Rapid Business Transformations in Health Care: A Systems Approach

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Agenda

- Introduction
- The Health Care Challenges
- TOGAF and Best Practices
- Accountable Care Organizations (ACO)
- Case Study
- Lessons Learned
- Questions

Challenges of the Health Care Businesses

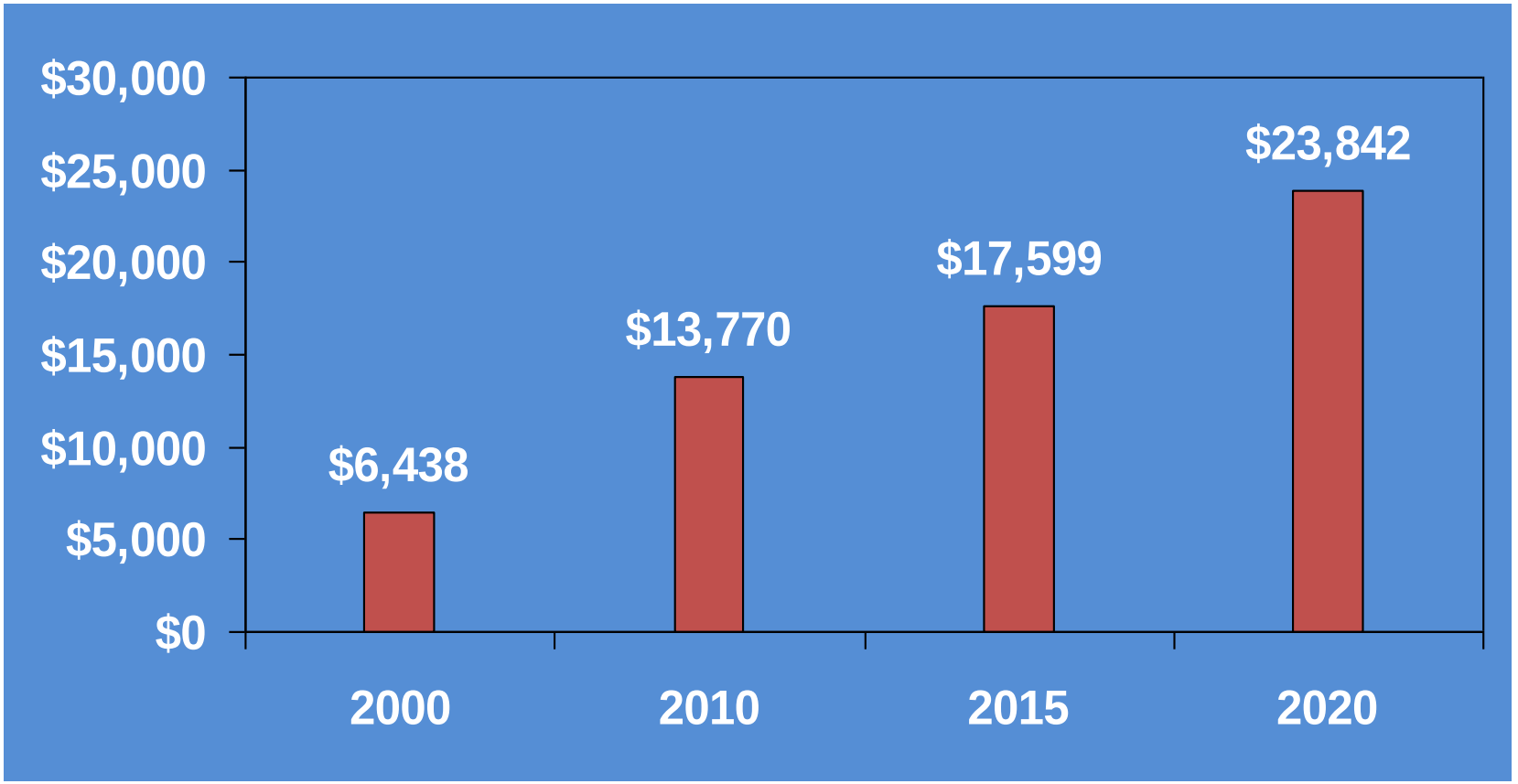
Healthcare industry has challenges in controlling healthcare cost.

Healthcare regulations forces organizations to comprehensive changes in aggressive timelines.

Overview of the Health Care Challenges

- Health Care Business Environment
- Health Care Reform
- Unsustainable increase in health care cost
- Inconsistent relationships between cost and quality of care
- Overall change program triggered by the government, CMS and new requirements (ICD10, EDI 5010, ACO, EHR, HIE)

Projections of Growth in Premiums



Source: For 2000 and 2010, Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2010 ; 2015 and 2020 based on CMS, Office of the Actuary, National Health Statistics Group, national health expenditures per capita annual growth rate, cited in: C. Schoen, J.L. Nicholson, S.D. Rustgi, *Paying the Price: How Health Insurance Premiums Are Eating Up Middle-Class Incomes, State-by-State Health Insurance Premium Projections With and Without National Reform* (New York: The Commonwealth Fund) August 2009.

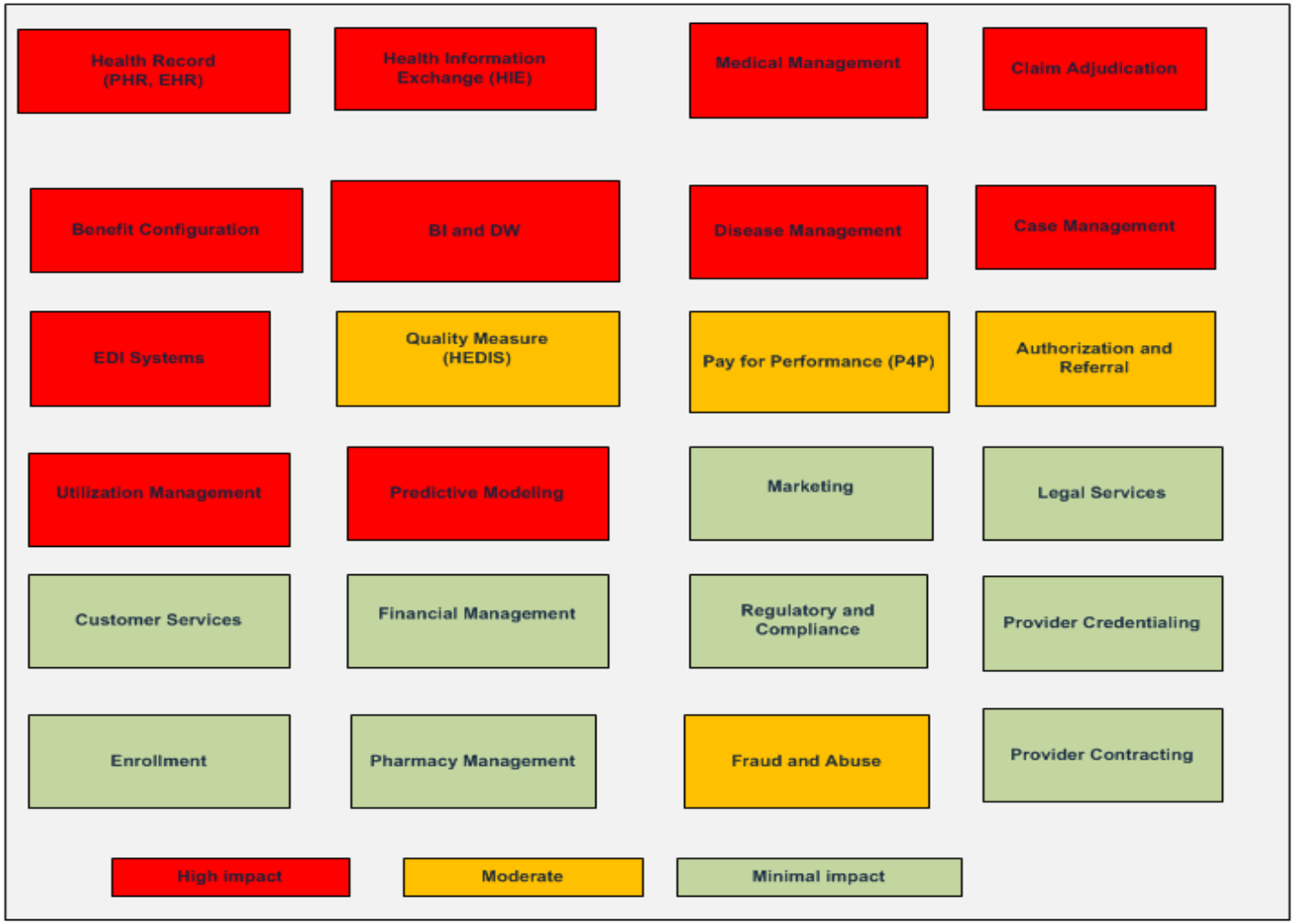
Health Management Association (HMA)
Vernon K. Smith, PhD 2010

International Classification of Diseases ICD-10 Transition from ICD-9

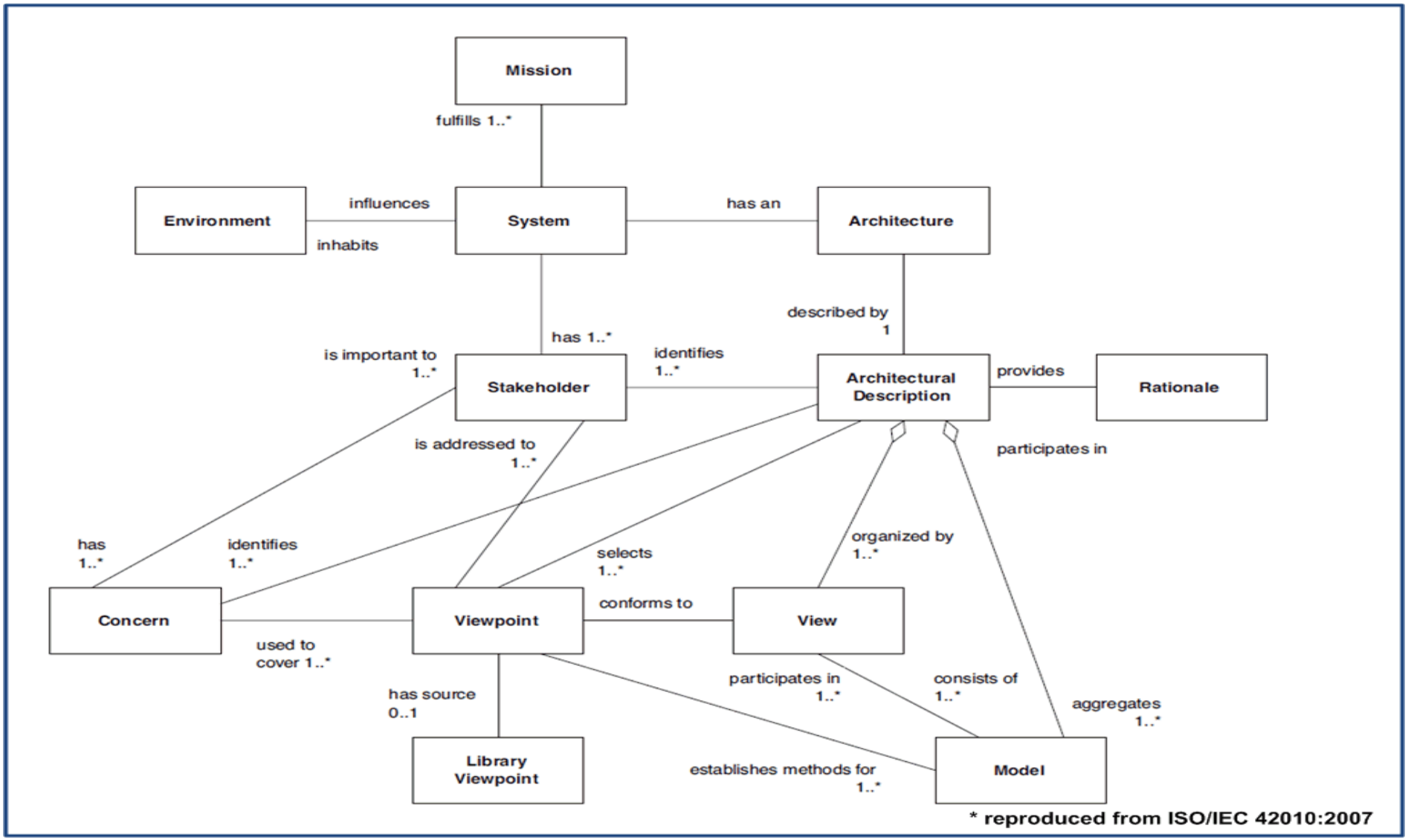
ICD-9 Diagnosis Codes	ICD-10 Diagnosis Codes	ICD-9 Procedures Codes	ICD-10 Procedure Codes
13,000	68,000	11,000	87,000
3-5 digit	3-7 digit	3-4 digit	7 DIGIT

http://www.cms.gov/ICD10/

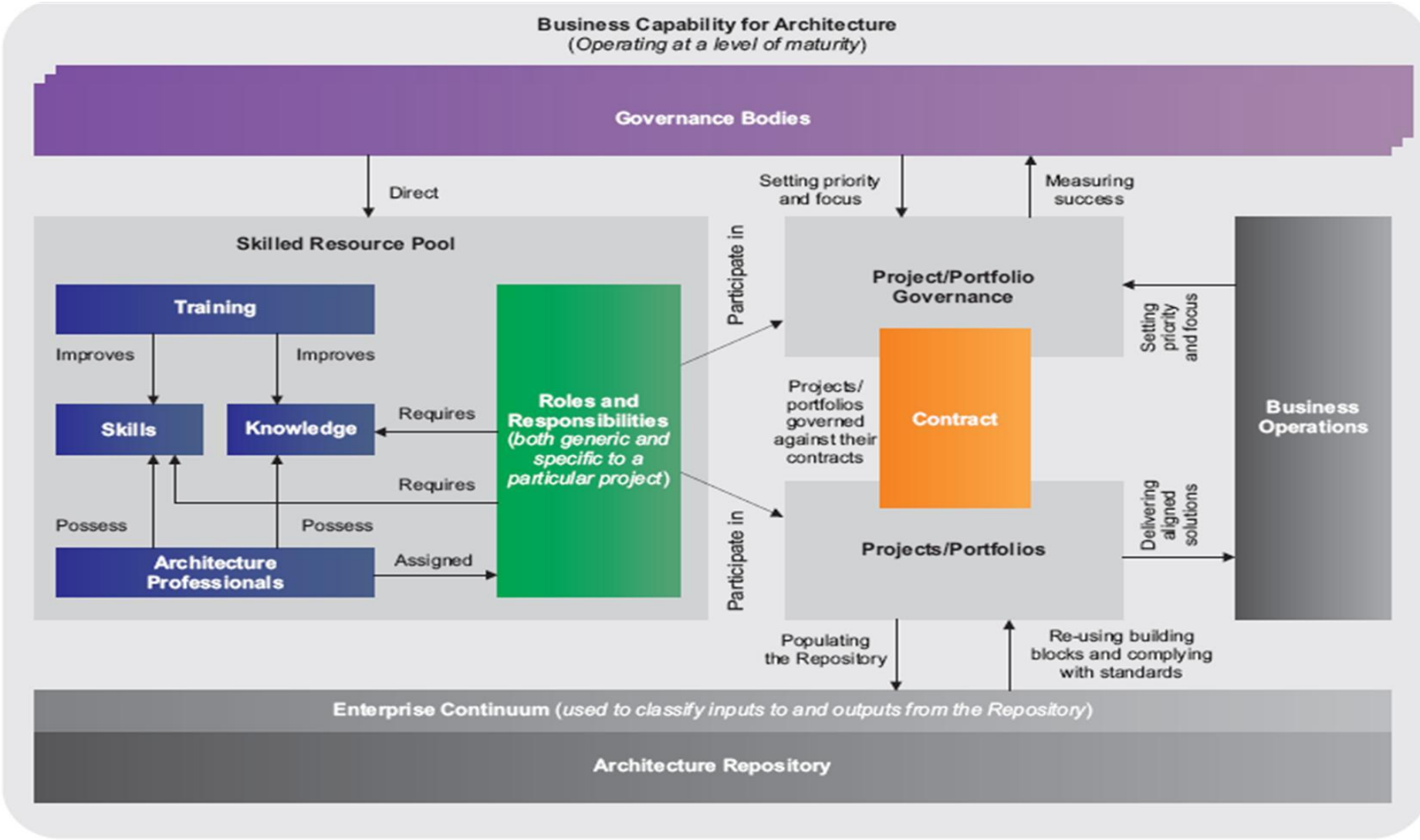
ICD-10 Upgrade
Impacts on Health Care



ISO/IEC 42010:2007

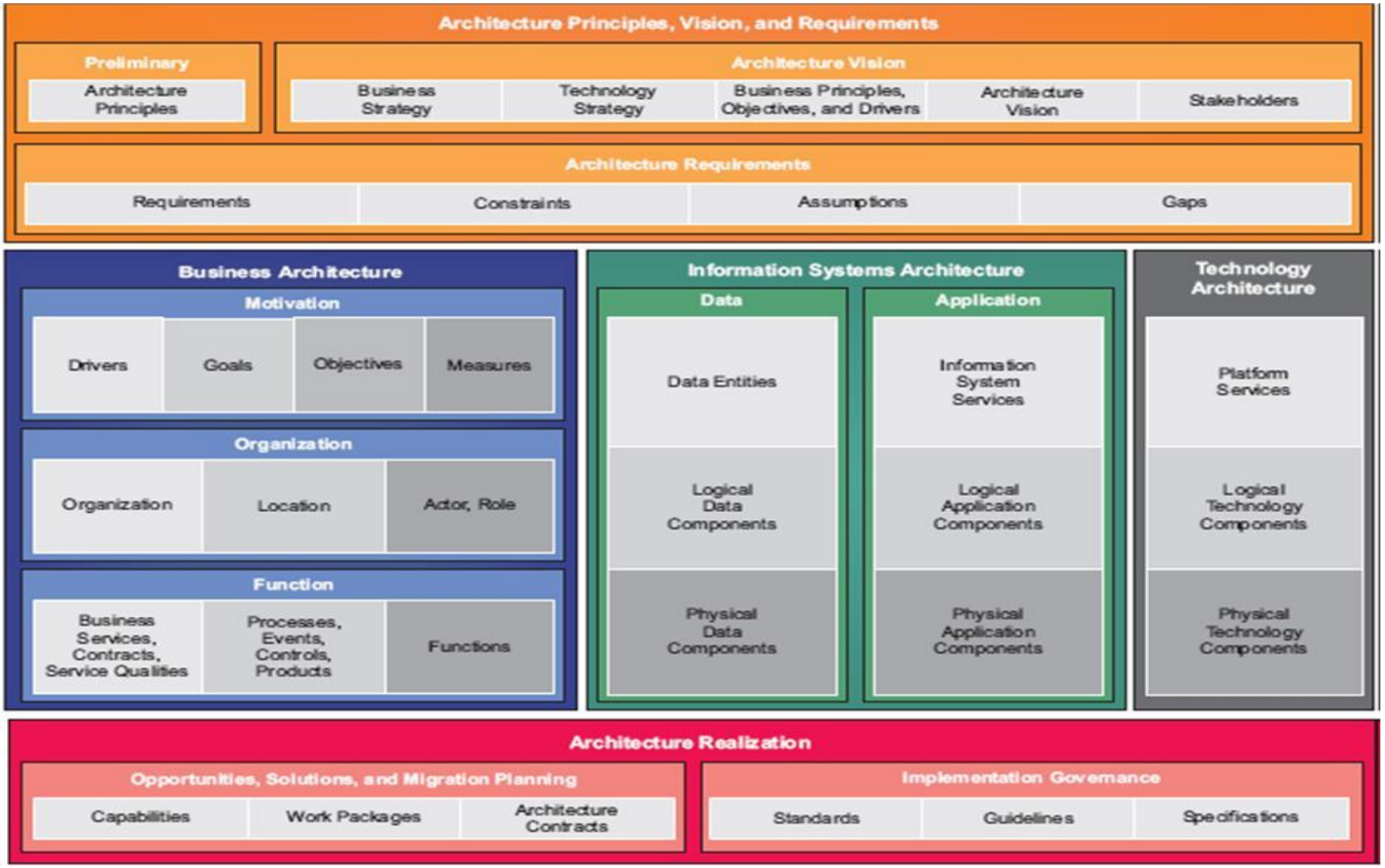


TOGAF Capability Framework



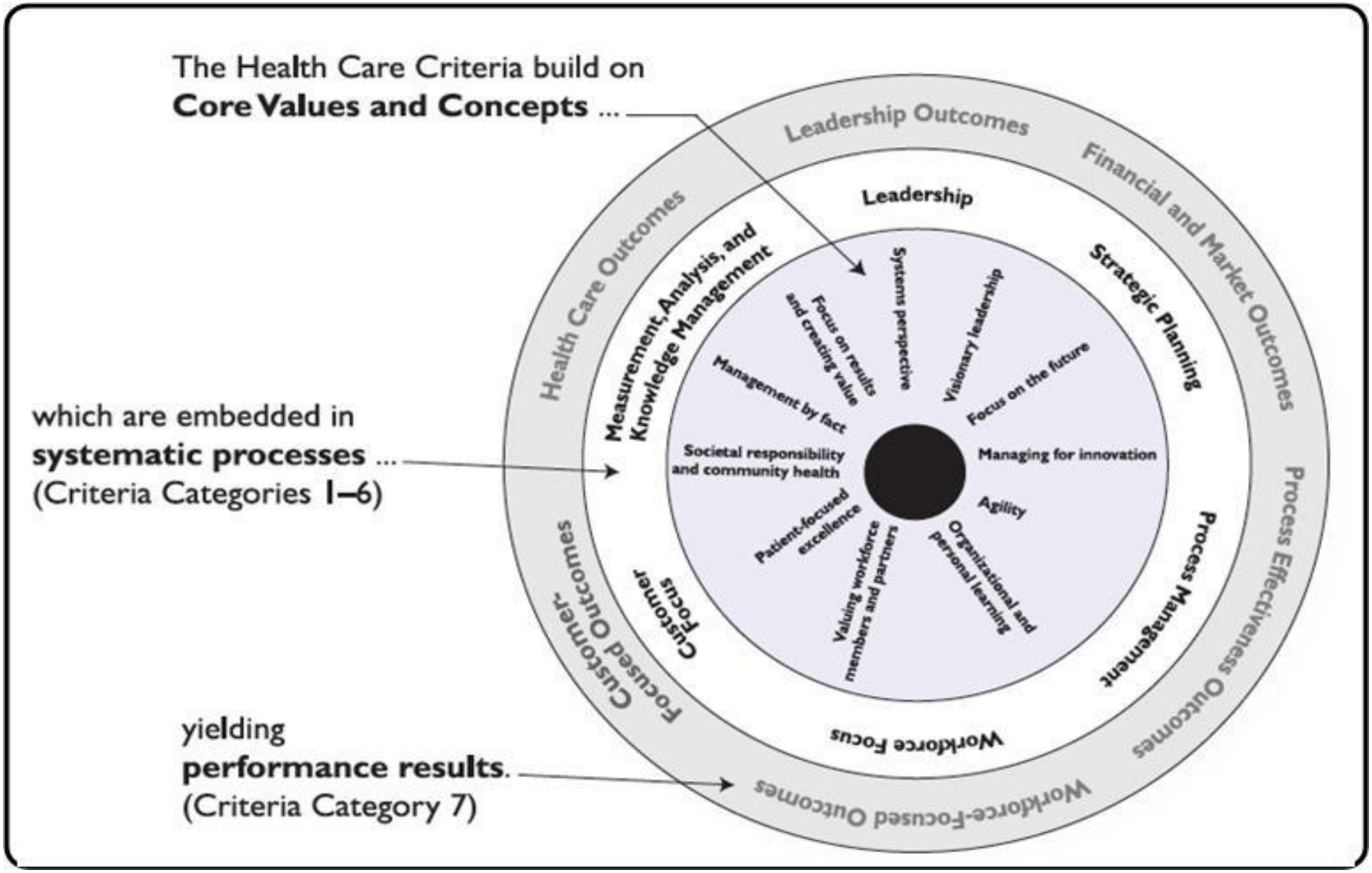
TOGAF Version 9, http://theopengroup.org/

TOGAF Content Meta-Model



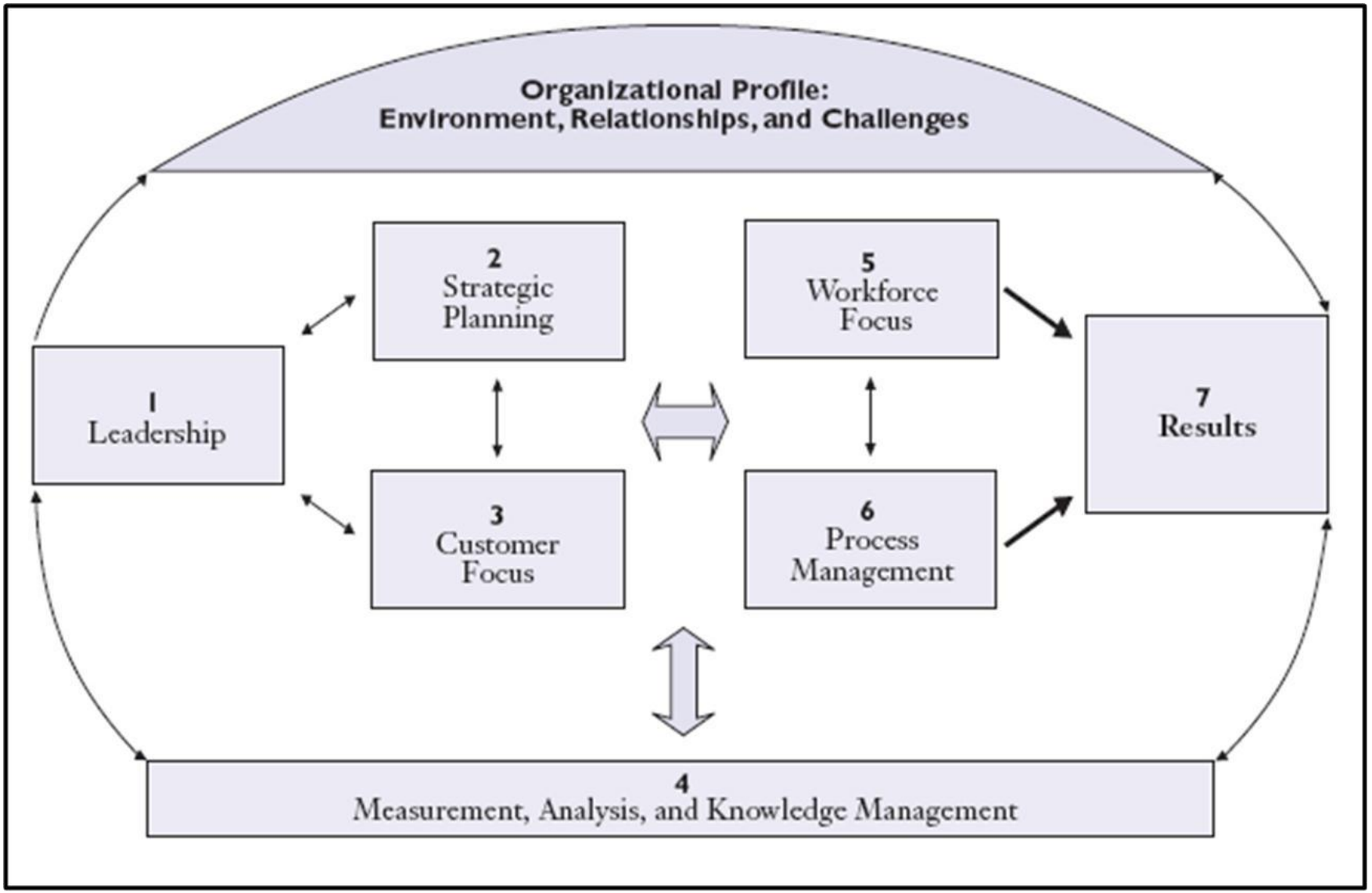
TOGAF Version 9, http://theopengroup.org/

Baldrige Criteria for Health Care Excellence



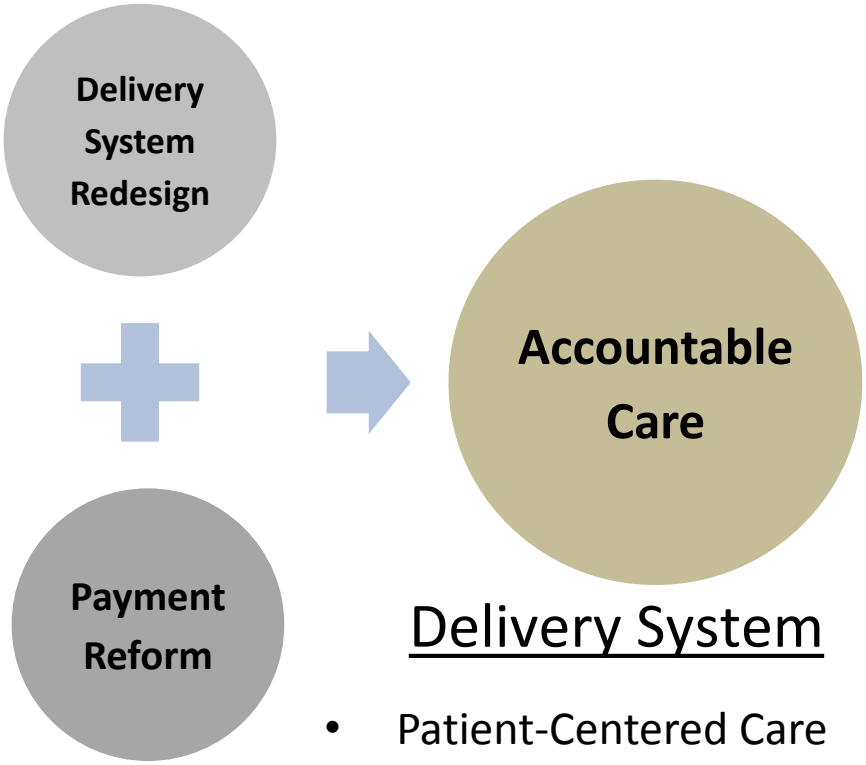
2009, Baldrige National Quality Program *www.**baldrige**.nist.gov*

Health Care Criteria for Performance Excellence Framework System Perspective



2009, Baldrige National Quality Program
www.baldrige.nist.gov

ACOs: Defining Accountable Care Organizations



Delivery System

- Patient-Centered Care
- Coordinated
- Primary Care Focus
- Technology-Enabled
- Accountable for Quality and Cost Outcomes

Payment System

- Reforms Fee-for-Service
- At-Risk for Quality
- Financial Incentives for Reducing Excess Utilization
- Options Range from Limited Gain Sharing to Full Capitation

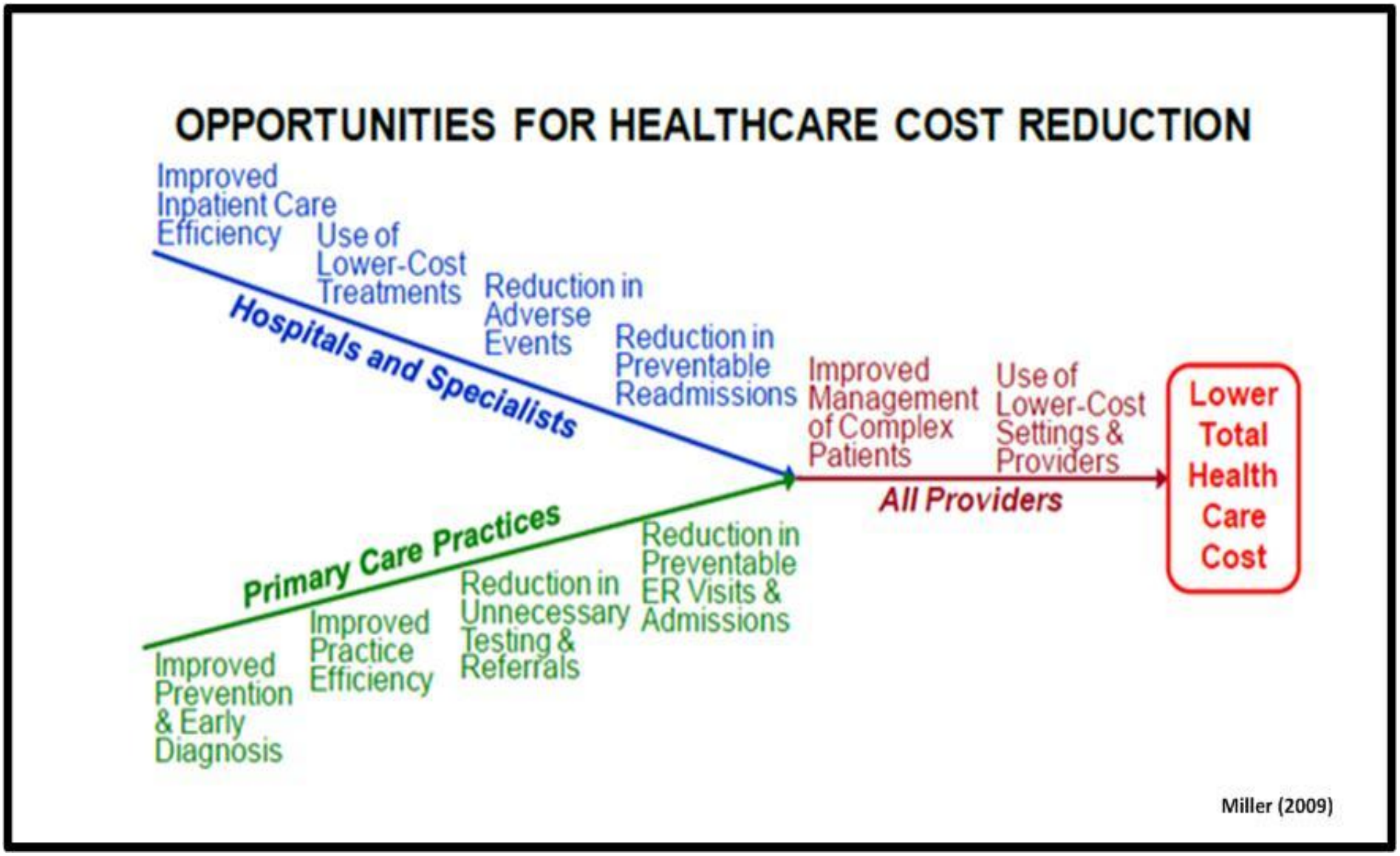
Accountable Care Organization (ACO)

- A formal legal structure that would allow the ACO to receive payments and distribute any shared savings.
- Leadership and management structure that includes clinical and administrative personnel and systems.
- Processes to promote evidence-base medicine.
- Processes to report on quality and cost measures

CMS proposes to use 65 measures in performance year 1

1. Patient/caregiver experience (7 measures)
2. Care coordination (16 measures)
3. Patient safety (2 measures)
4. Preventative health (9 measures)
5. At-risk population/frail elderly health (31 measures)

ACO as an opportunity



Pay for Performance (P4P)

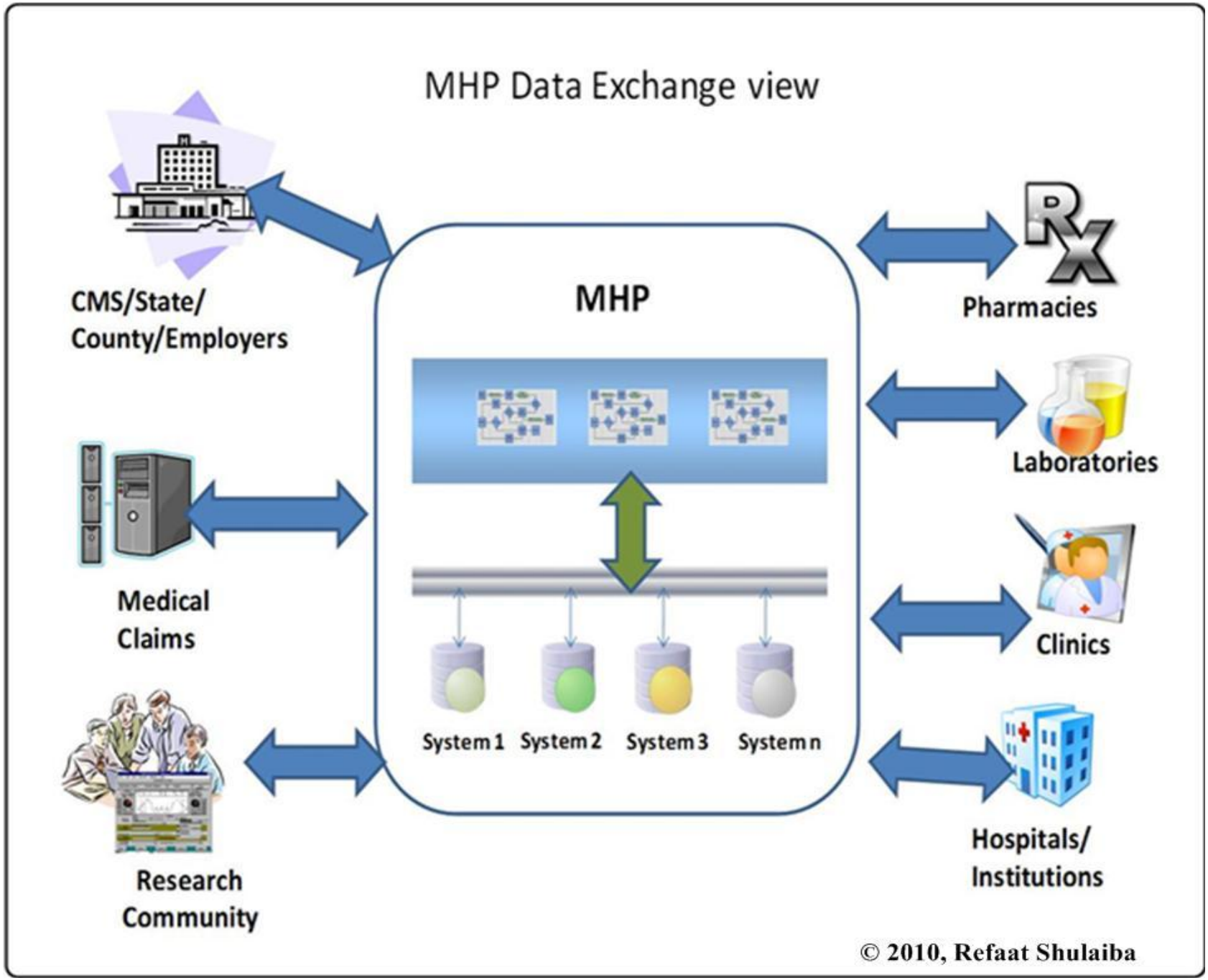
215. If a surgeon has operated with the bronze lancet on a patrician for a serious injury, and has cured him, or has removed with a bronze lancet a cataract for a patrician, and has cured his eye, he shall take ten shekels of silver.

218. If a surgeon has operated with the bronze lancet on a patrician for a serious injury, and has caused his death, or has removed a cataract for a patrician, with the bronze lancet, and has made him lose his eye, his hands shall be cut off.

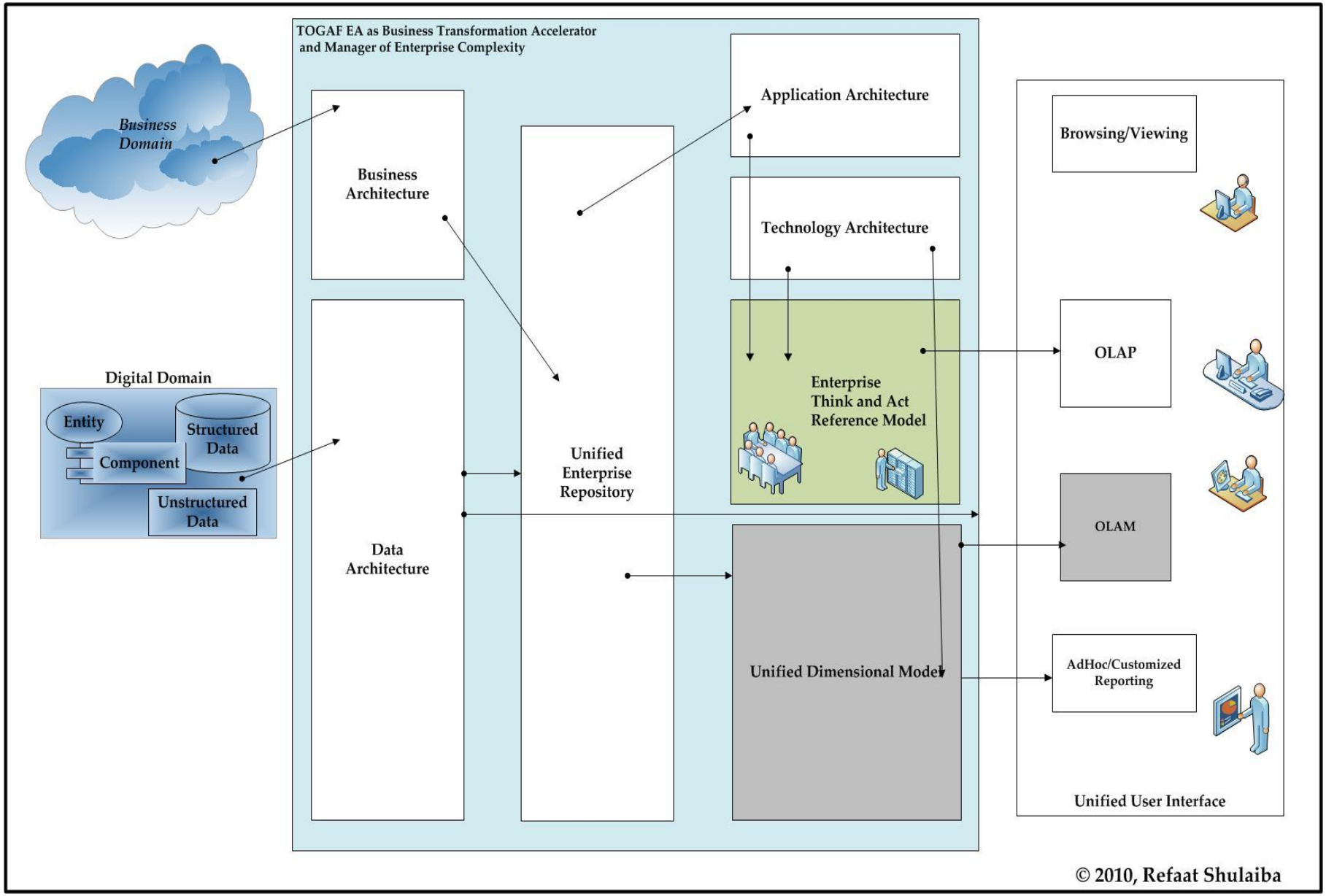
Code of Hammurabi, c. 1750 B.C

Source: Babylonian and Assyrian Laws, Contracts and Letters, by C. H. W. Johns, in 1904, one of a series called the Library of Ancient Inscriptions, from a facsimile produced by The Legal Classics Library, Division of Gryphon Editions, New York in 1987.

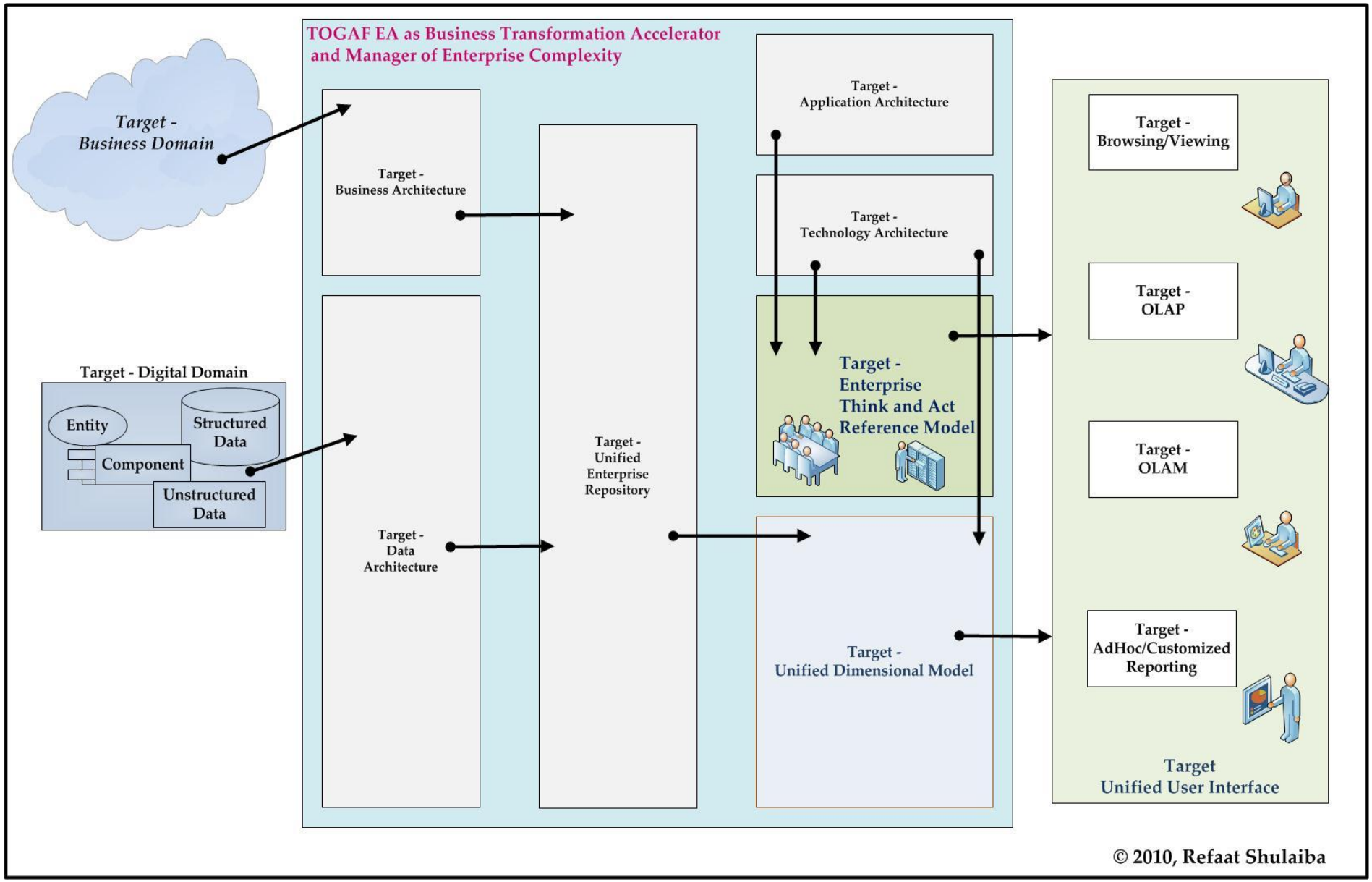
- **FFS: $$$ = Volume(Services) * Fee**
- **CAP: $$$ = Members * Monthly Premium**
- **P4P: $$$ = ??? (Outcome)**


MHP Data Exchange view
CMS/State/
County/Employers
MHP
Pharmacies
Laboratories
Medical
Claims
Clinics
System 1
System 2
System 3
System n
Research
Community
Hospitals/
Institutions
© 2010, Refaat Shulaiba

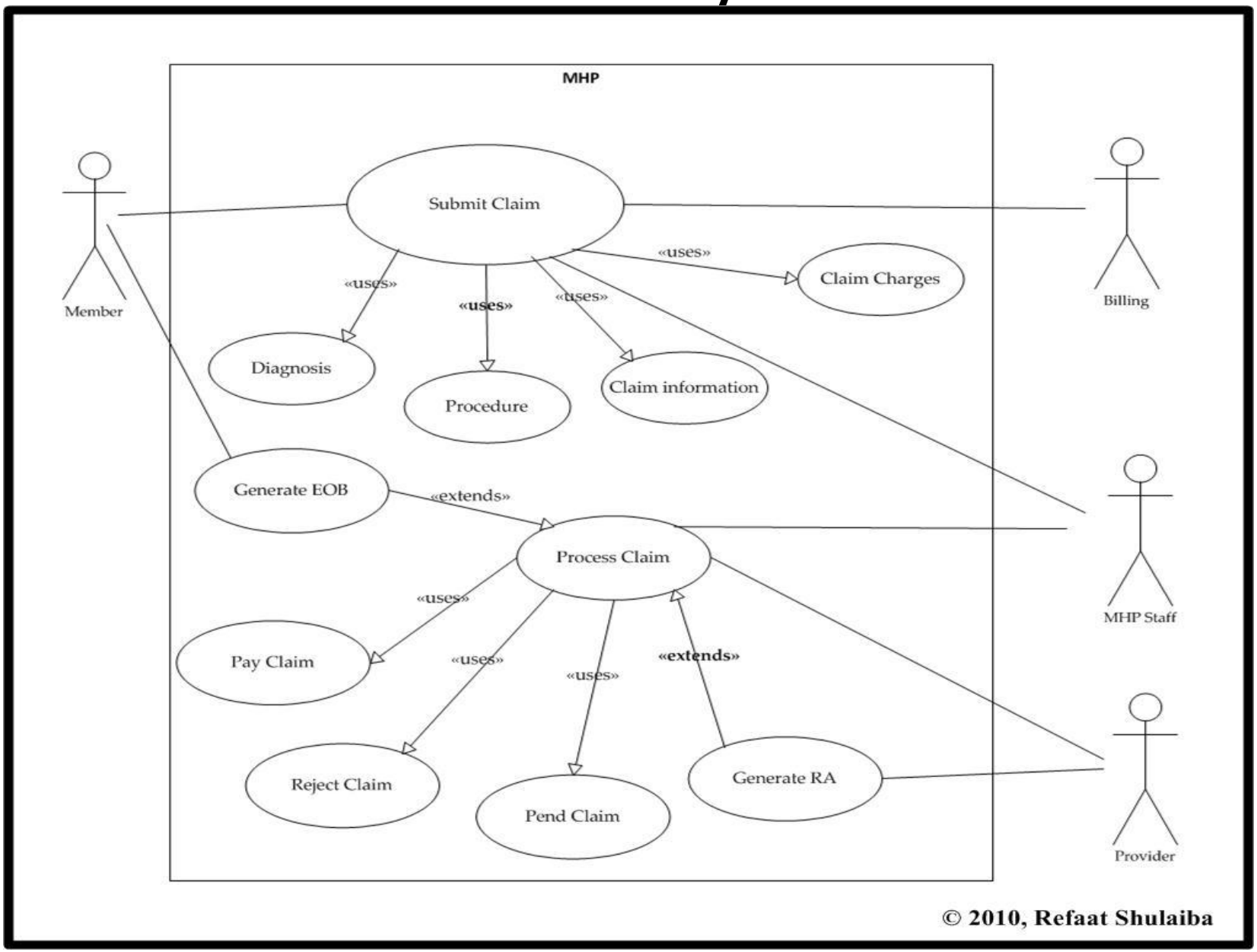
AS-IS Enterprise Architecture



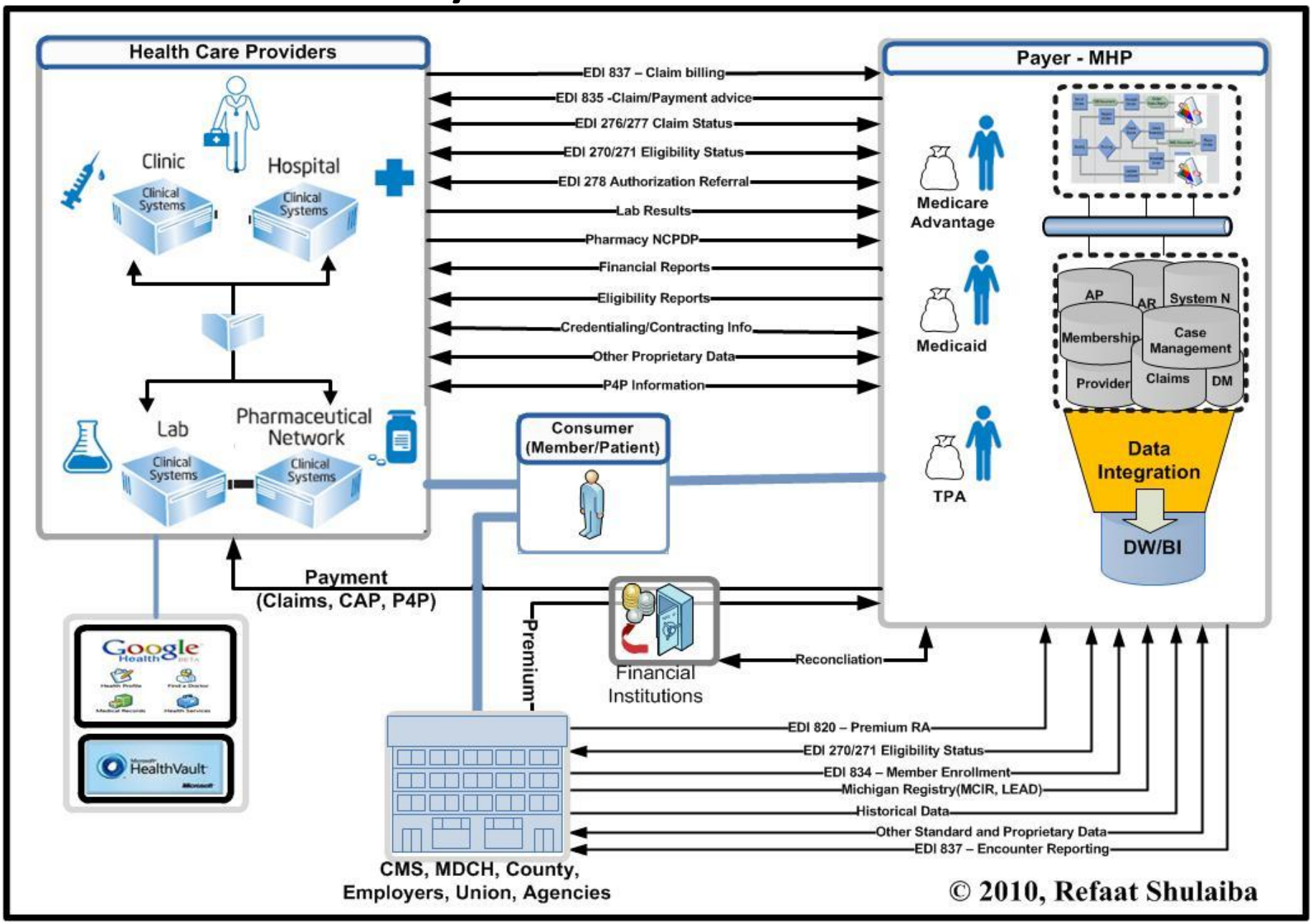
Target Architecture



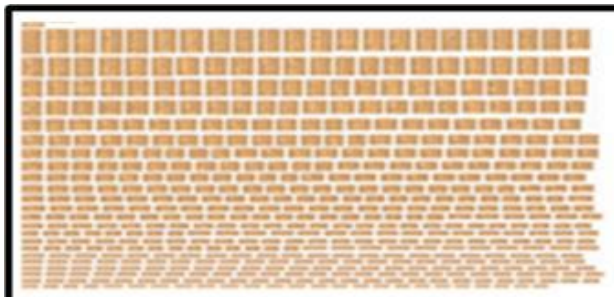
Use Case Analysis



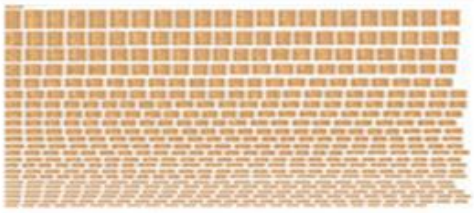
HMO Systems Architecture



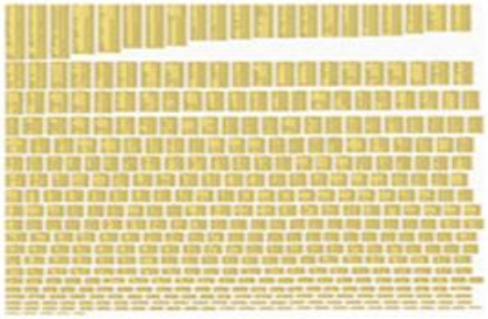
MHP Data Sources



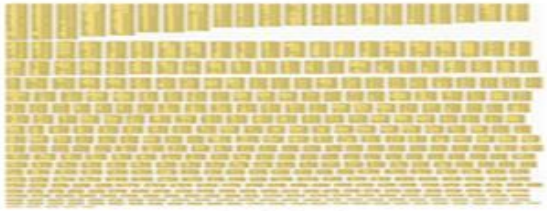
MC400



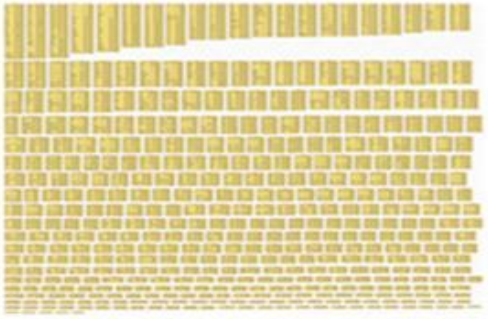
McKesson CCMS



McKesson DM

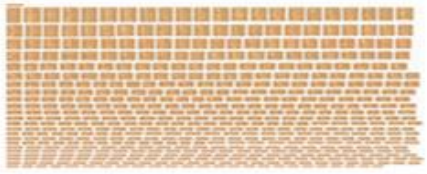


MCNet



MHPDATA

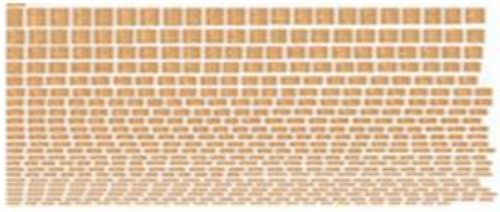
Cactus



P4P Incentive

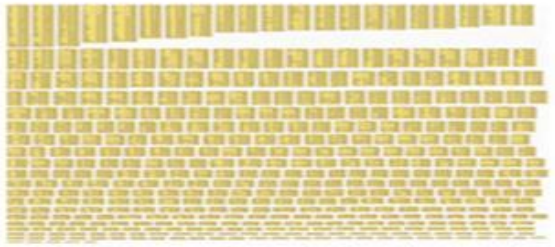
EDI835

EDI270/271



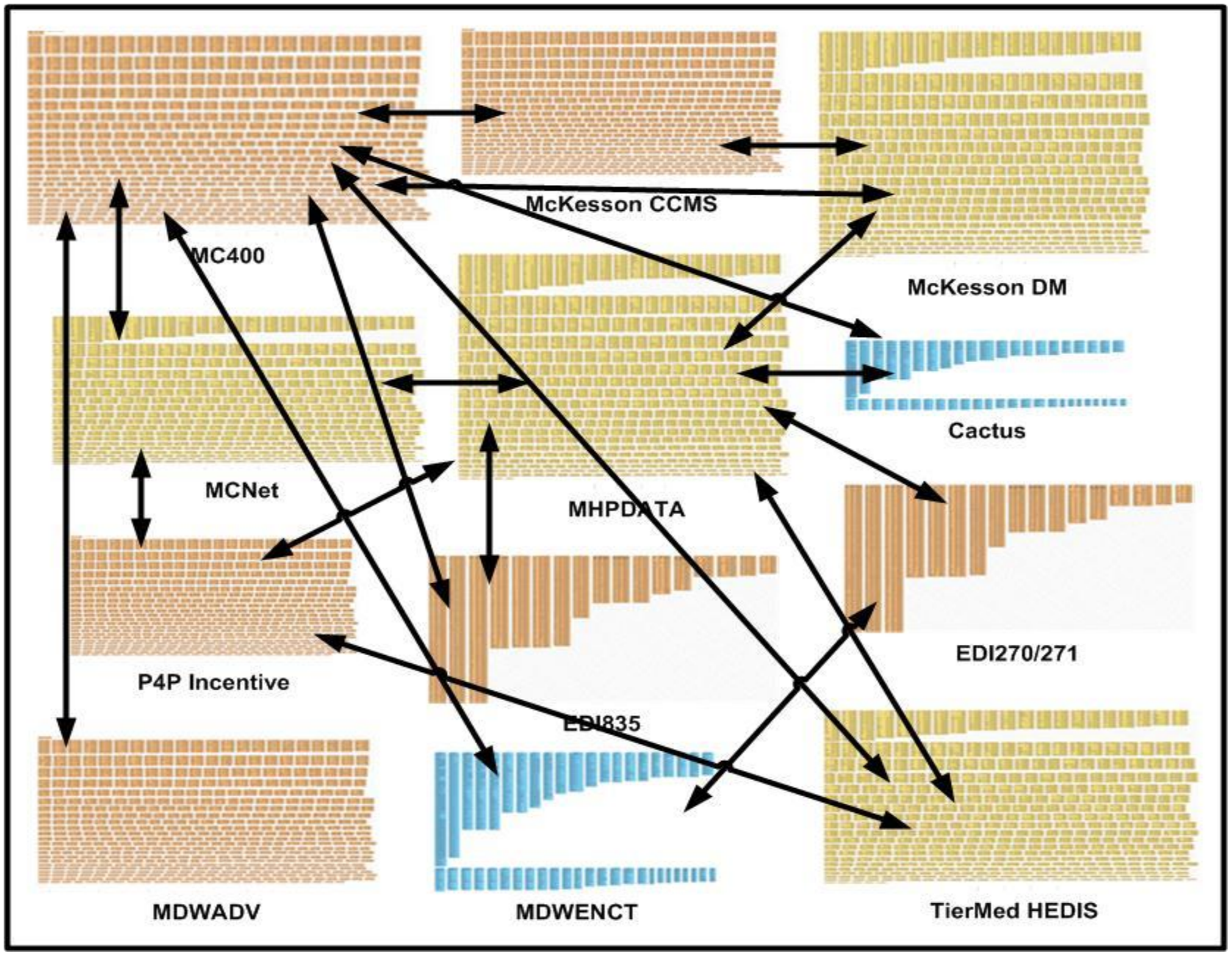
MDWADV

MDWENCT

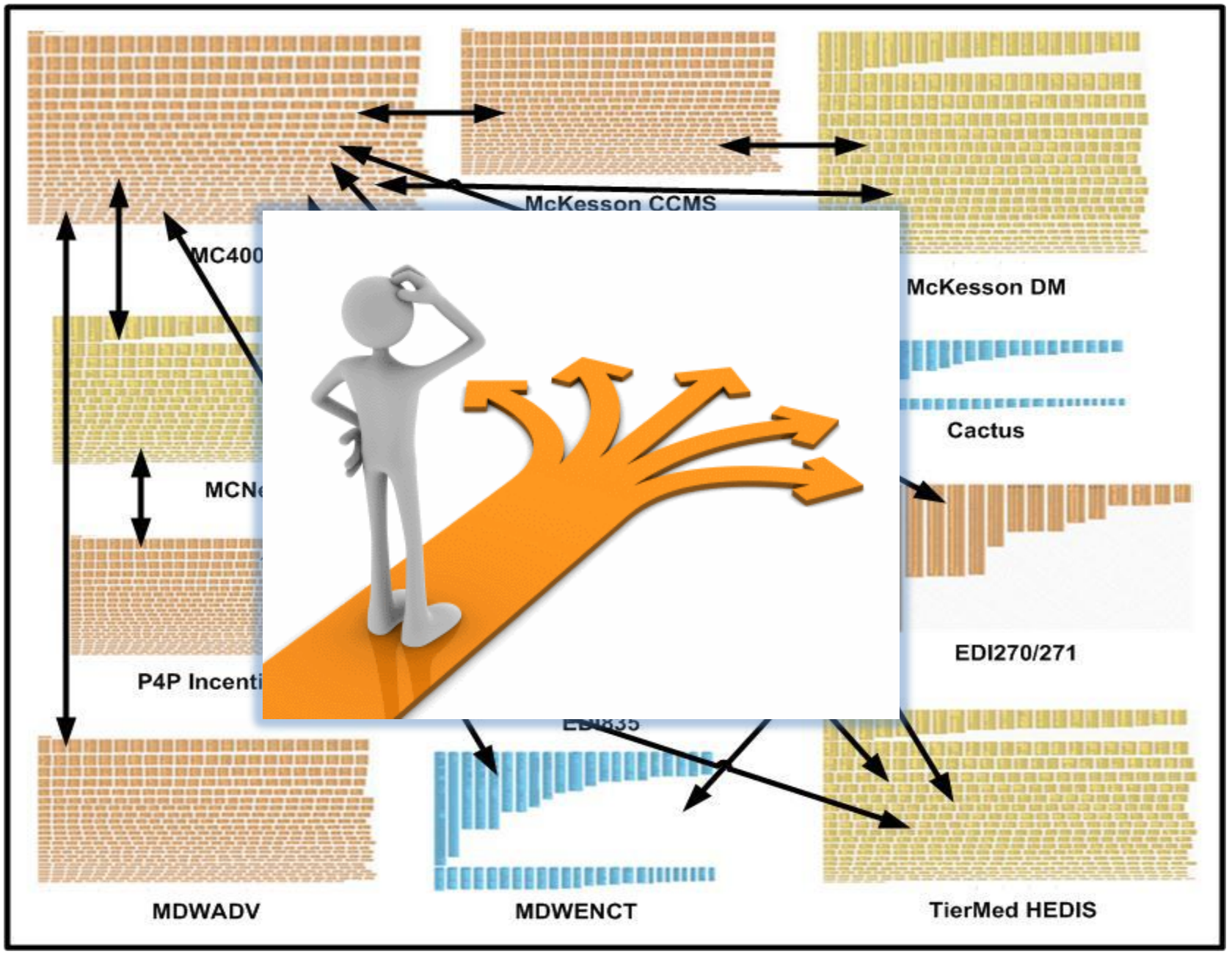


TierMed HEDIS

MHP Systems Complexity

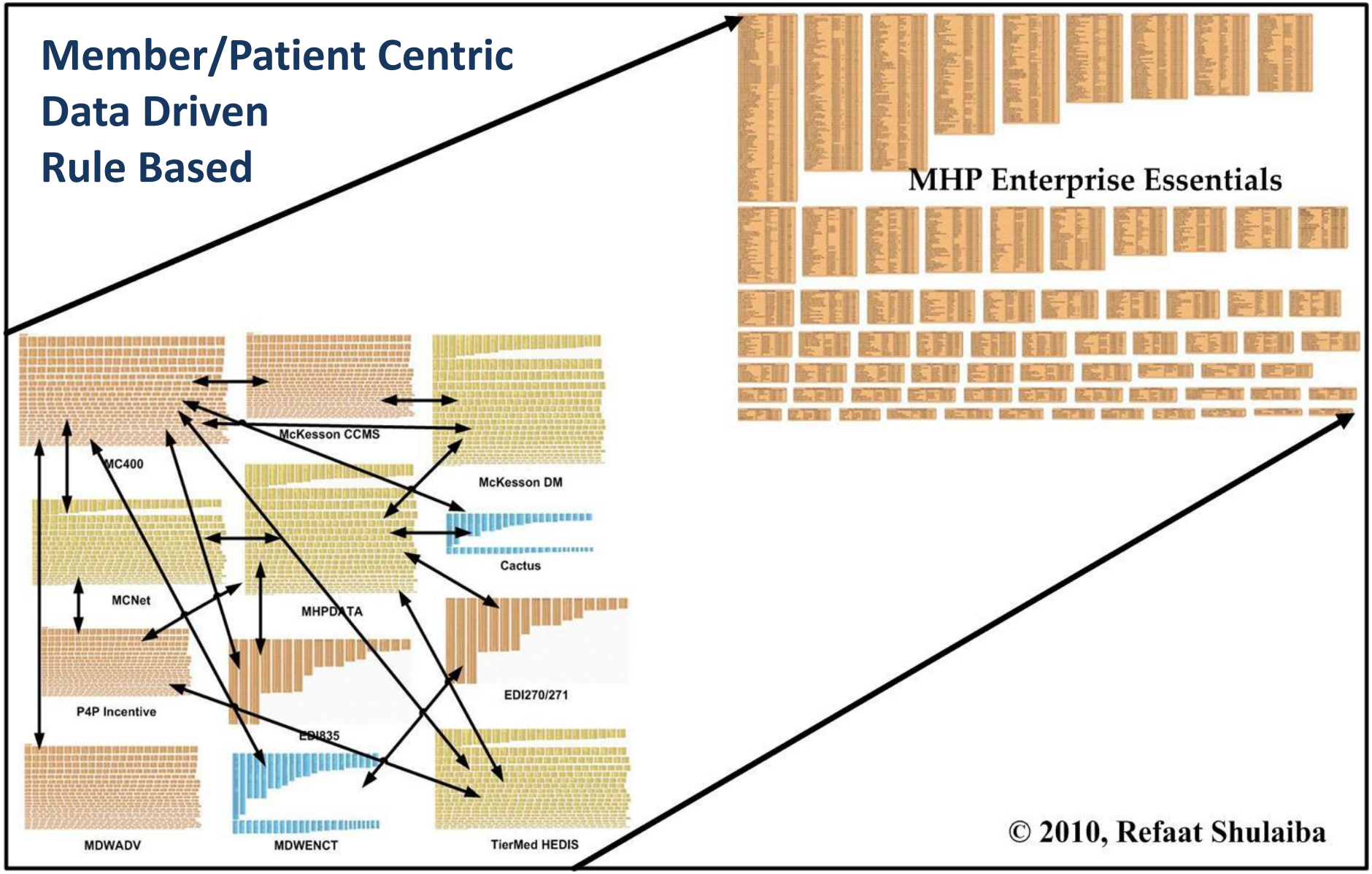


MHP Systems Complexity

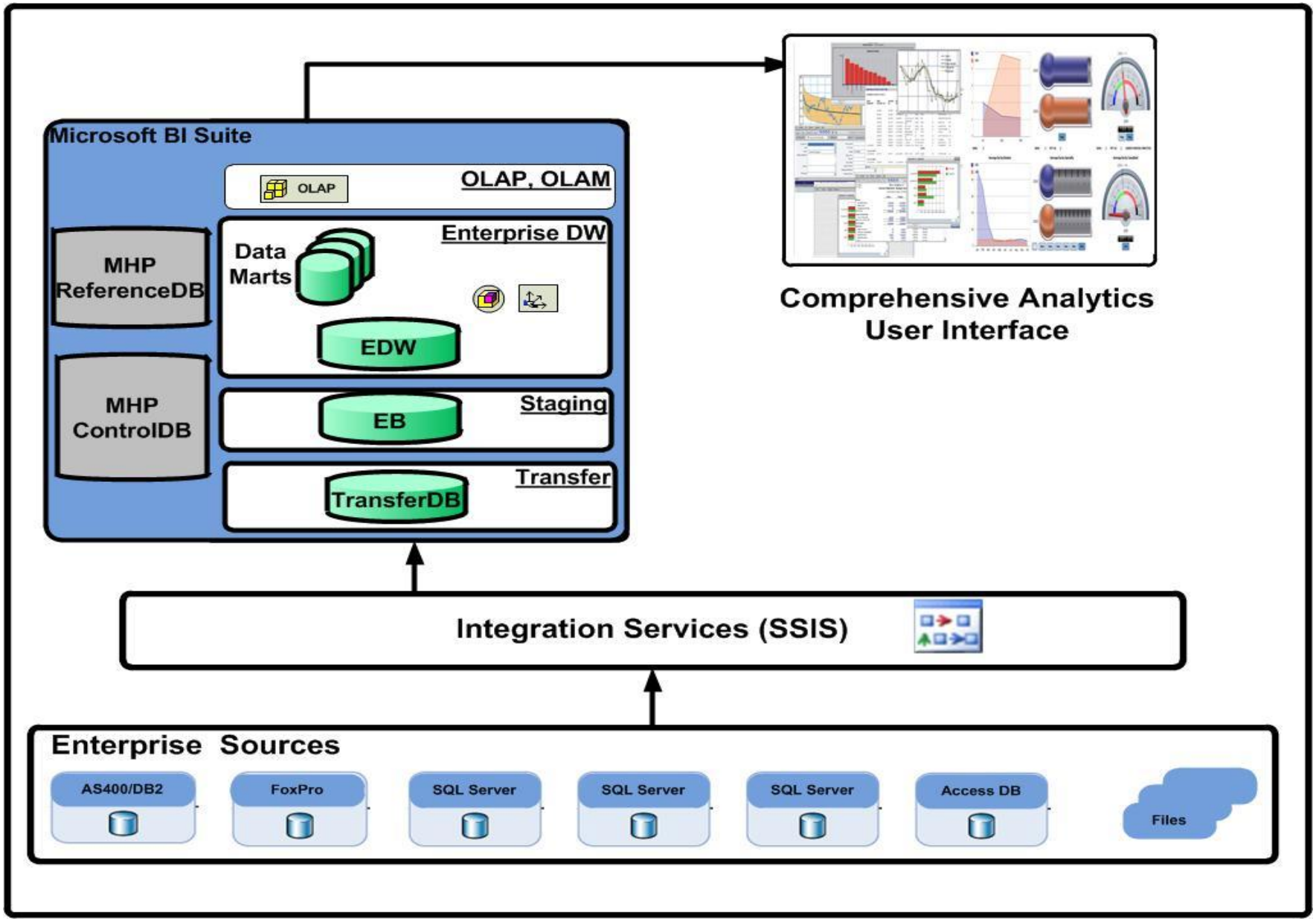


Manage Business Complexity

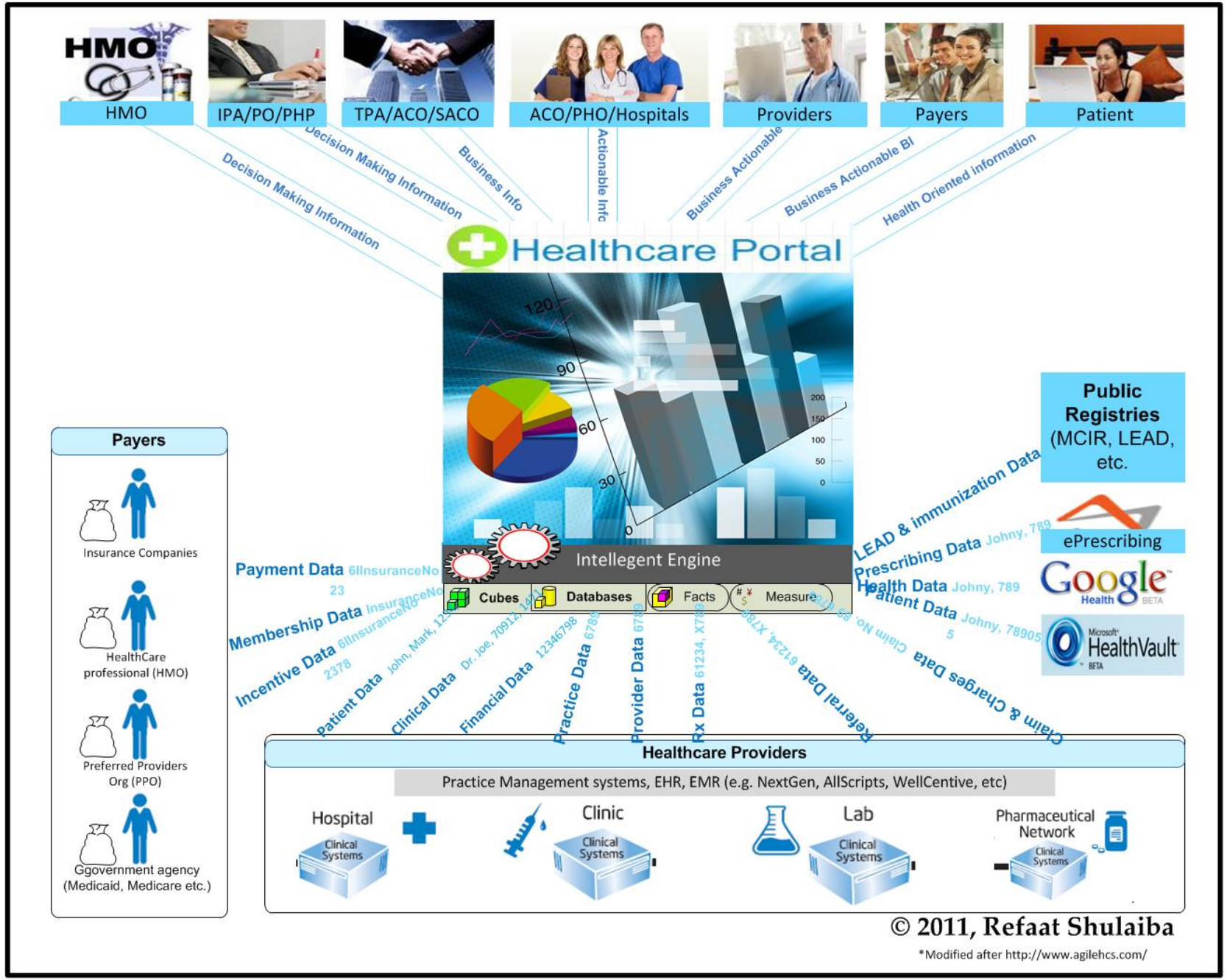
Member/Patient Centric
Data Driven
Rule Based



MHP Information Systems



ACO Performance Management



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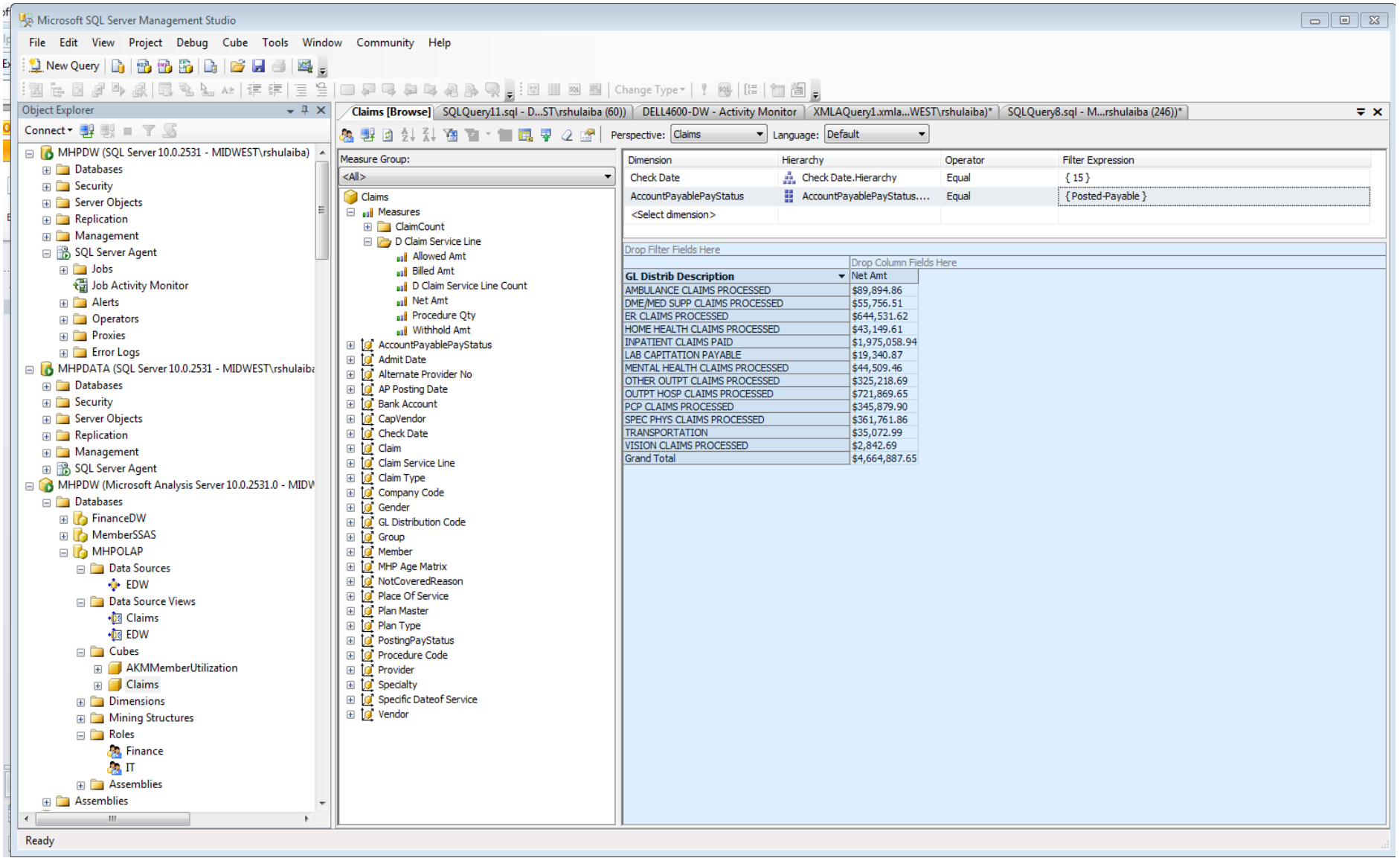
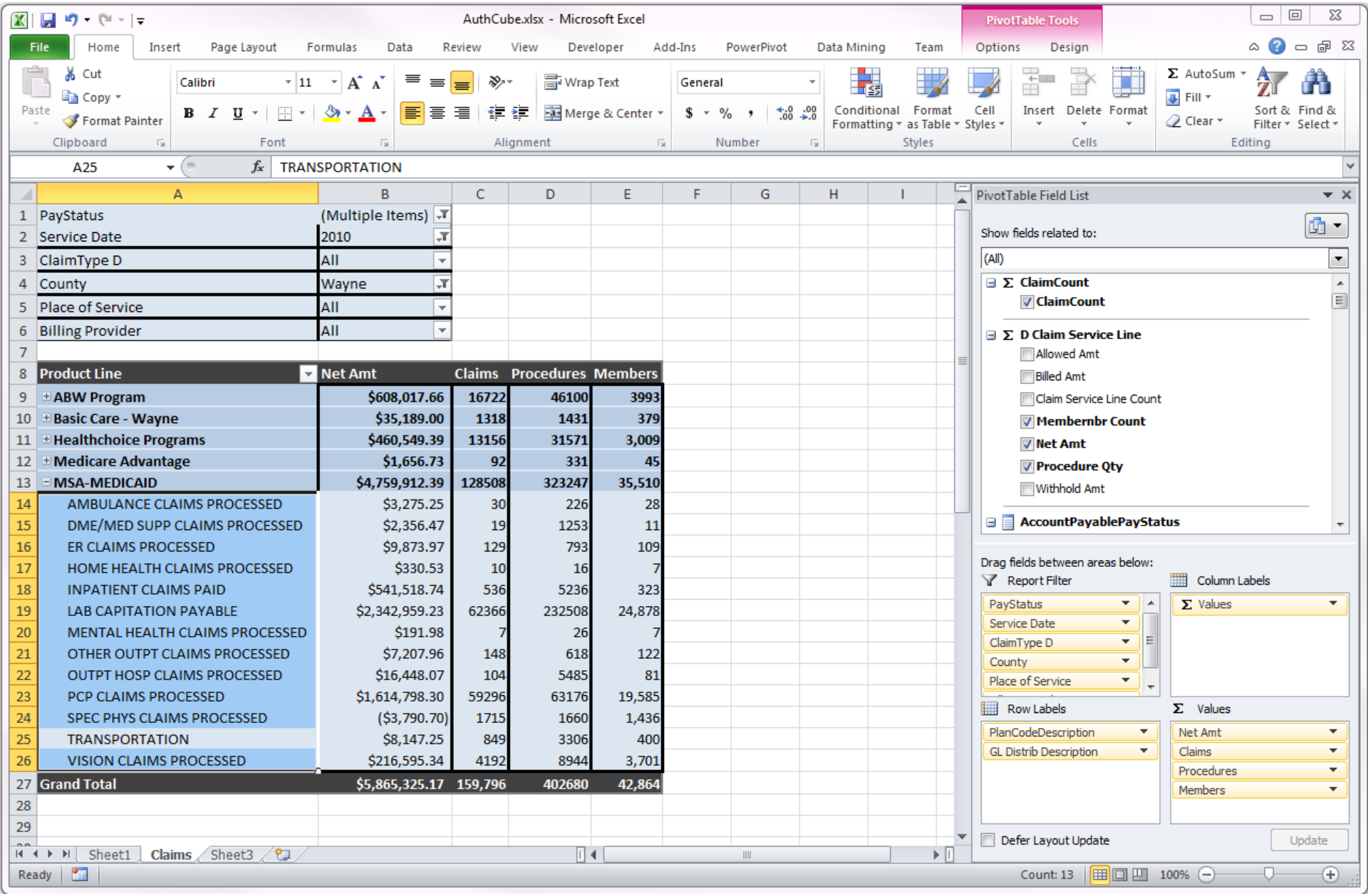
*Modified after http://www.agilehcs.com/

Claims Dimensional Model

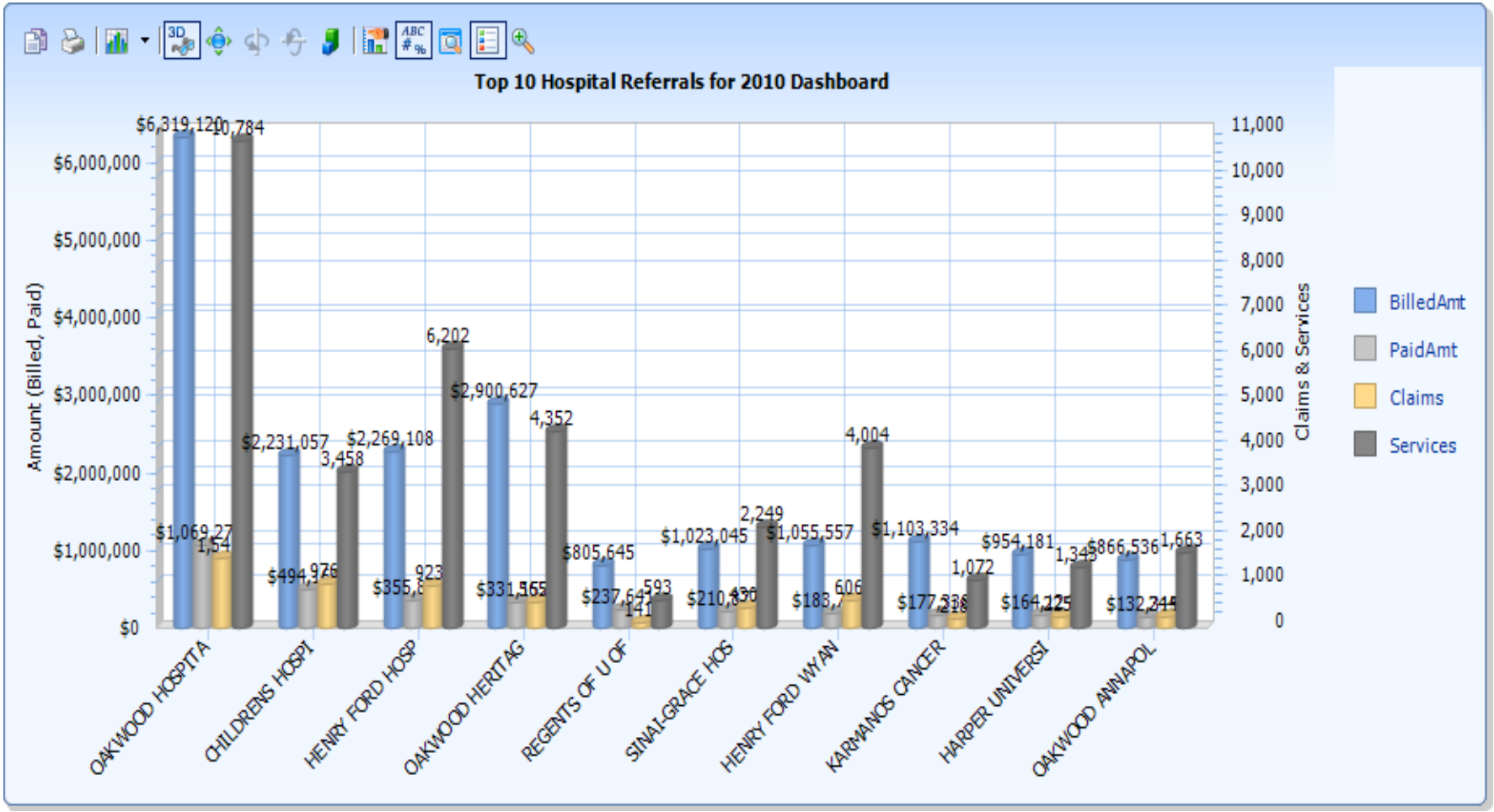


Medical Claims Analysis

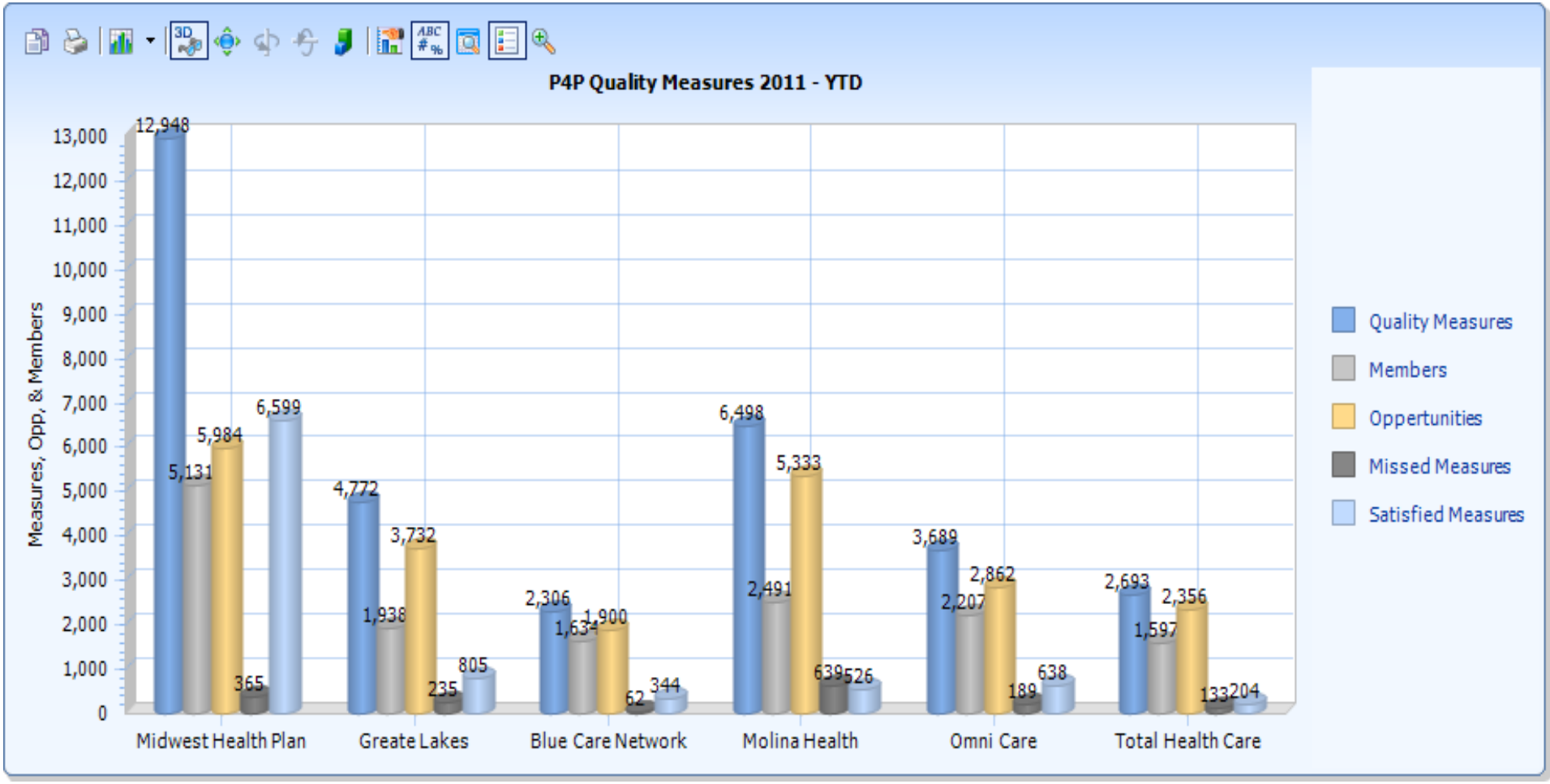


	A	B	C	D	E
1	PayStatus	(Multiple Items)			
2	Service Date	2010			
3	ClaimType D	All			
4	County	Wayne			
5	Place of Service	All			
6	Billing Provider	All			
7					
8	**Product Line**	**Net Amt**	**Claims**	**Procedures**	**Members**
9	**ABW Program**	**$608,017.66**	**16722**	**46100**	**3993**
10	**Basic Care - Wayne**	**$35,189.00**	**1318**	**1431**	**379**
11	**Healthchoice Programs**	**$460,549.39**	**13156**	**31571**	**3,009**
12	**Medicare Advantage**	**$1,656.73**	**92**	**331**	**45**
13	**MSA-MEDICAID**	**$4,759,912.39**	**128508**	**323247**	**35,510**
14	AMBULANCE CLAIMS PROCESSED	$3,275.25	30	226	28
15	DME/MED SUPP CLAIMS PROCESSED	$2,356.47	19	1253	11
16	ER CLAIMS PROCESSED	$9,873.97	129	793	109
17	HOME HEALTH CLAIMS PROCESSED	$330.53	10	16	7
18	INPATIENT CLAIMS PAID	$541,518.74	536	5236	323
19	LAB CAPITATION PAYABLE	$2,342,959.23	62366	232508	24,878
20	MENTAL HEALTH CLAIMS PROCESSED	$191.98	7	26	7
21	OTHER OUTPT CLAIMS PROCESSED	$7,207.96	148	618	122
22	OUTPT HOSP CLAIMS PROCESSED	$16,448.07	104	5485	81
23	PCP CLAIMS PROCESSED	$1,614,798.30	59296	63176	19,585
24	SPEC PHYS CLAIMS PROCESSED	($3,790.70)	1715	1660	1,436
25	TRANSPORTATION	$8,147.25	849	3306	400
26	VISION CLAIMS PROCESSED	$216,595.34	4192	8944	3,701
27	**Grand Total**	**$5,865,325.17**	**159,796**	**402680**	**42,864**
28					
29					

Hospital Stay Utilization



P4P Dashboard



P4P Report

A	B	C	D	E
MeasureName	(All)	P4P (HEDIS) Quality Measues Report		
GroupID	(All)	Updated on 06/27/2011		
Gender	(All)			
Plan Name > PCPName > Measure Name	Quality Measures	Opportunities	Missed Opportunities	Satisfied Opportunities
⊞ BCN	2,306	1,900	62	344
⊞ GLK	4,772	3,732	235	805
⊟ MHP				
⊞ BANISTER SUHAIL	4,664	2,115	142	2,407
⊞ BARNETT MARJORI	839	457	30	352
⊞ CATRAMBONE RENE	340	216	19	105
⊟ FARAJ DAOUD				
Blood lead Test	2	1	0	1
Diabetes-HbA1c	30	3	0	27
Diabetes-LDL-C	30	2	0	28
Diabetic eye exam	30	14	0	16
DTAP	2	2	0	0
Hepatitis B	2	1	0	1
Hib	2	1	0	1
IPV	2	2	0	0
Mammogram	41	17	0	24
MMR	2	1	0	1
Nephropathy	30	14	0	16
PCV	2	2	0	0
VZV	2	1	0	1
Well Care 12-17y	19	4	2	13
Well Care 18-39y	186	70	0	116

Lessons Learned

- Involve business and IT stakeholders, early in the process
- Promote Self-Service Capabilities
- Take advantage of virtualization
- Break the project into mini projects for incremental implementation and deployment
- Set realistic goals and deliverables
- Create short-wins
- Continuously renew the leadership buy-in

Thank You

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