Workplace Violence in the Health Sector – A Case Study in Australia

Claire Mayhew and Duncan Chappell

in cooperation with the ILO/ICN/WHO/PSI Joint Programme on Workplace Violence in the Health Sector

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THE OCCUPATIONAL VIOLENCE EXPERIENCES OF 400 AUSTRALIAN HEALTH WORKERS: AN EXPLORATORY STUDY
by Claire Mayhew and Duncan Chappell

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The occupational violence experiences of 400 Australian health workers: an exploratory study

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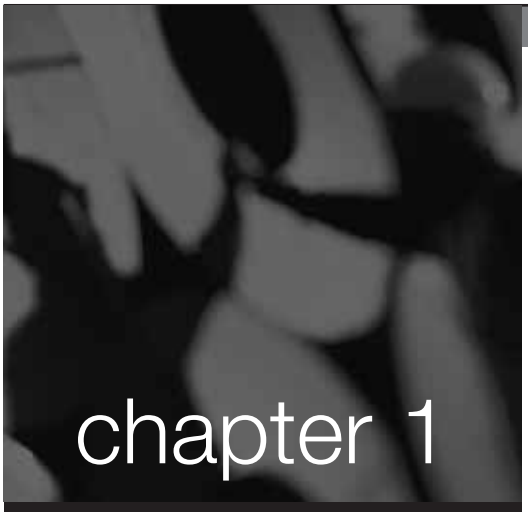
The scientific research literature and available data indicate that occupational violence is a predictable accompaniment to work in some jobs, is rare in others, and is in epidemic proportions in a few. The patterns of occupational violence in Australian health care facilities are largely unknown, and inferences about risk factors have historically had to be drawn from the international literature.

This research project was initiated to provide baseline information about the risks of occupational violence faced by workers in the public health care sector and the scenarios in which such aggression usually takes place, to highlight characteristics described as common among perpetrators, and to identify appropriate prevention strategies. An empirical study was carried out in one Australian State which involved face-to-face interviews with 400 health workers, including nurses, medical officers, allied health workers, ambulance officers and ancillary staff. The gathered qualitative and quantitative data provide baseline information on which enhanced prevention efforts can be based.

KEYWORDS

- OCCUPATIONAL VIOLENCE
- HEALTH CARE SECTOR
- RISK FACTORS
- PERPETRATOR CHARACTERISTICS
- UNDERREPORTING



chapter 1

Introduction and background

Occupational violence is a topic of increasing concern across the industrialised world — including for workers in the health care sector. Events that may be classified as occupational violence include homicide, assaults, threats, verbal abuse, behaviours that create an environment of fear, stalking, bullying among workers or between managers and workers, and behaviours that lead to stress or avoidance behaviour in the recipient.[1] While there may be a fine line between bullying and sexual harassment, the latter is not normally included in definitions of occupational violence (even though it may have significant adverse impact).

Because of the rising level of concern about violence towards health workers, a joint international program was initiated involving the International Labour Office (ILO), the International Council of Nurses, the World Health Organisation, and Public Services International.[2] This body defined the occupational violence experienced by health workers as:

> "Incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, well-being or health."[3]

A widely accepted typology separates occupational violence into three basic categories:

1. "external" violence which is perpetrated against workers by persons from outside the organisation, such as during armed hold-ups at shops and banks;
2. "client-initiated" violence which is inflicted on workers by their customers or clients, such as patients assaulting nurses; and
3. "internal" violence which occurs between workers in an organisation, for example, between a supervisor and employees, or workers and apprentices.[4] Such events may include bullying, initiation rites, or widespread bastardisation of new recruits into a workforce (as has been reported from some sectors of the armed forces).

It is crucial to note that, while all three types of occupational violence can occur on the one worksite, the perpetrators of the different forms of violence have distinct characteristics and the prevention strategies differ markedly. Some authors identify a fourth, more systemic form of violence that is essentially caused by broader social and economic pressures. For example, global economic pressures may lead to work intensification, job insecurity and heightened anxieties, and contribute to a workplace culture where threatening behaviours are tolerated.[5]

The extent of occupational violence

There is a need for more comprehensive data on the extent of occupational violence in Australian workplaces. Some small-scale studies have been completed but there are limitations with generalisability. Inferences have to be drawn from more substantial international studies and data (primarily from the United Kingdom and the United States). The seminal international work on occupational violence patterns was published by the ILO.[6] More recently, Gill et al edited a book with an international perspective on organisational,

personnel and training factors that could enhance or reduce the risks of violence at work.[7]

The consistent pattern in occupational violence data covering all industry sectors in the UK, the US and Australia is that jobs where cash is at hand or which involve tasks with a lot of face-to-face contact between workers and clients are at higher risk than jobs that do not have these characteristics.[6] The potential for violence may increase: at particular times of the day or night; on specific days of the week; at venues where intoxicated people gather; if large amounts of cash, valuables or drugs are held in poorly secured premises; or if there are long client waiting times for services.[8] For night and shiftworkers, those who work alone, young workers and apprentices, or those in insecure employment, the risks may be heightened.[9,10]

There are gender variations in patterns of occupational violence. Over all industry sectors, there is a tendency for women workers to experience higher levels of verbal abuse, while men tend to receive more threats and physical assaults.[6,9,10] This variation can be partially explained by the gender division of labour, with women being concentrated in "caring" jobs that involve greater face-to-face contact between workers and their customers/clients.[8]

Homicides at work are relatively infrequent in Australia compared with some other developed countries, such as the US.[6] The most authoritative source of data on occupational homicides in Australia is the "work-related fatalities study" which involved examination of all 2,389 work-related traumatic deaths recorded in Australian State and Territory coronial files over the four-year period 1989 to 1992.[11] Compared with most other industry sectors, health and community workers had a very low overall risk of traumatic death at work from any cause. However, while only 50 of the 2,389 traumatic deaths over this four-year period were homicides, health and community workers were disproportionately represented. It was found that 38% of all work-related homicides over this four-year period were committed by clients, customers or patients.[11]

The risk of client-initiated assault is, comparatively, higher for health and community workers: 85% of all successful violence-related workers compensation insurance claims in the Australian State of New South Wales (NSW) were submitted by workers from the health, welfare and community services, education, property and business services, retail trade, public administration, and rail transport sectors.[12] By occupation, the most at-risk jobs in that State were: miscellaneous labourers; registered nurses; miscellaneous para-professionals (such as welfare, community and prison workers); personal services workers (for example, refugee support workers, home companions, enrolled nurses and family aids); police; road and rail transport workers; and schoolteachers.[12] Nonetheless, the full picture is unknown because these data were collated from successful workers compensation claims following work-related injuries and illnesses, and thus represent only the most severe consequences rather than the full range of occupational violence experiences.

Reporting/underreporting of occupational violence across industry sectors

In Australia (as well as in most other industrialised countries), there are overlapping jurisdictional responsibilities regarding violent events between the criminal justice system, the OHS authorities, and individual health care organisations — all of which record some occupational violence data in different ways.

Only work-related homicides are reliably reported in Australia. The lack of a uniformly accepted definition for non-fatal violent events hinders the identification of clear trends across industry sectors. For example, some databases and surveys include only physical attacks that result in an injury, while others include sexual harassment, verbal abuse, intimidatory behaviours and obscene phone calls.[13] There are also a number of specific pressures on health care workers that influence reporting propensities for non-fatal events. For instance, in

some jobs health workers experience so much lower-level aggression that they would never be able to complete their job tasks if they were continually filling in forms.[14] As a result, workers compensation claims data are likely to be skewed and inaccurately represent the full range of violent events. The comparative international studies confirm that, at best, around one in five violent events are formally reported.[14] Most studies indicate an approximate 10% reporting ratio. This underreporting contributes to confusion over prevalence and severity patterns and the lack of knowledge about higher-risk scenarios for occupational violence.

It is argued that there are five core factors that influence levels of reporting/non-reporting:

1. injury severity: the more severe the events are, the more likely they are to be reported;[8]
2. departmental and jurisdictional rules: external violence associated with armed hold-ups is a matter for the criminal justice system and will almost always be reported to the police. Conversely, those events that do not involve the criminal justice system are less likely to be fully reported;[8]
3. influences on individuals: following external violence there is often an insurance requirement for a report to be given to the police before a claim for loss of goods or cash can be lodged, irrespective of whether an assault took place. With client-initiated violence, the propensity to report assaults, threats and verbal abuse may be mediated out of concern for the perpetrator, such as among health care workers who are caring for patients with dementia;[15]
4. toleration of lower-level violence: in some caring jobs, lower-level aggression may be an everyday occurrence that becomes accepted as a normal part of the job;[14,16] and
5. internal violence (or bullying): violence within an organisation is unlikely to be formally reported unless bullying is repeated and has escalated in intensity.[17]

Other reasons for non-reporting may include embarrassment and the influence of organisational culture. Thus, external violence that is associated with criminal activities, and events that result in significant physical or psychological harm, are more likely to be reported. Conversely, internal violence is least likely to be formally recorded. For client-initiated violence, these reporting/non-reporting propensities are largely unknown.

External violence

There is evidence from outside the health care sector that high-risk sites for violence may be concentrated in particular geographical areas. As an Australian example, the NSW Bureau of Crime Statistics and Research has collated data on prosecutions for violent offending, separated by Local Government Areas (LGA). Over the 12-month period January to December 2002, the incidence of apprehended and prosecuted assault offenders in LGA communities was, proportionately, higher in rural and remote areas of NSW, and in lower socio-economic localities.[18] In fact, 23 of the 25 top-ranked LGAs for assault were outside metropolitan areas, with Bourke, Walgett and Coonamble heading the list.[18] The incidence of sexual assault showed a similar distribution.[19] That is, violence in the general community is not evenly distributed.

Another consistent pattern reported in the research literature is that a greater proportion of the perpetrators of violence are younger males affected by alcohol or other substances.[20-22] For example, the NSW Bureau of Crime Statistics and Research reported that around 83% of all apprehended and prosecuted offenders were male, with the majority in the young adult age range.[20] Of particular relevance to this research study, assaults and sexual assaults were disproportionately committed by males aged 18 to 19 years, followed by those aged 20 to 24 years.[23]

The international research literature also consistently shows a link between intoxication and violence. As a result, violence may be concentrated around particular facilities, such as licensed premises. Homel conducted a series of studies of the relationship between alcohol and violent offending

around Queensland's Gold Coast nightclubs and elsewhere in this locality.[24] Again, the evidence was consistent: young males affected by drugs or alcohol were higher-risk perpetrators of violence.[24] Similar patterns have been identified in Sydney and Newcastle.[25,26] Following alcohol and drug-related violence (for example, pub brawls), the injured parties may end up as patients in emergency departments, and protagonists may even wish to continue their fights in the hospital environment.

By implication, and with all other things being equal, if the catchment area for a hospital is close to a number of licensed premises, then the health care facility may be exposed to a higher incidence of external violence. The risks of external violence may also increase in health care facilities if drugs are held in poorly secured places. That is, patterns of external violence are likely to vary across localities and be concentrated near particular facilities — as is the case with other forms of occupational violence.

Client-initiated violence

A series of international studies has focused on the extent of client-initiated violence in various industry sectors. The jobs at higher risk of client-initiated violence in both the UK and the US are police officers, security and prison guards, fire service officers, teachers, and welfare, health care and social security workers.[27,28]

The majority of comprehensive studies of violence in the health industry have been conducted in Europe. One UK study reported that health care workers had a one in 10 chance of a minor injury, with one in six verbally abused each year.[29] Another UK study reported that one in 200 health care workers experienced a major injury from violent clients each year, and one in 10 required first aid.[30]

Only a few studies of violence in the health industry separate out patterns by hospital ward or client profiles. However, one UK study reported that emergency department and psychiatric hospital workers were at greatest risk, followed by those working with clients with behavioural problems.[28] A Swedish study of violence in health care workplaces reported that many perpetrators had mental health problems (44%), suffered from dementia (37%), or were under the influence of alcohol or narcotics (12%).[31] A recent US authoritative source reported that psychiatric wards, emergency departments, waiting rooms and geriatric units were the most common sites for client-initiated violence, although precise estimations were not provided.[32] The data reported in these separate studies could not be directly compared.

Specific events have been reported to trigger unprovoked assaults, for example, too much ward activity at one time, denial of services, overcrowding, inadequate facilities, or negative staff attitudes.[33,34] Another study reported that the interpersonal skills and training of staff might influence the levels of violence towards staff in mental health units.[35]

Client-initiated violence patterns in health care facilities may vary across geographical areas, mirroring frustration with supply delays, for example, long waits for services. Thus, in geographical areas with a rapidly expanding population and where there are proportionately greater demands placed on health care services, the supply/demand equation may be unbalanced and result in long waits or restricted access to services. These long waits may fuel frustration and aggression. Conversely, hospitals in a catchment area with a disproportionate number of older residents may have decreased health care demands from younger, higher-risk, local populations, but have higher proportionate demands from clients with dementia. There may also be variations in risk across rural/urban localities, for example, a range of specific risks faced by remote area health workers in Australia has been comprehensively detailed.[36] Researchers in the US have identified a clear spillover from community level violence into workplace aggression:

> "... workplace aggression is a partial outgrowth of community-level violence, and this has

> practical implications for the nature (that is, the level and content) of the interventions organizations use to prevent workplace aggression."[37]

One Irish study of general practitioners reported that those working in working-class suburbs were at far greater risk than those in a middle-class district.[13] However, such socio-economic variations in patterns of violence experienced by health care workers have not been reported in other substantive studies. Nevertheless, it is possible that an increase in the proportion of private patients who are serviced in public hospitals may alter risk patterns as having health insurance may increase expectations of what services are "due" and, if expectations are not met, demands may escalate into verbal abuse. Conversely, if client-initiated violence is mediated by economic stress, a lower incidence of violence may be experienced in higher socio-economic areas. More substantive studies are clearly needed to separate out these cause and effect relationships.

Arguably, the risks to health care staff vary across geographical areas as a result of: (1) a concentration of higher-risk groups in the catchment area (that is, a younger population, those in lower socio-economic groups, or greater proportions affected by drugs or alcohol); (2) delays in service provision due to stretched resources in a high-demand area; (3) the proportion of patients with dementia; or (4) changing private health insurance patterns. Notably, people with different risk factors may adopt different forms of violent behaviours. For example, those suffering from dementia and challenging behaviour may tend to commit assaults when angry, while private hospital patients who do not receive expected services might simply abuse staff. These complex variations in patterns of violence by perpetrator characteristics are unknown at present.

Internal violence

Internal violence is committed by individuals who have, or have previously had, an employment relationship with the organisation. The event may involve: (1) a one-off physical act of violence that results in a physical or emotional injury; (2) initiation rites perpetrated on new employees, such as apprentices; or (3) some form of harassment or bullying that continues over time. Although there is a close overlap between bullying and sexual harassment, the latter is not considered in this study as it is already well covered elsewhere (for example, the *Sexual Harassment Code of Practice* (1998) produced by the Australian Human Rights and Equal Opportunity Commission).

There are no substantive Australian data on the extent and severity of internal occupational violence in the health care industry. However, preliminary research studies suggest that patterns may be similar to those seen in other countries and industry sectors.[38-40] That is, internal violence is perpetrated along a continuum of severity, ranging from ridicule, to verbal abuse, to threats, to physical assaults (usually escalating in intensity over time). Sometimes multiple perpetrators may be involved, with the events repeated over time and with a succession of recipients involved. While most forms of internal violence occur face-to-face, phone calls, emails or other media may be deliberately used to harm victims.

In the international research it has been reported that around 2% of employees in all industry sectors are subjected to physical violence from fellow employees every year, with an additional 10% estimated to be subjected to bullying or harassment.[41] In the absence of comprehensive Australian evidence from the health industry, these estimates can be used as a tentative baseline.

The research evidence from a range of industry sectors indicates that bullying has an extensive impact on the health, wellbeing and productivity of immediate recipients, as well as on their co-workers.[38,39,42] Their employers may also suffer significant legal and economic consequences, although these negative impacts are rarely recognised. For example, McCarthy et al have calculated that each case of bullying is likely to result in a loss of at least $A17,000 to the employer of each victim.[39] Further, if the international research

evidence applies to Australia, many recipients of internal occupational violence will resign from their jobs rather than continue to confront the perpetrators.[43] Workers in the health care industry are likely to suffer similar negative outcomes to those experienced in other industry sectors. Given the current shortage of some groups of health care workers, any action to decrease the level of internal violence is likely to have significant positive outcomes.

The international research evidence also suggests that the *impact* of internal violence may occur independently of the *severity*. That is, an ongoing pattern of bullying can have a disproportionately severe impact compared with a one-off act of physical violence.[41,42]

It is important to remember that the impact from internal violence occurs in addition to external and client-initiated sources of violence for health care workers, that is, from patients and their family members and visitors. Thus, the cumulative burden may be significant and the consequences for individual recipients may be severe.

Prevention of occupational violence

A range of occupational violence prevention strategies has been applied in other industry sectors to reduce the incidence, and some of these are briefly summarised below. Wynne et al have argued that guidance on the prevention of occupational violence has historically taken one of three approaches:[13]

1. reducing exposure to violence (the "prevention" approach);
2. encouraging appropriate behaviour when violence appears to be imminent (the "protection" approach); and
3. diminishing the post-event impact of violence (the "treatment" approach).[13]

For the sake of brevity, in this study the authors are principally concerned with the prevention approach.

The literature repeatedly states that there is a need for a multifaceted and organisation-wide approach to the prevention of occupational violence.[44] As with other OHS problems, the "risk identification, assessment and control" process has been identified as an effective prevention strategy, as well as being a legal requirement under the OHS legislative framework in some Australian States and Territories. Thus, the risk management framework is an appropriate paradigm within which comprehensive violence prevention strategies can be based.

Designing out the risks of occupational violence

Interventions that design out the risks of violence using Crime Prevention Through Environmental Design (CPTED) principles may be given the highest priority (also known as "situational crime prevention" and "safer by design"). The underlying premise of CPTED is that opportunities to commit violence can be reduced, and the costs to perpetrators increased to the point where they exceed any possible benefits. While CPTED principles are commonly applied in the retail industry, their application in health care facilities is in its infancy. In CPTED, the focus of attention is the design of buildings, doors and windows, the immediate surroundings, the placement of fittings, and the type of furniture selected.[45-47] Specific strategies include "target hardening" (making violence more difficult to execute), improved surveillance (to identify perpetrators more easily), and better cash/drugs/valuables control (to reduce the temptation and benefits from instrumental violence). Crime Prevention Through Environmental Design principles can also be integrated during refurbishments (including during alterations to workplace layout, interior and exterior lighting, landscaping, car parks and toilets), with priority given to the reduction of risks at high-risk sites.[32] While in the short term these interventions may appear costly, in the longer term such strategies may well be cheaper and have much greater preventive benefits.

Policies and procedures to reduce the risks of occupational violence

Any comprehensive violence prevention strategy requires a range of organisational and administrative elements to help control the risks.[32] These elements include an explicit commitment to a zero-tolerance (or related) policy by the chief executive officer (CEO), a risk identification process that incorporates regular violence vulnerability audits, comprehensive reporting systems, formal identification of high-risk sites, consideration of specific client groups and their characteristics (including symptoms, diagnoses and behaviours), the introduction of appropriate interventions, and post-event supports that are tailored to site-specific threats. For example, the National Health Service in the UK has adopted a comprehensive zero-tolerance policy and implemented a range of strategies to reduce the incidence of violence for hospital, community and ambulance workers. National Health Service initiatives include formal warning procedures and the exclusion of serial perpetrators (the "yellow" and "red" warning card system).[48,49] While mental health clients who have been violent have not generally been subject to these exclusion provisions, there have been recent calls for prosecution of all other patients who assault staff.[50]

To date, there have been few examples of comprehensive "best practice" prevention initiatives in the Australian health care industry. The first and most important step in prevention appears to be unequivocal top management commitment to a zero-tolerance policy (or related strategy) which is clearly stated and enforced. Second, the prevention of occupational violence requires close examination of building designs, local community risk factors for violence, and staff employment conditions. The third step is a recognition that the potential for all forms of violence exists within most health care facilities, although the risks may be increased in some localities and some ward environments. Fourth, the risk of internal violence may increase in more hierarchical structures and in enterprises which are undergoing significant organisational change. Further, bullying is frequently perpetrated at the same time as other forms of aggression, including sexual harassment.[6] Thus, comprehensive violence prevention strategies are multifaceted and require organisation-wide integration.

While international research studies indicate that the patterns vary across health occupations because risk factors differ, patterns of violence may also vary because some health care sites apply better-targeted intervention strategies. Formal systematic evaluations of all interventions and procedures are essential. Such evaluations can review the effectiveness of both the CPTED interventions and the administrative controls — all of which are essential components of comprehensive violence prevention strategies.

Rationale for Australian occupational violence research studies in the health sector

Comprehensive data on the incidence of occupational violence in the Australian health care sector do not exist. Difficulties with generalisability arise from the small sample sizes and single location bases that have been used in the completed studies to date. For example, generalisability caveats apply to Australian studies on the violence experienced by emergency department nurses.[51-53] With regard to internal violence, a study of bullying among 270 Tasmanian nurses reported that 30% were subjected to bullying on a daily or near-daily basis.[40] Overall, a consistent finding across the studies that have been conducted is that client-initiated violence is the most common form of aggression experienced by health workers.

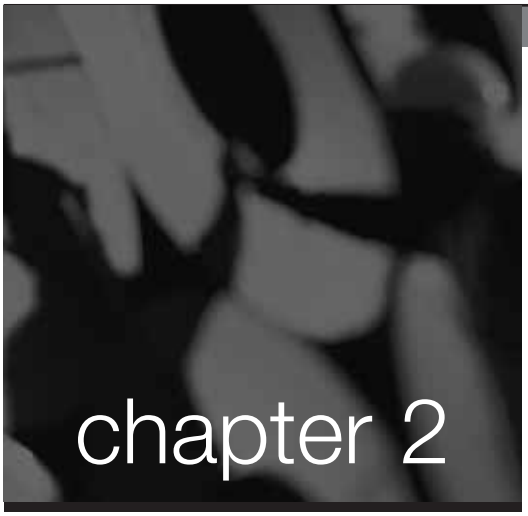
A need was identified for substantive empirical studies that evaluate risk factors and high-risk settings, estimate incidence and severity patterns across different health occupational groups, identify reporting/non-reporting ratios, distinguish possible perpetrator characteristics, and provide information

about the effectiveness of prevention strategies. Close examination of the contexts of violent events could also assist with recommendations for the redesign of workplaces and work processes to reduce the risks.

Empirical studies using one on one face-to-face interviews are particularly useful in providing initial baseline information on these factors, but are difficult and time consuming and, in the case of the health sector, require the gathering and collation of extensive evidence from workers who are widely dispersed, who work at all times of the day and night, and who perform a range of job tasks in an environment which is characterised by constant change and pressure. As Hoel et al have explained:

> "... undertaking research in environments which are changing rapidly and which are not in business to accommodate research is fraught with difficulty ... Any intervention within the area of stress and violence at work should acknowledge this fact ... emphasise the importance of establishing baseline measures prior to the implementation of any intervention in order to effectively evaluate its success."[54]

Thus, a substantive empirically based research study was deemed essential in order to gather baseline information about occupational violence in the health care industry, to identify the contexts in which violence most commonly occurs, and to provide guidance on high-risk sites and commonly reported patterns of violent incidents.



chapter 2

Methodology

The stated aims of the empirical research study were to establish baseline estimates of the experience of occupational violence among the public health workforce in one Australian State, including:

— estimates of the patterns of incidence and severity for the different types of violence (verbal abuse, threats, assaults, bullying, etc);

— variations in patterns of violence experienced by the various health occupational groups (nursing, medical officer, etc);

— variations in patterns of violence between rural and urban areas, and between geriatric, mental health, and emergency departments, etc; and

— identification of characteristics of perpetrators and victims, high-risk settings and key risk factors.

Once high-risk scenarios and perpetrator characteristics are identified, preventive intervention strategies can be more tightly targeted.

Sampled areas and populations

The study was conducted in four geographical/administrative areas within the public health workforce of one State in Australia. These four areas were geographically distinct: two were in urban areas (henceforth known as Urban 1 and Urban 2 in this study) and two in rural localities (Rural 3 and Rural 4). These four localities represented a demographic cross-section of client/patient socio-economic and industrial profiles, as well as a mix of urban, rural and more isolated locations. The interviewed health care workers were based in 45 different hospitals and 14 ambulance stations, in addition to a number of other linked community health sites.

The research proposal was reviewed by five separate ethics committees (the central Ethics Agency for the whole State public health workforce, plus one in each of the four geographical areas where the study was conducted).

A broadly representative sample of 400 public health workers was interviewed face-to-face over the period 25 October 2001 to 3 March 2002 (100 in each of the four areas where the study took place). Based on the best available demographic data about the workforce, the sample interviewed appeared to match the general health workforce population as a whole. The occupational breakdown of the 400 interviewees was 40 allied health workers, 40 operational ambulance officers, 80 ancillary staff members, 40 medical officers, and 200 nurses.

Face-to-face interviewing was the preferred option as many people will not divulge personal information through a mailed questionnaire, and probing on sensitive issues is far more difficult through the more anonymous telephone. Because of the sampling selection process, health workers at all levels of hierarchies in different occupational groups participated, for example, assistant in nursing to director of nursing positions, and registrars to newly graduated medical officers. All interviews were conducted by the same person (the first author) and used the same instrument, and a virtually identical interpersonal manner was adopted.

Limitations

There are a number of limitations that flow from the sample size and research design. Because the

population interviewed consisted of a sample of only 400 workers, some of the patterns identified may have been under or overestimated. For example, the ancillary health occupational group included a range of workers who performed quite different job tasks. In the collated information gathered from these 80 ancillary staff members, the higher-risk security officers could not be separated out without potentially identifying individuals or resulting in an unacceptably small sample size. However, the inclusion of security officers within the broader category of ancillary staff resulted in an artificial increase in the number of violent events experienced by this group as a whole.

Similarly, the small sample size within each of the health occupational groups meant that gender variations in experiences of violence could not be identified in those samples (although, overall, these were minimal).

Another limitation flowing from the small sample size was that no severe events — which are rare — were discussed by interviewees (such as events which resulted in significant physical disability). Similarly, homicides are (thankfully) rare among health care workers, but identification of the risk factors and reduction of vulnerability remain core issues. As participants did not discuss such severe events, these issues remained unexplored in the findings.

The methodology also overrepresented rural workers in all health occupational groups. This sampling bias meant that the experiences of health workers in rural areas were overemphasised, and the experiences of those working in urban areas were underemphasised.

Further, the calculations were based on reports provided by the interviewees, some of whom worked less than full time. Because of the variable working hours of the sampled populations — some of whom worked part time in two or more separate health facilities — levels of risk according to hours worked could not be accurately calculated, as would be expected in an epidemiological study.

Finally, the ambulance officers interviewed were not selected via the sequential number-based system used to identify prospective participants from the other health occupational groups. Rather, these very mobile health workers were selected on the basis of availability on a range of sites at random times. (Most work rotating rosters and many do not come back into the station again after their shift commences.)

Consequently, the study was not an epidemiological one, but rather was *exploratory* in nature and designed to provide basic information about high-risk sites, reported characteristics of perpetrators, higher-risk tasks and scenarios, and variations in experiences of occupational violence between the different health occupational groups working on a range of health sites. The gathering of qualitative information about violent events was considered to be at least as important as that which allowed calculation of some baseline figures. Thus, the findings from this exploratory study are likely to be broadly representative of the experiences of occupational violence across the public health workforce, although a number of caveats apply to the quantitative findings.

It is recommended that an epidemiological follow-up study should be initiated now that basic information about high-risk sites and higher-risk scenarios has been identified. Such studies can be repeated every two to three years and used to evaluate the effectiveness of prevention strategies that have been implemented in the high-risk sites to reduce the occupational violence experienced by health workers.

Sample selection processes

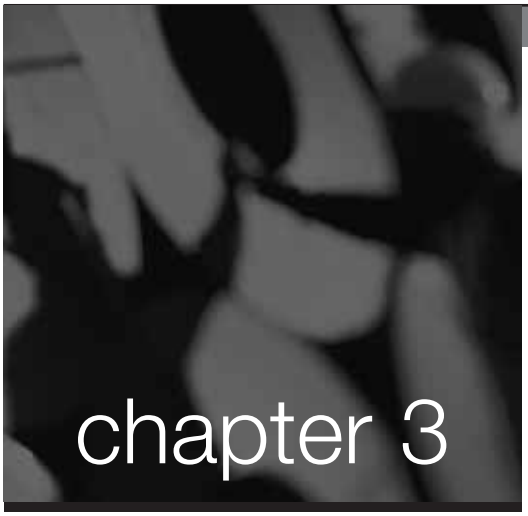
The names of all interviewees who were nurses, medical officers, and allied health and ancillary workers were selected from employment payroll records (held separately in each geographical/administrative area) using a numerical selection process. For example, if 100 allied health members were on the payroll in an area and 10 were required, every 10th person listed was chosen. The ambulance officers were selected for interview based on their availability at base on various days of the week,

usually at shift changeover times. Only one of the 401 health workers approached refused to participate.

The selected health workers were usually interviewed at work during rostered working hours throughout day, evening and night shifts and on both weekdays and weekends. All interviewee identifiers were destroyed immediately afterwards and no record of names was retained. The interview process was generally conducted in private and used a semi-structured questionnaire which required both quantitative and qualitative responses to a series of questions.

Data collected included the number of violent events experienced over the immediately previous 12-month period, the witnessing of violence towards other staff members, perceived high-risk places and perpetrators, the violence prevention strategies in place, recommendations to improve violence prevention efforts, and other employment-linked violence issues. Interviewees were also asked to describe the contexts/scenarios when violent events occurred. The *severity* of each violent event was estimated by interviewees separating events into verbal abuse, threats, assaults, bullying or "other" activities, for example, spitting. The quantitative data were collated and analysed, and have been presented together with direct quotations provided by interviewees to illustrate the contexts of violent events. Where quotations are reproduced, an individual interviewee number is provided immediately afterwards in brackets.

A number of variations between the different health occupational groups were identified, as can be seen in the detailed findings.



chapter 3

Findings: patterns of occupational violence

In order to calculate an approximate annual incidence rate per employee, in this sample each of the 400 interviewees was requested to detail their exposure to violence over the previous 12-month period. Many events involved verbal abuse and threats, and sometimes both clients and their relatives/visitors collaborated in aggression directed towards health care workers.

There were two possible ways to display this information: (1) with the highest level of violence coded for each event; or (2) with all reported activities listed. It was decided to include all forms of violence adopted in each event as this method better elucidated the contexts of violent situations. In Table 1, all verbal abuse, threat, assault and bullying events described by the 400 interviewees have been collated. Because all forms of violence involved in each event have been included, as well as all perpetrators involved in each violent event, line and row totals exceed the total separate number of 585 events (that is, a single event that included both threats and assault would appear twice in the second and third columns of Table 1). In the seventh column of Table 1, the total number of separate events is shown. The figures in the final right-hand column are based on the total separate events divided by the number of interviewees in each occupational group; these figures allow for comparisons across health occupations.

As can be seen in Table 1, experiences of violence varied significantly between the different health occupational groups, although verbal abuse appears to be an endemic risk. However, violence was not distributed evenly across occupational groups, or even within them. Rather, violence was clustered around high-risk places and higher-risk tasks (for

TABLE 1

Type and number of violent events over 12-month period, as cited by 400 health workers interviewed between 25 October 2001 and 3 March 2002, by occupational group

		Number of events in previous 12 months involving:						
Occupational group of victim	*Number of persons*	*Verbal abuse*	*Threats*	*Assaults*	*Bullying*	*Other*	*Total separate events*	*Average events per person*
Allied health	40	39	15	8	6	8	59	1.5
Ambulance	40	54	27	17	1	8	83	2.1
Ancillary	80	58	19	11	5	6	76	0.9
Medical officer	40	50	18	7	6	2	56	1.4
Nursing	200	246	52	37	24	20	311	1.6
All	400	447	131	80	42	44	585	1.5

Notes: Some interviewees experienced no violent events, while others experienced multiple events. Each event was classified into one or more types of violence.

example, when at-risk children were taken into care), and was disproportionately perpetrated by individuals with higher-risk behaviours (for example, drug and alcohol-affected clients). Broadly speaking, ambulance officers appear to have reported the highest approximate annual incidence rate per employee and ancillary staff the lowest (with the important exceptions of security officers and admissions staff). However, on many occasions interviewees stated that discussed events were only typical examples of events that occurred on a regular basis (for example, weekly or even daily). Thus, the patterns that appear in Table 1 are *conservative estimates.*

Overall, around 67% of the 400 interviewees reported verbal abuse events, 10.5% bullying, and 12% assaults. However, physical injuries as a result of assaults were rare, with only four specified during the previous 12-month period, including: "black eye" (interviewee, 101, nurse); "he bent my hand back" (115, allied health); "bitten and spat on" (175, ancillary staff); and "I got punched in the face and knocked unconscious" (354, allied health). The overall patterns of occupational violence are highlighted in the box below.

— The sample of 400 health workers experienced 585 separate events that involved verbal abuse, threats, assaults, bullying or some other form of violence during the immediately previous 12-month period. By implication, on average each health worker personally experienced around 1.5 events that involved some level of violence during this period.

— Experiences of violence varied significantly between occupational groups. At the macro level of analysis, ambulance officers and nurses cited proportionately more violent events in the previous 12-month period than did the other groups, and ancillary staff the least.

— Within occupational groups, experiences of violence also varied significantly, for example, nurses in emergency departments cited far more violent events in the previous 12-month period than did those working in community health centres (apart from those working with clients affected by drugs or alcohol). Similarly, there was a wide variation in experiences of violence among ancillary staff, with only admissions staff and security officers citing repeated exposures to violence. (See detailed discussions later.)

— Health care workers who reported few violent experiences over the previous 12-month period were those based in operating theatres, day surgery units and community health centres.

— Verbal abuse was almost endemic, with 447 separate events reported by the 400 interviewees over the previous 12-month period. Few workers were immune, with a number reporting more than one abusive event in the past year. Workers least likely to encounter verbal abuse were ancillary staff (apart from admissions staff and security officers). The reported perpetrators were predominantly patients and/or their visitors.

— Threats were experienced less commonly, with 131 events cited by the interviewees. Threats usually accompanied verbal abuse, and rarely escalated into physical assaults.

— A total of 80 assaults was cited by the 400 interviewees, predominantly perpetrated by patients with dementia, affected by drugs or alcohol, or with a mental health condition.

— There were 42 separate events of bullying cited by the 400 interviewees. Thus, the incidence of internal violence from other staff members was much lower than for verbal abuse, threats and assaults from clients/patients and their visitors. The perpetrators were invariably other staff members, with a significant proportion reported by workers rostered in operating theatres. While some aggression occurred between occupational categories (for example, medical officer to nurse), the majority of events were between workers within the same occupational classification where the perpetrator and recipient were at different levels in hierarchies.

— Repeated comments were made by interviewees that occupational violence was increasingly common over time.

— No particular gender or age patterns were identified among the recipients of violence. Rather, experiences of occupational violence appeared to reflect the extent of exposure to clients with higher-risk demographics (for example, young males), particular environments (for example, emergency departments), perpetrators with higher-risk conditions (for example, intoxication with alcohol or substances), or high-risk tasks (for example, taking children into care).

Variations in occupational violence experiences across health care groups

Allied health

Forty allied health workers were interviewed. This group included dieticians, occupational therapists, physiotherapists, public health workers, psychologists, radiologists, sexual assault counsellors, social workers, speech therapists, and other welfare workers of various types. These allied health workers were employed in: community settings (52%); hospital wards (26%); radiology services (9%); health management offices (6%); emergency departments (4%); pharmacy (2.5%); and exercise facilities (2.5%). (As a number shared their time between different health care roles, working time has been apportioned and rounded to the nearest percentage.) The community settings included aged care, alcohol and drug services, baby clinics, child and adolescent centres, community health, community mental health, Indigenous health, methadone clinics, migrant and refugee health centres, as well as sexual assault support services. The hospital-based allied health workers predominantly worked with in-patients in wards or were attached to outpatient departments. A number had conjoint community and hospital appointments.

Overall, allied health workers cited proportionately fewer violent events, although a few high-risk sites were identified. Violent events were not experienced uniformly across all types of allied health workers. Those working in hospital-based settings reported a total of 38 separate events in the previous 12-month period, compared with a total of 21 for those in community settings. The highest-risk sites within hospitals appeared to be hospital wards (n = 20 events) and radiology (n = 10). (Radiologists may be at increased risk during call-out on weekends and at night if there are few other staff in the working area.) In community settings, allied health workers employed in drug and alcohol services reported more events over the previous 12-month period than did those involved in other community roles. Nevertheless, as this was a small sample of 40 interviewees, the findings must be interpreted with caution.

Allied health staff appeared to be most at risk when working alone, when rostered in drug and alcohol services, and when dealing with high-stress situations such as domestic violence or when staff from child protection agencies were called to assist. For allied health workers there appeared to be two basic types of violent events: (1) those involving patients who were "not themselves" because of dementia, illness or substance abuse; and (2) higher-risk situations, such as when parents of children were being investigated for potential abuse. Direct quotations that exemplify these risk scenarios include:

> "In morning. Confused patient and very unsteady and trying to climb out of bed. A nurse and I were trying to put patient back to bed. I was punched in face and jewellery ripped off and nurse had her blouse ripped off ... the doctors re-assessed how to manage her confusion." (149)

> "On children's ward; father aged about 30. It was daytime during the week. He was abusive as there were concerns about neglect of his children. Verbally abusive of myself (social worker) and any staff who had seen the children, including doctors who had treated them." (354)

Prevention strategies could initially focus on reducing the risks in these high-risk settings. For example, the use of CPTED principles in the design of interview rooms to ensure that there are two exits, duress alarms at all sites where workers are alone, more careful selection of furniture and fittings, and ensuring that workers wear appropriate clothing (that is, no jewellery or ties).

Ambulance officers

Forty operational ambulance officers, who were based in 14 different stations, were interviewed. Half of the interviewees worked out of metropolitan bases (n = 20), and half were based in rural locations (n = 20).

Overall, the ambulance officers interviewed reported a comparatively high level of exposure to violence, with a wide range of high-risk settings and potential perpetrator groups identified. In total, 77.5% (n = 31) of the 40 interviewees reported that they had experienced 83 separate violent events in the immediately previous 12-month period. The rural ambulance officers reported that they had been involved with more violent events (n = 48) than had their metropolitan counterparts (n = 35 events). Nevertheless, as this was a small sample of 40 ambulance officers, any extrapolations should be made with caution.

The data indicated some higher-risk scenarios. Similar to the patterns discussed in Chapter 1, occupational violence was reported to be commonly perpetrated by young males affected by drugs or alcohol, and was more commonly experienced in rural and remote areas.[19,20] Ambulance officers appeared to be most at risk when called to isolated sites, domestic premises, and in situations where the potential patients and bystanders were affected by drugs or alcohol.

Prevention strategies could initially focus on improving access to support services in unexpected violent scenarios. For example, portable duress alarms could be carried on the person and be appropriately linked through global positioning system technologies to response systems (where these exist). Similarly, a continuation of the common practice of "flagging" higher-risk domestic premises may reduce the risks. More isolated and high-risk sites will probably need to have specific risk-reduction strategies developed.

Ancillary staff

A sample of 80 ancillary staff was interviewed, including administrative and admissions staff, cleaners who worked in wards, complaints officers, hospital assistants, a hospital chaplain, kitchen staff who served patients in wards, orderlies, security officers, wardsmen, etc. These ancillary staff workers were employed in four different areas (half worked out of metropolitan bases (n = 40), and half were based in rural locations (n = 40)).

There was considerable diversity in experiences of violence because the ancillary staff group included those working on a wide range of tasks. Risks were polarised between two broad groupings of ancillary staff, 85% of whom could be categorised as at low risk (n = 68) of occupational violence and 15% (n = 12) as at higher risk:

1. low-risk work included general ward duties, cleaning in wards, delivery of meals, etc. These lower-risk ancillary staff appeared to be rarely under threat. One example of the few hazardous situations included working alone in wards with close patient contact, such as when providing services to clients with dementia; and
2. the higher-risk ancillary group included admissions and complaints staff and security officers. The complaints staff reported that they experienced ongoing verbal abuse, but none cited an assault. Some admissions staff also reported that they experienced verbal abuse on a daily basis, for example, if rostered at outpatient or emergency departments. Security officers, by the very nature of their job, were repeatedly exposed to verbal abuse, threats and assaults in a wide range of hospital areas. Unfortunately, the number of security officers was too low for separation of their information from that of other workers in the ancillary health worker group as this would have made them potentially identifiable.

The inclusion of security officers and admissions staff within the broad ancillary group means that the overall reporting of violence for all of the workers is increased, while the apparent incidence for the high-risk workers is decreased. That is, while ancillary staff reported the lowest approximate annual incidence rate per employee of any of the health occupational groups surveyed, some tasks are high risk, resulting in the clustering of violence among specific ancillary staff. These issues need to be addressed in future studies with more detailed examination of those subgroups.

Prevention strategies could initially focus on reducing the vulnerability of the higher-risk occupations of admissions staff and security officers.

Medical officers

Forty medical officers were interviewed over the period October 2001 to March 2002. Half worked out of metropolitan bases (n = 20), and half were based in rural locations (n = 20).

Overall, the interviewed medical officers experienced a comparatively lower annual incidence rate per employee, although there were a few high-risk sites and people with potentially high-risk behaviours encountered. Medical officers appeared to be most at risk when working in emergency departments, when treating clients affected by drugs or alcohol, or when dealing with high-stress situations such as in delivery suites, intensive care (ICU) or coronary/critical care units (CCU).

Prevention strategies could initially focus on reducing the risks in these high-risk settings, for example, the use of CPTED principles in the design of emergency departments, and duress alarms in all delivery suites and ICU/CCU. Medical officers appeared to have a limited knowledge of the full range of violence prevention strategies, and many were unsure of reporting protocols for violence.

Nursing staff

Two hundred nurses were interviewed, including registered and enrolled nurses as well as a few "assistants in nursing" (who were predominantly undergraduate nursing students working on weekends/holidays in ward situations). Half of the interviewees worked out of metropolitan bases (n = 100), and half were based in rural locations (n = 100).

The 200 interviewed nurses reported a comparatively higher annual incidence rate per employee, with a range of high-risk settings and perpetrators of violence encountered. In total, 73.5% (n = 147) of the interviewees had experienced 311 separate events over the previous 12-month period. However, 26.5% (n = 53) reported that they had not experienced any violent events during this time. That is, around three-quarters of all nurses encountered some form of violence at work in the previous 12 months (although most events reported were lower-level forms such as verbal abuse). This finding is in keeping with recent Tasmanian research by Farrell and Bobrowski.[55]

The 311 violent events occurred at a range of health care sites. Nursing staff appeared to be at greatest risk when rostered in emergency departments, drug and alcohol services, and mental health and dementia wards. Nevertheless, there was a range of high-stress situations which were *situationally* high risk, such as in ICU, maternity/delivery suites, child/paediatric wards when parents of sick children were distressed, and challenging situations in small rural sites when few staff were rostered. The described sites where violent events occurred included: geriatric wards (n = 36); emergency departments (n = 36); alcohol and drug units (n = 32); surgical wards (n = 28); maternity wards (n = 26); mental health wards (n = 25); ICU or CCU (n = 22); theatre/day surgery (n = 17); community health centres (n = 15); child/paediatric wards (n = 14); outpatient departments (n = 9); health management offices (n = 8); medical wards (n = 7); and non-specified ward situations (n = 36). These sites were not always readily identifiable as nursing staff frequently moved from one type of ward situation to another, for example, across medical, geriatric and general ward situations.

Assaults were most commonly perpetrated by geriatric or mental health clients, or those affected

by drugs or alcohol (these categories sometimes overlapped). Threats also predominantly came from patients, many of whom were drug or alcohol affected or (less commonly) suffering from a mental health condition. Verbal abuse was forthcoming from a broad spectrum of reported perpetrators, including patients, relatives/visitors as well as occasionally from other staff.

Emotional stress/injury following exposure to violent events

It was hypothesised that there were likely to be some emotional stress repercussions following violent events, in addition to any physical injuries. An objective but simple instrument to measure these stress outcomes was required. The severity of emotional repercussions from violence was estimated by asking all 400 interviewees to complete the abbreviated 12-item General Health Questionnaire (GHQ-12), which is an internationally validated measure of distress. The GHQ-12 has been repeatedly used and validated across a range of Australian and international studies to measure levels of distress.[56-59] The GHQ-12 has pre-set questions with numerical scores allocated for each response; these are then totalled to give an overall score. Past studies have indicated that, using the Likert scaling method, a GHQ-12 score of between 8 and 10 is relatively normal with a threshold of around 11 or 12; a person with a score greater than 14 probably requires urgent assistance.[58,60] The threshold score has been defined as: "... the number of symptoms at which the probability that an individual will be thought to be a case exceeds 0.5."[61] Nevertheless, there are questions about the ability of the GHQ-12 to detect long-latency conditions, for example, post-traumatic stress disorder may remain undisclosed in the short term.[56]

All 400 interviewees were requested to complete the GHQ-12, the scores were collated using the Likert method, and those interviewees who had experienced verbal abuse, threats, assaults or bullying over the previous 12-month period were separated out for analysis. (Only one interviewee was unable to complete the form; he was an ancillary worker of non-English-speaking background (NESB) and declined rescheduling with an interpreter.) Interviewee GHQ-12 responses were totalled to give (1) an individual, (2) an occupational group, and (3) an overall score. A breakdown of GHQ-12 scores by number of violent events experienced over the immediately previous 12-month period, by health occupational group, is provided in Table 2. Because the numbers are quite low in some cells at this level of analysis, the findings may be less reliable than for the overall scores.

The pattern shown in Table 2 indicates a steady rise in the GHQ-12 score that was statistically correlated with increasing exposure to occupational violence over the previous 12-month period (apart from minor variations, such as for ambulance officers experiencing one or two events, and medical officers citing two or three events). The overall GHQ-12 mean score for all interviewees in all health occupational groups was 11.4 (std 5.02), with 22.5% (n = 90) above the clinically significant figure of 14. However, it is important to note that higher scores among a range of health occupations have been reported in other studies.[60] For example, one study of general practitioners using the GHQ-12 reported that around 13% were under significant psychological strain.[62] Across all workers surveyed, those who experienced nil events had a GHQ-12 mean score of 9.9 (std 4.18), with one event 10.9 (std 5.08), with two events 12.5 (std 5.54), and with three or more events 12.6 (std 4.91). The overall scores for the separate health occupational groups surveyed were: allied health (11.5); ambulance officers (10.7); ancillary staff (10.6); medical officers (11.8); and nursing staff (11.8). Very high scores came disproportionately from those who had either experienced a series of violent events or who had been bullied.

Variations in GHQ-12 scores between different health occupational groups, on the basis of number of violent experiences, type of violence, perpetrator characteristics and other factors, were examined. The GHQ-12 score data from all occupational groups were analysed using regression analysis. (The numbers were too small for reliable separate occupational group analysis.)

An analysis of variance (ANOVA) found that the relationship between exposure to violence at work and elevation of GHQ-12 score was significant at the 0.0001 level (1 df, standard error 0.21331, t-value 4.56). This finding is highly significant.

The 80 individuals who had experienced an assault were separated out for analysis. Unexpectedly, the relationship between exposure to an assault and elevation of GHQ-12 score was *not* found to be statistically significant (0.2198, standard error 0.71290, t-value 1.23).

The individuals who had experienced bullying at work were separated out for analysis. The ANOVA identified a highly significant relationship between exposure to bullying at work and elevated GHQ-12 score at the 0.0001 level (1 df, standard error 0.80146, t-value 5.28).

The regression analysis indicated that the emotional stress impact/injury following occupational violence was not necessarily related to the physical severity of the events experienced by health care workers. While a rise in the number of violent events experienced was correlated with a rise in GHQ-12 score, assaults were *not* directly correlated with increased GHQ-12 score.

There are four possible explanations for the non-significant relationship between assaults and GHQ-12 scores, any of which may apply:

1. It has been reported in the scientific literature that the GHQ-12 has a limited ability to detect long-latency conditions such as post-traumatic stress disorder.[56] Thus, because the GHQ-12 assessed only perceptions of wellbeing over the immediately previous month, and because interviewees were questioned *only* about violent experiences over the past 12 months, the psychological repercussions from earlier violent events may still have been latent.

2. It may have been that those health workers who were most severely affected from an assault were on workers compensation leave. However, this explanation is unlikely as only three selected interviewees were unavailable for interview because of workers compensation or sick leave.

3. Other variables may have acted as confounders to the relationship, including excessive working hours by some health workers. It has been assumed that, because all workers were employed by a State public health service (which had regulations over set working hours), the influence of employment situational variables was constant across all workers interviewed.

4. An alternative explanation is that the impact of violence is mediated by compassion for a perpetrator's condition. As was identified earlier, most assaults were committed by clients with dementia or mental health problems, or by patients who were affected by drugs or alcohol. That is, many clients/patients had a condition over which

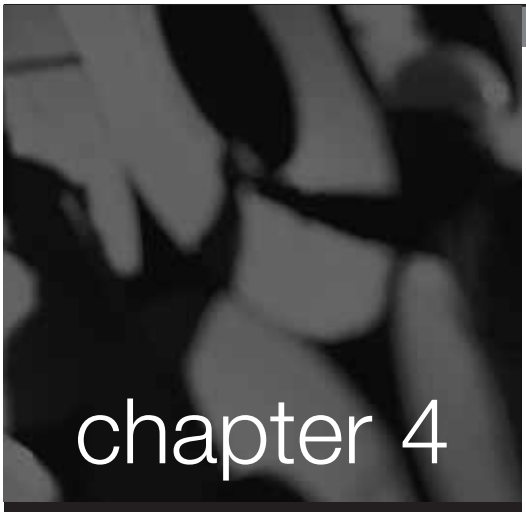
TABLE 2

Average GHQ-12 scores (measure of emotional stress) of victim and number of violent events reported in previous 12 months, by occupational group

	Number of events in previous 12 months					
Occupational group of victim	*None*	*One event*	*Two events*	*Three or more events*	*Bullied in last 12 months*	*All*
Allied health	11.4	10.3	11.5	13.1	15.8	11.5
Ambulance	8.8	10.7	8.7	12.9	26.0	10.7
Ancillary	8.9	11.0	11.8	14.2	12.3	10.6
Medical officer	11.7	10.4	13.5	10.5	17.5	11.8
Nursing	10.1	11.0	12.7	13.1	15.4	11.8
Overall scores	9.9	10.9	12.5	12.6	15.2	11.4

they had limited control. Hence, there was an absence of malice or intent associated with many assaults. In contrast, examination of the qualitative data revealed that some perpetrators of bullying behaviour were reported to be motivated by malice. This finding has important ramifications for productivity, turnover of staff and workers compensation costs.

It is hypothesised that the presence/absence of malice is a core variable influencing the emotional stress impact from violence at work. That is, the impact of violence (as measured by the GHQ-12) may have been influenced by the presence/absence of malicious intent by the perpetrator.



chapter 4

High-risk settings for occupational violence

The data gathered during this study consistently highlighted some situations/contexts as higher risk for occupational violence. Based on the collated evidence from the 400 workers interviewed, the high-risk sites were identified and these appear in the box below.

- The range of uncontrolled environments where operational ambulance officers work.
- Emergency departments, drug and alcohol clinics and mental health units.
- Maternity/delivery wards, ICU, CCU and other sites where high-stress events frequently occur.
- Child/paediatric wards.
- Some rural health care settings.
- Remote rural sites at night (when few staff members are usually rostered).
- Emergency and outpatient facilities with long waiting times, particularly where explanations were perceived as inadequate.

A typology of four categories of occupational violence risk is proposed for health care workers:

1. The settings where reports indicate that risk of violence may be greater include: a range of environments within which operational ambulance officers work; emergency departments; situations where mental health clients are treated; and locations where alcohol and drug-affected patients receive services or collect clean needles. For example:

> "Men and women who have multifaceted problems — social problems, drug and alcohol, mental health." (130)

> "Called to back of a pub and he'd fallen over and grazed his forehead and hands. He was fine at start and then got aggressive and nasty. We took him to hospital with a police escort. He was actually handcuffed because of the threatening nature." (396)

2. Some sites can be situationally high risk when extreme stress events are in progress, for example, maternity/delivery wards, some child/paediatric wards (particularly if government departments concerned with child protection — and possibly removal — are involved), and ICU and CCU when relatives are dealing with the imminent death of a loved one. The parents of child patients have been identified as high-risk perpetrators if their children are likely to be taken into care, or if the parents believe that insufficient care is being provided during an acute illness.

> "Male aged 36, daytime during the week. On the children's ward and it was to do with children being taken into care. The children alleged he was physically and sexually abusing them. He verbally abused me (social worker) and nursing unit manager. Mother was also verbally abusive. I got punched in the face and knocked unconscious." (354)

3. Isolated rural sites may be higher risk for a number of reasons. First, a limited number of staff are likely to be rostered, particularly at night. Second, there may be no medical officer resident in

small towns and it may take some time to attend to patients. Third, in some small towns there may be few, or no, police officers available locally and hence there may be a long wait for support when in danger. Fourth, older building designs may have failed to incorporate relevant CPTED design principles that reduce the risk of external violence (see Chapter 1 discussions).

> "A very drunk Aboriginal man wandered up outside at night (about 1 am). Had to get police. I think it might have been a Saturday night. He pounded on the glass of the front door and we spoke to him through the intercom and established that he wasn't hurt and didn't need medical attention. Only one registered nurse and one enrolled nurse on at time. He went from door to door across whole building trying to gain access ... I contacted police and was told they would send police from small rural town about 1½ hours away. An hour and a half later our local police arrived — the fellow was still going from door to door pounding." (318)

4. Finally, unmet expectation violence may result from misunderstandings about what the public health system can, and cannot, deliver to prospective clients/patients. This type of violence is more common in emergency and outpatient departments when there are long waiting periods. However, it can also appear in rural hospitals when relatives expect accommodation or other services, and may be a growing phenomenon among patients with private health insurance. For example:

> "Everyone that presents feels they should be seen straight away or in short period of time [in emergency] ... They don't understand how the public hospital system works and that they are not seen in order of arrival but in order of priority ... Sometimes it can have a snowballing effect. When one person becomes abusive, they rile up the rest of the waiting room. They'll ask each other, 'how *long* have you been waiting for?' They don't ask, '*what* are you waiting for?'" (286)

Variations in patterns of occupational violence across geographical/ administrative areas

Variations in patterns of violence between the different geographical areas where interviews were conducted were identified. These variations may reflect three core factors: (1) different client risk profiles; (2) variations in the size and design of health facilities; and/or (3) different strategies adopted in diverse areas to reduce the risks of occupational violence, including duress response planning and staffing. From the research data it was impossible to separate out unequivocally the impact of these three factors.

In Table 3, the forms of violence perpetrated in the 585 separate events are displayed, separated by the geographical area where the interviews were conducted. (Regions 1 and 2 are urban areas, and regions 3 and 4 are in rural localities.) It is important to note that a number of events involved more than one form of violence, for example, both verbal abuse and threats. Hence, the row and column totals exceed the total 585 events. In Table 3 (as in other tables) it is the *overall patterns* that are important, not variations between individual cells.

Patterns of violence were relatively similar across geographical areas, although there were more overall reports of violent events from interviewees based in the region Rural 4, and fewer assaults reported from the region Urban 1.

There are four further variations that are not fully revealed in Table 3. First, there was a decreased proportion of verbal abuse from relatives in the region Urban 2 (a comparatively more affluent urban catchment area) but a proportionate increase in abuse from clients, which may be related to increased reports of violence perpetrated by those with dementia. Second, while bullying was reported among all occupational groups, nurses were disproportionately victimised. Third, while assaults in all areas were commonly perpetrated by clients with dementia, in the region Rural 4 there were

increased reports of verbal abuse, threats and assaults from those affected by drugs or alcohol. (This is a locality reputedly characterised by an increased proportion of "alternative" lifestyle residents.) Fourth, across all regions where interviews were conducted, ambulance officers were subjected to significant levels of verbal abuse and threats from relatives/bystanders when they were called to attend to injured patients; some indicated that abuse was a "normal" part of the working day.

As already stated, the research data suggest that higher-risk people and situations may be concentrated in particular geographical regions, with rural and remote areas possibly at higher risk.[18,19] Further, some geographical areas have an increased proportion of younger, higher-risk, residents, for example, remote areas have, proportionately, far more young people and fewer people over the age of 45.[26,63] Conversely, hospitals in a catchment area with a disproportionate number of older residents may have decreased health care demands from younger local populations but have higher demands from older clients, including those with dementia.[48,49] A consistent pattern found across all four geographical/administrative regions where interviews were conducted, and for all health occupational groups interviewed, was that a greater proportion of the perpetrators were reported to be from lower socio-economic areas or groups. As one respondent stated:

> "... we live in an area where there are drug problems and high unemployment and I find these clients are the worst; a symptom of where they are at." (355)

A number of interviewees who worked in more isolated rural hospitals commented on the additional difficulties associated with not having a medical officer on site when patients with a wide range of conditions presented at emergency departments, and the increase in risk associated with limited staff numbers during evening and night shifts.

Thus, the pattern of violence in health care is complex, with increased risks of violence to staff in particular geographical areas due to:

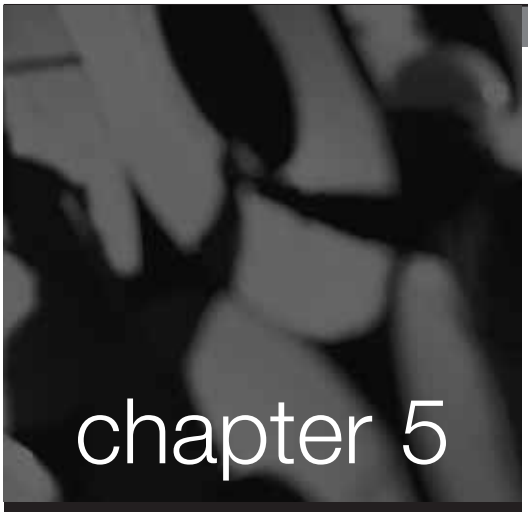
1. a concentration of higher-risk perpetrator groups in the catchment area (that is, young, male, lower socio-economic, and higher alcohol and drug affected);
2. inevitable delays from stretched resources in a high-demand region; and
3. increased proportions of patients with dementia.

Hence, while this study found that experiences of some forms of violence are endemic (that is, verbal abuse), particular risks need to be identified and managed at the local level. Perpetrator characteristics can also vary across sites and regions. Further research is needed to address these issues.

TABLE 3
Number of violent events in previous 12 months, by geographical region and type of event

	Number of events in previous 12 months involving:							
Region	*Number of persons*	*Verbal abuse*	*Threats*	*Assaults*	*Bullying*	*Other*	*Total separate events*	*Average events per person*
Urban 1	100	106	26	12	11	11		
Urban 2	100	103	32	24	11	9		
Rural 3	100	104	29	20	10	8		
Rural 4	100	134	44	24	10	16		
All	400	447	131	80	42	44	585	1.5

Notes: Interviewees could report multiple events. Each event was classified into one or more types of violence. Total events = 585; total interviewees = 400.



chapter 5

Perpetrators of occupational violence

Just as there is a range of types of occupational violence inflicted on health workers, there is also a range of characteristics commonly identified among perpetrators of aggression. The range of violent events described by the 400 interviewees (separated by perpetrator categories) is displayed in Table 4. Because many of these violent events included both verbal abuse and threats, and a number involved both clients and their relatives, some row and column totals exceed 100%. In Table 4, each cell has been displayed as a percentage of the total 585 events to enhance comparability between perpetrator categories.

Clearly, particular forms of violence tend to be perpetrated by specific types of perpetrators. The pattern of violence displayed in Table 4 indicates that:

1. clients were reported to be responsible for over three-quarters of all events;
2. clients were reported to be responsible for the vast majority of all assaults;
3. clients were reported to be responsible for the majority of threats;
4. the relatives or visitors of clients were reported to be perpetrators in nearly one-third of verbal abuse and threat events, but few assaults; and
5. other staff members were reported to be the perpetrators of the majority of bullying events. However, bullying was only a small proportion of all events reported by the interviewees. Hence, this form of violence may not contribute significantly to the overall adverse impact on workers in comparison with other forms of occupational violence.

The 80 assaults were separated out for analysis. The people with potentially high-risk behaviours for assaults were reported as suffering from dementia (30%; n = 24), affected by drugs or alcohol (16%; n = 13), or suffering from mental health conditions (12.5%; n = 10) (as well as a wide range of other circumstances). The most commonly cited perpetrators of threats of violence were also those with mental health conditions or dementia, those

TABLE 4
Percentage of violent events in previous 12 months, by category of perpetrator and type of event

Perpetrator	*Verbal abuse*	*Threats*	*Assaults*	*Bullying*	*Other*	*Any of these*
Client/patient	45	14	12	2	4	77
Relative/visitor	22	6	1	1	1	31
Other staff	8	1	0	5	1	15
Other	2	1	0	0	1	4

Notes: Interviewees could report multiple events. Each event was classified into one or more types of violence. Each event had one or more categories of perpetrators. Total events = 585; total interviewees = 400.

affected by drugs or alcohol, or those under significant stress. This finding is consistent with that reported by Brookes and Dunn for two Melbourne emergency departments.[53] Bullying was reported to be predominantly perpetrated by other staff members. Only verbal abuse was perpetrated by a spectrum of people (predominantly clients and their relatives).

Client/patient-initiated violence was reported to be most common when people were "not themselves" because of injury, illness, brain injury, dementia or a semi-comatose state, or while recovering from anaesthesia, suffering from a range of mental health problems, or affected by drugs or alcohol. Although physical assaults were commonly reported from dementia clients, the behaviour was frequently "explained away" by their medical condition. The absence of malicious intent by the perpetrator was an obvious factor that mitigated staff interpretations. The drug and alcohol-affected clients were reported by many staff members to be quite unpredictable and often irrational, and posed a high risk. Another specific group of people who were frequently cited as higher risk were those receiving services from methadone clinics or collecting needle "health packs". Many interviewees also commented on the additional strain of having to be constantly alert for the unpredictable and potentially severe forms of violence from these perpetrators (and some of their visitors). For example:

> "... He was a drug overdose. I went to put a urodome on him as he was unrousable to collect urine for drug screen. He suddenly sat up and punched me and he also kicked another nurse (my colleague) in the jaw. He smashed my nose which caused my glasses to fall off. It took six men to eventually subdue him." (134)

Relative/visitor-initiated violence was reported from across health occupations and hospital sites, and was directed to both female and male workers. While this pattern was frequently reported to be more common among people from lower socio-economic groups, some reported perpetrators worked in high-skill jobs. It was also frequently reported that many relatives and visitors were anxious and fearful of the health outcomes for their loved ones, and some may have believed that assertive behaviour towards staff might improve attention and treatment. A number of reported perpetrators were the parents of child patients, with a series of tense situations described by interviewees.

The majority of the verbal abuse from relatives and visitors occurred during five types of situations:

1. In ward situations when nursing staff (in particular) did not respond immediately to a request for attention.

2. When relatives and visitors were refused admission or asked to leave a ward when visiting hours were over.

3. When there were long waiting times in emergency or outpatient departments, or if appointments with health care specialists had been delayed or cancelled.

4. In paediatric wards when parents were fearful about the health of their child, etc:

> "Father of a sick child verbally abused, arrogant, swore. It was extremely busy [in emergency department]. We had three emergencies and his child had a rash and he demanded to be seen. It was 11 pm. I explained to him that people were dying and he said he didn't care; he wanted his kid seen no matter what so he could take him home to bed." (88)

5. Significant levels of aggression in some maternity and delivery wards were reported, with the perpetrators commonly identified as husbands and other family members. Two possible explanations have been identified. First, childbirth is invariably a painful process which is drawn out over a number of hours, particularly for women having a first birth. However, we live in a culture where analgesics are readily available, and used, to relieve minor ailments such as headaches. The inability — or perceived unwillingness — of delivery room health care staff to provide immediate and total pain relief to the mother-to-be may contribute to the levels of

aggression from already tense relatives. Second, some women, who planned to have a "natural" childbirth, may have waited until they were extremely stressed before asking for, or accepting, pain relief.

Relative and bystander violence was also relatively common for operational ambulance officers. For ambulance officers, these verbal abuse and threat events were commonly associated with intoxicated bystanders at car accidents or brawls, or were frequent during attendance at domestic violence situations:

> "You get your normal drunks and druggies who can be abusive. About once a month in past year. More at night time. Places vary, eg pubs, in people's houses; it just depends. Normally we don't enter a property if it's a ... known offender or job sounds as if it could be violent. We call the police and don't go in till it's safe." (194)

Internal violence from one staff member to another could involve verbal abuse, intimidation or public demeaning. The most common health care sites where this form of violence was perpetrated were operating theatres and day surgery wards, with medical officers and senior nursing staff frequently reported to be the perpetrators, and other nurses, junior medical staff and orderlies the recipients. On other ward situations, internecine violence *among* members of a health occupational group was usually (but not exclusively) reported between staff members at different levels within the same occupation, for example, between nurses rostered in maternity wards. Internal violence appeared to have a significant negative emotional impact on the victims, with recipients reporting considerable levels of anger and hurt. These negative consequences for recipients were consistent across all occupational groups investigated, for example:

> "Consultant abused me. I was away day before, and hadn't seen patient because I wasn't here. I was verbally berated; very uncomfortable. Said I had to take job seriously. It's a personality-based thing. It was in front of half a dozen people in change room. It was a dreadful day. I felt wretched. He cast aspersions at my clinical care which were totally unfounded and hurtful. It was a personal attack ... I still work with him — and keep him at arm's length." (185)

> "Male about 40–45, during the day. Happened about four times in last 12 months. Usually on a day with lots of people around but at a moment when they are all busy — a selected period when no one would notice. He typically acts in capacity of a supervisor and passing on an order, and he shouts and rants and swears unnecessarily. My name gets sullied and his doesn't. I'm on the cusp of writing my resignation." (398)

Hold-up-related violence was rarely reported. Nevertheless, there is a potential for this form of violence to increase substantially over time. For example, if hospital ward drug cupboards are perceived to have "soft" security, they may become increasingly "attractive" to desperate offenders:

> "In theatre about 7 pm. As I was coming to recovery room I saw guy with blood on face and looked like a drug addict and he had a jack crowbar and a long screwdriver. He was trying to break through the medicine cabinet but he released it when he saw me ... I called security and they came after 20 minutes." (155)

A greater proportion of the perpetrators were reported to be male (or a male together with a female). The perpetrators were identified as male in 49% (n = 289) of the 585 events, female in 23% (n = 134), both male and female in 5% (n = 27), and the gender of perpetrators was not stated in 23% (n = 135). For assaults, the pattern of disproportionate male gender among perpetrators was even stronger. Of the assault perpetrators, 54% (n = 43) were male, 31% (n = 25) were female, 4% (n = 3) of events involved both males and females, and in 10% of assault events (n = 8) the gender of perpetrators was unknown. That is, according to the interviewees, males show more aggression towards health workers than do females. Thus, preliminary evidence from this sample of 400 interviewees is consistent with the 65% male perpetrator ratio

reported by Brookes and Dunn for two Melbourne emergency departments, Australian criminological data on perpetrators of violence in the community, and international evidence on violence in the health industry collated by Di Martino.[20,53,64]

Non-English-speaking background perpetrators were overrepresented in the reports of violence in one geographical/administrative area (Urban 1). This pattern may be the result of five interrelated factors: (1) some catchment areas included a greater proportion of NESB residents than did others; (2) some NESB people may have greater difficulty in understanding comments or instructions that are spoken or written in English; (3) there may be variations in the respect that is "due" to males versus females in different cultures; (4) there may be different guidelines and expectations about appropriate behaviour by relatives and visitors in their country of origin compared with Australia (such as adhering to visiting hours or the number of visitors permitted at any one time); and/or (5) some cultures may be more "openly expressive" than others, with assertive verbal interactions normalised.

In maternity/delivery wards, there were intermittent reports of verbal abuse and threats by some Muslim men whose wives were being delivered by male medical officers or male midwives. There are two potential explanations: (1) the male staff members are being defined by their gender, with the perpetrators less able to accept male medical officers and male midwives as professional health care workers; and/or (2) some Muslim men may believe that their wives' private body parts are not to be viewed by other males. While the staff reportedly tried to respect the wishes of such expectant couples, their preferences were not always able to be met. As one midwife stated:

> "These people know when they book into a hospital to have their baby that there are male doctors and if their wife has to see a doctor that's who she has to see ... They can't see it's a professional thing, not a sexual thing." (27)

Both male and female Indigenous Australians were repeatedly cited to be higher-risk perpetrators of violence, particularly in more remote locations. This reported pattern may be correlated with four interrelated factors: (1) a misunderstanding that the refusal or restriction of health care services is based on ethnicity rather than limited resources; (2) unrealistic expectations of what health care providers can deliver in the way of support, accommodation and meals for the relatives of patients; (3) the potential for Aboriginality to be inappropriately linked with, and blamed for, alcohol-related aggression; and/or (4) Indigenous Australians may be concentrated in socio-economic groups where severe economic stress is concentrated. Particular risk factors for remote area health workers have been comprehensively discussed by Fisher et al in the context of specific scenarios.[36] Similarly, Mayhew and Vickerman have identified a range of specific risks and stressors that are faced by Indigenous human service workers in Queensland, as has Williams in her comprehensive study in South Australia.[65-67]

Private health insurance may encourage elevated expectations of what the public health service can deliver compared with public patients who are without coverage. Those patients and their relatives with private health insurance may therefore make more assertive demands. For example, in a hospital in the region Urban 2 (a more affluent locality), it was reported about one patient that: "... she didn't want to be moved from a single room to a shared room but she wasn't acutely ill and we needed the single room." (162) However, all interviewee comments about violence associated with private health insurance coverage and expectations referred to verbal abuse only. Nonetheless, if people with private cover are concentrated in particular localities, the risk factor for verbal abuse may be similarly concentrated.

Consequences for perpetrators of occupational violence

It was of interest to know whether the perpetrators of violence received any negative consequences from

their violent activities. While it may be inappropriate to sanction the perpetrators of low-level violence who suffer from dementia, such inhibitions may not apply to violence from relatives/visitors. Hence, all 400 interviewees were asked whether there were any consequences from any of the 585 violent events experienced over the previous 12-month period. The distribution of consequences appears in Table 5, separated by health occupation. (Note: consequences were not specified for 33 of the 585 violent events. Where two events had been cited, and only one consequence was reported, this was recorded as 0.5 for each of the two violent events.)

The data in Table 5 (together with the qualitative transcripts) indicate that:

— at least 50% of perpetrators experienced no negative consequences following their inappropriate behaviour;

— few perpetrators were prosecuted following violent acts;

— perpetrators of violence against nurses and medical officers were least likely to experience any negative consequences;

— a verbal warning from a nursing unit manager or security officer was the most common consequence experienced by those perpetrators who did experience any negative repercussions; and

— only among ambulance officers was violence routinely reported to police — usually because police were already on site after being called to the same events, for example, brawls or car crashes.

The gathered information suggests that the current system of sanctioning perpetrators is seriously deficient. Some perpetrators appear to repeat their offences with impunity. Innovative strategies may have to be devised for aggressive clients who are in need of medical care. The UK National Health Service trial of issuing "yellow" warning cards to clients who behave inappropriately could perhaps be considered for the Australian health industry.[48,49] In the UK, if a number of warnings have been issued and the inappropriate behaviour continues, a "red" card which withholds treatment is provided (mental health clients are excluded from these sanctions). There are also lessons from criminology where it has been found that *certainty* of sanction is a greater deterrent than increases in the *severity* of punishment.[68] A similar increase in the effectiveness of sanctions with widespread application, but limited severity, has been reported for OHS prosecutions.[69]

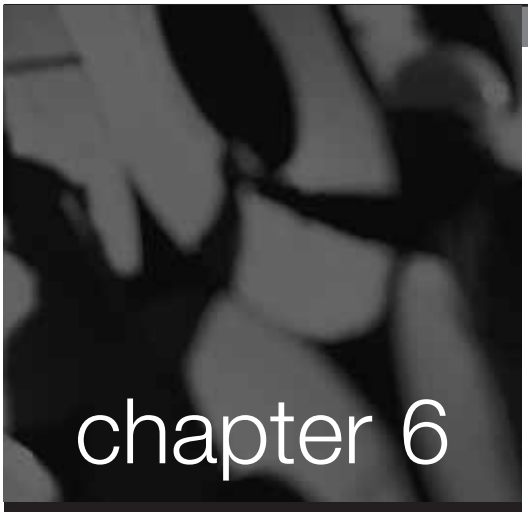
More direct and blunt sanctions can be enforced on those relatives/visitors who perpetrate violence against health care staff, including exclusion, restriction of visiting rights, or prosecution where appropriate. The development of codes of conduct, or visitor guidance materials (printed in a number of community languages), may be important first steps.

TABLE 5
Percentage of violent events by consequence to perpetrator, by occupational group (% of total 585 violent events)

Occupational group of victim	*None*	*Verbal warning*	*Care discontinued*	*Report to police*	*Prosecution*	*Don't know*	*Other*
Allied health	44	8.5	6	5	1	3	12
Ambulance	45	8	1	31.5	1	7	5.5
Ancillary	45	15	–	6	–	12.5	16
Medical officer	50	9	–	12.5	–	–	18
Nursing	61	20	1	4	–	5	8
Total consequences	54	15	1	8.5	0.2	5.5	10

Notes: Interviewees could report multiple events. Total events = 585; total interviewees = 400.

Similarly, sanctions imposed on the perpetrators of internal violence are likely to have an immediate impact if such behaviours are reported, the penalties are widely publicised, and the strategies appropriately implemented. Initial steps have already been taken against serial offenders in some geographical/administrative areas and this strategy appears to be having an impact.



chapter 6

Reporting of occupational violence

Prevention efforts are usually initiated following objective assessments about the extent and severity of violent events (based on information recorded in official data sets). For this reason, each of the interviewees was requested to identify whether each violent event had been reported and, if so, to whom. In Table 6, the person to whom violent experiences were reported is shown. The two left-hand columns list the occupational group and total number of events experienced over the previous 12-month period. The two right-hand columns list the total number of events that were reported to one person or another, and the percentage of the total 585 separate violent events that were reported. The middle six columns list those people to whom violent events were reported. (Some events were reported to more than one person, for example, to a supervisor and a friend.)

The information contained in Table 6 indicates that:

— Fifty-four per cent of all events were reported to one person or another, with the supervisor the most common person to be verbally informed about a violent event, and an OHS coordinator the least. A similar finding that 50% of violent events were reported to one person or another was identified in a survey of managers of psychiatric units in New Zealand.[70]

— Among occupational groups, medical officers were least likely, and ancillary staff most likely, to report a violent event.

— One important caveat is that, while the ambulance data were reported in a similar fashion to the other health occupational groups, their recording systems are likely to have been quite different from those of the other health care workers.

— Reporting was *not directly* related to the severity of violent events, with many assaults going unreported.

TABLE 6
Number of violent events in previous 12 months, by health occupational group and person to whom event was reported

Occupational group of victim	*Number of events*	*Hospital/ service*	*Supervisor*	*OHS coordinator*	*Police*	*Friend*	*Other*	*Number reported*	*% reported*
Allied health	59	4	15	2	2	6	5	30	51%
Ambulance	83	6	17	2	8	–	5	38	46%
Ancillary	76	11	32	–	–	2	14	51	67%
Medical officer	56	3	7	–	–	–	2	11	20%
Nursing	311	22	123	3	6	9	37	184	59%
Total reported	–	8%	33%	1%	3%	3%	11%	–	54%

Notes: Events were reported to one or more persons. Total events = 585; total interviewees = 400.

— Non-reported assaults appeared to be most common in ward/site situations where violence was "normalised", and where staff were caring for clients who had limited control over their behaviour. Four typical contexts when assaults went unreported are presented:

> "There are so many: spitting, Chinese burns by patients, kicking by patients. These things happen to me personally about once a fortnight. The verbal abuse is about twice a week. It's just the confusion, delirium. Never report — comes with the territory." (149)

> "Hit in the face by elderly gentleman with fractured neck of the femur ... It came out of nowhere." (101)

> "An outpatient in accident and emergency; a male aged about 30 with a drug overdose. We were trying to get his jumper off to take his blood pressure and he grabbed hold of my arm ... had a bruise on my arm from it." (224)

> "We have a female patient aged 12 who comes in regularly. She has autism. Every time she comes in she's always violent." (373)

— The data in Table 6 indicate that only 8% (n = 46) of violent events were reported to the hospital/service. All interview transcripts were scrutinised to see if any other comments about completion of official violent event forms were made in the qualitative data, and a further seven were identified making a total of 53. (The qualitative data indicated that reports to supervisors were frequently informal.) For example, events that were reported to police *may* have found their way into hospital records. If the total 53 hospital/service and additional event reports, and the 16 police referrals, were all forwarded to relevant departmental data banks, then a maximum of 12% (n = 69) will have been formally recorded. That is, based on this sample of 400 health workers, it is estimated that between 8% and 12% of all violent events are formally recorded on official databases.

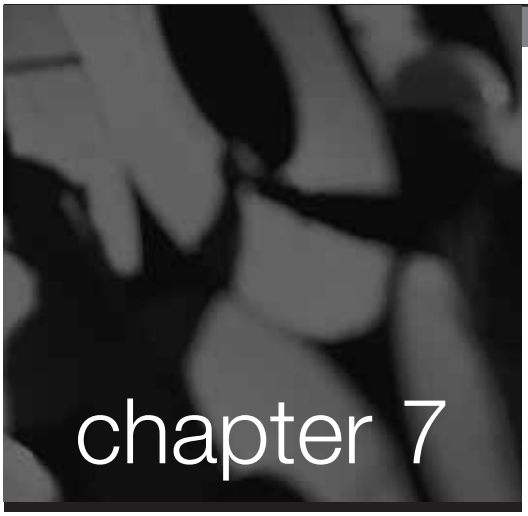
— The international research evidence suggests that 10–20% of violent events are formally reported; as such, the study findings are within this (low) international range. It needs to be recognised that these low levels of reporting are not sufficient, on their own, to fully and effectively guide OHS policy and strategies.

— A greater proportion of the assault events were formally reported. Of the 80 assaults, 17.5% (n = 14) were reported to the hospital/service, to an OHS coordinator, or through a violent event report form. A further 7.5% (n = 6) were reported to the police. That is, an estimated 25% (n = 20) of assaults are likely to be officially reported. It should be noted that all four assaults that resulted in an injury were formally reported.

— Internal violence (or bullying) was rarely reported for a range of reasons, including fear of repercussions and/or a stated belief that no positive changes were likely to result. Thus, innovative strategies and procedures that protect recipients, and ensure follow-up action, may need to be devised and implemented.

Given the low proportion of violent events that are formally reported — and hence collated in official data banks — it would be difficult for any health service to have a clear understanding of the patterns of occupational violence, risk factors, higher-risk clients, or scenarios where staff might be more vulnerable. Most importantly, without comprehensive data it is virtually impossible to tightly target preventive interventions.

To summarise, in each of the Australian States and Territories where few occupational violent events are formally reported, CEOs, hospital superintendents, unit managers and supervisors are likely to have greater difficulty in identifying the precursors to violence and potential perpetrators, and in initiating prevention strategies that are relevant to the risk factors. Thus, health workers who owe a "duty of care" to their co-workers, subordinates and others on a site (under the OHS regulatory framework) are likely to be hamstrung in meeting their obligations.



chapter 7

Conclusion

The scientific research literature and criminological data had indicated that the patterns of violence experienced by Australian health care workers were likely to be complex and that, overall, the *specific* risk factors for violence were largely unknown. Only limited studies had been conducted which were usually confined to specific areas, for example, emergency departments. This lack of complete and objective information has hindered the development of evidence-based prevention strategies and policies. A comprehensive empirical study was deemed necessary to indicate overall trends and to identify risk factors. As such, this research study was devised to establish some baseline estimates of the extent and distribution of violence, to identify higher-risk settings, and to highlight characteristics of the perpetrators. (While patient-on-patient violence may be an issue in some sections of the health industry, this study did not assess these patterns of violence.)

This research study was completed over an intensive seven-month period to provide baseline estimates of occupational violence among an Australian public health workforce. It was found that patterns of occupational violence in the health industry were a complex web involving higher-risk settings, perpetrators with particular characteristics, and higher-risk scenarios.

Although verbal abuse was found to be endemic and threats were common, assaults and bullying were comparatively infrequent (although totally unacceptable, even at minimal levels).

While external violence appeared to be an uncommon experience for health care workers, the risks may increase over time. These risks may be concentrated around retail outlets in health care facilities and where pharmaceuticals are poorly secured.

Client-initiated violence was found to be a relatively common experience, particularly for those health care workers who had extensive face-to-face contact with clients who were distressed, frightened, inebriated, ill or angry. Assaults were predominantly perpetrated by clients who were suffering from dementia or a mental health condition, or who were drug or alcohol-affected. While verbal abuse also came predominantly from clients, their relatives and visitors also commonly offended. These findings are consistent with the patterns reported in international studies. The international research studies also suggest that the health workers most at risk are those in emergency departments, the ambulance service, mental health units, and drug and alcohol clinics. Again, this international pattern was replicated in the Australian study. Workers in the aged care industry also reported a number of violent events — a pattern that may escalate as the level of care for residents in facilities rises over time and the proportion of clients/patients with dementia and other cognitive disorders increases.

Internal violence had a quite different profile, with most events perpetrated by one staff member against another. The international research studies indicate that bullying is most common in organisations where dominant/subordinate hierarchical relationships exist and during periods of significant organisational change. Clearly, staffing in most Australian hospitals is based on a hierarchy, with the majority of public sector facilities across the nation under significant financial strain.

There was some evidence to support the hypothesis that the characteristics of perpetrators of violence against health care workers mirrored those of violent

offenders in the community.[19,20] Similarly, recent international studies of violence in the health industry have reported that perpetrators are disproportionately male.[71]

In addition to this "normal" profile of perpetrators of violence, health care workers also reported commonly being victimised by those suffering from a mental health condition or dementia. For example, 30% of all assaults cited by the interviewees were committed by patients with dementia, 16% by those affected by drugs or alcohol, and 12.5% by clients with mental health issues. Similarly, recent international studies of violence in the health industry have reported that perpetrators are disproportionately affected by psychotropic substance abuse (including "problematic alcohol use"), or have symptoms of severe mental illness that are not being adequately identified or controlled through therapeutic regimes.[71]

These perpetrators generally escaped sanction, with the most severe outcome likely to be a verbal warning from a nursing unit manager or security officer. Some perpetrators were reported to be serial offenders.

The reporting of occupational violence was unreliable with, at best, around 50% of events informally notified to one person or another. Formal reporting was *not directly* related to the severity of events. Formal reports were estimated to be completed for 8–12% of all violent events. However, around 25% of assaults were fully reported, including all four events where an injury resulted. Thus, the official databases are unlikely to represent accurately either the approximate annual incidence rate per employee, or the severity of violence experienced by public health workers.

Recommendations

A series of recommendations to reduce occupational violence in the public health sector were identified through this research study, beginning with government policy initiatives, widespread publication of these, and firm backup action.

— A zero tolerance of violence (or related) policy is a core policy initiative. The first step is CEO commitment to enhance recognition of this problem among clients and their visitors, and to provide impetus to a range of prevention strategies. The second step is an enhancement of CEO understanding about their duty of care obligations under the OHS regulatory framework for ensuring a safe workplace and process of conducting work. Third, a widespread publicity campaign against violence is an important and necessary accompaniment to ensure that expected standards of behaviour are known prior to the provision of treatment, wherever possible. Nevertheless, alternative strategies will need to be emphasised with violent patients who lack "intent" or the capacity to understand their actions.

— Crime Prevention Through Environmental Design principles need to be formally adopted and incorporated into the design of all new facilities and their immediate surroundings. As the literature review identified, CPTED strategies are a long-term and effective way to "design out" many risks of violence during the early design stage, as well as during refurbishment, of health care sites. The constructs of CPTED are well known in criminology, but have only recently begun to be considered within OHS and are, arguably, poorly understood among health facility designers. These strategies are likely to be particularly useful in high-risk sites such as emergency departments, methadone and needle exchange clinics, mental health units, child/paediatric wards, maternity/delivery suites, and in more remote sites where backup is not close at hand. Simultaneously, comprehensive CPTED strategies may well enhance staff *feelings* of security, particularly during night hours. These principles may need to be adapted to site-specific risk factors. For example, emergency departments can be designed with patient waiting areas overlooking the ambulance bay so that clients are more likely to be aware of the acute emergencies being attended to. If the aim is to ensure that clients/patients behave appropriately in circumstances of stress, it is important that the

environment is supportive and humane. For example, waiting areas can be designed to be comfortable with appropriate supports provided, such as access to cold drinking water. Improved communication about delays in the provision of services can also reduce the risks, for example, misunderstandings and tensions associated with long waiting times may be reduced. The authors strongly recommend that all new building designs and refurbishments incorporate CPTED principles that are adapted to localised risks.

— Violence vulnerability audits can be conducted on a regular basis to ensure that threats continue to be reduced as the risk factors alter over time.

— The risks faced by community health workers need to be addressed. There is a range of technological strategies that reduce the risks for those working away from base. For example, hand-held Global Positioning System personal duress emergency alarms may reduce the risks where they are appropriately linked to response systems (in geographical areas where these exist). Global Positioning System alarms link with satellites, pinpoint the position of a worker within metres, are activated immediately by pushing a button, look like a mobile phone, and can be carried in a pocket or fitted in a car. As the technology is constantly being upgraded, innovations will need to be monitored.

— Emergency response and assistance can be streamlined through careful planning and regular practice drills.

— Duress alarms and closed circuit televisions can be fitted to the higher-risk emergency departments, mental health units, maternity/delivery suites and child/paediatric wards. Particular attention could be paid to those rooms/facilities where only one person may be working at a time, for example, radiology services during weekend call-outs.

— Needle exchange guidelines can be reviewed in consultation with stakeholders, the OHS community, unions, police and local government, and with the assistance of people with in-depth CPTED knowledge.

— Consideration needs to be given to the appropriate penalties for perpetrators of violence, particularly serial offenders. Appropriate responses may vary across perpetrator groups (client/patient, relative/visitor, other staff, intruders), for different types of violence (verbal abuse, threats, assaults, bullying or "other", for example, spitting at staff), and for different conditions (for example, patients with dementia, or those having minor surgery).

— The zero tolerance of violence by clients/patients needs to be enforced, as the sanctioning of offenders is likely to decrease the incidence. As noted earlier, the *certainty* of sanction is likely to be a greater deterrent than is an increase in the *severity* of the penalty. Publicity about the application of sanctions will inform the community that the CEO is serious about zero tolerance.

— The zero tolerance of violence by relatives/visitors needs to be enforced. While the application of sanctions against violent patients may be mediated by compassion for their condition, such considerations are unlikely to apply to violent relatives/visitors. The development of a code of conduct for relatives/visitors of patients is one way to clearly define expected behaviour, as well as rights and responsibilities.

— A zero tolerance of bullying policy needs to be enforced. International research studies repeatedly report that the majority of bullying recipients do not lodge complaints — they resign. Thus, a zero tolerance of internal violence (or related policy) may help to stem the loss of nursing staff (in particular). Many Australian public health workforces have policy statements on bullying, harassment and discrimination. What now remains is for these to be seen to be *enforced* at the local level. That is, all reports need to be investigated, with perpetrators firmly sanctioned (irrespective of their position in the hierarchy). The international research evidence also clearly indicates that firm CEO commitment to anti-bullying (with sanctioning of the perpetrators) is the most effective way to stamp out this behaviour.

— Formal reporting of all violent events needs to be encouraged so that preventive interventions can be

more tightly targeted. This research study indicated that around 50% of all violent events were *verbally* reported to one person or another (usually a supervisor). However, only around 10% of all events were *formally* recorded, and approximately 25% of assaults. More accurate data may be collated if all supervisors are provided with appropriate resources, instruments and pathways by which to notify easily a central database about all forms of violence. The implementation of a confidential electronic reporting system that is eventually integrated into a centralised database for violent events is likely to be of enormous long-term use.

— Health workers need rapid backup when a violent event occurs. The research study indicated that many health workers felt much safer when security officers were on site (particularly at night, on higher-risk wards, and at more isolated sites). The recruitment of dual role staff members (such as orderlies) who assist with both general health care tasks and who have undergone appropriate security training may help reduce fears of vulnerability to violence.

— Improved communication with patients/relatives is essential when there are lengthy waiting times, with clear explanations provided about why some conditions are prioritised.

— All staff with patient contact need aggression minimisation training, and retraining, at appropriate intervals. Evidence was found of a widespread belief that aggression minimisation training assisted with the development of de-escalation skills, and enhanced feelings of capacity to cope with verbal abuse and threat situations. While no unequivocal evidence was found that training aided the prevention of violence, many interviewees stated that they felt safer and had more confidence in their ability to de-escalate events when they had recently undergone training.

— Since medical officers commonly indicated that they did not know who to go to for advice on the prevention of violence if this was required, it is recommended that information about occupational violence contact officers and reporting protocols be emphasised during induction sessions.

— A number of staff members were fearful of victimisation while walking to or from their cars, particularly after daylight hours. The redesign of access routes to car parks and public transport and a security presence may assist in reducing these fears.

— It is recommended that substantive empirical research studies be repeated regularly to provide a basis for monitoring violence levels, and to evaluate the effectiveness of prevention programs in the various public health workforces in Australia. In any subsequent studies, it may also be useful to: (1) assess the perceived precursors to violent events; (2) evaluate the effectiveness of specific prevention initiatives in higher-risk settings; (3) assess the health service delivery environment from the perspective of clients/patients and their relatives; and (4) compare the data from this study with larger samples of secondary data which have been collated by health departments (including reported violent events from mental health units, workers compensation insurance claims data, etc). The findings from this preliminary study provide a basis on which to measure changes.

There are resource implications associated with some of the above recommendations. Resources are a sensitive issue. Nevertheless, improved working conditions in general, with greater personal security, are likely to result in enhanced staff morale, increased productivity and decreased turnover. Thus, the cost/benefit equation may well balance.

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Definitions

Assault:	a threatening act that results in physical harm to a worker.
Bullying:	repeated behaviour that a reasonable person would consider offensive, including intimidation, humiliation, ridicule, degradation or insulting activities.
Threat:	a declaration of an intention to punish or hurt a worker or his/her family.

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