Texas Children's Hospital®

Agenda for Quality in Health Care Delivery

TCH Quality Education: PEQI Course

Elaine Whaley, MSN, RN

Director Quality & Safety

emwhaley@texaschildrens.org

Objectives

- Describe "why" changes are occurring in health care delivery.
- Discuss the core drivers of quality improvement.
- Define the IHI Triple Aim and "value" agendas for national health care delivery.
- Provide examples of quality initiatives at TCH and discuss how these initiatives will support TCH in the future.

Why Changes?


The Promiscuous World of Pro Sports
TIME
10
WAYS TO
CURE THE
HEALTH
CARE MESS

Shifting Gears with a New Vision

CORE DRIVERS

- **Quality**
- **Finance**

Top Ten Countries Delivering Most Efficient Health Care (2014)

Singapore is best in Bloomberg's second annual ranking of countries with the most efficient health care while the U.S. remains near the bottom

Numeric View | Bar View | Information | Read the Story

Rank 2014	Country	Efficiency score	Life expectancy	Health-care cost as percentage of GDP	Health-care cost per capita	Change in life expectancy (years)	Change in health-care cost per capita
1	**Singapore**	78.6	82.1	4.5%	$2,426	0.40	$281.73
2	**Hong Kong SAR**	77.5	83.5	5.3	1,944	0.06	535.68
3	**Italy**	76.3	82.9	9.0	3,032	0.30	-306.64
4	**Japan**	68.1	83.1	10.2	4,752	0.50	110.93
5	**South Korea**	67.4	81.4	7.0	1,703	0.40	50.11
6	**Australia**	65.9	82.1	9.1	6,140	0.20	25.62
7	**Israel**	65.4	81.7	7.0	2,289	0.00	-84.64
8	**France**	64.6	82.6	11.8	4,690	0.45	-278.26
9	**United Arab E...**	64.1	77.0	3.2	1,343	0.18	-32.24
10	**United Kingdom**	63.1	81.5	9.4	3,647	0.55	-11.47

CORE DRIVER---QUALITY

- What is Quality?

Definition of Quality

"The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."

Institute of Medicine, 1990

Quality: Part of Health Care Operations

"Health care operations" are certain administrative, financial, legal, and ***quality improvement activities*** of a covered entity that are necessary to run its business and to support the core functions of treatment and payment…45 CFR 164.501…

www.hhs.gov/ocr/hipaa/guidelines/sharingfortpo.pdf

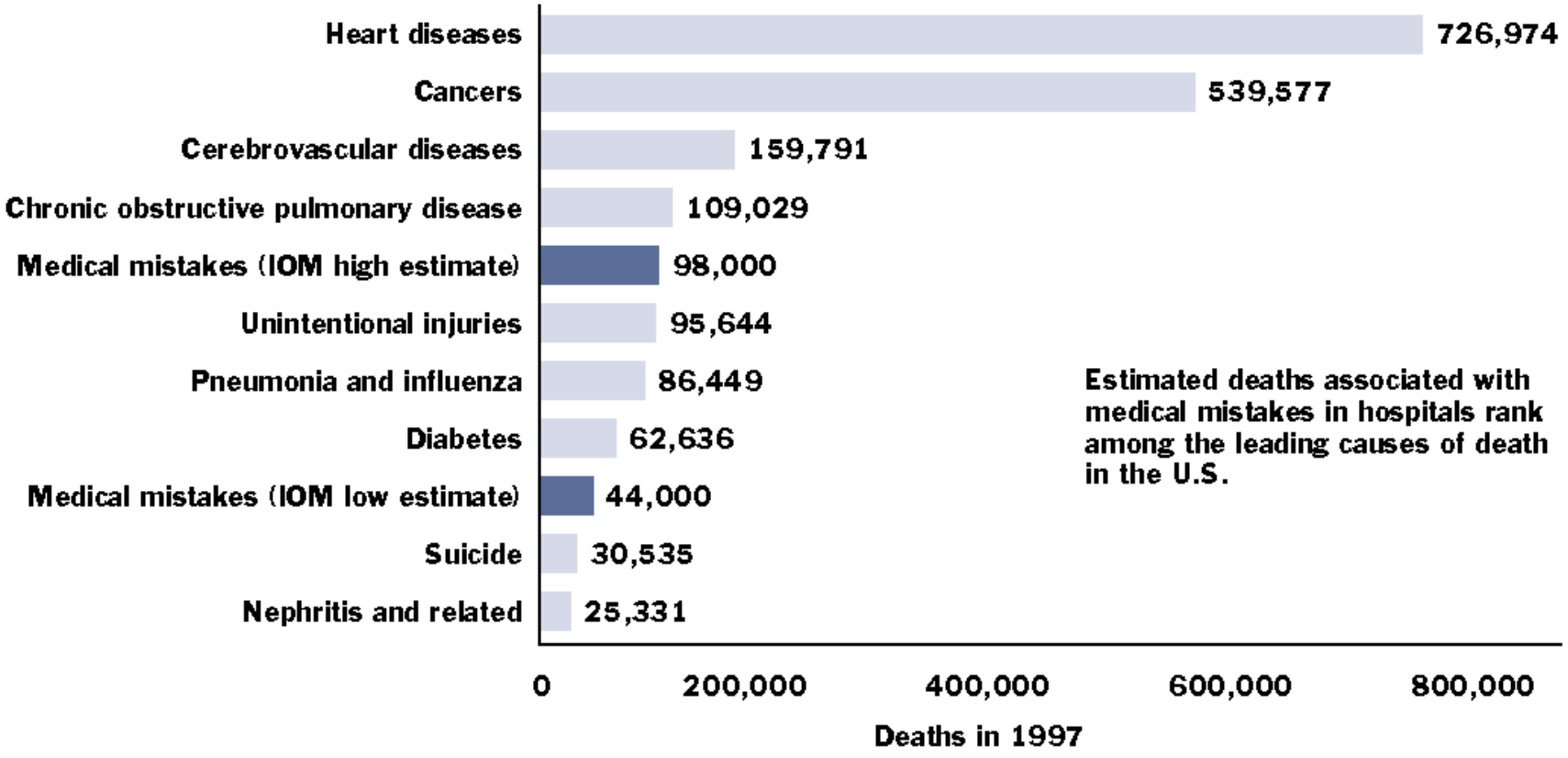
Quality of Care

- 2003-Adults
  - **only about 50% receive indicated care**
    - preventive care 54.9%
    - acute care 53.5%
    - chronic conditions 56.1%
- 2007- Children
  - **only about 46.5% receive indicated ambulatory care**
    - preventive care 40.7%
    - acute medical problems 67.6%
    - chronic medical conditions 53.4%

McGlynn, EA, et. al. **(*NEJM* 2003**)

Mangione-Smith, R. et. al. **(*NEJM* 2007)**

Estimated Deaths Associated with Medical Mistakes compared to the Leading Causes of Death in the U.S.



Serious Safety Events
FY12

Omar 9 y.o.
1/31/12
Medical Device

Jaiden 11 y.o.
5/31/12
Sexual Assault

Zafiro 13y.o.
4/6/12
Misplaced CL

Marcus 7 y.o.
10/13/11
Sterilization

Ulises 4 y.o.
4/10/12
Lacerated Aorta

Baby Girl P. 3 m.o.
7/30/12
Line Disconnect

Baby Boy H. 19 d.o.
4/28/12
Misidentification

Aiden 6 m.o.
9/22/12
Line Remnant

Joel 14 y.o.
2/21/12
Respiratory Failure

Elida 14 y.o.
6/7/12
Cancelled Surgery

Dylan 18 m.o.
3/23/12
Unexpected Death

Hunter 8 d.o.
5/5/12
Multiple Intubations

Nathaniel 2 m.o.
11/4/11
Airway Management

Addison 21 m.o.
3/22/12
Lab Code

Raelyn 2 y.o.
7/20/12
Mobile Sedation

Melba 33 y.o.; Baby Boy F 7 m.o.
8/7/12
L&D Delay

Baby Girl R. 8 d.o.
9/4/12
UVC Extravasation

Joseph 2 y.o.
7/14/12
Biliary Drain

Forever 11 m.o.
8/19/12
Trauma

Andrew 4 y.o.
12/31/11
Bowel Obstruction

Alex 4 y.0.
9/26/12
Left ear tympanoplasty

Trevon 17 y.o.
8/17/12
Compartment Syndrome

Sarai 2 y.o.
9/26/12
Casting Error

Baby Boy E. 0 d.o.
8/14/12
Laryngoscope

Jessica 18 y.o.
8/3/12
OB Handoff

Evelyn 6 m.o.
6/17/12
Code Upon Arrival

Zsakara 4 m.o.
7/16/12
Unanticipated Arrest

Iliana 2 y.o.;
Baby Boy H. 2 m.o.;
Matthew 4 yo;
Trinity 8 yo
8/30/12
Sterile instruments

Baby Boy C 4 m.o.
Baby Girl C 11 d.o.
Baby Girl T 4 d.o.
Lucas 1 m.o.
Baby Girl R 2 m.o.;
Esmeralda 22 d.o.
7/20/12
Breast Milk

Nykalus 7 y.o.
9/13/12
Wrong Side Surgery

Raymond 21 y.o.
9/26/12
Heparin

Roman 3 m.o.;
Baby Girl B. 82 d.o.
2/15/12
Pressure Ulcer

Baby Boy M 10 d.o.
11/4/11
UVC

David 3 y.o.
7/25/12
MRI

Serious Safety Events
FY15

Baby LC 1 d
10/28/14
Low pH (sepsis)

Dakoda 11 yo
8/31/2015
Missed Diagnostic Test

Tawny 34 y.o.
9/5/2015
Pre-eclampsia/Fetal Demise

Kingston 4 mo
4/11/2015
Foley Balloon Rupture

Anthony 24 yo
1/4/2015
EC Triage

Baby Boy L;
Ashley 25 yo
8/15/2015
Total Body Cooling #1

Baby Girl K, NB
8/28/2015
Total Body Cooling #2

Exercise: Quality

With the people at your table:

1. Name 3 opportunities for improvement that you believe are essential in delivering high quality within TCH.

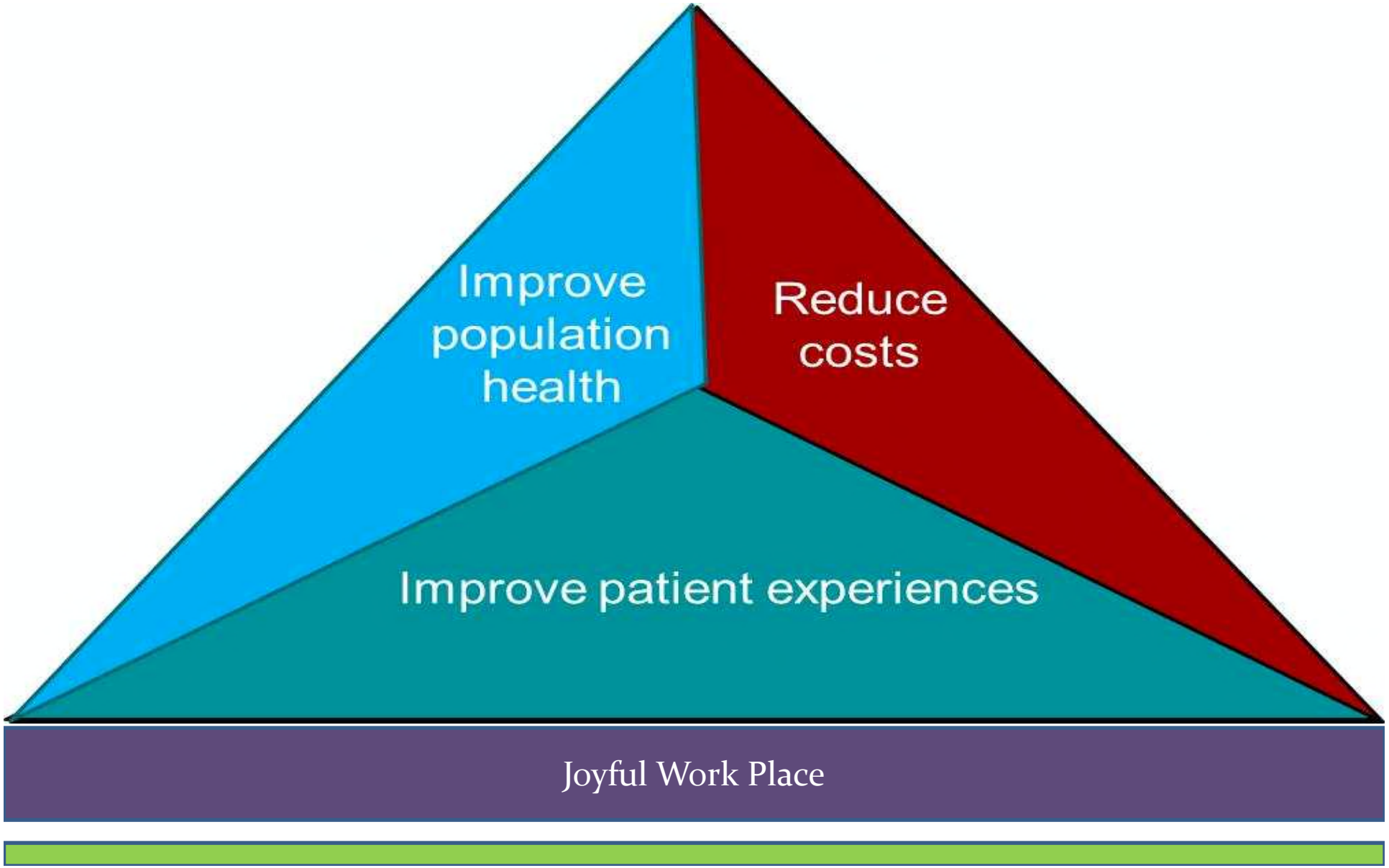
2. Name 3 improvements in the quality of care that you have observed within TCH.

IOM Quality Domains

Safety	**avoiding injuries to patients from care that is intended to help them**
Timeliness	**reducing wait times and sometimes harmful delays**
Effectiveness	**providing services based on scientific knowledge**
Efficiency	**avoiding waste of equipment, supplies, ideas and energy**
Equity	**care that does not vary**
Patient-centered	**care that is respectful of and responsive to patient preferences, needs and values**

IOM. Crossing the Quality Chasm, 2001

IHI Triple Aim (Plus One)



Transparency at the National Level

Medicare.gov | Hospital Compare

The Official U.S. Government Site for Medicare

Hospital Compare Home | About Hospital Compare | About the data | Resources | Help

Home → Hospital Results → Compare Hospitals

Share

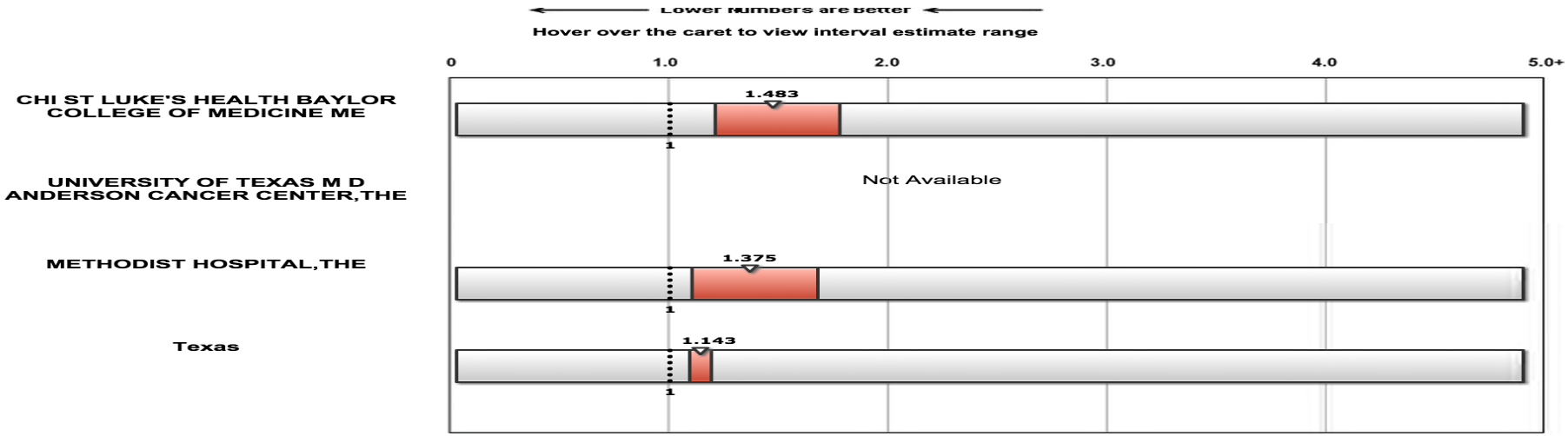
Print all information

Compare Hospitals

Back to Results

General information | Survey of patients' experiences | Timely & effective care | Complications | Readmissions & deaths | Use of medical imaging | Payment & value of care

Catheter-associated urinary tract infections (CAUTI



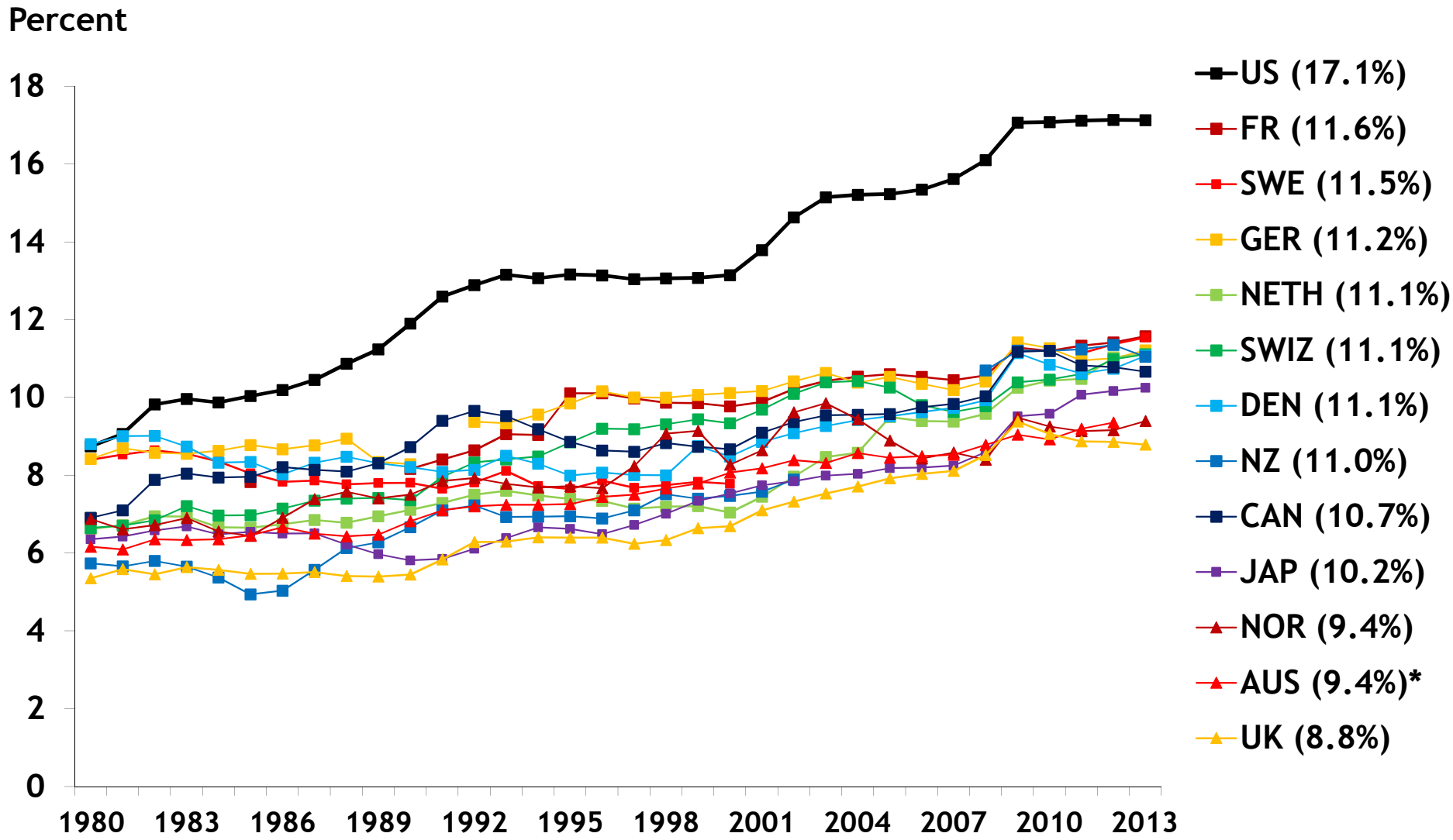
CORE DRIVER---FINANCE

- What are the current financial drivers of health care delivery?

Cost Contributors

- Population growth and aging
- Proliferation of technology
- Increasing chronic care needs
- Direct to consumer marketing of healthcare products and services
- American culture
  - High value placed on 'choice'
  - Excessive demand ("consumptive society")
- Legislated healthcare services
- Consolidation of healthcare providers
- Rising liability insurance costs
- Care variation from best evidence

Health Care Spending as a Percentage of GDP, 1980–2013



* 2012.

Notes: GDP refers to gross domestic product. Dutch and Swiss data are for current spending only, and exclude spending on capital formation of health care providers.

Source: OECD Health Data 2015.

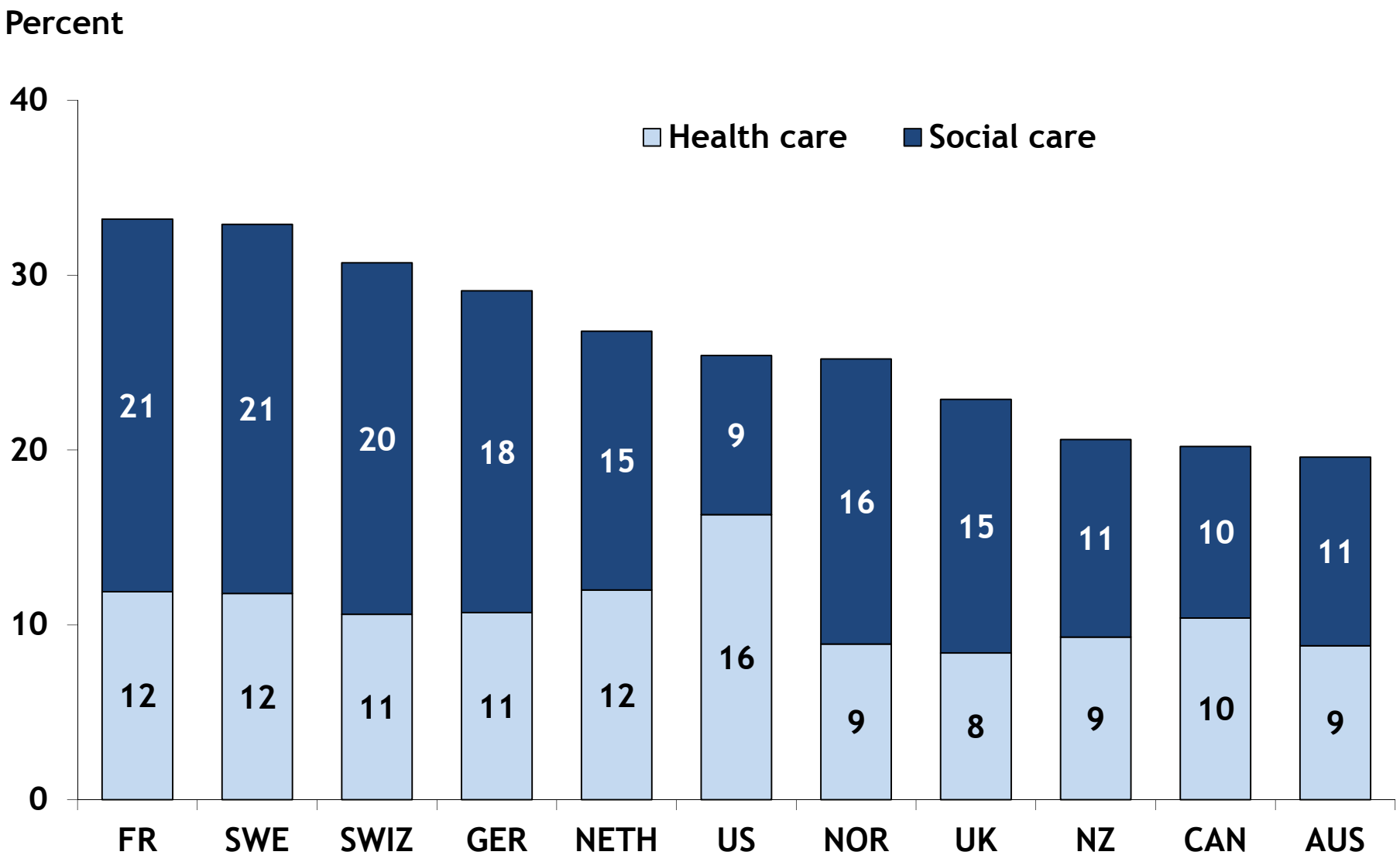
The COMMONWEALTH FUND

Exhibit 2. Health Care Spending, 2013

	Total health care spending per capita[e]	Real average annual growth rate per capita		Current health care spending per capita, by source of financing[e,f]		
					Private	
		2003–2009	2009–2013	Public	Out-of-pocket	Other
Australia	$4,115[a]	2.70%	2.42%[c]	$2,614[a]	$771[a]	$480[a]
Canada	$4,569	3.15%	0.22%	$3,074	$623	$654
Denmark	$4,847	3.32%	-0.17%	$3,841	$625	$88
France	$4,361	1.72%	1.35%	$3,247	$277	$600
Germany	$4,920	2.01%	1.95%	$3,677	$649	$492
Japan	$3,713	3.08%	3.83%	$2,965[a]	$503[a]	$124[a]
Netherlands	$5,131[d]	4.75%[d]	1.73%[d]	$4,495	$270	$366
New Zealand	$3,855	6.11%[b]	0.82%	$2,656	$420	$251
Norway	$6,170	1.59%	1.40%	$4,981	$855	$26
Sweden	$5,153	1.82%[d]	6.95%[d]	$4,126	$726	$53
Switzerland	$6,325[d]	1.42%[d]	2.54%[d]	$4,178	$1,630	$454
United Kingdom	$3,364	4.00%	-0.88%	$2,802	$321	$240
United States[e]	$9,086	2.47%	1.50%	$4,197	$1,074	$3,442
OECD median	$3,661	3.10%	1.24%	$2,598	$625	$181

[a] 2012. [b] 2002–2009. [c] 2009–2012.
[d] Current spending only; excludes spending on capital formation of health care providers.
[e] Adjusted for differences in the cost of living.
[f] Numbers may not sum to total health care spending per capita due to excluding capital formation of health care providers, and some uncategorized spending.

Exhibit 8. Health and Social Care Spending as a Percentage of GDP



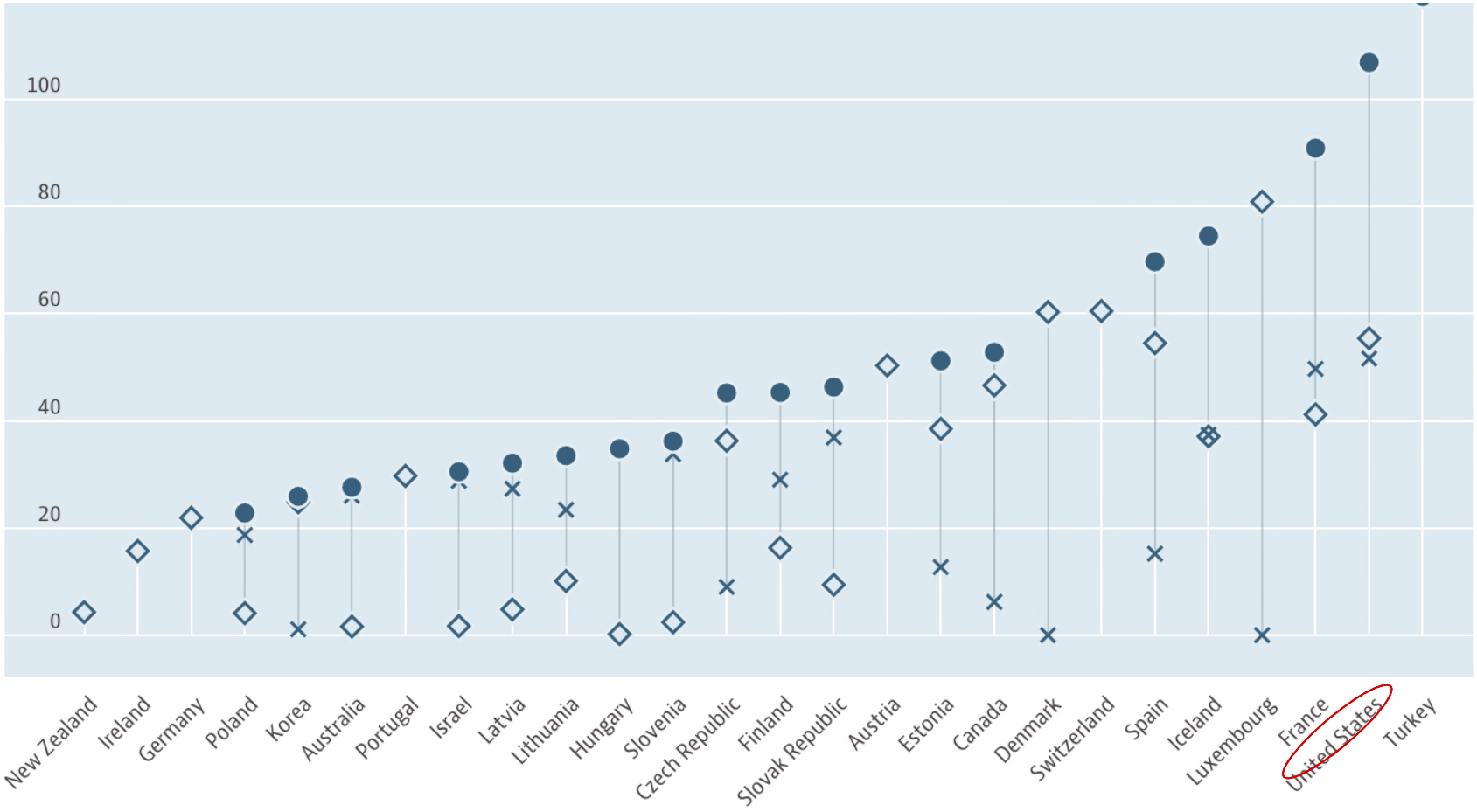
Notes: GDP refers to gross domestic product.
Source: E. H. Bradley and L. A. Taylor, *The American Health Care Paradox: Why Spending More Is Getting Us Less*, Public Affairs, 2013.

Exhibit 5. Diagnostic Imaging Supply and Use, 2013

	Magnetic resonance imaging		Computed tomography		Positron emission tomography	
	MRI machines per million pop.	MRI exams per 1,000 pop.	CT scanners per million pop.	CT exams per 1,000 pop.	PET scanners per million pop.	PET exams per 1,000 pop.
Australia	13.4	27.6	53.7	110	2.0	2.0
Canada	8.8	52.8	14.7	132	1.2[a]	2.0
Denmark	—	60.3	37.8	142	6.1	6.3
France	9.4	90.9	14.5	193	1.4	—
Japan	46.9[b]	—	101.3[b]	—	3.7[b]	—
Netherlands	11.5	50.0[b]	11.5	71[b]	3.2	2.5[a]
New Zealand	11.2	—	16.6	—	1.1	—
Switzerland	—	—	36.6	—	3.5	—
United Kingdom	6.1	—	7.9	—	—	—
United States	35.5	106.9	43.5	240	5.0[a]	5.0
OECD median	11.4	50.6	17.6	136	1.5	—

[a] 2012. [b] 2011. [c] 2010.
Source: OECD Health Data 2015.

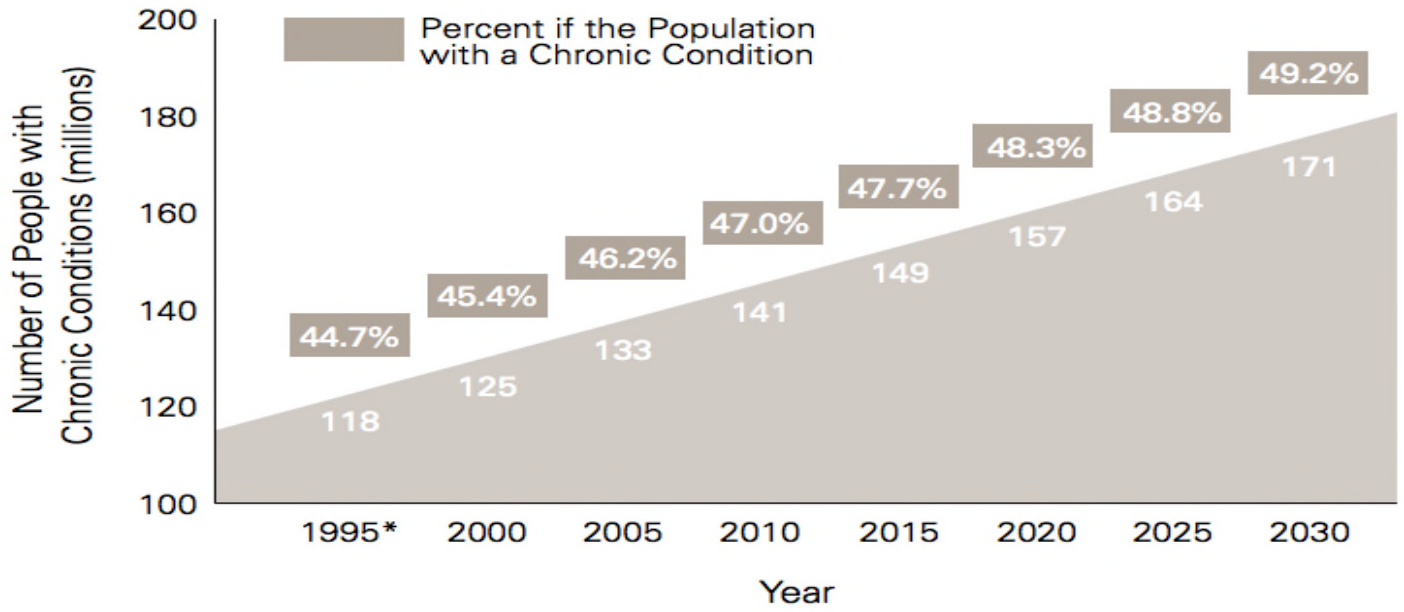
Global Magnetic resonance imaging exams (total/in hospitals/in ambulatory care providers, per 1,000 inhabitants, 2013)



https://data.oecd.org/healthcare/magnetic-resonance-imaging-mri-exams.htm

US: Chronic Conditions

Chart 1: The Number of People with Chronic Conditions is Rapidly Increasing

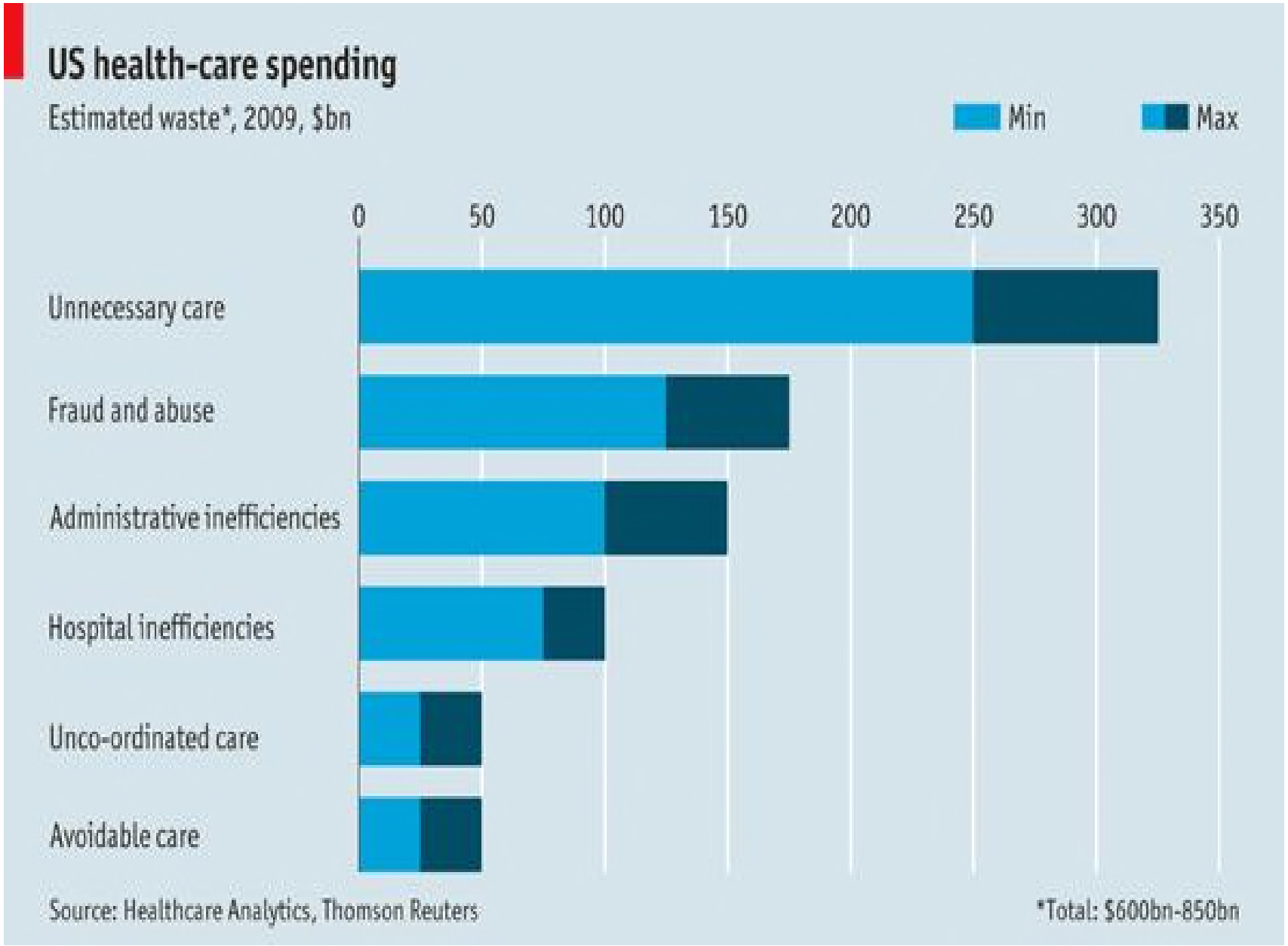


Source: Wu, Shin-Yi, and Green, Anthony. *Projection of Chronic Illness Prevalence and Cost Inflation.* RAND Corporation, October 2000.

http://www.fightchronicdisease.org/sites/fightchronicdisease.org/files/docs/GrowingCrisisofChronicDiseaseintheUSfactsheet_81009

Methods for Reimbursement

- 1960's cost-based
- 1983 prospective payment
- 2002-present value-based purchasing
  - Value = Quality/Cost
  - Pay for Performance, Never Events, Hospital Acquired Conditions/Present on Admission


US health-care spending
Estimated waste*, 2009, $bn
Min
Max
0
50
100
150
200
250
300
350
Unnecessary care
Fraud and abuse
Administrative inefficiencies
Hospital inefficiencies
Unco-ordinated care
Avoidable care
Source: Healthcare Analytics, Thomson Reuters
*Total: $600bn-850bn

Value-Based Purchasing

Shift in Payment Incentives

Previous:	purchasers buy based on cost
Value-based:	purchasers buy based on quality, service, and *costs*.

Elements:

- Standardized Measurement
- Transparency and Public Reporting
- Payment Innovation
- Informed Consumer Choice

Exercise: Finance

With the people at your table:

1. Identify opportunities you have observed to remove unnecessary costs from your area within TCH.

2. Describe waste reduction improvements that you have observed in your area within TCH.

Next: Changes in Care Delivery

- Patient Experience/Stronger Partnerships with Patients
- Population Health
- Seamless Care across the Continuum of Care
- Stronger payment incentives for Quality Improvement
- Standardized Measures
  - National Quality Forum
- Application of the Evidence
  - Guidelines, order sets, decision support
- Collaborative Learning
- Inter-professional Teamwork

Initiatives: Texas Children's

- What is happening at Texas Children's Hospital to improve quality and reduce costs for our patients?

Quality and Safety Vision

"Create and maintain a culture of quality and safety at TCH where clinicians and leaders accept personal responsibility for delivering the highest quality and safest care possible and work with others collaboratively to continuously improve performance and eliminate unsafe practices. "

Quality Education: At the Core

Advanced Quality Improvement and Patient Safety Program (AQI)

1. Goals

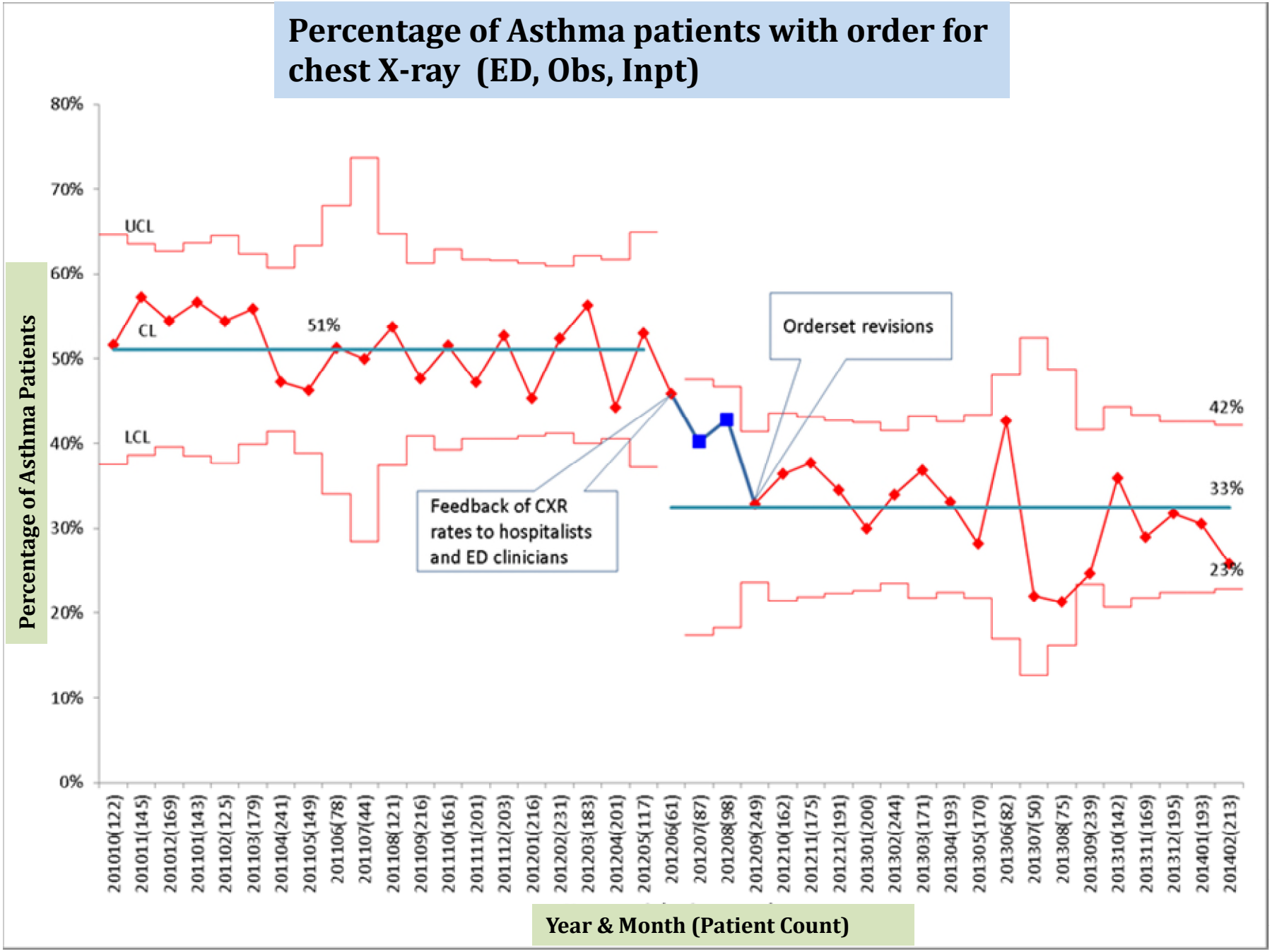
a. Clinical quality improvement leaders
b. Improve care delivery and reduce costs
c. Change the culture

2. Results

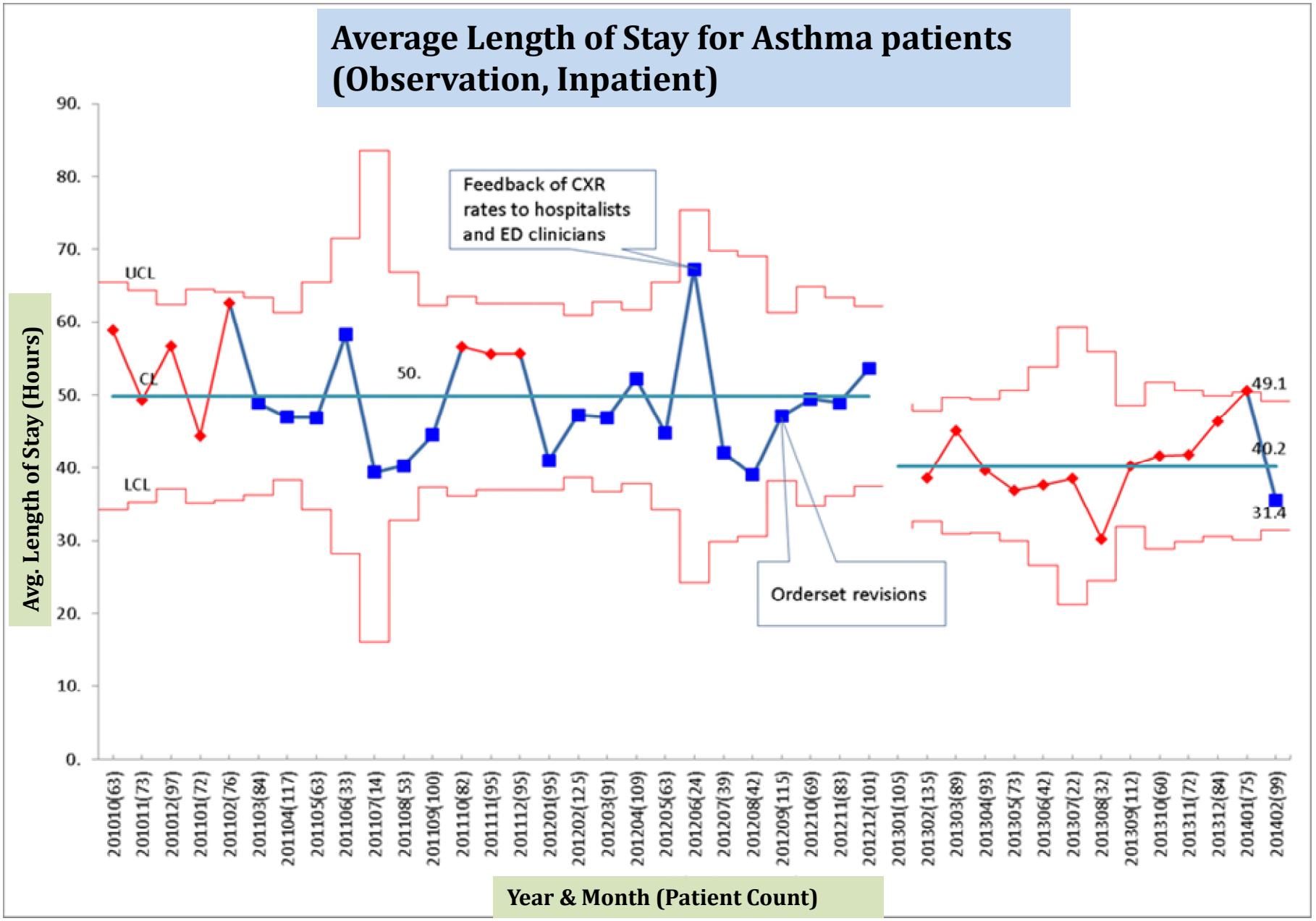
a. 137 Successful Improvement Projects
b. 507 Alumni

ADVANCED QI

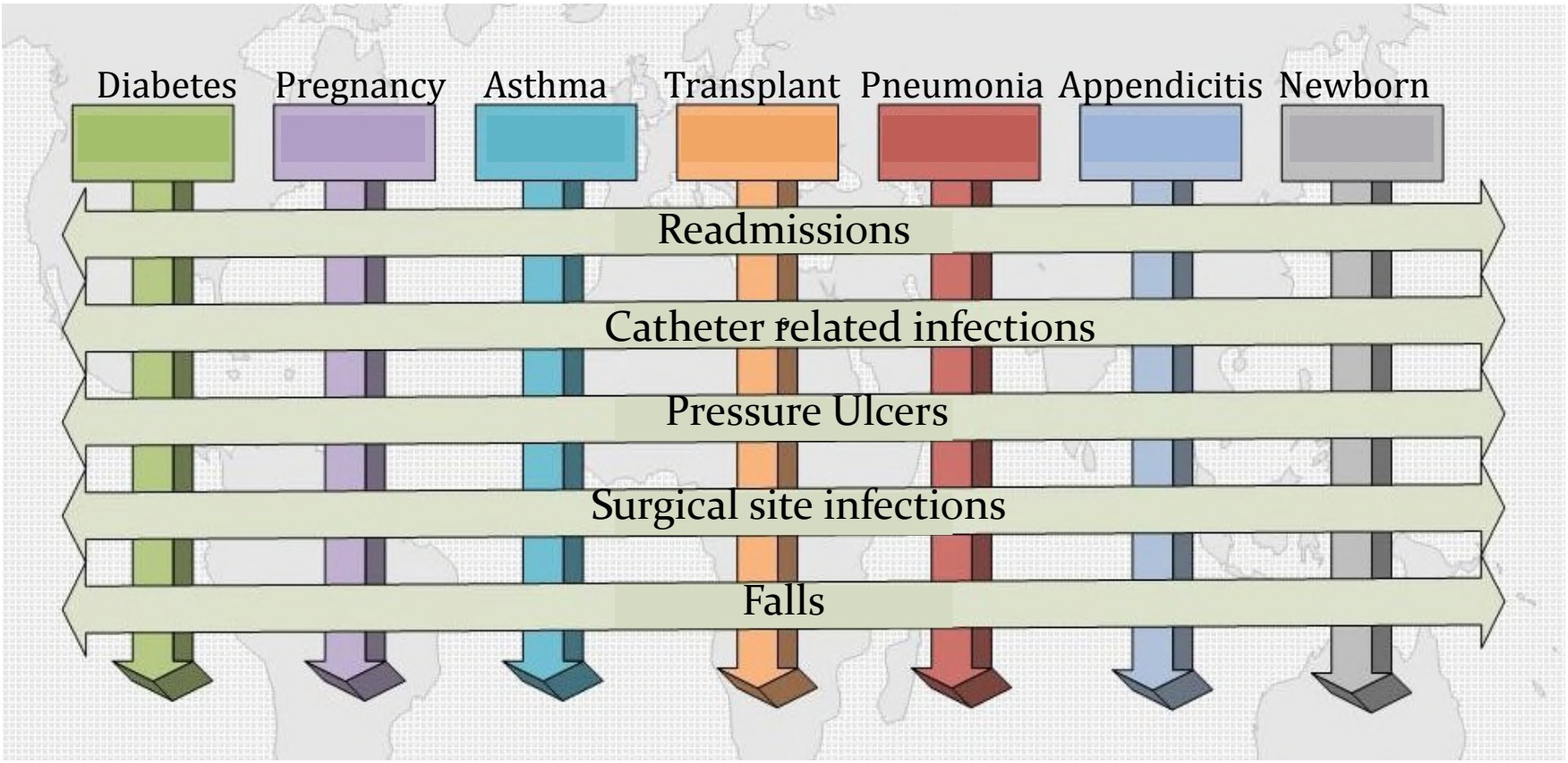
Percentage of Asthma patients with order for chest X-ray (ED, Obs, Inpt)



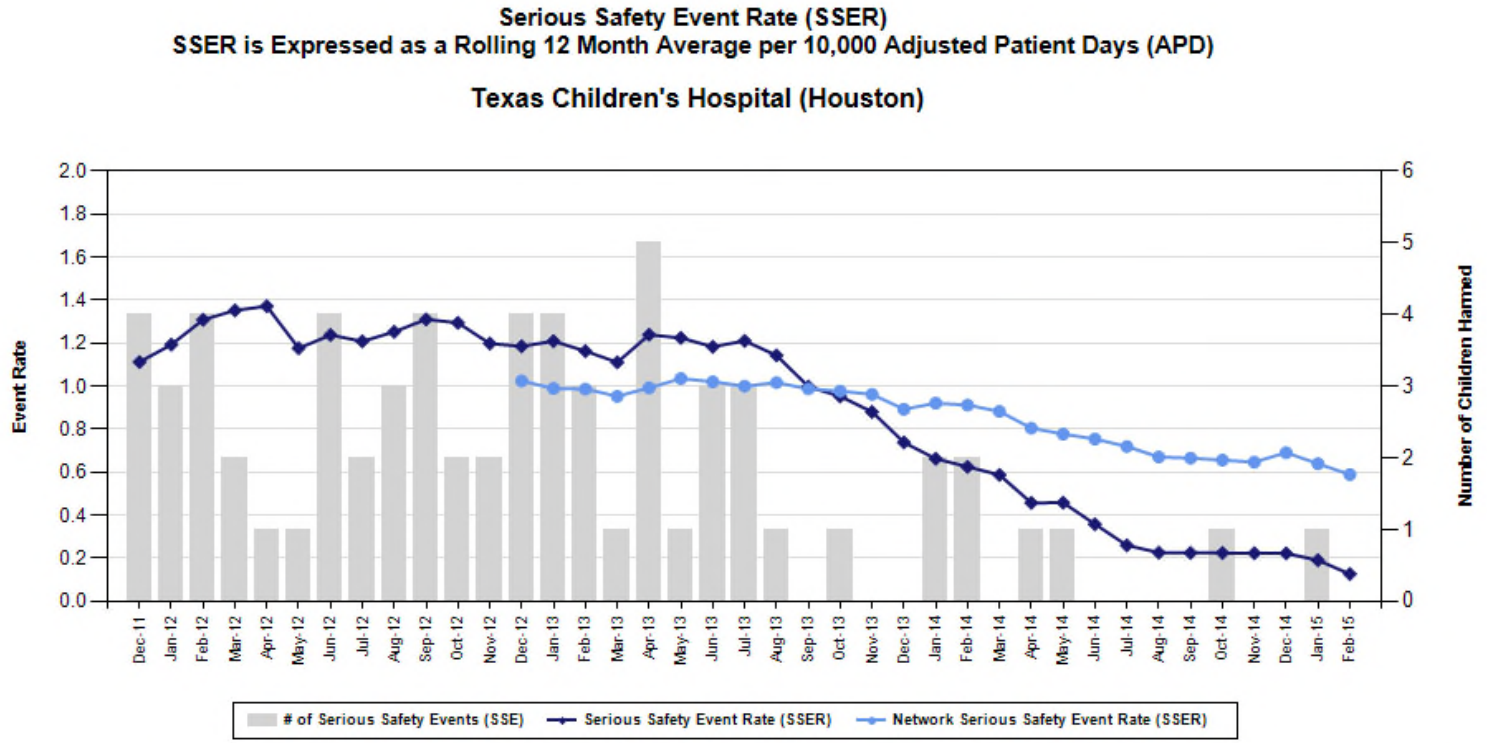
Average Length of Stay for Asthma patients (Observation, Inpatient)



Care Process Teams: The Interface with Teams focused on Hospital Acquired Conditions



TCH Serious Safety Event Rate
Solutions for Patient Safety Comparison



	02/13	03/13	04/13	05/13	06/13	07/13	08/13	09/13	10/13	11/13	12/13	01/14	02/14	03/14	04/14	05/14	06/14	07/14	08/14	09/14	10/14	11/14	12/14	01/15	02/15
SSE	3	1	5	1	3	3	1	0	1	0	0	2	2	0	1	1	0	0	0	0	1	0	0	1	0
10,000 APD	2.24	2.44	2.52	2.59	2.39	2.55	2.54	2.49	2.68	2.50	2.56	2.72	2.44	2.68	2.49	2.53	2.57	2.63	2.69	2.71	2.78	2.62	2.68	2.72	2.64
SSER	1.16	1.11	1.24	1.22	1.18	1.21	1.14	1.00	0.95	0.88	0.74	0.66	0.62	0.59	0.46	0.46	0.36	0.26	0.23	0.22	0.22	0.22	0.22	0.19	0.13

Not for Distribution

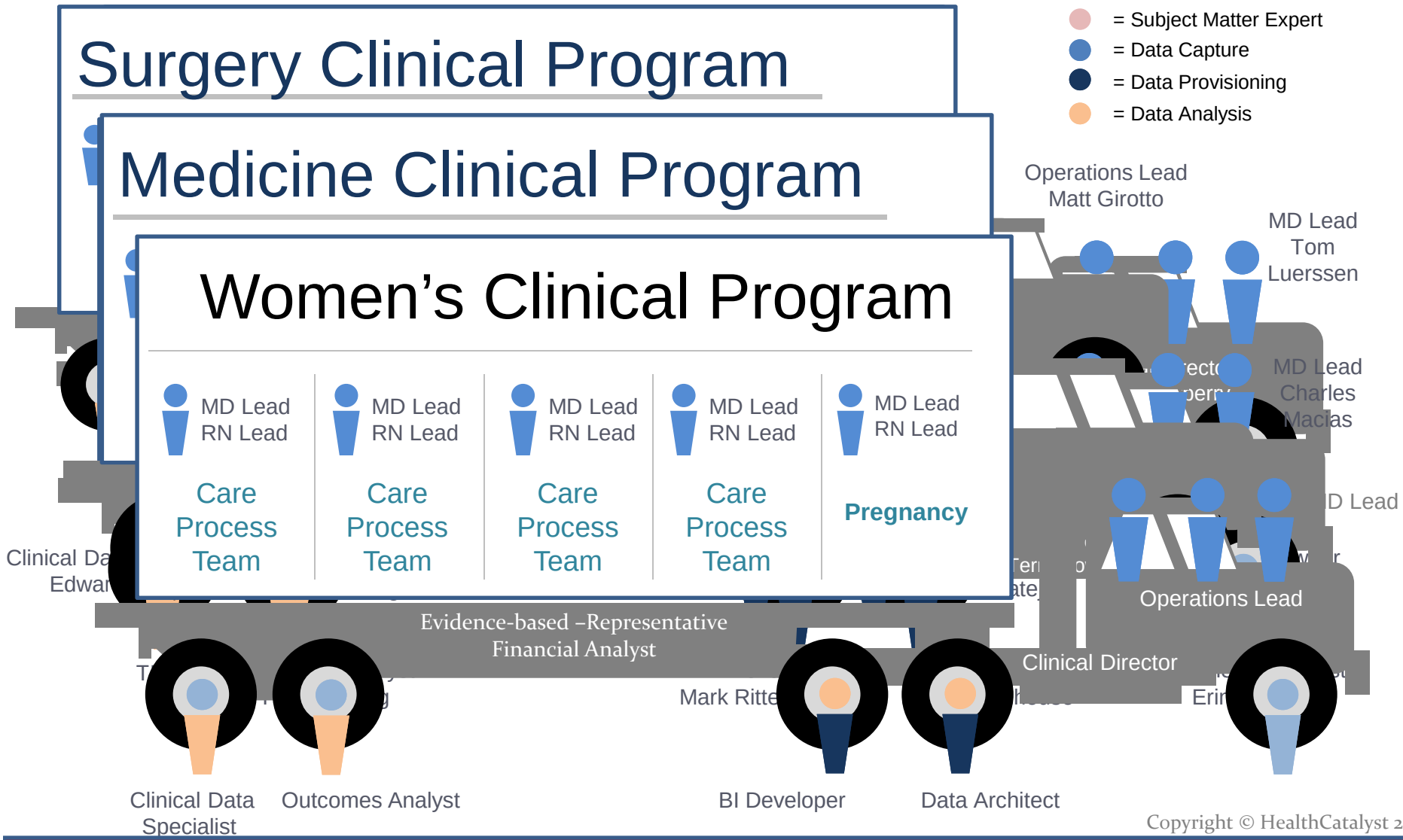
Patient Safety

- Error Prevention Training (over 10,000 people)

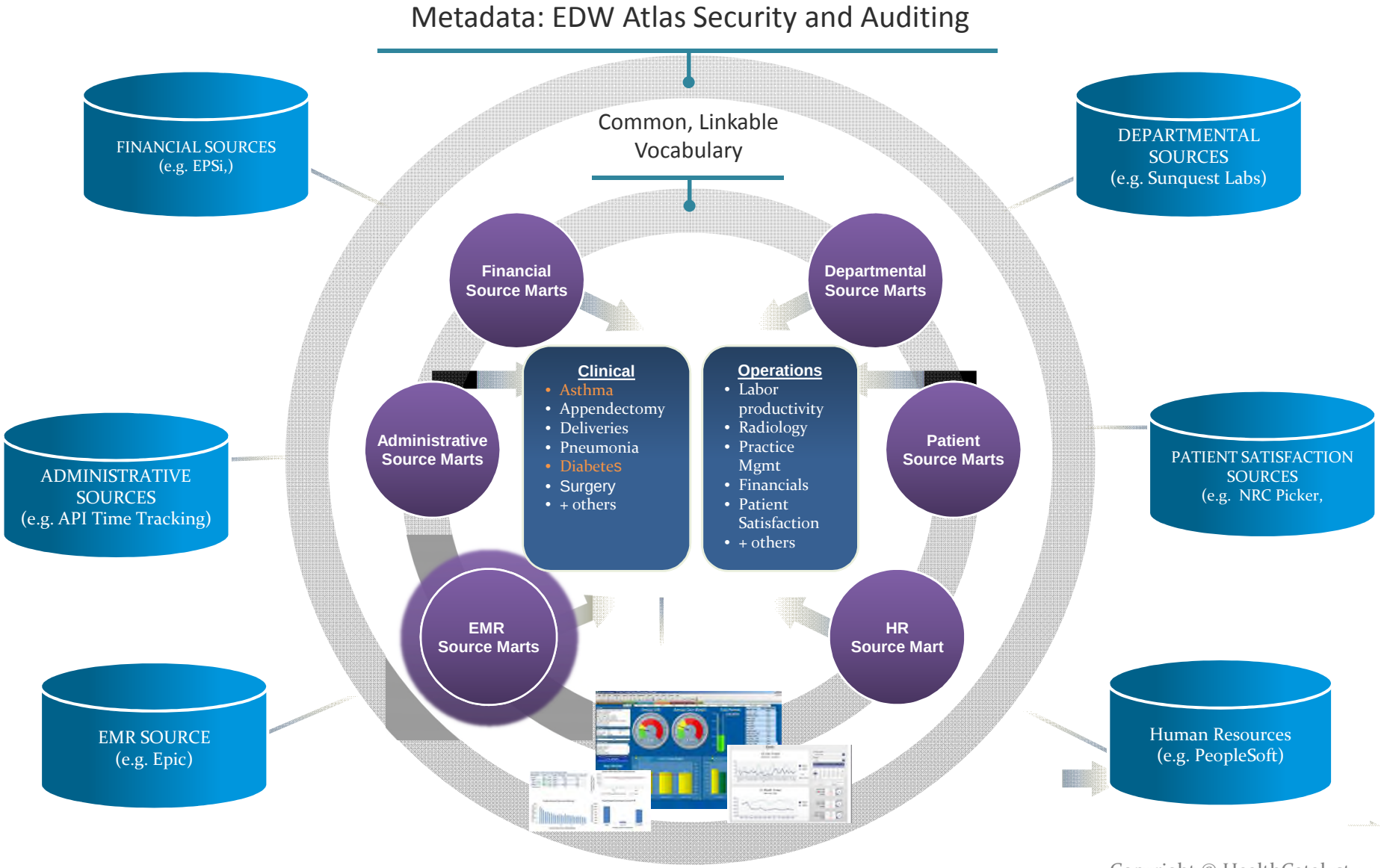
- Daily Operational Briefing
  - Review situations during the past 24 hrs.
  - Anticipate situations next 24 hrs.

- Safety Coaches
  - 222 trained coaches across TCH
  - Staff level employees serving as experts in EPT

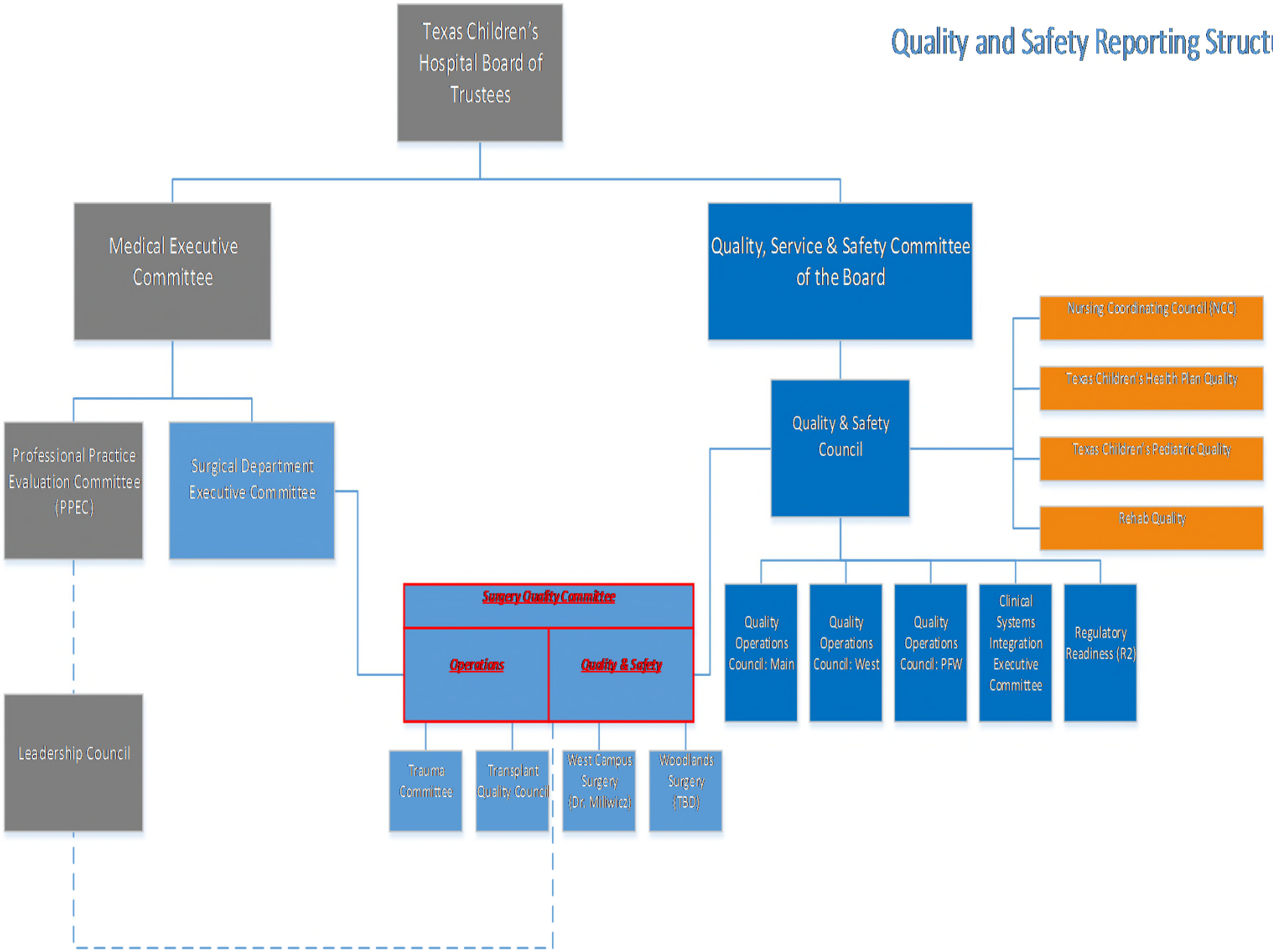
Integration of People, Data and Systems: Clinical Programs



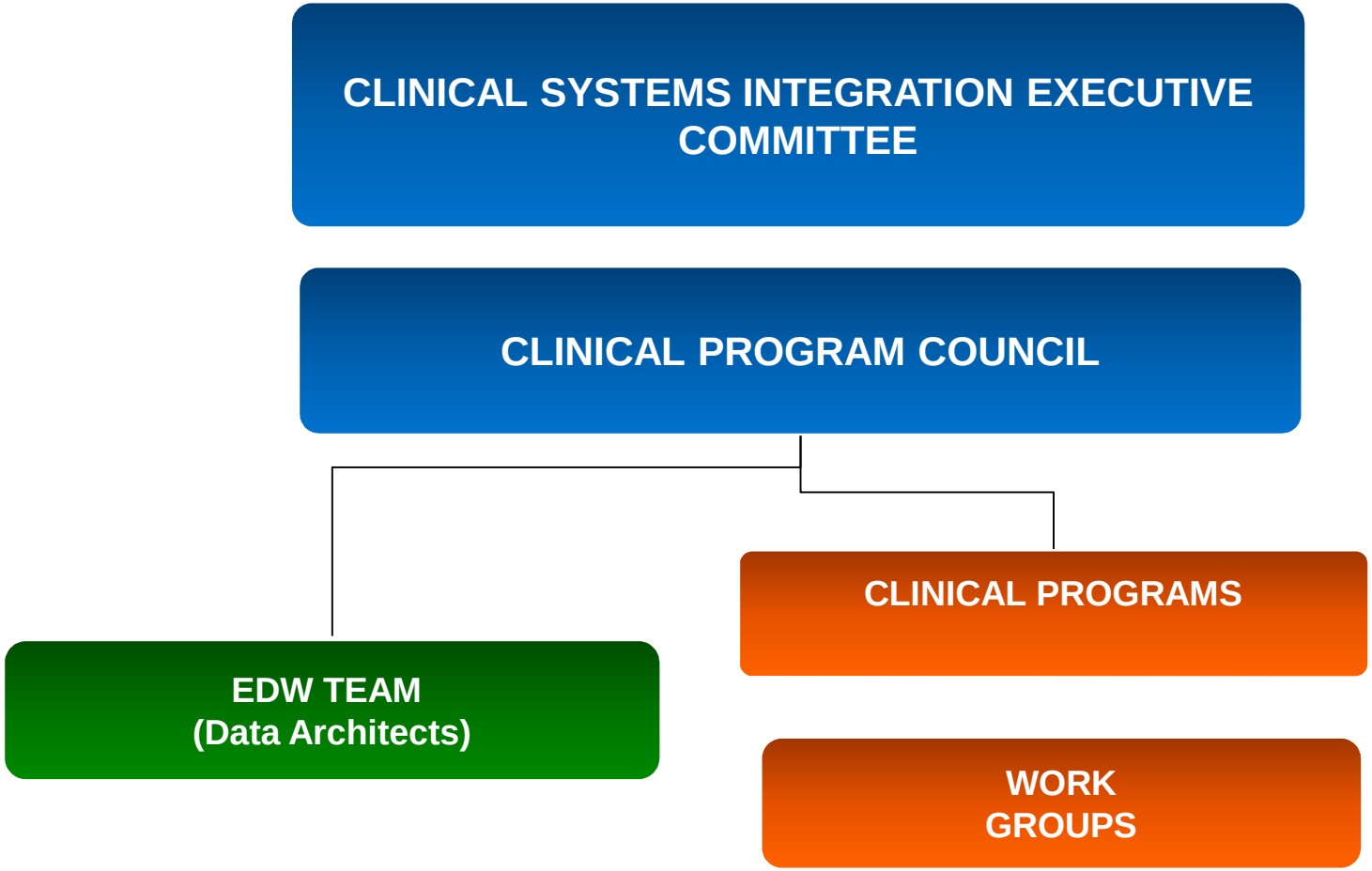
TCH Data Warehouse



Quality and Safety Reporting Structure



Integration of People, Data and Systems: Governance Structure



Questions/Discussion