Patient Safety Reporting Program 2016 Annual Report

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COMMISSION

December 2017

The Oregon Patient Safety Commission, 2017

The Oregon Patient Safety Commission is a semi-independent state agency that operates multiple programs aimed at reducing the risk of serious adverse events occurring in Oregon's healthcare system and encouraging a culture of patient safety. The Patient Safety Commission's programs include the Patient Safety Reporting Program, Early Discussion and Resolution, and various quality improvement initiatives. To learn more about the Patient Safety Commission, visit oregonpatientsafety.org.

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Executive Summary

Despite everyone's best intentions during healthcare, things don't always go as planned and adverse events and near misses occur. These are prime opportunities to learn and to design safer systems of care for the next patient.

In Oregon, when adverse events occur, healthcare organizations that voluntarily contribute information about those events to the Patient Safety Reporting Program (PSRP) can receive confidential consultation for conducting an effective review and analysis that can lead to safer care. All contributions to PSRP are protected under state law, creating a safe environment where patient safety learning can thrive.

The Oregon Patient Safety Commission (OPSC)—a non-regulatory support organization—shares de-identified PSRP information across the state so that broader learning can occur.

In 2016, Oregon healthcare organizations—ambulatory surgery centers (ASCs), hospitals, nursing facilities, and community pharmacies ("pharmacies")—contributed 564 adverse event reports to PSRP. The most frequently reported adverse events were:

- Medication or other substance events
- Care delays
- Falls
- Surgical or other invasive procedure events

Collectively, these four event types made up 60% of all PSRP event reports. As expected from the program's emphasis on serious adverse events, more than half of the 2016 reports (59%) resulted in serious harm or death. However, the remaining reports included events of less serious harm, no harm, and near misses or unsafe conditions where organizations identified opportunities to learn and make care safer.

To support healthcare organizations, OPSC Patient Safety Consultants review reports based on a set of quality components, which serve as indicators of a strong event review and analysis process that can prevent future events. From 2012 to 2016, the proportion of reports that contained all the quality components increased from 38% to 74%.

Recommended Focus Areas

To continue to improve, OPSC recommends that healthcare organizations focus on two areas of their process which are essential to preventing patient harm, but were the quality components most frequently missing from reports:

- Identifying the core reasons why events are occurring ("**root causes**")
- Developing system-level **action plans** to minimize risk for future patients

OPSC is committed to using the information that healthcare organizations contribute to PSRP to inform patient safety improvement work statewide. We look forward to continuing to provide support for Oregon's healthcare organizations as we work to build capacity for responding to adverse events, to ensure safe care for all Oregonians.

Oregon's Patient Safety Reporting Program

PSRP is a resource for healthcare organizations in the wake of adverse events. It is a non-regulatory system built around collaboration rather than punishment, and designed to cultivate trust, inspire information sharing, and motivate quality improvement among healthcare organizations.

PSRP's Voluntary Nature

Participation in PSRP is voluntary according to state law (Oregon Revised Statutes 442.837(2)); however, healthcare organizations that agree to participate in the program must report all serious adverse events that occur in their facility (Oregon Administrative Rules 325).

How it Works

Healthcare organizations—ASCs, hospitals, nursing facilities, and pharmacies—voluntarily agree to contribute information to PSRP about when, how, and why patient harm occurs, as well as their strategies for preventing it in the future. This information gives OPSC insight into an organization's event review and analysis process and where there may be opportunities to make it stronger. OPSC Patient Safety Consultants are available to healthcare organizations as a source for confidential expertise on minimizing risk and improving safety.

On a broader scale, OPSC analyzes the information from PSRP and shares what is learned statewide, so that process and system improvements can be implemented throughout Oregon's healthcare system.

What Comes Next

Using PSRP as a resource to support an effective event review and analysis process is only one step on the path toward safer patient care. As a part of their comprehensive patient safety program, organizations implement, evaluate, and monitor the ongoing effectiveness of the action plans they developed during their review and analysis. When organizations use adverse events as an opportunity to learn and improve their systems of care, they are also building the skills necessary to address the wide range of safety issues that will inevitably arise.

Other Patient Safety Resources

OPSC offers a variety of programs to help healthcare organizations respond to and learn from adverse events, many of which are informed by the data we gather. Healthcare organizations can use the information in this report, in conjunction with our other services, to support and strengthen their patient safety programs.

OPSC provides:

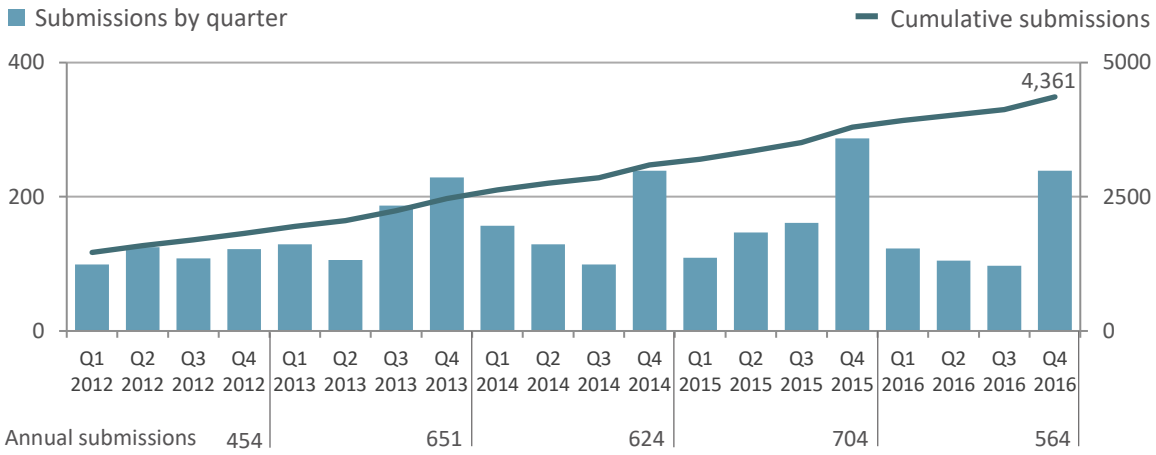
- **Educational opportunities**—both in-person and virtual training opportunities on relevant patient safety topics
- **News and announcements**—up-to-date patient safety news, research, and resources
- **Patient safety alerts**—information about potentially serious patient safety concerns that may require immediate attention
- **Improvement initiatives**—learning networks working on targeted initiatives to improve patient care
- **Safe-table workgroups**—workgroups convened for participating healthcare organizations to work on patient safety issues in a confidential environment
- **Toolkits and resources**—a collection of best-practice resources for organizations seeking to improve healthcare delivery
- **Consultation**—uniquely qualified staff, Patient Safety Consultants, offering confidential patient safety expertise to help healthcare organizations learn from adverse events and make care safer
- **Communication and resolution program support**—consultation and support for developing a principled, comprehensive, and systematic approach for responding to patients who have been harmed during healthcare, including how to use the Early Discussion and Resolution program to gain protections for communication with patients and families

For more information about PSRP and our other offerings, visit oregonpatientsafety.org.

Reporting Overview

In 2016, Oregon healthcare organizations ("segments")—ASCs, hospitals, nursing facilities, and pharmacies—contributed 564 adverse event reports to the Patient Safety Reporting Program (PSRP). While this was the smallest number of reports submitted in one year since 2012 (Figure 1), increased or decreased reporting does not necessarily mean that Oregon healthcare organizations are experiencing more or fewer adverse events than in the past. The figures on page 2 show report submissions by each reporting segment.

Figure 1. Submissions by Quarter and Cumulatively, 2012-2016



In addition to the number of reports submitted, OPSC monitors report quality and timeliness. From 2012 to 2016, the percentage of reports that contained the necessary quality components increased from 38% to 74%. Quality components serve as indicators of the likelihood that an organization's event analysis could prevent future events.

In 2016, about two-thirds of reports (63%) were considered timely (submitted within 45 days of event discovery), which is an improvement over 2015 (55%). OPSC encourages organizations to respond immediately after an adverse event. Timely reporting ensures the organization can collect complete and reliable information about what happened, which is necessary to design safer systems of care for future patients.

More details about how organizations are meeting program goals are available in the Recognition Targets section of this report.

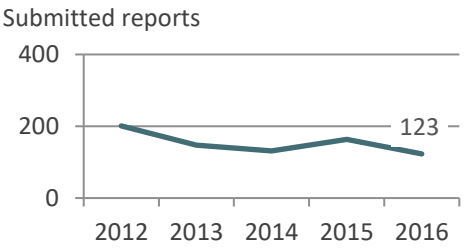
Reports by Healthcare Segment

Submitted Reports by Year, 2012-2016

ASCs

The number of reports submitted by ASCs has been relatively stable over the past three years (Figure 2). Over 1,350 reports have been submitted since the ASC reporting program began in 2007.

Figure 2. ASC Reports

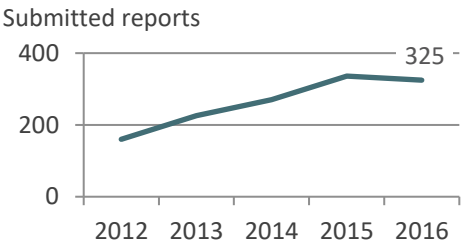


17 of 123 reports were not adverse events

Hospitals

Hospitals remained fairly stable between 2015 and 2016 (Figure 3), submitting 336 reports in 2015 and 325 in 2016. Almost 2,000 reports have been submitted in total since the hospital reporting program began in 2006.

Figure 3. Hospital Reports

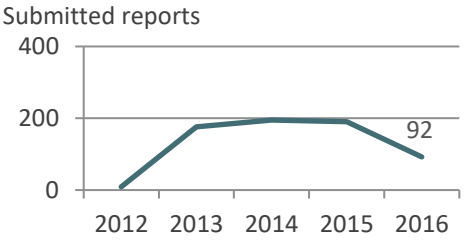


Two of 325 reports were not adverse events

Nursing Facilities

Nursing facilities submitted half as many reports in 2016 as they did in 2015 (Figure 4). Over 700 reports have been submitted since the nursing facility reporting program began in 2007.

Figure 4. Nursing Facility Reports

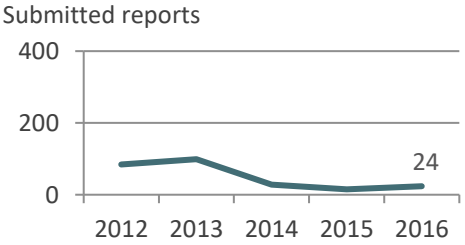


One of 92 reports was not an adverse event

Pharmacies

Pharmacies submitted 15 reports in 2015 and 24 in 2016 (Figure 5). Over 250 reports have been submitted since the pharmacy reporting program began.

Figure 5. Pharmacy Reports



Unless otherwise indicated, data on the following pages of this report excludes 20 reports that did not meet the definition of adverse event. An adverse event is 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.

Reported Events

The types of events reported to PSRP vary by segment, largely due to factors such as patient population, services offered, and other reporting requirements (see Appendix I for a complete list of event types by segment). For example, pharmacies submit only *medication or other substance* events. Among the four reporting segments, there are 34 event types.

In 2016, the top four event types for all segments combined were:

- *Medication or other substance*
- *Care delay*
- *Fall*
- *Surgical or other invasive procedure*

Collectively, these four event types made up 60% of all reports submitted to PSRP (Table 1).

Table 1. Top Four Event Types by Segment, 2016

Top Four Event Types	**ASC** (n=106) Number (%)	**Hospital** (n=323) Number (%)	**Nursing Facility** (n=91) Number (%)	**Pharmacy** (n=24) Number (%)	**All Segments** (n=544) Number (%)
Medication or other substance	15 (14%)	55 (17%)	17 (19%)	24 (100%)	111 (20%)
Care delay	6 (6%)	70 (22%)	4 (4%)		80 (15%)
Fall	3 (3%)	28 (9%)	43 (47%)		74 (14%)
Surgical or other invasive procedure	38 (36%)	26 (8%)			64 (12%)

Additional detail is available on three of the top four event types: *medication or other substance* events (page 5), *falls* (page Falls6), and *surgical or other invasive procedure* events (page 7).

Additional event type detail is available in Appendix VI, Table 27 and Appendix II, Table 12-Table 17.

ASCs

ASCs primarily perform surgical procedures, so it is no surprise that *surgical or other invasive procedure* events are the most frequently reported event type for this segment (Table 2). There has, however, been a steady drop in the percentage of surgical events reported each year since 2013, as ASCs have begun to report a wider array of event types.

Table 2. Top Four ASC Event Types, 2016
n=106

Top Four Event Types	Number	Percent
Surgical or other invasive procedure	38	36%
Medication or other substance	15	14%
Device or supply	15	14%
Anesthesia	9	8%

Hospitals

Hospitals reported a wide range of event types in 2016, due to the diverse services provided in the hospital setting (Table 3). This is the first year that *care delay* has been the top event type, and the first time since 2007 that *fall* hasn't been in the top two.

Table 3. Top Five Hospital Event Types, 2016
n=323

Top Four Event Types	Number	Percent
Care delay	70	22%
Medication or other substance	55	17%
Fall	28	9%
Surgical or other invasive procedure	26	8%

Nursing Facilities

Although *fall* continues to be the leading event type reported by nursing facilities (Table 4), 2016 is the first year that they have made up less than half of reported nursing facility events. The percentage of nursing facility reports related to *medication or other substance* events has increased every year since 2013.

Table 4. Top Four Nursing Facility Event Types, 2016
n=91

Top Four Event Types	Number	Percent
Fall	43	47%
Medication or other substance	17	19%
Resident transfer related	7	8%
Other	5	5%

Pharmacies

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

Medication or Other Substance Events

The medication system is an integral part of patient care, and all four reporting segments contribute medication events to the reporting program. 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 medication or substance*, *incorrect dose*, and *incorrect strength* (Table 5).

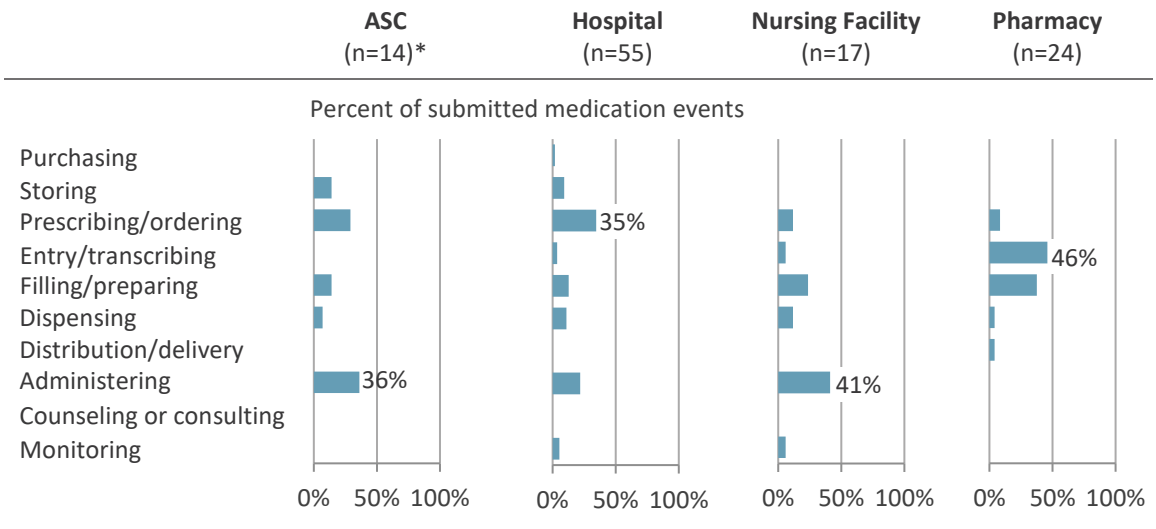
Table 5. Top Three Medication Event Types by Segment, 2016

Medication Event Types	ASC (n=15) Number (%)	Hospital (n=55) Number (%)	Nursing Facility (n=17) Number (%)	Pharmacy (n=24) Number (%)	All Segments (n=111) Number (%)
Incorrect medication or substance	6 (40%)	15 (27%)	6 (35%)	3 (13%)	30 (27%)
Incorrect dose	1 (7%)	8 (15%)	3 (18%)	5 (21%)	17 (15%)
Incorrect strength	1 (7%)	5 (9%)	0 (0%)	8 (33%)	14 (13%)

More detailed information about medication events reported in 2016 is available in Appendix II, Table 16.

Medication management is a complex system involving numerous process steps and multiple individuals. 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 too does the risk of an adverse event. Medication events reported to PSRP are categorized using ten process stages (Figure 6). 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, the *filling/preparing* stage, and the *dispensing* stage. Many of the reports submitted by the three segments that routinely administer medications originated in the *administering* stage.

Figure 6. Process Stage at Which Medication Events Originated by Segment, 2016



* One report marked "unknown."

Falls

In 2016, a total of 74 *fall* events were reported by the three segments which report this type of event (ASCs, hospitals, and nursing facilities). Sixty-six percent of the reported *fall* events resulted in a physical injury (e.g., fracture or skin tear), 88% were unassisted, and 65% were unobserved. For breakouts of this data by segment, see Appendix VI, Table 32-Table 35.

Hospitals and nursing facilities provide information on fall risk assessment and patient risk factors. Sixty-two reports (84%) indicated that the patient had a documented fall risk assessment. Of those 62 patients with a fall risk assessment, only 5% fell when they were not assessed to be at risk for falling. Of the 71 patients who fell in a hospital or nursing facility, 99% 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 impairment* and *cognitive impairment* (Table 6).

Table 6. Risk Factors Present at the Time of the Fall by Segment, 2016

Risk Factors for Fall	Hospital (n=27) Number (%)	Nursing Facility (n=43) Number (%)	Both Segments* (n=70) Number (%)
Mobility or gait impairment	17 (63%)	36 (84%)	53 (76%)
Cognitive impairment	9 (33%)	31 (72%)	40 (57%)
History of previous fall	11 (41%)	34 (79%)	45 (64%)
Sensory impairment (vision, hearing, balance, etc.)	9 (33%)	26 (60%)	35 (50%)
Patient on five or more medications	6 (22%)	28 (65%)	34 (49%)
Other risk factor for falls	5 (19%)	4 (9%)	9 (13%)
Prosthesis or specialty/prescription shoe	0 (0%)	1 (2%)	1 (1%)

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

For breakouts of this data by segment, see Appendix VI, Table 36-Table 38.

Most falls occurred while the patient was performing a routine activity, like getting out of bed or using the toilet. Eighteen percent of patients who fell were performing toileting-related activities (Table 7). Fourteen percent were walking without assistance.

Table 7. Top Four Patient Activities Performed or Attempted at the Time of the Fall by Segment, 2016

Pre-Fall Activities	ASC (n=3) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=43) Number (%)	All Segments (n=74) Number (%)
Toileting-related activities	0 (0%)	9 (32%)	4 (9%)	13 (18%)
Walking without assistance and without an assistive device or medical equipment	1 (33%)	3 (11%)	6 (14%)	10 (14%)
Transferring to or from bed, chair, wheelchair, etc. without assistance	1 (33%)	2 (7%)	4 (9%)	7 (9%)
Standing or sitting	0 (0%)	2 (7%)	5 (12%)	7 (9%)

Appendix VI, Table 38 lists 2016 pre-fall activities by segment.

Surgical or Other Invasive Procedure Events

Only ASCs and hospitals report *surgical or other invasive procedure* events, which were the fourth most frequently reported adverse event type in 2016. *Surgical or other invasive procedure* events represent a third (36%) of all ASC reports. Of this event type, ASCs most frequently reported *unplanned admission to hospital* and *unplanned emergency department visit* events (Figure 7). Among hospitals, *surgical or other invasive procedure* events comprise 8% of all reported event types. Hospitals most frequently reported *incorrect site or side* and *incorrect implant* events (Figure 8).

Figure 7. Top Four ASC Surgical Event Types, 2016

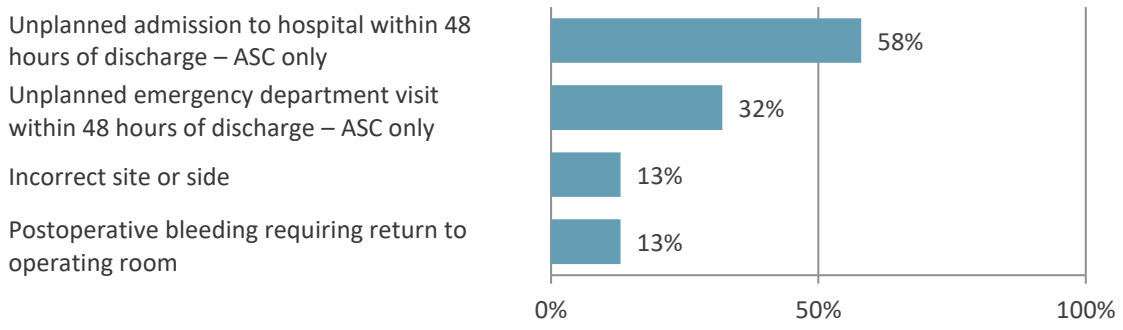
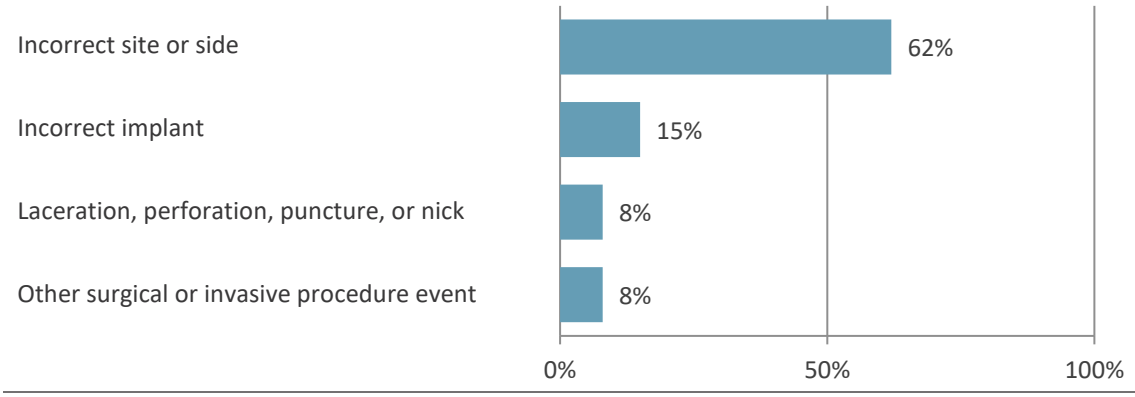


Figure 8. Top Four Hospital Surgical Event Types, 2016

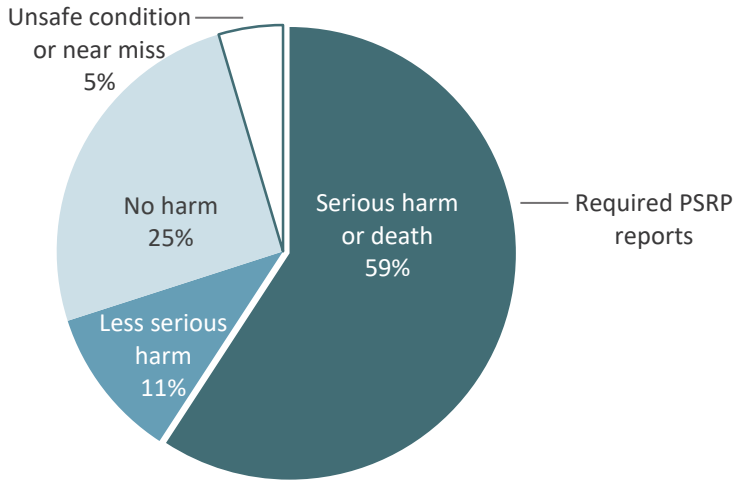


More detailed data about *surgical or other invasive procedure* events (including a list of *other surgical or invasive procedure* events) can be found in Appendix II, Table 17.

Harm Category

PSRP uses the National Coordinating Council for Medication Error Reporting and Prevention's (NCC MERP) Medication Error Index to classify adverse events according to the severity of the outcome (Appendix III: Harmon Categories and Algorithm). PSRP participants are required to report serious adverse events. Participants are also encouraged to report less serious harm events, no harm events, and near misses or close calls, because all events, regardless of harm, are prime opportunities to learn about and improve systems of care.

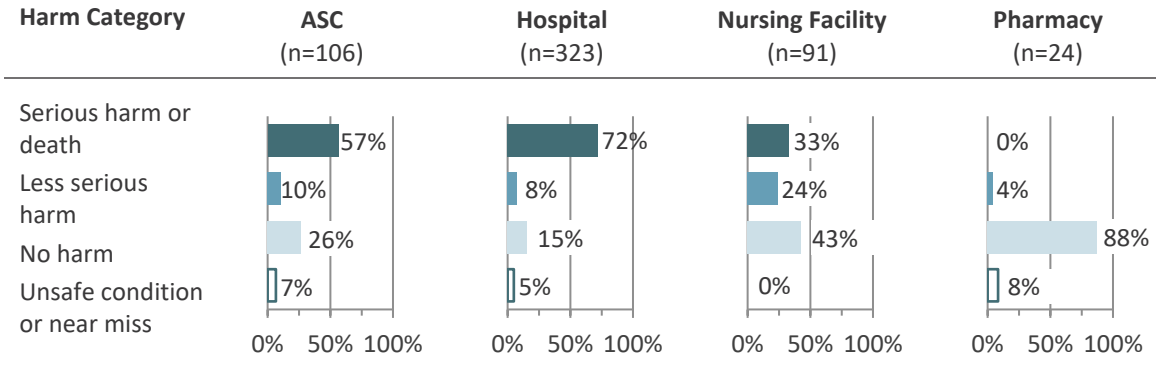
Figure 9. Harm Category of Events Reported by All Segments, 2016
(n=544)



As expected from the program's emphasis on serious adverse events, more than half of the reports submitted to PSRP in 2016 (59%) resulted in serious harm or death (harm categories F, G, H, or I). Variations in the severity of harm by reporting segment may be due to the patient populations served and the types of services provided.

For additional breakouts by event type and segment, see Appendix VI, Table 28-Table 31.

Figure 10. Harm Categories by Segment, 2016



Note: Surgical and other invasive procedures are more likely to cause serious harm; therefore, OPSC expects more serious harm events from ASCs and hospitals, as they provide higher risk services to patients.

Facilities reported 45 harm category I (patient death) events in 2016, which is proportionally similar to previous years (Table 8). For a breakdown of these figures by segment, see Appendix VI, Table 26.

Table 8. Harm Category I (Death) Reports by Year, 2011-2016

	2011	2012	2013	2014	2015	2016
Number of harm category I reports	22	34	39	39	38	45
Percentage of adverse events	8%	10%	6%	7%	6%	8%

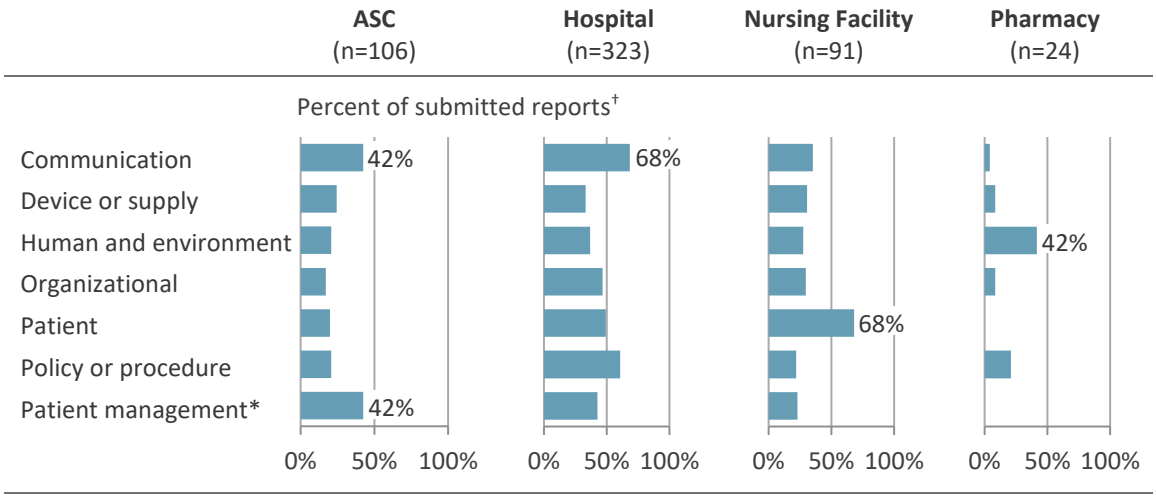
Four of the harm category I reports were patient suicides. The majority of the remaining 41 harm category I events involved patients who were identified as having fragile health status or significant comorbidities. Regardless of the complexity of a patient's health status, these types of events present a learning opportunity so that systems can be strengthened to prevent similar events. The event analyses for harm category I events usually yielded system-level action plans—a clear indication that Oregon healthcare facilities are committed to learning from all events.

Contributing Factors

Contributing factors are the situations, circumstances, or conditions that increase the likelihood of an event. The Patient Safety Reporting Program organizes contributing factors into eight categories. The most frequently selected contributing factor in 2016 was *communication* factors (55%), followed by *policy or procedure* factors (45%), and *patient* factors (44%). For a breakout by segment, see Figure 11.

The 544 reports submitted in 2016 identified 75 contributing factors across the eight categories. For details about the factors identified in each category by healthcare segment, see Appendix IV, Table 19-Table 25.

Figure 11. Contributing Factor Categories by Segment, 2016



* Patient management is not available on pharmacy reports.

† Percents total more than 100 as reports may indicate contributing factors in multiple categories.

The most frequently identified *communication* factors in 2016 were communication *between providers and staff* (46%) and communication that occurred during *handoffs, handovers, or shift reports* (33%) (Appendix IV, Table 19).

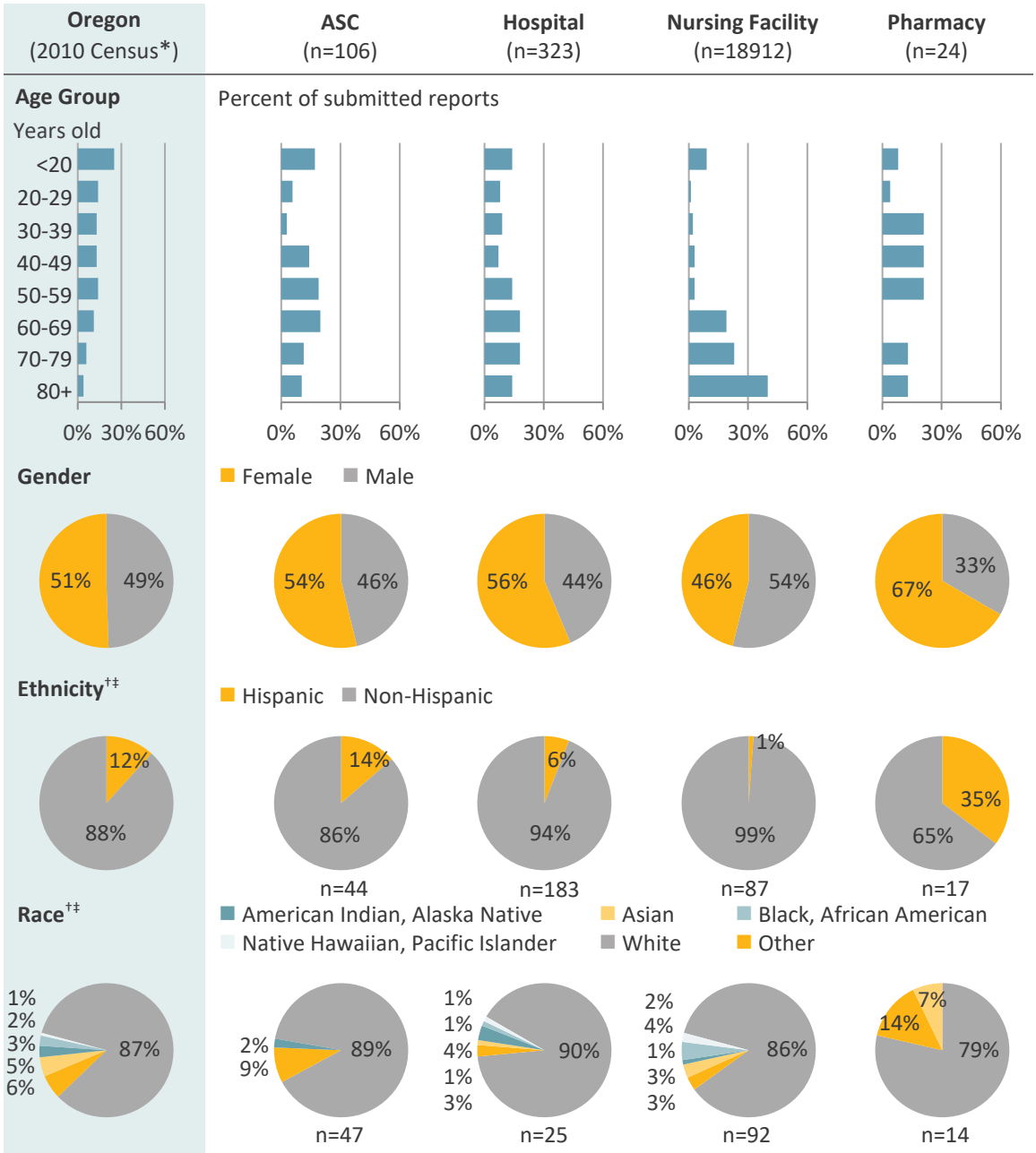
In 2016, the most frequently identified *policy or procedure* factors were *policy or procedure unclear* (43%) and *provider or staff unfamiliar with policy or procedure* (33%) (Appendix IV, Table 24).

By identifying system-level factors, such as *communication* and *policy or procedure* factors, organizations have a solid starting point to uncover deeper system-level causes (or root causes) that can be addressed to prevent the event from recurring.

Patient Characteristics

Patient characteristics—including patient age, gender, race, and ethnicity—from 2016 are summarized in Figure 12. The patients affected by adverse events reported in 2016 ranged in age from newborn to 98. While patients in every age group experienced adverse events, those aged 60 and older accounted for more than half (52%) of reported events.

Figure 12. Patient Demographics by Segment, 2016



* 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.

† Healthcare facilites can select more than one race, but only one ethnicity, on an adverse event report.

‡ Reports in which race and ethnicity were unknown are not represented in the summary figures.

PSRP Engagement

Four healthcare segments—ASCs, hospitals, nursing facilities, and pharmacies—are eligible to participate in the Patient Safety Reporting Program (PSRP). PSRP has been operating since 2006, when hospitals became the first segment to have a reporting program. The other healthcare segments started reporting at different times (Table 9). In 2012, ASCs, hospitals, and nursing facilities moved to an online reporting system. Among these three segments, 83% of eligible facilities have enrolled in the program.

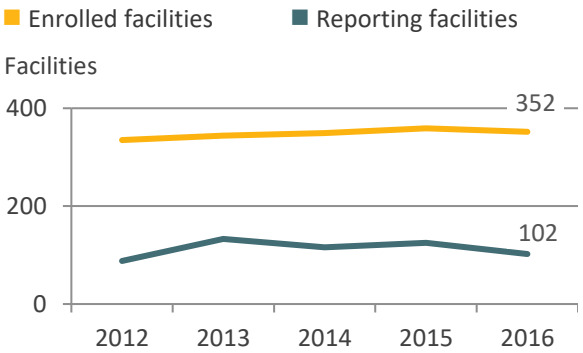
Table 9. Facility Participation in Reporting Program by Segment, 2016

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Quarter and year participation began	Q2 2007	Q2 2006	Q2 2007	Q2 2007	N/A
Quarter and year online reporting began	Q4 2012	Q3 2012	Q4 2012	Q1 2014	N/A
Number of facilities enrolled	61	59	114	118	352
Total eligible facilities	86	59	137	699	981
Percentage of participating facilities	71%	100%	83%	17%	36%

Not all facilities that are enrolled in the reporting program report each year (Appendix V). Forty-nine facilities have consistently reported every year since they began reporting. More than half of enrolled facilities (59%) have submitted at least one report since the beginning of the program. In 2016, 102 (29%) of the enrolled facilities submitted one or more reports (Table 10).

For more information about the number of reporting facilities, see Appendix V.

Figure 13. Enrolled and Reporting Facilities*, 2012-2016



* A facility that submitted at least one report in a reporting year.

Table 10. Number of Reporting* Facilities by Segment, 2016

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Number of reporting facilities	28	38	28	8	102
Number of enrolled facilities	61	59	114	118	352
Percentage of enrolled facilities that reported	46%	64%	25%	7%	29%

* A facility that submitted at least one report in a reporting year.

Recognition Targets

The Patient Safety Reporting Program's (PSRP) recognition targets provide reporting guidance to participating healthcare organizations, helping them incrementally build effective adverse event analysis and reporting into their culture of safety. On a broader scale, targets encourage organizations to contribute comprehensive information to an ever-growing database of adverse event prevention strategies that can be used to inform shared learning across Oregon. Each year, organizations that achieve their targets are recognized, along with a selection of high-performing PSRP participants.

Recognition targets[1] are based on:

- **Quantity.** Individualized by facility type, and in some cases facility size, to provide an attainable reporting goal
- **Quality.** Based on six quality components that serve as indicators to help ensure that a facility's in-depth event analyses can prevent future events
- **Timeliness.** A 45-day window, from event discovery to report submission, to encourage prompt investigation/analysis of adverse events and implementation of safety measures

Overall Performance

To meet 2016 overall targets, a facility either met or exceeded their quantity target and submitted at least one report containing all the quality components. To exceed 2016 overall targets, a facility additionally met or exceeded their quality and timeliness targets. Figure 14 displays each segment's 2016 overall recognition target performance.

Because conducting a strong event review and analysis process that can prevent future events is essential to making progress in patient safety, OPSC staff provide consultation to help healthcare organizations achieve their quality targets. From 2012 to 2016, the proportion of reports that achieved this target increased from 38% to 74%.

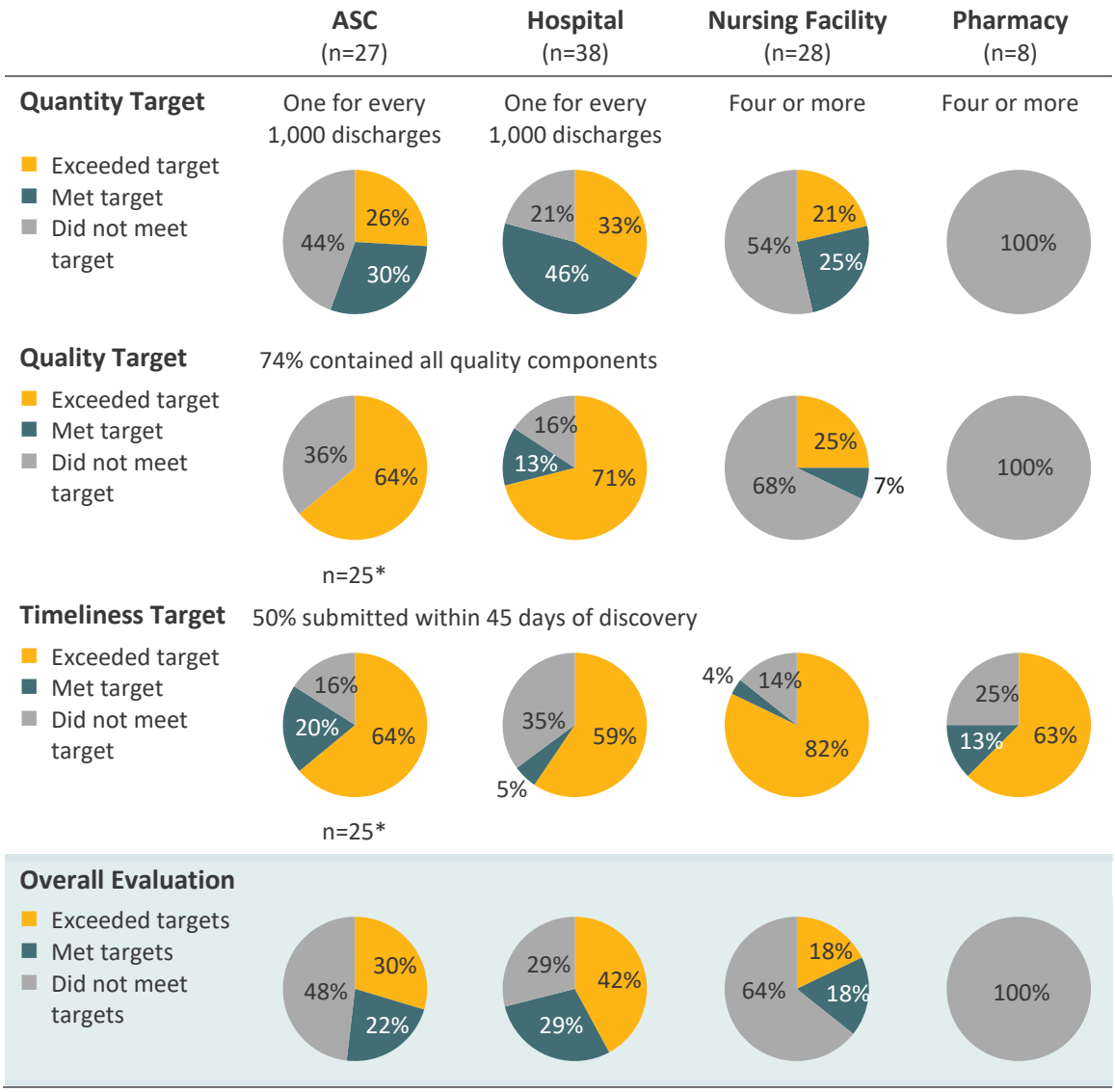
Recommended Quality Target Focus Areas

To continue to improve, healthcare organizations should focus on:

- Identifying the core reasons why events are occurring ("root causes")
- Developing system-level action plans to make care safer for future patients

[1] Recognition targets are set each year for each reporting segment by the Oregon Patient Safety Commission. Learn more: https://oregonpatientsafety.org/psrp/recognition-targets/

Figure 14. Reporting Facility Recognition Target Performance by Segment, 2016



* Excludes facilities that only submitted exempt reports. Exemptions: submitted events did not meet the definition of adverse event (acceptable quality and timeliness exemption), event discovered on chart review or while analyzing another event (timeliness exemption), or granted at the discretion of the patient safety consultant (timeliness exemption).

For a breakdown of the recongition targets by reporting segment, see Appendix VII.

Written Notification

Following an adverse event, written notification communicates to a patient that the healthcare organization is accountable for the care they provide and is committed to maintaining the patient's trust. Per Oregon Administrative Rule (OAR 325-010-0045), PSRP participants must provide written notification of reportable serious adverse events to the patient or patient's personal representative. OPSC encourages facilities to also 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 2016, written notification was provided in 30% of the serious events for which it was required (Table 11). Reasons written notification was not provided when it was required are available in Appendix VI, Table 39. Facilities also provided written notification in 21% of the cases where it was *not* required.

Table 11. Provision of Written Notification for Serious Adverse Events by Segment, 2016

	ASC (n=63)	**Hospital*** (n=213)	**Nursing Facility** (n=30)	**Pharmacy** (n=0)	**All Segments** (n=306)
Number of serious event reports where written notification was performed	17	66	9		92
Percentage of serious event reports where written notification was performed	27%	31%	30%		30%

* For hospitals, reportable adverse events, as defined in Oregon Administrative Rule, include both serious harm events and certain other event types, regardless of level of harm (see Appendix VIII for a complete list).

Conclusion

In our complex healthcare system, a wide range of safety issues will inevitably arise. Having robust systems in place for responding to and addressing these issues is essential to making care safer. The Patient Safety Commission is proud to serve Oregon healthcare organizations through the PSRP, with the goal of developing strong event review and analysis processes following adverse events, and designing safer systems of care for every patient in Oregon.

We are committed to continuously learning about how healthcare organizations use PSRP to support their patient safety work, and to making ongoing improvements to the PSRP infrastructure and support services. We are also committed to sharing what we learn from PSRP contributions to help make healthcare safer across Oregon. We look forward to new and existing collaborations as we work to foster a culture of patient safety in Oregon.

Appendix I. 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 or communicate 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 II. 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*). Facilities can select more than one event sub-type.

Anesthesia Events

Table 12. Anesthesia Event Sub-Types by Segment, 2016

Anesthesia Event Sub-Type	ASC (n=9)		Hospital (n=6)		Both Segments (n=15)	
	Number	Percent	Number	Percent	Number	Percent
Oversedation	4	44%	2	33%	6	40%
Incorrect site anesthesia	1	11%	3	50%	4	27%
Difficulty managing airway	3	33%	1	17%	4	27%
Physical injury	1	11%	1	17%	2	13%

Blood or Blood Product Events

Table 13. Blood or Blood Product Event Sub-Types by Segment, 2016

Blood or Blood Product Event Sub-Type	ASC (n=0)		Hospital (n=3)		Both Segments (n=3)	
	Number	Percent	Number	Percent	Number	Percent
Incorrect patient	--	--	1	33%	1	33%
Incorrect ABO/Rh type	--	--	1	33%	1	33%
Other blood or blood product event	--	--	1	33%	1	33%

Device or Supply Events

Table 14. Device or Supply Event Sub-Types by Segment, 2016

Device or Supply Event Sub-Type	ASC (n=15)		Hospital (n=24)		Nursing Facility (n=2)		All Segments (n=41)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Use error	5	33%	14	58%			19	46%
Device or supply failure	10	67%	7	29%	2	100%	19	46%
Device or supply not available			3	13%			3	7%
Other device or supply event			1	4%			1	2%

Other device or supply events:

1 – Device or medical/surgical supply design

Healthcare-Associated Infection (HAI) Events

Table 15. HAI Event Sub-Types by Segment, 2016

HAI Event Sub-Type	ASC (n=5)		Hospital (n=23)		Nursing Facility (n=0)		All Segments * (n=28)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Surgical site infection (SSI)	5	100%	3	13%			8	29%
Catheter-associated UTI (CAUTI)			8	35%	--	--	8	29%
Central line-associated BSI (CLABSI)			7	30%	--	--	7	25%
Gastrointestinal system infection			3	13%	--	--	3	11%
Primary blood stream infection (BSI)			1	4%	--	--	1	4%
Sepsis			1	4%	--	--	1	4%
Pneumonia			1	4%	--	--	1	4%
Other HAI event			1	4%	--	--	1	4%

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

Other healthcare-associated infection events:

1 – Meningitis associated with intrathecal drug pump use

Medication or Other Substance Events

Table 16. Medication or Other Substance Event Sub-Types by Segment, 2016

Medication or Other Substance Event Sub-Type	ASC (n=15)		Hospital (n=55)		Nursing Facility (n=17)		Pharmacy (n=24)		All Segments * (n=111)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Incorrect medication or substance	6	40%	15	27%	6	35%	3	13%	30	27%
Incorrect dose	1	7%	8	15%	3	18%	5	21%	17	15%
Incorrect strength	1	0%	5	9%			8	33%	14	13%
Contraindicated	3	20%	5	9%			3	13%	11	10%
Medication omitted			5	9%	3	18%			8	7%
Incorrect rate			7	13%					7	6%
Incorrect time	1	7%	3	5%	2	12%			6	5%
Oversedation	3	20%	2	4%					5	5%
Incorrect route			5	9%					5	5%
Incorrect/ incomplete labeling			4	7%					4	4%
Discontinued					3	18%			3	3%
Adverse reaction	2	13%	1	2%					3	3%
Incorrect patient							2	8%	2	2%
Expired			2	4%					2	2%
Other medication event			1	2%			1	4%	2	2%
Generic substitution							1	4%	1	1%
Incorrect quantity, amount or size							1	4%	1	1%

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

Surgical Events

Table 17. Surgical Event Sub-Types by Segment, 2016

Surgical or Other Invasive Procedure Event Sub-Type	ASC (n=38)		Hospital (n=26)		Both Segments * (n=64)	
	Number	Percent	Number	Percent	Number	Percent
Unplanned admission to hospital within 48 hours of discharge	22	58%			22	34%
Incorrect site or side	5	13%	16	62%	21	33%
Unplanned emergency department visit within 48 hours of discharge	12	32%			12	19%
Postoperative bleeding requiring return to operating room	5	15%	1	4%	6	9%
Other surgical or other invasive procedure event	4	11%	2	8%	6	9%
Laceration, perforation, puncture, or nick	4	11%	2	8%	6	9%
Incorrect implant			4	15%	4	6%
Iatrogenic pneumothorax	1	3%	1	4%	2	3%
Incorrect procedure	1	3%	1	4%	2	3%
Unintended blockage, obstruction, or ligation			1	4%	1	2%

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

Other surgical or other invasive procedure events:

- Postoperative care/pain management
- Postoperative bleeding requiring visit to coagulation clinic
- Retained lens fragment (which does not meet the defintion of an unintended retained foreign object)
- Unplanned emergency department visit over 48 hours past discharge
- No signed informed consent
- Consent obtained from patient while under sedation

Appendix III. Harm Categories and Algorithm

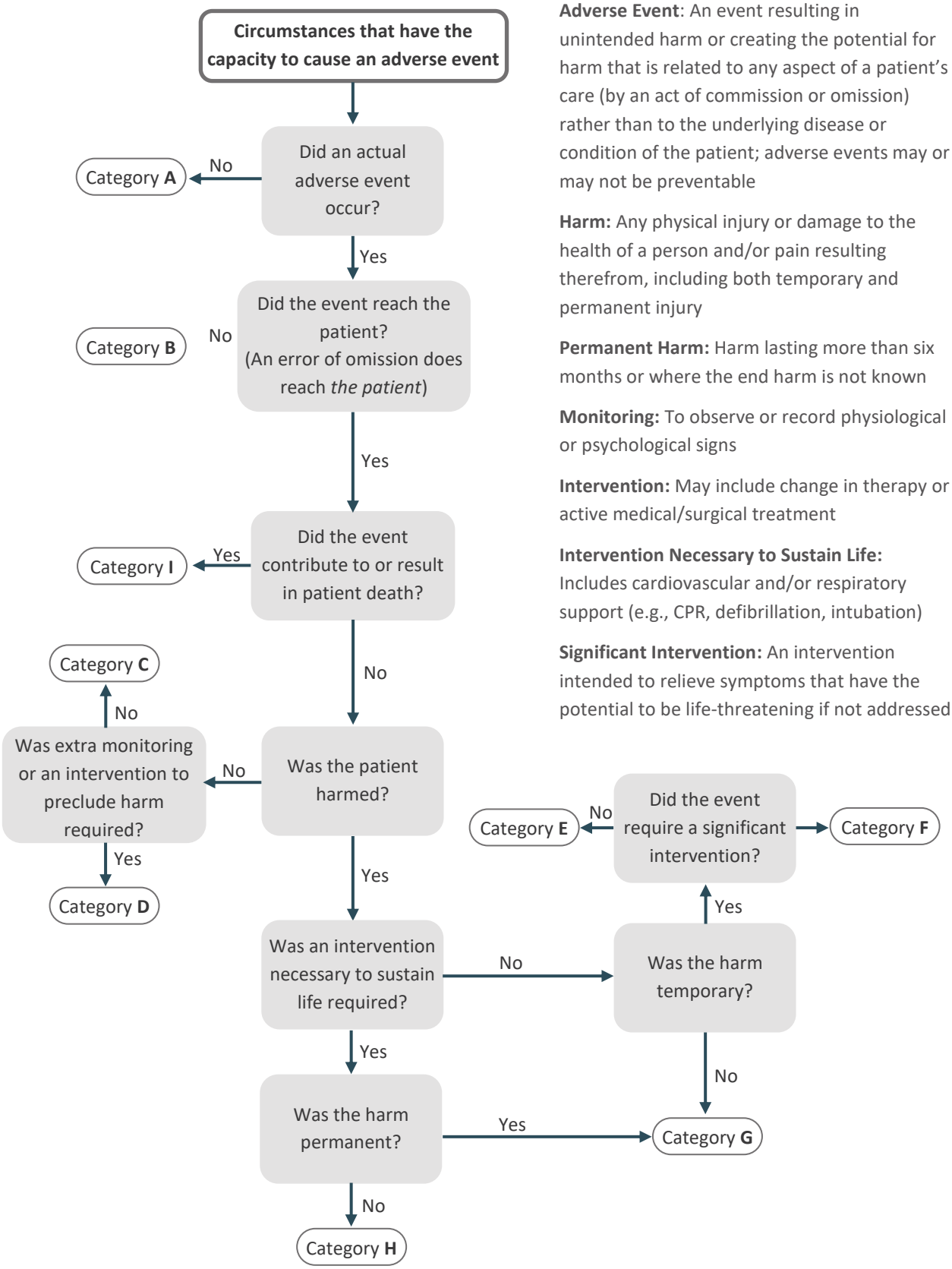
The Patient Safety Reporting Program (PSRP) has adapted the National Coordinating Council for Medication Error Reporting and Prevention's (NCC MERP) Medication Error Index (2001) to classify adverse events[2] according to the severity of the outcome. PSRP participants are required to report serious adverse events. Participants are also encouraged to report less serious harm events, no harm events, and near misses, because all events, regardless of harm, are prime opportunities to learn and improve systems of care.

Harm Categories

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	

[2] An adverse event is 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 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 IV. Contributing Factors

The Patient Safety Reporting Program asks reporters to specify whether each of the seven 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

Patient/Family Communication Factors

Table 18. Patient/Family Communication Factors by Segment, 2016

Patient/Family Communication Factors	ASC (n=45) Number (%)	Hospital (n=221) Number (%)	Nursing Facility (n=32) Number (%)	All Segments (n=298) Number (%)
Culture	2 (4%)	4 (2%)	2 (6%)	8 (3%)
Language	3 (7%)	5 (2%)	2 (6%)	10 (3%)
Miscommunication	14 (31%)	15 (7%)	5 (16%)	34 (11%)
Understanding discharge instructions or plan	7 (16%)	6 (3%)	0 (0%)	13 (4%)
Patient did not use call light	0 (0%)	0 (0%)	7 (22%)	7 (2%)
Patient unable to communicate	0 (0%)	0 (0%)	6 (19%)	6 (2%)
Other patient/family communication factors	0 (0%)	0 (0%)	0 (0%)	0 (0%)

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

Healthcare Team Communication Factors

Table 19. Healthcare Team Communication Factors by Segment, 2016

Healthcare Team Communication Factors	ASC (n=45) Number (%)	Hospital (n=221) Number (%)	Nursing Facility (n=32) Number (%)	All Segments (n=298) Number (%)
Across units	4 (9%)	48 (22%)	0 (0%)	52 (17%)
Among interdisciplinary teams	8 (18%)	85 (38%)	4 (13%)	97 (33%)
Between providers and staff	23 (51%)	114 (52%)	0 (0%)	137 (46%)
Between supervisor and staff	2 (4%)	14 (6%)	4 (13%)	20 (7%)
Handoffs, handovers or shift reports	6 (13%)	84 (38%)	8 (25%)	98 (33%)
Hard to read fax or handwriting	0 (0%)	2 (1%)	0 (0%)	2 (1%)
Within units	6 (13%)	43 (19%)	5 (16%)	54 (18%)
With other organizations or outside providers	3 (7%)	23 (10%)	9 (28%)	35 (12%)
Other healthcare team communication factors	1 (2%)	3 (1%)	0 (0%)	4 (1%)

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

Device, Equipment, or Supply

Table 20. Device, Equipment or Supply Factors by Segment, 2016

Device, Equipment or Supply Factors	ASC (n=26) Number (%)	Hospital (n=107) Number (%)	Nursing Facility (n=28) Number (%)	All Segments (n=161) Number (%)
Availability	4 (15%)	28 (26%)	3 (11%)	35 (22%)
Design	9 (35%)	21 (20%)	6 (21%)	36 (22%)
Function	7 (27%)	20 (19%)	3 (11%)	30 (19%)
Maintenance	0 (0%)	5 (5%)	3 (11%)	8 (5%)
Shortages	0 (0%)	2 (2%)	0 (0%)	2 (1%)
Use or selection by healthcare provider or staff	13 (50%)	53 (50%)	9 (32%)	75 (47%)
Use by patient (or resident)	1 (4%)	4 (4%)	8 (29%)	13 (8%)
Other device or supply factors	1 (4%)	0 (0%)	0 (0%)	1 (1%)

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

Human or Environmental

Table 21. Human or Environmental Factors by Segment, 2016

Human or Environmental Factors	ASC (n=22) Number (%)	Hospital (n=119) Number (%)	Nursing Facility (n=25) Number (%)	Pharmacy (n=10) Number (%)	All Segments (n=176) Number (%)
Alarm fatigue	0 (0%)	2 (2%)	0 (0%)	2 (20%)	4 (2%)
Clutter	0 (0%)	2 (2%)	1 (4%)	0 (0%)	3 (2%)
Interruptions or distractions	6 (27%)	85 (71%)	11 (44%)	5 (50%)	107 (61%)
Lighting	1 (5%)	4 (3%)	3 (12%)	0 (0%)	8 (5%)
Noise	1 (5%)	2 (2%)	2 (8%)	0 (0%)	5 (3%)
Provider or staff fatigue	4 (18%)	13 (11%)	6 (24%)	2 (20%)	25 (14%)
Provider or staff health issues	0 (0%)	2 (2%)	0 (0%)	0 (0%)	2 (1%)
Provider or staff stress	10 (45%)	37 (31%)	6 (24%)	0 (0%)	53 (30%)
Work area design or specifications	4 (18%)	31 (26%)	6 (24%)	0 (0%)	41 (23%)
Other human or environmental factors	0 (0%)	4 (3%)	2 (8%)	3 (30%)	9 (5%)

Organizational

Table 22. Organizational Factors by Segment, 2016

Organizational Factors	ASC (n=18) Number (%)	Hospital (n=151) Number (%)	Nursing Facility (n=27) Number (%)	All Segments* (n=198) Number (%)
Adequacy of budget	0 (0%)	3 (2%)	0 (0%)	3 (2%)
Clinical supervision	1 (6%)	23 (15%)		24 (14%)
Culture of safety	6 (33%)	29 (19%)	7 (26%)	42 (21%)
Internal reporting	1 (6%)	7 (5%)	0 (0%)	8 (4%)
Job orientation or training	6 (33%)	61 (40%)	11 (41%)	78 (40%)
Management or leadership skills	1 (6%)	8 (5%)	0 (0%)	9 (5%)
Managerial supervision	0 (0%)	11 (7%)		11 (7%)
Staff competencies	8 (44%)	46 (30%)	6 (22%)	60 (31%)
Staff turnover			5 (19%)	5 (19%)
Staffing level	2 (11%)	27 (18%)	0 (0%)	29 (15%)
Supervision			3 (11%)	3 (11%)
Systems to identify risk	2 (11%)	40 (26%)	8 (30%)	50 (26%)
Temporary staffing	1 (6%)	6 (4%)	5 (19%)	12 (6%)
Work assignment or allocation	1 (6%)	23 (15%)	2 (7%)	26 (13%)
Other organizational factors	0 (0%)	0 (0%)	1 (4%)	1 (1%)

* "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 23. Policy or Procedure Factors by Segment, 2016

Policy or Procedure Factors	ASC (n=22) Number (%)	Hospital (n=196) Number (%)	Nursing Facility (n=20) Number (%)	Pharmacy (n=5) Number (%)	All Segments (n=243) Number (%)
Clarity of policy or procedure	9 (41%)	91 (46%)	4 (20%)	0 (0%)	104 (43%)
Policy or procedure absent	8 (36%)	44 (22%)	5 (25%)	0 (0%)	57 (23%)
Staff or providers unfamiliar with policy or procedure	6(27%)	68 (35%)	6 (30%)	0 (0%)	80 (33%)
Too cumbersome	0 (0%)	12 (6%)	1 (5%)	0 (0%)	13 (5%)
Work around more efficient	1 (5%)	32 (16%)	4 (20%)	4 (80%)	41 (17%)
Other policy or procedure factors	1 (5%)	5 (3%)	2 (10%)	1 (20%)	9 (4%)

Patient Factors

Table 24. Patient Factors by Segment, 2016

Patient Factors	ASC (n=21) Number (%)	Hospital (n=159) Number (%)	Nursing Facility (n=62) Number (%)	All Segments (n=242) Number (%)
Behavioral status	7 (33%)	38 (24%)	17 (27%)	62 (26%)
Family dynamics or relationships	4 (19%)	15 (9%)	9 (15%)	28 (12%)
Fragile health status	7 (33%)	102 (64%)	19 (31%)	128 (53%)
Mental status	5 (24%)	37 (23%)	39 (63%)	81 (33%)
Physical limitations	5 (24%)	48(30%)	39 (63%)	92 (38%)
Sensory impairment	1 (5%)	19 (12%)	29 (47%)	49 (20%)
Other patient factors	3 (14%)	6 (4%)	1 (2%)	10 (4%)

Pharmacies were excluded from this table because they did not indicate *device, equipment or supply* factors on any submissions.

Patient Management Factors

Table 25. Patient Management Factors by Segment, 2016

Patient Management Factors	ASC (n=45) Number (%)	Hospital (n=138) Number (%)	Nursing Facility (n=21) Number (%)	All Segments* (n=204) Number (%)
Accuracy of care plan			2 (10%)	2 (10%)
Follow-up care	6 (13%)	19 (14%)	7 (33%)	32 (16%)
Implementation of care plan			8 (38%)	8 (38%)
Initial diagnosis	2 (4%)	25 (18%)	1 (5%)	28 (14%)
Patient or risk assessment	28 (62%)	35 (25%)	3 (14%)	66 (32%)
Response to changing condition	11 (24%)	66 (48%)	6 (29%)	83 (41%)
Treatment or care plan	15 (33%)	52 (38%)		67 (37%)
Other patient management factors	2 (4%)	1 (1%)	1 (5%)	4 (2%)

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

Appendix V. Reporting Patterns, 2009-2016

Figure 15. Number of Enrolled and Reporting Ambulatory Surgery Centers, 2009-2016

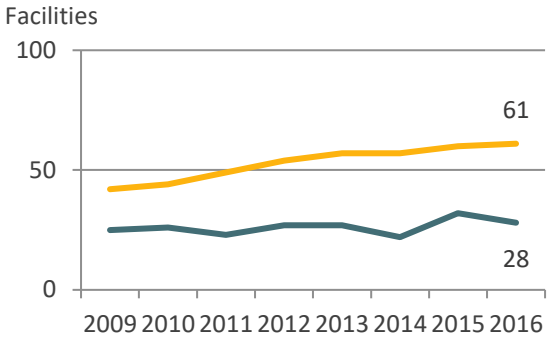


Figure 16. Number of Enrolled and Reporting Nursing Facilities, 2009-2016

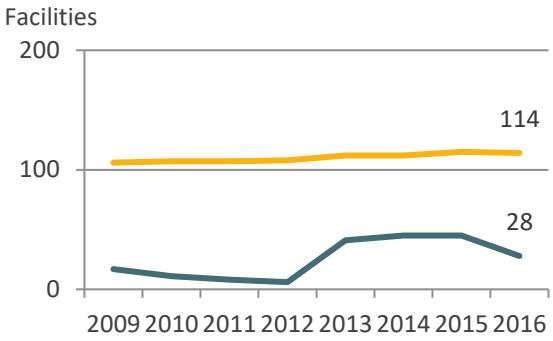


Figure 17. Number of Enrolled and Reporting Hospitals, 2009-2016

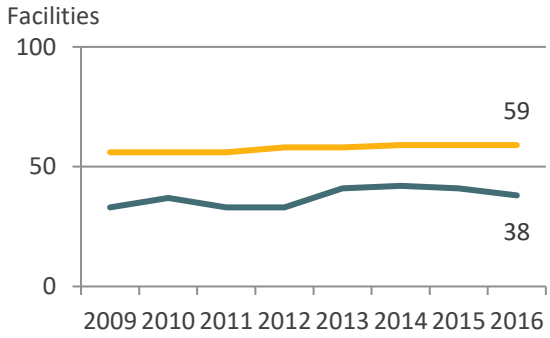
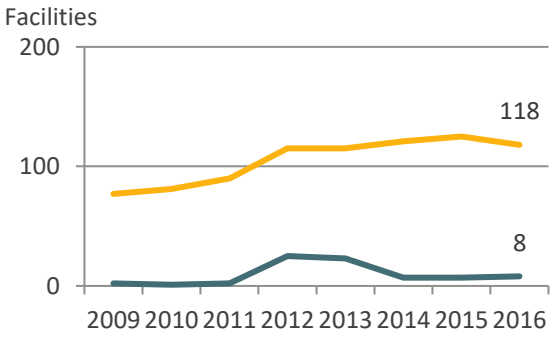


Figure 18. Number of Enrolled and Reporting Pharmacies, 2009-2016



Appendix VI. Detailed Data Tables by Segment

Harm Category I Reports

Table 26. Reports Indicating Death (Harm Category I) by Year, 2009-2016

	2009	2010	2011	2012	2013	2014	2015	2016
Number of harm category I reports	34	35	22	34	39	39	38	45
Percentage of total reports	10%	9%	8%	7%	6%	7%	6%	8%
Ambulatory Surgery Center								
Number of harm category I reports	1	1	0	2	0	0	1	1
Percentage of total reports	1%	1%	0%	1%	0%	0%	1%	1%
Hospital								
Number of harm category I reports	29	33	22	31	38	36	32	43
Percentage of total reports	23%	26%	15%	19%	17%	14%	10%	13%
Nursing Facility								
Number of harm category I reports	4	1	0	1	1	3	5	1
Percentage of total reports	11%	5%	0%	11%	1%	2%	3%	1%
Pharmacy								
Number of harm category I reports	0	0	0	0	0	0	0	0
Percentage of total reports	0%	0%	0%	0%	0%	0%	0%	0%

Event Type

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

Table 27. Event Type by Segment, 2016

	ASCs (n=106)		Hospitals (n=323)		Nursing Facilities (n=91)		Pharmacies (n=24)		All Segments (n=544)	
Event Type	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Medication or other substance	15	14%	55	17%	17	19%	24	100%	111	20%
Care delay	6	6%	70	22%	4	4%			80	15%
Fall	3	3%	28	9%	43	47%			74	14%
Surgical or other invasive procedure	38	36%	26	8%					64	12%
Device or supply	15	14%	24	7%	2	2%			41	8%
Other event	8	8%	16	5%	5	5%			29	5%
Healthcare-associated infection (HAI)	5	5%	23	7%					28	5%
Anesthesia	9	8%	6	2%					15	3%
Retained object	3	3%	11	3%					14	3%
Perinatal			14	4%					14	3%
Suicide or attempted suicide			10	3%	2	2%			12	2%
Elopement			7	2%	4	4%			11	2%
Failure to follow up or communicate test results			10	3%					10	2%
Pressure ulcer			5	2%	3	3%			8	1%
Resident transfer related					7	8%			7	1%
Radiologic			6	2%					6	1%
Irretrievable loss of irreplaceable specimen			5	2%					5	1%
Maternal			5	2%					5	1%
Contaminated drugs, devices or biologics	1	1%	3	1%					4	1%
Air embolism			3	1%					3	1%
Choking					3	3%			3	1%
Deep vein thrombosis	3	3%							3	1%
Blood or blood product			3	1%					3	1%
Aspiration	1	1%	1	0.3%					2	0.4%
Contaminated, wrong or no gas given to a patient			2	1%					2	0.4%

Event Type	ASCs (n=106)		Hospitals (n=323)		Nursing Facilities (n=91)		Pharmacies (n=24)		All Segments (n=544)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Burn	1	1%			1	1%			2	0.4%
Restraint or bedrail related					1	1%			1	0.2%
Total Events	**108**		**333**		**92**		**24**		**557**	

Other events:

9 - Other injury

7 - Care management

1 - Unexpected death

2 - Informed consent related

1 - Resident-to-resident altercation

1 - Patient room fire

2 - Patient misidentification

2 - HIT related

1 - Interpreter delayed

1 - Lab or pathology event

1 - Physical plant related

1 - Prolonged postoperative stay

Event Type by Harm by Segment

Table 28. Event Type by Harm, Ambulatory Surgery Centers, 2016

	Harm Category								
	Less Serious or No Harm					Serious or No Harm			
Event Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Anesthesia					1	4		4	
Aspiration								1	
Burn					1				
Care delay			2	2		1	1		
Contaminated drugs, devices or biologics						1			
Deep vein thrombosis with or without pulmonary embolism						2	1		
Device or medical/surgical supply	1	2	5	4	2	1			
Fall			1	1		1			
Healthcare-associated infection (HAI)						4	1		
Medication or other substance			7	1		2	3	1	1
Other event	2	2	1	1	2				
Surgical or other invasive procedure			2		5	26	3	2	
Unintended retained foreign object			1				2		
Total Reports in Harm Category	**3**	**4**	**19**	**9**	**11**	**42**	**10**	**7**	**1**

Table 29. Event Type by Harm, Hospitals, 2016

	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		1		1	
Anesthesia			1		1	2		1	1
Aspiration						1			
Blood or blood product		2		1					
Care delay	1		4	5	2	19	7	12	20
Contaminated drugs, devices or biologics		1		2					
Contaminated, wrong or no gas given to a patient						1		1	
Device or medical/surgical supply	2	3		4	6	3	1	2	3
Elopement			3	2	1	1			
Failure to follow up or communicate test results			1			5	1	1	2
Fall			1	1	7	14	1		1
Healthcare-associated infection (HAI)					1	20	1		1
Irretrievable loss of irreplaceable specimen			1	3		1			
Maternal						1		4	
Medication or other substance		3	4	7	2	21	1	9	5
Other event		2	3		2	4	2	1	2
Perinatal						1	7	2	4
Pressure ulcer						2	3		
Radiologic		1	1	1	1	1		1	
Suicide or attempted suicide				1	1	1		3	4
Surgical or other invasive procedure	1	1	1	2		11	7	1	2
Unintended retained foreign object					1	8	1	1	
Total Reports in Harm Category	**3**	**13**	**20**	**30**	**25**	**117**	**36**	**36**	**43**

Table 30. Event Type by Harm, Nursing Facilities, 2016

	Harm Category								
	Less Serious or No Harm					Serious Harm or Death			
Event Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Burn						1			
Care delay					2	2			
Choking			1			2			
Device or medical supply						2			
Elopement				4					
Fall			9	11	7	14	1	1	
Medication or other substance			2	11	1	3			
Other event					4	1			
Pressure ulcer					3				
Resident transfer related			1		4	1			1
Restraint or bedrail related					1				
Suicide or attempted suicide						2			
Total Report in Harm Category	**0**	**0**	**13**	**26**	**22**	**27**	**1**	**1**	**1**

Table 31. Event Type by Harm, Pharmacies, 2016

	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	0	2	19	2	1	0	0	0	0
Total Reports in Harm Category	**0**	**2**	**19**	**2**	**1**	**0**	**0**	**0**	**0**

Falls

Table 32. Physical Injury Resulting from Fall by Segment, 2016

	ASC (n=3)	**Hospital** (n=28)	**Nursing Facility** (n=43)	**All Segments** (n=74)
Physical injury	**Number (%)**	**Number (%)**	**Number (%)**	**Number (%)**
Physical injury	1 (33%)	25 (89%)	23 (53%)	49 (66%)
None	2 (67%)	2 (7%)	20 (47%)	24 (32%)
Unknown	0 (0%)	1 (4%)	0 (0%)	1 (1%)

Table 33. Type of Physical Injury Resulting from Fall by Segment, 2016

Physical injury	ASC (n=1) Number (%)	Hospital (n=25) Number (%)	Nursing Facility (n=23) Number (%)	All Segments (n=49) Number (%)
Fracture		15 (60%)	10 (43%)	25 (51%)
Skin tear, avulsion, hematoma or significant bruising	1 (100%)	2 (8%)	7 (30%)	10 (20%)
Other injury		2 (8%)	3 (13%)	5 (10%)
Laceration requiring sutures		2 (8%)	3 (13%)	5 (10%)
Intracranial injury		3 (12%)		3 (6%)
Dislocation		1 (4%)		1 (2%)

Table 34. Assisted and Unassisted Falls by Segment, 2016

Was the fall assisted or unassisted?	ASC (n=3) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=43) Number (%)	All Segments (n=74) Number (%)
Unassisted	1 (33%)	26 (93%)	38 (88%)	65 (88%)
Assisted	2 (67%)	2 (7%)	5 (12%)	9 (12%)

Table 35. Observed and Unobserved Falls by Segment, 2016

Was the fall observed or unobserved?	ASC (n=3) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=43) Number (%)	All Segments (n=74) Number (%)
Unobserved	1 (33%)	20 (71%)	27 (63%)	48 (65%)
Observed by staff (regardless of who else observed the fall)	2 (67%)	8 (29%)	11 (26%)	21 (28%)
Observed by visitor, family or another patient, but not staff			5 (12%)	5 (7%)

Table 36. Presence of a Documented Fall Risk Assessment by Segment, 2016

Was a fall risk assessment documented?	Hospital (n=28) Number (%)	Nursing Facility (n=43) Number (%)	All Segments (n=71) Number (%)
Documented	21 (75%)	41 (95%)	62 (87%)
Not documented	6 (21%)	1 (2%)	7 (10%)
Unknown	1 (4%)	1 (2%)	2 (3%)

Table 37. Level of Patient Fall Risk by Segment, 2016

Was the patient assessed to be at any level of risk for a fall?	Hospital (n=28) Number (%)	Nursing Facility (n=43) Number (%)	All Segments (n=71) Number (%)
Patient at any level of risk for fall	19 (68%)	39 (91%)	58 (82%)
Patient not at any level of risk for fall	7 (25%)	1 (2%)	8 (11%)
Patient's status unknown or unassessed	2 (7%)	3 (7%)	5 (7%)

Table 38. Patient Activities Performed or Attempted at the Time of the Fall by Segment, 2016

Prior to the fall, what was the patient doing or trying to do?	ASC (n=3) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=43) Number (%)	All Segments (n=74) Number (%)
Toileting-related activities		9 (32%)	4 (9%)	13 (18%)
Walking without assistance and without an assistive device or medical equipment	1 (33%)	3 (11%)	6 (14%)	10 (14%)
Standing or sitting	1 (33%)	2 (7%)	4 (9%)	7 (9%)
Transferring to or from bed, chair, wheelchair, etc. without assistance		2 (7%)	5 (12%)	7 (9%)
Reaching for an item			6 (14%)	6 (8%)
Changing position (e.g., in bed, chair, etc.)		3 (11%)	3 (7%)	6 (8%)
Sleeping		3 (11%)	2 (5%)	5 (7%)
Unknown		1 (4%)	3 (7%)	4 (5%)
Walking with assistance and/or with an assistive device or medical equipment		1 (4%)	3 (7%)	4 (5%)
Transferring to or from bed, chair, wheelchair, etc. with assistance	1 (33%)	1 (4%)	1 (2%)	3 (4%)
Other		2 (7%)	1 (2%)	3 (4%)
Wheeling in wheelchair or scooter			2 (5%)	2 (3%)
Showering or bathing			2 (5%)	2 (3%)
Engaging in recreational activities			1 (2%)	1 (1%)
Undergoing a diagnostic or therapeutic procedure		1 (4%)		1 (1%)

Written Notification

Table 39. Reasons Written Notification was not Provided when Required by Segment, 2016

Please specify why no written notification was given	ASC (n=46)	Hospital (n=147)	Nursing Facility (n=21)	Pharmacy (n=0)	All Segments (n=306)
Oral disclosure provided	26 (57%)	127 (86%)	14 (67%)		167 (55%)
Not required by facility organizational policy	9 (20%)	20 (14%)	9 (43%)		38 (12%)
No organizational policy	13 (28%)	4 (3%)	1 (5%)		18 (6%)
Other reason		3 (2%)	1 (5%)		4 (1%)
Not required by the OPSC definition	1 (2%)				1 (0.3%)

Facilities could select more than one response. Of note, "oral disclosure provided" only reflects whether oral disclosure was provided as an alternative to written notification; it does not indicate the absence of oral disclosure. The Oregon Patient Safety Commission believes that oral disclosure is occurring before written notification.

Appendix VII. Recognition Target Breakdown

Quantity

The quantity targets for 2016 varied for each participating ASC and hospital based on annual discharges, but was a static four reports (one per quarter) for nursing facilities and pharmacies. Oregon facilities submitted 564 adverse event reports in 2016 (Table 40). The median number of reports per facility was four, with a range of one to 34.

Table 40. Quantity of Submissions by Segment, 2016

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Total reports submitted*	123	323	92	24	564
Number of submitting facilities	27	38	28	8	101
Median reports per facility	4	5	3	3	4
Range of reports per facility	1-12	1-34	1-9	1-6	1-34

* Includes event reports that did not meet the definition of adverse event

Quality

In 2016, 74% of reports contained the six required quality components (five quality components for events resulting in less serious harm (Table 41). The components are designed to help ensure that a healthcare facility's in-depth event analyses can prevent future events.

Table 41. Reports Containing All Quality Components by Segment, 2016

	ASC (n=106)	Hospital (n=323)	Nursing Facility (n=91)	Pharmacy (n=24)	All Segments (n=544)
Number of reports containing all quality components	79	275	45	2	401
Percentage of reports containing all quality components	75%	85%	49%	8%	74%

Of the 143 reports that did not contain all quality components, 43 (30%) were only missing a single component. The two most frequently missing quality components were:

1. One or more system-level action plans designed to minimize risk
2. One or more root cause

The following figures provide more information about the quality components in 2016 reports by segment.

Figure 19. Quality Component Breakdown, ASCs, 2016 (n=106)

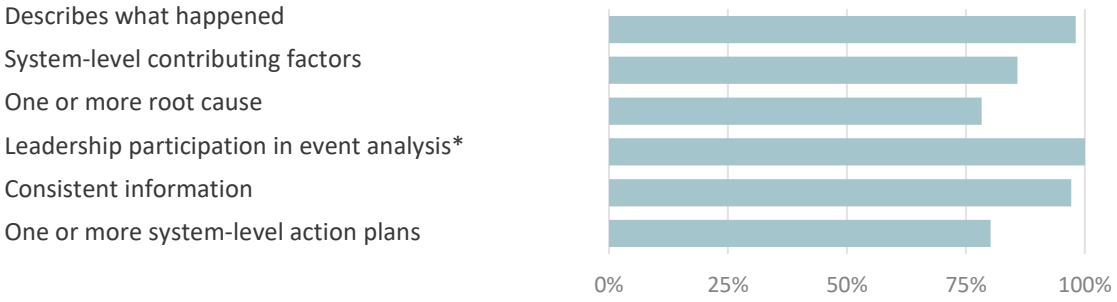


Figure 20. Quality Component Breakdown, Hospitals, 2016 (n=323)

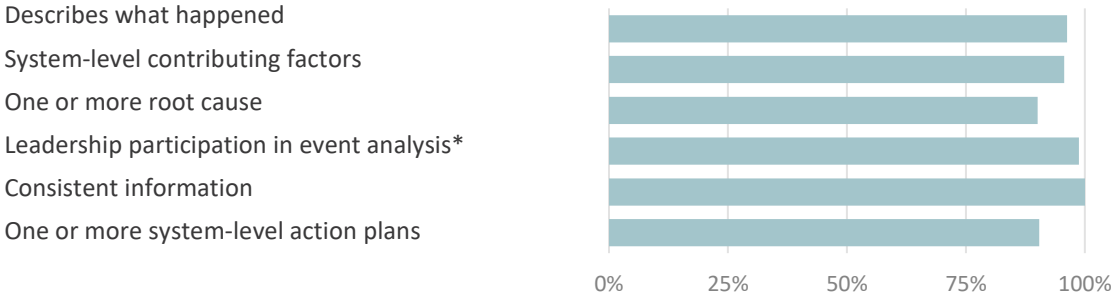


Figure 21. Quality Component Breakdown, Nursing Facilities, 2016 (n=91)

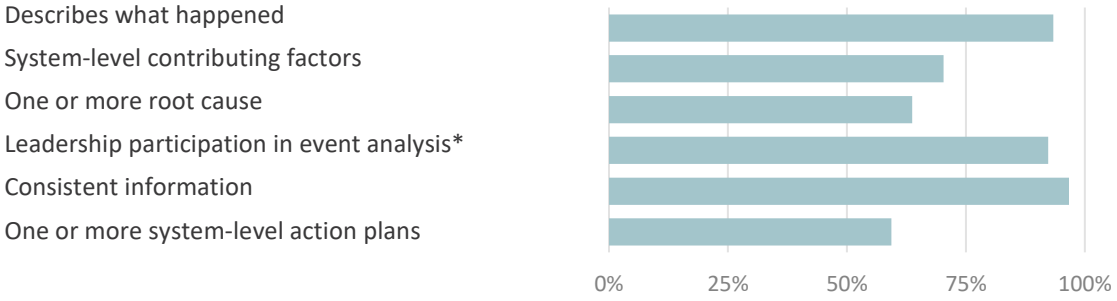


Figure 22. Quality Component Breakdown, Pharmacies, 2016 (n=24)

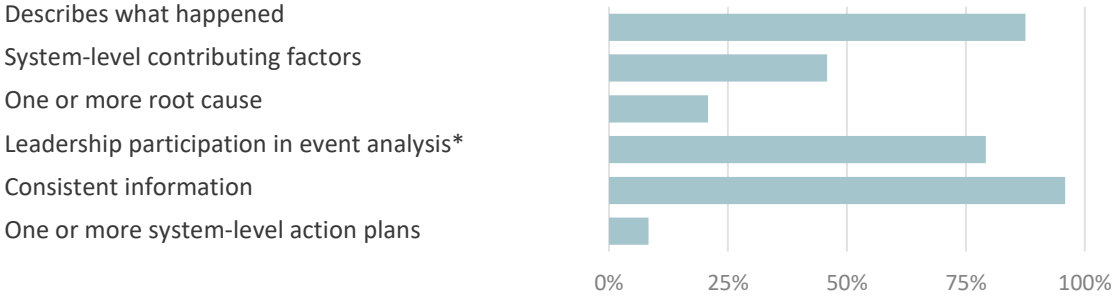
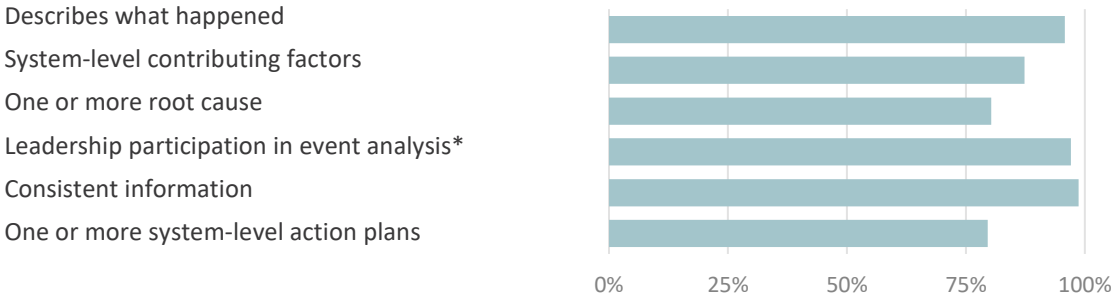


Figure 23. Quality Component Breakdown, All Segments, 2016 (n=544)



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

Timeliness

A quick response following an adverse event ensures an organization is able to collect complete and reliable information about what happened, which is necessary to design safer systems of care for future patients. For the third year in a row, more than half of reports (63%) were submitted within the required 45-day window (Table 42).

Table 42. Timeliness of Reports by Segment, 2016

	ASC (n=89)	Hospital (n=279)	Nursing Facility (n=91)	Pharmacy (n=23)	All Segments (n=482)
Number of reports that were timely	64	157	72	13	306
Percentage of reports that were timely	72%	56%	79%	57%	63%

Events that do not meet the definition of adverse event, or that are discovered during chart review or while analyzing another event, are excluded from timeliness calculations. Reports may also be excluded at the discretion of the patient safety consultant.

OPSC collects four pieces of time-related data for adverse events: date event occurred, date event was discovered, date review team completed their event analysis, and date report was submitted. These data points provide information about an organization's 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 40 days. The phase that required the most time was *review completion* to *report submission* (Table 43).

Table 43. Median Days in Key Reporting Timeline Phases, 2016

Median days between… (range)	ASC (n=83)	Hospital (n=279)	Nursing Facility (n=89)	Pharmacy (n=23)	All Segments (n=474)
Event to discovery	0 (0-112)	1 (0-571)	0 (0-47)	14 (0-385)	0 (0-421)
Discovery to review completion	12 (0-106)	21 (0-286)	4 (0-91)	32 (0-119)	14 (0-286)
Review completion to report submission	5 (0-335)	23 (0-353)	18 (0-280)	0 (0-56)	17 (0-353)

Events that do not meet the definition of adverse event, are discovered on chart review or while analyzing 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.

Appendix VIII. Event Types that are Reportable Regardless of Harm Category

For hospitals, reportable adverse events include both serious adverse events (Harm Category F-I) and certain other event types, regardless of level of harm. 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