How Does My Organization Select Performance Measures?

A Guide for Small Hospitals

What is performance measurement?

Performance in health care is what is done and how well it is done; it can lead to measurable results in:

- health outcomes
- health status
- patient perception of health care

Clinical outcomes of interest include:

- Prevention of illness, disability and death
- Restoration (or maintenance) of function as affection by disease:
    - physical function (locomotion, vision, ADL)
    - psychological function (memory, cognition, mood)
    - social function (interpersonal relations, communication)
    - role function (parent, student, employee)
- Cure (or retardation) of disease (cancer, infection)
- Relief of physical and/or psychological discomfort (pain, paresthesia, depression)

Characteristics of good measures:

- Significance -- relevance and priority for performance improvement opportunities
- Range of services -- scope
- Reliability and validity -- accuracy and reproducibility
- Cost effectiveness and ease of implementation
- Discrimination ability
- Proxy for outcome (process measure)
- Under provider control
- Accounts for confounding influences of patient factors (risk adjustment)
- Public health

Focus of performance measures:

- *Desirable event indicators*
    - Creatinine clearance measured in patients greater than 65 years old
    - Client satisfaction with services (use any valid and reliable instrument)
- *Undesirable event indicators*
    - Patient falls
    - Surgical site infections

Calculations for performance measures:

- *Proportion* (numerator is a subset of the denominator -- *blood transfusion reaction*)
- *Ratio* (numerator has a relationship with the denominator -- *central line infection per 1000 days)*
- Continuous variable (average number on continuous numerical scale -- *length of stay for pneumonia patients)*

The best approach to selecting performance measures:

- What do I want to measure?
- Are there reliable data available?
- Do the benefits of additional data collection outweigh the costs of data collection?

Characteristics of acceptable clinical measures:

- Assess the process or outcome associated with delivery of clinical services
- Allow intra- and interorganizational comparisons
- Are condition or procedure specific
- Focus on a discrete population
- Are amenable to monthly data points
- The numerator/denominator coherently reflects the population or event of interest
- Identify opportunities to improve care
- Usefulness in accreditation process

Types of measures most frequently selected as of January 1999:

• **Hospitals:**
  • perioperative care
  • obstetrical care
  • congestive heart failure
  • acute myocardial infarction
  • respiratory care
  • rehabilitation
  • emergency department care
  • immunizations
  • falls
  • antibiotic use
	• **Long term care organizations:**
	  • falls
	  • decubitus (pressure) ulcers
	  • weight change
	  • restraints and seclusion
	  • incontinence
	  • activities of daily living
	  • depression
	  • medications:
	  • number of medications
	  • antipsychotic
	  • antianxiety
	  • hypnotic
	  • psychotropic

Examples of some hospital/long term care measures:

- Length of stay for acute myocardial infarction (AMI) patients
- Patients experiencing AMI who receive aspirin (acetylsalicylic acid [ASA]) within 24 hours of diagnosis
- Patients with chest pain who receive an electrocardiogram (ECG) within one hour of presentation to the emergency department
- Congestive heart failure patients that are readmitted within 30 days from the same DRG 127
- Rate of usage of thrombolytics in acute AMI population
- Time from ED arrival to thrombolysis for AMI patients
- Laparoscopic cholecystectomy utilization rate
- Unscheduled inpatient admission following ambulatory diagnostic endoscopy
- Patient falls per 100 days
- Patient injury resulting from a medical equipment failure or malfunction
- Adverse drug reactions per 100 days
- Medication error rate per 100 doses
- Blood transfusion reaction
- Low birth weight rate
- Live born infant transfers
- Newborn mortality
- Hospital-acquired surgical site infection
- Patients delivered by cesarean section
- Repeat cesarean section deliveries
- Attempted vaginal birth after cesarean section (VBAC)
- Length of stay for chronic obstructive pulmonary disease (COPD) patients
- Perioperative mortality