Value-Based Health Care Delivery

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May 13, 2009

This presentation draws on Michael E. Porter and Elizabeth Olmsted Teisberg: Redefining Health Care: Creating Value-Based Competition on Results, Harvard Business School Press, May 2006, and "How Physicians Can Change the Future of Health Care," *Journal of the American Medical Association*, 2007; 297:1103:1111. 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 and Elizabeth Olmsted Teisberg. Further information about these ideas, as well as case studies, can be found on the website of the Institute for Strategy & Competitiveness at http://www.isc.hbs.edu.

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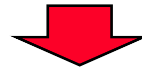
Redefining Health Care Delivery

- Universal coverage and access to care are **essential**, **but not enough**
- The core issue in health care is the **value of health care delivered**

Value: Patient health outcomes per dollar spent



- How to design a health care system that **dramatically improves value**
  - Ownership of entities is secondary (e.g. non-profit vs. for profit vs. government)
- How to create a **dynamic system** that keeps rapidly improving

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Creating a Value-Based Health Care System

- Significant improvement in value will require **fundamental restructuring of health care delivery**, not incremental improvements

> Today, 21st century medical technology is delivered with 19th century organization structures, management practices, and pricing models

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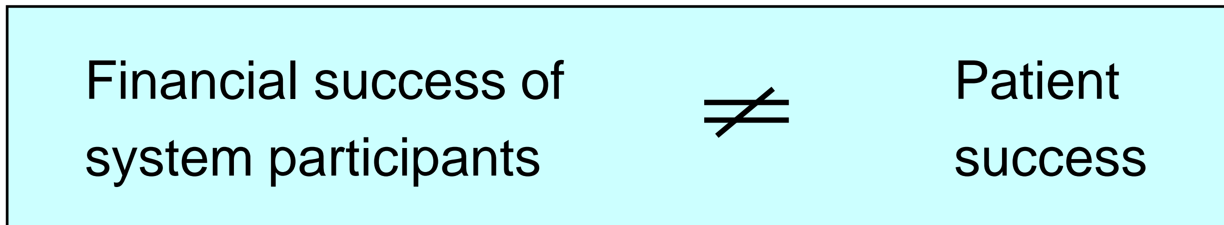
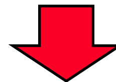
Harnessing Competition on Value

- Competition is a powerful force to encourage **restructuring of care** and **continuous improvement in value**
  - Competition for patients
  - Competition for health plan subscribers
- Today's competition in health care **is not aligned with value**





- Creating **competition on value** is a central challenge in health care reform

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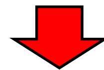
Principles of Value-Based Health Care Delivery

1. Set the goal as **value for patients**, not containing costs
2. Drive value and cost containment by **improving quality**, where quality is health **outcomes**
3. Reorganize health care delivery around **medical conditions** over the **full cycle of care**

- A medical condition is **an interrelated set of patient medical circumstances best addressed in an integrated way**
  - Defined from the **patient's** perspective
  - **Including** the most common co-occurring conditions
  - Involving **multiple** specialties and services



- The medical condition is the **unit of value creation** in health care delivery

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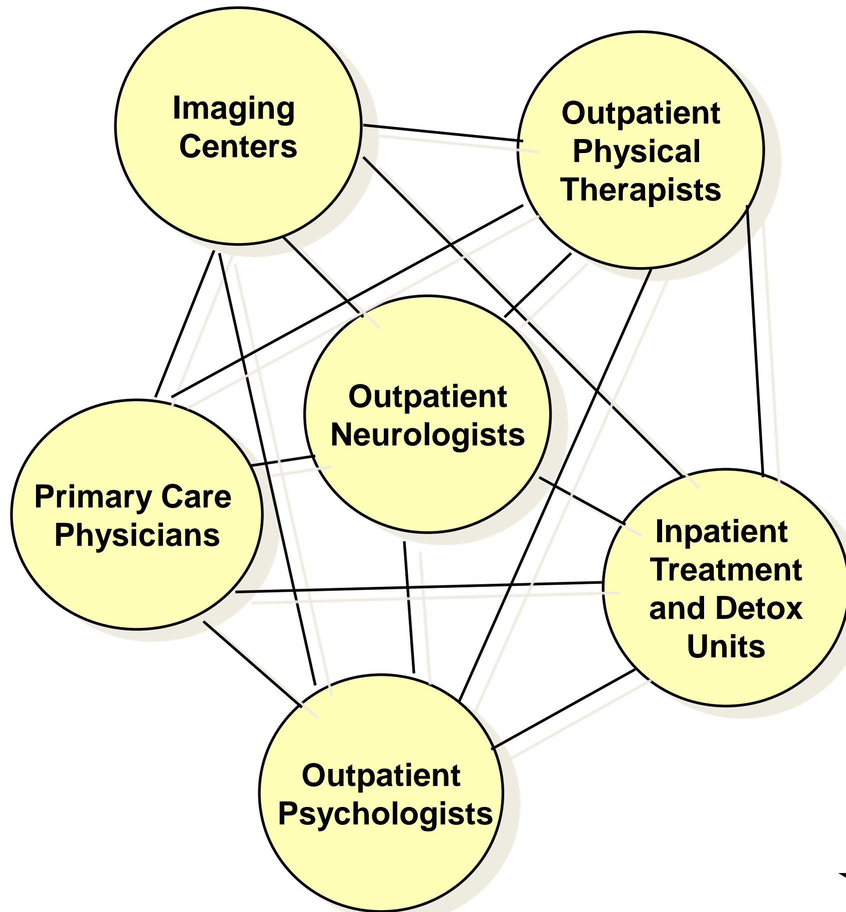
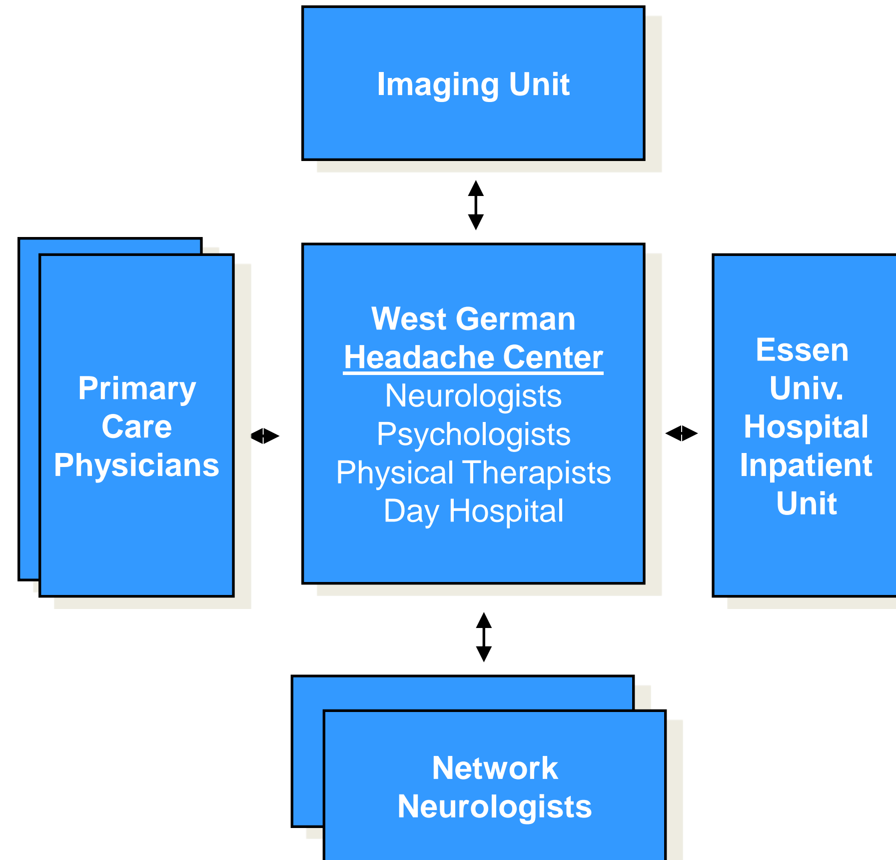
Restructuring Care Delivery

Migraine Care in Germany

Existing Model:
Organize by Specialty and Discrete Services



New Model:
Organize into Integrated Practice Units (IPUs)



- The health plan was crucial to this transformation

Source: Porter, Michael E., Clemens Guth, and Elisa Dannemiller, *The West German Headache Center: Integrated Migraine Care*, Harvard Business School Case 9-707-559, September 13, 2007

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The Cycle of Care

Breast Cancer

	MONITORING/ PREVENTING	DIAGNOSING	PREPARING	INTERVENING	RECOVERING/ REHABING	MONITORING/ MANAGING
ENGAGING	▪Advice on Self screening ▪Consultations on risk factors	▪Counseling patient and family on the diagnostic process and the diagnosis	▪Explaining patient choices of treatment ▪Patient and family psychological counseling	▪Counseling on the treatment process ▪Achieving compliance	▪Counseling on rehabilitation options, process ▪Achieving compliance ▪Psychological counseling	▪Counseling on long term risk management ▪Achieving Compliance
MEASURING	▪Self exams ▪Mammograms	▪Mammograms ▪Ultrasound ▪MRI ▪Biopsy ▪BRACA 1, 2...		▪Procedure-specific measurements	▪Range of movement ▪Side effects measurement	▪Recurring mammograms (every six months for the first 3 years)
ACCESSING	▪Office visits ▪Mammography lab visits	▪Office visits ▪Lab visits ▪High risk clinic visits	▪Office visits ▪Hospital visits	▪Hospital stays ▪Visits to outpatient or radiation chemotherapy units	▪Office visits ▪Rehabilitation facility visits	▪Office visits ▪Lab visits ▪Mammographic labs and imaging center visits
	MONITORING/ PREVENTING	**DIAGNOSING**	**PREPARING**	**INTERVENING**	**RECOVERING/ REHABING**	**MONITORING/ MANAGING**
	▪Medical history ▪Control of risk factors (obesity, high fat diet) ▪Genetic screening ▪Clinical exams ▪Monitoring for lumps	▪Medical history ▪Determining the specific nature of the disease ▪Genetic evaluation ▪Choosing a treatment plan	▪Surgery prep (anesthetic risk assessment, EKG) ▪Plastic or onco-plastic surgery evaluation	▪Surgery (breast preservation or mastectomy, oncoplastic alternative) ▪Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy)	▪In-hospital and outpatient wound healing ▪Treatment of side effects (e.g. skin damage, cardiac complications, nausea, lymphodema and chronic fatigue) ▪Physical therapy	▪Periodic mammography ▪Other imaging ▪Follow-up clinical exams ▪Treatment for any continued side effects

PROVIDER MARGIN

Breast Cancer Specialist

Other Provider Entities

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Preventative Care as a Medical Condition

- Integrated care delivery structures for **prevention**, **wellness**, **screening** and **health maintenance** (PWSM) are needed, not today's fragmented structure
- PWSM care delivery organizations should **target specific patient populations** (e.g. elderly, healthy children) rather than attempt to be all things to all patients
- Care delivery models should involve the **workplace**, **community organizations**, and **other non traditional settings** to leverage regular patient contact and the ability to develop a group culture of wellness
- Bundled **reimbursement models**

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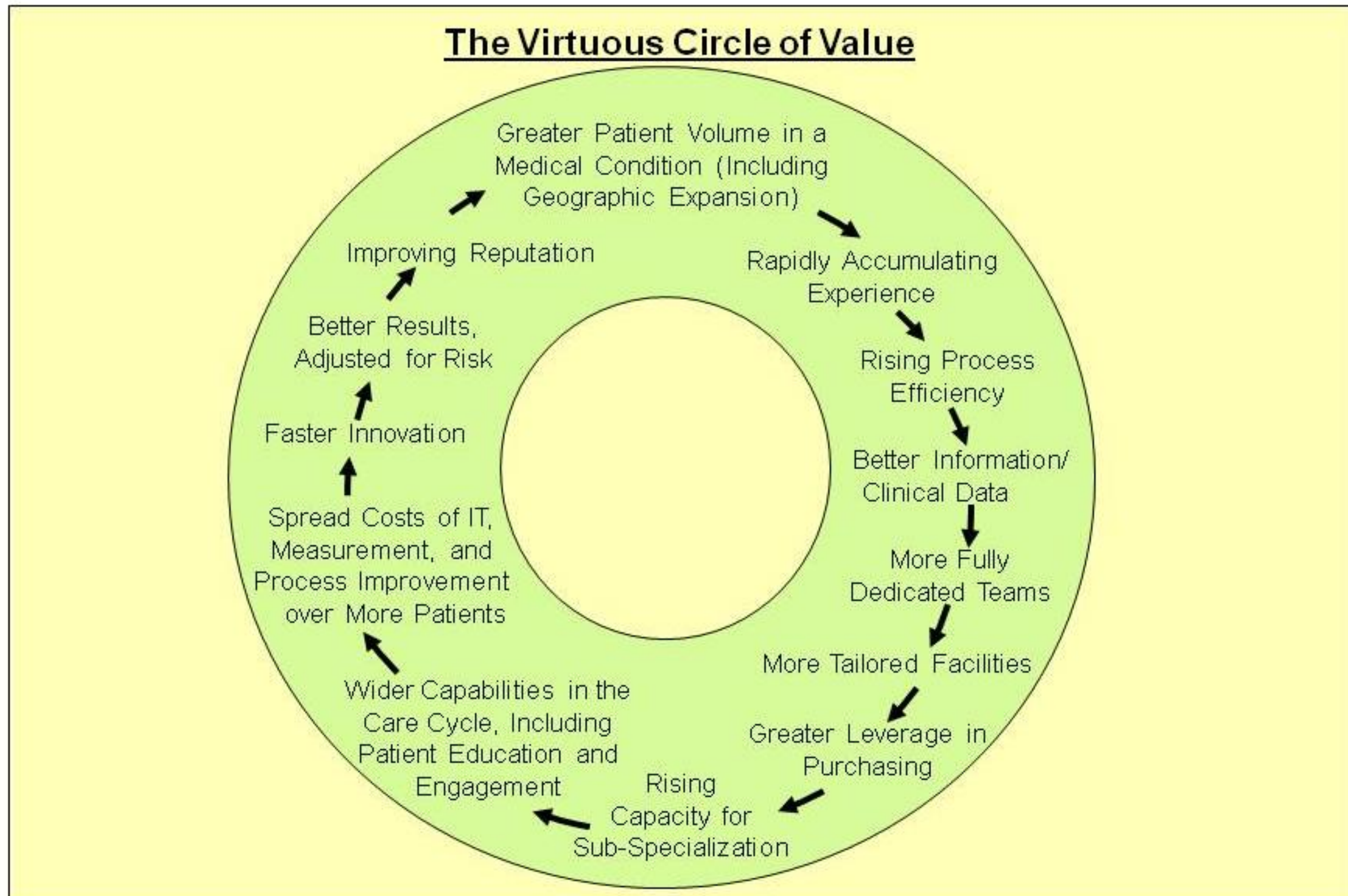
Principles of Value-Based Health Care Delivery

4. **Increase** provider **experience**, **scale**, and **learning** at the **medical condition level**



- The virtuous circle **extends across geography** when care for a medical condition is integrated across locations

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Fragmentation of Hospital Services

Sweden

DRG	Total admissions per year nationwide	Number of admitting providers	Average admissions/ provider/ year	Average admissions/ provider/ week	Average percent of total national admissions per provider
Diabetes age > 35	7,649	80	96	2	1.3%
Kidney failure	7,742	80	97	1	1.3%
Multiple sclerosis and cerebellar ataxia	2,218	78	28	1	1.3%
Inflammatory bowel disease	4,816	73	66	1	1.4%
Implantation of cardiac pacemaker	6,324	51	124	2	2.0%
Splenectomy age > 17	129	37	3	<1	2.6%
Cleft lip & palate repair	583	7	83	2	14.2%
Heart transplant	74	6	12	<1	16.6%

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

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Fragmentation of Hospital Services

Japan

Procedure	Number of hospitals performing the procedure	Average number of procedures per provider per year	Average number of procedures per provider per week
Craniotomy	1,098	71	0.5
Operation for gastric cancer	2,336	72	0.5
Operation for lung cancer	710	46	0.3
Joint replacement	1,680	50	0.3
Pacemaker implantation	1,248	40	0.3
Laparoscopic procedure	2,004	72	0.5
Endoscopic procedure	2,482	202	1.4
Percutaneous transluminal coronary angioplasty	1,013	133	0.9

Source: Porter, Michael E. and Yuji Yamamoto, *The Japanese Health Care System: A Value-Based Competition Perspective*, Unpublished draft, September 1, 2007

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Principles of Value-Based Health Care Delivery

5. **Integrate care across facilities** and **across regions**, rather than duplicate services in stand-alone units

Children's Hospital of Philadelphia (CHOP) Affiliations

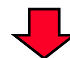
Grand View Hospital, PA
Pediatric Inpatient Care

Abington Memorial Hospital, PA
Pediatric Inpatient Care

Chester County Hospital, PA
Pediatric Inpatient Care

CHILDREN'S HOSPITAL OF PHILADELPHIA

Shore Memorial Hospital, NJ
Pediatric Inpatient Care



- Excellent providers can manage care delivery **across multiple geographies**

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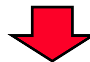
4. **Increase** provider **experience**, **scale**, and **learning** at the **medical condition level**
5. **Integrate care across facilities** and **across regions**, rather than duplicate services in stand-alone units
6. **Measure** and ultimately **report** value for every provider for every medical condition



- Measure outcomes for each **medical condition** over the **cycle of care**
  - Not for interventions or short episodes
  - Not for practices, departments, clinics, or hospitals
  - Not separately for types of service (e.g. inpatient, outpatient, tests, rehabilitation)

- Results should be measured at **the level at which value is created**

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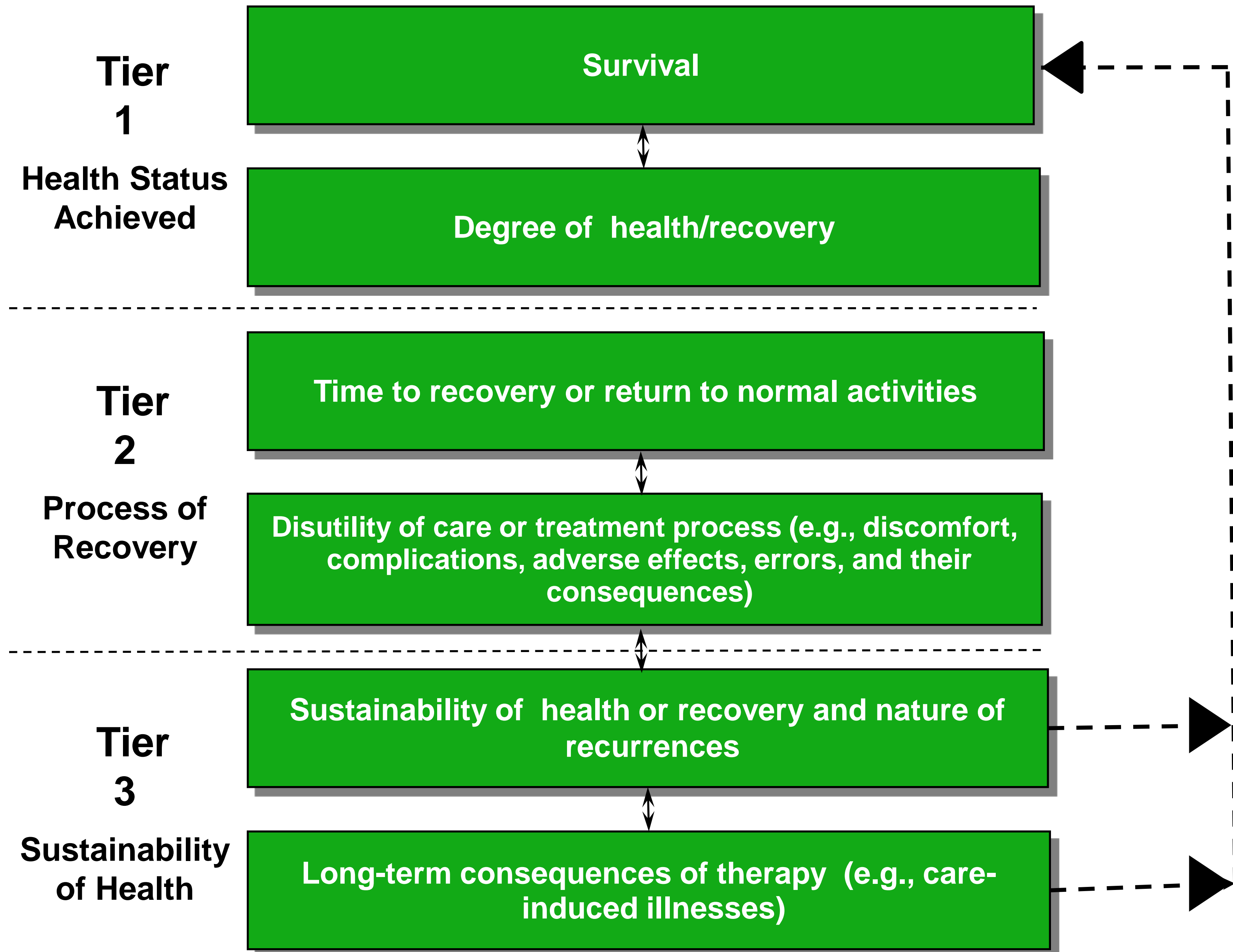
The Outcome Measures Hierarchy



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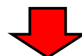
6. **Measure** and ultimately **report** value for every provider for every medical condition
7. Align reimbursement with **value** and reward **innovation**

- **Bundled reimbursement** for **care cycles**, not payment for discrete treatments or services
  - Defined service bundles ,including dealing with complications (most DRG systems are **too narrow**)
  - Adjusted for **patient complexity**
- Time-base bundled reimbursement for **managing chronic conditions**
- Reimbursement for **prevention, wellness, screening,** and **health maintenance** service bundles, not just treatment



- **Providers** and **health plans** must be proactive in driving new reimbursement models, not wait for government

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6. **Measure** and ultimately **report** value for every provider for every medical condition
7. Align reimbursement with **value** and reward **innovation**
8. Utilize information technology to enable **restructuring of care delivery** and **measuring results**, rather than treat it as a solution itself

- Common data definitions
- Precise interoperability standards
- Patient-centered data warehouse
- Include all types of data (e.g. notes, images)
- Cover the full care cycle, including referring entities
- Accessible to all involved parties
- Templates for medical conditions to enhance the user interface

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