



ONTARIO
Osteoporosis
Strategy

Preventing hip fractures, saving lives.

FRACTURE LINK

FALL 2023 PERFORMANCE EDITION

—
PREVENTING HIP FRACTURES, SAVING LIVES.



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Trends in Fracture Rates in Ontario (2005-2019)

An examination of fracture occurrences and figures within the demographic of adults aged 50 and above in Ontario provides insights into significant trends and patterns regarding fractures. Although the overall rate of fractures remained consistent over time, there were noteworthy shifts in particular fracture categories.

In the case of hip fractures, there has been a notable decline of 14.6% in standardized rates, and it's worth highlighting that the absolute number of hip fractures seems to be stabilizing despite the aging of the population. This underscores the importance of continued efforts in fall prevention and fracture management, especially among older age groups.

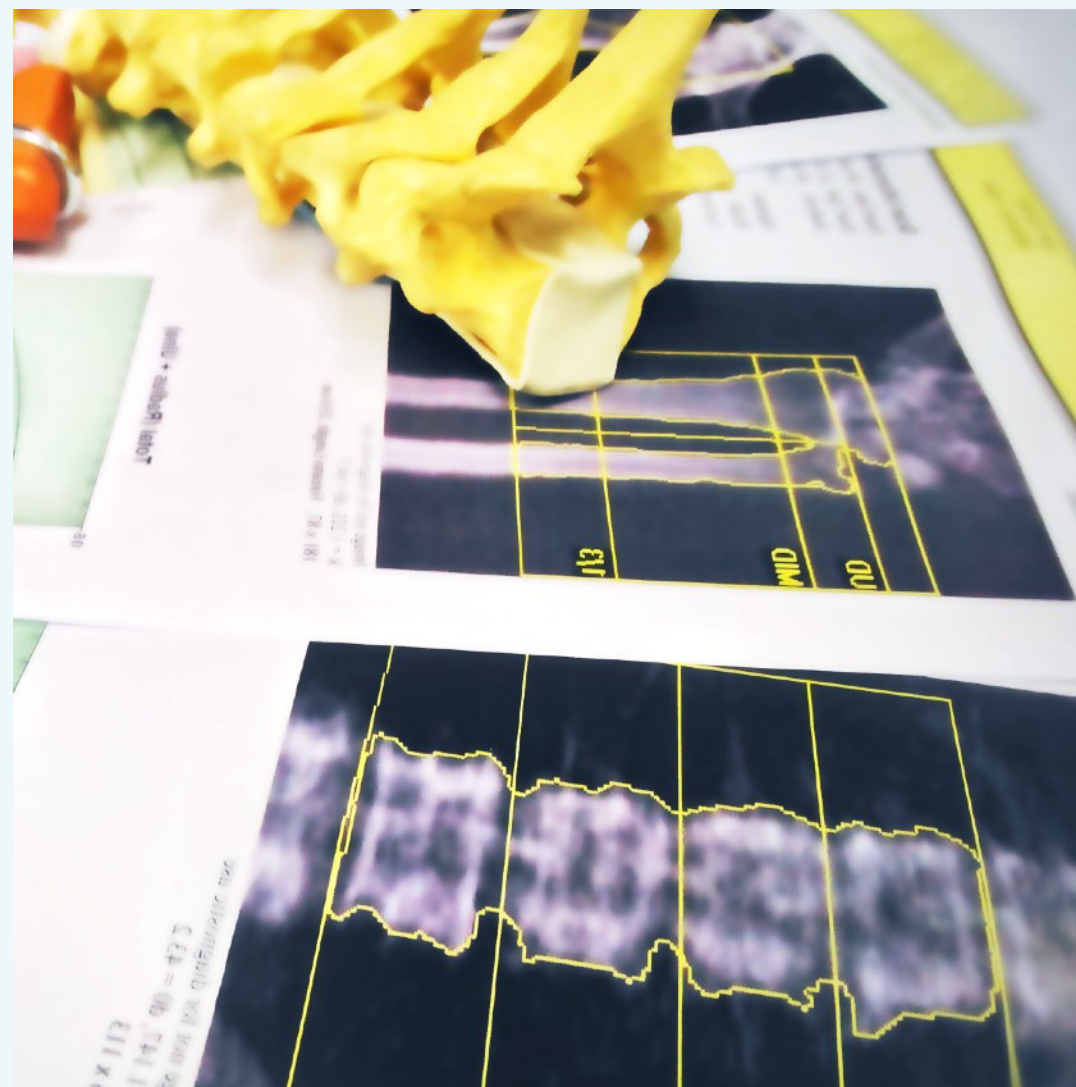
Regarding wrist fractures, while they consistently remain the most prevalent, their rates have shown stability, emphasizing the need for ongoing preventive measures.

Significantly, both pelvis and spine fractures have experienced an increase in both rates and numbers, suggesting potential improvements in detection and diagnosis. The increase in the actual cases of shoulder fractures calls for further investigation into contributing factors.

Understanding these trends is crucial for policymakers and healthcare providers as they work to develop targeted interventions. By prioritizing efforts to reduce fractures, improve fracture management, and promote preventive measures, we can enhance the overall health and well-being of older adults in Ontario.



Trends in Fracture Rates and Osteoporosis Management in Ontario



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The goal of the Ontario Osteoporosis Strategy (OOS) is to reduce the impact of osteoporotic fractures by employing a patient-centered, multidisciplinary approach that integrates across different healthcare sectors. To assess the effectiveness of this strategy, various performance indicators have been developed to monitor osteoporosis management from a health system perspective. The evaluation team for OOS, conducted by the Institute for Clinical Evaluative Sciences (ICES), provided analysis for the trends in fracture rates, bone mineral density (BMD) testing, and osteoporosis treatment since the inception of OOS, highlighting its impact on hip fractures and the need for continued improvement in osteoporosis management.

Provincial Overview:

Hip fractures are a major consequence of osteoporosis, leading to increased healthcare utilization and costs. However, encouraging trends have been observed since the initiation of the Ontario Osteoporosis Strategy. From 2005/06 to 2019/20, there was a 14.6% decrease in age-standardized rates of hip fractures in Ontario. The decline was observed across all age groups, with the most significant reduction in women (-20.4%) compared to men (-11.9%).

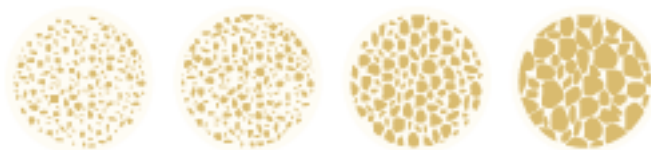
While hip fractures showed a decline, overall age-standardized fracture rates did not exhibit significant changes between 2005/06 and 2019/20. However, the incidence of fractures increased dramatically with age, emphasizing the vulnerability of older individuals. Women experienced approximately twice the fracture rate compared to men, underscoring the gender disparity in osteoporosis prevalence.

Fracture rates and osteoporosis management practices varied across the Local Health Integration Networks (LHINs) in Ontario. Standardized hip fracture rates for individuals aged 50 and above ranged from a high of 24.7 in Erie St. Clair to a low of 16.7 in Mississauga Halton. While all LHINs observed a reduction in hip fracture rates from 2005/06 to 2019/20, the extent of decline varied significantly among regions.

The Ontario Osteoporosis Strategy has yielded positive outcomes in reducing hip fracture rates and highlighting the importance of osteoporosis management. However, challenges remain, such as addressing gender disparities in treatment and improving consistency in fracture prevention and management across different regions. Continued evaluation and refinement of the program are crucial to further enhance osteoporosis care and reduce the burden of fractures on individuals and the healthcare system.

KEY MESSAGES

There is considerable variation between LHINs in terms of fracture rates and BMD testing/treatment, highlighting **the need for targeted efforts to address osteoporosis management at the local level.**



REGIONAL VARIATIONS

The previous Local Health Integration Networks (LHINs) played a crucial role in healthcare delivery and management across the province. Understanding the variations in fracture rates and osteoporosis management among the LHINs is essential for identifying areas of improvement and implementing targeted interventions. By exploring the disparities across LHINs in fracture rates, bone mineral density (BMD) testing, and osteoporosis treatment, we can shed light on the importance of standardized practices and coordinated efforts to enhance patient outcomes.

Regional Variations...

The analysis of fracture rates among the LHINs reveals significant variations across the regions. Standardized hip fracture rates (per 10,000) for adults aged 50 and older in 2019/20 ranged from a high of 24.7 in Erie St. Clair to a low of 16.7 in Mississauga Halton. This substantial difference suggests that certain regions may have implemented more effective prevention strategies, resulting in lower fracture rates. Conversely, regions with higher fracture rates may require targeted interventions to address the underlying factors contributing to increased fracture risks.

Disparities in Osteoporosis Management: Fracture rates exhibit divergence across LHINs, accompanied by uneven adherence to osteoporosis management protocols. Significant variation emerges in BMD testing and post-hip fracture treatment among different regions. To exemplify, the rate of 12-month follow-up after a hip fracture ranged from 57.2% in Waterloo Wellington to 26.7% in South East LHIN. These discrepancies in follow-up care underscore the necessity for standardized protocols and enhanced collaboration between healthcare providers and patients across all LHINs.

Identifying Best Practices:

While acknowledging the disparities, it is important to examine LHINs with lower fracture rates and higher rates of follow-up care to identify best practices that can be shared and implemented across the province. LHINs that have successfully implemented comprehensive strategies to address osteoporosis, such as patient education, integrated care pathways, and multidisciplinary collaboration, can serve as models for other regions to emulate.

The significant variations in fracture rates and osteoporosis management across Ontario's LHINs highlight the need for targeted interventions, standardized practices, and collaborative efforts. By identifying best practices and implementing consistent protocols, healthcare providers can work towards reducing fracture rates, improving post-fracture care, and enhancing osteoporosis management throughout the province. Coordinated action and knowledge exchange among LHINs will contribute to a more equitable healthcare system and better outcomes for individuals at risk of fractures and osteoporosis.





Assessing LHIN Region Performance in Osteoporosis Management:

1. Treatment and Refracture Rates Analysis

In this section of the Ontario Osteoporosis Strategy (OOS) Evaluation Highlights newsletter, we delve into an analysis of the performance of various Local Health Integration Network (LHIN) regions in Ontario regarding two critical aspects: the treatment rate of adults aged 66 and above following a hip fracture and the refracture rates within 2 years for individuals aged 50 and above. It's important to note that the refracture rate within 2 years refers to the proportion of adults aged 50 and older who have experienced a fracture and subsequently suffer another fracture within this two-year period. These indicators provide valuable insights into distinct facets of osteoporosis management. We will explore how each LHIN region fares in these areas, shedding light on their respective strengths and areas for improvement.

Regional Insights:

Toronto Central, Central, and Champlain LHINs: Several LHINs, such as Toronto Central, Central, and Champlain, display noteworthy treatment rates, signaling a commitment to post-hip fracture care.

Central West LHIN: While the Central West LHIN exhibits a comparatively lower treatment rate, its refracture rate is lower than the provincial average, indicating that their existing strategies are effective in preventing subsequent fractures.

Mississauga Halton LHIN:

- **Treatment Rate:** 51.3%
- **Refracture Rate:** 15.1%

The Mississauga Halton LHIN exhibits strong performance in post-hip fracture care, characterized by a high treatment rate. Although their refracture rate is slightly higher than that of Waterloo Wellington, their dedication to initial treatment lays a solid groundwork for refracture prevention in the long term. Nevertheless, there is an opportunity for enhancement, as presently, only half of adults aged 66 and above following a hip fracture receive treatment.

North West LHIN:

- **Treatment Rate:** 51.2%
- **Refracture Rate:** 20.7%

The North West LHIN achieves a significant treatment rate, aligning closely with the top performers. However, the comparatively higher refracture rate suggests an opportunity to focus on long-term follow-up care and preventive strategies to further reduce refracture incidences.

Waterloo Wellington LHIN:

- **Treatment Rate:** 57.2%
- **Refracture Rate:** 11.9%

The Waterloo Wellington LHIN demonstrates strong performance with the highest treatment rate for adults aged 66 and above following a hip fracture. Their strong commitment to post-fracture care reflects in their significantly low refracture rate for patients aged 50 and older. However, it's important to note that more improvement is needed to bridge the remaining care gap.

Our analysis is grounded in data from Table 10 of the provincial report, encompassing standardized hip fracture rates, follow-up care rates, and refracture rates for each LHIN region. For comprehensive details, you can access the full report [\[here\]](#)

Note: Refracture rates and treatment rates are independent indicators and should not be directly linked. Each indicator offers valuable insights into different aspects of osteoporosis management.



2. Regional Variations in Post-Hip Fracture Treatment Rates

This analysis centers on the examination of post-hip fracture treatment rates in various regions of Ontario, as represented by Local Health Integration Networks (LHINs). The report delves into these treatment rates to gauge the effectiveness of care strategies and their influence on patient outcomes. Additionally, it emphasizes regional disparities, indicating the necessity for targeted interventions to ensure uniform and improved care delivery.

Post-Hip Fracture Treatment Rates

In 2018/19, there was a significant increase in post-hip fracture treatment rates compared to previous years across various LHINs in Ontario. We examined the percentage of adults aged 66 and above who received Bone Mineral Density (BMD) testing or treatment within 12 months post-hip fracture in various LHINs. This care is crucial for patient recovery and long-term well-being.



Key Findings:

1. Improvement in Treatment Rates:

- There's an uptick in individuals receiving osteoporosis investigation/treatment post-fracture, with rates edging up from 32.0% (2014/15) to 36.3% (2018/19).
- For hip fractures, this progression was 34.1% to 40.7% within the same period.

2. Demographic Insights:

- A gender-diverse insight in 2018/19 reveals 44.4% of women and 39.3% of men received post-hip fracture osteoporosis intervention within a 12-month frame.

3. Treatment Initiation:

- 35.2% of seniors not previously on osteoporosis medication initiated pharmacological treatment within 12 months post-hip fracture in 2018/19.

4. Regional Disparities:

- Data highlighted notable regional disparities, like the highest follow-up rate in Waterloo Wellington LHIN (57.2%) contrasted starkly with the lowest in South East LHIN (26.7%).

The data accentuates significant strides in post-fracture osteoporosis management while highlighting areas necessitating targeted interventions due to notable regional disparities in care delivery across Ontario. These findings are pivotal for policymakers and healthcare providers in Ontario. The regional data underscores the importance of continual monitoring and intervention to enhance the post-fracture care system, ensuring that all seniors, regardless of their location, receive the best possible care following a hip fracture.

Our analysis is grounded in data from Table 10 of the provincial report, encompassing standardized hip fracture rates, treatment rates, follow-up care rates, and refracture rates for each LHIN region. For comprehensive details, you can access the full report [\[here\]](#)

Direct Cost of Hip Fracture Episode

This indicator examines the cost of hip fractures and their impact on the healthcare system. It is important to note that the figures presented here exclusively represent acute care costs. The analysis provides insights into the financial implications of hip fractures, particularly the changes in costs before and after a fracture.

Key points include:

- The total treatment cost for all hip fractures in adults aged 66 and above in 2018/19 was approximately **\$280 million**.
- The median cost per episode of care was **\$26,380**.
- The comparison between costs one year prior to the fracture (**\$198 million**) and one year post-fracture (**\$383 million**) revealed an **increase of \$185 million**. This increment cost of \$185 million essentially signifies the additional cost of care for existing patients if they experience a hip fracture.
- Costs were highest in the 80+ age group due to higher numbers of fractures in that age range.
- The total cost of inpatient rehab during hip fracture care was **\$66 million**.

These findings emphasize the substantial financial burden of hip fractures on the healthcare system. The costs associated with hip fractures, particularly in older age groups, underscore the need for effective preventive measures and improved post-fracture care strategies.

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THE MEDIAN COST
per single episode of care
for direct utilization costs

\$26,380



Furthermore, when evaluating which age group had the lowest median cost per episode of care, the 66-79 age group had the lowest median cost per episode of care at \$5,777, while the 80+ age group had a median cost of \$9,355. However, it's crucial to note that when considering the post-pre change in costs, the 66-79 age group experienced an increase of \$15,353, and the 80+ age group had an increase of \$32,108. These cost changes indicate the financial impact of hip fractures on patient care.



We would like to express our profound gratitude to the individuals and healthcare institutions that have played an indispensable role in our mission to reduce hip fractures.

Your unwavering commitment and support have left an indelible mark on our shared goal, enhancing patient outcomes and elevating the quality of care for those susceptible to hip fractures.

With your invaluable assistance:

Hip fracture rates have displayed promising trends, showcasing an impressive overall age-standardized decline of **14.6%** between 2005/06 and 2019/20, encompassing all age categories. Notably, there were substantial decreases of -12.9% among individuals aged 50-64, **-25.1%** in the 65-79 age group, and **-20.8%** in those aged 80 and above. This encouraging shift was observed consistently among both women and men, with women achieving the most substantial reduction (**-20.4%**), surpassing the decrease recorded for men (**-11.9%**).

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New Osteoporosis Management Guidelines

Clinical Guidelines for Healthcare Providers

▾



Exercise Guidelines for Osteoporosis

Too Fit To Fracture Exercise Guidelines for Osteoporosis Management

▾



New Guidelines Coming Soon!

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CONNECT



Regional Integration Leads (RILs) work within the Ontario Osteoporosis Strategy at Osteoporosis Canada as regional contacts for fracture prevention initiatives, including the Fracture Screening and Prevention Program

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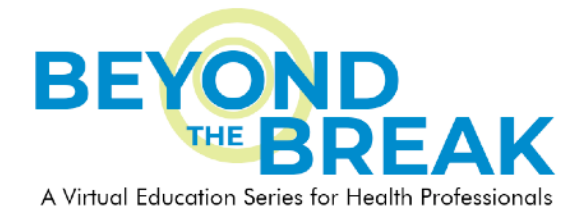
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The next edition of Fracture Link will be in late Fall of 2023. Connect with us if you have an article you would like to



What do you think of our new look?
We would love to hear from you,
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