

# Injury Surveillance Report

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**To:** Chair and Members of the Board of Health

**Meeting Date:** June 3, 2026

**Report No.** **BH.01.JUN0326.R17**, Pages: 10

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## Recommendations

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

## Key Points

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- Overall injury-related emergency department (ED) visit rates in Wellington-Dufferin-Guelph (WDG) declined by approximately 15 percent between 2005 and 2024.
- ED visit rates related to pedestrian and cyclist injuries and on- and off-road motor vehicle collisions declined by more than 40 percent since 2005.
- Despite long-term declines, ED visit rates for both transport-related injury categories increased slightly between 2021 and 2024.
- Transport-related injury rates vary across municipalities within WDG, with some municipalities and age groups continuing to experience a disproportionate burden.
- Ongoing injury surveillance supports evidence-informed public health action by helping to identify trends, monitor inequities, and inform opportunities to improve community safety and reduce preventable injuries.

## Background

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Injuries remain a significant public health concern in Ontario, contributing to preventable morbidity, mortality, and health system utilization.<sup>1</sup> Transport-related injuries, including those involving pedestrians, cyclists, and motor vehicles, can have serious physical, psychological, social, and economic impacts for individuals, families, and communities.

Wellington-Dufferin-Guelph Public Health (WDGPH) conducts ongoing injury surveillance to monitor local trends, identify populations that are disproportionately impacted, and support evidence-informed prevention efforts. Emergency department visit data provide an important source of information on injury patterns and emerging risks within the region.<sup>2</sup>

This report focuses on two categories of transport-related injuries:

1. Pedestrian and cyclist injuries; and
2. On- and off-road motor vehicle injuries.

Monitoring these injury categories supports WDGPH's role in promoting safer communities and informing collaborative prevention initiatives with municipalities, community organizations, healthcare providers, schools, and other partners.

Over the past two decades, a range of factors may have contributed to reductions in transport-related injury rates.<sup>3,4</sup> These include improvements in road safety legislation and enforcement, enhancements to transportation infrastructure, increased public awareness of injury prevention, advances in vehicle safety technologies, and community-based injury prevention activities.<sup>5,6</sup>

At the same time, injury risk continues to be shaped by changing transportation patterns, population growth, active transportation use, and evolving community infrastructure.<sup>7,8,9</sup> These factors may impact communities differently across Wellington County, Dufferin County, and the City of Guelph. Continued surveillance is therefore important to understand local trends, identify populations and settings where risks may be higher, and inform prevention efforts that are responsive to changing community needs. Monitoring changes over time can also help identify areas where additional prevention efforts may be beneficial.

## Discussion

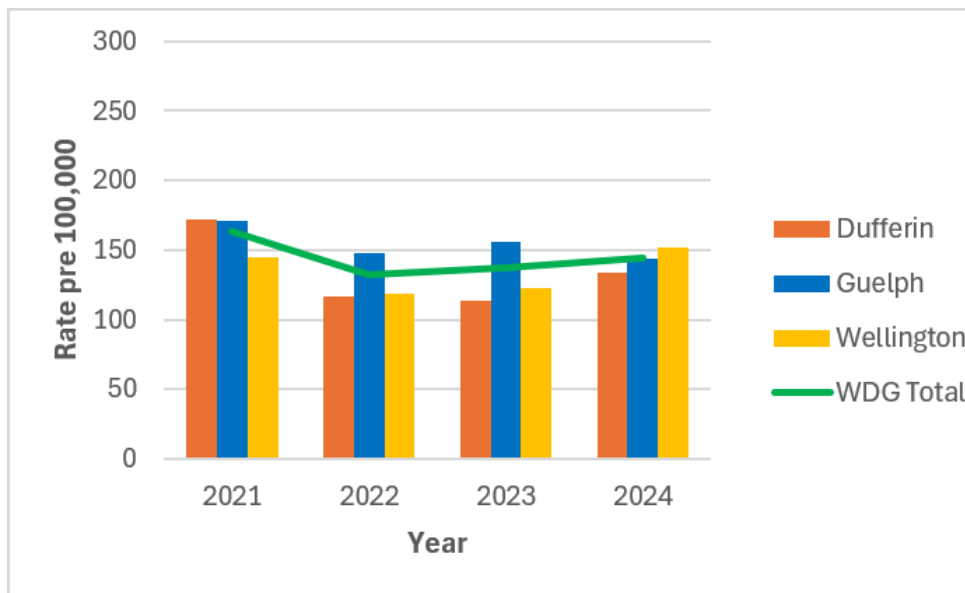
### Local Trends

WDG’s overall injury-related ED visit rate declined by approximately 15 percent between 2005 and 2024. Over the same period, ED visit rates for pedestrian and cyclist injuries and on- and off-road motor vehicle injuries declined by more than 40 percent.<sup>2</sup> These long-term trends suggest meaningful progress in reducing injury-related health system use across the region.

Although these reductions are encouraging, recent data indicate modest increases of less than 10 percent in ED visit rates for both transport-related injury categories between 2021 and 2024.<sup>2</sup> These recent trends should be interpreted with caution, as 2020 to 2023 results may be influenced by COVID-19-related changes in transportation patterns, health care access and health-seeking behaviour.<sup>1</sup> Continued monitoring is therefore important to determine whether these increases reflect short-term variation, changes in data completeness, or emerging shifts in local injury risk.

### Pedestrian and Cyclist Injuries

**Chart 1:** Pedestrian and cyclist injury ED visit rate by WDG geography and year

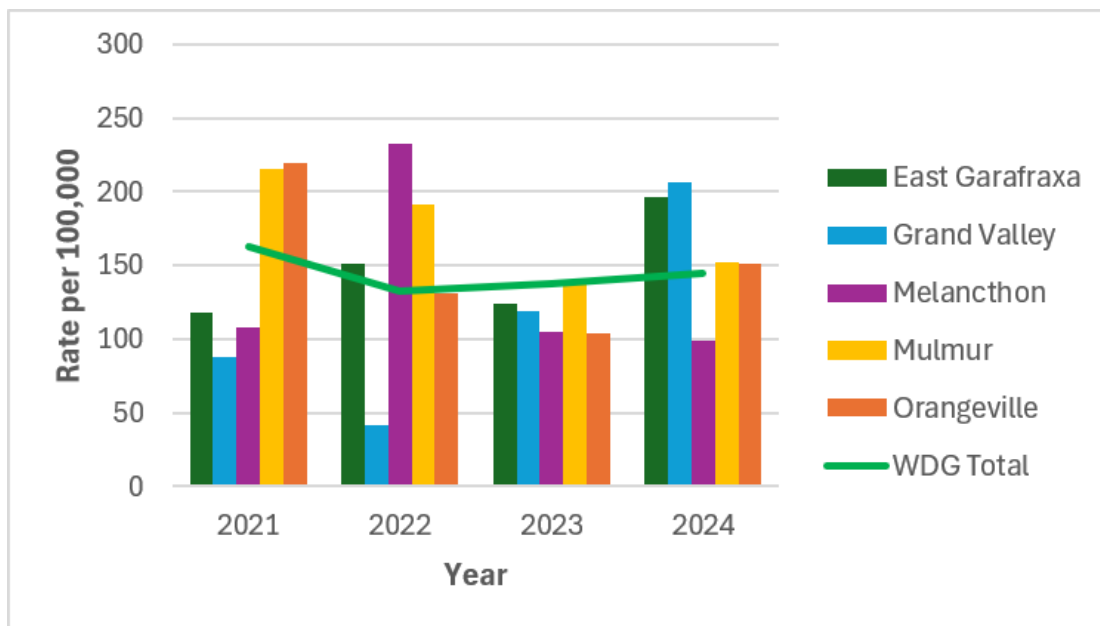


The share of commuters mainly taking active transportation has remained essentially stable since 2021. In May 2024, 6% of commuters reported walking or cycling to work.<sup>10</sup> During the same period, WDG’s emergency department (ED) visit rate for pedestrian and cyclist injuries declined overall, with the largest decrease occurring in 2022, followed by a slight increase between 2022 and 2024.

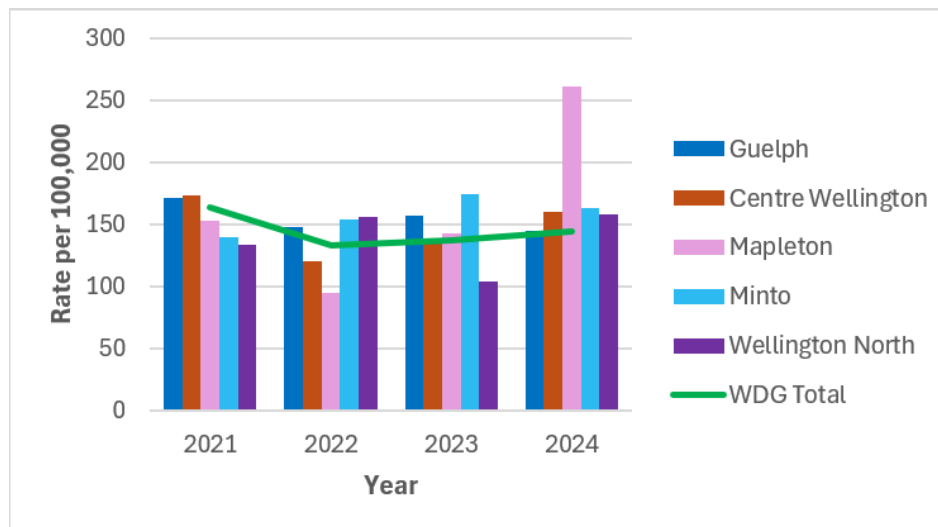
Although ED visit rates differed across the three WDG regions between 2021 and 2023, rates were comparable by 2024 (Chart 1). This suggests that recent regional differences may have narrowed, although continued monitoring is needed to determine whether this pattern is sustained over time.

Variation remains evident at the municipal level. Local transportation patterns, road environments, population distribution, and access to safe active transportation infrastructure may all influence pedestrian and cyclist injury risk.<sup>2,3</sup> In Dufferin County, municipalities with higher rates included Mulmur, Orangeville, Melancthon, East Garafraxa, and Grand Valley (Chart 2). In Wellington County, municipalities with higher rates included Minto, Wellington North, Centre Wellington, and Mapleton (Chart 3) with the City of Guelph also having a slightly higher rate.

**Chart 2:** Pedestrian and cyclist injury ED visit rate by Dufferin County municipalities with rates above WDG in 2021-2024



**Chart 3:** Pedestrian and cyclist injury ED visit rate by Wellington County municipalities with rates above WDG in 2021-2024



### Motor Vehicle Injuries

**Table 1:** On- and off-road motor vehicle injuries: percentage rate of county/municipality to WDG ED visit rate by age group, 2021-2024

Age Grp range (years)	All ages	0-19	20-44	45-64	65-74	75+
<b>Dufferin</b>	41%	28%	38%	29%	46%	101%
Amaranth	46%	76%	42%	-18%	32%	200%
East Garafraxa	38%	71%	43%	-8%	54%	23%
Grand Valley	32%	-4%	15%	27%	66%	-47%
Melancthon	75%	124%	69%	39%	-42%	
Mono	21%	19%	0%	0%	43%	191%
Mulmur	56%	155%	72%	2%	-10%	45%
Orangeville	34%	0%	31%	31%	68%	128%
Shelburne	69%	35%	74%	119%	43%	10%
<b>Guelph</b>	-20%	-32%	-18%	-8%	-30%	-43%
<b>Wellington</b>	5%	24%	7%	-9%	10%	20%
Centre Wellington	-21%	-8%	-14%	-40%	-10%	11%
Erin	10%	35%	1%	-15%	-8%	-4%
Guelph/Eramosa	2%	3%	2%	-20%	-16%	83%
Mapleton	20%	25%	-2%	-29%	85%	258%
Minto	48%	70%	62%	92%	102%	-57%
Puslinch	-29%	-15%	-41%	-26%	-51%	43%
Wellington North	38%	98%	61%	55%	38%	2%

Certain age groups and municipalities continue to experience a greater burden of motor vehicle injuries, underscoring the importance of using local data to inform targeted prevention approaches.

Table 1 (above) compares motor vehicle injury ED visit rates for WDG counties and municipalities against the overall WDG rate. Comparisons are presented for all ages combined and by age group. For each age group, the local rate is compared with the WDG rate for the same age group. For example, municipal rates among residents aged 0 to 19 are compared with the overall WDG rate for residents aged 0 to 19. A higher percentage indicates a larger difference from the WDG rate and suggests a greater relative burden for that population.

The results suggest that motor vehicle injury burden varies across the region. More municipalities in Dufferin County than Wellington County appear to be affected by higher rates of this injury type, particularly Melancthon, Shelburne, Mulmur, and Amaranth. Although Wellington County's overall rate is lower than Dufferin County's, some Wellington County municipalities, including Minto, Wellington North, and Mapleton, have rates that are higher than the WDG rate overall.

Motor vehicle injuries affect most age groups across municipalities; however, some areas show higher relative burden among older adults. This pattern is observed in Mapleton, Amaranth, Mono, Orangeville, and Guelph/Eramosa, indicating that prevention approaches may need to consider both geographic and age-related differences in risk.

### **Advocacy and Community Partnerships**

Public health plays an important role in injury prevention through assessment and surveillance, health promotion, policy development, and community partnership. By sharing local surveillance findings, WDGPH can support decision-making, strengthen community planning and identify opportunities to reduce preventable injury, that promote safer road use, active transportation safety, and healthy public policy.

This work depends on strong collaboration across sectors. Municipalities and community partners are central to injury prevention because decisions related to the built environment, road design, traffic calming, speed management, enforcement, education and active transportation infrastructure can influence risks for pedestrians, cyclists, motor vehicle occupants, and other road users.<sup>3</sup> WDGPH contributes to this work by providing local evidence, supporting knowledge exchange, and collaborating with partners whose decisions, services, and planning processes shape transportation safety across the region.

WDGPH also contributes directly to local injury prevention initiatives across Wellington, Dufferin, and Guelph. 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 address issues such as falls prevention, road safety, mental wellness, and drug poisoning prevention through a coordinated approach.<sup>9,11</sup>

In the City of Guelph, WDGPH is a member of the Vision Zero Committee, which aims to eliminate serious injuries and fatalities from traffic collisions through safer street design, lower speed limits, traffic calming and awareness initiatives.<sup>12,13</sup> WDGPH also provided data and planning support to the development of the City of Guelph's Vision Zero Action Plan.

In Dufferin County, WDGPH contributes to the Community Safety and Well-Being Plan by helping partners understand local injury data and incorporate prevention strategies into broader social service and health planning.

Together, these partnerships demonstrate the importance of cross-sector collaboration in preventing injuries and creating safer, healthier communities. As a next step, the data in this report can further inform the work of these initiatives and support other partners in understanding current trends in transport-related harms at a local level. Continued injury surveillance will support WDGPH and community partners in monitoring emerging trends, identifying populations and communities at increased risk, and informing targeted prevention activities that are responsive to local needs.

## **Health Equity Implications**

Transport-related injuries can disproportionately affect certain populations based on age, geography, socioeconomic status, and access to safe transportation infrastructure.<sup>4,9</sup> Rural communities may experience distinct transportation-related risks associated with higher travel speeds, limited active transportation infrastructure, and longer emergency response times.

Children, youth, older adults, cyclists, pedestrians, and people who rely on active or alternative transportation may be more vulnerable to transport-related injuries. Individuals living in lower-income communities may also experience barriers related to access to safe transportation options and protective infrastructure.

WDGPH recognizes the importance of applying a health equity lens to injury surveillance and prevention activities.<sup>14</sup> Ongoing monitoring of injury trends by geography and demographic characteristics helps identify populations and communities experiencing a disproportionate burden and supports approaches that are responsive to local needs.

Collaboration with municipalities and community partners is important to reducing inequities in transport-related injury risk. Safer community design, accessible transportation planning, public education, and policies that support injury prevention can help create safer transportation environments for all residents.

## Conclusion

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Transport-related injuries remain preventable and continue to affect community safety, health system use, and quality of life in Wellington-Dufferin-Guelph. Public health has an important role in injury prevention through assessment and surveillance, health promotion, policy development, and partnership, consistent with the Ontario Public Health Standards.<sup>14</sup> By sharing local surveillance findings, WDGPH can support decision-making, strengthen community planning, and identify opportunities to reduce preventable injury.

Regional and demographic variability in injury rates demonstrates the need for ongoing monitoring and collaboration with municipalities and community partners to support safer communities. WDGPH will continue to use surveillance data to inform evidence-based public health action, identify populations experiencing increased risk, and support initiatives that promote transportation safety and injury prevention across Wellington-Dufferin-Guelph.

## Ontario Public Health Standards

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### 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 Goals

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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

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