



December 2005

Maximizing the Use of State Adverse Event Data to Improve Patient Safety

Background

In the six years since the Institute of Medicine released its first report on medical errors,¹ there has been growing recognition of the size and scope of the problem. Many states have responded by creating or improving reporting systems for collecting hospital-based adverse events.

As of September 2005, half of all states (25) had passed legislation, regulation, or executive orders related to hospital reporting of adverse events.² Many of these requirements are intended to hold health care facilities accountable for weaknesses in their systems. They also have the potential to improve patient safety through event report analysis and by dissemination of best practices and lessons learned.

As part of a year-long project, the National Academy for State Health Policy has worked with national patient safety experts, state officials who administer reporting systems, data analysts, and data users (providers, consumers, and purchasers) to identify mechanisms to improve reporting, effective tools for event report analysis and dissemination, and opportunities for improvement in existing systems.

The lessons learned from this project are available in several venues:

[Maximizing the Use of State Adverse Event Data to Improve Patient Safety](#)

This report reviews key findings from a meeting of state officials that focused on efforts to improve data integrity, event report analysis, and data feedback and dissemination. The report examines these issues and identifies a number of challenges and opportunities that states encounter as they attempt to improve their databases and the usefulness of the data for improving patient safety. Eleven states participated in the summit: Florida, Georgia, Maine, Maryland, Massachusetts, Minnesota, Nevada, New York, Oregon, Pennsylvania, and Utah. The report contains a number of tools and resources that have been developed by the participating states.

Among the themes that emerged from the meeting:

Data collection

Reporting systems:

1. Need clear definitions of reportable events;
2. Must be clear about reportable data elements in order to enhance analysis;
3. Should categorize data using a combination of coded elements and narrative text;
4. Must provide ongoing training and educational support for system users;
5. Can facilitate thorough root cause analyses (RCA) at the facility level by requiring reporting not only of the event but also of information about root causes and corrective actions; and
6. Can use a range of methods to identify events that facilities fail to report.

Data analysis

1. Reporting systems should complement, not replace, practices used by hospitals to review and analyze their patient safety incidents.
2. Individual event report analysis at the facility or state level can yield very useful information. Participants stressed the value of seeking out the "stories" behind a reported event.
3. Although analysis of individual events is very useful, aggregation can identify information that is not apparent from a review of individual incidents. A state can conduct simple, routine analyses using aggregated event report data.
4. States should be cautious when drawing conclusions from their aggregate event data given data limitations.
5. A number of states are working with consultants to enhance their analytic capacity.
6. States should look beyond the reported data to other sources of information on patient safety.
7. Analyzing patient safety outcomes is desirable but, for the foreseeable future, it will be more helpful to analyze patient safety processes rather than outcomes.

Data feedback

1. Patient safety alerts and advisories provide an opportunity for state reporting systems to share timely, specific, actionable information.
2. Aggregate reports provide an opportunity to share the simple data analyses that states routinely conduct.
3. Information from reporting systems, combined with other quality data, may be useful to purchasers and consumers as well as providers.
4. Data must be effectively disseminated to appropriate audiences.

Patient Safety Toolbox for States at www.pstoolbox.org

NASHP has developed a comprehensive Web-based toolbox of state resources and tools. These resources can be used and modified by other states as they work to develop or improve adverse event reporting systems. The toolbox includes information (policies, practices, forms, reports, and methods) related to states' reporting systems, along with links to other Web resources.

The state resources contained in the toolbox are organized by both state and content area. State profile pages include tools, resources, and regulations developed by each state. Content area pages are organized by category, among them: data collection tools, data analysis tools, and data feedback tools.

Webcast: [How States are Using Data to Improve Patient Safety](#)

NASHP Hosted a Web conference on January 17, 2006, to focus on state efforts to improve the collection, analysis, and feedback of data within adverse event reporting systems. The Webcast also examined how states are using data to shape patient safety improvement interventions. As part of the event, three states (Maryland, Minnesota, and New York) shared their strategies for improving data collection and analysis.

Conclusion

In initiating this project, NASHP assumed that states need to increase the number of reported events in order to provide useful feedback to those using the data to improve quality of care. However, it became apparent that extracting useful data from reporting systems is not dependent on the existence of epidemiological risk-adjusted data. Anecdotal information sharing—in the form of trends, stories, and lessons learned—can be useful in providing facilities with opportunities for improvement.

In addition to the tools and strategies highlighted here, states will also want to consider several new national developments that may influence their adverse event reporting systems. The Patient Safety Event Taxonomy (PSET) endorsed by the National Quality Forum⁴ and the Patient Safety and Quality Improvement Act of 2005⁵ may influence state developments. Any national standardization is likely to affect state systems and may enhance analysis, although it will likely also cause problems for states with well-established systems and those with specific requirements in state statute. The confidentiality provisions of the Patient Safety and Quality Improvement Act may facilitate enhanced data sharing, analysis, and pooled resources. States will watch with significant interest as the Agency for Healthcare Research and Quality carries out provisions of the legislation.

Notes

¹ Institute of Medicine, *To Err is Human: Building a Safer Health Care System* (Washington, DC: National Academy Press, 1999).

² CA, CO, CT, FL, GA, KS, IL, IN, MA, MD, ME, MN, NV, NY, NJ, PA, OH, OR, RI, SC, SD, TN, TX, UT, WA.

⁴ Chang A, Schyve PM, Croteau RJ, O’Leary DS, Loeb JM. “The JCAHO patient safety event taxonomy: a standardized terminology and classification schema for near misses and adverse events.” *International Journal of Quality Health Care* 2005;17(2):95-105

⁵ http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_cong_public_laws&docid=f_publ041.109

For more information, contact Jill Rosenthal at,
207-874-6524, jrosenthal@nashp.org.