Guidelines on the use of less-lethal police weapons in selected places

RT04/19-20
2 January 2020

1. Introduction

1.1 The Hong Kong Police Force has resorted to less-lethal weapons ("LLW") in crowd management in recent social incidents, launching a total of 15 970 rounds of tear gas, 10 010 rounds of rubber bullets, 2 000 rounds of bean bag rounds and 1 860 rounds of sponge rounds during June-November 2019, on top of police batons. As the Police have not disclosed its guidelines on LLW usage to the public, there are concerns whether local usage of LLW is in line with international guidelines. Moreover, despite assurances from the Government, the public is concerned about the health implications arising from LLW exposure in both the short and longer term.

1.2 At the request of Hon Kenneth LEUNG, the Research Office has completed a research task on (a) global studies on the health effects arising from LLW; and (b) specific guidelines on LLW deployment in three selected places considered to have greater transparency in police enforcement. Namely, they are the United Kingdom ("UK"), the United States ("US") and Australia. In the light of local concerns, this study focuses on three major types of LLW (i.e. tear gas and related chemical irritants, rubber and related projectiles as well as police batons) only. The relevant documents are organized into an information pack folder, with salient features highlighted below.

2. International guidelines on LLW usage as a whole

2.1 In its LLW guidelines just published in August 2019, the United Nations ("UN") recognizes that LLW as a whole is "less dangerous" than conventional firearms and can "reduce the risk of injury" to members of the public and police officers. Yet LLW can still lead to deaths and permanent injuries when used inappropriately.

2.2 UN highlights six key principles in LLW usage. They include **legality** (i.e. complying with local and international laws), **precaution** (i.e. minimizing injuries), **necessity** (i.e. without reasonable alternative), **proportionality** (i.e. force proportionate to threat), **non-discrimination** (i.e. equal treatment of all persons) and **accountability** (i.e. enforcement agencies are monitored by sufficiently independent internal mechanisms and external oversight body). These are broadly echoed by the reviews on LLW usage conducted in the US and UK in May 2009 and March 2019 respectively.

3. Health effects of and specific guidelines on three selected types of LLW

3.1 On **tear gas and related chemical irritants**, they are largely deployed for crowd control in serious public disorder events. Their health impacts could vary widely, hinging on factors such as (a) chemical composition and concentration of the irritants;

(b) duration and route of exposure of the victims; (c) ventilation conditions and urban density of the exposure environment; (d) aim, direction and distance of the launch; and (e) inherent health conditions of individuals. Based on limited literature on the subject, most of the victims usually display short-lived irritation to eyes, skin and respiratory systems, but those with prolonged exposure may experience longer term problems (e.g. glaucoma, asthma and chronic bronchitis). In a recent macro study covering 11 places during 1990-2015, such irritants had reportedly caused injuries to over 5 100 people, with two deaths and 58 permanent disabilities. There are also studies showing that tear gas could generate toxic substances (e.g. hydrogen cyanide) under certain conditions.

3.2 Put it simply, police guidelines from selected places specify that (a) tear gas should not be directly fired at individuals; (b) tear gas should not be used in enclosed spaces; and (c) the enforcement officers need to give sufficient warning and provide evacuation route prior to usage.

3.3 On **rubber and related projectiles** (also called "kinetic impact projectiles", including bean bag rounds and sponge rounds as well), they can create intense impact, though the risk of body penetration is contained by its bigger surface area. Their usage is mainly targeted at individuals involved in violence or life-threatening incidents. The health impacts depend on (a) the type of projectiles used; (b) launching velocity and firing distance; and (c) the part of body receiving the impact, with blunt injury, penetrative trauma and bone fractures seen in some serious cases. In a recent review on 1 984 injuries reportedly caused by such projectiles during 1990-2017 in 26 medical articles, 53 victims died and 300 people suffered permanent injuries.

3.4 In short, the police guidelines on using such projectiles in the selected places specify that (a) they should be fired at the lower abdomen or legs of individual aggressors, but not on head, neck and groin; and (b) they should not be fired at a close range, with at least one meter in the UK.

3.5 On **police batons**, they are usually used for protection, demonstration of force or assistance in dispersal and arrest. Their health impacts depend on (a) the material (e.g. wood, plastic and metal) and weight of the batons; (b) force exerted by officers; and (c) body part receiving the impact, with injuries ranging from bruising on soft tissue to dislocation and fractures of joints and bones. Although there are no global statistics on the health effects caused by batons, some studies indicate that batons lead to higher injury rate than other types of LLW as the strikes to the victims are more direct.

3.6 Police guidelines of the selected places require that (a) baton strikes should be targeted against arms or legs, but not head, neck and thorax; (b) officers receive training on the proper use of baton; and (c) officers need to record and justify the use of baton, including both the actions of drawing and striking.

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