



## WEB-BASED SAFETY REPORTING SYSTEM PROTECTS PATIENTS

### PENNSYLVANIA PATIENT SAFETY AUTHORITY (PSA)

/// CASE STUDY



With hundreds of patients suffering harm from adverse medical events every day, Pennsylvania decided it was time to take action and treat the problem. So the state's PSA looked to the IT expertise of EDS, an HP company, to build the most comprehensive patient safety reporting system in the nation.

#### CLIENT PROFILE

[www.psa.state.pa.us](http://www.psa.state.pa.us)

The Pennsylvania Patient Safety Authority was created as an independent state agency in 2002. Operating under an 11-member board, the PSA is responsible for the reduction of medical errors.

**Industry:** Government

**Established:** 2002

**Business Needs Addressed:**  
Productivity

*"By collecting near-misses, PA-PSRS stands out among most other medical error reporting systems. We believe that in capturing near-misses we will be able to prevent more serious events from happening in the future and thus reduce medical errors."*

**Dr. Robert Muscalus**  
Former Chairman  
Pennsylvania Patient Safety Authority

#### Statewide reporting system sought to reduce medical errors

Unlike clerical errors, even the most minor adverse medical events can have a major impact on patients. While the U.S. healthcare industry has checks and balances in place to protect patients, failures do occur, and the results can be catastrophic to patients. The situation is so serious that, according to the Institute of Medicine, more than 1 million preventable adverse events occur each year in the United States. The cost: up to 98,000 lives and \$29 billion annually.

The Commonwealth of Pennsylvania responded to this issue by passing the Medical Care Availability and Reduction of Error (MCARE) Act, also known as Act 13. The act established the Pennsylvania Patient Safety Authority (PSA), which is charged with taking steps to reduce and eliminate medical errors by identifying problems and recommending solutions that promote patient safety in hospitals, ambulatory surgical facilities and birthing centers. To accomplish this, the PSA set out to develop a statewide reporting system capable of collecting information regarding serious events (those involving actual harm) and incidents (near misses). The findings from these reports can then be used to prevent future occurrences.

To get this patient safety system off the ground in Pennsylvania, the PSA turned to ECRI, a nonprofit health services research agency, as well as partners EDS and the Institute for Safe Medication Practices (ISMP), a leader in medication safety awareness.

#### EDS' solution ensured efficient processing of hundreds of reports each day

With the issue of patient safety gaining more and more national attention, all eyes were on this new agency, from within Pennsylvania, other states, and national organizations. Drawing on our vast experience designing and implementing enterprise IT solutions, EDS assured a swift, seamless implementation.

## EFFICIENT DATA ENTRY AND ANALYSIS

PA-PSRS is designed to encourage frequent and detailed input reporting by medical facilities and to provide comprehensive analysis of trends and patterns in the submitted data. As a user submits a report, the application presents only the most relevant items based on responses already entered. A multiple-choice format, quick tab-key navigation, and a load-balanced infrastructure promote rapid data entry so that submitting a report usually takes less than five minutes.

For data analysis, the PA-PSRS Web site offers an array of online analytical tools. While the PSA has access to all data, the system's security features ensure that each participating medical facility can only view and analyze its own data.

### Services featured

- Applications Development Services
- Composite Application and Portal Services
- Integration and SOA Services

After consulting with clinical experts, we evaluated numerous software packages that would function as the report intake system. Because it already matched many of the requirements outlined in Act 13, Patient Safety Net (PSN), a Web-based reporting tool designed by the University Healthcare Consortium (UHC), was chosen as the starting point for developing what would be the Pennsylvania Patient Safety Reporting System (PA-PSRS). The next step was designing and implementing an internal automated workflow system capable of handling hundreds of reports each day. The workflow system helps ECRI and ISMP better manage their role as clinical analysts by giving them the tools they need to review and process incoming reports accurately and efficiently.

While configuring and installing the software, we worked with network specialists to design and implement the systems infrastructure. After two months, the team was ready to initiate a pilot program involving 22 facilities. Feedback solicited from these facilities was carefully evaluated and then used to prepare for statewide implementation, a rollout of more than 422 facilities, now totaling over 450.

### Proactive, preventive patient safety reporting system saves lives

As the first state in the nation to fully implement a mandatory statewide patient safety reporting system for both actual events and near-misses, Pennsylvania has proved itself a leader in innovation and quality patient care. So much so that other states are looking to Pennsylvania as a role model for their own patient safety initiatives. In fact, just six months after implementation, Dr. Robert Muscalus, then-chairman of the Patient Safety Authority, was one of nine recipients of the 2004 Healthcare Informatics' IT Healthcare Innovator of the Year Award for his role in helping facilitate the development of the PA-PSRS system.

The real success, however, is in the lessons learned. Within five months of its statewide deployment, PA-PSRS processed more than 50,000 reports of actual or potential patient harm. To date, more than 550,000 reports have been generated. Using the system's analytical tools to identify trends and patterns in the data, the PSA advises medical facilities on numerous topics, such as the risk of fires related to use of certain electrosurgical equipment and the possibility of medication overdose when using multiple transdermal patches.

This insight and foresight could be critical to saving lives and ensuring healthcare facilities heal rather than inadvertently harm the patients they have been empowered to care for. Proactive and preventive, Pennsylvania's new patient safety reporting system brings the focus of health care back to the patient, where it belongs.

EDS, an HP company  
5400 Legacy Drive  
Plano, Texas 75024

phone: 1 800 566 9337  
visit: eds.com  
e-mail: info@eds.com

