Slide 1

Introduction to QI and HIT

Unit 1.1: Health Care Quality and HIT

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Slide 2

Objectives

- Identify the current challenges in health care quality
- Examine the components of the health care system that have an impact on quality
- Explain health care quality and quality improvement (QI)
- Describe quality improvement as a goal of meaningful use

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Slide 3

AHRQ Agency for Healthcare Research and Quality

Health Care

"…seeks to diagnose, treat, and improve the physical and mental well-being of all Americans. Across the lifespan, health care helps people stay healthy, recover from illness, live with chronic disease or disability, and cope with death and dying. Quality health care delivers these services in a way that is safe, effective, timely, patient centered, efficient, and equitable."

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Slide 4

Quality Health Care
Who defines it?

- Health care providers
  - View quality as the application of evidence-based professional knowledge to the particular needs and wishes of the individual patient
- Patients and families
  - Place more importance on how the provider communicates with them or how long they are kept waiting for appointments
- Payers
  - May value patient satisfaction and use of preventive health services above clinical outcomes
- Professional and regulatory bodies
  - View quality as conformity to standards

Slide 5

Quality Health Care

> **Quality**
> "The degree to which health services for individuals and populations increase the likelihood of desired outcomes and are consistent with current professional knowledge."

Slide 6

Quality Health Care

Peter S. Greene, MD
Chief Medical Information Officer

Patient safety in inpatient environment

Jo Leslie
Research Associate

The importance of patient-centeredness in the ambulatory care environment

Dawn Hohl
RN

Importance of teamwork and communication in home care environment

Interviews continue on the following slides.

Slide 7

Peter S. Greene, MD - Chief Medical Information Officer
Johns Hopkins Hospital
Baltimore, Maryland

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Slide 8

Dawn Holh, RN
Director of Customer Service at Johns Hopkins Home Care Group
Baltimore, Maryland

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Slide 9

Jo Leslie - Sr. Quality & Innovation Coach
Johns Hopkins University School of Medicine
Admin Innovations Center for Innovation

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Slide 10

Quality Health Care

- Structures: having the right things
- Processes: doing things right
- Outcomes: having the right things happen

Structure → Process → Outcome

Slide 11

Quality: Shifting Focus

Individuals | Groups | Organizations
Systems of Care

Care Interventions

Outcomes of Care

Consumers of Care
Individual | Families | Community

Slide 12

Systems and Health Care Reform

"The performance of a system — its achievement of its aims — depends as much on the interactions among elements as on the elements themselves"

"The improvement of health and health care depends on systems thinking and systems redesign… 'Reform' without systems thinking isn't reform at all."

"Health care reform without attention to the nature and nurture of health care as a system is doomed …It will at best simply feed the beast, pouring precious resources into the overdevelopment of parts and never attending to the whole — that is care as our patients, their families and their communities experience it."

Slide 13

What is Health Care Quality Improvement?

Health care should be:
- Safe
- Effective
- Patient-centered
- Timely
- Efficient
- Equitable

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Slide 14

INSTITUTE FOR HEALTHCARE IMPROVEMENT

The TripleAim

- Improve individual experience
- The best care
- Improve population health
- For the whole population
- At the lowest cost
- Control inflation of per capita costs

D. Berwick, Institute of Healthcare Improvement, 2007
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Slide 15

US Health Care System: How are we doing?

- Needs to be improved, especially for the uninsured
- Patient safety & healthcare-associated infections warrant urgent attention
- Quality is improving, but pace is slow, especially in preventive care & chronic disease management
- Disparities are common and lack of insurance is a contributor
- Many disparities are not decreasing; those that warrant increased attention include care for cancer, heart failure, and pneumonia
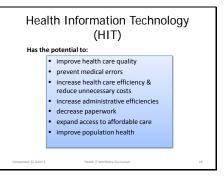
National Healthcare Quality Report

National Healthcare Disparities Report

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Slide 16

US Health Care System: How do we accelerate QI?

- Improve measurement
  - Develop new measures
  - Include improvement goals in Healthy People 2020
  - Coordinate measure sets
- Remove barriers to quality care
  - Reduce lack of insurance, a major hindrance to quality care
- Empower providers with HIT and training
  - HIT must support QI
  - Training is critical
- Establish and sustain partnerships to lead change

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Slide 17

Health Information Technology (HIT)

- What is HIT?
  - The use of computers and computer programs to store, protect, retrieve, and transfer clinical, administrative, and financial information electronically within health care settings.

- What does HIT do?
  - Allows comprehensive management of medical information
  - Allows secure exchange of health information between healthcare consumers and providers
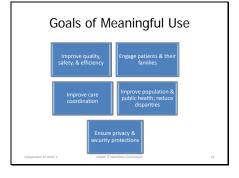
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Slide 18

Health Information Technology (HIT)

Has the potential to:

- improve health care quality
- prevent medical errors
- increase health care efficiency & reduce unnecessary costs
- increase administrative efficiencies
- decrease paperwork
- expand access to affordable care
- improve population health

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Slide 19

Institute of Medicine 1991 - 2003

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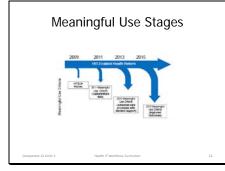**Slide 20**

Meaningful Use and QI

- The American Reinvestment and Recovery Act of 2009
  - "…authorizes the Centers for Medicare & Medicaid Services (CMS) to provide reimbursement incentives for eligible professionals and hospitals who are successful in becoming "meaningful users" of certified electronic health record technology" (http://healthit.hhs.gov)

- The HITECH *(Health Information Technology for Economic and Clinical Health) Act* establishes programs under CMS in coordination with the Office of the National Coordinator (Dr. David Blumenthal) to accomplish this charge.

"Computerize all health records within 5 years."

President Barack Obama, speech at George Mason University, January 12, 2009

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Slide 21

Goals of Meaningful Use

Improve quality, safety, & efficiency

Engage patients & their families

Improve care coordination

Improve population & public health; reduce disparities

Ensure privacy & security protections

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Slide 22

Meaningful Use Stages

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Slide 23

Meaningful Use: Stage 1

- Priority:
  - Improve quality, safety, efficiency & equity (reduce health disparities)
  - Begins in 2011
- Goals:
  - Electronically capture health information in a coded format
  - Use that information to track key clinical conditions
  - Communicate that information for care coordination
  - Initiate the reporting of clinical quality measures and public heath information

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Slide 24

Meaningful Use Stage 1
Hospitals/Eligible Providers, CORE Set

- Record patient demographics
- Record vital signs and chart changes
- Maintain up-to-date problem list
- Maintain active medication and medication allergy lists
- Record smoking (age 13 years and older)
- Generate & transmit electronic prescriptions (providers)
- Use computerized provider order entry (CPOE) for medication orders
- Implement drug-drug & drug allergy interaction checks

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Slide 25

Meaningful Use Stage 1
Hospitals/Eligible Providers, CORE Set

- Provide patients with clinical summaries (each office visit) & e-copy of hospital discharge instructions on request
- On request, provide patients with e-copy of health information
- Implement capability to electronically exchange key clinical information among providers and patient-authorized entities
- Implement one clinical decision support rule & ability to track compliance with that rule
- Implement systems to protect privacy & security of patient data
- Report clinical quality measures to CMS or states

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Slide 26

Meaningful Use Stage 1
Hospitals/Eligible Providers, MENU Set

- Implement drug-formulary checks
- Incorporate clinical laboratory test results into EHR as structured data
- Generate lists of patients by specific conditions to use for QI, reduction of disparities, research, or outreach
- Use EHR technology to identify patient-specific education resources and provide them to patients as appropriate
- Perform medication reconciliation between care settings

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Slide 27

Meaningful Use Stage 1
Hospitals/Eligible Providers, MENU Set

- Provide summary of care record for patients referred or transitioned to other provider or setting
- Submit electronic immunization data to immunization registries or immunization information systems
- Submit electronic syndromic surveillance data to public health agencies

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Slide 28

Meaningful Use Stage 1
Hospitals Only, MENU Set

- Record advance directives for patients 65 years of age or older
- Submit electronic data on reportable laboratory results to public health agencies

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Slide 29

Meaningful Use Stage 1
Eligible Providers Only, Menu Set

- Send reminders to patients (per patient preference) for preventive and follow-up care
- Provide patients with timely electronic access to their health information
  – Laboratory results
  – Problem list
  – Medication list
  – Medication allergy list

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Slide 30

Meaningful Use and QI
Eligible Providers, 2011 and 2012

- Must report on 3 core QI measures
  – Blood pressure level
  – Tobacco status
  – Adult weight screening and follow-up
  – Alternates if these do not apply
- Must also choose 3 other measures from lists of metrics ready for incorporation into EHRs

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Slide 31

Meaningful Use and QI
Hospitals, 2011 and 2012

- Must report on 15 core QI measures
- Required measures include
  - Emergency department throughput
    - 2 measures
  - Ischemic or hemorrhagic stroke
    - 7 measures
  - Venous thromboembolism
    - 6 measures

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Slide 32

Meaningful Use and QI

"Even hospitals with fully functioning EMRs still make extensive use of digitized scans of manually completed forms and textual checklists. With no forms or screens to capture data in a structured way, hospitals fail to report quality measures as a routine byproduct of the practices, relying instead on a retrospective chart abstracting process."

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Slide 33

Summary for Unit 1.1

- The US Health Care System is improving, but slowly
- The definition of health care quality has changed over time from *having the right things* to *doing things right* to *having the right things happen*
- When used in a meaningful way, HIT can
  - Improve safety, effectiveness, efficiency, equity, timeliness, and patient-centeredness of care
  - Work to accomplish the best care for the whole population at the lowest cost

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