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Session 2
Defining Quality in Health Care Delivery

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Session 2 Objectives

• Put Cost and Quality Issues into Context
• Overview of Historical background of Quality Improvement
• Defining the Domains of Performance Measurement
• Review Changing Environment
• Example of Quality Improvement Process
• Example of Cost Control Process
Quality of Care

- Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

- This prescript contains just two concepts: measurement and knowledge.


Aims of Quality Care

<table>
<thead>
<tr>
<th>Aim</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Safe</td>
<td>Avoiding injuries to patients from the care that is intended to help them.</td>
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<tr>
<td>Effective</td>
<td>Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse, respectively).</td>
</tr>
<tr>
<td>Efficient</td>
<td>Avoiding waste, including waste of equipment, supplies, ideas, and energy [including financial resources].</td>
</tr>
<tr>
<td>Equitable</td>
<td>Providing care that does not vary in quality because of personal characteristics.</td>
</tr>
<tr>
<td>Patient-centered</td>
<td>Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.</td>
</tr>
<tr>
<td>Timely</td>
<td>Reducing waits and sometimes harmful delays for both those who receive and those who give care.</td>
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</tbody>
</table>

Crossing the Quality Chasm, IOM 2001
Link Between Cost & Quality

- **Effective** — providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse, respectively)

- **Overuse** is the provision of a health service under circumstances in which its potential for harm exceeds the possible benefit

- **Underuse** is the failure to provide a health care service when it would have produced a favorable outcome for a patient

- **Misuse** is where an appropriate service is provided, but a preventable complication occurs, and the patient does not receive the full potential benefit of the service

Institute of Medicine definitions
Infant Deaths per 1000 Live Births & Percent GDP for Healthcare 2008

http://www.wssd.org/document/16/0.3746/en_2649_33929_2085290_1_1_1_100.html

Healthcare Disparities Untreated Decay in 5 to 19 year olds

1967 John Wennberg
Unwarranted Variation in Healthcare

In 1967, Wennberg worked with the Regional Medical Program created with a $350,000 grant from President Lyndon B. Johnson and began analyzing Medicare data to determine how well hospitals and doctors were performing

• Utilization data from Vermont, Maine & Iowa
  ➢ Hysterectomy by age 70  20% vs. 70%
  ➢ Prostatectomy by age 85  15% vs. 60%
  ➢ Tonsillectomy  8% vs. 70%

• Significant variability

• Could find *no scientific research on outcomes of care* to demonstrate that one population was better off than the other

IOM Recommendations - 2001

• **Evidence-based decision making**. Patients should receive care based on the best available scientific knowledge. *Care should not vary illogically from clinician to clinician or from place to place.*

*Crossing the Quality Chasm*. Institute of Medicine 2001
1966 Avedis Donabedian
Quality Assessment & Monitoring

**Structure - Quality Indicator**
1. Access
2. Institutional characteristics
3. Provider characteristics
4. Community characteristics
5. Client characteristics

**Process - Quality Indicator**
1. Interpersonal process
2. Technical skill in the delivery of services
3. Intake & assessment
4. Treatment plan (EBC)
5. Timeliness of treatment

**Outcome - Quality Validator**
1. Health status
2. Attitudes about treatment
3. Patient satisfaction
4. Health related knowledge
5. Behavioral change

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**Metric vs. Measure vs. Measurement**

- **Metric** is an attribute or a property of something that you’re interested in measuring. For example, height, weight, IQ, quality.

- **Measure** is an operation for assigning a number to something. For example, the percentage of higher risk 6 year olds who received a dental sealant on a first molar.

- **Measurement** is the number obtained from measuring. For example, 25% of higher risk 6 year olds had dental sealants placed in 2011.
### Aims of Quality Care

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### Domains

#### Safety

- **Patient Experience**
  - Patient Experience Indicators
  - Process Access

  - User-Enrolled Health State
    - Management
    - Use of Services
    - Cost

- **Efficiency**
- **Effectiveness**
- **Equity**
- **Follow-up**

#### Structure

- **Structure**

#### Process Access

- **Process Access**

### Metrics

#### Process of Care

A process of care is a health care-related activity performed for, on behalf of, or by a patient. Process measures are supported by evidence that the clinical process has led to improved outcomes.

#### Access to Care

Access to care is the attainment of timely and appropriate health care by patients or enrollees of a health care organization or clinician. Access measures are supported by evidence that an association exists between the measure and the outcomes of or satisfaction with care.

#### Use of Services

Use of services is the provision of a service to, on behalf of, or by a group of persons identified by enrollment in a health plan or through use of clinical services. Use of service measures can assess encounters, costs, or interventions that are not supported by evidence for the appropriateness of the service for the specified individuals.

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The Changing Environment

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>1980</td>
<td>First use of EB Guideline was American Cancer Society</td>
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<tr>
<td>1985</td>
<td>American College of Physicians began publishing Guidelines</td>
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<tr>
<td>1987</td>
<td>Council of Medical Specialty Societies held a national conference on guidelines and commissioned a manual on evidence-based methods</td>
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<tr>
<td>1990</td>
<td>First published use of term “evidence-based” guideline was in JAMA</td>
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<tr>
<td>1993</td>
<td>AHCPR (AHRQ) begins creating EB Guidelines</td>
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<tr>
<td>1993</td>
<td>Cochrane Collaboration creates 13 country network promoting EB Healthcare thru systematic reviews and guidelines</td>
</tr>
<tr>
<td>1995</td>
<td>BMJ Publishing Group launches <em>Clinical Evidence</em> journal</td>
</tr>
<tr>
<td>1996</td>
<td>Sackett defines Evidence-Based Medicine</td>
</tr>
<tr>
<td>1997</td>
<td>AHRQ established EB Practice Centers to produce EB reports</td>
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<tr>
<td>1997</td>
<td>National Guideline Clearinghouse created by AHRQ, AMA &amp; AHIP</td>
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<tr>
<td>2006</td>
<td>ADA Publishes its first clinical recommendation – topical fluoride</td>
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</table>
Four Cornerstones of Value Driven Health Care

1. Reporting of quality of care measures
2. Reporting of health care price information
3. Incentives for high-quality, cost effective care
4. Interoperable health care information technology

“If you desire to do business with the Federal Government you need to adopt quality standards”

“We intend to begin moving to a system where at least part of the payment structure is a reward for high quality.”

HHS Secretary Michael Leavitt’s remarks to the ADA in 2007

CMS on Performance Measures

The CMS supports quality assessment and improvement programs, partnering with many other organizations in the development or compilation of **measures which can be used for both public reporting and pay-for-performance initiatives**.

CMS Medicaid/CHIP Quality Strategy. Key strategies include:

1. Evidenced-Based Care and Quality Measurement
2. Payment Aligned with Quality
3. Health Information Technology
4. Partnerships
5. Information Dissemination, Technical Assistance, and sharing of best practices.
Congress Mandates Quality Assessment & Improvement

- The Children’s Health Insurance Plan Reauthorization Act of 2009 (CHIPRA), mandates that quality assessment programs be implemented to assess and improve the quality of care for children that receive oral health care under the Medicaid and CHIPRA programs.

- In 2008 CMS proposed to the American Dental Association (ADA) that a Dental Quality Alliance be established to develop performance measures for oral health care and that the ADA take a leadership role in its formation.

Dental Quality Alliance Members

DENTAL PROFESSIONAL ORGANIZATIONS
- Academy of General Dentistry
- American Academy of Oral and Maxillofacial Pathology
- American Academy of Oral & Maxillofacial Radiology
- American Academy of Pediatric Dentistry
- American Academy of Periodontology
- American Association of Endodontists
- American Association of Oral and Maxillofacial Surgeons
- American Association of Orthodontists
- American Association of Public Health Dentistry
- American College of Prosthodontists
- American Dental Association’s Board of Trustees
- American Dental Hygienists’ Association
- Council on Access, Prevention, and Interprofessional Relationships (ADA)
- Council on Dental Benefit Programs (ADA)
- Council on Dental Practice (ADA)
- Council on Government Affairs (ADA)

GOVERNMENT AGENCIES
- Agency for Healthcare Research and Quality
- Centers for Disease Control and Prevention
- Centers for Medicare and Medicaid Services
- Health Resources and Services Administration
- Medicaid and SCHIP Dental Association

DENTAL PLAN ASSOCIATIONS
- America’s Health Insurance Plans
- Delta Dental Plan Association
- National Association of Dental Plans

OTHER MEMBERS
- American Dental Education Association
- American Medical Association
- The Joint Commission
- National Network for Oral Health Access
- Public Member
**Dental Quality Alliance**

**Mission**
- The mission of the Dental Quality Alliance is to advance performance measurement as a means to improve oral health, patient care and safety through a consensus-building process.

**Objectives**
- To identify and develop evidence-based oral health care performance measures and measurement resources.
- To advance the effectiveness and scientific basis of clinical performance measurement and improvement.
- To foster and support professional accountability, transparency, and value in oral health care through the development, implementation and evaluation of performance measurement.

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**DQA Organizational Chart**

[Diagram showing the organizational structure of the DQA, including the DQA Board of Member Organizations, Executive Committee, and various advisory committees.]

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Children with disease indicators and risk factors, including socio-economic factors
Use for sealant program in Medicaid population

Children who have had a restoration placed in the past three years.
Use for fluoride measure in Commercially insured population

Panel Conclusions Based on the Evidence
1. Fluoride gel is effective in preventing caries in school-aged children
2. There are considerable data on caries reduction for professionally applied topical fluoride gel treatments of 4 minutes or more
3. Fluoride varnish applied every 6 months is effective in preventing caries in the primary and permanent dentition of children and adolescents
4. 2 or more applications of fluoride varnish per year are effective in preventing caries in high-risk populations
5. Fluoride varnish applications take less time, create less patient discomfort and achieve greater patient acceptability than does fluoride gel, especially in preschool-aged children
Performance Improvement Project

This protocol describes ten steps to be undertaken when conducting PIPs:
1. Select the study topic(s)
2. Define the study question(s)
3. Select the study indicator(s)
4. Use a representative and generalizable study population
5. Use sound sampling techniques (if sampling is used)
6. Reliably collect data
7. Implement intervention and improvement strategies
8. Analyze data and interpret study results
10. Achieve sustained improvement

Conducting Performance Improvement Projects – Final Protocol. CMS. May 2002
Measuring and Managing Cost

Effective — providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse, respectively)

Normal Distribution Curve

Median

Mean or Average

0.1% 2.1% 13.6% 34.1% 34.1% 13.6% 2.1% 0.1%

-3σ -2σ -1σ μ 1σ 2σ 3σ
**Distribution for Adult 1 Surface Fillings**

- Mode
- Median = $55
- Mean = $86

A positive skewed distribution may be an indicator of abuse – Conduct review
A negative skewed distribution may be an indicator of underuse

**Highest Basic Restorative Procedures per Adult**
Questions/Comments?

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