CROSSING THE QUALITY CHASM: HEALTH CARE FOR THE 21ST CENTURY

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William Richardson, PhD

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The Foundation

- IOM Roundtable
- President’s Advisory Commission
- National Cancer Policy Board
- IOM Program on Quality of Health Care in America
- IOM Committee on Quality of Health Care in America
  - Subcommittee on Environment
  - Subcommittee on the 21st Century “Chassis”
The IOM Roundtable

• “…Serious and widespread quality problems exist throughout American medicine. These problems…occur in small and large communities alike, in all parts of the country, and with approximately equal frequency in managed care and fee-for-service systems of care. Very large numbers of Americans are harmed as a result….”
Roundtable’s Categories

- Overuse (of procedures that cannot help)
- Underuse (of procedures that can help)
- Misuse (errors of execution)
Roundtable’s Categories

• Overuse (of procedures that cannot help)
• Underuse (of procedures that can help)
• Misuse (errors of execution)
Health Care Examples
Overuse

• 30% of children receive excessive antibiotics for ear infections
• 20% to 50% of many surgical operations are unnecessary
• 50% of X-rays in back pain patients are unnecessary
Health Care Examples
Underuse

• 50% of elderly fail to receive pneumococcal vaccine

• 50% of heart attack victims fail to receive beta-blockers
“Misuse”: Health Care Safety

- 7% of hospital patients experience a serious medication error
- 44,000-98,000 Americans die in hospitals each year due to injuries from care
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  - Subcommittee on 21st Century Health System
  - Subcommittee on Environment

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What the IOM Said….

- The patient safety problem is large.
- It (usually) isn’t the fault of health care workers
- Most patient injuries are due to system failures
How Hazardous Is Health Care?

(Leape)

<table>
<thead>
<tr>
<th>DANGEROUS (≥1/1000)</th>
<th>REGULATED</th>
<th>ULTRA-SAFE (&lt;1/100K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care</td>
<td>Driving</td>
<td>Scheduled Airlines</td>
</tr>
<tr>
<td>Mountain Climbing</td>
<td>Chemical Manufacturing</td>
<td>European Railroads</td>
</tr>
<tr>
<td>Bungee Jumping</td>
<td>Chartered Flights</td>
<td>Nuclear Power</td>
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</tbody>
</table>

Total lives lost per year

Number of encounters for each fatality
What the IOM Said…. 

- The patient safety problem is large.
- It (usually) isn’t the fault of health care workers.
- Most patient injuries are due to system failures.
Quality is a system property
“The First Law of Improvement”

Every system is perfectly designed to achieve exactly the results it gets.
Core Conclusions

• There are serious problems in quality
  – *Between the health care we have and the care we could have lies not just a gap but a chasm.*

• The problems come from poor systems…not bad people
  – *In its current form, habits, and environment, American health care is incapable of providing the public with the quality health care it expects and deserves.*

• We can fix it… but it will require changes
The Chain of Effect in Improving Health Care Quality

- **Patient and Community**
  - **Experience**
  - **Aims** (safe, effective, patient-centered, timely, efficient, equitable)

- **Micro-system**
  - **Process**
  - **Simple rules/Design Concepts** (knowledge-based, customized, cooperative)

- **Organizational Context**
  - **Facilitator of Processes**
  - **Design Concepts** (HR, IT, finance, leadership)

- **Environmental Context**
  - **Facilitator of Facilitators**
  - **Design Concepts** (financing, regulation, accreditation, education)
The Chain of Effect in Improving Health Care Quality

**Patient and Community Experience**

- **Aims:** (safe, effective, patient-centered, timely, efficient, equitable)

**Micro-system Process**

- **Simple rules/Design Concepts:** (knowledge-based, customized, cooperative)

**Organizational Context Facilitator of Processes**

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The Overarching Aim

The purpose of the health care system is to reduce continually the burden of illness, injury, and disability, and to improve the health status and function of the people of the United States.
Aims

• Safety
• Effectiveness
• Patient-centeredness
• Timeliness
• Efficiency
• Equity
Clarifying National Aims for Improvement

• Safety -- As safe in health care as in our homes
• Effectiveness -- Matching care to science; avoiding overuse of ineffective care and under-use of effective care
• Patient Centeredness -- Honoring the individual, and respecting choice
• Timeliness -- Less waiting for both patients and those who give care
• Efficiency -- Reducing waste
• Equity -- Closing racial and ethnic gaps in health status
Four Levels of Change Required

- Clarifying national aims for improvement
- Changing the care, itself
- Changing the organizations that deliver care
- Changing the environment that affects organizational and professional behavior
Aims: Recommendations

#1: Endorse the Statement of Purpose for the Health Care System

#2: Endorse the Six Aims for Improvement (Safety, Effectiveness, Patient-centeredness, Timeliness, Efficiency, and Equity)

#3: Link to Measurement and Annual Report to President and Congress on the State of Quality of Care in America
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Three Guiding Frameworks

- Knowledge-based
- Patient-centered
- System-minded
“New Rules” for Health Care

- Care based on continuous healing relationships
- Customization based on patient needs and values
- The patient as the source of control
- Shared knowledge and the free flow of information
- Evidence-based decision making

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“New Rules” for Health Care

- Safety as a system property
- The need for transparency
- Anticipation of needs
- Continuous decrease in waste
- Cooperation
Results from Effective Improvement Efforts….

Health Resources and Services Administration (HRSA)

Chronic Disease Care Improvement Collaboratives
Phase 2 Diabetes I and II
Average HbA1c's

Number of Patients

Phase 2 Diabetes I and II - Total Registry Size
UKPDS Glycemic Control

• A 1.0% reduction in HbA1c:
  – 17% reduction in mortality
  – 18% reduction in MI
  – 15% reduction in stroke
  – 35% reduction in cardiovascular endpoints
  – 18% reduction in cataract extraction

• Cost: $98.2 billion/year in the U.S.A.

Source: GHC
Contact: David K. McCulloch, MD, FRCP
Email: McCulloch.d@GHC.org
Access to the System
From National Health Service, John Oldham, OBE, MB, ChB

NHS DIRECT
PHARMACY
OTHER SOURCES

SELF HELP

PATIENT

ELECTRONIC ACCESS

TELEPHONE ACCESS

PERSONAL ATTENDANCE

WEB SITE INFORMATION

E-MAIL QUERY

QUERY

APPOINTMENT

IMMEDIATE ASSISTANCE

Dr

D-N/HV

Pr NURSE

MIDWIVES

OTHER
Chronic Care Model (Wagner)

Community
- Resources and Policies
  - Self-Management Support

Health System
- Health Care Organization
  - Delivery System Design
  - Decision Support
  - Clinical Information Systems

Informed, Activated Patient
- Productive Interactions

Prepared, Proactive Practice Team
- Functional and Clinical Outcomes

Acknowledgements: Improving Chronic Illness Care, a national program of The Robert Wood Johnson Foundation
The National Primary Care Collaborative
GP 3rd Available Appointment Trends
First, Second and Third Wave practices

Average 3rd available appointment (days)

Baseline | Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 | Month 7 | Month 8 | Month 9 | Month 10 | Month 11 | Month 12 | Month 13 | Month 14
---|---|---|---|---|---|---|---|---|---|---|---|---|---|---
First wave practices | 3.3 | 3.2 | 2.8 | 2.9 | 2.7 | 2.7 | 2.3 | 2.1 | 2.0 | 2.1 | 2.4 | 2.4 | 1.8 | 1.6
Second wave practices | 4.1 | 3.9 | 3.7 | 3.0 | 3.1 | 3.1 | 3.2 | 2.6 | 2.3 | 1.9 |
Third wave practices | 3.6 | 3.5 | 3.3 | 3.1 | 2.8 | 2.6 | 2.2 |

GP Access % Improvement
Wave 1 - 50.38% over 14 months of reporting
Wave 2 - 52.23% over 10 months of reporting
Wave 3 - 35.85% over 6 months of reporting

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The Care, Itself: Recommendations

#4: Adopt the “New Rules” for care

#5: Focus on 15 priority conditions first

#6: Foster innovation - Health Care Quality Innovation Fund ($1 billion)
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- Aims: safe, effective, patient-centered, timely, efficient, equitable

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Changing the Organizations that Deliver Care

• Redesign care based on best practices
• Use information technology to improve access to information and to support clinical decision-making
• Improve workforce knowledge and skills
• Develop effective teams
• Coordinate care among services and settings
• Measure performance and outcomes

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Changing Organizations: Recommendations

#7: Redesign:
- Care processes
- Information systems
- Human Resource development
- Effective teams
- Coordination across boundaries
- Incorporating measurement

#8: Moving science into practice

#9: National commitment to information infrastructure
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#10: Reform payment (not more money, but different ways to pay)
- For chronic care
- To encourage improvement in care
- To move payment toward high quality
- To encourage best practices, not variation
- To increase cooperation and decrease fragmentation

#11: Social experiments on payment
#12: Design new workforce requirements
#13: Start toward change of the tort system
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Some Obstacles

• Keeping aims focused on the experiences of patients, families, and communities … especially in *their* terms
• Bringing the voice of the patient into design
• Generalizing from processes to related systems … “two to five to all”
• Measuring “just enough”
• Tracking over time … vs. “pre/post”

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Some Other Obstacles

- Weak stratification models
- Focusing on scarcity, not abundance
- Linkages to infrastructure: HR, IT, Finance
- Flexibility in financing
- Positioning of staff with respect to senior leaders