Institute of Medicine, “To Err Is Human - Executive Summary”

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• cases that make headlines are just the tip of the iceberg when it comes to medical error

• large studies in Colorado & Utah and in New York
  - adverse events occur in 2.9% (CO & UT) to 3.7% (NY) of hospitalizations
  - 6.6% (CO & UT) to 13.6% (NY) of adverse events lead to death
  - half of adverse event result from preventable medical errors

• extrapolating to 33.6 million hospital admissions in the United States, the implied rate of death from medical error is 44,000 to 98,000 per year

• total national costs (lost income, lost household production, disability and healthcare costs) are estimated at $17 billion to $29 billion; healthcare costs represent half

• 6,000 deaths from workplace injuries vs 7,000 deaths from medication errors per year

• medication errors are frequent and can be costly
  - 2% of admissions at two prestigious teaching hospitals experience a preventable adverse drug event
  - $4,700 cost per admission
  - $2.8 million annually for a 700-bed teaching hospital
  - if costs are generalizable, $2 billion for the nation

• these costs don’t take into account outpatient, home care, pharmacy, and other institutional settings, so they underestimate costs

• opportunity costs of errors are also likely to be high
• many costs are not directly measurable, e.g., loss of trust, diminished satisfaction, physical and psychological discomfort, loss of morale, lost productivity

• silence surrounds the issue
  - consumers believe they are protected
  - media coverage limited to reporting on anecdotal cases
  - licensing and accreditation focus only limited attention on safety issues
  - providers perceive medical liability system as a serious impediment to systematic efforts to uncover and learn from errors

• fragmented nature of healthcare system also contributes to unsafe conditions

• purchasing context exacerbates problems

• we need a comprehensive approach to improving patient safety
  - no magic bullet
  - external environment should create sufficient pressure to make errors costly so that providers take action to improve safety
  - need to enhance knowledge and tools to improve safety
  - break down legal and cultural barriers that impede safety improvements

• safety is defined as freedom from accidental injury

• errors depend on two kinds of failures (James Reason):
  - correct action does not proceed as intended (error of execution)
  - original intended action is not correct (error of planning)

• errors can occur at all stages: diagnosis, treatment, preventive care

• not all errors result in harm and not all adverse events are preventable

• we can learn a lot from analysis of errors
  - all adverse events resulting in injury or death should be evaluated to assess potential delivery system improvements
  - errors that do not result in harm are also important learning opportunities
  - error prevention means safer system design at all levels
  - focus should shift from blaming individuals for past errors to the prevention of future errors by designing safety into the system

• healthcare is a decade or more behind other high-risk industries (e.g., aviation) in its attention to ensuring basic safety
Recommendations

- establish a national focus to create leadership, research, tools and protocols to enhance the knowledge base about safety
- identify and learn from errors through immediate and strong mandatory reporting efforts, as well as the encouragement of voluntary efforts
- raise standards and expectations for improvements in safety through the actions of oversight organizations, group purchasers, and professional groups
- create safety systems inside health care organizations through the implementation of safe practices at the delivery level