standardization and innovation

2006 ANSI ANNUAL CONFERENCE

ANSI
American National Standards Institute

Booz | Allen | Hamilton

Automating Quality Reporting

Presented by

Kristine Martin Anderson

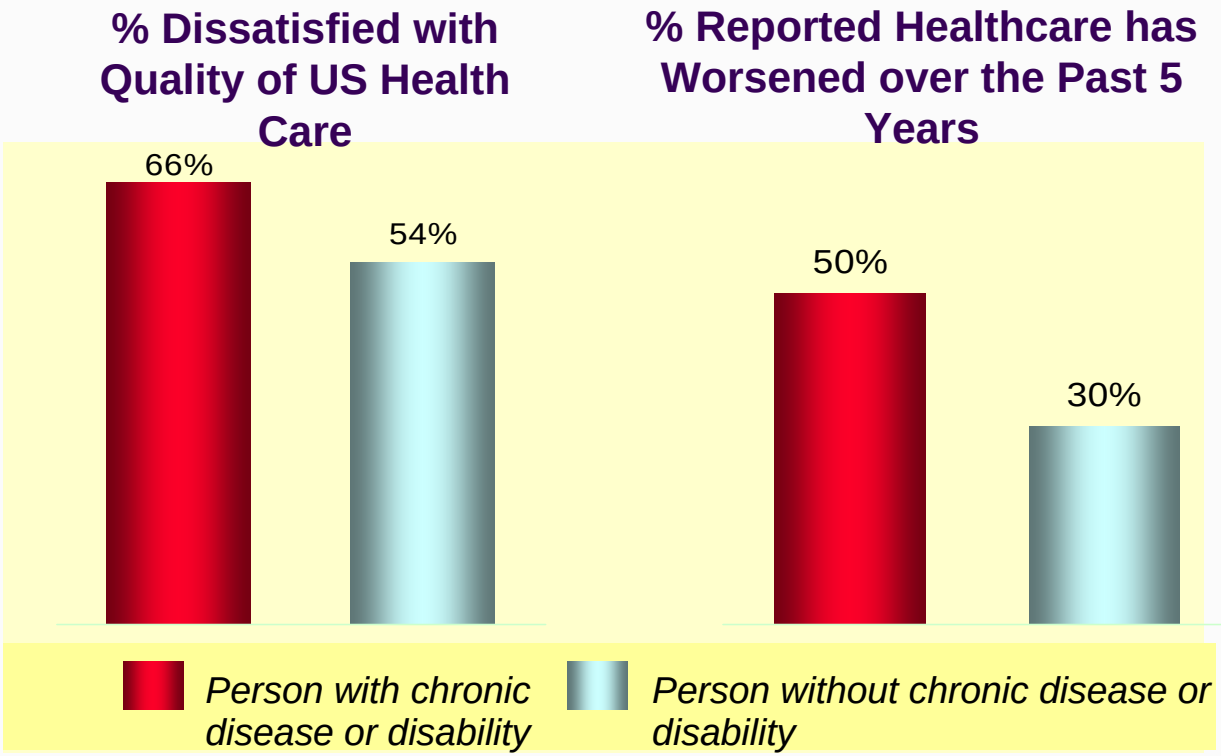
Principal

Booz Allen Hamilton

Errors are eroding consumer trust

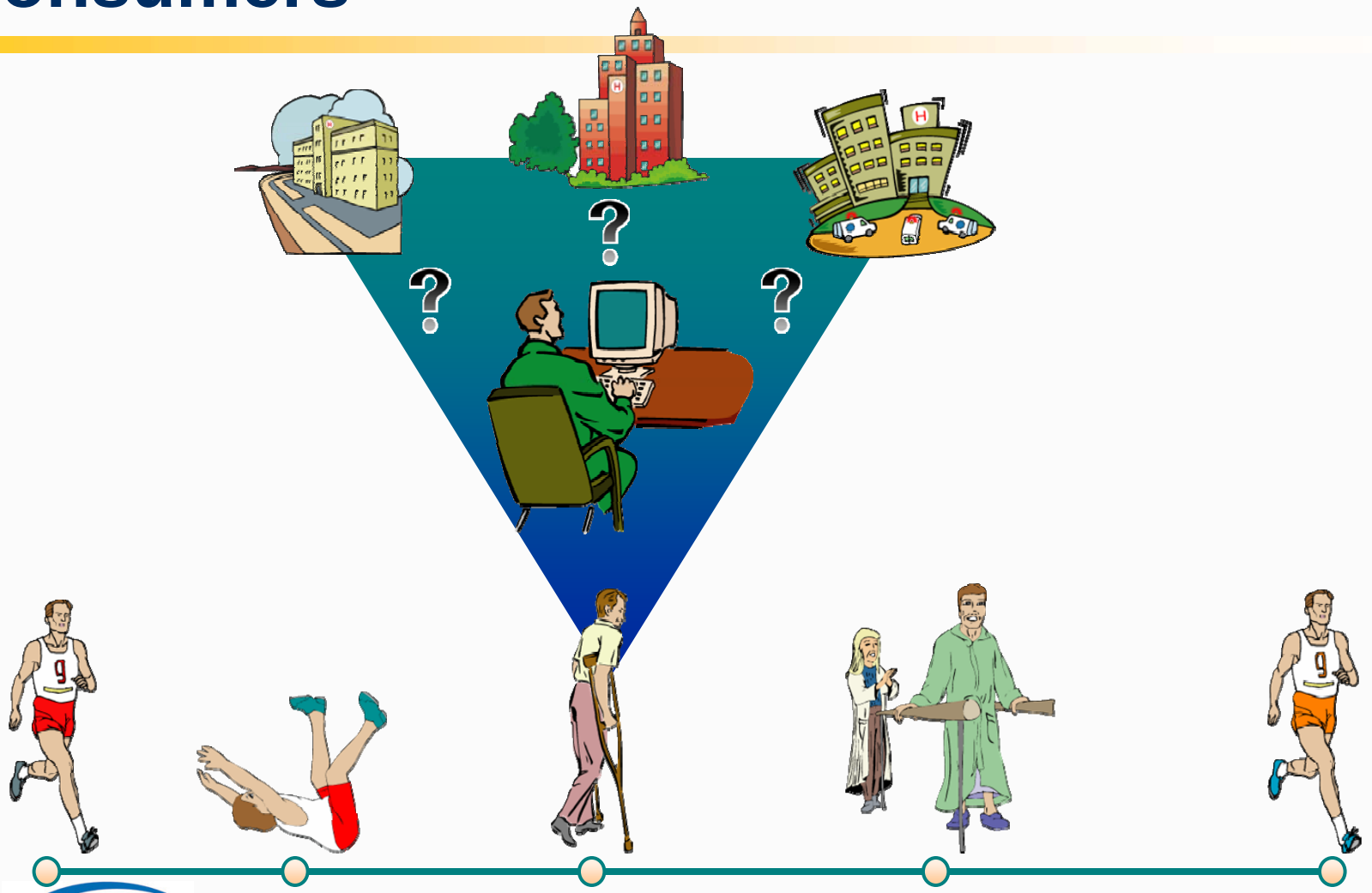
Medical Errors

- **974,000 patients injured**
- **44,000 to 98,000 deaths**
- **$17-29B in cost**

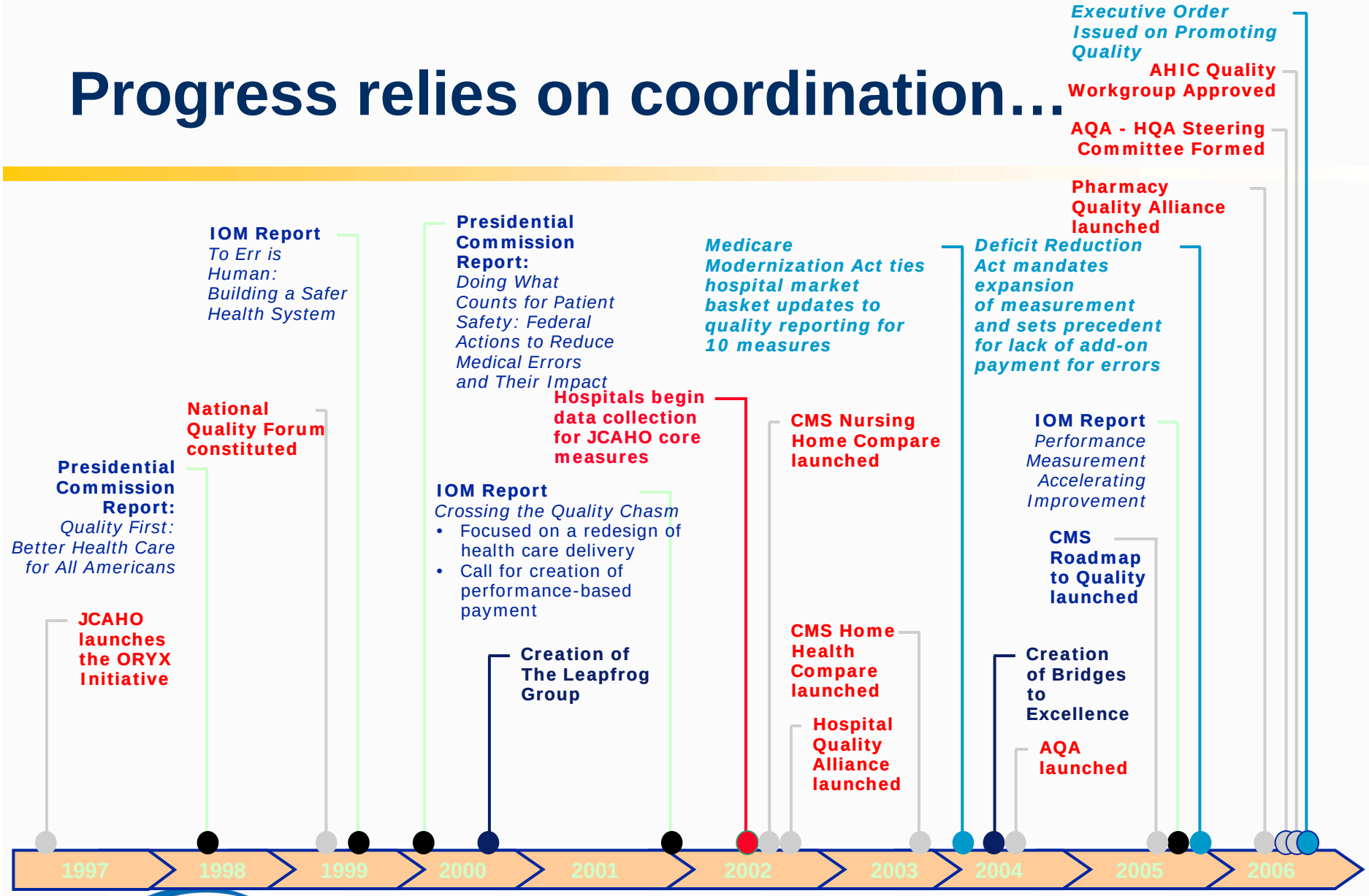


Source: "To Err is Human" (Institute of Medicine, Nov 1999), "Fixing Healthcare From The Inside, Today" (Harvard Business Review), US News & Reports (2005), "National Survey on Consumers' Experiences with Patient Safety and Quality Information" (jointly by Kaiser Family Foundation / AHRQ / Harvard School of Public Health, November 2004)

We envision a future with empowered consumers



Progress relies on coordination…



… and leadership

THE WHITE HOUSE
PRESIDENT
GEORGE W. BUSH

For Immediate Release
Office of the Press Secretary
August 22, 2006

Executive standards . . .

Order: Promoting Quality and Efficient Health Care in Federal Government Administered or Sponsored Health Care Programs

By the authority vested in me as President by the Constitution and the laws of the United States, and in order to promote federally led efforts to implement more transparent and high-quality health care, it is hereby ordered as follows:

Section 1. Purpose. It is the purpose of this order to ensure that health care programs administered or sponsored by the Federal Government promote quality and efficient delivery of health care through the use of health information technology, transparency regarding health care quality and price, and better incentives for program beneficiaries, enrollees, and providers. It is the further purpose of this order to make relevant information available to these beneficiaries, enrollees, and providers in a readily useable manner and in collaboration with similar initiatives in the private sector and non-Federal public sector. Consistent with the purpose of improving the quality and efficiency of health care, the actions and steps taken by Federal Government agencies should not incur additional costs for the Federal Government.

Sec. 2. Definitions. For purposes of this order:

(a) "Agency" means an agency of the Federal Government that administers or sponsors a Federal health care program.

(b) "Federal health care program" means the Federal Employees Health Benefit Program, the Medicare program, programs operated directly by the Indian Health Service, the TRICARE program for the Department of Defense and other uniformed services, and the health care program operated by the Department of Veterans Affairs. For purposes of this order, "Federal health care program" does not include State operated or funded federally subsidized programs such as Medicaid, the State Children's Health Insurance Program, or services provided to Department of Veterans' Affairs beneficiaries under 38 U.S.C. 1703.

(c) "Interoperability" means the ability to communicate and exchange data accurately,

- Pertains to:
  - Federal Employees Health Benefits
  - Medicare
  - Indian Health Service
  - TRICARE
  - Veterans Health Administration
- Directs agencies to:
  - Utilize health IT systems and products that meet recognized interoperability standards (applies to contracted services as well)
  - Support quality programs that are collaborative, standardized, and transparent to consumers
  - Disclose pricing data to beneficiaries or enrollees of Federal healthcare programs
  - Promote quality and efficiency of care through approaches and programs

Leaders have emerged in the public and private sectors

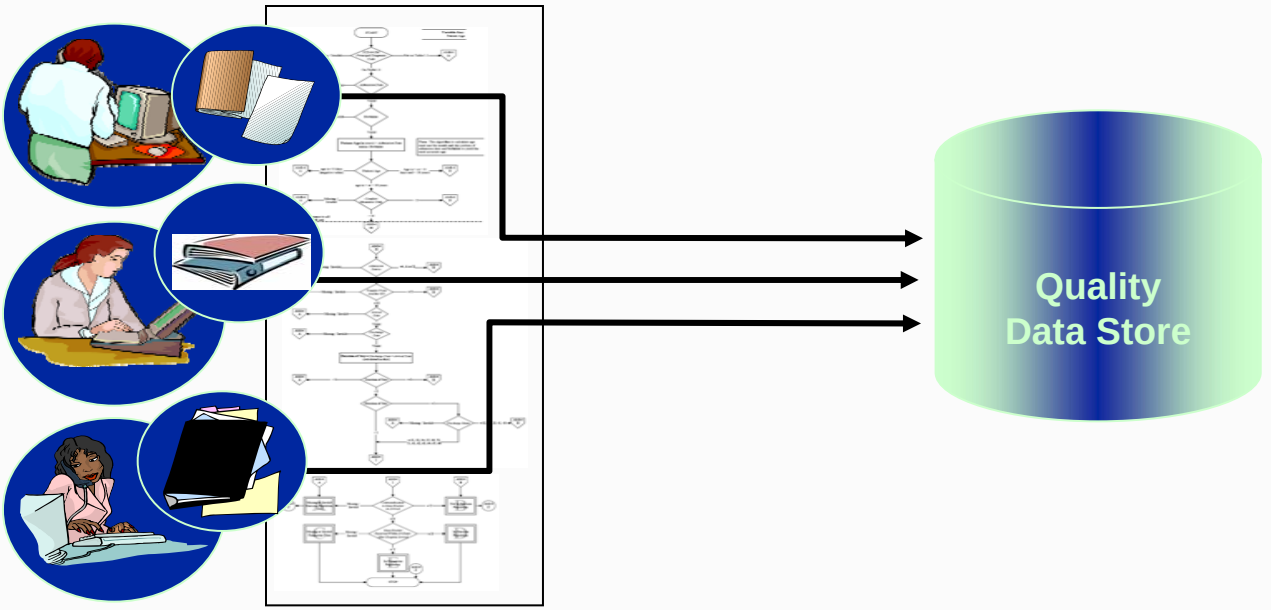
- The government is committed to providing the public with meaningful information to drive choice
- JCAHO views accountability and transparency as cornerstones of accreditation
- Hospitals have evolved to be supporters of public accountability and recognize the role of accountability in driving improvement
- Insurers value both quality and efficiency and desire to lead the way in engaging consumers in decision making
- Providers and practitioners take pride in their work and are driven by a mission of service

However, implementation challenges are significant

Patient Information

- **Mix of paper and electronic systems**
- **Varied information locations**
- **Free text, narrative data capture**

Algorithms



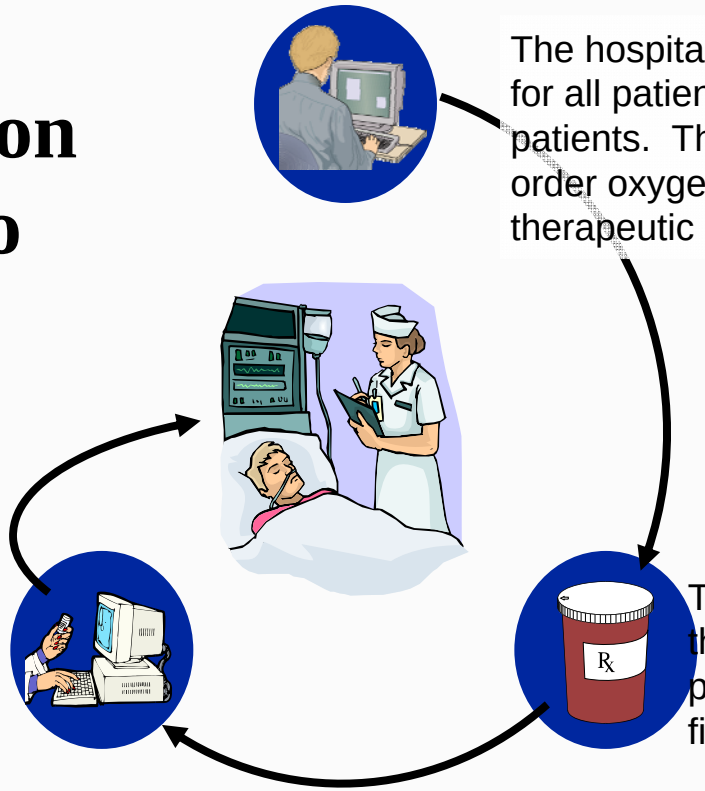
- Chart review
- Clinical staff
- Significant quality training
- Labor intensive and time consuming

- 20 measures for CMS today, more to be added
- Private payors request data independently
- Increased requirements to support P4P and consumer driven health

The industry desires to automate performance measurement using EHRs

Measure - The percent of acute myocardial patients who have received a beta blocker within 24 hours of arrival at the hospital

Automation Scenario



The hospital has an established standing order for all patients identified as heart attack (AMI) patients. The order set prompts physicians to order oxygen, aspirin, a beta blocker and other therapeutic interventions.

The electronic health record transmits the order for the beta blocker to the pharmacy, where the order is verified, filled and the drug is dispensed.

The nurse administers the medication and documents the event in an electronic medication administration record (e-MAR).

There are very few standards for clinical documentation

- Documentation can occur in many places in the medical record, complicating search algorithms and confusing the results
- Clinical documentation is often unstructured and uses non-standardized nomenclature
- Clinical documentation is often the last module implemented by hospitals, as it requires significant change management for clinicians, who are often already feeling burdened with CPOE
- There is insufficient active and passive encouragement of documentation that would automate quality measurement

Health data exchange is also critical for quality measurement

- Data that indicate some contraindications would be present in ambulatory records

Example: For patients admitted with an AMI is important to urgently discover allergies, history of pulmonary disease, history of diabetes or hypoglycemia, etc.

- Ambulatory records need to be accessible quickly to ensure compliance with time-based standards of care.

Example: A patient with chest pain gets an EKG in an ambulance. In order to meet door to balloon requirements, the EKG must make it to a cardiologist who can be expected to intervene. The transfer of waveform data to an EMR is a critical need but unmet in many healthcare entities because waveform storage and dissemination is outside of the traditional perception of EMR's.

Defining technical and cultural standards are critical to achieving automation

Issue	Recommendation	Considerations
Quality specifications are insufficient for IT coding	Create a template for measure specification driven by NQF with input from measure developers and IT vendors	Specifications should go beyond quality metrics to more broadly cover evidence based guidelines for decision support
Free text clinical documentation hampers reporting	Promote the use of focused documentation templates that are integrated into workflow with CDS that improve provider efficiency and patient safety	Cultural barriers to template use
Varying nomenclature complicates queries	Support certification initiatives that include data storage standards specific for quality measurement	Data mapping tools will be critical in areas where standards are difficult to implement
EHR architectures are primarily designed to support care and do not support population analysis	Promote adoption of automated EHR data stores designed for analytics	Warehousing solutions and strategies can be expensive
Clinical documentation is frequently one of the last EHR modules to be implemented	Create hospital playbooks to inform how to implement EHR's that support measurement	National dialogue on automation of quality measure may be needed to drive adoption