Institute of Medicine Reports: Observations and Implications for Pharmacy Education

Varro E. Tyler Distinguished Lectureship
Purdue University
November 14 - 15, 2005

J. Lyle Bootman, Ph.D.
Dean, College of Pharmacy
Professor of Pharmacy, Medicine and Public Health
The University of Arizona Health Sciences Center
Tucson, Arizona
Objective

- Summarize Institute of Medicine’s recommendations for healthcare reform
- Present implications for pharmacy education programs
IOM Reports

1. To Err is Human
2. Crossing the Quality Chasm
3. Priority Areas for National Action
4. Health Professions Education

www.IOM.Edu
ACCESS

Value

COST ↔ QUALITY
Trends in Health Care

- Aging Society
- Finance/Reimbursement
- Corporatization
- Technology
- Outcomes vs. Cost
NASA grant is biggest landed by university

Kolbe: Project to have ‘huge’ economic impact

UA gets $325M for craft to search for Mars life

City light-tax by on ballot

‘Yes’ vote to raise $1B for...
The health care industry is undergoing a “paradigm shift”
An astronomy analogy
Ptolemaic Paradigm: Ptolemy believed the planets revolved around the Earth.
Copernican (Galileo) Paradigm: Copernicus and Galileo discovered that the planets revolved around the sun.
Do We Achieve Optimal Value With Pharmaceuticals?
Drug Efficacy and Drug Effectiveness in Pre & Post-Marketing Phases

Outcomes/ Cost

Pre-Marketing Phase

Cost-Efficacy Estimate

Drug Related Problems Gap

Cost Effectiveness Estimate

Post-Marketing Phase
<table>
<thead>
<tr>
<th>Disease</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthritis</td>
<td>$54 billion</td>
</tr>
<tr>
<td>Depression</td>
<td>$53 billion</td>
</tr>
<tr>
<td>Diabetes</td>
<td>$98 billion</td>
</tr>
<tr>
<td>Stroke</td>
<td>$43 billion</td>
</tr>
<tr>
<td>Cancer</td>
<td>$100 billion</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>$117 billion</td>
</tr>
<tr>
<td>Drug-Related Morbidity</td>
<td>&gt;$100 billion</td>
</tr>
</tbody>
</table>
The Institute of Medicine Report

“To Err is Human”

Validated the economic and clinical consequences of medication error and misuse

IOM: To Err is Human, November 29, 1999
Defining “Error”

Error in Execution vs. Error in Planned Action

IOM: To Err is Human, November 29, 1999
Drug Related Morbidity/Mortality

“The Silent Disease in America”
IOM Report Crossing the Quality Chasm: A New Health System for the 21st Century

- Evidence-Based Practice
- Chronic Disease
- Consumer Involvement
- Payment Restructuring
- Informatics
- Interdisciplinary Approach

IOM: Crossing the Quality Chasm, March 1, 2001
Commitment to Improve Care in Six Areas

- Safe
- Effective
- Patient Centered
- Timely
- Efficient
- Equitable

IOM: Crossing the Quality Chasm, March 1, 2001
Rules to Guide Patient-Clinician Relationship

- Based upon continuous healing relationship
- Care should be customized based on patient needs/values
- Control should reside with patient
- Patient should have access to all information

IOM: Crossing the Quality Chasm, March 1, 2001
Rules to Guide Patient-Clinician Relationship (Continued)

- Clinical decisions should be evidence-based
- Care system should be safe
- Health system more transparent
- System should anticipate need, not just react

IOM: Crossing the Quality Chasm, March 1, 2001
Rules to Guide Patient-Clinician Relationship (Continued)

- System should not waste resources
- Cooperation among clinicians

IOM: Crossing the Quality Chasm, March 1, 2001
Payment Restructuring

Payers should examine current payment method to remove barriers that impede quality improvement

IOM, Crossing the Quality Chasm, March 1, 2001
Payment Restructuring

Payment method should be designed to incentivize best practice, to improve patient outcomes, and encourage sharing of information

IOM, Crossing the Quality Chasm, March 1, 2001
Leadership

Academic Health Centers need to prepare work force to do their work differently and evolve new types of health care delivery organizations

IOM, Crossing the Quality Chasm, March 1, 2001
IOM Report on Health Professions Education: A Bridge to Quality

IOM, Health Professions Education, April 8, 2003
Education for Health Professions is in Need of a Major Overhaul

IOM: Health Professions Education, April 8, 2003
Problems Identified

- Uneducated to work in teams for treatment of chronic disease
- Not trained to use and apply evidenced based information
- Unable to address diverse population
- Inability to analyze root cause of errors and quality problems
- Lack of training in adequately using informatics in care of patients

IOM: Health Professions Education, April 8, 2003
Opportunity

A New Vision for Health Professions Education
Priority Area Category’s

- Preventive Care
- Inpatient/Surgery
- Behavioral Health
- Chronic Conditions
- End of Life
- Children and Adolescents
Priority Areas

- Self-Management/Health Literacy
- Cancer Screening
- Hypertension
- Immunization
- Major Depression (screening)
- Pregnancy and Childbirth
- Tobacco Dependence
- Obesity

Priority Areas (Continued)

- Severe and Persistent Mental Illness
- Pain Control
- Stroke
- Asthma
- Diabetes
- Ischemic Heart Disease
- Care Coordination (cross cutting)
- Medication Management

Medication Management

1. Key to all areas
2. Increased susceptibility to those with chronic disease/elderly
3. Antibiotic misuse continues to be serious
4. More than 50% is preventable
Conclusion

Programs Centering Around Medication Use/Misuse have Tremendous Appeal and Potential Support. Leadership from the Health Profession is Essential
IOM Conclusion

Lack of relevance of Educational (CE) content to ensure the coverage for the five competencies
Examples to Measure Competency

- Peer Review
- Professional Portfolio
- Objective Structured Clinical Examination
- Patient Survey
- Record Review
- Patient Simulation
I. Provide Patient-Centered Care

- Identify, respect, and care about patients’ differences, values, preferences, and expressed needs
- Relieve pain and suffering
- Coordinate continuous care, listen to, clearly inform, communicate with, and educate patients
I. Provide Patient-Centered Care (Continued)

- Share decision making and management
- Continuously advocate disease prevention, wellness, and promotion of healthy lifestyles, including a focus on population health
II. Work in Interdisciplinary Teams

Cooperate, collaborate, communicate, and integrate care in teams to ensure that care is continuous and reliable.
III. Employ Evidence-based Practice

- Integrate best research with clinical expertise and patient values for optimum care
- Participate in learning and research activities to the extent feasible
IV. Apply Quality Improvement

- Identify errors and hazards in care
- Understand and implement basic safety design principles, such as standardization and simplification
- Continually understand and measure quality of care in terms of structure, process, and outcomes in relation to patient and community needs
IV. Apply Quality Improvement (Continued)

- Design and test interventions to change processes and systems of care, with the objective of improving quality
V. Utilize Informatics to Improve Safety/Quality

- Communicate
- Manage knowledge
- Mitigate error
- Support decision making using information technology
Essential Skills

- Problem Solving
- Communication
- Innovation/Creativity
Questions?