Statistics on Healthcare Quality and Patient Safety Problems – Errors & Harm

by MARK GRABAN *on AUGUST 9, 2009 ·*

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On the heels of the "Dead by Mistake" articles in the news today, I'm once again having trouble finding a single consolidated referenced list of key healthcare safety and quality statistics, so I'm going to try to build that here. Will be updated frequently. If you have other statistics and sources to share, email me or post a comment.

How many patients die each year in the U.S. due to preventable errors?

Death numbers vary widely, depending on the study and methodology:

Between ***44,000 and 98,000*** Americans die each year in U.S. hospitals due to preventable medical errors (Institute Of Medicine, 1999).

co195,000 Americans die a year due to preventable errors (HealthGrades, 2004)

32,500 patients die as a result of preventable medical errors in U.S. hospitals. The HHS number was lower than the IOM study because it only examined deaths resulting from 18 specific types of medical injuries. (U.S. Department of Health and Human Services, 2003)

An estimated **15,000** Medicare patients die each month *in part* because of care they receive in the hospital, says a government study released today - **44**% of these were deemed preventable errors (Department of Health and Human Services report, 2008, via USA Today).

In addition (conflicting numbers for infections, too):

99,000 patients die as a result of hospital-acquired infections (HAI) each year (CDC).

NOTE: Total deaths from errors and infections would be quoted as 99,000 plus one of the top three estimates.Hospital errors rank between the ***fifth and eighth*** leading cause of death, killing more Americans than breast cancer, traffic accidents or AIDS (IOM).Just one type of error—preventable adverse drug events—caused *one out of five injuries or deaths* per year to patients in the hospitals that were studied (AHRQ, 2000).

About ***7,000 people*** per year are estimated to die from medication errors alone—about 16 percent more deaths than the number attributable to work-related injuries (Kaiser Family Foundation).

Investigators in a major study discovered that failures at the system level were the real culprits in over ***three-fourths*** of adverse drug events (AHRQ, 2000).

In nursing homes, infections contribute to **380,000 deaths per year,** with costs reaching $2 billion. (CMS data).

How many patients are injured?

Errors like these are responsible for preventable injury in as many as ***1 out of every 25*** hospital patients (***4%*** of hospitalizations) (AHRQ, 2000).

About **18 percent of patients were harmed** by medical care, some more than once… **2.4 percent — caused or contributed to a patient's death**, the study found. (New York Times, 2010). – this corresponds to **155,000 deaths per year**

About **one in seven** Medicare hospital patients — or about **134,000** of the estimated 1 million discharged in October 2008 — were harmed from medical care. Another **one in seven** experienced temporary harm because the problem was caught in time and reversed. (Department of Health and Human Services report, 2008, via USA Today).

Approximately 1.14 million total patient safety incidents occurred among the 37 million hospitalizations in the Medicare population from 2000 through 2002 – ***3.1%*** of hospitalizations (HealthGrades, 2004).

They concluded that ***1% of patients were negligently injured*** (Harvard study, 1990).

At least ***1.5 million*** Americans are sickened, injured or killed each year by errors in prescribing, dispensing and taking medications, the influential Institute of Medicine concluded in a major report (Washington Post, 2006).

Approximately ***1.3 million*** people are injured annually in the United States following so-called "medication errors" (FDA)

One in five Americans ***(22%)*** report that they or a family member have experienced a medical error of some kind (Commonwealth Fund, 2002).

Adverse drug events occur in **6.5 of 100** non-obstetrical admissions. **28%** of these were deemed preventable. (Referenced in JAMA, 2009)

Adverse events (of any kind) occur in **4% to 14%** of all admissions. **50% to 70%** are due to preventable error. (JAMA, 2009)

Wrong-site surgeries occur in **1 per 112,994** nonspine operations. (JAMA, 2009)

A 2005 survey of 1527 randomly-selected patients resulted in **34%** reporting having experienced a medical error in the last two years. (JAMA, 2009)

From The Connecticut Center for Patient Safety ("A Casualty Count")

- 3% or more of hospital patients are hurt by medical error

- 1 in 300 patients die from such mistakes
- 24% of people say they or a family member have been harmed by medical error
- 90,000 people die of hospital--acquired infections annually. More than half of these may be preventable. Healthgrades puts the number of preventable deaths at 200,000 annually.
- 55% of recommended care actually gets administered.
- $2,000 Annual cost to employers per insured worker due to poor--quality care
- 61% of doctors wash their hands before examining a patient if they know someone is watching. Only 44% wash their hands if they think no one is watching.

What does this cost?

The IOM report estimates that medical errors cost the Nation approximately $37.6 billion each year; about ***$17 billion*** of those costs are associated with preventable errors. About half of the expenditures for preventable medical errors are for direct health care costs (IOM, 1999).
Medication errors cost the U.S. ***$4 billion a year*** (Institute of Medicine, 2007)
Annual cost of medical errors that harm patients to be **$17.1 billion** in 2008 dollars. (Milliman Inc study, 2011)

How do we know these are "preventable?"

Forty-four percent of the adverse events could have been prevented with appropriate attention (Department of Health and Human Services report, 2008)
One of the landmark studies on medical errors indicated ***70 percent*** of adverse events found in a review of 1,133 medical records were preventable; 6 percent were potentially preventable; and 24 percent were not preventable.
A study released last year, based on a chart review of 15,000 medical records in Colorado and Utah, found that ***54 percent*** of surgical errors were preventable: ~~http://www.ahrq.gov/qual/errback.htm~~
63.1 percent of the injuries were judged to be preventable (New York Times, 2010).

Is this just a problem in the United States?

The risk of dying in hospital as a result of medical error in the developed world is ***one in 300***, Bri tai n' s Chief Medical Officer warned (Guardian, 2006).
One can estimate this risk of dying as a result of preventable medical error to be ***one in 361*** in the United States based on 3.7% of hospitalizations having an adverse event, 13.6% of those lead to death (Brennan, Leape, et al, New England Journal of Medicine) and about 55% of those are preventable (To

Err is Human, Institute of Medicine). Doing the math on that = **1 /(.037 * .136 * .55) = 361** admissions for one preventable death due to medical error.

The official National Health Service (NHS) estimate of British patient deaths or serious injuries due to medical error is ***11,000 cases*** a year (Parliament report, 2008).

Almost **12,000 patients** are dying needlessly in NHS hospitals every year because of basic errors by medical staff… something went wrong with the care of 13 per cent of the patients who died in hospitals. **An error only caused death in 5.2 per cent of these**… International evidence suggests **one in 10 hospital patients suffers harm** as a result of errors in their care… (London School of Hygiene and Tropical Medicine report, 2012)

Health Select Committee found that thousands of NHS mistakes are covered up and that a better estimate is that ***72,000 patients*** die each year (The Sun, 2009).

A comprehensive study in the Canadian Medical Association Journal found preventable medical errors contribute to ***between 9,000 and 24,000 deaths***in Canada a year (CBC, 2004).

As many as 23,750 patients die each year due to "adverse events" (defined by researchers as "unintended injuries or complications resulting in death or prolonged hospital stay that arise from health care management.")

- About ***one in every 13*** patients admitted to acute- care hospitals in Canada during fiscal year 2000 experienced one or more adverse events.
- About ***37 per cent*** of these errors were highly preventable." in other words human error. (Canadian Medical Association Journal, 2005)

A Saudi government report puts the death by medical error rate at 0.05 percent per 100,000 people (how do we interpret that exactly??).

News report says that **Germany has 17,000 deaths a year**, based on a population about 14 the size of the U.S. (UPI, 2010).

Bulgaria reports 7,000 deaths per year, with a population of just 7.6 million (Web, 2010).

"Official **Australian** government reports reveal that preventable medical error in hospitals is responsible for **11% of all deaths in Australia**, which is about**1 of every 9 deaths**. If deaths from properly researched, properly registered, properly prescribed and properly used drugs were added along with preventable deaths due to private practice it comes to a staggering **19%, which is almost 1 of every 5 deaths**." (Web, 2009).

New Zealand figures are very similar.

In **The Netherlands**, researchers estimate about **2,000 deaths per year**from preventable adverse events (Web, 2009)

“Errors in medical care affect up to ***10% of patients*** worldwide, reports the World Health Organisation, which has issued a list of patient safety solutions to avoid common medical errors.”

“At any one time, some ***1.4 million people worldwide*** suffer from hospital-acquired infections, according to WHO figures.”

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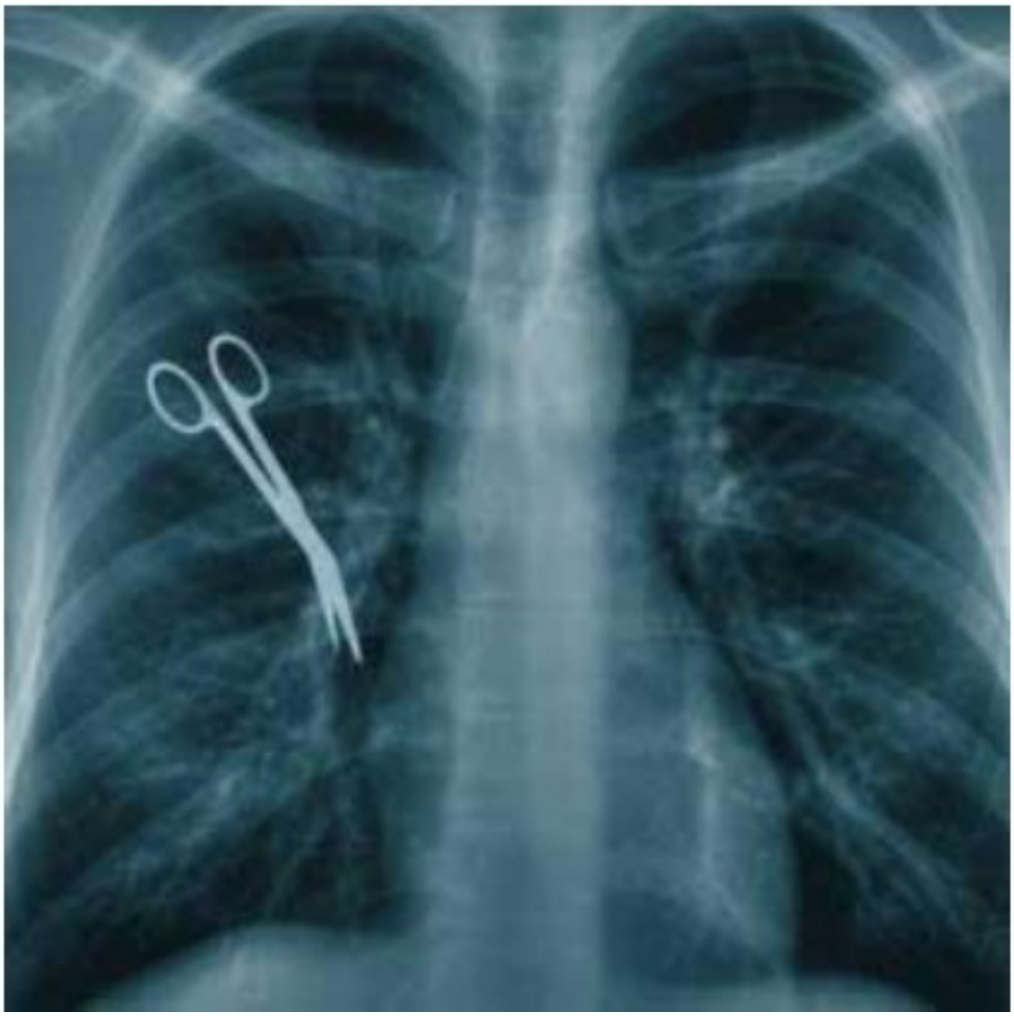

HOSPITAL MEDICAL ERRORS KILL 98,000 AMERICANS EACH YEAR. -- HEARST NEWS INVESTIGATION

One study of Medicare patients found that
1 in 7 died or were harmed by their hospital care.

June 4th in Toronto, ON

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Epidemic of Medical Errors & Hospital Acquired Infections

In the United States and Canada

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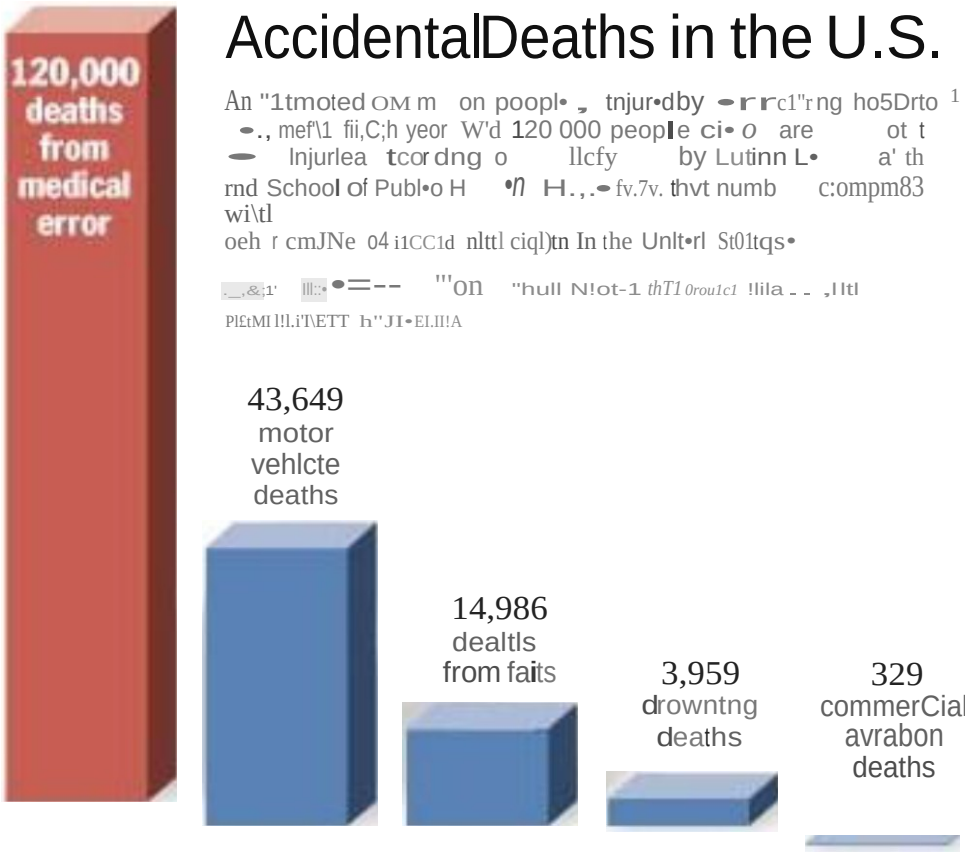

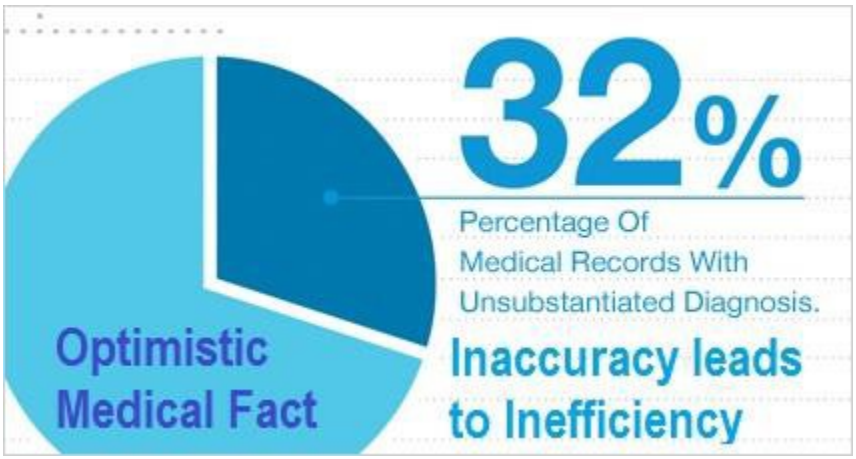
32%
Percentage Of
Medical Records With
Unsubstantiated Diagnosis.
Optimistic
Medical Fact
Inaccuracy leads
to Inefficiency

DRUG-FREE AMERICA
AGE 0-4
AMOXICILLIN
4-12
RITALIN
12-18
APPETITE SUPPRESSANTS
18-24
NO-DOZ
24-38
PROZAC
38-65
ZANTAC
65 —
EVERYTHING ELSE