2014 Annual Summary
Oregon Patient Safety Reporting Program

May 2015

OREGON
PATIENT SAFETY
COMMISSION

Report. Learn. Improve Patient Safety.

Table of Contents

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 to the Patient Safety Reporting Program. Organizations that contribute 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 and 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 (ASCs), hospitals, nursing facilities, and community 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 2014, the total number of events submitted to the Oregon Patient Safety Commission by all four healthcare segments was 624. The most frequently reported adverse events were *Fall, Medication or other substance*, *Surgical or other invasive procedure*, and *Care delay*. As expected from the program's emphasis on serious adverse events, almost half of the reports submitted to the Commission in 2014 (45%) 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 healthcare system and by encouraging a culture of patient safety.

About This Report

The purpose of this report is to communicate our analysis of Patient Safety Reporting Program data in a timely fashion each year; however, the Commission's larger goal is to use this data to help healthcare facilities identify and implement the best practices needed to prevent patient harm. 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.** Peers work together 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.

2014 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 healthcare system and encouraging a culture of patient safety. The Commission has three primary programs by which this goal is achieved:

Program	2014 Activities
Patient Safety Reporting Program	• Hosted annual patient safety breakfast • Released the online reporting system for pharmacies in January 2014 • Began providing quarterly training on conducting effective investigations
Early Discussion and Resolution	• Adopted administrative rules to guide Early Discussion and Resolution • Launched Early Discussion and Resolution in July 2014
Improvement Initiatives	• Offered ongoing infection prevention education and trainings for ambulatory surgery centers and nursing facilities • Completed Northwest Dialysis BSI Prevention Collaborative • Completed Oregon Regional MDRO Prevention Collaborative • Completed the Oregon Antimicrobial Stewardship Collaborative • Launched the Oregon Stop Urinary Tract Infection Initiatives

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.

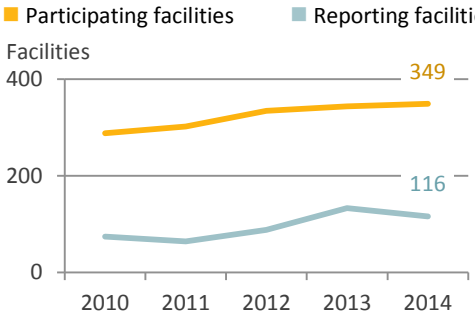
A **segment** is a distinct type of facility that is eligible to participate in the reporting program according to ORS 442.837(2) (i.e., ambulatory surgery centers, hospitals, nursing facilities, and pharmacies).

Table 1. Facility Participation in Reporting Program by Segment, 2014

	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	57	59	112	120	348
Total eligible facilities	91	59	138	726	1,014
Percent of participating facilities	63%	100%	81%	17%	34%

Not all facilities that participate in the reporting program submit reports each year (see Figure 1 and Appendix I). Sixty-one facilities have consistently submitted reports every year since they began reporting. Of these, 15 have submitted reports every year since the program started for their segment. In 2014, 11 facilities reported for the first time. More than half of participating facilities have submitted at least one report since the beginning of the program. The Commission is working closely with each healthcare segment to improve reporting by 10% in 2015.

Figure 1. Participating and Reporting Facilities, 2010-2014



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.

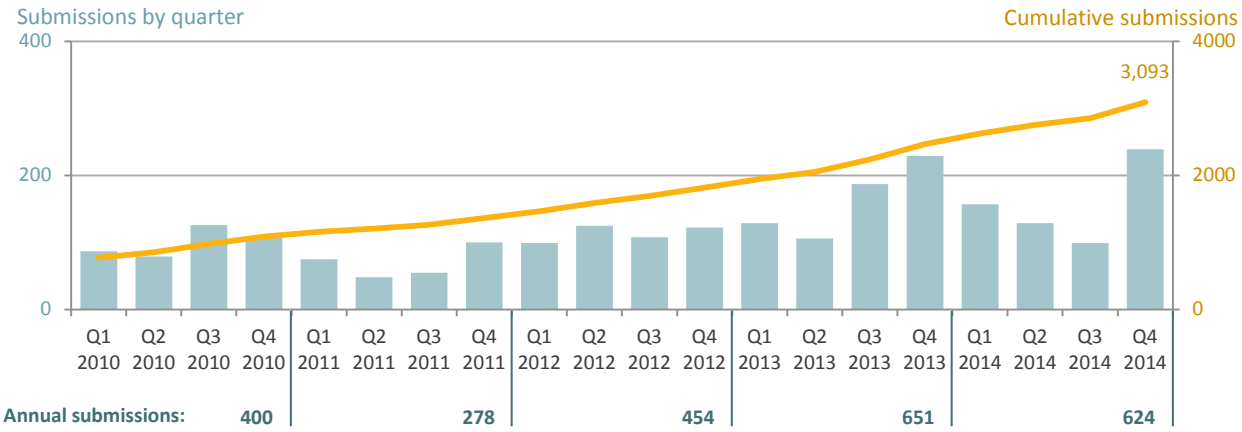
In 2014, the percent of nursing facilities and hospitals that submitted reports increased or stayed the same, while the percent of ASCs and pharmacies that submitted reports decreased (see Table 2). The Commission continues to invest in strategies to streamline the process of reporting as much as possible. With more reporting, the Commission can continue to provide access to best practices and shared learning to improve patient safety. For more information about the number of reporting facilities, see Recognition Targets on page 15.

Table 2. Number of Reporting Facilities by Segment, 2014

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Number of reporting facilities	22	42	45	7	116
Number of participating facilities	57	59	112	120	348
Percent of participating facilities that reported	39%	71%	40%	6%	33%

In 2014, the Patient Safety Reporting Program collected information on 624 adverse events across all segments—the second 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. Both hospitals and nursing facilities submitted more reports in 2014 than in any other year since the reporting program began.

Figure 2. Submission by Quarter and Cumulatively, 2010-2014



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 improving their ability to identify, investigate, and report adverse events.

Submitted Reports by Healthcare Segment

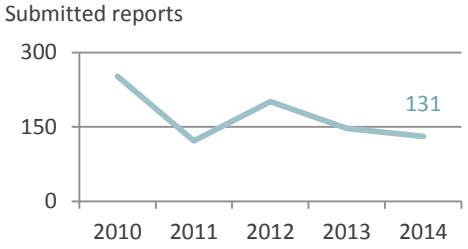
The following information summarizes the number of reports submitted by each healthcare segment over the past five years.

Submitted Reports by Year, 2010-2014

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). For the second year in a row, a larger percentage of ASC reports were of acceptable quality, which increased the value of what can be learned from the reporting program. Although ASCs submitted fewer reports in 2014 than 2013, over 1,100 reports have been submitted since the ASC reporting program began.

Figure 3. Ambulatory Surgery Center Reports

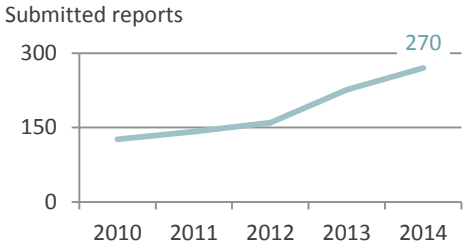


Eight of the 131 reports did not meet the definition of "adverse event."

Hospitals

Hospitals have incrementally increased the number of reports submitted each year since the reporting program began in 2006 (see Figure 4). Hospitals submitted 226 reports in 2013 and 270 in 2014, an increase of 20%. Since the launch of the online reporting form in 2012, more facilities have consistently reported. Over 1,300 reports have been submitted since the hospital reporting program began.

Figure 4. Hospital Reports

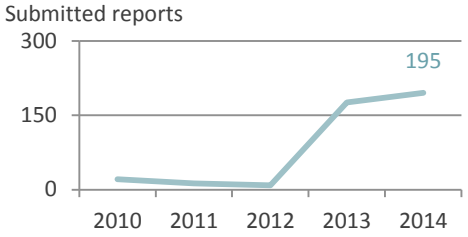


Three of the 270 reports did not meet the definition of "adverse event."

Nursing Facilities

For the second year in a row, nursing facilities increased reporting (see Figure 5). Nursing facilities submitted 176 reports in 2013 and 195 in 2014, an increase of 11%. This increase reflects continued hard work and collaboration by nursing facilities to incorporate adverse event reporting into quality assurance and performance improvement programs. Over 400 reports have been submitted since the nursing facility reporting program began.

Figure 5. Nursing Facility Reports

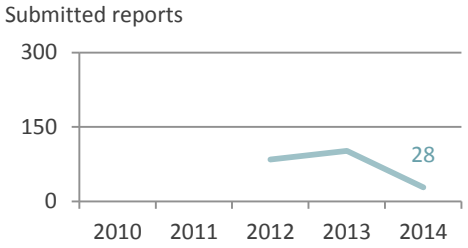


Nine of the 195 reports did not meet the definition of "adverse event."

Pharmacies

Although the Commission has been accepting reports from pharmacies since 2009, community pharmacy ("pharmacy") reporting did not begin to mature until 2012 (see Figure 6). Pharmacies submitted 102 reports in 2013 and 28 in 2014. This decrease may be due to the transition from paper forms to the new online system. Over 200 reports have been submitted since the pharmacy reporting program began.

Figure 6. Pharmacy Reports

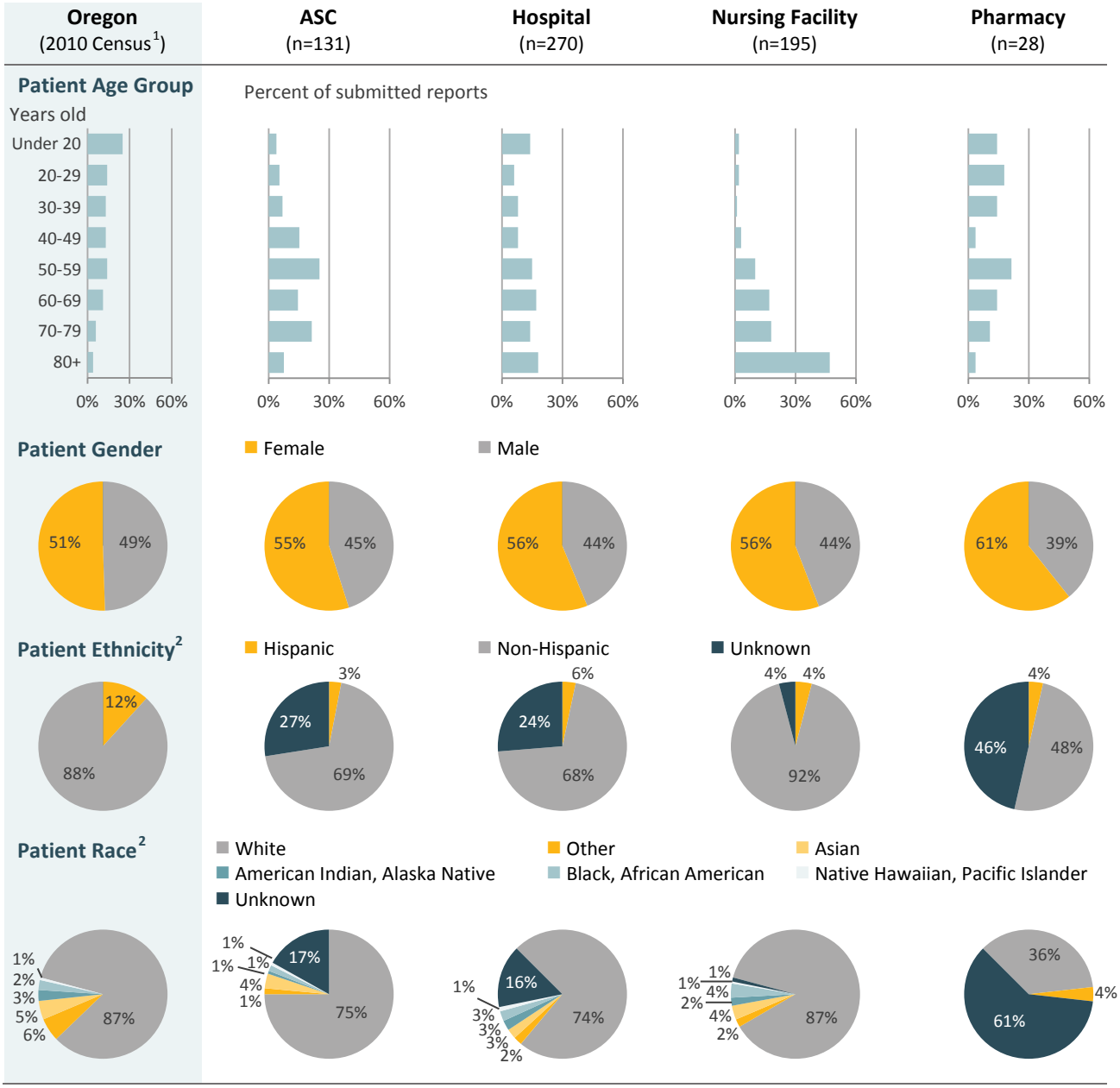


To ensure consistency of data across reporting segments over time, pharmacy reports submitted before 2012 have been excluded.

Patient Characteristics

Collecting patient demographics enables the Commission to monitor adverse event reporting data for unexpected differences between population groups. Patient gender, race, and ethnicity reported in 2014 generally reflected Oregon's characteristics overall (see Figure 7). 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 2014 ranged in age from newborn to 98. 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, 2014



[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.

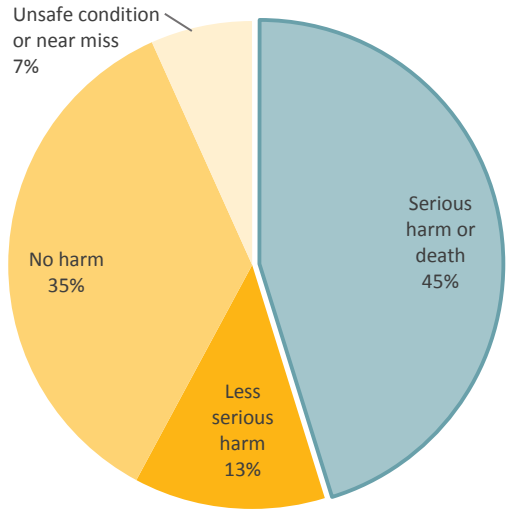
Harm

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, there are events that are considered to be inherently serious regardless of harm category. See Appendix III for a full list.

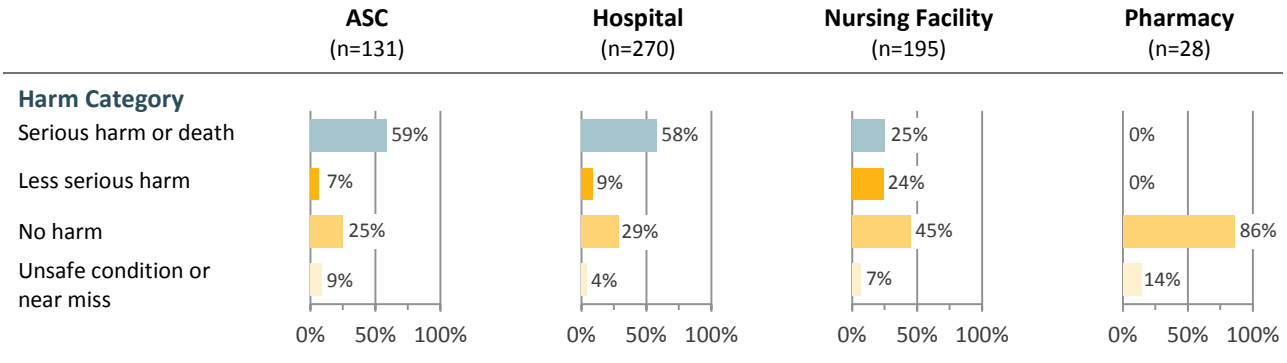
Figure 8. Harm of Events Reported by All Segments, 2014



As expected from the program's emphasis on serious adverse events, almost half of the reports submitted to the Commission in 2014 (45%) resulted in serious harm or death (harm categories F, G, H or I) (see Figure 8). 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).

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.

Figure 9. Harm Categories by Segment, 2014



Note: 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 41 harm category I (patient death) events in 2014, which is proportionately similar to last year (see Table 3; these figures are broken out by segment in Appendix IV, Table 16).

Table 3. Reports Indicating Death (Harm Category I) by Year, 2010-2014

	2010	2011	2012	2013	2014
Number of harm category I reports	35	22	34	39	41
Percent of total reports	9%	8%	7%	6%	7%

Two-thirds 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 [Oregon Revised Statutes 442.837(2)]; however, according to administrative rule, healthcare organizations that agree to participate in the program must report all serious adverse events (Oregon Administrative Rules 325).

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 because 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 V for a full list by segment). In 2014, the top four event types for all segments combined were *Fall*, *Medication or other substance*, *Surgical or other invasive procedure*, and *Care delay*. Collectively, these four event types make up 65% of all events reported to the Commission (see Table 4). Appendix IV, Table 17 lists 2014 event types by segment.

Table 4. Top Four Event Types by Segment, 2014

Top Four Event Types	ASC (n=131) Number (%)	Hospital (n=270) Number (%)	Nursing Facility (n=195) Number (%)	Pharmacy (n=28) Number (%)	All Segments (n=624) Number (%)
Fall	5 (4%)	43 (16%)	108 (55%)		156 (25%)
Medication or other substance	12 (9%)	44 (16%)	27 (14%)	28 (100%)	111 (18%)
Surgical or other invasive procedure	69 (53%)	22 (8%)			91 (15%)
Care delay	2 (2%)	40 (15%)	8 (4%)		50 (8%)

Additional detail is available on *Falls* (page 11), *Medication or other substance* events (page 12), and *Surgical or other invasive procedure* events (page 13). Communication issues led to most of the *Care delays* across segments. In addition to communication issues, care delays in hospitals were commonly related to coordination among staff and providers, and escalation of care. Across segments, policy or procedure issues were also common in *Care delays* and frequently resulted from provider unfamiliarity with a policy or the absence of a policy.

Table 5. Top Four ASC Event Types, 2014

Top Four Event Types	Number	Percent
Surgical or other invasive procedure	69	53%
Healthcare-associated infection	16	12%
Deep vein thrombosis	14	11%
Medication or other substance	12	9%

ASCs primarily perform surgical procedures; as expected, *Surgical or other invasive procedure* events are the most reported event type for this segment (see Table 5).

Table 6. Top Four Hospital Event Types, 2014

Top Four Event Types	Number	Percent
Medication or other substance	44	16%
Fall	43	16%
Care delay	40	15%
Surgical or other invasive procedure	22	8%

The range of event types reported by hospitals in 2014 may be due to the diverse services provided in the hospital setting (see Table 6).

Table 7. Top Four Nursing Facility Event Types, 2014

Top Four Event Types	Number	Percent
Fall	108	55%
Medication or other substance	27	14%
Device or supply	19	10%
Other	11	6%

Falls continue to be the leading event type reported by nursing facilities (see Table 7). 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.*

Falls

In 2014, a total of 156 falls were reported by the three segments from which falls data is collected (ASCs, hospitals, and nursing facilities). Fifty percent of the reported falls resulted in a physical injury (e.g., fracture or skin tear). Ninety percent of the falls were unassisted and 72% were unobserved.

Every patient who enters a healthcare facility is at risk for a fall. Hospitals and nursing facilities are asked to report on fall risk assessment and patient risk factors. Sixteen of those 151 reports (11%) indicated that the patient was not assessed for fall risk or risk assessment completion was unknown. Of the 135 patients that were assessed for fall risk, 4% were found not to be at any level of risk but fell anyway. Of the 151 patients who fell, 91% had at least one known risk factor for falls at the time of their fall. The most frequently identified fall risk factors were mobility or gait disorder and cognitive impairment (see Table 8).

Table 8. Were any of the Following Risk Factors Present at the Time of the Fall?

Risk Factors for Fall	Hospital (n=34) Number (%)	Nursing Facility (n=104) Number (%)	Both Segments* (n=138) Number (%)
Mobility or gait impairment	24 (71%)	91 (88%)	115 (83%)
Cognitive impairment	20 (59%)	80 (77%)	100 (72%)
History of previous fall	13 (38%)	79 (76%)	92 (67%)
Sensory impairment (vision, hearing, balance, etc.)	14 (41%)	47 (45%)	61 (44%)
Other risk factor for falls	3 (9%)	2 (2%)	5 (4%)
Prosthesis or specialty/ prescription shoe	0 (0%)	1 (1%)	1 (1%)

* *These numbers may total more than 100% as reports may indicate contributing factors in multiple categories.*

Most falls occurred while the patient was performing a routine activity, like getting out of bed or using the toilet. Twenty-three percent of patients who fell in hospitals and nursing facilities were transferring to or from a bed, a chair, a wheelchair, or similar, without assistance (see Table 9). Seventeen percent were performing toileting-related activities.

Table 9. Top Three Patient Activities Performed or Attempted at the Time of the Fall by Segment, 2014

Top Three Pre-Fall Activities	Hospital (n=43) Number (%)	Nursing Facility (n=108) Number (%)	Both Segments* (n=151) Number (%)
Transferring to or from bed, chair, wheelchair, etc. without assistance	9 (21%)	26 (24%)	35 (23%)
Toileting-related activities	12 (28%)	14 (13%)	26 (17%)
Walking without assistance and without an assistive device or medical equipment	4 (9%)	17 (16%)	21 (14%)

* *ASCs were excluded from this table because their n of 5 was too small; ASC falls were associated with recovery from anesthesia and weakness.*

Medication or Other Substance Events

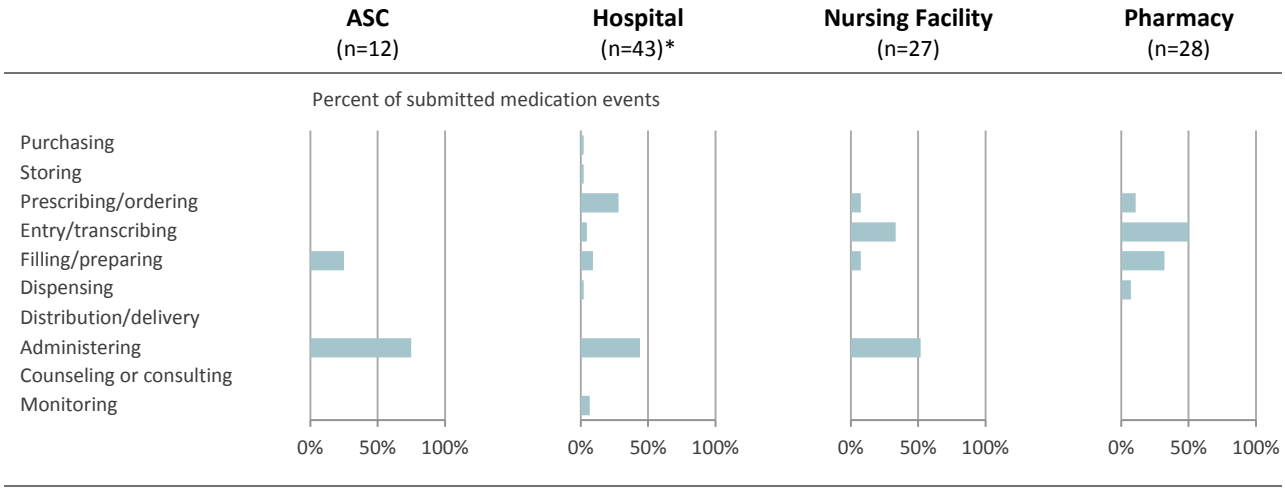
Medications are essential for delivering healthcare to patients and an integral part of patient care. Little variation exists in the types of medication events reported across the four segments. The top three medication event types for all segments combined were *Incorrect strength*, *Incorrect medication or substance*, and *Incorrect dose* (see Table 10). More detailed information about medication events reported in 2014 is available in Appendix VI, Table 27.

Table 10. Top Three Medication Event Types by Segment, 2014

Top Three Medication Event Types	ASC (n=12) Number (%)	Hospital (n=44) Number (%)	Nursing Facility (n=27) Number (%)	Pharmacy (n=28) Number (%)	All Segments (n=111) Number (%)
Incorrect medication or substance	4 (33%)	10 (23%)	9 (33%)	5 (18%)	28 (25%)
Incorrect dose	3 (25%)	10 (23%)	10 (37%)	1 (4%)	24 (22%)
Incorrect strength	0 (0%)	2 (5%)	4 (15%)	10 (36%)	16 (14%)

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 2014, reported *Medication or other substance* events across all segments originated in eight 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. 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?



** One report marked "unknown."*

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 2014. *Surgical or other invasive procedure* events represent over half of all ASC reports and less than ten percent of hospital reports. Because ASCs reported the largest percentage of surgical events, ASCs drove what types were most commonly reported—*Unplanned admission to hospital* and *Unplanned emergency department visit* (see Figure 11). By contrast, hospitals most frequently reported *Incorrect site or side* events (see Figure 12). More detailed data about *Surgical or other invasive procedure* events (including a list of *Other surgical or invasive procedure* events) can be found in Appendix VI, Table 28.

Figure 11. Top Four ASC Surgical Event Types, 2014

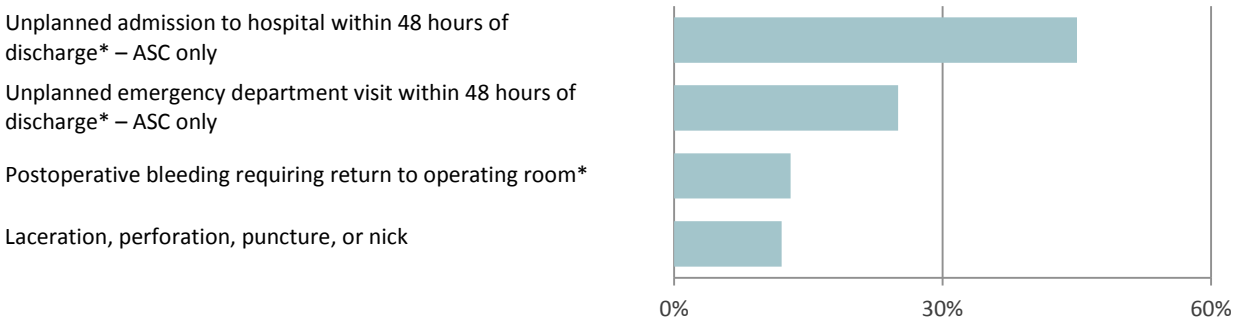
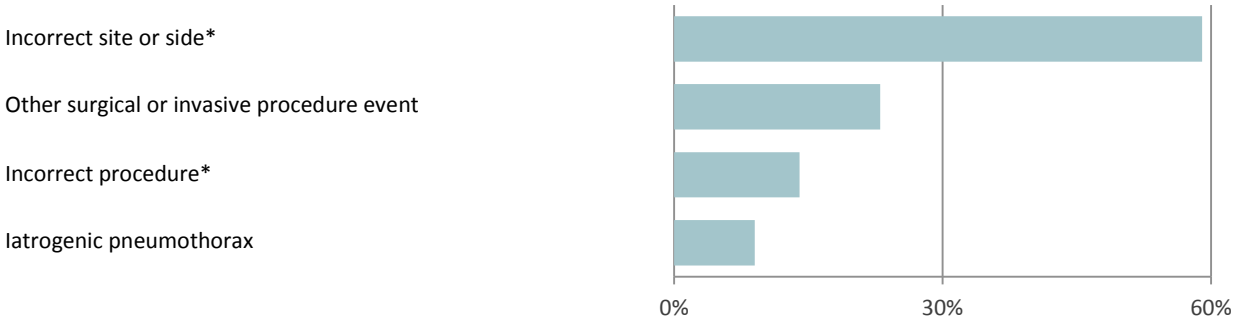


Figure 12. Top Four Hospital Surgical Event Types, 2014



** Reporting is required regardless of harm category.*

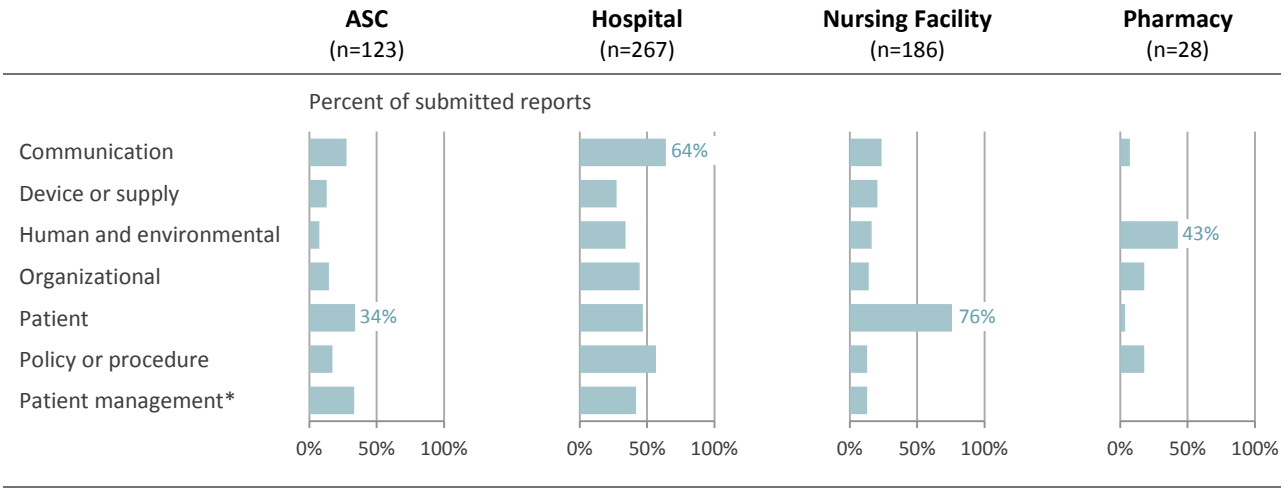
DVT/VTE Prevention Work Group

The Commission's Deep Vein Thrombosis/Venous Thromboemolism (DVT/VTE) Prevention Work Group published its findings in an August 2014 report, *Assessing VTE Risk in Ambulatory Surgery Centers*. In response to requests for resources to reduce the risk of DVT/VTE in ambulatory surgery centers, this short-term work group compared data and protocols collected from Oregon ambulatory surgery centers statewide and developed recommendations to help all Oregon ambulatory surgery centers prevent DVT/VTE.

Contributing Factors

In reporting an adverse event (or potential event), facilities retrospectively identify factors that contributed to the occurrence of the event. Contributing factors are generally external to the patient and frequently relate to the physical environment or to the care delivery system. The Patient Safety Reporting Program organizes contributing factors into eight categories and only analyzes contributing factor data from reports that meet the definition of adverse event. The most frequent contributing factor category in 2014 was *Patient* factors (51%), followed by *Communication* factors (42%), and *Policy or procedure* factors (33%) (for a breakout by segment, see Figure 13). The 604 reports submitted in 2014 identified 64 contributing factors across the eight categories. For details about the factors identified in each category by healthcare segment, see Appendix VII.

Figure 13. Contributing Factor Categories by Segment, 2014



Numbers may total more than 100% as reports may indicate contributing factors in multiple categories. Report submissions describing events that do not meet the definition of adverse event (see definition on page 4) were excluded from this data.

** Patient management is not available on pharmacy reports.*

In previous years, *Communication* has been the most commonly identified contributing factor category. In 2014, *Patient* factors were most frequently identified. *Patient* factors (such as physical or sensory impairments) are often identified early on in an adverse event investigation. Investigations that move past patient factors are more likely to identify system-level contributing factors (such as *Communication*, *Organizational* factors, and *Patient management*). Action plans addressing patient factors are often least likely to prevent future harm because they focus on a single patient rather than the larger system. Identifying system-level contributing factors enables facilities to effectively understand the root cause of the adverse event and make lasting changes to prevent future harm.

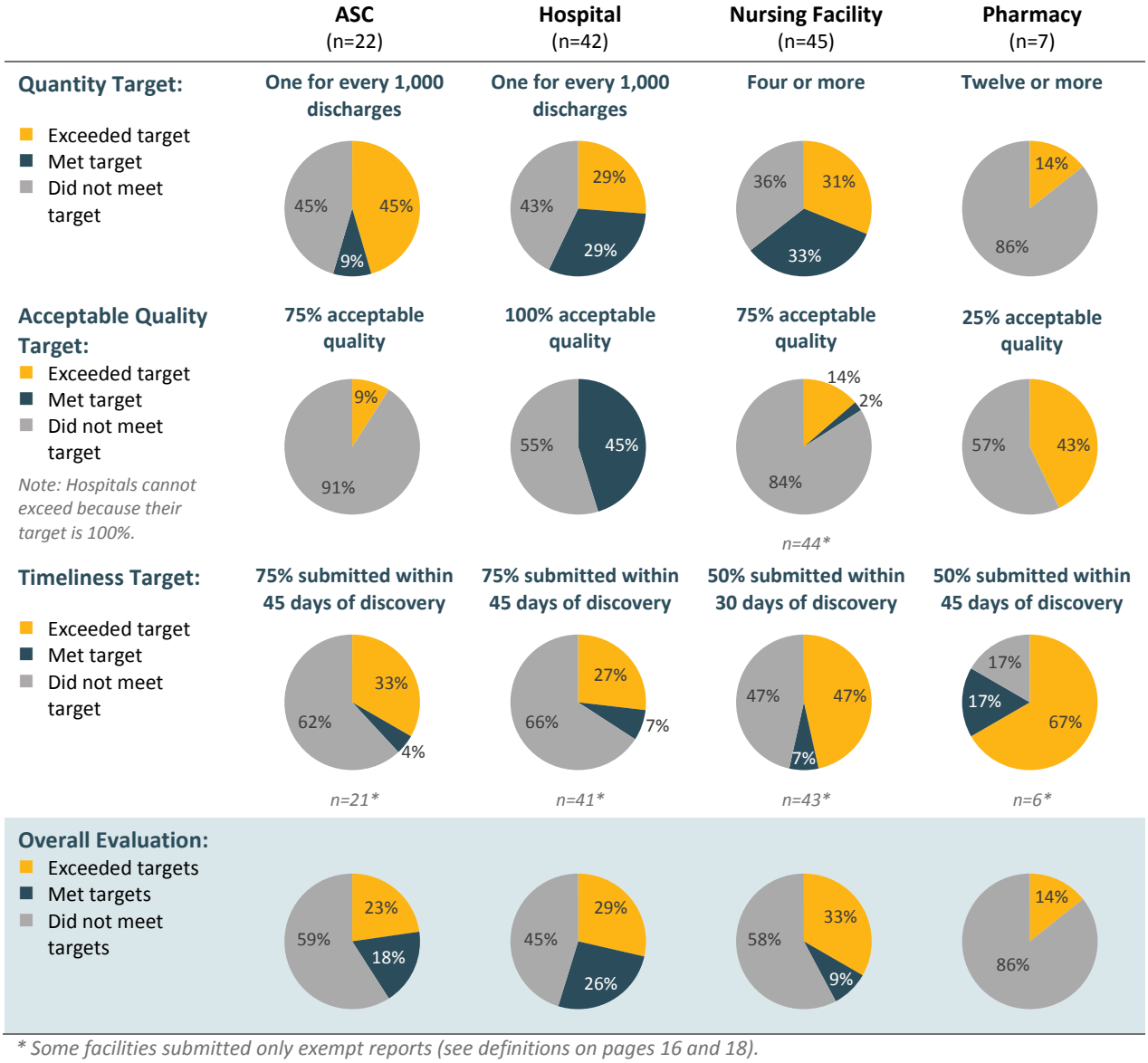
Recognition Targets

The Oregon Patient Safety Commission has established recognition targets to guide healthcare organizations participating in the Patient Safety Reporting Program. 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 three criteria: quantity, quality, and timeliness.

Reporting Facility Performance

The following graphics display how well each segment met recognition targets. (For a breakdown by the number of submitted reports rather than by number of reporting facilities, see page 16.) To meet 2014 overall evaluation targets, facilities had to meet or exceed the quantity target and submit a minimum number of acceptable quality reports. To exceed 2014 overall evaluation targets, facilities had to additionally meet or exceed their quality or timeliness target.

Figure 14. Reporting Facility Recognition Target Performance by Segment, 2014



** Some facilities submitted only exempt reports (see definitions on pages 16 and 18).*

Adverse Event Report Performance

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

Quantity

The Commission measures quantity as the number of reports submitted by a reporting program participant. The quantity target for 2014 varied by 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 624 adverse event reports in 2014 (see Table 11). The median number of reports per facility was four, with a range of one to 23.

Table 11. Quantity of Submissions by Segment, 2014

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Total reports submitted	131	270	195	28	624
Number of submitting facilities	22	42	45	7	116
Median reports per facility	4.5	4	4	2	4
Range of reports per facility	1-19	1-23	1-16	1-16	1-23

Acceptable Quality

When reviewing submitted adverse event reports, the Commission uses 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 2014, only 47% of submissions from reporting facilities were found to be of acceptable quality (see Table 12).[3] For a complete breakdown of the quality evaluations by segment, see page 17.

Table 12. Acceptable Quality of Reports by Segment, 2014

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Number of non-exempt reports submitted	121	267	186	28	602
Number of reports that were acceptable	37	191	46	7	281
Percent of reports that were acceptable	31%	72%	25%	25%	47%

To help organizations understand what the Commission is looking for when determining acceptable quality, each quality criterion is broken down into two or three specific quality measures (see Guide to Quality Reporting). Of the 321 submitted reports that fell short of acceptable quality, 76 (24%) missed the "acceptable" designation by a single quality measure. The two quality measures that were most frequently missing from reports were:

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

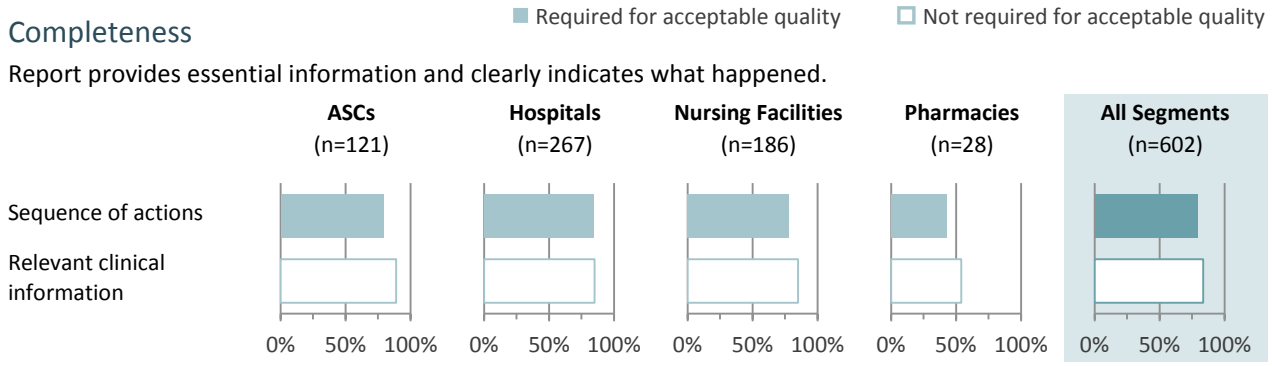
The quality of reporting is essential to the success of the Patient Safety Reporting Program; but more importantly, the competencies demonstrated by acceptable quality reporting are vital to healthcare organizations who desire to create a viable and lasting culture of patient safety. Without acceptable quality, transparency efforts are severely

[3] Some report submissions describe events that do not meet the definition of adverse event (see definition on page 4) and were excluded from the review process. Additionally, in the ASC setting, reports submitted as harm category A (unsafe condition) are excluded from the review process. In 2015, harm category A reports will no longer be excluded automatically.

limited and opportunities to identify root causes of harm, as well as learn and improve practice to prevent future harm, are impaired.

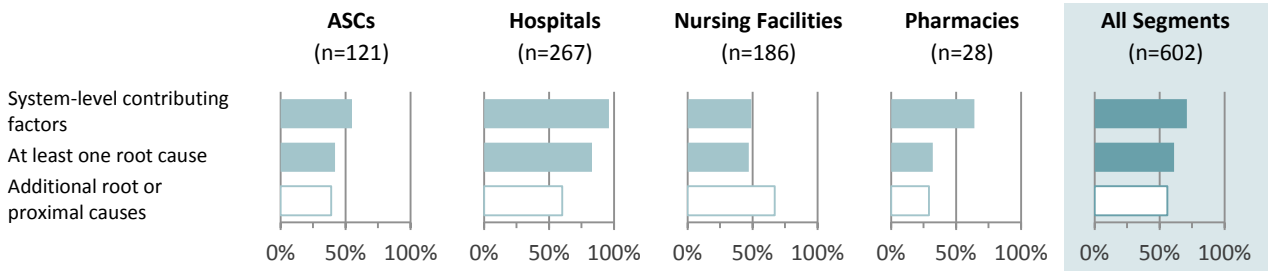
Completeness

Report provides essential information and clearly indicates what happened.



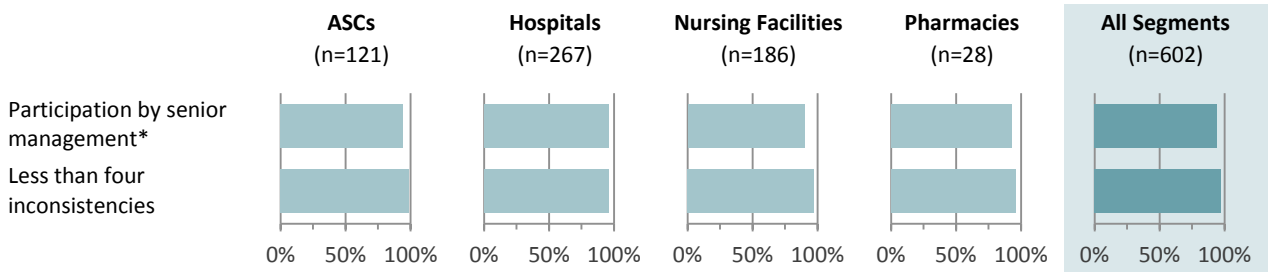
Thoroughness

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



Credibility

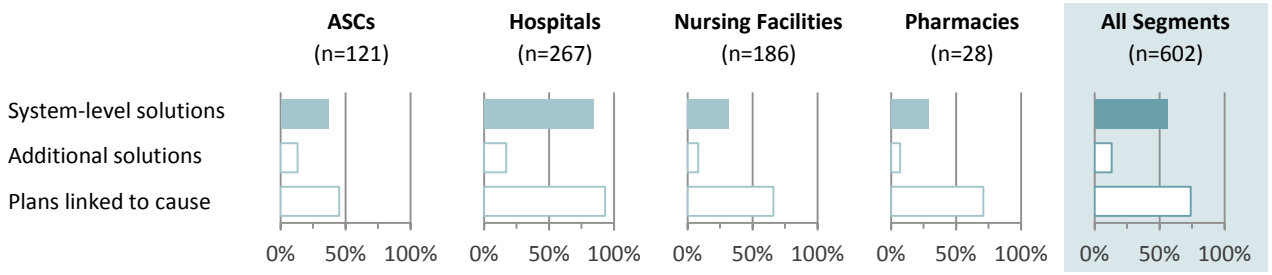
Report contains evidence that the investigation included leadership participation and was internally consistent.



* *Only required of serious harm reports (harm categories F, G, H and I).*

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 2014, more than half of reports (58%) were submitted within the 30-45 day requirement (see Table 13), a 12% increase over 2013. Facilities can continue to 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).

Table 13. Timeliness of Reports by Segment, 2014

Segment State requirement timeframe	ASC 45 days	Hospital 45 days	Nursing Facility 30 days	Pharmacy 45 days	All Segments
Number of non-exempt reports*	114	250	184	24	572
Number of reports that were timely	67	126	116	20	329
Percent of reports that were timely	59%	50%	63%	83%	58%

** Events that do not meet the definition of adverse event (see definition on page 4),or that are discovered on chart review or while investigating another 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

The median time between event *discovery* and *report submission* was 38 days, a week less than the state requirement. To better understand where delays occur, we looked at each of the phases in the reporting process (see Table 14). 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 14. Median Days in Key Reporting Timeline Phases, 2014

Median days between… (range)*	ASC (n=112)	Hospital (n=250)	Nursing Facility (n=168)	Pharmacy (n=23)	All Segments (n=553)
Event to discovery	0 (0-100)	1 (0-492)	0 (0-18)	4 (0-266)	0 (0-492)
Discovery to review completion	6 (0-95)	16 (0-354)	3 (0-58)	13 (0-129)	7 (0-354)
Review completion to report submission	23 (0-308)	21 (0-379)	15 (0-254)	1 (0-24)	19 (0-379)

** Events that do not meet the definition of adverse event (see definition on page 4), that are discovered on chart review or while investigating another event, or do not contain all necessary pieces of timeliness data, are excluded from this table. Reports may 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 (Oregon Administrative Rules 325). 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 2014, written notification was provided in 29% of the serious events for which it was required (see Table 15).[4] This means that patients and families received a clarifying message in writing.

Table 15. Provision of Written Notification for Serious Adverse Events by Segment, 2014

	ASC	Hospital*	Nursing Facility	Pharmacy**	All Segments
Number of serious event reports where written notification was performed	8	51	17		76
Number of serious event reports	75	144	44		263
Percent of serious event reports where written notification was performed	11%	35%	39%		29%

** 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 IIIfor a complete list).*

*** Pharmacies did not submit any qualifying reports in 2014.*

Facilities also provided written notification in 22% of the cases where it was *not* required. 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 52% of time (see Appendix IV, Table 22). Oral notification was likely provided in more cases than those indicated in our system; in 2014, participants were 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. As evidenced by growing participation in the Patient Safety Reporting Program, the Oregon healthcare community acknowledges that there is value in working together to share important patient safety lessons.

This report reflects the many Oregon healthcare organizations that are strengthening their culture of safety and contributing to a database of shared learning. This report also reflects the data and notable trends for adverse events reported in 2014. For a complete list of reportable event for each healthcare segment, see Appendix V. To support patient safety improvement in Oregon, the Commission will continue to use Patient Safety Reporting Program data to prioritize and inform the development of patient safety resources.

Appendix I. Reporting Patterns

Number of Reporting Facilities and Number of Participating Facilities, 2010-2014

Participating facilities Reporting facilities

Figure 15. Ambulatory Surgery Centers

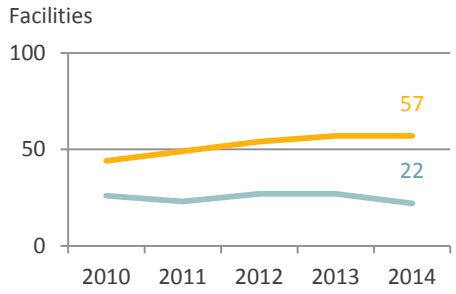


Figure 16. Nursing Facilities

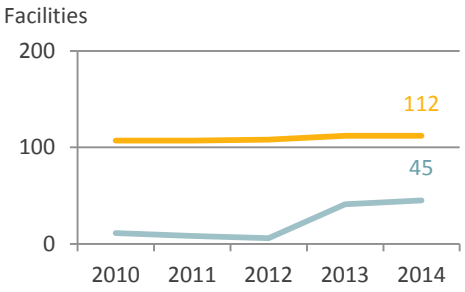


Figure 17. Hospitals

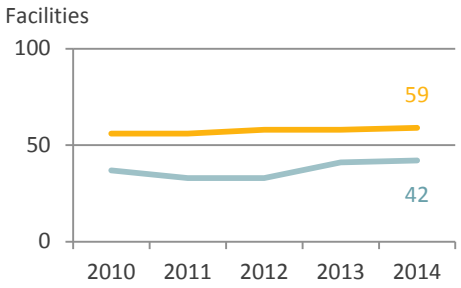
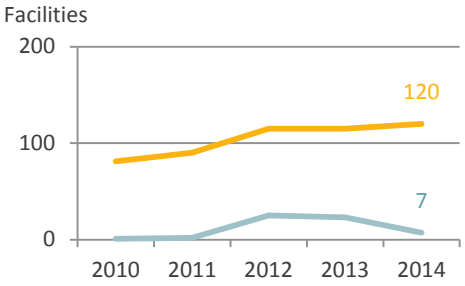


Figure 18. Pharmacies



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.

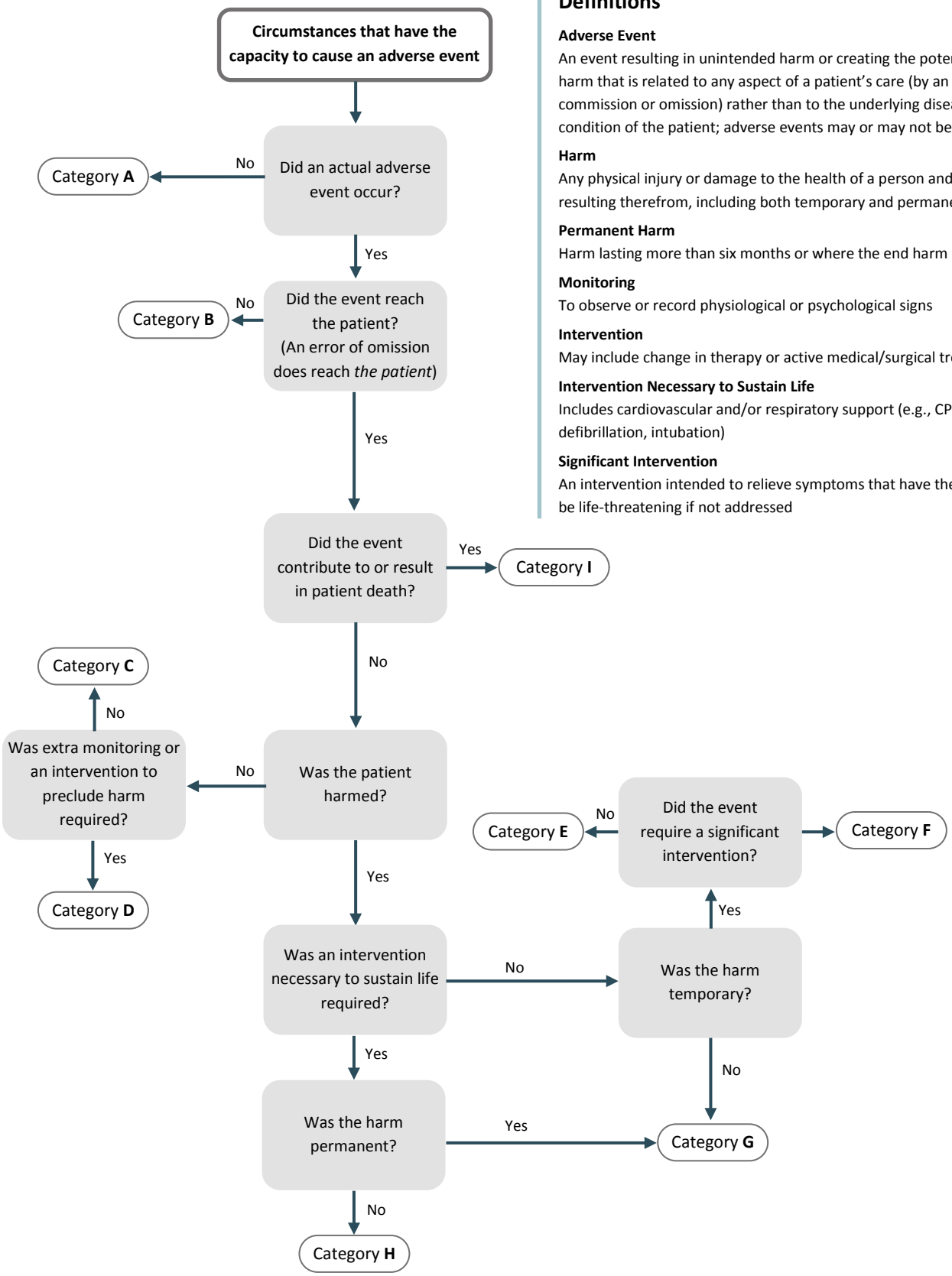
Category A	Circumstances that have the capacity to cause an adverse event	**Unsafe condition or near miss**
Category B	An event occurred that did not reach the patient (an "error of omission" does reach the patient)	
Category C	An event occurred that reached the patient but did not cause patient harm *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. 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, those events are:

- Contaminated, wrong or no gas given to patient
- Discharge or release of a patient of any age, who is unable to make decisions, to an unauthorized person
- Surgical: Incorrect patient
- Surgical: Incorrect procedure
- Surgical: Incorrect site or side
- Unintended retained foreign object

Appendix IV. Detailed Data Tables by Segment

Harm Category I Reports

Table 16. Reports Indicating Death (Harm Category I) by Year, 2010-2014

	2009	2010	2011	2012	2013	2014
Number of harm category I reports	34	35	22	34	39	41
Percent of total reports	10%	9%	8%	7%	6%	7%
Ambulatory Surgery Center						
Number of harm category I reports	1	1	0	2	0	1
Percent of total reports	1%	1%	0%	1%	0%	1%
Hospital						
Number of harm category I reports	29	33	22	31	38	37
Percent of total reports	23%	26%	15%	19%	17%	14%
Nursing Facility						
Number of harm category I reports	4	1	0	1	1	3
Percent of total reports	11%	5%	0%	11%	1%	2%
Pharmacy						
Number of harm category I reports	0	0	0	0	0	0
Percent of total reports	0%	0%	0%	0%	0%	0%

Event Type

For further information about event sub-types, see Appendix VI.

Table 17. Event Type by Segment, 2014

Event Type	ASCs (n=131)		Hospitals (n=270)		Nursing Facilities (n=195)		Pharmacies (n=28)		All Segments (n=624)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Fall	5	4%	43	16%	108	55%			156	25%
Medication or other substance	12	9%	44	16%	27	14%	28	100%	111	18%
Surgical or other invasive procedure	69	53%	22	8%					91	15%
Care delay	2	2%	40	15%	8	4%			50	8%
Device or supply	4	3%	17	6%	19	10%			40	6%
Healthcare-associated infection (HAI)	16	12%	15	6%	1	0.5%			32	5%
Retained object	2	2%	19	7%					21	3%
Other event	3	2%	5	2%	11	6%			19	3%
Suicide or attempted suicide			15	6%	1	0.5%			16	3%
Pressure ulcer			9	3%	6	3%			15	2%
Deep vein thrombosis	14	11%							14	2%
Elopement			5	2%	5	3%			10	2%
Perinatal			10	4%					10	2%
Resident transfer related					7	4%			7	1%
Anesthesia	2	2%	5	2%					7	1%
Blood or blood product	0	0%	6	2%					6	1%

Event Type	ASCs (n=131)		Hospitals (n=270)		Nursing Facilities (n=195)		Pharmacies (n=28)		All Segments (n=624)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Irretrievable loss of irreplaceable specimen	0	0%	5	2%					5	1%
Contaminated drugs, devices or biologics	2	2%	3	1%					5	1%
Maternal			4	1%					4	1%
Aspiration	2	2%	1	0.4%	0	0%			3	0.5%
Burn	0	0%	1	0.4%	2	1%			3	0.5%
Failure to follow up test results			3	1%					3	0.5%
Radiologic			2	1%					2	0.3%
Contaminated, wrong or no gas given to a patient	0	0%	1	0.4%					1	0.2%
Choking					1	0.5%			1	0.2%
Restraint or bedrail related	0	0%	1	0.4%	0	0%			1	0.2%
Total Events	**133**		**276**		**196**		**28**		**634**	

Other events:

- *6 – Resident-to-resident physical or verbal altercations*
- *3 – Injury unrelated to an existing event type*
- *2 – Possible exposure to contaminants related to construction*
- *2 – Unexpected death*
- *1 – Allegation of sexual inappropriateness*
- *1 – Communication*
- *1 – Insufficient monitoring*
- *1 – Potential for neurological deficit*
- *1 – Unexpected transfer to higher level of care*
- *1 – Resident transferred to incorrect facility*

Event Type by Harm by Segment

Table 18. Ambulatory Surgery Centers, 2014

	Harm Category								
	Less Serious or No Harm					Serious Harm or Death			
Event Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Anesthesia	1							1	
Aspiration						1		1	
Care delay			1			1			
Contaminated drugs, devices or biologics			1	1					
Deep vein thrombosis with or without pulmonary embolism	1			1		11		1	
Device or medical/surgical supply			1		1	2			
Fall	1		1	2		1			
Healthcare-associated infection (HAI)			1	2	3	10			
Medication or other substance		2	3	5		2			
Other event	1		1						1
Surgical or other invasive procedure	4	2	2	10	5	43		3	
Unintended retained foreign object			2						
TOTAL REPORTS IN HARM CATEGORY	**8**	**4**	**12**	**21**	**9**	**70**	**0**	**6**	**1**

Table 19. Hospitals, 2014

	Harm Category								
	Less Serious or No Harm					Serious Harm or Death			
Event Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Anesthesia			2	1	2				
Aspiration									1
Blood or blood product	1		1	1		1			2
Burn						1			
Care delay	1		3	6	2	4	5	8	11
Contaminated drugs, devices or biologics			2	1					
Contaminated, wrong or no gas given to a patient				1					
Device or medical/surgical supply		1	2	4	3	3	2	2	
Elopement			1	4					
Failure to follow up test results						2	1		
Fall	1		8	2	10	17	3		2
Healthcare-associated infection (HAI)	1		1	1		9			3
Irretrievable loss of irreplaceable specimen			2	1		2			
Maternal	1					1		2	
Medication or other substance	1	3	5	8	3	12		7	5
Other event	1		3						1
Perinatal						1		3	6
Pressure ulcer					1		8		
Radiologic			2						
Restraint or bedrail related					1				
Suicide or attempted suicide			1	1		5	2	1	5
Surgical or other invasive procedure		1	7	1	2	7	2	1	1
Unintended retained foreign object			4	3	1	9	1	1	
TOTAL REPORTS IN HARM CATEGORY	**7**	**5**	**44**	**33**	**24**	**72**	**24**	**24**	**37**

Table 20. Nursing Facilities, 2014

	Harm Category								
	Less Serious or No Harm					Serious Harm or Death			
Event Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Burn					2				
Care delay			1			6			1
Choking	1								
Device or medical supply	1		3	1	12	1			1
Elopement				3	2				
Fall	6		29	22	19	28	3		1
Healthcare-associated infection (HAI)						1			
Medication or other substance	1	2	6	17	1				
Other event	3		1	3	3	1			
Pressure ulcer					5		1		
Resident transfer related				1	3	3			
Suicide or attempted suicide							1		
TOTAL REPORTS IN HARM CATEGORY	**12**	**2**	**40**	**47**	**46**	**40**	**5**	**0**	**3**

Table 21. Pharmacies, 2014

	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	1	3	23	1					
TOTAL REPORTS IN HARM CATEGORY	**1**	**3**	**23**	**1**	**0**	**0**	**0**	**0**	**0**

Written Notification

Table 22. Reasons Written Notification was not Provided when Required by Segment, 2014

	ASC (n=67)	**Hospital** (n=93)	**Nursing Facility** (n=27)	**Pharmacy*** (n=0)	**All Segments** (n=187)
Oral disclosure provided	35	58	4		97
Not required by facility organizational policy	29	24	15		68
Other reason	1	9	3		13
No organizational policy	2	1	5		8
Unknown reason		1			1

** Pharmacies did not submit any serious event reports in 2014.*

Appendix V. 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 (includes retained surgical items)	•	•		
Other event (please describe)	•	•	•	

Appendix VI. Event Sub-Types by Segment

When completing a report, healthcare facilities identify a specific type of adverse event. For six event types, facilities are asked to further specify a sub-type within the chosen event type (e.g., specifying that the kind of *Medication or other substance* event was an *Incorrect dose*). A list of event types that do not specify sub-types is included at the end of this appendix.

Anesthesia Events

Table 23. Anesthesia Event Sub-Types by Segment, 2014

Anesthesia Event Sub-Type	ASC (n=2)		Hospital (n=5)		Both Segments (n=7)	
	Number	Percent	Number	Percent	Number	Percent
Incorrect site anesthesia	0	0%	4	80%	4	57%
Oversedation	2	100%	1	20%	3	43%

Blood or Blood Product Events

Table 24. Blood or Blood Product Event Sub-Types by Segment, 2014

Blood or Blood Product Event Sub-Type	ASC (n=0)		Hospital (n=6)		Both Segments (n=6)	
	Number	Percent	Number	Percent	Number	Percent
Adverse reaction	--	--	2	33%	2	33%
Incorrect patient	--	--	1	17%	1	17%
Incorrect product	--	--	1	17%	1	17%
Other blood or blood product event	--	--	2	33%	2	33%

Other blood or blood product events:

- *1 – Documentation associated with incorrect patient*
- *1 – Patient received unintended transfusion*

Device or Supply Events

Table 25. Device or Supply Event Sub-Types by Segment, 2014

Device or Supply Event Sub-Type	ASC (n=4)		Hospital (n=17)		Nursing Facility (n=19)		All Segments (n=40)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Use error	2	50%	11	65%	16	84%	29	73%
Device or supply failure	1	25%	4	24%	2	11%	7	18%
Device or supply not available	1	25%	1	6%	0	0%	2	5%
Device or supply expired	0	0%	1	6%	0	0%	1	3%
Other device or supply event	0	0%	0	0%	1	5%	1	3%

Other device or supply events:

- *1 – Device contributed to resident injury*

Healthcare-Associated Infection (HAI) Events

Table 26. Healthcare-Associated Infection (HAI) Event Sub-Types by Segment, 2014

Healthcare-Associated Infection Event Sub-Type	ASC (n=16)		Hospital (n=15)		Nursing Facility (n=1)		All Segments * (n=32)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Surgical site infection (SSI)	14	88%	6	40%			20	65%
Catheter-associated UTI (CAUTI)			3	20%	0	0%	3	19%
Central line-associated BSI (CLABSI)	0	0%	3	20%	0	0%	3	9%
Gastrointestinal system infection	0	0%	3	20%	0	0%	3	9%
Sepsis	1	6%	2	13%	0	0%	3	9%
Lower respiratory tract infection (other than pneumonia)			1	7%	0	0%	1	6%
Urinary tract infection (UTI)			0	0%	1	100%	1	6%
Other HAI event	1	6%%	1	7%	0	0%	2	6%

** "All Segments" denominators are limited to segments for which this answer option is available.*

Other healthcare-associated infection events:

- *1 – Undetermined*
- *1 – Septic olecranon bursitis*

Medication or Other Substance Events

Table 27. Medication or Other Substance Event Sub-Types by Segment, 2014

Medication or Other Substance Event Sub-Type	ASC (n=12)		Hospital (n=44)		Nursing Facility (n=27)		Pharmacy (n=28)		All Segments * (n=111)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Incorrect medication or substance	4	33%	10	23%	9	33%	5	18%	28	25%
Incorrect dose	3	25%	10	23%	10	37%	1	4%	24	22%
Incorrect strength	0	0%	2	5%	4	15%	10	36%	16	14%
Medication omitted	1	8%	3	7%	5	19%	1	4%	10	9%
Contraindicated	3	25%	4	9%	1	4%	0	0%	8	7%
Incorrect/ incomplete labeling	1	8%	1	2%	0	0%	5	18%	7	6%
Oversedation	1	8%	5	11%	1	4%			7	8%
Incorrect time	0	0%	3	7%	3	11%			6	7%
Discontinued	0	0%	3	7%	2	7%			5	6%
Incorrect dosage form	0	0%	2	5%	1	4%	1	4%	4	4%
Incorrect patient							4	14%	4	14%
Incorrect rate	0	0%	3	7%	1	4%			4	5%
Incorrect route	0	0%	3	7%	0	0%	0	0%	3	3%
Drug interaction	0	0%	2	5%	0	0%	0	0%	2	2%
Adverse reaction	0	0%	1	2%	0	0%	0	0%	1	1%
Expired	0	0%	1	2%	0	0%	0	0%	1	1%
Incorrect quantity, amount, or size							1	4%	1	4%
Other medication event	1	8%	0	0%	0	0%	0	0%	1	1%

** "All Segments" denominators are limited to segments for which this answer option is available.*

Other medication or other substance events:

- *1 – Cement leakage during surgical procedure*

Surgical Events

Table 28. Surgical Event Sub-Types by Segment, 2014

Surgical or Other Invasive Procedure Event Sub-Type	ASC (n=69)		Hospital (n=22)		Both Segments * (n=91)	
	Number	Percent	Number	Percent	Number	Percent
Unplanned admission to hospital within 48 hours of discharge	31	45%			31	45%
Unplanned emergency department visit within 48 hours of discharge	17	25%			17	25%
Incorrect site or side	2	3%	10	45%	12	13%
Other surgical or other invasive procedure event	6	9%	5	23%	11	12%
Laceration, perforation, puncture, or nick	8	12%	1	5%	9	10%
Postoperative bleeding requiring return to operating room	9	13%	0	0%	9	10%
Dehiscence, flap or wound failure or disruption, or graft failure	3	4%	0	0%	3	3%
Incorrect procedure	0	0%	3	14%	3	3%
Iatrogenic pneumothorax	0	0%	2	9%	2	2%
Incorrect patient	1	1%	1	5%	2	2%
Postoperative nausea resulting in hospital admission	2	3%			2	3%
Unanticipated blood transfusion	2	3%			2	3%
Unintended blockage, obstruction, or ligation	1	1%	0	0%	1	1%

** "All Segments" denominators are limited to segments for which this answer option is available.*

Other surgical or other invasive procedure events:

- *2 – Step in preparation for procedure, or procedure itself, left out*
- *2 – Postoperative bleeding that did not require a return to surgery*
- *2 – Issue with surgery consent process*
- *1 – Patient passed out when IV inserted*
- *1 –Complication of procedure resulting in additional hospitalization*
- *1 – Intraoperative bleeding*
- *1 – Possible contaminant (fly) in operating room*
- *1 – Incorrect labeling of specimen with incorrect patient's name*

The following event types reported in 2014 do not have sub-types:

- Aspiration
- Burn
- Care delay
- Choking
- Contaminated drugs, devices or biologics
- Contaminated, wrong, or no gas given to a patient
- Deep vein thrombosis (DVT)
- Elopement
- Failure to follow up test results
- Fall
- Irretrievable loss of irreplaceable biological specimen
- Maternal
- Other event
- Perinatal
- Pressure ulcer
- Radiologic
- Resident transfer related
- Restraint or bedrail related
- Suicide or attempted suicide
- Unintended retained foreign object

Appendix VII. Contributing Factors

The Patient Safety Reporting Program (PSRP) asks reporters to specify whether each of the eight contributing factor categories applies to their adverse event. The denominators in each table are the number of reports in each segment that marked at least one factor in that category.

Communication

Healthcare Team Communication Factors

Table 29. Healthcare Team Communication Factors by Segment, 2014

Healthcare Team Communication Factors	ASC (n=34) Number (%)	Hospital (n=171) Number (%)	Nursing Facility (n=44) Number (%)	All Segments* (n=249) Number (%)
Across units		26 (15%)	3 (7%)	29 (13%)
Among interdisciplinary teams	7 (21%)	62 (36%)	10 (23%)	79 (32%)
Between providers and staff	11 (32%)	88 (51%)	6 (14%)	105 (42%)
Between supervisor and staff	0 (0%)	6 (4%)	11 (25%)	17 (7%)
Handoffs, handovers or shift reports	5 (15%)	54 (32%)	7 (16%)	66 (27%)
Hard to read fax or handwriting	0 (0%)	2 (1%)	2 (5%)	4 (2%)
Within units	3 (9%)	17 (10%)	8 (18%)	28 (11%)
With other organizations or outside providers	2 (6%)	20 (12%)	8 (18%)	30 (12%)
Other healthcare team communication factors	1 (3%)	9 (5%)	2 (5%)	12 (5%)

** "All Segments" denominators are limited to segments for which this answer option is available. Pharmacies were excluded from this table because their n was too small.*

Patient/Family Communication Factors

Table 30. Patient/Family Communication Factors by Segment, 2014

Patient/Family Communication Factors	ASC (n=34) Number (%)	Hospital (n=171) Number (%)	Nursing Facility (n=44) Number (%)	All Segments* (n=249) Number (%)
Culture	1 (3%)	0 (0%)	1 (2%)	2 (1%)
Language	1 (3%)	3 (2%)	5 (11%)	9 (4%)
Miscommunication	3 (9%)	12 (7%)	8 (18%)	23 (9%)
Understanding discharge instructions or plan	11 (32%)	3 (2%)	0 (0%)	14 (6%)
Other patient/family communication factors	4 (12%)	13 (8%)	6 (14%)	23 (9%)

** "All Segments" denominators are limited to segments for which this answer option is available. Pharmacies were excluded from this table because their n was too small.*

Device or Supply

Table 31. Device or Supply Factors by Segment, 2014

Device or Supply Factors	ASC (n=16) Number (%)	Hospital (n=73) Number (%)	Nursing Facility (n=38) Number (%)	All Segments* (n=127) Number (%)
Availability	3 (19%)	25 (34%)	3 (8%)	31 (24%)
Design	4 (25%)	26 (36%)	19 (50%)	49 (39%)
Function	6 (38%)	18 (25%)	5 (13%)	29 (23%)
Maintenance	0 (0%)	6 (8%)	3 (8%)	9 (7%)
Other device or supply factors	5 (31%)	11 (15%)	11 (29%)	27 (21%)

* *"All Segments" denominators are limited to segments for which this answer option is available. Pharmacies were excluded from this table because they did not indicate* Device or supply *factors on any submissions.*

Human or Environmental

Table 32. Human or Environmental Factors by Segment, 2014

Human or Environmental Factors	ASC (n=9) Number (%)	Hospital (n=91) Number (%)	Nursing Facility (n=30) Number (%)	Pharmacy (n=12) Number (%)	All Segments (n=142) Number (%)
Clutter	1 (11%)	3 (3%)	0 (0%)	0 (0%)	4 (3%)
Personnel fatigue	0 (0%)	5 (5%)	0 (0%)	0 (0%)	5 (4%)
Personnel health issues	0 (0%)	3 (3%)	0 (0%)	0 (0%)	3 (2%)
Interruptions or distractions	6 (67%)	52 (57%)	16 (53%)	10 (83%)	84 (59%)
Lighting	1 (11%)	3 (3%)	0 (0%)	0 (0%)	4 (3%)
Noise	1 (11%)	12 (13%)	2 (7%)	0 (0%)	15 (11%)
Personnel stress	0 (0%)	15 (16%)	11 (37%)	2 (17%)	28 (20%)
Work area design or specifications	3 (33%)	37 (40%)	7 (23%)	0 (0%)	47 (33%)
Other human or environmental factors	0 (0%)	8 (9%)	3 (10%)	1 (8%)	12 (8%)

Organizational

Table 33. Organizational Factors by Segment, 2014

Organizational Factors	ASC (n=18) Number (%)	Hospital (n=119) Number (%)	Nursing Facility (n=26) Number (%)	All Segments* (n=163) Number (%)
Adequacy of budget	0 (0%)	4 (3%)	1 (4%)	5 (3%)
Work assignment or allocation	1 (6%)	23 (19%)	2 (8%)	26 (16%)
Clinical supervision	0 (0%)	9 (8%)		9 (7%)
Culture of safety	8 (44%)	42 (35%)	4 (15%)	54 (33%)
Internal reporting	0 (0%)	9 (8%)	1 (4%)	10 (6%)
Job orientation or training	2 (11%)	29 (24%)	13 (50%)	44 (27%)
Managerial supervision	0 (0%)	11 (9%)		11 (8%)
Management or leadership skills	0 (0%)	3 (3%)	2 (8%)	5 (3%)
Staff competencies	6 (33%)	33 (28%)	12 (46%)	51 (31%)
Staff turnover			2 (8%)	2 (8%)
Supervision			4 (15%)	4 (15%)
Systems to identify risk	8 (44%)	40 (34%)	7 (27%)	55 (34%)
Temporary staffing	0 (0%)	5 (4%)	2 (8%)	7 (4%)
Unit staffing		11 (9%)	6 (23%)	17 (12%)
Other organizational factors	0 (0%)	10 (8%)	0 (0%)	10 (6%)

** "All Segments" denominators are limited to segments for which this answer option is available. Pharmacies were excluded from this table because their n was too small.*

Policy or Procedure

Table 34. Policy or Procedure Factors by Segment, 2014

Policy or Procedure Factors	ASC (n=21) Number (%)	Hospital (n=151) Number (%)	Nursing Facility (n=24) Number (%)	All Segments* (n=196) Number (%)
Clarity of policy or procedure	6 (29%)	70 (46%)	7 (29%)	83 (42%)
Policy or procedure absent	10 (48%)	44 (29%)	6 (25%)	60 (31%)
Staff or providers unfamiliar with policy or procedure	1 (5%)	47 (31%)	7 (29%)	55 (28%)
Too cumbersome	0 (0%)	3 (2%)	0 (0%)	3 (2%)
Work around more efficient	1 (5%)	25 (17%)	4 (17%)	30 (15%)
Other policy or procedure factors	3 (14%)	9 (6%)	3 (13%)	15 (8%)

** "All Segments" denominators are limited to segments for which this answer option is available. Pharmacies were excluded from this table because their n was too small.*

Patient Factors

Table 35. Patient Factors by Segment, 2014

Patient Factors	ASC (n=42) Number (%)	Hospital (n=125) Number (%)	Nursing Facility (n=141) Number (%)	All Segments (n=308) Number (%)
Behavioral status	9 (21%)	29 (23%)	44 (31%)	82 (27%)
Family dynamics or relationships	6 (14%)	14 (11%)	3 (2%)	23 (7%)
Fragile health status	22 (52%)	65 (52%)	48 (34%)	135 (44%)
Mental status	3 (7%)	46 (37%)	99 (70%)	148 (48%)
Physical limitations	8 (19%)	35 (28%)	118 (84%)	161 (52%)
Sensory impairment	3 (7%)	12 (10%)	38 (27%)	53 (17%)
Other patient factors	4 10%)	19 (15%)	5 (4%)	28 (9%)

** Pharmacies were excluded from this table because their n was too small.*

Patient Management Factors

Table 36. Patient Management Factors by Segment, 2014

Patient Management Factors	ASC (n=41) Number (%)	Hospital (n=112) Number (%)	Nursing Facility (n=24) Number (%)	All Segments* (n=177) Number (%)
Initial diagnosis	5 (12%)	19 (17%)	6 (25%)	30 (17%)
Response to changing condition	11 (27%)	55 (49%)	7 (29%)	73 (41%)
Treatment or care plan	18 (44%)	42 (38%)		60 (39%)
Patient or risk assessment	19 (46%)	24 (21%)	8 (33%)	51 (29%)
Follow-up care	10 (24%)	13 (12%)	0 (0%)	23 (13%)
Accuracy of care plan			5 (21%)	5 (21%)
Implementation of care plan			7 (29%)	7 (29%)
Other patient management factors	0 (0%)	8 (7%)	3 (13%)	11 (6%)

** "All Segments" denominators are limited to segments for which this answer option is available. The category* Patient Management *is not available to pharmacies.*