Diagnostic Error: Under-recognized problem

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NATIONAL ACADEMY OF MEDICINE

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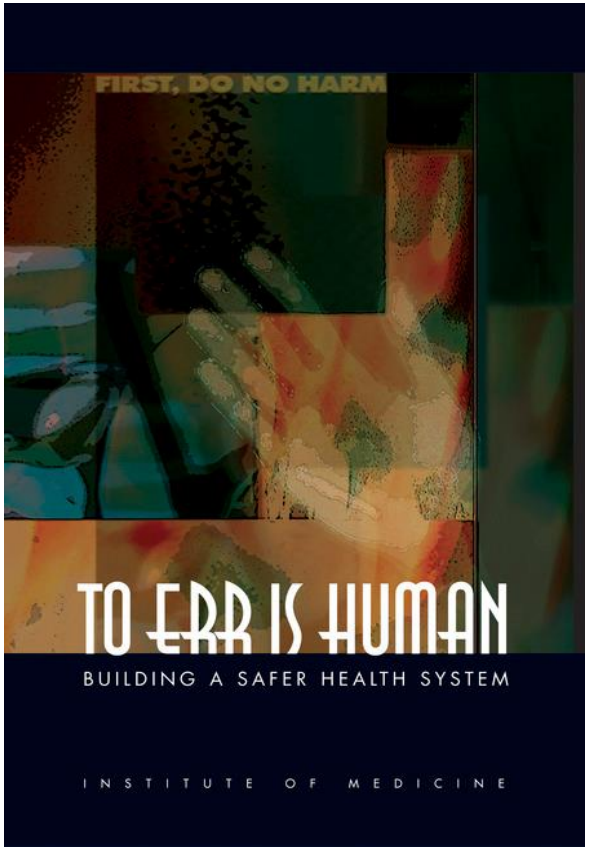
The IOM Quality Series

Foundational Reports



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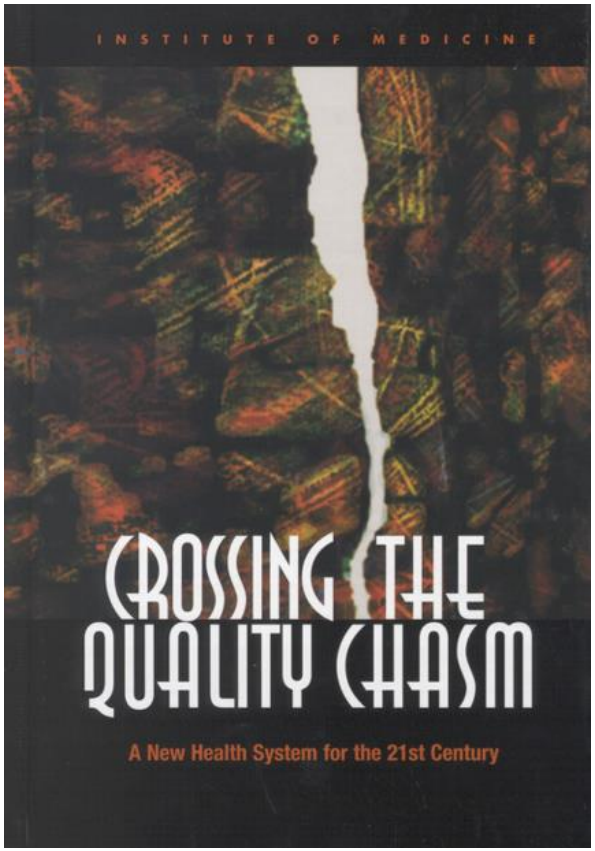
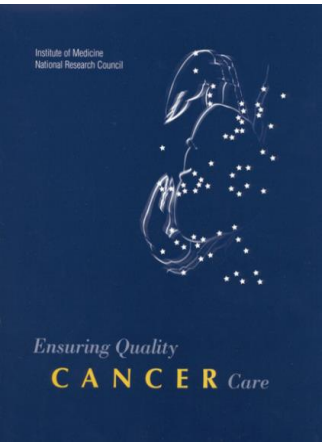
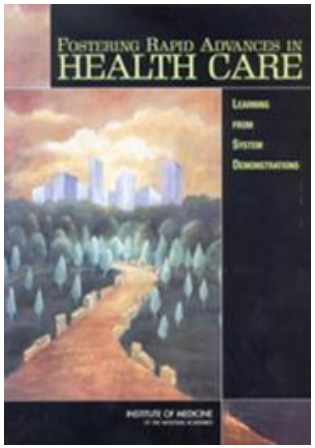


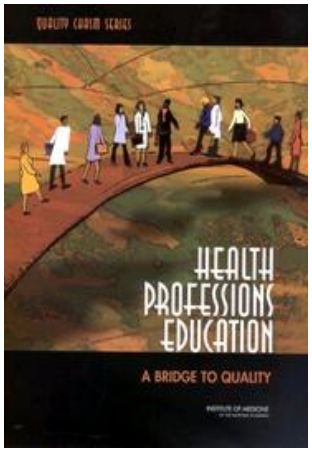
2001

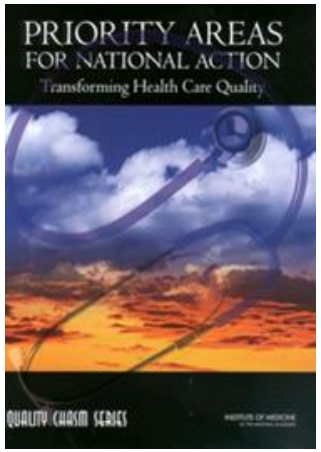
- **Quality** defines six aims—
  - safe,
  - effective,
  - patient-centered,
  - timely,
  - efficient and
  - equitable

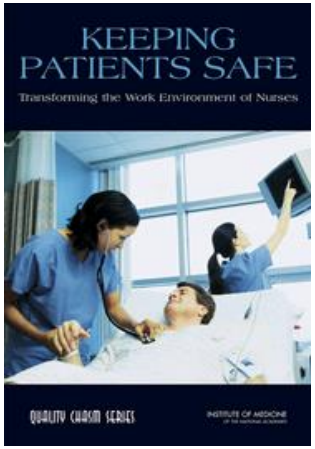
IOM Work on Quality

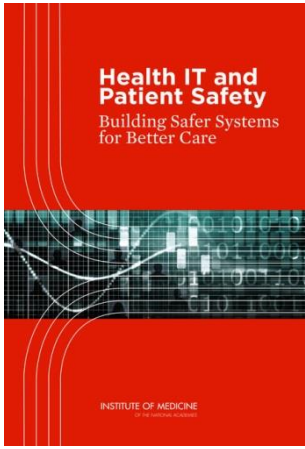


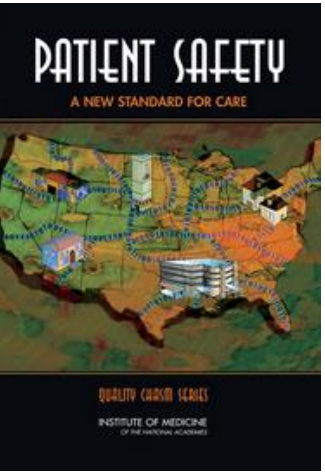


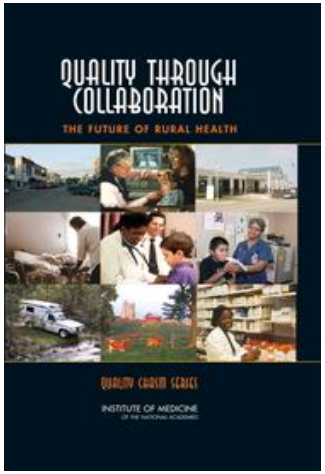


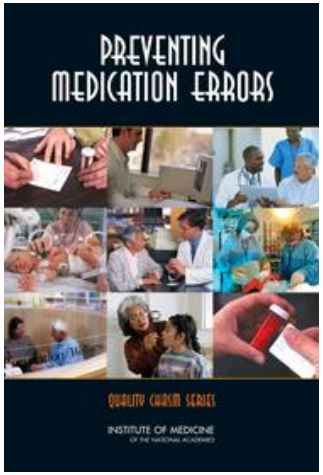


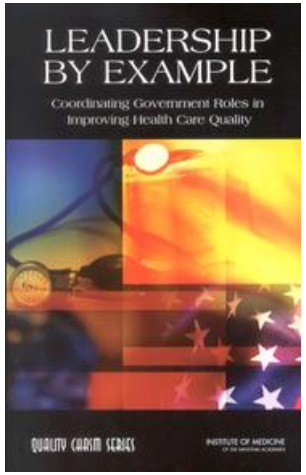


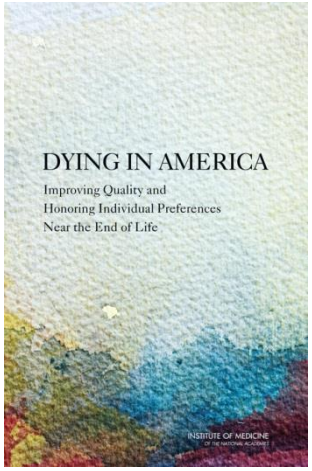


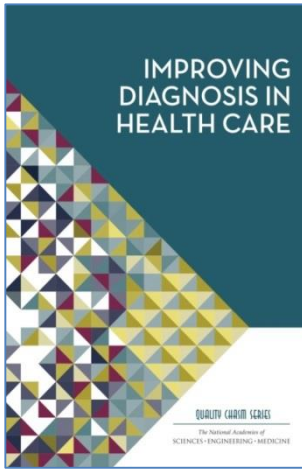












Diagnostic Error:

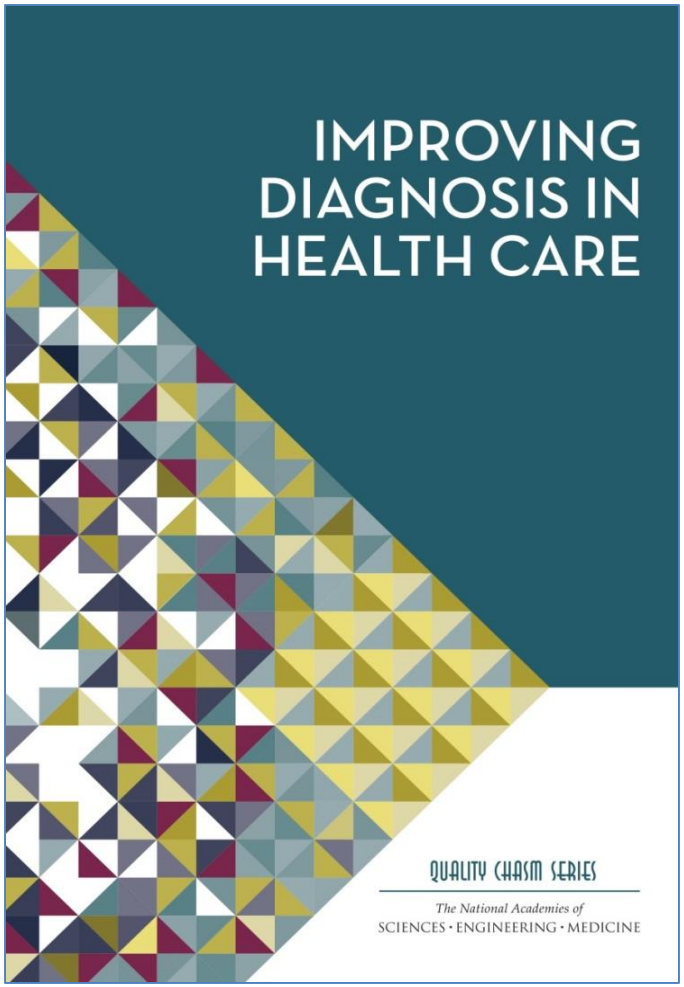
one of the least understood and most important areas of ambulatory medical error

Patient Safety Beyond the Hospital

- The majority of patient safety efforts have focused on medical error in hospitals
- Only about 10% of patient-safety studies have been performed in outpatient settings (Gandhi and Lee, 2010)
- Yet, the vast majority of health care is delivered in ambulatory settings
  - 900 million visits to physicians' offices vs 35 million hospital discharges each year in the US
- Some efforts to improve ambulatory care safety, e.g. US CMS Hospital Outpatient Quality Reporting Program

The IOM Quality Series: Improving Diagnosis

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



" It is likely that most of us will experience at least one diagnostic error in our lifetime, sometimes with devastating consequences."

2015

Diagnostic Error: Magnitude of the Problem

- **12 million or 5 % U.S. adults** seeking outpatient care each year experience a diagnostic error. Half leads to harm.
- Postmortem examination research contribute to approximately **10 percent of patient deaths**.
- Medical record reviews: diagnostic errors account for **6 to 17 percent of hospital adverse events**.
- Diagnostic errors are the **leading type of paid medical malpractice claims.** Diagnostic errors accounted for 59% of all outpatient malpractice claims (Gandhi et al, 2006)

Diagnostic errors can be costly - unnecessary office and hospital visits, wrong treatments, unnecessary tests and procedures, readmissions and deteriorating health status.

Patient experiences with diagnostic error

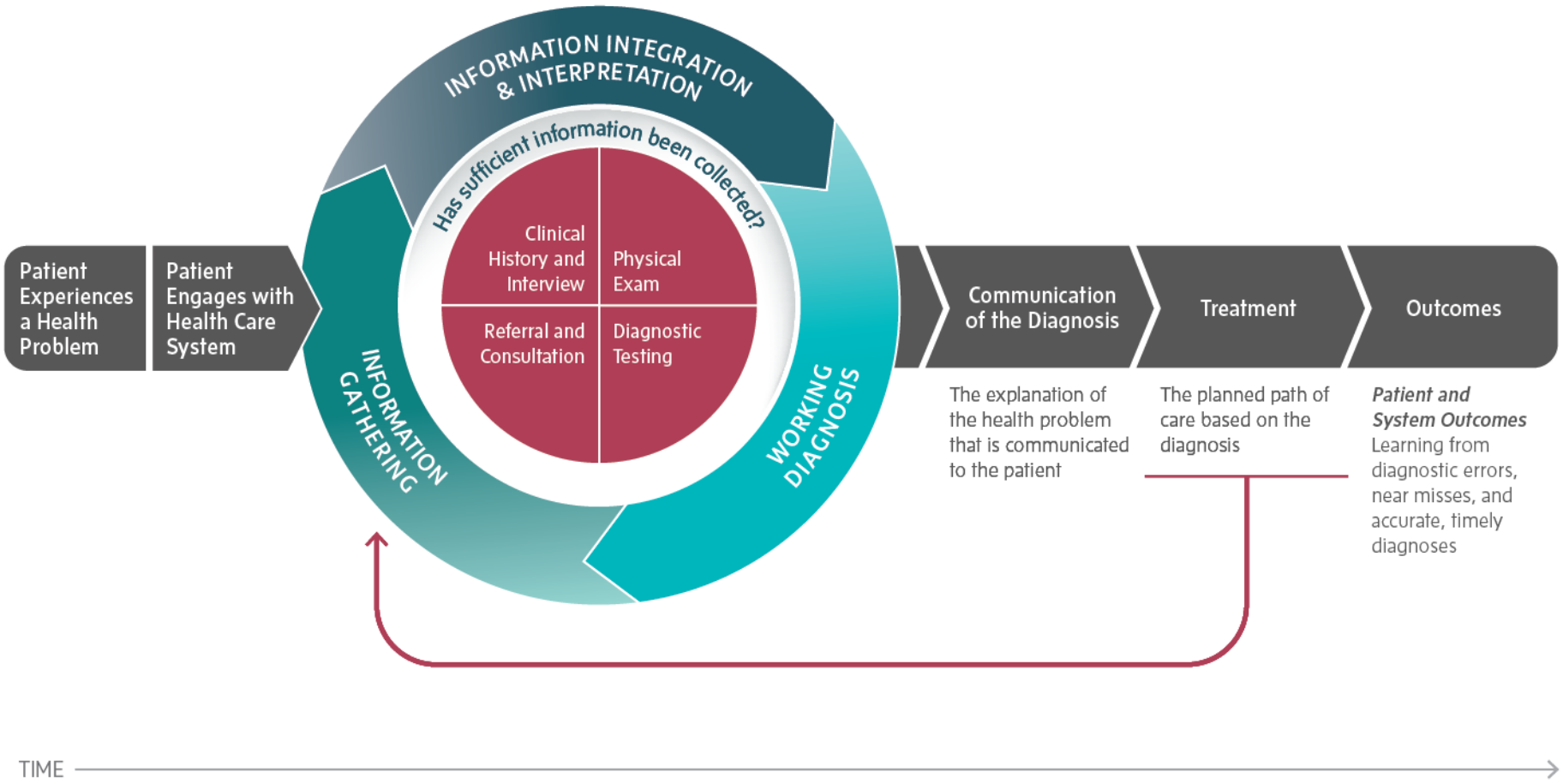
- Delayed colon cancer diagnosis due to misreporting of x-ray results
  - Female has anemia and growing fatigue, shortness of breath, weight loss, weakness, and sharp pain. Prescribed iron supplements.
  - 2 years later, underwent colonoscopy but unable to complete because colon difficult to view. Barium x-ray results appear unremarkable (error-xray belongs to another patient) Dx: IBS
  - 2 years later, second colonoscopy reveals tumor in colon

    Surgery – stage 3 colorectal cancer. Rx: colectomy & chemotherapy
- Delayed lung cancer diagnosis because radiology results not communicated
  - Middle aged man received chest x-ray as part of the preoperative evaluation for knee replacement
  - The chest x-ray showed a mass, and his knee surgery was cancelled.
  - Radiology report was never sent to the primary care physician.

Patient experiences with diagnostic error

- Rushed communication leads to error
  - Doctor informed the patient to refrain from aspirin ingestion prior to a particular laboratory test involving platelets. Physician failed to explain to the patient that aspirin is present in many medicines
  - Assay was performed and the result was incorrect
  - Patient then reported she had taken Alka-Seltzer within the past 24 hours.
  - This necessitated a repeat performance of a complicated assay.

The Diagnostic Process



Where Failures in the Diagnostic Process Occur

- Failure of engagement
- Failure in Information Gathering
- Failure in Information Integration
- Failure in Information Interpretation
- Failure to Establish an Explanation for the Health Problem
- Failure to Communicate the Explanation

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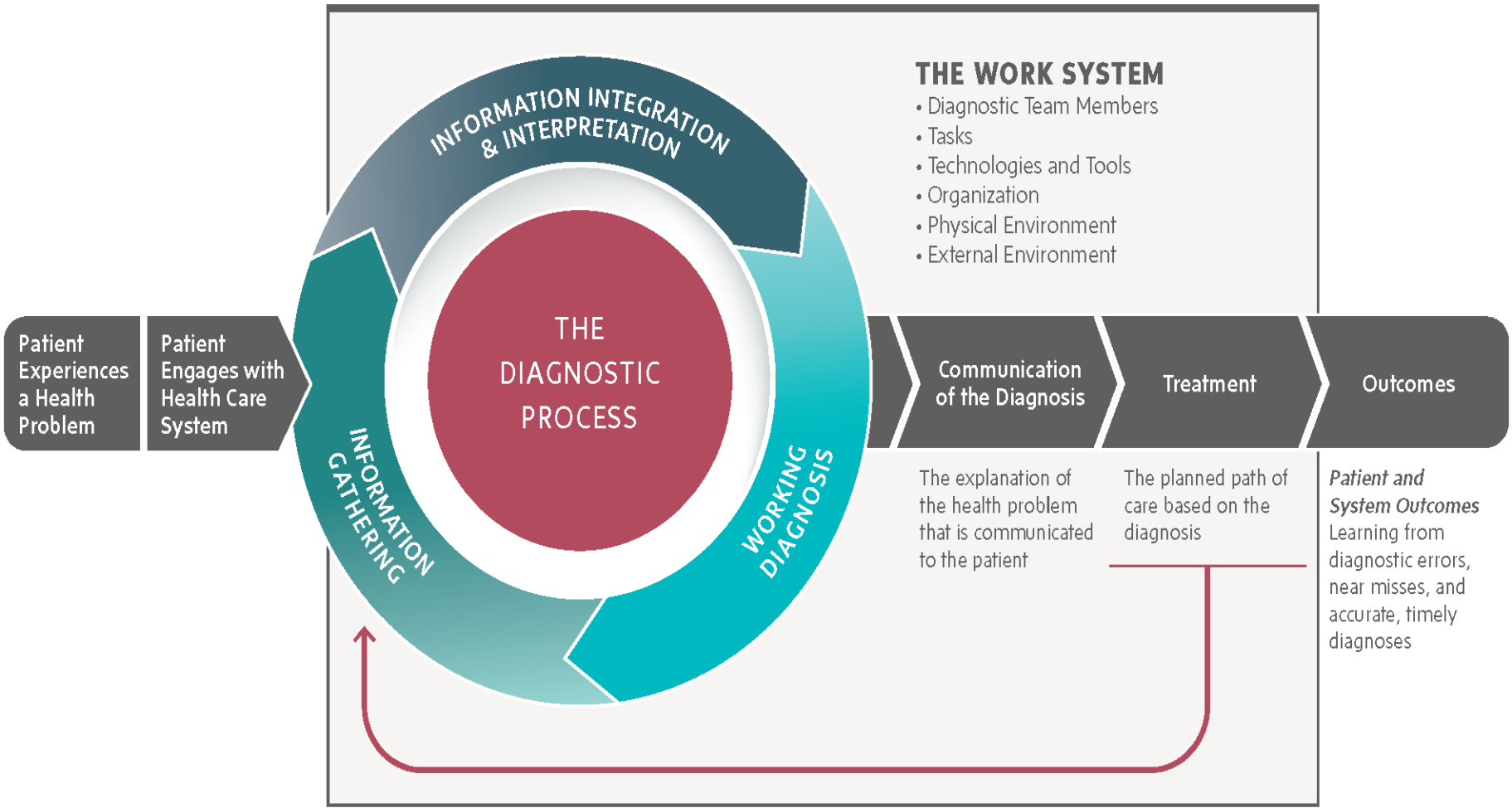
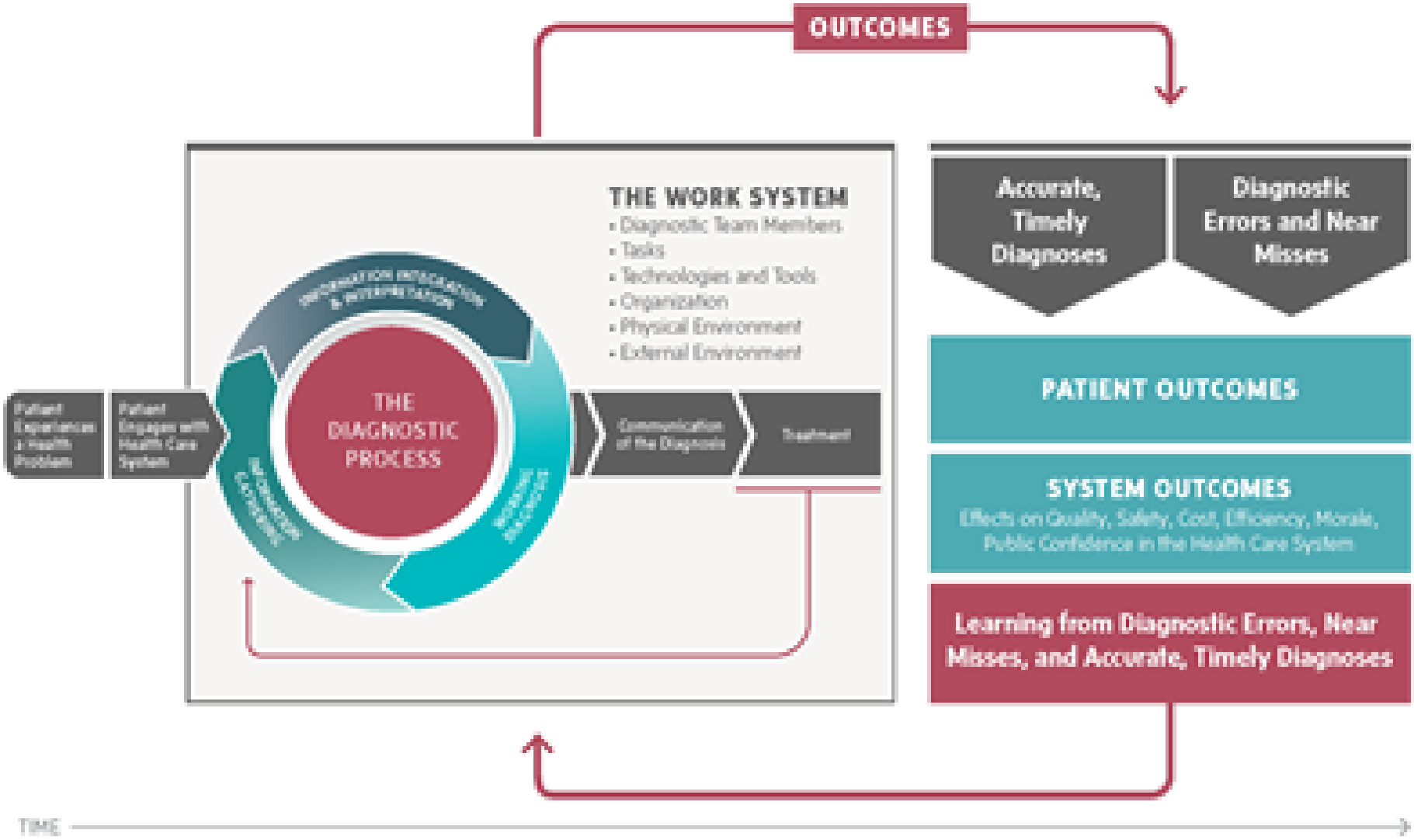


Diagnostic Process: Learning Healthcare System



8 Goals to Improve Diagnosis and Reduce Diagnostic Error

GOAL 1 **more effective teamwork** in the diagnostic process

GOAL 2 **education** and **training** in the diagnostic process

GOAL 3 **health information technologies** support patients and care professionals

GOAL 4 **identify**, **learn from**, and **reduce** diagnostic errors

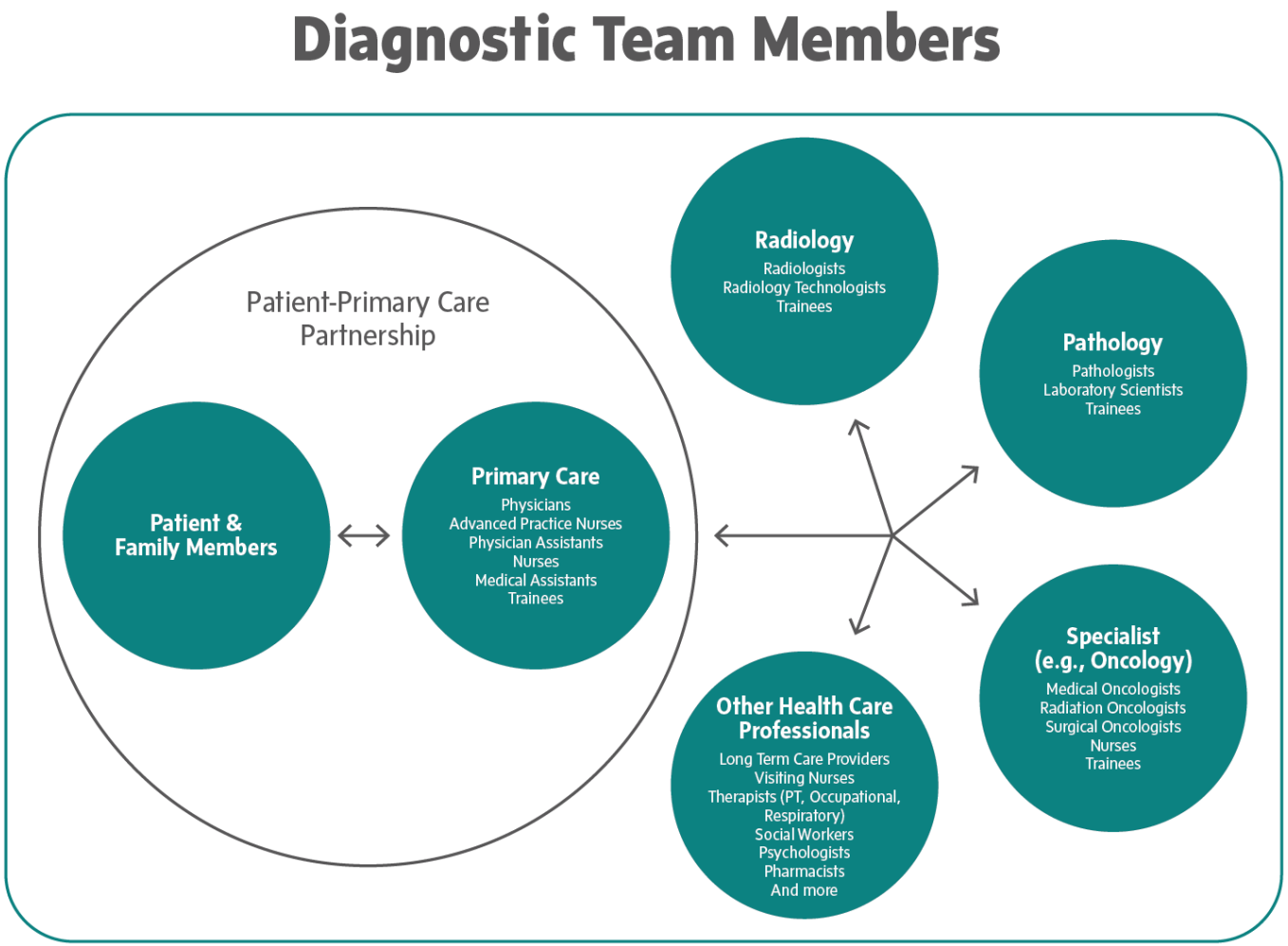
GOAL 5 **work system** and **culture**

GOAL 6 **reporting environment** and **medical liability system** that facilitates **learning from diagnostic errors and near misses**

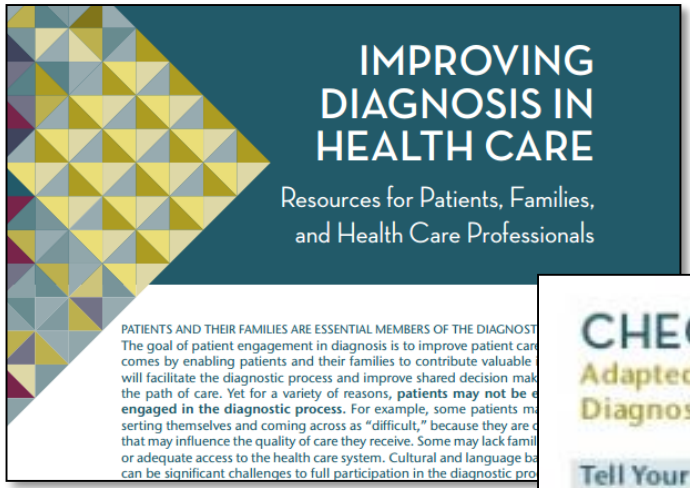
GOAL 7 **payment** and **care delivery environment** that supports the diagnostic process

GOAL 8 **dedicated funding for research**

Diagnosis is a collaborative effort: Patients are central to the solution



Communication Resources for Patients



CHECKLIST FOR GETTING THE RIGHT DIAGNOSIS

Adapted from the National Patient Safety Foundation and the Society to Improve Diagnosis in Medicine*

Tell Your Story Well: Be clear, complete, and accurate when you tell your clinician about your illness.

- ***Be Clear***–Take some time to think about when your symptoms started, what made your symptoms better or worse, or if your symptoms were related to taking medications, eating a meal, exercising, or a certain time of day.
- ***Be Complete***–Try to remember all of the important information about your illness. Write down some notes and bring them with you. A family member may be able to help you with this.
- ***Be Accurate***–Sometimes you may see multiple clinicians during a medical appointment. Make sure your clinicians hear the same story regarding your illness.

Be a Good Historian

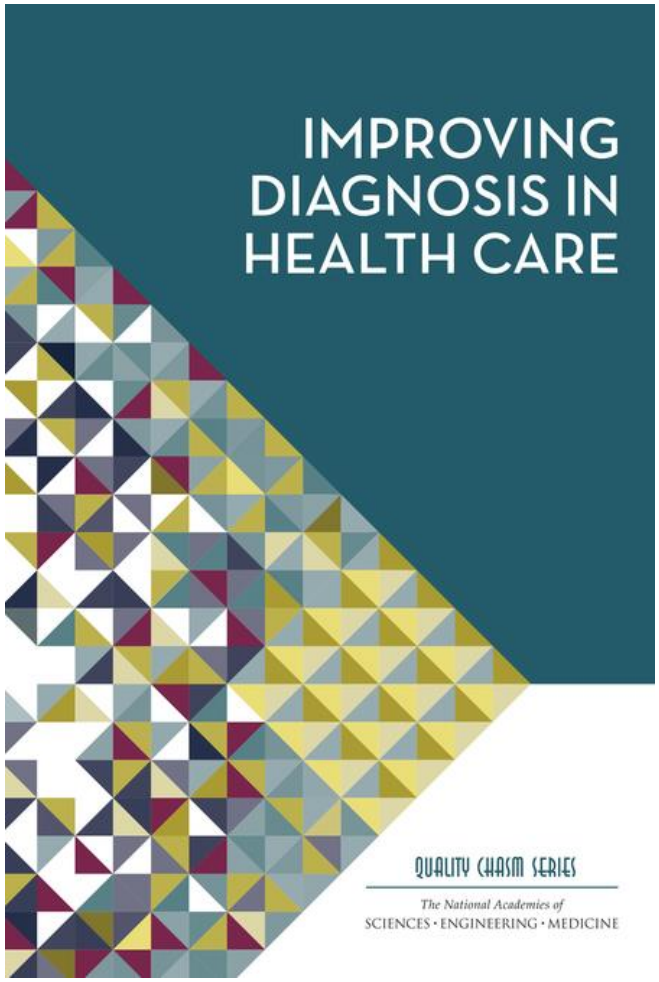
- Remember what treatments you have tried in the past, if they helped, and what, if any, side effects you experienced.
- Think about how your illness has progressed over time.

Take Charge of Managing Your Health

- When meeting with your clinician, use the Ask Me 3 brochure, *Good Questions for Getting the Right Diagnosis:*
  1. What could be causing my problem?
  2. What else could it be?
  3. When will I get my test results, and what should I do to follow up?
- If you have more than one clinician, make sure each clinician knows what the other person is thinking and planning.
- Make sure each clinician knows all of your test results, medications, or other treatments.
- Be informed and involved in decisions about your health.

Know Your Test Results

- Make sure both you and your clinician get the results from any tests that are done.
- Don't assume that no news is good news; call and check on your test results.
- Ask what the test results mean and what needs to be done next.



IMPACT

NQF Project—measurement framework for diagnostic quality & safety using report as a starting point

AHRQ Research Summit on Improving Diagnosis in Health Care: September 28, 2016

The Coalition to Improve Diagnosis, a group of leading health care organizations, is working to advance progress

The **Moore Foundation** has prioritized diagnostic error in its patient safety initiative

SELECTED PRESENTATIONS

- CMS Grand Rounds
- American Health Lawyers Association
- Lundberg Institute Lecture
- National Health Policy Forum
- American Board of Medical Specialties/National Patient Safety Foundation Summit on Certification & Diagnostic Accuracy

STATS

24,400 Downloads

#7 of 1,675 in Health and Medicine

#21 of 2,505 in Consensus Reports

SELECTED PUBLICATIONS

Ball JR, Balogh E. Improving Diagnosis in Health Care: Highlights of a Report From the National Academies of Sciences, Engineering, and Medicine. ***Annals of Internal Medicine***. 2016;164:59-61.

McGlynn EA, McDonald KM, Cassel CK. Measurement Is Essential for Improving Diagnosis and Reducing Diagnostic Error: A Report From the Institute of Medicine. ***JAMA.*** 2015;314(23):2501-2502.

Improving Diagnosis in Health Care
Follow-Up Meeting

July 17, 2017

Follow-up meeting to

- Review stakeholder reactions to the report
- Track and assess progress since the report was released
- Explore potential areas for future action that are needed based on the report's recommendations

Identifying and learning from diagnostic errors is important, but a sole focus on reducing diagnostic errors will not achieve the extensive change that is necessary.

A broader focus on improving diagnosis is warranted.

Thank you

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Reducing Diagnostic Errors: Role of Healthcare Organizations

- Ensure that health care professionals have the appropriate knowledge, skills, resources, and support to engage in teamwork in the diagnostic process
- Promote a non-punitive culture that values open discussion and feedback on diagnostic performance.
- Design the work system to support patients, their families, and health care professionals in the diagnostic process.
- Ensure effective and timely communication between diagnostic testing health care professionals and treating health care professionals across all health care settings.

Can we apply lessons from hospital patient safety to the ambulatory setting?

Key Differences between Hospital and Ambulatory Care

- Nature of the patient-provider relationship
  - Patients' role as active participants is more important in ambulatory settings
- Organizational structure of hospitals vs clinics
- Accountability/reporting
  - Hospitals face high level of scrutiny from organizations such as the Joint Commission

Wachter, 2006

Nature of Ambulatory Care Errors

- Medication errors and diagnostic errors are common in ambulatory care. In the US,
  - Adverse drug events lead to more than 4.5 million ambulatory care visits every year (Sarkar et al, 2011)
  - Diagnostic errors accounted for 59% of all outpatient malpractice claims (Gandhi et al, 2006)