



## 5. Emergency Medical Services

### WHAT IS THE SERVICE?

Emergency Medical Services (EMS), often referred to as ambulance or paramedic services, provides emergency care to stabilize a patient's condition, initiates rapid transport to hospitals, and facilitates both emergency and non-emergency transfers between medical facilities.

The OMBI data reported for the cities of London, Thunder Bay, Windsor, and for the County of Brant includes service provided outside their municipal boundaries.

The objectives of EMS are:

- ▶ Accessibility - all citizens should have equal access to ambulance services
- ▶ Integration - ambulance services are an integrated part of the overall Emergency Health Care Services
- ▶ Seamlessness - the closest available and appropriate ambulance will respond to a patient regardless of political, administrative or other artificial boundaries
- ▶ Accountability - ambulance service operators are medically, operationally and financially accountable to provide service of the highest possible caliber
- ▶ Responsiveness - ambulance services must adapt to the changing health care, demographic, socio-economic and medical needs in their area

### WHAT ARE THE MAJOR SERVICE DELIVERY ISSUES?

Issues facing the delivery of EMS are:

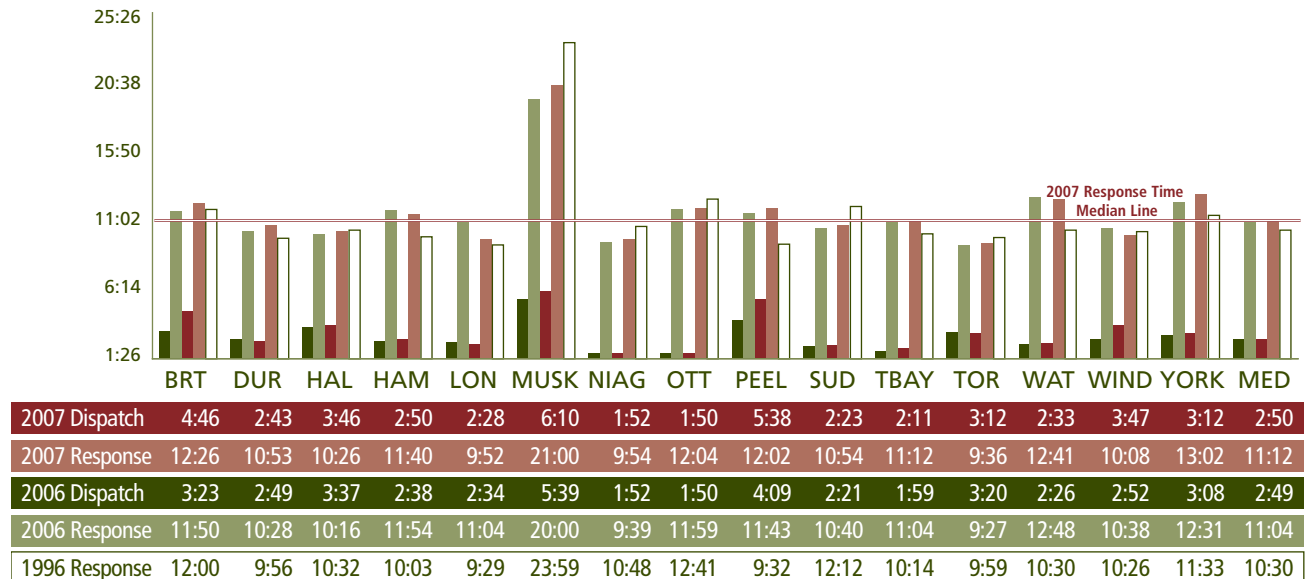
- ▶ An aging population, with the corresponding increases in demands on the services of EMS providers
- ▶ Shortage of family physicians, resulting in more patient perception of and increased reliance on emergency medical services as provider of primary care
- ▶ Offload delays - with hospital emergency services increasingly stretched, ambulances and paramedics continue to be required to stay and care for patients at the hospital for significant periods of time before formal transfer of care can occur
- ▶ Growing public demand, for higher levels of service performed by 'Advanced Care Paramedics' and for lower response times to the emergency location, including rural resident expectations of urban service levels
- ▶ Changing nature of urban areas, including traffic congestion, increase in vertical growth (high-rises) in core areas as well as continued growth of suburban areas into formerly rural land resulting in pressures on response times

- Funding challenges, as municipalities attempt to balance increased service needs with their ability to pay

**WHAT ARE THE RESULTS?**

**How long does it take EMS to respond to an emergency call?**

**FIG. 5.1 EMS Code 4, 90th Percentile Response Time for T0-2 Dispatch Time and T2-4 Response Time to Scene**



Note: Times are read as Minutes:Seconds.

Figure 5.1 results demonstrate the 90th percentile response time for both response (time from when EMS unit gets the call until an ambulance is on the scene) and for dispatch (the time from phone call being received to the EMS unit being notified) for the highest priority calls (Code 4). The 90th percentile means that 90 percent of all calls of the service have a response or dispatch time within the period reflected in the graph, thus eliminating extreme situations.

Although many municipalities are expanding ambulance and paramedic resources within their services, as the graph demonstrates the response time for many of the services has risen substantially since 1996 and most had small increases in 2007 in comparison to 2006. The demand for EMS services, often exceed the service’s existing capacity. The 1996 information is included above as the Province considers 1996 to be the base year standard that service is expected to match.

The District of Muskoka’s results are noticeably higher than the rest of the comparators primarily due to a very large geographical area with a relatively small population base. Muskoka must also service a high level of seasonal residents and visitors.

### How much time do ambulances spend at the hospital?

FIG. 5.2 Percentage of Ambulance Time Lost to Hospital Turnaround

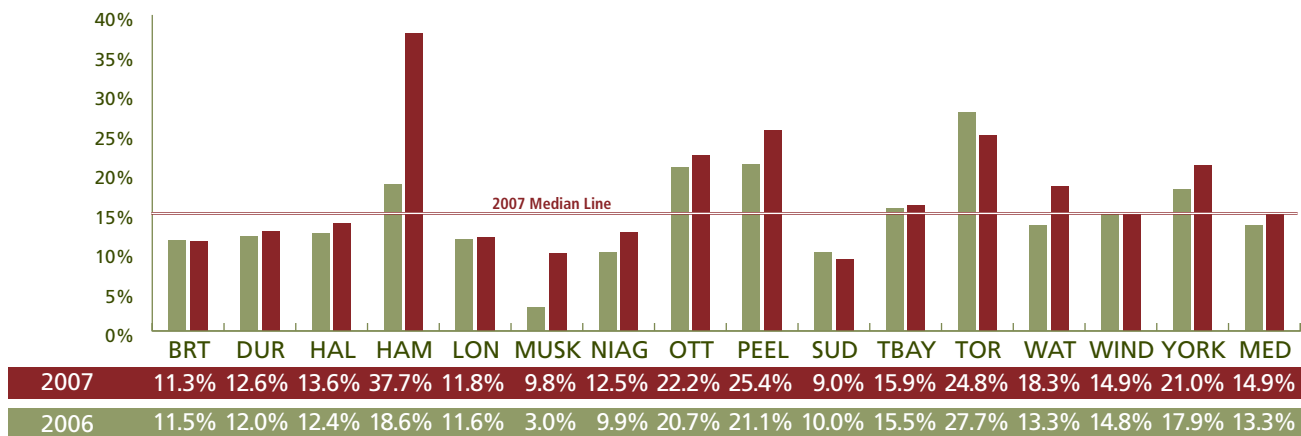


Figure 5.2 shows the time ambulances are spending at the hospital which can include the time it takes to transfer the patient, delays in transfer of care due to a lack of hospital resources (commonly referred to as off-load delay), paperwork, and other activities.

The significance of the time spent in the hospital is that the more time spent by paramedics in the hospital process, the less time they are available ‘on the road’ to respond to emergency calls. As more time is spent in hospital, paramedic services are pressured to add resources in order to maintain sufficient units available to respond to calls and to keep the response times (as seen in Figure 5.1) to acceptable levels. The time being spent in the hospital can be a combination of factors, such as bed occupancy rates, the level of activity in hospital emergency departments, and the efficiency of admission procedures.

The City of Hamilton has the highest level of time spent in hospital. Since 2003 the time for hospitals in Hamilton to assume care of the patient is substantially greater, while the time the paramedics are accountable for has largely been unchanged. Hamilton EMS continues to have collaborative discussions with the local hospitals to help them explore solutions to the increasing hospital transfer of care time as those challenges impact the resource capacity of Hamilton EMS.

## What is the cost to provide one hour of ambulance service?

FIG. 5.3 EMS Cost per Actual Weighted Vehicle In-Service Hour

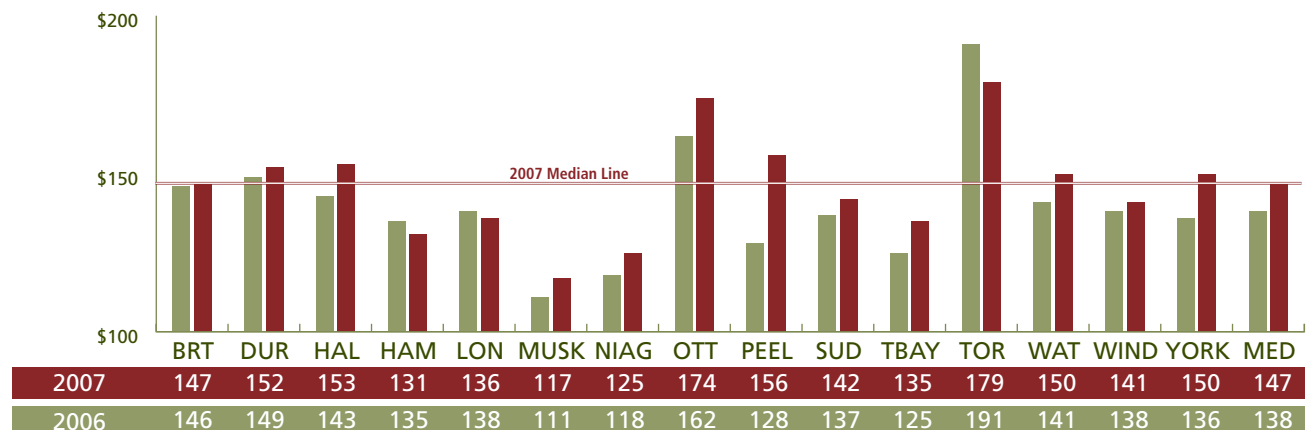


Figure 5.3 shows the cost per hour to have an EMS vehicle available to respond to patient calls. Although the full cost of the service including administrative costs, medical supply costs, building operating costs, supervision and overhead are included only the hours that vehicles are available for service are used. As wages, fuel and other costs increase, this measure will also trend upwards.

### WHAT SHOULD YOU CONSIDER WHEN REVIEWING THESE RESULTS?

Each municipality's results are influenced to varying degrees by a number of factors, including:

- ▶ Geographic coverage/population density - congestion can make navigating roads more difficult, resulting in significant delays. Urban centres tend to have taller buildings which can slow response times (by requiring responses to high level apartment/condo units). Rural areas can have large under populated areas making it challenging to provide cost-effective, timely emergency coverage
- ▶ Local demographics – an older population can increase the demand for service, as can seasonal visitors and the inflow of workers from other communities during the day
- ▶ Level of certification - paramedics can impact the cost of services provided, e.g., higher wage rates of advanced care vs. primary care paramedics and also at what point in multi-year collective bargaining contracts the service is at
- ▶ Specialized services - tactical teams, multi-patient transport units, bike and marine teams, increasingly being provided by the larger municipalities

For more information about the results, contact the Municipality's representative listed in Appendix F, page 94.