



Program Brief

Network of Patient Safety Databases



Advancing Patient Safety Through Data-Driven Safety Improvement

Patient safety event and quality data can help your organization improve its health care delivery. To help health care organizations improve patient safety, Congress established Patient Safety Organizations (PSOs) and the Network of Patient Safety Databases (NPSD) as resources to promote shared learning and enhance quality and safety nationally.

Hospitals and other providers can take full advantage of PSOs and the NPSD by:

1. Joining a PSO to be part of a privileged, protected, and confidential environment for analysis of patient safety and quality information in all health care settings;
2. Agreeing to release nonidentifiable patient safety event data for analysis at the national level; and
3. Using feedback from PSOs and the NPSD to guide patient safety and quality interventions and identify areas for further improvement.

Background

The Patient Safety and Quality Improvement Act of 2005 and the Patient Safety Rule established a framework by which information voluntarily reported or discussed by doctors, hospitals, and other health care providers regarding patient safety events and quality of care is protected from disclosure. The Act provides specific legal protections for privileged and confidential event-level data voluntarily submitted by health care providers to PSOs and allows shared learning to enhance quality and safety nationally. AHRQ is establishing the NPSD to serve as a resource for health care providers and PSOs to analyze and learn about threats to patient safety and how to avoid them.



Patient safety event data go through multiple steps in the processes of deidentification, analysis, and reporting of meaningful results for patient safety improvement. Key players in the analysis process are:

- **PSOs.** Hospitals and other health care providers may voluntarily submit patient safety event-level data to PSOs on a privileged and confidential basis for the aggregation and analysis of patient safety events. PSOs analyze the data and provide feedback to the submitting health care providers. PSOs also provide a protected space for members to discuss patient safety and quality topics.
- **PSO Privacy Protection Center (PSOPPC).** Hospitals and other health care providers that want to participate in more broad-based analyses authorize their PSO to submit their nonidentifiable



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patient safety event data to the NPSD. The PSOPPC is responsible for ensuring the privacy of facilities, providers, and patients by deidentifying and aggregating patient safety event data before providing the data to the NPSD. All information identifying individual and institutional providers, patients, and provider employees reporting patient safety events is removed.

- **NPSD.** Hospitals and other health care providers that are members of a PSO can authorize the PSOPPC to submit nonidentifiable patient safety event data to the NPSD. With the advantage of larger report volumes, data analysis conducted by the NPSD can more easily identify trends and patterns in incidents, near-misses, and unsafe conditions; detect contributing factors; and analyze rare patient safety events.

Common Formats

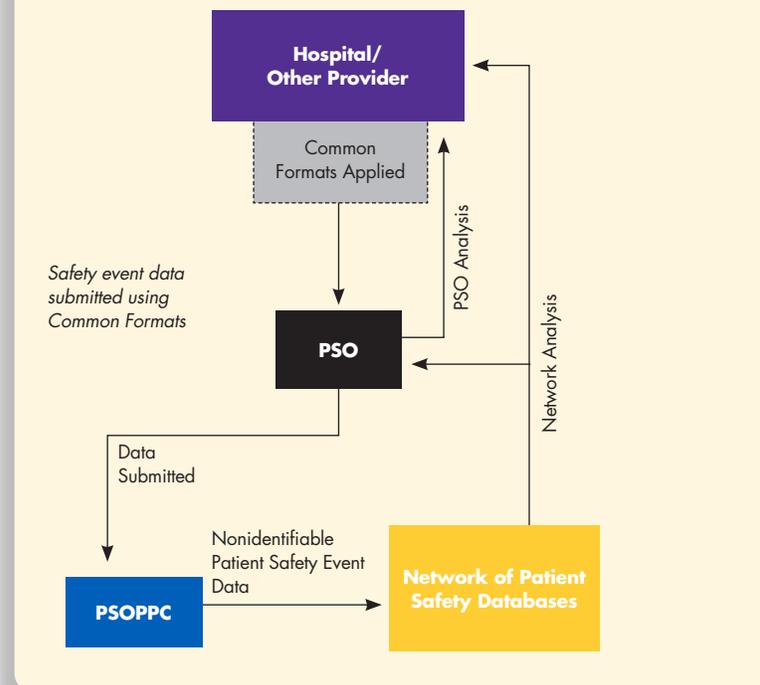
PSOs are required to collect and analyze data in a standardized manner. AHRQ created the Common Formats, which are common definitions and reporting formats to help providers uniformly report patient safety events and support efforts to eliminate harm. The AHRQ Common Formats include:

- Precise definitions of patient safety events (event descriptions) that make up all-cause harm
- Examples of patient safety population reports
- Technical specifications for use by software developers, PSOs, and data vendors
- A user’s guide that describes how to use the formats
- A metadata registry with data element attributes

Data Protection and Analysis

Data submitted to PSOs for use by the NPSD are protected by the PSOPPC, which removes identifiers and aggregates information that could identify health care providers (individuals or facilities), reporters of safety events, and patients.¹ This process protects privacy while allowing analysis that can yield a greater understanding of patient safety risks and hazards. Figure 1 explains how event data are protected and analyzed.

Figure 1. Patient Safety Event Data Protection and Analysis



Report Types From the NPSD

If your organization submits data to the NPSD, your data will be part of a national database that will report on incidents, near-misses, and unsafe conditions. Reports can be broken out by specific types of events and harm levels, such as medication events, falls, pressure ulcers, device mishaps, and health information technology errors. The NPSD will compile this information into aggregated tables and charts showing the number of reported events organized by circumstance, impact, and contributing factors.

Based on the NPSD analysis, report users will be able to compare their organization’s pattern of patient safety events with all events reported nationwide. As participation grows, the NPSD will be able to provide further breakouts of results by provider characteristics such as size, specialty, and type of ownership.

Charts 1 and 2 below provide examples of report types created with hypothetical data.

¹Under Sec. 921 of the Patient Safety and Quality Improvement Act of 2005, nonidentifiable work product refers to data that are deidentified with respect to any provider that is a subject of the work product, or any providers that participate in activities that are a subject of the work product; individual identifiable health information defined in the Health Insurance Portability and Accountability Act confidentiality regulations; or data presented in a form and manner that allows the identification of an individual who reported the information.

Chart 1. Comparative Results by Incorrect Action for Medication Event – Hypothetical Data

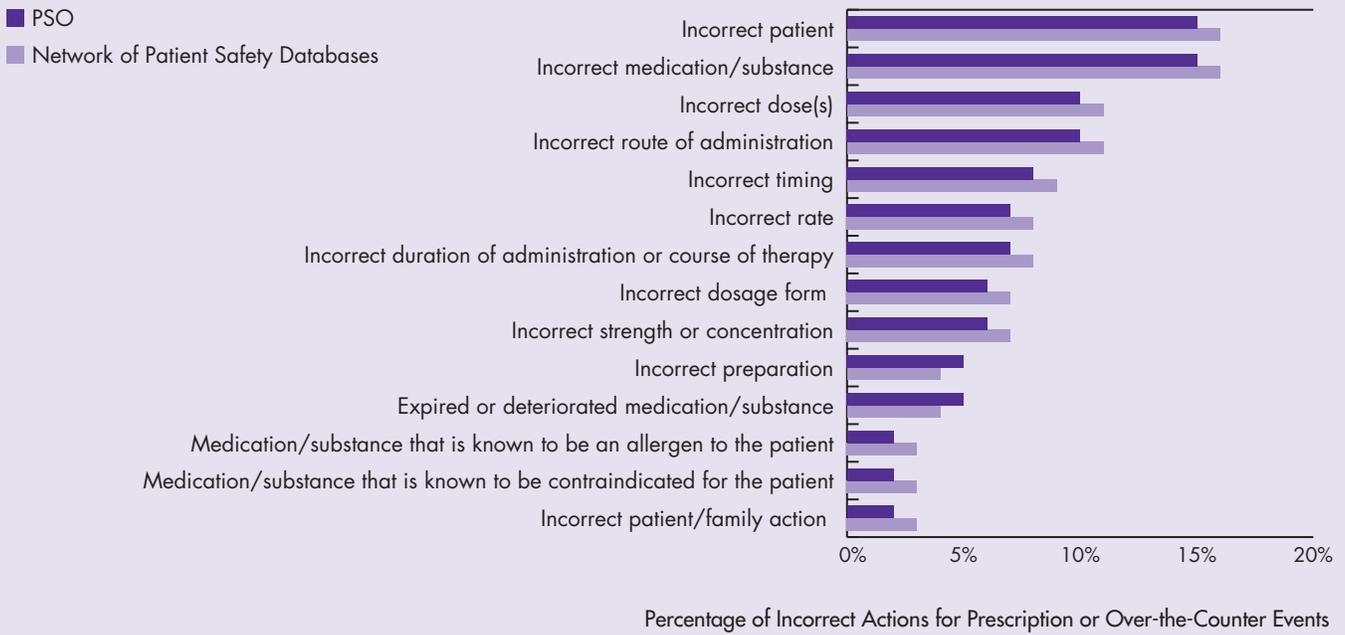
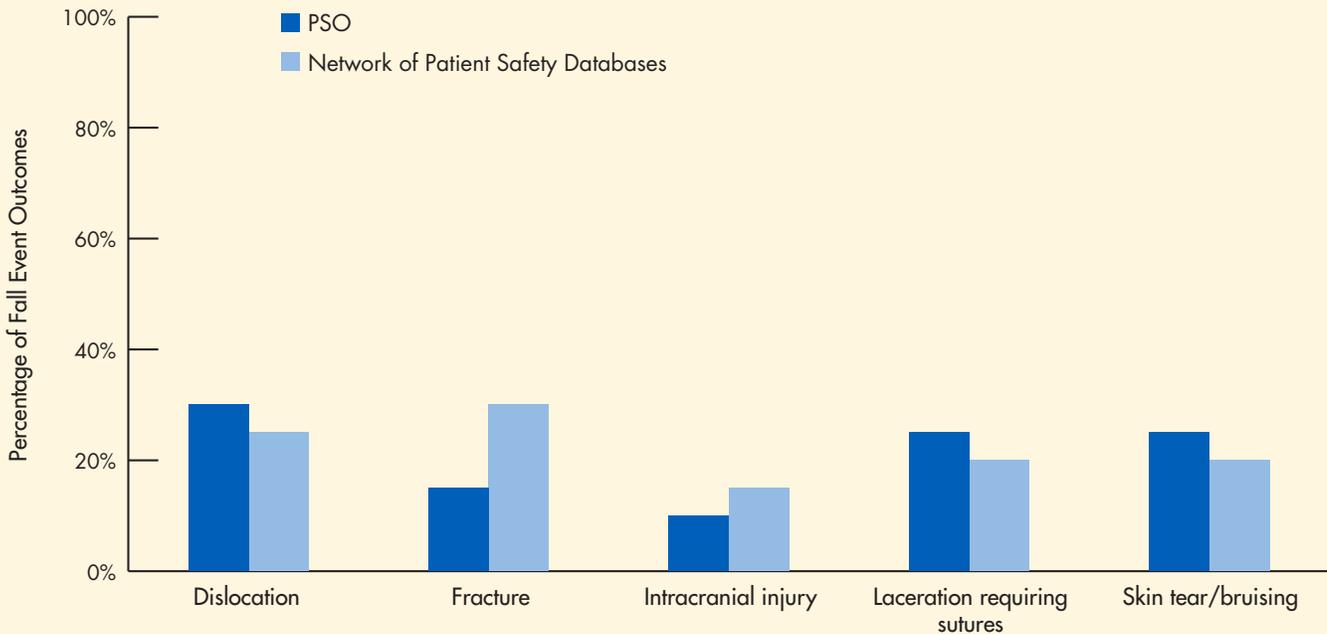


Chart 2. Comparative Results by Outcome of Fall Event – Hypothetical Data



Value to Providers

Now that PSOs can aggregate event-level data, the stage has been set for breakthroughs in our understanding of how best to improve patient safety. Hospitals and other providers benefit from participating because they can:

- Compare results at the national level, across PSOs, and across a larger group of provider types.
- Discover underlying causes of incidents, near-misses, and unsafe conditions in health care delivery.
- Seek additional expertise for decreasing events and improving quality.
- Identify patterns of rare events, supported by larger report volumes.

Steps To Participate

Step 1

Join a PSO

Health care providers can submit patient safety event data to the NPSD through their PSO. The first step in the process is to join a PSO. If you are not yet working with a PSO, you can search AHRQ's PSO Selection Tool at www.pso.ahrq.gov/listed to learn more about PSOs, such as the States they serve, the types of providers they work with, their clinical focus areas, and other key features.

Step 2

Submit Data to Your PSO

Submit patient safety event data to your PSO using AHRQ's Common Formats. AHRQ PSOs and the NPSD understand that you may have already recorded patient safety events as Patient Safety Work Product (PSWP) in your existing database systems. If so, your PSO may assist you in examining the feasibility of using your PSWP for electronic submission to the PSO.

Step 3

Ask Your PSO To Submit Data to the NPSD

Enabling PSOs to contribute nonidentifiable event data to the NPSD will support more rapid analyses of the underlying patterns and causes of risks and hazards associated with the delivery of health care services. Ask your PSO to submit your data to the NPSD.



Learn More

Visit AHRQ's PSO Web site at www.pso.ahrq.gov to find more information about PSOs, the PSOPPC, and the NPSD. You can also sign up for news and events about the NPSD by subscribing to AHRQ's Patient Safety Organization E-Mail Updates on the AHRQ PSO Web site.

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