Patient Safety Reporting Program 2017 Annual Report

Share. Learn. Improve **Patient Safety**.

OREGON PATIENT SAFETY COMMISSION

June 2018

The Oregon Patient Safety Commission, 2018

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 Oregon Patient Safety Commission's programs include the Patient Safety Reporting Program, Early Discussion and Resolution, and Quality Improvement Initiatives. To learn more about the Oregon Patient Safety Commission, visit oregonpatientsafety.org.

Table of Contents

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 confidential environment for healthcare organizations where patient safety learning can thrive.

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

In 2017, Oregon healthcare organizations—ambulatory surgery centers (ASCs), hospitals, nursing facilities, and community pharmacies ("pharmacies")—contributed 453 adverse event reports to PSRP. The most frequently reported adverse events were:

- *Surgical or other invasive procedure*
- *Care delay*
- *Medication or other substance*
- *Device or medical/surgical supply*
- *Fall*

Collectively, these five event types made up 68% of all PSRP event reports. As expected from the program's emphasis on serious adverse events, more than half of the 2017 reports (61%) resulted in serious harm or death. 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 2017, the proportion of reports that contained all the quality components increased from 38% to 68%.

Recommended Focus Areas

To promote continuous improvement, OPSC recommends that healthcare organizations focus on three areas of their processes which are essential to preventing patient harm:

- Identifying the core reasons why events are occurring (i.e., **root causes**)
- Identifying at least one system-level **contributing factor**
- 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 better inform patient safety improvement statewide.

PSRP 2017 Reporting Data at a Glance

Submissions over Time, 2013-2017

Submitted reports
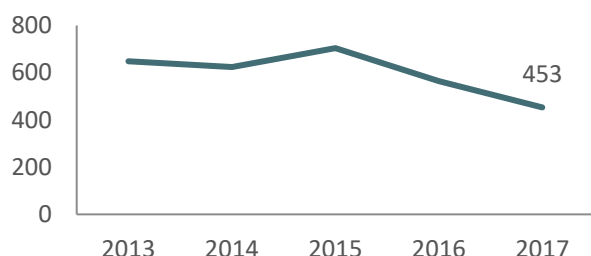
In 2017, Oregon healthcare organizations ("segments," i.e., ASCs, hospitals, nursing facilities, and pharmacies) contributed 453 adverse event reports to the Patient Safety Reporting Program (PSRP). While this was the smallest number of reports submitted in one year since 2012, increased or decreased reporting does not necessarily mean that Oregon healthcare organizations are experiencing more or fewer adverse events.

Top Five Event Types, 2017

n=440 *

Event Type	Number	Percent
Surgical or other invasive proc.	88	20%
Care delay	68	15%
Medication or other substance	49	11%
Device or medical/surgical sup.	49	11%
Fall	45	10%

In 2017, the top five event types made up 68% of all reports submitted to PSRP. The types of events reported to PSRP vary by segment:

- **ASCs:** 47% Surgical or other invasive procedure
- **Hospitals:** 20% Care delay
- **Nursing Facilities:** 38% Fall
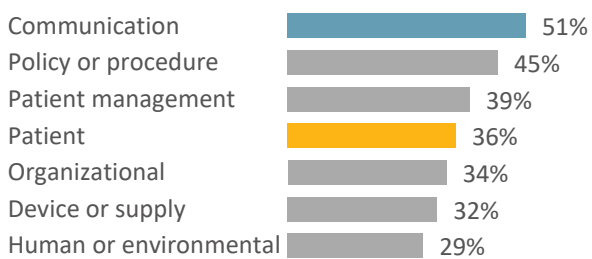- **Pharmacies:** *not reportable; n<10*

Harm Category, 2017

n=438 *
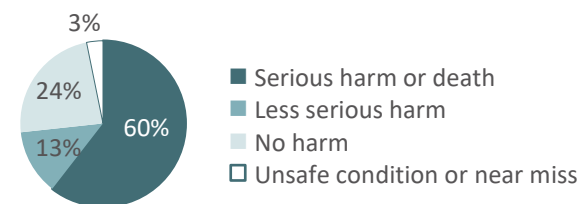
- Serious harm or death
- Less serious harm
- No harm
- Unsafe condition or near miss

As expected from PSRP's emphasis on serious adverse events, more than half of the reports submitted to PSRP in 2017 (60%) identified serious harm or death. There is some variation in the severity of harm by reporting segment that may be due to the patient populations served and the types of services provided.

Contributing Factor Categories, 2017

n=438 *

Communication	51%
Policy or procedure	45%
Patient management	39%
Patient	36%
Organizational	34%
Device or supply	32%
Human or environmental	29%

- Top category for ASCs and hospitals
- Top category for nursing facilities

(Top category for pharmacy not shown, n<10)

Communication was the most frequently selected contributing factor category in 2017 (51%), followed by *policy or procedure* factors (45%), and *patient management* factors (39%). By identifying system-level 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.

* Excludes reports that did not meet the definition of adverse event.

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 statewide.

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 resource for confidential expertise on how to minimize risk and improve 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 about and improve their systems of care, they are also building the skills necessary to address the wide range of future safety issues that may arise.

Other Patient Safety Resources

In addition to PSRP, OPSC offers a variety of programs to help healthcare organizations respond to and learn from adverse events, many of which are informed by the PSRP data that is gathered. Healthcare organizations can use the information in this PSRP report, in conjunction with OPSC's other services, to support and strengthen their patient safety programs. OPSC provides:

- **Consultation**—uniquely qualified staff, Patient Safety Consultants, offer confidential patient safety expertise to help healthcare organizations learn from adverse events and make care safer for future patients

- **Educational opportunities**—both in-person and virtual training opportunities on relevant patient safety topics
- **Patient safety alerts**—information about potentially serious patient safety concerns that may require immediate attention
- **Toolkits and resources**—a collection of best-practice resources for organizations seeking to improve healthcare delivery
- **News and announcements**—up-to-date patient safety news, research, and resources
- **Quality Improvement Initiatives**—learning networks working on targeted initiatives to improve patient care (e.g., infection prevention and control)
- **Safe-table workgroups**—convened for participating healthcare organizations to work on patient safety issues in a confidential environment
- **Communication and resolution program support**—consultation, training, and support to develop a principled, comprehensive, and systematic approach for responding to patients who have been harmed during healthcare (includes support to use the Early Discussion and Resolution program which provides protections for communication with patients and families)

For more information about what OPSC offered in 2017, see Appendix I and visit oregonpatientsafety.org.

Reporting Overview

In 2017, Oregon healthcare organizations (categorized by "segments," i.e., ASCs, hospitals, nursing facilities, and pharmacies) contributed 453 adverse event reports to the Patient Safety Reporting Program (Figure 1). While this was the smallest number of reports submitted in one year since 2012, 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, 2013-2017
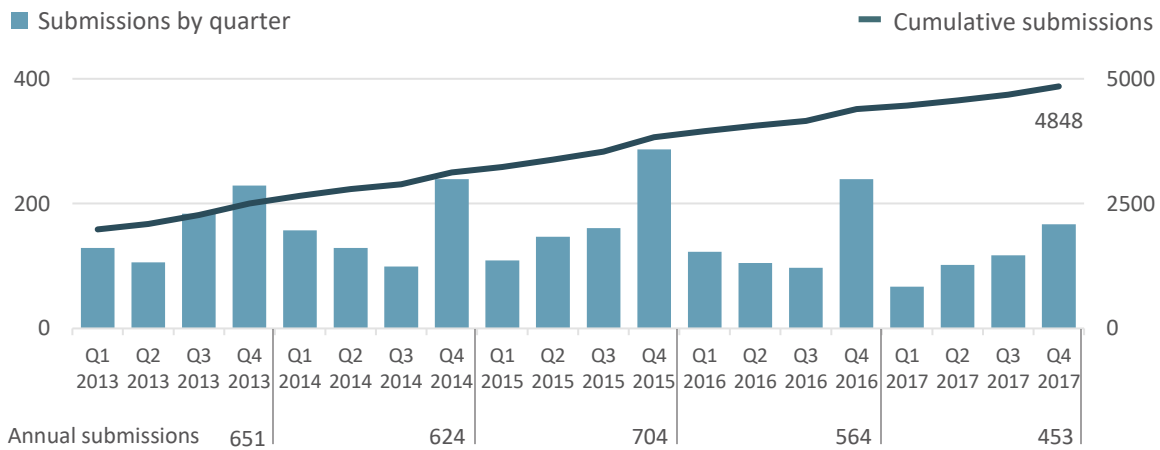
In addition to the number of reports submitted, OPSC monitors report quality and timeliness. From 2012 to 2017, the percentage of reports that contained the necessary quality components increased from 38% to 68%. Quality components serve as indicators of the likelihood that an organization's event analysis could prevent future events.

In 2017, less than half of reports (44%) were considered timely (submitted within 45 days of event discovery). 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 in order 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.
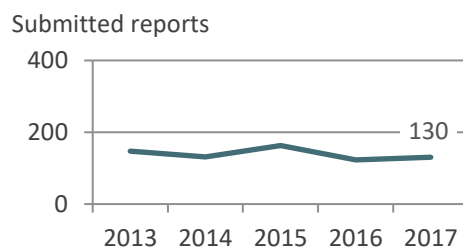
Reports by Healthcare Segment

Submitted Reports by Year, 2012-2017

ASCs

The number of reports submitted by ASCs has been relatively stable over the past three years (Figure 2). Over 1,550 reports have been submitted since the ASC reporting program began in 2007.
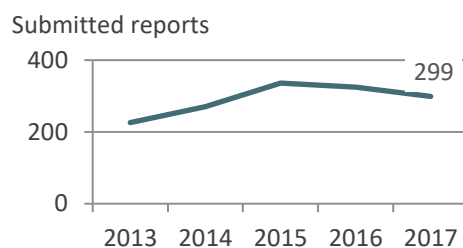
Figure 2. ASC Reports

Submitted reports

Hospitals

The number of reports submitted by hospitals remained fairly stable between 2015 and 2017—336 reports in 2015, 325 in 2016, and 299 in 2017 (Figure 3). Over 2,200 reports have been submitted in total since the hospital reporting program began in 2006.

Figure 3. Hospital Reports

Submitted reports

Nursing Facilities

The number of reports submitted by nursing facilities has been declining since 2015 (Figure 4). Over 700 reports have been submitted since the nursing facility reporting program began in 2007.

Figure 4. Nursing Facility Reports
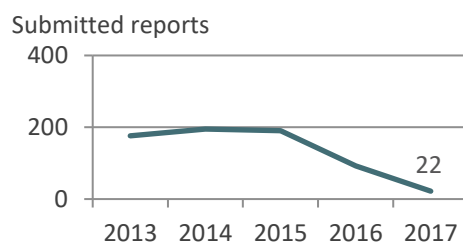
Submitted reports

Pharmacies

The number of reports submitted by pharmacies decreased from 24 reports in 2016 to two reports in 2017 (Figure 5). Over 250 reports have been submitted since the pharmacy reporting program began in 2010.

Figure 5. Pharmacy Reports
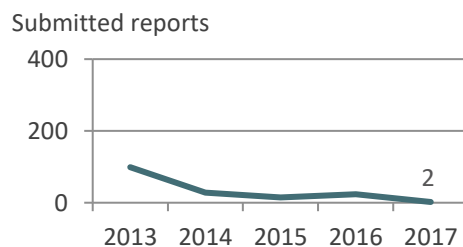
Submitted reports

Unless otherwise indicated, data on the following pages of this report excludes 16 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 II 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 2017, the top five event types for all segments combined were:

- *Surgical or other invasive procedure*
- *Care delay*
- *Medication or other substance*
- *Device or medical/surgical supply*
- *Fall*

Collectively, these five event types made up 68% of all reports submitted to PSRP (Table 1).

Table 1. Top Five Event Types by Segment, 2017

Top Five Event Types	ASC (n=126) Number (%)	Hospital (n=291) Number (%)	Nursing Facility (n=21) Number (%)	Pharmacy (n<5)* Number (%)	All Segments (n=438) Number (%)
Surgical or other invasive procedure	59 (47%)	29 (10%)			88 (20%)
Care delay	6 (5%)	59 (20%)	3 (14%)		68 (16%)
Medication or other substance	9 (7%)	35 (12%)	3 (14%)	—	47 (11%)
Device or medical/surgical supply	9 (7%)	39 (13%)	1 (5%)		49 (11%)
Fall	9 (7%)	28 (10%)	8 (38%)		45 (10%)

* Pharmacies' *medication or other substance* events are excluded because there were fewer than five reports.

Shaded cells indicate that the answer option is not available to the segment.

Additional detail is available on the top five event types: *surgical or other invasive procedure* (page 5)*, care delay* (page 6), *medication or other substance* (page 7), *device or medical/surgical supply* (page 8), and *fall* (page 9). Additional event type detail is available in Appendix VII, Table 33 and Appendix III, Table 18-Table 23.

ASCs

ASCs primarily perform surgical procedures, so it is not surprising that *surgical or other invasive procedure* events are the most frequently reported event type for this segment (Table 2).

Table 2. Top Six ASC Event Types, 2017
n=126

Top Six Event Types	Number	Percent
Surgical or other invasive procedure	59	47%
Healthcare-associated infection	12	10%
Aspiration	11	9%
Medication or other substance	9	7%
Fall	9	7%
Device or medical/surgical supply	9	7%

Hospitals

Hospitals reported a wide range of event types in 2017 due to the diverse services provided in the hospital setting (Table 3). This is the second year that *care delay* has been the top event type, and the second time since 2007 that *fall* hasn't been in the top two.

Table 3. Top Five Hospital Event Types, 2017
n=289

Top Five Event Types	Number	Percent
Care delay	59	20%
Device or medical/surgical supply	39	13%
Medication or other substance	35	12%
Surgical or other invasive procedure	29	10%
Fall	28	10%

Nursing Facilities

Although *fall* continues to be the leading event type reported by nursing facilities (Table 4), 2017 is only the second year that it has made up less than half of reported nursing facility events.

Table 4. Top Five Nursing Facility Event Types, 2017
n=21

Top Five Event Types	Number	Percent
Fall	8	38%
Care delay	3	14%
Medication or other substance	3	14%
Resident transfer related	2	10%
Pressure ulcer	2	10%

Pharmacies

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

Surgical or Other Invasive Procedure Events

Only ASCs and hospitals report *surgical or other invasive procedure* events, which were the most frequently reported adverse event type in 2017. *Surgical or other invasive procedure* events represent almost half (47%) of all ASC reports. Of this event type, ASCs most frequently reported *unplanned admission to hospital* and *unplanned emergency department visit* events (Figure 6). Among hospitals, *surgical or other invasive procedure* events comprise 10% of all reported event types. Hospitals most frequently reported *laceration, perforation, puncture, or nick* and *incorrect site or side* events (Figure 7).

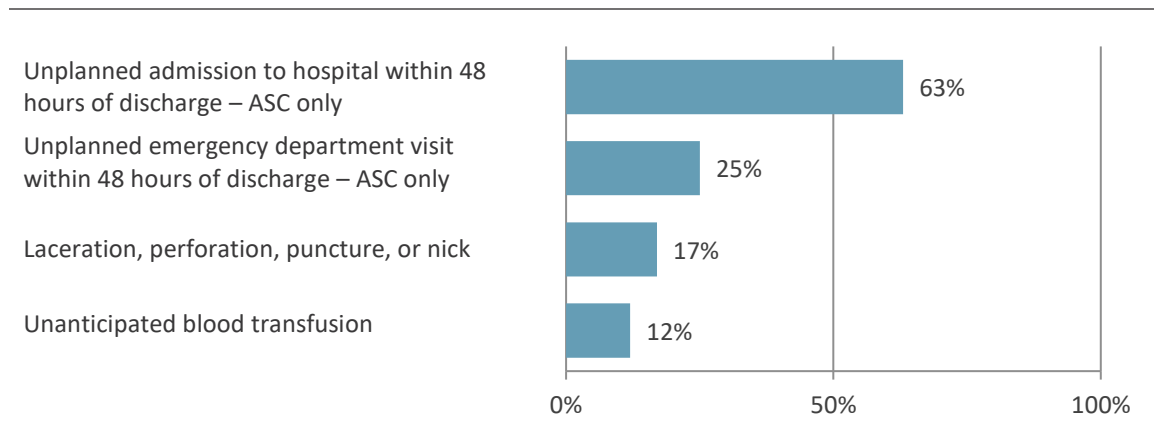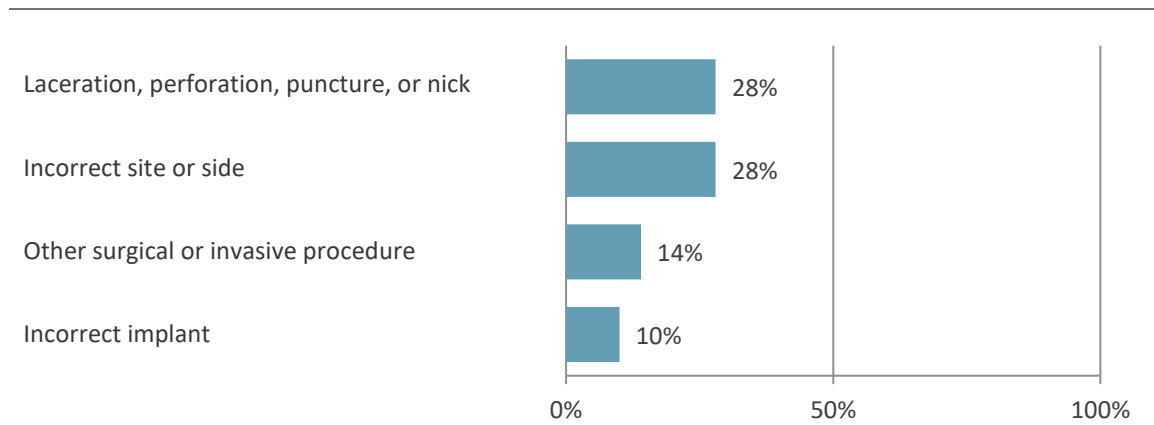**Figure 6. Top Four ASC Surgical Event Types, 2017**

Figure 7. Top Four Hospital Surgical Event Types, 2017

More detailed data about *surgical or other invasive procedure* events (including a list of *other surgical or invasive procedure* events that did not fit into a pre-existing category) can be found in Appendix III, Table 23.

Care Delay Events

A *care delay* includes delay in treatment or intervention, delay in diagnosis, delay in recognizing changing condition, and failure to rescue in the time frame in which they should have received it.

Care delay has been among the top four event types reported to PSRP since 2013. In 2017, *care delay* made up 15% of the total events reported to PSRP and accounted for 46% of the events that resulted in death (harm category I; more information about the severity of harm in reported events is available in the Harm Category section of this report). *Care delay* events submitted to PSRP occurred in a wide variety of locations within healthcare facilities.

Communication was the most frequently identified contributing factor category for *care delay* in 2016 and 2017. In 2017, *communication* was identified in 84% of *care delay* reports (Table 5).

Table 5. Contributing Factor Categories for Care Delay, 2017

Contributing Factor Category	All Segments Number (%) (n=68)
Communication	57 (84%)
Patient management	46 (68%)
Organizational	38 (56%)
Policy or procedure	36 (53%)
Human or environmental	30 (44%)
Patient	27 (40%)
Device or supply	22 (32%)

A Tool to Engage Patients and Improve Communication

Healthcare organizations can take steps to address the *communication* factors that may contribute to *care delay*. In the January 2015, Issue Nine of Quick Safety[1], The Joint Commission[2] recommends a tool to improve communication through patient engagement to help address *care delay*.

"The Joint Commission seeks to help accredited organizations develop the skills, competence and knowledge required to eliminate delays in treatment; this includes greater levels of patient engagement. The Joint Commission's Speak Up™ program encourages patients to:

- **S**peak up if they have questions or concerns
- **P**ay attention to the care they receive
- **E**ducate themselves about their illnesses
- **A**sk a trusted family member or friend to be their advocate
- **K**now the medicine they receive
- **U**se hospitals, clinics and surgery centers that have been carefully checked out
- **P**articipate in all decisions about their care"

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[1] This issue of Quick Safety is available at:
https://www.jointcommission.org/assets/1/23/Quick_Safety_Issue_Nine_Jan_2015_FINAL.pdf

[2] The Joint Commission is one of the organizations in the United states that accredits and certifies healthcare organizations and programs.

Medication or Other Substance Events

The medication system is an integral part of patient care, and all four reporting segments contribute *medication or other substance* events to PSRP. The top three *medication or other substance* event types for all segments combined were *incorrect medication or substance*, *incorrect dose*, and *oversedation* (Table 6).

Table 6. Top Three Medication or Other Substance Event Types by Segment, 2017
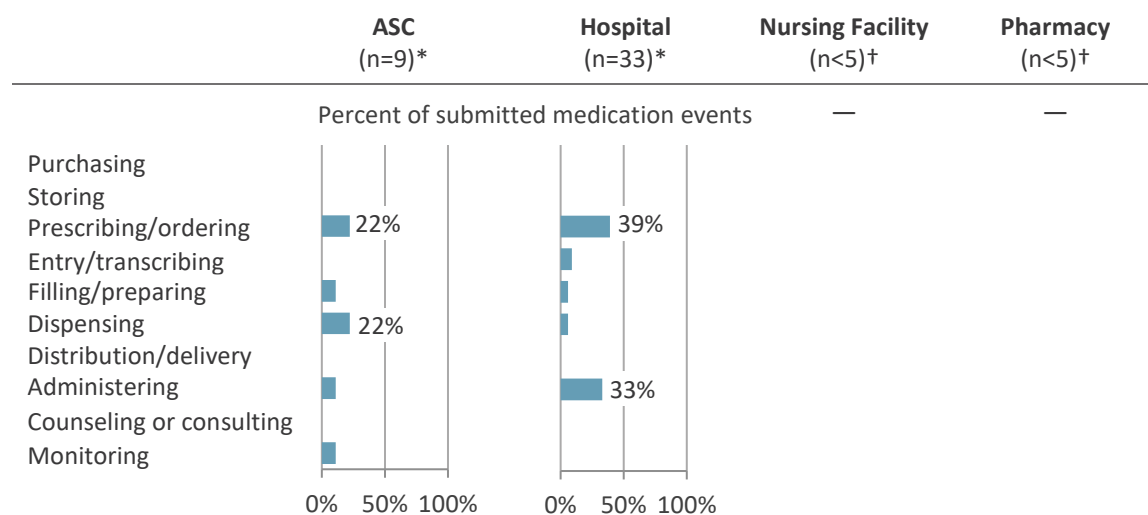
Medication Event Types	ASC (n=9) Number (%)	Hospital (n=35) Number (%)	Nursing Facility (n<5)* Number (%)	Pharmacy (n<5)* Number (%)	All Segments (n=44) Number (%)
Incorrect medication or substance	4 (44%)	9 (26%)	—	—	13 (30%)
Incorrect dose	1 (11%)	11 (31%)	—	—	12 (27%)
Oversedation	0 (0%)	7 (20%)	—	—	7 (16%)

* Nursing facilities and pharmacies are excluded because there were fewer than five *medication* events in either segment.

More detailed information about *medication* events reported in 2017 is available in Appendix III, Table 22.

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 or other substance* events reported to PSRP are categorized using ten process stages (Figure 8). The types of events that occurred in each segment are indicative of the types of medication-related services provided. For ASCs and hospitals combined, the most frequent stage of origin was *prescribing/ordering*. For ASCs, a frequent stage of origin was *dispensing*. For hospitals, a frequent stage of origin was *administering*.

Figure 8. Process Stage at Which Medication Events Originated by Segment, 2017

	ASC (n=9)*	Hospital (n=33)*	Nursing Facility (n<5)†	Pharmacy (n<5)†
Percent of submitted medication events			—	—

Purchasing
Storing
Prescribing/ordering — ASC 22%, Hospital 39%
Entry/transcribing
Filling/preparing
Dispensing — ASC 22%
Distribution/delivery
Administering — Hospital 33%
Counseling or consulting
Monitoring

0%   50% 100%   0%   50% 100%

* One ASC and three hospital reports were marked "unknown," and are excluded from the denominator.

† Nursing facilities and pharmacies are excluded because there were fewer than five *medication* events in either segment.

Device or Medical/Surgical Supply Events

Device or medical/surgical supply was the fourth most frequently selected event type in 2017. Forty-nine reports (11%) selected *device or medical/surgical supply* as an event type, the most of any year since the beginning of the reporting program. This is mostly due to hospital submissions. The 39 *device or medical/surgical supply* events submitted by hospitals in 2017 is by far the most in one year for the segment. The most frequent type of *device or medical/surgical supply* event was *use error* (54%; Table 7).

Table 7. Top Three Device or Medical/Surgical Supply Event Types by Segment, 2017

Device or Supply Event Types	ASC (n=9) Number (%)	Hospital (n=39) Number (%)	Nursing Facility (n<5)* Number (%)	All Segments† (n=48) Number (%)
Use error	5 (56%)	21 (54%)	—	26 (54%)
Device or supply failure	3 (33%)	7 (18%)	—	10 (21%)
Device or supply not available	0 (0%)	7 (18%)	—	7 (15%)

* Nursing Facilities are excluded because they submitted fewer than five device events.

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

More detailed information about *device or supply* events reported in 2017 is available in Appendix III, Table 20.

Most of the *device or medical/surgical supply* events submitted in 2017 involved *medical equipment* (58%). Four involved scopes of some kind (bronchoscope, laryngoscope, etc.), four involved a cord or cable, three involved an IV of some kind, two involved a ventilator, two involved cautery devices, and two involved headlamps.

Table 8. Type of Device or Medical/Surgical Supply by Segment, 2017

Type of Device or Supply	ASC (n=9) Number (%)	Hospital (n=39) Number (%)	Nursing Facility (n<5)* Number (%)	All Segments (n=48) Number (%)
Medical equipment	4 (44%)	24 (62%)	—	28 (58%)
Implantable device	0 (0%)	3 (8%)		3 (6%)
Supply, including disposable product	5 (56%)	12 (31%)	—	17 (35%)

* Nursing Facilities are excluded because they submitted fewer than five *device or supply* events.

Shaded cells indicate that the answer option is not available to the segment.

Fall

In 2017, a total of 45 *fall* events were reported by the three segments that report this type of event (ASCs, hospitals, and nursing facilities). Seventy-six percent of the reported *fall* events resulted in a physical injury (e.g., fracture or skin tear), 76% were unassisted, and 53% were unobserved. For breakouts of this data by segment, see Appendix VII, Table 38-Table 41.

Hospitals and nursing facilities provide information on fall risk assessment and patient risk factors. Thirty reports (83%) indicated that the patient had a documented fall risk assessment. All 30 patients with a fall risk assessment were assessed to be at risk for falling. Of the 36 patients who fell in a hospital or nursing facility, 89% 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 9).

Table 9. Risk Factors Present at the Time of the Fall by Segment, 2017

Risk Factors for Fall	Hospital (n=24) Number (%)	Nursing Facility (n=8) Number (%)	Both Segments* (n=32) Number (%)
Mobility or gait impairment	21 (88%)	7 (88%)	28 (88%)
Cognitive impairment	17 (71%)	8 (100%)	25 (78%)
History of previous fall	10 (42%)	7 (88%)	17 (53%)
Sensory impairment (vision, hearing, balance, etc.)	10 (42%)	6 (75%)	16 (50%)
Other risk factor for falls	3 (13%)	0 (0%)	3 (9%)

* These numbers may total more than 100% as reports may indicate multiple risk factors.

For both hospitals and nursing facilities, the leading risk factors that contributed to a fall were *cognitive impairment* (75%), *mobility or gait impairment* (69%), and *sensory impairment* (47%) (Table 10).

Table 10. Risk Factors that Contributed to the Fall by Segment, 2017

Risk Factors for Fall that Contributed	Hospital (n=25) Number (%)	Nursing Facility (n=7) Number (%)	Both Segments* (n=32) Number (%)
Cognitive impairment	17 (68%)	7 (100%)	24 (75%)
Mobility or gait impairment	17 (68%)	5 (71%)	22 (69%)
Sensory impairment (vision, hearing, balance, etc.)	10 (40%)	5 (71%)	15 (47%)
Other risk factor for falls	2 (8%)	1 (14%)	3 (9%)

* These numbers may total more than 100% as reports may indicate contributing risk factors.

Most falls occurred while the patient was performing a routine activity, like using the toilet or getting out of bed. Twenty-four percent of patients who fell were *performing toileting-related activities*. Thirteen percent *were transferring to or from bed, a chair, a wheelchair, or similar, without assistance* (Table 11).

Table 11. Top Four Patient Activities Performed or Attempted at the Time of the Fall by Segment, 2017

Pre-Fall Activities	ASC (n=9) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=8) Number (%)	All Segments (n=45) Number (%)
Toileting-related activities	1 (11%)	9 (32%)	1 (13%)	11 (24%)
Transferring to or from bed, chair, wheelchair, etc. without assistance	1 (11%)	4 (14%)	1 (13%)	6 (13%)
Dressing or undressing	5 (56%)	0 (0%)	0 (0%)	5 (11%)
Walking with assistance and/or with an assistive device or medical equipment	2 (22%)	2 (7%)	0 (0%)	4 (9%)

Appendix VII, Table 44 lists 2017 pre-fall activities by segment.

The *patient goals (reason they got up)* varied by each segment. For ASCs, the most common *patient goal* was *change location* (56%). For hospitals, the most common *patient goals* were *toileting* (43%) and *unknown* (29%). For nursing facilities, the most common *patient goals* were *unknown* (38%) and *toileting* and *return to bed or chair* (both at 25%) (Table 12).

Table 12. Top Four Patient Goals (Reason They Got up) by Segment, 2017

Patient Goals	ASC (n=9) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=8) Number (%)	All Segments* (n=45) Number (%)
Toileting	1 (11%)	12 (43%)	2 (25%)	15 (33%)
Unknown	0 (0%)	8 (29%)	3 (38%)	11 (24%)
Change location (e.g., move to another room, different chair)	5 (56%)	2 (7%)	0 (0%)	7 (16%)
Return to bed or chair	0 (0%)	4 (14%)	2 (25%)	6 (13%)

* These numbers may total more than 100% as reports may indicate multiple patient goals.

Appendix VII, Table 45 lists 2017 patient goals by segment.

The most frequent *physical or environmental cause of the fall* for each segment was *loss of balance or footing*. Across all segments, this cause accounted for 42% of reported *physical or environmental cause of fall* (Table 13, page 11).

Table 13. Top Five Physical or Environmental Causes of Falls by Segment, 2017

| Physical or environmental cause	ASC (n=9) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=8) Number (%)	All Segments* (n=45) Number (%)
Loss of balance or footing	4 (44%)	11 (39%)	4 (50%)	19 (42%)
Legs or knees "gave out" or stiffened suddenly	2 (22%)	4 (14%)	1 (13%)	7 (16%)
Slip or trip	1 (11%)	6 (21%)	0 (0%)	7 (16%)
Device or equipment (e.g., walker rolled forward, wheelchair footrest broke)	0 (0%)	3 (11%)	1 (13%)	4 (9%)
Patient condition (e.g., TIA, seizure)	2 (22%)	2 (7%)	0 (0%)	4 (9%)

* These numbers may total more than 100% as reports may indicate multiple physical or environmental causes.

Appendix VII, Table 46 lists the physical or environmental causes of 2017 falls by segment.
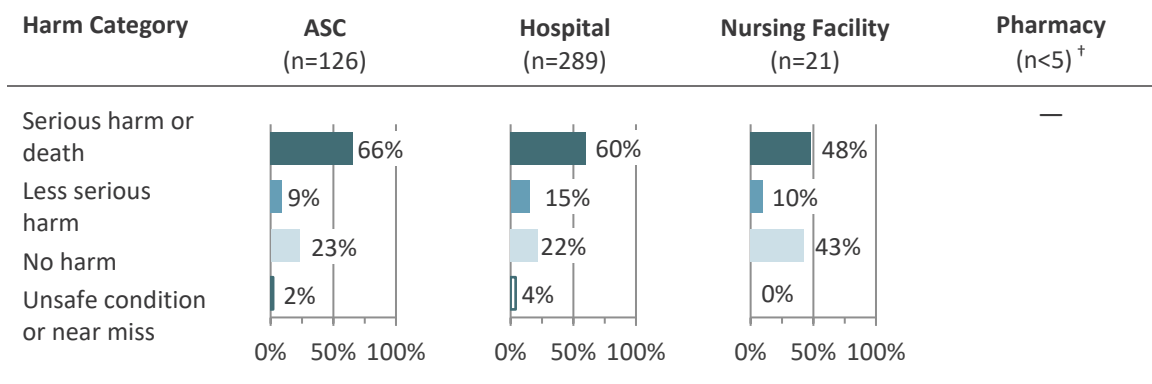
Harm Category

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 IV: Harm 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, 2017
(n=438)
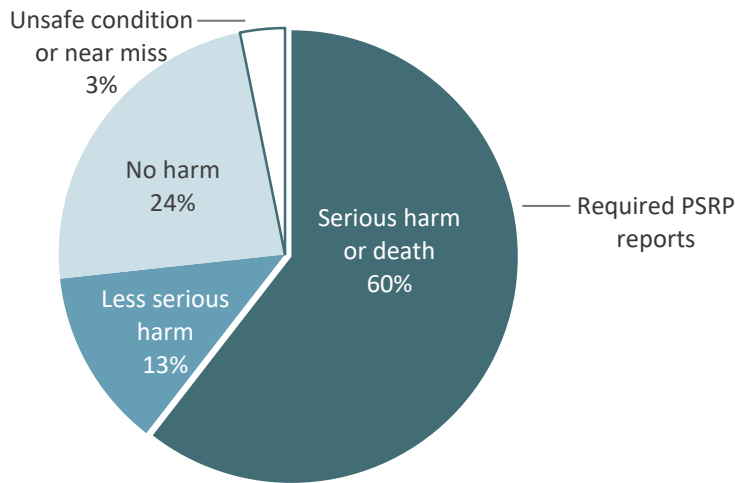
As expected from PSRP's emphasis on serious adverse events, more than half of the reports submitted to PSRP in 2017 (60%) identified serious harm or death (harm categories F, G, H, or I; Figure 9). Variations in the severity of harm by reporting segment may be due to the patient populations served and the types of services provided (Figure 10). For additional breakouts by event type and segment, see Appendix VII, Table 34-Table 37.

Figure 10. Harm Categories by Segment, 2017

Harm Category	ASC (n=126)	Hospital (n=289)	Nursing Facility (n=21)	Pharmacy (n<5) [†]
Serious harm or death	66%	60%	48%	—
Less serious harm	9%	15%	10%	
No harm	23%	22%	43%	
Unsafe condition or near miss	2%	4%	0%	

Note: Surgical and other invasive procedure is 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.

[†] Pharmacies are excluded because they submitted fewer than five reports.

Facilities reported 52 harm category I (patient death) events in 2017, which is proportionally similar to previous years (Table 14). For a breakdown of these figures by segment, see Appendix VII, Table 32.

Table 14. Harm Category I (Death) Reports by Year, 2011-2017

	2011	2012	2013	2014	2015	2016	2017
Number of harm category I reports	22	34	39	39	38	45	52
Percentage of adverse events	8%	10%	6%	7%	6%	8%	12%

Seven of the harm category I reports were patient suicides. While more harm category I reports were submitted in 2017 compared to previous years, increased or decreased reporting does not necessarily mean that Oregon healthcare organizations are experiencing more or fewer of these events than in the past. The majority of the remaining 45 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 yielded system level action plans—an 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. PSRP organizes contributing factors into eight categories. The most frequently selected contributing factor in 2017 was *communication* factors (51%), followed by *policy or procedure* factors (45%), and *patient management* factors (39%). For a breakout by segment, see Figure 11.

The 438 reports submitted in 2017 identified 69 contributing factors across the eight categories. For details about the factors identified in each category by healthcare segment, see Appendix V, Table 24-Table 31.

Figure 11. Contributing Factor Categories by Segment*, 2017
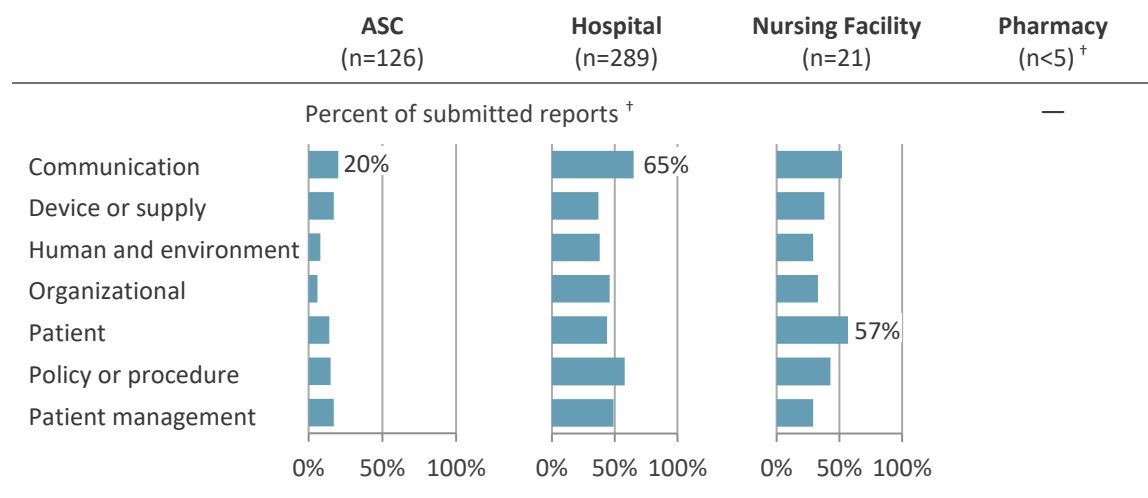
	ASC (n=126)	Hospital (n=289)	Nursing Facility (n=21)	Pharmacy (n<5) [†]
Percent of submitted reports [†]				—

Communication — ASC 20%, Hospital 65%, Nursing Facility (Patient 57%)

* Percents total more than 100 as reports may indicate contributing factors in multiple categories.
[†] Pharmacies are excluded because they submitted fewer than five reports.

The most frequently identified *communication* factors in 2017 were communication *between providers and staff* (52%) and communication *among interdisciplinary teams* (43%) (Appendix V, Table 25). In 2017, the most frequently identified *policy or procedure* factors were *policy or procedure unclear* (40%) and *policy or procedure absent* (36%) (Appendix V, Table 29).

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 2017 are summarized in Figure 12. The patients affected by adverse events reported in 2017 ranged in age from newborn to 98. While patients in every age group experienced adverse events, those aged 60 and older accounted for almost half (48%) of reported events.

Figure 12. Patient Demographics by Segment, 2017
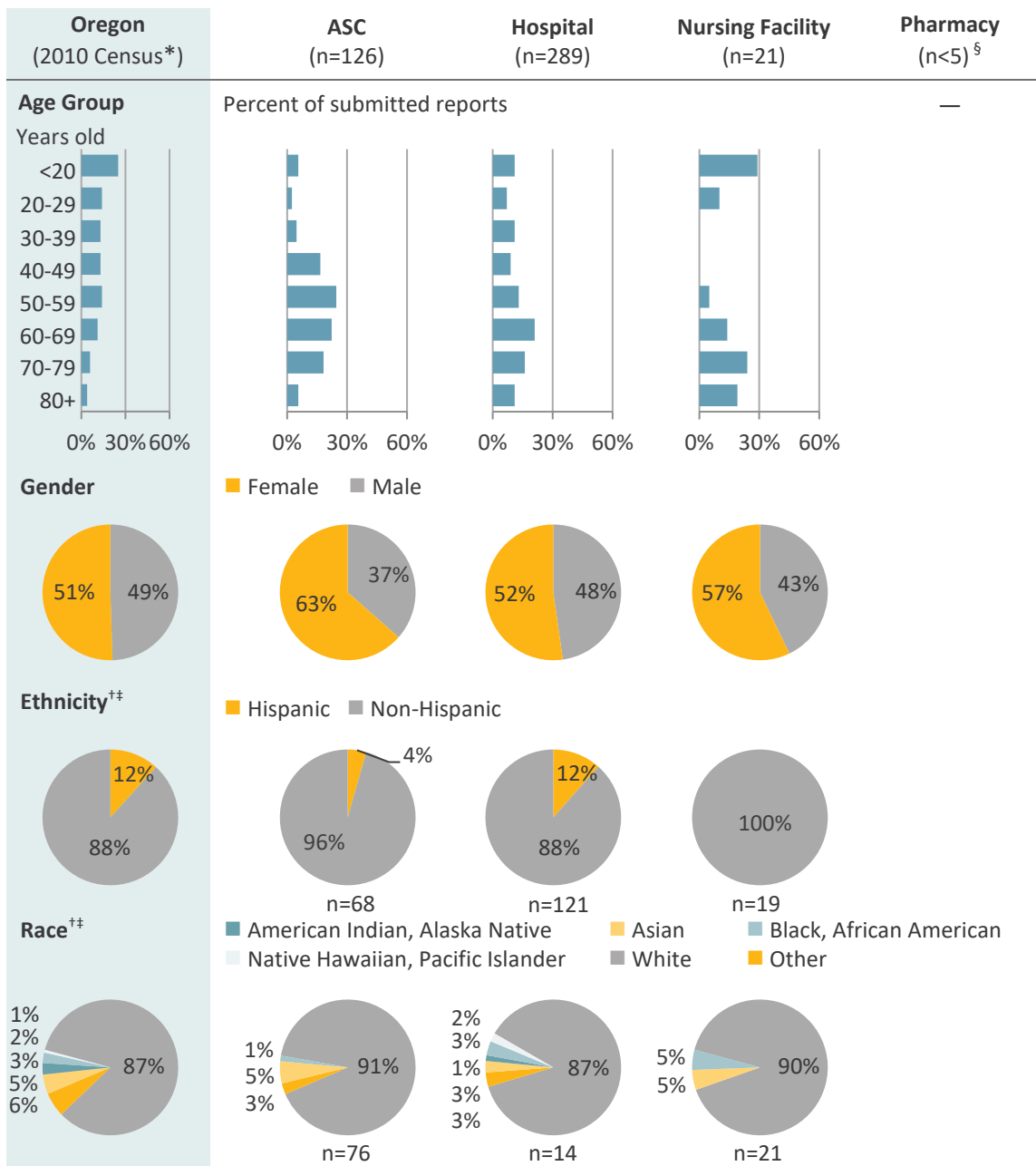
* U.S. Census Bureau, 2010 Census of Population and Housing, Population and Housing Unit Counts, CPH-2-39, Oregon, U.S. Government Printing Office, Washington, DC, 2012.

† 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.

§ Pharmacies are excluded because they submitted fewer than five reports.

PSRP Engagement

PSRP has been operating since 2006. Four healthcare segments—ASCs, hospitals, nursing facilities, and pharmacies—are eligible to participate in PSRP (Table 15).

**Table 15. Facility Participation in Reporting Program by Segment, 2017**

	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	63	59	114	118	354
Total eligible facilities	88	59	137	701	985
Percentage of participating facilities	72%	100%	83%	17%	36%

* While pharmacy recruitment began in 2007, the first pharmacy reports were submitted in 2010.

Not all facilities that are enrolled in the reporting program report each year (Figure 13). Twenty-nine facilities have consistently reported every year since they began reporting. More than half of enrolled facilities (60%) have submitted at least one report since the beginning of the program. In 2017, 65 (18%) of the enrolled facilities submitted one or more reports (Table 16).

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

Figure 13. Enrolled and Reporting Facilities*, 2012-2017

■ Enrolled facilities   ■ Reporting facilities
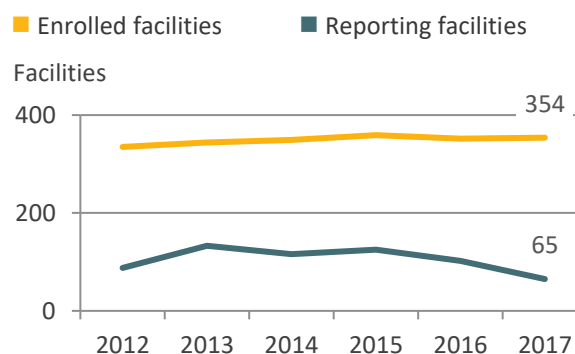
* A facility that submitted at least one report in a reporting year.

Table 16. Number of Reporting* Facilities by Segment, 2017

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Number of reporting facilities	17	38	8	2	65
Number of enrolled facilities	63	59	114	118	354
Percentage of enrolled facilities that reported	27%	64%	7%	2%	18%

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

Recognition Targets

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, OPSC recognizes organizations that achieve their targets, along with a selection of high-performing PSRP participants.

Recognition targets[3] 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 2017 overall targets, a facility either met or exceeded their quantity target and submitted at least one report containing all the quality components. To exceed 2017 overall targets, a facility additionally met or exceeded their quality and timeliness targets. Figure 14 (page 18) displays each segment's 2017 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 Patient Safety Consultants provide consultation to help healthcare organizations achieve their quality targets. From 2012, when the web-based reporting system was released, to 2017, the proportion of reports that achieved this target increased from 38% to 68%.

Recommended Quality Target Focus Areas

To promote continuous improvement, OPSC recommends that healthcare organizations focus on three areas of their processes which are essential to preventing patient harm:

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

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[3] 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, 2017

	ASC (n=17)	Hospital (n=38)	Nursing Facility (n=8)	Pharmacy (n=2)
Quantity Target	One for every 1,000 discharges	One for every 1,000 discharges	Four or more	Four or more

■ Exceeded target
■ Met target
■ Did not meet target

ASC: 18% Did not meet, 35% Exceeded, 47% Met
Hospital: 39% Did not meet, 29% Exceeded, 32% Met
Nursing Facility: 25% Exceeded, 75% Did not meet
Pharmacy: 100% Did not meet

Quality Target — 75% contained all quality components

■ Exceeded target
■ Met target
■ Did not meet target

ASC: 24% Exceeded, 76% Did not meet
Hospital: 30% Did not meet, 5% Met, 65% Exceeded — n=37*
Nursing Facility: 29% Exceeded, 71% Did not meet — n=7*
Pharmacy: 100% Exceeded

Timeliness Target — 50% submitted within 45 days of discovery

■ Exceeded target
■ Met target
■ Did not meet target

ASC: 29% Did not meet, 53% Exceeded, 18% Met
Hospital: 56% Did not meet, 39% Exceeded, 5% Met — n=36*
Nursing Facility: 14% Did not meet, 86% Exceeded
Pharmacy: 100% Exceeded

Overall Evaluation

■ Exceeded targets
■ Met targets
■ Did not meet targets

ASC: 41% Did not meet, 24% Exceeded, 35% Met
Hospital: 42% Did not meet, 21% Exceeded, 37% Met
Nursing Facility: 12% Exceeded, 13% Met, 75% Did not meet
Pharmacy: 100% Did not meet

* 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 VIII.

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.

In 2017, written notification was provided in 31% of the serious events for which it was required (Table 17). Reasons written notification was not provided when it was required are available in Appendix VII, Table 47. Facilities also provided written notification in 16% of the cases where it was *not* required.

Table 17. Provision of Written Notification for Serious Adverse Events by Segment, 2017

	ASC (n=86)	Hospital* (n=183)	Nursing Facility (n=10)	Pharmacy (n=0)	All Segments (n=279)
Number of serious event reports where written notification was performed	2	81	3	—	86
Percentage of serious event reports where written notification was performed	2%	44%	30%	—	31%

* 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 IX 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 Oregon Patient Safety Commission is proud to serve Oregon healthcare organizations through 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. OPSC Patient Safety Training and Resources in 2017

Training Provided by the Oregon Patient Safety Commission (OPSC) in 2017

Training Title	Date	Location	# Attendees
Responding to Adverse Events (e.g., investigation and communication)			
Effective Response to Adverse Events: Compassion, Learning, and Resolution	March 9, 2017	Salem, OR	80+
Effective Response to unexpected patient harm: Compassion, Learning, and Resolution	May 16, 2017	Grand Ronde, OR	15
Avoid Band-Aid Solutions: Strengthening Adverse Event Investigations	April 14, 2017	Portland, OR	26
Avoid Band-Aid Solutions: Strengthening Adverse Event Investigations	April 28, 2017	Vancouver, WA	21
Avoid Band-Aid Solutions: Strengthening Adverse Event Investigations	July 12, 2017	Portland, OR	14
Speak Up for Patient Safety: Before, During, and After an Adverse Event	August 11, 2017	Portland, OR	13
Building Strong RCA Action Plans Using Human Factors	September 12, 2017	Portland, OR	52
Mock Root Cause Analysis	September 19, 2017	Portland, OR	65
After an Adverse Event: Open communication promotes healing and safer patient care	October 25, 2017	Forest Grove, OR *Pacific University*	Unknown
Building Strong RCA Action Plans Using Human Factors	November 10, 2017	Portland, OR	Unknown
Speak Up for Patient Safety: Before, During, and After an Adverse Event	November 3, 2017	Lebanon, OR	22
Oregon Collaborative on Communication and Resolution Programs			
OCCRP Learning Session 3: Communication with Patients and Families about Resolution in the Wake of Medical Harm	February 10, 2017	Portland, OR	35-45
OCCRP Learning Session 4: Communication with Patients and Families about Resolution in the Wake of Medical Harm	June 9, 2017	Portland, OR	40
OCCRP Learning Session 5	August 15, 2017	Portland, OR	12
Infection Prevention			
Fundamentals of Infection Prevention	March 21-23, 2017	Portland, OR	65
STOP CDI! Practical Approaches to Caring for Individuals with CDI in Acute Care and Long-term Care Facilities	May 11, 2017	Webinar	Unknown
STOP CDI! Managing and Treating Individuals with CDI in Your Facility	June 6 2017	Webinar	Unknown
NHSN Data for Action	June 27, 2017	Webinar	Unknown

Training Title	Date	Location	# Attendees
Healthcare Environmental Services: Practices to Prevent Healthcare Associated Infections	June 30, 2017	Portland, OR	15
Healthcare Environmental Services: Practices to Prevent Healthcare Associated Infections	July 7, 2017	Eugene, OR	29
STOP CDI! An overview of CDI Infections	July 11, 2017	Webinar	Unknown
Healthcare Environmental Services: Practices to Prevent Healthcare Associated Infections	July 19, 2017	Medford, OR	14
Healthcare Environmental Services: Practices to Prevent Healthcare Associated Infections	July 21, 2017	Bend, OR	9
Healthcare Environmental Services: Practices to Prevent Healthcare Associated Infections	July 25, 2017	Portland, OR	38
NHSN Data for Action	July 27, 2017	Webinar	Unknown
Fundamentals of Infection Prevention	October 30-November 1, 2017	Portland, OR	51
UTI Identification, Treatment and Prevention	December 11, 2017	Webinar	Unknown

Infection Prevention Videos Series Published in 2017

This educational series includes 12 videos, available in both English and Spanish, that cover a wide range of topics—from general environmental cleaning for food and laundry services to specific methods used to address outbreaks caused by flu, norovirus, *Clostridium difficile* and other infections. The series includes:

- Environmental Hygiene: Best Practices to Use When Cleaning and Disinfecting Patient Rooms
- *Clostridium Difficile* Training for Environmental Cleaning Staff
- Environmental Cleaning Basics for Perioperative Areas (*two videos*)
- Managing Influenza Outbreaks in Long-Term Care Facilities *
- Environmental Cleaning and Disinfection: Dialysis
- Infection Control for Healthcare Food Service (*two videos*)
- Infection Control for Healthcare Laundry Services (*two videos*)
- Preventing Infection during Blood Glucose Monitoring and Insulin Administration
- Norovirus Training for Environmental Cleaning Staff

* No Spanish translation is available for Managing Influenza Outbreaks in Long-Term Care Facilities.

This video series was made possible in part by a grant from the Center for Disease Control and Prevention (CDC) and in partnership with the Oregon Health Authority.

Appendix II. 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 III. 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 18. Anesthesia Event Sub-Types by Segment, 2017

Anesthesia Event Sub-Type	ASC (n=4)		Hospital (n=4)		Both Segments (n=8)	
	Number	Percent	Number	Percent	Number	Percent
Oversedation	0	0%	3	75%	3	38%
Incorrect site anesthesia	0	0%	1	25%	1	13%
Difficulty managing airway	4	100%	0	0%	4	50%

Blood or Blood Product Events

Table 19. Blood or Blood Product Event Sub-Types by Segment, 2017

Blood or Blood Product Event Sub-Type	ASC (n=0)		Hospital (n=2)		Both Segments (n=2)	
	Number	Percent	Number	Percent	Number	Percent
Incorrect ABO/Rh type	—	—	1	50%	1	50%
Incorrect sequence of administration of products	—	—	1	50%	1	50%

Device or Supply Events

Table 20. Device or Supply Event Sub-Types by Segment, 2017

Device or Supply Event Sub-Type	ASC (n=9)		Hospital (n=39)		Nursing Facility (n=1)		All Segments (n=49)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Use error	5	56%	21	54%	0	0%	26	53%
Device or supply failure	3	33%	7	18%	0	0%	10	20%
Device or supply not available	0	0%	7	18%	0	0%	7	14%
Other device or supply event	1	11%	2	5%	0	0%	3	6%
Unknown or not indicated	1	11%	2	5%	1	100%	4	8%

Percents total more than 100 as reports may indicate multiple device event subtypes.

Other device or supply events:

2 – Unanticipated smoke from OR equipment during surgery

1 – Device was left in place at discharge.

Healthcare-Associated Infection (HAI) Events

Table 21. HAI Event Sub-Types by Segment, 2017

HAI Event Sub-Type	ASC (n=12)		Hospital (n=6)		Nursing Facility (n=0)		All Segments * (n=18)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Surgical site infection (SSI)	8	67%	2	33%			10	56%
Sepsis	2	17%	2	33%	—	—	4	22%
Central line-associated BSI (CLABSI)	0	0%	2	33%	—	—	2	11%
Catheter-associated UTI (CAUTI)			1	17%	—	—	1	6%
Other HAI event	2	17%	0	0%	—	—	2	11%

* "All Segments" denominators are limited to segments for which this answer option is available. Percents total more than 100 as reports may indicate multiple device event subtypes.

Other healthcare-associated infection events:

1 – Pelvic infection following laproscopic procedure

1 – Acute infectious colitis following procedure

Medication or Other Substance Events

Table 22. Medication or Other Substance Event Sub-Types by Segment, 2017

Medication or Other Substance Event Sub-Type	ASC (n=9)		Hospital (n=35)		Nursing Facility (n=3)		Pharmacy (n=2)		All Segments * (n=49)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Incorrect medication or substance	4	44%	9	26%	2	67%	0	0%	15	31%
Incorrect dose	1	11%	11	31%	0	0%	0	0%	12	24%
Oversedation	0	0%	7	20%	0	0%			7	15%
Incorrect/ incomplete labeling	0	0%	5	14%	0	0%	0	0%	5	10%
Incorrect rate	0	0%	5	14%	0	0%			5	11%
Discontinued	1	11%	3	9%	0	0%			4	9%
Contraindicated	1	11%	3	9%	0	0%	0	0%	4	8%
Omitted	0	0%	2	6%	1	33%			3	6%
Incorrect time	0	0%	3	9%	0	0%			3	6%
Incorrect strength	0	0%	1	3%	0	0%	1	50%	2	4%
Incorrect route	0	0%	2	6%	0	0%	0	0%	2	4%
Adverse reaction	1	11%	1	3%	0	0%	0	0%	2	4%
Drug interaction	0	0%	1	3%	0	0%	0	0%	1	2%
Allergic reaction	1	11%	0	0%	0	0%	0	0%	1	2%
Incorrect dosage form	0	0%	1	3%	0	0%	0	0%	1	2%
Incorrect patient							1	50%	1	50%

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

Surgical Events

Table 23. Surgical Event Sub-Types by Segment, 2017

Surgical or Other Invasive Procedure Event Sub-Type	ASC (n=59)		Hospital (n=29)		Both Segments * (n=88)	
	Number	Percent	Number	Percent	Number	Percent
Unplanned admission to hospital within 48 hours of discharge	37	63%			37	63%
Laceration, perforation, puncture, or nick	10	17%	8	28%	18	20%
Unplanned emergency department visit within 48 hours of discharge	15	25%			15	25%
Other surgical or other invasive procedure event	5	8%	4	14%	9	10%
Incorrect site or side	0	0%	8	28%	8	9%
Unanticipated blood transfusion	7	12%	0	0%	7	8%
Postoperative bleeding requiring return to operating room	4	7%	1	3%	5	6%
Incorrect implant	1	2%	3	10%	4	5%
Iatrogenic pneumothorax	0	0%	2	7%	2	2%
Incorrect procedure (excluding procedures resulting from misidentification of the patient)	0	0%	2	7%	2	2%
Dehiscence, flap or wound failure or disruption, or graft failure	0	0%	1	3%	1	1%
Unintended blockage, obstruction, or ligation	1	2%	0	0%	1	1%
Incorrect patient	0	0%	1	3%	1	1%

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

Other surgical or other invasive procedure events:

1 – Informed consent was not signed prior to the procedure

1 – Intraoperative death in ASA Class 4

1 – Post arterial line removal (in an anticoagulated patient) possibly resulting in bleeding and ultimately compartment syndrome.

1 – Post op hemorrhage, did not require additional surgical procedure.

1 – Post op paraplegia

1 – Splenic injury

1 – Unanticipated postop death after elective procedure

1 – Unplanned emergency transfer to local ER

1 – Unplanned repeat colonoscopy

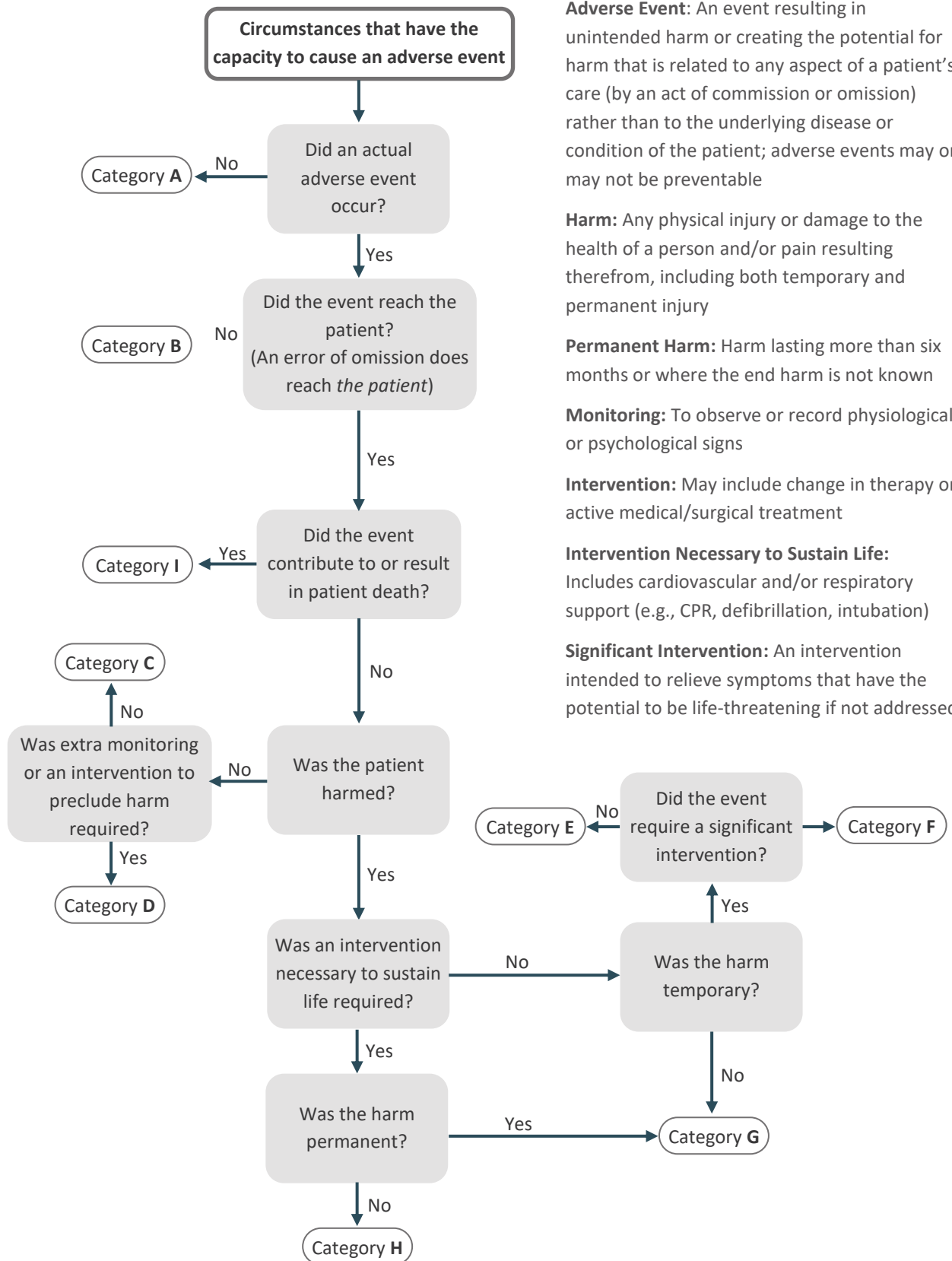# Appendix IV. Harm Categories and Algorithm

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[4] 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	

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4   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

Circumstances that have the capacity to cause an adverse event

↓

Did an actual adverse event occur?
— No → Category **A**
— Yes ↓

Did the event reach the patient?
(An error of omission does reach *the patient*)
— No → Category **B**
— Yes ↓

Did the event contribute to or result in patient death?
— Yes → Category **I**
— No ↓

Was the patient harmed?
— No → **Was extra monitoring or an intervention to preclude harm required?**
  — No → Category **C**
  — Yes → Category **D**
— Yes ↓

Was an intervention necessary to sustain life required?
— No → **Was the harm temporary?**
  — Yes → **Did the event require a significant intervention?**
    — No → Category **E**
    — Yes → Category **F**
  — No → Category **G**
— Yes ↓

Was the harm permanent?
— Yes → Category **G**
— No → Category **H**

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 V. 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 24. Patient/Family Communication Factors by Segment, 2017

Patient/Family Communication Factors	ASC (n=25) Number (%)	Hospital (n=189) Number (%)	Nursing Facility (n=11) Number (%)	All Segments (n=225) Number (%)
Culture	0 (0%)	2 (1%)	0 (0%)	2 (1%)
Language	0 (0%)	5 (3%)	0 (0%)	5 (5%)
Miscommunication	5 (20%)	13 (7%)	4 (36%)	22 (10%)
Understanding discharge instructions or plan	5 (20%)	8 (4%)	0 (0%)	13 (6%)
Patient did not use call light	0 (0%)	0 (0%)	2 (18%)	2 (1%)
Patient unable to communicate	0 (0%)	0 (0%)	1 (9%)	1 (0.4%)
Other patient/family communication factors	0 (0%)	1 (1%)	1 (9%)	2 (1%)

Pharmacies were excluded from this table because they did not indicate *communication* factors on any submissions.

Healthcare Team Communication Factors

Table 25. Healthcare Team Communication Factors by Segment, 2017

Healthcare Team Communication Factors	ASC (n=25) Number (%)	Hospital (n=189) Number (%)	Nursing Facility (n=11) Number (%)	All Segments (n=225) Number (%)
Across units	2 (8%)	35 (19%)	0 (0%)	37 (16%)
Among interdisciplinary teams	4 (16%)	89 (47%)	4 (35%)	97 (43%)
Between providers and staff	14 (56%)	103 (54%)	0 (0%)	117 (52%)
Between supervisor and staff	0 (0%)	10 (5%)	1 (9%)	11 (5%)
Handoffs, handovers or shift reports	5 (20%)	64 (34%)	5 (45%)	74 (33%)
Hard to read fax or handwriting	0 (0%)	2 (1%)	0 (0%)	2 (1%)
Within units	1 (4%)	20 (11%)	0 (0%)	21 (9%)
With other organizations or outside providers	4 (16%)	24 (13%)	2 (18%)	30 (13%)
Other healthcare team communication factors	1 (4%)	0 (0%)	0 (0%)	1 (0.4%)

Pharmacies were excluded from this table because they did not indicate communication factors on any submissions.

Device, Equipment, or Supply

Table 26. Device, Equipment or Supply Factors by Segment, 2017

Device, Equipment or Supply Factors	ASC (n=22) Number (%)	Hospital (n=108) Number (%)	Nursing Facility (n=8) Number (%)	All Segments (n=138) Number (%)
Availability	4 (18%)	25 (23%)	0 (0%)	29 (21%)
Design	2 (9%)	16 (15%)	1 (13%)	19 (14%)
Function	4 (18%)	16 (15%)	1 (13%)	21 (15%)
Maintenance	3 (14%)	6 (5%)	0 (0%)	9 (7%)
Shortages	2 (9%)	3 (3%)	0 (0%)	5 (4%)
Use or selection by healthcare provider or staff	13 (59%)	66 (61%)	5 (63%)	84 (61%)
Use by patient (or resident)	2 (9%)	2 (2%)	4 (50%)	8 (6%)
Other device or supply factors	0 (0%)	2 (2%)	0 (0%)	2 (1%)

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

Human or Environmental

Table 27. Human or Environmental Factors by Segment, 2017

Human or Environmental Factors	ASC (n=10) Number (%)	Hospital (n=109) Number (%)	Nursing Facility (n=6) Number (%)	All Segments (n=125) Number (%)
Alarm fatigue	0 (0%)	8 (7%)	0 (0%)	8 (6%)
Clutter	0 (0%)	3 (3%)	0 (0%)	3 (2%)
Interruptions or distractions	6 (60%)	58 (53%)	4 (67%)	68 (54%)
Lighting	0 (0%)	1 (1%)	0 (0%)	1 (1%)
Noise	1 (10%)	9 (8%)	1 (17%)	11 (9%)
Provider or staff fatigue	1 (10%)	10 (9%)	1 (17%)	12 (10%)
Provider or staff health issues	0 (0%)	4 (4%)	0 (0%)	4 (3%)
Provider or staff stress	5 (50%)	31 (28%)	0 (0%)	36 (29%)
Work area design or specifications	2 (20%)	27 (25%)	1 (17%)	30 (24%)
Other human or environmental factors	1 (10%)	11 (10%)	0 (0%)	12 (10%)

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

Organizational

Table 28. Organizational Factors by Segment, 2017

Organizational Factors	ASC (n=8) Number (%)	Hospital (n=132) Number (%)	Nursing Facility (n=7) Number (%)	All Segments* (n=147) Number (%)
Adequacy of budget	0 (0%)	5 (4%)	0 (0%)	5 (3%)
Clinical supervision	1 (13%)	12 (9%)		13 (9%)
Culture of safety	4 (50%)	33 (25%)	0 (0%)	37 (25%)
Internal reporting	0 (0%)	6 (5%)	1 (14%)	7 (5%)
Job orientation or training	2 (25%)	43 (33%)	4 (57%)	49 (33%)
Management or leadership skills	0 (0%)	6 (5%)	0 (0%)	6 (4%)
Managerial supervision	0 (0%)	8 (6%)		8 (6%)
Staff competencies	2 (25%)	61 (46%)	2 (29%)	65 (44%)
Staff turnover			2 (29%)	2 (29%)
Staffing level	0 (0%)	23 (17%)	2 (29%)	25 (17%)
Systems to identify risk	3 (38%)	32 (24%)	2 (29%)	37 (25%)
Temporary staffing	0 (0%)	3 (2%)	2 (29%)	5 (3%)
Work assignment or allocation	0 (0%)	15 (11%)	1 (14%)	16 (11%)
Other organizational factors	0 (0%)	1 (1%)	0 (0%)	1 (1%)

* "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 *organizational* factors on any submissions.

Policy or Procedure

Table 29. Policy or Procedure Factors by Segment, 2017

Policy or Procedure Factors	ASC (n=19) Number (%)	Hospital (n=168) Number (%)	Nursing Facility (n=9) Number (%)	All Segments (n=196) Number (%)
Clarity of policy or procedure	7 (37%)	71 (42%)	1 (11%)	79 (40%)
Policy or procedure absent	6 (32%)	63 (38%)	1 (11%)	70 (36%)
Staff or providers unfamiliar with policy or procedure	4 (21%)	52 (31%)	2 (22%)	58 (30%)
Too cumbersome	0 (0%)	1 (1%)	0 (0%)	1 (1%)
Work around more efficient	0 (0%)	23 (14%)	1 (11%)	24 (12%)
Other policy or procedure factors	5 (26%)	5 (3%)	4 (44%)	14 (7%)

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

Patient Factors

Table 30. Patient Factors by Segment, 2017

Patient Factors	ASC (n=18) Number (%)	Hospital (n=127) Number (%)	Nursing Facility (n=12) Number (%)	All Segments (n=157) Number (%)
Behavioral status	9 (50%)	36 (28%)	4 (33%)	49 (31%)
Family dynamics or relationships	1 (6%)	11 (9%)	0 (0%)	12 (8%)
Fragile health status	3 (17%)	57 (45%)	5 (42%)	65 (41%)
Mental status	2 (11%)	40 (31%)	9 (75%)	51 (32%)
Physical limitations	6 (33%)	36 (28%)	8 (67%)	50 (32%)
Sensory impairment	3 (17%)	28 (22%)	9 (75%)	40 (25%)
Other patient factors	3 (17%)	6 (5%)	0 (0%)	9 (6%)

Pharmacies were excluded from this table because they did not indicate patient factors on any submissions.

Patient Management Factors

Table 31. Patient Management Factors by Segment, 2017

Patient Management Factors	ASC (n=22) Number (%)	Hospital (n=143) Number (%)	Nursing Facility (n=6) Number (%)	All Segments* (n=171) Number (%)
Accuracy of care plan			3 (50%)	3 (50%)
Follow-up care	7 (32%)	13 (9%)	0 (0%)	20 (12%)
Initial diagnosis	2 (9%)	13 (9%)	0 (0%)	15 (9%)
Patient or risk assessment	12 (55%)	41 (29%)	4 (67%)	57 (33%)
Response to changing condition	10 (45%)	75 (52%)	1 (17%)	86 (50%)
Treatment or care plan	4 (18%)	62 (43%)		66 (40%)
Other patient management factors	0 (0%)	3 (2%)	0 (0%)	3 (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 VI. Reporting Patterns, 2009-2017

■ Enrolled facilities ■ Reporting facilities

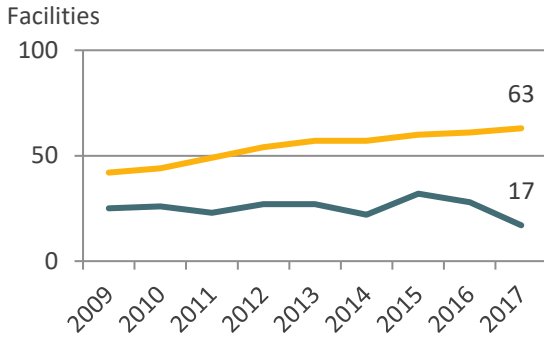**Figure 15. Number of Enrolled and Reporting Ambulatory Surgery Centers, 2009-2017**

Facilities

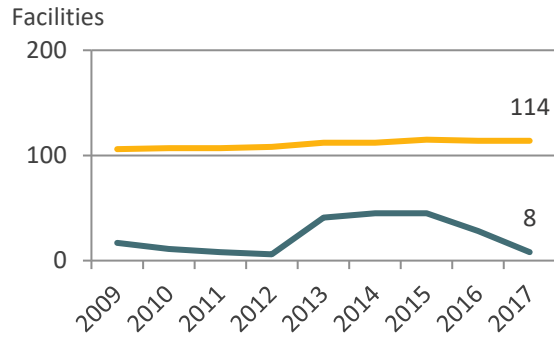**Figure 16. Number of Enrolled and Reporting Nursing Facilities, 2009-2017**

Facilities

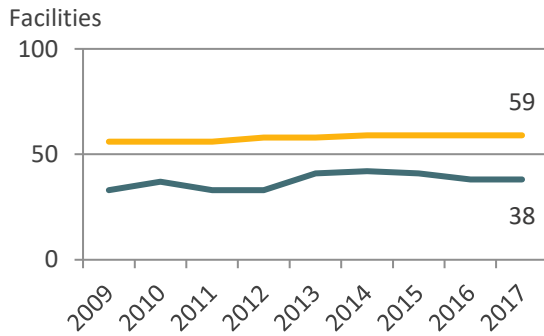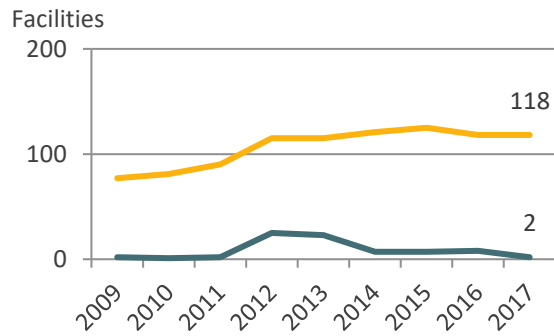**Figure 17. Number of Enrolled and Reporting Hospitals, 2009-2017**

Facilities

Figure 18. Number of Enrolled and Reporting Pharmacies, 2009-2017

Facilities

Appendix VII. Detailed Data Tables by Segment

Harm Category I Reports

Table 32. Reports Indicating Death (Harm Category I) by Year, 2009-2017

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of harm category I reports	34	35	22	34	39	39	38	45	52
Percentage of total reports	10%	9%	8%	7%	6%	7%	6%	8%	12%
Ambulatory Surgery Center									
Number of harm category I reports	1	1	0	2	0	0	1	1	0
Percentage of total reports	1%	1%	0%	1%	0%	0%	1%	1%	0%
Hospital									
Number of harm category I reports	29	33	22	31	38	36	32	43	51
Percentage of total reports	23%	26%	15%	19%	17%	14%	10%	13%	18%
Nursing Facility									
Number of harm category I reports	4	1	0	1	1	3	5	1	1
Percentage of total reports	11%	5%	0%	11%	1%	2%	3%	1%	5%
Pharmacy									
Number of harm category I reports	0	0	0	0	0	0	0	0	0
Percentage of total reports	0%	0%	0%	0%	0%	0%	0%	0%	0%

Event Type

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

Table 33. Event Type by Segment, 2017

Event Type	ASCs (n=126)		Hospitals (n=289)		Nursing Facilities (n=21)		Pharmacies (n=2)		All Segments (n=438)	
	Number	Percent	2	Percent	3	Percent	4	Percent	5	Percent
Surgical or other invasive procedure	59	47%	29	10%					88	21%
Care delay	6	5%	59	20%	3	14%			68	16%
Device or supply	9	7%	39	13%	1	5%			49	11%
Medication or other substance	9	7%	35	12%	3	14%	2	100%	49	11%
Fall	9	7%	28	10%	8	38%			45	10%
Healthcare-associated infection (HAI)	12	10%	6	2%	0	0%			18	4%
Aspiration	11	9%	6	2%	0	0%			17	4%
Retained object	3	2%	13	4%					16	4%
Suicide or attempted suicide			16	6%	0	0%			16	5%
Pressure ulcer			10	3%	2	10%			12	4%
Other event	1	1%	10	3%	0	0%			11	3%
Anesthesia	4	3%	4	1%					8	2%
Maternal			8	3%					8	3%
Perinatal			6	2%					6	2%
Elopement			5	2%	1	5%			6	2%
Failure to follow up or communicate test results			5	2%					5	2%
Irretrievable loss of irreplaceable specimen	0	0%	4	1%					4	1%
Deep vein thrombosis	3	2%							3	2%
Radiologic			3	1%					3	1%
Blood or blood product	0	0%	2	1%					2	0.4%
Resident transfer related					2	10%			2	10%
Contaminated drugs, devices or biologics	0	0%	1	0.3%					1	0.2%
Contaminated, wrong or no gas given to a patient	0	0%	1	0.3%					1	0.2%

Event Type	ASCs (n=126) Number	Percent	Hospitals (n=289) 2	Percent	Nursing Facilities (n=21) 3	Percent	Pharmacies (n=2) 4	Percent	All Segments (n=438) 5	Percent
Discharge or release of a patient of any age, who is unable to make decision, to an unauthorized person			1	0.3%	0	0%			1	0.3%
Burn	0	0%	0	0%	1	5%			1	0.2%
Total Events	**126**		**291**		**21**		**2**		**440**	

Other events:

    10 – Care management

    3 – Other injury

    2 – Lab or pathology event

    2 – Patient/resident to patient/resident behavior

    1 – Unexpected death

    1 – HIT

Event Type by Harm by Segment

Table 34. Event Type by Harm, Ambulatory Surgery Centers, 2017

Event Type	Harm Category								
	Less Serious or No Harm					Serious or No Harm			
	A	B	C	D	E	F	G	H	I
Anesthesia	0	0	0	0	1	0	0	3	0
Aspiration	0	0	0	0	0	10	0	1	0
Care delay	0	2	2	0	1	1	0	0	0
Deep vein thrombosis with or without pulmonary embolism	0	0	0	0	0	3	0	0	0
Device or medical/surgical supply	0	1	5	0	3	0	0	0	0
Fall	0	0	1	5	2	1	0	0	0
Healthcare-associated infection (HAI)	0	0	0	0	0	12	0	0	0
Medication or other substance	0	0	5	3	1	0	0	0	0
Other event	0	0	0	0	0	0	0	1	0
Surgical or other invasive procedure	0	0	2	4	2	47	2	2	0
Unintended retained foreign object	0	0	0	2	1	0	0	0	0
Total Reports in Harm Category	**0**	**3**	**15**	**14**	**11**	**74**	**2**	**7**	**0**

Table 35. Event Type by Harm, Hospitals, 2017

Event Type	Harm Category								
	Less Serious or No Harm					Serious Harm or Death			
	A	B	C	D	E	F	G	H	I
Anesthesia	0	0	0	0	0	1	0	3	0
Aspiration	0	0	1	0	0	2	0	1	1
Blood or blood product	0	0	0	1	0	1	0	0	0

	Harm Category								
	Less Serious or No Harm					Serious Harm or Death			
Event Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Care delay	1	0	6	4	5	7	7	6	22
Contaminated drugs, devices or biologics	0	0	0	1	0	0	0	0	0
Contaminated, wrong or no gas given to a patient	0	0	0	1	0	0	0	0	0
Device or medical/surgical supply	0	7	4	3	12	7	0	4	2
Discharge or release of a patient of any age, who is unable to make decisions, to an unauthorized person	0	0	1	0	0	0	0	0	0
Elopement	0	0	1	1	0	0	0	0	3
Failure to follow up or communicate test results	0	0	1	1	1	1	1	0	0
Fall	0	0	0	1	10	13	2	0	2
Healthcare-associated infection (HAI)	0	0	0	0	1	3	0	1	1
Irretrievable loss of irreplaceable specimen	0	0	1	1	0	2	0	0	0
Maternal	0	0	0	0	0	3	3	1	1
Medication or other substance	0	3	2	10	3	11	0	4	2
Other event	0	0	4	1	1	2	1	0	1
Perinatal	0	0	0	0	0	0	2	0	4
Pressure ulcer	0	0	0	0	2	1	7	0	0
Radiologic	0	0	1	0	2	0	0	0	0
Suicide or attempted suicide	0	0	0	6	2	0	0	1	7
Surgical or other invasive procedure	0	0	3	0	2	13	4	2	5
Unintended retained foreign object	0	0	3	4	2	4	0	0	0
Total Reports in Harm Category	**1**	**10**	**28**	**35**	**43**	**71**	**27**	**23**	**51**

Table 36. Event Type by Harm, Nursing Facilities, 2017

| | Harm Category | | | | | | | | |
| | Less Serious or No Harm | | | | | Serious Harm or Death | | | |
Event Type	A	B	C	D	E	F	G	H	I
Burn	0	0	0	0	1	0	0	0	0
Care delay	0	0	1	0	0	1	0	0	1
Device or medical supply	0	0	0	0	0	1	0	0	0
Elopement	0	0	0	1	0	0	0	0	0
Fall	0	0	1	3	0	2	1	1	0
Medication or other substance	0	0	1	0	0	2	0	0	0
Pressure ulcer	0	0	0	1	1	0	0	0	0
Resident transfer related	0	0	1	0	0	1	0	0	0
Total Report in Harm Category	**0**	**0**	**4**	**5**	**2**	**7**	**1**	**1**	**1**

Table 37. Event Type by Harm, Pharmacies, 2017

| | 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	0	2	0	0	0	0	0	0
Total Reports in Harm Category	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**

Falls

Table 38. Physical Injury Resulting from Fall by Segment, 2017

| | ASC (n=9) | Hospital (n=28) | Nursing Facility (n=8) | All Segments (n=45) |
Physical injury	Number (%)	Number (%)	Number (%)	Number (%)
Physical injury	3 (33%)	26 (93%)	5 (63%)	34 (76%)
None	6 (67%)	1 (4%)	3 (38%)	10 (22%)
Unknown	0 (0%)	1 (4%)	0 (0%)	1 (2%)

Table 39. Type of Physical Injury Resulting from Fall by Segment, 2017

Physical injury	ASC (n=3) Number (%)	Hospital (n=26) Number (%)	Nursing Facility (n=5) Number (%)	All Segments (n=34) Number (%)
Fracture	0 (0%)	16 (62%)	2 (40%)	18 (53%)
Skin tear, avulsion, hematoma or significant bruising	0 (0%)	2 (8%)	0 (0%)	2 (6%)
Other injury	1 (33%)	1 (4%)	2 (40%)	4 (12%)
Laceration requiring sutures	0 (0%)	2 (8%)	1 (20%)	3 (9%)
Abrasion or laceration not requiring sutures	2 (67%)	1 (4%)	0 (0%)	3 (9%)
Intracranial injury	0 (0%)	3 (12%)	0 (0%)	3 (9%)
Dislocation	0 (0%)	1 (4%)	0 (0%)	1 (3%)

Table 40. Assisted and Unassisted Falls by Segment, 2017

Was the fall assisted or unassisted?	ASC (n=9) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=8) Number (%)	All Segments (n=45) Number (%)
Unassisted	5 (56%)	22 (79%)	7 (88%)	34 (76%)
Assisted	2 (22%)	6 (21%)	1 (13%)	9 (20%)
Unknown	2 (22%)	0 (0%)	0 (0%)	2 (4%)

Table 41. Observed and Unobserved Falls by Segment, 2017

Was the fall observed or unobserved?	ASC (n=9) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=8) Number (%)	All Segments (n=45) Number (%)
Unobserved	3 (33%)	15 (54%)	6 (75%)	24 (53%)
Observed by staff (regardless of who else observed the fall)	3 (33%)	11 (39%)	2 (25%)	16 (36%)
Observed by visitor, family or another patient, but not staff	2 (22%)	2 (7%)	0 (0%)	4 (9%)
Unknown	1 (11%)	0 (0%)	0 (0%)	1 (2%)

Table 42. Presence of a Documented Fall Risk Assessment by Segment, 2017

Was a fall risk assessment documented?	Hospital (n=28) Number (%)	Nursing Facility (n=8) Number (%)	All Segments (n=36) Number (%)
Documented	22 (79%)	8 (100%)	30 (83%)
Not documented	3 (11%)	0 (0%)	3 (8%)
Unknown	3 (11%)	0 (0%)	3 (8%)

Table 43. Level of Patient Fall Risk by Segment, 2017

Was the patient assessed to be at any level of risk for a fall?	Hospital (n=28)* Number (%)	Nursing Facility (n=8)* Number (%)	All Segments (n=36) Number (%)
Patient at any level of risk for fall	23 (82%)	8 (100%)	30 (83%)
Patient not at any level of risk for fall	1 (4%)	0 (0%)	1 (3%)
Patient's status unknown or unassessed	4 (14%)	0 (0%)	4 (11%)

* All hospital reports are asked the follow-up question regardless of their answer to the question "was fall risk assessment documented." Nursing facilities are only asked this follow-up question if a fall risk assessment was documented.

Table 44. Patient Activities Performed or Attempted at the Time of the Fall by Segment, 2017

Prior to the fall, what was the patient doing or trying to do?	ASC (n=9) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=8) Number (%)	All Segments (n=45) Number (%)
Toileting-related activities	1 (11%)	9 (32%)	1 (13%)	11 (24%)
Transferring to or from bed, chair, wheelchair, etc. without assistance	1 (11%)	4 (14%)	1 (13%)	6 (13%)
Dressing or undressing	5 (56%)	0 (0%)	0 (0%)	5 (11%)
Walking with assistance and/or with an assistive device or medical equipment	2 (22%)	2 (7%)	0 (0%)	4 (9%)
Sleeping	0 (0%)	3 (11%)	0 (0%)	3 (7%)
Unknown	0 (0%)	3 (11%)	0 (0%)	3 (7%)
Transferring to or from bed, chair, wheelchair, etc. with assistance	0 (0%)	2 (7%)	1 (13%)	3 (7%)
Changing position (e.g., in bed, chair, etc.)		1 (4%)	1 (13%)	2 (6%)
Walking without assistance and without an assistive device or medical equipment	0 (0%)	2 (7%)	0 (0%)	2 (4%)
Standing or sitting	0 (0%)	0 (0%)	2 (25%)	2 (4%)
Other	0 (0%)	1 (4%)	0 (0%)	1 (2%)
Engaging in recreational activities			1 (13%)	1 (13%)
Undergoing a diagnostic or therapeutic procedure		1 (4%)		1 (4%)
Reaching for an item	0 (0%)	0 (0%)	1 (13%)	1 (2%)

Table 45. Top Four Patient Goals (Reason They Got up) by Segment, 2017

Patient Goals	ASC (n=9) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=8) Number (%)	All Segments* (n=45) Number (%)
Toileting	1 (11%)	12 (43%)	2 (25%)	15 (33%)
Unknown	0 (0%)	8 (29%)	3 (38%)	11 (24%)
Change location (e.g., move to another room, different chair)	5 (56%)	2 (7%)	0 (0%)	7 (16%)
Return to bed or chair	0 (0%)	4 (14%)	2 (25%)	6 (13%)
Other	3 (33%)	1 (4%)	1 (13%)	5 (11%)
Exercise (e.g., PT/OT)	0 (0%)	1 (4%)	0 (0%)	1 (2%)
Relieve hunger or thirst	1 (11%)	0 (0%)	0 (0%)	1 (2%)

* These numbers may total more than 100% as reports may indicate multiple patient goals.

Table 46. Top Five Physical or Environmental Causes of Falls by Segment, 2017

Physical or environmental cause	ASC (n=9) Number (%)	Hospital (n=28) Number (%)	Nursing Facility (n=8) Number (%)	All Segments* (n=45) Number (%)
Loss of balance or footing	4 (44%)	11 (39%)	4 (50%)	19 (42%)
Unknown	0 (0%)	6 (21%)	3 (38%)	9 (20%)
Legs or knees "gave out" or stiffened suddenly	2 (22%)	4 (14%)	1 (13%)	7 (16%)
Slip or trip	1 (11%)	6 (21%)	0 (0%)	7 (16%)
Device or equipment (e.g., walker rolled forward, wheelchair footrest broke)	0 (0%)	3 (11%)	1 (13%)	4 (9%)
Patient condition (e.g., TIA, seizure)	2 (22%)	2 (7%)	0 (0%)	4 (9%)
Fell out of bed (e.g., rolled out of bed, slipped off a slippery mattress)	0 (0%	2 (7%)	1 (13%)	3 (7%)
Other	2 (22%)	1 (4%)	0 (0%)	3 (7%)
Tangled in cords, tubing, or similar	0 (0%)	1 (4%)	0 (0%)	1 (2%)

* These numbers may total more than 100% as reports may indicate multiple physical or environmental causes.

Written Notification

Table 47. Reasons Written Notification was not Provided when Required by Segment, 2017

Please specify why no written notification was given	ASC (n=84)	Hospital (n=102)	Nursing Facility (n=7)	All Segments (n=193)
Oral disclosure provided	27 (32%)	75 (74%)	6 (86%)	108 (56%)
Not required by facility organizational policy	49 (58%)	24 (24%)	2 (29%)	75 (39%)
No organizational policy	7 (8%)	2 (2%)	1 (14%)	10 (5%)
Other reason	1 (1%)	10 (10%)	0 (0%)	11 (6%)
Not required by the OPSC definition	3…(4%)	4…(4%)	0 (0%)	7…(4%)

No pharmacy events met the criteria for written notification requirement. 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 may occur before written notification.

Appendix VIII. Recognition Target Breakdown

Quantity

The quantity targets for 2017 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 438 adverse event reports in 2017 (Table 48). The median number of reports per facility was four, with a range of one to 35.

Table 48. Quantity of Submissions by Segment, 2017

	ASC	Hospital	Nursing Facility	Pharmacy	All Segments
Total reports submitted*	130	299	22	2	453
Number of submitting facilities	17	38	8	2	65
Median reports per facility	4.0	5.0	1.5	1.0	4.0
Range of reports per facility	1-22	1-35	1-8	1	1-35

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

Quality

In 2017, 68% of reports contained the six required quality components (five quality components for events resulting in less serious harm (Table 49). The components are designed to help ensure that a healthcare facility's in-depth event analyses can prevent future events.

Table 49. Reports Containing All Quality Components by Segment, 2017

	ASC (n=126)	Hospital (n=289)	Nursing Facility (n=21)	Pharmacy (n=2)	All Segments (n=438)
Number of reports containing all quality components	48	233	13	2	296
Percentage of reports containing all quality components	38%	81%	62%	100%	68%

Of the 142 reports that did not contain all quality components, 63 (44%) were only missing a single component. The two most frequently missing quality components were:

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

The following figures provide more information about the quality components in 2017 reports by segment.

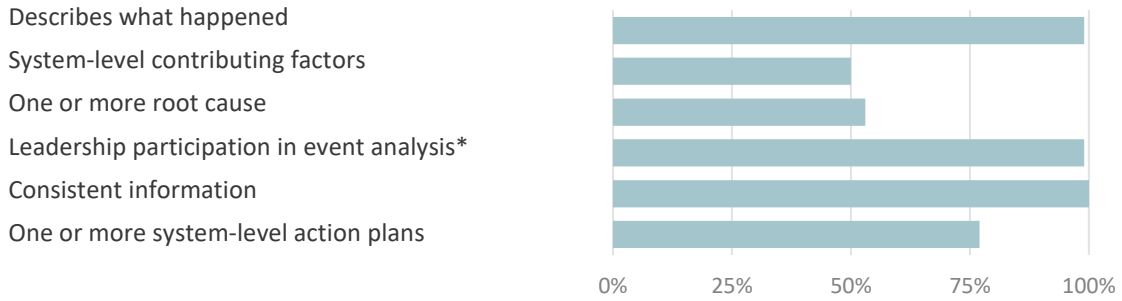**Figure 19. Quality Component Breakdown, ASCs, 2017** (n=126)

- Describes what happened
- System-level contributing factors
- One or more root cause
- Leadership participation in event analysis*
- Consistent information
- One or more system-level action plans

Figure 20. Quality Component Breakdown, Hospitals, 2017 (n=289)

- Describes what happened
- System-level contributing factors
- One or more root cause
- Leadership participation in event analysis*
- Consistent information
- One or more system-level action plans
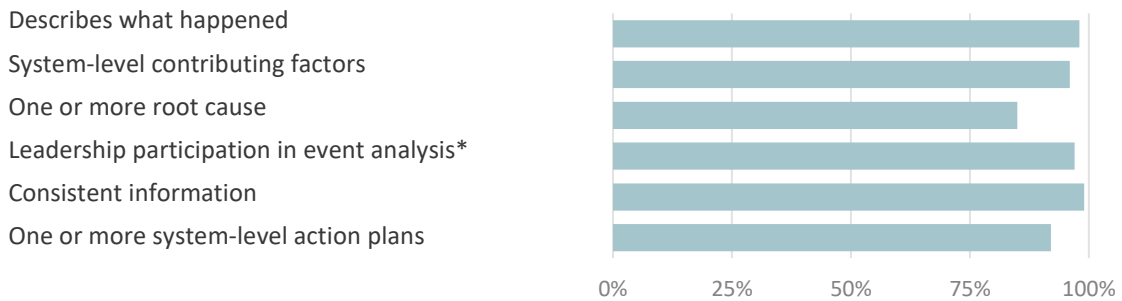
Figure 21. Quality Component Breakdown, Nursing Facilities, 2017 (n=21)

- Describes what happened
- System-level contributing factors
- One or more root cause
- Leadership participation in event analysis*
- Consistent information
- One or more system-level action plans
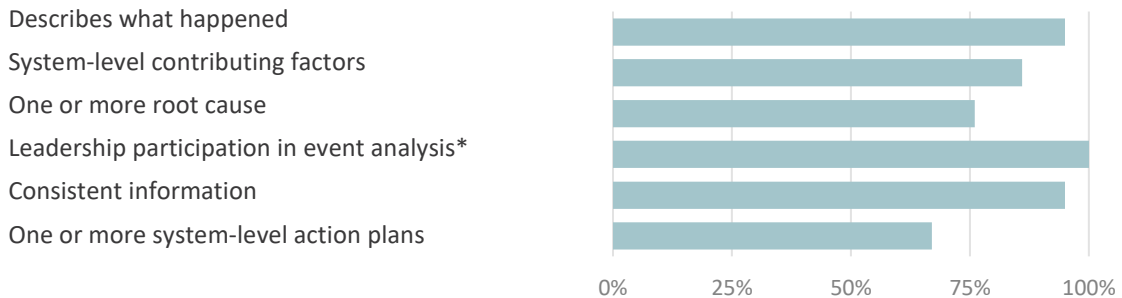
Figure 22. Quality Component Breakdown, Pharmacies, 2017 (n=2)

- Describes what happened
- System-level contributing factors
- One or more root cause
- Leadership participation in event analysis*
- Consistent information
- One or more system-level action plans
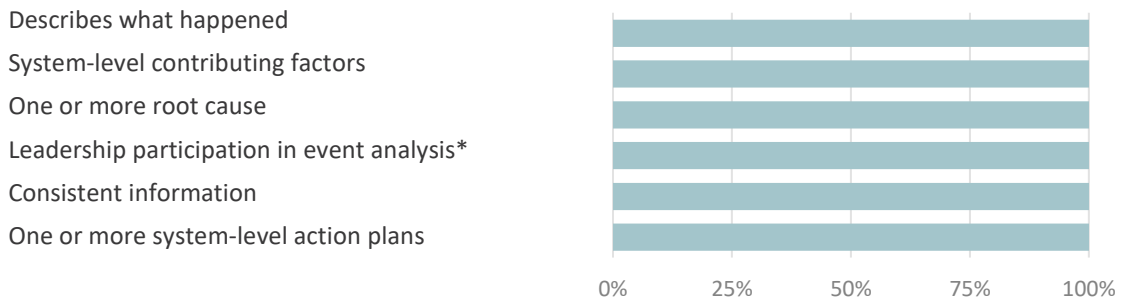
Figure 23. Quality Component Breakdown, All Segments, 2017 (n=438)

Describes what happened
System-level contributing factors
One or more root cause
Leadership participation in event analysis*
Consistent information
One or more system-level action plans
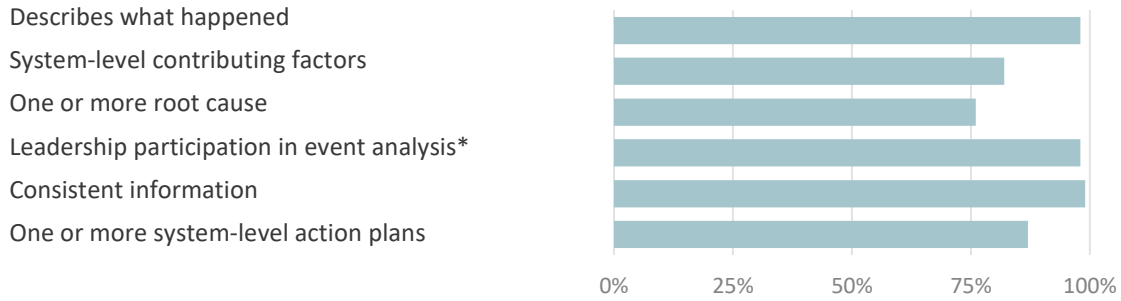
* Only required of serious harm reports (harm categories F, G, H and I).

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. Less than half of reports (44%) were submitted within the required 45-day window (Table 50).

Table 50. Timeliness of Reports by Segment, 2017

	ASC (n=125)	Hospital (n=259)	Nursing Facility (n=20)	Pharmacy (n=2)	All Segments (n=406)
Number of reports that were timely	57	103	18	2	180
Percentage of reports that were timely	46%	40%	90%	100%	44%

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 63 days. The phase that required the most time was *review completion* to *report submission* (Table 51, page 42).

Table 51. Median Days in Key Reporting Timeline Phases, 2017

Median days between… (range)	ASC (n=118)	Hospital (n=259)	Nursing Facility (n=19)	Pharmacy* (n<5)	All Segments (n=396)
Event to discovery	1 (0-166)	1 (0-1322)	0 (0-3)	—	1 (0-1322)
Discovery to review completion	20 (0-120)	27 (0-319)	3 (0-18)	—	22 (0-319)
Review completion to report submission	31 (0-307)	31 (0-351)	10 (0-85)	—	30 (0-351)

* Pharmacies are excluded because they submitted fewer than five reports.

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 IX. 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