Safer Care Victoria

March 2022

Supporting patient safety: Learning from sentinel events

Annual report 2020–21

Safer Care Victoria thanks the authors and contributors who helped to produce this report.

Acknowledgement

Our office is based on the land of the Traditional Owners, the Wurundjeri people of the Kulin Nation. We acknowledge and pay respect to their history, culture and Elders past and present.

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Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.

ISSN 2206-3625

Available at the Safer Care Victoria website <www.safercare.vic.gov.au>

VICTORIA State Government

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Foreword

The coronavirus (COVID-19) pandemic continues to test our health system's capacity. I am proud of the Victorian community for striving to learn and improve from adverse events. Even when our healthcare system faces extraordinary challenges, our health services and clinicians continue to put patient safety first. This annual report details the sentinel events notified to us in 2020–21, their review findings and the actions to implement recommended improvements.

Between July 2020 and June 2021, **168** sentinel events were notified to us. These are incidents where serious harm or death occurred and where a safety issue was raised. This is a drop from last year's 186 notifications. We have also seen fewer notifications of Victorian Health Incident Management System (VHIMS) incidents recording severe patient harm or loss of life – the highest incident severity rating (ISR 1).

As Safer Care Victoria (SCV) shifted to remote working, we connected with quality and safety leaders in new and dynamic ways to provide one-on-one support through virtual meetings. Our patient safety review training was resumed after a brief pause, and 331 health professionals and 14 consumer representatives attended training from metropolitan, regional and rural health services across Victoria.

In 2022, we have a new sentinel event reporting system – the **sentinel events portal**. This portal securely stores all sentinel event documentation in one location and will strengthen how we report sentinel events annually. We are excited to continue key sentinel event projects in the coming financial year, including:

- sentinel events monthly drop-in sessions to enable health services across the state to engage with the program and their peer groups virtually
- supporting consumer representative recruitment across regional and rural services and connecting peer groups to share resources and expertise
- more adverse event review methodology workshops for health services and consumer representatives – including root cause analysis (RCA)[2] and AcciMap training.

Learning never stops. Not for SCV nor for the Victorian healthcare system. We look forward to working in partnership with all of those who are dedicated to continually improving the quality and safety of healthcare that is the right of every Victorian.

Professor Mike Roberts
Chief Executive Officer

Executive summary

Sentinel events are broadly defined as adverse patient safety events that result in serious harm or death. All Victorian health services are required to report adverse patient safety events in accordance with the Australian Commission on Safety and Quality in Healthcare (ACSQHC) national sentinel event category list. In addition to 10 national sentinel event categories, all Victorian health services are required to adhere to Category 11: All other adverse patient safety events resulting in serious harm or death.

We support health services to undertake reviews of sentinel events. These reviews help identify the factors that contributed to an adverse event and the actions required to prevent them occurring in the future.

You can find further information in relation to sentinel event reviews on our website.

2021 marked the second year of the COVID-19 pandemic, and the findings of both the Royal Commission into Aged Care Quality and Safety, and into Victoria's Mental Health System were delivered. We have focused on these three events as the main themes for this report

2020–21 sentinel event notifications

Of the **168** sentinel event notifications during 2020–21:

- 11 per cent (19) related to mental health sentinel events
- 8 per cent (14) were related to residential aged care
- 13 per cent (22) were related to COVID-19.

Improvements in review process

Sentinel event reviews identify findings with review methodologies such as root cause analysis, recommendations are then developed for improved future patient outcomes. 520 findings (root causes) emerged from reviewing these sentinel events and a further 1041 recommendations developed.

Although there is still room for growth improvements seen this year show an improvement in the use of these methodologies including:

- fewer than 10 per cent of the total findings and lessons learned referred to human error. While this is an improvement from 18 per cent in the 2019–20 period, many reviews could have looked further into the reasons why this occurred at the system level – what existed in the working conditions and environment that contributed to the human error.
- 45 per cent of sentinel event reports included input from the affected consumer or their family member. This is a considerable improvement from 35 per cent in 2019–20 and we hope to see this continue to improve in 2021-22.

Mental health

Common findings across mental health reviews highlight gaps in the care of mental health patients, such as screening patients as a 'low risk'. This emphasises the importance of staff not relying only on the risk assessment, but considering the whole clinical picture, including patient and family input, and identifying and responding to potential stressors.

Residential aged care

Among residential aged care sentinel events notified to SCV during the year, the majority involved consumers over the age of 90 years, who fell and were seriously injured while walking and were then provided with palliative care.

To improve outcomes for residential aged care consumers, work is being undertaken in response to the recommendations from the recent Royal Commission into Aged Care Quality and Safety. These include developing a dignity of risk policy in line with person-centred care and shared decision-making principles, and scheduling discussions with residents and nominated representatives in a partnered approach to dignity of risk.

COVID-19

Some findings highlighted opportunities to improve the care of patients, such as identifying the impacts of visitor restrictions during the COVID-19 pandemic. Health services need to improve how they involve families/support person(s) in care discussions and may need to adapt innovative solutions**,** such as video calls and designated roles assigned for family communication.

Delays in sentinel events notification

A small proportion of sentinel event notifications delayed by more than 30 days were attributed to health services not being aware of the extent of patient harm at the time of the event, not clear the incident met sentinel event criteria, or they were not aware the event had occurred, for example when a referral is lost and a critical appointment delayed. SCV continues to work with health services to reduce this number and encourage clinicians to call the sentinel events program team when they are not sure if notification is required.

The importance of best practice

Insights from the Office of the Chief Psychiatrist (OCP) highlight the importance in aligning with best practice guidelines issued by SCV, OCP and the Chief Mental Health Nurse – particularly about undertaking adverse event reviews with a diverse team, assessing and managing risk factors in practice, and improving patient/family engagement in decision making.

How to use this report

This report informs the Victorian community about the most serious adverse patient safety events in health services that were notified as sentinel events in 2020–21.

This year we have presented the sentinel event data in a new way. We hope to provide a report that is accessible to consumers and health services alike. In addition to this full version of the report highlighting the key sentinel event themes and messages for health services to consider, we have published a consumer summary.

We continue to present what we are notified about, what has contributed to these events occurring, and what we have learned. We unpack the work being done to prevent patient harm and provide examples from some Victorian health services that are leading the way in improving patient safety.

To maximise learning and improvement opportunities, we focus on three main themes based on recent royal commissions, and the pandemic:

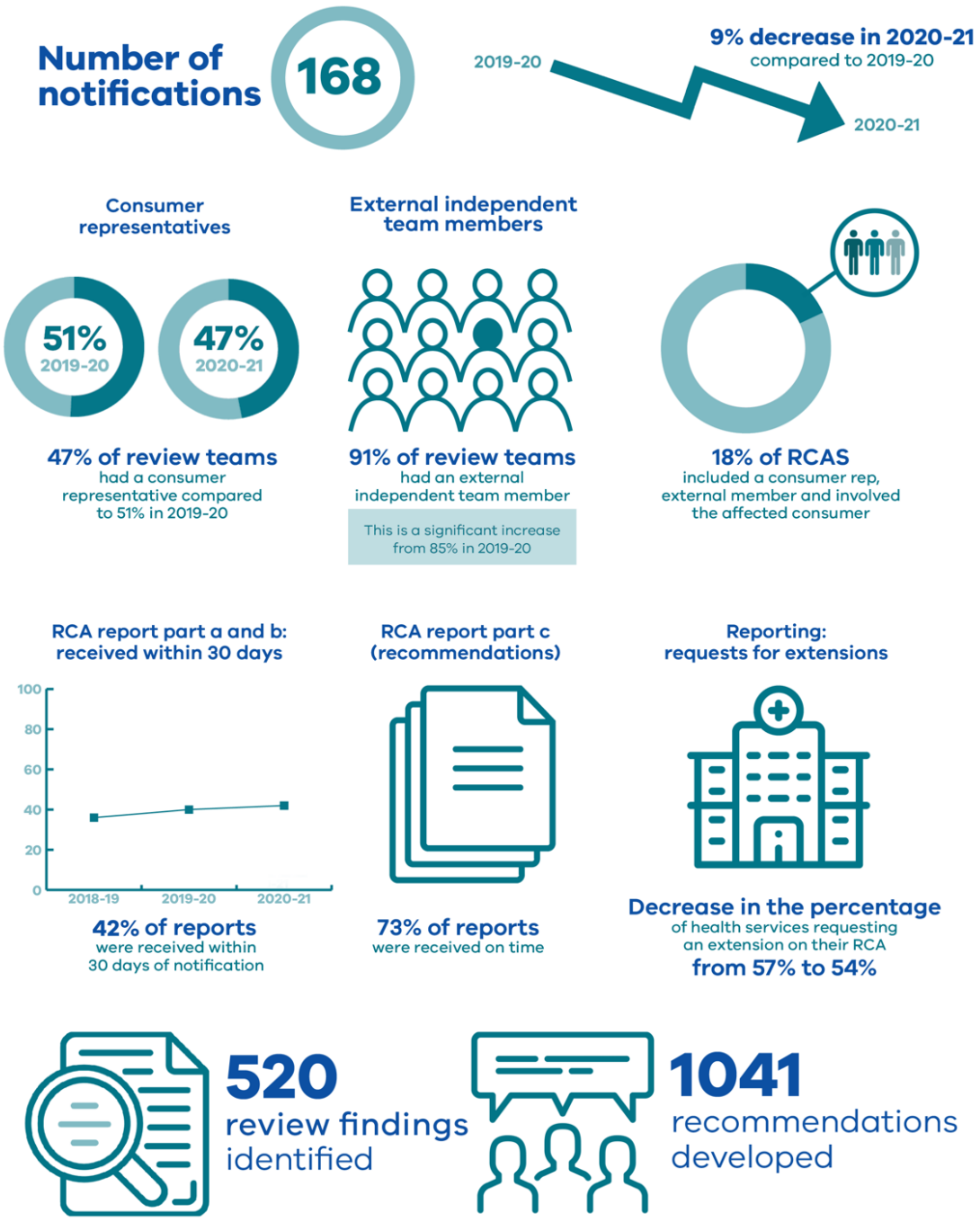
- mental health
- residential aged care
- COVID-19 and its impacts on pre-admissions and emergency departments.

We have included case summaries of real events with each of these themes, including lessons learned and service level changes that were recommended. You can use these to model and inspire local improvement activities. We have also provided key insights from the data, including the findings, lessons learned and recommendations identified by health services during sentinel event reviews. We have themed data based on a systems perspective to explore what issues health services identify in reviews.

This report is a great resource for health service boards, leaders, quality and safety staff and adverse event review teams. There is a lot to learn from, as the underlying systems issues that contribute to adverse patient safety events are rarely isolated to one health service.

Please refer to **Appendix 4 – Terminology** while reading this report.

Summary of findings[1]



[1] Based on the standards set by SCV since taking over the sentinel event program in 2016–17. More information regarding requirements of health services is located at www.bettersafercare.vic.gov.au/publications/sentinel-events-guide

Victoria had a slightly lower notification rate for sentinel events in 2020–21 compared to the previous year. The role of the sentinel events program is to share lessons learned from adverse patient safety events and prevent similar events from occurring again. Health services continue to notify us of these events – even during a pandemic – and this is a sign that safety culture is resilient. While this is a great outcome, there is still work to do to realise the full benefits of reviewing adverse events.

Sentinel events during 2020–21

Of the 168 sentinel events notified to SCV:

- 143 were public hospitals
- 25 were private.

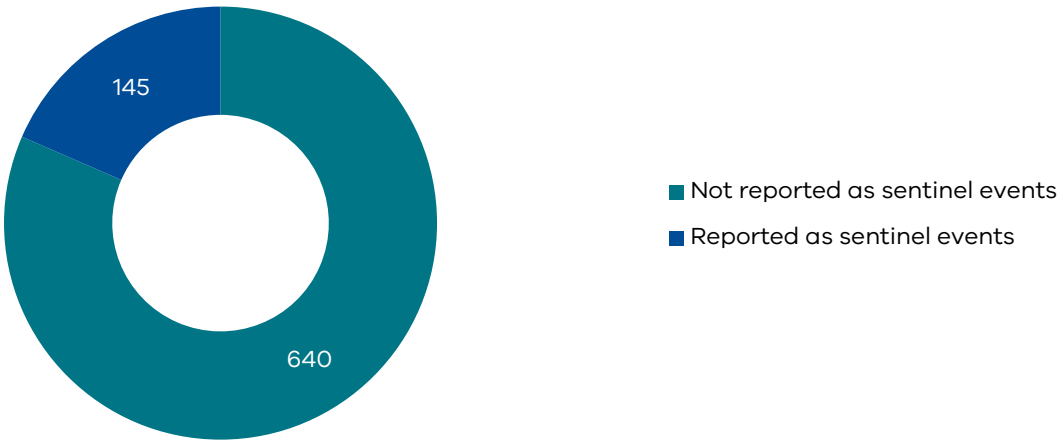
Of the **786** ISR 1 incidents that were notified in public hospitals, **168** sentinel events were notified to us as sentinel events. Private hospitals in Victoria do not report incidents centrally into a system (such as VHIMS), therefore ISR incident data is not available for comparison.

Eighteen percent of ISR 1 incidents notified in public hospitals were also notified as sentinel events (compared to 19 per cent in 2019–20). The proportion of ISR 1 incidents also notified as sentinel events has been increasing over time. Although not all ISR 1 incidents meet sentinel event criteria, there is still a considerable gap between these two metrics. Given proportionally more sentinel event notifications indicate improved reporting culture within health services, we hope this gap continues to close over coming years.

It is worth noting that ISR 1 incident data is not a complete capture of sentinel events in Victoria, and that not all ISR 1 incidents notified in VHIMS meet sentinel event criteria. Some ISR 2 incidents should also be notified as sentinel events.

There were a further **5907** ISR 2 incidents notified by Victorian public hospitals in 2020–21. We note not all health services notified their incident data to VHIMS during the 2020–21 period.

Sentinel events as a proportion of ISR 1 notifications from public hospitals, 2020–21



Sentinel event categories

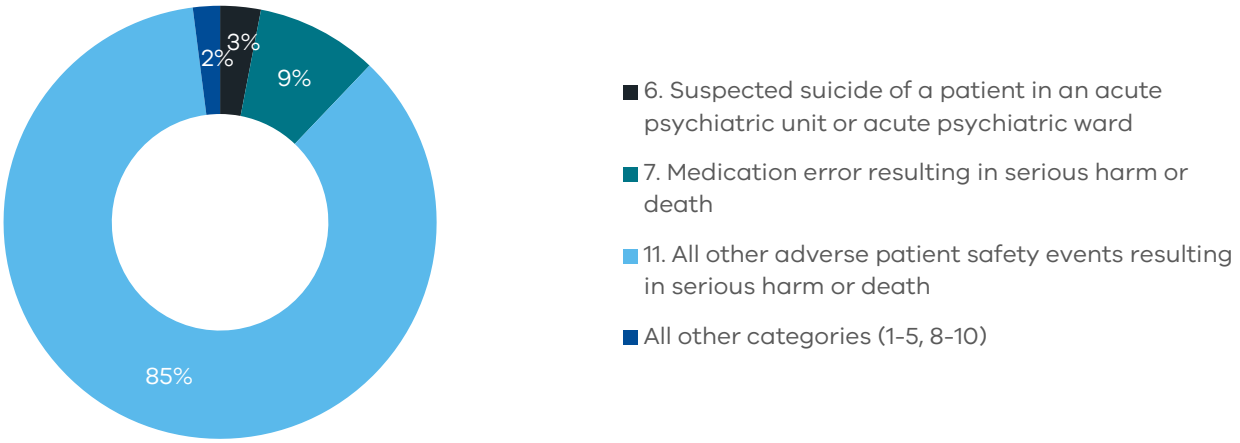
In January 2019 the ACSQHC published a revised national sentinel event category list. It came into effect on 1 July 2019.

In addition to the 10 national sentinel event categories, all Victorian health services are required to adhere to Category 11: All other adverse patient safety events resulting in serious harm or death. Thus, Victorian health services must report for:

- 10 national categories
- one Victoria-only category (Category 11).

Frequently notified sentinel events

During 2020–21, sentinel events were frequently notified under categories 6, 7 and 11.



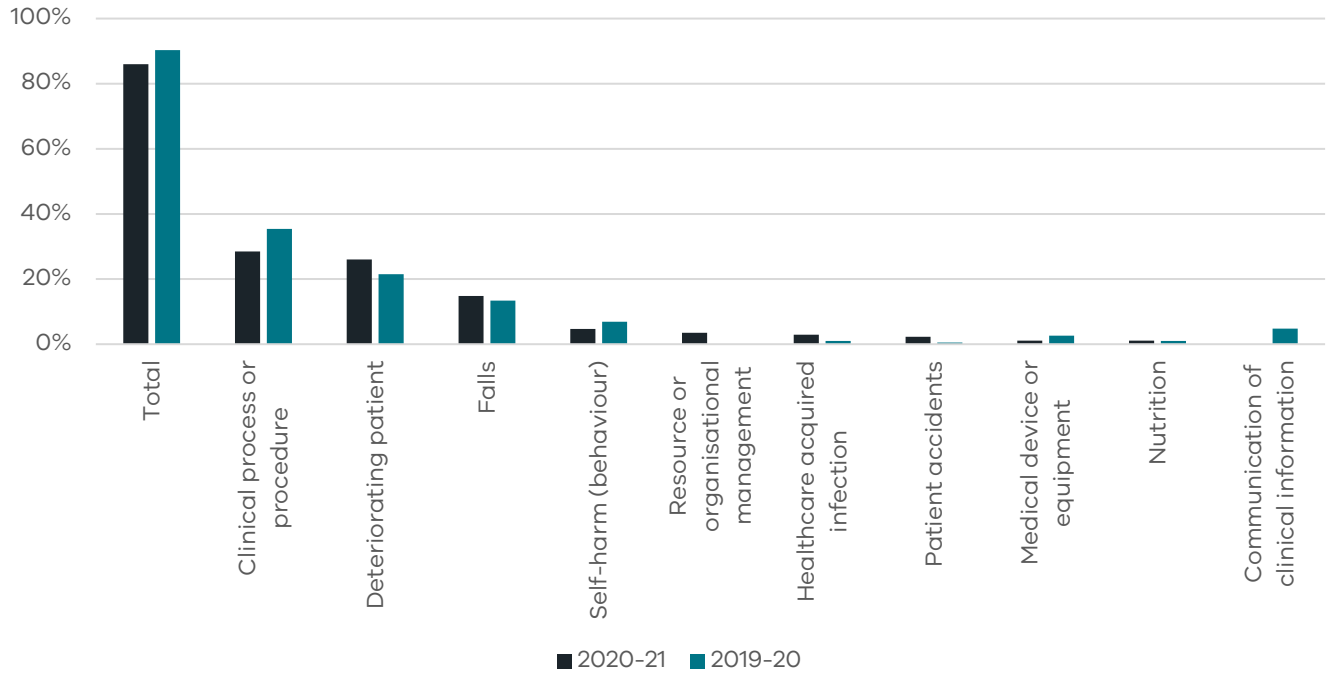
Category 11: All other adverse patient safety events resulting in serious harm or death

We use sub-categories based on the World Health Organization's International Classification for Patient Safety (ICPS) for events notified under this category (**Appendix 1**).

Frequently notified sentinel events to SCV, Category 11: All other adverse patient safety events resulting in serious harm or death

Sub-category	2020–21	2019–20
Total	**144**	**163**
Clinical process or procedure	33% (48)	40% (66)
Deteriorating patient	31% (44)	25% (40)
Falls	17% (25)	15% (25)
Self-harm (behaviour)	6% (8)	8% (13)
Resource or organisational management	5% (6)	0% (0)
Healthcare acquired infection	4% (5)	1% (2)
Patient accidents	2% (4)	1% (1)
Medical device or equipment	1% (2)	3% (5)
Nutrition	1% (2)	1% (2)
Communication of clinical information	0% (0)	6% (9)

Frequently notified sentinel events to SCV, Category 11, 2020–21



Report submissions

Of the 168 reports submitted, 42 per cent (126) were on time, and within 30 days of notification. This is an improvement from 40 per cent in 2019–20 and 36 per cent in 2018–19.

Review panels, consumer involvement

- 47 per cent (79) of review panels had consumer representation. This is similar to 51 per cent in 2019–20.
- 91 per cent (154) of review panels had an external independent team member. This is an increase from 85 per cent from the 2019–20 period, which had been unchanged from the previous year.
- 44 per cent (75) of review panels contained both an external expert and consumer representative. This is a similar result to the 50 per cent (93) notified in the 2019–20 period.
- 45 per cent (77) of sentinel event reports included input from the affected consumer/family member. This is an improvement from 35 per cent (59) in 2019–20.
- 18 per cent (31) of review panels included an external panel member and a consumer representative, as well as including input from the affected consumer/family member in the review process. This is an improvement from last year's 13 per cent.

Review outcomes

- 520 sentinel event review findings.
- 498 lessons learned from these events.
- 1041 recommendations developed.

We base recommendation strength on a hierarchy of actions outlined for sentinel event reports (**Appendix 2**).

VHIMS incident reporting during COVID-19

The Victorian Agency for Health Information (VAHI) analysed the volume of incidents entered in public hospitals' incident reporting systems during COVID-19. They identified that while there was a decline in ISR 1 incident reporting, the total number of incidents (ISR 1–ISR 4) notified in the VHIMS data set was higher in the first 12 months of the COVID-19 pandemic (March 2020–February 2021) compared to the 12 months prior to the pandemic (March 2019–February 2020).

This data provides insight into hospital activity during the pandemic. For details, please refer to the **data supplement** located in this report.

Key sentinel event themes 2020–21

2021 marked the second year of the COVID-19 pandemic, and the findings of both the Royal Commission into Aged Care Quality and Safety, and into Victoria's Mental Health System were delivered. We have focused on these three events as the main themes for this report.

Of the **168** sentinel event notifications during 2020–21:

- 11 per cent (19) related to mental health sentinel events
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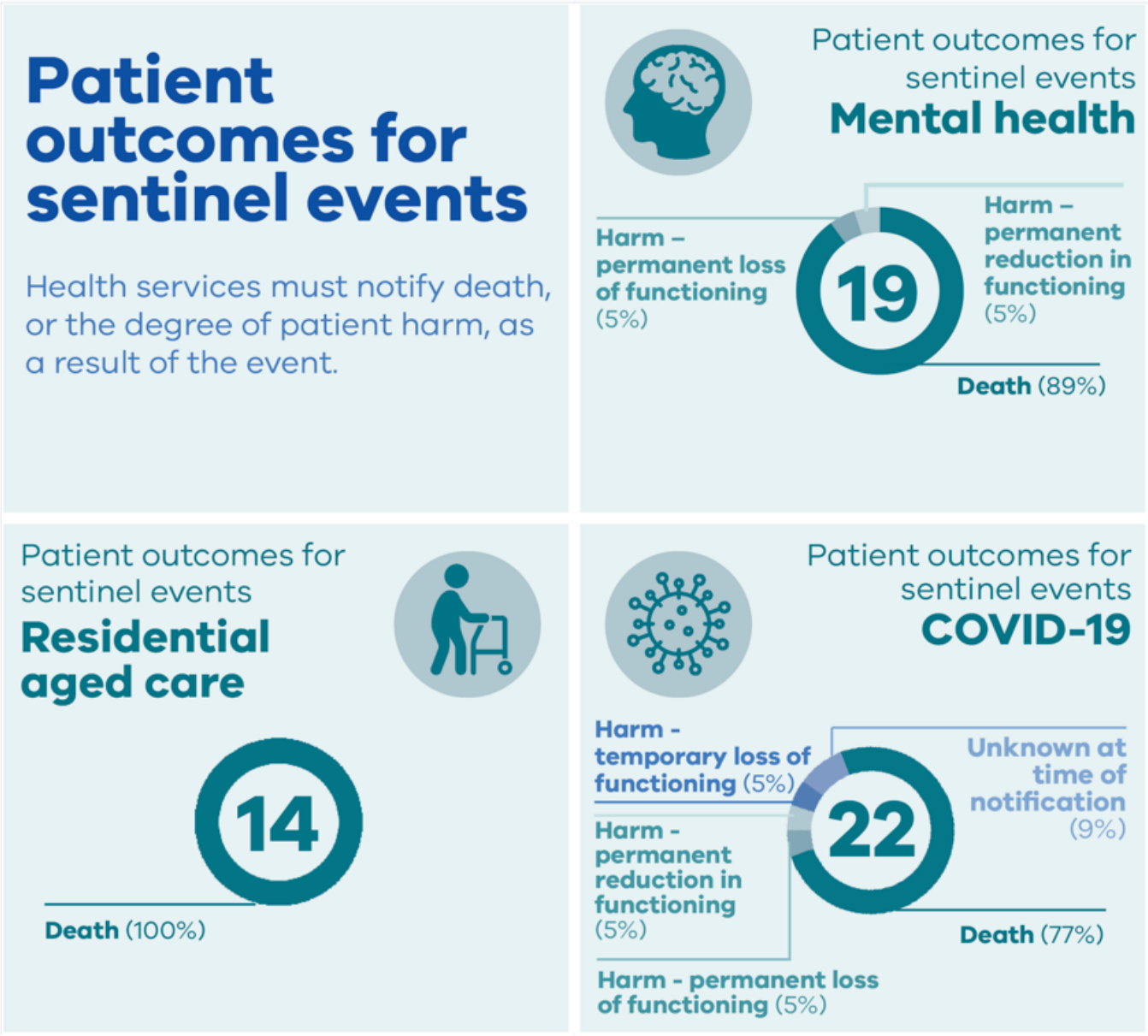
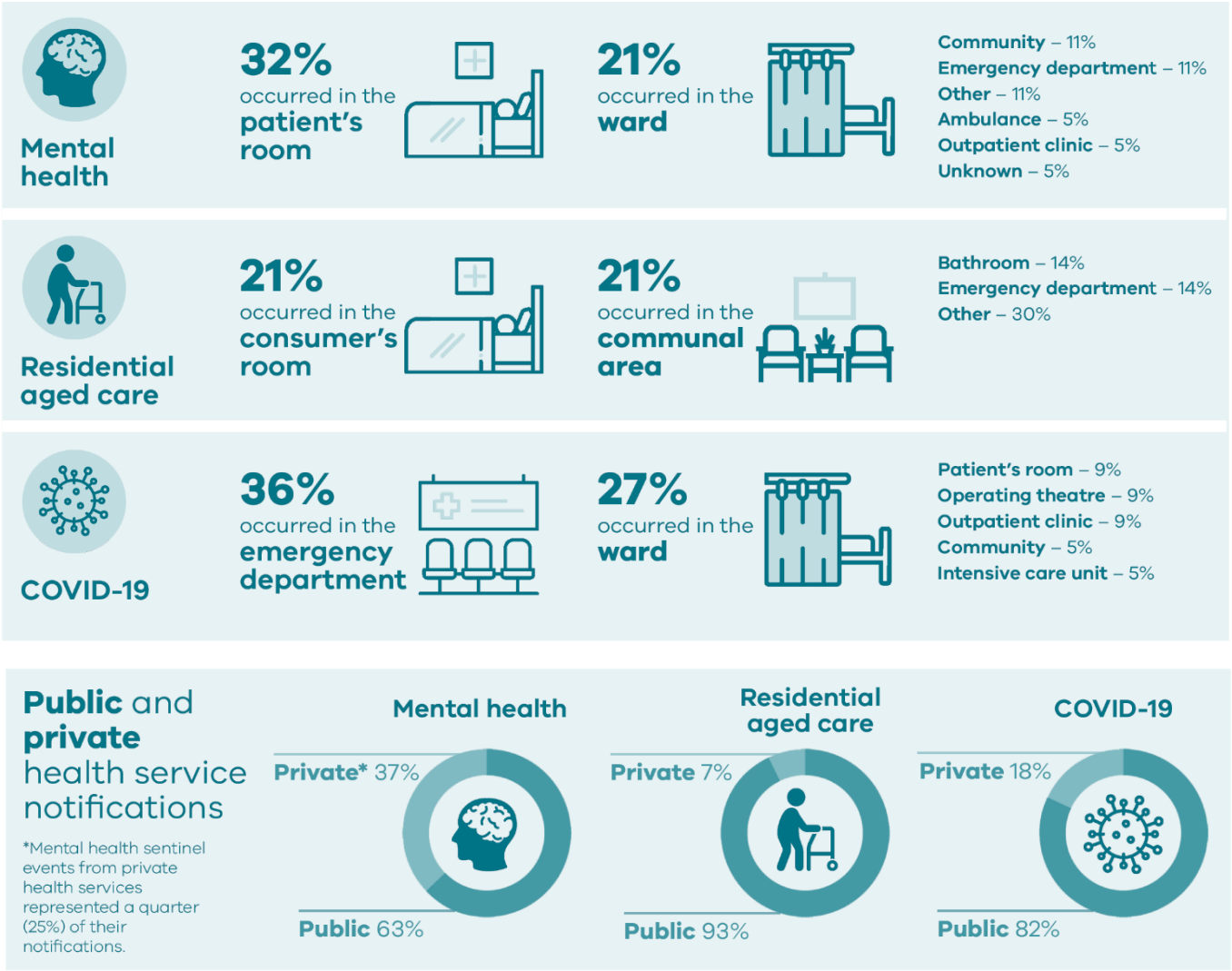


Note: The degree of harm is categorised by the hospital when the sentinel event is notified. It does not reflect the consumer's perspective of the harm they experienced.

Location of sentinel events



A family's perspective

The following adverse patient safety event was notified as a sentinel event to SCV during 2020–21. Eva's family generously agreed to share what it was like to be impacted by a sentinel event.

'My aunt Eva fell and broke her leg while on holiday in Queensland. She chose to return home to Victoria for surgery. She was at increased risk for developing blood clots (venous thrombo-embolism), so the Queensland hospital provided her with enough medication to reduce the risk of a blood clot until her local hospital in Victoria took over her care four days later.

'Despite being scheduled for surgery within two days of being seen at her local health service, Eva endured five cancellations of her surgery. Twelve days after her initial fall, Eva died from a blood clot (pulmonary embolism) while still waiting on surgery and, by that time, having gone nine days without medication to reduce the risk of a clot.'

What happened next

'Eva's son asked whether the coroner's involvement would be appropriate, given the multiple surgery cancellations and lack of blood clot preventing medication. The senior doctor involved in Eva's care said he would review her case and get back to us. He did neither. Two days after her death, the funeral home advised our family that Eva's body had been released to us.

'Our attempts to contact the doctor failed until five days after Eva's death when he told us the coroner would have no interest in her case, and that he didn't think the medication to prevent clots wouldn't have helped prevent the type of blood clot Eva had. The doctor also told us an in-depth case review would occur, but that they might eventually decide a detailed review was not necessary (in his words, it would be 'downgraded'). We were left with the impression he thought we were over-reacting.

'One week after Eva's death, we sent a letter and timeline of events to the hospital's CEO, seeking answers to several questions around Eva's care. We received an acknowledgement from his secretary that the CEO would contact the family. We heard nothing else until an email arrived three weeks later, advising us the health service clinical governance unit (CGU) would be in touch.'

What our family wanted to happen

'The senior doctor should have reviewed Eva's file and contacted us in a timely manner, even if only to say he didn't have all the answers yet.

'He should have provided correct information about the coroner's role and the medication and considered the implications of his words before stating the internal investigation could be 'downgraded'. This, along with his other comments, gave the strong impression he didn't think Eva's care deserved investigation.

‘Upon learning of our concerns, we expected the director of CGU to contact us immediately. Instead, four weeks later, a CGU staff member (not the director) contacted us to say Safer Care Victoria had granted their request for an extension of time to submit their report. The call was prompted by an administrative issue, rather than acknowledging our family’s concerns.’

When we felt heard

‘Finally, 13 weeks after we first raised our concerns, several family members met with three senior representatives of the health service to discuss what happened to Eva (an open disclosure meeting).

‘We felt the meeting was constructive and we were being heard and respected. The health service representatives presented as genuine and sincere in their regret about how Eva’s care was managed. They didn’t attempt to downplay our concerns and thanked us for persisting in having Eva’s care reviewed, if only to ensure the system doesn’t fail another person this way. They undertook to follow up on a couple of issues that remained outstanding and did so.

‘We were disappointed our request for a copy of the final report was declined. The overwhelming impression of this, and the unacceptable delays in receiving other communication from the health service, was that legal implications were being prioritised over the family’s need to have our concerns acknowledged. Having said that, we were otherwise satisfied with the outcomes of the review process and the commitment of the service to improving the system for future patients.’

Our message for clinicians

‘The biggest hurt for our family has been inflicted by the doctors and senior hospital staff we initially dealt with, who we feel were not honest with us, sought to dissuade us from seeking answers around Eva’s care, and did not do what they promised.

‘We are not medical experts. We relied on the health service staff to honour the doctors’ oath and act ‘with conscience and dignity’. However, our experience suggests the interests of the health service were placed above transparency and justice for Eva.’

Affected patient/consumer involvement in reviews

Patients are **'privileged witnesses of health care in the sense that they are at the centre of the treatment process, and, unlike individual clinical staff, they observe almost the whole process of care.'**

Vincent, C. and Davis, R. (2012) Patients and families as safety experts, *Canadian Medical Association Journal*, vol. 184, no.1, pp. 15–16

Note: Affected consumer refers to a patient that suffered harm because of an adverse event and also refers to their family or carer(s). This is different to a consumer representative, who is independent to an adverse event, and may participate in the review team.

Eva's story is an important reminder that after an adverse event has occurred, one of the most important stakeholders is the affected consumer.

Under Australia's Open Disclosure Framework, health services are expected to have open conversations with affected consumers following an adverse event to apologise as soon as possible and, in a timely way, answer questions as to what happened, why it happened and what action is being taken to help prevent it from happening to anyone else.

These conversations should be seen as a series of discussions over time, where information can be shared by both parties to help develop a better understanding of how the event occurred. Unfortunately, affected consumers are often overlooked as vital sources of information in reviews of the events that caused them harm.

Affected consumers who have experienced adverse events offer vital perspectives in helping to fully understand what happened, as they see the whole pathway of care that the consumer experienced. Family involvement is particularly important when investigating the death of a person with complex needs, including people with a mental health problem or a learning disability.

Factual inaccuracies and missing information have been found in investigation reports that failed to consult with affected consumers. Without their meaningful involvement, it is likely that reviews will be flawed. Review teams may not correctly identify what happened, the learning needed, or the changes that need to be put into place.

Failure to engage effectively with affected consumers also perpetuates feelings that their voices are not heard. This is compounded when they are not informed of reviews, updated on what is happening, or given the opportunity to influence improvements. Failure to provide a written report of review findings and poor involvement of consumers in the review process may also inflict further harm to affected consumers.

12.1.2 Disclosure of review and investigation findings

In most cases there will be complete disclosure of the findings of relevant review or investigations. A formal, written report should be provided in a language and communication style that the patient, their family and carers will understand.

Australian Commission on Safety and Quality in Health Care (2013), Australian Open Disclosure Framework. ACSQHC, Sydney, p. 57

Adverse event reviews offer an opportunity to learn and improve systems and processes to reduce risk and improve safety. Including affected consumers' voices in reviews is fundamental to bringing about these improvements.

To improve the depth of findings and quality of recommendations from adverse event reviews, SCV is currently developing tools and resources to assist health services to routinely invite input from, and support involvement by, affected consumers in reviews into events that caused them harm. Stay tuned and check our website for updates regarding when these resources will be available.

You can also visit the ACSQHC website for its recently released resources.

Mental health sentinel events

Of the 168 sentinel events, **19** (11 per cent) were related to mental health. Notable themes emerging from these events related to deficits in patient-centred or culturally appropriate care, followed by issues around effective engagement with patients and families for their contribution to holistic care plans, including failure to respond when a patient's condition is deteriorating.

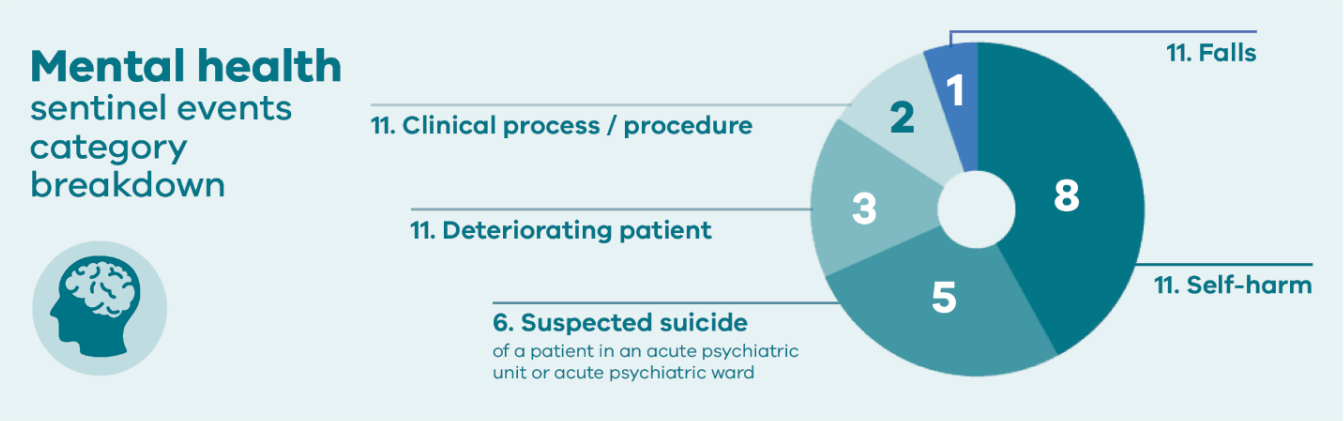
Emergency departments were also noted to be challenging settings to provide appropriate care to people presenting in mental health crisis; the environment is often not designed to address and mitigate the mental health aspects of these presentations.

Mental health sentinel events were notified under:

- Category 6: Suspected suicide of a patient in an acute psychiatric unit or acute psychiatric ward, or
- Category 11: All other adverse events:
  - Self-harm (behaviour)
  - Deteriorating patient
  - Clinical process/procedure
  - Falls

Category 11 breakdown

Sub-category	Number
11: Self-harm (behaviour)	8
6: Suspected suicide of a patient in an acute psychiatric unit or acute psychiatric ward	5
11: Deteriorating patient	3
11: Clinical process/procedure	2
11: Falls	1
Total	**19**



Comparison to previous years

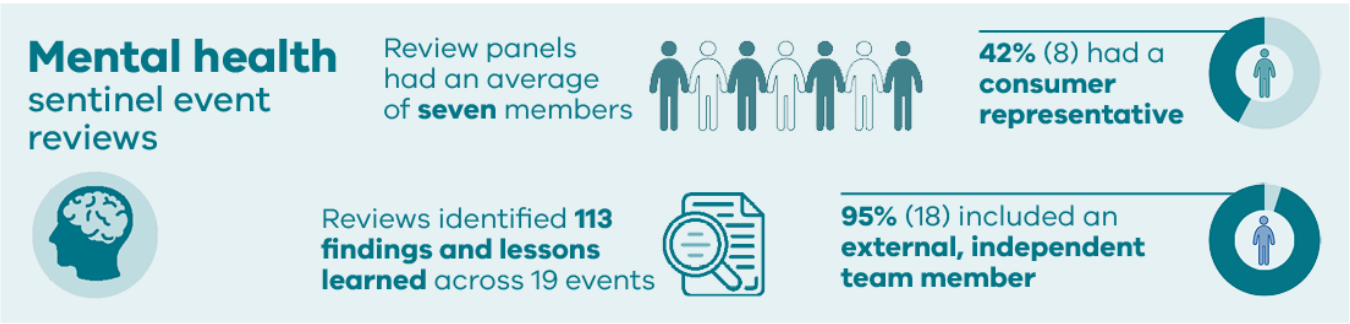
Mental health sentinel events

	2017–18*	2018–19*	2019–20	2020–21
Number	7	5	20	19
Percentage of notified sentinel events	5%	4%	10%	11%

*Statistics from before the ACSQHC revised its sentinel event categories in July 2019. Victoria included an additional category: Category 11: All other adverse patient safety events resulting in serious harm or death, leading to an increase in events qualifying as sentinel events.

The number of mental health sentinel events was consistent with the 2019–20 reporting period. There has been an increase in sentinel event notifications, including mental health-related sentinel event notifications, since 2017–18. This reflects an improved culture of reporting and learning from harm and demonstrates greater transparency and accountability when adverse patient safety events occur in a mental health context.

Insights from mental health sentinel event reviews, Parts A and B



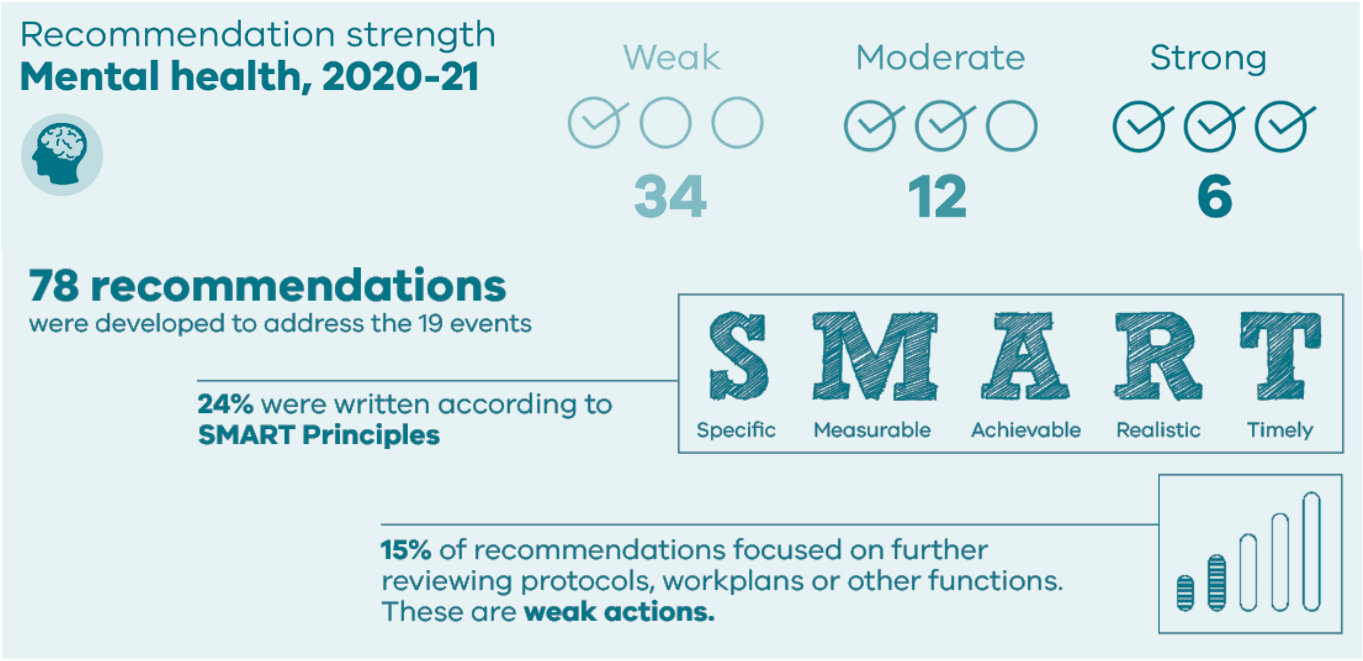
Most common findings in mental health sentinel event reviews, Parts A and B, 2020–21

Main theme	Sub-theme	Example from reports Parts A and B
Systems and processes	Patient-centred/ culturally appropriate care	A lack of appropriate patient-centred or culturally appropriate care, and issues related to appropriate engagement with patients and families to enable shared or supported decision making.
Teamwork factors	Communication	Misalignment of medication administration procedures due to miscommunication between medical and nursing staff.
Procedures and guidelines	Inadequate or incomplete record-keeping	Inadequate admission assessments. Plans were developed by junior staff leading to incomplete or inaccurate plans that staff later rely on for diagnosis and treatment. Admission assessments also lacked senior staff approval.
Equipment, resources, medications	Not fit-for-purpose	The consumer was able to move the bed and put its brakes on, creating a barricade on the inside of the door. Consequently, the door was unable to be opened fully resulting in delay in accessing and assessing the consumer.
Environment	Layout	The lack of bathrooms designed for patients at high risk of self-harm resulted in a high-risk patient having access to a ligature point and contributed to a suspected hypoxic brain injury following attempted hanging.

A note regarding COVID-19: Pandemic restrictions also impacted inpatient mental health service delivery models during the year, with a decrease in inpatient therapeutic activities and visitor and leave restrictions contributing to patients experiencing isolation from family and loved ones. It is possible these circumstances may have contributed to some patients seeking to leave the inpatient environment without clinical team agreement or support.

Key messages for health services to consider

Twenty-one per cent (4 of 19) of mental health sentinel event reviews found that suicide and self-harm occurred in patients who had been screened as a 'low risk'. This highlights the importance of staff not relying only on the risk assessment, but considering the whole clinical picture, including patient and family input, and identifying and responding to potential stressors. Considering these factors may have potentially led to better patient outcomes.



Insights from sentinel event reviews, Part C recommendations

Type and number of recommendations for sentinel events (mental health), Part C, 2020–21

Type of recommendation	Strength	Proportion of recommendations
Training	Weak	18%
New procedure or policy	Weak	17%
Further review/develop an action plan	Weak	15%
Standardise process	Moderate	10%
Checklist/cognitive aids	Moderate	9%
Standardise communication tools	Moderate	5%
Software enhancements or modifications	Moderate	5%
Architectural/physical changes in surroundings	Strong	4%
Share outcomes/educational reference	Weak	4%
Increase in staffing/decrease in workload	Moderate	4%
Tangible involvement by leadership	Strong	3%
Simplify process and remove unnecessary steps	Strong	3%
Education using simulation-based training with periodic refresher sessions/observation	Moderate	3%
Double checks	Weak	1%

Examples of a strong recommendation

A sentinel event report submitted to us used the following strong recommendation: 'Embed an alcohol or drug (AOD) clinician within the multidisciplinary team on inpatient mental health units. Align this action with existing work in response to the Royal Commission recommendations.'

Our work to improve outcomes for mental health service patients

Improving mental health service outcomes at St Vincent's Hospital Melbourne

St Vincent's Hospital Melbourne, like many other health services across Victoria, experienced sentinel and adverse patient safety events within their mental health services. This led to strategic improvements.

> 'The sentinel event review process has led to improved safety for future patients. One of the key insights from our review of sentinel events was the opportunity for improvement.
>
> 'We have already seen the effects of these changes. For example, one thing we learned was to standardise community care plans. This has been rolled out and led to a more inclusive and collaborative process for us in writing care plans.'

Better care plans help to ensure consumers get the care that is tailored to their needs and help clinicians focus on what is important.

Other examples of key lessons learned from reviews that have led to improved patient safety within St Vincent's Hospital Melbourne's mental health services include:

- planning how to deliver bad news to a person and providing support after delivering the news
- replacement of all doors in a mental health ward
- changes to leave forms and revised risk assessment forms.

Key message for health services to consider

The St Vincent's Hospital experience highlights the importance of community care plans: improving the standard of community care plans could lead to better patient outcomes, and a more inclusive and collaborative process when writing community care plans.

Implementing changes after adverse event reviews

Several review findings related to lack of appropriate patient-centred or culturally appropriate care, followed by issues around appropriate engagement with patients and families to enable supported or shared decision making.

By far the most common recommendation found in mental health incident reviews was to further review an existing process or procedure. This was sometimes combined with the intent to develop an action plan. While on the surface this sounds reasonable, the incidents described almost always call for a much more proactive response from leadership. For example, reviewing variation in rounding practices to ensure they are consistent with policy will not address why the variation is occurring.

Recommendations to conduct further reviews may be required on occasions when an issue or clinical process required further in-depth analysis that is beyond the reasonable scope of a sentinel event review. However, these circumstances are rare. Recommendations to conduct further review more often indicate that the sentinel event review process may not have looked deep enough or invested the required focus or expertise to understand the systems problems that contributed to the sentinel event.

Insights from the Office of the Chief Psychiatrist (OCP)

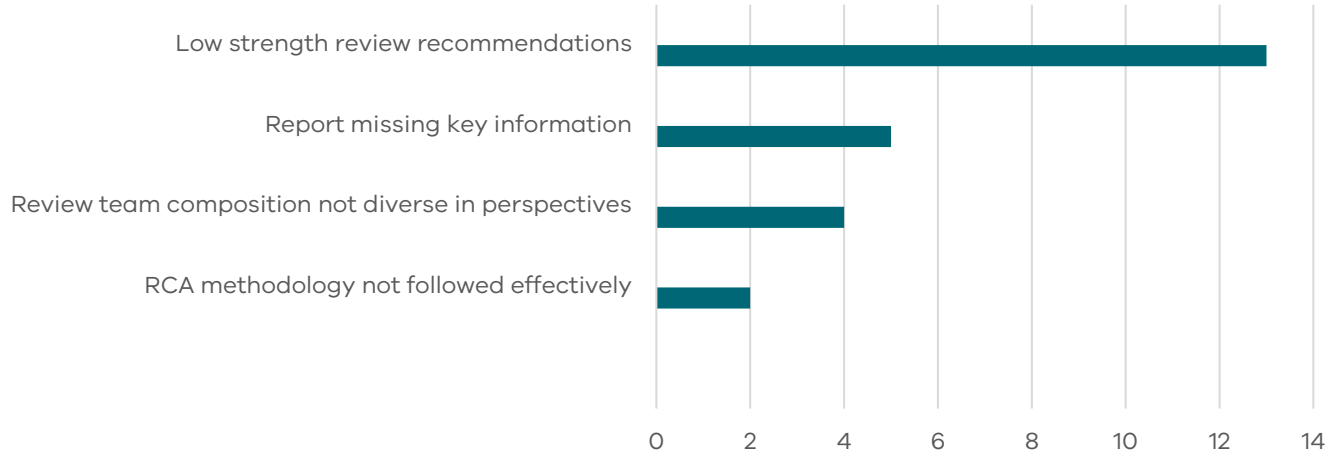
To help services improve the standard of their review analyses and recommendations, all mental health sentinel event reports are reviewed by a committee with representatives from the OCP and SCV. This committee helps to share lessons learned by providing advice from clinicians working across the state about how they have seen similar issues addressed, and how to move towards best practice.

The committee considers the review panel membership, family involvement, application of review methodology, and strength of recommendations developed, with feedback provided to health services for consideration.

Analysis of the feedback provided to services over a two-year period identified several themes and opportunities to improve, including:

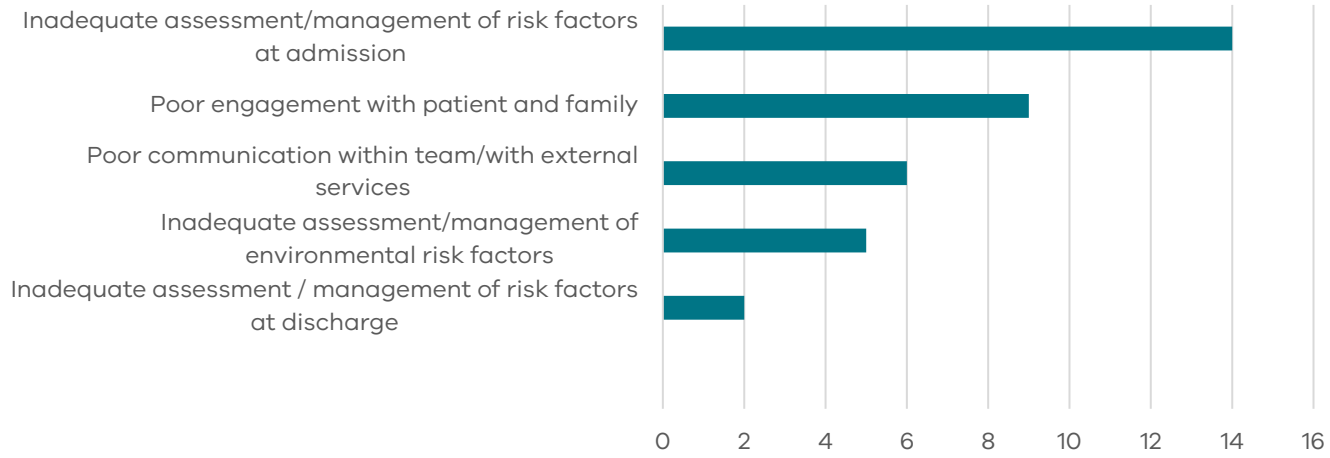
- the quality of patient/family engagement, communication within teams, and collaboration with external services
- optimising assessment and management of risk factors at admission, upon discharge, and within the specific physical environment
- the validity of reviews according to accepted methodologies and ensuring review teams include the affected consumer's perspective and subject matter expertise, including seeking out external subject matter experts.

OCP feedback on mental health sentinel event review process, July 2019–June 2021*



*Based on review of 33 sentinel events from July 2019 to June 2021.

OCP feedback on mental health sentinel event clinical process, July 2019–June 2021*



*Based on review of 33 sentinel events from July 2019 to June 2021.

Key message for health services to consider

Insights from the OCP highlight the importance of aligning with best practice guidance issued by SCV, OCP and Chief Mental Health Nurse. When health services undertake adverse event reviews with a diverse team, it is important to assess and manage risk factors in practice, as well as improve patient/family engagement in decision making.

Sentinel events involving residents from aged care services

Of the 168 sentinel events, **14** (eight per cent) were related to residential aged care. All notified residential aged care sentinel events were from services in regional Victoria, with no notified aged care sentinel events from metropolitan Melbourne.

Despite this outcome, it is worth noting that fewer residential aged care services fall under the governance of metropolitan health services. There are only a small number of public sector aged care services in the metropolitan area (approximately 12.5 per cent of the total number), with most facilities located in regional Victoria.

Among residential aged care sentinel events notified to SCV during the year, the majority involved consumers over the age of 90 years who fell and were seriously injured while walking and were then provided with palliative care.

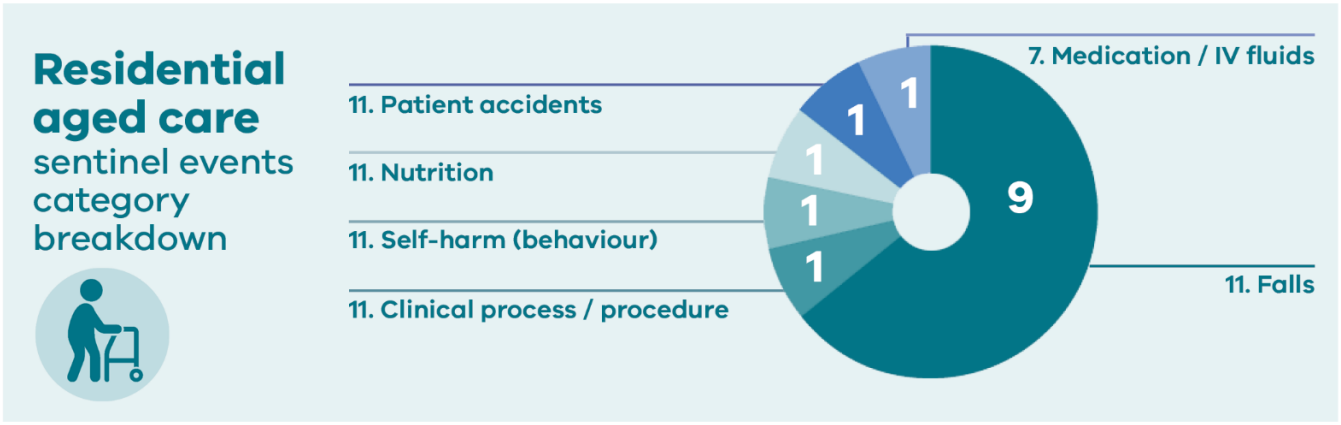
Residential aged care sentinel events were notified under:

- Category 7: Medication/IV fluids
- Category 11: All other adverse patient safety events resulting in serious harm or death.

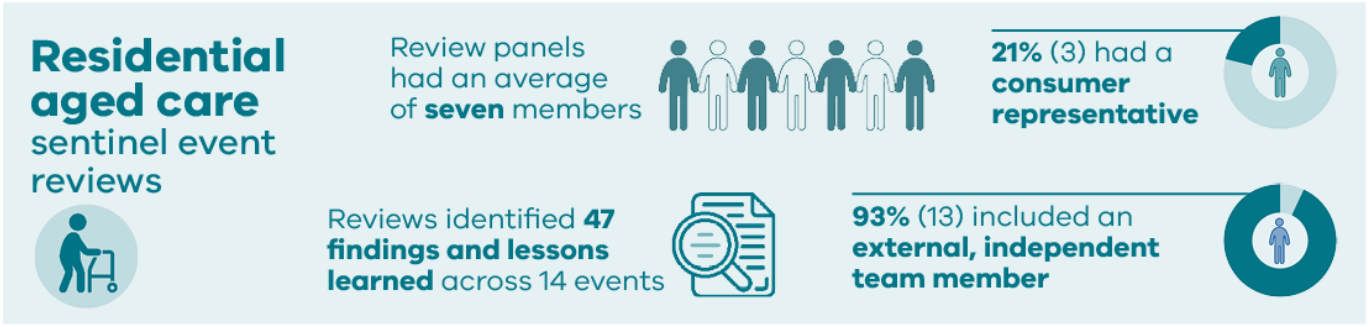
Category 11 breakdown

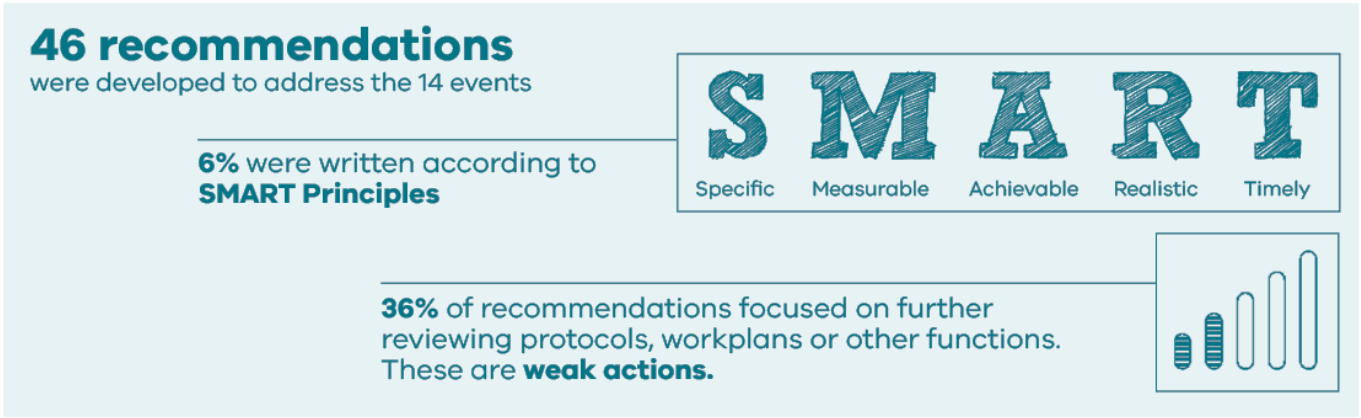
Sub-category	Number
11: Falls	9
11: Clinical process/procedure	1
11: Self-harm (behaviour)	1
11: Nutrition	1
11: Patient accidents	1
7: Medication/IV fluids	1
Total	**14**

Note: There is potential under-reporting by more than 180 public sector residential aged care services in Victoria, given the low number of sentinel events notified to SCV during 2020–21.



Insights from residential aged care sentinel event reviews, Parts A and B





Most common findings in residential aged care sentinel event reviews, Parts A and B, 2020–21

Main theme	Sub-theme	Example from reports Parts A and B
Equipment	Not available	The lack of access to a call bell or portable duress device near the lift chair led to the consumer attempting to walk by himself, resulting in a fall and head injury.
Systems and processes	Staff wellbeing	A lack of formalised approach to staff debriefs after serious events in the residential aged care setting contributed to by staff members emotional attachment to residents in the aged care setting likely contributed to their trauma following the event.
Staff factors	Knowledge and skills	Due to lack of understanding of the palliative phase prior to end-of-life there is a potential care-planning shortfall for the resident with a life-limiting diagnosis.
Procedures and guidelines	Not available/written	There is no system or process for documentation in the notes of dignity of choice where known risks have been discussed with resident/patient/client.

Type and number of recommendations for sentinel events (residential aged care), Part C, 2020–21

Type of recommendation	Strength	Proportion of recommendations
Further review/develop action plan	Weak	37%
New procedure/memorandum/policy	Weak	24%
Standardise process	Moderate	9%
Training	Weak	9%
Standardised communication tools	Moderate	4%
Share outcomes/educational reference	Weak	4%
Software enhancements or modifications	Moderate	4%
Warnings	Weak	2%
Engineering control (forcing functions which force the user to complete the action)	Strong	2%
Architectural/physical changes in surroundings	Strong	2%
Tangible involvement by leadership	Strong	2%

Example of a strong recommendation

The following is a strong recommendation used in a sentinel event review: 'Implement changes to the physical environment following a full audit of the garden areas, which was completed within 24 hours of the incident. Identified works have been actioned, and environmental auditing is scheduled to occur on a three-monthly basis to monitor any potential risks'.

Royal Commission into Aged Care Quality and Safety

Noting the recent Royal Commission, we have reviewed all sentinel events notified to us involving patients from, or in, residential aged care facilities (RACFs). In total, 14 sentinel events were reviewed.

There are several pieces of work being undertaken as a result of the Royal Commission to improve outcomes for residential aged care consumers. Links between the Royal Commission and sentinel events include:

Dignity of risk[2]

The concept of dignity of risk is based on the 'principle of allowing an individual the dignity of afforded risk-taking, with subsequent enhancement of personal growth and quality of life'[3] . It involves balancing the individual's right to make a choice with the potential their decision may place them at risk of an adverse outcome.

RACF sentinel events showed the need for improvements to the documentation and a need for clarity of residents' or families' decision making to take informed risks. The Royal Commission's recommendation of a rights-based approach will support RACFs to balance their duty of care whilst supporting the agency of older people. This involves:

- developing a dignity of risk policy, that incorporates shared decision making and person-centred care
- scheduling discussions with residents/nominated representatives to promote a partnership approach to dignity of risk
- creating a process for recording residents' patient choices where known risks have been discussed with them.

[2] Royal Commission into Aged Care Quality and Safety recommendation 3: Key principles

[3] Royal Commission into Aged Care Quality and Safety recommendation 13: Embedding high quality aged care

Palliative care[4]

In many cases, the residents' outcomes after an incident were decided by enabling the consumer's advance care directive – specifically those regarding transfer to another facility or undergoing surgery.

More than half (57 per cent) of sentinel events findings cited either, consideration of the advanced care directive or the need for an improvement in end-of-life care as central to decisions regarding treatment options. For example, a finding that there is a potential care-planning shortfall for the resident with a life-limiting diagnosis, due to a lack of understanding of the palliative phase prior to end-of-life may have prevented transfer to a tertiary facility.
One recommendation was that, in order to facilitate informed decision making, residents admitted with a life-limiting diagnosis would be referred to the palliative care team on admission, for either respite or permanent care, as well as early recognition and planning for the palliative phase prior to end-of-life.

Assessment[5]

Ageing can be seen as a gradual, but not linear or consistent, process of decreasing physical and mental capacity and a growing risk of disease[6]. The findings from sentinel events highlighted issues with the timely reassessment of changes, specifically of mobility and cognitive function, and the meaningful communication of these changes to the multidisciplinary care team.

Recommendations included:

- providing a portable call bell system to consumers who are at a high risk of falling but choose to ambulate to facilitate independent mobility
- revising handover systems, including risks and mitigation strategies on handover documentation.

Mental health within residential aged care at Alpine Health

SCV met with Alpine Health to understand how sentinel event reviews have informed the care provided at their service, and how they have used reviews to identify gaps in systems and processes.

> 'A multidisciplinary review approach has been important for us, particularly as a rural health service, to work with external teams/services to improve patient services and outcomes.
>
> 'There can be limitations at times as a smaller rural health service. One example is in relation to aged care mental health services, where there are limited beds for mental health aged care patients.
>
> 'It can be easy to make assumptions with older people; for example, a rural health service may have limited exposure to mental health aged care residents and limited staff expertise in this area. Increasing staff confidence with involving external agencies, including improving capacity for case conferencing in a multidisciplinary team environment, can assist health services to improve future patient care and outcomes. This has been made easier with accessibility to telehealth and online case conferencing.'

[4] Royal Commission into Aged Care Quality and Safety recommendation 2: Rights of older people receiving aged care

[5] Royal Commission into Aged Care Quality and Safety recommendation 13: Embedding high quality aged care

[6] WHO (2021) Ageing and Health. retrieved from www.who.int/news-room/fact-sheets/detail/ageing-and-health

Key messages for health services to consider

The Alpine Health experience identifies the importance of using case conferencing facilities. Connecting with other health services and aged care facilities and working in a multidisciplinary team environment can lead to improved patient outcomes.

There are several pieces of work being undertaken following the Royal Commission to improve outcomes for residential aged care consumers. Recommendations included developing a dignity of risk policy, in line with person-centred care and shared decision-making principles, and scheduling discussions with residents/nominated representatives to facilitate a partnership approach to dignity of risk.

COVID-19 and impacts on the health sector

Of the 168 sentinel events, **22** (13 per cent) were related to the coronavirus (COVID-19) pandemic. These events highlighted COVID-19-related impacts as a direct factor.

The impacts of the pandemic on health services were rapid, multifactorial and widely experienced. An overall **lack of resources** (including staff), as well as reduced patient accessibility to services and treatment were cited, as were delays in recognising and managing patient deterioration.

Fixation on COVID-19 symptoms led to incidents of **misdiagnoses** and omission of, or increased waiting times for, tests that would confirm the presence of differential diagnoses or alternative underlying pathology.

The need for the health sector to respond to COVID-19 resulted in rapidly evolving **process changes**, including additional steps to tasks: for example, requiring additional sanitation, or screening questions and risk stratification (for patients and visitors), leading to delays.

This continuous change also placed significant cognitive **burdens on healthcare workers,** who were required to stay up to date with current protocols that were constantly evolving. Reduced capacity due to density limits, and changes to ward configurations due to COVID-19 requirements, were noted as common contributing factors.

Staff notified being frequently displaced and operating in unfamiliar environments and team compositions. The requirement for protective masks and face shields obstructed communication within teams, and between staff and patients.

Impacts on clinical decision making due to a lack of opportunity for in-person multidisciplinary physical assessment of patients were identified. Delays to treatment meant patients were more likely to face additional care challenges, such as difficulties with treatment plan completion, early self-discharge, and lost opportunities to escalate concerns.

The impact of families and carers not being able to be present to offer reassurance or collateral history was also noted as a significant contributing factor to adverse outcomes.

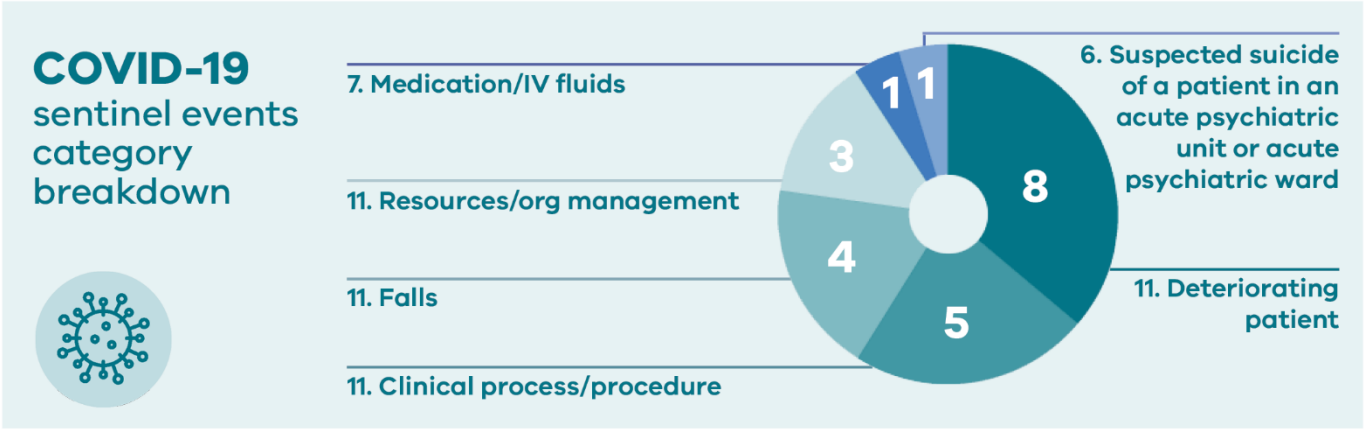
There were also several sentinel events notified in which COVID-19 or related measures were a contributing factor. This included visitor restrictions during COVID-19, which may have contributed to falls in hospital, causing fractures or head injuries.

Key message for health services to consider

To reduce impacts on clinical decision making, pandemic models of care should be reviewed through a lens of identifying safety gaps in COVID-19 workflows in an ongoing manner, especially during periods of demand surge. This includes the need to ensure the timely physical review of patients, particularly when they are re-presenting to a health service.

COVID-19 sentinel events notified under Categories 6, 7 and 11

Category	2020–21 number
11: Deteriorating patient	8
11: Clinical process/procedure	5
11: Falls	4
11: Resources/org management	3
7: Medication/IV fluids	1
6: Suspected suicide of a patient in an acute psychiatric unit or acute psychiatric ward	1
Total	**22**



Comparison to previous years

Sentinel events (COVID-19 impacts)

	2019–20	2020–21
Number	5	22
Percentage of sentinel events notified	2%	13%

There was an increase in the number of sentinel events related to COVID-19 in the past year, compared to 2019–20. This is likely attributed to an increase in COVID-19 cases, and its increasing impact on health services, during the past 12 months (with the COVID-19 pandemic spanning the entirety of 2020–21 but only a quarter of 2019–20).

Insights from sentinel event reviews

Findings and lessons learned

- 170 findings and lessons learned were identified in the 22 sentinel event reviews.
- Changes to practice made in response to the COVID-19 pandemic were a contributing factor in five sentinel event reviews.

In all five events, changes to practice were made in response to the COVID-19 pandemic that were considered necessary infection prevention and control measures. These were identified as having unintended consequences that, contributed to the harm experienced by these patients. Contributing factors related to a lack of resources/accessibility, delays to recognise patient deterioration, or delays to patients being able to access treatment and process changes. These changes include additional steps to tasks. For example, there were additional cleaning procedures, capacity limits, and changes to ward configurations due to COVID-19 requirements.

There were also identified impacts on clinical decision making due to a lack of multidisciplinary physical assessment of patients. It is likely these impacts will be ongoing for health services, and further impacts from the effects of the pandemic will be seen into the future. Close supervision of quality and safety metrics to better understand and respond to these is paramount.

Frameworks to incorporate best practice and taking a systems approach have been implemented and continually improved over the past two years, and we note the achievements of all health services. Services should consider how they can continue to operate in this way in future.

Key findings from reviews

Visitor restrictions

During much of the COVID-19 pandemic, visitor restrictions were in place across health services in Victoria. This meant support people, such as the patient's family or carer, were not present to help communicate the patient's condition or needs to clinicians.

These restrictions particularly impacted communication when a patient was from a non-English speaking background, or unable to easily communicate independently.

In emergency departments, patients' families could not routinely be present during case history taking, assessment and discharge processes. Patient supports/support person(s) during these important phases in emergency care often provide opportunities for additional information that may influence diagnostic decision making and subsequent care/discharge pathways to be gathered. This highlights an opportunity to review involvement of the family in patient care planning and discharge processes, particularly during periods when visitor restrictions are in place.

The impact of not having visitors or volunteers in health services may have contributed to falls and removed a critical resource to assist with clinical decision making and discharge planning. This is reflected in consumer complaints to the Minister for Health, which are managed by SCV.

In 2020–21, a total of 268 complaints were received about Victorian health services – of which almost 20 per cent (53) were related to COVID-19 visitor restrictions. Primary concerns related to lack of communication about clinical care and involvement of the consumer's family/support person(s) in shared decision making. Other areas of concern were related to visitor restriction exemptions in maternity, the intensive care unit and palliative care.

As a result, health services have explored innovative strategies for helping families to remain connected and included in clinical treatment decisions during visitor restrictions, including:

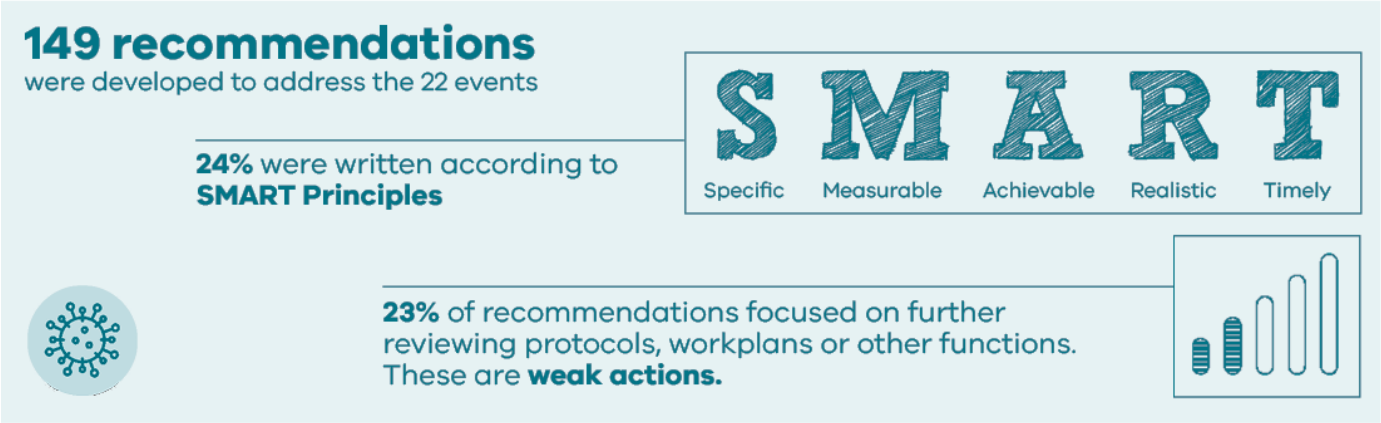
- use of electronic devices to video call families during ward rounds
- designated staff whose role is to assist communication between treating clinical teams and families.

Communication

Families contribute critical information that adds completeness to a patient health record. These conversations are as important as those held with members of the clinical team. These conversations and the resulting outcomes must be included in the patient's progress notes to ensure members of the clinical team have access to all the information they need to inform clinical decision making.

New procedure/s delaying care

Patients with suspected COVID-19 required isolation precautions, which may have delayed physical assessment, investigations and treatment. Delayed access to care can result in delayed diagnosis and worse prognosis.



Type and number of recommendations for sentinel events (COVID-19 and its impacts), Part C, 2020–21

Type of recommendation	Strength	Proportion of recommendations
Further review/develop action plan	Weak	23%
New procedure/memorandum/policy	Weak	19%
Training	Weak	15%
Standardise process	Moderate	10%
Share outcomes/educational reference	Weak	6%
Checklist/cognitive aids	Moderate	5%
Other	Other	5%
Tangible involvement by leadership	Strong	3%
Software enhancements or modifications	Moderate	3%
Simplify process and remove unnecessary steps	Strong	2%
Architectural/physical changes in surroundings	Strong	2%
Increase in staffing/decrease in workload	Moderate	2%
Education using simulation-based training with periodic refresher sessions/observations	Moderate	1%
Standardised communication tools	Moderate	1%
Eliminate/reduce distractions	Moderate	1%
Engineering control (forcing functions which force the user to complete the action)	Strong	1%
New devices with usability testing	Strong	1%
Warnings	Weak	1%

Example of a strong recommendation

Remove the current isolation tent in the waiting area and construct a more permanent (solid walled) area for suspected COVID-19 patients. Identify an area where these patients can be clinically examined in private by medical staff.

Lessons learned from Eastern Health: Managing a cyber-attack during a pandemic

Eastern Health has shared their story of managing a cyber-attack during the COVID-19 pandemic.

> 'We experienced a cyber-attack lasting six weeks in early 2021. Most of our IT systems (including the Electronic Medical Record) were compromised, and staff were unable to retrieve historical and concurrent patient information and results in the usual manner. Internal and external communication was significantly compromised with email and paging systems also affected.
>
> 'Although the cyber-attack was at a phase of relatively low COVID-19 community transmission during the pandemic, challenges to usual modes of communication during the cyber-attack also compromised the ability to communicate the constant changes that were occurring in the public health directives.'

The complete lack of access to IT equipment also compromised incident reporting in a timely manner. The importance of clear, timely documentation and ready access to complete sets of information were emphasised.

> 'Sentinel event reviews provide important lessons learned, even during a pandemic. For example, we learned how important family supports/support person(s) are to the input of inpatient care. A visitor (partner/carer/family) can assist with history taking and understanding patient behaviour. In addition, we appreciate how significantly communication can be compromised when staff are in PPE – particularly for those patients who have English as a second language, are of diverse cultural backgrounds, or who have cognitive impairment and delirium.
>
> 'Despite the pandemic and cyber-attack, we did experience positives in relation to staff cohesion and interaction, including learning an agile way of undertaking reviews with a focus on quality rather than quantity. Through experiencing these concurrent challenges, the need and value of debriefing following any adverse events to be the norm not the exception was also truly appreciated.'

It is important to acknowledge the difficulty Eastern Health experienced during this period in maintaining safe, high-quality care in the context of both the pandemic and the cyber-attack.

Staff also suffered exhaustion from wearing personal protective equipment (PPE) during the pandemic. Working in unfamiliar environment without IT access, reverting to paper-based systems, courier services and heightened level of vigilance during the cyber-attack, added to the already stretched resources.

Key messages for health services to consider

The Eastern Health experience highlights the importance of being agile during incidents (cyber-attack) and in providing continuity of care. Cyber-attack events have impacted Victorian hospitals on at least two occasions and are likely to occur again. It is important that the lessons learned through the most recent cyber-attack incident at Eastern Health are not lost, including how to pivot when these incidents occur, and how to maintain safe, high-quality care.

Sentinel event review findings identified impacts of visitor restrictions during COVID-19 pandemic. Health services should continue to involve families/support person(s) in care discussions and may need to adopt innovative solutions, such as video calls and designated roles assigned for family communication.

All other sentinel events

Of 168 sentinel events, **71 per cent** (120) were notified under the following categories:

- **Category 1**: Surgery or other invasive procedure performed on the wrong site resulting in serious harm or death – one event.
- **Category 4**: Unintended retention of a foreign object in a patient after surgery or other invasive procedure resulting in serious harm or death – two events.
- **Category 7**: Medication error resulting in serious harm or death – 15 events.
- **Category 10**: Use of an incorrectly positioned oro- or naso-gastric tube resulting in serious harm or death – one event.
- **Category 11**: All other adverse patient safety events resulting in serious harm or death – 101 events.
  - Clinical process or procedure – 41 events
  - Falls – 13 events
  - Deteriorating patient – 33 events
  - Medical device or equipment – two events
  - Nutrition – one event
  - Resource or organisational management – three events
  - Healthcare associated infection – five events
  - Patient accidents – three events

A small number of sentinel events were retrospectively notified to SCV following receipt of a complaint from an affected consumer or family member.

Insights from sentinel event reviews, Parts A and B

Findings (root causes)

A total of **353** findings were identified across 128 sentinel events.

Health service system level issues identified in finding statements included:

- working beyond skill level
- policies, procedures or guidelines being unavailable or non-existent
- unclear accountabilities between teams and lack of alerts.

For example:

> There was no procedure stipulating what mandatory information is required on a medical imaging request slip, which allowed the ultrasound request with incomplete information to be processed. This resulted in the ultrasound report being auto allocated to the 'unknown' folder in the results management system, and subsequently contributed to abnormal results not being included in the clinician's assessment of the patient at her outpatient consultation.

Human error was identified in seven per cent of finding statements in the 2020–21 period, compared to 20 per cent the previous year. This is a substantial improvement from the previous year (18 per cent); however, many reviews could have further explored the reasons why this occurred at the system level – what existed in the working conditions and environment that contributed to the human error.

Insights from sentinel event reviews, Part C recommendations

Some **815** recommendations were developed across 128 sentinel events.

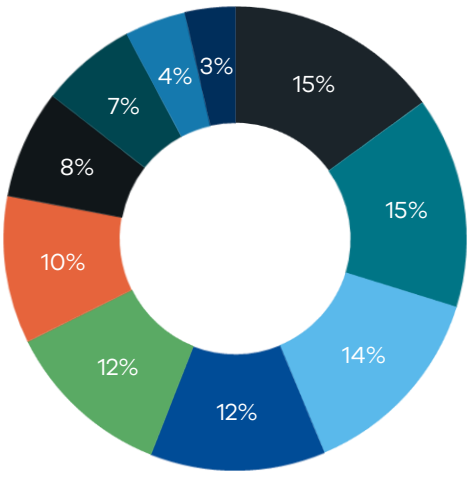
Thirty-three per cent of recommendations focused on further reviews or action plans, new procedures or policies, training, and sharing outcomes to provide an educational reference. These are considered weak actions to address review findings.

Example of a strong recommendation

Add functionality to the pathology result reviewing platforms (CIS & MRO) to ensure unread results are flagged to clinicians when they review a patient file.

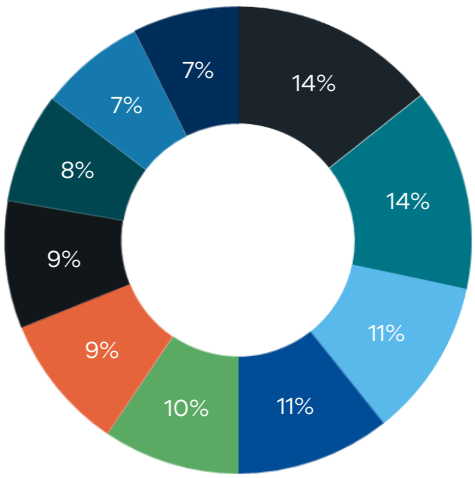
Building capability for improved review outcomes

Most common themes in sentinel event review findings, 2020–21



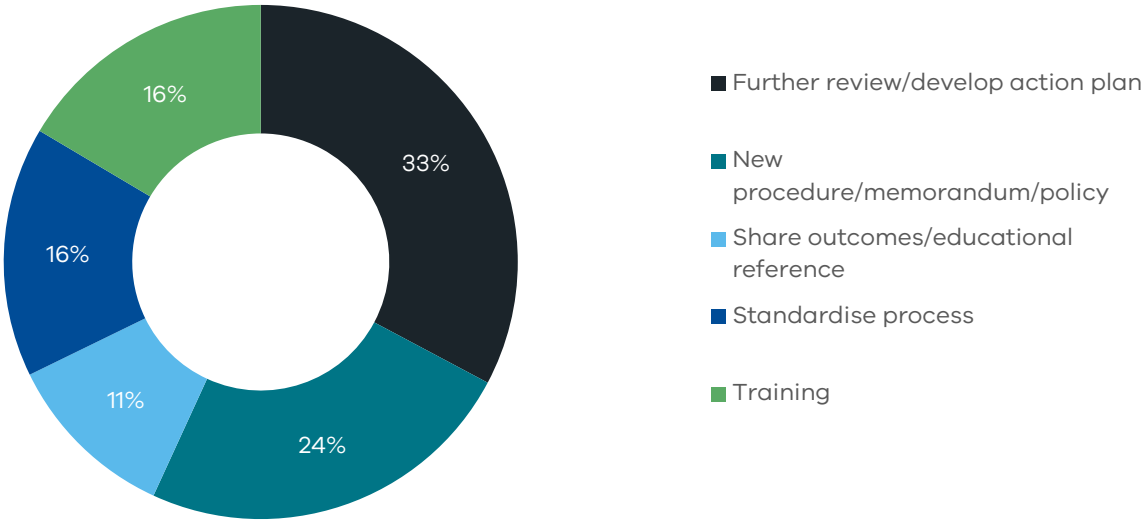
- Teamwork factors
- Procedures and guidelines
- Systems and processes
- Staff factors
- Workforce/work environmental factors
- Documentation/assessment and decision support tools
- Human error
- Equipment, resources and medications
- Organisational and management factors
- COVID-19

Most common themes in sentinel event review lessons learned, 2020–21



- Communication
- Knowledge and skills
- Inadequate
- Missing critical information
- Not available/written
- Insufficient senior specialist support/input
- Cognitive bias
- Missing critical steps
- Training inadequate
- Workload

Most common recommendations resulting from sentinel event reviews, 2020–21



Areas of achievement by health services in 2020–21

Increased open disclosure at the time of notification

In 2020–21, the rate of open disclosure occurring at the time of notification increased from 89 per cent to 91 per cent. This result indicates that health services are having an open discussion with the consumer or their family in a timelier manner.

Open disclosure includes an apology or expression of regret following an adverse patient safety event, a factual explanation from the health service of what happened, and an explanation of the steps being taken to manage the event and prevent recurrence. For more information on open disclosure, refer to the ACSQHC's Australian Open Disclosure Framework.

While health services are maintaining a high level of open disclosure, there are still patients and families who are not getting a timely apology and an understanding of what went wrong, why it went wrong, and what is being done to prevent it from happening again. The proposed duty of candour legislation, if enacted, will help close this gap.

More inclusion of the affected consumer/family member

A total of 45 per cent of sentinel event reports included input from the affected consumer or their family member. This is a considerable improvement from 35 per cent in 2019–20.

The consumer(s) affected by the event (the patient, family or carer) should have the opportunity to contribute to the review process if they wish – for example, in an interview or in writing. Participation can be beneficial for the consumer, who is able to share their perspective. It also benefits the review team, as the consumer can provide information about the event that would not otherwise be available to them.

External panel members on reviews reached >90 per cent

The number of sentinel event review teams with an external, independent member increased to 91 per cent in 2020–21. This is a notable increase from 85 per cent from the 2019–20 period, a figure which had remained unchanged from 2018–2019.

Including at least one external team member who is **independent of the health service** is vital to ensure sentinel event reviews are robust, fair and unbiased. An independent team member can bring relevant experience from the discipline(s) involved in the sentinel event, ideas about different ways of addressing situations, or management and quality and safety experience.

Less focus on human error

Human error (mistakes) should never be finding in a sentinel event review. Although not desirable, errors are a completely normal part of being human; it is the systems and processes we work in that are often intolerant of error and allow them to contribute to harm.

It is critical that sentinel event reviews uncover the factors that have shaped human performance, including errors themselves. By understanding why and how an error occurred, we can put the right systems and processes in place to prevent them from happening again, or at least prevent them from causing harm.

This year, less than 10 per cent of the total findings and lessons learned referred to human error. This is an improvement from 18 per cent in the 2019–20 period.

This result indicates that review teams are looking beyond the individuals involved and asking what systems, tasks and processes led to the error occurring.

Areas for improvement

Consumer representation on review teams

In 2020–21, there were fewer consumers present on review panels this year compared to 2019–20, dipping below 50 per cent.

Sentinel event review panels require at least one consumer representative. Clinicians involved in the sentinel event cannot be on the review panel itself, as it would introduce potential bias in the review process. Instead, clinical perspectives and expertise are represented by clinician members of the review team who were not involved in the sentinel event. Similarly, patients and their families cannot be review team members because of the potential for them to bring their own biases, however the panel should invite them to share their story as part of the review process.

The consumer representative has not suffered a loss in the sentinel event under review but may have had their own experience of harm in healthcare and provides the missing consumer voice. This is a matter of managing bias through sound methodology, while engaging the right clinical and lived experience expertise in the review.

The role of the consumer representative is to re-focus the analysis of the review team on the issues that matter most in healthcare – patient experience and patient-defined outcomes. It is essential to have a consumer's perspective when reviewing a sentinel event.

In 2022, we aim to provide more support to rural and regional hospitals to get more consumer representation on review panels. For more information refer to our guide for hospitals or guide for consumers.

Generating a robust cause and affect analysis

Of the submitted sentinel event reports, seven per cent did not include an analysis diagram such as a cause-and-effect analysis. An analysis diagram shows how the event occurred and the contributing factors identified by the review panel.

Of the reports that included a cause-and-effect analysis, 90 per cent of these diagrams followed a logical sequence.

Cause and effect charts are utilised in RCA methodology. The objective of the cause-and-effect chart is to identify, sort and display possible causes of a specific problem (the critical event/s from the timeline). It graphically illustrates the relationship between a critical event and all the contributing system factors that contributed to the critical events occurring. This occurs by asking 'why' three times.

There should be one cause and effect diagram for each critical event highlighted in the timeline. For steps on how to complete a cause-and-effect analysis, refer to **Appendix 3**.

Producing clear finding statements

Findings and contributing factors are identified during the cause-and-effect analysis process. A finding statement:

- represents what was identified in the analysis (e.g. cause and effect)
- is clear, concise, and logically shows a relationship to the critical event or care management issue
- directly relates to, and logically flows, from the analysis
- only provides information previously shown in the report or analysis
- does not include 'human error'.

For example: the electronic medical record does not show the recorded weight of a patient at the time of prescription (**finding**), which contributed to the doctor not being aware of the patient's weight when prescribing the medication (**contributing factor**), resulting in the incorrect dose being prescribed (**critical event**).

Of the submitted sentinel event reports this year, 13 per cent (23) did not contain findings (root causes). However, they contained at least one lesson learned because of the sentinel event review. In these instances, review panels were unable to identify clear critical events in the sentinel event timeline.

Although infrequent, this can happen in circumstances that are especially complex. For example, for unwitnessed falls that result in death, it is not always possible to determine exactly how the person fell, which can make it impossible to identify a critical event. However, the detailed approach of sentinel event reviews will almost always identify other lessons learned and opportunities for improvement. Capturing these as lessons learned is a reasonable approach in circumstances where the panel cannot identify critical events that may have determined the patient's outcome.

In addition, 30 per cent of the total findings for 2020–21 did not identify a cause-and-effect relationship. The reports that did not include review findings were also correlated with a weak cause-and-effect analysis.

Patient safety review training and resources for sentinel event reviews

Due to the COVID-19 pandemic, patient safety review training was put on hold during 2020. However, this gave us the opportunity to develop a new online training workshop – 'Fundamentals of adverse patient safety event review' – which we launched in February 2021. This workshop is targeted at health professionals and consumers and introduces human factors, systems thinking and safety culture in the context of adverse event reviews.

Between February and June 2021, 12 interactive workshops were delivered virtually to 345 health professionals and consumers, a significant increase from 280 participants in 2019–20. Approximately a third of participants (115) were from rural and regional health services, demonstrating the benefits of the online learning format in reaching a wider target audience.

Feedback from these workshops has been extremely positive. Participants who completed the fundamentals training are now eligible to enrol in new interactive, online practical training workshops on different methods that can be used to review sentinel events. Launching in 2022, this new training will include workshops in RCA^2 (an updated version of the RCA method) and AcciMap (a systems-focused review method).

Strengthening the Victorian Sentinel Event Guide

The Victorian Sentinel Event Guide was released in June 2019 following amendments to national and Victorian criteria for sentinel event notification. This guide was designed to help quality and safety professionals in health services fulfil their obligations when managing and reporting adverse patient safety events.

In 2020, we released an online survey for quality and safety leads, seeking their feedback on opportunities to improve the guide. The survey consisted of standard multiple-choice questions, as well as free text answer opportunities. We received **94** survey responses, and this feedback will form the basis of improvements and changes made to the sentinel events guide. We aim to release the revised guide in 2022.

A new way to report sentinel events in Victoria

In 2021 we launched a new sentinel event reporting system – the **sentinel events portal**.

This means all sentinel event documentation can now be stored securely in one location. Users have greater version control and be able to designate report access control within their organisation before submitting to SCV.

The portal better enables us to monitor trends, recognise potential statewide risks, inform new projects, and increase sharing and learning from events to the health sector. This richer, more meaningful data will also strengthen how we report sentinel events annually. We look forward to presenting this data to you in our next annual report.

For more information on the sentinel events portal, visit our website.

Subscribe to SCV alerts

Has your health service subscribed to SCV alerts? Our weekly SCV alert helps ensure you have removed products and equipment that may pose a patient safety risk.

In the alert you'll find:

- a summary of Class I recalls and other significant safety alerts from the Therapeutic Goods Administration
- details on the specific actions Victorian health services need to take to reduce the risk of patient harm.

Subscribe to the mailing list.

Data supplement

Sentinel events are a small subset of all adverse patient and staff safety events. This data supplement aims to situate sentinel events in the broader context of other more prevalent, but less severe incidents in healthcare.

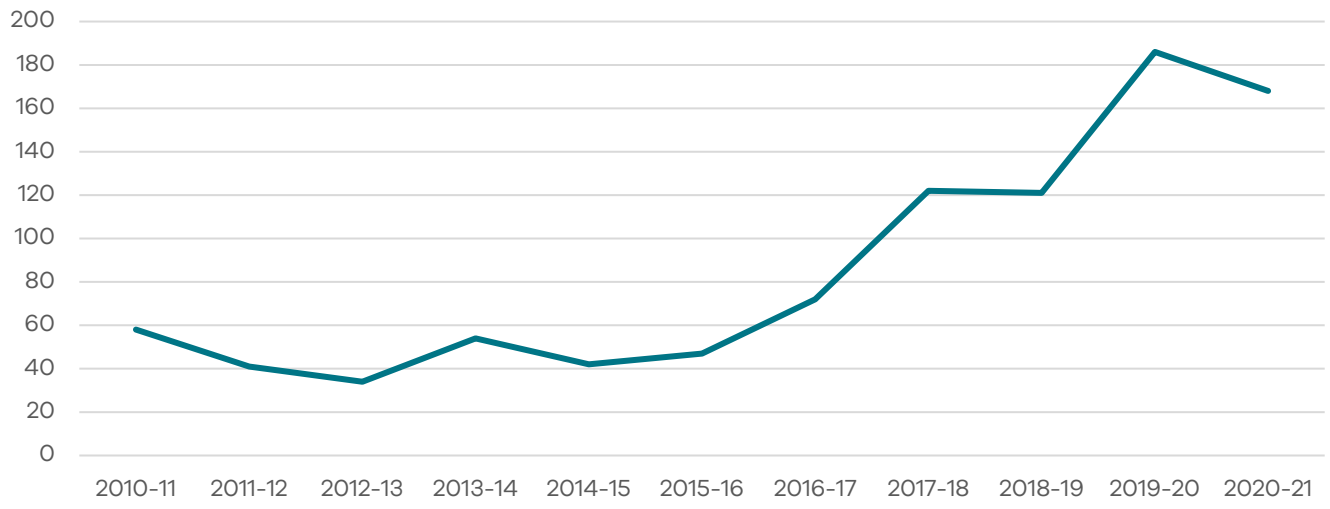
Reporting incidents is critical to improving safety in healthcare. Incidents that are notified can be acted on, learned from, and prevented from recurring.

The rise in sentinel events notified to SCV is a positive sign of an improved culture reporting that brings with it greater transparency, systems accountability, and improved safety in our health system.

For details on how to report a sentinel event in Victoria, refer to our step-by-step guide.

Number of sentinel events notified per financial year, 2010–2021

							SCV overseeing sentinel events				
Year	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21
SEs	58	41	34	54	42	47	72	122	121	186	168



VHIMS reporting during COVID-19

VAHI analysed the volume of incidents entered in public hospitals' incident reporting systems during COVID-19. The below table notes an overall decrease in separations by 10 per cent during March 2019 to February 2021.

The 17 per cent increase in incidents in the health system is understandable given the significant increase in complexity and risks associated with delivering healthcare during a pandemic. Better reporting of incidents reflects a greater safety vigilance amongst clinicians working on the COVID-19 frontline.

Summary of all clinical, OH&S (occupational health and safety) incidents and hazards notified in VHIMS data set from March 2019–February 2021

	Pre-COVID-19	First 12 months of COVID-19 pandemic	
	Mar 19–Feb 20	Mar 20–Feb 21	Change
Incidents – All	267,613	281,249	5%
Incidents – Clinical only	209,250	220,035	5%
Separations*	1,960,658	1,755,108	-10%
Incidents notified per 100 separations – All*	13.6	16.0	17%
Incidents notified per 100 separations – Clinical*	10.7	12.5	17%

*Note: The separations data from the Victorian Admitted Episodes Dataset (VAED) have been used to provide context for the activity within the Victorian public health system at the time of the pandemic. They do not include all VHIMS reporting health services, specifically community health and public aged care services.

The number of VHIMS incident reports classified as ISR 1 decreased by 12 per cent in the first year of the pandemic, whereas ISR 2 incidents increased nine per cent and ISR 3/ISR 4 increased five per cent.

Summary of all clinical, occupational health and safety incidents and hazards incidents notified in VHIMS data set by ISR, March 2019–February 2021

	Pre-COVID-19	First 12 months of COVID-19 pandemic	
	Mar 19–Feb 20	Mar 20–Feb 21	Change
ISR 1	942	830	-12%
ISR 2	7,446	8,135	9%
ISR 3	135,857	142,265	5%
ISR 4	123,368	130,033	5%

Of the incidents notified by Victorian public hospitals, there was an increase in the total number of clinical, occupational health and safety incidents and hazards notified in VHIMS in the first 12 months of COVID-19 compared to the year prior to the pandemic.

The composition of the types of reports also differed in the first year of the pandemic, compared to the year prior. There was a notable decrease in ISR 1 incidents notified, and an increase in the number of lower severity incidents (ISR 2–4) notified in health service's incident management systems.

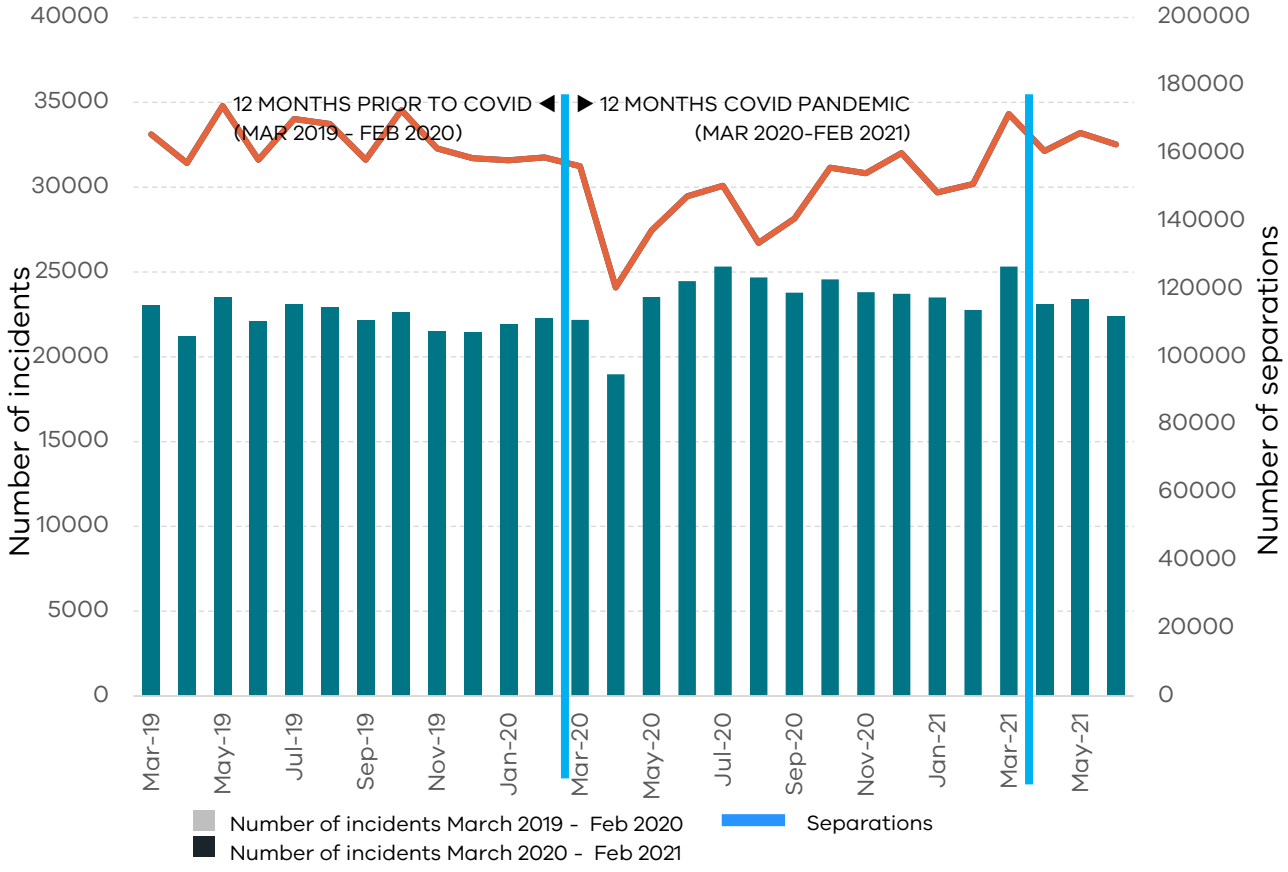
The increase in incident reports does not necessarily mean more incidents occurred in the health system in the first 12 months of the pandemic, nor does it rule it out. This increase could be attributed to:

- heightened awareness of the importance of incidents in a time of uncertainty
- greater imperative to report incidents.

Further investigation is required to better understand the differences in reporting behaviour before and during COVID-19.

Notably, every year, both sentinel event notifications, and VHIMS reports, are lower in April, compared with other months. It is possible the decline in separations in April each year is due to the Easter holidays and the consequent reduction of elective survey over that period. The decline in separations in April 2020 may be a result of, at least to some degree, the cancellation of all but the most urgent elective surgeries (Category 1 and some Category 2) following the Commonwealth Government recommendations at the time.

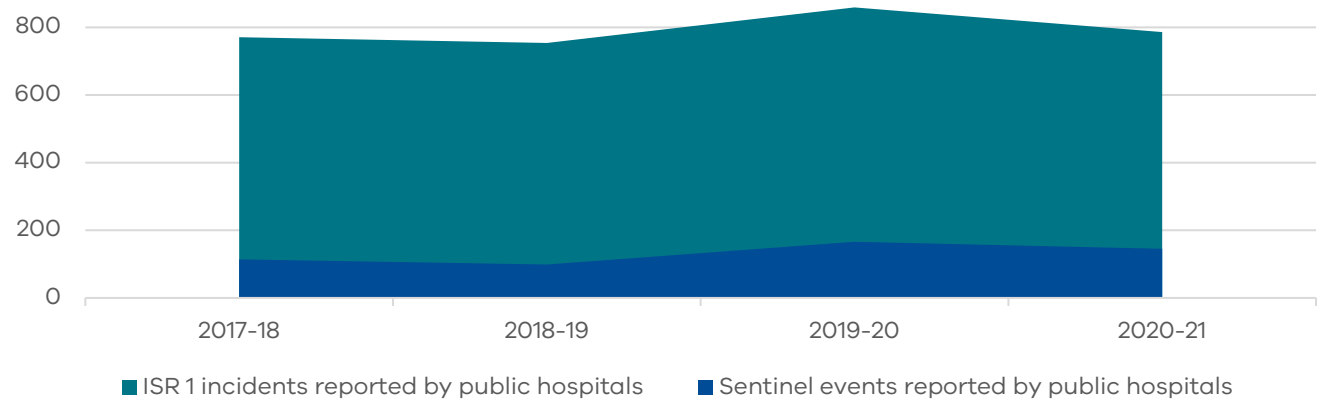
Total clinical, occupational health and safety incidents and hazards notified in VHIMS data (March 2019–June 2021) and total number of separations – comparing first 12 months of COVID-19 pandemic with 12 months prior to pandemic



Eighteen per cent of ISR 1 incidents notified in public hospitals during 2020–21 were also notified as sentinel events, similar to 19 per cent in 2019–20. Over time the proportion of ISR 1 incidents also notified as sentinel events has been steadily increasing. Given comparably more sentinel event notifications indicate improved reporting culture within health services, we hope the considerable gap between these two metrics continues to close over coming years.

It is worth noting that ISR 1 incident data is not a complete capture of sentinel events in Victoria, and that not all ISR 1 incidents notified in VHIMS meet sentinel event criteria. Some ISR 2 incidents should also be notified as sentinel events.

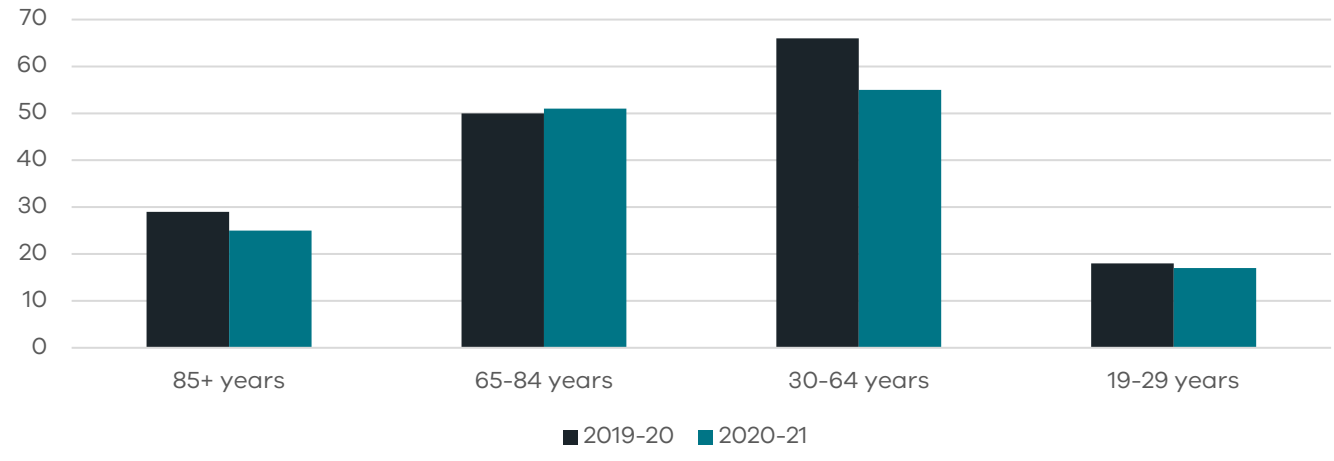
Public hospital notified sentinel events compared to notified ISR 1 incidents (VAHI data extract), 2017–2021



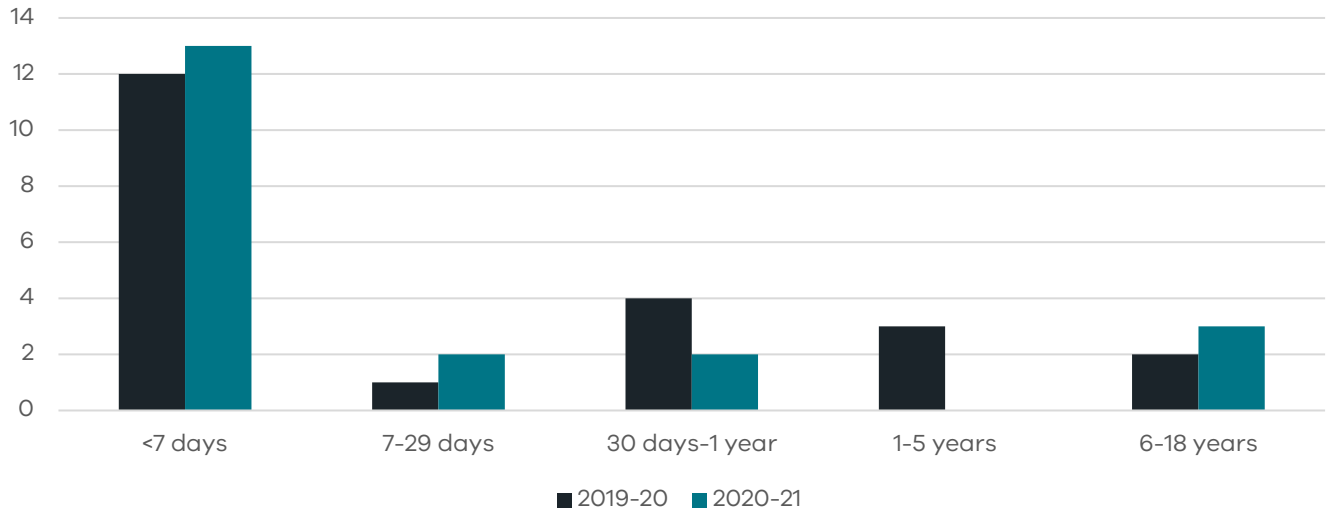
Age of affected patient

Sentinel events affect consumers of all ages. In 2020–21, 148 events affected adults and 20 affected babies, children and adolescents.

Age (years) of adults affected by sentinel events, 2019–2021



Age (years/days) of babies, children and adolescents affected by sentinel events, 2019–21

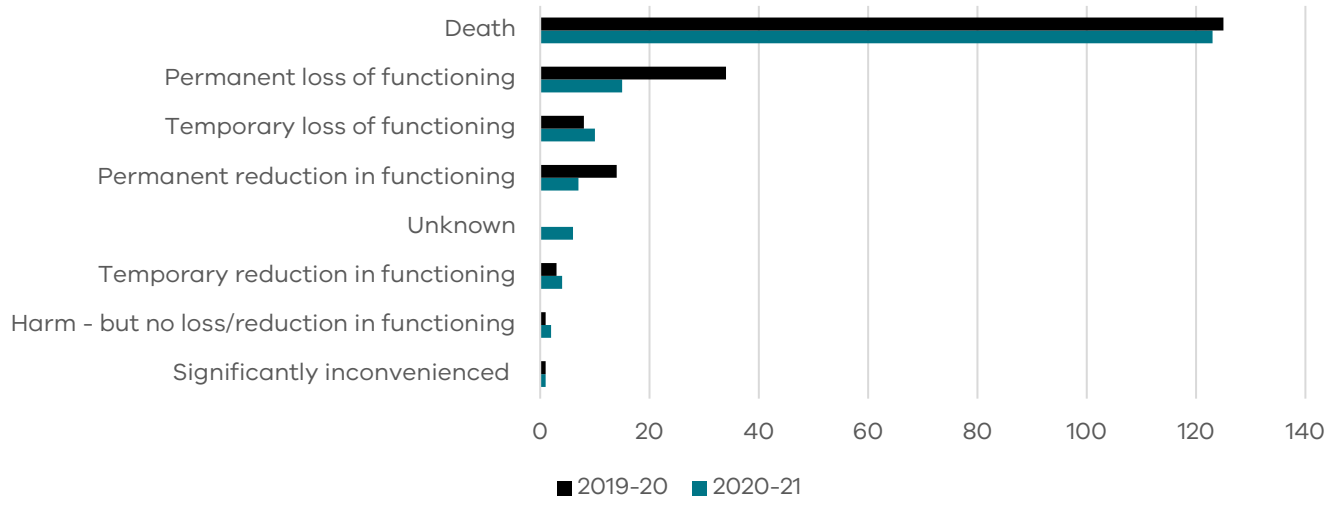


Patient outcomes

Nearly three quarters of sentinel events in 2020–21 (73 per cent) resulted in the patient's death, noting also that sentinel events are adverse events that result in serious harm or death for patients.

Health services must indicate the degree of harm to the patient when they notify sentinel events. This categorisation does not always reflect the degree of harm from the consumer's perspective.

Patient outcome of sentinel events, 2020–21

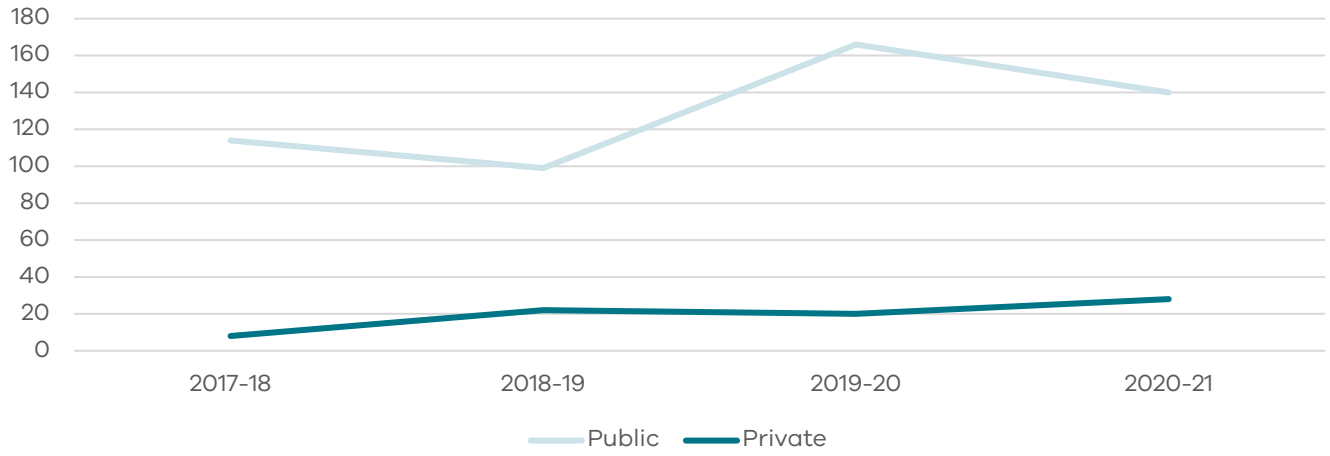


Sentinel event location

Public and private hospital notification

Public and private hospitals report most sentinel events, with public services the predominant source of notifications this year (83 per cent). Private health service notifications have marginally increased since mandatory sentinel event reporting was introduced in 2019. We will be partnering with the Department of Health in 2021–22 to help to close this gap.

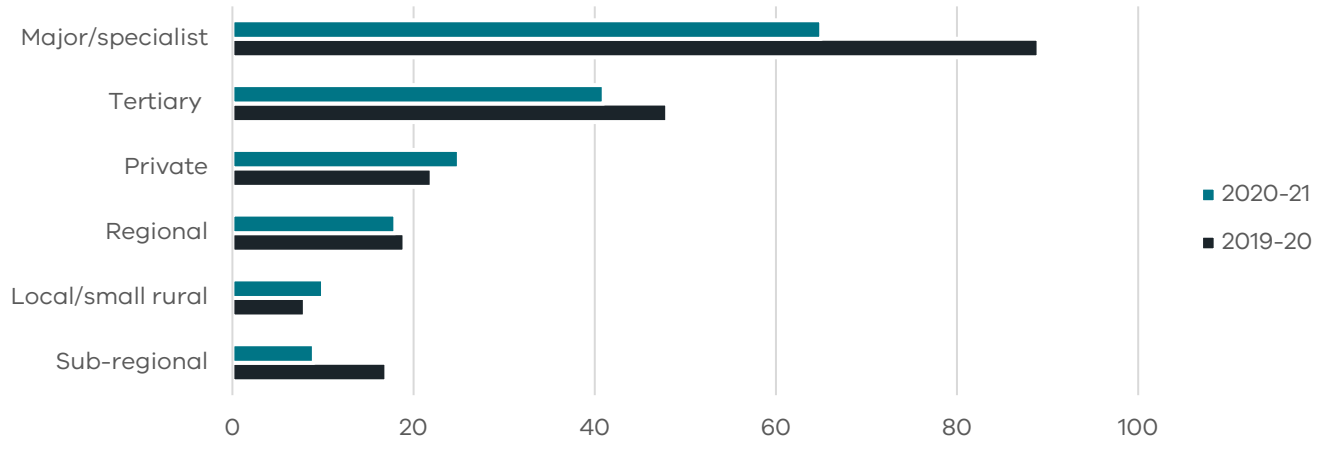
Public and private hospital reporting rate, 2017–2021



Sentinel events occurred within health services of various types, sizes and capabilities:

- Major/specialist – 38 per cent (65)
- Tertiary – 24 per cent (41)
- Private hospitals – 14 per cent (25)
- Sub-regional – four per cent (9)
- Regional – 10 per cent (18)
- Local/small rural – five per cent (10)

Sentinel events by health service type, 2019–2021

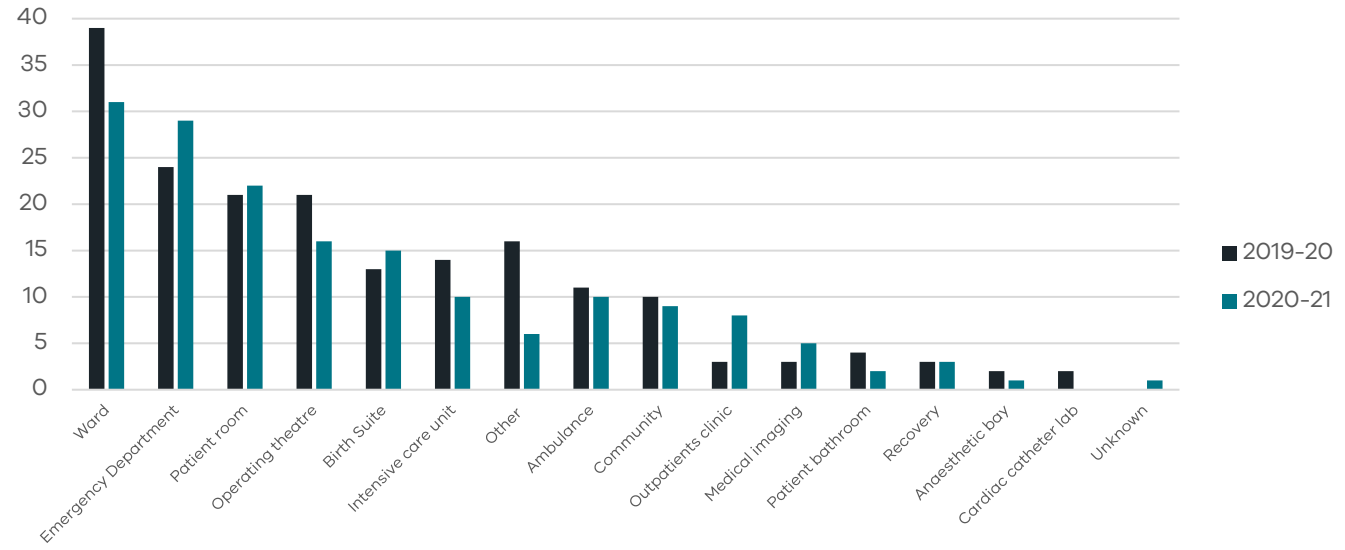


Number of sentinel events by health service type, 2019–21

Sentinel event location within the health service

The location of sentinel events occurring within health services differed compared with 2019–20. More events occurred in emergency departments and outpatient clinics, and less often in hospital wards and operating theatres. This trend reflects hospital areas where patients spent less time than usual, as elective surgeries were on hold for most of this period due to COVID-19.

Sentinel events by location, 2019–2021



Note: Event location is categorised at the time of health service notification. 'Other' may be selected when health services are not yet aware of where the event took place, or if it took place across more than one location.

Timeliness of notifications

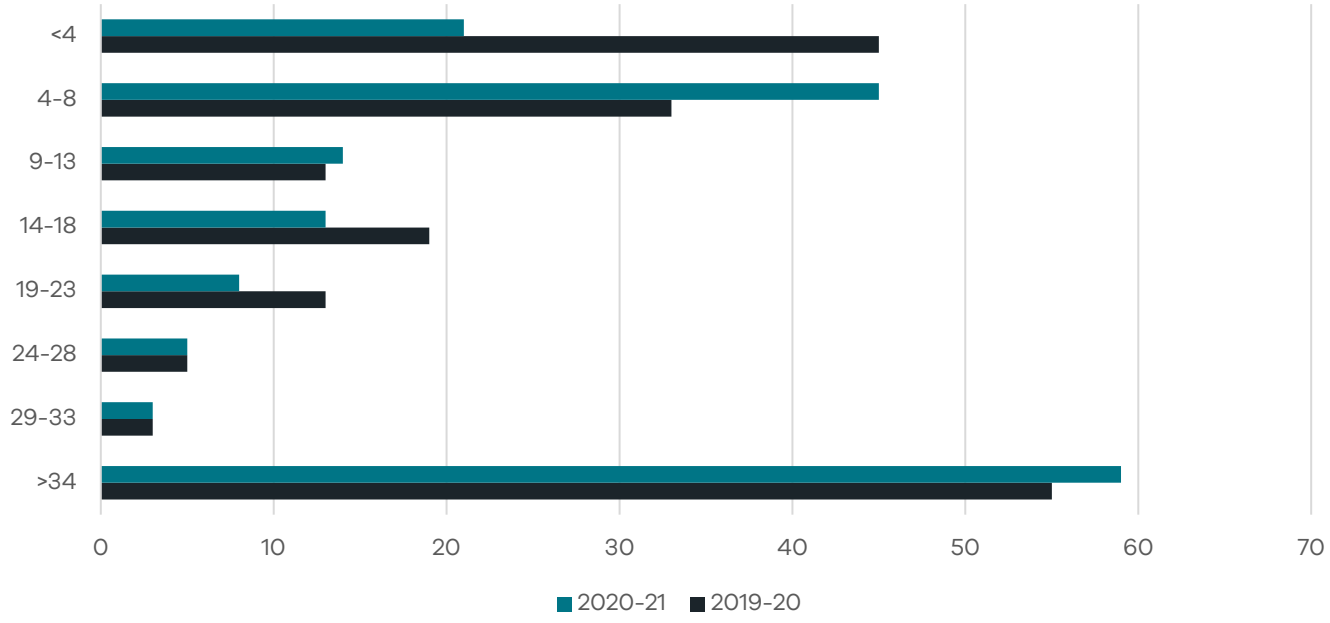
Health services must notify sentinel events within three days of becoming aware of them.

In 2020–21, 12 per cent of sentinel events were notified within three days of the incident occurring, a considerable decline from 24 per cent in 2019–20. Sometimes, health services do not become aware of an incident in the three days after it occurred, which may explain some notification delays. The proportion of sentinel events notified beyond 30 days is a continuing trend from the previous year. In some instances, the nature of the sentinel event can mean that it takes time for the extent of harm to be realised – hence a delay to notify.

Sometimes delays notifying an event are avoidable. For example, some health services identified waiting for a Coroner's report as a reason for delay. Events should be notified based on the information available at the time the health service became aware of the event, to ensure timely review. If health services are unsure if an event meets the criteria for notification, they should contact the sentinel event program for advice, rather than delay the notification.

Health services should have internal processes that enable incidents to be identified and notified promptly. This is important so the review process can provide timely information to the affected consumer, avoid memory degradation among those who may provide evidence, and help prompt action on patient safety risks.

Days to notify sentinel event, 2019–2021



Timeliness of reviews

Sentinel event reports, Parts A and B

Parts A and B of the sentinel event review report are submitted together and are due for submission within 30 business days of the notification of the sentinel event to SCV. Part A details the professional backgrounds or expertise of the review panel and whether the patient, family and/or carer contributed to the review. Part B includes the sentinel event description, timeline of events, and overall analysis.

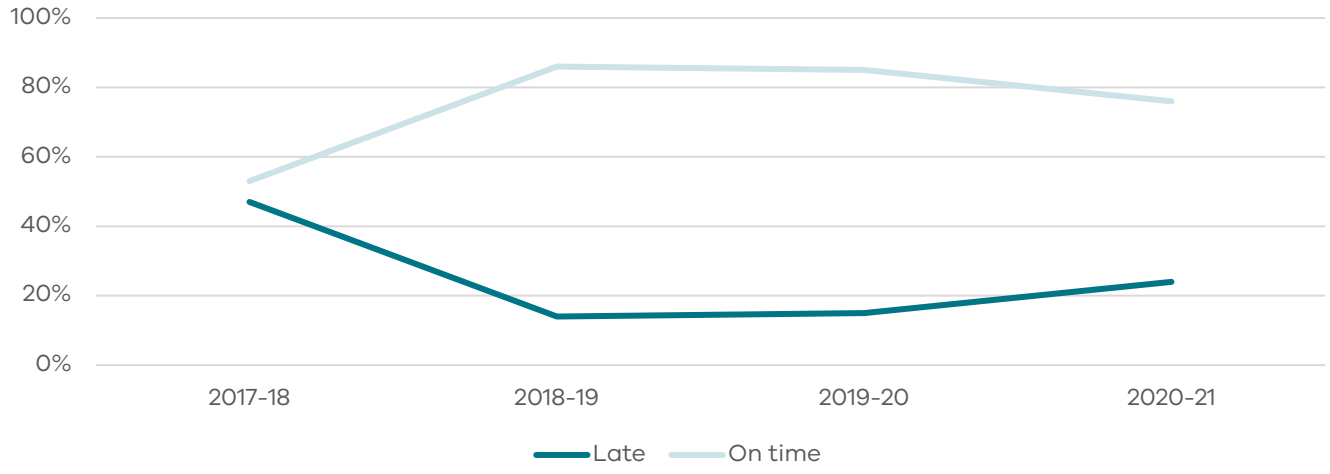
- 76 per cent of report Parts A and B were received on time.
- 24 per cent were received late.

Reports submitted on time

Reports are categorised as 'on time' if they were submitted on or before the usual 30-day deadline, or in the event an extension was granted, within the timeframe of that extension.

Timeliness of Parts A and B submission declined to 76 per cent in 2020–21, a considerable drop compared to 85 per cent in 2019–20 and 86 per cent in 2018–19. This drop is likely a consequence of the ongoing COVID-19 response.

Timeliness of Parts A and B reporting, 2017–2021



Report submission within 30 days

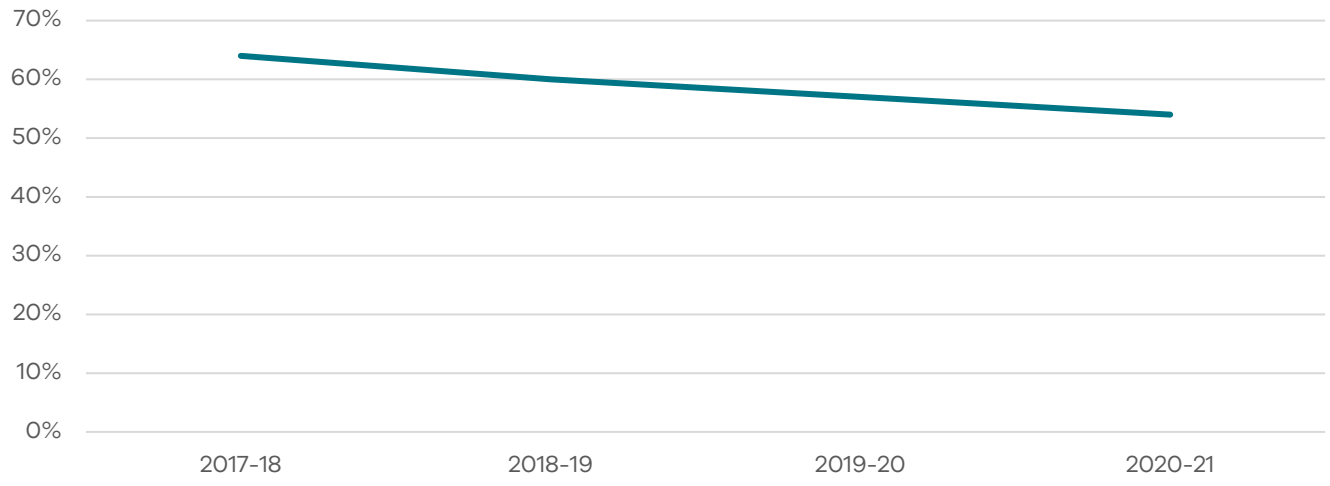
The number of reports submitted within the 30-day timeframe increased to 42 per cent this year, compared to 40 per cent in 2019–20 and 36 per cent in 2018–19.

Extension requests

Health services can request an extension for sentinel event reports Parts A and B if they are unable to submit by the due date.

In 2020–21, the percentage of reports with a due date extension decreased slightly to 54 per cent, compared to 57 per cent last year. This reduced rate follows a downward trend over a four-year period.

Percentage of Parts A and B reports with a due date extension, 2017–2021



Reasons for extension requests

The reason most frequently cited by health services for requesting sentinel event report extensions was that a review team member with the required expertise was not available within the review timeframe. This is consistent with 2019–20 and 2018–19 data. Health service surge capacity for COVID-19, and staff deployment to COVID-19 response, was a predominant factor that affected staff members' ability to participate in the review process.

All review teams should have an executive sponsor who can address barriers such as lack of available resources. Greater capacity for remote working means organisations are now better equipped to prioritise adverse event reviews and consider alternative staff members if availability is delaying the review process.

Reasons for sentinel event report extension requests, 2020–21

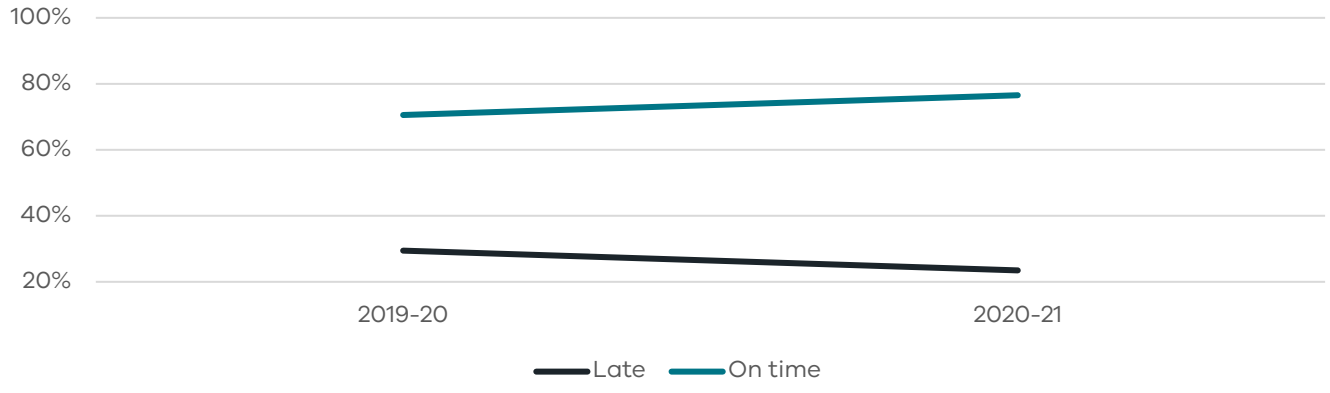
Reason provided by health service	Number of reports
Internal review team member not available	44
Other	25
Delay to secure an external review team member	11
Internal health service governance process	9
Review not commenced	1
Delay to secure consumer representative	1

Reports Part C

Part C of the sentinel event review report is due for submission within 50 business days of the notification of the sentinel event to SCV. Part C details the recommendations to address the findings and lessons learned, the recommendation strength (weak, moderate or strong), recommendation action plan, and shared learning.

- 77 per cent of Part C reports were received on time.
- 23 per cent were received late.
- Five Part C reports were outstanding when data collection for this report closed on 30 September 2021.

Timeliness of RCA Part C reporting, 2020–21



Appendices

Appendix 1 – International Classification for Patient Safety incident types

Sub-theme	Description
Clinical process or procedure	• Diagnosis/assessment (not performed when indicated, incomplete/inadequate, other) • Procedure/treatment/intervention (not performed when indicated, incomplete/inadequate, wrong body part/side/site, other) • Tests/investigations (not performed when indicated, wrong patient) • Specimens/results (wrong patient, mislabelling)
Falls	Death or permanent harm relating to a fall, e.g. slip with head strike resulting in death
Deteriorating patients	Recognition, escalation or response to a patient's condition worsening in a way that may be life threatening
Self-harm (behaviour)	Intended behaviour directed at oneself that is associated with temporary or permanent harm, e.g. intended self-harm or suicide
Communication of clinical information	Incident involving a process or problems with the administration of clinical information, e.g. waitlist delay, handover, patient information
Medical device or equipment	An error associated with a medical device/equipment or property, e.g. dislodgement or misconnection of a device, equipment that is inappropriate for the task
Nutrition	Related to an error with a process involving nutrition, e.g. choking, incorrect diet ordered or delivered
Resource or organisational management	Events where lack of resources and deficiencies in organisational management contribute to error, e.g. workload mismanagement, staff availability, bed availability
Healthcare associated infection	An infection acquired in the healthcare setting, e.g. bacterial blood stream infection, surgical site infection, intravascular device
Patient accidents	Patient harmed in care by accident, e.g. bed entrapment, drowning

Appendix 2 – Guide to strength of recommendations

Recommendation strength	Recommendation category	Example
Strong actions	Architectural/physical changes in surroundings	Replace revolving doors at the main entrance into the building with powered sliding or swinging doors to reduce patient falls
Strong actions	New devices with usability testing	Perform pre-purchase testing of blood glucose monitors and test strips to select the most appropriate for the patient population
Strong actions	Engineering control (forcing functions which force the user to complete the action)	Eliminate the use of universal adapters and peripheral devices for medical equipment; use tubing/fittings that can only be connected the correct way
Strong actions	Simplify process and remove unnecessary steps	Remove unnecessary steps in a process; standardise the make and model of medication pumps used throughout the organisation; use barcoding for medication administration
Strong actions	Tangible involvement by leadership	Participate in unit patient safety evaluations and interact with staff, purchase needed equipment, ensure staffing and workload is balanced
Moderate actions	Redundancy	Use two registered nurses to independently calculate high-risk medication dosages
Moderate actions	Increase in staffing/decrease in workload	Make float staff available to assist when workloads peak during the day
Moderate actions	Software enhancements or modifications	Use computer alerts for drug–drug interactions
Moderate actions	Eliminate/reduce distractions	Provide quiet rooms for programming patient-controlled analgesia pumps; remove distractions for nurses when programming medication pumps
Moderate actions	Education using simulation-based training with periodic refresher sessions/observations	Conduct patient handover in a simulation lab environment, with after-action critiques and debriefing
Moderate actions	Checklist/cognitive aids	Use pre-induction and pre-incision checklists in operating rooms; use a checklist when reprocessing flexible fibre optic endoscopes

Recommendation strength	Recommendation category	Example
Moderate actions	Eliminate look- and sound-alikes	Do not store look-alikes next to one another in the medication room
Moderate actions	Standardised communication tools	Use read-back for all critical lab values; use read-back or repeat-back for all verbal medication orders, use a standardised patient handover format
Weak actions	Double checks	One person calculates dosage, another person reviews their calculation
Weak actions	Warnings	Add audible alarms or caution labels
Weak actions	New procedure/memorandum/ policy	Remember to check intravenous sites every two hours
Weak actions	Training	Demonstrate the defibrillator during an in-service training

Appendix 3 – Cause and effect analysis of a sentinel event

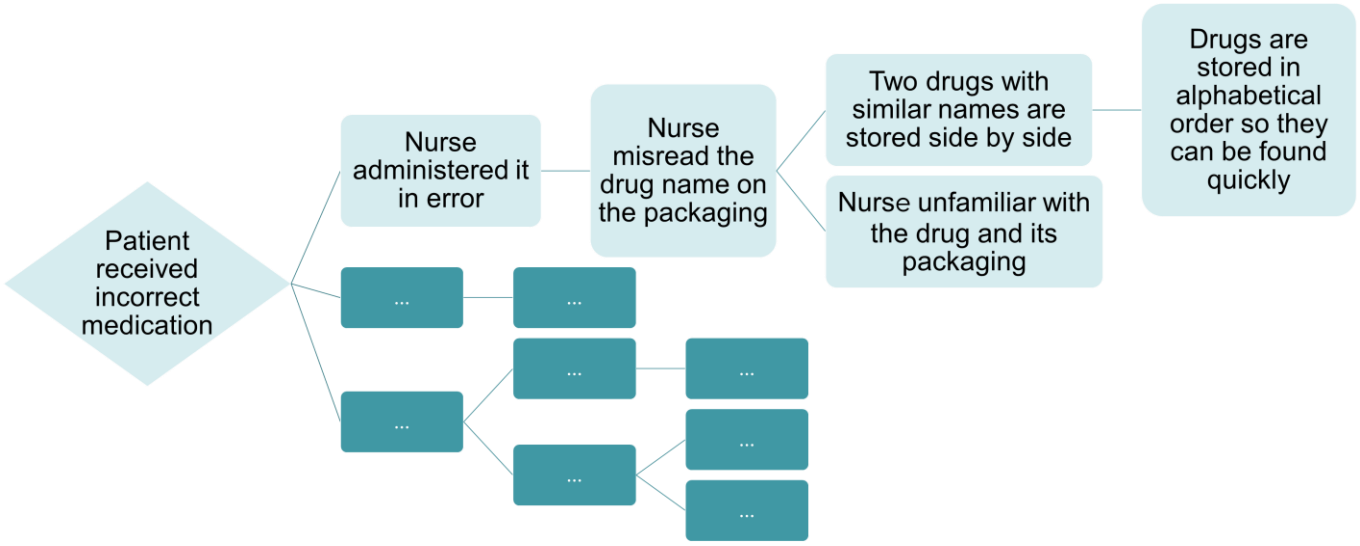
Steps to completing a cause-and-effect analysis

- Start at the critical event. Ask 'why did this happen?'
- Repeatedly question 'why?' for each preceding cause to construct the layers of your chart.
- Test the cause-and-effect logic by starting at an end point of each lane, confirming the relationship between causes by saying 'this occurred, therefore…' until you reach the critical event. Read the chart from right to left (backwards) to confirm the logic flows.
- Focus on systems and processes (e.g. workplace factors, teamwork factors, guidelines and protocols, environmental considerations, patient factors, staff factors).

The five rules of causation

1. Clearly show the cause-and-effect relationship.
2. Use specific and accurate descriptors for what occurred, rather than negative and vague words.
3. Human errors must have a preceding cause (e.g. they cannot be the finding/end point).
4. Violations of procedure are not root causes, but must have a preceding cause (e.g. they cannot be the finding/end point).
5. Failure to act is only causal when there is a pre-existing duty to act.

Example



Appendix 4 – Terminology

ACSQHC	Australian Commission on Safety and Quality in Health Care. A commonwealth entity for quality and safety in healthcare that sets the national sentinel event notification list. Further reading is available at www.safetyandquality.gov.au/.
Adverse patient safety event/ adverse event	An incident in which a person receiving healthcare is harmed. For more information on responding to an adverse event, please refer to our adverse patient safety events policy.
Carer	A person who provides unpaid care and support to either a family member or friend who has a disability, mental illness, chronic condition, terminal illness or general frailty.
Critical event	Identified when reviewing an adverse event, it is the point at which a different action would likely have altered the subsequent sequence of events, and the outcome of patient harm.
Chief Mental Health Nurse	The Chief Mental Health Nurse promotes recognition of the mental health nursing profession, provides education and training, and promotes best practice standards, workforce planning and development and professional leadership in Victoria.
Healthcare consumer	A patient, their family or carer(s).
ICPS	International Classification for Patient Safety. A framework developed by the World Health Organization (WHO) to enable categorisation of patient safety information using standardised sets of concepts with agreed definitions, preferred terms, and the relationships between them. The Victorian Category 11 sentinel event subcategories are based on the ICPS classification for incident type.
ISR	Incident Severity Rating. A scale from one to four (one being most severe), of clinical incidents. Public hospitals categorise incidents by ISR when reporting them as part of the Victorian Health Incident Management System (VHIMS) dataset.
Lesson learned	The opportunities for improvement identified through the review process but were not contributory to the adverse event.
OCP	Office of the Chief Psychiatrist. Led by a Chief Psychiatrist appointed by the Minister for Mental Health under the Mental Health Act, the OCP provides system-wide oversight of Victoria's public mental health services. The OCP promotes quality and safety in services provided to some of the state's most vulnerable people.
Review finding	A summary statement that describes how a system issue or factor contributed to an adverse patient safety event.
RCA	Root cause analysis. A root cause is the underlying cause of an event and, by extension, its outcome. Root cause analysis is a structured method of reviewing events to find out what happened, why it happened, and what can be done to improve.

Recommendation strength	The level of tangible impact that the actions outlined in the recommendation will have within the health service. Health services tend to overestimate the strength of their recommendations. For example, policies and procedures alone are considered weak actions, because the working environment needs to enable staff to put the procedure into practice. When including recommendations regarding procedures, consider how they will be implemented, how you will ensure new staff are made aware of them, and if there is anything that can be put in place to ensure key points are followed (for example, a decision support tool or safety checklist). For further guidance, refer to our recommendation template.
SCV	Safer Care Victoria. The state's healthcare quality and safety improvement agency since 2017 whose role includes partnering with patients, clinicians and health service managers to support continuous improvements in healthcare.
Sentinel event	The most serious adverse events, which result in a patient dying or being seriously harmed.
Separations	The process where an admitted patient completes an episode of care – either by being discharged, dying, transferring to another hospital or changing type of care.
Systems thinking approach	. An approach to examining healthcare safety that considers how factors at different levels of the healthcare system interact with each other, and how this impacts patient care. Systems factors go beyond the individual, and include team-based, environmental, management and external factors.
VAHI	Victorian Agency for Health Information. VAHI was established in 2017 as part of the state government reforms to overhaul quality and safety across Victoria's healthcare system. The role of VAHI is to deliver trusted information to inform better decisions intended to improve the health and wellbeing of Victorians. This information is delivered through comprehensive quality and safety reporting to health services, government and the Victorian community.
VAED	Victorian Admitted Episodes Dataset. VAED provides a comprehensive dataset of the causes, effects and nature of illness, and the use of health services in Victoria. VAED supports health service planning, policy formulation, epidemiological research and public hospital funding. All Victorian public and private hospitals, including rehabilitation centres, extended care facilities and day procedure centres, report a minimum set of data for each admitted patient episode.
VHIMS	Victorian Health Incident Management System. A statewide incident reporting system developed and managed by the Department of Health. The system captures clinical, occupational health and safety, and hazard incident data, as well as recording consumer compliment and complaint feedback.

Safer Care
Victoria