

7th International Conference on Information Quality (IQ-2002)

Measurement for IQ Improvement: Translating Results from the IQ Survey Into Management Objectives

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Executive Summary: At Cedars-Sinai Medical Center, the Information Quality Survey has been adapted to meet the demands of the operational setting in order to support a formal, pro-active “information supply chain” performance improvement initiative by contributing measurable management objectives.

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- **The Context: Cedars-Sinai Medical Center**
- **Evolution of the Information Quality Survey**
- **Overview of Analyses Performed**
- **Using IQ Survey to Set Improvement Goals**
- **Conclusions, Next Steps**

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The Context: Cedars-Sinai Medical Center

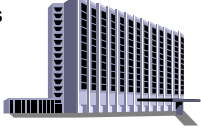
- *The Performance Improvement Environment*
- *The Information Systems Environment*
- *The Data Quality Management Environment*

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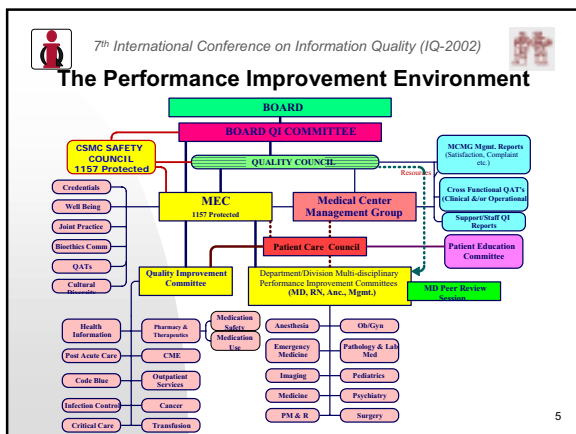
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The Context: Cedars-Sinai Medical Center

- Academic Medical Center/Health System
- Largest Non-Profit Hospital in the Western US
- 898 Beds, 7000 employees, 2000 MDs
- Basic Annual Statistics
 - ◆ 50,000 inpatients
 - ◆ 100,000 outpatients
 - ◆ 75,000 ER visits
 - ◆ 7,000 deliveries



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The Model for Improvement

- What are we trying to accomplish? (Aims)
- How do we know that change is an improvement? (Measures)
- What changes can we make that will result in an improvement?

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The Information Systems Environment

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The Data Quality Management Environment

- 1997 - DPG Convened
- 1998
 - ◆ TDQM Summer Course
 - ◆ DQMWG Spun Off of DPG
 - ◆ IQ Survey, round 1
- 1999
 - ◆ DQ Concept Kick-Off
 - ◆ IQ Survey, round 2
 - ◆ DQ Mgmt Objectives first appear in Annual Plan
- 2000
 - ◆ Big DQ Improvement Project
 - ◆ DQ Mgmt Objectives appear again in Annual Plan
 - ◆ ROM Dept reorganization to capitalize on DQ framework
- 2001
 - ◆ DPG & DQMWG Charters reviewed and renewed
 - ◆ DQ Mgmt Objectives re-emphasized in Annual Plan
 - ◆ IQ Survey, round 3
 - ◆ Data Definitions Group convened
- 2002
 - ◆ DPG focus on establishing proactive Data Quality Management infrastructure
 - ◆ ROM Dept designated as data "clearinghouse" for approval of all clinical statistics reported out
 - ◆ JCAHO accreditation standards for MOI linked to DQM initiative

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Evolution of the Information Quality Survey at Cedars-Sinai Medical Center

- From Research Results to 1st Adaptation
- Refinements Needed for 2nd Version
- Current Version: Capturing a More Complete View of Information Customers' Needs

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From Research Results to 1st Adaptation

- Part I: Background Information
 - ◆ Role and Primary Database or Report
- Part II: Information Quality Assessment
 - ◆ Indicate extent of agreement with 16 statements about 8 dimensions of Information Quality using a 5-point scale
- Part III: Information Importance Rating
 - ◆ Indicate degree of importance of each dimension of Information Quality

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From Research Results to 1st Adaptation

The Eight IQ Dimensions

■ Accessibility	■ Easy to Understand
■ Believability	■ Free of Error
■ Completeness	■ Timeliness
■ Conciseness	■ Value Added

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Refinements Needed for 2nd Version

- All refinements for 2nd version related to Background Information section
- Designation of role narrowed to only Management options
- Item added to identify Division
- Focus of assessment narrowed from database or report options to only reports

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Current Version: Capturing a More Complete View of Information Customers' Needs

- Division identification item retained
- Role designation broadened to include both analysts and managers again
- Option introduced to allow respondent to assess up to 6 databases or reports
- Part IV added to assess information needs not currently being met

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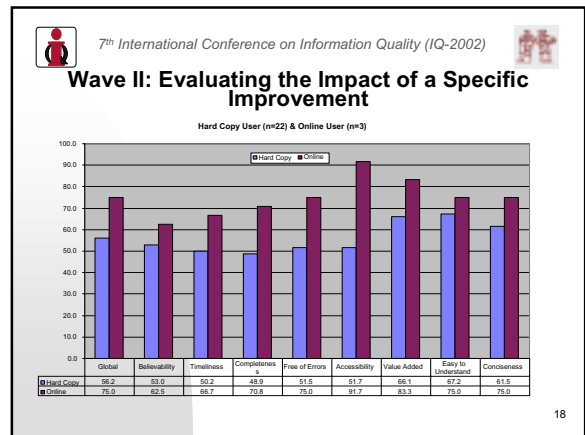
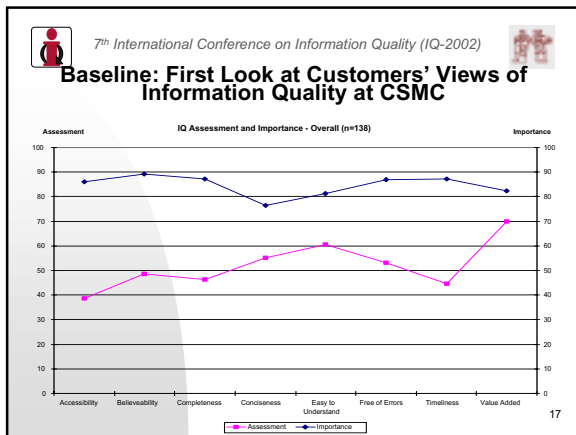
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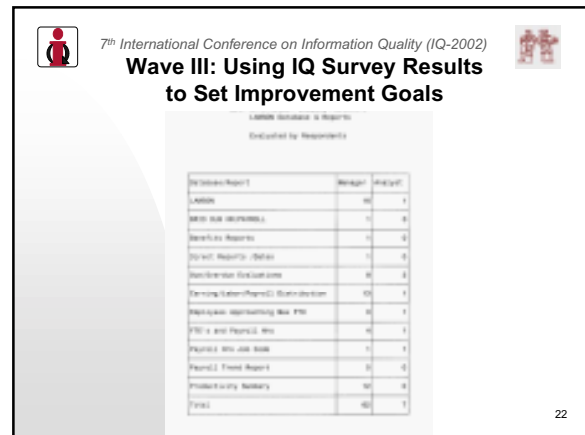
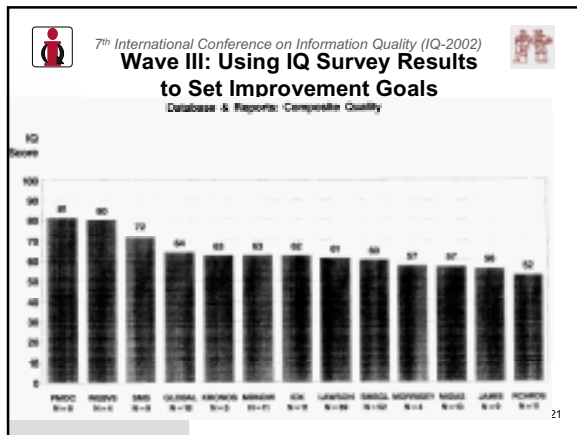
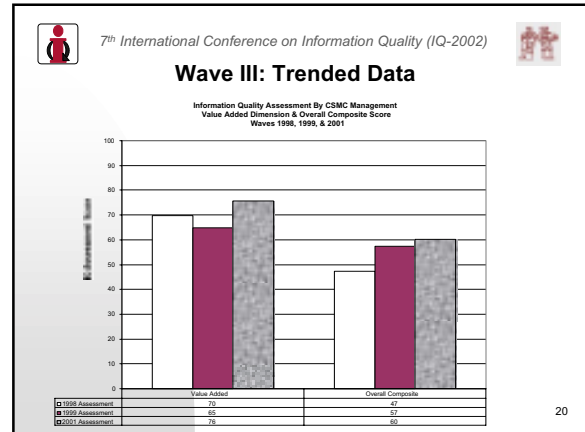
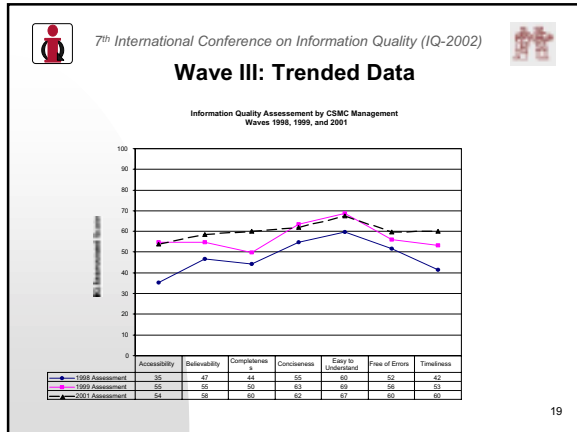
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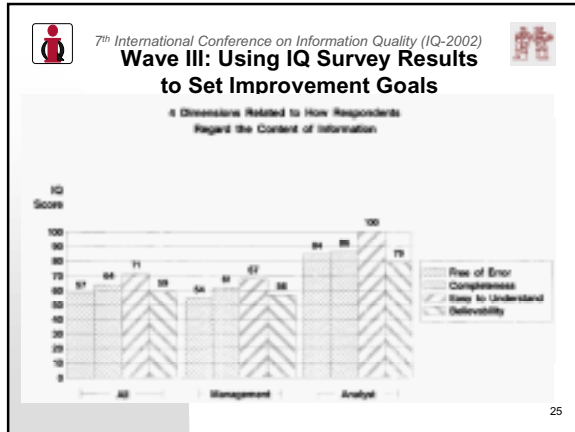
Overview of Analyses Performed

- **Baseline: First Look at Customers' Views of Information Quality at CSMC**
- **Wave II: Evaluating the Impact of a Specific Improvement**
- **Wave III: Trended Data and Using Results to Set Improvement Goals**

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- ### Using IQ Survey Results to Set Improvement Goals
- *The Management of Information Plan*
 - *Formulating Actionable Improvement Goals with IQ Survey Data*
 - *Managing Information Supply Chain Improvement Projects*
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- ### The Management of Information Plan Includes...
- A formal process for assessing information needs, and planning to meet them.
 - Management systems to assure that data collected and entered into automated or manual information systems adheres to required standards for timeliness, completeness, and accuracy.
 - Automated information systems designed to support business processes, by receiving data and preserving standards of completeness and accuracy while supporting required standards for ease of access to as well as timely delivery of appropriate data reports.
 - Data security and protection of patient confidentiality and privacy.
 - The use of aggregated data for internal and external comparisons to pursue opportunities for improvement.
 - The redesign of processes to improve efficiency, collaboration, and information sharing, to enhance patient care and performance.
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- ### Formulating Actionable Improvement Goals with IQ Survey Data
- Run focus group of customers to validate results and get more details
 - Prioritize action areas based on relative ranking of dimension scores
 - Identify and test changes hypothesized to result in improvement of prioritized dimension scores
 - Implement successful tests of change
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- ### Conclusions, Next Steps
- Environment at CSMC appears conducive to formalizing information supply chain improvement projects
 - IQ Survey adaptation appears to be useful for deriving measures to track improvement
 - Need to carry out some tests of change to validate this approach
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