Breakout Session: Use of Data and Measurement in Improving Diagnostic Safety

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Discussants and Agenda

- David Newman-Toker, MD, PhD
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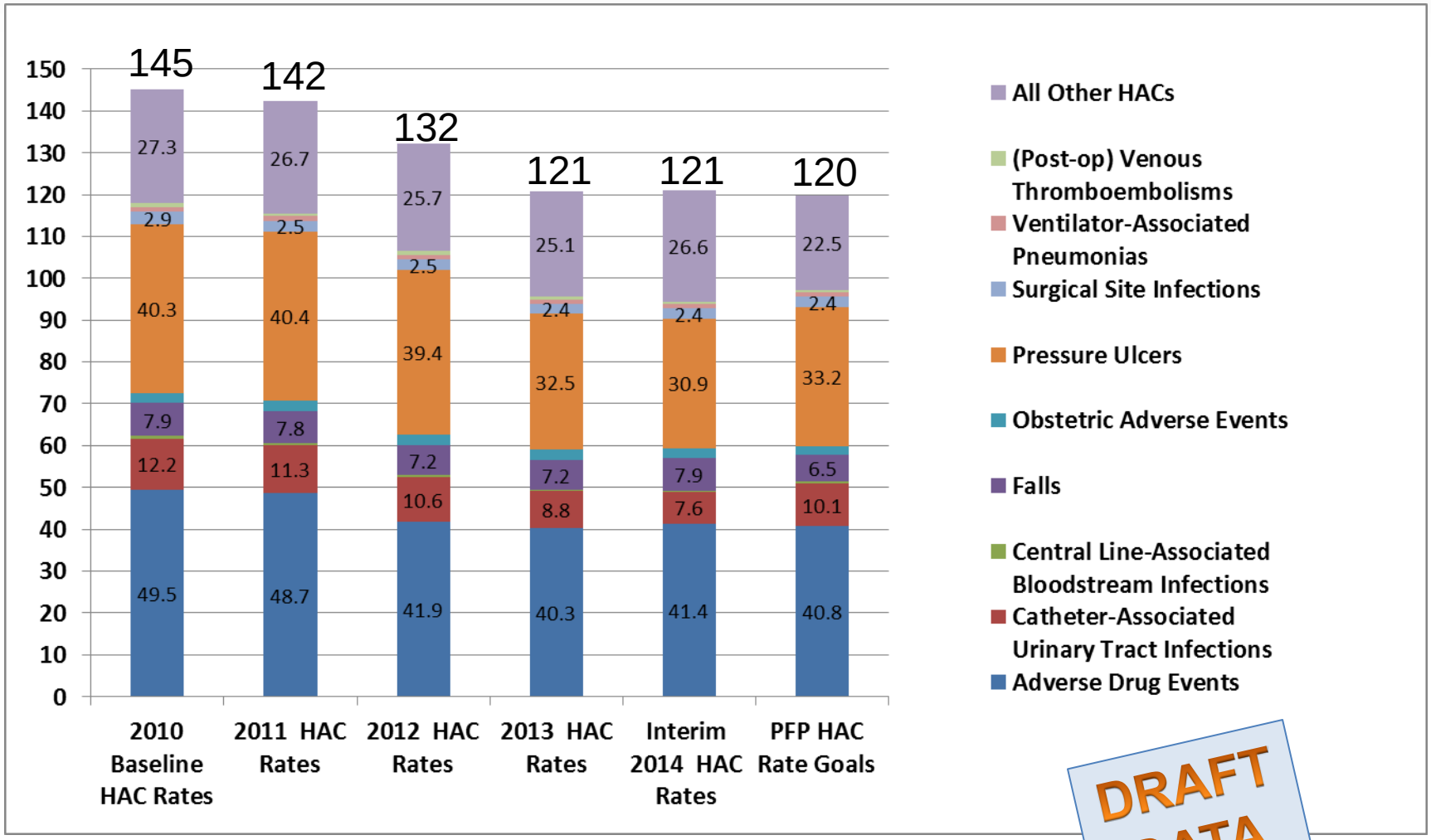
- Agenda
  - Introduction to the session
  - Questions for panel discussants
  - Questions from audience participants

  * Include focus on “cross-cuts”
    - Patient and family engagement
    - Training and education

National Hospital-Acquired Condition (HAC) rate: 2010 to 2014 (interim data)



Unprecedented Improvements in Hospital Safety and Measurable Impact

17% reduction in HACs

87,000 lives saved

2.1 million patient harms avoided

$19.8 billion in savings

Saving Lives and Saving Money: Hospital-Acquired Conditions Update Interim Data From National Efforts To Make Care Safer, 2010-2014 : http://www.ahrq.gov/news/newsroom/press-releases/2015/saving-lives.html

What Makes Addressing Diagnostic Error Difficult?

- Notoriously difficult to measure and define.
- Dx involves multiple persons, multiple stages, and multiple exchanges and interpretations of information.
- Variety of patient-, provider-, and system-level challenges can derail the process.
- Dx is not an event; it frequently is an evolving process encumbered with uncertainty and fragmentation.
- Lack of feedback limits providers' ability to recalibrate their Dx performance.
- Who owns the Dx error problem? Administrators cede Dx matters to physicians; physicians, in turn, cede systems problems to administrators.

NAM (formerly IOM) Definition of Diagnostic Error

The failure to:

(a) establish an **accurate** and **timely** explanation of the patient's health problem(s)

or

(b) **communicate** that explanation to the patient

4. Develop and deploy approaches to identify, learn from, and reduce diagnostic errors and near misses in clinical practice

- Accreditation organizations and the Medicare conditions of participation require monitoring the diagnostic process.
- Health care organizations should include activities as a component of their quality improvement, research, and patient safety programs.
- Systematic feedback on diagnostic performance should be provided to individual health care professionals, care teams, and organizational leaders.
- HHS should fund routine post-mortem examinations on a representative sample of patient deaths.
- Health Care professional societies should identify opportunities to reduce diagnostic errors in their specialties.

Recommendations from the *Improving Diagnosis in Health Care* Report

6. Develop a **reporting environment** and **medical liability system** that facilitates improved diagnosis through learning from diagnostic errors and near misses

- Encourage and facilitate voluntary reporting.
- Evaluate the effectiveness of PSOs as a major mechanism for voluntary reporting and learning from these events.
- Modify the PSO common formats for reporting of patient safety events to include diagnostic error and near misses.
- Promote a legal environment that facilitates the timely identification, disclosure, and learning from diagnostic errors.
  - Encourage the adoption of communication and resolution programs
  - Conduct demonstration projects of alternative approaches to the resolution of medical injuries, including administrative health courts and safe harbors
- Professional liability insurance carriers and captive insurers should collaborate with health care professionals.

Measuring Diagnostic Error

- Research projects
- Medical liability claims
- Patient safety and quality improvement

- Existing databases can be a source of information about diagnostic errors
  - Identify aggregate number of diagnostic errors
  - Identify specific conditions suggestive of diagnostic errors
  - Monitor progress in reducing diagnostic errors

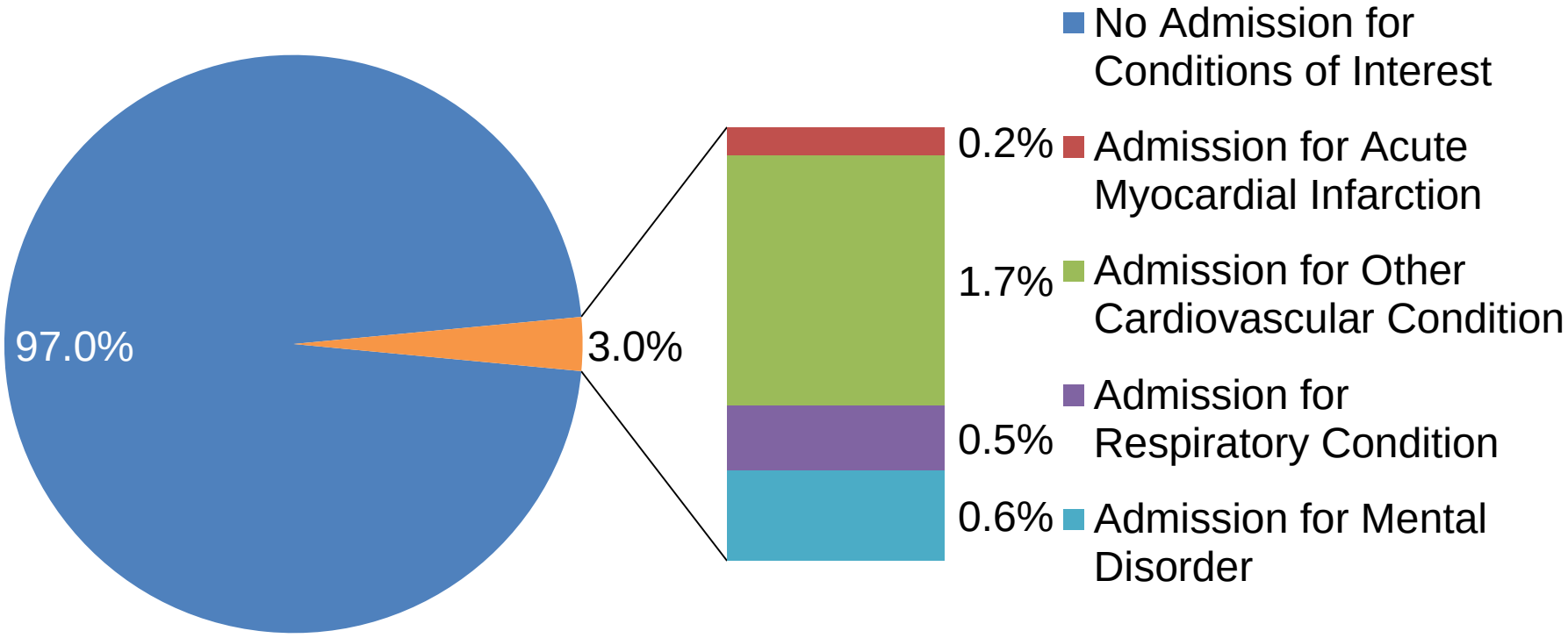
Measurement Study Example

Hospital Admission
After ED discharge for Chest Symptoms

Aims:

- To examine the frequency of inpatient admissions for related symptoms after discharge from an ED for chest symptoms.
- To identify patient and hospital characteristics associated with these admissions.

Figure 1. Admissions After Discharge from an Emergency Department for Chest Symptoms



Study Conclusions & Implications

- Admission for AMI after discharge from an ED for chest symptoms is rare, but admission for other cardiovascular, respiratory, or mental conditions is not uncommon.
- Results suggest that the following are associated with a potential diagnostic issue based on hospital admission after ED discharge:
  - Patient and geographic characteristics, especially payer and for respiratory and mental conditions
  - Having a cardiac catheterization laboratory seems to reduce the odds of admission for AMI
  - Having a weekend ED visit seemed to increase the odds of admission for other cardiovascular, respiratory, and mental conditions.
- Interventions that target specific patients and EDs may reduce the number of people admitted after discharge from an ED.

Outcomes Stemming from the Diagnostic Process

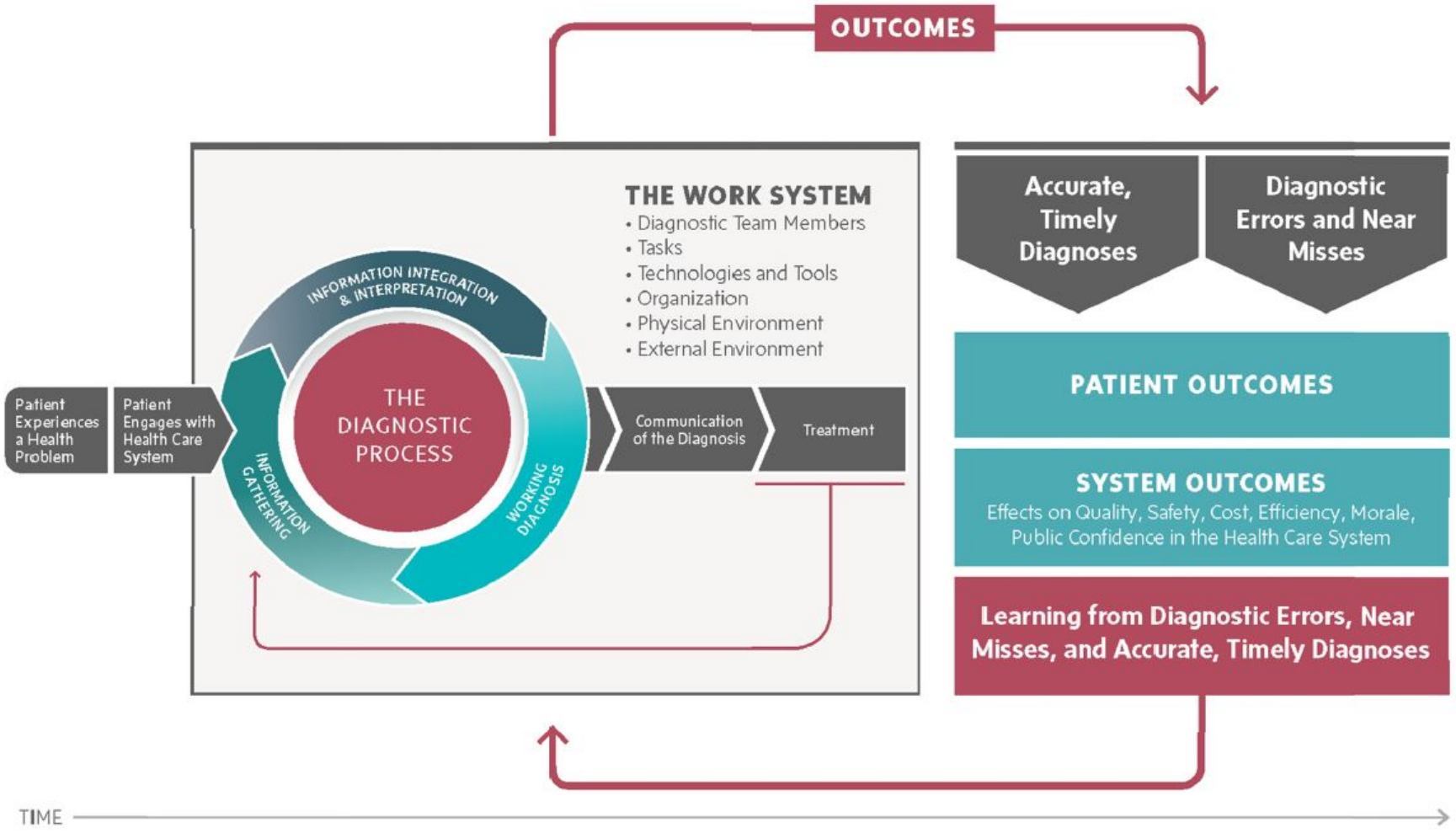


Image adapted with permission from National Academy of Medicine

Some Considerations for Measurement of Diagnostic Error

- WHAT to measure
  - Care settings
  - Timing
  - Clinical conditions
  - Processes and breakdowns in process
  - Cognitive factors
  - Contributing factors
  - Patient outcomes
  - Costs
  - Other?

- HOW & WHY to measure
  - Methods
    - Reporting
    - Population-based surveillance
    - Analysis of large databases
  - Data sources
  - Purpose of measurement
    - Research
    - Quality Improvement
    - Accountability
  - Data user/audience
    - Clinician
    - Patient
    - Health care system
    - Health plan
    - Accreditor/Regulator