Department of Health and Human Services

Final Report

Executive Summary

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List of Abbreviations

ANUM	Associate Nurse Unit Manager
AS	Australian Standard
BAR	Behaviour Assessment Room
CEO	Chief Executive Officer
EAP	Employee Assistance Program
ECATT	Enhanced Crisis Assessment and Treatment Team
ED	Emergency Department
EDIS	Emergency Department Information System
DHHS	Department of Health and Human Services (DHHS)
HDU	High Dependency Unit
HR	Human Resources
MET	Medical Emergency Team
MH	Mental Health
NUM	Nurse Unit Manager
OHS	Occupational Health and Safety
OVA	Occupational Violence and Aggression
PA	Public Address
PACER	Police, Ambulance and Clinical Early Response
PMS	Patient Management System
SRHS	Small Rural Health Services
UCC	Urgent Care Centre
VHIMS	Victorian Health Incident Management System

Disclaimer

A NOTE ON INTERPRETATION OF QUOTES

Quotes presented in the current report are derived from three sources. Those arising from previous documents are presented in black text. Those arising from survey feedback are presented in blue text. Those arising from focus group consultations are depicted in grey text.

A NOTE ON INTERPRETATION AND REPORTING OF PERCENTAGES

For small sample sizes (e.g., 25-30) the reporting of percentages is considered unreliable. For this reason, responses for small sample sizes (e.g., health services in particular peer groups) are described as proportions of actual denominators (e.g., one in four, three in five etc.), or are classified into categorical groups and described accordingly. For example, in most tables comparing outputs for hospital peer groups: 'All' means every hospital within the peer group reported 'Yes' to a survey question. 'Most' means that at least three of every four hospitals within a peer group reported 'Yes' to a survey question (≥75% for groups with a sufficient sample size). 'Half' means that at least two of every four hospitals within a peer group reported 'Yes' to a survey question (≥50% but less than 75% for groups with a sufficient sample size). 'Some' means that at least one of every four hospitals within a peer group reported 'Yes' to a survey question (≥25% but less than 50% for groups with a sufficient sample size). 'Few' means that less than one in every four hospitals within a peer group reported 'Yes' to a survey question (Less than 25% for groups with a sufficient sample size). 'Nil' means that no hospitals within a peer group 'Yes to a survey question (0% for groups with a sufficient sample size).

A NOTE ON INTERPRETATION OF CONFIDENCE INTERVALS

The graphs contained in this report involve presentation of 95% confidence intervals. These intervals are presented as 'whiskers' that extend either side of specific estimates (e.g., percentages, averages etc.) that are displayed as bars in each chart. The 95% confidence interval presents the range within which the true population estimate (if it were possible to survey all individuals in the relevant population) is likely to be (with a 95% probability of being accurate). The number of people responding to some questions is small. When the number of responses is small, the 95% confidence intervals tend to be wide (because it is hard to be precise about the likely estimates when so few people provide answers to particular questions). When the number of responses is larger, the 95% confidence intervals will be narrower (because the level of precision about the true population estimates is easier to estimate).

A NOTE ON GROUPING OF RESPONSES INTO CATEGORIES

In a number of graphs, responses have been classified into groups based upon the confidence intervals presented in the accompanying figures. If the 95% confidence interval for a particular item crossed a given threshold then these were included in the threshold grouping. For example, if specific items were classified into a group representing 90% of all responses this means that the confidence interval for the relevant items crossed the 90% threshold; if items were classified into a group representing 75% of all responses, this means that their confidence intervals crossed the 75% threshold, etc. If the confidence interval for a particular item crossed more than one threshold, then the grouping was considered to form part of the lower threshold (as a more conservative classification of a potentially poorer outcome).

A NOTE ON REPORTING OF SIGNIFICANT DIFFERENCES

In general, when two adjacent confidence intervals do not overlap, there is likely to be a significant difference between responses. However, when confidence intervals are modesty overlapping, significant differences may also be present, and specific testing of the average responses is required[1]. Nevertheless, specific testing of a large number of differences between questions in a single sample runs the risk of over-detecting positive responses (known as false positives). This is typically dealt with by adjusting the significance level (lowering it, or making it more stringent) according to the number of differences that are tested (many different approaches can be applied to adjust the significance level, the most typical is a 'Bonferroni-type' adjustment – where the overall significance level, e.g., $p \leq 0.05$, is divided by the number of differences that are investigated to arrive at a new level of significance).

This approach becomes challenging when research is exploratory in nature – as is the case in the current report. When the level of significance is reduced (as described above), it runs the risk of failing to detect differences that may actually be significant (known as false negatives). Thus, a trade-off between adjusting the significance level and presenting un-adjusted results is often required in these types of results. Accordingly, the current report does not adopt stringent tests for significant differences, opting to comment only upon 'obvious significant differences' – where there are non-overlapping confidence intervals (unless otherwise specified).

For some results that are presented in the current report, it was considered relevant to undertake specific testing of significant differences (e.g., between responses to particular survey questions). Where specific testing has occurred, these are reported in the body of the report (e.g., using Binomial Z statistics with accompanying p values for percentage comparisons).

1. See Finch and Cumming (2009). Putting Research in Context: Understanding Confidence Intervals from One or More Studies. *Journal of Paediatric Psychology*, 34(9), pp. 903–916.

1 Executive Summary

1.1 Background

In 2014, the Department of Health and Human Services (the department) introduced a formal set of Code Grey standards to assist health services in responding to incidents of occupational violence and aggression exhibited by patients and or visitors. The Code Grey response was intended to build the capability of individual health services, by having specially trained teams comprising clinically trained and security trained staff members to assist other hospital workers who encountered episodes of actual or potential violence and aggression, prior to implementing a Code Black response under the Australian Standards.

Since the standards were introduced, two reviews, one by the Victorian Auditor-General and the other by the Violence in Healthcare Taskforce, have identified that the degree to which the standards have been embedded has varied within and between different hospitals. The department therefore sought independent expert review the Code Grey standards to make recommendations to support more consistent implementation across Victorian health services. The current project was specifically commissioned to:

- Ascertain health services' compliance with current Code Grey and Code Black standards and to identify areas for improvement in the organisational management of responses; and
- Provide health services with tools and guidance material to support consistent implementation of Code Grey and Code Black responses.

The review involved a survey of all Victorian public health services, together with a selection of nine private hospital groups. In total, 90 percent of all health services who were invited to take part in the review participated in the survey. Focus groups, involving 92 health service representatives, were then held with a stratified sample of 11 health services, representing a cross-section of health service peer groups, to explore the underlying issues identified through survey responses and to identify strategies to promote more consistent implementation of the Code Grey standards. Key findings were also presented and discussed at two meetings of the department's Violence in Healthcare Reference Group to obtain feedback and seek input for future directions. The findings of the review are summarised in the following sections and presented in detail throughout the current report.

1.2 Health service responses to occupational violence and aggression

The first objective of the review was to assess whether Code Grey and Code Black responses were being applied consistently across Victorian health services, together with the reasons for any variation in levels of implementation. Findings provided sufficient evidence to indicate Code Grey and Code Black are not being applied in a consistent manner to different types of episodes involving violence and aggression in Victorian health services.

Definitions of when to call a Code Grey or a Code Black differ between health services. For the same type of incident, one hospital may instruct staff to call a Code Grey, and others may

instruct staff to call a Code Black. This is particularly evident for situations involving a "personal threat".

More importantly, the number of episodes of occupational violence and aggression cannot be reliably determined across Victorian health services. The 'true' level of implementation of a Code Grey or a Code Black response to episodes of violence or aggression is therefore unable to be determined. In this context, it is highly likely that an appropriate response is not occurring to all incidents. This will not be accurately known until all incidents of occupational violence and aggression are recorded, together with the type of organisational response provided, including Code Grey and Code Black responses.

The major reasons for variation in responses to occupational violence and aggression were attributed by health services to:

- Differences in interpretation of the Code Black Standards and their relevance to situations involving unarmed threat;
- Differences in the level of incident reporting according to who is responsible for initiating and completing relevant documentation at different health services;
- Differences in the implementation of alternative strategies to prevent and/or manage patient-related aggression (e.g., patient management guidelines) within the same health service and between different health services;
- Perceptions of insufficient staffing to implement an effective Code Grey response, resulting in a lower threshold for triggering a Code Black (particularly at smaller health service sites); and/or
- Perceptions that external support may not be available to health services, resulting in a reluctance to call a Code Black response (particularly at more remote areas across the state).

1.3 Implementation of the Code Grey standards

Additional objectives of the review were to assess the level and consistency with which the Code Grey standards have been implemented by Victorian health services. Findings revealed that all health services have implemented Code Grey procedures and provided various types of support to staff who experience occupational violence and aggression. However, the current level of compliance with other Code Grey standards varied from around 90 per cent to less than 50 per cent of all health services. It is anticipated that most health services will achieve compliance with around two thirds of the Code Grey standards. Levels of non-compliance are likely to be higher for small rural health services compared to other hospital peer groups.

The reported rate of Code Grey events varied between hospitals. Higher rates were observed for tertiary and major hospitals compared with a number of other hospital peer groups. Higher rates of Unplanned Code Grey incidents were observed for hospitals with a larger number of high-risk clinical areas. Planned Code Grey responses were also more common for tertiary and major hospitals. Whilst there was no common definition for a Planned Code Grey, it tended to involve situations where the need for additional assistance was anticipated ahead of time (e.g., where a previously aggressive patient was due to present for treatment).

Whilst compliance with specific Code Grey standards varied considerably, many health services reported that they were 'working towards' achieving them. As such it is anticipated that most health services will comply with the majority of standards – but not all. Standards that are likely to achieve the lowest levels of compliance appear to be influenced by geographic characteristics (for example, small or isolated locations with less staff available and variable expectations of external support close by), environmental factors (impacting on physical environments and security systems) and local policy determinations (for example, no weapons searching or management, no seclusion or restraint) associated with particular health services or health service sites.

Similarly, the composition of Code Grey response teams varied according to the size of individual health services (or health service sites), and the availability of staff. The majority of Code Grey response teams included nurses together with a range of other hospital staff. Trained security staff were more likely to be involved in larger health services. The composition of the Code Grey response team was likely to vary for most health services according to different hospital sites and business hours – due to the availability of staff.

Integration of information arising from Code Grey incidents into hospital quality and safety processes was generally high but did vary, particularly for smaller health services.

1.4 Implementation of the Code Black Standards

The review also sought to determine the level and consistency with which the Code Black Standards have been implemented by health services across the state. Findings revealed that whilst all health services have also implemented Code Black procedures, the level of current compliance with other Code Black standards/criteria varied from around 100 per cent (for executive sign-off, and having clear triggers) to less than 50 per cent of all health services (for having a member of security staff on the response team). It is anticipated that most health services will achieve compliance with around half of the standards/criteria (56 per cent). Levels of non-compliance are anticipated to be higher for major and small rural health services compared to other hospital peer groups. These health services include smaller sites where staffing numbers are lower and the level of external assistance required may not necessarily be close by (particularly after standard business hours).

The reported rate of Code Black events varied between hospitals. Higher rates were observed for tertiary hospitals compared with a number of other hospital peer groups. Compliance with specific Code Black standards and related criteria varied considerably. Although many health services indicated that they were 'working towards' achieving the range of standards/criteria examined during the review, it is anticipated that most health services will only comply with around half of those considered relevant to implementing a Code Black response. Standards or criteria that are likely to achieve the lowest levels of compliance relate to development of a Code Black policy, incident reporting and follow-up, the level and mix of staff involved in response teams, an absence of policies in relation to weapons searching and/or management, together with a number of specific Australian Standards, including:

- Mechanisms for staff evacuation where safe to do so (Standard 5.6.3.b);
- Observing any vehicles used by an offender if safe to do so (Standard 5.6.3.d);
- Preserving the crime scene (Standard 5.6.3.e);

- Instructing witnesses to remain until police arrive (Standard 5.6.3.g);
- Instructing witnesses not to discuss the event until talking with the police (Standard 5.6.3.g);
- Securing access to restricted spaces (Standard 5.6.4.c);
- Instructing other staff to remain where they are until instructed (Standard 5.6.4.c);
- Implementation of staff support (Standard 6.1.2); and
- Annual training of staff (Standard 7.2.c).

In a similar finding to that observed for Code Grey, members of the Code Black response team also varied according to the size of individual health services (or health service sites). The majority of Code Black response teams included nurses and a range of other hospital staff. Security staff were least likely to be involved in smaller health services. The availability of health service staff, and the anticipated likelihood of receiving any external assistance were also likely to impact upon differences in Code Black responses between health service sites, and after standard business hours.

Integration of information arising from Code Black incidents into hospital quality and safety processes was similar to that reported for Code Grey incidents.

1.5 Barriers to implementation of the standards

Barriers to implementation of the Code Grey standards and solutions for overcoming these barriers were also investigated. Findings revealed a number of areas of confusion between Code Grey and Code Black which were reported by health services. The major area of uncertainty related to understanding the differences between 'aggression' and 'clinical aggression' and how these might be applied to the different codes. Uncertainty was also reported in relation to a number of other areas including (but not limited to) what constituted a 'threat' triggering a response code, which code should be applied to patients and/or visitors, and what constituted a 'weapon'. For smaller health services and health service sites, it was noted that the same individuals were likely to respond to any incident regardless of whether it was called as a Code Grey or a Code Black.

The most significant issues impacting upon implementation of the Code Grey standards were reported to include concerns that police may not arrive if the situation required escalation (for example, in smaller regional and local areas), perceptions of having insufficient training or other resources to implement a Code Grey response (for example, where five staff were required for the implementation of restraint), and prevailing cultural beliefs that workplace aggression was 'an accepted part of clinical practice'.

Concerns about repercussions from patients, visitors or staff were also identified by health services, who provided examples where individual employees had been targeted by individuals following activation of an emergency response code for violent/aggressive behaviour, and where health services were perceived to show little or selective levels of support to staff who had been assaulted at work.

The most common strategies employed to facilitate the introduction and ongoing implementation of the Code Grey standards included written guidelines and staff education sessions which were implemented by almost all health services.

Around one in three health services indicated that they had utilised tools and/or resources developed by the department to help implement the Code Grey standards. Fewer health services reported implementing staff drills, situational awareness training and staff assessment of the Code Grey standards compared with other strategies to promote Code Grey implementation.

1.6 Current guidance materials and gaps to be addressed

A wide range of guidance material was identified to assist health services in implementing the Code Grey standards. However, a number of gaps were identified in the available information, requiring the development of new material in order to meet the needs of health services Findings revealed that there is no other jurisdiction against which a direct comparison can be made with the Code Grey standards implemented in Victoria.

Whilst Queensland are commencing a pilot of the Victorian Code Grey standards, the only other jurisdiction with a stepped approach to managing occupational violence and aggression is South Australia where the focus has been upon operational guidelines for health services rather than a standards-based approach. The guideline based approach implemented in South Australia has varying levels of a Code Black response in contrast to Victoria where the Code Grey standards are intended as a response that is to be implemented before escalation to a Code Black.

Current information that might be used to assist Victorian health services in implementing the Code Grey standards is dispersed across a range of different sources. The capacity of health services to identify specific guidance material is therefore dependent upon the search criteria used by individual staff at different organisations. Accordingly, health services have requested that the department facilitate consolidation and dissemination of guidance material to assist with future implementation and operation of the standards.

A number of gaps in readily available guidance material were also reported by health services and independently identified as part of the review. Further work is required to develop materials to assist health services in: distinguishing Code Grey from Code Black and the appropriate triggers for each response; minimum requirements for response team membership (particularly the inclusion of medical staff); education and training materials applicable to a range of different health services; consistent public messaging related to acceptable behaviour across all health services; methods of incorporating the input of consumers and carers; guidelines on the safe implementation of restraint; current best practices in post-incident support for members of staff; appropriate governance structures to facilitate continuous oversight and improvement; and, methods for identifying changes in the number of presentations of high risk groups who may be associated with future variations in demand for organisational responses to occupational violence and aggression.

1.7 Recommendations to strengthen implementation of the standards

Drawing upon the findings of the review, a number of recommendations have been made for to improve future implementation of the Code Grey and Code Black standards and enhance health services' capacity to prevent and manage incidents of occupational violence and aggression. Recommendations are presented with an accompanying rationale based upon the findings of the review and information relating to current best practice approaches in preventing and managing situations of occupational violence or aggression.

In relation to Code Grey, it is recommended that:

1. The standards are embedded in a broader Occupational Violence and Aggression Management Framework developed by each health service.
2. The standards be amended to reflect an appropriate range of resources, processes, outcomes and governance arrangements that are required to appropriately implement and manage a Code Grey response.
3. A risk management approach be incorporated as a key principle into the standards in order to reflect policy and best practice in occupational violence and aggression prevention and management.
4. The standards remain applicable to patients and visitors to confer the benefits of a clinically-led evaluation, risk assessment and intervention where appropriate, prior to any referral or escalation to a security-led (or other external) response.
5. Provision is made for Planned and Unplanned Code Grey responses implemented by health services, and that these are formally defined in the standards.
6. Where health services (or specific units or sites within an individual health service) do not have operational policies relating to the use of seclusion and restraint, or weapons searching and management (that is, the health service or area of the health service does not undertake these practices), the Code Grey and Code Black team rostered on must comprise the same staff members to allow for immediate escalation to a Code Black response if required.
7. The composition of the Code Grey team must comply with relevant hospital policies and procedures, including those related to the use of seclusion or restraint, or weapons searching and management and must be consistent with statewide guidance.
8. The Code Grey standards provide greater emphasis upon situational awareness and assessment as a key component of processes implemented to prevent and manage incidents of occupational violence and aggression.
9. Recording, review and follow-up of all incidents requiring a Code Grey response be incorporated into the standards.
10. The department facilitate methods of consistent classification of Code Grey incidents on a statewide level to improve health service recording and analysis of incidents relating to occupational violence and aggression.

11. Outcome measures be incorporated into the Code Grey standards, to facilitate performance monitoring of the effectiveness of prevention, intervention and risk mitigation strategies designed to minimise the future occurrence of occupational violence and aggression incidents.

12. Governance arrangements for monitoring preventive actions and the effectiveness of responses to incidents of occupational violence and aggression be incorporated into the Code Grey standards.

13. Annual assessment of compliance against the standards be undertaken by individual health services and submitted to the department for statewide monitoring and organisational performance benchmarking.

14. The department convene and support a community of practice for sharing of organisational approaches to implementing and managing Code Grey responses across Victoria.

15. The department support the development of statewide information, education and training materials to support the ongoing management of Code Grey responses across the full range of Victorian health services.

16. The department undertake demand forecasting of trends in key patient characteristics, such as age, which may flag conditions that could potentially increase incidents of occupational violence and aggression, and make this information available to health services (according to projections of local population characteristics) to aid with prevention.

An amended set of Code Grey standards have been drafted to incorporate all relevant recommendations. An organisational checklist tool has also been developed and presented to assist organisations in ongoing annual appraisal of compliance and to provide the department with information to undertake statewide benchmarking of health service performance.

In relation to Code Black, it is recommended that:

17. Further work is undertaken to define key terms used in the Australian Standards, and clarify which standards should apply to the range of circumstances included in a Code Black response.

18. Health services are provided with a checklist for implementing a Code Black response to assist them in complying with the full range of relevant Australian Standards.

19. All Code Black incidents are formally documented and reviewed, actions arising from reviews are followed-up, and a summary of these incidents, investigations and outcomes are regularly reported to health service boards.

An organisational checklist tool has also been developed and presented to assist organisations in ongoing annual appraisal of compliance with Code Black standards, and to provide the department with information on health services who require follow-up to determine areas and reasons for ongoing non-compliance with the Australian Standards