From the Editor

Tracking Medical Errors: Enter the Private Sector

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Who cares about medical errors? In fact, who cares more, patients or clinicians? Surely we all would agree that the medical profession and the public care – that they understand the scope of this public health challenge and support broad actions to rectify it.

Previously, I have discussed the Institute of Medicine (IOM) report\(^1\) claiming that more than one million preventable adverse events occur each year in the United States, of which 44,000 to 98,000 are fatal. Although the accuracy of these numbers has been assailed, I believe most of our readers agree that medical error is a serious and pervasive problem warranting a spectrum of public and private solutions.

In this editorial, I will first try to define who cares about medical error and to what degree. Then I will briefly discuss the role of reporting medical error through both voluntary and mandatory public external reporting systems. Finally, I will emphasize the role of the private sector in tracking medical errors for the purposes of quality improvement.

Late last fall, Blendon and colleagues from Harvard Medical School\(^2\) reported that both the public and the profession are skeptical about the number of in-hospital deaths resulting from error, and that both groups believe a substantial proportion of these deaths are not preventable. Blendon also found that the public sees reporting as a very effective way of reducing errors and wants these reports to be publicly available. Physicians are more skeptical and would prefer that reports be kept confidential. Finally, the public believes that persons responsible for errors with serious consequences should be sued, fined, and subject to suspension of their professional licenses. A majority of physicians believe that individual health professionals are more likely to be responsible for preventable medical errors than are institutions.

Blendon concluded his report by saying, “The results of our surveys show that the public, and to a lesser extent physicians, hold individual health professionals personally responsible for errors.” Blendon’s work attracted national press attention, including a front-page article in *The Philadelphia Inquirer,*\(^3\) and followed, in January 2003, by *Consumer Reports*\(^4\) magazine’s first ever cover story on this subject entitled, “How Safe is Your Hospital?”

I was shocked by Blendon’s findings, and it reminded me that most clinicians regrettably lack a systems-based understanding of medical error. While the IOM reports got a good deal of press attention, the main message concerning system failure as the cause of medical error seemed to have been lost. Thirty years of research have convinced me of the inter-relatedness and complexity of care as the principal cause of error. Yet we still want a culpable party held responsible for error as we fail to heed the dictum that “every system is perfectly designed to achieve exactly the results it gets.” To me, Blendon’s work, *The Philadelphia Inquirer* and *Consumer Reports* all beg a larger question. What will it take to convince skeptical clinicians and our patients that system failure leads to medical error? Indeed,
Blendon says that perhaps the most critical issue will be to “provide skeptical physicians with scientific proof that the proposed strategies will, in fact, reduce preventable medical errors and the harm they cause.”

Will mandatory external error reporting systems convince clinicians of the systemness of care and, in turn, reduce error? The IOM argues that mandatory reporting of serious injuries primarily improves safety by ensuring accountability. Mandatory systems hold hospitals accountable by requiring that serious mishaps be reported and by providing disincentives such as citations, penalties, or sanctions for continuing to engage in unsafe practices. According to Dr. Lucien Leape, writing in the New England Journal of Medicine, only 20 states have mandatory reporting systems currently in place. The types of events that must be reported vary widely from specific events, such as brain or spinal cord damage in Florida, to general events, such as those that “seriously compromise quality assurance or patient safety,” in Pennsylvania. The only reportable event common to all state programs is unanticipated death.

If mandatory state-based systems are not the answer, what about voluntary external reporting systems? Generally, these external reporting systems have both individual hospital and national implications. At the individual hospital level, the primary purpose of reporting is to learn from experience. Many other methods also are used to identify threats to safety, but a good internal reporting system ensures that all responsible parties are aware of major hazards. Reporting is also important for monitoring progress in the prevention of errors. Ideally, when an adverse event occurs in a hospital, it is reported to the administration, an investigation is carried out to uncover the causes, and changes are made to prevent the recurrence.

At the national level, voluntary reporting may improve safety in several ways. “First, alerts about new hazards can be generated from even a few reports. Second, information about the experience of individual hospitals in using new methods to prevent errors can be disseminated. Third, central analysis of many reports can reveal trends and hazards that require attention. Fourth, central analysis can lead to recommended best practices for all to follow.” Please refer to the accompanying table that expands upon Dr. Leape’s work to include most of the major national voluntary reporting systems and their basic characteristics.

While mandatory and voluntary external reporting systems may improve accountability and, therefore, reduce medical error, the evidence remains anecdotal at best. My bias is that all healthcare is locally driven and that clinicians will understand and appreciate the systemness of error prevention with information gathered in a non-punitive format derived from their own institutions. Our national culture is repelled by centralization and American-style ingenuity calls for local solutions to vexing social problems. Let me couple this bias with my equally strongly held belief that the ultimate power rests in our market-driven economy. I am betting on the future success of tracking medical error with a private sector solution geared to help the individual hospital tackle the systems nature of medical error.

Please refer to the accompanying table that lists eight of the most widely used proprietary medical error tracking systems but, first, some inevitable disclaimers. This list is not meant to be exhaustive nor does it cover all of the detailed technical specifications supplied by each of the firms. This is an environmental snapshot, if you will, not a full accounting resulting from due diligence with every company in the market place.
With names like *RiskMaster* and *Webagent* evocative of a Nintendo game, these firms are filling an important niche, transcending the major national voluntary and mandatory systems. Taken together, these largely web-based proprietary systems offer hospitals an opportunity to self-evaluate and track all kinds of adverse events within their walls. These eight share some generic characteristics, including high levels of electronic security, the ability to integrate with many hospital legacy information systems, customizability, and the entrepreneurial spirit to deliver what the customer wants.

In our five-month investigation of the marketplace we found, not unexpectedly, great variation amongst the companies and their products. Several have their roots in the financial sector, namely banking and insurance industries, where protecting electronic transactions has been the norm for nearly a decade. They range from the giant Affiliated Computer Services (ACS) in Dallas, Texas to the small Cornerstone Consulting Company in Bartlett, Tennessee.

Others have their roots clearly in clinical practice, like the Safety Optimizer from Zynx at Cedars-Sinai Medical Center in Los Angeles, and Risk Prevention Management from DoctorQuality in Conshohocken, Pennsylvania. These firms, founded by physicians, frame medical error with a different taxonomy - one built on evidence-based medicine and the literature linking cost savings to reducing adverse drug events, for example. Of the national voluntary programs, the Patient Safety Net (PSN) of the University HealthSystem Consortium shares many of the positive characteristics of the leading physician-driven proprietary systems.

Some firms emphasize the scope of their customer base and the thousands of adverse events reported into their central database, such as DoctorQuality, while others either would not release comparable information or were reluctant to admit how few current customers they actually had.

It is clear that no system, public or private, has hegemony over the others. As yet, there is very little peer-reviewed literature comparing and contrasting these systems and describing their impact on error reduction and cost savings. As Leape pointed out, mandatory systems appear to lack a major constituency in most states and, therefore, fail to receive adequate financial support. Can these proprietary systems fill that lacuna?

Reducing medical error is everybody’s business, including clinicians and the public. Accountability for what we do in medicine is a cornerstone for the future construction of any delivery system. We need the energy of both the public and private sectors to tackle this social challenge. How we tackle this matters less than the fact that we must tackle it now. As usual, I am interested in your views, and you can reach me at my email address, david.nash@mail.tju.edu.

**References**


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Reference List for charts


