AHRQ Quality Indicators

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Cost Review Commission
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Overview

- AHRQ Quality Indicators
- Current Uses of the Quality Indicators
- Case Studies of P4P
- Future Enhancements
AHRQ Quality Indicators (QIs)

- Developed through contract with UCSF-Stanford Evidence-based Practice Center
- Use existing hospital discharge data, based on readily available data elements
- Incorporate severity adjustment methods (APR-DRGs, comorbidity groupings) in IQIs
- Current modules: Prevention QIs, Inpatient QIs, and Patient Safety Indicators
Example Indicator Evaluation

1. **LITERATURE REVIEW**
   - USER DATA

2. **PANEL EVALUATION**
   - FURTHER EMPIRICAL ANALYSES
   - Refined Def.

3. **INITIAL EMPIRICAL ANALYSES AND DEFINITION**
   - FURTHER REVIEW?
   - Final Definition
Overview of AHRQ QIs

- Prevention Quality Indicators
  - Ambulatory care sensitive conditions
  - Mortality following procedures
  - Mortality for medical conditions
  - Utilization of procedures
  - Volume of procedures
- Inpatient Quality Indicators
- Patient Safety Indicators
  - Post-operative complications
  - Iatrogenic conditions
Structure of AHRQ QI

- Definitions based on
  - ICD-9-CM diagnosis and procedure codes
  - Often along with DRG, MDC, sex, age, procedure dates, admission type, admission source, discharge disposition, discharge quarter (new)

- Numerator is the number of cases “flagged” with the outcome of interest (e.g., Postoperative sepsis, avoidable hospitalization for asthma, death)

- Denominator is the population at risk (e.g. pneumonia patients, elective surgical patients, county population from census data)

- The observed rate is numerator / denominator

- Volume counts for selected procedures
Advantages

Public Access

- All development documentation and details on each indicator available on website [www.qualityindicators.ahrq.gov](http://www.qualityindicators.ahrq.gov)
- Software available to download at no cost
- Standardized indicator definitions
- Can be used with any administrative data: HCUP, MedPac, state datasets, payer data, hospital internal data
Advantages (cont’d)

Scope

- 79 individual measures, will be more
- Each measure can be stratified by other variables including patient race, age, sex, provider, geographic region
- Include priority populations and areas: Child health, women’s health (pregnancy and childbirth), diabetes, hypertension, ischemic heart disease, stroke, asthma, patient safety, preventative care
- Focus on acute care but do cross over to community and outpatient care delivery settings.
Advantages

- Indicator Maintenance
- National Benchmarks
  - National Healthcare Quality Report
  - National Healthcare Disparities Report
  - HCUPnet
Welcome to HCUPnet.

Click the buttons to make a selection. Click the hyperlinks for information and definitions.

**National Statistics**
National and regional estimates on hospital use for all patients from the HCUP Nationwide Inpatient Sample (NIS).

**For Children Only**
National estimates on use of hospitals by children (age 0-17 years) from the HCUP Kids' Inpatient Database (KID).

**State Statistics**
Information on stays in hospitals for participating states from the HCUP State Inpatient Databases (SID).

**Quick National Statistics**
Ready-to-use tables on commonly requested information from the HCUP Nationwide Inpatient Sample (NIS).

**AHRQ Quality Indicators**
National information on measures of health care quality based on the NIS, using the AHRQ Quality Indicators (QIs)
Limitations

- Data-known limitations of administrative data
- Developed for quality improvement, evaluations conducted within that context
- Risk-adjustment limitations
- Evidence-base timing: Research vs. demand for information
General Uses of the AHRQ QIs

- **Hospital Quality Improvement – Internal and External**
  - Individual hospitals and health care systems
  - Hospital association member-only reports

- **National, State and Regional Reporting**
  - National Healthcare Quality/Disparities Reports

- **Public Reporting by Hospital**
  - Texas, New York, Colorado, Oregon, Massachusetts, Wisconsin

- **Pay-for-Performance by Hospital**
  - CMS/Premier Demo, Anthem of Virginia

- **Hospital Profiling**
  - Blue Cross/Blue Shield of Illinois
Pay for Performance: Case Studies

- CMS/Premier Demonstration Project
- Blue Cross/Blue Shield of Illinois
- Anthem BC/BS Virginia Pay for Performance Project
CMS / Premier: Pay for Performance Demonstration Project
- Two PSIs
  - Postoperative hemorrhage or hematoma and
  - Postoperative physiological and metabolic derangement
- In two distinct patient populations - hip and knee replacement and CABG
- Will create composite score (quality and safety)
Blue Cross Blue Shield of Illinois (BCBSIL)

- Hospital Profiles include multiple aspects of hospital performance. Indicators include:
  - Compliance with the Leapfrog standards
  - AHRQ Quality Indicators – Inpatient and Patient Safety for 2004 profiles
  - Hospital-specific satisfaction and quality indicators from the BCBSIL
  - Accreditation status
  - Percentage of board certified physicians
  - And several other indicators...
Anthem BC/BS Virginia Pay for Performance Project

- Hospitals select 2 of 9 PSIs
- Focus on monitoring patient safety, not on specific scores
- Virginia Health Information reports to hospitals – hospital compared to peer groups
Guidance for Using the AHRQ Quality Indicators for Hospital-level Public Reporting or Payment

http://www.qualityindicators.ahrq.gov/
Does not endorse any individual or set of QIs for hospital level public reporting or P4P

Notes all potentially appropriate based on:
- Program purpose / goals
- Data availability
- Data quality (integrity, reliability, validity)

Suggests looking at process and outcome measures for a more complete picture of quality; consider staged implementation; use of composite measures, etc.
Future Enhancements & Activities

- Development of Pediatric QIs (PedQIs): Release will occur in two phases
  - First - Refinement of existing QIs to reflect more accurately uniqueness of measurements applied to the pediatric population
  - Second - Development of new QIs
Future Enhancements & Activities

- Expanded contract support
  - Literature review – all QIs
    - Standardization with other measures when possible
  - Evaluation of risk-adjustment methodology
  - Enhance documentation for differing audiences
Future Enhancements & Activities

- Scheduled indicator updates
  - Updates for ICD-9 coding changes – yearly
    - PQIs: November
    - IQIs: December
    - PSIs: January
  - Updates for indicator refinements based on literature review, updated evidence and user feedback – yearly as needed
    - PQIs: November
    - IQIs: December
    - PSIs: January
Future Enhancements & Activities

- Reporting Template
- Composites Development
- NQF Process
For More Information on AHRQ QIs

Additional information and assistance

- E-mail: support@qualityindicators.ahrq.gov
- Website: http://qualityindicators.ahrq.gov/
  - QI documentation and software is available
- Support Phone: (888) 512-6090 (voice mail)
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