The Center for Patient Safety (CPS) provides this annual report as a service to the healthcare industry.

CPS Patient Safety Organization Services

PSO ANNUAL REPORT

BASED ON DATA COLLECTED IN 2017

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ABOUT CENTER FOR PATIENT SAFETY

The **Center for Patient Safety (CPS)** is certified as a federally-designated **Patient Safety Organization (PSO)** in compliance with provisions of the federal Patient Safety and Quality Improvement Act of 2005 (PSQIA). PSOs support the collection, analysis, sharing and learning about what medical error occur, why and how to prevent them.

PSO participation can support **a safety culture that encourages and allows healthcare providers to safely report and share information about vulnerabilities** within the healthcare system, PSOs are pivotal in the crusade to prevent medical errors and patient harm. CPS provides several culture services that complement PSO services and support the development of a robust patient safety program.

CPS is positioned to assist new and current participants in gaining this invaluable learning and obtaining the federal protections that are available within the PSQIA – but, most importantly to **reduce preventable harm**.

CPS provides PSO services across the continuum of care, including health systems, emergency medical services, long term care, ambulatory surgery centers and home-based care.

IMPORTANT NOTE ABOUT THE DATA

The data contained in this report is from the Center for Patient Safety (CPS) PSO database. CPS has two different data platforms, one which collects events from health systems including long term care, home-based care, medical offices, and hospital. A second platform collect events from emergency medical services, both ground and air.

Licensed healthcare providers may participate in a PSO in order to share information, learn from the sharing, gain federal protection and ultimately reduce mistakes and patient harm. PSO participation is voluntary and organizations may choose to submit only the more adverse events to share lessons learned. The event types and their severities, along with the additional information contained in this report are de-identified as required by the PSQIA.

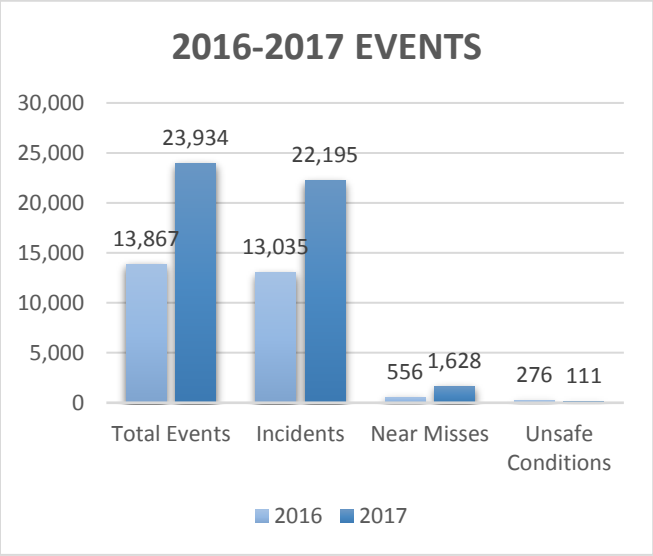
The goal of this report is to present an overview of the findings within all of the events reported to the CPS PSO, to learn how and why events are occurring, and inform providers and others about how to prevent future occurrences. This report will highlight some of the predominant events that occurred within the reporting year of January 1, 2017 through December 31, 2017.

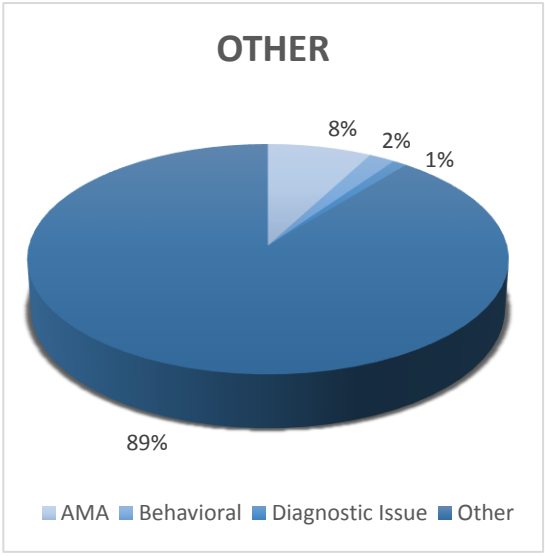
FIVE REASONS TO PARTICIPATE WITH A PATIENT SAFETY ORGANIZATION

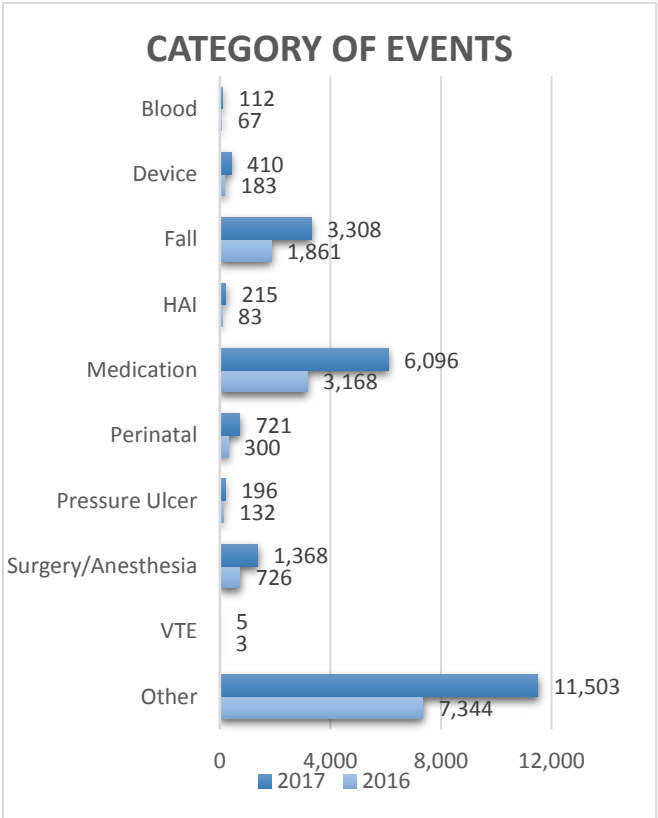
1. Participate in sharing and learning aimed at preventing medical errors and patient harm.
2. Collaborate with other providers to identify medical error prevention strategies.
3. Gain the support and expertise of PSOs to enhance quality and safety processes and practices.
4. Gain federal protections that fill the gaps left from peer review and attorney-client privilege protections.
5. Enhance learning and prevention through collaboration and voluntary reporting outside of regulatory mandates.

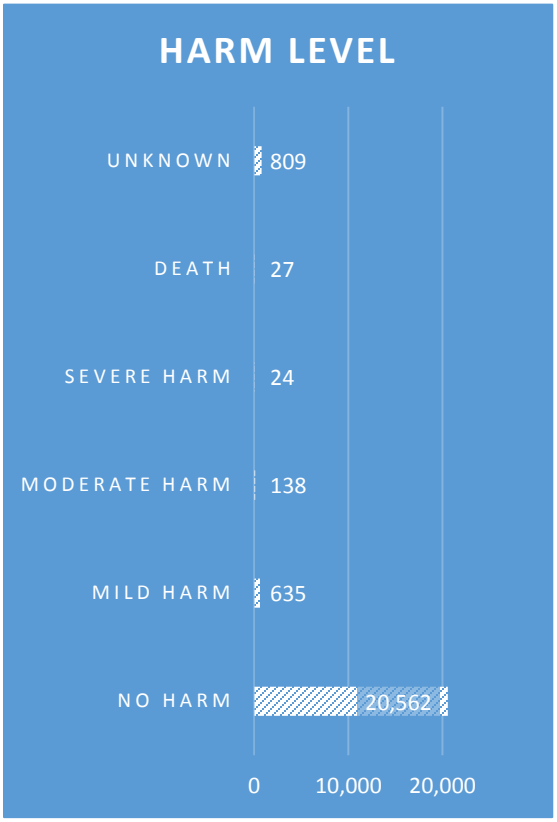
CPS PSO HEALTH SYSTEM DATA

CPS' PSO received reports on 23,924 incidents, near misses and unsafe conditions in 2017 from medical offices, hospitals, nursing homes, home care facilities, and EMS services. Participants also provided more information about system issues involved with recent events than in the past.









SUMMARY OF THE DATA

2017 was an exciting year for CPS as we began offering different ways of submitting data.

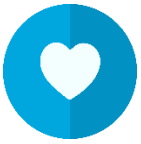
Organizations can submit data in numerous ways:

1. submit data manually via the platform
2. events can be sent securely as a spreadsheet to CPS
3. events can be sent securely through participating partners

As noted, there was an increase of nearly 10,000 events in 2017.

There was a consistent pattern though the **Other** events, the most commonly submitted event category. This includes AMA, behavioral health, diagnostic issues and also uncategorized events. Other events was followed in report frequency by medication events, falls, and surgery/anesthesia-related events, respectively.

AMA is a topic that challenges many health systems. The data shows many are documented to be long wait times. Another cause increasingly showing up in the data is when patients come to the ED desiring the refill of a pain medication and then leaving AMA when this does not occur. Factors to consider with AMA is to ensure that staffing is appropriate for the ED. Also ensure that all staff is educated and aware of the AMA policy. Communication with patient's primary care physician (if known) regarding the AMA event is also an important process to put into action.



Behavioral health is a category that has been gain attention in the national spotlight recently. In April, The Joint Commission (TJC) released an alert regarding violence against healthcare workers. CPS data echoes what TJC sentinel alert states. There are reports of health care workers, primarily nurses, being spit on, kicked, hit and verbally abused. Communication is key to understanding this issue. TJC reported that less than 1/3 of nurses report incidents of violence and only ¼ of ED physicians report it. Many mistakenly believe that dealing with this type of behavior is "part of the job". Many also believe that the perpetrators aren't aware of the potential consequences of their behavior. This is an area where leadership is vital and leaders need to encourage staff to report any type of verbal/physical abuse.

Falls continue to be an issue that plagues many organizations. This is an issue that has been around for decades despite the development of risk assessment tools and fall prevention toolkits. The total number reported to CPS was 3,308 falls. Ten of those claimed a harm level as death or severe harm. Most of the deaths were associated with intracranial bleeds. Fractures also continue to be a serious injury associated with falls. Toileting as an activity prior to the fall was commonly reported. Communication with patients regarding fall risk potential was documented to be a challenge. Factors that play into the communication include dementia, confusion, and medication. Communication among staff regarding a patient's fall risk potential also showed as an area for improvement.

In the **Surgery/Anesthesia** category, narrative text reported events of wrong site surgery, wrong surgery, surgical site infections and retained objects. An over-arching theme of the data seemed to be communication. Communication breaches documented include not communicating an antibiotic protocol, not completing a surgical checklist and not communicating/documenting the exact procedure to be performed or the site of the procedure. Another communication area highlighted was in the area of discharge communication. Events were reported of patients being readmitted due to not understanding their discharge instructions.

Events involving **Medication** were the most commonly reported event, excluding the other category. 6,096 events were submitted and five deaths were reported, all related in part to overdoses (opioids, Ativan, self-inflicted from an unknown medication and beta-blocker). Overall, communication plays a large role in many errors - communication about intended orders, written communication in terms of medication orders, communication regarding follow up monitoring needed and the subsequent results of the monitoring. Transitional care issues, such as medication reconciliation were also reported in the medication category. This area is primarily about communication, what current medications are being taken, why they are being taken and what medication were change and why. Three categories of medications were noted to be involved with many of the events submitted, these included Opioids, Anticoagulants and Insulin.

With **Opioids**, the vast majority of events were related to missing documentation for Fentanyl/Morphine not accounting for wasted doses, missing physician's orders for administration, etc. Wrong dose errors resulting from pump miscalculation were reported along with wrong doses pulled from Pyxis. Some of these events were caught prior to administration (near miss), others after an adverse drub event occurred. There were over 30 cases of Narcan use reported, these reports included incidents of patients taking home medications (narcotics from home) and requiring Narcan. These events bring up the need for organizations to have a process in place where the administration of Narcan and other reversal agents trigger the report of an adverse event.

Events reported involving **Anticoagulants** fell mainly into four categories. There were errors in weight based dosing calculations involving using pounds instead of kilograms, which led to overdosing the patient. Pump miscalculations were a second category reported. These events involved programming pumps to run at units/hour rather than units/kilogram/hour. I.E. The medication order was to decrease the drip by 3 units/kilogram/hour but instead the drip was decreased by 3 milliliter/hour. Another category noted was not following protocol for lab monitoring, such as drawing a PT/PTT to monitor Coumadin levels. The final group of events involved duplicate therapy, such as discharging a patient who takes Coumadin regularly on Xarelto but not discontinuing the Coumadin.

Similar to Anticoagulants, **Insulin** is vulnerable to dose errors. Events submitted involving insulin also fell into four main categories; pump miscalculations, order entry errors for sliding scale insulin administration, wrong insulin types/doses administered and lastly not evaluating responses to interventions. The narrative text described events where a pump miscalculation led to a patient receiving 100 units of insulin over 30 minutes. The resolution was to place program pump limitations specific for insulin administration. Other incidents reported included administering a patient 100 units of regular insulin rather than 10 units and administering Novalog N instead of Novalog R.

Events related to **medication reconciliation** involve all meds, but there is a specific concern for high risk medications including not only opioids, anticoagulants, and insulin, but also anti-hypertensives, psychotropics, etc. Often medications are omitted or not resumed at discharge, dosages are not correct, or medications are ordered at discharge that are duplicate to medications previously taken (I.E. patient was discharged home on Xarelto but takes warfarin at home).

Home medications frequently change over time and therefore even if a patient brings in all their current medications, the labels on those medication bottles may not reflect adjustments to orders as prescribed. In some cases, hospitals are referring back to medication list from a previous hospitalization or emergency room visit that may have occurred months prior. This is a very risky practice, since medication orders frequently change.

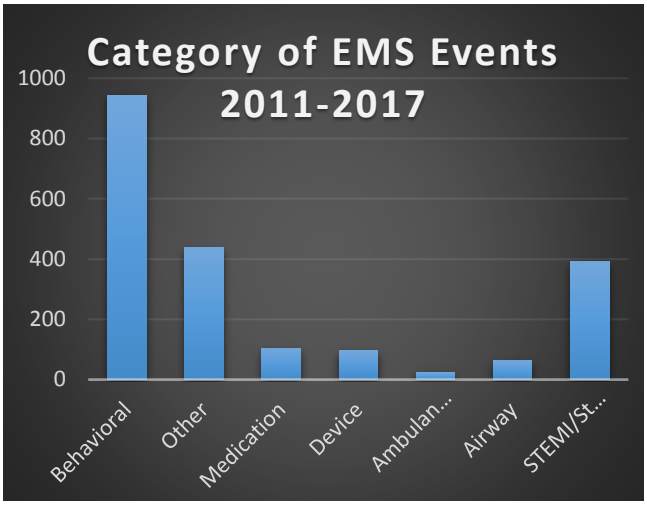
Overall, **communication** plays a large role in many medication errors, communication about intended medications orders, specifically what changes are being made and WHY are critical to assure appropriate medication reconciliation.

Communication continues to be a major challenge in patient safety. While there does seem to be an improvement and a development of communication tools within specific arenas of healthcare (I.E. between the emergency department and hospital floor); where the challenge lies is in the communication between healthcare providers along the continuum of care. From hospitals to medical offices or to EMS or from medical offices to hospitals. While EHR's have helped with communication, an area to look at involves ensuring that the hospitals EHR communicates with the PCP or home health provider. Another area is to ask if the SNF or home health provider utilize EHR's or are they still utilizing paper charts? There has not been the financial incentive outside hospital walls to go electronic and while the majority are going electronic, there are still several SNF's and some Home Health agencies that continue to utilize paper charts.

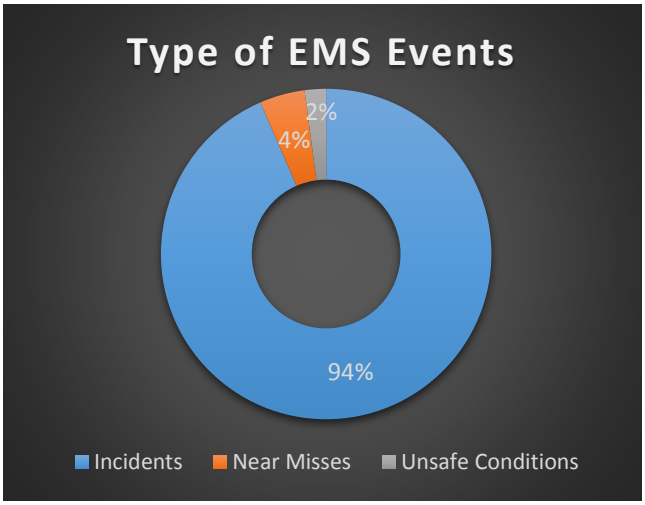
Moving ahead, CPS is looking forward to receiving more data, continuing the increase experienced in 2017. We are updating our platform which will begin utilizing the updated Common Data Formats version 2.0 put out by AHRQ.

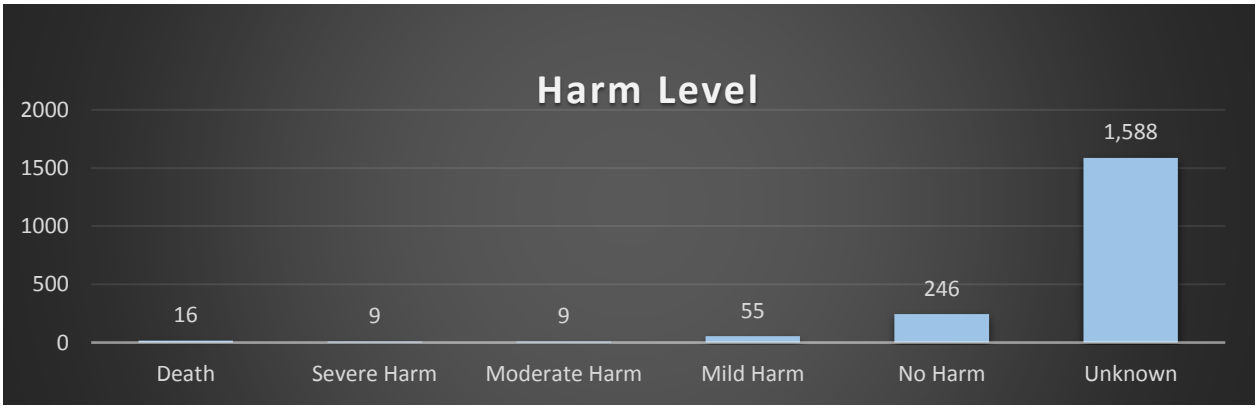
CPS PSO EMS DATA

Ground and air emergency medical services are becoming more active in quality and patient safety improvement activities. Over 100 organizations participate with CPS for PSO services. The events reported through the EMS data platform, include those events specific to the EMS environment like Ambulance Crash and Airway Management. By working with CPS these organizations are able to evaluate their systems and processes under the protections provided by the Patient Safety and Quality Improvement Act of 2005.



2017 has been an exciting year for EMS. The year started off with the promotion of the EMS Forward campaign which highlighted how culture plays into patient safety and questions to ask yourself as a healthcare provider when patient safety events occur. Later in the year, CPS upgraded the reporting platform to version 2.0 which allows EMS organizations to view a dashboard of activity upon logging into the system. CPS also collaborated with reporting systems to allow for direct reporting of events from the electronic risk management system to CPS. 2017 also saw the introduction of the CPS Patient Safety Bootcamp for EMS which provides participants with foundation principles of patient and how to apply them to clinical practices.





SUMMARY OF EVENTS

Behavioral events are most commonly reported in the database. These events are included in the "other" category but make up a large portion of Other events. These include not only calls for homicidal and suicidal ideation, but also transports of patients to appropriate facilities and incidents of violence against healthcare workers. Actionable items related to this area would ensure that an organization educate their staff in the management of de-escalation and also has a way to report acts of violence committed against them by patients.

STEMI/Stroke events are among the more commonly reported events in the database. These events look at response times and if aspirin had been administered. Another variable analyzed was if patients were transported primarily to an appropriate facility or if the patient had a secondary transport to an appropriate facility.

Airway management events provide information about the use of endotracheal tubes and supraglottic airways. Analysis provides insight as to the cause of failed airway management. Capnography is becoming a standard among many agencies for monitoring and managing airways. Reporting airway events allow for the identification of barriers in the implementation and usage of capnography.

Ambulance crash reporting helps to identify dangerous driving conditions, but also provides needed insight to human factor influences. While there aren't many events reported, those with contributing factors allows for evaluation of fatigue and employee training.

Device events also includes events involving health information technology. This looks at if there are issues with ventilators, stretchers, IV pumps, etc. The events in this category can demonstrate at times issues with equipment that the DME provider may need to resolve. Events in this category can also show if there has been a drift in protocol such as not utilizing all five straps on the stretcher.

Medication events in EMS are very similar to those seen in the Health System platform. There are events reported of wrong doses and routes, look alike sound alike medications being stored next to each other and a lack of knowledge regarding pediatric doses. Review of these events can highlight educational needs of agencies.

Utilizing the data submitted to the CPS PSO in 2017, we could move forward in EMS to provide education and training on foundational patient safety principles to EMS agencies across the country. CPS collaborated with different EMS organizations, aiding them in developing action plans to help implement patient safety programs and how to measure successful implementation of those programs.

Are you ready for the next step in your patient safety journey?

Our certified patient safety experts are ready to help.

We know your organization is in a different place strategically, and tactically, than other organizations. Our unique experiences and options are designed to support your situation and reduce preventable harm.

Contact us to get started today!

info@centerforpatientsafety.org

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