



## Policy and Practice: A Partnership for Better Outcomes

*"Accreditation and Patient Safety Right From the Beginning!"*

# Making use of Data – what to measure and why?

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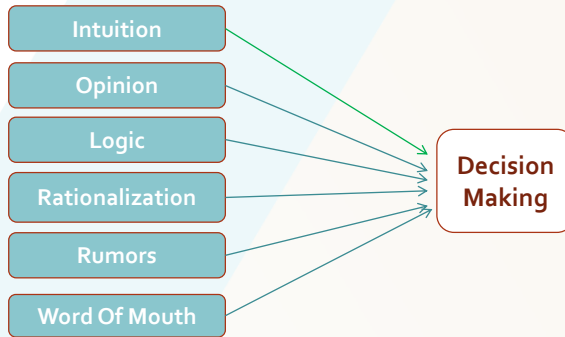
## Thoughts for the Day

- We don't know, what we don't know
- We can't act on what we don't know
- We won't know until we measure
- We won't measure until we report
- Hence, we just don't know

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## DECISION MAKING PROCESSES

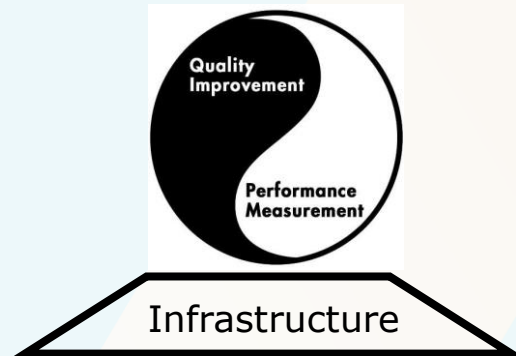


Decision Making: Traditional Model  
(Data Deficient)

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## LINKING ROBUST PERFORMANCE MONITORING AND PERFORMANCE IMPROVEMENT



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## What Is Data Analytics?

- Data analytics is the science of analyzing raw data in order to make conclusions about that information.
- Data analytics techniques can **reveal trends and metrics** that would otherwise be lost in the mass of information.
- This information can then be used to optimize processes to increase the overall efficiency of a business or system.



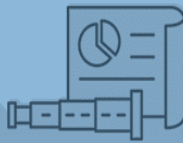
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## Four Types of Analytics



*Descriptive Analytics*



*Predictive Analytics*



*Diagnostic Analytics*



*Prescriptive Analytics*

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## The process involved in data analysis involves several different steps

1. The first step is to determine the data requirements or how the data is grouped.
2. The second step is the process of collecting it.
3. Once the data is collected, it must be organized so it can be analyzed.
4. The data is then cleaned up before analysis.

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## Examples of Data Sources for Patient Safety

- Agency for Healthcare Research and Quality (AHRQ)
- Veterans Affairs National Center for Patient Safety (NCPS)
- CMS Hospital compare (Patient Safety Indicators, HCAHPS)
- Occupational Health Safety Administration (OSHA)
- World Health Organization (WHO)
- Saudi Food and Drug Organization (SFDA)
- Accrediting body sentinel events reports
- Other

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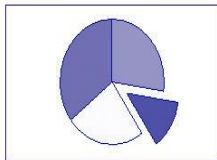
## Examples of internal hospital data sources for patient safety

- Safety/security event data
- Survey results
- Medication safety events
- Sentinel event trends
- Complaints & grievances and compliments
- Claims
- Financial losses
- Dashboards/scorecards
- Safety huddles, walk-rounds
- Standard operating procedures
- Patient safety culture surveys
- Patient Feedback

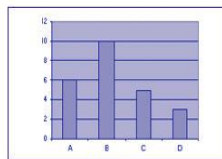
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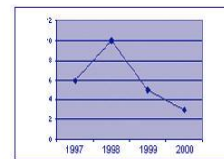
## Displaying the Data



Pie Chart



Bar Chart



Line Chart

**More Steam Note:** Pie charts help show the relationship of a part to the whole, bar charts allow the comparison of values within a category (e.g. store sales by Location), and line charts track the progression of a characteristic over time. All these charts are easily created using the graphical tools included in most statistical software packages. The **Insert > Chart** function in Excel® can be used if the data are already summarized in a table.

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## Scorecard example

Goal	Target	Owner	Review Frequency	Aug-16	Sep-16	Oct-16	YTD 2016
<b>Finance</b>							
Patient Information Accuracy Rate	99%	Paul	Monthly	99%	100%	97%	100%
Denials and Write-offs as % of Overall Charges	4%	Sarah	Monthly	5%	4%	3%	5%
Number of Days Charged in A/R	5	Sarah	Monthly	2	6	1	4
<b>People</b>							
Absenteeism Hours	30	Joseph	Monthly	15	20	30	22
Acceptable Overtime Hours	7%	Joseph	Monthly	8%	4%	5%	6%
Staffing: Open Positions	3	Jennifer	Monthly	2	1	1	1
<b>Clinical</b>							
Hospital-Wide 30 Day Readmissions	10.0%	Mark	Monthly	13.0%	11.0%	9.8%	12.2%
Heart Failure Mortality	13.2%	Mark	Monthly	12.7%	11.0%	9.0%	10.7%
Inpatient LOS (Days)	3	Catherine	Monthly	2.7%	2.3%	2.6%	2.5%

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## Dashboard example



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# Data must be actionable

video

[https://www.youtube.com/watch?v=YKb\\_t\\_xvSy4](https://www.youtube.com/watch?v=YKb_t_xvSy4)

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# The HSOPSC Data Entry

1. Teamwork Within Units
2. Supervisor/Manager Expectations & Actions Promoting Patient Safety
3. Organizational Learning – Continuous Improvement
4. Management Support for Patient Safety
5. Feedback & Communication About Error
6. Frequency of Events Reported
7. Overall Perceptions of Patient Safety
8. Communication Openness
9. Teamwork Across Units
10. Staffing
11. Handoffs & Transitions
12. Nonpunitive Response to Error

**HOSPITAL SURVEY ON PATIENT SAFETY CULTURE**

**INSTRUCTIONS**  
This survey asks you to rate statements about patient safety, culture, medical error, and event reporting in your hospital and will take about 10 to 15 minutes to complete.  
If you are not able to answer a question, or if a question does not apply to you, you may leave that question blank.

**SECTION A: Team Work Attitudes**  
What is your primary work area or unit in this hospital? Mark ONE answer by filling in the circle.

Item	Response	Number	Percent	
1. We have enough staff to handle the workload.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
2. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
3. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
4. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
5. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
6. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
7. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
8. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
9. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
10. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
11. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
12. Staff in this unit work together to keep the patient safe.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4

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# Benchmarking the results

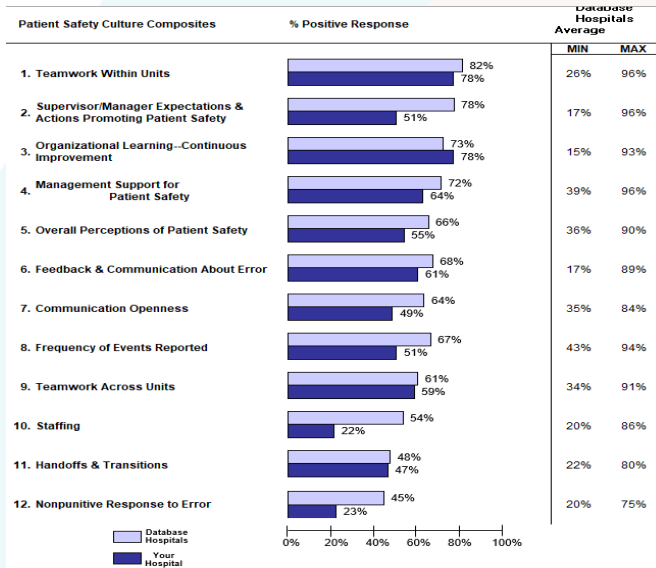
Table 6-3. Composite-Level Comparative Results—2016 Database Hospitals

Patient Safety Culture Composites	Average % Positive	s.d.	Composite % Positive Response Percentiles						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
1. Teamwork Within Units	82%	5.91%	26%	75%	79%	82%	85%	86%	96%
2. Supervisor/Manager Expectations & Actions Promoting Patient Safety	78%	6.66%	17%	71%	75%	79%	83%	86%	96%
3. Organizational Learning—Continuous Improvement	73%	7.44%	15%	63%	68%	73%	77%	81%	93%
4. Management Support for Patient Safety	72%	9.14%	39%	60%	67%	73%	79%	83%	96%
5. Feedback & Communication About Error	68%	8.05%	17%	58%	63%	68%	74%	78%	89%
6. Frequency of Events Reported	67%	7.37%	43%	57%	61%	67%	71%	76%	94%
7. Overall Perceptions of Patient Safety	66%	8.50%	36%	55%	60%	66%	72%	77%	90%
8. Communication Openness	64%	6.70%	35%	55%	59%	64%	68%	72%	84%
9. Teamwork Across Units	61%	9.32%	34%	50%	56%	61%	67%	73%	91%
10. Staffing	54%	9.34%	20%	42%	48%	53%	60%	66%	86%
11. Handoffs & Transitions	48%	10.37%	22%	35%	41%	46%	54%	62%	80%
12. Nonpunitive Response to Error	45%	8.75%	20%	35%	39%	44%	51%	56%	75%

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# Benchmarking the results




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# Patient Safety Culture Assessment



**A. Nonpunitive response to errors:** 

**Suggested recommendations:**


1. Adherence to the principle of just culture and explore adopting use of the just culture algorithms.
2. To discuss near-misses at departmental levels, huddles, and debriefs. In addition to regular leadership rounds.
3. Create an infrastructure that supports reporting by ensuring the roll-out of SAH/TW initiative.

**B. Staffing:** 

**Suggested recommendations:**

Justification: some ratios operations rather than patient-related (example) Pharmacy

1. Consistent use of evidence-based practices and safe staffing ratios.
2. Acuity tool that addresses the important issue of unbalanced nurse-patient (Acuity-Adjusted Staffing right nurse to the right patient at the right time (SPSC-ICN recommendations 2019).
3. To develop a clear staffing plan policy on both hospital and departmental levels.
4. To focus on staffing and to request generation of new healthcare professional's classification categories from SEHC (example Nurse aids).

**C. Communication openness:** 

**Suggested recommendations:**

1. "learn5TERS" education, support, and tools literature shows that increased teamwork, communication, and mutual support improves staff sense of control and assistance.
2. Use of briefs, safety huddles, and debriefs in all departments to integrate organizational learning into daily work.
3. To conduct Root Cause Analysis (RCA) to examine the depth of staff miscommunication and create action plans accordingly.

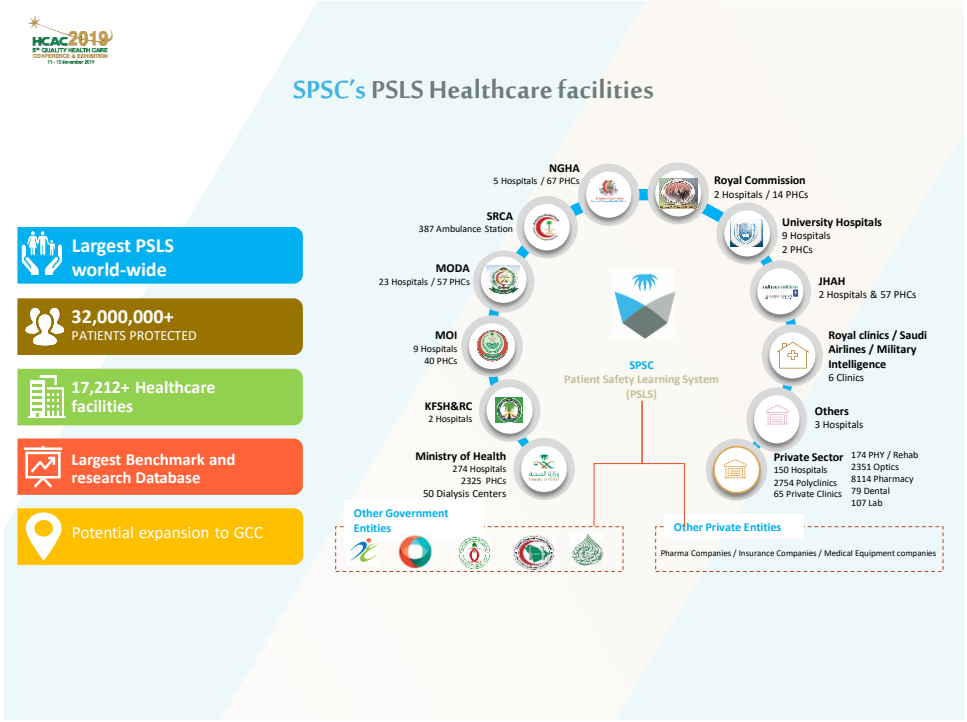
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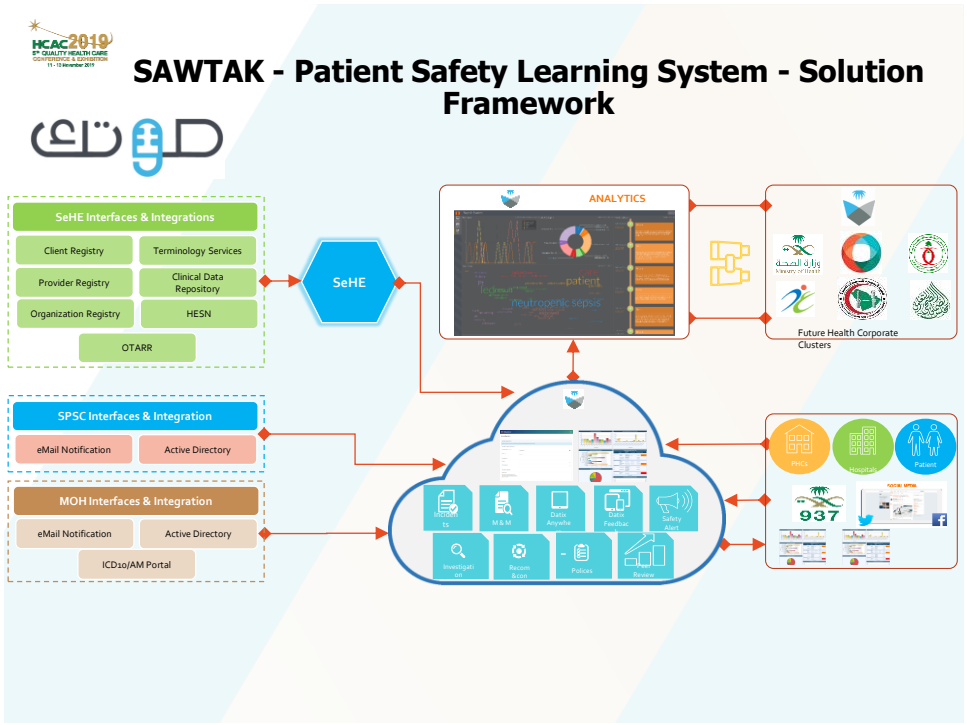
## National Reporting and Learning System SAWTAK

- Patient safety is a national health concern, affecting patient in all healthcare sectors. Providing safe health care for patients is fundamental, however, the studies have shown that **medical error** the **3rd leading cause of death in USA (2016 BMJ)**.
- As a step toward improving patient safety, Saudi Patient Safety Center "SPSC" is planning to implement a **national patient safety and risk management system** across all healthcare facilities within Saudi Arabia and establish **national database** to identify frequency and causes of adverse events which is the crucial basis for patient safety and healthcare improvement.

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# Value Based Healthcare



Table 1. Applicable Domains for FYs 2016–2018

FY	Applicable Domains & Weights
2016	<ul style="list-style-type: none"> <li>Clinical Process of Care (10%)</li> <li>Patient Experience of Care (25%)</li> <li>Outcome (40%)</li> <li>Efficiency (25%)</li> </ul>
2017*	<ul style="list-style-type: none"> <li>Patient and Caregiver-Centered Experience of Care/Care Coordination (25%)</li> <li>Safety (20%)</li> <li>Clinical Care (30%)                             <ul style="list-style-type: none"> <li>Clinical Care – Outcomes (25%)</li> <li>Clinical Care – Process (5%)</li> </ul> </li> <li>Efficiency and Cost Reduction (25%)</li> </ul>
2018	<ul style="list-style-type: none"> <li>Patient and Caregiver-Centered Experience of Care/Care Coordination (25%)</li> <li>Safety (25%)</li> <li>Clinical Care (25%)</li> <li>Efficiency and Cost Reduction (25%)</li> </ul>

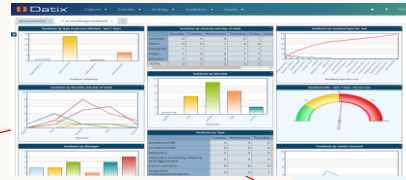


Table 4. Hospital VBP Program Measures for FY 2018

Measure ID	Measure Description	Domain
CAUTI	Catheter-Associated Urinary Tract Infection	Safety
CLABSI	Central Line-Associated Blood Stream Infection	Safety
CDI	Clostridium difficile Infection (C. difficile)	Safety
MRSA	Methicillin-Resistant Staphylococcus aureus Bacteremia	Safety
AHRQ PSI-90 composite	Complication/Patient Safety for Selected Indicators (composite)	Safety
PC-01	Elective Delivery Prior to 39 Completed Weeks Gestation	Safety
SSI	Surgical Site Infection: <ul style="list-style-type: none"> <li>Colon</li> <li>Abdominal Hysterectomy</li> </ul>	Safety

- Lowering the incidence of adverse events is a cornerstone of the VBP program.
- The first step to lowering adverse events is tracking hospital errors
- ICD10/AM coding

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## Healthcare facility ranking & addressing public concerns

Select CMS hospital rankings from Medicare.gov

**SETON MEDICAL CENTER**  
1900 SULLIVAN AVENUE  
DAILY CITY, CA 94015  
(950) 992-4000

Overall rating: **5.0** (5 stars)

**SAN FRANCISCO GENERAL HOSPITAL**  
1001 POTRERO AVENUE  
SAN FRANCISCO, CA 94110  
(415) 206-8000

Overall rating: **4.5** (4.5 stars)

**KAISER FOUNDATION HOSPITAL - SAN FRANCISCO**  
2425 DEARBY BLVD  
SAN FRANCISCO, CA 94115  
(415) 853-2665

Overall rating: **5.0** (5 stars)

Hospital CMS rankings are publicly available in the US, with just 2.2% of 4,599 hospitals graded achieving 5 stars

NHS Choices public hospital ranking

**Whipps Cross University Hospital**

Tel: 020 3416 2000  
Whipps Cross Road  
London  
E11 1NL  
0.8 miles away / See directions

Overall rating: **5.0** (5 stars)

**Hospital Of St John & St Elizabeth**

60 Grove End Road  
London  
London  
W1G 0AN  
0.3 miles away / See directions

Overall rating: **n/a**

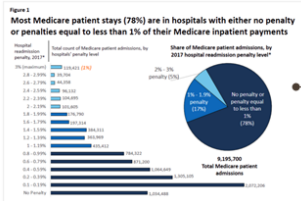
**Royal Brompton Hospital**

Tel: 020 7362 8121  
London  
London  
W14 8JT  
0.2 miles away / See directions

Overall rating: **4.5** (4.5 stars)

Medicare penalties due to readmission are regularly reported under the Hospital Readmission Reduction Program

Share of Medicare patient admissions by hospital readmission penalty level



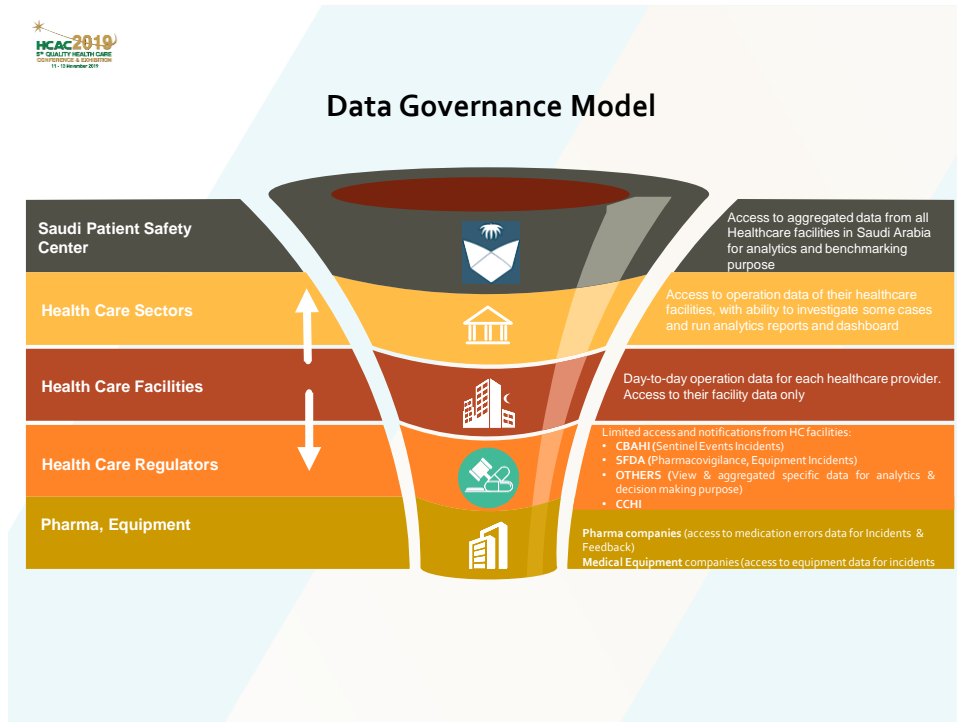
Healthcare providers receive a user rating and CQC inspection score, from hospitals to outpatient clinics and GPs

Select hospitals penalised by federal government in 2016

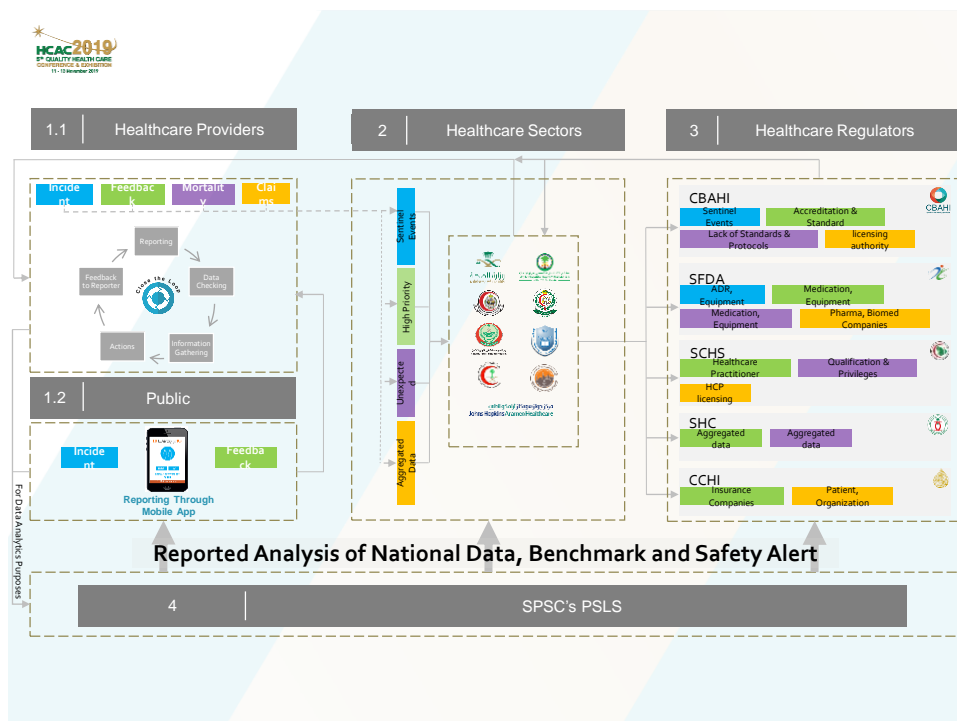
In 2016 a list of hospitals was published showing that Medicare payments were cut to 758 US hospitals following poor performance in CMS rankings

Hospital
ALASKA REGIONAL HOSPITAL
MT EDGECUMBE HOSPITAL
CENTRAL PENNSYLVANIA GENERAL HOSPITAL
BROOKWOOD MEDICAL CENTER
L V STABLER MEMORIAL HOSPITAL

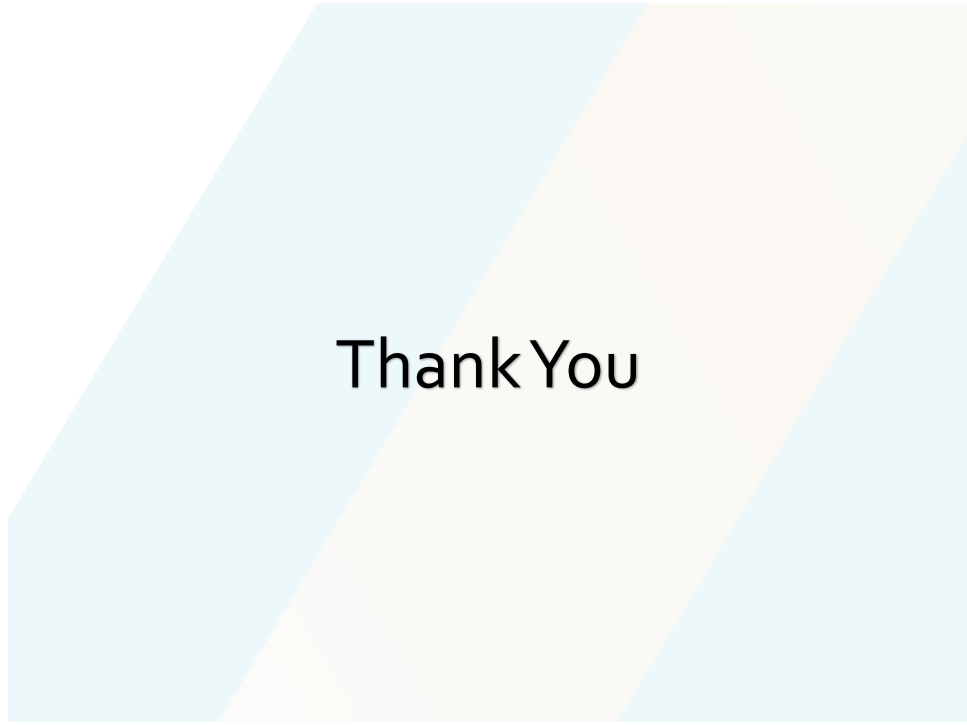
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