Quality Measurement and Pitfalls in Data Interpretation

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Disclosures

- None

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Simplifying CME. Improving Outcomes.

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Quality Measurement and Stakeholder Interest

Format: Internet-based module beginning with a lesson, and followed by a post-test of 8 questions with accompanying answers, rationales, and references. CME Credit: Three (3) AMA PRA Category 1 Cred... View More

HQPS

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Patient-Centered Care

The Patient-Centered Care Module is an online learning module that begins with a lesson and contains an 8-question post-test with accompanying answers, rationales, and references. When the participan... View More

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Objectives

- At the end of this session, you will be able to teach your learners how to:
  - Compare/contrast structure, process, outcome, and balancing measures
  - Describe interests and measures used by internal and external stakeholders
  - Explain/display quality measure data effectively

Does our hospital deliver high quality care?

Do our doctors deliver high quality care?

How would you know?

Make quality measurement relevant!

Why do they care about Quality?

- Patients
- Providers
- Payers

$$\text{Value} = \frac{\text{Quality}}{\text{Cost}}$$

Donabedian's Topology of Quality Measures

- Structure
  - How was care delivered to the patient
- Process
  - What was done to the patient
- Outcome
  - What happened to the patient
- Balancing
  - Unintended, undesirable consequences

IOM Elements of Quality

- Safe
- Effective
- Patient Centered
- Timely
- Efficient
- Equitable

IOM: Crossing the Quality Chasm. 2001.

Structure, Process, or Outcome?

1. 30-day mortality after CABG
2. Bone density ordered in women over age 65
3. Computerized provider order entry for inpatients
4. Number of days until 3rd return appointment can be scheduled
5. Last blood pressure <140/90 in patients with hypertension
6. Physician boarded in emergency medicine on premises at all times
7. Patient satisfaction (e.g., HCAHPS)
8. ACE-I or ARB for CHF patients with low EF

	Structure	Process	Outcome
Example	ICU supervision by intensivist	Beta-blocker after heart attack	Risk-adjusted mortality rates for CABG
Strengths	•Easy to measure •One measure relates to multiple outcomes	•Reflect care that patients receive •Directly actionable •Don't need risk adjustment	•Face validity high •Understandable by most users •Reflect ultimate goals of treatment
Weaknesses	• Not easily actionable • May not be tightly linked with outcomes	• May or may not be tightly linked outcomes •Data collection may be difficult	•May be rare (sample size) •Requires risk adjustment •May be difficult to influence

Adapted from Birkmeyer JD, Kerr EA, Dimick JB, 2006

Quality Measurement: Payers Demanding Increased Accountability

- Voluntary reporting to payer
- Pay for reporting to payer
- Public reporting
- Pay for performance

Medicare.gov | Hospital Compare

The Official U.S. Government Site for Medicare

HCAHPS scores for patients discharged between April 2012 and March 2013 are now available on Hospital Compare and in the Downloadable Databases.

Find a hospital

A field with an asterisk (*) is required.

*** Location**

Example: 45802 **or** Lima, OH **or** Ohio

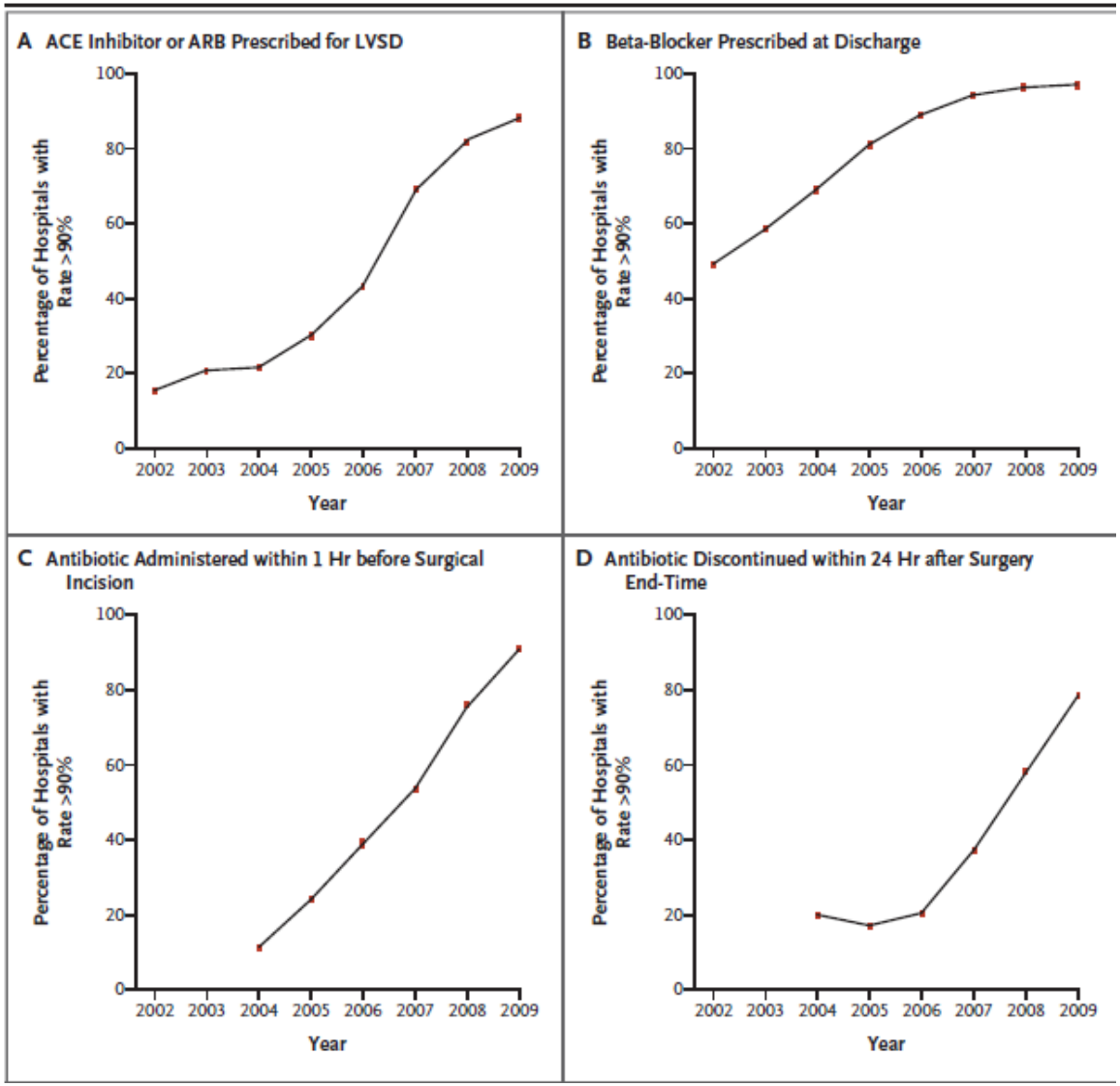
ZIP Code or City, State or State

Hospital name

Full or Partial Hospital Name

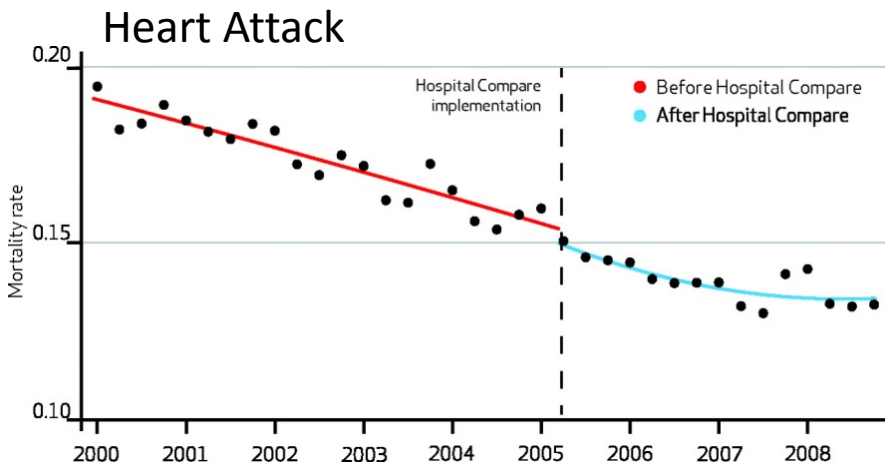
Search

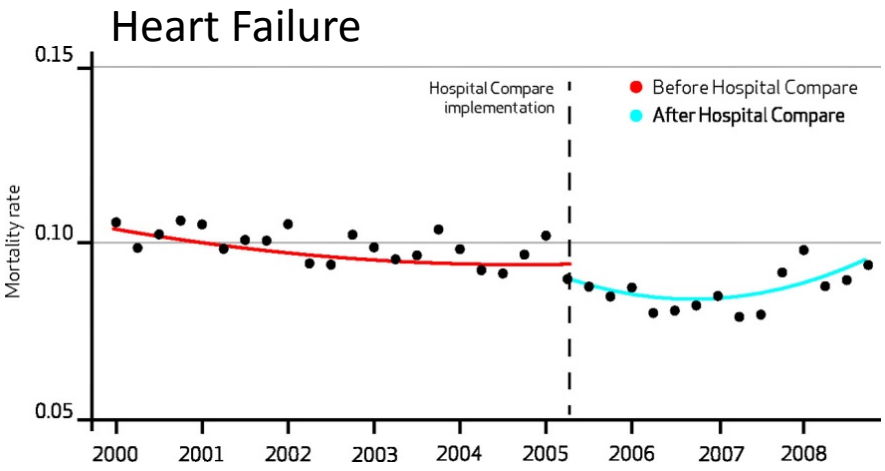
Improvement in Process of Care Measures

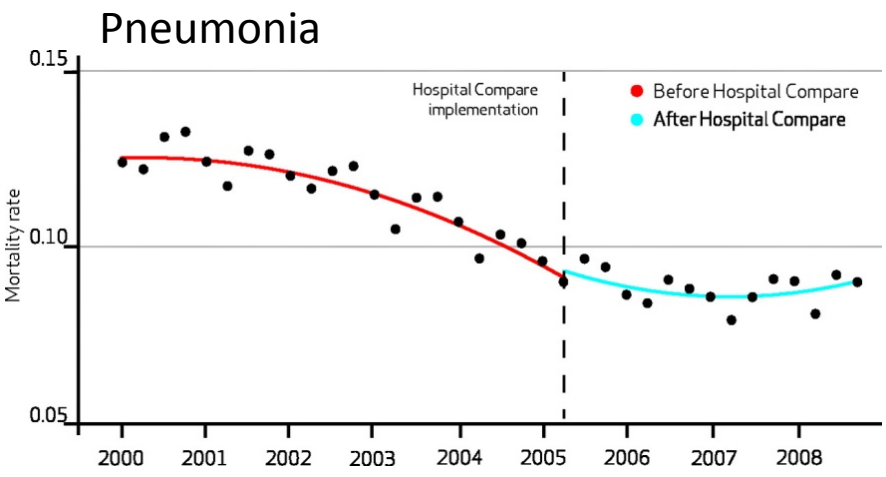


Chassin MR et al. N Engl J Med. 2010.

Little to No Incremental Improvement in Mortality in Era of Public Reporting

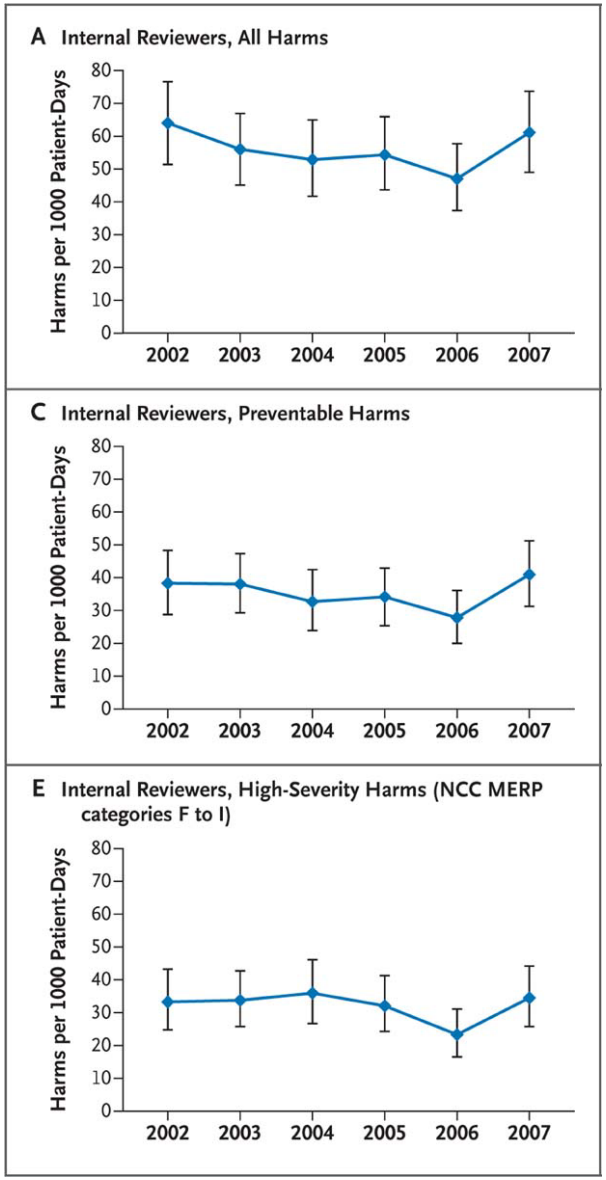






Ryan AM et al. Health Affairs. 2012

Rates of All Harms, Preventable Harms, and High-Severity Harms per 1000 Patient-Days



- 10 Hospitals in NC
- No reduction in harm (AEs) over 5 yr period

Landrigan CP et al. N Engl J Med 2010;363:2124-2134

Increasing Pressure to Improve Quality (and reduce cost)

- Hospital Acquired Conditions
- Hospital Value Based Purchasing
  - Process measures & HCAHPS for FY13
  - AMI, HF, PN mortality proposed for FY14
- Readmissions Reduction Program
- HITECH and Meaningful Use
- PQRS / physician compare

Medicare.gov | Physician Compare

The Official U.S. Government Site for Medicare

Find Physicians and Other Healthcare Professionals | Find Group Practices | Search Another Way

A field with an asterisk (*) is required.

* Location

ZIP Code/City, State/Address/Landmark

* What are you searching for?

Doctor Last Name or Specialty or Medical Condition

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Specialty: Multiple

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Is this your Group Practice?
Update your information here

General Information | Locations | Clinical Quality of Care | Affiliated Healthcare Professionals

Quality of Care for Patients with Diabetes

Some group practices do a better job than others at providing care that is known to get the best results for patients with diabetes. Medicare looked at a sample of patients in the group practice to help you compare how well group practices are providing the recommended care to their patients with diabetes and helping them to control their blood sugar, blood pressure, and cholesterol. Medicare used this information to give the group practice a score on each measure. The score is presented as stars and as a percent. (more information)

More stars are better.

Controlling blood sugar levels in patients with diabetes.	★★★☆☆	61%
Controlling blood pressure in patients with diabetes.	★★★½☆	68%
Prescribing aspirin to patients with diabetes and heart disease.	★★☆☆☆	47%
Patients with diabetes who do not use tobacco.	★★★★½	86%

Measurement for Improvement:

Obtaining, analyzing, and displaying data

Key Questions for Measurement for Improvement

- Which patients are included / excluded?
- Does data exist? Or do we need to collect?
- What data will identify drivers of performance?
- Process or outcome?
- What is the control/comparison for the intervention?
- What confounders might be present?
- How will you summarize your results?

Falls version 3.0

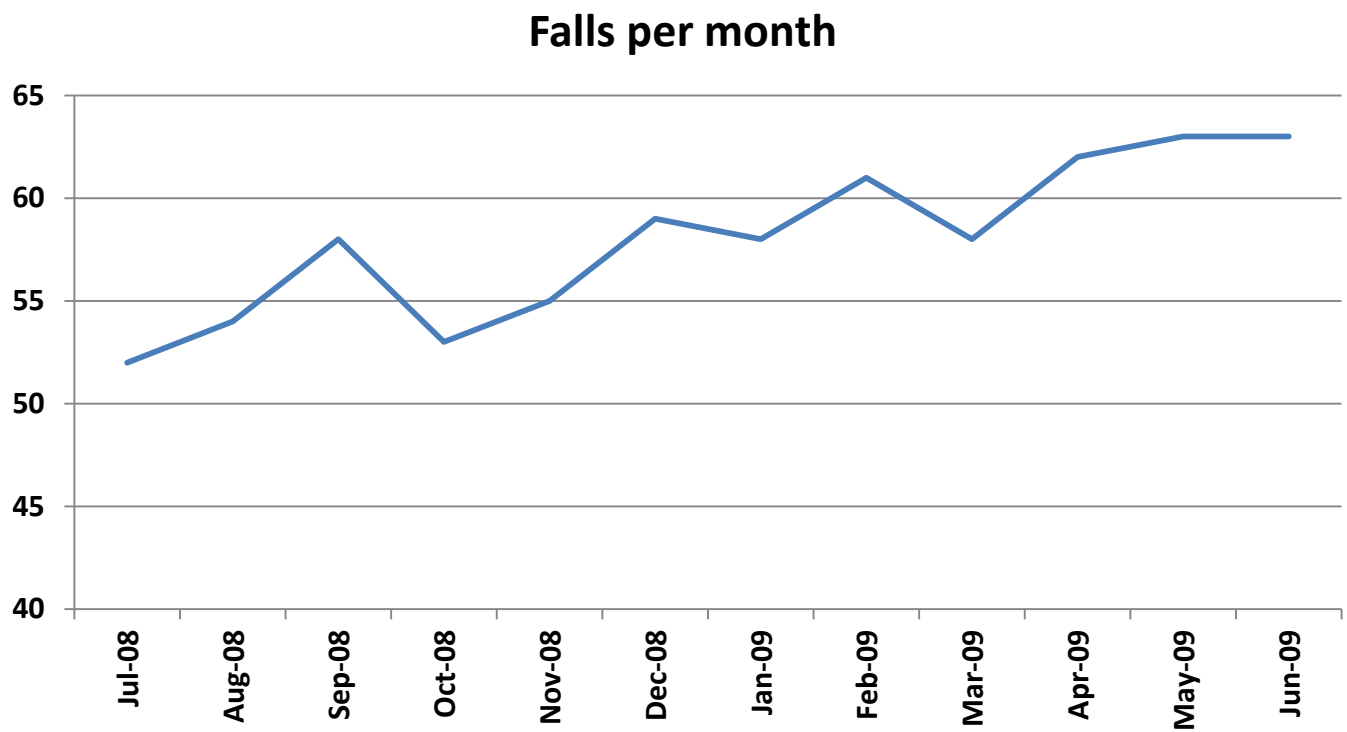
- Data obtained from incident reporting system

Number of Falls each month											
Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09
52	54	58	53	55	59	58	61	58	62	63	63

- Falls are getting worse!
- What did we do in the fall that worked so well?

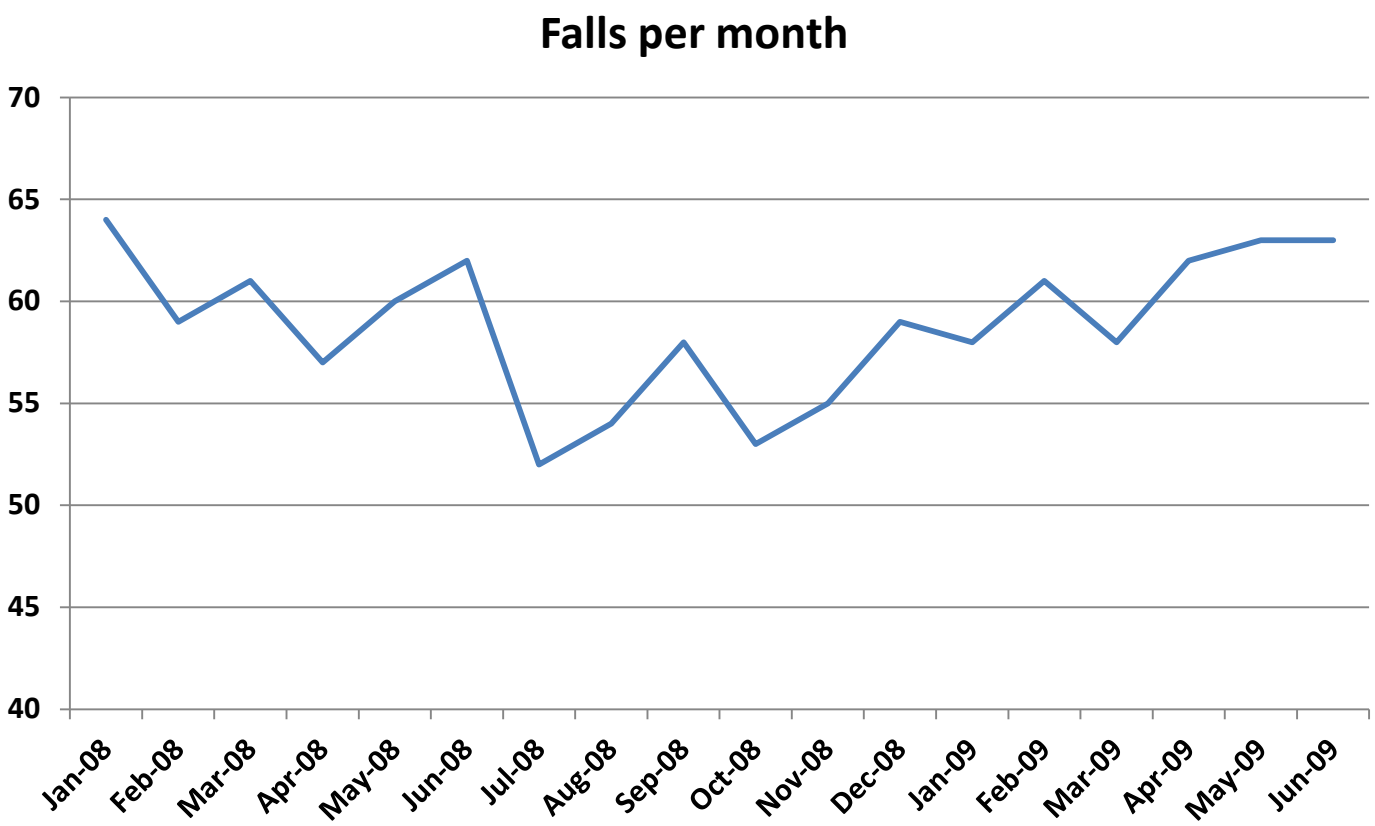
- Why are some cells red and some green?
- Can we see this on a run chart?

Falls Run Chart

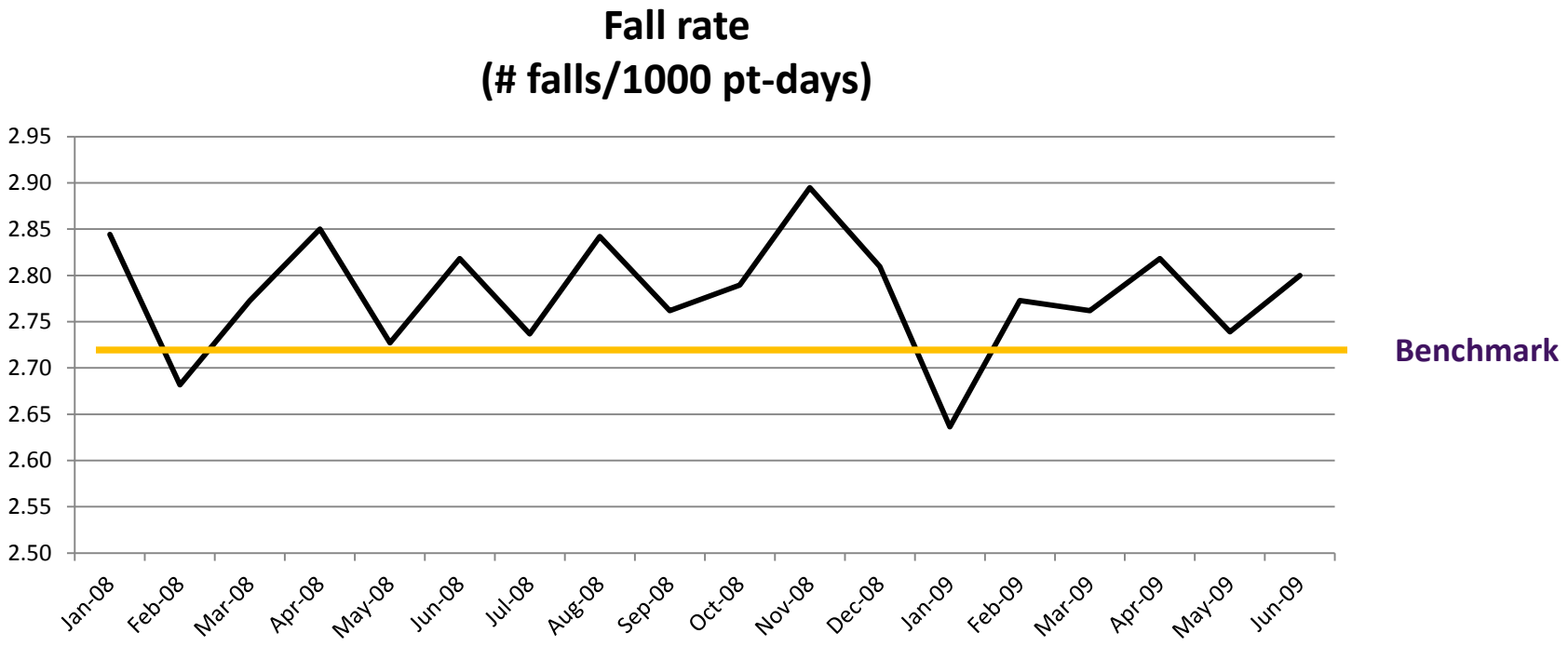


- Can we go back a bit further?
- And account for changes in volume?

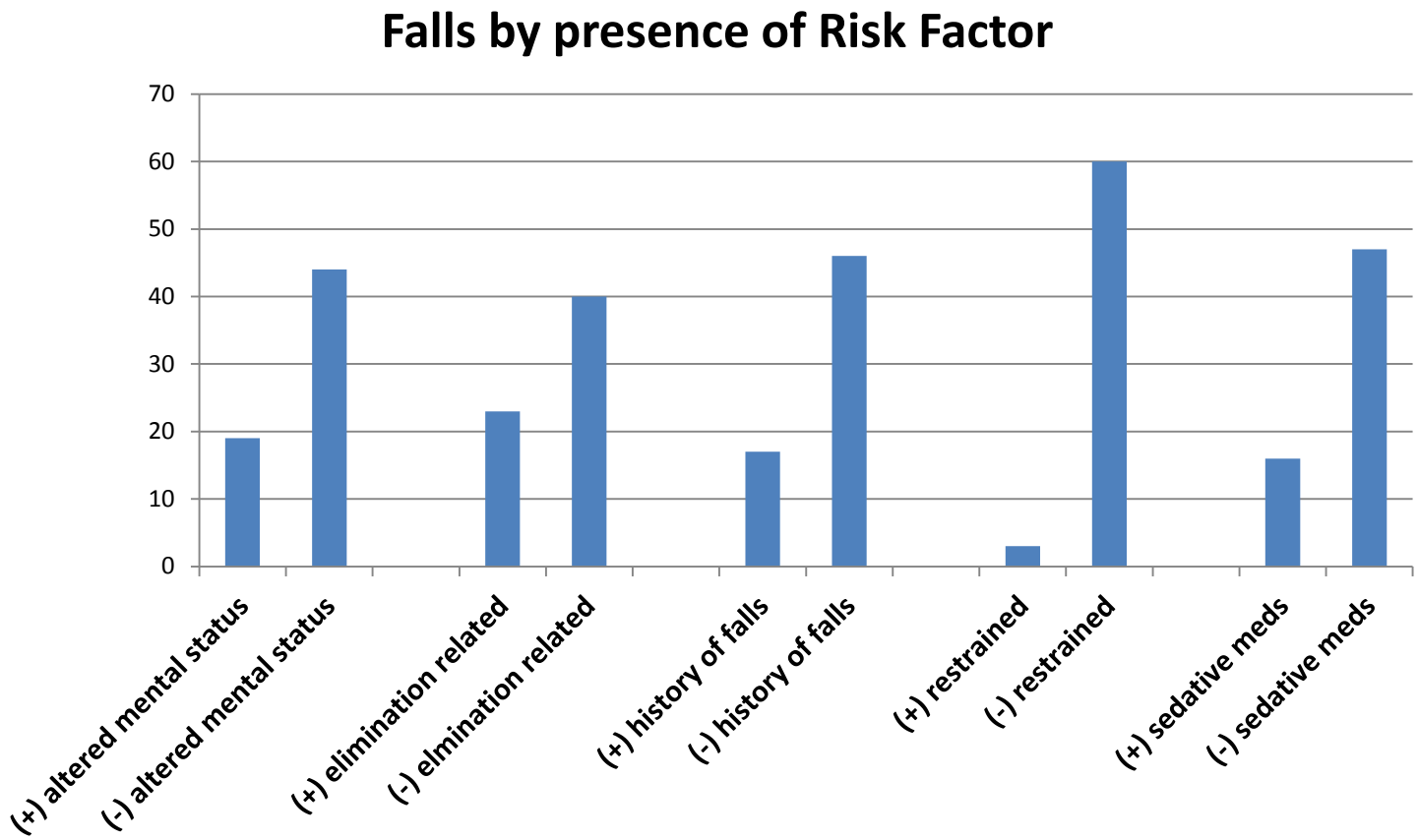
Falls: not a new problem



Falls: not a new problem

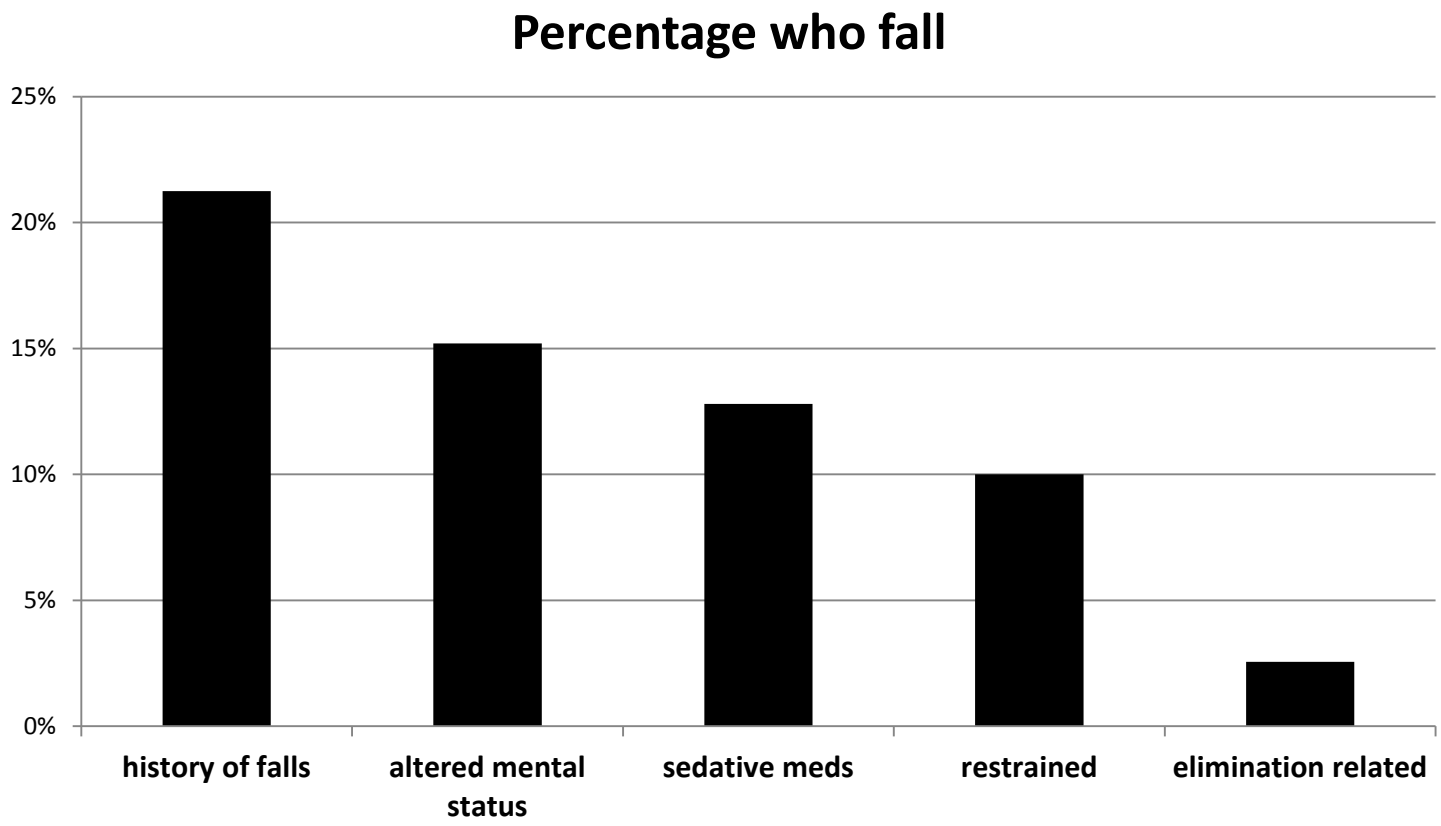


How can we identify pts at risk?



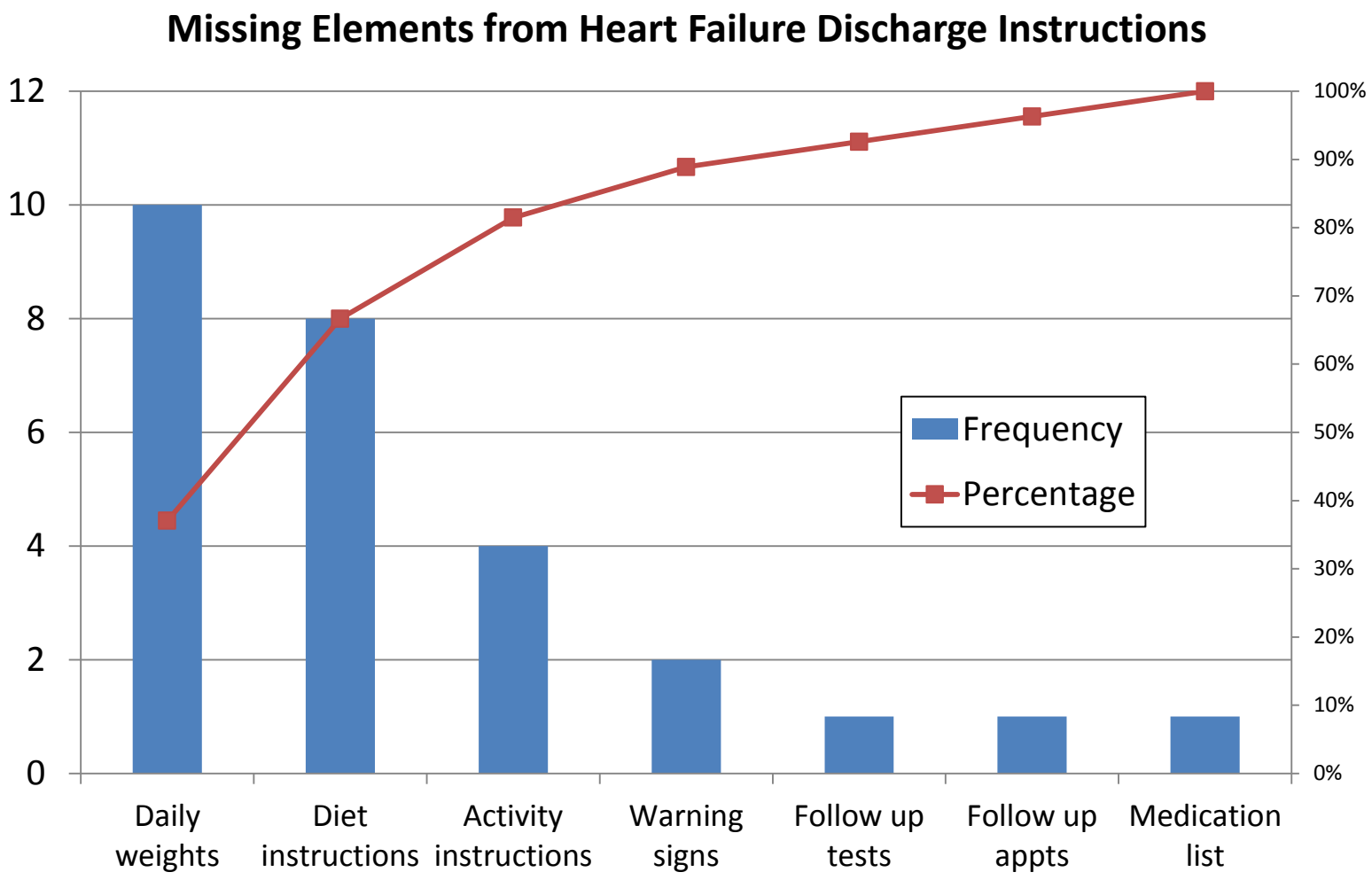
- Doesn’t address background rate of exposure to potential risk factors

Falls in patients exposed to risk



Order Results to Emphasize Key Points!

Pareto Chart



Exercise

Conclusions

- Discussion of assumptions and stakeholder interests bring relevance to measurement
- Use SPO framework and highlight pros/cons of measures (existing and potential)
- Introduce issues related to obtaining, analyzing, & displaying data with examples
- Dedicate time to mentor learners as they define measures and interpret data

QUALITY

THE RACE FOR QUALITY HAS NO FINISH LINE-
SO TECHNICALLY IT'S MORE LIKE A DEATH MARCH.