OPSC
OREGON PATIENT SAFETY COMMISSION

Patient Safety Reporting Program 2022 Annual Report

Modernizing to Meet the Needs of a Changing Healthcare System

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OREGON
PATIENT
SAFETY
COMMISSION

The Oregon Patient Safety Commission is a semi-independent state agency that supports healthcare facilities and providers in improving patient safety. We encourage broad information sharing, ongoing education, and open conversations to cultivate a more trusted healthcare system.

Learn more: **oregonpatientsafety.org**

Our Mission

To reduce the risk of serious adverse events occurring in Oregon's healthcare system and encourage a culture of patient safety.

BUILDING A CULTURE OF SAFER CARE—TOGETHER.

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Executive Summary

Adverse events happen far too often in healthcare. A recent study in the New England Journal of Medicine found that 24% of hospital admissions had at least one adverse event.[1] Despite seemingly little progress over the last twenty years, we have learned a great deal about how we can approach our patient safety work collectively, to advance patient safety.[2] In Oregon, we have infrastructure for statewide shared learning that can support the coordinated and collaborative approach necessary to make progress. At the Oregon Patient Safety Commission (OPSC), we know we must be responsive to what we've learned since the Legislature created our organization in 2003 to be an independent voice for patient safety in the state.

OPSC and its Patient Safety Reporting Program (PSRP) grew out of recommendations from a workgroup representing medical providers, insurers, purchasers, and consumers. The workgroup believed that the work of improving patient safety never ends and should not be done in isolation. Twenty years later, these founding principles remain relevant. However, while healthcare has been in a constant state of change since the reporting program was created, the program and its statute (ORS 442.819 to 442.851) had remained largely unchanged.

Some of the elements in the original statute were holding us back from being responsive to new knowledge and insights. In 2021, we sought input from members of Oregon's healthcare community to understand their current patient safety priorities and practices. Their input, in conjunction with an analysis of advances in patient safety, shaped proposed revisions to the statute that would strengthen PSRP, making it more relevant to the healthcare system it was intended to support. The revisions aim to:

- Revise overly specific or outdated language to allow the statute to remain relevant over time.
- Revise elements of PSRP to support current patient safety knowledge and practice.
- Codify health equity as an essential part of PSRP data collection and analysis because we know that inequitable care cannot be safe care.

In 2023, the Oregon Legislature passed Senate Bill 229, updating OPSC's statute, laying the groundwork to modernize PSRP and ensure it can be an important patient safety tool for Oregon's healthcare system.

At a time when healthcare has experienced unprecedented challenges, we all have a role to play to advance patient safety. This need for a coordinated and collaborative approach is central to the strategy outlined in the Institute for Healthcare Improvement's (IHI) 2020 report, *Safer Together: A National Action Plan to Advance Patient Safety*.[2] At OPSC, we work with organizations across the healthcare system to support learning and collaboration. Through PSRP, we offer insight into the efficacy of the processes and systems organizations use to make care safer following patient harm events. Individual healthcare organizations must have systems in place to consistently and effectively respond to and learn from adverse events. Our work to modernize PSRP recognizes these unique, yet interdependent roles.

In this report, we share our modernization strategy that supports the collaborative approach of *Safer Together*. We also share the work that informed the strategy, our progress so far, and next steps. We look forward to working together with stakeholders across the healthcare continuum to ensure PSRP can continue to support the rapidly changing healthcare environment, build on the work organizations are already doing, and provide meaningful shared learning in service to our mission.

A Collaborative Strategy for Progress

The Institute for Healthcare Improvement's (IHI) 2020 report, *Safer Together: A National Action Plan to Advance Patient Safety*,[2] examines the lack of progress made over the past 20 years to reduce preventable harm in healthcare, and outlines a strategy for progress. A primary reason for this lack of progress is that the many evidence-based practices for harm reduction that have been identified by individual organizations are seldom shared beyond the organization or effectively implemented across multiple organizations.[2] The report concludes: "It has become clear that reducing preventable harm is a complex endeavor that requires a concerted, persistent, coordinated effort by all stakeholders."[2(p11)]

Since the publication of *Safer Together*, the healthcare system has endured tremendous strain, further exposing its fragility and reinforcing the need for a new approach. For example, the pandemic highlighted the inadequacy of systems to protect and support healthcare workers in times of crisis[3–5] and exacerbated existing structural health inequities.[6–8] Healthcare system resilience was put to the test as staff shortages, redeployments, and burnout resulted in a widespread disruption of healthcare worker team structures.[9–11] These challenges directly affected patients, who experienced an increase in infection rates,[12] more frequent diagnostic errors,[13] and other harms.[10]

To make progress, *Safer Together* recommends:

- Individual healthcare organizations adopt a systems-based approach to proactively respond to and learn from unanticipated medical harm.
- Coordination and collaboration among all stakeholders and a commitment to shared learning across the healthcare continuum.

Guided by *Safer Together*, Oregon can look to system-based models to build this capacity in individual healthcare organizations, and leverage Oregon's existing infrastructure to support shared learning.

Oregon's Infrastructure for Coordination, Collaboration, and Shared Learning

The Oregon Patient Safety Commission (OPSC) is a hub for shared learning. Oregon can leverage OPSC's programs—the Patient Safety Reporting Program (PSRP) and Early Discussion and Resolution (EDR)—to support shared learning to collectively improve our response to adverse events for Oregonians:

- **PSRP** is Oregon's state-level reporting program that collects and analyzes information from healthcare facilities about adverse events. OPSC shares the lessons learned to support facilities in improving care and preventing future harm.

- **EDR** helps connect patients who experience harm and their healthcare provider so they can speak candidly about what occurred, work toward reconciliation, and contribute to safeguarding others from similar harm.

PSRP, OPSC's foundational program, is an information collection and dissemination tool to help support progress towards patient safety goals across the state. PSRP relies on contributions from, and work on the ground in, healthcare organizations. Patient safety reports submitted to PSRP over more than 15 years have

reinforced the need for organizations to have strong systems in place for responding to and learning from adverse events. With PSRP, Oregon has the infrastructure to support the recommendations in *Safer Together*. When healthcare organizations use a system-based approach to respond to and learn from adverse events, incorporating PSRP to support their event investigation and analysis process, they also contribute to Oregon's collective statewide learning system (Figure 1, page 3).

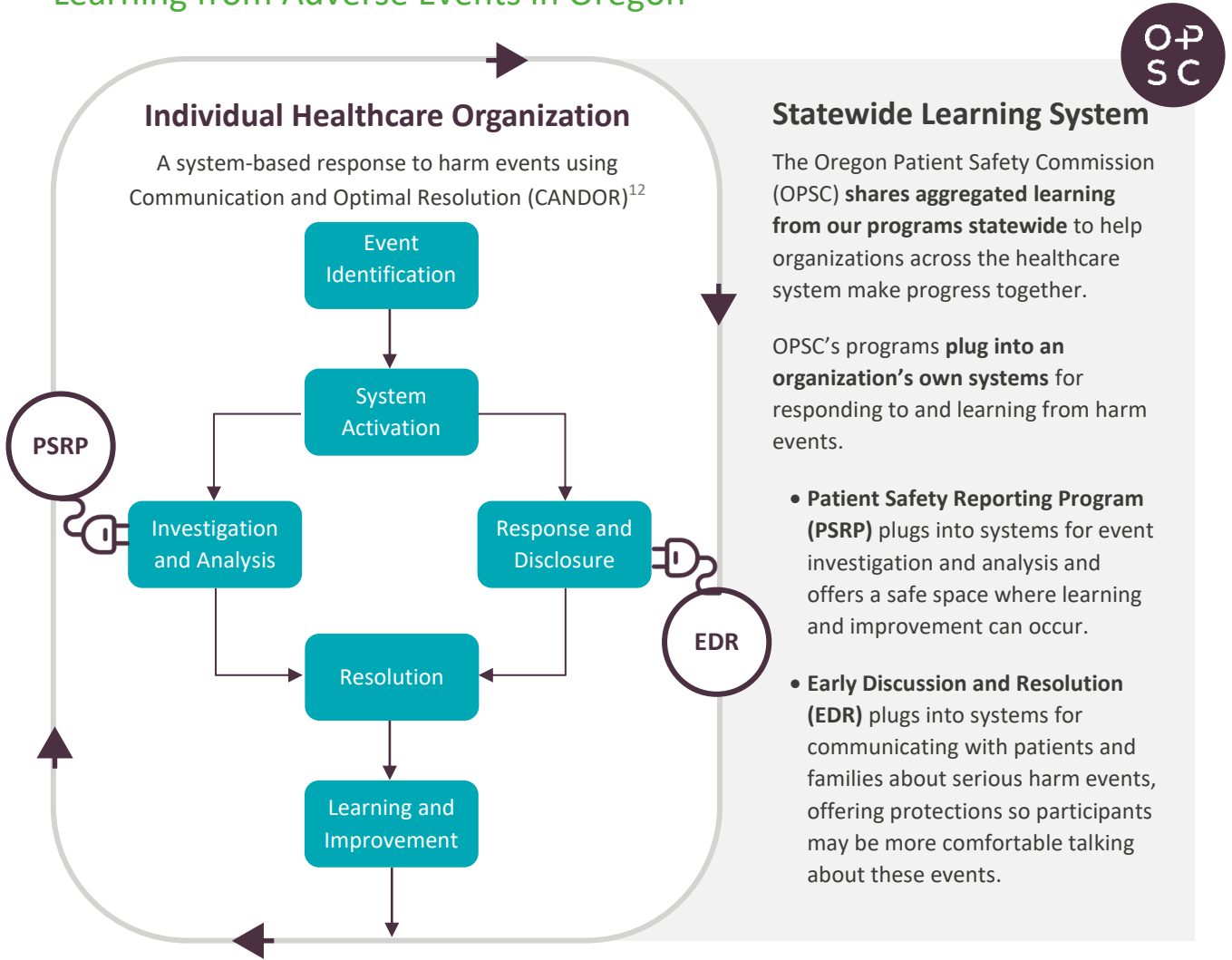## A System-based Model for Healthcare Organizations

In our complex and constantly evolving healthcare delivery system, organizations must have the capacity to learn and adapt in response to the wide range of safety issues that will arise. *Safer Together* recommends that healthcare organizations adopt a systems-based approach to proactively respond to and learn from unanticipated medical harm.

The communication and resolution program (CRP) model provides a best practice, systems-based approach to proactively respond to and learn from unanticipated harm. In a 2020 *BMJ Quality & Safety* editorial, national CRP experts wrote, "CRPs appear to improve patient and provider experiences, patient safety, and in many settings lower defense and liability costs in the short term and improve peer review and stimulate quality and safety over time."[14(p876)] CRPs emphasize a comprehensive, consistent, and systematic response to every patient harm event, including an inquiry into what happened, on-going communication with the patient and family, support for involved healthcare providers, and restitution when the standard of care was not met. CRPs also promote learning to help healthcare organizations improve their systems of care.

The Agency for Healthcare Research and Quality issued a model CRP toolkit—Communication and Optimal Resolution (CANDOR)[15]—in 2016. The CANDOR toolkit is publicly available and provides a roadmap for implementation and sustainability.

Figure 1. Oregon's Patient Safety Programs Support an Organization's Systems for Responding to and Learning from Adverse Events and Contributes to Statewide Learning

A Coordinated and Collaborative Approach for Responding to and Learning from Adverse Events in Oregon

Individual Healthcare Organization

A system-based response to harm events using Communication and Optimal Resolution (CANDOR)[12]

```
Event Identification
  ↓
System Activation
  ↓
Investigation and Analysis   Response and Disclosure
  ↓                                    ↓
Resolution
  ↓
Learning and Improvement
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PSRP

EDR

Statewide Learning System

The Oregon Patient Safety Commission (OPSC) **shares aggregated learning from our programs statewide** to help organizations across the healthcare system make progress together.

OPSC's programs **plug into an organization's own systems** for responding to and learning from harm events.

- **Patient Safety Reporting Program (PSRP)** plugs into systems for event investigation and analysis and offers a safe space where learning and improvement can occur.

- **Early Discussion and Resolution (EDR)** plugs into systems for communicating with patients and families about serious harm events, offering protections so participants may be more comfortable talking about these events.

PSRP Modernization Strategy Progress

PSRP has a strong foundation that is rooted in OPSC's mission—to encourage a culture of safety and help make care safer for all Oregonians. However, since PSRP's creation in 2003, healthcare has been in a constant state of change. To ensure the program could continue to support the rapidly changing healthcare environment, OPSC's Board of Directors (see Appendix II. OPSC's Board of Directors) committed to modernize PSRP in 2021.

Using lessons from *Safer Together* to guide our work, we focused on what we could do to strengthen PSRP, as Oregon's state-level reporting program to coordinate patient safety efforts and share learning across the healthcare continuum. We sought input from members of Oregon's healthcare community to understand their current patient safety priorities and practices. Their input, in conjunction with an analysis of advances in patient safety, shaped proposed revisions that will strengthen PSRP, making it more relevant to the healthcare system that had, and would continue to, evolve. We shared the results of this analysis in our 2021 PSRP annual report, *Charting a Course for Progress*.

A key aspect of our analysis was understanding the unique, yet interdependent, roles of state and organization-level reporting programs in making progress in patient safety. We also dug deeper to understand the essential role of a state reporting program, like PSRP. We found that a state program should be:

- **Supportive**. It builds on organization-level efforts with minimal duplication.
- **Shares learning**. It shares information to inform organization-level safety and quality improvement work.
- **Collaborative**. It facilitates work on problems that can't be solved in isolation.
- **Provides accountability**. It provides meaningful public accountability.
- **Advances equity.** It encourages practices and improvement efforts that advance equity.

Senate Bill 229 was the culmination of our information gathering and analysis process. The passage of the bill in the 2023 Legislative session was an important milestone in our process. The revisions to the PSRP statute, which will go into effect in 2024, will:

- **Broaden and revise overly specific or outdated language** to allow the statute to remain relevant over time.
- **Revise elements of the reporting program to support current patient safety knowledge and practice** by focusing on the systems organizations have in place to respond to and learn from adverse events, rather than on the specifics of individual adverse events.
- **Codify health equity as an essential part of reporting program data collection and analysis** because we know that inequitable care cannot be safe care. While revising our statute cannot change the inequities inherent in American healthcare, it would encourage Oregon's healthcare organizations to understand and address health inequity head on (see box on page 5).

With these revisions in place, OPSC can begin implementation work to modernize the services it already provides. PSRP will be able to better support the rapidly changing healthcare environment, build on the work organizations are already doing, and provide meaningful shared learning in service to our mission.
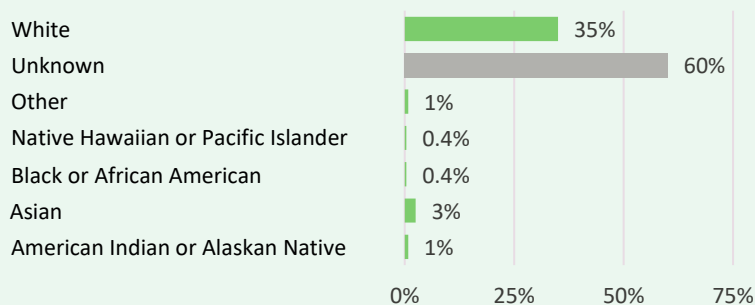
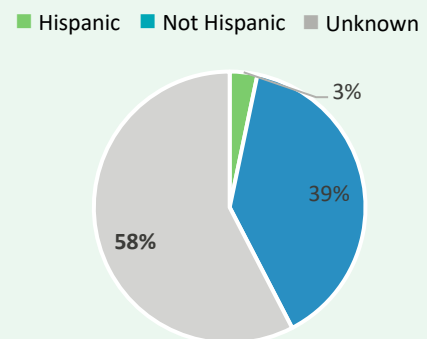# Using PSRP to Encourage Practices and Improvement Efforts that Advance Equity

Patient safety is undeniably linked to health inequity—the differences in health outcomes that are systematic, avoidable, and unjust.[16–19] A 2020 study published in the *Journal of Patient Safety*[20] identified race differences for serious harm events by both type of event and hospital setting for events reported in a voluntary reporting system. Structural racism and systemic discrimination based on factors such as race, sex, language, and socioeconomic class are codified in the policies and practices of the U.S. healthcare system.[21,22]

Understanding the root causes of inequity in patient safety is essential to inform strategies to address inequities—but there's limited information about how healthcare organizations seek to understand the role of health equity in adverse events. In Oregon, even basic data on race and ethnicity are either not collected during facilities' event investigations or are simply not included in event reports submitted to OPSC's reporting program (Figures Figure 2 and Figure 3). But this is not a problem limited to OPSC or Oregon healthcare organizations. McDonald et al. note that "Few organizations analyze their safety or risk data in the context of race, ethnicity, or language preference."[23(p76)] In addition, there is limited understanding among healthcare organizations about how to connect what we know about health inequities to solutions that result in concrete changes.[24]

Figure 2. Patient Race, 2022

Race	Percentage
White	35%
Unknown	60%
Other	1%
Native Hawaiian or Pacific Islander	0.4%
Black or African American	0.4%
Asian	3%
American Indian or Alaskan Native	1%

Figure 3. Patient Ethnicity, 2022

Hispanic ■ Not Hispanic ■ Unknown

- 3%
- 39% (Not Hispanic)
- 58% (Unknown)

OPSC can encourage practices and improvement efforts that advance equity. OPSC's role is to work with organizations across the healthcare system to support learning and collaboration. We offer insight into the efficacy of the processes and systems organizations use to make care safer following patient harm events. This should include encouraging practices and improvement efforts that advance equity. (See Appendix I. Adverse Events in Oregon for additional data and information reported to PSRP in 2022.)

Seeking Out Opportunities for Collaboration

We know that this work cannot happen in isolation; it must be done together. We are committed to building a culture that supports collaboration and learning across the healthcare system so that we can all make progress. Using *Safer Together* to guide our work, we are seeking out opportunities to partner with others to make progress toward shared goals in Oregon, as well as nationally.

- **Seeking stakeholder input as we revise our administrative rules**. State agencies use administrative rules to implement and interpret their statutory requirements (ORS 183.310(9)). In 2023, OPSC will begin planning to operationalize our statutory changes, which will go into effect in 2024. A critical piece of this process will be convening an administrative rulemaking advisory committee and scheduling opportunities for public input.

- **Supporting Oregon healthcare organizations to adopt a system-based approach for responding to and learning from adverse events**. We have an opportunity to partner with a national organization to move our shared patient safety goals forward here in Oregon. The Pathway to Accountability, Compassion, and Transparency (PACT) is a learning community that supports organizations across the U.S. with implementation of highly reliable CRPs, a system-based approach that aligns with the recommendations in *Safer Together*, that prioritize patient safety and learning. PACT was established by three leading healthcare organizations—Ariadne Labs[i], the Collaborative for Accountability and Improvement[ii], and the Institute for Healthcare Improvement[iii]. The PACT support model includes offerings for organizations at varying stages of CRP adoption readiness.

- **Looking for alignment and partnership opportunities to advance *Safer Together*.** The Agency for Healthcare Research and Quality (AHRQ) is establishing a learning community that will build on *Safer Together*—the National Action Alliance to Advance Patient Safety. AHRQ anticipates launching the National Action Alliance in fall 2023 and is hosting a series of free webinars over the summer that highlight its main activities. OPSC will look for opportunities to coordinate and collaborate with the National Action Alliance to ensure Oregon can learn from and contribute to patient safety resources across the nation.

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[i] **Ariadne Labs** is a joint center for health systems innovation at Brigham and Women's Hospital and Harvard T.H. Chan School of Public Health. Visit ariadnelabs.org for more information.

[ii] **The Collaborative for Accountability and Improvement** (CAI) is a program of the University of Washington. CAI serves to advance highly reliable communication-and-resolution programs that meet the needs of patients, families, and providers for accountability, compassion, transparency, and improvement after patient harm. Visit communicationandresolution.org for more information.

[iii] **The Institute for Healthcare Improvement** (IHI) is an independent not-for-profit organization that has used improvement science to advance and sustain better outcomes in health and health systems across the world. Visit ihi.org for more information.

Conclusion

There is a critical need for a coordinated effort from all stakeholders across the healthcare continuum to make progress in patient safety for Oregonians, and we all have a role to play. As Oregon's statewide learning system, OPSC is uniquely positioned to support collaboration and share information and best practices through PSRP to help Oregon's healthcare system move forward together. To support healthcare organizations in a rapidly changing healthcare environment, we have an obligation to make deliberate and purposeful changes that reflect what we have learned since the program was created.

The vision and foundation of PSRP is evergreen. With the passage of Senate Bill 229, we can modernize the reporting program to support patient safety efforts across the healthcare continuum. We look forward to working together with stakeholders across the healthcare continuum to shape the future of PSRP together.

Acknowledgements

We are grateful for the time and expertise that many individuals contributed to help inform the PSRP modernization strategy. Special thanks to the OPSC Board of Directors for their guidance on and support for Senate Bill 229 and to the Oregon Legislature for passing the bill, ensuring we can move forward with this important work.

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Appendix I. Adverse Events in Oregon

Demographics

Data on Patient Race and Ethnicity be found on page 5.

Figure 4. Patient Age Groups, 2022

Age Group	Percent
80+	14%
70-79	23%
60-69	19%
50-59	14%
40-49	9%
30-39	12%
20-29	4%
Under 20	5%
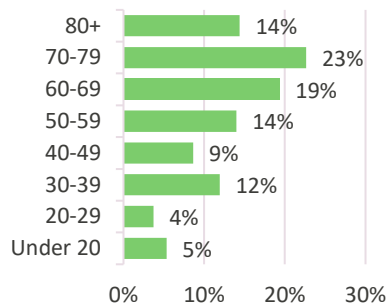
Figure 5. Patient Gender, 2022

Female   Male

40%   60%
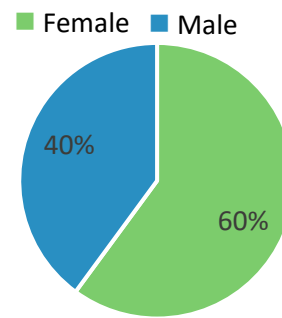
Participation and Engagement

Four healthcare segments—ASCs, hospitals, nursing facilities, and pharmacies—are eligible to participate in the Patient Safety Reporting Program (PSRP). All eligible hospitals are enrolled in PSRP, while some ASCs, nursing facilities and pharmacies have not yet enrolled. Not all enrolled facilities submit reports every year.

Table 1. Percent of Eligible Facilities Enrolled and Percent of Enrolled Facilities that Submitted, by Segment, 2022

Segment	Enrolled	Eligible	% of Eligible That Are Enrolled	Number of Enrolled That Submitted	% of Enrolled That Submitted
ASC	65	95	68%	12	18%
Hospital	59	59	100%	24	41%
Nursing Facility	106	130	82%	0	0%
Pharmacy	113	659	17%	1	1%
Grand Total	343	943	36%	37	11%

Oregon facilities submitted 243 adverse event reports in 2022 (Table 2).

Table 2. Total Submissions by Segment, 2022

Segment	Number
ASC	48
Hospital	194
Nursing Facility	0
Pharmacy	1
Total	243

Event Type

In 2022, Oregon healthcare organizations voluntarily contributed 243 adverse event reports to PSRP for learning: 48 reports were from ASCs, 194 were from hospitals, 0 were from nursing facilities, and 1 was from a pharmacy. Table 3 provides a list of the types of adverse events that Oregon healthcare facilities contributed to PSRP.

Table 3. Event Types by Segment, 2022

Event Type	ASC Number	ASC Percent	Hospital Number	Hospital Percent	Nursing Facility Number	Nursing Facility Percent	Pharmacy Number	Pharmacy Percent	Total Number	Total Percent
Fall	6	13%	45	23%					51	21%
Surgical or other invasive procedure	16	33%	20	10%					36	15%
Care delay	2	4%	30	15%					32	13%
Medication or other substance	3	6%	20	10%			1	100%	24	10%
Device or supply	1	2%	22	11%					23	9%
Healthcare-associated infection (HAI)	14	29%	6	3%					20	8%
Retained object	1	2%	14	7%					15	6%
Pressure injury			7	4%					7	3%
Perinatal			6	3%					6	2%
Other	1	2%	4	2%					5	2%
Suicide or attempted suicide			5	3%					5	2%
Failure to follow up test results			5	3%					5	2%
Maternal			4	2%					4	2%
Anesthesia	2	4%	1	1%					3	1%
Elopement			3	2%					3	1%
Aspiration	1	2%	1	1%					2	1%
Blood or blood product			1	1%					1	0.4%
Deep vein thrombosis	1	2%							1	0.4%
Discharge or release of a patient of any age, who is unable to make decisions, to an unauthorized person			1	1%					1	0.4%
Radiologic			1	1%					1	0.4%
Irretrievable loss of irreplaceable specimen			1	1%					1	0.4%
Contaminated drugs, devices or biologics	1	2%							1	0.4%
Burn			1	1%					1	0.4%
Contaminated, wrong or no gas given to a patient			1	1%					1	0.4%
Total Reports	48		194		0		1		243	

Event types that are unavailable to a particular segment are denoted with gray cells.
*Nursing facilities did not submit any reports in 2022.*

Harm Level

OPSC has adapted the National Coordinating Council for Medication Error Reporting and Prevention's (NCC MERP) Medication Error Index (2001) to classify adverse events reported to PSRP 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. As expected from the program's emphasis on serious adverse events, almost half of the reports submitted to PSRP in 2022 (52%) resulted in serious harm or death (**Error! Reference source not found.**).
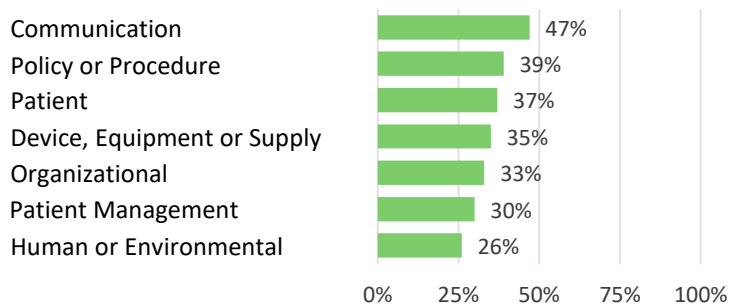
Figure 6. Harm Categories for All Segments, 2022

■ Serious harm or death ■ Less serious harm
■ No harm ■ Unsafe condition or near miss
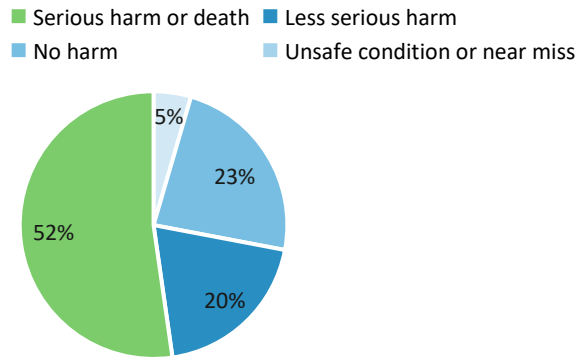
Contributing Factors

Contributing factors shed light on the circumstances or conditions that increased the likelihood of an event. By identifying system-level factors, such as communication and patient management 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. Almost half of the reports submitted to PSRP in 2022 identified one or more Communication Factors (**Error! Reference source not found.**).

Figure 7. Contributing Factor Categories, 2022

Category	Percentage
Communication	47%
Policy or Procedure	39%
Patient	37%
Device, Equipment or Supply	35%
Organizational	33%
Patient Management	30%
Human or Environmental	26%

Quality

Event reports submitted to PSRP provide a window into an organization's event review and analysis process. OPSC reviews 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. 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 causes

Figure 8. Percent of Reports Receiving Each Quality Component, 2022
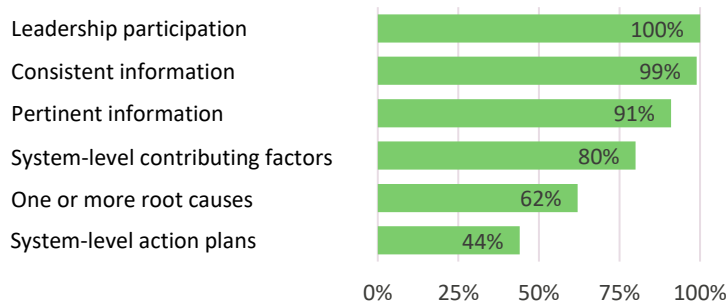
During the COVID-19 pandemic, healthcare facility resources have been strained and staffing has been a significant problem.[25] Adverse event investigations and analysis require a significant investment in time and resources in order to be successful.[26–30] They can take months to complete, with final analysis of root causes and action planning occurring at the end of the process.

Just over a third of submitted reports (43%) included all six elements necessary for acceptable quality. Less than 20% of ASC reports and no Pharmacy reports were acceptable quality (Table 4).

Table 4. Acceptable Quality by Segment (2022)

Segment	Number	Percent
ASC (n=48)	8	17%
Hospital (n=194)	97	50%
Pharmacy (n=1)	0	0%
All Segments (n=243)	105	43%

Nursing facilities did not submit any reports in 2022.

Appendix II. OPSC's Board of Directors

The Oregon Patient Safety Commission (OPSC) Board of Directors is made up of 17 members, reflecting the diversity of facilities, providers, insurers, purchasers, and consumers that are involved in patient safety. The board serves as the governing body for OPSC to further OPSC's mission.

Amanda Bemetz BSN, RN-BC, PCCN-K
Bay Area Hospital
Position: Nurse

Hollie Caldwell PhD, RN
Concordia University St. Paul Vacant
Position: Faculty Member

Smitha Chadaga MD, FHM, FACP
Legacy Health
Position: Physician

Bob Dannenhoffer MD
Douglas County Public Health
Position: Physician

Lisa Bui MBA
Oregon Health Authority
Position: Public Purchaser

Mary Engrav MD, FACEP VICE CHAIR
Care Oregon
Position: Health Insurer

Heather Hurst MSN, RN, CCRN-SCRN-CNRN
Kaiser Permanente
Position: Labor Representative

Leah Mitchell MSN, BS, RN TREASURER
Salem Health
Position: Hospital Administrator

Kristi Ketchum RN, MBA, HACP, CPHQ
Surgical Care Affiliates
Position: Ambulatory Surgery Center Representative

Erin Sprando
Marquis Companies
Position: Nursing Facility Representative

Judy Marvin MD CHAIR
Providence Health and Services
Position: Health Insurer

Jessica Morris
Meals on Wheels People
Position: Healthcare Consumer

Dana Selover MD, MPH
Oregon Health Authority
Position: Public Health Officer

Vacant
Position: Healthcare Consumer

Vacant
Position: Hospital Administrator

Vacant
Position: Private Purchaser of Healthcare

Vacant
Position: Pharmacist