



The Nexus of Cost and Quality: Four AHRQ Initiatives

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Goals

- Identify AHRQ role in quality
- Describe four interrelated quality initiatives
 - National Healthcare Quality Report (NHQR)
 - Healthcare Cost and Utilization Project
 - AHRQ Quality Indicators
 - Research on competition and markets
- 2 ■ Get input on future steps and collaborations





Recent Press Coverage on Quality

**U.S. Medical Care Improves Overall
Although Gains Have Been Made Since First Study,
Quality of Treatment Falls Far Short of Optimal**

**Nursing Home
Report Card
Is Released by
Government**

“This is a new approach,”
Said Tommy G. Thompson,
the secretary of health and
human services.”

**Change in the Quality of Care
Delivered to Medicare Beneficiaries,
1998-1999 to 2000-2001**

**Hospitals Will
Be Rated on
Their
Performance**

“I am excited and proud to work
with America’s hospitals on this
important step forward for the
quality information movement,”
Secretary Thompson said at a
news conference.



Ties to Concerns on Cost





Concern Leads to Three Questions:

- How good is care?
 - Tracking
- How can I improve care?
 - Internal quality improvement
- How can policy improve care?
 - Encouraging competition based on quality

Underlying goal of all 3: to make care better



Answers Are Not Simple. Require:

- Good measures, good data, good methodologies, good presentation format
 - For all three questions
 - But needs vary by use
- Information on how to improve care
 - Clinical changes
 - Training
 - Payment and organizational changes
 - Changes in rules of the marketplace
 - IT
 - Consumer information



Agency for Healthcare Research and Quality (AHRQ)

- Conduct and support research that develops and presents scientific evidence on all aspects of health care.
- Synthesize and disseminate available scientific evidence for use by patients, consumers, practitioners, providers, purchasers, policymakers, and educators.
- Actively promote implementation of evidence-based approaches.



Hierarchy of Research Impact





The Cost-Quality Nexus: Four Illustrations

- National Healthcare Quality Report (NHQR)
- Healthcare Cost and Utilization Project
- Quality Indicators
- Research on Competition and Markets



#1: National Healthcare Quality Report

- Mandated by Congress in the Healthcare Research and Quality Act (PL. 106-129)
 - “Beginning in fiscal year 2003, the Secretary, acting through the Director, shall submit to Congress an annual report on national trends in the quality of health care provided to the American people.”



Conceptual Framework



Agency for Healthcare Research and Quality

Quality Research for Quality Healthcare

National Healthcare Quality Report Framework

Components of Health Care Quality

Health care needs

Effectiveness

Safety

Timeliness

Patient centeredness

Staying healthy

Getting better

Living with illness or disability

End of life care

	Effectiveness	Safety	Timeliness	Patient centeredness
Staying healthy				
Getting better				
Living with illness or disability				
End of life care				

- Equity is a component of health care quality that applies to all cells in the matrix
- Resource generation is another component discussed in the National Healthcare Report
- The first NHQR is due to Congress in 2003.





Who Has Helped Design the NHQR?

- AHRQ-led effort starting in 1999
- Extensive input from other organizations and stakeholders, including:
 - IOM, NAHDO, NASHP, Clinicians, members of the public, Quality Interagency Task Force, NCVHS, Congressional staff, AMA, AHA, JCAHO, Midwest Business Group on Health
- DHHS-wide report with input from numerous agencies



Measures in NHQR

- ~ 150 measures within components of quality
- Diverse data sources including:
 - BRFSS=Behavioral Risk Factor Surveillance System
 - MEPS=Medical Expenditure Panel Survey
 - SEER=Surveillance, Epidemiology, and End Results Program
 - HCUP=Healthcare Cost and Utilization Project



Reporting Strategy

Product	Audience		
	Policy makers	Analysts	Public
Report to Congress			
Summary report	X	X	
Detailed tables		X	
Technical specifications		X	
Web-based reporting tool	X	X	X
Report for public			X



Potential Uses of NHQR

- Inform policy makers, health care analysts, and the public about the quality of health care in the nation
- Monitor progress over time
- Provide national benchmarks using standardized measures
- Identify areas for improvement
- Help act as a catalyst for action



What Will Be the Impact of the First NHQR?

- For Nation - baseline to judge future performance of entire health care system
- For States and markets- support State and local quality reporting efforts
- For Department - unifying tool for measurement and improvement initiatives
- For Agency: Prototype for later refinements



Challenges

- Moving from national to market levels
- Moving from measurement to improvement
- Adding cost and efficiency dimension



#2: Healthcare Cost and Utilization Project (HCUP)

- State-Private-Federal partnership
- Uniform longitudinal database for cross-state analysis & improvement
- Database has 80% of all inpatient discharges
- Includes web-based products and software tools
- Includes charge, payer, clinical data
- New methodology converts charge data to cost
- Growing to include ED, ambulatory surgery



HCUP Databases

- State Inpatient Databases (SID)
 - All discharge data from states
 - Uniform format
- State Outpatient Databases (SOD)
 - Ambulatory surgery
 - Emergency department data
- Nationwide Inpatient Sample (NIS)
- Kids' Inpatient Database (KID)



Strengths of HCUP

- Captures all hospital stays in state
- Permits state and market-level analyses
- Permits subpopulation focus (e.g. by race)
- Permits study of rare diseases or procedures
- All-payer: includes uninsured
- Linked to other databases
- Includes charge data
- Permits cross-state, trend analysis

HCUP Tools



HCUPnet: An interactive, on-line query tool for HCUP data

Clinical Classification Software (CCS): Clinical grouper of ICD-9-CM and ICD-10 codes

AHRQ Quality Indicators: Measures of health care quality based on hospital inpatient data

Comorbidity Software: Identifies comorbidities in hospital discharge records using ICD-9-CM codes and DRGs

HCUP Research Products



Products include:

Research Studies

Statistics and Fact Books on HCUP Data





HCUPnet: A tool for identifying, tracking, and analyzing national hospital statistics - Netscape

File Edit View Go Communicator Help

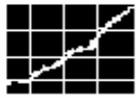
Back Forward Reload Home Search Netscape Print Security Stop

Bookmarks Location: <http://www.ahrq.gov/data/hcup/hcupnet.htm> What's Related

[\[Text-Only Version\]](#)

Welcome to HCUPnet

a tool for identifying, tracking, analyzing, and comparing statistics on hospitals at the national, regional, and state level



HCUP

HEALTHCARE COST AND UTILIZATION PROJECT

With HCUPnet you have easy access to national statistics and trends and selected state statistics about hospital stays. HCUPnet guides you step-by-step to obtain the statistics you need. HCUPnet generates statistics using the 1997 data from the [Nationwide Inpatient Sample \(NIS\)](#) and from the [State Inpatient Databases \(SID\)](#) for those states that have agreed to participate. HCUPnet is part of the [Healthcare Cost and Utilization Project \(HCUP\)](#) of the Agency for Healthcare Research and Quality (AHRQ).

[Start HCUPnet](#) [More HCUPnet Info](#)

Document: Done



Using Provider Data to Improve Quality: Formula for Data Value

- Use data that's already there on cost and quality
- Partner with those who have it and know it
- Turn it into information quickly
- Put it into form audience can use
- Enable analysis and improvement at multiple levels
 - Provider
 - Market
 - State
 - Nation



Other Data Initiatives Using this Formula

- HIV Research Network
- Medical group practice database
- Integrated Delivery System Research Network (IDSRN)
- mAHRQet file



IDSRN

- 9 practice-based research consortia
- Represent continuum of care in markets in all 50 states
- Under contract, perform through task orders
- Do research, assess needs, apply/ test findings
- Most are 12-18 month timelines
- Use health plan, other provider data
- 9 cofunded; more cofunded projects likely



Strategic Advantages: Size and Breadth



IDSRN includes:

- 55 million patients
- 728,000 physicians
- Majority of acute inpatient facilities
- 2,250 outpatient clinics
- 450 long term care facilities
- 56 rehabilitation facilities
- 30 home health agencies
- 63 dental facilities



Genesis of mAHRQet File: Market-level Data Are

- Rare
 - Most databases are national; can't drill down
- Drawn from a single-provider
 - hospitals, physicians, OR managed care plans
- Single-purpose
 - “owned” by the research team
- Inconsistent
 - use disparate measures and data



mAHRQet File: The Approach

- Start with existing data
- Bring together all available data on markets
 - Structure, prices, costs, competition, growth
- Permit flexible boundaries for defining market
- Provide one-stop shopping for
 - Policy information
 - Research data
- Provide easy access
 - Downloadable data files, easy to use Web site
 - High quality documentation



#3: AHRQ Quality Indicators?

- In the early 1990s, HCUP state partners asked: “Help us make better use of our data.”
- Basic philosophy: Create indicators of quality, not necessarily definitive measures
- Primary constraints
 - Use hospital discharge abstract data
 - No need for linking
 - Based on readily available data elements: the common denominator dataset



Stanford UCSF Task Order Contract

■ Purpose:

- Assess current QIs and develop new ones for use in NHQR
- Incorporate severity adjustment methods
- Create new software for dissemination

■ Methods

- Interview technical experts, users
- Develop evaluation framework
- Conduct literature review
- Assess alternative risk adjustment strategies
- Empirically evaluate measures



Overview of AHRQ QIs

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



Uses of AHRQ QIs

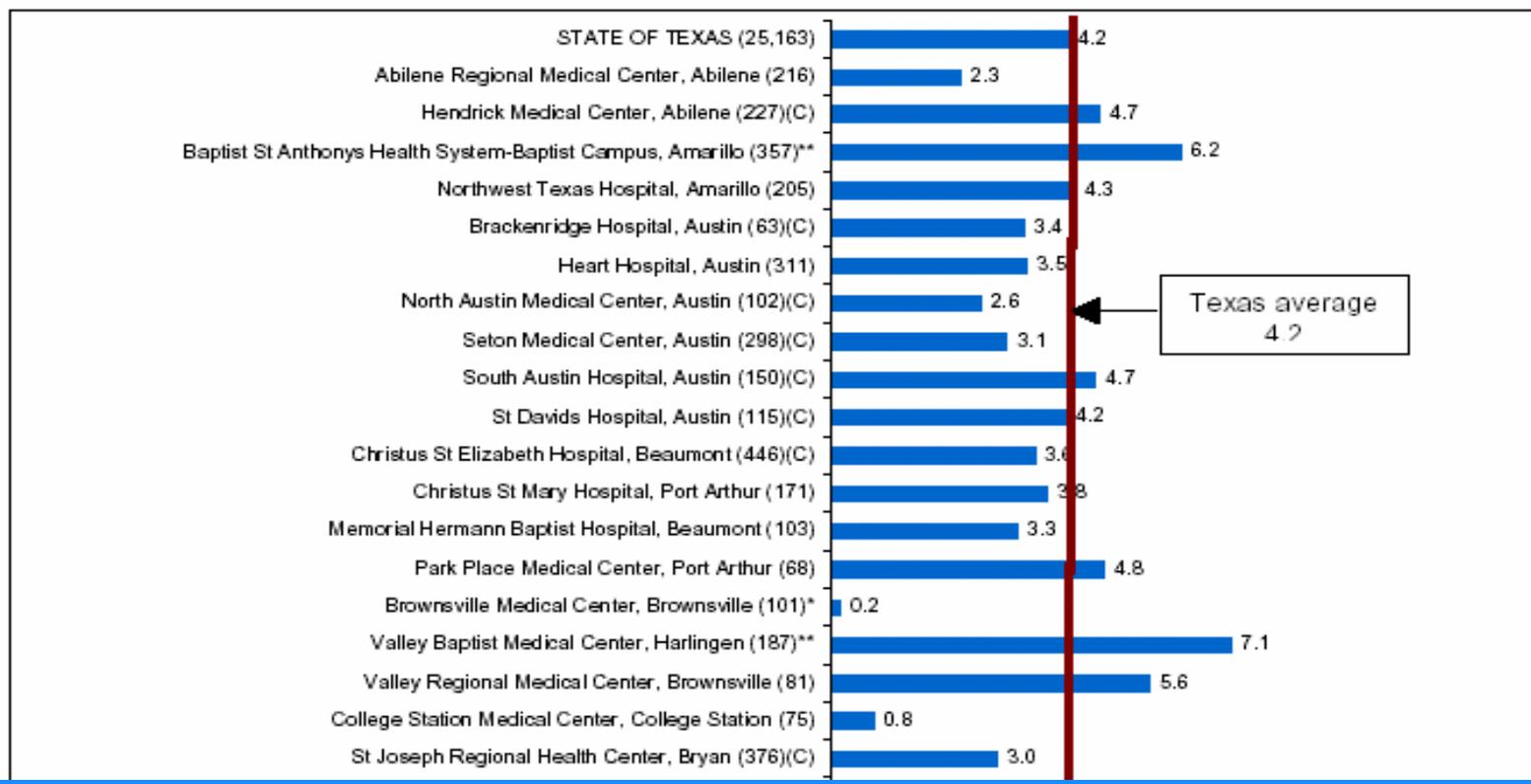
- Tracking
 - NHQR, NHDR
- Research
- Quality improvement
 - State
 - Market-level
 - Hospital-level
- Public reporting ??
 - Two states using IQIs



Texas Health Care Information Council

**Texas Health Care Information Council
Indicators of Inpatient Care in Texas Hospitals, 2000
Table 12. Coronary Artery Bypass Graft Risk-Adjusted Mortality Rate**

Better quality may be associated with lower rates.
Number of cases in parentheses. Rates not calculated for hospitals with fewer than 30 cases.
Hospital comments indicated by (C) following number of cases.





Niagara Health Quality Coalition



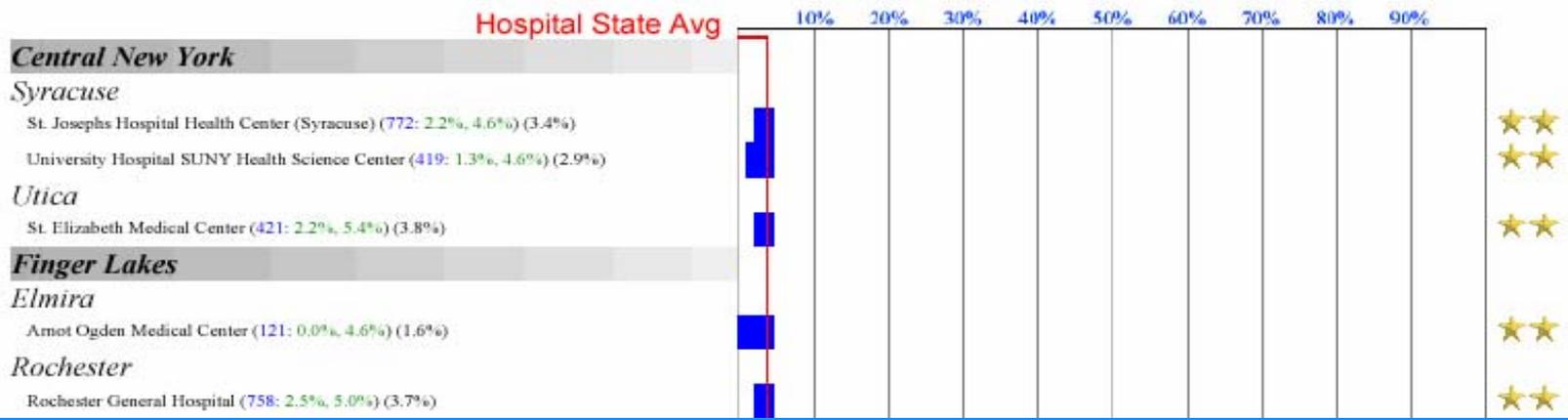
Graph 12: Coronary Artery Bypass Graft Mortality Rate

Coronary artery bypass graft (CABG) surgery reroutes or 'bypasses' blood around clogged arteries to improve the supply of oxygenated blood to the heart. Thousands of bypass surgeries are performed each year and the death rate is relatively low. However, this relatively common procedure requires skill in the use of complex equipment.

State total in cases: 19,141
State risk-adjusted mortality rate: 3.5%

- ★★★★ Better than state average
- ★★★ At the state average
- ★ Worse than state average

There are 39 hospitals in this table.





Future Directions for AHRQ QIs

- Refine in light of current uses
- Identify potential users; assess and respond to needs
- Do additional validation studies
- Expand indicators
 - Pediatric
- Evaluate need for expanded datasets to include:
 - State-specific innovations (onset of diagnosis)
 - Ability to link data across hospital stays, outpatient settings
 - More clinical information



#4: Research on Markets and Competition: Central Questions

- What impact does competition have on quality?
 - Does the answer to this question differ based on the competition metric used?
- What economic factors affect consolidations?
- Do consolidating institutions change quality levels?
- Do different types of consolidations have different quality effects?



Markets and Competition (cont'd)

- Do consolidations have disparate impacts on patients with different types of insurance?
- Do consolidations lead to clinical integration?
 - Example: Increase in volume of surgical procedures?
- What is the role of incentives in mediating the link between competition and quality?
- What is the impact of hospital report cards (e.g. using Quality Indicators) on the market?



Questions?

**Audience Discussion
Potential Collaborations**

Thank you!



For More Information

- On NHQR and HCUP: www.ahrq.gov
- On AHRQ Quality Indicators: Additional information and assistance
 - E-mail: support@qualityindicators.ahrq.gov
 - Website: <http://qualityindicators.ahrq.gov/>
 - QI documentation and software is available on the website
 - Phone: (888) 512-6090
- On Markets and Competition: mhagan@ahrq.gov