Reducing Readmissions: Potential Measurements

Avoid Readmissions Through Collaboration

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BayCare Health System

Morton Plant Mease Hospitals
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Overview

- Why Focus on Readmissions?
- FHA Readmission Collaborative
- Readmission Metrics
- BayCare Health System: Identifying Opportunities & Implementing Improvements

Why Focus on Readmissions?

- **Quality improvement opportunity**
  - **Provide care at the right place and the right time**
  - **Nationally, 25% of Heart Failure patients, 20% of Heart Attack patients, and 18% of Pneumonia patients are readmitted within 30 days of discharge**

Why Focus on Readmissions? (cont.)

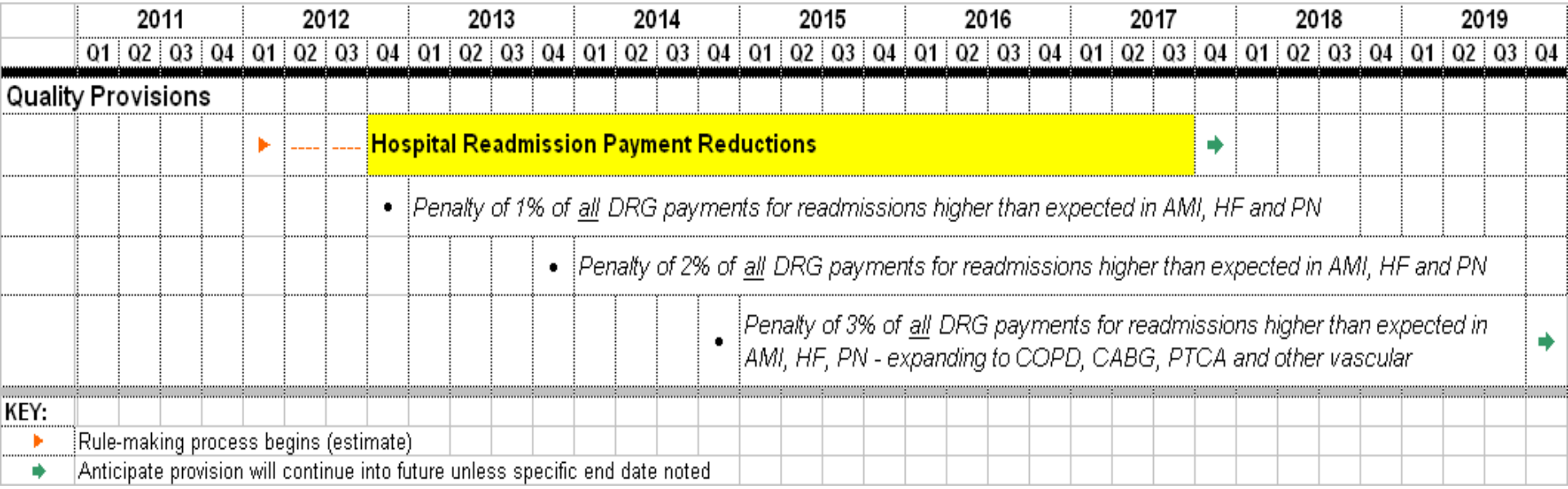
- **Publicly reported readmission rates**
  - **Centers for Medicare and Medicaid Services (CMS)**
    - Readmission rates for three conditions: Acute Myocardial Infarction (AMI), Heart Failure (HF) or Pneumonia (PN)
  - **Florida's Agency for Health Care Administration (AHCA)**
    - Readmission rates for > 70 conditions and procedures

Why Focus on Readmissions? (cont.)

- **Health care reform and value based purchasing**
  - **Legislation, rules and regulations discuss bundled payments (acute and subacute care)**
  - **Specific focus on reducing payments for readmissions**
  - **Commercial payers already declining payment for readmissions**

Health Care Reform and Readmissions

- **FY 2013 (Oct ’12) – CMS will reduce payments for readmissions higher than expected**
- **Penalty is 1% of all DRG payments, not just the clinical areas measured, increasing to 3% in FY 2015**
- **Anticipated to save Medicare $7.1B over 10 years**



FHA Readmission Collaborative

- **Support AHCA's public reporting of PPR rates and improve quality of care by reducing readmissions**
  - **Develop recommendations for public reporting, including use of 3M Potentially Preventable Readmission (PPR) methodology to identify clinically related events**
  - **Identify key opportunities for improvement**
  - **Identify best practices for reducing readmissions**
  - **Forum for knowledge sharing**

Readmission Metrics: Florida PPR and CMS

	Florida HealthFinder	HospitalCompare
Types of readmissions	3M Potentially Preventable Readmissions (PPR)	Risk Standardized Readmission Rate (RSSR)
Days	15 days	30 days
Reasons	Related to the same or related to original admission	Readmission for any reason
Payer/patient	All payer categories (Ages 18+)	FFS Medicare, Age 65 and older who have a complete claims history for 12 months
Time period	12 months	3 years
Adjustments	3M APR DRG and Severity of Illness Subclass	Hierarchical Regression Model
Can hospitals reproduce?	Yes	No
Terms used	Lower/higher/As Expected	Better than, no different, worse
Benchmark	Florida statewide readmission rate	Florida vs. US National Rate
Minimum number of cases	30	25
Conditions/Procedures	70 conditions and procedures	Heart attack, heart failure, pneumonia

FHA Readmission Collaborative – Measures and Goals

Five Focus Areas – Using 3M PPR:

	Mar'08	Mar '09	TARGET
Heart Failure	13.3%	12.6%	**<8%**
Heart Attack	12.8%	10.5%	**<6.5%**
Pneumonia	7.5%	6.8%	**<4%**
Bypass Surgery	12.6%	12.6%	**<8%**
Hip Replacement	5.7%	5.6%	**<2.5%**

Goal is to achieve the target readmission rates by December 31, 2010

3M PPR Methodology: General Guidelines

	Readmission	
Initial Discharge	**Medical**	**Surgical**
Medical	**PPR except if clearly unrelated acute events**	**Not PPR unless initial medical diagnosis clearly should have resulted in surgery**
Surgical	**PPR except conditions clearly unrelated**	**PPR if related to complications of prior surgery**

3M PPR: Initial Discharge Exclusions

If any of the following conditions apply to the initial discharge, a subsequent readmission is excluded from consideration as a PPR

- **Died**
- **Major or metastatic malignancies**
- **Neonates**
- **Multiple trauma, burns**
- **Left against medical advice**
- **Transferred to another acute care hospital**
- **Obstetrical**
- **Other exclusions:**
  - Specific eye procedures and infections
  - Cystic fibrosis-pulmonary diagnosis

3M PPR: Example of Relationships

Case 1: PPR

Initial discharge: Asthma

Readmission 8 days post discharge: Asthma

Case 2: PPR

Initial discharge: Acute MI

Readmission 6 days post discharge: Diabetes Mellitus

Case 3: Not a PPR

Initial discharge: Pneumonia

Readmission 4 days post discharge: Fractured femur & skull from MVA

Case 4: Not a PPR

Initial discharge: CHF

Readmission 6 days post discharge: Appendectomy

Case 5: PPR

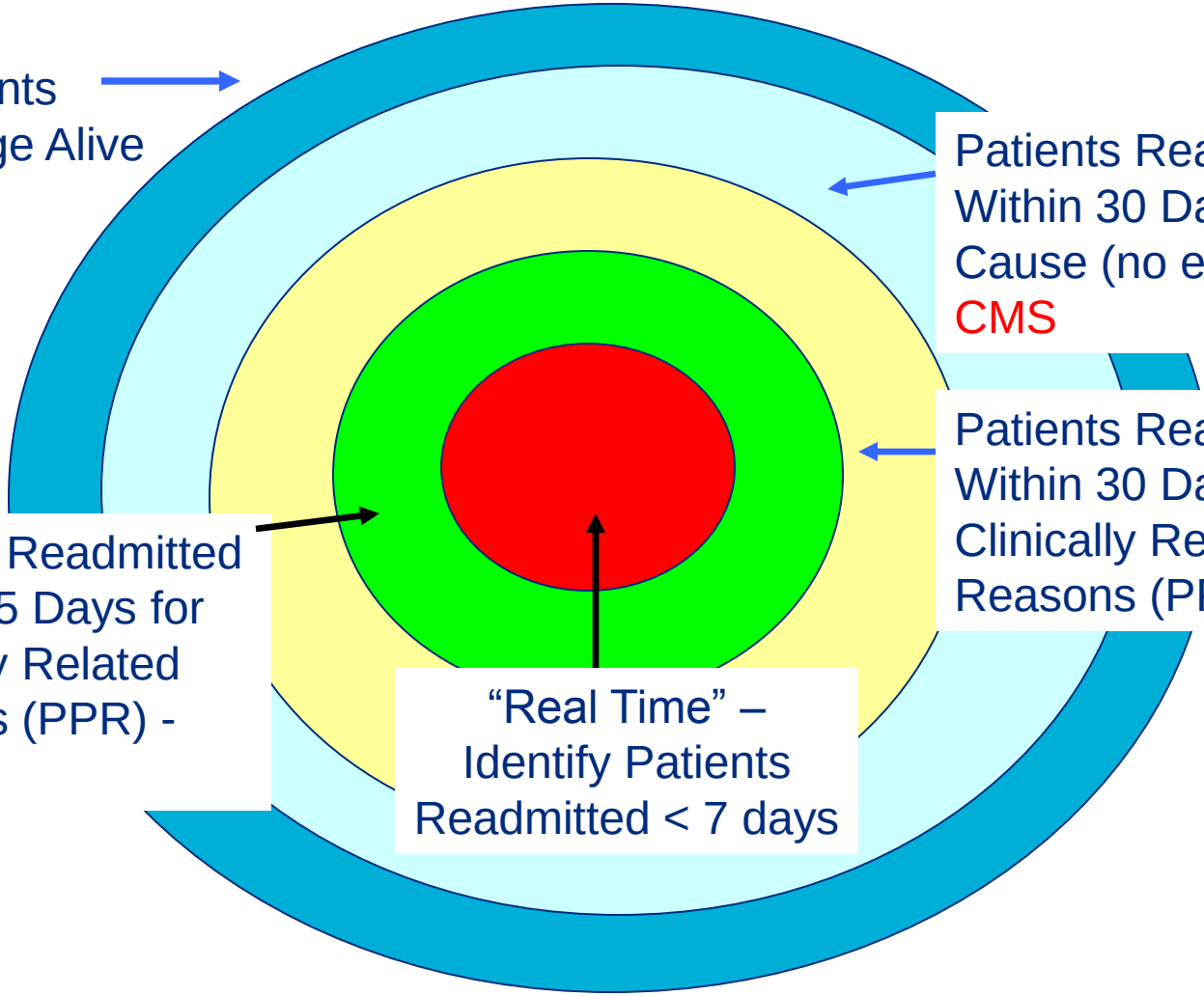
Initial discharge: Abdominal Pain

Readmission 2 days post discharge: Appendectomy

Monitoring Readmissions

- **Identify timeframe of interest**
  - **7 days, 15 days, 30 days**
- **Select patient identifier - examples**
  - **Medical Record Number – unique to person and hospital**
  - **Unique patient identifier – unique to person regardless of location (e.g., SSN, Medicare Beneficiary Number)**
- **Linkage - all-cause vs. potentially preventable and clinically related**
  - **Evaluate inclusion and exclusion criteria – age, conditions**

Monitoring Readmissions (cont.)



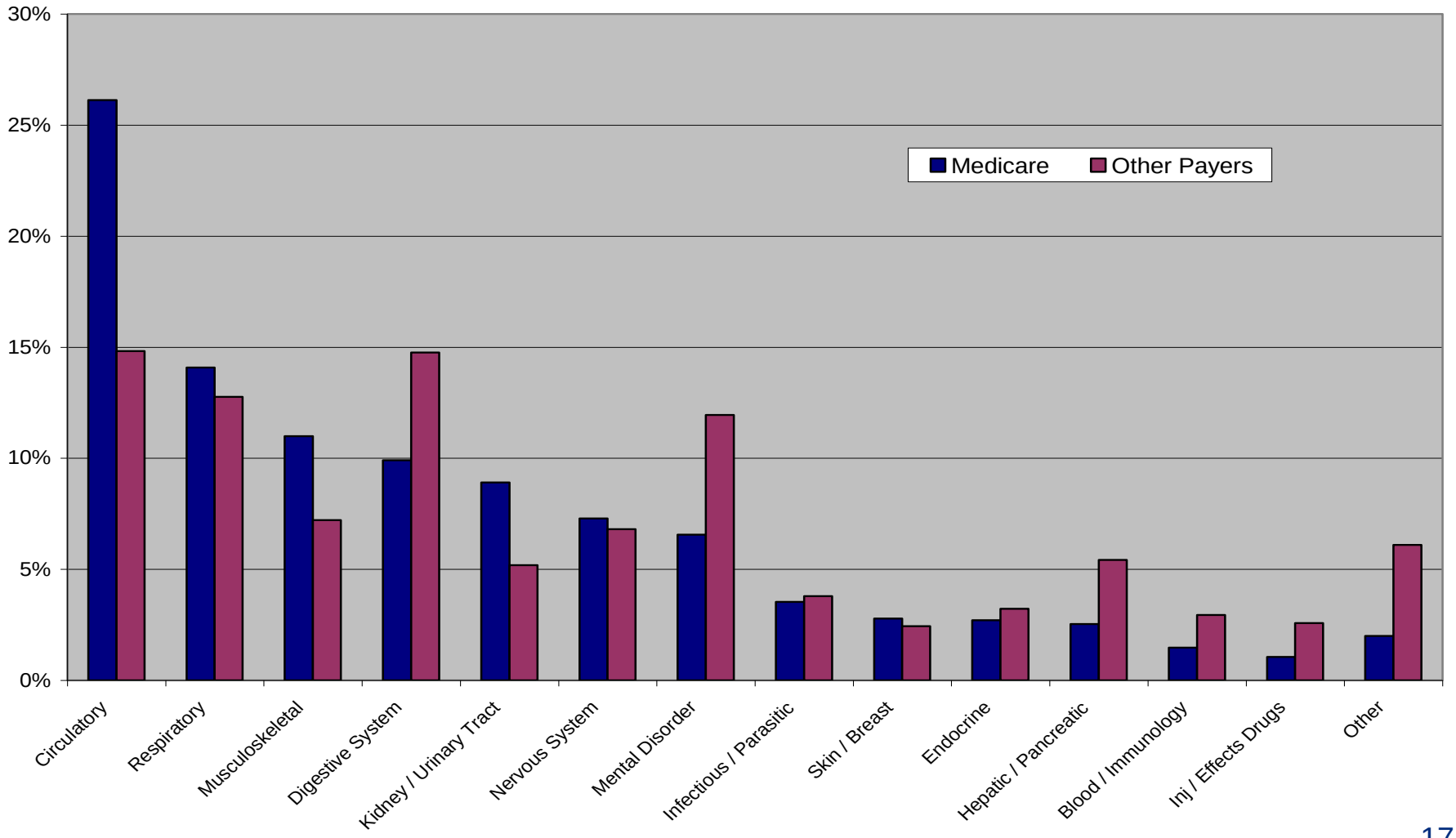
Monitoring Readmissions (cont.)

- **Ideally use 3M APR-DRG and PPR software**
- **If not yet available, consider enhancing internal monitoring by**
  - **Exclude discharge disposition died, AMA, transfer to another acute care**
  - **Exclude readmission episodes for conditions such as trauma, OB, major malignancies, transplants**
  - **Evaluated potentially preventable and clinical relationships**
    - Medical followed by medical
    - Surgical followed by medical
    - Surgical followed by surgical if potential complication

BayCare Health System - Identifying Opportunities

- **Evaluate all patients within the system**
  - **Linkage by corporate patient identifier to identify readmissions to any BayCare hospital**
- **Apply the 3M PPR software to quarterly data files**
  - **Standard administrative data input file with patient demographics, diagnoses, present on admission flags, procedures, procedure dates, etc.**
  - **Run data from 30 days before and 30 days post the quarter of interest**
  - **Use 30 day period to identify clinically related chains, then flag those patients whose initial readmission occurred within 15 days**
  - **Evaluate all PPR's not just those selected for AHCA reporting**
- **Reconciliation remains a challenge**
- **Initial analysis showed major opportunities**

Major Diagnostic Category of Initial Admission



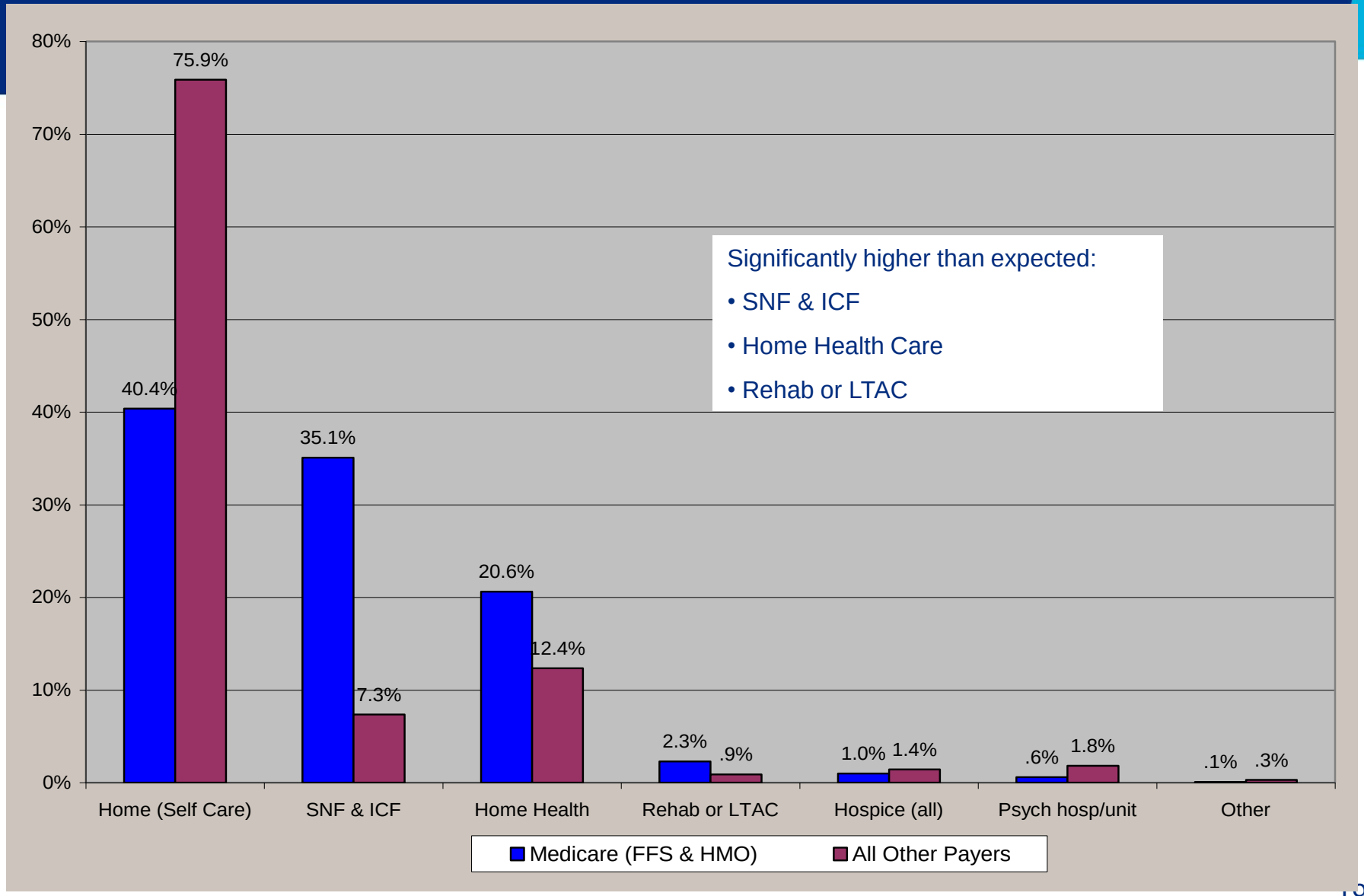
Data on Potentially Preventable Readmissions within 30 days

Top 5 APR-DRGs of Initial Admission

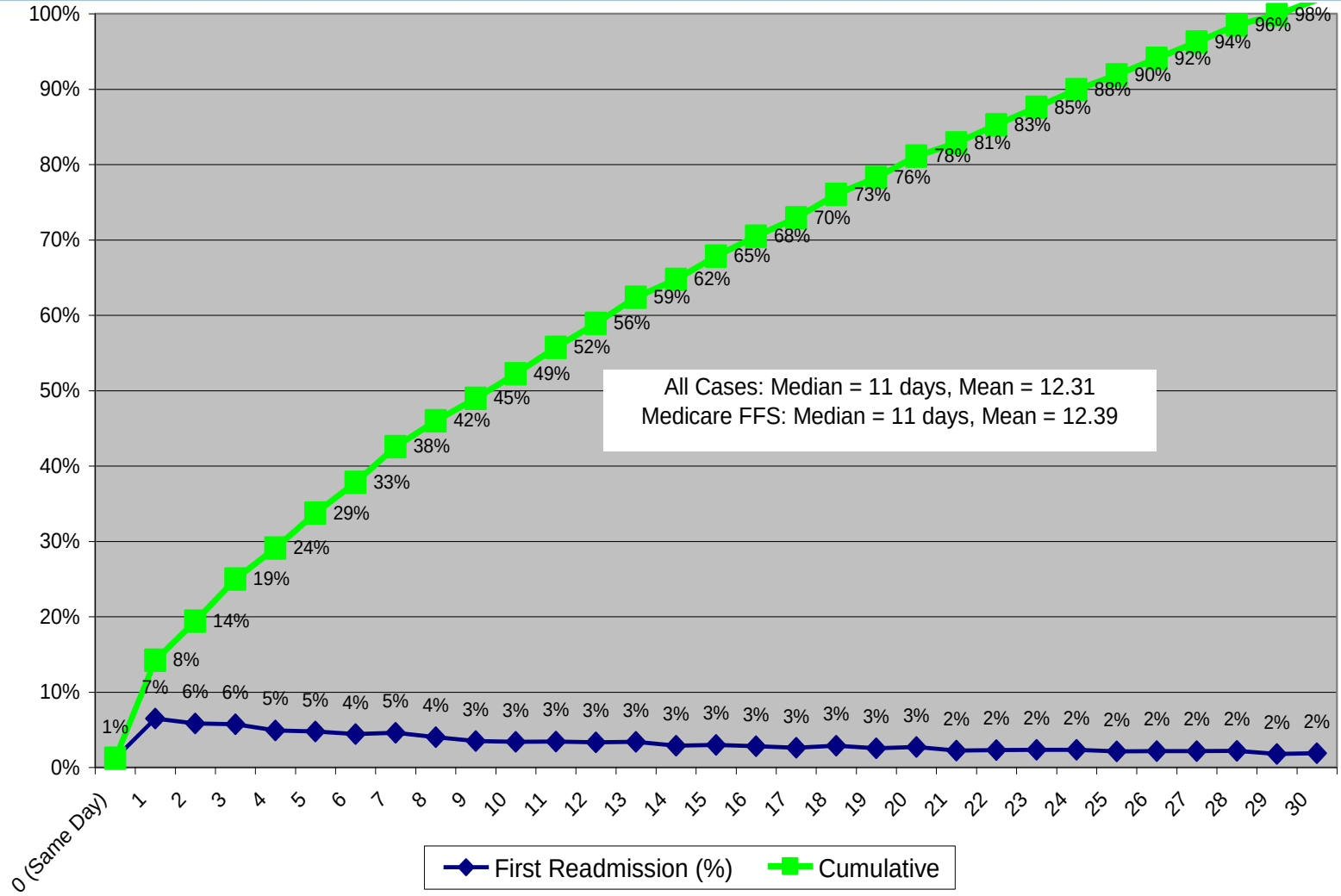
Rank	All Cases		Medicare		Other Payers	
	Description	%	Description	%	Description	%
1	HEART FAILURE (194)	4.7	HEART FAILURE (194)	6.1	BIPOLAR DISORDERS (753)	3.9
2	CHRONIC OBSTRUCTIVE PULMONARY DISEASE (140)	4.4	CHRONIC OBSTRUCTIVE PULMONARY DISEASE (140)	4.9	CHRONIC OBSTRUCTIVE PULMONARY DISEASE (140)	3.5
3	OTHER PNEUMONIA (139)	2.9	KIDNEY & URINARY TRACT INFECTIONS (463)	3.3	MAJOR DEPRESSIVE DISORDERS & OTHER/UNSPECIFIED PSYCHOSES (751)	3.4
4	SCHIZOPHRENIA (750)	2.8	OTHER PNEUMONIA (139)	3.1	SCHIZOPHRENIA (750)	2.8
5	KIDNEY & URINARY TRACT INFECTIONS (463)	2.5	SCHIZOPHRENIA (750)	2.7	OTHER PNEUMONIA (139)	2.5

Prevalence conditions of Heart Failure, COPD, Pneumonia, Kidney & Urinary Track Infections, Depression and Schizophrenia

Discharge Status of Initial Admission



Days from Initial Discharge to First Readmit



Data on Potentially Preventable Readmissions within 30 days

BayCare Health System - Identifying Opportunities

- **PPR data is only available quarterly so case managers use a proxy system to evaluate every patient readmitted within 24 to 48 hours of discharge**
  - **Gather data on reason for admission, source of admission, sociodemographic, medical, and system factors**
  - **Apply major exclusions (e.g., trauma, malignancies)**
  - **Evaluate clinical relationships and potentially preventable**
    - Use diagnoses, procedure codes and MS-DRG to evaluate medical to medical, surgical to medical, etc.
  - **Focus on high risk patients who may fall into the "PPR" methodology**

BayCare Quality Goal – Reduce Heart Failure Readmissions

- **2010 Quality & Safety Plan goal to reduce the 15 day PPR for Heart Failure (APR-DRG 194).**
  - **Statewide the rate was 11.21% (Oct 08 to Sep 09)**
  - **BayCare's Baseline (2009) = 10.46%**
  - **Established 2010 Target = 10.12%**
  - **Progress to date: Q1-10 = 9.87%, Q2-10 = 8.7%, YTD = 9.33%**
- **Established system-wide Reducing Readmissions Steering committee**
  - **Representatives from across the system – CNE's, case management, home health, behavioral health, CQO, black belts**

HF Patient Journey

Home

46%

Home Health

23%

Skilled Nursing / LTAC / Hospice

21%

23

BayCare Health System: Improvement Projects Across the Continuum of Care

During Hospitalization	At Discharge	Post Discharge
• SJH Implementation of Readmission Risk Assessment	• SAH HF Tele-monitoring Project	• BCHS Reduce Readmissions Call Center F/U After Discharge
• BCHS Improve Invision Documentation of Nursing Home and Home Care Discharge Disposition and admit source		
	• SAH and Pinellas Point Nursing Rehab Center Readmissions Collaborative project	
• MPH Project BOOST Inpatient Discharge Planning • BCHS/SJH Development of a Post Acute Care system within Home Care to Reduce Hospital Readmissions • BCHS FHA Readmissions Collaborative		

Risk Assessment Tool – initiated on admission to hospital

Initial Risk Assessment (Completed by Nurse during admission to unit)		Risk Interventions (Completed during patient's stay)	Intervention completed by:
1. Heart Failure Diagnosis ***Perform associated interventions***	Nurse	☐ Review national discharge guidelines and disease-specific education using Teach-Back with patient/caregiver Provide: ☐ CCTV Programming Guide ☐ Living w/ Heart Failure booklet	Initials:_____ Date/Time:_____
		☐ Review what to do and who to contact in the event of worsening or new symptoms with patient/caregiver	Initials:_____ Date/Time:_____
		☐ Order Dietary consult if patient needs assistance or is non-compliant with diet	Initials:_____ Date/Time:_____
2a. Prior Hospitalization ☐ No prior hospitalization in past 90 days Non-elective hospitalizations within: ☐ past 30 days ☐ HF Readmission ☐ 31 to 60 days ☐ HF Readmission ☐ 61 to 90 day ☐ HF Readmission	Nurse	☐ Order Social Worker consult	Initials:_____ Date/Time:_____
		☐ Encourage patient/caregiver to schedule follow-up appointment(s) prior to discharge	Initials:_____ Date/Time:_____
2b. Patient Support ☐ Patient support in place ☐ Absence of Care-giver to assist with discharge and home care ☐ Absence of funding for medication	Social Worker	☐ Evaluate for home care or post acute care facility placement	Initials:_____ Date/Time:_____
		☐ Provide information on community resources for additional patient/caregiver support	Initials:_____ Date/Time:_____

Example of Tool

25

Hospital-Nursing Home Collaborative

- **Recent HF readmission rates for St. Anthony's Hospital patients discharged to home are approximately 11% – 12% while patients discharged to Skilled Nursing Facilities (SNF) are 22%**

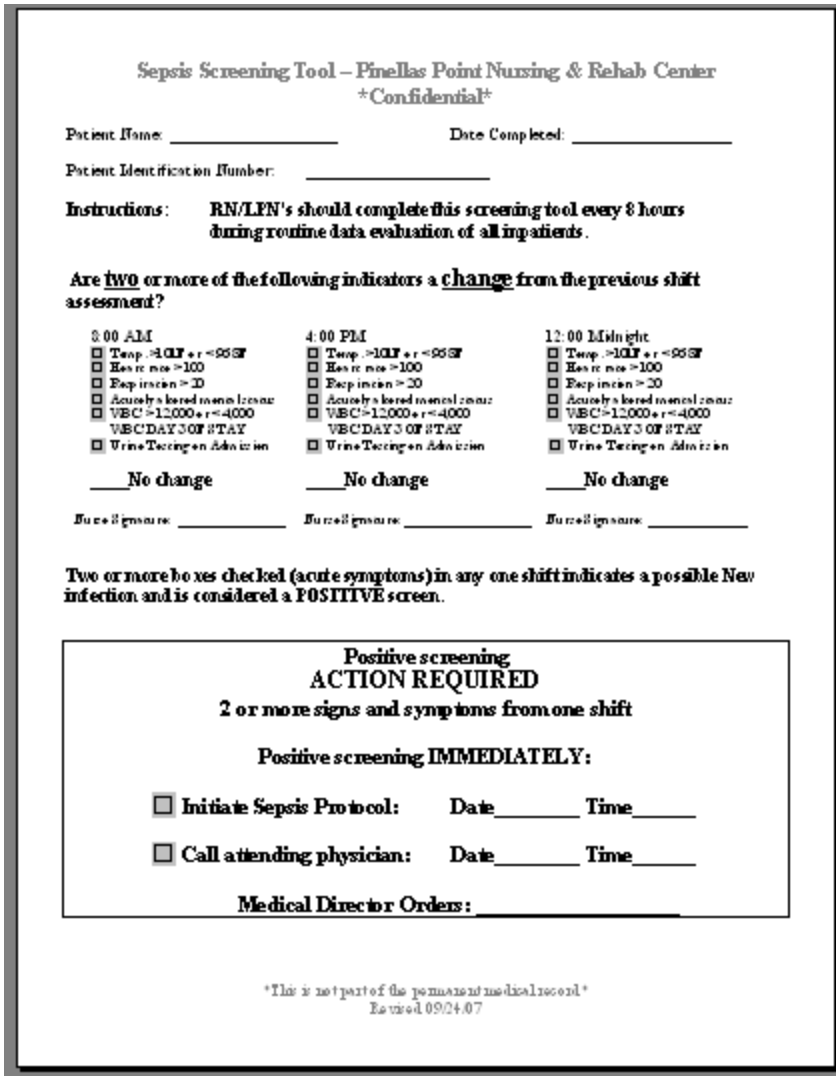
- **The variation between these two populations indicate an opportunity to decrease readmissions. (project includes all diagnoses).**

Critical to Quality Design Requirements Quality Function Deployment (QFD)

Direction of Improvement		↓	↓	↑	↑	↑	↑	↑	↑	↑
Design Requirements (Hows) / Customer Requirements (Whats)	Importance	Monthly readmissions within 15 days of discharge from SAH (transferred to PPNRC)/Total monthly patients transferred to PPNRC	Monthly readmissions within 30 days of discharge from SAH (transferred to PPNRC)/Total monthly patients transferred to PPNRC	Protocol weighing CHF patients/total CHF (per SAH discharge APR DRG)	Protocol for transfer process/total transfers	Protocols for patient care Handoffs (to from facility)/total transfers	Accurate Medication Reconciliation communicated/total patients transferred from SAH	Accurate Medication Reconciliation communicated/total patients transferred from PPNRC	SAH Team Member Education completed (count)	PPNRC Team Member Education completed (count)
Action - Clearly defined action steps and due dates	10	1	1	1	1	1	9	9	9	9
Patient - Reduce hospital readmissions improving patient satisfaction	10	9	9	9	9	9	9	9	9	9
Communication - Effective and standard communication (transfer and continuum of care)	10	1	1	1	9	9	9	9	9	9
Physician - Physician project engagement	10	1	1	3	9	9	9	9	3	3
Team Member - Clearly defined team member expectations (education, training, communication and documentation)	10	1	1	9	9	9	9	9	9	9
Medication - Effective and pro-active medication monitoring	8	1	1	9	9	9	9	9	9	9
Weight - Consensus of how often patient weighed with standard documentation and early recognition of potential issue	10	1	1	9	9	9	9	9	9	9
Regulatory - Regulatory requirements (Internal & External)	7	3	3	3	9	9	9	9	9	9
Customer - Consistent customer experience (transfer)	10	9	9	1	9	9	9	9	3	3
Documentation - Standard and efficient documentation	10	1	1	9	9	9	9	9	9	9
Patient Family - Timely and effective clinical communication with patient family	3	1	1	1	3	3	3	3	3	3
Expansion - Expandability (BayCare and Southern HealthCare Mgmt)	10	9	9	9	9	9	9	9	9	9
Patient Status - Timely recognition of change in patient status and immediate physician engagement	10	9	9	9	9	9	9	9	9	9
Technical Importance	Absolute	452	452	696	964	964	1044	1044	924	924
	Relative(%)	6	6	9	13	13	14	14	12	12
Organizational Difficulty										
Constraints:										
Regulatory requirements										

Protocols for Transfers and Handoffs, Accurate Medication Reconciliation, Team Member Education and Training

Sepsis Screening Tool Implementation
Pinellas Point Nursing and Rehab Center



Sepsis Screening Tool – Pinellas Point Nursing & Rehab Center
Confidential

Patient Name: _____ Date Completed: _____

Patient Identification Number: _____

Instructions: **RN/LPN's should complete this screening tool every 8 hours during routine data evaluation of all inpatients.**

Are two or more of the following indicators a change from the previous shift assessment?

8:00 AM	4:00 PM	12:00 Midnight
☐ Temp. >101F or <95F	☐ Temp. >101F or <95F	☐ Temp. >101F or <95F
☐ Heart rate >100	☐ Heart rate >100	☐ Heart rate >100
☐ Respiration > 20	☐ Respiration > 20	☐ Respiration > 20
☐ Acutely altered mental status	☐ Acutely altered mental status	☐ Acutely altered mental status
☐ WBC >12000 or <4000 WBC DAY 3 OF STAY	☐ WBC >12000 or <4000 WBC DAY 3 OF STAY	☐ WBC >12000 or <4000 WBC DAY 3 OF STAY
☐ Urine Tracing on Admission	☐ Urine Tracing on Admission	☐ Urine Tracing on Admission
____No change	____No change	____No change
Nurse Signature: _____	Nurse Signature: _____	Nurse Signature: _____

Two or more boxes checked (acute symptoms) in any one shift indicates a possible New infection and is considered a POSITIVE screen.

Positive screening
ACTION REQUIRED
2 or more signs and symptoms from one shift

Positive screening IMMEDIATELY:

☐ **Initiate Sepsis Protocol:** **Date_____ Time_____**

☐ **Call attending physician:** **Date_____ Time_____**

Medical Director Orders: _____

This is not part of the permanent medical record
Revised 09/24/07

Implemented Solutions

- **Sepsis Screening Tool at Pinellas Point Nursing and Rehab Center including education and training (signs and symptoms) (1-15 day of stay)**
- **Standard lab testing 3 days admitted to ECF for CBC and CMP (WBC included in CBC)**
- **Standard St. Anthony's checklist for documentation required for SNU/ECF review (to be used by Unit Secretaries/Social Workers)**
- **Accountability for completed checklist (engage project champion) including education and training**
- **Liaisons have electronic BEACON access to patient record at St. Anthony's Hospital in Utilization Management – 4th floor (Case Managers/Social Workers)**

Reducing Readmissions for Hip Replacements – 15 day PPR

- Current FL Rate = 5.6%
- BayCare = 6%
  - 20% readmitted within 3 days, 37% within 4 days, 55% by day 7

- Day of Week: No relationship between discharge day of week and readmission within 15 days (p = 0.07)
- Risk Factors / AHRQ Comorbidity Categories: Patients significantly more likely to be readmitted (p value of <= 0.5):
  - Heart Failure – 11.5%
  - Valve Disease – 11.8%
  - Pulmonary/Circulatory Disease – 17.9%
  - Renal Failure – 14.8%
  - Lytes – 9.2%
- Number of Comorbidities: Readmitted patients = mean of 3.01 vs 2.35 for patients not readmitted (p < 0.00)

Reducing Readmissions for Hip Replacements – 15 day PPR (cont.)

- **Length of Stay: Patients who were readmitted had a longer length of stay initially (mean = 6.12 days vs. 4.54 days for patients not readmitted, p = 0.001)**
  - Longer length of stay likely related to complexity of patients (e.g., higher number of comorbidities and/or potential complications)
- **Age: Readmitted patients were older (mean age of 75.9 yrs vs. 72.47 yrs for patients not readmitted, p = 0.03)**
- **Gender**
  - No relationship between readmissions and patient gender

Establishing FHA Workgroup to Reduce Hip Replacement Readmissions

- **Collaborative with Orthopedic Society**
- **Initial focus:**
  - **Reviewing data**
  - **If other hospitals are similar to BayCare hospitals, the opportunities are in managing patient's medical conditions when hospitalized for hip surgery, infections are not the issue**
  - **Need to collaborate with surgeons and primary physicians**

Questions?