Welcome

THE BETTY IRENE MOORE SCHOOL OF NURSING AT UC DAVIS **LECTURE SERIES**

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UC DAVIS
BETTY IRENE MOORE SCHOOL OF NURSING

GORDON AND BETTY MOORE FOUNDATION

Nursing: Systems Thinking, Safety, and Quality of Care

Betty Irene Moore School of Nursing Lecture Series
March 29, 2016

The Gordon and Betty Moore Foundation

- Established in 2000 to tackle large, important issues at scale where we can achieve significant and measureable impacts
- We have four areas of focus:
  - Science
  - Environmental Conservation
  - Patient Care
  - San Francisco Bay Area

Pathways to Progress in Health Care

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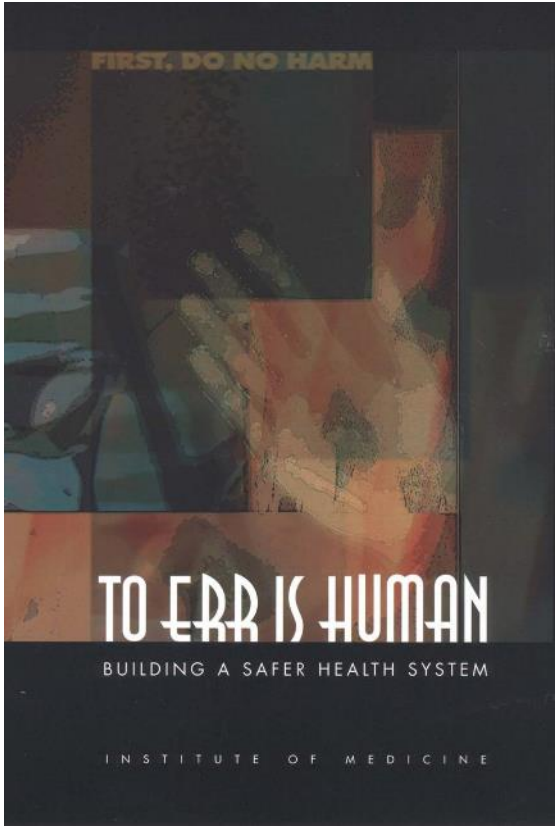
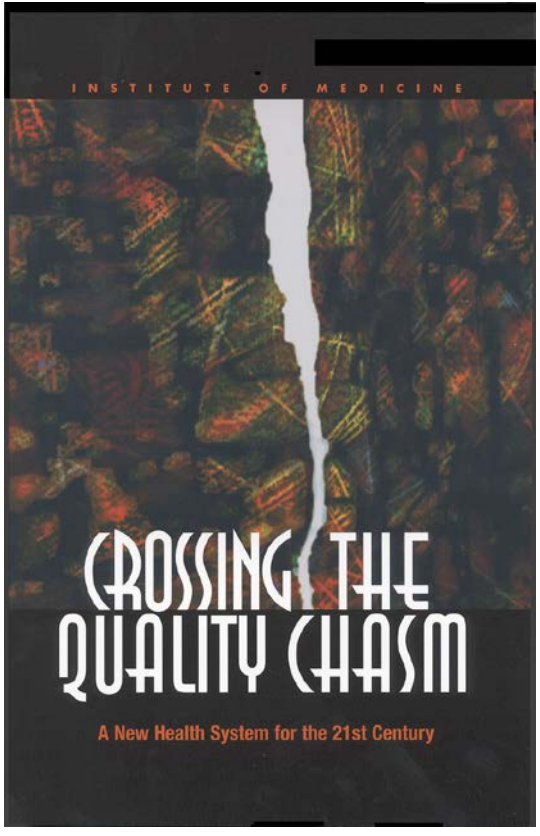
- Develop better things to do for patients
  - Scientific discovery
  - Product development
  - Clinical trials
- Devise better ways to do what we already know should be done
  - Access to services
  - Efficiencies of production
  - Improved quality

Landmark Studies by the Institute of Medicine



2000



2001

Dimensions of Quality of Care

Health care should be:

- Safe
- Effective
- Patient-centered
- Timely
- Efficient
- Equitable

Studies of Quality and Safety

- More than 70 studies document poor quality of care (Schuster et al, 1998; 2000)
- More than 30 studies document medication errors (IOM, 2000)
- Large gaps between the care people should receive and the care they do receive
  - true for preventive, acute and chronic
  - across all health care settings
  - all age groups and geographic areas

Quality of Health Care Delivered to U.S. Adults

- Methods
  - Study of >6700 participants in 12 metropolitan areas
  - 439 indicators of quality for 30 conditions
- Selected Findings:
  - 46% did not receive recommended care
  - 11% received potentially harmful care
  - Only 24% of diabetics received 3 or more glycosylated Hgb tests over two-year period
  - 65% of hypertensives receive recommended care
  - Only 45% of persons with MI receive beta-blockers

McGlynn et al, N Engl J Med 2003; 348:2635-45

Frequency, Consequences of Medical Injury During Hospitalization

- Methods
  - 18 patient safety indicators (from AHRQ)
  - 994 acute care hospitals in 28 states in year 2000
  - 7.45 million hospital discharge abstracts
- Selected Findings:
  - 2.4 million extra days of hospitalization
  - $9.3 billion excess charges
  - >32,000 attributable deaths

Zhan and Miller, JAMA 2003; 290:1868-74

Studies of Errors Among Hospitalized Patients

- New York State (1984 data)
  - 3.7% experience injury due to medical care
  - 13.6% of injuries are fatal
  - 58% of injuries are preventable
- Colorado and Utah (1992 data)
  - 2.9% experience injury due to medical care
  - 6.6% of injuries are fatal
  - 53% of injuries are preventable

Studies of Errors Among Hospitalized Patients

- Australia (1992 data)
  - 16.6% experience injury or longer stay due to medical care
  - 4.9% of injuries are fatal
  - 51% of injuries are preventable

Alternative Ways to Apprehend Problems of Safety and Quality

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- Structural Deficiencies
- Moral Values
- Rational Choices
- Psychological Influences
- Education
- Systems

System Defined

"A regularly interacting or interdependent group of items forming a unified whole"

Systems in Health Care

- Social-level: finance, organization, global management, etc.
- Institutional-level: hospital services, institutional data-bases, etc.
- Individual-level: physician practices, patient-care decisions, etc.

Systems Changes to Improve Quality

- Patient/provider interactions
- “Microsystems” or health care teams
- Health care organizations (e.g., hospitals, clinics, nursing homes, group practices)
- External environmental influences (e.g., regulators, payers, accreditation organizations, other oversight organizations)

Building Organizational Supports for Change

- Redesign care processes
- Make effective use of information technologies
- Manage clinical knowledge and skills
- Develop effective teams
- Coordinate care across patient conditions, services and settings over time
- Measure and improve performance and outcomes

Redesign Care Processes

- System design using the 80/20 principle
- Design for safety
- Mass customization
- Continuous flow
- Production planning

Does Good Design Matter?

Jacques Carelman's Coffeepot for Masochists

From Donald A. Norman, *The Design of Everyday Things*

Safe Design

- Complex, tightly coupled systems are prone to error
  (Perrow, 1984; Reason, 1990)

- User-centered design principles (Norman, 1988)
  - Visibility
  - Simplicity
  - Affordances and natural mappings
  - Forcing functions
  - Reversibility
  - Standardization

A New Environment for Care

- Applying evidence to health care delivery
- Using information technology
- Aligning payment policies with quality improvement
- Preparing the workforce

Applying Evidence to Health Care Delivery

- Ongoing analysis and synthesis of medical evidence
- Delineation of specific practice guidelines
- Enhanced dissemination of evidence and guidelines to the public and professions
- Decision support tools for clinicians and patients
- Identification of best practices in processes of care
- Development of quality measures for priority conditions

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Using Information Technology

- Consumer health
- Clinical care
- Administration and finance
- Public health
- Professional education
- Research

Core Functionalities for an EHR System

- Health information and data
- Results management
- Order entry/management
- Decision support management
- Electronic communication and connectivity
- Patient support
- Administrative processes
- Reporting & population health

Institute of Medicine, July 2003

EHR System and Patient Safety

- Public-Private partnership
- Standards
  - Data interchange
  - Clinical terminologies
  - Knowledge representation
- Congressional direction, enabling authority and financial support

A New Environment for Care

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Aligning Payment Policies

- Efforts may be hard to justify economically
  - Difficulty of measuring impact of quality improvement on the fiscal bottom line
  - Infrastructure investment required up front
- Adapt various existing payment methods (fee-for-service, capitation, blended, shared-risk) to support quality improvement: value-based reimbursement
- Experiment with payment for priority conditions

A New Environment for Care

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Preparing the Workforce

- Restructuring clinical education at first-stage, graduate, and continuing education for medical, nursing and other professionals.

- Implications for credentialing, funding and sponsorship of educational programs.

Twelve Key Roles of Nursing

1. Direct care giver
2. Case manager
3. Practitioner
4. Team leader
5. Researcher, scientist and innovator
6. Educator and teacher

Twelve Key Roles of Nursing

7. Program/Unit manager
8. Advocate
9. Exemplar/Champion
10. Institutional Leader
11. Policymaker/influencer
12. Patient and family member

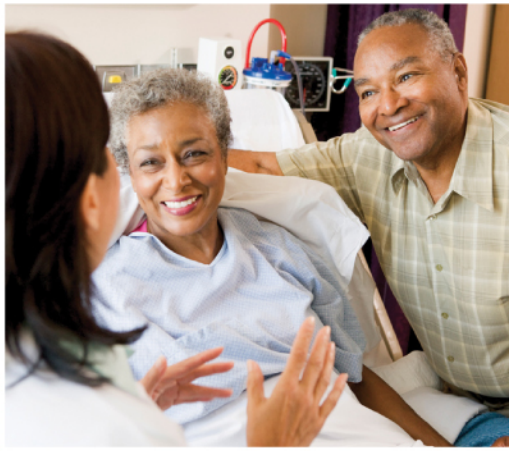
Betty Irene Moore School of Nursing Core Attributes

- Leadership development
- Interprofessional and interdisciplinary education
- Transformative research
- Cultural inclusiveness
- Innovative technology

A HEALTHIER WORLD THROUGH BOLD INNOVATION





UCDAVIS MEDICAL CENTER

Evolving role of Nursing in Quality and Safety

J. Douglas Kirk MD
Chief Medical Officer
March 29, 2016

Nursing-Physician Relationship

- Long been a pillar of the medical care team
  - Established at the bedside but also reaches upward to the CNO/CMO
    - All Q&S activities and institutional strategies regarding patient care go thru this partnership
- Now a new chapter to an old theme
  - New partnerships have formed around the nurse-physician quality dyad
    - Unit Based Value Team leaders……

Nurse Manager/Medical Director Dyad

- Dyads have additional roles
  - Patient experience
  - Efficiency/throughput
  - Resource stewardship
- Multi-disciplinary team
  - Pharmacist and other health care professionals
  - Supplemented by performance excellence experts, communication coaches, industrial engineers, etc…

Quality Nurse Analyst

- Demand has exploded, owing to:
  - Amount of reportable quality measures
  - Transparency expected by patients, payers, (and us)
- Nurses have long since been expert at reviewing cases for “quality of care”
  - PSIs
  - HACs
  - RCAs
  - FMEAs
- Real change has been driven by the large volume of data
  - Analysis of this “Big Data”
  - Clinical expertise and analytic tools
- Nurses and Doctors have a role in turning this data into information and knowledge

Examples of Quality Nurse Analyst Roles

- PSI Reviews
  - Prospective/concurrent review with Coding/CDI specialist have reduced these dramatically
- NSQIP Champions
  - Data abstraction
  - Analyze and organize data into knowledge
  - Lead PI initiatives
  - Peds NSQIP → Peds Surgery Center Designation
- Lead Project Management Teams
  - Often with clinical department (physician) champion
  - Rapid cycle PDSAs

Thank You!