

Executive Summary

This report on Orthopaedic Surgery in Ontario in the era of the Wait Time Strategy addresses the workload of orthopaedic surgeons to provide information for an informed debate on enhancing orthopaedic care and access to surgery, and to support policy development in the context of the transformation of the Ontario health system with the creation of Local Health Integration Networks (LHINs) and new stewardship roles for the Ministry of Health and Long Term Care.

Key Findings

- In 2005/06, over 600,000 Ontarians had over 1.3 million encounters* with orthopaedic surgeons. Of those 86% were ambulatory encounters and the remaining 14% were in hospital encounters (Inpatient, Emergency department, Same day surgery). Overall, orthopaedic surgeons carried out over 140,000 surgeries in Ontario, 58% of these as inpatient surgeries.
- Total joint replacement (TJR) accounted for 25% of all surgeries carried out by orthopaedic surgeons in Ontario, while knee arthroscopic repairs accounted for 14% and reductions with or without fixation accounted for 21% of all surgeries. Moreover, arthritis-related surgeries accounted for more than half of all surgeries performed by orthopaedic surgeons.
- Almost 40% of all arthritis-related surgeries were TJR and almost and over one quarter were arthroscopy. 15% of trauma-related surgeries were TJR (mostly partial hip replacements) and 46% were reductions with fixations.
- The knee was the most common site, followed by the hip and shoulder and elbow, for orthopaedic surgical procedures.
- Arthroscopic surgery was more frequent for younger men whereas TJR was more frequent for older women.
- Of the 1.1 million ambulatory encounters with orthopaedic surgeons, representing 500,000 people, the majority were for a traumatic condition (48%) (i.e. sprains, strains, fractures, dislocations) followed by arthritis and related conditions (35%). Visits for osteoarthritis, the most frequent reason for TJR, accounted for 18% of all encounters. On average, Ontarians who visited an orthopaedic surgeon had two ambulatory encounters.
- The data suggest that less than one in three people seeing an orthopaedic surgeon get orthopaedic surgery.
- The number of surgeries carried out increased steadily over the period 1992/93 to 2005/06 with much of this increase associated with increased numbers of TJR. There was a notable increase of over ten thousand TJRs carried out by orthopaedic surgeons between 2002/03 and 2005/06, with much of this increase taking place between 2004/05 and 2005/06 when the number of TJRs increased by over five thousand, coinciding with the initiation of the Ontario Wait Strategy. At the same time, the number of other types of surgeries remained relatively stable.
- There was almost a two-fold difference in the age-sex adjusted rates of ambulatory care encounters and orthopaedic surgeries between the Local Health Integration Networks (LHINs) in Ontario, and an over five-fold variation in the total number of surgeries carried out within each LHIN.
- There was considerable cross-boundary flow for surgical services, which was most marked in the LHINs including the Greater Toronto Area. The pattern of cross boundary flow was

* An *Encounter* is a visit to an orthopaedic surgeon where medical care was provided.

similar for all types of surgery, both elective and non-elective, suggesting structural determinants.

- For most LHINs the majority of patients had surgery within their LIHN of residence except for LHINs spanning the GTA.
- Across the LHINs the rate of ambulatory encounters was correlated with the availability of orthopaedic surgeon office hours. Surgical volumes as well as the proportion of people receiving surgery in their LHIN of residence was correlated with the availability of orthopaedic services in general, suggesting that location of surgical practice matters.
- Cross-boundary flow in most LHINs was predominantly between adjacent LHINs suggesting that much is related to the location of hospitals and transportation patterns in relation to where people live. This is particularly likely to be the case in the GTA.
- Wait times for THR and TKR were only weakly correlated with measures of cross-boundary flow.

Conclusion

Orthopaedic surgeons provide substantial contributions to the management of chronic musculoskeletal conditions including arthritis and trauma with high volumes of ambulatory as well as surgical care. These findings provide a factual basis for initiatives that help to maximize the use of surgical time and increase capacity in the system particularly for total joint replacement while at the same time ensuring that other vital areas of care recognized and not neglected. They also provide support for strategic directions in the comprehensive chronic disease management of people with arthritis, other musculoskeletal conditions and trauma including the development of alternative models of care using other health providers.

Within Ontario these findings form a baseline to support decision-making concerning system management, resource allocation and service provision in the transformation of Ontario's healthcare system.