Redefining German Health Care

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This presentation draws on Redefining German Health Care (with Clemens Guth), Springer Press, February 2012; Redefining Health Care: Creating Value-Based Competition on Results (with Elizabeth O. Teisberg), Harvard Business School Press, May 2006; "A Strategy for Health Care Reform—Toward a Value-Based System," New England Journal of Medicine, June 3, 2009; "Value-Based Health Care Delivery," Annals of Surgery 248: 4, October 2008; "Defining and Introducing Value in Healthcare," Institute of Medicine Annual Meeting, 2007. Additional information about these ideas, as well as case studies, can be found the Institute for Strategy & Competitiveness Redefining Health Care website at http://www.hbs.edu/rhc/index.html. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means — electronic, mechanical, photocopying, recording, or otherwise — without the permission of Michael E. Porter, Elizabeth O.Teisberg, and Clemens Guth.

The Health Care Problem

- Increasing demand
 - Aging populations and increasing burden of disease
- More treatable diseases
- Rising costs
 - Health spending has risen faster than economic growth in most OECD countries since 1970
 - Significant challenge to government budgets
- Inconsistent quality and low efficiency
- Limited or non-existent measurement of costs or outcomes
- Zero-sum competition that is not focused on patients or patient outcomes

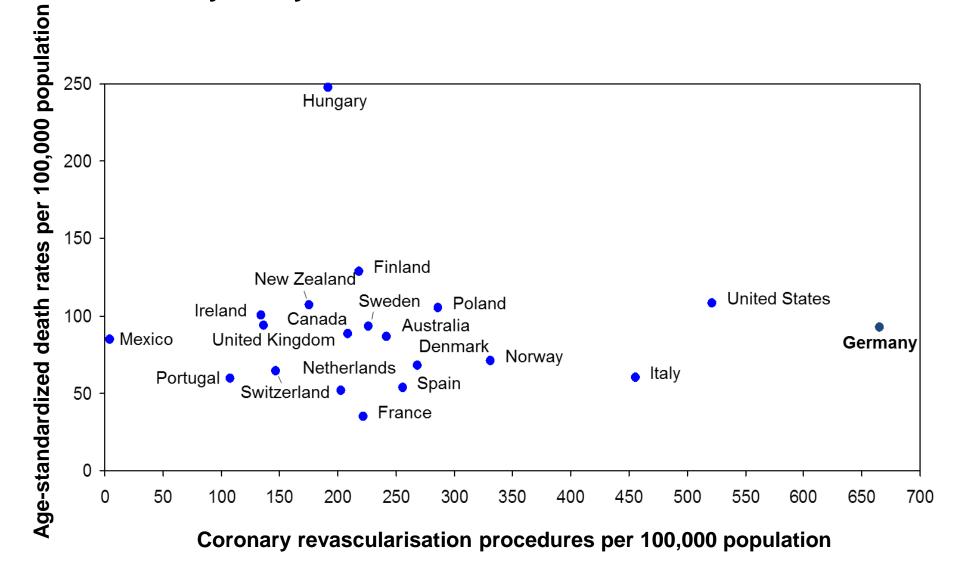
Strengths of the German System

- Universal access to health insurance with generous coverage of a broad range of services
- Strong solidarity principle in providing coverage regardless of financial means
- Free choice of health plans and providers
- Extensive network of capable providers
- Many patients receive excellent and compassionate care

Issues Facing the German System

- High and rising costs
- Overcapacity and low reimbursement levels leading to excessive utilization of services
 - High service utilization and costs are not producing better health outcomes

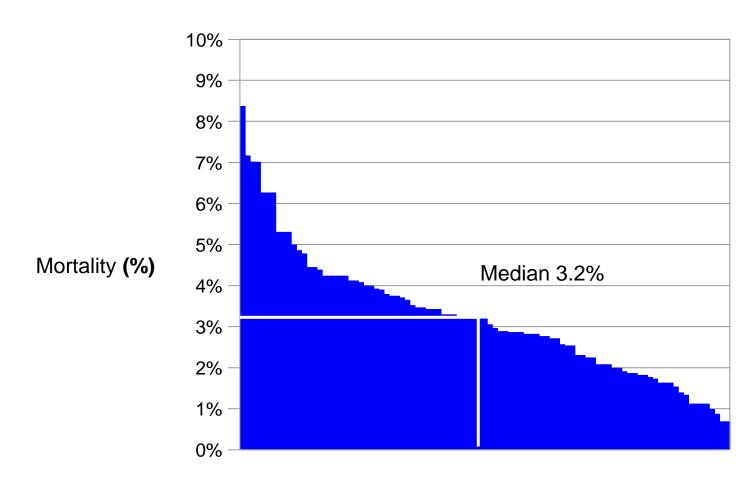
Excessive Utilization Does Not Produce Better Outcomes <u>Coronary Artery Revascularization Rates Across Countries</u>



Issues Facing the German System

- High and rising costs
- Overcapacity and low reimbursement levels leading to excessive utilization of services
 - High service utilization and costs are not producing better health outcomes
- Large variation in quality across providers

Variation in Quality Across German Providers: In-hospital Cardiac Bypass Mortality for 77 hospitals (2008)

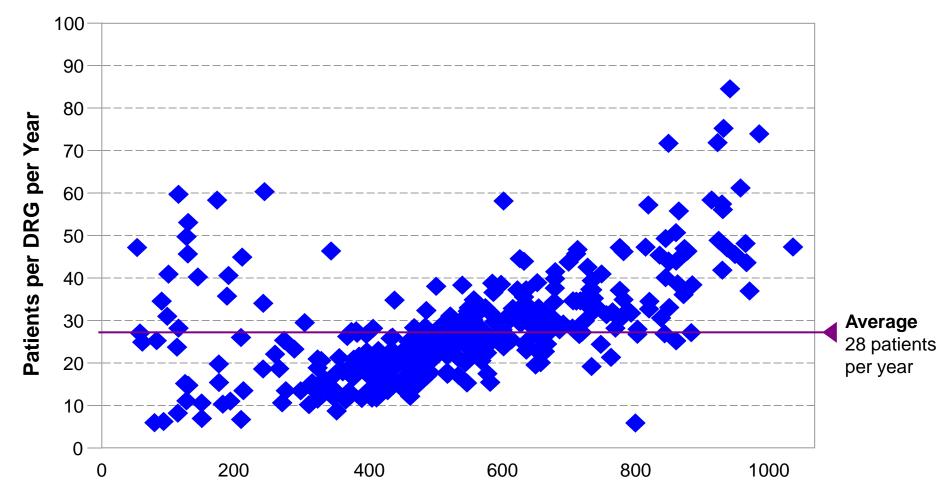


Each bar represents one hospital

Issues Facing the German System

- High and rising costs
- Overcapacity and low reimbursement levels leading to excessive utilization of services
 - High service utilization and costs are not producing better health outcomes
- Large variation in quality across providers
 - No systematic measurement of outcomes and costs
- Hyper-fragmentation of services across inpatient and outpatient care and inadequate volume of patients in a medical condition to achieve excellence

Fragmentation of Volume in Germany <u>Distribution of Patients and DRGs Across Hospitals</u>



Issues Facing the German System

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 - High service utilization and costs are not producing better health outcomes
- Large variation in quality across providers
 - No systematic measurement of outcomes and costs
- Hyper-fragmentation of services across inpatient and outpatient care and inadequate volume of patients in a medical condition to achieve excellence
- Lack of solidarity between the public and private system
- Many incremental reforms with limited impact
 - Focus on containing costs, rather than improving value

Redefining Health Care Delivery

The overarching goal in health care must be value for patients

Value = Health outcomes

Costs of delivering the outcomes

- Outcomes are health results that matter for a patient's condition over the care cycle
- Costs are the total costs of care for a patient's condition over the care cycle



- Value is the only goal that can unite the interests of all stakeholders
- The central challenge for Germany is to design a health care delivery system that dramatically improves patient value

Principles of Value-Based Health Care Delivery

 Quality improvement is the most powerful driver of cost containment and value improvement, where quality is health outcomes

- Prevention of illness
- Early detection
- Right diagnosis
- Right treatment to the right patient
- Rapid cycle time of diagnosis and treatment
- Treatment earlier in the causal chain of disease
- Less invasive treatment methods

- Fewer complications
- Fewer mistakes and repeats in treatment
- Faster recovery
- More complete recovery
- Greater functionality and less need for long term care
- Fewer recurrences, relapses, flare ups, or acute episodes
- Reduced need for ER visits
- Slower disease progression
- Less care induced illness



- Better health is inherently less expensive than poor health
- Better health is the goal, not more treatment

Higher Quality Care Drives Down Long-Term Costs

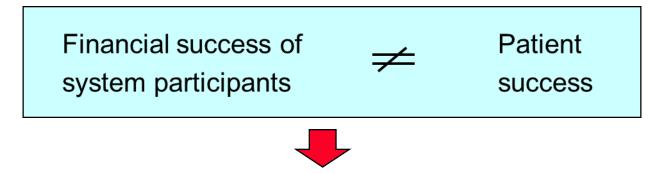
Hospital quality for hip replacements	Average 1-year follow-up hospital costs (EURO)	Number of patients
Patients treated in hospitals with below average outcomes	€10,042	26,049
Patients treated in hospitals with average outcomes	€9,112	73,481
Patients treated in hospitals with above average outcomes	€8,493	55,293
Patients treated in very low volume hospitals**	€11,199	3,685

^{*} Less than 30 hip replacements per year for AOK health plan members

Source: Fahlenbrach C et al, Bonus ohne Extrakosten, Gesundheit und Gesellschaft, Issue 9/11

Creating a Value-Based Health Care System

- Significant improvement in value will require fundamental restructuring of health care delivery, not incremental improvements
- Competition and choice for patients/subscribers are powerful forces to encourage restructuring of care and continuous improvement in value
- Today's competition in health care is not aligned with value



 Creating a positive-sum competition on value is fundamental to health care reform in every country

Creating a Value-Based Health Care Delivery System <u>The Strategic Agenda</u>

- 1. Organize Care into Integrated Practice Units (IPUs) around Patient Medical Conditions
- 2. Measure Outcomes and Costs for Every Patient
- 3. Reimburse Through Bundled Prices for Care Cycles
- 4. Integrate Care Delivery Across Separate Facilities
- 5. Expand Areas of Excellence Across Geography
- 6. Create an Enabling Information Technology Platform

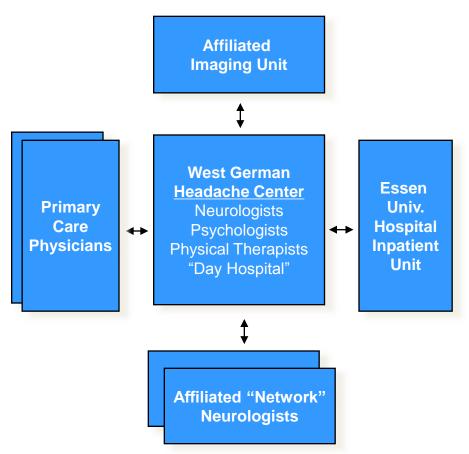
Organizing Around Patient Medical Conditions Migraine Care in Germany

Existing Model: Organize by Specialty and **Discrete Services**

Imaging Outpatient Centers Physical Therapists Outpatient Neurologists Primary Care Physicians Inpatient Treatment and Detox Units **Outpatient Psychologists**

New Model:

Organize into Integrated Practice Units (IPUs)



What is a Medical Condition?

- A medical condition is an interrelated set of patient medical circumstances best addressed in an integrated way
 - Defined from the patient's perspective
 - Involving multiple specialties and services
 - Including common co-occurring conditions and complications
- In primary / preventive care, the unit of value creation is defined patient segments with similar preventive, diagnostic, and primary treatment needs (e.g. healthy adults, frail elderly)



 The medical condition / patient segment is the proper unit of value creation and the unit of value measurement in health care delivery

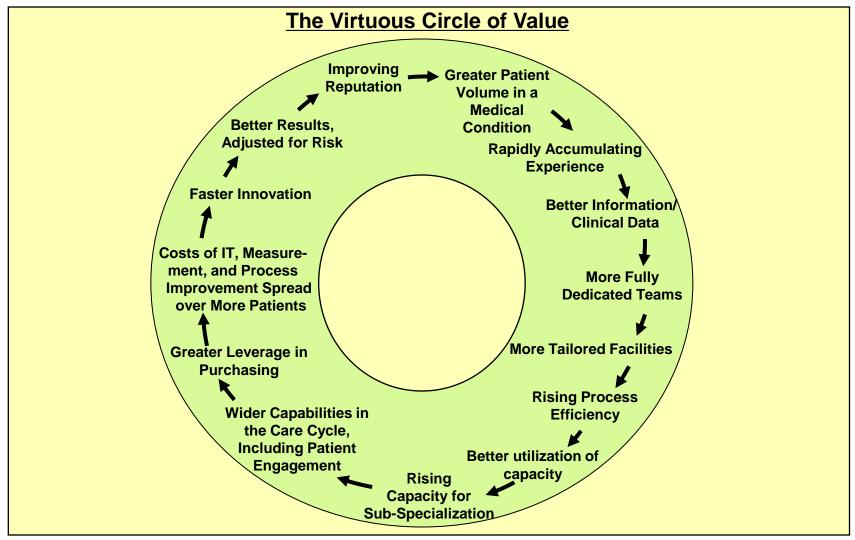
Integrating Across the Cycle of Care <u>Breast Cancer</u>

INFORMING AND ENGAGING MEASURING	Advice on self screening Consultations on risk factors Self exams Mammograms	Counseling patient and family on the diagnostic process and the diagnosis Mammograms Ultrasound MRI	Explaining patient treatment options/shared decision making Patient and family psychological counseling Labs	Counseling on the treatment process Education on managing side effects and avoiding complications Achieving compliance Procedure-specific measurements	Counseling on rehabilitation options, process Achieving compliance Psychological counseling Range of movement	Counseling on long term risk management Achieving compliance MRI, CT Recurring mammograms
		Labs (CBC, etc.) Biopsy BRACA 1, 2 CT Bone Scans			Side effects measurement	(every six months for the first 3 years)
ACCESSING THE PATIENT	Office visits Mammography unit Lab visits	 Office visits Lab visits High risk clinic visits	 Office visits Hospital visits Lab visits	 Hospital stays Visits to outpatient radiation or chemo- therapy units Pharmacy visits 	Office visits Rehabilitation facility visits Pharmacy visits	Office visits Lab visits Mammographic labs and imaging center visits
	MONITORING					
	MONITORING/ PREVENTING	DIAGNOSING	PREPARING	INTERVENING	RECOVERING/ REHABING	MONITORING/ MANAGING

Attributes of an Integrated Practice Unit (IPU)

- Organized around the patient medical condition or set of closely related conditions
 - Distinct patient segment in primary care
- 2. Involves a **dedicated**, **multidisciplinary team** who devotes a significant portion of their time to the condition
- Providers involved are members or affiliated with a common organizational unit
- 4. Provides the **full cycle of care** for the condition
 - Encompassing outpatient, inpatient, and rehabilitative care as well as supporting services (e.g. nutrition, social work, behavioral health)
- 5. Includes patient education, engagement, and follow-up
- 6. Utilizes a single administrative and scheduling structure
- 7. Co-located in dedicated facilities
- 8. Care is led by a **physician team captain** and a **care manager** who oversee each patient's care process
- 9. Measures outcomes, costs, and processes for each patient using a common information platform
- **10.** Meets formally and informally on a regular basis to discuss patients, processes and results
- 11. Accepts joint accountability for outcomes and costs

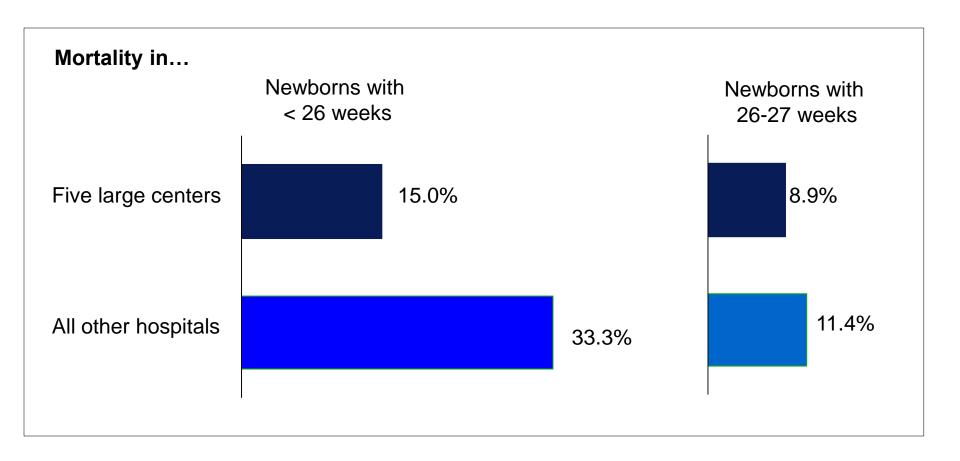
Volume in a Medical Condition Enables Value





 Volume and experience will have an even greater impact on value in an IPU structure than in the current system

Volume in a Medical Condition Enables Value <u>Pre-term Births in Baden-Würtemberg, Germany</u>



Source: Hummer et al, Zeitschrift für Geburtshilfe und Neonatologie, 2006; Results duplicated in AOK study: Heller G, Gibt es einen Volumen-Outcome-Zusammenhang bei der Versorgung von Neugeborenen mit sehr niedrigem Geburtsgewicht in Deutschland – Eine Analyse mit Routinedaten, Wissenschaftliches Institut der AOK (WIdO)

Role of Volume in Value Creation Fragmentation of Hospital Services in Sweden

DRG	Number of admitting providers	Average percent of total national admissions	Average admissions/ provider/ year	Average admissions/ provider/ week
Knee Procedure	68	1.5%	55	1
Diabetes age > 35	80	1.3%	96	2
Kidney failure	80	1.3%	97	2
Multiple sclerosis and cerebellar ataxia	78	1.3%	28	1
Inflammatory bowel disease	73	1.4%	66	1
Implantation of cardiac pacemaker	51	2.0%	124	2
Splenectomy age > 17	37	2.6%	3	<1
Cleft lip & palate repair	7	14.2%	83	2
Heart transplant	6	16.6%	12	<1

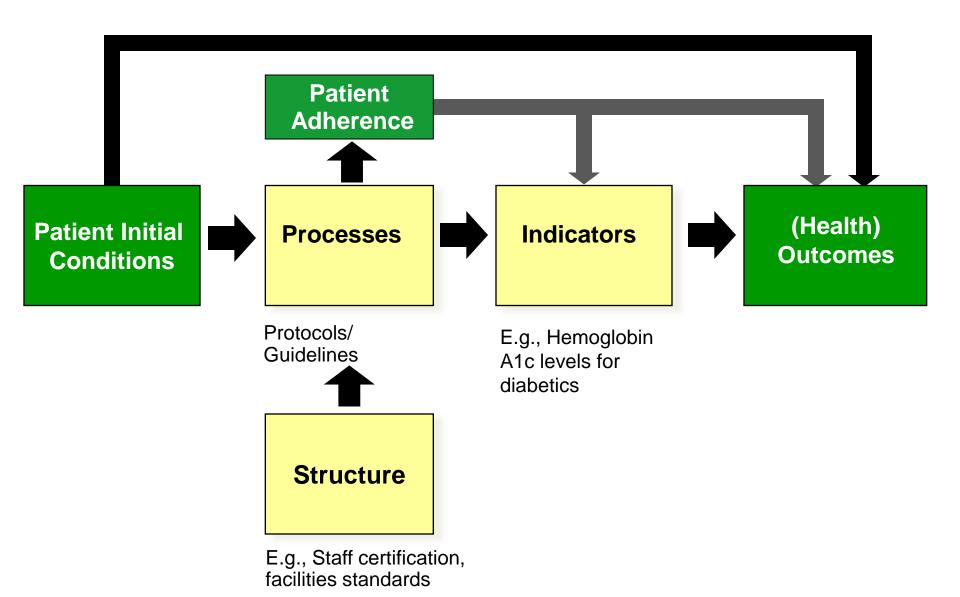
Source: Compiled from The National Board of Health and Welfare Statistical Databases – DRG Statistics, Accessed April 2, 2009.



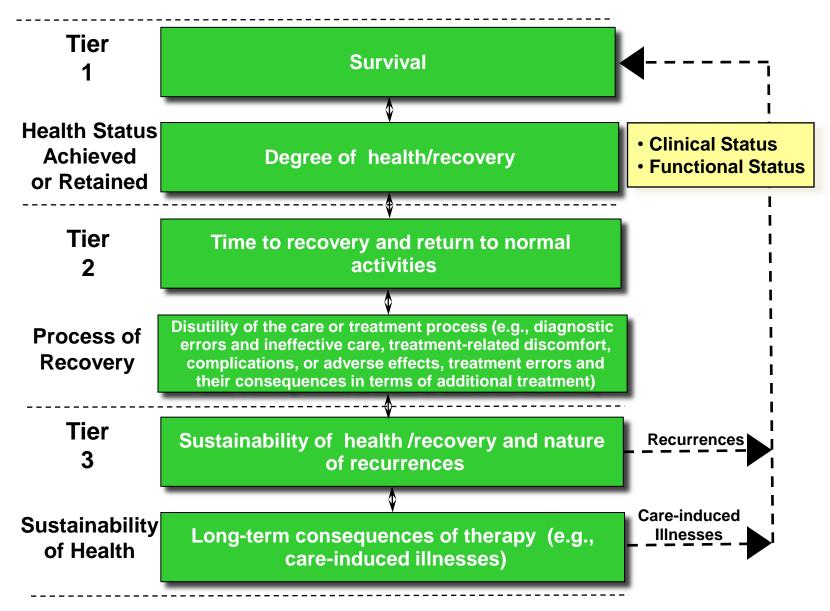
 Minimum volume standards are an interim step to drive value and service consolidation in the absence of rigorous outcome information

constitution for displayer.

Measuring Outcomes for Every Patient



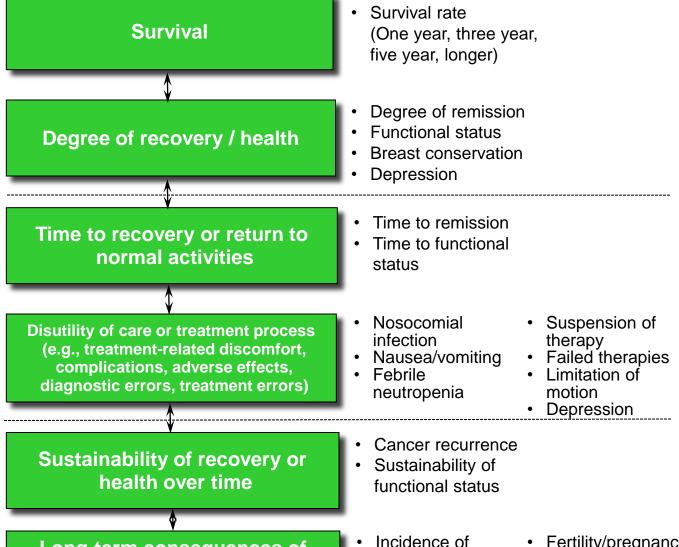
The Outcome Measures Hierarchy



Source: NEJM Dec 2010

The Outcome Measures Hierarchy

Breast Cancer



Initial Conditions/Risk Factors

- Stage upon diagnosis
- Type of cancer (infiltrating ductal carcinoma, tubular, medullary, lobular, etc.)
- Estrogen and progesterone receptor status (positive or negative)
- Sites of metastases
- Previous treatments
- Age
- Menopausal status
- General health, including comorbidities
- Psychological and social factors

Incidence of • Fertility/pregnancy secondary cancers complications

 Premature osteoporosis

Brachial

plexopathy

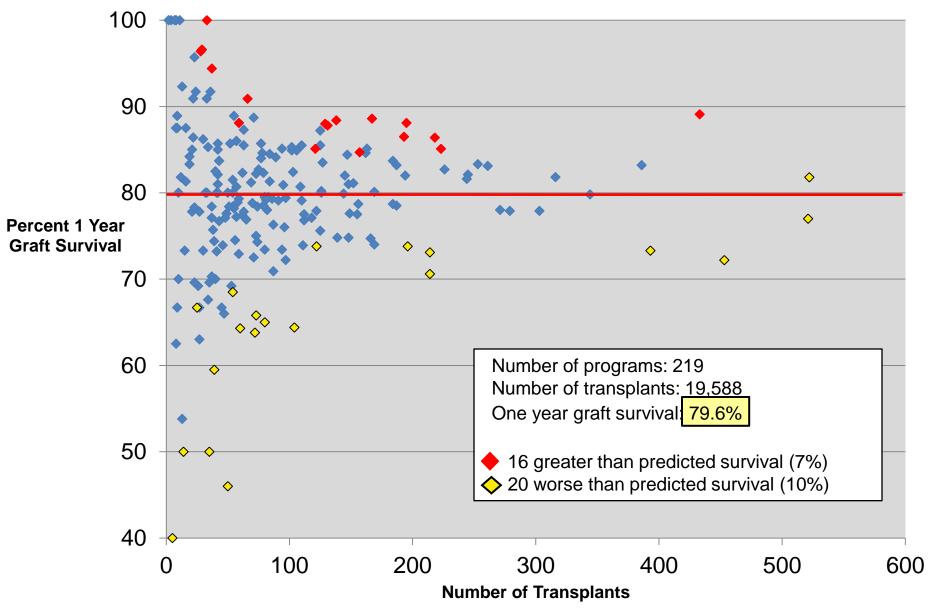
Long-term consequences of

therapy (e.g., care-induced

illnesses)

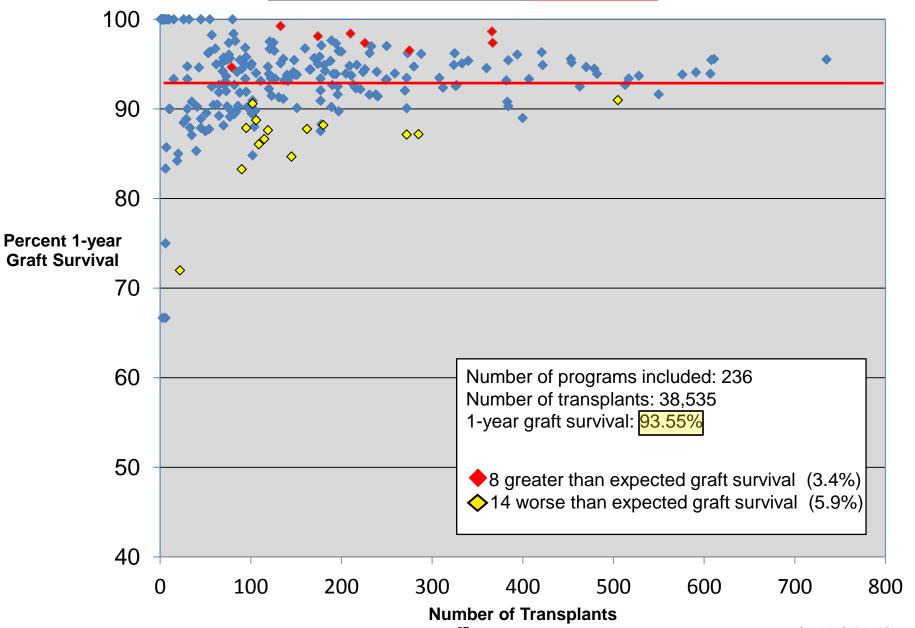
Adult Kidney Transplant Outcomes

U.S. Centers, 1987-1989



Adult Kidney Transplant Outcomes

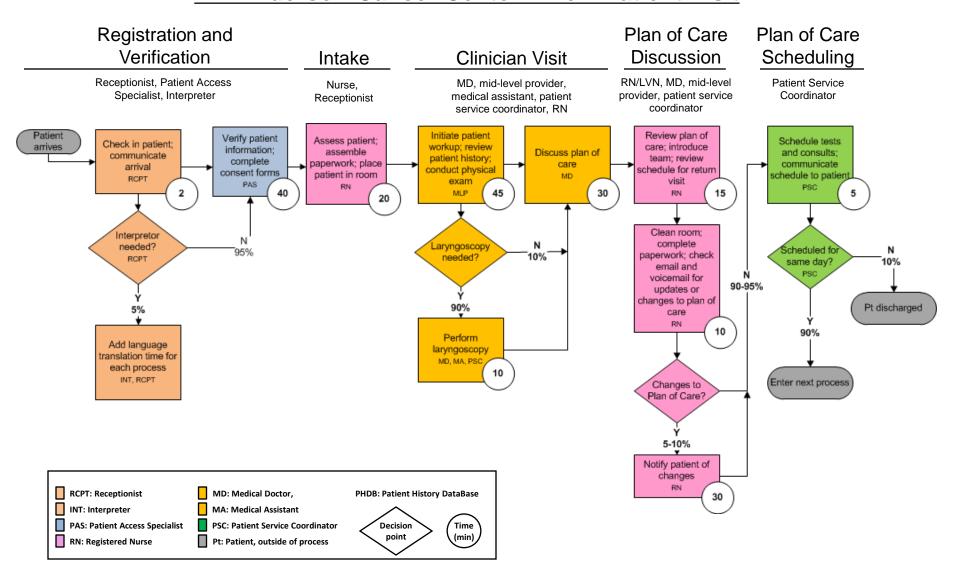
U.S. Center Results, 2008-2010



Measuring the Cost of Care Delivery: Principles

- Cost is the actual expense of patient care, not the charges billed or collected
- Cost should be measured around the patient
- Cost should be aggregated over the full cycle of care for the patient's medical condition, not for departments, services, or line items
- Cost depends on the actual use of resources involved in a patient's care process (personnel, facilities, supplies)
 - The time devoted to each patient by these resources
 - The capacity cost of each resource
 - The support costs required for each patient facing a resource

Mapping Resource Utilization MD Anderson Cancer Center – New Patient Visit



Move to Bundled Prices for Care Cycles



Bundled Price

- A single price covering the full care cycle for an acute medical condition
- Time-based reimbursement for overall care of a chronic condition
- Time-based reimbursement for primary/preventive care for a defined patient segment

Bundled Payment in Practice <u>Hip and Knee Replacement in Stockholm, Sweden</u>

Components of the bundle

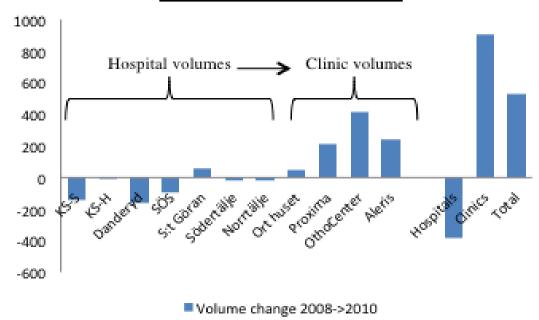
- Pre-op evaluation
- Lab tests
- Radiology
- Surgery & related admissions
- Prosthesis
- Drugs
- Inpatient rehab, up to 6 days

- All physician and staff fees and costs
- 1 follow-up visit within 3 months
- Any additional surgery to the joint within 2 years
- If post-op infection requiring antibiotics occurs, guarantee extends to 5 years
- Currently applies to all relatively healthy patients (i.e. ASA scores of 1 or 2)
- The same referral process from PCPs is utilized as the traditional system
- Mandatory reporting by providers to the joint registry plus supplementary reporting
- Applies to all qualifying patients. Provider participation is voluntary, but all providers are continuing to offer total joint replacements



 The Stockholm bundled price for a knee or hip replacement is about US \$8,000

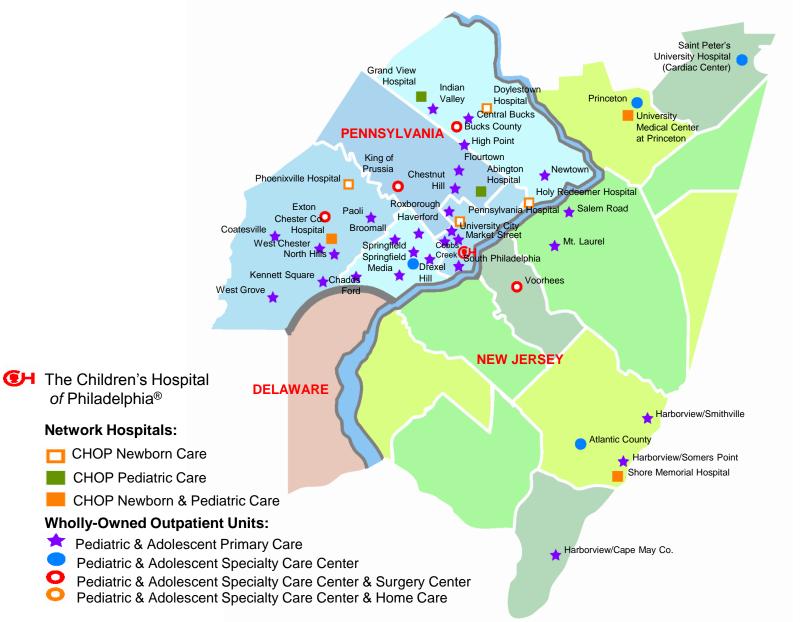
Hip and Knee Replacement in Stockholm, Sweden <u>Provider Response</u>



- Under bundled payment, volumes shifted from full-service public hospitals to specialized orthopedic hospitals
- Interviews with private providers revealed the following innovations:
 - Care pathways
 - Standardized treatment processes
 - Checklists
 - New post-discharge visit to check wound healing

- More patient education
- More training and specialization of staff
- Increased procedures per day
- Decreased length of stay

4. Integrating Care Delivery Across Separate Facilities **Children's Hospital of Philadelphia Care Network**



of Philadelphia®

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Four Levels of Provider System Integration

- Choose an overall scope of services where the provider system can achieve excellence in value
- 2. Rationalize service lines / IPUs across facilities to improve volume, better utilize resources, and deepen teams
- 3. Offer specific services at the appropriate facility
 - E.g. acuity level, resource intensity, cost level, need for convenience
- Clinically integrate care across units and facilities using an IPU structure
 - Integrate services across the care cycle
 - Integrate preventive/primary care units with specialty IPUs



There are major value improvements available from concentrating volume by medical condition and moving care out of heavily resourced hospital, tertiary and quaternary facilities

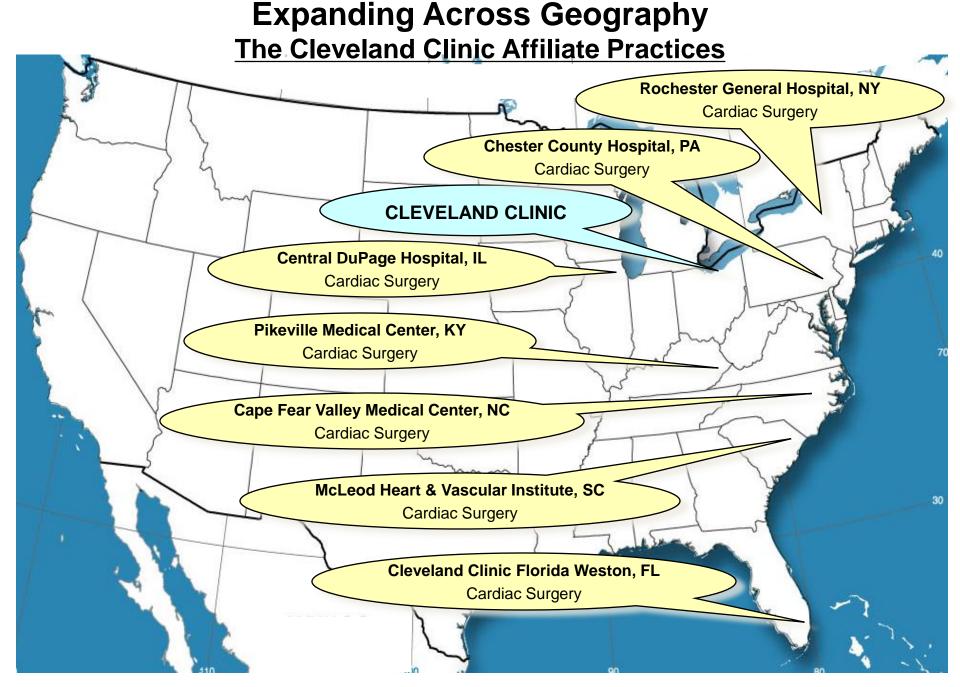
5. Expanding Areas of Excellence

Regional Providers

- Increase the volume of patients in particular medical conditions or primary care segments within the service area
- Grow areas of excellence across geography:
 - Hub and spoke expansion of satellite pre- and post-acute services
 - Affiliations with community providers to extend the reach of IPUs
- NOT Further widening service lines locally, or adding new broad line units

Community Providers

- Affiliate with excellent providers in more complex medical conditions and patient segments in order to access expertise, facilities, and services to enable high value care
 - Focus community and rural hospitals on appropriate conditions, services, and follow-up in a partnered IPU structure

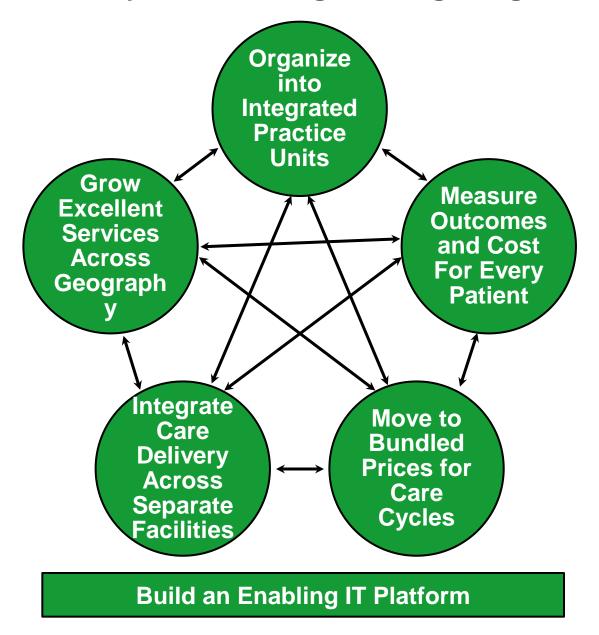


6. Building an Enabling Information Technology Platform

Utilize information technology to enable **restructuring of care delivery** and **measuring results**, rather than treating it as a solution itself

- Common data definitions
- Combine all types of data (e.g. notes, images) for each patient
- Data encompasses the full care cycle, including care by referring entities
- Allow access and communication among all involved parties, including with patients
- Templates for medical conditions to enhance the user interface
- "Structured" data vs. free text
- Architecture that allows easy extraction of outcome measures, process measures, and activity-based cost measures for each patient and medical condition
- Interoperability standards enabling communication among different provider (and payor) organizations

A Mutually Reinforcing Strategic Agenda



Moving to a High-Value German System

- 1. Make patient value the central goal of all reforms
- 2. Reorganize care into **Integrated Practice Units** around patient medical conditions
 - Certification standards should require multidisciplinary teams, integrated scheduling, and coordinated case management
 - Primary and preventive care should be tailored to serve distinct patient segments
- 3. Eliminate the **separation** between inpatient, outpatient, and rehabilitation care
 - Integrate care across the care cycle, with more care shifting to the outpatient setting
 - Reduce cost-shifting between care settings by eliminating the different models of reimbursement for inpatient and outpatient care
 - Harness the power of IT to enable integrated care delivery

Moving to a High-Value German System

- 4. Mandate measurement and reporting of **outcomes** for every patient
 - Create a national body to oversee the development of outcome measures
 - Mandate publication of risk-adjusted outcomes
 - Until outcome data is widely available, expand minimum volume standards
 - Build on successful German efforts (e.g., QSR measures)
- 5. Introduce new cost-accounting standards to measure **costs**, not charges, at the level of patients and care for medical conditions
 - Establish a national body to develop common costing standards
 - Introduce new cost-accounting standards that provide accurate cost data across providers and allow costs to be measured around the patient
- 6. Shift reimbursement to **bundled payments** for the full care cycle
 - Introduce a universal reimbursement catalog
 - Maintain group, as opposed to selective, contracting between health plans and providers

Moving to a High-Value German System

- 7. Encourage consolidation of **providers** and provider **service lines**
 - Expand minimum volume standards and focus on high-volume service lines
 - Open up laws to eliminate quasi-monopolies
- 8. Level the playing field between statutory and private health plans
 - Require private plans to contribute to the risk pool along with statutory plans
 - Harmonize reimbursement for private and statutory plan patients
- Transform health plans through reporting and service standards into health management organizations competing to maximize subscriber health

Reorganize Care into Integrated Practice Units Around Patient Medical Conditions

Care needs to be organized around patient medical conditions (for specialty care) and distinct patient segments (for primary care).

German system today:

- Care delivery is organized around specialties and the supply of services
 - No integration across specialties and across the care cycle
 - Fragmentation results in unnecessary provider visits and inconsistent quality
- Intense competition to retain patients works against value
 - Referrals occur too late or not at all
- Most patients make choices based on convenience and short-sighted costsavings

- Reorganize care around the patient:
 - Patient medical conditions for specialty care
 - Distinct patient segments for primary care
- Eliminate all obstacles that maintain the separation between inpatient, outpatient, and rehabilitation care
- Engage patients in wellness and participation in their health care
- Harness the power of IT to enable integrated care delivery

Mandate Measurement and Reporting of Outcomes for Every Patient

Only when outcomes are known can providers improve the quality of care, patients choose excellent providers, and excellent providers grow.

German system today:

- Mandatory quality systems are focused on structural and process measures
 - Limited acceptance in the medical community
- No universal outcome measurement
 - BQS/AQUA measures cover a small number of conditions
 - Results are not published universally
- Limited culture of continuous improvement

- Create a national body to oversee the development of outcome measures
 - Focus on outcome, not process, measures
 - Measure multiple outcomes for each medical condition across the entire care cycle
- Build on successful German efforts
- Publish risk-adjusted results widely
- Charge physicians with leading these efforts

Measure Costs, Not Charges, at the Level of Patients and Care for Medical Conditions

Understanding the true costs of care delivery is essential to improving value. Flawed cost-accounting leads to inappropriate reimbursement and ill-advised cost-cutting measures.

German system today:

- Poor understanding of the true costs of delivering care
 - Charges are often mistaken for costs
 - The focus is on low reimbursement rates per visit, not lower total costs
- Flawed cost-accounting is the root cause
 - Costs are aggregated around departments and products, not patient conditions
 - Providers cannot accurately match costs to individual patients
 - Costs do not reflect actual resource utilization

- Establish a national body to develop common costing standards
- Measure costs around the patient
 - Use TDABC to calculate the actual resources utilized in patient care
- Aggregate costs over the full care cycle
- Cost savings will come from numerous opportunities to improve efficiency
- Accurate cost data will encourage a reduction in service lines

Reimburse Providers Through Bundled Payments Covering the Full Care Cycle

Risk-adjusted bundled payments will align reimbursement with value creation and encourage integrated care.

German system today:

- The reimbursement system rewards volume, rather than value
- Cost-shifting occurs between the inpatient and outpatient sector
 - Different reimbursement models for inpatient (DRG) and outpatient care (capitation and fee-for-service)
 - Multiple funding agencies across the care cycle
- Higher reimbursement levels for private patients
 - This leads to cross-subsidies and skewed incentives
 - Price differences do not correlate with differences in underlying costs

- Replace discrete payments for visits and services with risk-adjusted bundled payments covering the entire care cycle
 - Reimbursement should cover inpatient, outpatient, and rehabilitation care for a medical condition
 - Moving to capitated bundled payments will allow arbitrary provider budgets to be phased out
- Establish a universal reimbursement catalogue, applicable to all providers
 - Harmonize the reimbursement scheme for private and statutory patients

Encourage the Consolidation of Providers and Provider Service Lines

A critical mass of patients per medical condition is needed to foster deep expertise, dedicated teams, and tailored facilities that offer integrated care for the condition and its common co-occurrences.

German system today:

- German providers try to do everything for everyone
 - They provide broad service lines
- There is significant overcapacity of hospitals, outpatient practices, and rehabilitation centers
 - More hospital departments are still being opened than closed
 - Minimum volume standards are limited in reach and often not enforced
- Current licensing laws grant quasimonopolies to providers

- Care should be concentrated in fewer providers who provide excellent—not local—care
 - Focus on high-volume service lines
 - Expand areas of excellence across geography
- Use positive-sum competition to drive consolidation in the provider sector
 - Publish experience (volume) and outcome data on all providers
 - Expand minimum volume standards
 - Open laws to eliminate quasimonopolies

Require Private Plans to Contribute to the Risk Pool Along with Statutory Plans

The playing field between statutory and private health plans must be leveled. Competition should be based on achieving superior health value for subscribers, rather than risk selection.

German system today:

- Private and statutory health plans are engaged in zero-sum competition with each other
- Private plans gain competitive advantage through risk selection, not value improvement
 - Access to private plans is restricted
- Higher reimbursement rates for private patients distort incentives for providers
- The current structure erodes the solidarity principle at the heart of the German system
 - Private plans do not contribute to the risk pool along with the statutory funds

- The playing field between statutory and private health plans should be leveled
 - Private health plans should contribute to the morbidityadjusted risk pool
 - Reimbursement for private and statutory patients should be harmonized for inpatient and outpatient care
 - This will unleash positive-sum competition
- With even competition, it would be feasible to open up the primary private health insurance market to all citizens

Transform Health Plans into Health Management Organizations Competing on Maximizing Subscriber Health

Health plans can add value by assembling outcome information, assisting subscribers in selecting excellent providers, and engaging in wellness and disease management.

German system today:

- Health plans are primarily focused on minimizing short-term costs
- Health plans compete on low premiums, rather than enabling better health
 - Plans offer almost identical services
 - Plans compete around marginal premium differences
- Health plans attempt to hold down premiums through cost-shifting and rationing, rather than improving care
- Health plans attempt to game the system through risk selection

Recommendations for Germany:

- Health plans should become health management organizations that strive to maximize subscriber health
 - Shift focus from cost-containment to improving care delivery
- Health plans should support outcome measurement, disease management, and subscriber selection of high-quality providers
 - Build medical competence within plans
 - Build disease-specific offerings
- Risk pool should be further improved to reduce the incentive for risk selection
- Encourage further consolidation in the health plan sector