

# Hackensack University Medical Center

*Healthcare team committed to quality*



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# A Healthcare Team Committed to Quality

- 781 bed teaching hospital
  - Largest provider of inpatient and outpatient service in NJ and largest employer in Bergen County
    - 10 miles outside of NY city and multiple large academic medical centers
  - Magnet Nursing Designation since 1995
    - 8% percent turnover rate, no agency or travelers since 1989
  - 90% Board Certified Medical Staff
  - Governors Award for Performance Excellence
  - RWJ/IHI Pursuing Perfection Grantee
  - Recipient of 8 “Gold Seal of Approval” from JCAHO for disease specific certified programs
  - Top performer in CMS Demonstration project
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# HQI (Yearly Comparison) P4P

Project	Year 1 4Q03-3Q04	Reliability	Year 2* (4Q04-3Q05)	Reliability
AMI	96.53%	10 <sup>-2</sup>	98.25%	10 <sup>-2</sup>
HF	94.22%	10 <sup>-1</sup>	95.57%	10 <sup>-2</sup>
PN	89.88%	10 <sup>-1</sup>	93.87%	10 <sup>-1</sup>
Hip and Knee	93.85%	10 <sup>-1</sup>	98.09%	10 <sup>-2</sup>
CABG	97.45%	10 <sup>-2</sup>	99.13%	10 <sup>-2</sup>

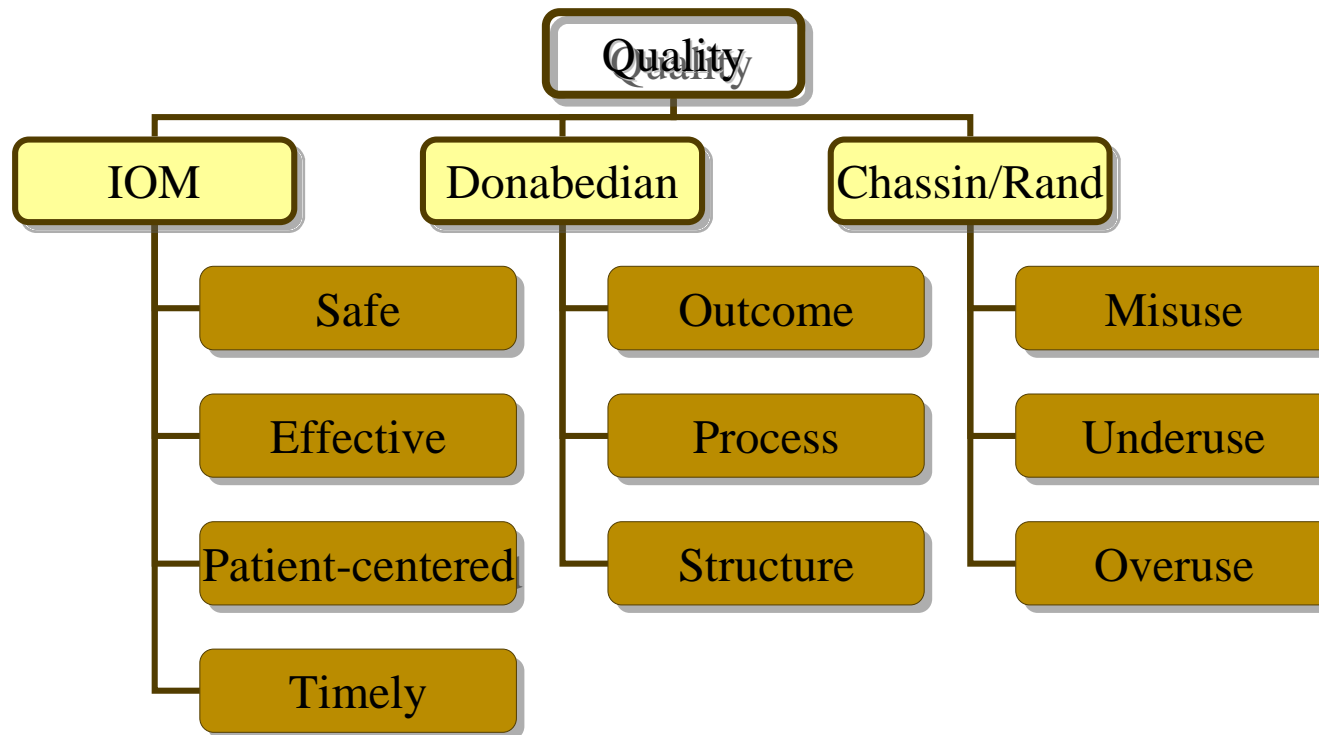
■ Top Ranking Decile

■ Second Decile Ranking

\*Preliminary results

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# Quality Paradigms



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# Approach to Improvement

- Use of small multidisciplinary expert teams
  - Adopted a Rapid cycle (P-D-S-A) model
  - Developed Unit based multidisciplinary rounds for enhanced communication and treatment planning
  - Evolve MDR teams to unit based improvement teams
  - Developed unit based score cards for line of site alignment
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# Formula for Success

- Empower well constructed expert teams
  - MDR rounds to facilitate the spread of defect free care
  - Provide central support (PI Dept) to create data that fosters analysis & action
    - Variance reports, control charts, segmentation of processes and populations, real-time information exchange
  - Using Improvement tools; FMEA, Process Flows, Rapid Cycle Tests of Change
  - Keep expectations and current status visible
  - Learning from Failures and recognizing successes
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# Simple Rules for the 21st Century Health Care System

## Current Approach

- Care is based primarily on visits.
- Professional autonomy drives variability
- Professionals' control care.
- **Information is a record.**
- Decision-making is based on training and experience.
- Do no harm is an individual responsibility.
- Secrecy is necessary.
- The system reacts to needs.
- Cost reduction is sought.
- Preference is given to professional roles over the system.

## New Rule

- **Care is based on continuous healing relationships**
- **Care is customized according to patient needs and values**
- **The patient is the source of control.**
- **Knowledge is shared and information flows freely**
- **Decision-making is evidence-based.**
- **Safety is a system property.**
- **Transparency is necessary.**
- **Needs are anticipated.**
- **Waste is continuously decreased.**
- **Cooperation among clinicians is a priority.**

# Patient Centered Approach

AIM	IOM DIMENSION	PROMISE TO PATIENT
Early Identification	Patient Centered	100% of all patients presenting with dyspnea and/or associated signs of heart failure will be tested with point of service B-type natriuretic peptide assay (BNP).
Stratification (process)	Effectiveness	All potential heart failure patients will be evaluated with admission criteria for exacerbation of heart failure. In addition to dyspnea, abdominal bloating and peripheral edema) patient should have one of more of the following:
Intervention	Timeliness	Availability of pertinent patient information at the time of daily multidisciplinary rounds.
Intervention	Effectiveness	Criteria for aggressive diuretic Rx (ADR) in decompensated heart failure.
Intervention	Effectiveness, Safety	All patients who meet euvolemic criteria will be prescribed beta blocker therapy as appropriate at discharge.
Intervention	Effectiveness, Safety	Appropriate use and nonuse of ACEI/ARB.
Access to Care	Patient Centered	Education will be performed to empower all patients in self care to include supportive literature.
Access to Care	Safety	All patients will receive coordinated care across the continuum
Access to Care	Patient Centered	All patients discharged from HUMC will have access to appropriate follow up care, information, and service.



# IOM Dimensions

AIM	IOM DIMENSION	PROMISE TO PATIENT	RESULTS
Early Identification And stratification	Patient Centered Effectiveness	100 % of all patients presenting to the ETD with dyspnea and/or associated signs of heart failure will have BNP assay	96-100% of all patients seen in ETD with dyspnea or related diagnoses receive BNP testing.
		BNP Assay results will be available within one hour	Turnaround times of less than one hour are consistently between 95-98%
Intervention	Timeliness Effectiveness Patient-centered Safety	Availability of pertinent patient information at the time of daily multidisciplinary rounds (I&O associated dosage of diuretics, vital signs, Laboratory results Documentation of EF%, BNP )	Information for daily MDR available 95% of the time (exceptions caused by late lab draws, patient preferences)
		Achievement of euvolemia by day 3 of hospitalization in 80% of patients defined as: no radiological evidence of fluid overload, or no rales, minimal or no peripheral edema and/or ascites, absence of significant dyspnea, paroxysmal nocturnal dyspnea, or orthopnea, , patient at baseline weight if available	Achievement of euvolemia in ~ 76% of patients
		All patients with EF< 40% will receive ACEI/ARB unless contraindicated	100% compliance
		All patients with a diagnosis of HF will receive education regarding: signs and symptoms of HF, daily weight monitoring, medications,, diet, activity level, smoking cessation (when appropriate, what do to if symptoms worsen, F/U appointment	All patients receive Heart failure packet and Prichard and Hull's " A Stronger Pump" and verbal instruction from care team. Compliance is 95-100%
Access to care	Safety Equity Patient-centered	All patients D/C from HUMC will have availability of multiple avenues of access for general questions of care	HF internet site developed, HF program nurse via phone Primary physician office, HF homecare team , HF telephone follow-up program
		All patients will receive coordinated care across the continuum	

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# Goals of MDR

1. Understand Plan of Care – Education
  - Evidence Based
  - Effectiveness\*
2. Facilitate Plan of Care
  - Timely and Efficient\*
3. Maximize Pt. Safety\*
4. Maximize Public Reporting/documentation
5. Facilitate appropriate DC Planning
6. Appropriate involvement in process of Utilization Review
7. Focus on Patient Centeredness\*

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\* IOM Dimensions

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# MDR Evaluation Results

## **Best Performer (Lowest Variance)**

- **High Evaluative Score**
  - Effective leadership and collaboration
  - Staff level empowerment and satisfaction
- **High volume of project specific case type**
- **Homogeneous patient population**
- **100% CQI education and APN mentoring**

## **Average Performers (Mean Variance)**

- **Mean Evaluative Score**
  - Membership and role definition
  - Robust process and good knowledge base
- **Moderate volume of project specific case type**
- **Homogeneous patient population**

## **Poor Performer (Highest Variance)**

- **Low Evaluative Score**
    - Team collaboration less mature
    - Educational initiatives not fully developed
      - Staff level empowerment
      - Mentorship by APN
      - Knowledge deficit
  - **Low volume of project specific case type**
  - **Heterogeneous patient population**
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# The Elephant in the Room

Physician  
Documentation  
is written in  
**CLINICAL** terms

Breakdown  
between  
the two  
Separate  
Languages

Documentation for  
coding, profiling &  
compliance requires  
specificity in  
**DIAGNOSIS** terms.

*Alignment of documentation and coding  
creates a bridge between the gap.*

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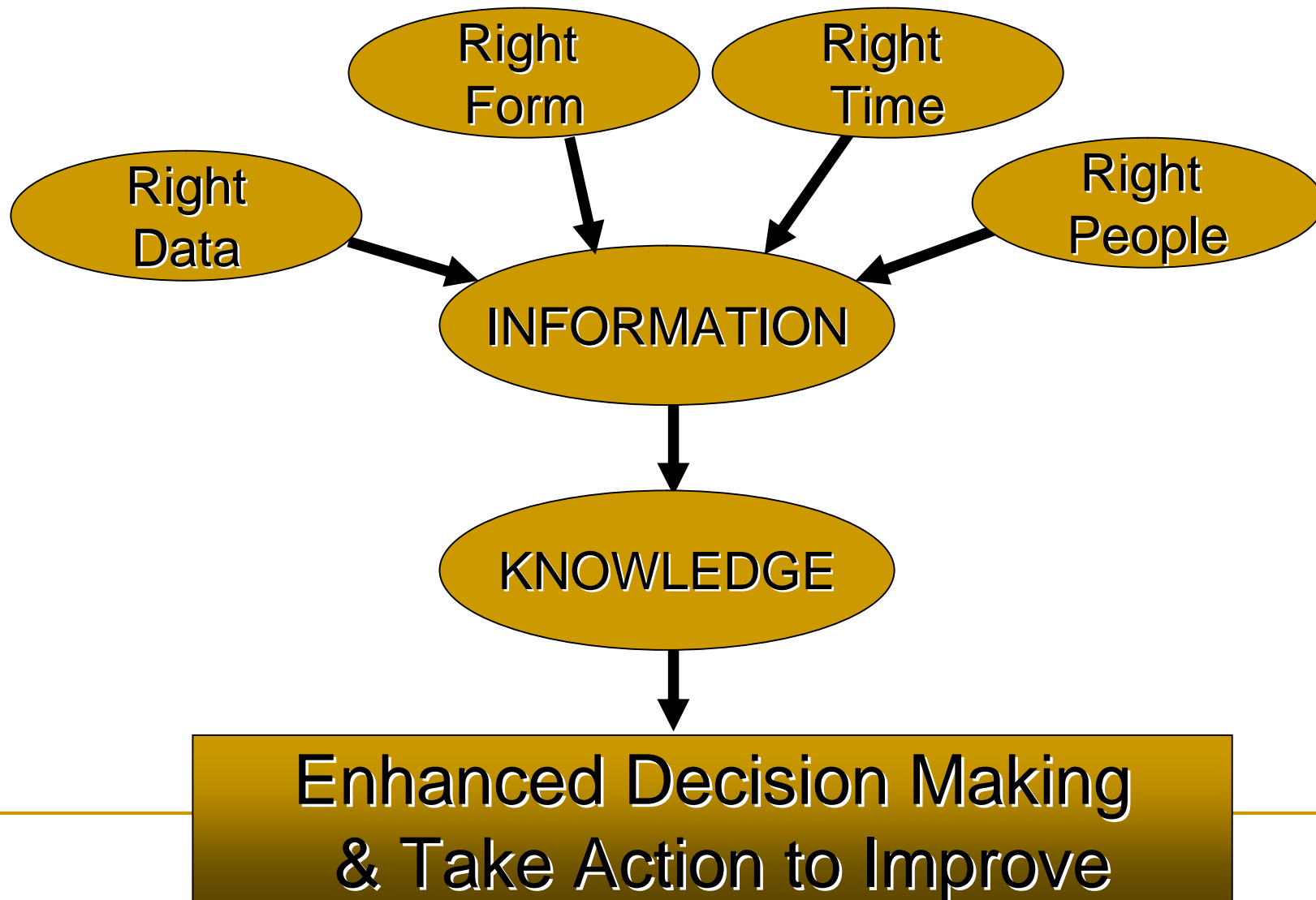
# Approaches

- Accurate Capture and Exchange of information at all portals
  - Adopt an internal monitoring and evaluation model to allow for concurrent knowledge transfer
  - Continue to use multiple views of external data to understand the “public/regulatory” view of HUMC
  - Alignment of Clinical Documentation and Coding as a Performance Improvement Priority for the Organization
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# Data Distinctions

<b>Data Collection</b>	Retrospective	Prospective	Prospective
<b>Data Analysis</b>	Retrospective	Retrospective	Prospective
<b>Examples</b>	JCAHO Core Measures	Trauma Registry	<b>Public Reported data</b>
<b>Cost</b>	\$	\$\$	\$\$\$
<b>Accuracy/ Reliability</b>	+	++	+++
<b>Impact</b>	<i>Post hoc</i> analysis	Monitoring & Evaluation	Rapid Cycle Improvement

# Data Flow Process



# Horizontal Integration

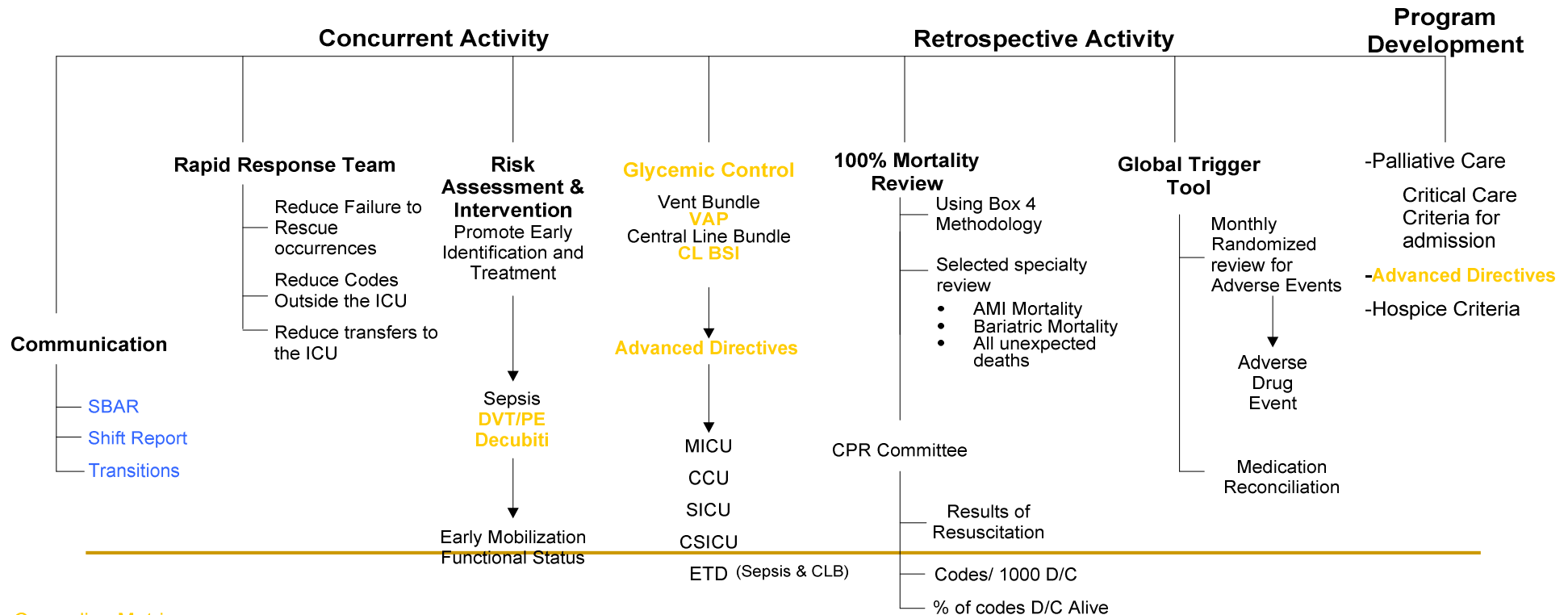
## Strategy for Reducing Mortality

**HSMR**

Actual mortality Outcome

- Decrease actual rate by 25%

### Build Reliable Processes of Care





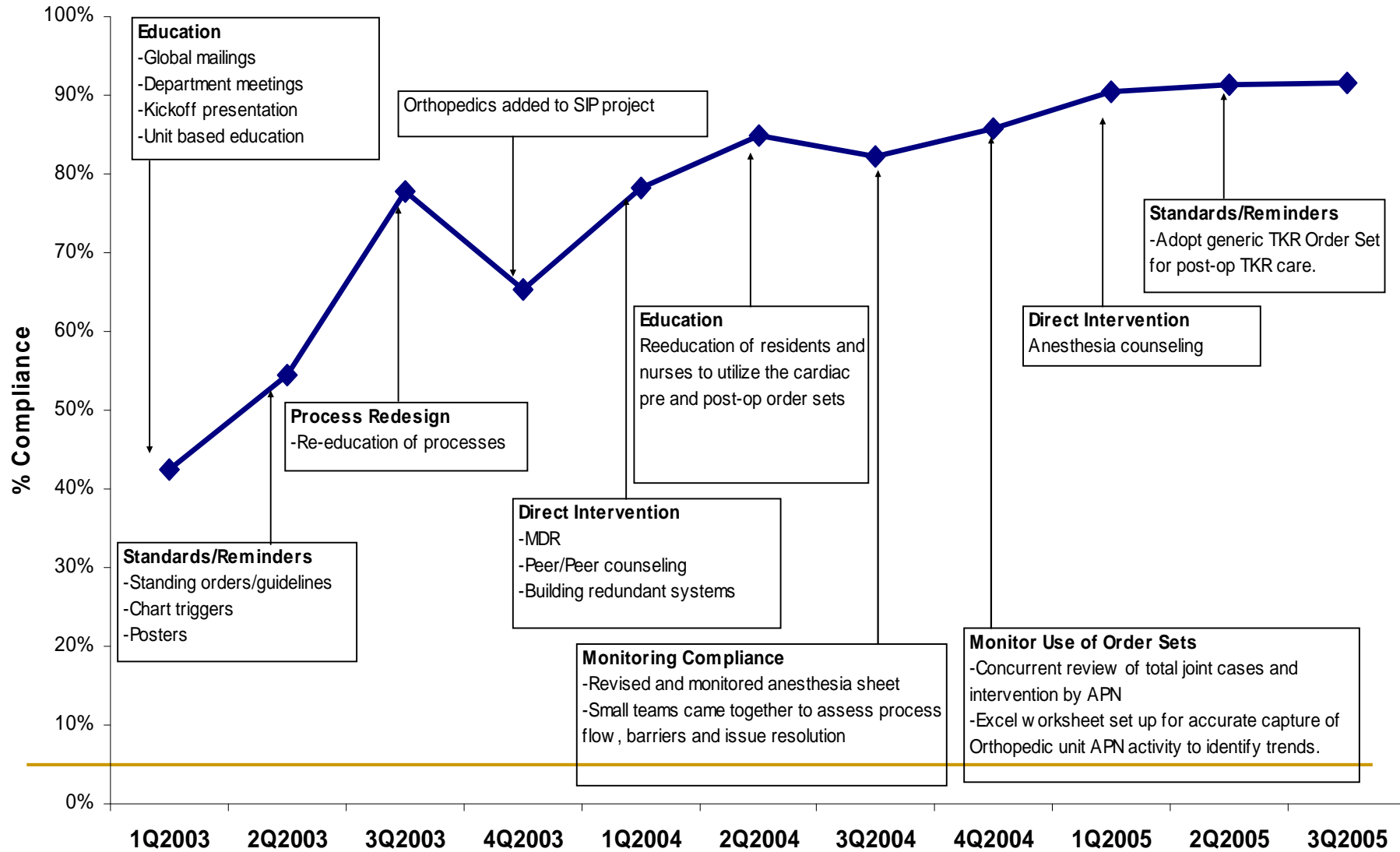
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# Furnish Tools to Support Measurement and Analysis

- Use of statistical tools to foster analysis
    - Control charts to determine if processes are in control or highly variable
    - Run charts to identify emerging trends
    - Annotated charts to determine cause and effect of interventions
    - Pareto diagrams for analysis of frequent causes
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## SIP Regulatory Indicators

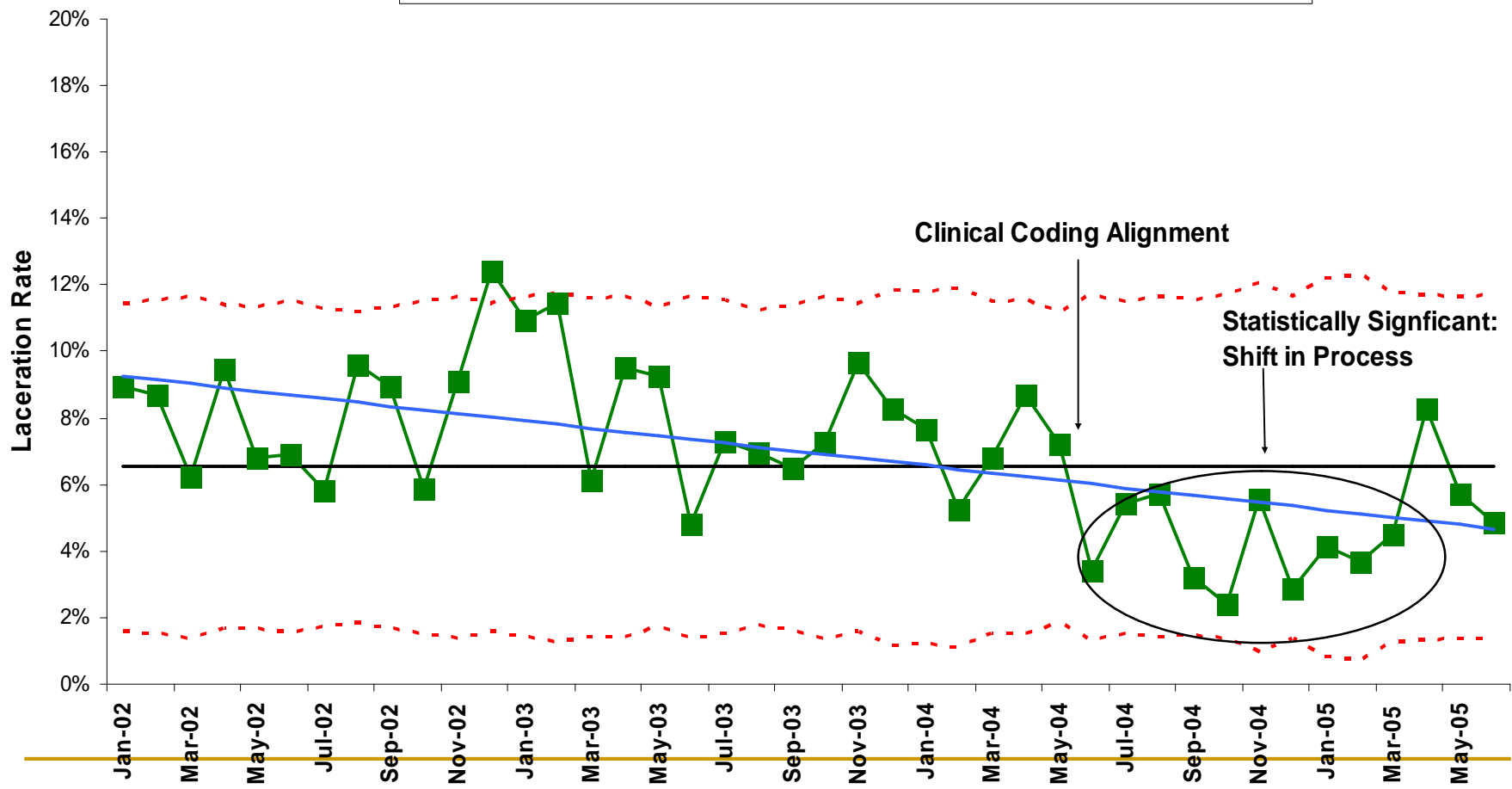
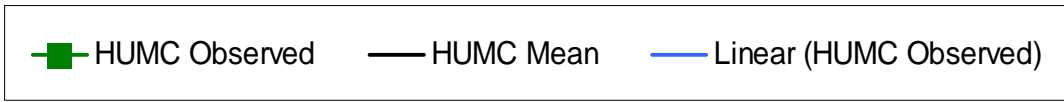
### All-or-Nothing Score with Rapid Cycle Notations



# Department of Ob/Gyn

## Patients with Third or Fourth Degree Lacerations

Datasource: Premier Informatics



# Simplify and Share

Initiative	Database	Vendor	Date Initiated	# of Indicators by Project	Population	Comparator	Type of Ranking
<b>HQA (NVHRI)</b>	QNET	Premier	1Q2004 (Expanded January 06)	AMI- 8 indicators HF- 4 indicators PN- 7 indicators SIP- 3 indicators	100% All Payor	National	Decile and Median
<b>RHQDAPU (Market Basket)</b>	QNET	Premier	1Q2004 (Expanded January 06)	AMI- 8 indicators CHF- 4 indicators CAP- 7 indicators SIP - 2 indicators	100% All Payor	National	
<b>NJ DHSS</b>	Premier	Premier	1Q2003	AMI- 11 indicators HF- 4 indicators PN- 10 indicators SIP-3 indicators(1Q06)	100% All Payor	State	Quartile
<b>JCAHO Core Measures</b>	Premier	Premier	3Q2002 (CAP/CHF) 1Q2003 (AMI)	AMI- 9 indicators HF- 4 indicators PN- 9 indicators	100% All Payor	State and National	Decile and Median
<b>HQSS (PRO) 8th SOW</b>	QNET	Premier	July 06 Discharges	SCIP - 14 Indicators	Selected Major Surgeries	State	To be determined
<b>HQI Demonstration Year 2</b>	QNET	Premier	4Q2003	AMI- 9 indicators CHF- 4 indicators CAP- 7 indicators CABG- 6 indicators HipKnee- 5 indicators	100% All Payor  100% Medicare	National (292 Hospitals)	Decile

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# Expanding P4P

- Build Capacity for Reliable data capture and exchange
    - Avoids unnecessary rework at the delivery
  - Develop performance thresholds,
    - avoid rankings
    - unintended consequences
  - Deliberate focus on important measures
    - Identify key processes, avoid duplication
    - key case types (high risk, high cost)
    - Minimize additional abstraction requirements
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# Tip of the Iceberg

