

# Reducing Readmissions:

## Challenging the Status Quo

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# Progress and Improvement: BIDMC experience 2009-2011

STAAR Cross-Continuum Workgroup

Melzer Visiting Professor: Dr. Eric Coleman (Care Transitions expert)

Care Connection: Follow-up appointments

BIDPO Telephone Follow-up After Discharge

Heart Failure Nurse Pilot

Outpatient Heart Failure Intensive Treatment Clinic

Post-discharge Clinic in HCA

Discharge Summary Education

Revised Electronic Discharge Application

Hospitalist Communication Standard with PCPs

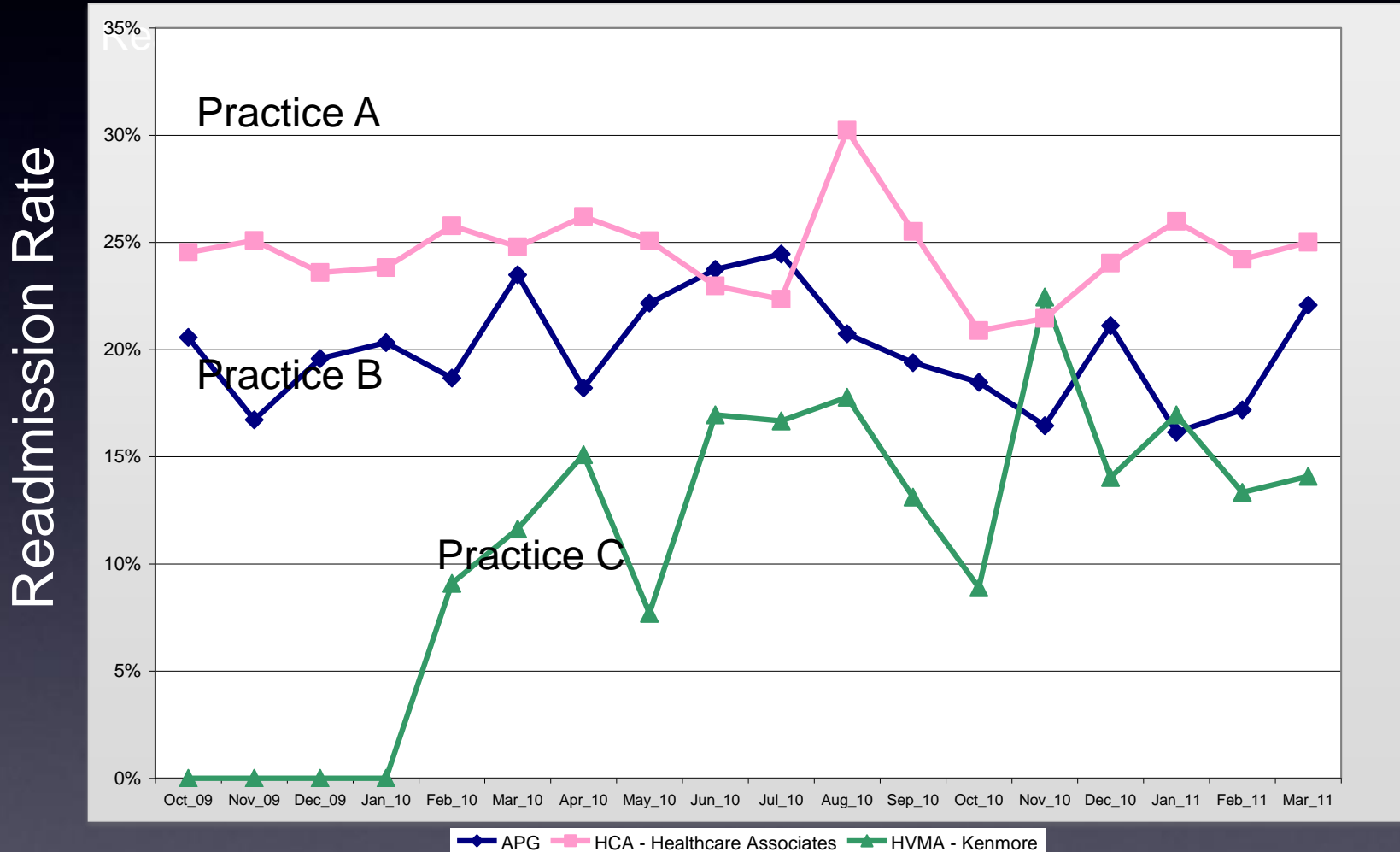
Unit-based Readmission Huddles

# Readmission Risk: 8 P's

- ① Prior hospitalization
- ② Problem medications
- ③ Principal diagnosis
- ④ Psychological
- ⑤ Polypharmacy
- ⑥ Poor health literacy
- ⑦ Patient support
- ⑧ Palliative care

# Primary Care Site: A ninth “P”?

All-Cause, 30-Day, Non-Elective Readmissions to BIDMC  
By Select Primary Care Practices\*



\*= Excludes Psych, OB/Gyn Admissions; Discharges Against Medical Advice; Deceased Patients; Transfers to Other Hospitals

# Preventing Readmissions: “3-to-1” Tertiary to Primary Care

Departure from  
Tertiary Care Hospital

System-level Care Coordination

Disease Management Pathways

Medication Management Support

Home-based Patient Support

Re-entry into  
Primary Care Practice

# Developing Solutions: BIDMC Care Transitions Program

## 1. System-level Care Coordination:

- Care Transitions Specialist (Nurse Care Manager), dually sited in primary care practice and hospital

## 2. Disease-Specific Planning:

- Clinical Pathway Development (especially Cardiac, Pulmonary)

## 3. Medication Management Support:

- Pharmacist Support (inpatient and outpatient)

## 4. Patient-level Health Support:

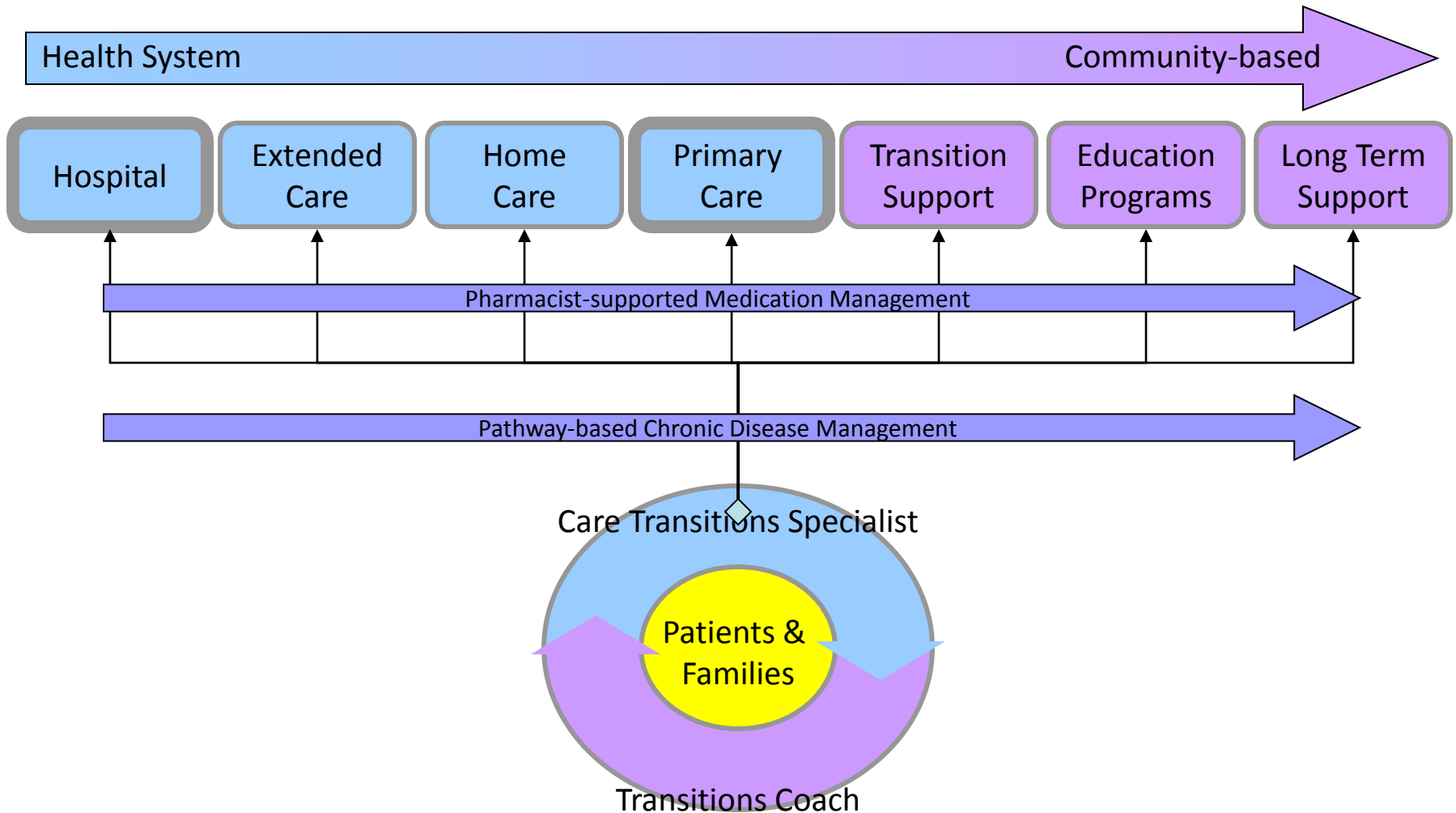
- Community-based Transitions Coach (ASAP network)

# Developing Comprehensive Solutions: BIDMC Care Transitions Program

## Interventions to date:

- Internally-funded Health Care Associates pilot (implementation July 2011)
- CMS Community-Based Care Transitions Program grant proposal (submission June 2011)

# BIDMC Community-Based Care Transitions Program



# Theme

- *“Every system is perfectly designed to achieve the results it consistently gets”*

# Scope of the Problem

*The* NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

## Rehospitalizations among Patients in the Medicare Fee-for-Service Program

Stephen F. Jencks, M.D., M.P.H., Mark V. Williams, M.D.,  
and Eric A. Coleman, M.D., M.P.H.

N ENGL J MED 360;14 NEJM.ORG APRIL 2, 2009

# Scope of the Problem: Statistics

- Analysis of Medicare claims 2003-04
- 1 in 5 patients readmitted within 30 days
- 1 in 3 patients readmitted within 90 days
- Medical conditions accounted for most readmissions
- Estimated cost of unplanned rehospitalizations (2004): \$17.4 billion dollars

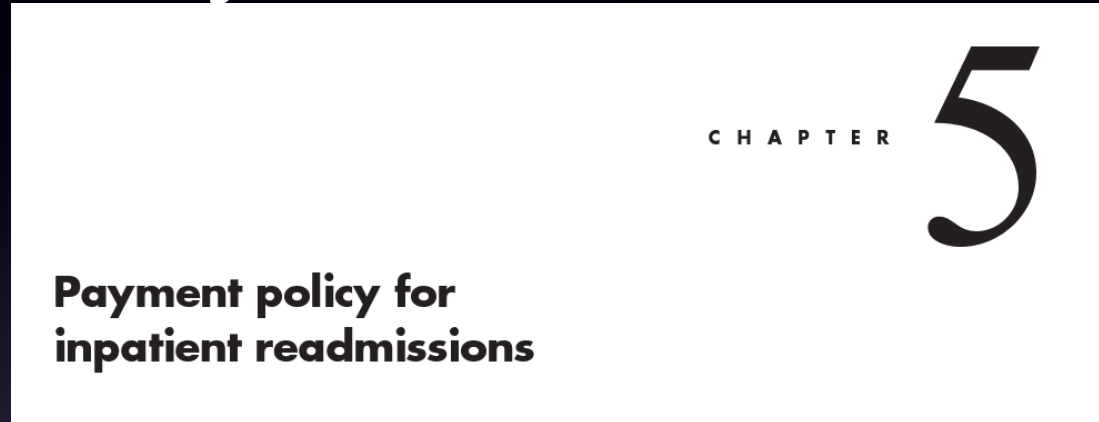
# Scope of the Problem: Medical Conditions

| Condition at Index Discharge | 30-day Rehospitalization Rate | Proportion of all Rehospitalizations | Most Frequent Rehospitalization Condition | 2nd Most Frequent Rehospitalization Condition |
|------------------------------|-------------------------------|--------------------------------------|-------------------------------------------|-----------------------------------------------|
| All                          | 21%                           | 77.6%                                | Heart Failure (8.6)                       | Pneumonia (7.3)                               |
| Heart Failure                | 26.9%                         | 7.6%                                 | Heart Failure (37.0)                      | Pneumonia (5.1)                               |
| Pneumonia                    | 20.1%                         | 6.3%                                 | Pneumonia (29.1)                          | Heart Failure (7.4)                           |
| COPD                         | 22.6%                         | 4.0%                                 | COPD (36.2)                               | Pneumonia (11.4)                              |
| Psychoses                    | 24.6%                         | 3.5%                                 | Psychoses (67.3)                          | Drug Toxicity (1.9)                           |
| GI problems                  | 19.2%                         | 3.1%                                 | GI Problems (21.1)                        | Nutrition-related or Metabolic Disorder (4.9) |

Adapted from:

N ENGL J MED 360;14 NEJM.ORG APRIL 2, 2009

# Readmissions: Policy Considerations



MEDPAC

Report to the Congress: Promoting Greater Efficiency in Medicare | June 2007

- MedPAC June 2007 Report to the Congress: Promoting Greater Efficiency to Medicare
- “Medicare expenditures for potentially preventable rehospitalizations may be up to \$12 billion annually”

# Variation on theme

- *“Every system is perfectly designed to achieve the results it consistently gets”*
- *“A typical system is designed to respond to the incentives applied to it”*

# Understanding Incentives

- Prospective Payment System DRG-based strategy of Medicare payment to hospitals
  - Encourages lower length of stay per DRG to maximize reimbursement while minimizing cost
  - Payment for readmission represents significant proportion of annual revenue
  - Financial dis-incentive to reduce readmissions

# Understanding Incentives

- Current State (2011): Successfully preventing readmissions potentially costs hospitals money
- Investment of materials/resources to support improvements to practice
- Loss of revenue associated with loss of episodes of care for which reimbursement is currently provided

# Understanding incentives

- “Hospital readmissions are sometimes indicators of poor care or missed opportunities to better coordinate care. Research shows that specific hospital-based initiatives to improve communication with beneficiaries and their other caregivers, coordinate care after discharge, and improve the quality of care during the initial admission can avert many readmissions.
- Medicare does not reward these efforts.”

# Changing Incentives

- CMS' two-pronged approach:
  - Penalty: For hospitals in “4th” quartile of readmission rates for specific diagnoses (heart failure, acute MI, and pneumonia), 1% of total Medicare payments will be withheld in FY13. Penalty increases to 2% in FY14, 3% in FY15.
  - Opportunity: Section 3026 of the Affordable Care Act reserves \$500 million to support efforts to reduce readmissions at “4th” quartile hospitals

# Changing Incentives

Public reporting of health care outcomes as “quality indicators” to apply “consumer pressure” to hospital performance

- 30-day readmission rates
- 30-day mortality rates

# Do higher readmissions reflect poor quality?

Balancing performance outcomes:

- Readmission rate
- Length of stay
- Case mix index
- Mortality

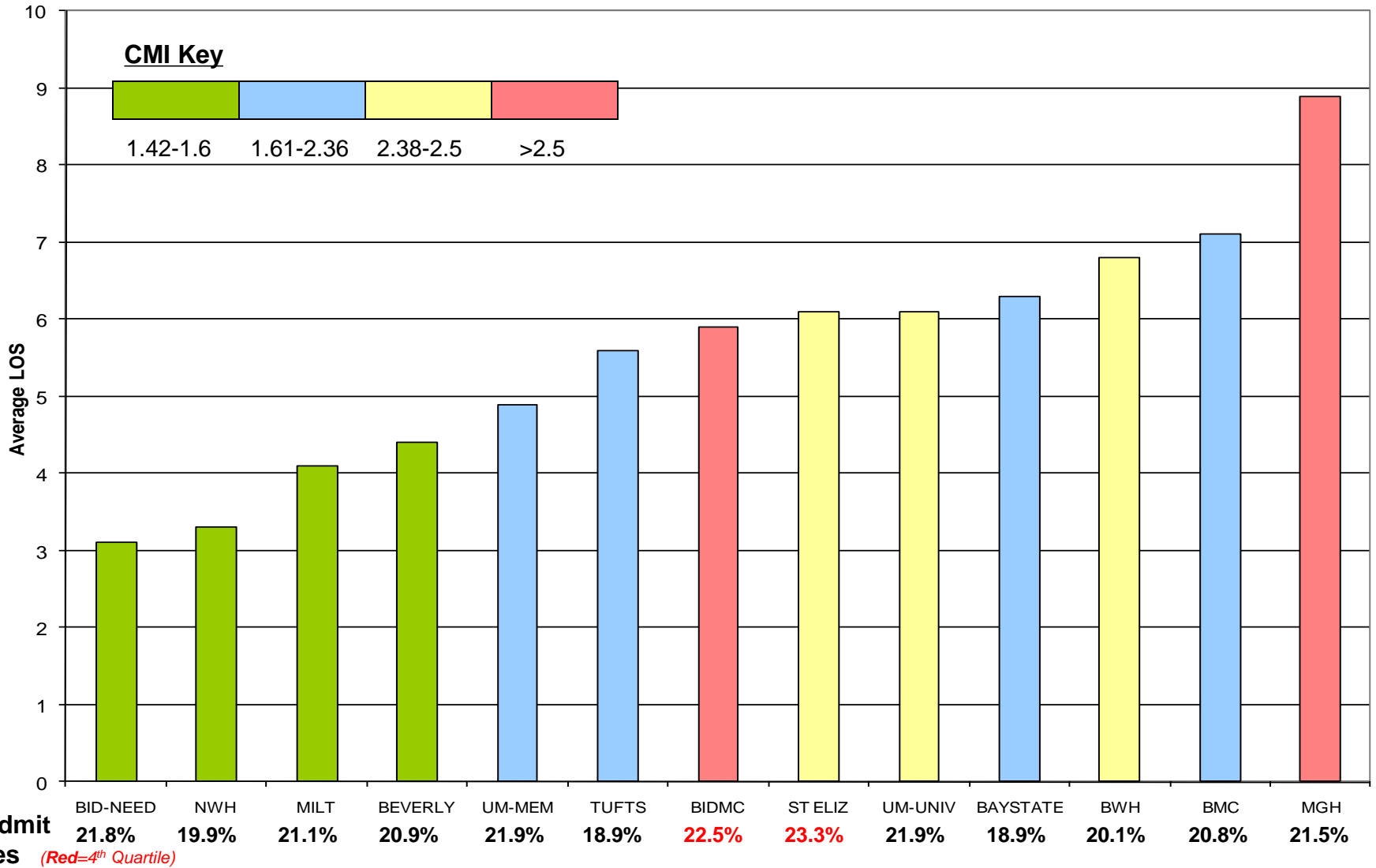
Are these independent variables?

# Discussion

- Is a hospital's readmission rate linked to LOS and CMI?
- If so, what are the implications of these dependencies?
- If not, why (or how) not?
- Is readmission rate an independent metric of quality, or a "targeted" setpoint of hospital performance?

# Medicare 2009: AMI

## Length of Stay (LOS), CMI, and Readmission Rates by Hospital

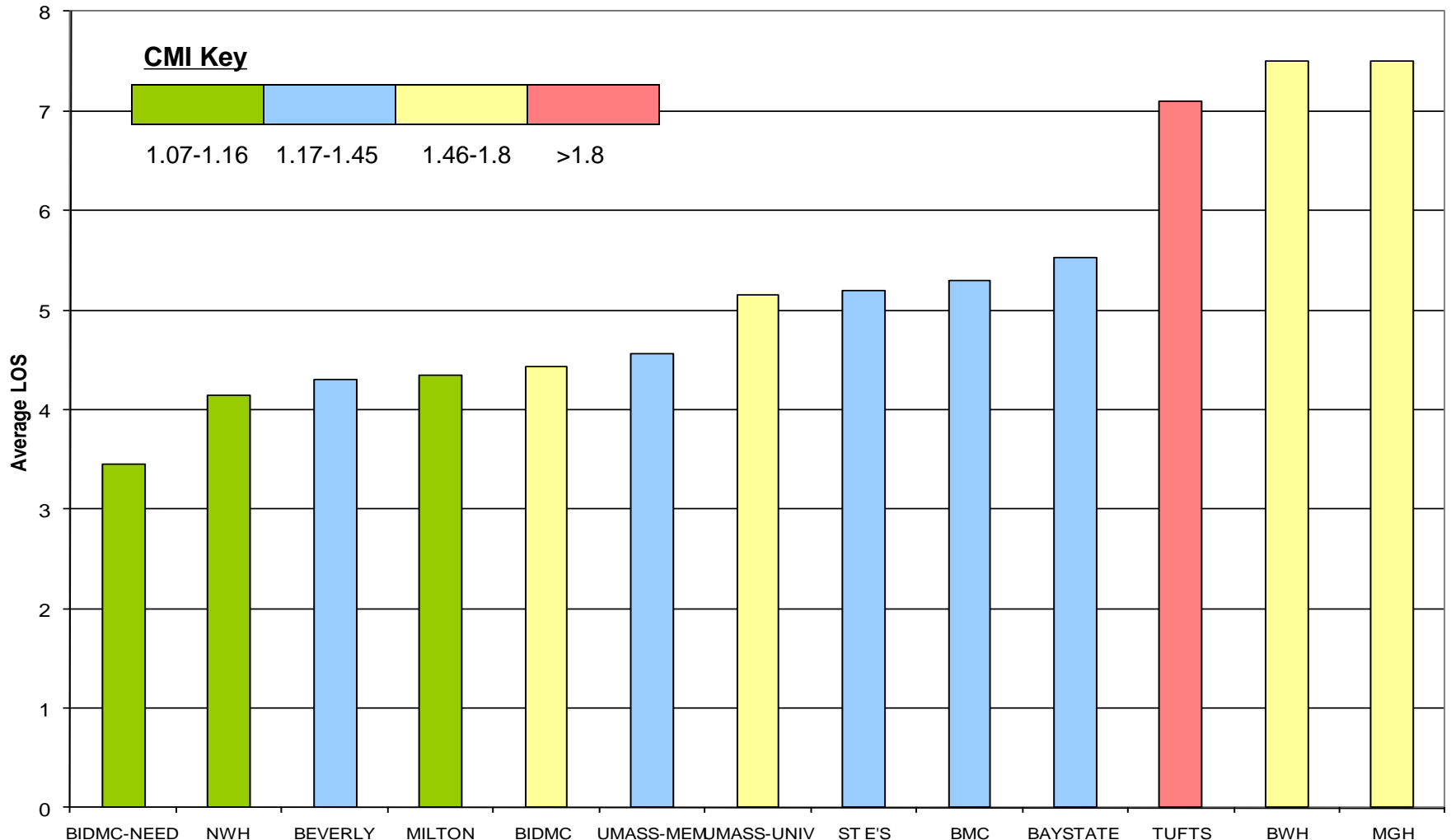


**Total DCs**  
**Medical Center**  
 > 85

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 26  | 83  | 59  | 179 | 63  | 217 | 339 | 218 | 464 | 615 | 449 | 285 | 442 |
| 54% | 48% | 39% | 42% | 51% | 12% | 23% | 24% | 20% | 21% | 15% | 16% | 20% |

## Medicare 2009: All Heart Failure

### Length of Stay (LOS), CMI, and Readmission Rates by Hospital



| Hospital   | Readmit Rates |
|------------|---------------|
| BIDMC-NEED | --%           |
| NWH        | --%           |
| BEVERLY    | --%           |
| MILTON     | 26.3%         |
| BIDMC      | 28.2%         |
| UMASS-MEM  | 26.9%         |
| UMASS-UNIV | --%           |
| ST E'S     | 27%           |
| BMC        | --%           |
| BAYSTATE   | --%           |
| TUFTS      | 28.1%         |
| BWH        | --%           |
| MGH        | --%           |

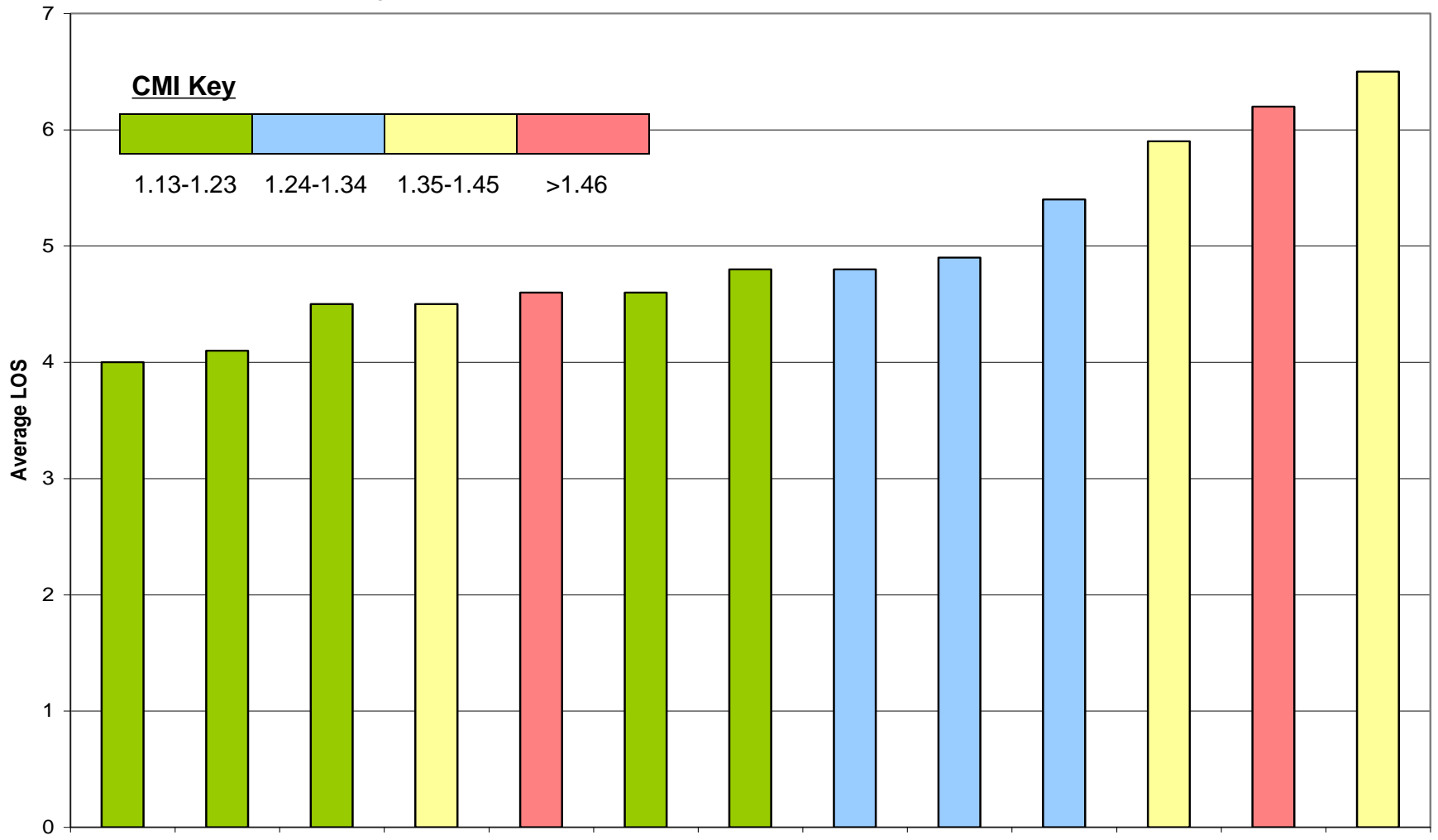
*(Red=4<sup>th</sup> Quartile)*

| Hospital   | Total DCs | > 85 |
|------------|-----------|------|
| BIDMC-NEED | 155       | 59%  |
| NWH        | 300       | 56%  |
| BEVERLY    | 288       | 41%  |
| MILTON     | 166       | 44%  |
| BIDMC      | 643       | 31%  |
| UMASS-MEM  | 394       | 37%  |
| UMASS-UNIV | 332       | 28%  |
| ST E'S     | 266       | 35%  |
| BMC        | 521       | 18%  |
| BAYSTATE   | 933       | 31%  |
| TUFTS      | 267       | 13%  |
| BWH        | 619       | 19%  |
| MGH        | 846       | 24%  |



# Medicare 2009: Pneumonia

## Length of Stay (LOS), CMI, and Readmission Rates by Hospital



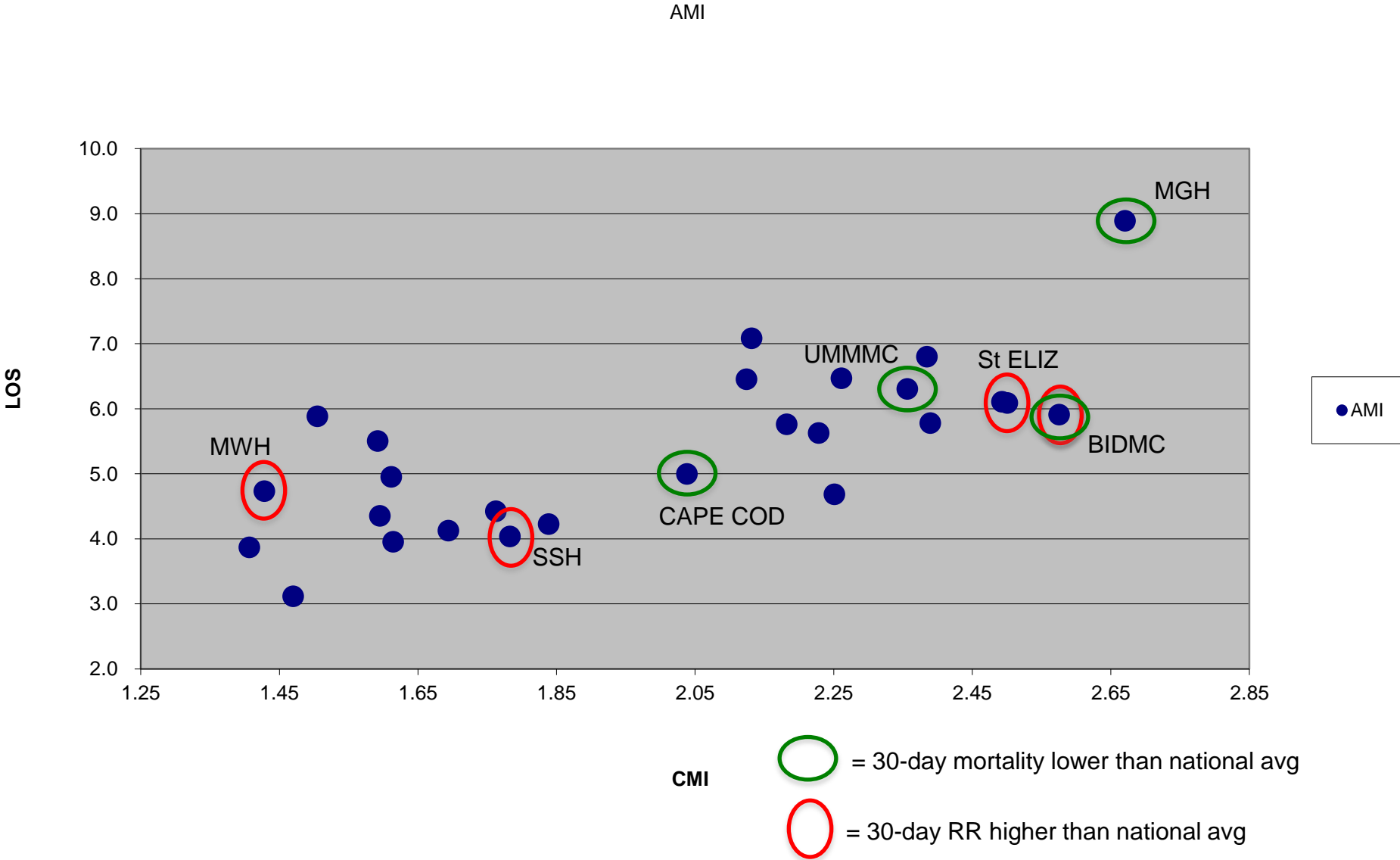
| Hospital | Readmit Rates |
|----------|---------------|
| BID-NEED | 21.1%         |
| NWH      | 18.9%         |
| BEVERLY  | 18.1%         |
| TUFTS    | 20.8%         |
| BIDMC    | 21%           |
| MILTON   | 17.9%         |
| UM-MEM   | 19.3%         |
| BMC      | 20%           |
| ST ELIZ  | 22.5%         |
| BWH      | 20.4%         |
| MGH      | 19.1%         |
| UM-UNIV  | 19.3%         |
| BAYSTATE | 18.3%         |

*(Red=4<sup>th</sup> Quartile)*

| Hospital | Total DCs | > 85 |
|----------|-----------|------|
| BID-NEED | 108       | 39%  |
| NWH      | 241       | 41%  |
| BEVERLY  | 262       | 24%  |
| TUFTS    | 215       | 28%  |
| BIDMC    | 347       | 26%  |
| MILTON   | 147       | 37%  |
| UM-MEM   | 352       | 28%  |
| BMC      | 259       | 18%  |
| ST ELIZ  | 161       | 28%  |
| BWH      | 308       | 16%  |
| MGH      | 470       | 22%  |
| UM-UNIV  | 322       | 20%  |
| BAYSTATE | 410       | 28%  |

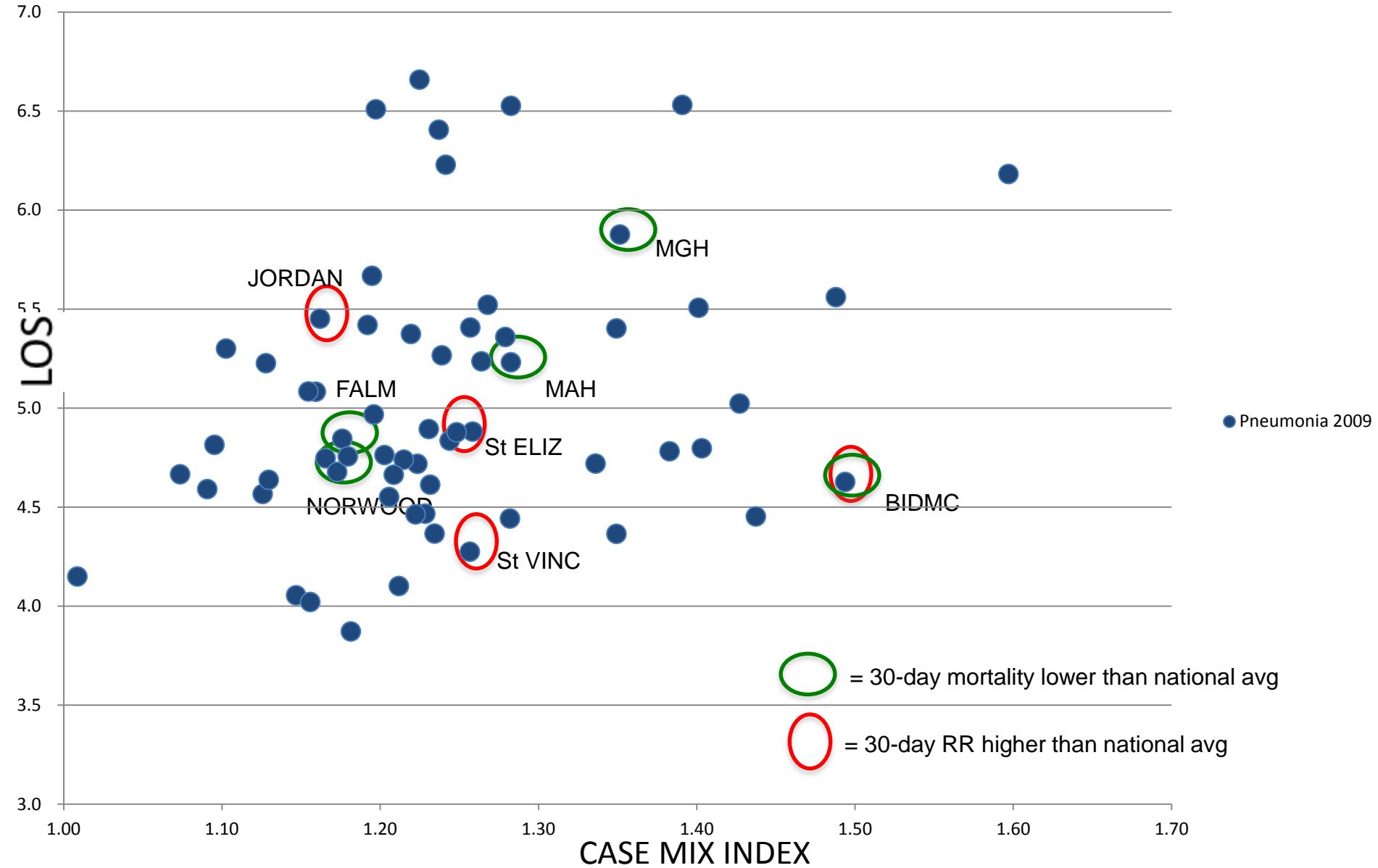


# ACUTE MYOCARDIAL INFARCTION MASSACHUSETTS MEDICARE DATA 2009



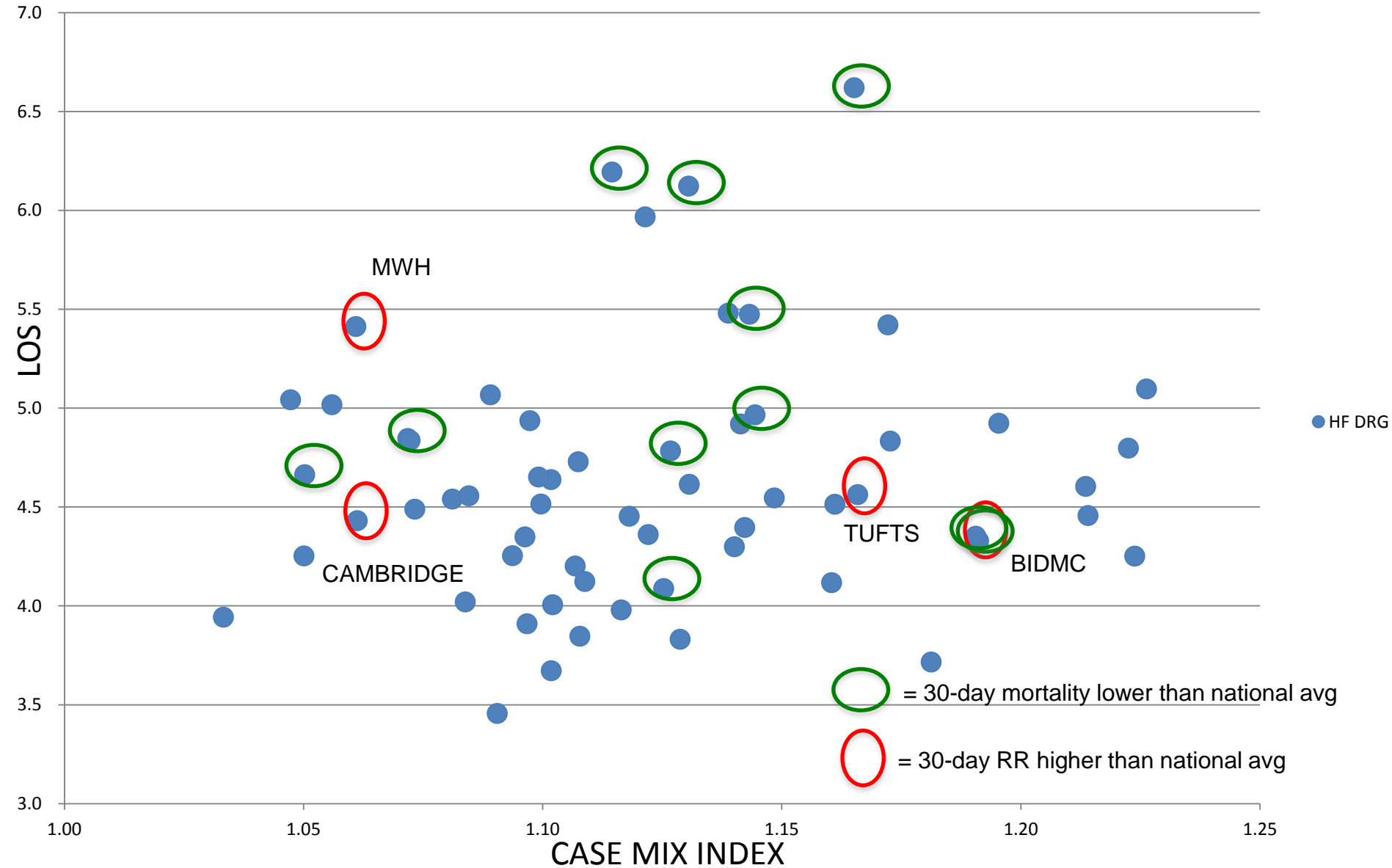
PNEUMONIA  
MASSACHUSETTS MEDICARE DATA 2009

Pneumonia 2009



# HEART FAILURE DRG 291-293 MASSACHUSETTS MEDICARE DATA 2009

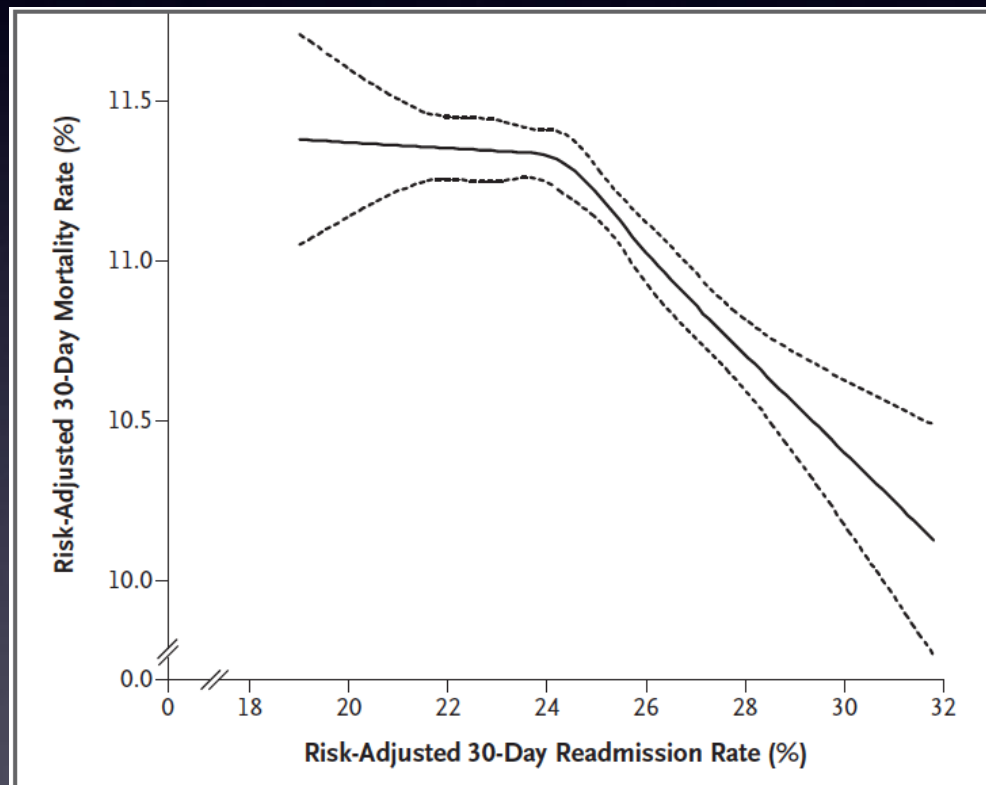
## HF DRG



# Do higher readmissions reflect poor quality?

## Are All Readmissions Bad Readmissions?

N ENGL J MED 363;3 NEJM.ORG JULY 15, 2010



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**Figure 1.** Comparison of Risk-Adjusted Hospital Readmission Rates and Mortality Rates 30 Days after an Index Admission for Heart Failure.

# Readmissions as Quality Indicator: Policy Considerations

**FIGURE  
5-1**

**Examples of logic used to define potentially preventable readmissions to hospitals**

|                                     |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                        |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reason for initial admission</b> | <b>Potentially preventable</b>                                                                                                                                                                           | <b>Not potentially preventable</b>                                                                                                                                                                                                                     |
|                                     | <p><i>Example:</i> Admission for diabetes following discharge for AMI</p> <p><i>Exception:</i> Unrelated acute events</p> <p><i>Example:</i> Admission for trauma following discharge for AMI</p>        | <p><i>Example:</i> Admission for appendectomy following discharge for pneumonia</p> <p><i>Exception:</i> Prior discharge diagnosis was reason for surgery</p> <p><i>Example:</i> Admission for appendectomy following discharge for abdominal pain</p> |
| <b>Medical</b>                      |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                        |
| <b>Reason for initial admission</b> | <b>Potentially preventable</b>                                                                                                                                                                           | <b>Not potentially preventable</b>                                                                                                                                                                                                                     |
|                                     | <p><i>Example:</i> Admission for angina following discharge for PTCA</p> <p><i>Exception:</i> Unrelated acute events</p> <p><i>Example:</i> Admission for eye infection following discharge for PTCA</p> | <p><i>Example:</i> Admission for cholecystectomy following discharge for CABG</p> <p><i>Exception:</i> Surgery for complications of prior surgery</p> <p><i>Example:</i> Admission for PTCA following discharge for CABG</p>                           |
| <b>Surgical</b>                     |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                        |
|                                     | <b>Medical</b>                                                                                                                                                                                           | <b>Surgical</b>                                                                                                                                                                                                                                        |
|                                     | <b>Reason for readmission</b>                                                                                                                                                                            |                                                                                                                                                                                                                                                        |

# Readmissions:

## Policy Considerations

- “Potentially Preventable”
- Derived from 3M Administrative Database
- Determined by “related conditions” linking index hospitalization and readmission
- Question: Are these “potentially preventable” in our current system of care?

# Ultimate theme

- *Every system is perfectly designed to achieve the results it consistently gets*
- *A typical system is designed to respond to the incentives applied to it*
- *An advanced system understands its mission, and adjusts its response to its incentives in order to fulfill that mission*
- *An ideal system responds to incentives that are perfectly aligned with its mission*

# A better system

- “Aligning incentives across all those who can influence the outcome of care would induce needed collaboration among fee-for-service providers and foster greater “systemness” and integration in the delivery of health care.”

# Towards a comprehensive strategy

- Doing more with additional resources, not just doing better with existing resources
- Address risk at four levels:
  - System (coordination, communication)
  - Disease (evidence-based best practice)
  - Medication (reconciliation, adherence)
  - Patient (activation, literacy)

# Towards a comprehensive strategy: observations

- Focus on type of risk (polypharmacy, lack of social support), not just degree (high, low) of risk of readmission
- Cross-continuum care coordination remains crucial

# Towards a comprehensive strategy: cautions

- Defining role of palliative care
- Avoid “strategic” triage intended to avoid readmissions
- Monitor LOS closely
- 30-day mortality, patient experience as definitive quality markers

# Reducing Readmissions

- Challenges are complex.
- We need to do better.
- Incentives are aligning.
- Working together, across the continuum, we can do better.