

Economic Evaluation of Structural Measures in Acute Hospitals

Andreas H. Birner Workshop 4, Ljubljana, 3–4 December 2018

GÖG-Model: Objective and Implementation

Objective

Model for

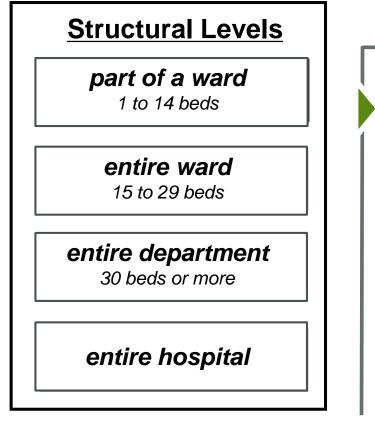
- » "ex ante"-estimation
- » of the economic effects
- » of planned structural measures
- » in acute hospitals

Implementation

The calculation model evaluates

- » the effects of changes in nursing days (and beds)
- » depending on the respective organizational form (department, daily clinic, weekly clinic)
- » on running costs
- » in the acute inpatient care sector
- » taking into account the temporal timeliness of the occurrence of the cost effects

GÖG-Model: Central Logic - Structural Level Concept



Structural characteristics for occurrence and extent of

- » fixed,
- » jump fixed and
- » variable costs
- » per bed or (converted using the standard bed utilization) per nursing day

GÖG-Model: Cost Structures

Fixed, jump fixed and variable costs by cost types and cost centers \rightarrow exemplary representation

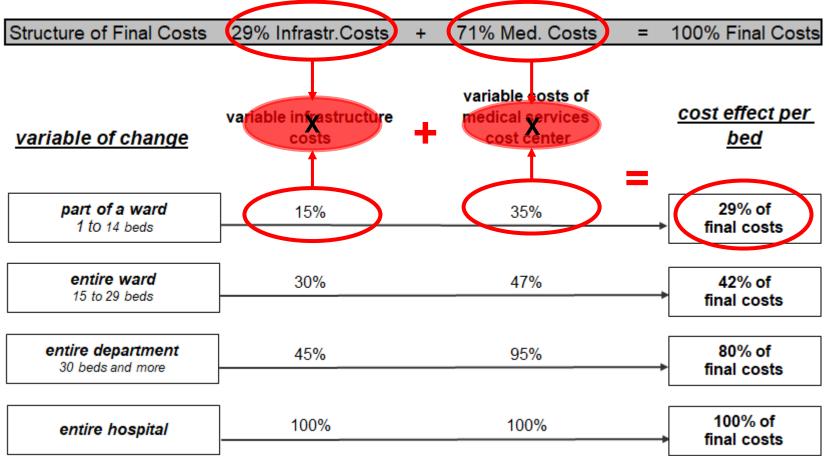
	Infrastructure		Medical cost centers		Primary costs
Staff			jump fixed		57%
Med. consumer goods a. consumables					16%
Nonmed. consumer goods a. consumables			variable		3%
External medical services	partly variable				1%
Non-medical external services					7%
Energy			partly variable		2%
Fees, contributions, etc					8%
Calculative additional costs	fixed		fixed		7%
Total	29 %	+	71 %	=	100 %

GÖG-Model: Cost Effects

Cost effects per nursing day (or occupied bed) and hospital

Gesundheit Österreich

GmbH •



Work step: Calculation of the cost effects per nursing day or (occupied bed) for each medical specialty in each individual fund hospital!

Application Example

Orthopaedic Hospital

(scenario: closed)

All Cost Centers	beds 2016	1	care days scenario	-	variable costs change	total costs change	costs per care day
Orthopaedics	166	0	0	-53.484	-€8.575.733	-€ 33.998.402	€636
Remobilisation	11	0	0	-7.154	-€336.872	-€1.335.525	€187
Intensiv Care	4	0	0	-130	-€314.304	-€1.246.055	€ 9.622
Main Costs Centers	181	0	0	-60.768	-€9.226.909	-€ 36.579.982	
Ancillary Costs Centers ¹⁾						-€3.782.931	
Total						-€ 40.362.913	

¹⁾ health care and nursing school , staff housing, pensions, etc.

Regional Main Hospital

(scenario: 72 % of care days of the OR-hospital are shifted to the regional main hospital)

Relevant Cost Centers beds		beds	care days	care days	variable costs	total costs	costs per
Relevant Cost Centers	2016	scenario	scenario	change	change	change	care day
Orthopaedics	0	119	38.663	38.663	€9.124.091	€26.068.430	€674
Remobilisation	0	8	5.165	5.165	€ 475.475	€1.358.478	€ 263
Intensiv Care	14	17	1.829	94	€ 150.205	€ 150.205	€4.660
Main Costs Centers	14	144	45.657	43.922	€9.749.771	€ 27.577.113	

GÖG-Model: Limitations

- > Valuation basis are the actual costs
 → extrapolation of the degree of utilization of business efficiency potentials
- » No explicit reference to the service spectrum
 - → this essentially includes extrapolation of the current service mix (with the exception of differentiating between single-day and multi-day cases)

Gesundheit Österreich

GmbH

- → measures e.g. to concentrate particularly cost-intensive services at one location require an accompanying assessment of the service component outside the model.
- » No exact individual business valuation of a measure
 - → individual business measure(s) (such as investments) are not taken into account.
 - → no detailed efficiency analyses of the service delivery process
- » The instrument is suitable for an overview-like economic evaluation of regional structural plans but not for detailed economic analyses of individual measures





Gesundheit Österreich Forschungs- und Planungs GmbH

Gesundheit Österreich Beratungs GmbH

Organizational Chart of GÖG Austrian Public Health Institute

Gesundheit Österreich

GmbH • • •

Health Reform Support and Coordination Quality Assurance and Knowle	Executive Director Executive Board Executive Board International Affairs and Consulting
ÖBIG Austrian National Institute for Health Services Research ÖBIG	Departments > Health Care Planning and System Development > Health Professions > Health and Society > Psychosocial Health > Addiction Competence Centre > Pharmacoeconomics > Health Economics and Health Systems Analysis
Austrian National Institute for Health Services Research	 Poisons Information Centre National Office for Transplantation Affairs Austrian Bone Marrow Donor Registry Healthcare Profession Registry Information Technology and Data Competence
BIQG Austrian National Institute for Quality in Health Care	 » Evidence and Quality Standards » Quality Management and Patient Safety » Quality Measurement and Patient Surveys » Austrian Health Portal
FGÖ Austrian Health Promotion Fund	Functional Divisions >> >> Project Funding >> Advanced Training and Networking >> Capacity Building and Knowledge Development >> Education and Information, Coordination and Services

Subsidiaries

Gesundheit Österreich Forschungs- und Planungs GmbH (non profit) Gesundheit Österreich Beratungs GmbH (for profit)



Contact

Andreas Birner

Stubenring 6 1010 Vienna, Austria

- **T**: +43 1 515 61-
- **F:** +43 1 513 84 72

E: andreas.birner@goeg.at

www.goeg.at

