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Protecting the Occupational Health and Safety of Police Officers

Claire Mayhew

Protection of the health and safety of police officers is fundamental to good operational policing. As shown in Trends and Issues paper number 196, the patterns of injury, illness and homicide amongst police officers are often predictable. Knowledge about high-risk situations and offenders enables appropriate prevention strategies to be implemented to reduce the risks. This paper is based on international research and outlines a range of preventive strategies.

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Director

Each police department in Australia is responsible for the development of comprehensive occupational health and safety (OHS) policies and strategies so that legislative requirements are met. There is a legal requirement for police departments to ensure a safe and healthy place and process of conducting work. This duty is called up under the OHS Acts in each Australian State and Territory. Of fundamental importance is the commitment of Chief Officers, as well as the establishment of a good working relationship with the OHS Inspectorate. Strategies need to be implemented that ensure regular formal risk assessments, implementation of effective technical control strategies, integration of preventive OHS into all procedures, consultation with staff, ready access to specialised OHS advice, appointment of OHS representatives and access to OHS training (HSE 1999; Beckley 1996). Some key aspects are detailed below.

Engineering and Technical Interventions to Reduce Risks

The development and use of protective body armour, sprays, unarmed combat skills and other technical controls have saved the lives of many police officers.

Body Armour

Research and development over three decades has produced lightweight, effective and comfortable body armour made from new fibres such as Kevlar and Spectra (Spring 1999; Stevens 1999; Estey 1997). Very detailed testing procedures are conducted as different materials offer varying levels of protection against different ballistic threats. Research has found that the risk of a firearms-related fatality for a United States officer not wearing body armour is 14 times higher than for one who is (Knight 1999; Estey 1997). The first documented instance of a United States law enforcement officer's life being saved through the wearing of body armour was in 1973. By 1999, 2,325 lives had been saved (Knight 1999; Estey 1997). Research and development work is continuing as better ballistic materials are identified and tested,

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and vest construction is improved (Paynter 1999). While vests were initially uncomfortable and hot to wear, the comfort of newer models has been compared with wearing a car seat belt (Spring 1999; Stevens 1999). A combination of materials optimises effectiveness. For example:

> Our goal is to provide a lightweight package that officers will wear…The design phase involves selecting fabrics then arranging them in the most effective way. Each material offers different properties, making the order of placement within the vest important. (Paynter 1999, p. 51)

The impact of a gunshot wound on an officer wearing a vest is now similar to a hard punch to the chest (Lloyd 1989). Undergarment ballistic vests are preferred as they cannot be seen by offenders and are less likely to provoke a shot to a part of the body not covered by the armour (Lloyd 1989). In extreme high-risk situations, both undergarment and outer vests can be worn to increase the level of protection (Lloyd 1989).

Body armour should be issued as a standard piece of equipment to reduce fatalities, the impact of assaults, and chest injuries from car crashes or falls (Spring 1999; Stevens 1999). Unfortunately, routine use is not uniformly compulsory; the key influence is management enforcement. The New South Wales Police Association "encourages each and every member who is involved in operational duties, even partially, to consider applying for an undershirt BRV" (Spring 1999, p. 23). The compulsory wearing of vests can be compared with builders putting on safety helmets or firemen wearing protective clothing (Stevens 1999). One officer who survived three incidents with armed assailants has stated:

> If there were one common thread among these three deadly encounters, it would be that as my tour of duty began on these fateful days, there was no premonition or forewarning that the days would be anything but routine. You can't guess which days to wear your vest; you must wear it during every tour of duty, no matter how uncomfortable. (Knight 1999, p. 49)

Reducing the Risks of Assault Through Capsicum and Other Sprays

While the retail sale of oleoresin capsicum spray is being widely debated, the risks to police officers from exposure have received little attention. Police can be exposed in three ways: by an offender; inadvertently by a fellow officer during an arrest or public disorder incident; or accidentally through ignoring guidelines (Lein 1996). Where an offender deliberately sprays an officer, there are a number of possible responses:

- grab the offender immediately in a controlled manner and physically contain him or her on the ground until help arrives;
- wait with eyes closed for 10 to 20 seconds until the spray dissipates (probably a poor option);
- extend hand towards spray to deflect the spray;
- close eyes quickly and tilt head down to limit exposure; or
- hold breath to limit inhalation (Lein 1996).

However, grappling an offender while partially incapacitated requires skills in unarmed combat.

Reducing the Risks Through Unarmed Combat Skills

Since the majority of assault-related injuries result from unarmed attacks against police, greater proficiency in defensive tactics may reduce the incidence (Kaminski & Sorensen 1995). Physical training is also needed for officer protection during body searches, particularly when searching dirty offenders. Police in the United States have expressed displeasure at searching the groin area of suspects; hence, this is an area where offenders frequently hide weapons and contraband—and some have subsequently shot officers with concealed handguns (Pinizzotto, Davis & Miller 1998).

Reducing the Risks from Unintentional Firearm Discharge

The risk of injury from unintentional firearm discharge can be reduced through:

- adherence to firearms safety rules;
- enforcement of regulations accompanied by the dispensing of appropriate discipline;
- loading and unloading only at approved places;
- peer pressure on officers who do not follow approved procedures;
- high standards of firearms training;
- regular practice at ranges; and
- avoidance of complacency in the handling of firearms (Button 1999).

Reducing the Risks from Laser Pointers

Laser pointers, which are commonly used in lectures and classrooms, can damage the retina and cornea of eyes, and their use on an officer who is driving is a traffic hazard. Recommendations made following the exposure of United States police to laser pointers include:

- legislation that prohibits pointing a laser at police;
- confiscation from those who misuse lasers;
- education of all police about the dangers, as well as the various types and classes of lasers available; and
- training on how to handle offenders and mischievous adolescents who have laser pointers in their possession (Burke 1999).

Reducing the Risks During Raids on Illicit Drug Laboratories

Clandestine laboratories are a growing problem in Australia. There are a number of clues that indicate one is operating (for example, there are often minor explosions and fires). However, criminals need ingredients to manufacture illicit substances, so police can be assisted by chemical company or chemist alerts (Graham 1996). Common precursor substances needed to manufacture amphetamines

include benzylmethylketone, ephedrine and pseudoephedrine (Graham 1996). Offenders may:

- ask about availability of precursor substances (sometimes mispronouncing chemical names);
- not appear to be worried about cost;
- advise that they are making perfume;
- not leave a call-back phone number or provide a phony business name;
- pay in cash;
- ask for other reagents or glassware after supply;
- not be an established customer;
- require chemicals to be shipped to post office boxes; or
- purchase unusual quantities or combinations of chemicals (Graham 1996).

It is important to remember that the purchasers of these chemicals —as well as the "cooks" in a clandestine laboratory—may be addicted or dangerous and will probably attempt to destroy evidence if under threat.

Officers on a clandestine laboratory raid need to be specially trained, line up emergency medical and other assistance, and ensure a forensic chemist or occupational hygienist is at hand. A forensic chemist is of core importance in the identification of the likely substance being manufactured, to provide assistance with establishing grounds for obtaining search warrants, advise on personal protective equipment, specifying requirements for dismantling, packaging and transporting evidence, and in detailing clean-up procedures (Graham 1996). Virtually all amphetamine production involves heating different chemicals; hence, there is potential for spills, poisonous vapours (some of which are odourless) or explosions. Officers on a raid should:

- wear the appropriate personal protective equipment;
- have access to respiratory protection in the form of half- or full-face respirator masks or self-contained breathing apparatus;
- read the labels on seized containers (but not rely on these, as labels may have been switched);
- keep offenders' clothing to identify residual chemicals; and
- ensure full decontamination of all equipment and clothing on exit (Hargreaves 2000; Laska 1997; Sheldon 1997).

Police on clandestine laboratory raids should never mix any chemicals, use tools or devices that produce sparks, turn light switches on or off, or connect or unplug electrical devices. All officers should have ready access to Material Safety Data Sheets either in the standard paper form or online (Lauer 1993). Survival tips include the wearing of body armour, pre-raid briefing so everyone knows what other officers look like, unity of command, superior numbers and weapons, maintenance of surprise and the appointment of an operational safety officer (Garner 1994).

Specialised clandestine laboratory training is essential. In Queensland this specialised unit is the Illicit Laboratory Investigation Task Force which resides within the State Drug Investigation Squad (Sheldon 1997). In New South Wales the Police Commissioner has stated:

> Law enforcement personnel shall not in any circumstances attempt to dismantle a working laboratory in the absence of a qualified and trained chemist, experienced ground support personnel and safety equipment. Hazardous waste is not to be handled by police personnel or stored in police service premises. (cited in Lauer 1993, p. 4)

If an officer unexpectedly encounters a clandestine laboratory, there are fundamental rules to follow:

- notify specialised police unit;
- leave and secure the area;
- remove exposed persons;
- do not smoke, touch, taste or smell equipment or chemicals;
- ensure no attempt is made to remove any machinery or turn off water, electricity or fans;
- remain upwind;
- leave electrical and light switches as found; and
- immediately contact the electricity authority (Hargreaves 2000; Sheldon 1997).

Reducing the Risks of Contracting Communicable Diseases

Information about communicable diseases should be provided to all police officers. This information should cover:

- the concept of "universal precautions"—all human blood and most body fluids should be treated as if they contain HIV / AIDS, hepatitis B, hepatitis C and other pathogens (Flavin 1998). Thus, if administering mouth-to-mouth resuscitation, a mask with a one-way valve should be used (Laszlo & Ayres, cited in Flavin 1998). These should be routinely ordered and placed in the first aid container;
- how HIV / AIDS and hepatitis B and C are (and are not) transmitted;
- the risks associated with performing resucitation, being bitten by an offender or having blood splashed into an eye;
- the importance of wearing latex gloves at all crime scenes involving blood and body fluids. Also, the need to wear personal protective equipment whenever there is a possibility that the eyes, nose or mouth might be splashed. In the case of major blood spills with sharps, latex gloves should be long enough to cover wrist cuffs of overalls (possibly double-gloved to reduce permeability) and officers should wear goggles or protective glasses with side shields, a mask, boots or overshoes, waterproof overalls, and an additional apron made of impervious material;
- the need to dispose of needles and sharps very carefully (Heiskell & Tang 1998; Zakroczymski 1989).

All police officers should receive innoculations against hepatitis B (Zakroczymski 1989).

Infected offenders have been convicted of attempted murder after biting or sticking a needle into an officer, with judgments based on criminal intent rather than the actual risk of infection (Flavin 1998). Conversely, police

may be subject to legal liability if they do not help injured people through fear of contact with infected blood, if officers violate an offender's right to privacy about their communicable diseases, or if police illegally draw blood samples (Flavin 1998). Bigbee (1987) provided early guidelines to assist the prevention of disease contracted through exposure to organisms at crime sites:

> The first line of defence against infection at the crime scene is protecting the hands and keeping them clean and away from the eyes, mouth and nose…When you are completely finished with the crime scene, or if you leave temporarily, wash your hands thoroughly with soap and water…under no circumstances should anyone at the crime scene be allowed to smoke, eat, drink or apply makeup. Shoes can become contaminated with blood, which can then be transported… (Bigbee 1987, p. 26)

Further, he states:

> …surgical masks and protective eyewear should be considered when the possibility exists that dried blood particles or drops of liquid blood may strike the face or eyes. A mask and glasses will not protect you from viruses due to their minute size, but will certainly help prevent dried or liquid blood particles, which contain viruses, from entering the mouth, nose or eyes…use the utmost care to prevent a cut or puncture of the skin. (Bigbee 1987, p. 27)

Administrative Policies, Strategies and Training to Reduce Risks

Prevention strategies should be holistic and directed to the organisation as well as to individual officers. Departments should also decide on policies for off-duty police; for example, should they carry weapons, what should they do if they witness a crime, and how should they identify themselves if they meet on-duty police (Davis & Pinizzotto 1996). The majority of police departments now have specialised OHS units to coordinate strategies and provide information, support and training to officers. Unions also have access to a wide range of OHS resources.

Improved Data to Identify High-Risk Situations

Comprehensive data allow more accurate identification of high-risk situations and the development of tightly targeted prevention strategies. Data needs include:

- comparable reporting classifications across jurisdictions for shootings, bombings, deaths, shots fired at and by police, non-fatal assaults, absenteeism and sick leave;
- calculations of incidence and severity ratios;
- analysis of murders and assaults in terms of the victim, the offender and the situation (Swanton & Walker 1989).

Recognition of Constant Risk

Pinizzotto, Davis and Miller (2000) argue that it is essential for police to establish a mind-set that there is no such thing as a no-threat incident or a typical offender. This mind-set must include consideration of potential bomb threats and fear of exposure to chemicals. Thus, for example, Material Safety Data Sheets should be immediately accessible after a chemicals spill on a roadway.

In the United States, increased recognition of the importance of OHS at crime scenes followed the shutdown of investigations at the bombed World Trade Centre by the Occupational Safety and Health Administration until appropriate safety precautions and equipment were on site (Laska 1997). This action sent a firm message to law enforcement agencies that OHS was a core issue.

A study of United States police homicides identified core risk factors to officer safety:

- not following accepted procedures (for example, during searches);
- inappropriate approaches to suspects during traffic stops;
- unclear identification of non-uniformed officers;
- taking weapons from officers;
- inappropriate use of personal protective equipment, handcuffs and first aid;
- not working as a team; and
- inadequate night training (UCRS 1992).

Officers making high-risk domestic calls can arrive quietly with headlights turned off, park a few doors away and approach slowly, staying in shadows and avoiding walkways. In parked cars, officers should undo seat belts and, if any person approaches, exit the vehicle and meet them outside. When driving and threatened with an ambush, officers should accelerate and escape, use vehicle evasion tactics or ram roadblocks (aiming at the rear of a vehicle, not the engine) (McDonald 1995).

Reducing the Risks of Excessive Stress and Fatigue

Reduction of stress and chronic fatigue requires recognition (and removal) of the causes. Strategies include:

- limiting overtime work;
- designing shift rosters and rotations carefully (for example, rotating them forwards);
- scheduling court appearances in on-duty hours;
- encouraging foot patrols for shift workers (thereby providing aerobic exercise as well as high visibility);
- assisting police to recognise early warning signs of stress and depression;
- improving diets with additional vitamin B;
- ensuring police know exactly what is expected of them;
- streamlining administrative procedures;
- enhancing computer technology;
- ensuring those working 12-hour shifts are prohibited from doing overtime; and
- allowing brief naps during night shifts (Patterson 1997; Vila 1996; Violanti 1996; Mahon 1990; Swan 1990).

Pre-retirement counselling should also be routinely provided. Programs should focus on negative antecedent factors (for example, lack of supervisor support), increase protective factors (such as peer support) and inform officers of "normal" stress reactions (for example, after a shooting). Those showing early warning signs should be offered confidential medical and counselling services, which can also include pupillometry and voice stress analysis (Vila 1996). If alcohol abuse is occurring, this is likely to be evident through vehicle crashes, domestic violence, citizen complaints, increased absenteeism, changes in personality, memory lapses and a reluctance to admit to a problem (Violanti 1999). Supervisors need to recognise warning signs and provide constructive advice (Violanti 1999).

High-risk events (such as "suicide by cop") and duties (for example, undercover drug squads) should be carefully monitored (Loo 1999; Mahon 1990). Suicide is a last desperate act when there appears to be nothing left to live for. When officers appear to be at risk, strategies may include withdrawal from duties, in-depth counselling, in-patient medical services and limiting access to firearms when off-duty (Loo 1999; Violanti 1996). The Federal Bureau of Investigation (FBI) has developed a comprehensive program to manage the aftermath of critical events which begins with immediate defusing, followed by critical incident debriefing with peer guidance, family assistance, one-on-one support, educational information, and eye movement desensitisation and reprocessing by qualified professionals (McNally & Solomon 1999). This program has been found to be successful, with 84 to 100 per cent of participating United States officers showing a marked improvement (McNally & Solomon 1999). Continual departmental reinforcement that it will stand behind and actively care for officers is of crucial importance (Paynter 2000; McNally & Solomon 1999).

Reducing the Risks Through Training

Training should involve all staff and be proactive. The content should be directly tied to police tasks. Presenters should be knowledgeable so that officers have confidence in the information and any unwarranted fears are diffused (Flavin 1998). Regular re-training maintains up-to-date knowledge. Training for survival should be routine and include:

- crisis rehearsals;
- development of a "survival mind-set";
- maintenance of physical fitness and skills;
- waiting for back-up;
- assessing non-verbal language;
- gaining and maintaining control;
- recognition that high stress leads to tunnel vision and auditory exclusion, which screens out warning signs of other threats; and
- acceptance that training alone is insufficient (Lindsey 1999).

Training to reduce risks should also include conflict resolution skills, field supervision of junior officers and OHS education (CJC 1996). In a conflict situation, violence can be reduced by:

- "talking" offenders into police vehicles rather than physically assisting them;
- speaking in a calm and respectful voice;
- always addressing offenders by their correct title (for example, "Mr…");
- removing offenders from the scene quickly to avoid conflict with bystanders;
- taking extra care if the offender is intoxicated; and
- allowing time for the offender to calm down (Wright 1990).

Training to reduce "suicide by cop" can focus on non-lethal responses, use of sprays and appropriate tactical withdrawals (although civil litigation following such incidents may be an emerging risk) (Homant, Kennedy & Hupp 2000). Training should also be provided on survival in a hostage situation. (A video by Anderson, Jaffe and Remsberg [1998] uses actual incidents.) Up-to-the-minute upgrading of specialised knowledge (such as the risks in a clandestine laboratory) can be cost-effectively implemented through distance education technological links. However, intermittent, in-depth, face-to-face training is essential.

> The cost of defensive tactics training, metal detectors, soft body armour, radios and shields in vehicles should no longer be considered a budgetary extravagance, but a necessity. The fact that even one officer has been killed, raped or seriously injured is enough to validate training as a necessity and pursue it with tenacity. (Kipp 1996, p. 4)

Conclusion

Any substantive OHS policy and strategy should aim for a safe working environment and a safe system of work. A comprehensive approach includes access to good data to identify high-risk situations, regular risk assessments, effective technical interventions, up-to-date information, routine use of personal protective equipment (such as stab-resistant vests, new batons), regular self-defence and restraint re-training and independent monitoring of the effectiveness of prevention strategies (Spring 1999; Scot-Savage 1997; Brown 1994). Of greatest importance is the commitment of Chief Officers to improved OHS. In sum, "good training, teamwork and special equipment, such as bullet-resistant vests and helmets, minimise the number of injuries and fatalities to law enforcement personnel" (Clarke & Zak 1999, pp. 3–4).

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