

Injury Surveillance and Prevention Report

To: Chair and Members of the Board of Health

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Recommendations

It is recommended that the Board of Health receive this report for information.

Key Points

- This report provides an overview of injury-related emergency department (ED) visits, hospitalizations, and mortality information for Wellington-Dufferin-Guelph (WDG) by geography, age group and sex.
- Rates of injury-related ED visits and hospitalizations in WDG Public Health (WDGPH) are higher than the provincial average.
- Fall injuries account for more than 60% of injury-related ED visits and hospitalizations, and more than 40% of injury-related mortality.
- The Potential Years of Life Lost rate is 794 years per 100,000 residents
- The cost due to injury in the WDG region is estimated to be \$242M in 2018.
- WDGPH works closely with community partners to reduce the burden of preventable injuries.

Background

Injury in Wellington-Dufferin-Guelph: A Preventable Public Health Burden

Injuries are not simply accidents; they are often predictable and preventable events. They are one of the leading causes of death among Canadians aged 1 to 34, and they leave behind lasting physical, emotional, and financial consequences for individuals, families, and communities.^{1,2} In the Wellington-Dufferin-Guelph (WDG) region, injury rates are consistently higher than the provincial average.³ This means that more people in the WDG communities are visiting emergency departments, being hospitalized, or dying due to injuries that, in many cases, could have been prevented. Understanding where, how, and to whom injuries are happening allows us to act, before someone gets hurt. It allows public health and its partners to identify risk factors, implement targeted prevention strategies, and advocate for safer environments. It also helps us make smarter investments that not only protect health but also save public dollars.

A 2021 report estimated that in 2018, preventable injuries in WDG cost an estimated \$168 million in healthcare costs.⁴ That's equivalent to hiring over 2,000 nurses per year in Canada or delivering hundreds of thousands of emergency room visits. Given Canada's universal health care model, reducing preventable injuries through proactive measures could alleviate pressure on hospitals, shorten wait times, and improve overall healthcare efficiency. Although it is not realistic to reduce the healthcare cost of injuries to zero, investments in upstream interventions will reduce the need for downstream reactionary interventions.

Discussion

Injury rates in WDG are higher than in most other health units across Ontario.³ In 2022, the rate of emergency department visits due to injury in WDG was nearly 10,000 per 100,000 residents, sitting above the provincial rate. Hospitalization rates were also higher, and injury-related mortality, while similar to the provincial average, has been increasing over time.

One of the most important findings is that falls are by far the leading cause of injury in WDG. They account for more than 60 percent of all injury-related emergency department visits and hospitalizations, and nearly half of all injury-related deaths.^{5, 6, 7}

The vast majority of falls resulting in hospitalization happen at home, suggesting that targeted changes to the home environment, like improved lighting, grab bars, and safer flooring, could make a meaningful difference. ⁸ Older adults are particularly at risk. People aged 75 and older experience emergency department visits, hospitalizations, and deaths due to falls at rates many times higher than younger age groups. Despite making up just 7 percent of the population, they account for nearly half of the total fall-related costs. Most of these falls don't happen while doing risky things; they happen during routine daily activities like walking, using the stairs, or getting out of bed. This makes prevention both possible and practical.

While falls dominate the overall numbers, other injuries reveal important public health patterns as well. Sports and recreational injuries are common in children and youth, while motor vehicle collisions impact a broad range of age groups (Table 1). Intentional self-harm and accidental poisonings, while less frequent in emergency department visits, account for a significant share of injury-related deaths, particularly among people aged 20 to 64. These trends reflect broader challenges with mental health and substance use and point to the need for a comprehensive approach to injury prevention; one that addresses physical, mental, and environmental risks.

Table 1. Proportion of injury ED visits by age group, 2005-2024

Injury mortality type	Age group (years)				
	0-19	20-44	45-64	65-74	75+
1. Pedestrian and Cyclist injuries	6%	5%	4%	3%	1%
2. On/Off Road Motor Vehicle	5%	16%	12%	7%	4%
3. Agricultural Machinery and Tools	2%	7%	7%	5%	1%
4. Sports and Recreation injuries	20%	13%	4%	1%	0%
5. Falls injuries	61%	48%	67%	81%	92%
6. Accidental Poisonings	3%	5%	4%	3%	1%
7. Intentional Self-harm	3%	5%	3%	1%	0%

Why Prevention is Worth the Investment

Injuries have an enormous impact on healthcare resources. In WDG, the most recent data from 2018 identified that preventable injuries led to an estimated \$228 million in total costs when both direct healthcare spending and indirect social costs were considered.⁴ Hospitalizations alone accounted for \$39 million, while emergency department visits and deaths were responsible for another \$48 million. These figures do not include long-term disability costs, which would raise the total even higher.

Falls were the costliest injury type overall, followed by motor vehicle incidents. When considering all injury types, healthcare costs made up about 70 percent of the total financial burden. These costs aren't abstract; they translate into longer wait times, strained hospital capacity, and fewer resources available for other pressing healthcare needs.

What's more important is that many of these injuries could be prevented. Evidence-based interventions such as fall prevention programs, safer road design, enhanced mental health supports, and public education on substance use can reduce injury rates and save lives. For example, the Canadian Institute for Health Information estimates that up to four out of five fall-related hospitalizations among older adults could be prevented through targeted programs.

WDG Public Health Partnerships and Community Response

WDG Public Health plays a leadership role in working with local partners to address the burden of injuries in the WDG region. In Wellington County, WDGPH is an active partner in Safe Communities Wellington County, which brings together stakeholders from emergency services, school boards, municipalities, and health to tackle issues like falls, road safety, mental health, and accidental poisonings.^{9, 10}

In the City of Guelph, WDGPH co-chairs the Vision Zero Steering Committee, which aims to eliminate serious injuries and fatalities from traffic collisions through safer street design, lower speed limits, and enforcement strategies.^{11, 12} WDGPH also provides data and planning support to the Vision Zero Action Plan.

In Dufferin County, WDG Public Health contributes to the Community Safety and Well-Being Plan, helping community partners better understand local injury data and incorporate prevention strategies into broader social service and health planning. These partnerships highlight the important role of cross-sector collaboration in preventing injuries and creating safer, healthier communities.

Conclusion

Injuries are not random events. They tend to follow patterns, affect some groups more than others, and lead to costs for individuals and the healthcare system. Many injuries can be prevented. By using data, planning focused programs, and community partnerships, communities can lower injury rates and reduce pressure on health services.

This report shows the ongoing value of supporting injury prevention to help maintain safe communities, stable systems, and better health across the region.

Ontario Public Health Standards

Foundational Standards

- Population Health Assessment
- Health Equity
- Effective Public Health Practice
- Emergency Management

Program Standards

- Chronic Disease Prevention and Well-Being
- Food Safety
- Healthy Environments
- Healthy Growth and Development
- Immunization
- Infectious and Communicable Diseases Prevention and Control
- Safe Water
- School Health
- Substance Use and Injury Prevention

2024-2028 WDGPH Strategic Directions

More details about these strategic goals can be found in [WDGPH's 2024-2028 Strategic Plan](#).

- Improve health outcomes
- Focus on children's health
- Build strong partnerships
- Innovate our programs and services
- Lead the way toward a sustainable Public Health system

Health Equity

Priority populations are particularly vulnerable to injuries as they have been shown through data-driven analyses to have higher risks of injury due to socioeconomic, demographic, or structural factors. Understanding the unique challenges and barriers these populations encounter is essential for developing targeted interventions and policies aimed at promoting injury prevention. Health equity principles are being applied across all WDGPH injury-related products, projects, and collaborations with the goal of reducing differences in injury-related harms between population groups.

WDG Public Health also works with community partners to address inequities through various targeted initiatives. An example is WDG Public Health's involvement in two workshops in the Onward Willow neighbourhood in the City of Guelph that addressed local active transportation, road safety and community design challenges using an equity-lens. The first event, the *Walkshop*, was held in October 2023 and is described in the [April 2024 Board of Health Report, Injury Surveillance and Prevention Report](#). A second workshop, called the *ThinkShop*, occurred in June 2024 and helped to mobilize over 80 local residents and organizations to identify challenges and brainstorm solutions to support equitable and safe active transportation within the community.

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