2013 Annual Summary
Oregon Patient Safety Reporting Program

June 2014

OREGON
PATIENT SAFETY
COMMISSION

Report. Learn. Improve Patient Safety.

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Executive Summary

Transparency is a cornerstone for learning and patient safety improvement. Oregon's healthcare organizations are forming a community that values learning from one another and is supported by the Patient Safety Reporting Program—a central location for data that informs patient safety and improvement efforts in Oregon.

The data in this annual summary is the result of Oregon's healthcare community working together to improve transparency and contribute essential information. Organizations that contribute to the Patient Safety Reporting Program identify, investigate, and submit adverse event reports about the unintended harm (or potential harm) to patients that occurs as a result of medical care. The reporting program focuses on learning from these adverse events rather than simply measuring the number of events reported and aims to:

- **Report**—build a strong database for learning
- **Learn**—identify best-practices being used in Oregon to prevent adverse events
- **Improve**—assist healthcare organizations with setting patient safety priorities implementing improvement efforts to prevent patient harm

This annual summary provides a statewide, aggregate picture of the information reported to the Patient Safety Reporting Program by four different healthcare segments: ambulatory surgery centers, hospitals, nursing facilities, and pharmacies. The trends in this data highlight that, although healthcare segments differ, when it comes to patient safety, many of the issues are similar. In many cases, the problems and solutions identified in adverse event reports translate across healthcare segments.

In 2013, the total number of events submitted to the Oregon Patient Safety Commission by all four healthcare segments was 651. An analysis of adverse event data from all four healthcare segments found that *Medication or other substance* events, *Surgical or other invasive procedure* events, and *Falls* were the most frequently reported adverse events. As expected from the program's emphasis on serious adverse events, almost half of the reports submitted to the Commission in 2013 (44%) resulted in serious harm or death. The types of adverse events and the severity of harm reported by each healthcare segment varies based on the services offered, the patient population served, and the processes and systems in place to support quality improvement and patient safety.

Oregon Patient Safety Commission Mission

Improve patient safety by reducing the risk of serious adverse events occurring in Oregon's health care system and by encouraging a culture of patient safety.

About This Report

This year, the Oregon Patient Safety Commission has streamlined how aggregate Patient Safety Reporting Program data is presented. In addition to this summary, the Commission will periodically publish special reports to explore some of the most frequently reported patient safety challenges and make recommendations to prevent harm.

How to Use This Report

Adverse event reporting is one of many tools that helps healthcare organizations identify what can be done to improve patient safety and the quality of care for Oregonians. Healthcare organizations can use this report, in conjunction with the following tools and resources from the Commission, to support and improve their patient safety programs:

- **Educational opportunities**. Online or in-person trainings about key patient safety practices
- **Monthly newsletters**. Essential news, research, and resources for patient safety
- **Action alerts.** Information about potentially serious patient safety concerns that may require immediate consideration and action
- **Collaborative learning opportunities.** Learning networks that work together on targeted safety initiatives and improve patient care
- **Statewide workgroups.** Work together with your peers to improve patient safety
- **Toolkits and resources.** Specific tools to improve patient safety in your facility
- **Consultation.** Uniquely qualified staff can help you and your organization address patient safety concerns

The data collected by the Patient Safety Reporting Program provides important information regarding the frequency and severity of harm. The commission uses this data to set priorities for developing new tools and resources and to determine future patient safety improvement activities. For more information about the Patient Safety Reporting Program, visit http://oregonpatientsafety.org.

2013 Commission Activities

The Oregon Patient Safety Commission is charged by the Oregon Legislature with reducing the risk of serious adverse events occurring in Oregon's health care system and encouraging a culture of patient safety. The Commission has three primary programs by which this goal is achieved:

Program	2013 Activities
Patient Safety Reporting Program	• Hosted second annual patient safety breakfast • Prepared to release online reporting system for pharmacies in January 2014 • Surveyed ambulatory surgery center, nursing facility, and hospital reporting program participants to improve the value and impact of patient safety programs
Early Discussion and Resolution	• Became administrative entity of a new process (Senate Bill 483) • Began drafting administrative rules and creating infrastructure needed to launch Early Discussion and Resolution in July 2014
Improvement Initiatives	• Offered ongoing infection prevention education and trainings for ambulatory surgery centers and nursing facilities • Launched Northwest Dialysis BSI Prevention Collaborative • Launched Oregon Regional MDRO Prevention Collaborative • Administered the Oregon Antimicrobial Stewardship Collaborative • Completed the Astoria Regional MDRO Prevention Collaborative

Overview of Reported Events

The Patient Safety Reporting Program (PSRP) has been operating since 2006, when hospitals became the first segment to submit adverse event reports to the Commission. The four healthcare segments that participate in the Patient Safety Reporting Program today started at different times (see Table 1). Of the three segments that began online reporting in 2012, 79% of eligible facilities participate in the reporting program.

An **adverse event** is an event that results in unintended harm or creates the potential for harm that is related to any aspect of a patient's care (by an act of commission or omission) rather than to the underlying disease or condition of the patient. Adverse events may or may not be preventable.

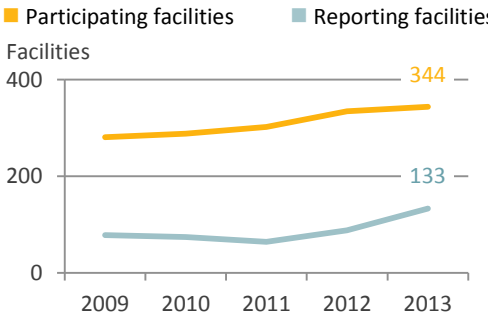
A **segment** is a distinct type of facility that is eligible to participate in the reporting program according to ORS 442.837(2) (i.e., ambulatory surgery centers, hospitals, nursing facilities, and pharmacies).

Table 1. Facility Participation in Reporting Program by Segment, 2013

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Quarter and Year Participation Began	Q2 2007	Q2 2006	Q2 2007	Q2 2007	NA
Quarter and Year Online Reporting Began	Q4 2012	Q3 2012	Q4 2012	Q1 2014	NA
Number of Participating Facilities	58	58	113	115	344
Total Eligible Facilities	92	58	140	706	996
Percent of Participating Facilities	63%	100%	81%	16%	35%

Not all facilities that participate in the reporting program submit reports each year. Fifty-one facilities have consistently submitted reports every year since they began reporting. Of these, 32 have submitted reports every year since the program started for their segment. More than two-thirds of participating ambulatory surgery centers, hospitals, and nursing facilities have submitted at least one report since the beginning the program (this excludes pharmacies, for which the online reporting tool was not available until 2014). The Commission is working closely with each healthcare segment to improve reporting by 10% in 2014.

Figure 1. Participating and Reporting Facilities, 2009-2013



A **participating facility** is an eligible facility as defined by ORS 442.837(2) that has signed a Patient Safety Reporting Program participation agreement.

A **reporting facility** is a participating facility that has submitted at least one report in the current reporting year.

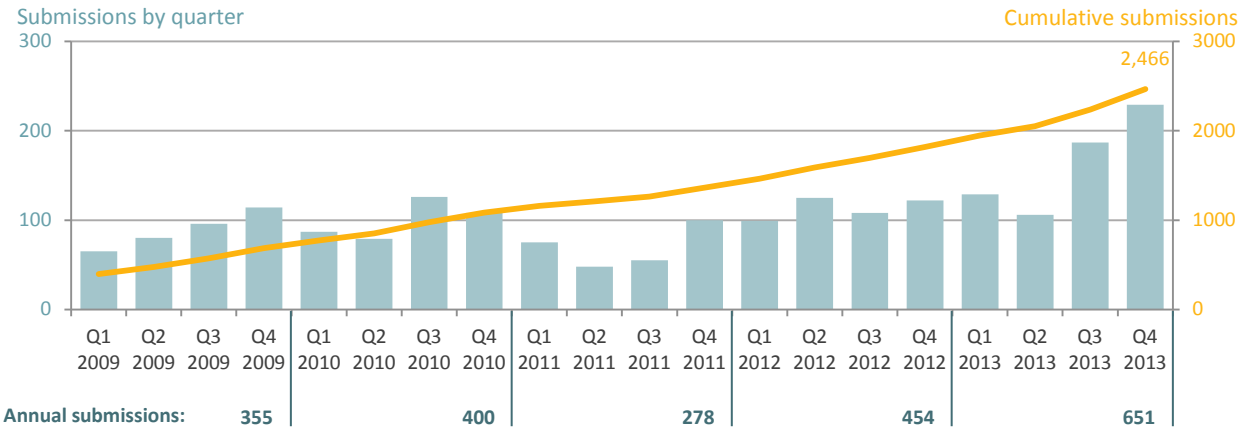
In 2013, the percent of participating facilities that submitted reports increased in each segment (see Table 2). Increased reporting is the result of multiple factors, including the transition to an online reporting tool for each healthcare segment. The Commission continues to invest in strategies to streamline the process of reporting for the participant as much as possible. With more reporting, the Commission can continue to provide access to best practices and shared learning to improve patient safety in Oregon. For more detailed information about the number of facilities that reported to the Commission, see Recognition Targets on page 13.

Table 2. Number of Reporting Facilities by Segment, 2013

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Number of reporting facilities	27	41	41	24	133
Number of participating facilities	58	58	113	115	344
Percent of participating facilities that reported	47%	71%	36%	21%	39%

In 2013, the Patient Safety Reporting Program collected information on 651 adverse events across all segments—the largest number of reports submitted in one year since the reporting program began (see Figure 2). The figures on page 6 show report submissions by each reporting segment. The number of reports submitted increased in 2013 in every segment except for ambulatory surgery centers (see Appendix I).

Figure 2. Submission by Quarter and Cumulatively, 2009-2013



Increased or decreased reporting does not necessarily mean that Oregon healthcare facilities are experiencing more or fewer adverse events than in the past. Shifts in reporting are more likely an indication of healthcare facilities that are improving their ability to identify, investigate, and report adverse events.

Reported Events by Healthcare Segment

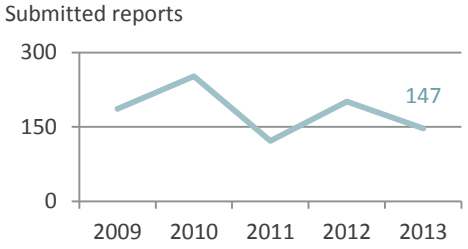
The following information summarizes the number of reports submitted by each healthcare segment over the past five years.

Submitted Reports by Year, 2009-2013

Ambulatory Surgery Centers

The number of reports submitted by ambulatory surgery centers (ASCs) has seen ups and downs since the reporting program began in 2007 (see Figure 3). Although ASCs submitted fewer reports in 2013 than 2012, a larger percentage of 2013 reports were of acceptable quality, which increased the value of what ASCs can learn from the reporting program. Over 1,000 reports have been submitted since the ASC reporting program began.

Figure 3. Ambulatory Surgery Center Reports

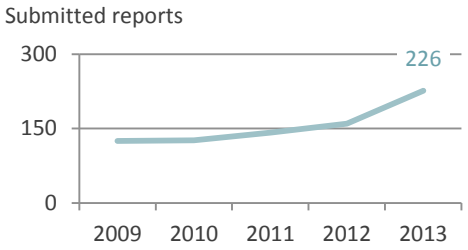


Two of the 147 reports did not meet the definition of "adverse event."

Hospitals

Hospitals have incrementally increased the number of reports submitted each year since the reporting program began in 2006 (see Figure 4). Hospitals submitted 160 reports in 2012 and 226 in 2013, an increase of 41%. Over 1,000 reports have been submitted since the hospital reporting program began.

Figure 4. Hospital Reports

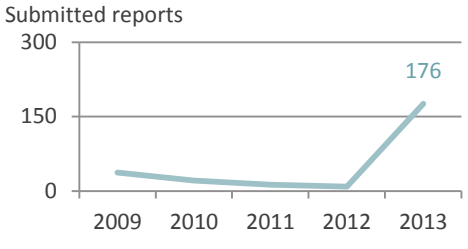


One of the 226 reports did not meet the definition of "adverse event."

Nursing Facilities

Nursing facilities demonstrated a dramatic increase in reporting in 2013 (see Figure 5). Nursing facilities submitted nine reports in 2012 and 176 in 2013. This increase reflects the hard work and collaboration by reporting nursing facilities to incorporate adverse event reporting into quality assurance and performance improvement programs. Over 300 reports have been submitted since the nursing facility reporting program began.

Figure 5. Nursing Facility Reports

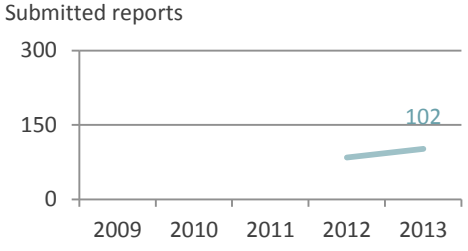


Five of the 176 reports did not meet the definition of "adverse event."

Pharmacies

Although the Commission has been accepting reports from pharmacies since 2009, pharmacy reporting did not begin to mature until 2012 (see Figure 6). Pharmacies submitted 84 reports in 2012 and 102 in 2013, an increase of 21%. Over 180 reports have been submitted since the pharmacy reporting program began.

Figure 6. Pharmacy Reports

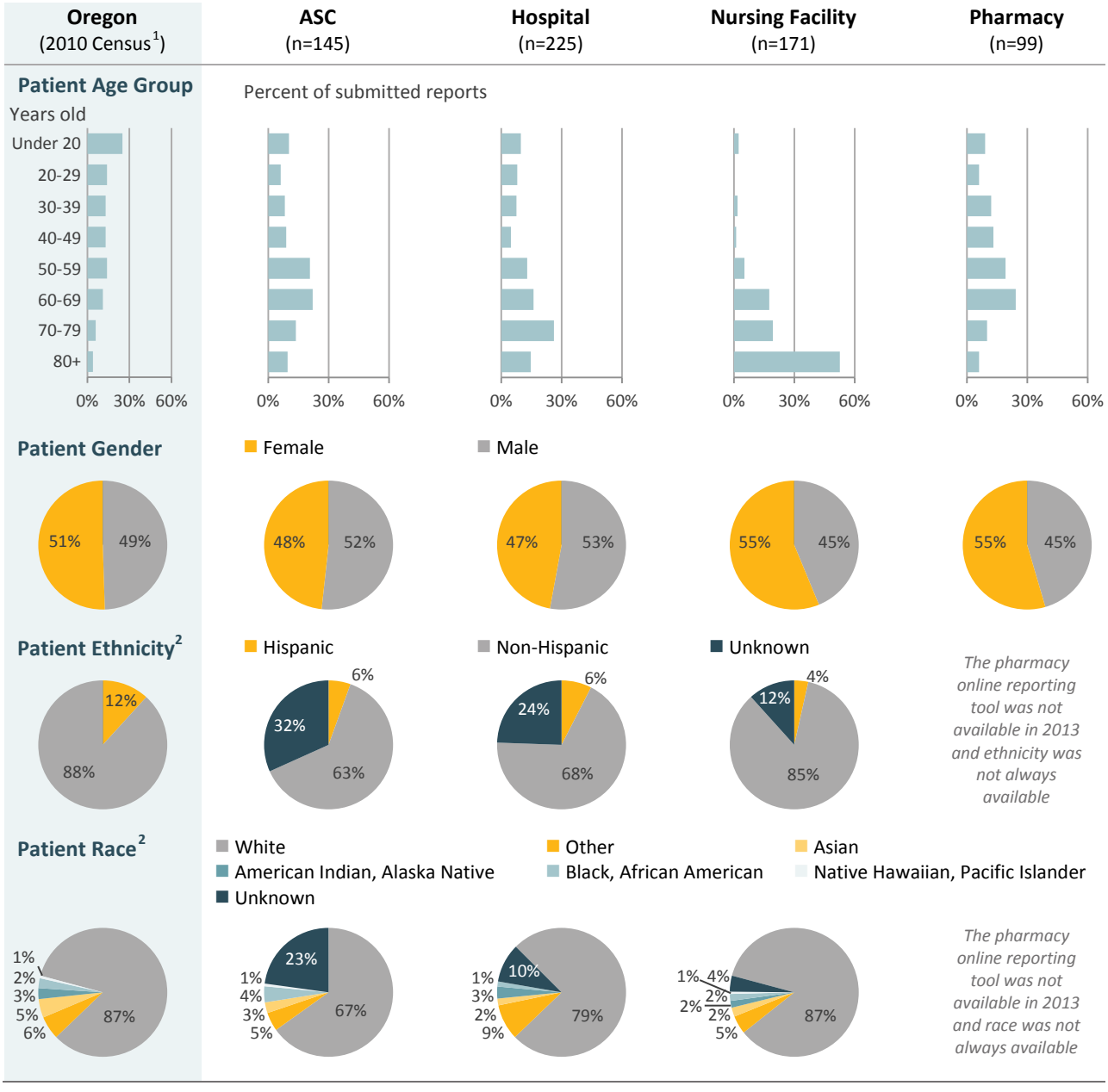


To ensure consistency of data across reporting segments over time, pharmacy reports submitted before 2012 have been excluded.

Patient Characteristics

Patient demographic data collection enables the Commission to monitor adverse event reporting data for unexpected differences between population groups. Patient gender, race, and ethnicity reported in 2013 generally reflected Oregon's characteristics overall. In some cases, race and ethnicity may be unknown and are indicated as such in the adverse event report. The patients impacted by adverse events reported in 2013 ranged in age from newborn to 102. While patients in every age group experienced adverse events, those aged 60 to 79 experienced the highest number of events.

Figure 7. Patient Demographics by Segment, 2013



[1] U.S. Census Bureau, 2010 Census of Population and Housing, Population and Housing Unit Counts, CPH-2-39, Oregon U.S. Government Printing Office, Washington, DC, 2012.

[2] Healthcare facilities can report more than one race but only one ethnicity.

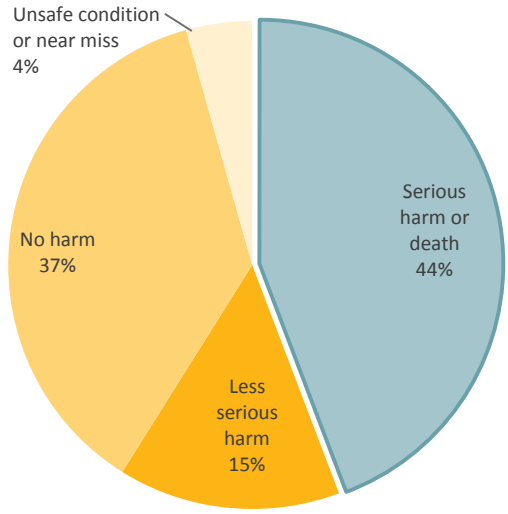
Harm

Patient Safety Reporting Program participants are required to report any serious adverse events and are encouraged to report less serious harm events, no harm events, and near misses (also known as close calls). When reporting adverse events, facilities assess harm related to the event using formally validated national harm categories established by the National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP) (see Appendix II). Use of the NCC MERP harm categories allows the Commission to interpret the impact of adverse events in a standardized way.

Serious adverse event means an objective and definable negative consequence of patient care, or the risk thereof, that is unanticipated, usually preventable and results in, or presents a significant risk of, patient death or serious physical injury (Oregon Revised Statutes 442.819(6))

This includes harm categories F, G, H and I for all segments. For hospitals and ASCs there are events that are considered to be inherently serious regardless of harm category. See Appendix V for a

Figure 8. Harm of Events Reported by All Segments, 2013

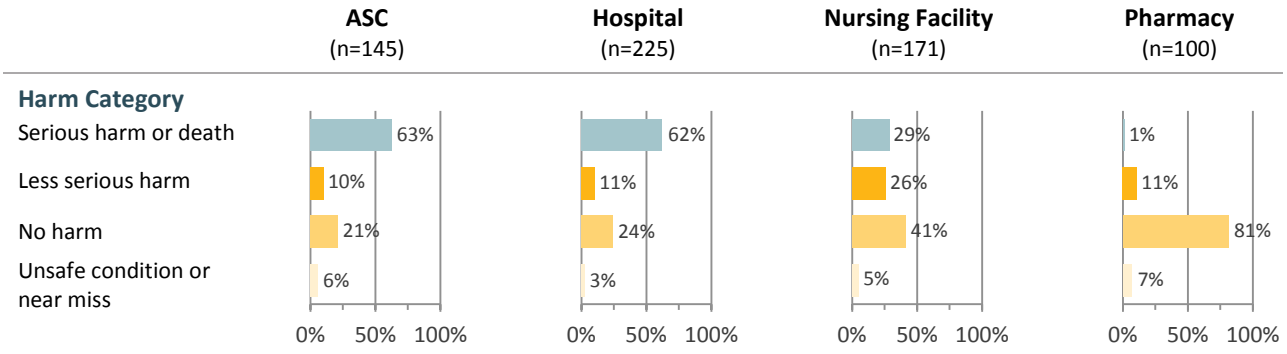


As expected from the program's emphasis on serious adverse events, almost half of the reports submitted to the Commission in 2013 (44%) resulted in serious harm or death (harm categories F, G, H or I) (see Figure 8).

The Commission also collects reports about less serious harm events, no harm events, and unsafe conditions or near misses because these types of events play a critical role in identifying what must be done to prevent future occurrence and improve patient safety. Organizations that report these types of events allow for the identification of system-level issues that could lead to adverse events in the future and provide an opportunity to address those issues before patients are seriously harmed.

Variations in the severity of harm by reporting segment may be due to the patient populations served and the types of services provided (see Figure 9).

Figure 9. Harm Categories by Segment, 2013



Surgical and other invasive procedures are more likely to cause serious harm; therefore, we expect more serious harm events from segments that provide higher risk services to patients (i.e., ASCs and hospitals).

Facilities reported 39 harm category I (patient death) events in 2013, which is proportionately similar to last year (see Table 3; these figures are broken out by segment in Appendix III, Table 14).

Table 3. Reports Indicating Death (Harm Category I) by Year

	2009	2010	2011	2012	2013
Number of harm category I reports	34	35	22	34	39
Percent of total reports	10%	9%	8%	7%	6%

Almost three quarters of the harm category I events involved patients who were more vulnerable (e.g., identified as having fragile health status or significant comorbidities). These reports indicate that many facilities are diligent about reporting serious events, particularly those events affecting more vulnerable patients. While some of these deaths may be considered unavoidable, reporting these types of events demonstrates a belief that all events should be investigated and examined to identify opportunities for prevention, regardless of the complexity of a patient's health status. In fact, these investigations usually yielded system-level action plans—a clear indication that Oregon healthcare facilities are committed to preventing significant harm even in situations where the outcome was unavoidable. Reporting facilities used these significant events to strengthen their systems and prevent future harm.

Voluntary versus Mandatory Reporting

Participation in the Patient Safety Reporting Program is voluntary according to state law [ORS 442.837(2)]; however, according to administrative rule, healthcare organizations that agree to participate in the program must report all serious adverse events [OAR 325-015-0025(3)].

The Commission is frequently asked how Oregon's voluntary program compares to mandatory reporting programs around the country. Short of reviewing every medical record, from every admission, from every eligible facility, every year, there is no way to get the number of actual adverse events that have occurred.

Oregon's voluntary Patient Safety Reporting Program has received comparable results to other reporting programs, which are mandatory and involve more facilities than Oregon's program (National Academy for State Health Policy).

Event Type

Reportable event types vary by segment. Not all event types can be reported by all segments. For example, pharmacies can only submit *Medication or other substance* events and nursing facilities cannot submit *Surgical or other invasive procedure* events since surgery is not performed in nursing facilities. The event types reported are impacted by each segment's patient population, services offered, and reporting requirements. Between the four reporting segments, there are 34 event types (see Appendix IV for a full list of event types by segment). In 2013, the top four events types for all segments combined were *Medication or other substance*, *Fall*, *Surgical or other invasive procedure*, and *Other* events. Collectively, these four event types make up more than 75% of all events reported to the Commission (see Table 4). Appendix III, Table 15 lists 2013 event types by segment.

Table 4. Top Four Event Types by Segment, 2013

Top Four Event Types	ASC (n=145)		Hospital (n=225)		Nursing Facility (n=171)		Pharmacy (n=102)		All Segments (n=643)	
	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)
Medication or other substance	16	(11%)	28	(12%)	18	(11%)	102	(100%)	164	(26%)
Fall	4	(3%)	48	(21%)	103	(60%)			155	(24%)
Surgical or other invasive procedure	84	(58%)	29	(13%)					113	(18%)
Other event	9	(6%)	17	(8%)	29	(17%)			55	(9%)

The types of *Other* events reported vary by segment. In general, *Other* events reported by ASCs and hospitals capture events that are just outside of the definition of a specific event type (e.g., in an ASC, postoperative bleeding that did not require a return to surgery). Some *Other* events reported by hospitals were event types that are included in the administrative rules for other segments, but not for hospitals (e.g., deep vein thrombosis). For nursing facilities, *Other* events often consisted of unexplained, minor patient injuries.

Table 5. Top Four ASC Event Types, 2013

Top Four Event Types	Number	Percent
Surgical or other invasive procedure	84	58%
Healthcare-associated infection	19	13%
Medication or other substance	16	11%
Deep vein thrombosis	10	7%

ASCs primarily perform surgical procedures, therefore *Surgical or other invasive procedure* events are the most reported event type for this segment. For more details on *Surgical or other invasive procedure* events, see Figure 11 on page 12.

Table 6. Top Four Hospital Event Types, 2013

Top Four Event Types	Number	Percent
Fall	48	21%
Surgical or other invasive procedure	29	13%
Medication or other substance	28	12%
Care delay	21	9%

The range of event types reported by hospitals in 2013 may be due to the diverse services provided in the hospital setting. The full list of events reported by hospitals can be viewed in Appendix III.

Table 7. Top Four Nursing Facility Event Types, 2013

Top Four Event Types	Number	Percent
Fall	103	60%
Other	29	17%
Medication or other substance	18	11%
Elopement	6	4%

Falls continue to be the leading event type reported by nursing facilities; however, evidence suggests that other types of adverse events (e.g., healthcare-associated infections and pressure ulcers) are also occurring in nursing facilities and can be reported to share lessons learned and promote improvement.

Note: Because pharmacies only report Medication or other substance events, they are excluded from this breakdown.

Medication or Other Substance Events

Medications are essential for delivering healthcare to patients and an integral part of patient care. Little variation exists in the types of medication events reported across the four segments. The top three medication event types for all segments combined were *Incorrect strength*, *Incorrect medication or substance*, and *Incorrect dose* (see Table 8). Appendix III, Table 20 provides more detailed information about medication events reported in 2013.

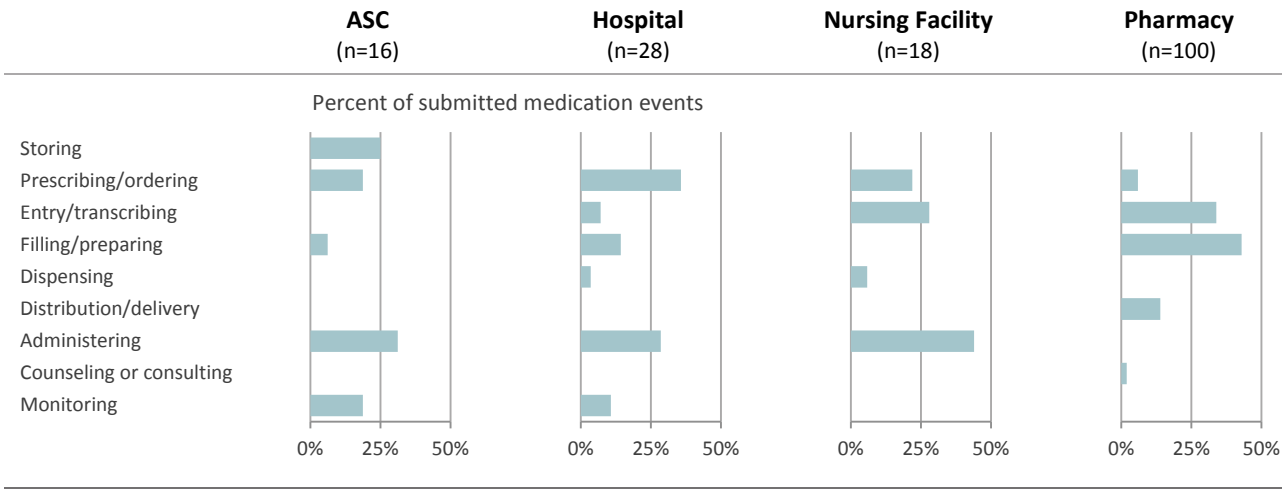
Table 8. Top Three Medication Event Types by Segment, 2013

Top Three Medication Event Types	ASC (n=16)		Hospital (n=28)		Nursing Facility (n=18)		Pharmacy (n=102)		All Segments (n=163)	
	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)
Incorrect strength	4	(25%)	7	(25%)	1	(6%)	42	(41%)	54	(33%)
Incorrect medication or substance	7	(44%)	4	(14%)	4	(22%)	23	(23%)	37	(23%)
Incorrect dose	3	(19%)	10	(36%)	8	(44%)	4	(4%)	25	(15%)

Medication management is a complex system with numerous process steps. Although these steps provide opportunities to ensure accuracy, as the number of medication orders increases and the complexity of the medication management system grows, so does the risk of an adverse event. In 2013, reported *Medication or other substance* events across all segments originated in nine out of ten stages of the medication management process identified by the Patient Safety Reporting Program (see Figure 10). The types of events that occurred in each segment are indicative of the types of medication-related services provided by each segment.

All four segments reported events that originated in the prescribing/ordering stage, and the three segments that routinely administer medications submitted a large number of reports that originated in the administering phase.

Figure 10. At what stage in the process did the event originate, regardless of the stage at which it was discovered?



** Two reports did not provide enough information to answer this question.*

Surgical or Other Invasive Procedure Events

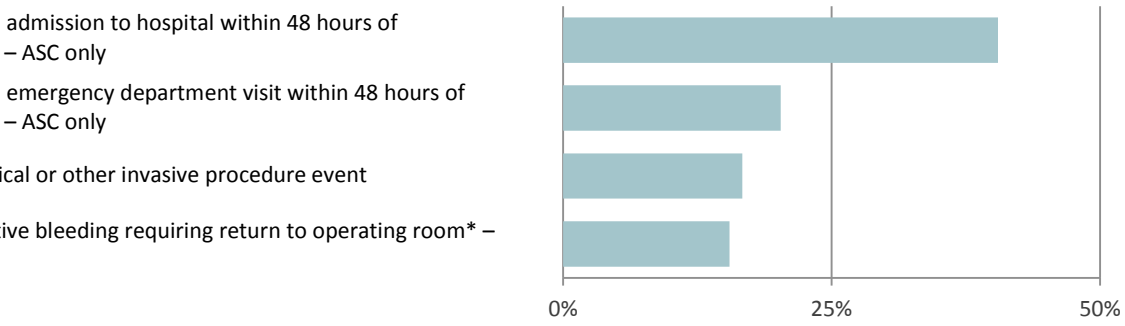
Only ASCs and hospitals report *Surgical or other invasive procedure* events, which were the third most frequently reported adverse event type in 2013. *Surgical or other invasive procedure* events represent over half of all ASC reports and nearly a quarter of hospital reports. Because ASCs submitted the largest percentage of surgical-related event reports, ASCs drove what types of surgical events were most commonly reported—*Unplanned admission to hospital* and *Unplanned emergency department visit* (see Figure 11).

Some event types are specific to only one healthcare segment, particularly events related to *Surgical or other invasive procedure* events. Three of the top 4 surgical event types for ASCs are only reported by ASCs. More detailed data about *Surgical or other invasive procedure* events can be found in Appendix III.

Top Four Surgical Event Types by Segment, 2013

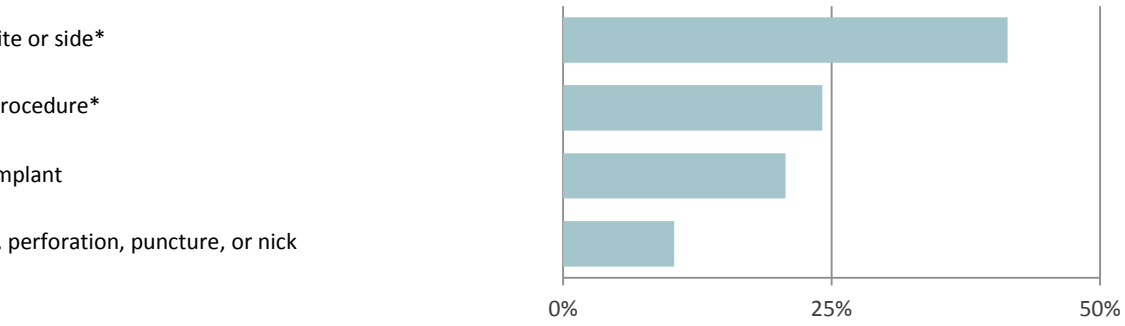
Ambulatory Surgery Center

Figure 11. ASC Event Types



Hospital

Figure 12. Hospital Event Types



** Reporting is required regardless of harm category.*

DVT/VTE Prevention Work Group

The Commission has convened a Deep Vein Thrombosis/Venous Thromboemolism (DVT/VTE) Prevention Work Group. In response to requests for resources to reduce the risk of DVT/VTE in ambulatory surgery centers, this short-term work group is comparing data and protocols collected from Oregon ambulatory surgery centers statewide, and developing recommendations to help all Oregon ambulatory surgery centers prevent DVT/VTE. The workgroup's findings will be published in summer 2014.

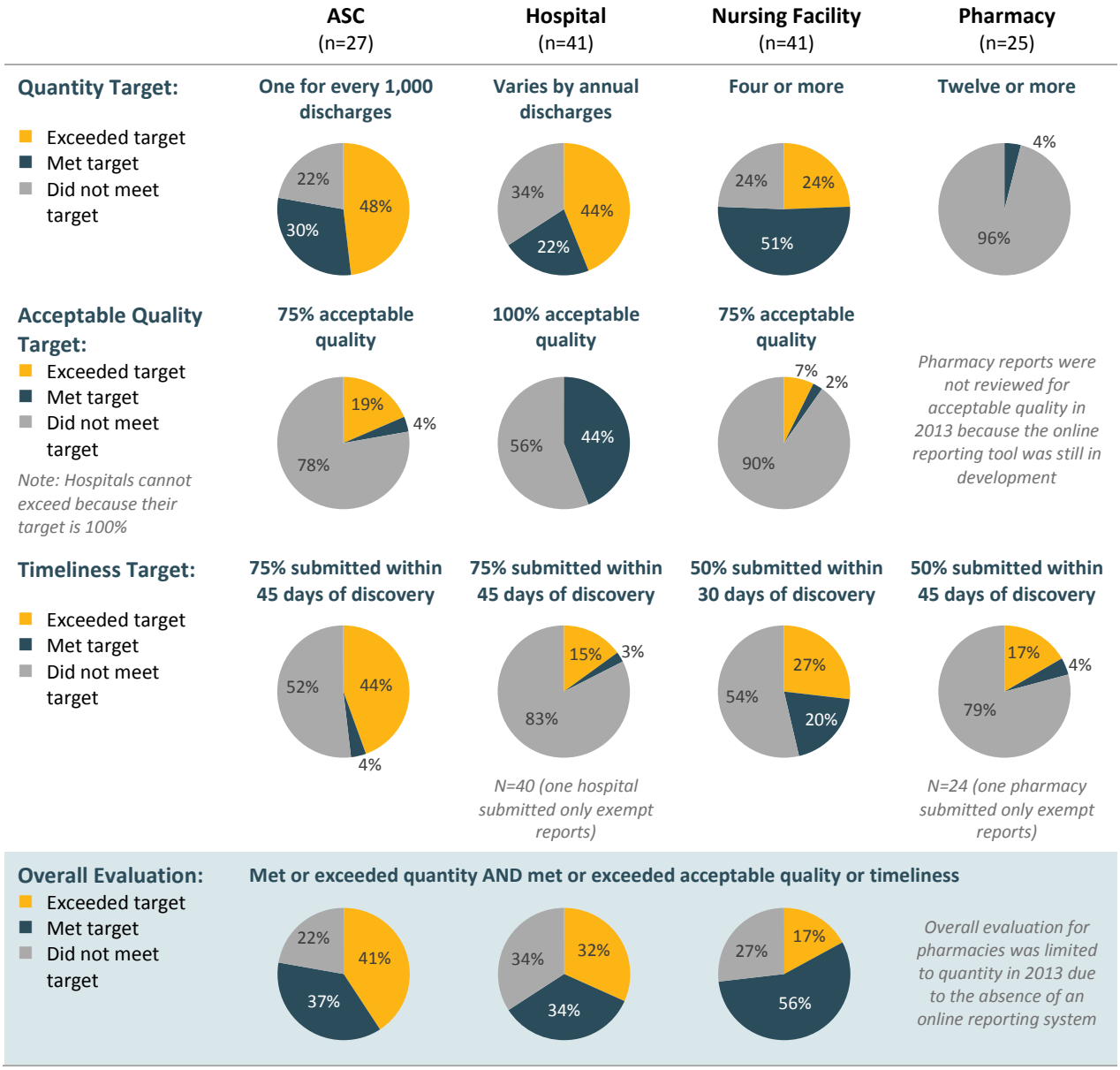
Recognition Targets

The Oregon Patient Safety Commission has established recognition targets to guide healthcare organizations participating in the Patient Safety Reporting Program. Targets are designed to change as organizations build their reporting programs to meet the State of Oregon's reporting requirements (Oregon Revised Statute 442.820-442.835, Oregon Administrative Rules 325). Recognition targets are also designed to ensure that the Commission receives enough adverse event reports to build a strong database for learning and to recognize healthcare organizations for their transparency efforts and commitment to patient safety. Recognition targets focus on four criteria: quantity, quality, timeliness, and written notification.

Reporting Facility Performance

The following graphics display how well each segment met recognition targets. See page 14 for a breakdown by the number of submitted reports rather than by reporting segment.

Figure 13. Recognition Target Performance by Reporting Facilities, 2013



Adverse Event Report Performance

In addition to evaluating each healthcare segment for their overall reporting performance, the Commission evaluates each submitted report using the four recognition target criteria.

Quantity

The Commission measures quantity as the number of reports submitted by a reporting program participant. The quantity target for 2013 varied by the annual discharges of each participating ASC and hospital, but was a static four reports (one per quarter) for nursing facilities and 12 reports (one per month) for pharmacies. Oregon facilities submitted 651 adverse event reports in 2013. The median number of reports per facility was four, with a range of one to 34. In 2013, participants submitted the highest number of reports since the beginning of the Patient Safety Reporting Program.

Table 9. Quantity of Submissions by Segment, 2013

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Total reports submitted	147	226	176	102	651
Number of submitting facilities	27	41	41	25	134
Median reports per facility	3	4	4	3	4
Range of reports per facility	1-34	1-21	1-13	1-12	1-34

Acceptable Quality

When reviewing submitted adverse event reports, the Commission uses the four Joint Commission criteria to determine if reports are of acceptable quality: complete, thorough, credible, and having effective action plan(s). The Commission reviews every submitted report for acceptable quality and provides specific feedback to reporters on how they might strengthen their investigations or action plans to better prevent harm in the future. In 2013, only 44% of reports from ASCs, hospitals, and nursing facilities were found to be of acceptable quality (see Table 10).[3]

Table 10. Acceptable Quality of Reports by Segment, 2013

	ASC	Hospital	Nursing Facility	Pharmacy*	All Segments
Number of non-exempt reports submitted	141	225	171		537
Number of reports that were acceptable	35	159	44		238
Percent of reports that were acceptable	25%	71%	26%		44%

** Pharmacy reports were not reviewed for acceptable quality in 2013 because the online reporting tool was still in development*

To help organizations understand what the Commission is looking for when determining acceptable quality, each of the four quality criteria is broken down into two or three specific quality measures (see Quality Criteria). Of the 299 submitted reports that fell short of acceptable quality, 86 (29%) missed the "acceptable" designation by a single quality measure. The two quality measures that were most frequently missing from reports were:

1. *Thorough—At least one relevant root cause identified*
2. *Action Plans—A system-level action plan that decreases the likelihood of such events in the future*

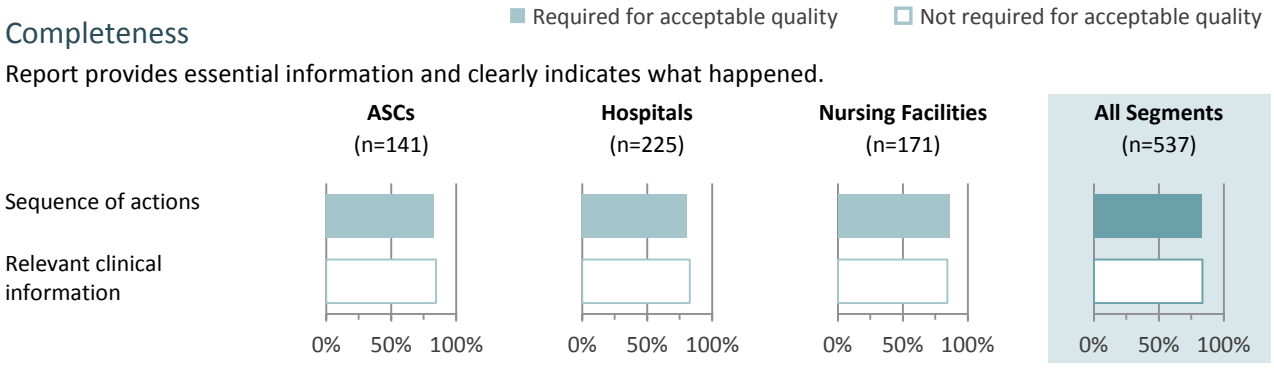
See page 15 for a complete breakdown of the quality evaluations by segment.

[3] Some report submissions describe events that do not meet the definition of adverse event (see definition on page 5) and are excluded from the review process. Additionally, in the ASC setting, reports submitted as harm category A (unsafe condition) are excluded from the review process.

The quality of reporting is essential to the success of the Patient Safety Reporting Program; but more importantly, the competencies demonstrated by acceptable quality reporting are vital to healthcare organizations who desire to create a viable and lasting culture of patient safety. Without acceptable quality, transparency efforts are severely limited and opportunities to identify root causes of harm, as well as learn and improve practice to prevent future harm, are impaired.

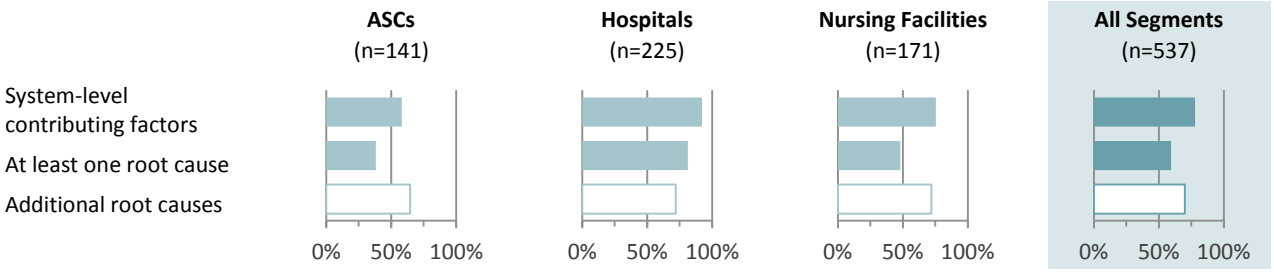
Completeness

Report provides essential information and clearly indicates what happened.



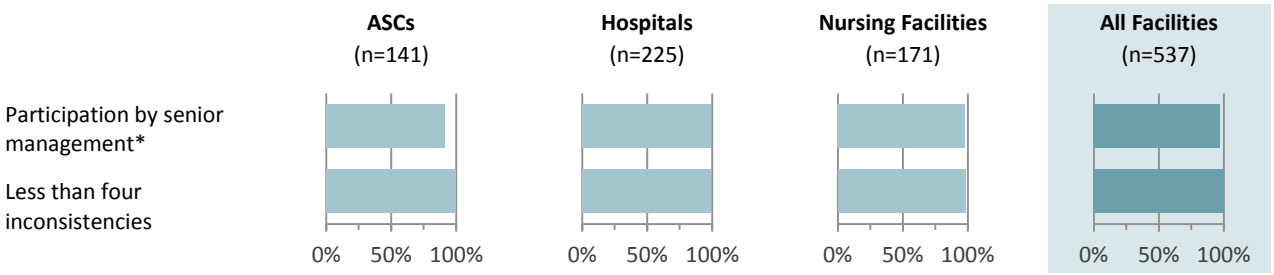
Thoroughness

Report represents an analysis that considered system-level contributing factors and identified root cause(s).



Credibility

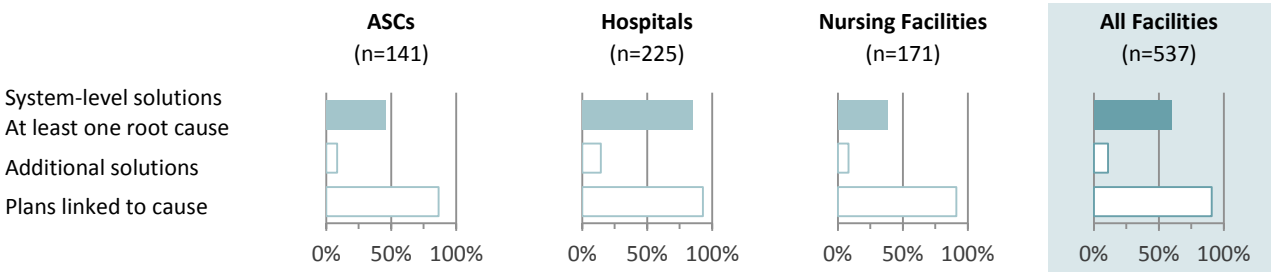
Report contains evidence that the investigation included leadership participation and was internally consistent.



* *Only required of serious harm reports (harm categories F, G, H and I) but displayed within the online reporting tool for all submitted reports*

Action Plans

Report includes system-level plans that address identified causes and are likely to decrease the risk of future occurrence.



Timeliness

After an adverse event, an immediate response is needed to collect full and reliable information on the circumstances surrounding the event, reduce delays, and aid the development of action plans that prevent future events. In 2013, less than half of all reports (46%) were submitted within the 30-45 day requirement (see Table 11). Many facilities can improve timeliness by reducing the amount of time between review completion and report submission.

Timeliness is the amount of time that passes between the date an event was discovered and the date a report is submitted to the Oregon Patient Safety Commission.

The State of Oregon requires that healthcare organizations submit a completed adverse event report within 30-45 calendar days of discovering a reportable serious adverse event (Oregon Administrative Rules, 325-010-0025(3) (2006)).

Table 11. Timeliness of Reports by Segment, 2013

Segment:	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
State requirement timeframe:	45 days	45 days	30 days	45 days	
Number of non-exempt reports*	130	212	169	100	611
Number of reports that were timely	76	89	91	27	283
Percent of reports that were timely	58%	42%	54%	27%	46%

** Events that are discovered on chart review or that do not meet the definition of adverse event are excluded from timeliness calculations. Reports may also be excluded at the discretion of the Patient Safety Consultant.*

The Commission collects four pieces of time-related data for adverse events: date event occurred, date event was discovered, date review team completed their investigation and analysis, and date report was submitted. These data points provide information about patient safety processes and highlight three key reporting timeline phases:

1. Event to discovery
2. Discovery to review completion
3. Review completion to report submission

Of reports that were not timely, the median time between event *discovery* and *report submission* was 101 days, more than twice the state requirement. To better understand where delays occur, we looked at each of the phases in the reporting process (see Table 12). The phase that required the most time was *review completion* to *report submission*. Organizations that are not meeting the State's timeliness requirement can improve by submitting reports as soon as the event review is complete.

Table 12. Median Days in Key Reporting Timeline Phases, 2013

Median days between… (range)*	ASC (n=126)	Hospital (n=212)	Nursing Facility (n=164)	Pharmacy (n=66)	All Facilities (n=568)
Event to discovery	0 (0-233)	1 (0-305)	0 (0-11)	5 (0-114)	0 (0-305)
Discovery to review completion	3 (0-182)	22 (0-321)	3 (0-152)	51 (0-190)	11 (0-321)
Review completion to report submission	22 (0-356)	28 (0-293)	28 (0-269)	32 (0-306)	27 (0-356)

** Events that are discovered on chart review, that do not meet the definition of adverse event, or do not contain all necessary pieces of timeliness data are excluded from timeliness calculations. Reports may be also be excluded at the discretion of the Patient Safety Consultant.*

Written Notification

The Oregon Patient Safety Commission strongly believes that all patients have a right to know about the serious adverse events that affect their lives (read the Commission's Position Statement on Written Notification). Adverse event disclosure is an appropriate practice for all physicians and healthcare organizations that provide care. The act of disclosing an adverse event can communicate to patients that the physician and larger healthcare organization are accountable for the care they provide and are strongly invested in quality care and maintaining the patient's trust.

In conjunction with State of Oregon requirements, the Commission recommends that disclosure be made in the form of oral disclosure followed by written notification by physicians and healthcare organizations faced with an adverse event. Oregon Administrative Rules require that Patient Safety Reporting Program participants provide written notification of reportable serious adverse events to the patient or patient's personal representative (OAR 325-010-0045). Participants are required to provide written notification for all serious adverse events (see definition on page 8). Additionally, the Oregon Patient Safety Commission encourages facilities to strongly consider providing written notification for harm category E events—events that may have contributed to or resulted in temporary harm to the patient but did not require a significant intervention. In 2013, written notification was provided in 36% of the serious events for which it was required (see Table 13).

Table 13. Provision of Written Notification for Serious Adverse Events by Segment, 2013

	ASC	Hospital*	Nursing Facility	Pharmacy**	All Segments
Number of serious event reports where written notification was performed	13	53	8		74
Number of serious event reports	92	141	48		207
Percent of serious event reports where written notification was performed	14%	38%	17%		36%

** For hospitals, the definition of serious adverse event in Oregon Administrative Rules includes six events types that are considered inherently serious regardless of level of harm (see Appendix V for a complete list).*
*** Pharmacy reports were not reviewed for written notification in 2013 because the online reporting tool was still in development. In addition, the harm categories for pharmacy events reported in 2013 indicate that pharmacies have few events that rise to the level of serious harm and require written notification.*

Facilities also provided written notification in 21% of the cases where it was *not* required. This means that patients and families received a clarifying message in writing.[4] Providing patients and families with enough information after an adverse event is essential for both patients and providers to heal and move forward. Patients and families need to understand what happened, what may have caused the event, and how the healthcare facility or provider is working to prevent that same event from happening to another patient, regardless of the severity of harm. In cases where written notification was required but not provided, healthcare facilities provided oral notification at least 63% of time (see Appendix III, Table 22). Oral notification was likely provided in more cases than those indicated in our system; at this time, participants are only able to choose one explanation for why they did not provide written notification.

[4] While the Commission does not collect data on whether oral disclosure was done, we believe that oral disclosure is occurring before written notification.

Conclusion

To provide the safest care possible, Oregon healthcare organizations must fully embrace the importance of building a strong culture of patient safety. Along with leadership support to make safety a priority, a safety culture must include identifying adverse events, properly investigating those events, and implementing the lessons learned to prevent recurrence. This report reflects the many Oregon healthcare organizations that are strengthening their culture of safety and contributing to a database of shared learning. As evidenced by the growing participation in the Patient Safety Reporting Program, the Oregon healthcare community is acknowledging that there is value in working together to share important patient safety lessons so that the strong safety culture we all want for our patients can be achieved. To support this effort, the Commission will continue to use Patient Safety Reporting Program data to prioritize and inform the development of patient safety resources to support Oregon's healthcare community with patient safety improvement and prevention.

Appendix I. Reporting Patterns

Number of Reporting Facilities and Number of Participating Facilities, 2009-2013

Figure 14. Ambulatory Surgery Centers

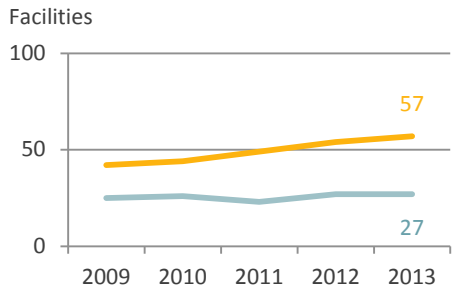


Figure 15. Nursing Facilities

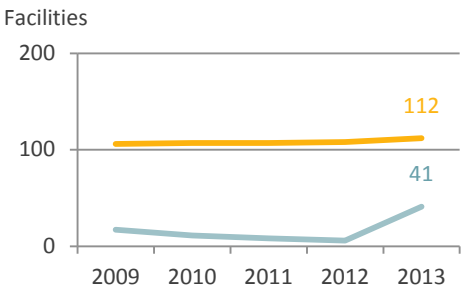


Figure 16. Hospitals

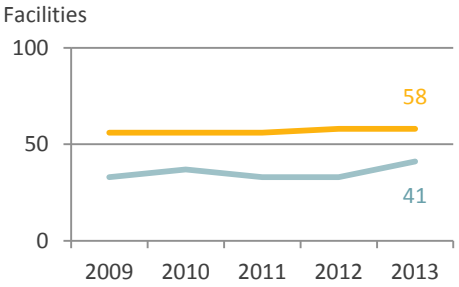
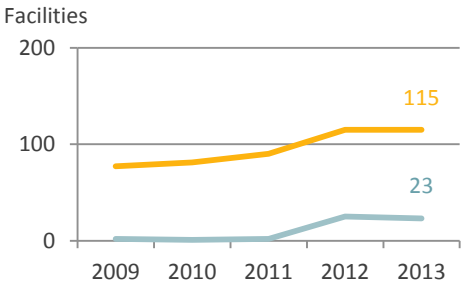


Figure 17. Pharmacies



Appendix II. NCC MERP Harm Categories and Algorithm

Harm Categories

Adverse event ("event") is defined as an event resulting in unintended harm or creating the potential for harm that is related to any aspect of a patient's care (by an act of commission or omission) rather than to the underlying disease or condition of the patient; adverse events may or may not be preventable.

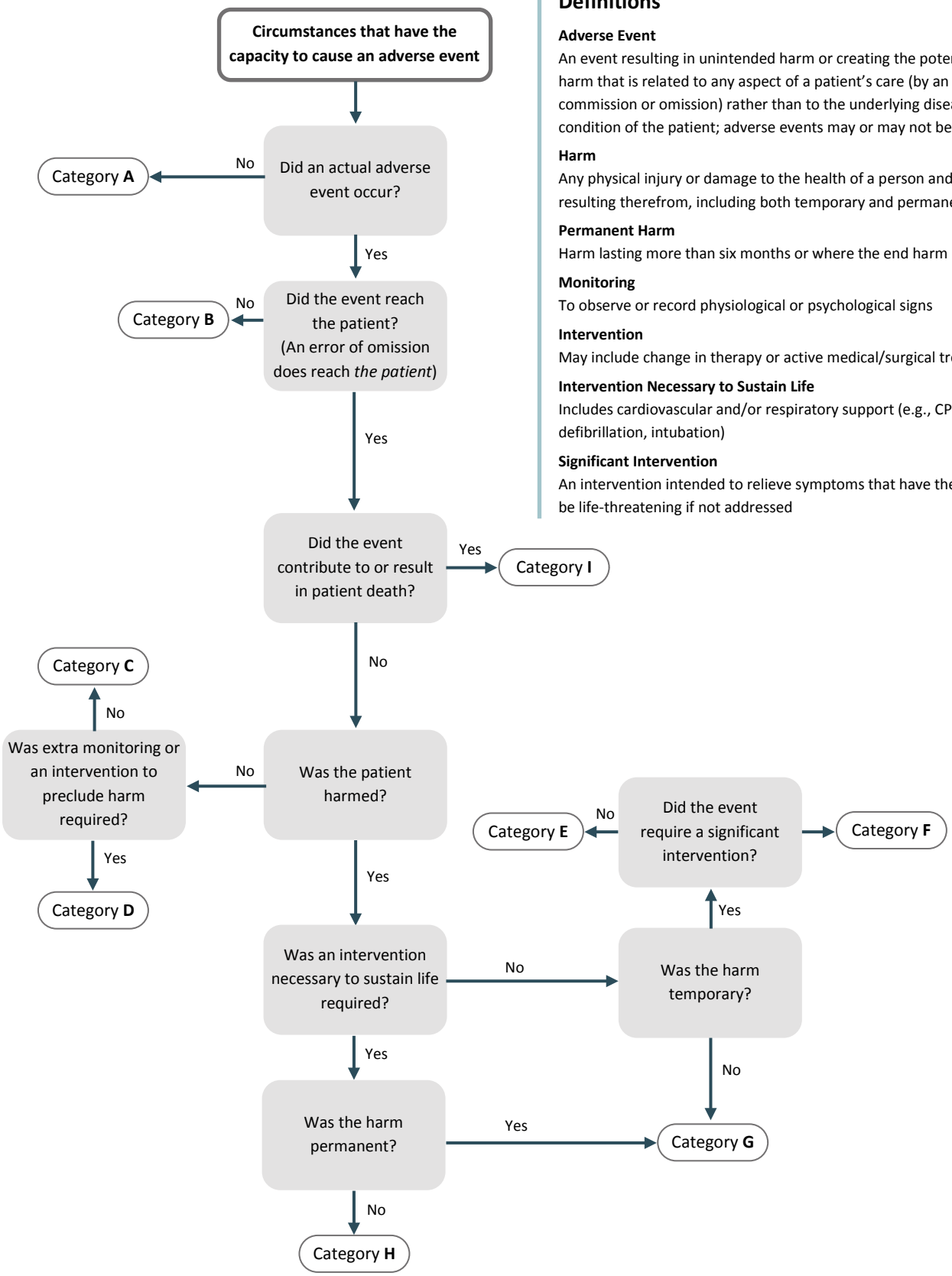
Category A	Circumstances that have the capacity to cause an adverse event	**Unsafe condition or near miss**
Category B	An event occurred that did not reach the patient (an "error of omission" does reach the patient)	
Category C	An event occurred that reached the patient but did not cause patient harm *Harm is defined as "any physical injury or damage to the health of a person requiring additional medical care, including both temporary and permanent injury"*	**Adverse event, no harm**
Category D	An event occurred that reached the patient and required monitoring to confirm that it resulted in no harm to the patient and/or required intervention to preclude harm *Monitoring is defined as "to observe or record physiological or psychological signs"* *Intervention is defined as including "change in therapy or active medical/surgical treatment"*	
Category E	An event occurred that may have contributed to or resulted in temporary harm to the patient but did not require a significant intervention *Significant intervention is defined as "an intervention intended to relieve symptoms that have the potential to be life-threatening if not addressed"*	**Adverse event, less serious harm**
Category F	An event occurred that may have contributed to or resulted in temporary harm to the patient and required a significant intervention *Significant intervention is defined as "an intervention intended to relieve symptoms that have the potential to be life-threatening if not addressed"*	**Adverse event, serious harm or death**
Category G	An event occurred that may have contributed to or resulted in permanent patient harm *Permanent harm is defined as "harm lasting more than 6 months, or where end harm is not known ('watchful waiting')"*	
Category H	An event occurred that required intervention necessary to sustain life *Intervention necessary to sustain life is defined as including "cardiovascular and/or respiratory support (e.g., CPR, defibrillation, intubation)"*	
Category I	An event occurred that may have contributed to or resulted in patient's death	

Adapted from "NCC MERP Index for Categorizing Medication Errors." 2001 National Coordinating Council for Medication Error Reporting and Prevention.

What Must be Reported

Participants in Oregon's Patient Safety Reporting Program are required to report any adverse events that result in serious harm or death, which includes harm categories F through I (blue shading). In addition, ambulatory surgery centers and hospitals are also required to report certain events regardless of patient harm. Participants are encouraged to report unsafe conditions or near misses, no harm events, and less serious harm events (yellow shading).

Harm Algorithm



Definitions

Adverse Event
An event resulting in unintended harm or creating the potential for harm that is related to any aspect of a patient's care (by an act of commission or omission) rather than to the underlying disease or condition of the patient; adverse events may or may not be preventable

Harm
Any physical injury or damage to the health of a person and/or pain resulting therefrom, including both temporary and permanent injury

Permanent Harm
Harm lasting more than six months or where the end harm is not known

Monitoring
To observe or record physiological or psychological signs

Intervention
May include change in therapy or active medical/surgical treatment

Intervention Necessary to Sustain Life
Includes cardiovascular and/or respiratory support (e.g., CPR, defibrillation, intubation)

Significant Intervention
An intervention intended to relieve symptoms that have the potential to be life-threatening if not addressed

Appendix III. Detailed Data Tables by Segment

Harm Category I Reports

Table 14. Reports Indicating Death (Harm Category I) by Year

	2009	2010	2011	2012	2013
Number of harm category I reports	34	35	22	34	39
Percent of total reports	10%	9%	8%	7%	6%
Ambulatory Surgery Center					
Number of harm category I reports	1	1	0	2	0
Percent of total reports	1%	1%	0%	1%	0%
Hospital					
Number of harm category I reports	29	33	22	31	38
Percent of total reports	23%	26%	15%	19%	17%
Nursing Facility					
Number of harm category I reports	4	1	0	1	1
Percent of total reports	11%	5%	0%	11%	1%
Pharmacy					
Number of harm category I reports	0	0	0	0	0
Percent of total reports	0%	0%	0%	0%	0%

Event Type

Table 15. Event Type by Segment, 2013

Event Type	ASCs (n=145)		Hospitals (n=225)		Nursing Facilities (n=171)		Pharmacies (n=102)		Total (n=643)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Medication or other substance	16	11%	28	12%	18	11%	102	100%	164	26%
Fall	4	3%	48	21%	103	60%			155	24%
Surgical or other invasive procedure	84	58%	29	13%					113	18%
Other event	9	6%	17	8%	29	17%			55	9%
Care delay	1	1%	21	9%	3	2%			25	4%
Healthcare-associated infection (HAI)	19	13%	6	3%	0	0%			25	4%
Pressure ulcer			17	8%	3	2%			20	3%
Retained object	0	0%	14	6%					14	2%
Device or supply	3	2%	6	3%	4	2%			13	2%
Deep vein thrombosis	10	7%							10	2%
Elopement			4	2%	6	4%			10	2%
Suicide or attempted suicide			9	4%	0	0%			7	1%
Perinatal			7	3%					7	1%
Anesthesia	3	2%	2	1%					5	1%
Aspiration	0	0%	3	1%	1	1%			4	1%
Burn	0	0%	3	1%	1	1%			4	1%

Event Type	ASCs (n=145)		Hospitals (n=225)		Nursing Facilities (n=171)		Pharmacies (n=102)		Total (n=643)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Failure to follow up test results			4	2%					4	1%
Irretrievable loss of irreplaceable specimen	0	0%	4	2%					4	1%
Blood or blood product	0	0%	3	1%					3	0.5%
Resident transfer related					3	2%			3	0.5%
Maternal			2	1%					2	0.3%
Air embolism	0	0%	1	0.4%					1	0.2%
Choking					1	1%			1	0.2%
Contaminated drugs, devices or biologics	0	0%	1	0.4%					0	0.2%
Restraint or bedrail related	0	0%	0	0%	1	1%			1	0.2%
Total Events	**149**		**229**		**273**		**102**		**653**	

Event Type by Harm by Segment

Table 16. Ambulatory Surgery Centers, 2013

	Harm Category								
	Less Serious or No Harm					Serious Harm or Death			
Event Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Anesthesia					1			2	
Care delay			1						
Deep vein thrombosis with or without pulmonary embolism					1	9			
Device or medical/surgical supply					2	1			
Fall			2	2					
Healthcare-associated infection (HAI)	1		1	3	1	13			
Medication or other substance			8	5	1	1		1	
Other event		2	1			6			
Surgical or other invasive procedure	3	1	3	5	9	59	1	3	
TOTAL REPORTS IN HARM CATEGORY	**4**	**3**	**16**	**15**	**15**	**86**	**1**	**5**	**0**

Table 17. Hospitals, 2013

	Harm Category								
	Less Serious or No Harm					Serious Harm or Death			
Event Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Air embolism							1		
Anesthesia								1	1
Aspiration									3
Blood or blood product				2	1				
Burn						2	1		
Care delay			2				1	3	15
Contaminated drugs, devices or biologics				1					
Device or medical/surgical supply	1			2	1	1		1	
Elopement			1	1		1			1
Failure to follow up test results			1				1		2
Fall			13		11	17	5		2
Healthcare-associated infection (HAI)						4	1		1
Irretrievable loss of irreplaceable specimen			2	1	1				
Maternal	1								1
Medication or other substance			5	5	1	12		4	1
Other event	1		6			5	3		2
Perinatal								2	5
Pressure ulcer							17		
Unintentionally retained foreign object	1		4	1	2	5	1		
Suicide or attempted suicide	1			2		1			5
Surgical or other invasive procedure		1	5	1	7	11	2	1	1
TOTAL REPORTS IN HARM CATEGORY	**5**	**1**	**39**	**16**	**24**	**59**	**32**	**11**	**38**

Table 18. Nursing Facilities, 2013

	Harm Category								
	Less Serious or No Harm					Serious Harm or Death			
Event Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Aspiration						1			
Burn					1				
Care delay		1	1			1			
Choking								1	
Device or medical supply				1	2	1			
Elopement			3	3					
Fall			17	34	19	30	2		1
Medication or other substance	1		6	5	2	3		1	
Other event	2	1		1	17	5	1	2	
Pressure ulcer					1	2			
Resident transfer related		1			2				
Restraint or bedrail related					1				
TOTAL REPORTS IN HARM CATEGORY	**5**	**3**	**26**	**44**	**44**	**41**	**3**	**4**	**1**

Table 19. Pharmacies, 2013

	Harm Category								
	Less Serious or No Harm					Serious Harm or Death			
Event Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Medication or other substance	2	5	67	11	11	1			
TOTAL REPORTS IN HARM CATEGORY	**2**	**5**	**67**	**11**	**11**	**1**	**0**	**0**	**0**

Medication Event Types

Table 20. Medication Event Type by Segment, 2013

Medication Event Type	ASC (n=16)		Hospital (n=28)		Nursing Facility (n=18)		Pharmacy (n=102)		All Facilities (n=164)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Incorrect strength	4	25%	7	25%	1	6%	42	41%	54	33%
Incorrect medication or substance	7	44%	4	14%	4	22%	22	22%	36	22%
Incorrect dose	3	19%	10	36%	8	44%	4	4%	25	15%
Incorrect/ incomplete labeling	0	0%	1	4%	1	6%	10	10%	12	7%
Incorrect dosage form	0	0%	0	0%	2	11%	8	8%	10	6%
Contraindicated	1	6%	2	7%	1	6%	2	2%	6	4%
Other	1	6%	0	0%	1	6%	3	3%	5	3%
Oversedation	1	6%	3	11%	0	0%	0	0%	4	2%
Incorrect directions							3	3%	3	2%
Adverse reaction	0	0%	1	4%	1	6%	0	0%	2	1%
Brand substitution							1	1%	1	1%
Discontinued	0	0%	1	4%	0	0%			1	1%
Generic substitution							1	1%	1	1%
Incorrect patient							1	1%	1	1%
Incorrect rate	0	0%	1	4%	0	0%	0	0%	1	1%
Incorrect route	0	0%	1	4%	0	0%	0	0%	1	1%
Medication taken incorrectly							1	1%	1	1%

Surgical Event Types

Table 21. Surgical Event Types by Segment, 2013

Surgical or Other Invasive Procedure Event Type	ASC (n=84)		Hospital (n=29)		All Facilities (n=113)	
	Number	Percent	Number	Percent	Number	Percent
Unplanned admission to hospital within 48 hours of discharge	34	40%			34	30%
Unplanned emergency department visit within 48 hours of discharge	17	20%			17	15%
Other surgical or other invasive procedure event	14	17%	1	3%	15	13%
Incorrect site or side	1	1%	12	41%	13	12%
Postoperative bleeding requiring return to operating room	13	15%			13	12%
Incorrect procedure (excluding procedures resulting from misidentification of the patient)	2	2%	7	24%	9	8%
Incorrect implant (e.g., incorrect size, incorrect side, expired)	0	0%	6	21%	6	5%
Laceration, perforation, puncture, or nick	3	4%	3	10%	6	5%
Unanticipated blood transfusion	3	4%			3	3%
Dehiscence, flap or wound failure or disruption, or graft failure	2	2%	0	0%	2	2%
Incorrect patient	0	0%	2	7%	2	2%
Iatrogenic pneumothorax	2	1%	1	3%	2	2%
Postoperative nausea resulting in hospital admission	1	1%			1	1%
Unintended blockage, obstruction, or ligation	1	1%	0	0%	1	1%

Written Notification

Table 22. Reasons Written Notification Was Not Provided When Required by Segment, 2013

	ASC (n=79)	Hospital (n=88)	Nursing Facility (n=40)	Pharmacy*	All Segments (n=207)
Oral disclosure provided	38	73	21		132
Not required by facility organizational policy	27	6	10		43
No organizational policy	10		5		15
Other reason	4	7	2		13
Not required by Commission definitions		2			2
Unknown reason			2		2

** Pharmacy reports were not reviewed for written notification in 2013 because the online reporting tool was still in development*

Appendix IV. Event Types by Segment

• indicates event type is reportable

Event type	ASC	Hospital	Nursing Facility	Pharmacy
Air embolism	•	•		
Anesthesia	•	•		
Aspiration	•	•	•	
Blood or blood product (including hemolytic reactions)	•	•		
Burn (unrelated to the use or misuse of a device or medical/surgical supply)	•	•	•	
Care delay (including delay in treatment, diagnosis)	•	•	•	
Choking			•	
Contractures			•	
Dehydration			•	
Contaminated drugs, devices or biologics	•	•		
Contaminated, wrong or no gas given to a patient	•	•		
Deep vein thrombosis with or without pulmonary embolism	•			
Device or medical/surgical supply (including use error)	•	•	•	
Diabetic coma			•	
Discharge or release of a patient of any age, who is unable to make decisions, to an unauthorized person		•	•	
Electric shock	•	•		
Elopement		•	•	
Failure to follow up lab, pathology, or radiology test results		•		
Fall	•	•	•	
Fecal impaction			•	
Healthcare-associated infection (HAI)	•	•	•	
Intravascular embolisms related to IV therapy			•	
Irretrievable loss of irreplaceable biological specimen	•	•		
Maternal		•		
Medication or other substance	•	•	•	•
Perinatal		•		
Pressure ulcer		•	•	
Radiologic		•		
Resident transfer related			•	
Restraint or bedrail related	•	•	•	
Strangulation			•	
Suicide or attempted suicide		•	•	
Surgical or other invasive procedure	•	•		
Unintended retained foreign object	•	•		
Other event (please describe)	•	•	•	

Appendix V. List of Event Types That Are Inherently Serious Regardless of Harm Category

Some events are considered inherently serious, regardless of their harm category. For hospitals and ASCs, those events are:

- Contaminated, wrong or not gas given to patient
- Discharge or release of a patient of any age, who is unable to make decisions, to an unauthorized person (hospital-only)
- Surgical: Incorrect patient
- Surgical: Incorrect procedure
- Surgical: Incorrect site or side
- Unintended retained foreign object

In addition, ASCs have:

- Deep vein thrombosis with or without pulmonary embolism
- Healthcare-associated infection: surgical site infection within 30 days of discharge
- Surgical: unplanned hospital admission within 48 hours of discharge
- Surgical: unplanned emergency department visit within 48 hours of discharge
- Surgical: postoperative bleeding requiring return to operating room
- Surgical: postoperative nausea requiring hospital admission
- Surgical: unanticipated blood transfusion