MONASH University

ACCIDENT RESEARCH CENTRE

Work-related violence incidents:

Pilot of Systems Toolkit

Final Report

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WORK SAFE VICTORIA

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INTRODUCTION

The Victorian Government recently released a Guiding Principles document (May 2019) to aid the prevention and management of work-related violence (WV) within the Victorian Public Service [1]. Whilst these principles provide some guidance to employers, they are limited in identifying and responding to the system of factors likely to impact the management and prevention of WV. A systems-thinking approach is required as a first step to better understand these incidents, review and revise existing risk controls and to develop feasible and practicable control measures. The Monash University Accident Research Centre (MUARC) in collaboration with the City of Greater Dandenong (CGD) and WorkSafe Victoria (WSV) aimed to develop a prototype 'systems-thinking' tool to review and revise control measures to prevent and manage WV in Victorian City Councils.

The end goals of the project were to:

Provide CGD and other City Councils across Victoria with a standardized process for reviewing and revising risk controls following the report of a WV incident.

Help WSV and the Victorian City Councils to identify strategic interventions to drive systemic change required to prevent WV.

The objectives of this proposed project were to:

Develop a prototype 'systems-thinking' toolkit for investigating WV incidents

Pilot the application of the prototype toolkit for guiding a systems-thinking investigation of WV incidents within CGD

This report presents a brief summary of (i) the key findings of the stages of the project and (ii) the pilot application of the tool with three case study incidents within CGD. A more detailed analysis of the findings will be presented in forthcoming peer review journal papers.

Stage one: Development of the WV tool

The WV incident review tool was developed through a co-design process with key stakeholder representatives from MUARC, WSV and Victorian City Councils. Three stages were involved in the development of the tool including:

A systematic review of the literature to identify factors associated with WV

2 workshops with representatives from 5 Victorian City Councils to supplement the risk factors identified in the systematic review

Development of a classification scheme that represented the factors contributing to the risk of WV

The framework underpinning the classification scheme was based on a systems-thinking accident analysis method, Rasmussen's (1997) Accimap technique, as well as WorkSafe Victoria's guidance material on the review and revision of risk controls. The project adopted key methodological and theoretical components of the successful 'Patient Handling Injury Review of Systems' (PHIRES) project to improve the efficiency of the prototype development stage. The following describes each of the stages involved in the development of the WV tool.

Systematic review

A systematic review of the literature was undertaken to identify risk factors associated with WV. The information gained from the review informed the first step in the development of the classification scheme. The systematic review search terms covered the primary context of workplace, the outcome (i.e. violence / aggression), and design-related terms to limit scope (e.g. risk factor, model, cause predictor). The search was restricted to papers published from 2010 – present and covered 6 databases, including Medline, PubMed, and PsycINFO. The systematic search identified over 1200 articles, which, following the removal of duplicates, came down to 757 records (Figure 1). These records underwent abstract screening, applying the eligibility criteria, which limited the literature scope to: an adult population (over 18 years), papers identifying one or more risk factors for WV/aggression, studies involving the workplace setting only, and relevant research designs (i.e., experimental designs, excluding qualitative only and opinion pieces).

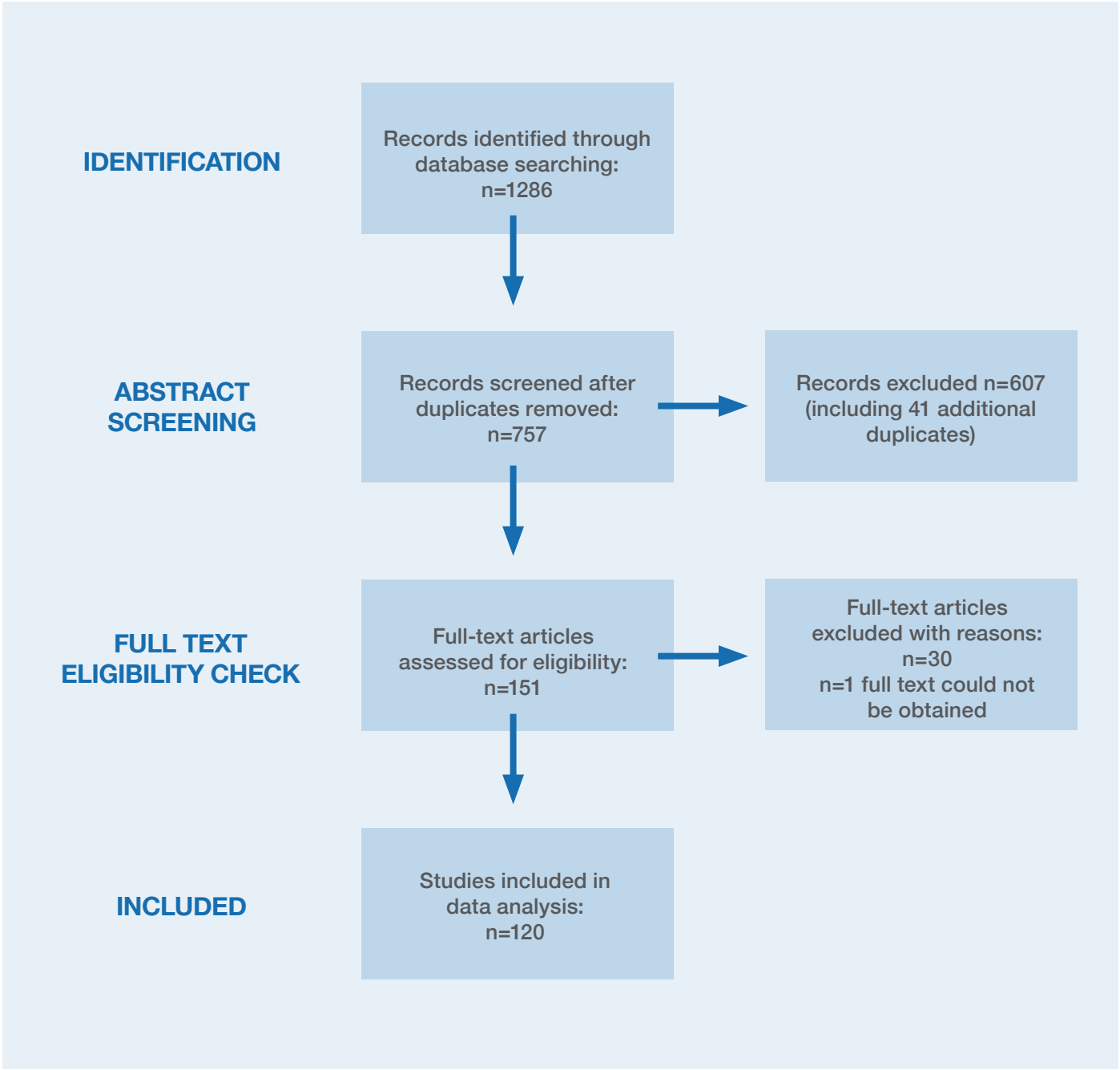

Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flow chart of systematic search

Description of the studies

Table 1 presents a breakdown of the industries represented in the studies identified in the systematic review. The highest represented industry sector was Healthcare (n=82 articles), with 47 of those being hospital-based, and an additional two articles from the emergency services.

Table 1: Industry sectors represented across final sample of articles (n=120)

INDUSTRY SECTOR	NUMBER OF ARTICLES	%
Healthcare	82 studies (47 hospital-based, 13 emergency medicine, 12 community health, 7 psychiatry)	68.3%
Education	9 studies	7.5%
Aged cared	4 studies	3.3%
Human/social services	4 studies	3.3%
Public sector/civil service	3 studies	2.5%
Emergency services	2 studies	1.7%
Other	2 studies (maritime, taxi service)	1.7%
Not specific to a given sector	14 studies	11.7%

Findings of the systematic review

Each individual risk factor identified in the systematic review was mapped onto the relevant level of an adapted version of Rasmussen's risk management framework [2] (Figure 2). The results identified that the highest proportion of risk factors were identified at the frontline staff level (e.g., client: behavioural characteristics; client expectations; staff experience / exposure), followed by the Operations Management (e.g., work systems: training; work scheduling: shift work) and Governance and Administration (e.g., management systems: incident reporting system; leadership: reporting culture) levels. This was followed by the Equipment and Surroundings level (e.g., offsite environment such as urban, crowding), and the least number of factors at the Government Regulators and External Influences level (e.g., political climate).

Figure 2: Percentage of risk factors identified by the systematic review at each of the 5 levels of an adapted version of Rasmussen's risk management framework.

Following mapping each risk factor identified across the 120 studies, the number of risk factors within each of the 5 levels of the framework was tallied. The percentage at each level was derived based on the total number of risk factors identified overall.

Workshops with key stakeholders

Two workshops were undertaken with Victorian City Councils and WSV representatives. The first workshop was held in November 2020 and involved nine OHS representatives across five Victorian City Councils, representing a variety of demographic and urban /regional areas. The purpose of the workshop was to:

Identify and refine risk factors relevant to WV incidents, beyond those already identified in the systematic review.

Contextualise the wording of the risk factors to the Victorian City Council setting.

The workshop generated significant discussion and resulted in a list of actions / recommendations to inform refinement of the list of factors contributing to WV in Victorian City Councils. The first workshop acknowledged that City Council employees often work offsite in communities that are socio-economically and culturally diverse. Therefore, the Equipment and Surroundings level saw some relevant changes to reflect this (see Figure 3). Reporting from media, social media and community attitudes were also added to the 'Government, Regulators and External influencers' level and Management systems: incident reporting system, Resources: time allocation to training and security, and Leadership: reporting culture were also added to 'Governance & Administration' (Figure 3).

The second workshop was attended by the same group of representatives from Victorian City Councils and WSV, with the purpose of gaining final feedback of the WV risk factors. This workshop resulted in only a few minor revisions to the list of the risk factors, including for example the differentiation between types of offsite environments, with a residential versus commercial/ industrial distinction included (Figure 3).

Development of the classification scheme

The risk factors identified in the systematic review and through consultation with key stakeholders in the workshops were consolidated and illustrated at each level of the adapted version of Rasmussen's risk management framework. The final product was a classification scheme of risk factors associated with WV in Victorian City Councils (see Figure 3).

Stage two: Pilot application of the WV tool

Stage two involved piloting the application of the prototype toolkit for guiding a systems-thinking investigation of WV incidents within CGD.

Context of the City of Greater Dandenong

Greater Dandenong has an estimated 175,000 people in 2021 and is the most culturally diverse municipality in Australia, with residents from 167 birthplaces globally. Well over half (64%) of its population is born overseas, and 61% from nations where English is not the main spoken language. One in seven residents (13%) has limited fluency in English, which is four times the metropolitan level. Greater Dandenong is also ranked as the second most socio-economically disadvantaged municipality in Victoria. Other statistics place Greater Dandenong at a disadvantage with respect to the unemployment rate (approx. 10.2% and the highest in Victoria), percentage of the population living with a severe or profound disability, and crime with offences significantly higher than metropolitan Melbourne for violent offences, property offences and drug offences, despite a decline in the past four years. Note that the crime rates vary widely within the Greater Dandenong Local Government Areas (LGAs). This contextual information is important to consider in the interpretation of the findings of the case studies. It is possible that the data generated from the reports in the case study are representative of City Councils with similar demographics, but they are unlikely to be generalizable across all Victorian City Councils because of the quite profound variability in City Council demographics.

Government, Regulators & External Influences

GOVERNMENT & REGULATORS
- Accreditation standard
- Funding and priorities
- Guidance material
- Legislation/regulation
- Political influence
- Communication
- Auditing

UNIONS & EMPLOYER ASSOCIATIONS
- Support for OHS
- Political agenda

SUPPLIERS
- Expense/availability of equipment
- Equipment standards
- Training specialisation
- Maintenance schedules
- Consultants
- Auditors

EXTERNAL INFLUENCES
- Reporting from media
- Social media
- Community attitudes
- Emergency management response
- Pandemic planning

Governance & Administration

GOVERNMENT & REGULATORS
- Approval and change management
- Consultation
- Human resources
- Policies and procedures
- Risk management
- Safety monitoring
- Technologies
- Incident reporting system
- Security systems
- Committees
- Recruitment protocols

RESOURCES
- Funding
- Costs
- Time allocation to training
- Awareness campaigns
- Employment arrangements
- Mentoring
- Security

LEADERSHIP
- Safety culture
- Reporting culture
- Senior management commitment
- Communication
- KPIs
- Organisational change
- Priorities
- Strategies: Mental health/wellbeing/OHS
- Cultural diversity norms

Operations Management

SUPERVISORS
- Communication
- Support from supervisors
- Co-operation between work areas
- Quality of supervision

CLIENT MANAGEMENT
- Care Plan
- Client mobility records
- Risk Management

WORK SCHEDULING
- Rostering
- Staff numbers
- Staff Skills
- Time Pressure
- Breaks
- Workload
- Time allocation for administration
- Shift work
- Client-staff ratio

WORK SYSTEMS
- Budgets
- Equipment maintenance
- Equipment selection
- Training
- Education & development
- Role expectations

Frontline

WORK DESIGN
- Job Control
- Job Demands
- Role conflict
- Role clarity
- Lone worker

STAFF
- Accepted Practices
- Communication
- Experience/exposure
- Fatigue
- Risk perceptions
- Support from co-workers
- Emotional overload
- Job satisfaction
- Safety compliance
- Acceptance of diversity

CLIENT/CONSUMERS
- Behavioural
- Administrative constraints
- Cognitive
- Communication
- Demands
- Expectations of care/ service provision
- Physical/Mobility
- Access to social support
- Cultural demographic

FAMILY/SOCIAL SUPPORT
- Communication
- Expectations of care
- Demands
- Level of support provision

NON-COUNCIL EMPLOYEES
- Communication
- Compliance with policies & procedures
- Experience, qualifications, competence
- Judgment & decision making
- Planning & preparation
- Risk perceptions

Equipment & Surroundings

EQUIPMENT
- Availability
- Design
- Maintenance
- Suitability
- Storage
- PPE

ON-SITE ENVIRONMENT
- Furniture
- Layout
- Lighting
- Obstructions
- Crowding
- Surfaces
- Temperature

OFF-SITE ENVIRONMENT
- Urban/regional
- Residential/industrial
- Weather conditions
- Infrastructure
- Crowding

Figure 3: Classification scheme of risk factors associated with WV in Victorian City Councils

Case studies of WV incidents using the tool

Two key modifications to the existing PHIRES tool were made to contextualise the tool for investigation of WV incidents within Victorian City Councils. The two modifications involved:

STEP TWO: Modifying the key stakeholder list at each level to align with names and roles relevant within Victorian City Councils

STEP THREE: The classification scheme of risk factors associated with WV in Victorian City Councils was used to guide the end-user in considering factors at each level of the system, relevant to the incident under investigation

Pilot application of the prototype WV tool was undertaken on three WV incidents, reported by workers at CGD. Figure 4 describes the six steps and associated data collection templates used in the investigations. Population of the tool was led by the research team (SN, DS), in partnership with the injured CGD worker and two members of the Risk Management and Safety Unit at CGD.

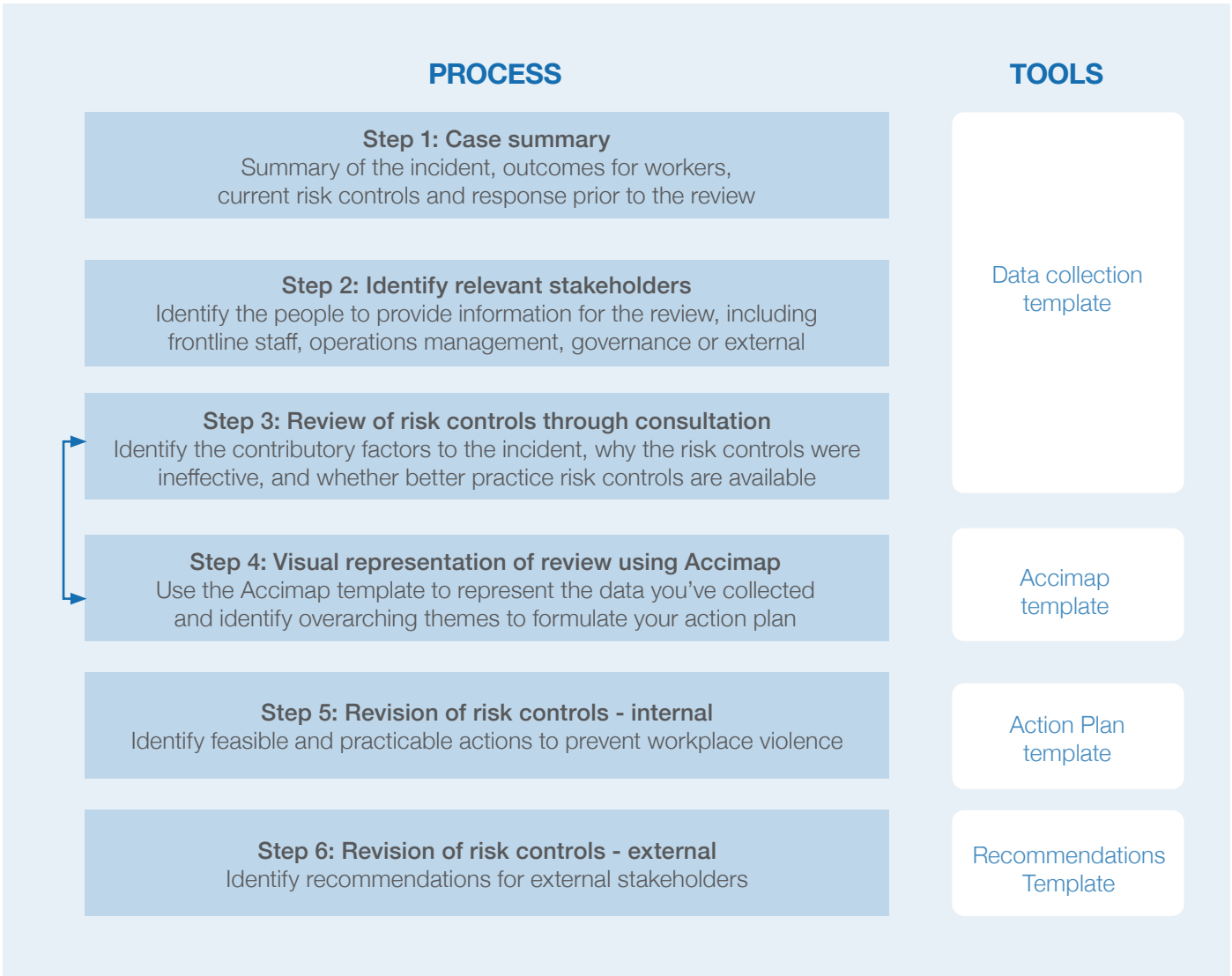

Figure 4: Overview of the WV incident review process, including development of the Accimap (Step 4)

HIGH LEVEL CASE STUDY DESCRIPTION

Case Study one involved a parking officer employee who was verbally abused and intimidated after issuing a fine that occurred while the CGD employee (female parking infringement officer) was on foot patrol at the local market.

Case Study two involved a female in-home community care provider employee who was sexually harassed while performing her normal fortnightly duties within a client's home.

Case Study three involved a female CGD employee in Regulatory Services who received a (repeated) abusive phone call from a member of the public who had received a fine. This type of incident happens on a regular basis for this CGD employee and member of her team.

**Pilot application of the WV toolkit for each of these three WV case studies is presented in Appendix A-C.*

Of note, the three WV incidents covered a range of roles across the City Council. While none of these roles were gender-specific, it is likely to be no coincidence that the three incidents were experienced by female City Council employees. Work-related gendered violence is defined as "any behaviour, directed at any person, or that affects a person, because of their sex, gender or sexual orientation…. that creates a risk to health and safety".[1] There were gendered violence characteristics in all three of the incidents. For example, the incident experienced by the female regulatory office employee (case study 3) was likely exacerbated by her gender. The fourth time the client called back his call was escalated to the employee's supervisor (a male). Once put through to the male staff member, the caller was very polite and accepted the decision not to withdraw the infringement.

OVERVIEW OF THE FINDINGS OF THE CASE STUDIES

Overall, pilot application of the WV tool provided evidence that the tool helped guide a systems-thinking investigation of incidents. This conclusion was evidenced by the:

Complex system of factors identified within and across levels of the system. Each of the case studies identified factors contributing to the WV incident across all five levels of the system. There was also a significant number of factors identified at the higher levels of the system. It should be noted that these factors would not have been identified using a traditional (i.e., linear) approach to investigations.

Accimap method (Step four), illustrating the complex network of factors that contributed to the incidents under investigation. To illustrate, relationships were identified between factors within and across levels of the system for all three reports.

Actions generated that promoted the review and revision to risk controls and identified a role and responsibility for key stakeholders, both internal to CGD and external (e.g., WSV). For example, the highest number of actions identified the review and revision of controls at the 'Governance and Administration' level through strategies such as demonstrating a commitment to employee safety and wellbeing and improving safety culture and improving management systems to facilitate more effective incident reporting and analysis.

These findings provide evidence that the prototype WV tool is an effective method of help guide a systems-thinking investigation.

1 https://www.worksafe.vic.gov.au/work-related-gendered-violence-including-sexual-harassment

CONCLUSION

This report presented the findings from the development and pilot application of the WV tool applied in Victorian City Councils. The WV tool was developed using an evidence-based approach for identifying risk factors contributing to WV incidents and refined through consultation with Victorian City Councils and WSV. The data collected through the development stage were used to develop a classification scheme for risk factors associated with WV within Victorian City Councils. The classification scheme was subsequently used to help guide the investigation of risk factors within the newly developed WV tool.

Pilot application of the WV tool illustrated that the tool helped guide a systems-thinking approach to the investigation of WV incidents. This conclusion was evidenced by the (i) factors identified within and across all levels of the system, (ii) complex network of relationships identified between factors and (iii) actions generated that identified the review and revision of risk controls for internal and external stakeholders to Victorian City Councils.
The end-goal of this project is to help WorkSafe Victoria and Victorian City Councils (in particular CGD) and other stakeholders identify strategic interventions to drive systemic change to prevent WV incidents. The next steps in achieving this goal include:

Training in application of WV tool within Victorian City Councils. Training could also be provided to WSV inspectors to educate on the system of factors contributing to WV incidents.

Evaluation of the short- (i.e., implementation and usability), medium- (e.g., change in awareness and culture relevant to WV) and long-term benefits (e.g., increased reporting of WV, reduction in WV incidents) of using the WV tool within Victorian City Councils.

References

[1] https://www.cfecfw.asn.au/wp-content/uploads/2019/10/Occupational-violence-and-aggression-OVA-guide.pdf

[2] Rasmussen, J. (1997). Risk management in a dynamic society: a modelling problem. Safety Science, 27, 183-213. http://dx.doi.org/10.1016/S0925-7535(97)00052-0.

APPENDIX A-C: See attached documents for the City Council WV incident review toolkit populated with each of the three case studies

Further information

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