

AHA

*Advancing Health
in America*



Hospital Perspectives on Safety

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The Basic Principles

- **Our patients deserve the best care we know how to give**
- **We want to have a relationship of caring and trust with each patient**
- **We are accountable to the public and to ourselves**



Hospital Perspective on Q/PS

- **Less encouragement, but more support**
- **Reduce redundancy**
- **Provide information, not just data**

We're supposed to be perfect our first day on the job and then show constant improvement.

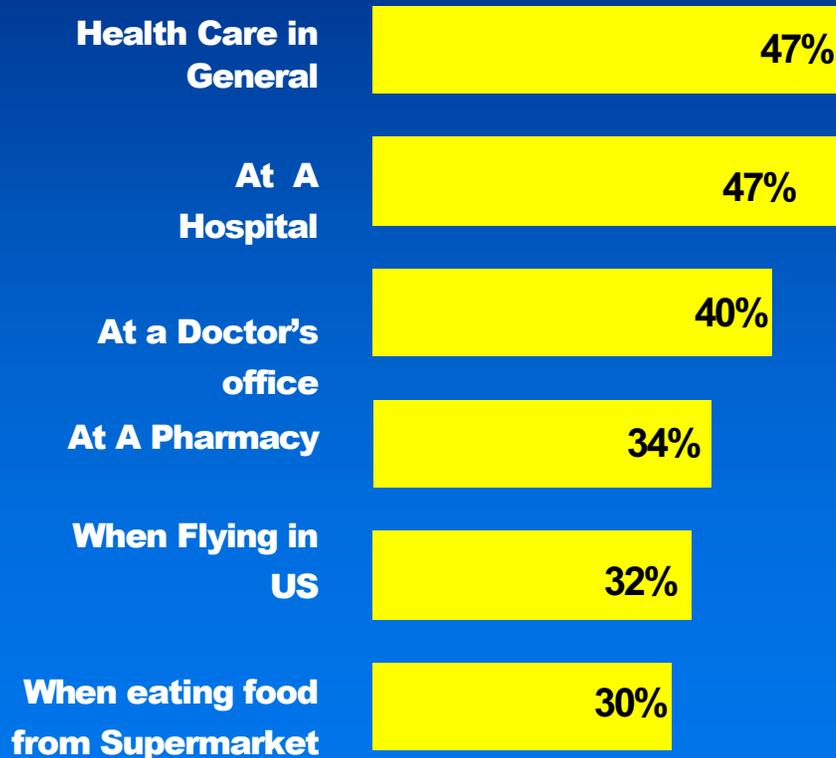
Ed Vargo, major league baseball umpire

Encouragement to Be Safer

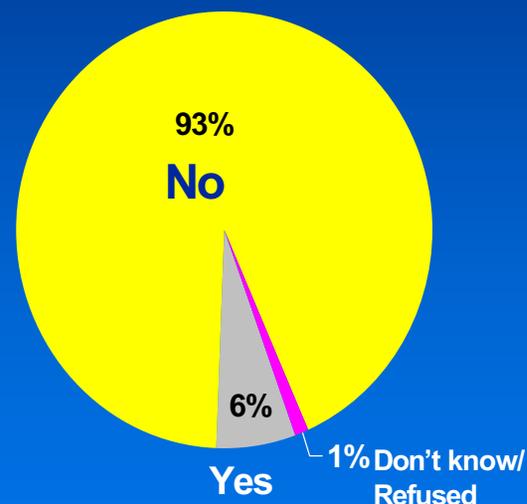
- ***To Err is Human* --- 50% Safer in 5 years**
- **Headlines**
- **Call for greater accountability**
 - **Part of the consumer choice model (Nursing homes, home health, dialysis facilities)**
 - **Congressional call for national quality data**
 - **Accounting industry spillover**
- **Public opinion**

Public Concerns About Experiencing an Error

Percent who are “very concerned” about an error resulting in injury happening to them or their family...



In the past 12 months, have you personally suffered personal injury or harm that you feel resulted from a medical error?

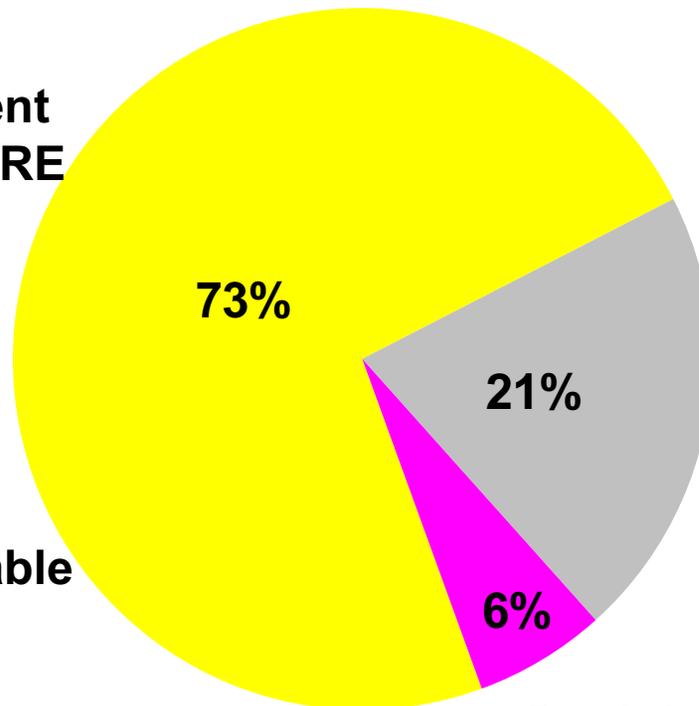


Source: Kaiser Family Foundation / Agency for Healthcare Research and Quality *National Survey on Americans as Health Care Consumers: An Update on The Role of Quality Information*, December 2000 (Conducted July 31-Oct. 13, 2000)

Public Views on Reporting

Which comes closer to your view on how medical errors that result in serious injury or harm should be handled?

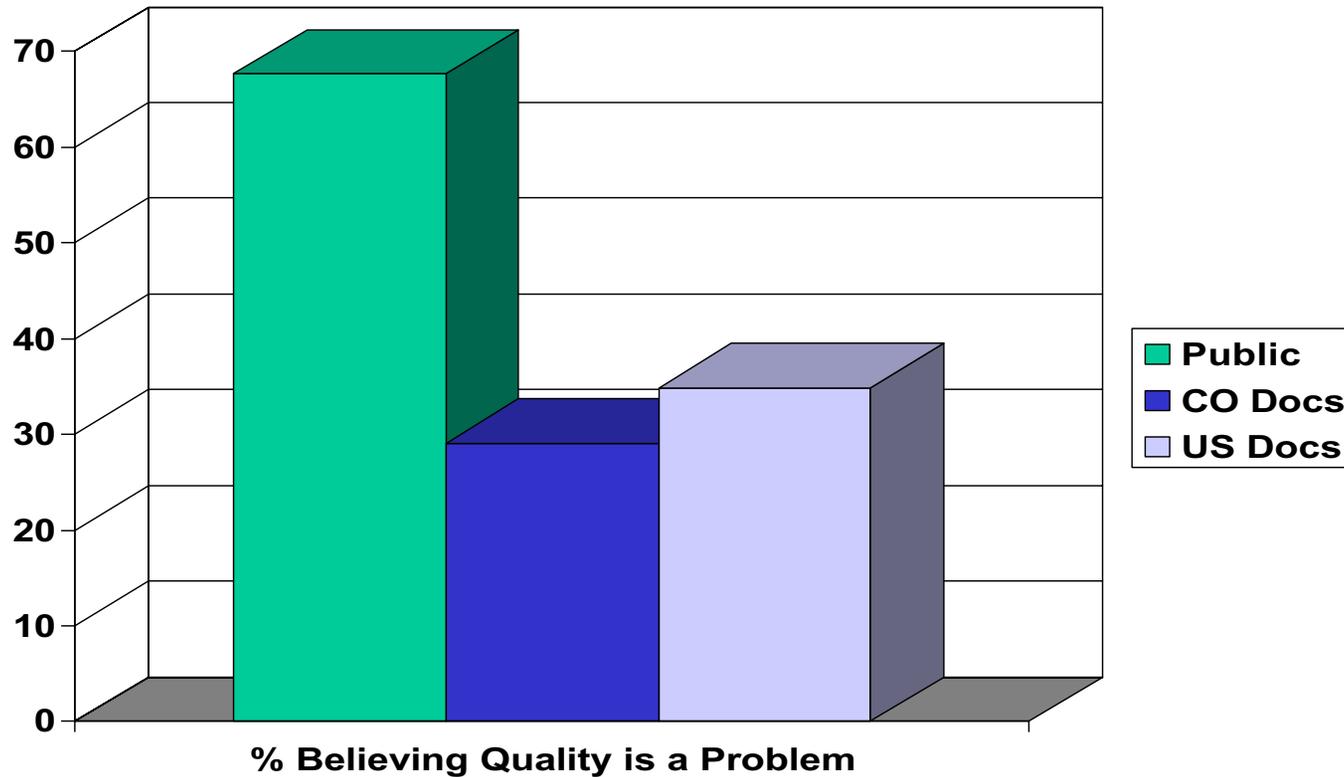
The government should **REQUIRE** health care providers to report all serious errors and make this information publicly available



Reporting of serious medical errors should be **VOLUNTARY** to ensure the personal privacy of patients/staff involved

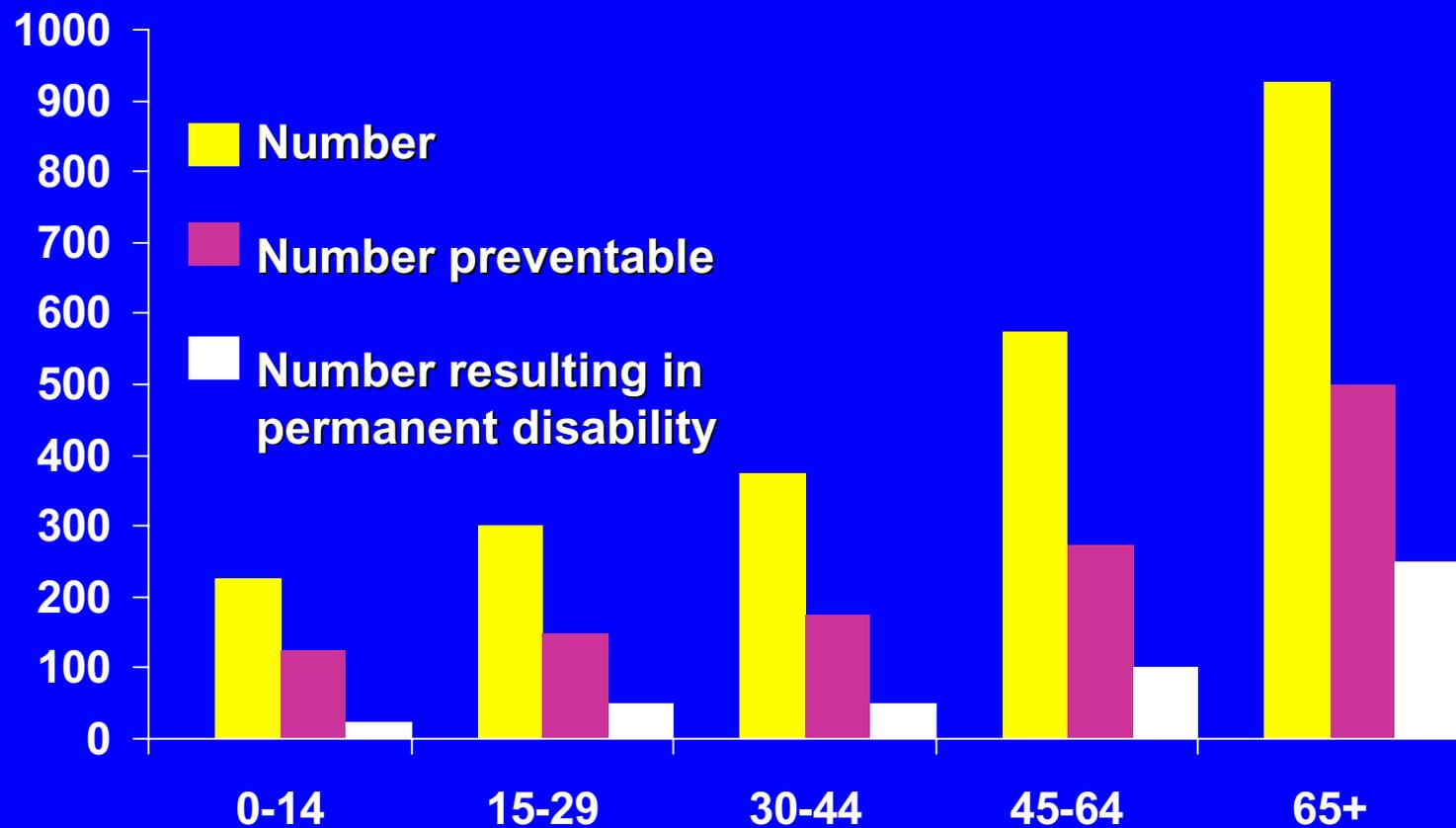
Don't know/
Refused

Perceptions of Safety and Quality



Robinson J, Archives of Internal Medicine, October 2002

Adverse Events - Hospital



Weingart, Ross et al., BMJ 2000 March; 320:774-6



Reduce Redundancy

- **Hospital reporting on safety -external**
 - States
 - JCAHO
 - CMS
 - CDC
 - FDA
 - Purchasers/plans
 - NQF Safe Practices and Never Events
- **Hospital reporting on safety -internal**
 - Risk management
 - Quality improvement
 - Patient safety
 - M&M

The Importance of Information

- **Change is the desired end product**
 - **Data does not equal change**
- **Studies can be confusing, misleading**
- **Information for change must be integrated for the decision-maker**

We ought not be over anxious to encourage innovation, in case of doubtful improvement, for an old system must ever have two advantages over a new one; it is established and it is understood.

C. C. Colton

Issues in Assessing Potential Changes

- **Importance of controlled observations & interventions**
- **Surrogate endpoints (e.g., errors) vs. clinical outcomes (e.g., adverse events)**
- **Generalizability of practice benefits outside of research settings**
- **Possible harm from any intervention (even from a “safety practice”)**

Example of Verbal Orders

“We are banning verbal orders because doing so will improve patient safety!”

- **Multiple case reports involving verbal orders**
- **But, certainly plenty of errors involving standard orders**

Are verbal orders more prone to errors?

Medication Errors by Order Type at a Children's Hospital

Type of Order	Number of Orders	Errors per 1000 Orders
Verbal	2490	2.4
Handwritten	4830	10.1

West DW, et al. Pediatric medication order error rates related to the mode of order transmission. *Arch Pediatr Adolesc Med.* 1994; 148: 1322-6.

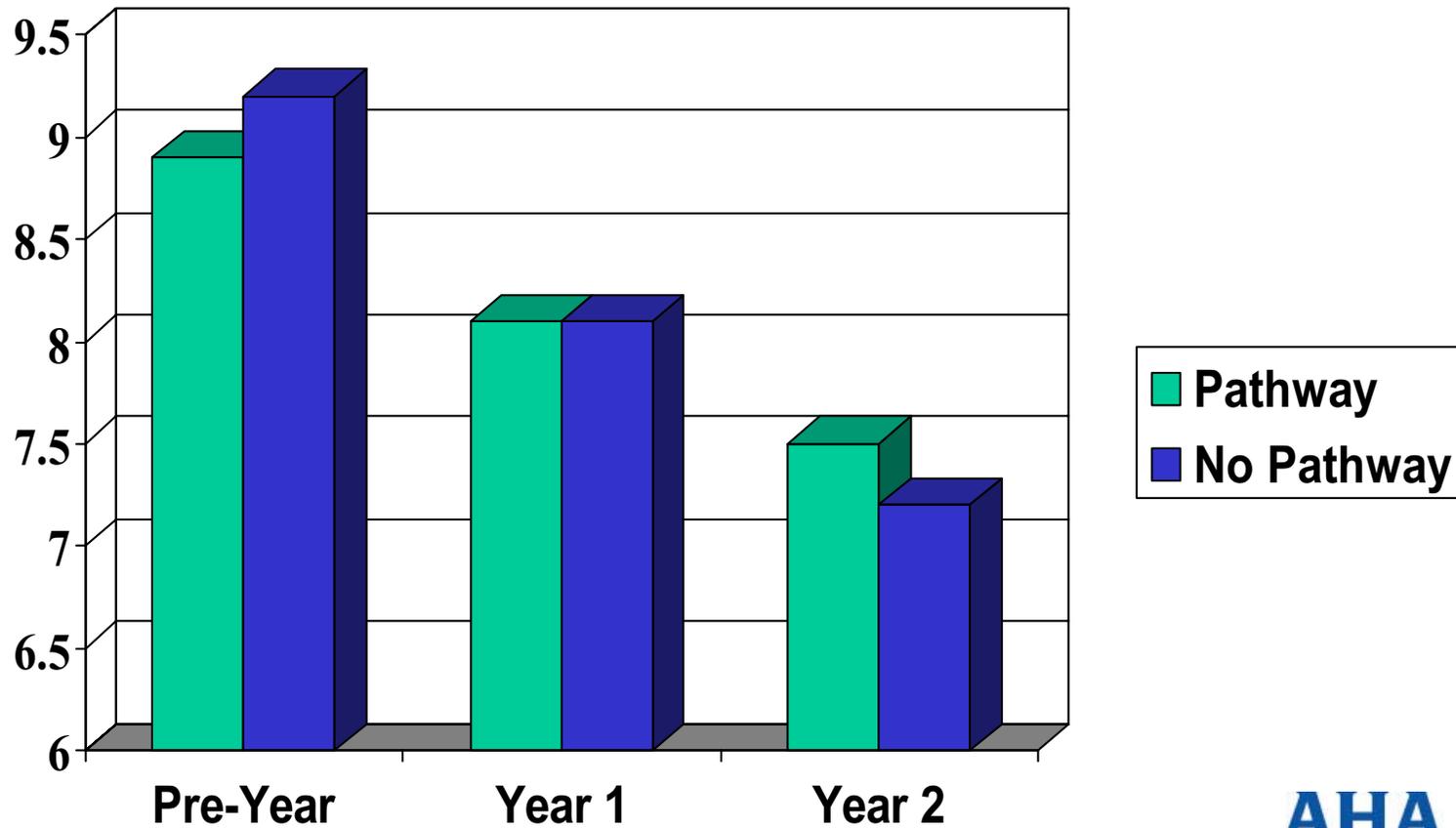


Is Banning Verbal Orders an Evidence-based Safety Practice?

- **The one study did not confirm the hypothesis that verbal orders increase the risk of medication errors**
- **Banning verbal orders may have no impact on patient safety, but it will**
 - *consume QI resources*
 - *draw providers away from other duties*
 - *possibly delay important orders*

Secular Trends

Post-CABG LOS before/after pathway implementation



Pearson SD, *Am J Med*, 2001



Targeting Fatigue as a Patient Safety Problem



- **Sleep deprivation among providers well-known**
- **Effects of sleep on performance also well-known**
- **Chronically sleep deprived humans function at the 9th percentile of non-sleep-deprived subjects**

Impact of Fatigue on Performance

- **Surgical residents previously trained on a simulator performed more slowly and with more technical errors compared to those who had normal sleep**
- **Similar studies of increased errors on simulators for anesthesia residents and emergency physicians**

Taffinder NJ, et al.. *Lancet*. 1998;352:1191.

Denisco RA, et al. *J Clin Monit*. 1987;3:22-24.

Smith-Coggins R, et al. *Acad Emerg Med*. 1997;4:951-961.



But Will Decreasing Fatigue Decrease Adverse Events?

- **Retrospective review of 6371 surgical cases found no increased risk of postoperative complications for “rested” vs sleep-deprived surgical residents**
- **Retrospective comparison of outcomes before and after 1989 NY State regulation of resident work hours**
 - **increased in-hospital complications & delayed test ordering**

Evidence for Reducing Errors vs. Adverse Events

- **Multiple examples from clinical research of interventions that improved surrogate markers, but did not improve the true outcomes**
- **Systems are designed to be “fault tolerant,” so that error rates are always higher than adverse event rates**

Generalizability of CPO E

- **Research evaluating CPOE has involved 2 “homegrown” systems at academic centers**
- **Among 344 systems approved by JCAHO circa 1998, 100 systems had no users**
- **Over half of hospitals with CPOE reported >90% of orders remain handwritten**

Laboratory Safety --- A Piece of the Whole

- **Patients, clinicians rely on the accuracy of laboratories**
- **Information from lab tests help paint a picture, inform decisions**
- **Labs depend on clinician and other input**
- **Labs depend on provider judgment**
- **Improvement needed for the whole.**