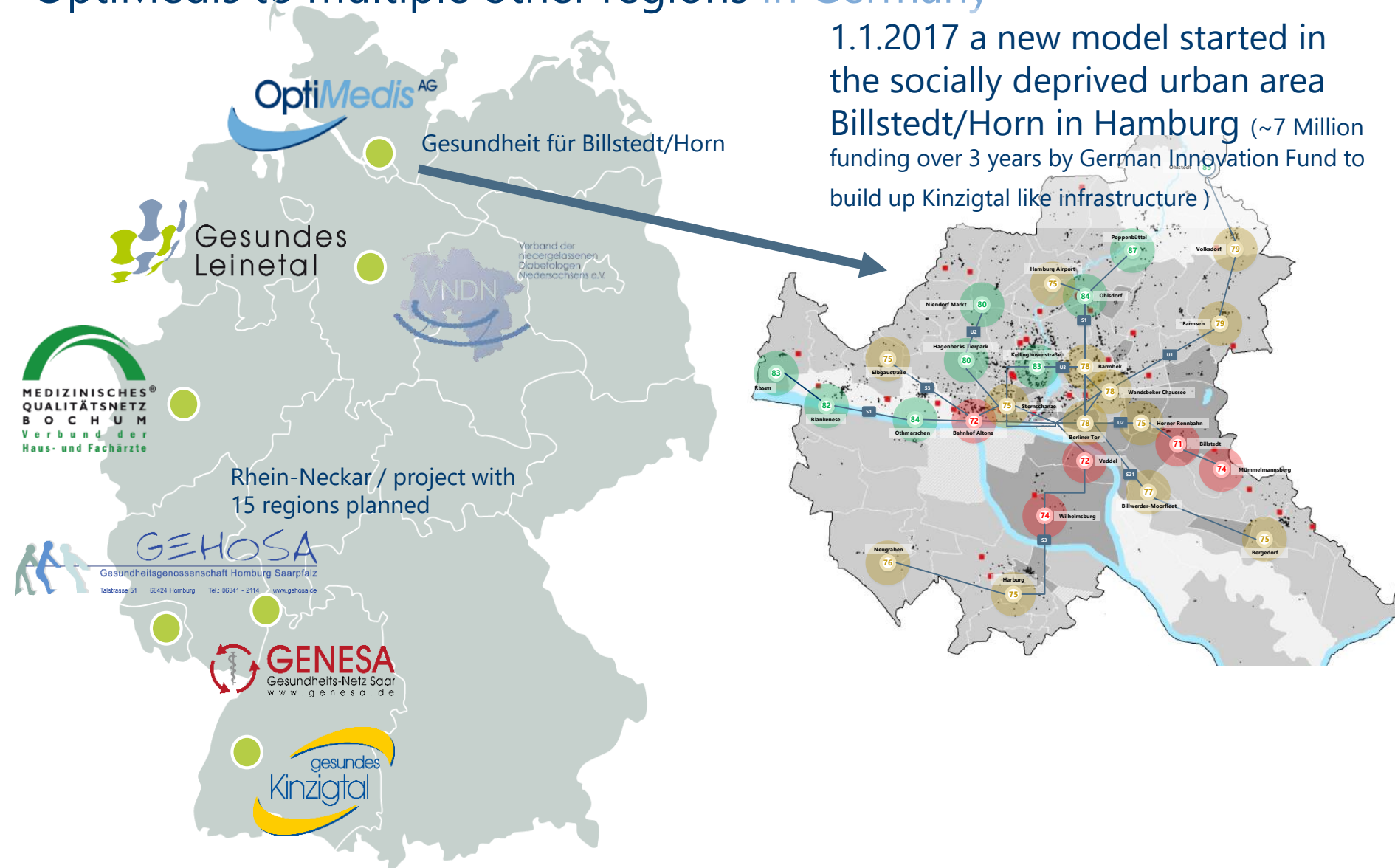
Donald M. Berwick (et al.) (2008). Health Affairs, vol. 27 no. 3, 759-769

Gesundes Kinzigtal achieves this vision and produces Value in all three Dimensions

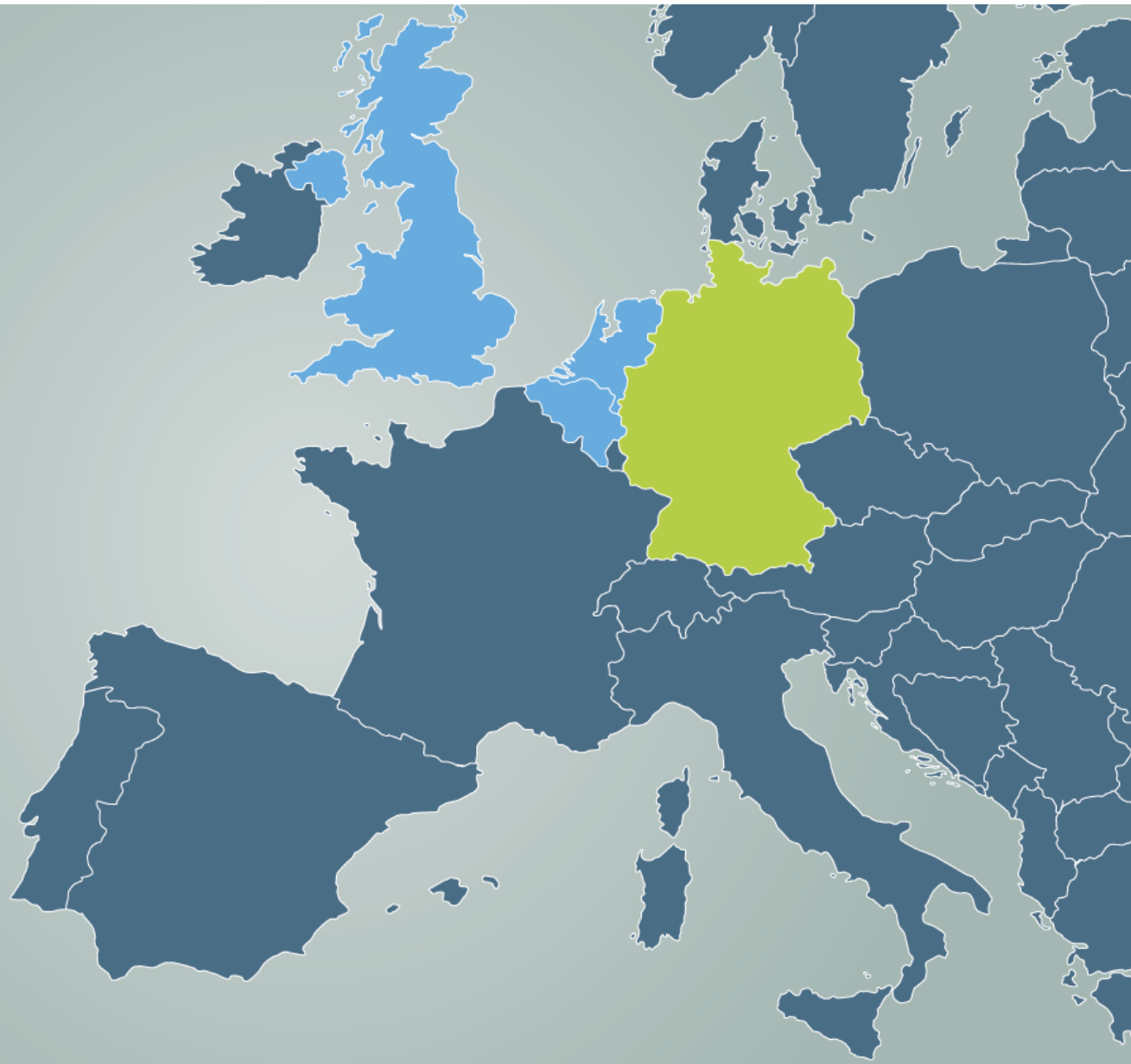


The Gesundes Kinzigtal Model is also multiplied via OptiMedis to multiple other regions in Germany

1.1.2017 a new model started in the socially deprived urban area **Billstedt/Horn in Hamburg** (~7 Million funding over 3 years by German Innovation Fund to build up Kinzigital like infrastructure)



... and also Europe



Comprehensive implementation of technology and performance management as one of the most important success factors

Long-term shared savings contract for geographically-defined population

Regional health management company as “integrator”; partly owned by providers

Get the patient on board – literally!

Investment for the first three years until break even

Focus on culture of quality, freedom, mutual responsibility, trust and innovation and NOT money
→ don't go too big

Evidence-based and locally adapted interventions that also go beyond healthcare

Comprehensive implementation of technology & performance management

Success factor: Technology and Performance Management

Gesundes Kinzigtal / OptiMedis has invested a two digit million € amount in technology in the last years:

Electronic networking system

- Multiple Doctor Information Systems (DIS) of the cooperating physicians have been connected to an electronic patient record for the network
- In preparation is the integration of further providers such as ambulant nursing care services, hospitals and social care institutes

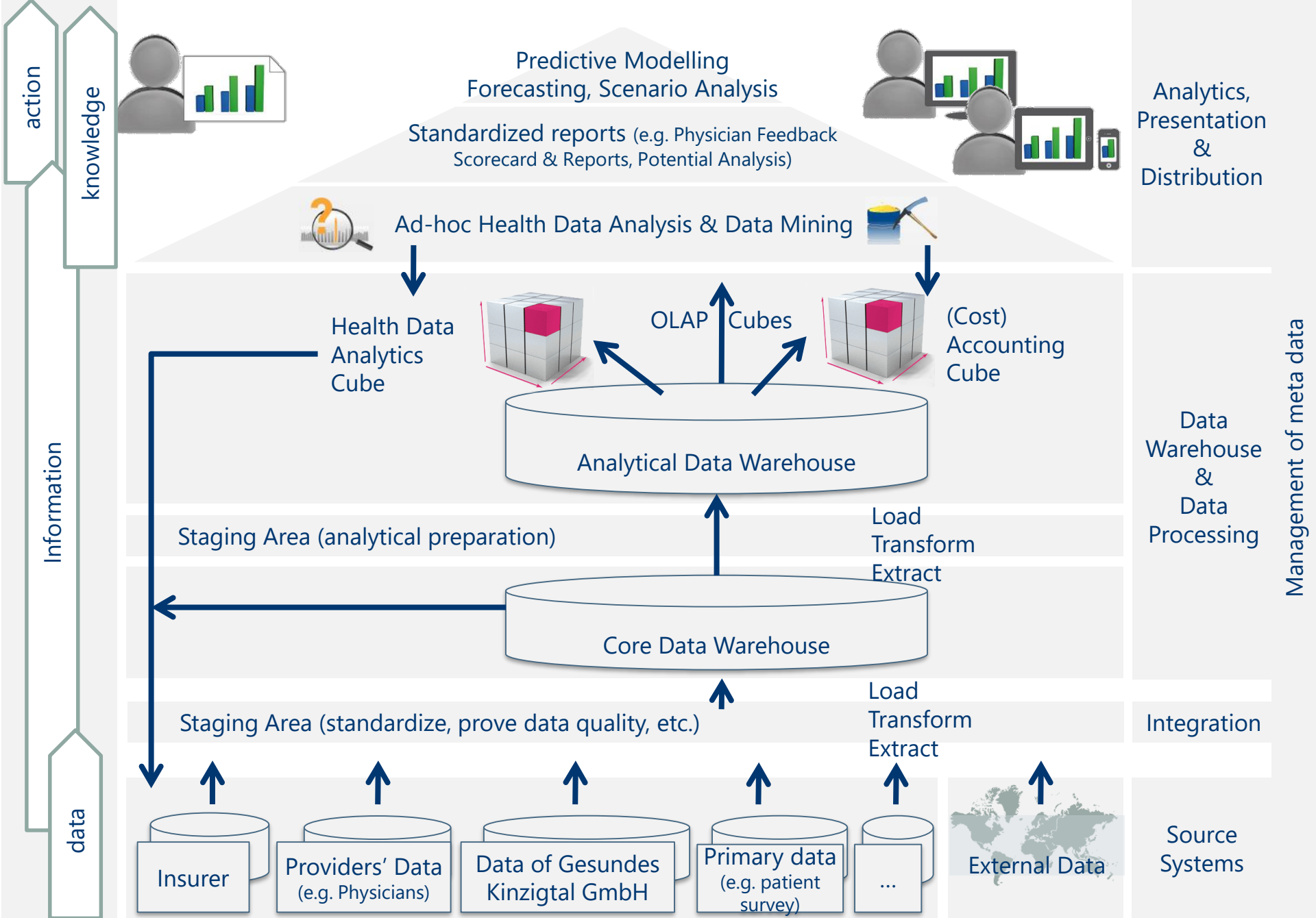
CGM NET
powered by OptiMedis AG

Business Intelligence Solution

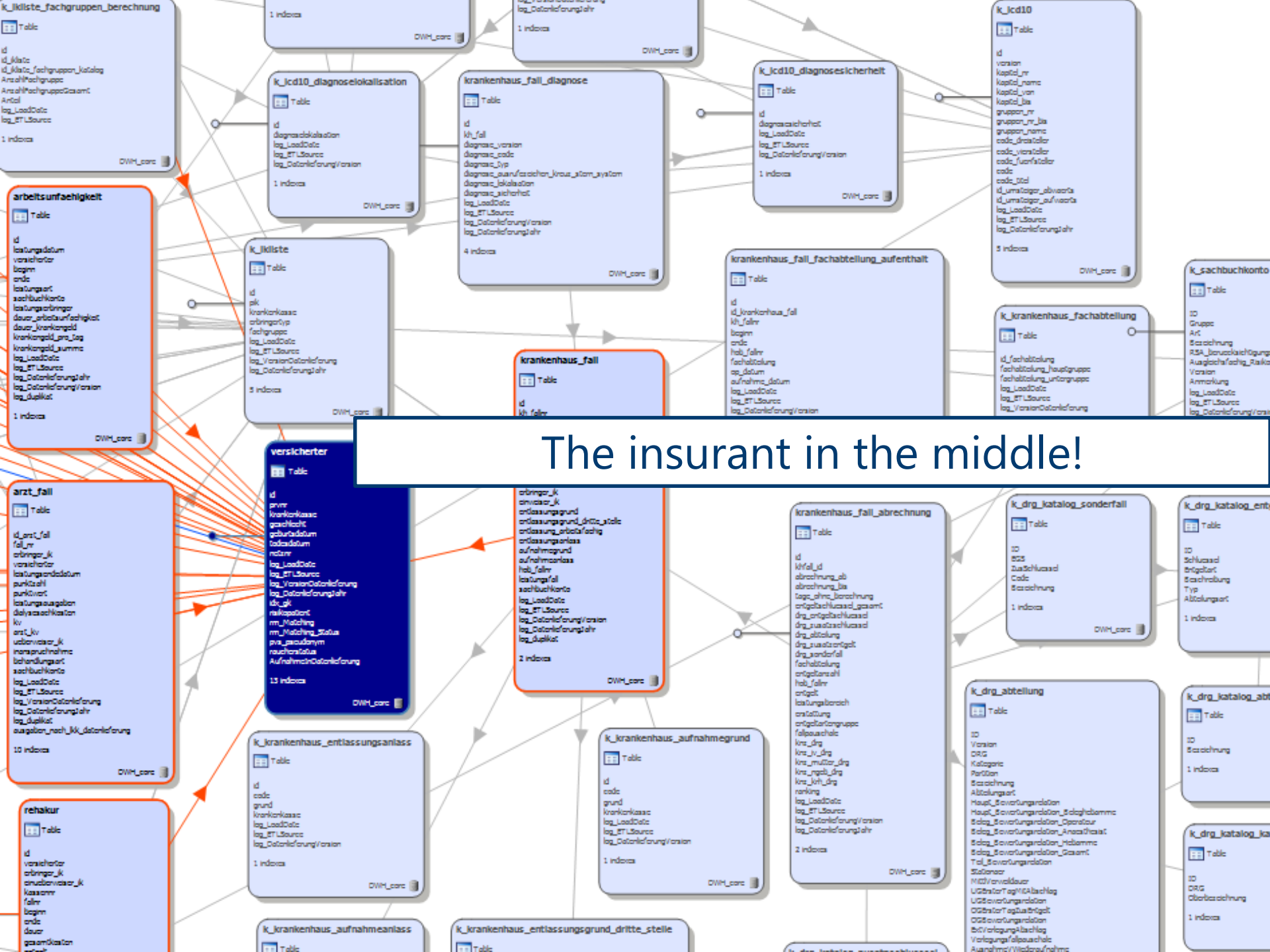
- Multidimensional Data Warehouse has been developed.
- Various data sources are linked in a prepared, enriched and used for management support via Deltamaster as BI front-end:
- Continuous development since 9 years
- Award winning solution

E-Care applications and services, e.g.

- Telemonitoring project for the management of heart failure patients has been tested
- Actually participating in EU-projects in this field (Beyond Silos, SmartCare) for e.g. Ambient Assisted Living technologies
- self tracking and mobile health data from APPs are also planned for the future



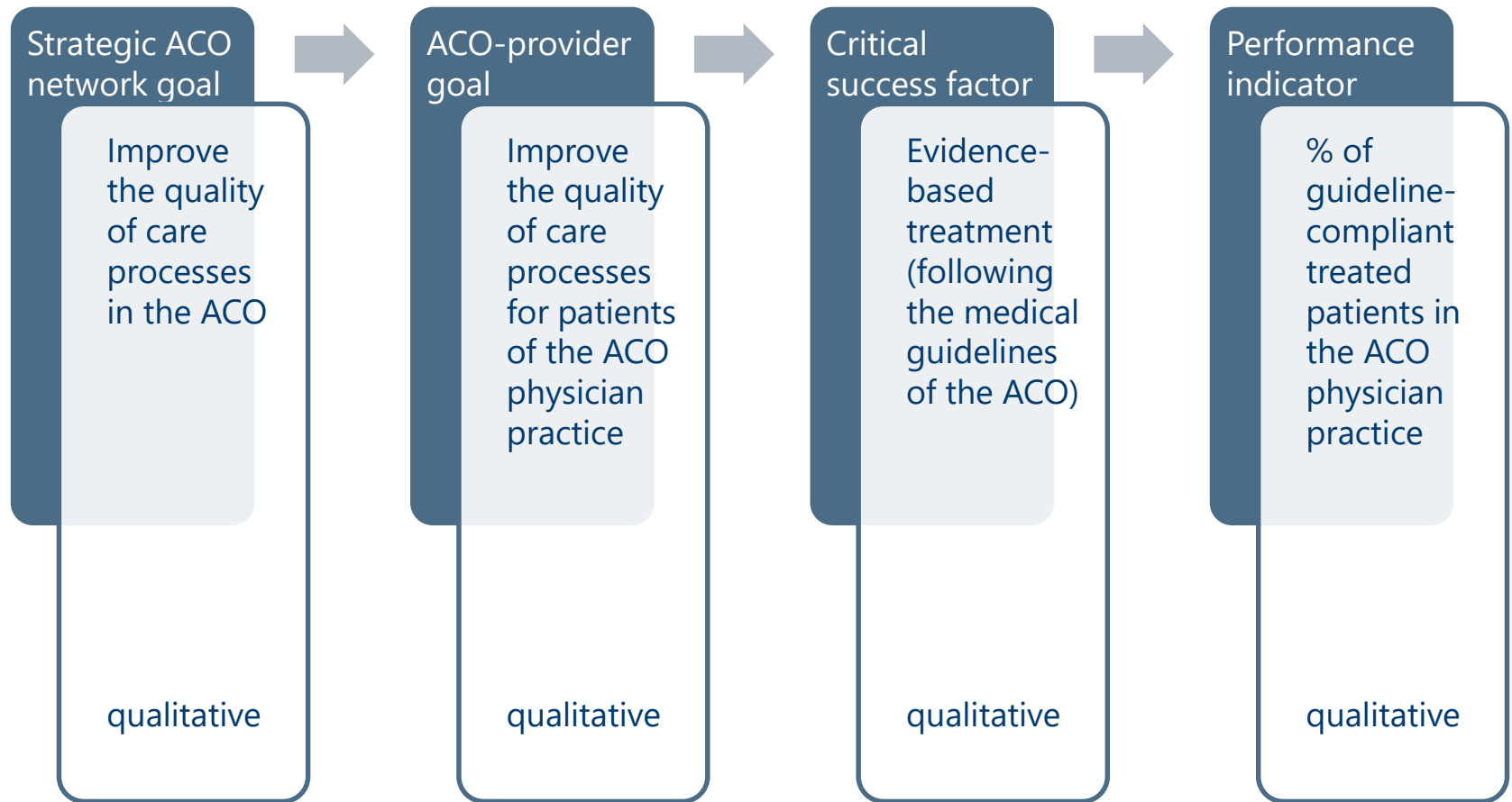
Core Data Warehouse



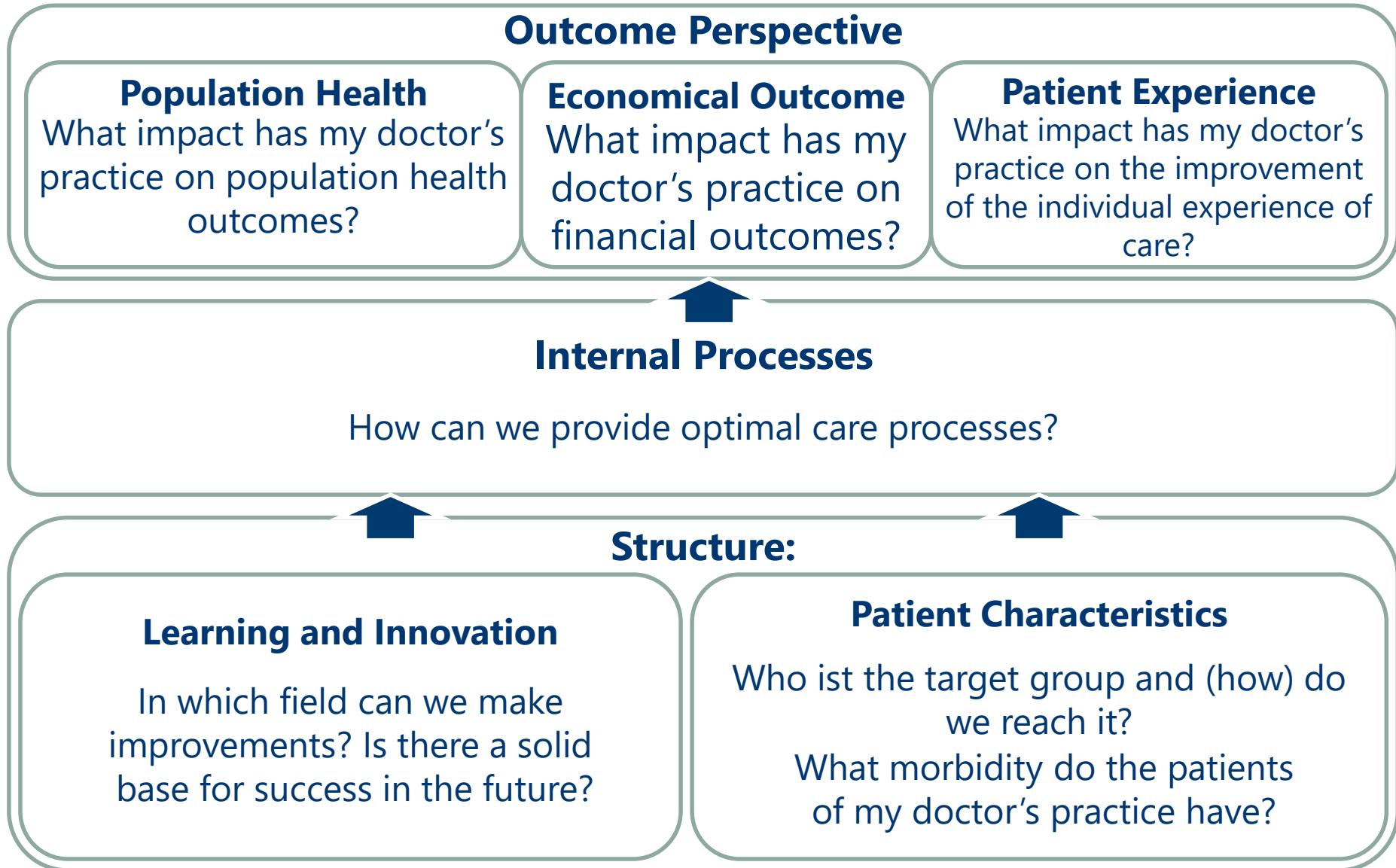
A Balanced Scorecard approach as strategic framework for Gesundes Kinzigtal



Methodology to operationalize strategic ACO-network goals



Balanced system of measures for the physicians health care cockpit focused on the Triple Aim

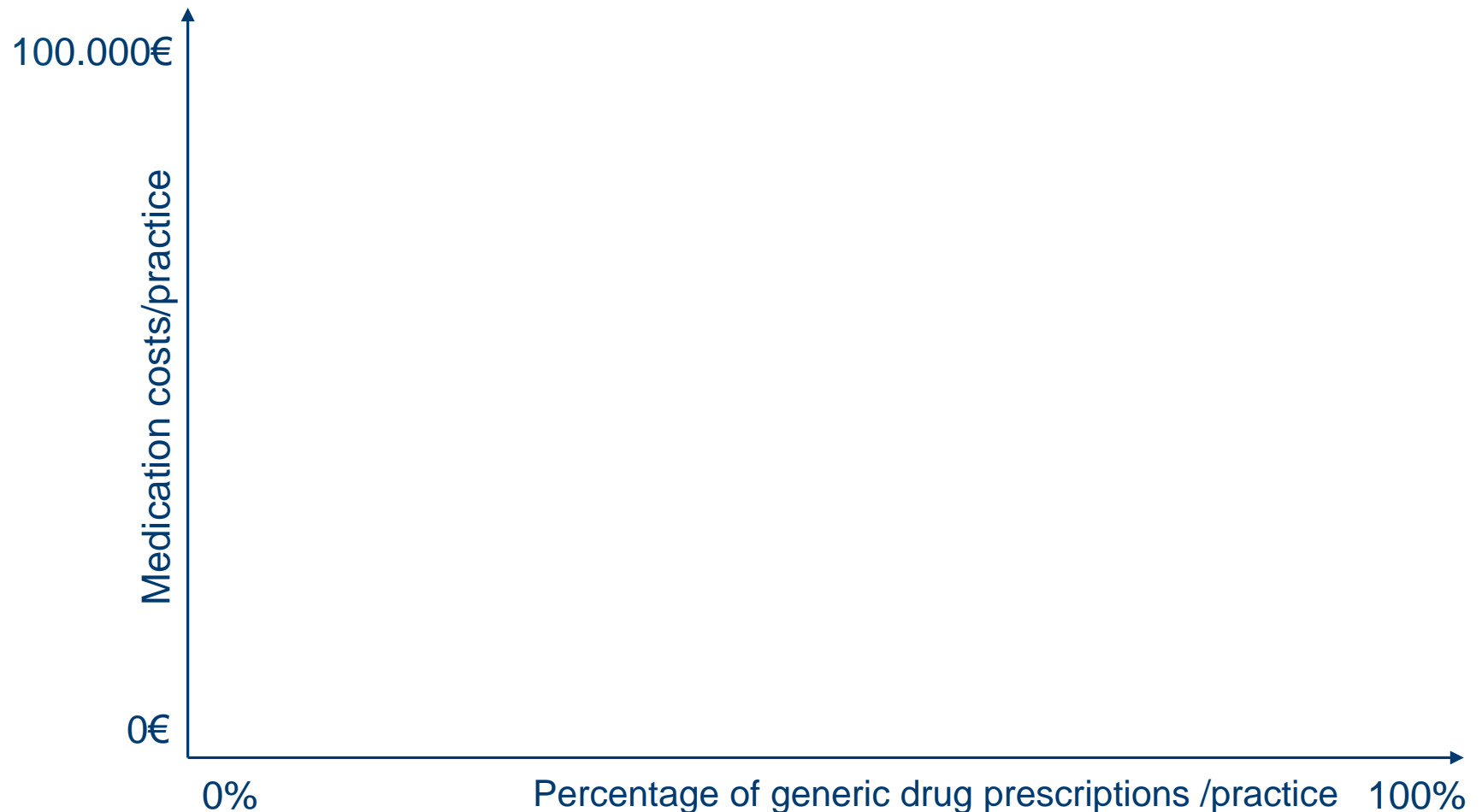


Example of a feedback report – so called **health services cockpit** – for GP practices oriented towards the Balanced Scorecard (exemplary data)

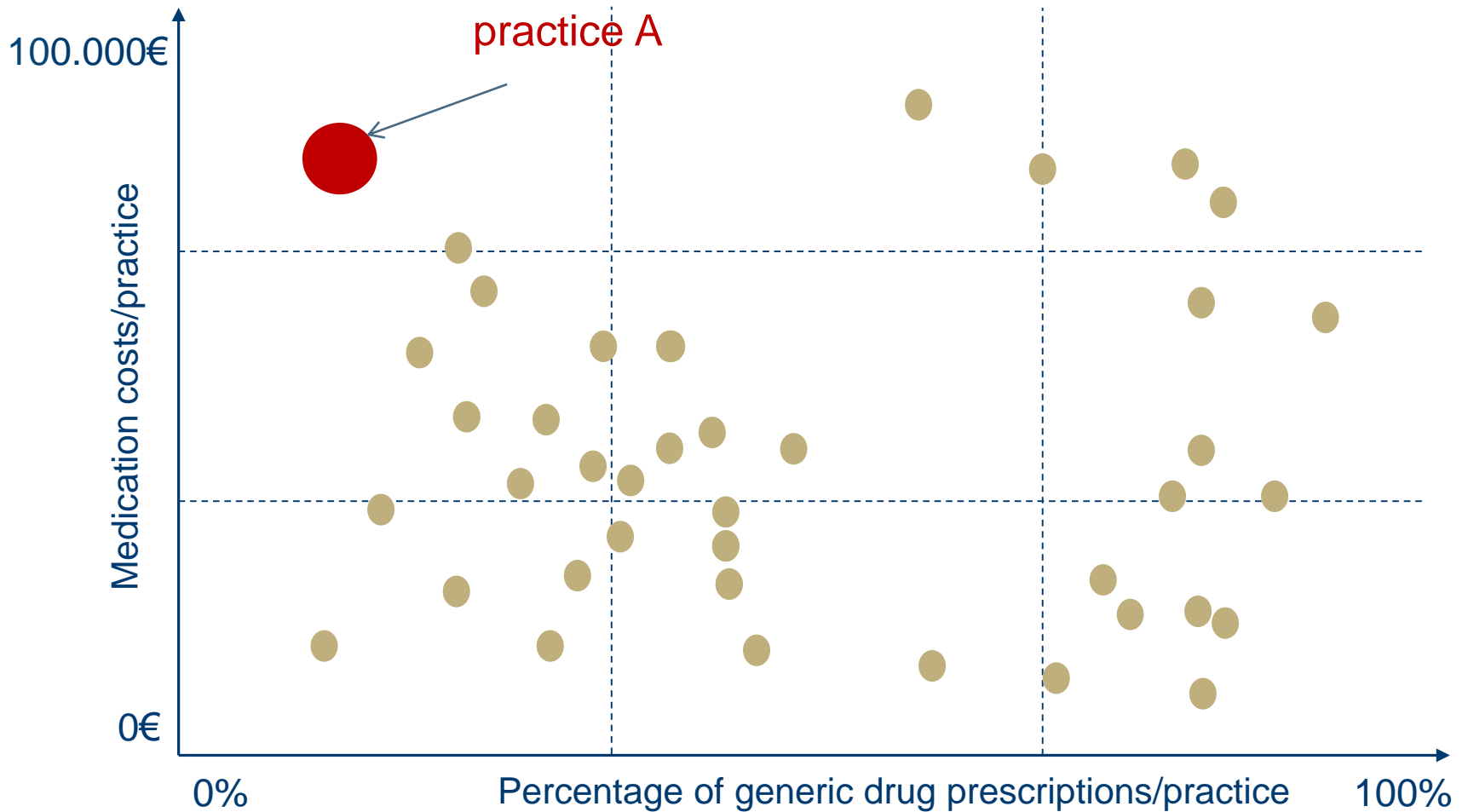
3. Quartal 2013 AOK/SVLFG		Qualitätsindikatoren und relevante Kennzahlen	Eigene Praxis (Praxis 8)	Ø-LP- Hausärzte (n=17)	Ø-NLP- Hausärzte (n=21)	Min/ Max LP (n=17)
3. Ergebnis: Wie wirken Maßnahmen auf medizinische, versichertenbezogene & finanzielle Outcomes?						
3.1 Finanzergebnisse (Morbi-RSA)	Zuweisungen (Morbi-RSA) pro Patient		1.021,11	914,19	834,46	1.115,86
	- Gesamtkosten pro Patient		826,54	917,89	841,14	668,74
	= Deckungsbeitrag pro Patient		194,56	-3,70	-6,68	215,30
3.2 Gesundheitsbezogene Outcomes	KH-Fälle pro 1.000 Patienten (risikoadj.)		68,01	91,39	93,99	59,41
	Vermeidbare KH-Aufenthalte (ASK) %		0,2%	0,9%	0,9%	0,2%
	Diabetiker mit KH-Aufenthalt Diabetes %		0,9%	0,8%	0,8%	0,0%
	Osteoporose-Pat. mit KH-Frakturdiagnose %		1,8%	1,3%	1,3%	0,0%
3.3 Patientenzufriedenheit	Praxiseindruck sehr gut - ausgez. %		66,7	61,0	79,9*	83,3
	Weisse Liste bzw. GekIM 2012/13		52,8	53,0	75,1*	79,2
	Ø-NLP hier = Ø-Bund	Weiterempfehlung best. - wahrsch. %		85,2	84,6	88,1
2. Prozess - Worin müssen wir hervorragend sein?			↑	↑		
2.1 Verbesserung der Diagnosequalität	N.n.bez. Morbi-RSA relevante Diag. %		32,8%	36,3%	53,4%	17,0%
	Verdachtsdiagnosen %		1,8%	1,4%	1,6%	0,8%
2.2 Kennzahlen zum Inanspruchnahmeverhalten	Patienten >= 35 mit KV-Check-Up %		9,1%	8,0%	7,8%	12,8%
	Diabetiker beim Augenarzt (2 Jahre) %		83,8%	62,5%	58,5%	83,8%
	Erwerbsfähige Patienten mit AU %		27,2%	25,3%	26,8%	18,1%
	AU Dauer pro erwerbsfähiger Patient		2,71	2,48	2,74	1,76
2.3 Verbesserung Arzneimittel-Management	Generikaquote		92,2%	88,5%	87,0%	92,2%
	Herzinsuff.-Pat. mit leitlinienkonf. VO %		72,7%	71,5%	68,8%	84,6%
	KHK-Patienten mit Statinen %		44,9%	47,2%	40,8%	61,4%
	Patienten mit Antibiotika-VO %		13,1%	10,7%	11,8%	4,4%
	Patienten >= 65 mit VO (PRISCUS) %		13,4%	12,8%	11,6%	7,3%
	Patienten >= 65 mit VO (FORTA D) %		10,2%	9,0%	9,9%	5,5%
1. Struktur - Wie sieht die Zielgruppe aus und wie wird diese erreicht? Welche Strukturen müssen wir leben, damit Qualität entstehen kann?			↑	↑		
1.1 Patientenstruktur						
1.1.1 Allgemeine Charakteristika	Ø-Anzahl Patienten pro Praxis		481,0	480,9	326,1	934,0
	Ø-Alter Patienten		57,88	55,31	52,96	54,2
	Weiblich %		57,6%	56,3%	55,7%	67,8%
	Erwerbsfähige Patienten %		53,6%	58,1%	59,2%	75,7%
	Patienten mit Pflegestufe %		8,7%	8,3%	7,7%	4,2%
1.1.2 Morbidität	Ø-Charlson-Score		2,15	1,37	1,26	0,75
	Regionaler Hausarzt Risikoscore (Ø = 1)		1,16	1,04	0,95	0,81
1.1.3 Einschreibequoten	IV-Eingeschriebene an gesamt %		86,5%	58,5%	10,7%	86,5%
	DMP Eingeschr. mit Potentialdiagn. %		71,0%	54,9%	34,4%	80,1%

Controlling with portfolio analyses

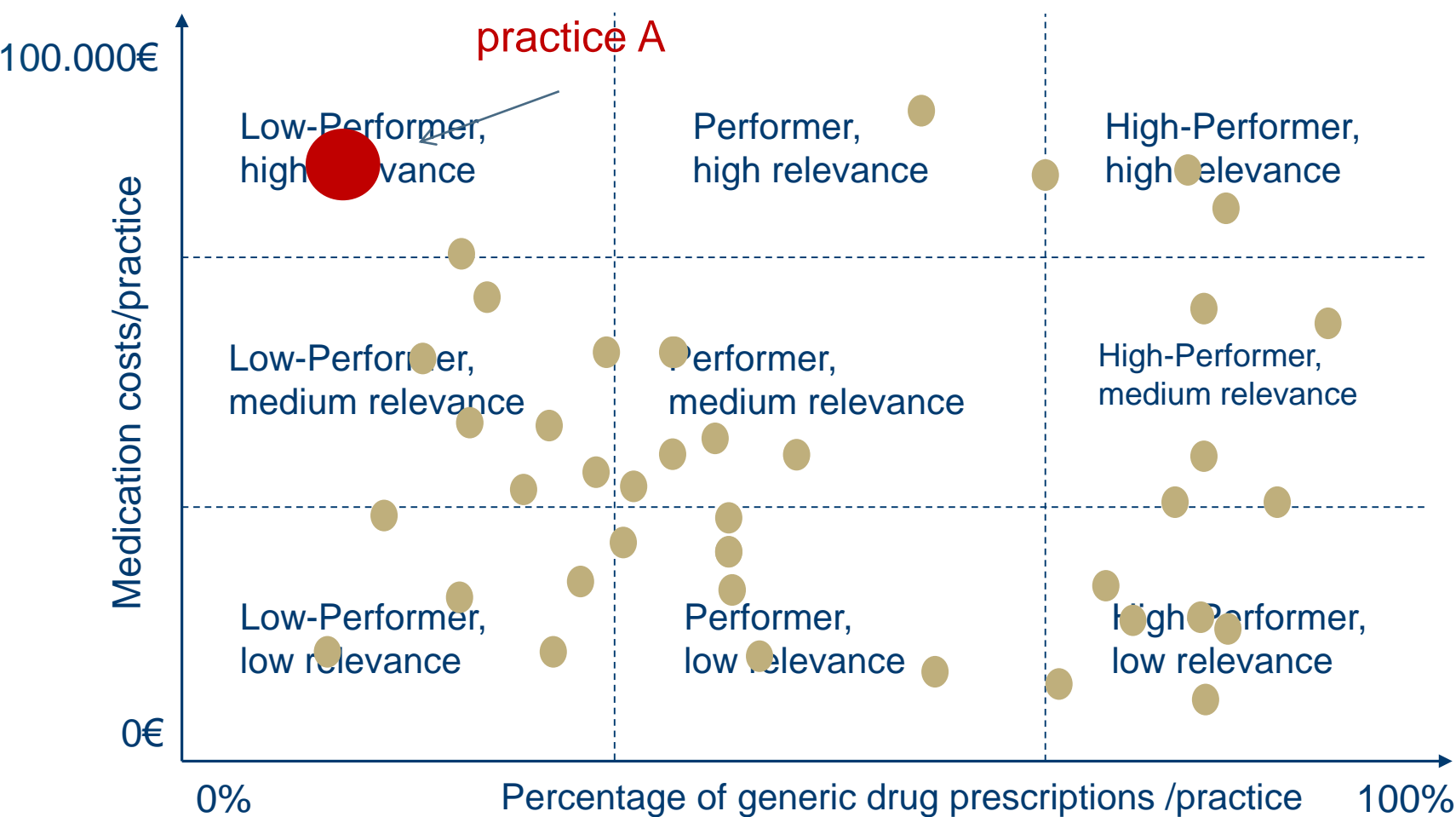
- e.g. generic drug prescriptions



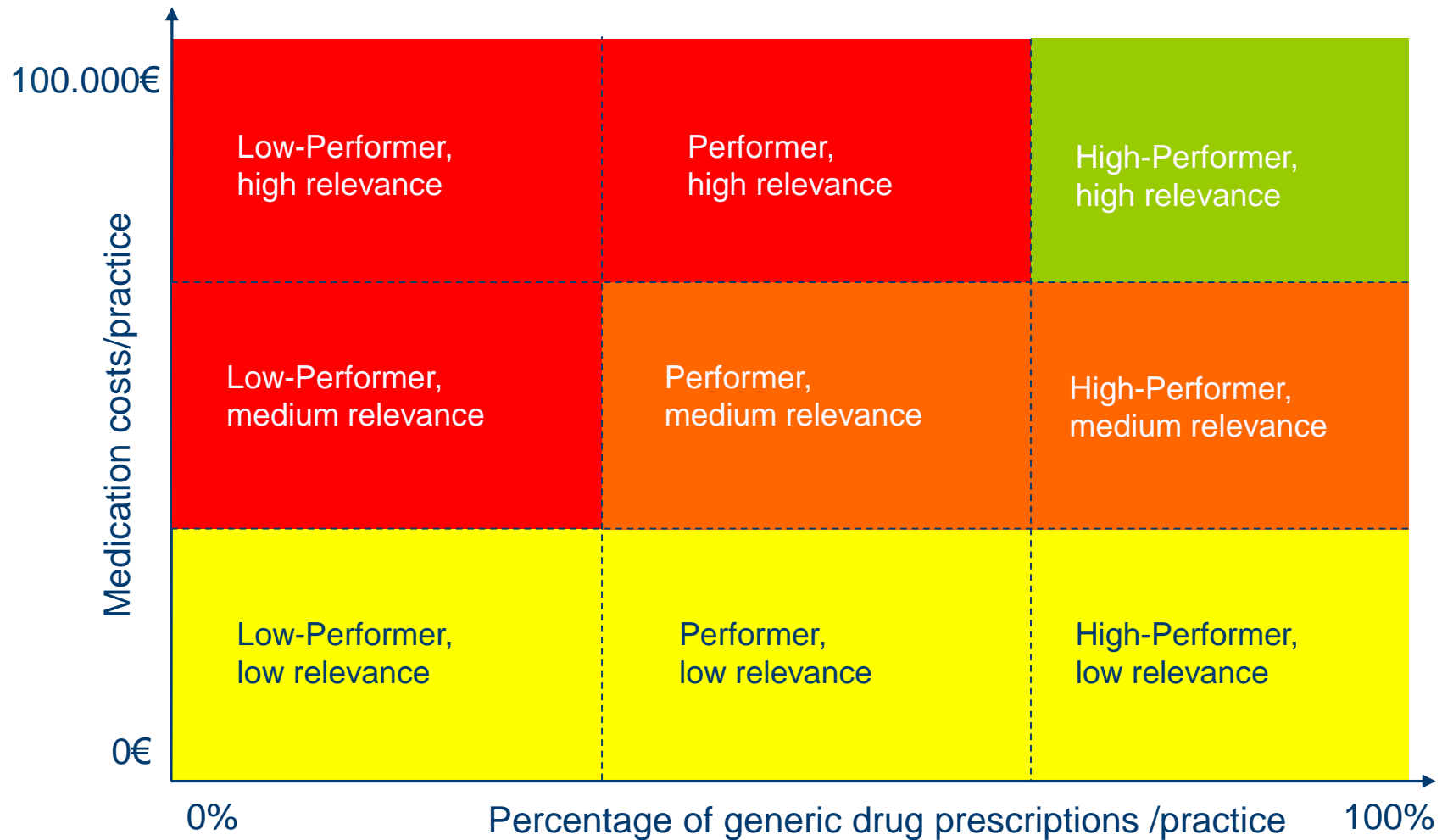
Building a classification



Classification of practices



Classification of practices – schematic illustration



Prioritization and design of evidence-based and locally adapted interventions



Gesundes Kinzigtal

Primary prevention

Health trainings /
group activities

Club sports

Course offers
(e.g. aqua fitness)

Health programs

Heart failure

Metabolic syndromes

Back pain

Psychic crises

Depression

Geriatric care

etc.

Supporting infra:

Incentive program

Quality indicators

"World of health"

Health management

etc.

Committed network partners

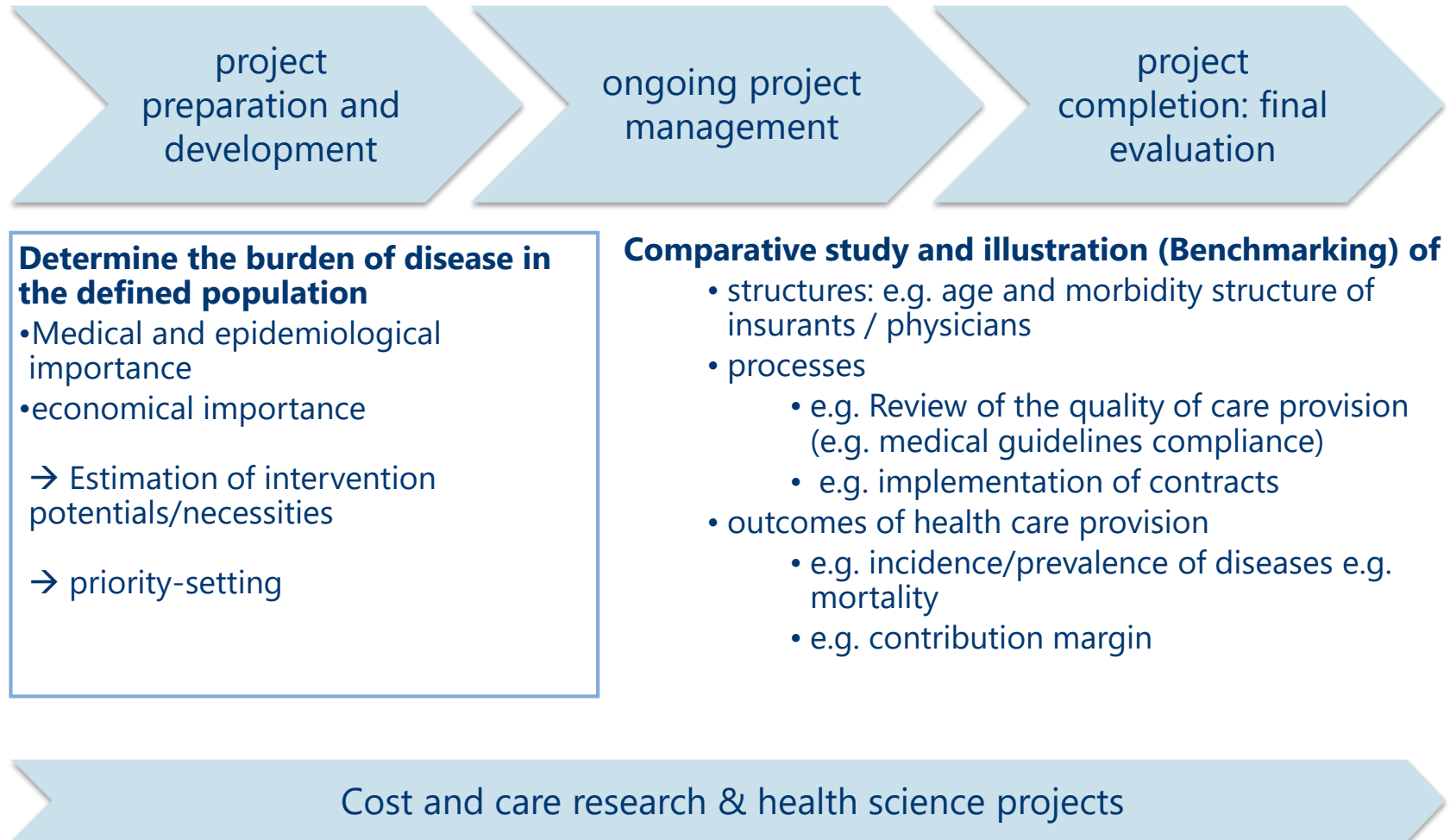
Hildebrandt H, Schulte T, Stunder B. Triple Aim in Germany: Improving population health, integrating health care and reducing costs of care in the Kinzigtal-region – lessons for the UK? Journal of Integrated Care, Vol. 20 Iss: 4, pp.205 - 222 (2012). Emerald Group Publ. DOI: 10.1108/14769011211255249

Programs are also evaluated individually



www.optimedis.de/beteiligungen/gesundes-kinzigtal/programm-resultate

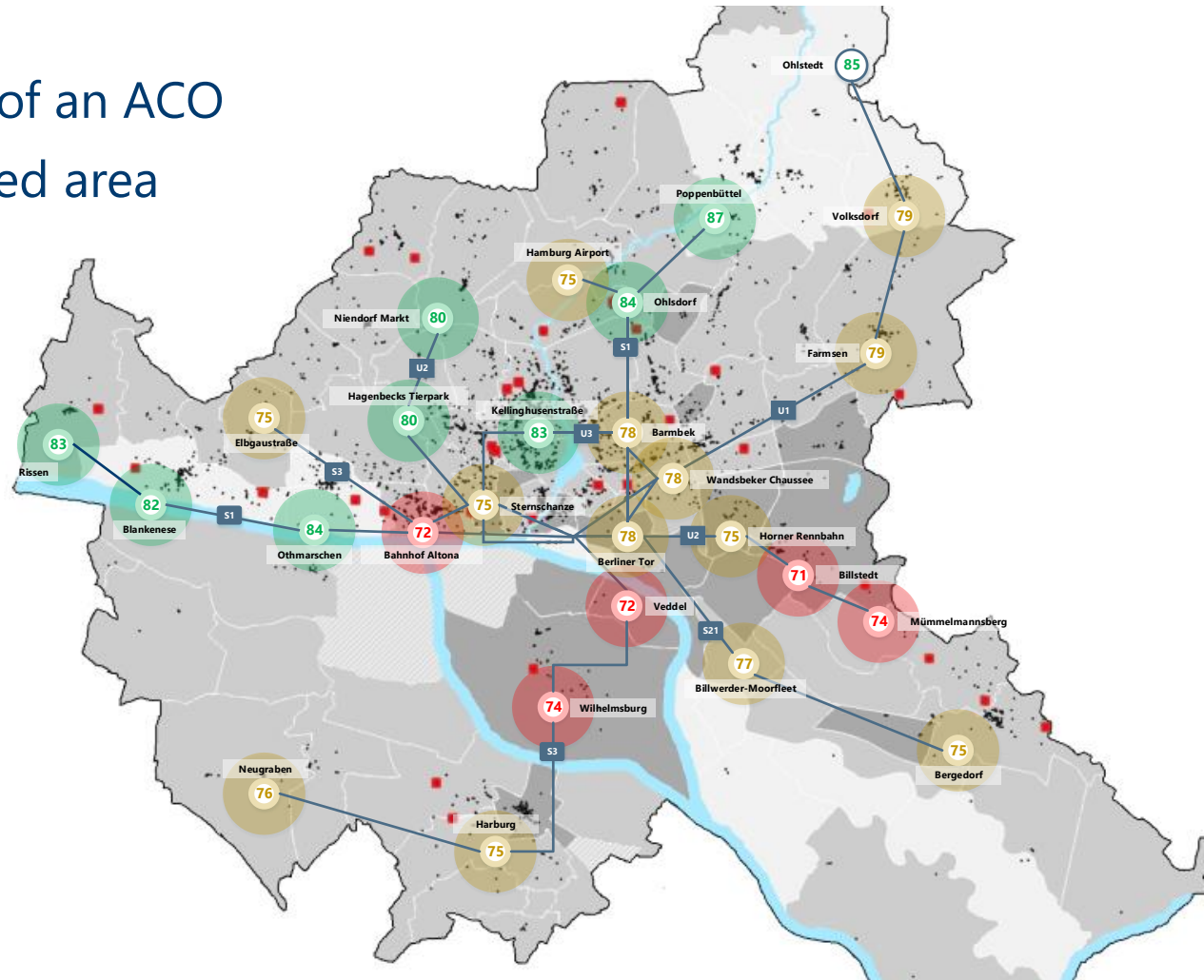
In addition a data-driven approach is utilized for all activities in the ACO



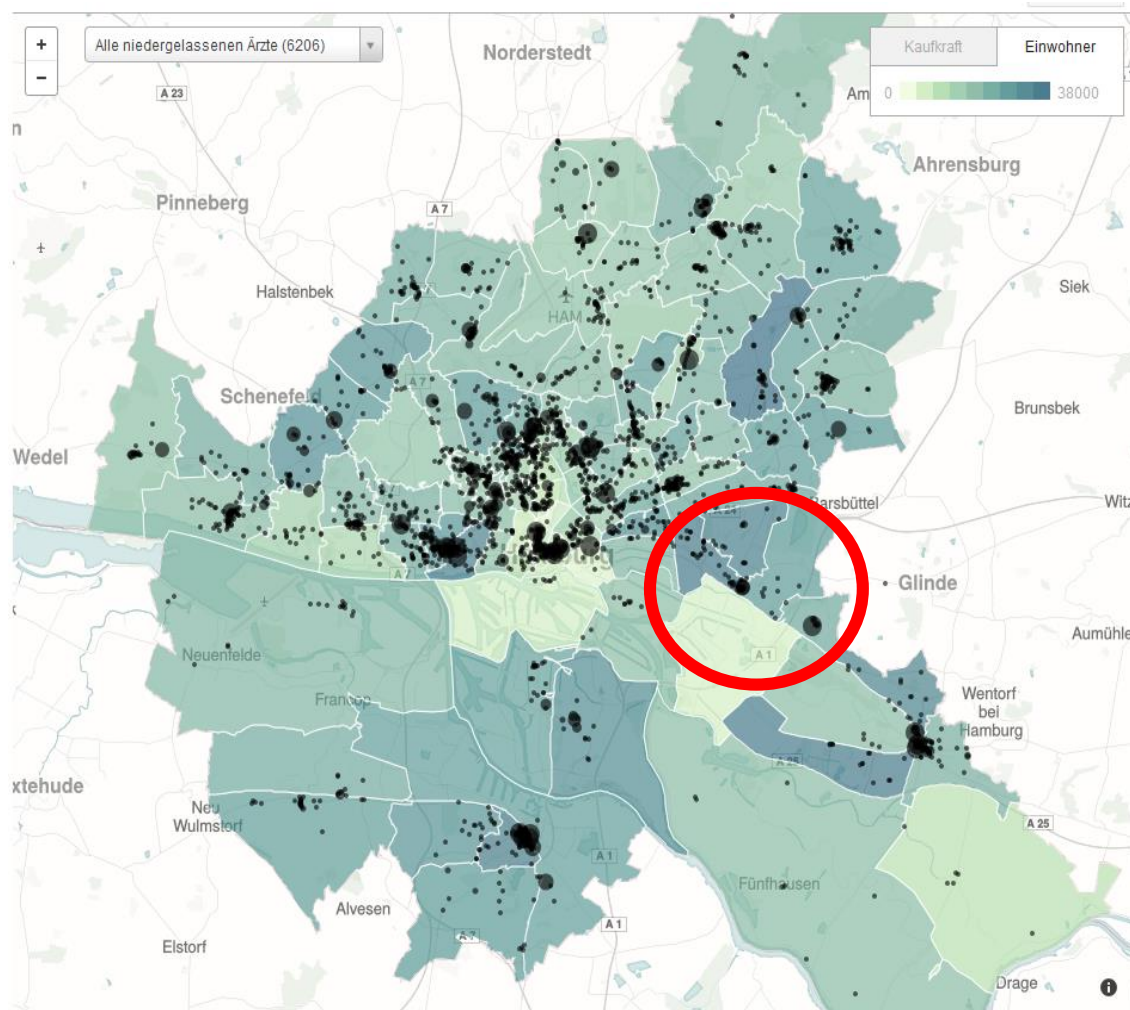
Regional analyses:



e.g. for a feasibility study of an ACO
model in a socially deprived area
in the city of Hamburg
Germany:
Billstedt/Horn



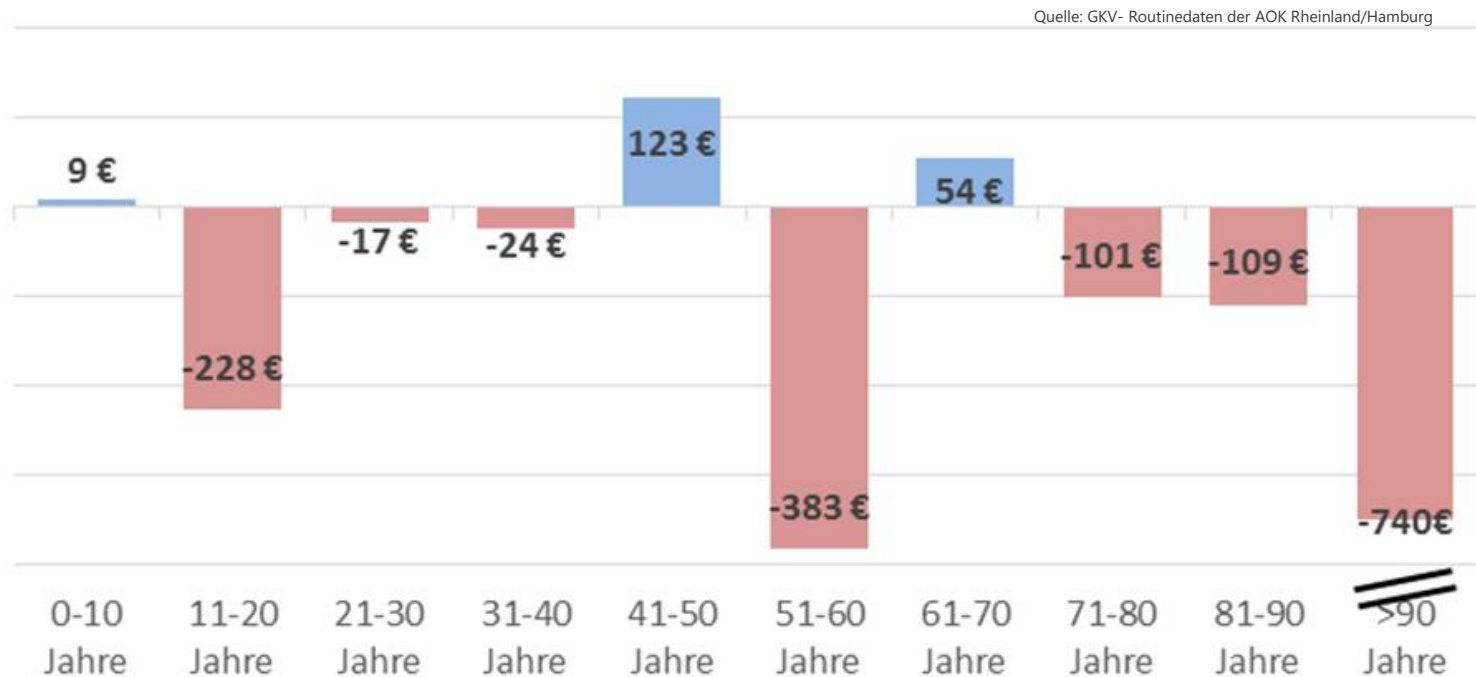
Lower patient per physician/psychotherapist ratio in Billstedt/Horn because of better income potential in richer parts of Hamburg



Verteilung der niedergelassenen Ärzte in Hamburg (Quelle: Zeit Online 2014 <http://www.zeit.de/wirtschaft/2014-04/arzt-facharzt-praxis-verteilung-berlin-hamburg-koeln-muenchen-interaktiv#stadtteile/kaufkraft/hamburg>)

Social deprivation, under-use leads to high disease burden and also high costs for the health insurance

Cost difference on average per insuree per anno in Billstedt-Horn vs. the rest of Hamburg



In total about 2.2 Million Euro higher costs for 31.372 AOK-insurees per anno in Billstedt- Horn vs. the rest of Hamburg.












Potential Analysis to prepare health and care management programs

Age and gender distribution: patients with heart failure vs. standard Gesundes Kinzigtal population

2012	female		male	
age group	insurants total %	patients with diagnosis %	patients with diagnosis %	insurants overall %
0 - 4	3,4%	0,1%	0,1%	4,1%
5 - 9	4,1%	0,3%	0,3%	4,6%
10 - 14	4,4%	0,8%	1,0%	5,1%
15 - 19	4,5%	2,3%	2,7%	5,5%
20 - 24	5,4%	4,0%	4,2%	6,4%
25 - 29	5,1%	3,8%	4,5%	5,8%
30 - 34	5,0%	4,7%	5,6%	5,2%
35 - 39	5,1%	5,4%	5,9%	5,3%
40 - 44	6,3%	6,6%	8,5%	7,2%
45 - 49	8,1%	9,0%	11,0%	8,5%
50 - 54	7,4%	9,3%	10,2%	7,8%
55 - 59	6,4%	9,7%	10,1%	7,0%
60 - 64	5,8%	8,2%	10,0%	6,2%
65 - 69	4,2%	4,7%	5,3%	4,0%
70 - 74	6,9%	10,0%	7,9%	6,0%
75 - 79	6,7%	9,2%	6,3%	5,4%
80 - 84	5,1%	6,0%	4,1%	3,7%
85 - 89	3,9%	4,3%	1,7%	1,6%
90 - 94	1,8%	1,4%	0,5%	0,5%
95 - 99	0,3%	0,1%	0,0%	0,1%
100 - 104	0,1%	0,0%	0,0%	0,0%
Sum	16.137	4.148	2.982	15.243
Ø-Age	47,74	55,91	52,20	43,59
Ø-Life exp.	83,65	77,84	76,32	77,22
prevalence		25,7%	19,6%	
incidence		3,6%	3,7%	

Potential Analysis to prepare health and care management programs

Health care cost distribution per patient: patients with heart failure vs. standard **Gesundes Kinzigtal** population

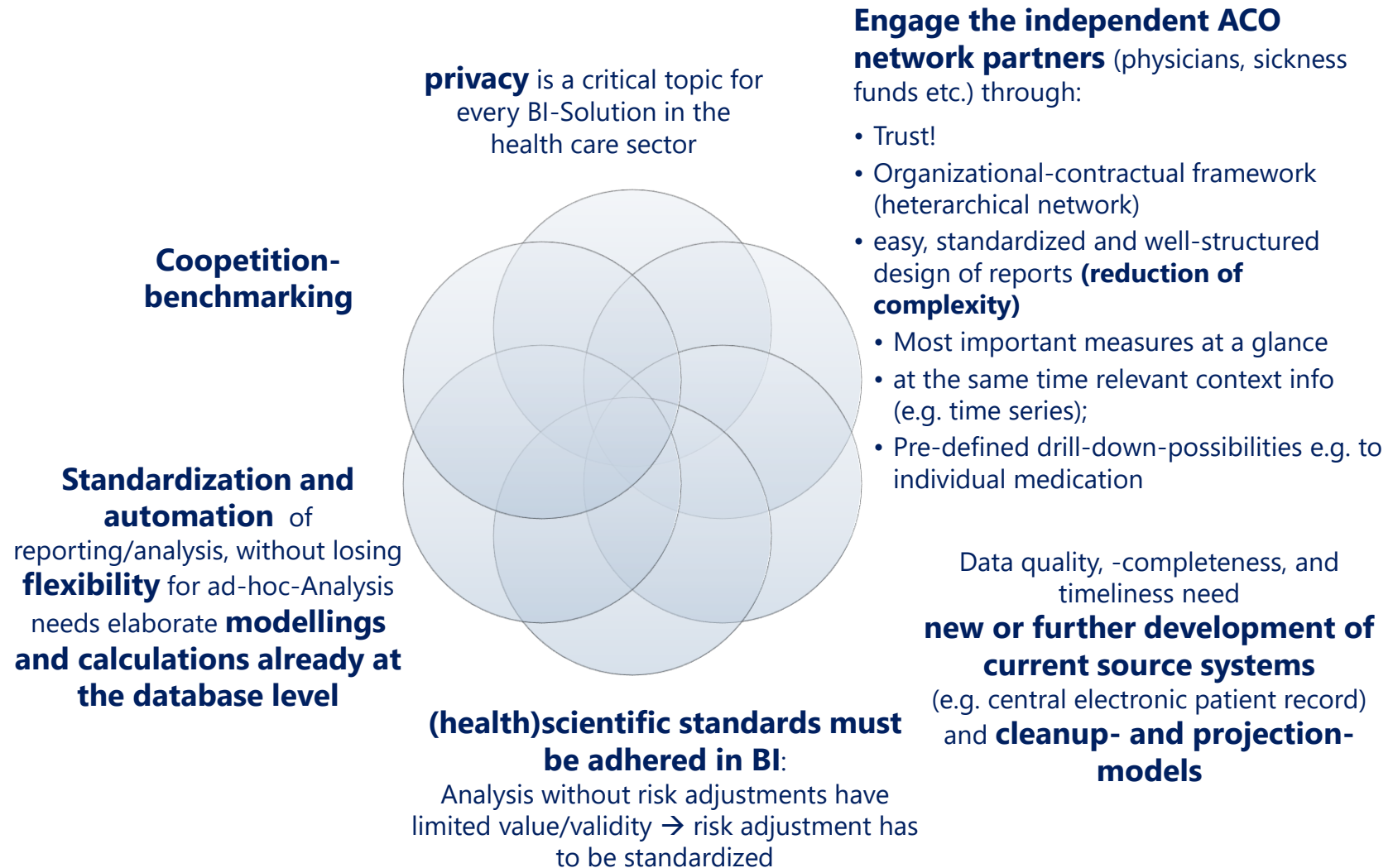
	2012	Ø Patients 2005 - 2012	Ø Population 2005 - 2012	expansion rate 2011 to 2012 %	alteration rate 2005 to 2012 %
⊕ Patients with diagnosis total	 7.130	7.097	26.904	-0,1%	11,3%
Patientes with diagnosis (daily basis)	 7.051,4	7.025,9	26.369,7	-0,1%	10,8%
sickness benefit	 147,91	153,85	78,36	84,3%	2,3%
treatment expenses (incl. dialysis)	 607,64 →	594,45	471,88	-1,5%	7,5%
hospital expense	 1.126,34 →	982,50	805,54	6,8%	18,6%
rehab./cure expense	 78,07	76,32	52,00	4,7%	-12,2%
other services payment amount	 266,40 →	301,44	284,11	-2,1%	-24,3%
drug costs pre-tax	 633,91 →	589,24	496,02	3,5%	14,3%
⊖ overall costs per patient	 2.860,27 →	2.697,79	2.187,90	5,5%	7,7%
allocation per patient	 2.655,82 →	2.466,38	2.129,54	3,8%	19,7%
⊖ contribution margin per patient	 -204,45	-231,41	-58,36	-35,5%	53,2%

Drill-Down

Top 10 hospital diagnoses of heart failure patients

	2012			Ø Patients 2005 - 2012		
	patients with principal diagnosis	patients with secondary diagnosis	medical expenses cases total	patients with principal diagnosis	patients with secondary diagnosis	medical expenses cases total
⊕ M48 # Other spondylopathies	62	96	339.697	30	26	146.051
⊕ I50 # Heart failure	60	165	208.166	31	45	112.459
⊕ I48 # Atrial fibrillation and flutter	43	189	122.504	27	58	67.352
⊕ M54 # Dorsalgia	42	241	89.142	24	59	49.331
⊕ I10 # Essential (primary) hypertension	37	627	49.028	24	213	34.531
⊕ I20 # Angina pectoris	37	103	124.335	28	36	101.521
⊕ M51 # Other intervertebral disc disorders	36	73	99.429	30	29	95.300
⊕ I63 # Cerebral infarction	35	45	165.598	16	13	76.832
⊕ M17 # Gonarthrosis	33	58	233.517	32	27	213.730
⊕ R55 # Syncope and collapse	30	89	62.396	21	27	40.710

Most important lessons learned from Gesundes Kinzigtal



References

Bohmer RM. The four habits of high-value health care organizations. N. Engl. J. Med. 2011;365:2045–2047.

Colla CH, Lewis VA, Shortell SM, Fisher ES. First national survey of ACOs finds that physicians are playing strong leadership and ownership roles. Health Aff. (Millwood). 2014;33:964–71.

Mechanic R, Zinner DE. Many large medical groups will need to acquire new skills and tools to be ready for payment reform. Health Aff. (Millwood). 2012;31:1984–92.

Porter ME. What is value in health care? N. Engl. J. Med. 2010;363:2477–2481.

Wagner EH, Austin BT, Davis C, Hindmarsh M, Schaefer J, Bonomi A. Improving Chronic Illness Care: Translating Evidence Into Action. Health Aff. (Millwood). 2001;20:64–78.

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