

## *Unintentional Injuries: An Overview*

### *Key Messages*

- ※ Unintentional injuries are an important public health problem. However, they are largely preventable through proper safety precautions or adoption of proven control measures.
- ※ The Department of Health (DH) conducted the Unintentional Injury Survey in 2018 and estimated that 4.4% of Hong Kong's population (4.7% for males; 4.2% for females) sustained at least one episode of unintentional injuries that was serious enough to limit their normal activities in the 12 months before enumeration.
- ※ Falls are the most common main cause of unintentional injuries, whereas the home is the primary place where people get injured.
- ※ Factors associated with an increased risk of unintentional injuries include risky behaviours (such as alcohol drinking), environmental hazards (such as clutters and poor lighting), health conditions (such as underlying chronic diseases), etc.
- ※ Members of the public are urged to adopt proven safety measures against unintentional injuries, especially in households.
- ※ DH will continue working with relevant community partners to raise public awareness of injury prevention and make Hong Kong a safer and healthier place to live, work and play.

## Unintentional Injuries: An Overview

Unintentional injuries are an important public health problem. The physical or health consequences of unintentional injuries for individuals could range from minor bumps, bruises, sprains or cuts, to severe trauma such as fractures, spinal cord or brain injuries resulting in lifelong disability even death. Nevertheless, unintentional injuries are neither “accidents” nor simply the result of “bad luck”<sup>1</sup>. They have identifiable causes (such as falls, hit/struck, cutting/piercing, fire/burns, accidental poisonings or drowning that may occur at home or school, work or leisure), which are predictable and exhibit repetitive patterns<sup>1, 2</sup>. While unintentional injuries occur more often in some age or population groups, epidemiological studies have implicated a combination of risky behaviours (such as alcohol drinking or non-use of appropriate protective gears), environmental hazards (such as clutters, poor lighting or chemicals in consumer products), health conditions (such as fragility, underlying chronic diseases or side-effects from medications), or other factors (such as inadequate parental supervision to protect the child from potential hazards) in the frequency of occurrence.<sup>2</sup> Most importantly, unintentional injuries are largely preventable through proper safety precautions or adoption of proven control measures<sup>1, 2</sup>.

### Global Burden of Unintentional Injuries

In 2019, the Global Disease Burden Study<sup>3</sup> estimated that there were 560 million incidents of unintentional injuries and 103 million incidents of road injuries worldwide. Among some 1.77 million deaths attributed to unintentional injuries, 753 000 deaths were resulted from falls, 237 000 deaths from drowning, 122 000 deaths from exposure to mechanical forces (such as contact with household machinery or power tools), and 111 000 deaths from exposure to fire or substance of high temperature. Simultaneously, road injuries were responsible for 1.20 million deaths worldwide. However, deaths represent only ‘the tip of the iceberg’ of the total burden of unintentional injuries. For every death, tens of millions more non-fatal unintentional injuries each year result in temporary or permanent disabilities<sup>2</sup>.

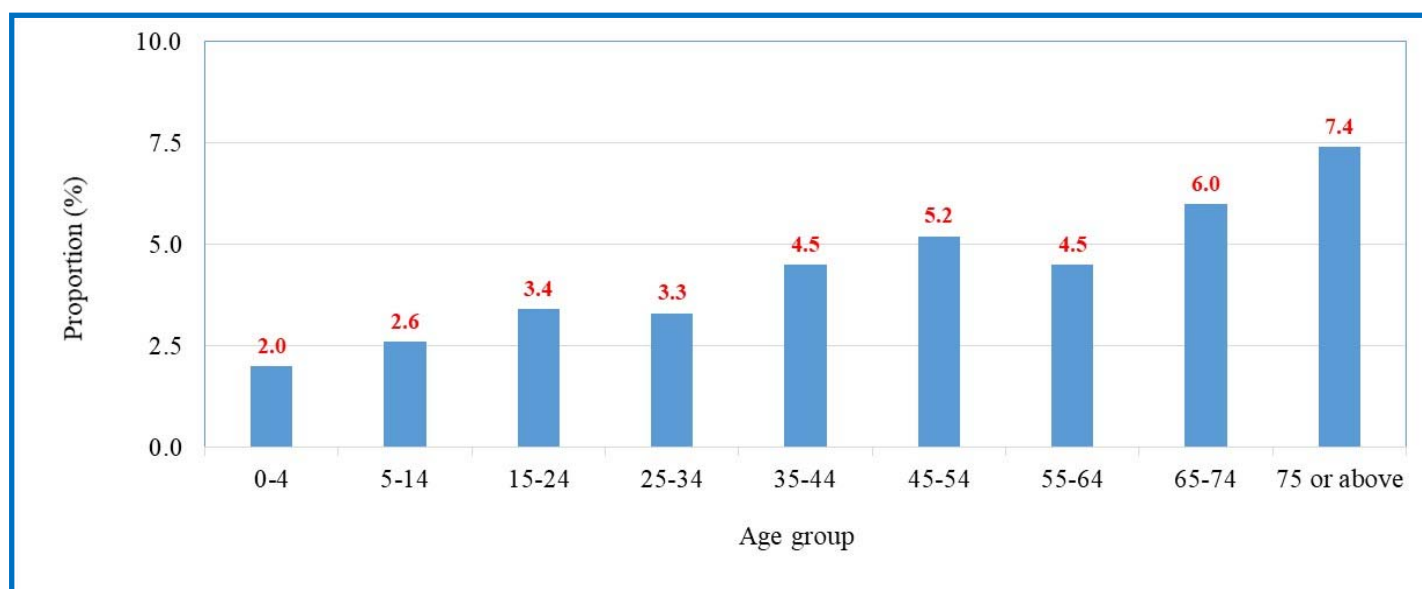
### Burden of Unintentional Injuries in Hong Kong

Injuries are one of the leading causes of sufferings and mortality in Hong Kong. The Department of Health (DH) conducted the Unintentional Injury Survey<sup>4</sup> in 2018 and estimated that 4.4% of Hong Kong’s population (4.7% for males; 4.2% for females) sustained at least one episode of unintentional injuries that was serious enough to limit their normal activities in the 12 months before enumeration. The proportion was lower than 6.2% (6.1% for males; 6.2% for females) found in 2008<sup>5</sup>.

As shown in Figure 1, seniors aged 65–74 (6.0%) and those aged 75 or above (7.4%) were more likely to report having been injured than people in younger age groups. Among all the estimated unintentional injury episodes, the most common main causes were falls (39.4%), sprain (26.2%) and being struck (13.3%). By place of occurrence, the home (27.7%) was the primary place where people get injured, followed by transport area such as street, road or public highway (23.1%)<sup>4</sup>.

Many people go to Accident and Emergency Departments for medical treatment as a result of unintentional injuries, whereas very severe injuries or major traumas require inpatient care. In 2020, there were 86 209 episodes of inpatient discharges and deaths related to unintentional injuries in Hospital Authority and private hospitals. Among them, falls (45.8%) accounted for the largest share<sup>6</sup>. Regarding deaths, there were 916 registered deaths attributed to unintentional injuries in 2020, including 289 deaths (31.6%) due to falls, 148 deaths (16.2%) because of unintentional poisoning, and 139 deaths (15.2%) owing to land transport accidents<sup>7</sup>.

**Figure 1: Proportion of unintentional injury episodes sustained in the 12 months before enumeration by age group, 2018**



Source: Unintentional Injury Survey 2018.

## Prevention of Unintentional Injuries

Evidence point to primary prevention (i.e. preventing the injury from happening) and secondary prevention (i.e. modifying the consequences of injury and minimising the severity of the injury event) as key to reducing the burden of unintentional injuries<sup>8, 9</sup>. Effective interventions include public education about safe habits, altering risky behaviours, maintaining a safe environment, improved product design, and setting and enforcing laws (such as on drinking and driving, use of seat-belts and motorcycle helmets)<sup>9, 10</sup>.

According to the Unintentional Injury Survey 2018, around half (49.8%) of population had adopted some safety measures against unintentional injuries in households or workplaces in the 12 months before enumeration. Low adoption (with less than half of the surveyed households or respondents reported adoption for all or most of the time) was observed in certain specific safety measures (Table 1)<sup>4</sup>. In addition to a lack of precautionary awareness, factors associated with an increased risk of unintentional injuries also included regular drinking or engaging in binge drinking, living alone, having chronic health conditions or long-term functional difficulties<sup>4</sup>.

**Table 1: List of safety measures with low adoption rates**

Safety Measures	Adoption rate
<b>Households with elderly aged 65 and above</b>	
• Use a raised toilet seat to allow getting on and off the toilet easily	7.9%
• Use handrails to assist movement	21.0%
• Use anti-slip mats	39.6%
<b>Households with children aged below 11</b>	
• Use corner protectors (in table or other furniture corners)	37.7%
• Use safety gates to keep children away from toilets and kitchens	37.3%
• Use door knob covers	27.5%
<b>Personal safety measure against fall-related injuries</b>	
• Make daily contact with friends, relatives or neighbours due to living alone	41.8%
• Carry an alarm devise for seeking help in case of fall and failure to get up (for persons aged 65 or above)	17.0%
<b>Personal safety measure against sports-related injuries</b>	
• Use protective gear during sports activities	45.6%
• Use sunblock agents to reduce the chance of sunburn	43.9%
• Use life vest when playing water sports	38.9%

Base: Households or individuals with such safety measure applicable to them.  
Source: Unintentional Injury Survey 2018.

To reduce the risk of unintentional injuries, the general public are advised to:

- ◇ Always stay alert even at home, which is the most common place of injury episodes;
- ◇ Assess environmental potential hazards and modify the environment to prevent injury, such as ensuring adequate lighting, removing objects on the ground and always keep the walkways clear, repairing broken or uneven walking surface and using anti-slip mats to reduce the risk of falls;
- ◇ Avoid physical over-exertion during exercise so as to reduce the risk of sports-related injuries;
- ◇ Follow a healthy lifestyle, and avoid drinking since it will increase the risk of injury;
- ◇ Do regular physical activities to strengthen muscles and co-ordination to prevent injury, in particularly falls among the elderly;
- ◇ Seek advice from family doctor or healthcare professional when having chronic health conditions or functional disabilities; and
- ◇ Provide visit and social support to persons living alone.

Over the past few years, the Hong Kong SAR Government has worked with relevant community partners to strengthen injury surveillance, raise public awareness of injury prevention, and support various activities on injury prevention and safety promotion in the home, workplaces and schools, on the roads, when playing sports or leisure activities, etc. DH will continue

enhancing public awareness about the preventability of unintentional injuries and adoption of proven safety measures.

Prevention of injuries is a community-wide responsibility. Every individual can take practical steps to avoid injuries and make Hong Kong a safer and healthier place to live, work and play!

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Home is one of the commonest locations where injuries occur. In fact, domestic injuries usually occur due to the lack of knowledge and awareness. The Department of Health reviewed and consolidated domestic safety recommendations issued by relevant government departments and statutory bodies (namely Coroner's Court, Customs and Excise Department, Electrical and Mechanical Services Department and Consumer Council) to produce the Domestic Safety Handbook. This handbook aims at alerting the public to the potential risks in using common electronic appliances, furniture, tableware and other household items and provides the recommendation for safe use of appliances. The handbook (Chinese version only) is available on the Change for Health website of the Department of Health at [www.change4health.gov.hk/filemanager/common/pdf/Handbook%20on%20Domestic%20Safety.pdf](http://www.change4health.gov.hk/filemanager/common/pdf/Handbook%20on%20Domestic%20Safety.pdf).

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