

Pennsylvania Academy of Family Physicians Foundation

## Pittsburgh CME Conference

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### **Practicing Optimum Patient Safety (*Patient Safety*)**

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#### **Disclosures:**

Speaker has no disclosures and there are no conflicts of interest.

The speaker has attested that their presentation will be free of all commercial bias toward a specific company and its products.

The speaker indicated that the content of the presentation will not include discussion of unapproved or investigational uses of products or devices.

**Practicing Optimum  
Patient Safety**

**Dr. Steven Levy**

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**Disclosure**

- Dr. Steven Levy has no conflict of interest, financial agreement, or working affiliation with any group or organization.

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***Institute of Medicine***

**IOM Report: "To Err is Human", 2000**

- 33.6 million hospital admissions per year
- Adverse events occur 3-4% of hospitalizations
- 9-13% of adverse events lead to death
- 44,000-98,000 deaths per year
- Half of adverse events are preventable

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All systems are perfectly designed to produce the results they produce

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What does safe medical practice look like . . .

- Freedom from harm
- Consistent best practice
- Great service

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Isn't 99% good enough?

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If we had to live with 99.9%,  
we would have:

- 2 unsafe plane landings every day at O'Hare
- 16,000 pieces of lost mail every hour
- 32,000 bank checks deducted from the wrong account every hour

Leape, L., Error in Medicine, JAMA, vol 272, No 23, p.1851

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## Our Culture

- In medicine, the emphasis is on perfection in diagnosis and treatment. Often in the public eye, physicians are expected to execute their tasks flawlessly as infallible performers.

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## Our Culture

- Any error that occurs is often seen as a failure of character more than anything else.

Leape, L., Error in Medicine, JAMA, vol 272, No 23, p.1851

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## Our Culture

- It has been suggested that this need to be infallible creates a strong pressure to intellectual dishonesty, to cover up mistakes rather than to admit them

Leape, L., Error in Medicine, JAMA, vol 272, No 23, p.1851

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## Our Culture

- Patterns of thinking about medical error find their genesis, in part, in medical education and professional socialization into medicine.

Lester, H. et al, Medical Error, Medical Education, 2001; 35: 855-861

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- 25 years ago pilots had a fairly strong professional culture that led them to believe they were bulletproof.
- They expected to perform just as well when a wing was falling off as on a routine day.

Helmreich, R. Human Error in Aviation, Quality Connection, Fall 1996, vol5 no 4 p.4

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## Their Culture

Today in aviation, it is assumed that errors will occur, that they are part of the accepted risk of flying. Even the best pilots will make errors in judgment or action, and *consequently, aviation systems are designed to try to absorb these errors* through buffers, automation, and redundancy.

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Procedures are standardized as much as possible, so that pilots have specific protocols and checklist to help minimize the occurrence of errors.

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Ever tried to pump leaded gasoline into a car that only takes unleaded gas?

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Ever tried to put dilaudid into a PCA pump that's programmed for morphine?

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Systems that rely on human memory are:

1. Ingenious
2. The very best
3. Completely safe
4. Prone to error

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**Categories of Cognitive Errors**

- Knowledge based
  - Learning for the 1<sup>st</sup> time
- Rule based
  - Not recognizing exceptions
- Lapses
  - Supposedly knowing what you're doing

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**Categories of Cognitive Errors**

- Knowledge based
  - Inexperience personnel
- Rule based
  - Known allergies, drug interactions, adjustments in CRF
- Lapses
  - carelessness

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*Medication Errors*

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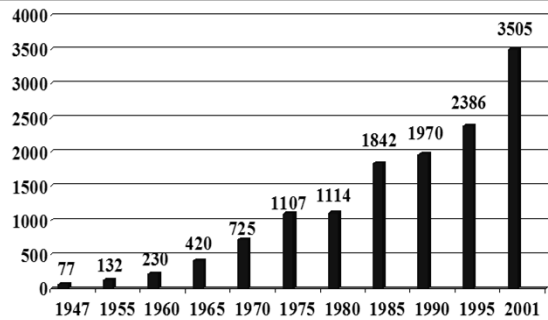
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### The Measure of Our Progress *Care to Hazard a Guess?*



The Advisory Board Company 1999

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Safety is not a program,  
it is a way of life. It  
requires a teamwork  
approach that is not only  
multidisciplinary, but  
interdependent.

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Research has taught us that  
individuals cannot remain  
vigilant for long periods of  
time during which little  
happens that requires their  
action.

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Error-prone organizations tolerate ambiguity, a lack of clarity about what is expected to happen when work proceeds

Spear, SJ et al, Annals of Internal Medicine, Ambiguity and Workarounds as Contributors to Medical Error, 142:8 p 627.

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Safety in health care depends more on dynamic harmony among actors than on reaching an optimum level of excellence at each separate organizational level.

Five System Barriers to Achieving Ultrasafe Health Care, Amalberti, et al, Annals of Internal Medicine, 2005;142:756

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IOM Report On line-  
To Err is Human

<http://books.nap.edu/books/0309068371/html/1.html>

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