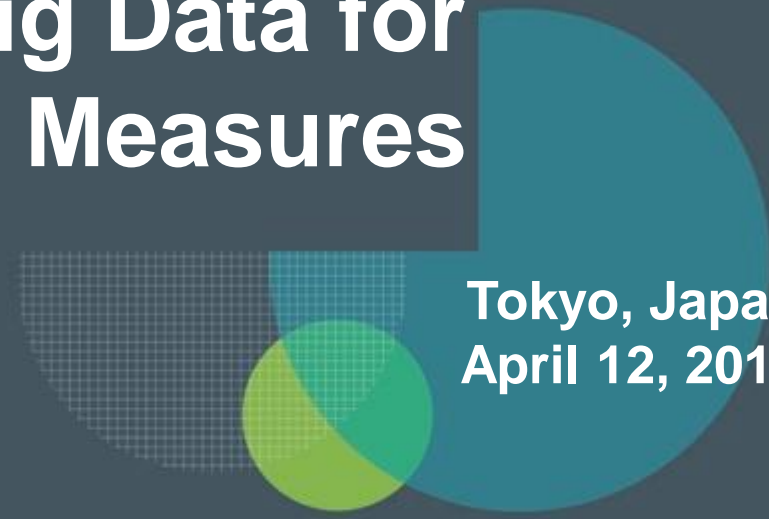




3rd Global Ministerial Summit on Patient Safety

Utilization of Big Data for Safety Measures

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Tokyo, Japan
April 12, 2018

A Very Brief History

1991: Harvard Medical Practice Study – 1984 data – 3% Injury Rate

1990's: Multiple Other Studies – High Variation in Findings – 3% to 33%

“The harder you look, the more you find.”

1994: Lucian Leape: JAMA : “Error in Medicine”

1999: IOM: “To Err Is Human”

2002: England: “An Organisation with a Memory” – Sir Liam Donaldson

2003: IHI Global Trigger Tool

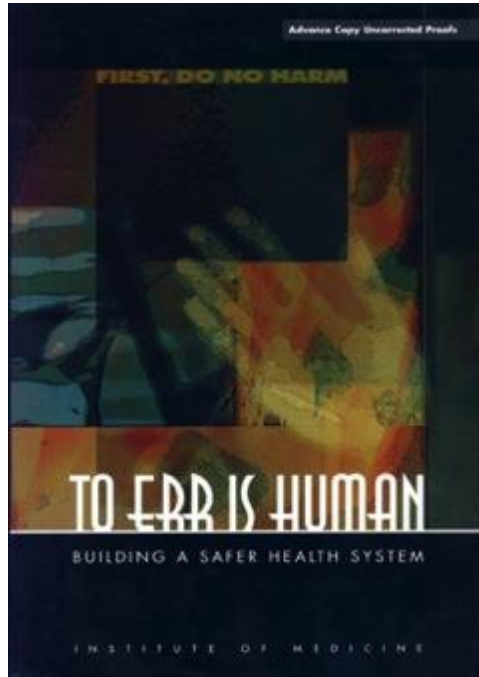
Adverse Events per 1000 Patient Days

Adverse Events per 100 Admissions

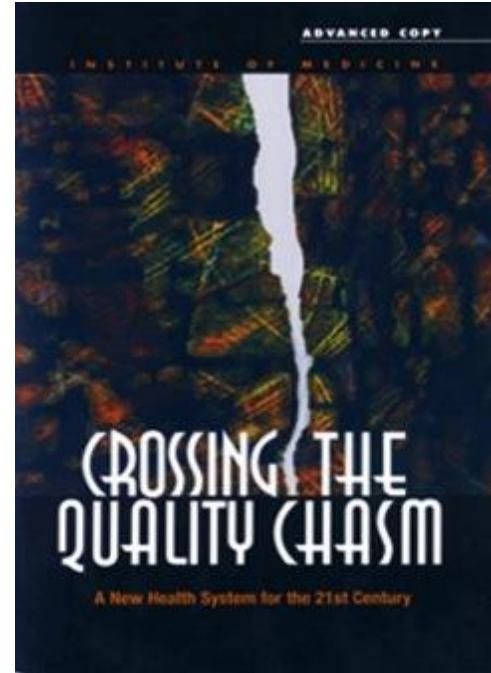
Percent of Admissions with an Adverse Event

Near Future: Automated Global Trigger Tool

The Institute of Medicine (US)



1999



2001

The IHI Global Trigger Tool

<http://www.ihl.org/resources/Pages/Tools/IHIGlobalTriggerToolforMeasuringAEs.aspx>

Tools



IHI Global Trigger Tool for Measuring Adverse Events

Institute for Healthcare Improvement
Cambridge, Massachusetts, USA

The use of "triggers," or clues, to identify adverse events (AEs) is an effective method for measuring the overall level of harm in a health care organization. The IHI Global Trigger Tool for Measuring AEs provides instructions for training reviewers in this methodology and conducting a retrospective review of patient records using triggers to identify possible AEs. This tool includes a list of known AE triggers as well as instructions for selecting records, training information, and appendices with references and common questions. The tool provides instructions and forms for collecting the data you need to track three measures:

- Adverse Events per 1,000 Patient Days
- Adverse Events per 100 Admissions
- Percent of Admissions with an Adverse Event

Good News and Bad News

- **Good: Efficient ways to detect hazards and injuries in patient care using large databases and automated search will soon be in our hands, allowing some stability in calculating adverse event rates.**
- **But – caution!!! This very innovation will introduce risks to the overall patient safety agenda. Leaders need to anticipate and mitigate these risks.**

Risks to Avoid

- 1. *Continuing misallocation of resources...*** Too much to measurement – Too little to culture change and redesign. (“Weighing a pig does not make a pig fatter.”)
- 2. *Hindsight bias and simplistic interpretation.*** (“Safety is a continually emerging dynamic property of a complex system.” – James Reason)

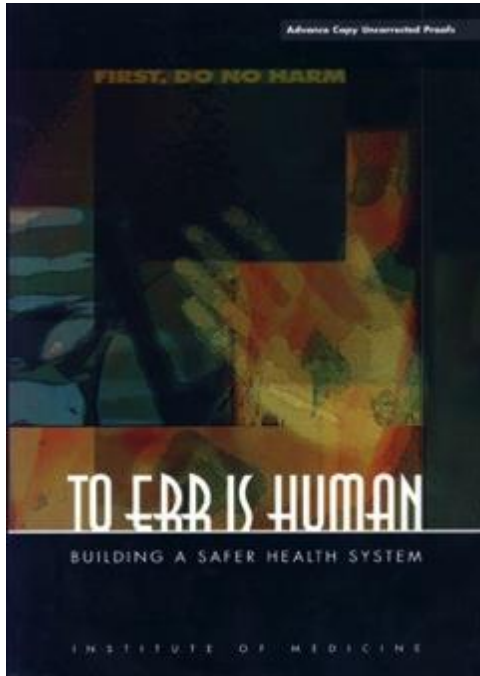
“Safety is not a goal; it is a continually emerging, dynamic property of a system.”

– *James Reason*

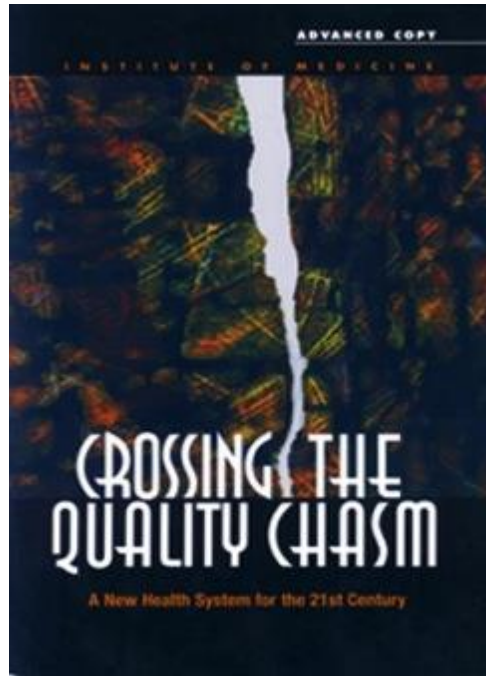
Risks to Avoid

- 3. *Fear.*** Safety can thrive only in a culture of trust, learning, and openness. Fear poisons safety.
- 4. *Suboptimizing the safety agenda.*** (“Quality and safety” = “Fruit and apples.”) Excellence and continual improvement in all dimensions that matter is the proper goal.
- 5. *Pushing aside what matters.*** Safety is an important aim, but not the only aim.

The Institute of Medicine (US)



1999



2001

Aims for Improvement

1. Safety
2. Effectiveness
3. Patient-Centeredness
4. Timeliness
5. Efficiency
6. Equity

Good News and Bad News

- We can measure injuries.
- In the wrong culture, measurement can do more harm than good.

Thank you!

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www.ihl.org