The New IOM Reports on Access to Care and Diagnostic Error: Opportunities for Industrial Engineers

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The speaker has no financial nor other conflicts of interests to disclose.
Outline

1. Background, objective

2. Access to Care
   *Transforming Heath Care Scheduling and Access: Getting to Now* (June 2015)

3. Diagnostic Error
   *Improving Diagnosis in Health Care* (September 2015)

4. Opportunities for Industrial Engineers

5. Discussion
Increasing Interest in ISyE in Healthcare

Significant interest (IOM, NAE, AHRQ, NSF, NIH, PCAST, etc)

‘Time for science of health care to embrace science of systems engineering... but examples of... impact... are rare’ (JAMA, 2012)

‘Greater use of (SE) principles... widely used in manufacturing and aviation... small number health care organizations... not widespread in U.S. health care’

IOM/NAE/PCAST reports

Advisory report to Obama (May 2014)

Nov 2015 ASEE Healthcare IE cover story
• Created by Congress via Act of Incorporation (1863), Lincoln
• Call upon by Government, investigate, examine, experiment, and report upon any subject of science or art.

National Academy of Sciences (1863)

National Academy of Engineering (1964)

National Academy of Medicine (1970)
Two new IOM (NAM) reports

June 2015 NAM Timely Access report

Sept 2015 NAM Diagnostic Error report
1. Access to Care
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5 GETTING TO NOW
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REFERENCES

COMMITTEE ON OPTIMIZING SCHEDULING IN HEALTH CARE

GARY KAPLAN (Chair), Chairman and Chief Executive Officer, Virginia Mason Health System
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THOMAS NOLAN, Senior Fellow, Institute for Healthcare Improvement
PETER PRONOVOUST, Senior Vice President for Patient Safety & Quality, Johns Hopkins Schools of Medicine, Nursing, and Public Health
RONALD M. WYATT, Medical Director, Healthcare Improvement, The Joint Commission
Problem summary / ‘Key findings’

• Problem:
  o Timeliness as a fundamental healthcare aim
  o Insufficient focus nationally

• Importance:
  o Enhance patient health & satisfaction
  o Decrease financial burden on the patient
  o Reduce death and disease

• Barriers:
  o A provider-focused approach
  o Mismatched levels of supply and demand
  o Lack of evidence to provide improvement guidance
  o Variability in sophistication, readiness, capacity
Summary of Key Findings

- **Variability:** Timeliness in providing access to health care varies widely.
- **Consequences:** Delays in access to health care have multiple consequences, including negative effects on health outcomes, patient satisfaction with care, health care utilization, and organizational reputation.
- **Contributors:** Delays in access to health care have multiple causes, including mismatched supply and demand, a provider-focused approach to scheduling, outmoded workforce and care supply models, priority-based queues, care complexity, reimbursement complexity, financial barriers, and geographic barriers.
- **Systems strategies:** Although not common practice, immediate engagement for patients is achievable through queue streamlining and related systems strategies to access and scheduling.
- **Supply and demand:** Continuous assessment, monitoring, and realigning of supply and demand are basic requirements for improving health care access.
- **Reframing:** Alternatives to in-office physician visits, including the use of non-physician clinicians and technology-mediated consultations, can often meet patient needs.
- **Standards:** Standardized measures and benchmarks for timely access to health care are needed for reliable assessment and improvement of health care scheduling.
- **Evidence:** Available evidence is very limited on which to provide setting-specific guidance on care timeliness.
- **Best practices:** Emerging best practices have improved health care access and scheduling in various locations and serve as promising bases for research, validation, and implementation.
- **Leadership:** Leadership at every level of the health care delivery system is essential to steward and sustain cultural and operational changes needed to reduce wait times.
Representative Benchmarks by Setting

- **Primary care**: Same- or next-day engagement for new and returning patients, contingent on their needs and preferences.
- **Primary care backup for urgent services**: Providers who are unable to see patients for urgent services within 48 hours refer them to others.
- **Specialty care**: Third next available waits of 10 days or less for specialty care new visits. For specialty care visits accompanied by greater sense of patient urgency (e.g., oncology), waits of no more than one day for new patients.
- **Emergency departments**: 10-minute door-to-provider time (contact with a provider occurs within 10 minutes of patient arrival at an emergency room).
- **Hospital admissions from emergency department**: Holding time in the emergency department should not exceed 4 hours after a decision to admit.
- **Hospital discharge assessment**: Discharge planning begins immediately after admission and initial discharge assessment completed in the first 24-48 hours of admission.

Basic Access Principles for All Settings

- **Supply-demand matching** through formal ongoing evaluation.
- **Immediate engagement** and exploration of need at time of inquiry.
- **Patient preference** on timing and nature of care invited at inquiry.
- **Need-tailored care** with reliable, acceptable alternatives to clinician visit.
- **Surge contingencies** in place to ensure timely accommodation of needs.
- **Continuous assessment** of changing circumstances in each care setting.
Recommendations

- **Systems approaches**
- **Local & national initiatives**
  - Promote systems strategies to access
  - Use & spread basic access principles
  - Dissemination of learnings
- **Leadership**
  - Transparency, accountability
  - Access as a priority
- **Access rubric, goals, standards**
- **Measurement, monitoring, continuous QI**
- **Innovation & system optimization**
  - Team-based workforce, in-person visit alternatives, & scheduling strategies
Further Information

Full report:

Report brief:

Key Findings:

Key Principles:

JAMA Viewpoint article:
G. Kaplan, Health care scheduling and access, JAMA, July 31 2015, E1-E2.
2. Diagnostic Error
Improving Diagnosis in Health Care

Overview

Publication:
• Released: September 22, 2015
• 10 Agency, 21 members in Committee on Diagnostic Error in Healthcare

Purpose:
• Evaluate diagnostic error as quality of care challenge
• Examine epidemiology, burden of harm, costs of diagnostic error, and current efforts to address problem
• Discover solutions, set goals, and make recommendations to achieve goals
Definition and context

Failure to (a) establish an accurate and timely explanation of the patient’s health problem(s) and/or (b) communicate that explanation to the patient.
Problem summary / ‘Key findings’

• Problem:
  o Diagnostic errors are significant & underappreciated issue
  o 6%-17% hospital AEs, ~10% patient deaths
  o 55% adults primary concern is correct diagnosis
  o 12% surveyed (Mass) know someone with diagnostic error

• Importance:
  o Errors can lead to negative outcomes, distress, and costs
  o Inappropriate or unnecessary treatment may be given, or appropriate treatment may be withheld or delayed
  o Leading type of paid malpractice claims.

• Barriers:
  o Not much known (rates, causes, costs, prevention)
  o Not just human factors issue. Design of system also
Goals

**Goal 1:** Facilitate more effective teamwork in diagnostic process

**Goal 2:** Enhance education and training in diagnostic process

**Goal 3:** Ensure health IT technologies support diagnostic process

**Goal 4:** Develop & deploy approaches to identify, learn from, & reduce diagnostic errors and near misses in clinical practice

**Goal 5:** Establish work system & culture that supports diagnostic process

**Goal 6:** Develop reporting environment & liability system to facilitate improved diagnosis by learning from errors & near misses

**Goal 7:** Design payment and care delivery environment that supports diagnostic process

**Goal 8:** Provide dedicated funding for (systems) research on diagnostic process and diagnostic errors

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**20 recommendations to achieve these goals**
System views

The Work System

External Environment

Organization

Technologies and Tools

Diagnostic Team Members

Physical Environment

Tasks

Diagnostic Team Members

Health care professionals who support the diagnostic process

Diagnosticians

Patient & Family Members
Further Information

Full report:

Report brief:

Key Recommendations:
http://iom.nationalacademies.org/~/media/Files/Report%20Files/2015/Improving-Diagnosis/Diagnosis_Recommendations.pdf

Resources:

Public briefing (1 hr video):
https://www.youtube.com/watch?v=fRdd3vFr79Y
3. Roles for IE’s
What can you do

1. Internally
   - Make someone aware of reports
   - Seek internal access/error teams, offer your help

2. Externally
   - Disseminate access and diagnostic error projects, presentations, etc, highlighting IE roles

3. Nationally
   - Panel discussion at SHS or other conferences
   - BHAG: Collaborative national IE demonstration project (?)
Multi-system demonstration project

Concept / proposal
- ‘IHI-style’ 12-month collaborative
- ~20+ health systems, 2 areas (1 common)

Mechanics
- 90-day cycles, F2F mtgs, monthly webinars, weekly work & student team support, potential matching funds (explore)

Outcomes
- Dissemination IE project, Journal report-response paper
- Workbook, tools, case studies, ‘evidence’, roadmap, tools

Next steps
- Identify interested participating systems. Contact us
- Enroll, plan details, kick-off meeting (SHS conference?)
Discussion

www.hsye.org

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