# Using Data to Improve Quality and Achieve Equity

2017 Health System Symposium

Georgia Department of Public Health

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Louise Bryde
Rahul Ghotge

Georgia Department of Public Health

STROUDWATER

# Presenters

## LOUISE BRYDE, RN, BSN, MHA
### Principal

Louise Bryde joined Stroudwater in 2013 and brings to the firm more than 30 years of experience in healthcare management and clinical operations. She has a proven record of accomplishments in developing and executing initiatives to enhance access and improve quality and value of healthcare delivery in both the public and private sectors. At Stroudwater, she focuses on population health, strategic planning and operational improvement, and models of care, including Patient-Centered Medical Home initiatives.

Before joining Stroudwater, Bryde formed Louise Bryde & Associates, LLC, a healthcare consulting firm specializing in care integration/models of care delivery, provider relations/network development, and CAHPS/Star Rating evaluation and improvement initiatives. Previously, Bryde served as Senior Clinical Director for United Health Group (UHG) - Ovations, Atlanta, Georgia, where she held the National Clinical Lead role for Ovations Medicare Community Programs, including Advanced Illness, telephonic High Risk Care Management, and Post-Acute Transitions for Medicare Duals/Individuals with Chronic Illness.

### Representative Accomplishments

Bryde's recent work with clients includes the following:

- Health Plan Medical Management: Served in interim leadership role for a Regional Health Plan as **Interim Director, Health Management Department.** Reorganized department and collaborated with colleague to redesign their medical management clinical model, moving from a functional orientation to a data-driven, population-based care coordination model.
- Retail Clinics: Served in interim executive leadership role for a client as the **Interim National Director of Clinical Operations** for their multi-state retail clinics. Responsible for development of infrastructure and day-to-day clinic operations.
- Statewide Multi-Hospital System: Led consulting team to conduct comprehensive rehab services service line evaluation, addressing organizational structure and strategy as well as opportunities for service line operational performance improvement.
- Regional Post-Acute Care/Long Term Care Company: Identified/recommended alternative care delivery models to integrate role of Nurse Practitioner into organization's care delivery system; collaborated with client to develop selected NP Model for implementation.

### Education

Louise Bryde holds a Bachelor of Science degree in Nursing from the University of Virginia and a Master of Health Administration degree from Georgia State University. She is a member of the American College of Healthcare Executives and is an NCQA Patient-Centered Medical Home Certified Content Expert.

## RAHUL GHOTGE, MD, MS, MBA
### Consultant

Rahul Ghotge is a hospital management professional with over a decade of experience in healthcare. Since joining Stroudwater in 2015, Rahul focuses on financial turnaround, valuation, clinical quality improvement, and creating stakeholder value through partnerships.

Rahul's passion is to utilize his training in medicine, biomedical engineering and Lean Six Sigma to design the next-generation healthcare delivery model providing high-quality healthcare at a low cost. His work leverages advanced data analytics and cost accounting methodologies to deliver the right healthcare at the right place and right time at an affordable cost.

Before joining Stroudwater, Rahul served as a physician in India and England and as an engineer in the medical device industry. He worked at a rural hospital system in Georgia where his role grew to include the duties of COO and CIO; in those roles, he managed implementation of the EHR system, patient billing, and other IT systems to achieve Stages 1 and 2 Meaningful Use. Rahul also successfully designed and implemented a financial turnaround plan to bring the hospital to breakeven without a system-wide reduction in force.

### Representative Accomplishments

- **Modeling market demand:** Designed a model to analyze current demand and predict future demand for various inpatient and outpatient clinical services.
- **Service line cost analysis and benchmarking:** Analyzed the cost structure of service lines in conjunction with industry benchmarks.
- **EHR implementation and optimization:** Created strategy and work plan for EHR implementation for a multi-state provider organization and developed procedures to optimize the EHR utilization.
- **Impact of quality improvement:** Created tools to estimate the cost versus improvement in quality and net incentives payments for participants in Value Based Purchasing program.

### Education

Rahul completed medical training in India and England. He earned a Master's degree in biomedical engineering from the University of Tennessee with a focus on biomechanics, and recently completed the Global Executive MBA program at Duke University's Fuqua School of Business with a concentration in finance. ▮

# Contact Information

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| --- | --- |
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# Topics for Discussion

- Role of Data in Health Management
  - Role of data in select programs, such as Value-Based Purchasing, MIPS, PCMH
  - Role of data in population health management and care coordination
  - Examples of the types of data collected
- Data Collection, Transmission & Visualization
  - Importance of definitions
  - Data Systems Designs
  - Data visualization for effective decision making
- Data Governance, Efficiency and Transparency
  - Value of information
  - Data “warehousing” & “sharing”
  - Data governance issues and security

# ROLE OF DATA IN HEALTH MANAGEMENT

# Healthcare Trends Impacting Need for and Access to Data

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- Achievement of the **Triple Aim**
- Fundamental shift away from typically episodic, reactive approach to care of individual patients to proactive, comprehensive care of populations of patients
- **Population Health** has been defined as:

  "The health outcomes of a group of individuals, including the distribution of such outcomes within the group" (Kindig and Stoddart, 2003). While not a part of the definition itself, it is understood that such population health outcomes are the product of multiple determinants of health, including medical care, public health, genetics, behaviors, social factors, and environmental factors."

  (Institute of Medicine Roundtable on Population Health Improvement; nationalacademies.org; accessed 6-14-17.)

# Healthcare Trends Impacting Need for and Access to Data

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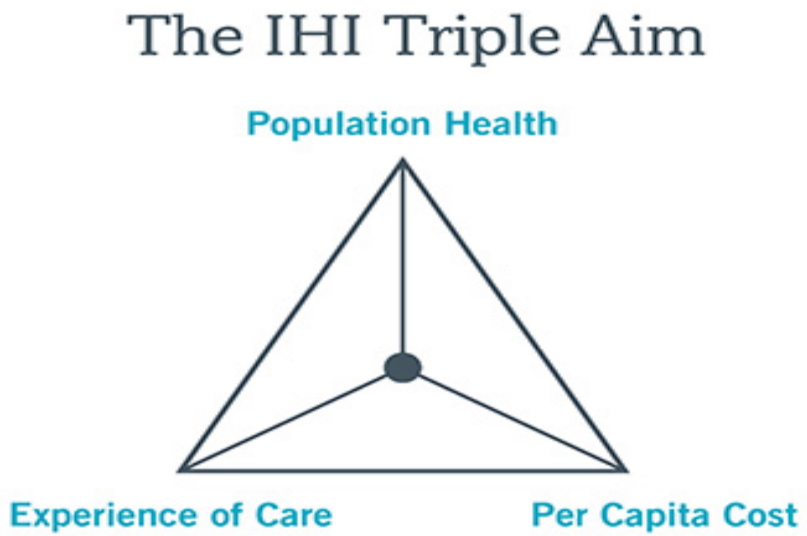
- Move to **value-based reimbursement** and away from traditional volume-based, fee-for-service reimbursement environment
  - Patient-centered medical home models of care
  - ACOs and other risk arrangements
  - Bundled payment arrangements
- Development/proliferation of **Health IT - EHRs**
  - Meaningful Use
    - Implemented 2011 – 2016

***Generated lots and lots and lots and lots of data!***

# The Institute for Healthcare Improvement's Triple Aim




- Improving the health of populations
- Improving the patient experience of care (including quality and satisfaction)
- Reducing the per capita cost of health care

Source: http://www.ihi.org/Engage/Initiatives/TripleAim/Documents/Triple-Aim-Triangle_withTitle%20white%20background%20v3.jpg

# Meaningful Use Background

- **Definition**: Using certified electronic health record (EHR) technology to:
  - Improve quality, safety, efficiency, and reduce health disparities
  - Engage patients and family
  - Improve care coordination, and population and public health
  - Maintain privacy and security of patient health information
- **Objectives**: Ultimately, it is hoped that meaningful use compliance will result in:
  - Better clinical outcomes
  - Improved population health outcomes
  - Increased transparency and efficiency
  - Empowered individuals
  - More robust research data on health systems

# Stages of Meaningful Use

| 2011-2012 | 2014 | 2016 |
|---|---|---|
| Stage 1 | Stage 2 | Stage 3 |
| Data Capture and Sharing | Advance Clinical Processes | Improved Outcomes |

***Generated lots and lots and lots and lots of data!***

***Improve Processes***

***Improve Outcomes***

Source: HealthIT.gov/ EHR Incentives & Certification/ Meaningful Use Definition & Objectives

# Value-Based Reimbursement

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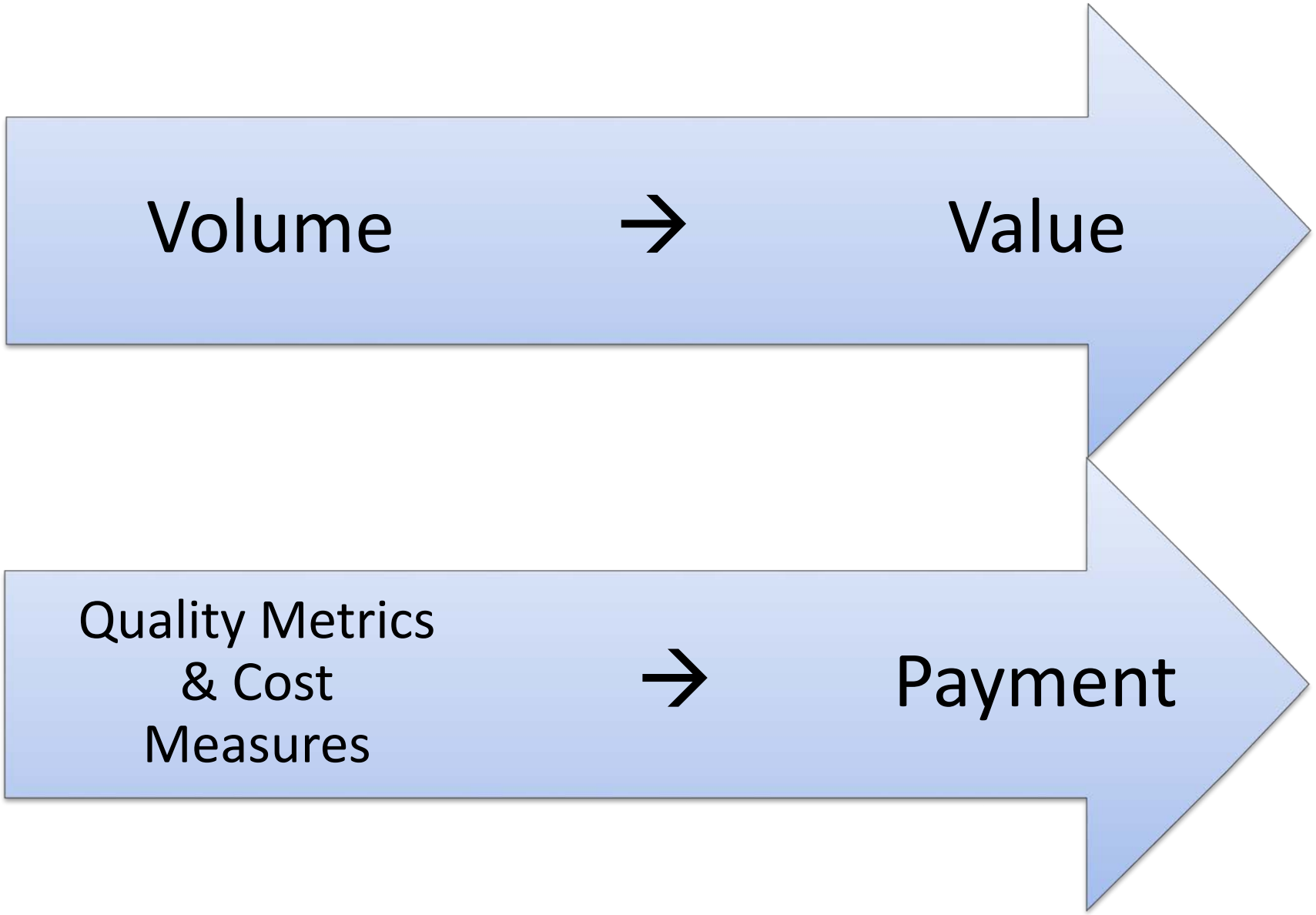
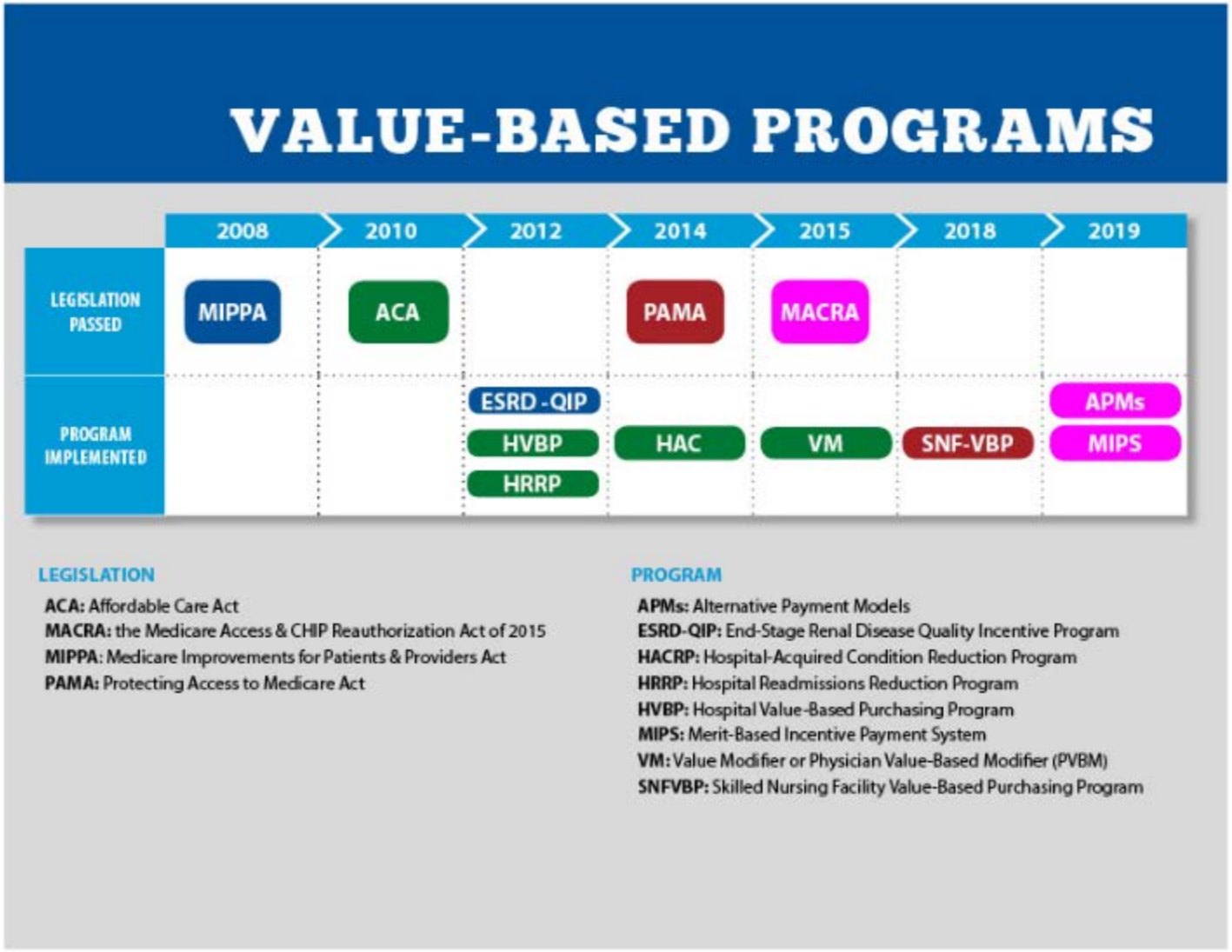


# Value-Based Programs Timeline




Source: cms.GOV https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/Value-Based-Programs.html

# DATA AND VALUE-BASED PROGRAMS

# Hospital Utilization Data

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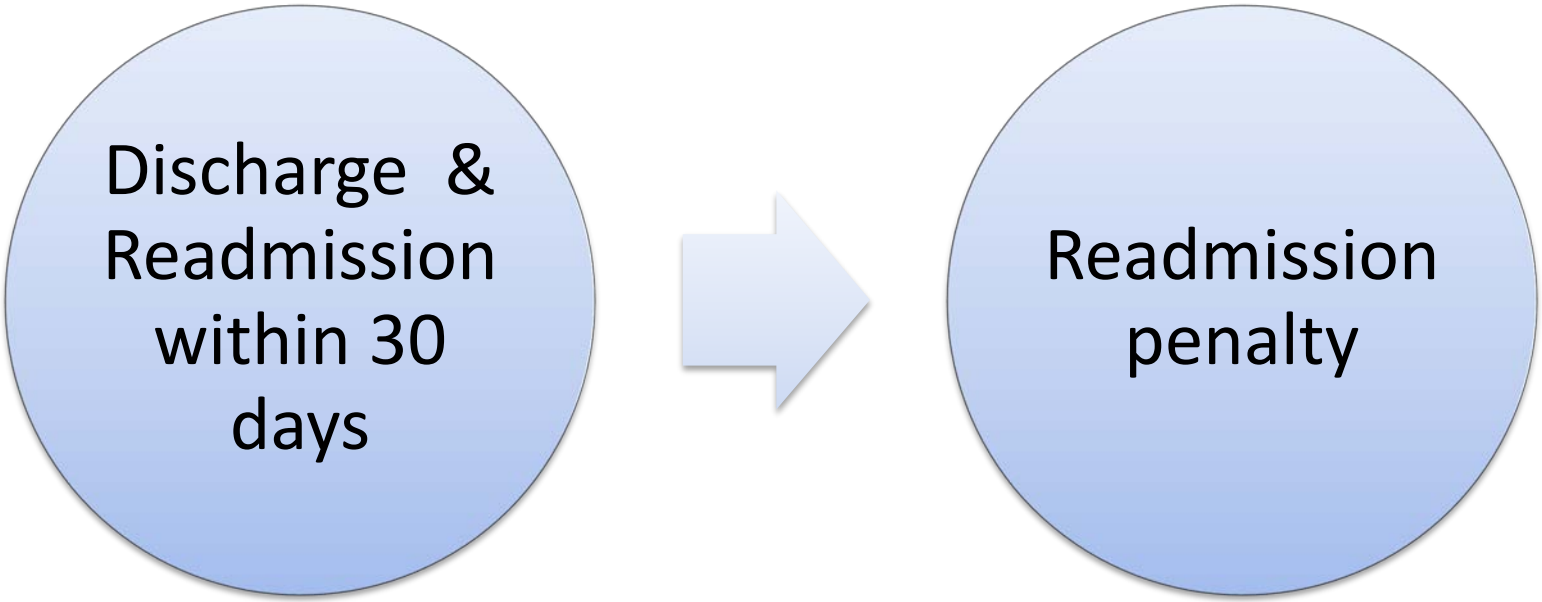
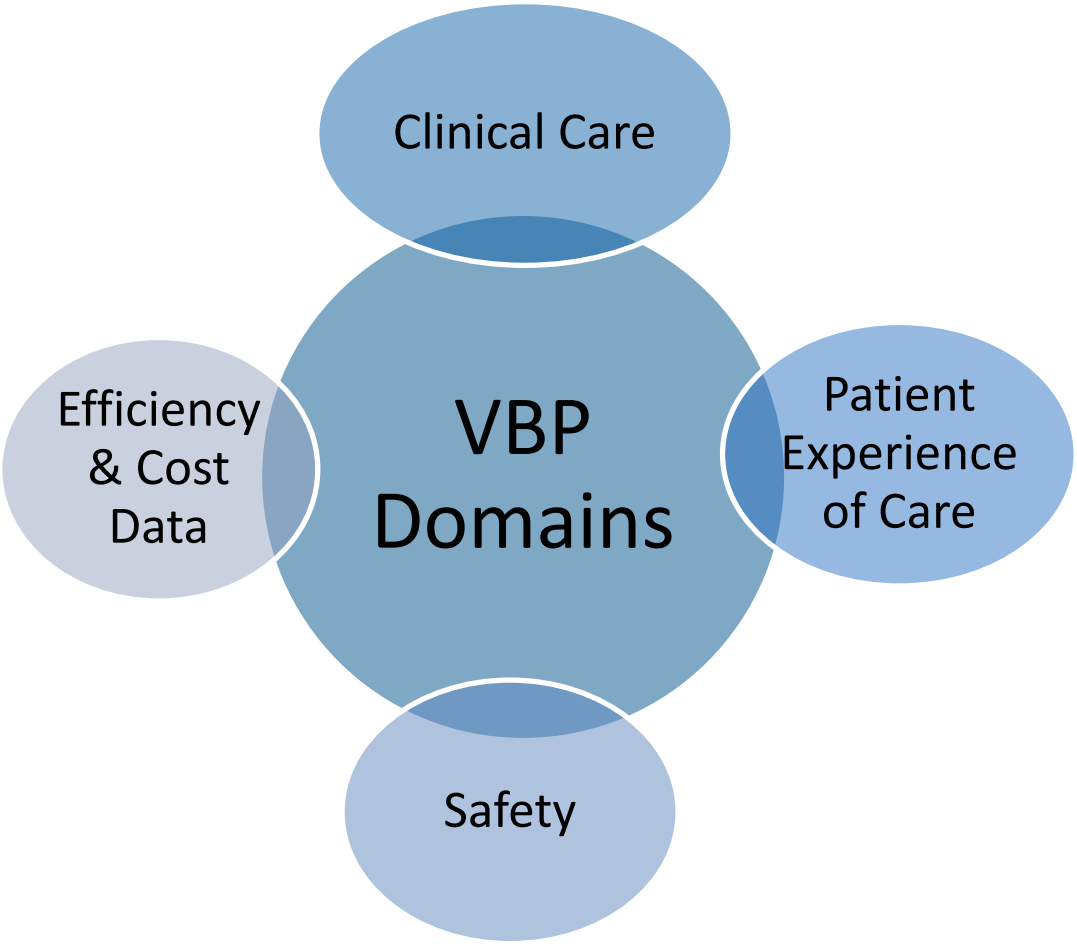
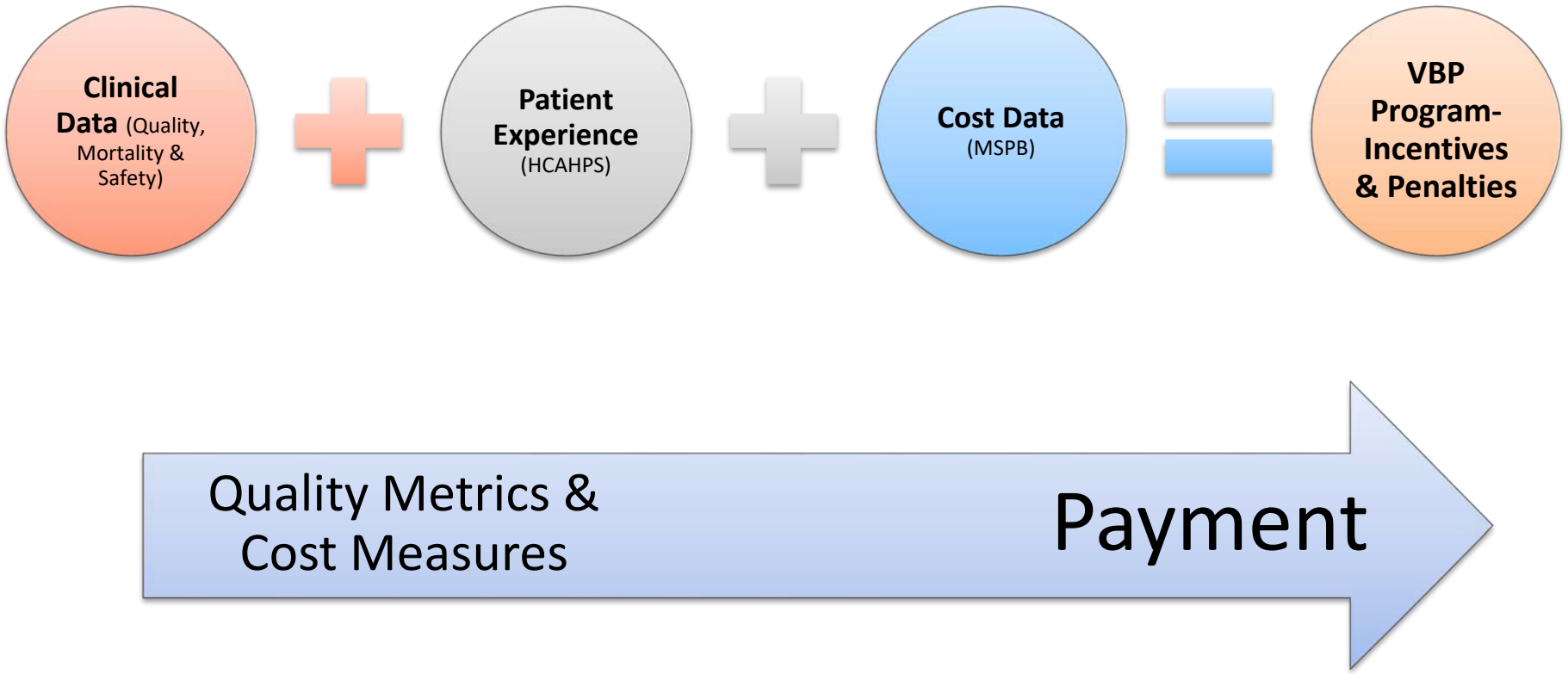


# Hospital Value-Based Purchasing Program Domains



# Hospital VBP Quality, Patient Experience and Cost Data



# MEDICARE PART B QUALITY PAYMENT PROGRAM

# MACRA/MIPS Overview

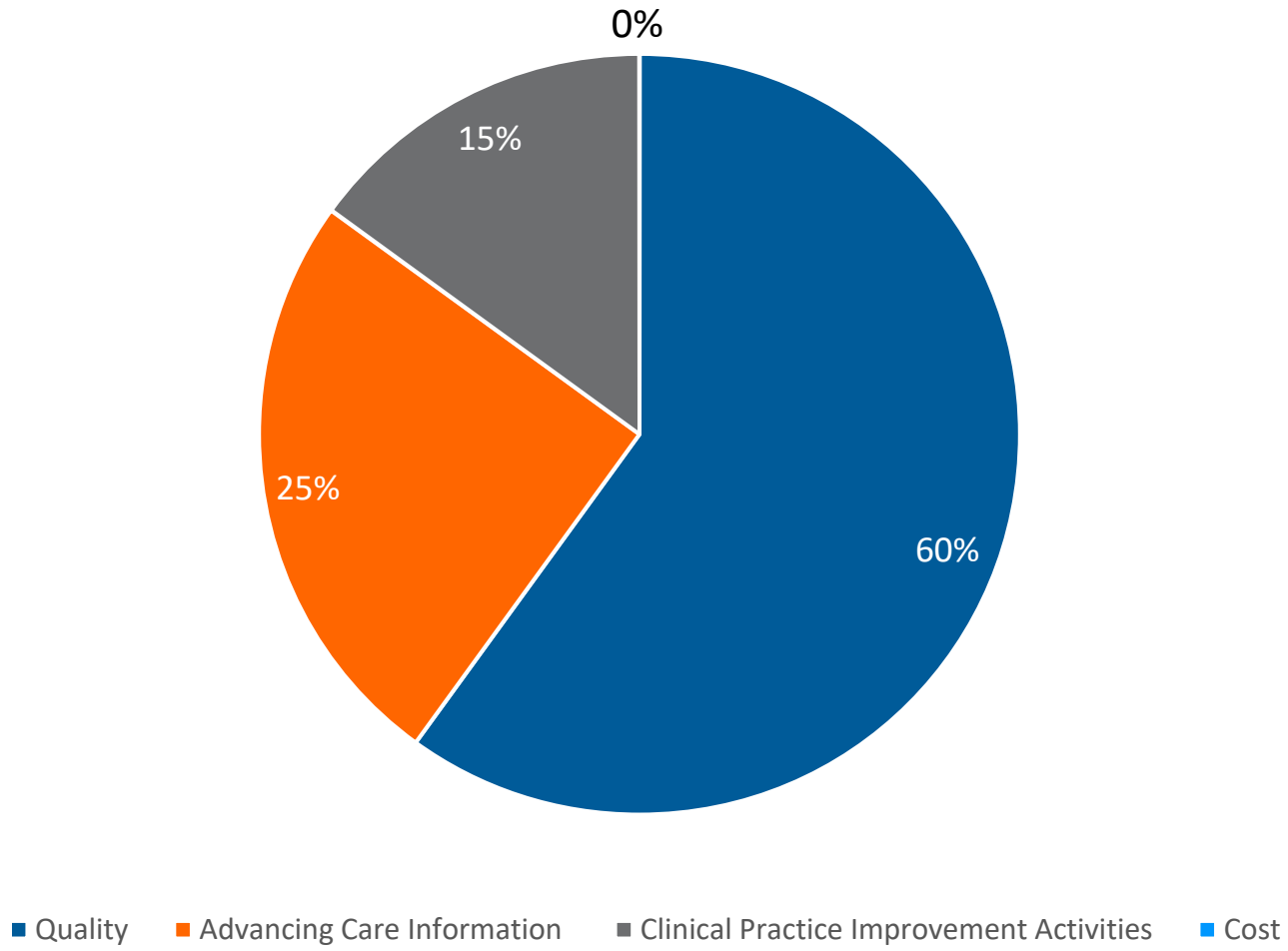
- MACRA – Medicare Access & CHIP Reauthorization Act of 2015
  - Establishes two payment tracks: Merit-Based Incentive Payment System (MIPS) and Advanced Alternative Payment Models (APMs)
  - MIPS program consolidates payment adjustments from three quality reporting programs into a large pay-for-performance program
    - Physician Quality Reporting System (PQRS)
    - Value-based Payment Modifier (VBPM)
    - Medicare Electronic Health Record (EHR) Incentive Program ("Meaningful Use")
  - Adds new performance category: Clinical Practice Improvement Activities (CPIA)

**"Starting to Prepare in 2017 for the New Physician Payment System Under MACRA "**
**www.aamc.org/MACRA. Accessed 6-13-17.**

# MIPS Performance Categories

- Providers will be measured on four performance categories:
  - **Quality** - based on PQRS
  - **Resource Use (Cost)** - based on VBPM
  - **Advancing Care Information (ACI)** - based on Meaningful Use
  - **Clinical Practice Improvement Activities (CPIA)** - new category
- Results in overall composite performance score that will determine provider's Medicare payment starting two years after the performance period

# MIPS Performance Category Transition Year Weights



# Selecting MIPS Quality Measures

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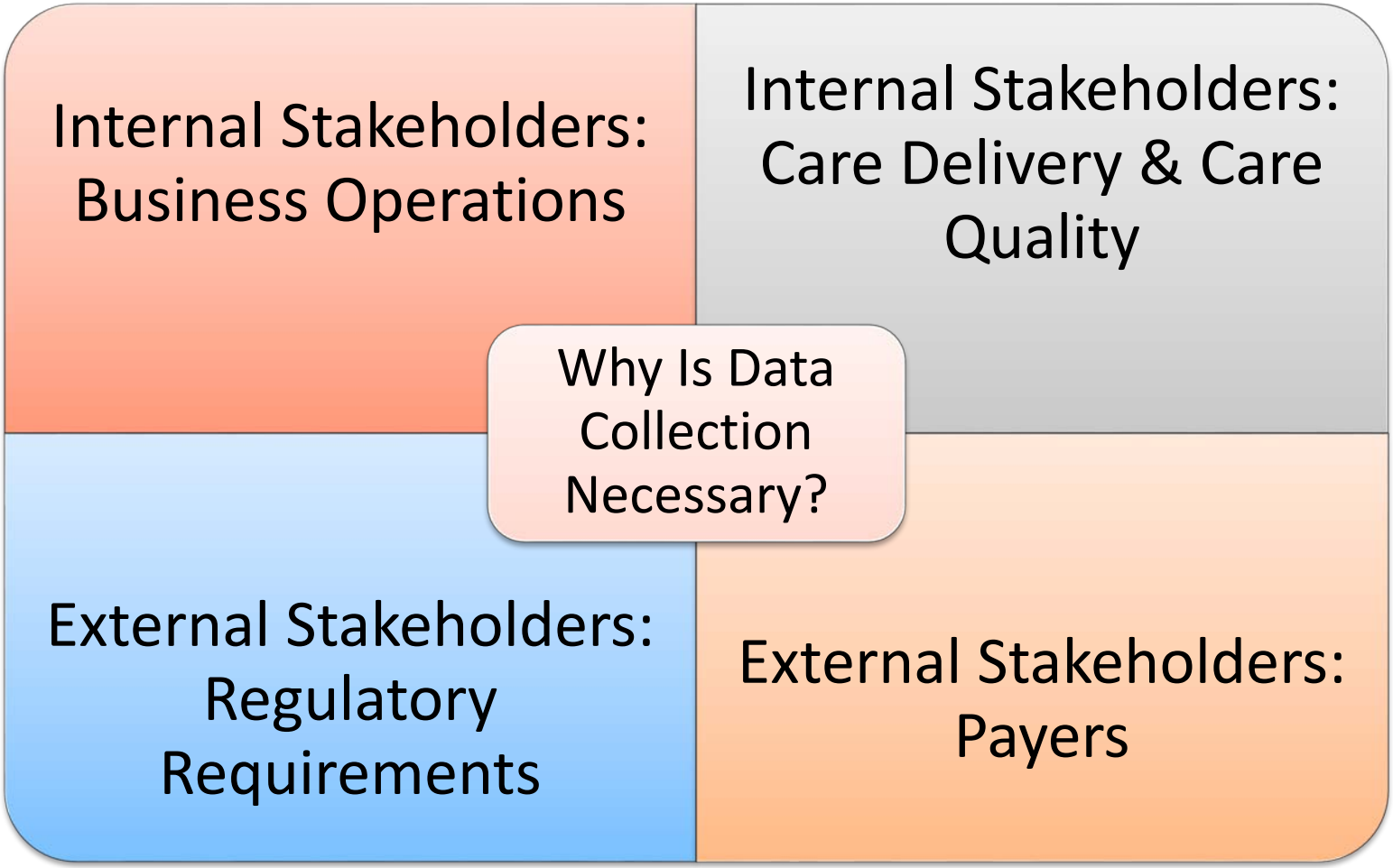
1. Review and select measures that best fit your practice
2. Add up to six measures from CMS's extensive list of options
    - Include one outcome measure
    - Use the search and filters to help find the measures that meet your needs or specialty
3. If an outcome measure is not available that is applicable to your specialty or practice, chose another high priority measure

# Role of Data in Health Management



# External Stakeholder Reporting Requirements

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- CMS: numerous mandatory reporting requirements for Medicare and Medicaid provider participants. Examples include:
  - Hospital Acquired Conditions (HAC) and readmission data
  - OASIS - mandated clinical data reporting system for home health agencies
  - MDS - mandated clinical data reporting system for nursing facilities
- Commercial Payers
  - Prior Authorization Program requirements
  - Cost and quality data

# Types of Data

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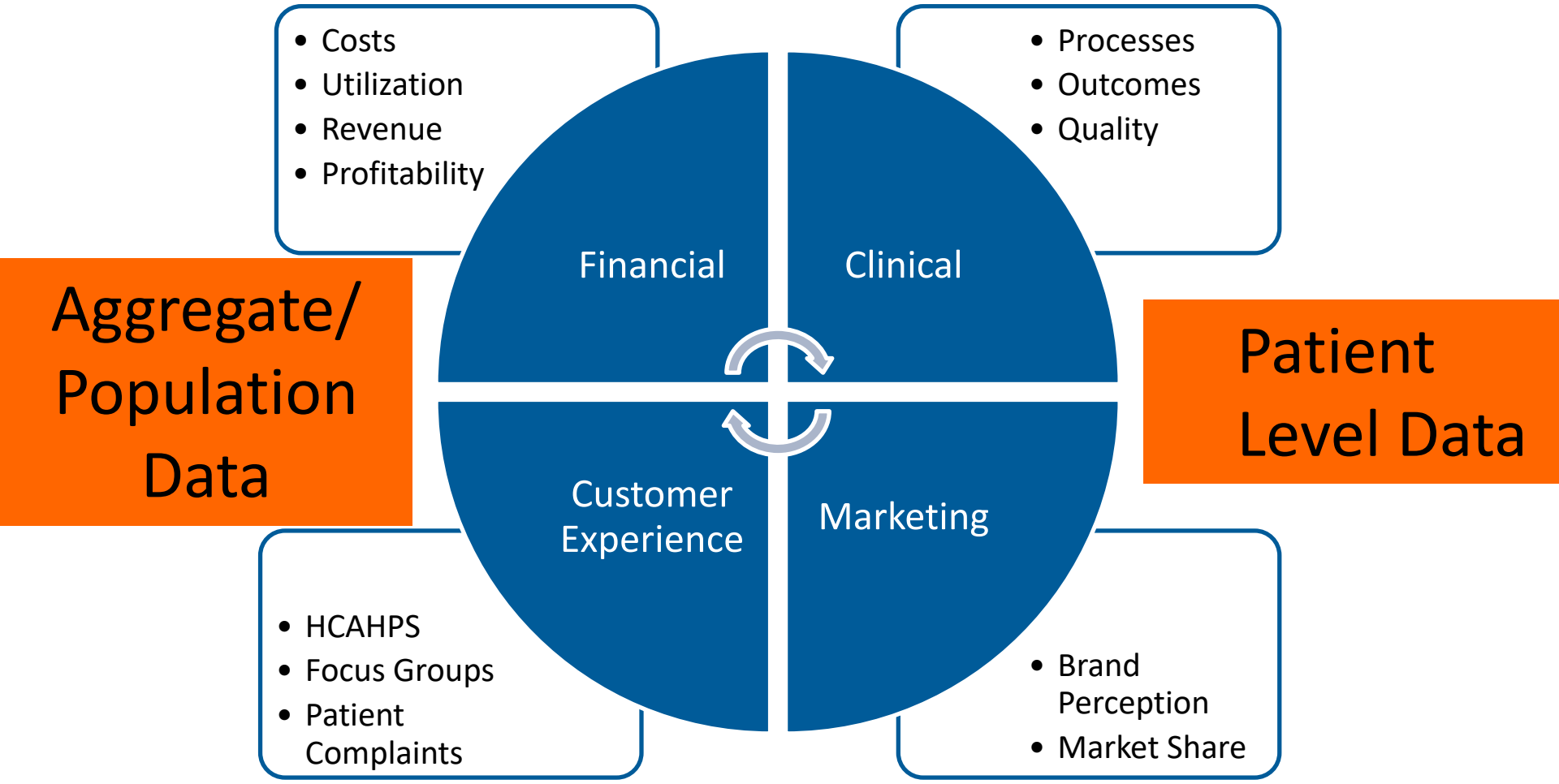

# Emerging Models of Care

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Patient-Centered Medical Home (PCMH)

ACOs and Other Risk Arrangements

Bundled Payment Models

# Patient-Centered Medical Home Model of Care

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- **Definition**: A team-based model of care led by a personal physician who provides continuous, coordinated care throughout a patient's lifetime, to maximize health outcomes. (American College of Physicians)
- The PCMH provides or arranges for all of the patient's healthcare needs, including:
  - Preventive care
  - Treatment of acute and chronic illnesses – both Medical and Behavioral Health
  - Assistance with end-of-life care

# NCQA's 2017 PCMH Recognition Standards

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➢ **Performance Measurement and Quality Improvement (QI)**

*The practice establishes a culture of data-driven performance improvement on clinical quality, efficiency and patient experience, and engages staff and patients/families/caregivers in quality*

- **Competency A:** The practice measures to understand current performance and to identify opportunities for improvement.
- **Competency B:** The practice evaluates its performance against goals or benchmarks and uses the results to prioritize and implement improvement strategies.
- **Competency C:** The practice is accountable for performance. The practice shares performance data with the practice, patients and/or publicly for the measures and patient populations identified in the previous section.

# PCMH Standard: Performance Measurement and Quality Improvement

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- **Using Data to Address Health Disparities**

  *The practice assesses health disparities using performance data stratified for vulnerable populations.*

- NCQA Guidance
  - The practice stratifies performance data by race and ethnicity or by other indicators of vulnerable groups that reflect the practice's population demographics (e.g., age, gender, language needs, education, income, type of insurance [Medicare, Medicaid, commercial], disability, health status)
  - Vulnerable populations are "those who are made vulnerable by their financial circumstances or place of residence, health, age, personal characteristics, functional or developmental status, ability to communicate effectively, and presence of chronic illness or disability," (AHRQ)

# PCMH Standard: Care Management and Support

- **Risk Stratification**

  *The practice applies a comprehensive risk- stratification process for the entire patient panel in order to identify and direct resources appropriately.*

- NCQA Guidance
  - The Practice demonstrates it can identify patients who are at high risk, or likely to be at high risk, and prioritizes their care management to prevent poor outcomes.
  - The Practice identifies and directs resources appropriately based on need.

# PCMH Standard: Knowing and Managing Your Patients

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➢ ***Comprehensive Assessments****:*

*The practice captures and analyzes information about the patients and community it serves and uses the information to deliver evidence-based care that supports population needs and provision of culturally and linguistically appropriate services.*

- **Competency A:** Practice routinely collects comprehensive data on patients to understand background and health risks of patients. Practice uses information on the population to implement needed interventions, tools and supports for the practice as a whole and for specific individuals.

# Data Collection Tools: Clinical Registries

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## What is a Registry?

- Defined by the National Institutes of Health as a collection of information about individuals, usually focused around a specific diagnosis or condition
- May collect information about people who have a specific disease or condition, other registries seek participants of varying health status who are willing to participate in research about a particular disease
- Individuals provide information about themselves and their families on a voluntary basis
- Registries can be sponsored by a government agency, nonprofit organization, health care facility, or private company

# Creating and Using Clinical Registries

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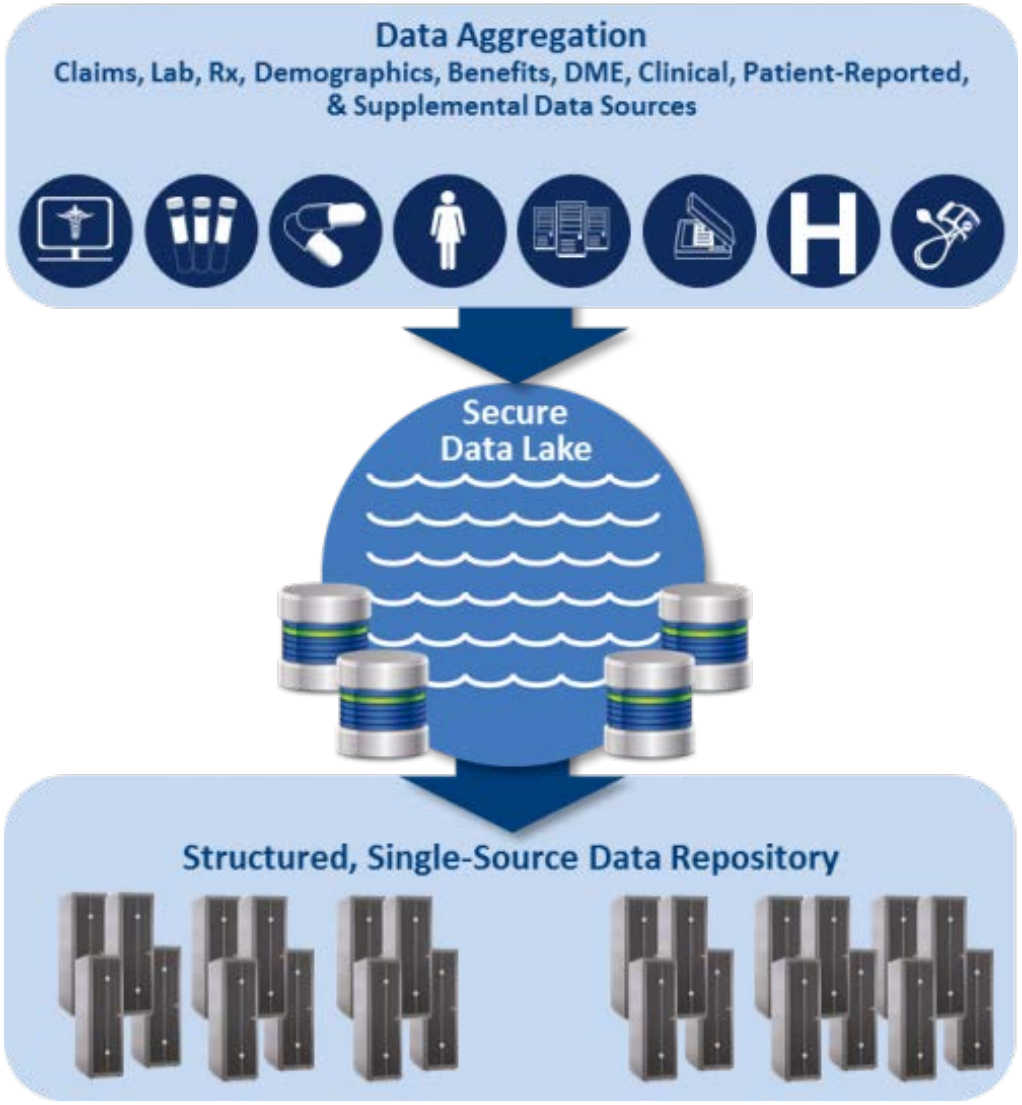
- Individual physician practice or clinic setting
  - Identify and enter all patients with a selected clinical condition/diagnosis into a master list or electronic database for tracking and follow-up. (Ex. Diabetics)
  - Identify and track all patients on selected high risk/high cost medications, such as a blood thinner or treatment for Hepatitis C
- Hospital or health system level
  - Analysis of data in a tumor registry may show a rise in lung cancer among individuals from a particular geographic area
- State and national levels
  - Statewide Vaccination Registries
  - National Breast and Colon Cancer Family Registries

# ACOs, Bundled Payment Initiatives, & Other Risk Arrangements




Source: http://www.inovalon.com/howwehelp/physicians-and-acos

# ACOs, Bundled Payment Initiatives and Other Risk Arrangements

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- Types of Data - Utilization, Cost, Quality and Outcomes, Patient Experience data are all important
  - Track and report data at both patient and provider level by practice site and aggregated for the entity
    - Evaluate actual results to targets and benchmarks
  - Identify root causes of high cost/high utilization patterns and trends
  - Track and monitor unit costs and total costs for all major categories of operating and medical expense
  - Identify & align quality measures with external mandates
    - Track progress with regards to benchmarks
  - Bundled Payments: Identify and aggregate all applicable costs for defined episodes of care
  - Dashboards: Essential management tools
- Data Challenges
  - IT inoperability across multiple participating providers/organizations
  - Inconsistent data elements, data collections methods, data definitions, and performance metrics

# QUESTIONS?

# DATA COLLECTION, TRANSMISSION & VISUALIZATION

# Definition

Definition of a *Definition*

The act of making something **definite**, **distinct**, or **clear**

| | |
|---|---|
| **Definite:** | Will NOT change |
| **Distinct:** | Differentiate from everything else |
| **Clear:** | Understood by all stakeholders |

# Definition

- An interactive exercise

# Which of These Is Beautiful?

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By Pat Loika - Dragon*Con 2013: Parade, CC BY 2.0, https://commons.wikimedia.org/w/index.php?curid=53028982

# Which One Is the Smartest?

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# Which One Is the Most Popular?

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# Which of These Is Most Beautiful?

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A

B

C

D

# “Definition” of a Beautiful House

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A “beautiful” house has following characteristics

- Two floors
- Flat roofs
- Square/cubical shaped columns

# Which of These Is Most Beautiful?

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A

B

C

D

# The “Beautiful” House ?

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# Does This House Have 1 Floor or 2 Floors?

# Does This House Have 1 Floor or 2 Floors?

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- A house which has any portion of **human living area** above the first floor level, it will be considered to have a 2nd floor
  - Open terrace is Not a 2nd floor
  - Roof top swimming pool – Not a 2nd floor
  - Roof top garden- Not a 2nd floor

*Definitions need to be specific and not open to "interpretation"*

# Mount Everest: Tallest Mountain in the World

# Which Mountain Is Taller?

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By Joe Hastings - https://www.flickr.com/photos/joehastings/538538099/in/photolist-PA9BD-6e9mNF-KZFwM-KYKy6-66ZiD7-KYqcG-aQiEoD-4Ns87y-4Nserf-k2SBS-54Dvv6-4NnWf8-PfJe2-9vDwgE-4NsbtY-4PZBGk-4NnXyZ-aSqQdM-aCnihY-4NsaMC-4Nsbeh-4NnXSv-4NsbJ1-4NsaFy-bwhryJ-4NsaUW-b3Sz84-4Ns9oq-4Ns9xu-4NnYTk-b5BAJ6-4NnYu4-4Ns8W1-4Nsbkh-4NnXEM-4Nsb3m-4NsaYo-4Ns8sE-4Ns7j9-4NnZPe-4NsbCo-4NnV7i-bStsfM-Pfc9C-2PzCCz-k1U8Q-6VfVus-298BX-4WLbHu-4WFUZH, CC BY 2.0, https://commons.wikimedia.org/w/index.php?curid=32232903

Source: Next slide

# Which Mountain Is Taller?

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# Which Mountain Is Taller?

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# Issues to Address with Definitions

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## Illusion

- Drug seeking Vs True need

## Implicit bias

- Readmissions from nursing homes
- Utilization of ancillary services

## Human error

# Hypothetical: "Healthcare" President?

- Definition
  - Is alive
  - Age <80
  - Explicitly supports coverage for pre-existing conditions
  - Is Republican
- **Don't over-constrain**

# Healthcare Examples

- #1: “Clean” Claims
- #2: Left without being seen
- #3: Fall risk—record “All” versus “Injury”

# A Good Definition:

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- High sensitivity : Is able to capture all possible “positive” results
- High specificity: Is able to eliminate “false positives”
- High replicability
- Reduces “human” bias/error
- Not over-constrained
- Easy to understand

# A “Better” Definition:

Good Definition

- High sensitivity : Is able to capture all possible “positive” results
- High specificity: Is able to eliminate “false positives”
- High replicability
- Reduces “human” bias/error
- Not over-constrained
- Easy to understand

Plus

Is aligned to

- Strategic objectives
- External mandatory programs
- Problems & solutions

# Data Systems Design: Strategic Approach

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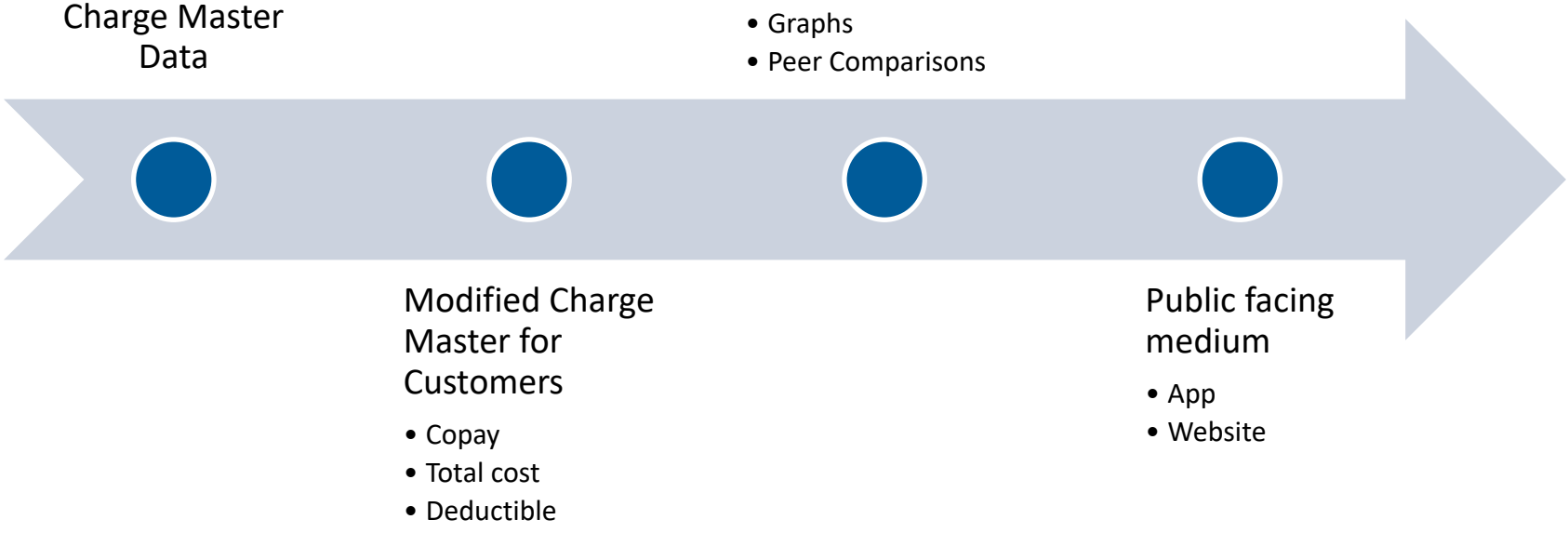
## Strategic Level

- Initiative/Program Level
- Target/Project Level
- Task Level

## Consumerism

- Millennial Patient Participation
- Value based marketing
- Collect & display
  - Pricing Information
  - HCAHPS scores
  - Star Rating

# Data Flow Map



# Data Flow Map - WWWWH

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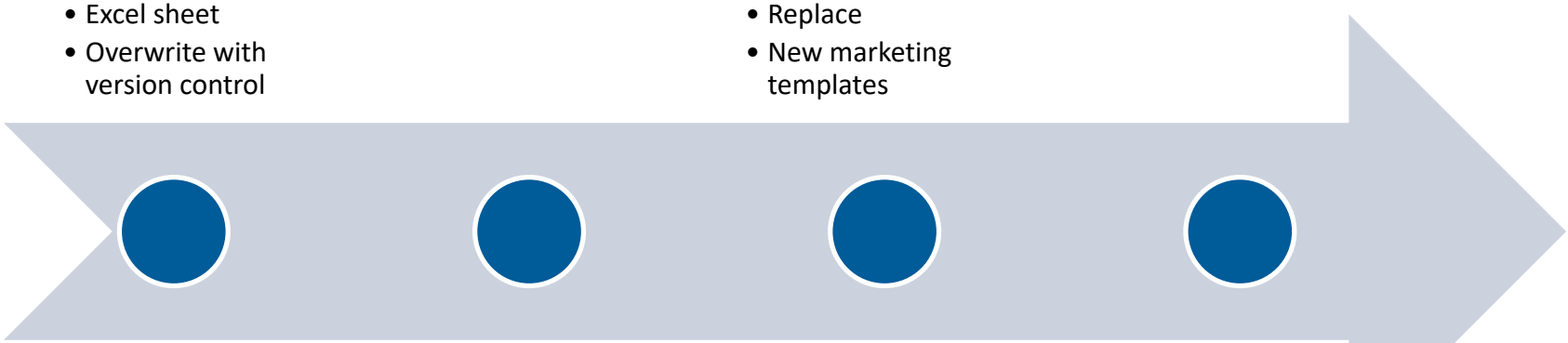

### Charge Master

- Revenue Cycle Manager
- Twice a Year
- Update
- Excel sheet
- Overwrite with version control

### Marketing/Display modification

- Marketing director
- Quarterly
- Replace
- New marketing templates

### Modified Charge Master for Customers

- Pricing analysis
- Twice a year
- Update
- Excel sheet
- Overwrite with version control

### Public facing medium

- IT analyst LII
- Monthly
- Inspect & update
- HTML5

# Designing a Data Strategy

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- People
  - Identify People to be involved
  - beginning of a data governance council
- Data Needs
  - Identify, Inventory and document all data dependent initiatives
  - Identify interdependencies & duplication
  - Sort & prioritize data requirements
- Data tools
  - Identify current & future data tools for data compilation
  - Cost, benefit & synergy
- Data processes & policies
  - How to collect & transmit data within & outside organization
  - How to control flow of data

# Data Systems Design: Task/Project Based Approach

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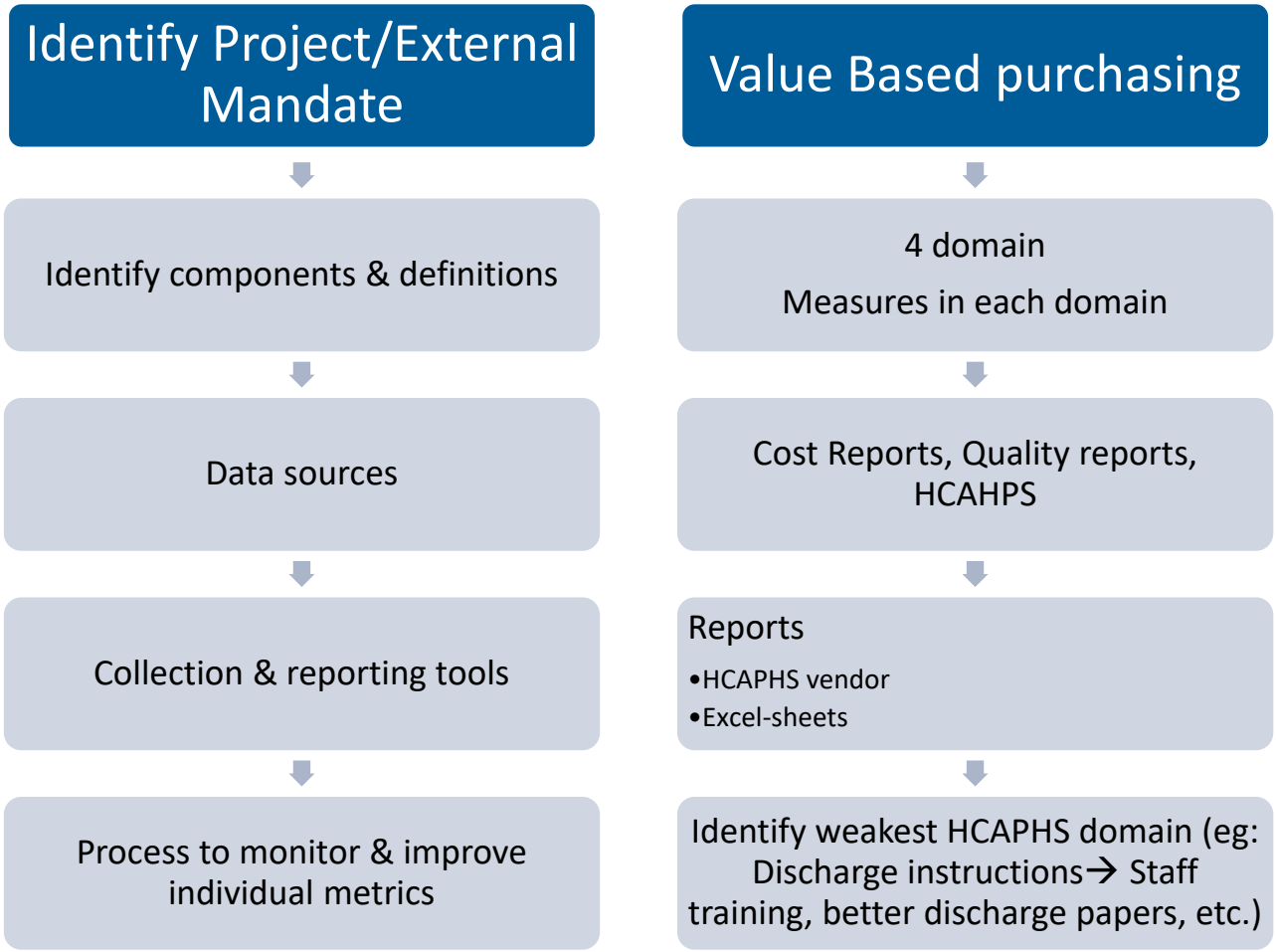

# Data Transmission Errors

- Interactive Exercise

# Data Transmission Errors

| LWBS | Total Patients | LWBS | Divide by 2 | Round up | Multiply | Divide by 100 | Average contribution margin | Lost profit |
|---|---|---|---|---|---|---|---|---|
| 5 | 20 | 25% | 12.50% | 13.00% | 7% | 0.91% | $10,000 | $546,000 |
| | | Front Desk | Supervisor | manager | Inpatient manager | CNO | COO | CFO |

| LWBS | Total Patients | LWBS | Divide by 2 | Round down | Inpatient conversion factor | Lost inpatients | Average contribution margin | Lost profit |
|---|---|---|---|---|---|---|---|---|
| 5 | 20 | 25% | 12.50% | 12.00% | 7% | 0.84% | $10,000 | $504,000 |
| | | Front Desk | Supervisor | manager | Inpatient manager | CNO | COO | CFO |

| LWBS | Total Patients | LWBS | Divide by 2 | Round down nearest decile | Inpatient conversion factor | Lost inpatients | Average contribution margin | Lost profit |
|---|---|---|---|---|---|---|---|---|
| 5 | 20 | 25% | 12.50% | 10.00% | 7% | 0.70% | $10,000 | $420,000 |
| | | Front Desk | Supervisor | manager | Inpatient manager | CNO | COO | CFO |

| LWBS | | | | | Inpatient conversion factor | | Average contribution margin | Lost profit |
|---|---|---|---|---|---|---|---|---|
| 5 | | | | | 7.00% | | $10,000 | $1,050,000 |
| | | | | | Inpatient manager | | COO | CFO |

Longer the chain & more human involvement → More errors

# Data Visualization

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**COST SAVINGS ACTION PLAN**

**REVENUE ENHANCEMENTS: Under consideration**

| | | |
|---|---|---|
| Department 1 | 2/28/16 | $40,000 (Annual additional) |
| Department 2 | 5/2016 | Unknown (Proforma TBD) |

**AR MANAGEMENT ENHANCEMENTS:**

| | | |
|---|---|---|
| Case Mix Index Improvement | 12/15 | $35,000 (in process) |
| Case Mix Index FY2014 | 1.25 | |
| Case Mix Index up to 1.34 for first quarter | | |
| Upfront Collections Process: | 12/16 | $10,000 Monthly (in process) |

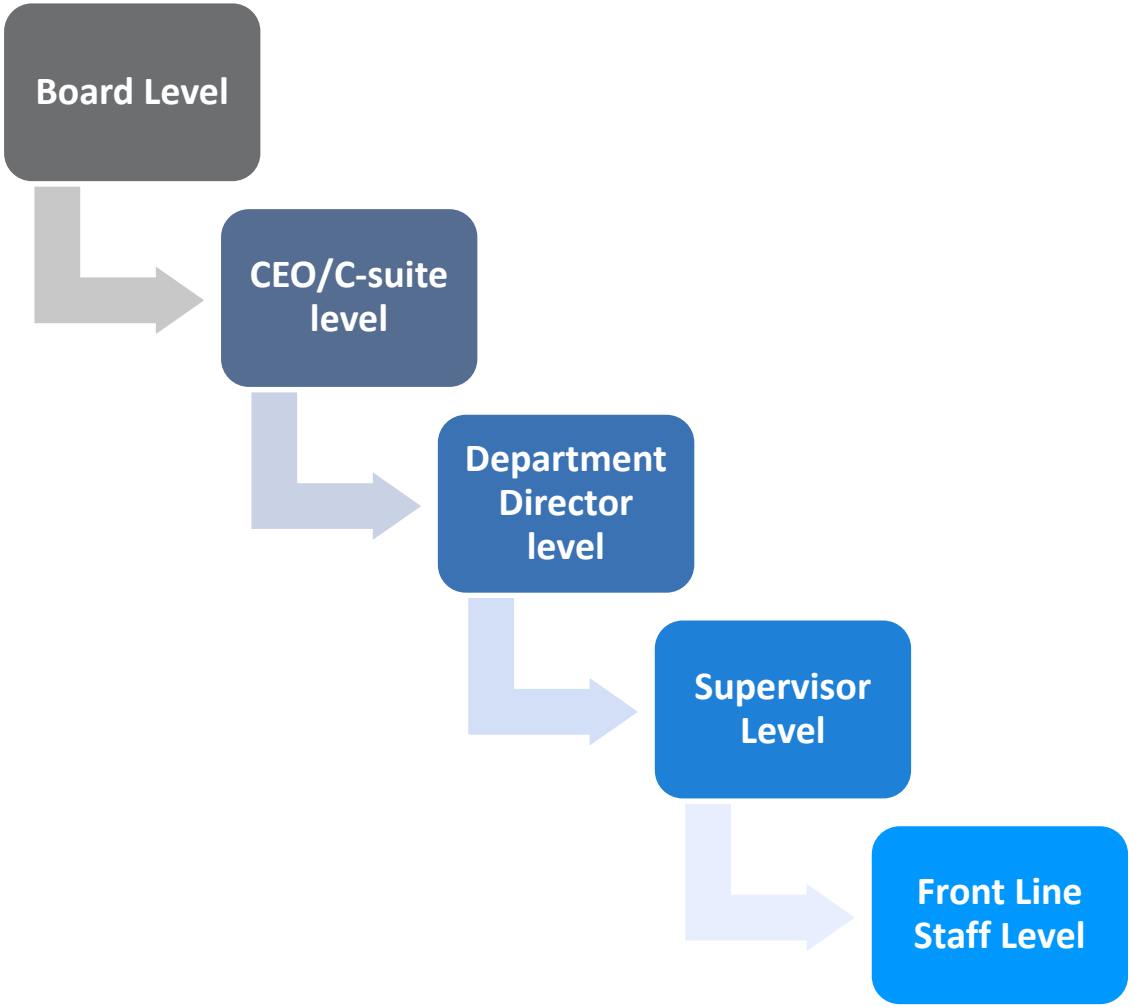
**PERSONNEL RELATED CONSIDERATIONS:**

| | | | |
|---|---|---|---|
| Department 3 | 1.0 FTE | 10/1/2015 | $50,000 |
| Department 4 | 3.4 FTE | 11/15/15 | $190,000 |
| Department 5 | 1.2 FTE | 11/15/15 | $80,000 |
| Department 6 | 1.0 | 12/1/15 | $30,000 |
| Department 7 | 2.9 | 2/1/15 | $130,000 (Not complete) |
| Department 8 | 3.0 | 12/31/14 | $175,000 |
| Department 9s | 1.0 | 10/1/14 | $63,000 |
| Department 10 | | ? | Unknown |
| Department 11 | 1.0 | 5/1/15 | $24,000 |
| Department 12 | 1.0 | 1/1/16 | $22,000 |
| Department 13 | 1.5 | 12/1/15 | $30,000 |
| Department 14 | 1.0 | 2/9/16 | $26,000 |
| Department 15 | 1.0 + PACS | 1/20/15 | $63,000 |
| Department 16 | 1.0 | 12/31/14 | $56,000 |
| Department 17 | 1.6 | 2/1/15 | $36,000 |
| Department 18 | 1.0 | 2/1/16 | $50,000 |
| Department 19 | 1.0 | 10/1/17 | $18,000 |
| Department 20 | 11.0 | 4/11/18 | $600,630 |

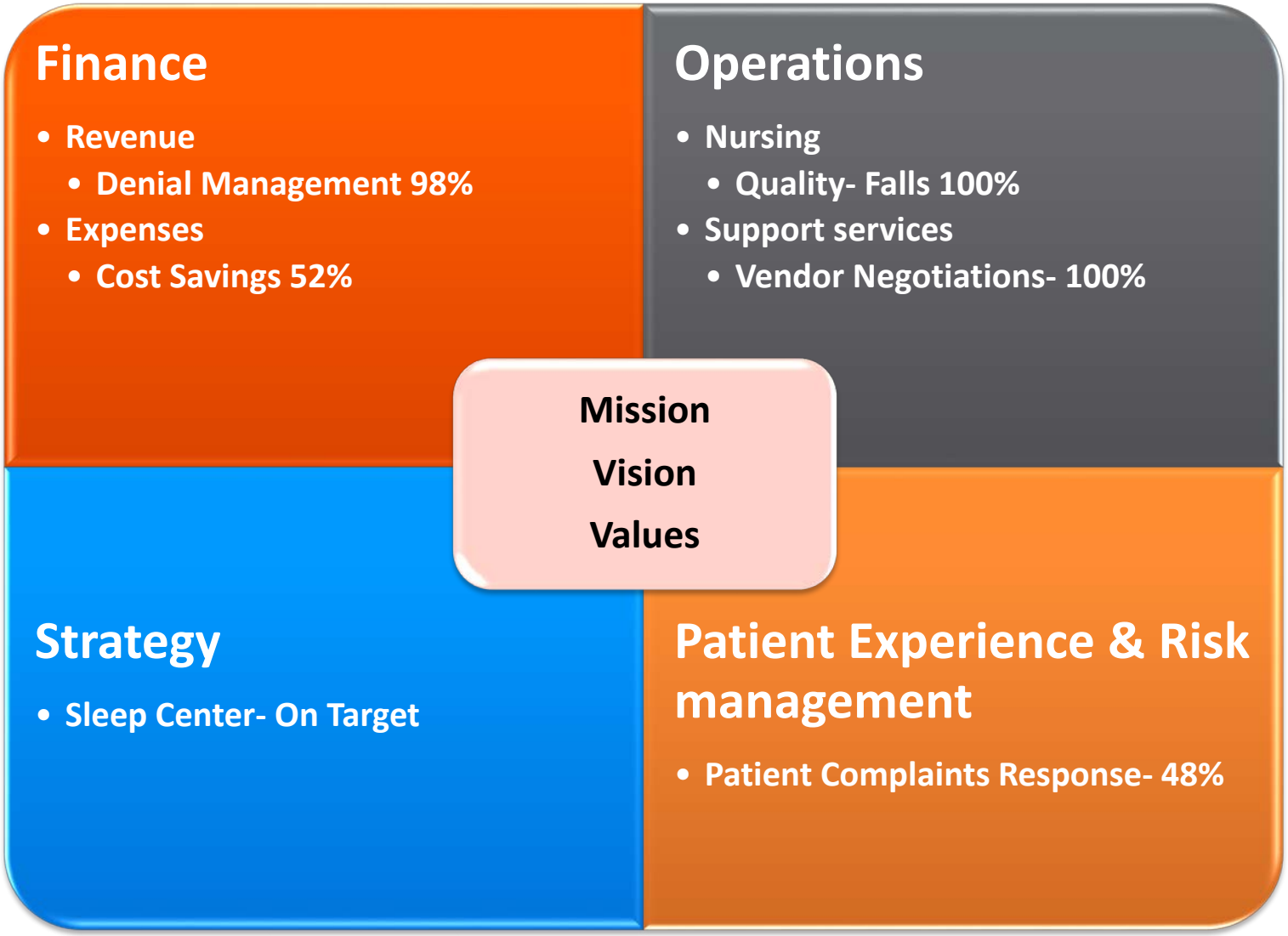
**Vendor renegotiation: Annual Savings Estimated (Completed)**

| | |
|---|---|
| Estimated Annual Savings implemented to date: | $1,872,630 |
| Estimated Annual Savings yet to implement as above: | $ 629,000 |

# Cascade Dashboards for Effective Decisions



# Sample Data Visualization - Board Level



# Sample Data Visualization - C-suite Level

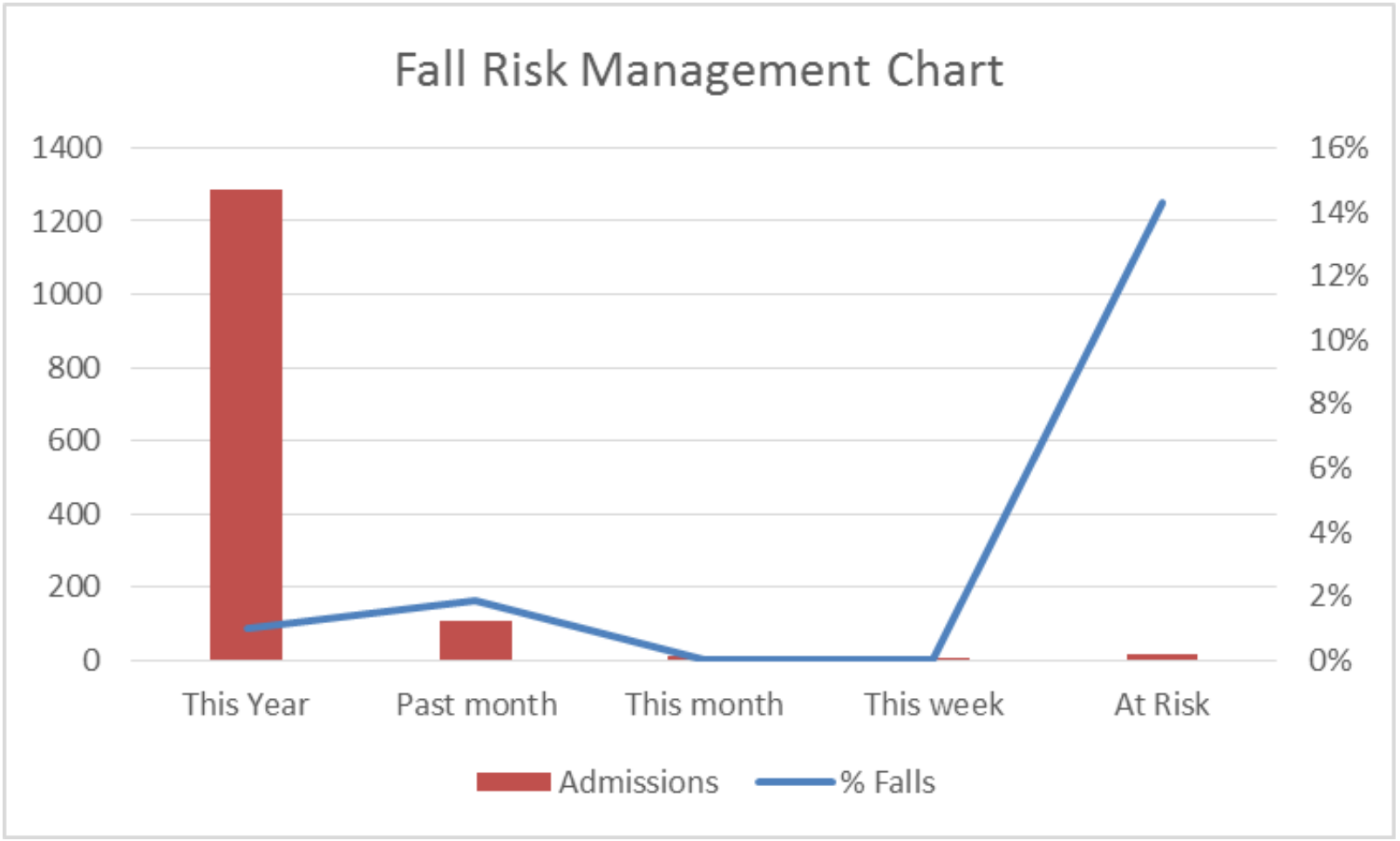
| Area | Name of Initiative | Goal | Expected progress | Current Progress Vs Expected | Current Progress Vs Goal |
|---|---|---|---|---|---|
| **Financial** | | | | | |
| Revenue | Denial Management | 1.5% | 2.50% | 0.05% | -1% |
| Expenses | Cost Savings | $ 1,825,394 | $ 865,213 | 52% | 25% |
| **Operations** | | | | | |
| Nursing | Quality- Falls | 0% | 0.50% | 0.52% | -1% |
| Support services | Vendor negotiations | 34 | 60% | 25% | 85% |
| **Strategy, Marketing & Risk management** | | | | | |
| Strategy Project | Sleep Center | Open August 2017 | Lease Negotiations | Lease ready for signature | 95% |
| Risk Management | **Patient Complaints Response** | <7 days | 10 days | 21 days | **1%** |
| | | | | | |

# Sample Data Visualization - C-suite Level

STROUDWATER

| Name of Initiative | Current Progress Vs Goal | Next Action |
|---|---|---|
| | | |
| Denial Management | -1% | RCM to monitor |
| Cost Savings | 25% | Active COO/CFO engagement |
| | | |
| Quality- Falls | -1% | Nursing Manager to monitor |
| Vendor negotiations | 85% | Continue |
| | | |
| Sleep Center | 95% | Continue |
| **Patient Complaints Response** | **1%** | Active CFO engagement w/ weekly report |
| | | |

# Sample Data Visualization - Nursing Manager



# Sample Data Visualization - Frontline Staff

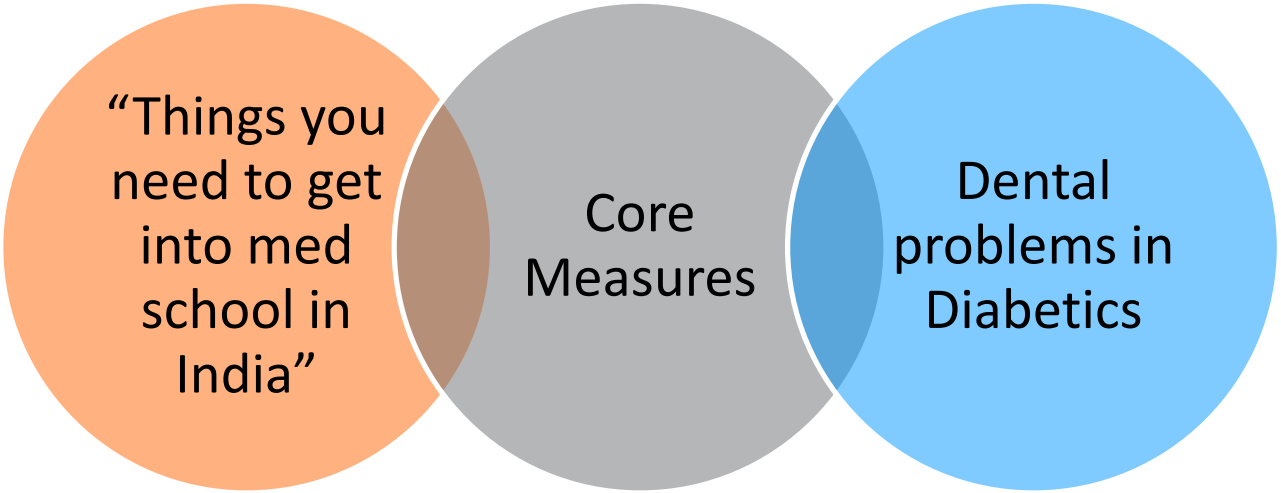
STROUDWATER

| MSP- Today's Patient List 05/15/2016 | | |
|---|---|---|
| **Patient Name** | **Nurse Name** | **Special Condition** |
| Patient Name 1 | Nurse 1 | |
| **Patient Name 2** | **Nurse 1** | **Fall Risk** |
| **Patient Name 3** | **Nurse 1** | **Fall Risk** |
| Patient Name 4 | Nurse 2 | |
| Patient Name 5 | Nurse 2 | |
| Patient Name 6 | Nurse 2 | |
| Patient Name 7 | Nurse 2 | |
| Patient Name 8 | Nurse 2 | |
| Patient Name 9 | Nurse 2 | |
| Patient Name 10 | Nurse 3 | |
| Patient Name 11 | Nurse 3 | |
| Patient Name 12 | Nurse 3 | |
| Patient Name 13 | Nurse 3 | |
| Patient Name 14 | Nurse 3 | |
| Waiting for patient | Nurse 3 | |

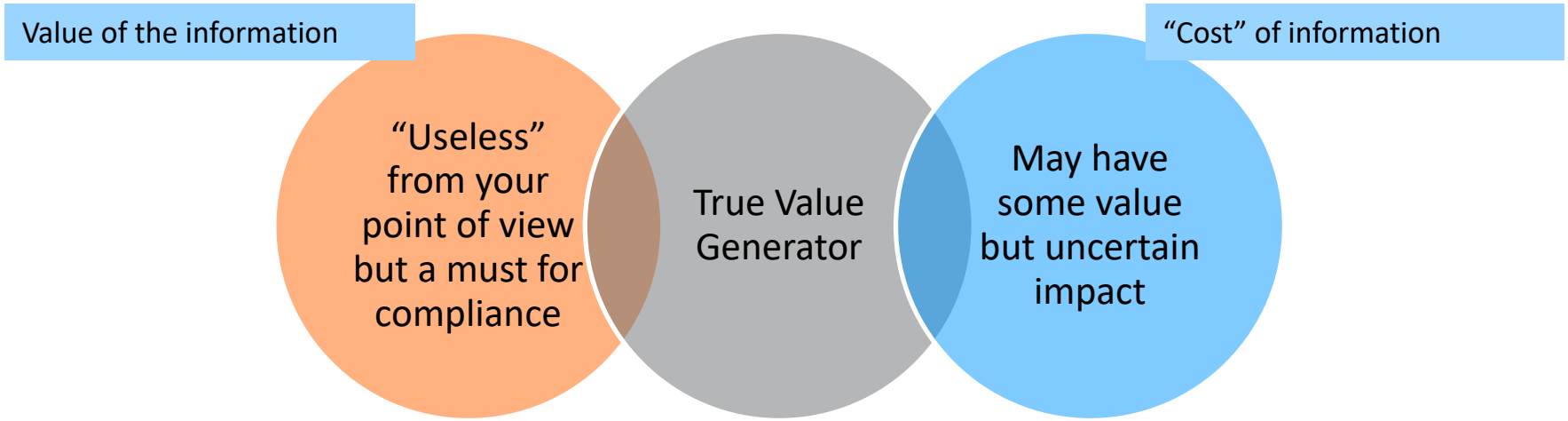
# QUESTIONS?

# DATA GOVERNANCE, EFFICIENCY & TRANSPARENCY

# Value of Information



# Value of Information




- Reference point of view
- Mission, vision & values
- Timing, utility & execution

# Data “Warehousing” & “Sharing”

- Different objectives: Operations vs. Quality vs. Finance
  - Non-healthcare
  - Healthcare
- Cost of collection
- Accuracy of data & data analysis
- Utility & response time

# Data Security

$100- $50,000 per violation, up to $1.5 million/year

Disclosure of a Single Patient's PHI Leads to Hefty $2.4 Million Settlement

**7 celebrity data breaches: When employees snoop on high-profile patients**

*Written by Akanksha Jayanthi (Twitter | Google+)* | December 11, 2015 | Print | Email

FEB 16, 2012 @ 11:02 AM 3,180,226

How Target Figured Out A Teen Girl Was Pregnant Before Her Father Did

**Kashmir Hill**, FORBES STAFF

*Welcome to The Not-So Private Parts where technology & privacy collide* FULL BIO

- HIPAA
- "Break the glass"
- **Stewards of Private Data**

Big Data

Source:
https://www.ama-assn.org/practice-management/hipaa-violations-enforcement
http://www.lexology.com/library/detail.aspx?g=9dce2ab2-f9bc-46f2-8cf9-562c39646599
http://www.beckershospitalreview.com/healthcare-information-technology/7-celebrity-data-breaches-when-employees-snoop-on-high-profile-patients.html
https://www.forbes.com/sites/kashmirhill/2012/02/16/how-target-figured-out-a-teen-girl-was-pregnant-before-her-father-did/#6833221a6668

# Data Governance

- The AHIMA Information Governance Principles for Healthcare (IGPHC)™ provide the foundation of data and information governance through eight key principles:
  - **Accountability:** Designation or identification of a senior member of leadership responsible for the development and oversight of the IG program
  - **Transparency:** Documentation of processes and activities related to IG are visible and readily available for review by stakeholders
  - **Integrity:** Systems evidence trustworthiness in the authentication, timeliness, accuracy, and completion of information
  - **Protection:** Program protects private and confidential information from loss, breach, and corruption
  - **Compliance:** Program ensures compliance with local, state, and federal regulations, accrediting agencies' standards and healthcare organizations' policies and procedures and ethical practices
  - **Availability:** Structure and accessibility of data allows for timely and efficient retrieval by authorized personnel
  - **Retention:** Lifespan of information is defined and regulated by a schedule in compliance with legal requirements and ethical considerations
  - **Disposition:** Process ensures the legal and ethical disposition of information including, but not limited to, record destruction and transfer

**Source: http://library.ahima.org/PB/DataQualityModel#.WUA98mjys2w**

# QUESTIONS?