6 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.

Specific objectives include:

- All citizens should have equal access to ambulance services
- Ambulance services are an integrated part of the overall emergency health care system
- The closest available and appropriate ambulance responds to a patient regardless of political, administrative or other artificial boundaries
- Ambulance service operators are medically, operationally and financially accountable to provide service of the highest possible caliber
- Ambulance services must adapt to the changing health care, demographic, socio-economic and medical needs in their area

Influencing Factors:

Demographics: Age and health status of the population has an impact on the number and severity of calls. An older population can increase the demand for services, as can seasonal visitors and the inflow of workers from other communities during the day.

Governance: Budgeted Resources, Local Response Times Standards and Deployment Plans are mandated by Council.

Hospital Delay: Emergency Medical Services face varying lengths of delays in the off-load of patients at local hospitals, which can impact the resources required and availability to respond to calls.

Non Residents: Visitors, workers, tourists and out of town hospital patients can increase the call volume but are not reflected in the measures (population is that of municipality only).

Specialized Services: Tactical teams, multi-patient transport units, bike and marine teams are increasingly being provided by the larger municipalities. Also, costs can be impacted by higher wage rates of Advanced Care (ACP) vs. Primary Care (PCP) Paramedics.

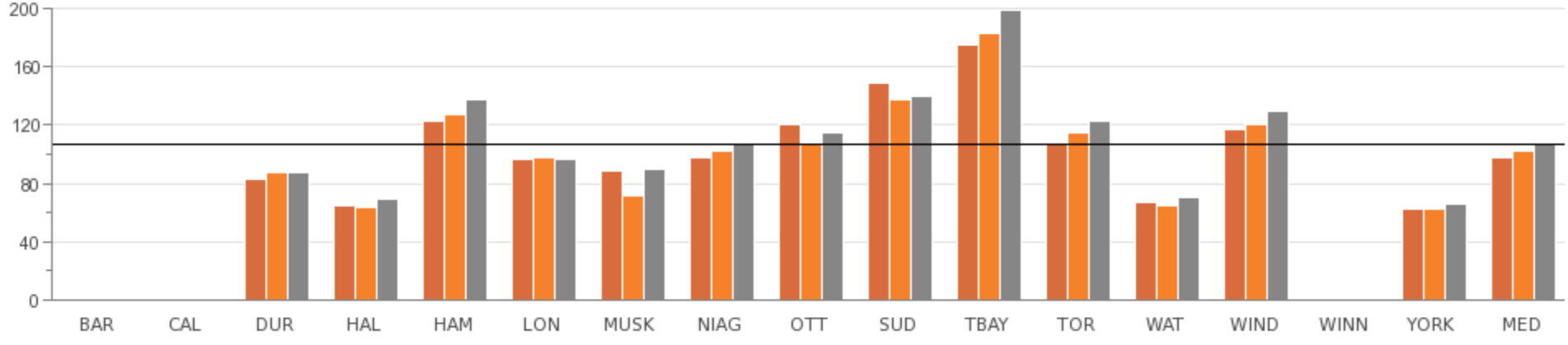
Urban vs. Rural: Mix of urban vs. rural geography can influence response time and cost factors. Congestion can make navigating roads more difficult, resulting in significant delays. Urban centres with taller buildings can impact response times, i.e. added vertical response to high level apartment/condo units. Large rural geographic areas can make it challenging to provide cost-effective, timely emergency coverage.

Vehicle Mix: Emergency Medical Services use a varying mixture of response vehicles which have differing levels of staffing.

Emergency Medical Services

How many calls were responded to by EMS providers?

Fig 6.1 Total EMS Responses per 1,000 Population



2009	N/A	N/A	83	65	123	96	89	98	120	149	175	107	67	117	N/A	62	98
2010	N/A	N/A	87	63	127	98	72	102	108	138	183	115	65	121	N/A	62	102
2011	N/A	N/A	87	69	138	97	90	107	115	140	199	123	70	130	N/A	66	107

Source: EMDS229 (Service Level)

How long does it take from the time a call is received and dispatched to EMS unit?

Fig 6.2 Average Response Time from Time of Call Received and Dispatched to EMS Unit

Fig 6.2	**EMS TO-2 Code 4 90th Percentile Response Time** (min:sec)		
Municipality	**2009**	**2010**	**2011**
Durham	02:15	03:56	04:11
Halton	02:43	02:50	02:52
Hamilton	03:09	03:01	03:09
London	02:20	02:39	02:50
Muskoka			01:44
Niagara	01:50	01:51	01:51
Ottawa	02:25	02:46	02:41
Sudbury (Greater)	02:20	03:28	02:51
Thunder Bay	02:05	02:20	02:22
Toronto	03:24	03:15	03:05
Waterloo	03:33	03:33	03:40
Windsor	03:35	03:37	03:32
York	02:37	02:43	02:42
Median	02:56	02:55	02:51

Source: EMDS419B, EMDS419C, EMDS419D (Customer Service)

Note: Dispatch is the time from a phone call being received to the EMS unit being notified.

Note: Code 4 refers to the highest priority calls.

Note: 90th percentile means that 90% of all calls of the service have a dispatch time within the period reflected in the graph.

How long does it take from the time a call is received by EMS unit to when they arrive on scene?

Fig 6.3 Average Response Time from Time of Call Received by EMS Unit and Arrival on Scene

Fig 6.3	**EMS T2-4 Code 4 90th Percentile Response Time** (min:sec)		
Municipality	**1996 Standard**	**2010**	**2011**
Durham	10:04	10:42	10:36
Halton	10:32	10:16	10:04
Hamilton	10:03	10:15	10:48
London	09:30	09:10	09:23
Muskoka	24:00	09:00	09:12
Niagara	10:48	09:45	09:43
Ottawa	12:33	10:59	10:41
Sudbury (Greater)	12:12	10:26	10:44
Thunder Bay	11:10	11:33	11:33
Toronto	09:59	10:38	10:43
Waterloo	10:30	11:58	12:24
Windsor	10:23	09:44	09:57
York	11:33	12:53	12:41
Median		10:59	10:41

Source: EMDS415A, EMDS408A, EMDS408B (Customer Service)

Note: As set out by the Province, the 1996 information is considered to be the base year standard that service is expected to match.

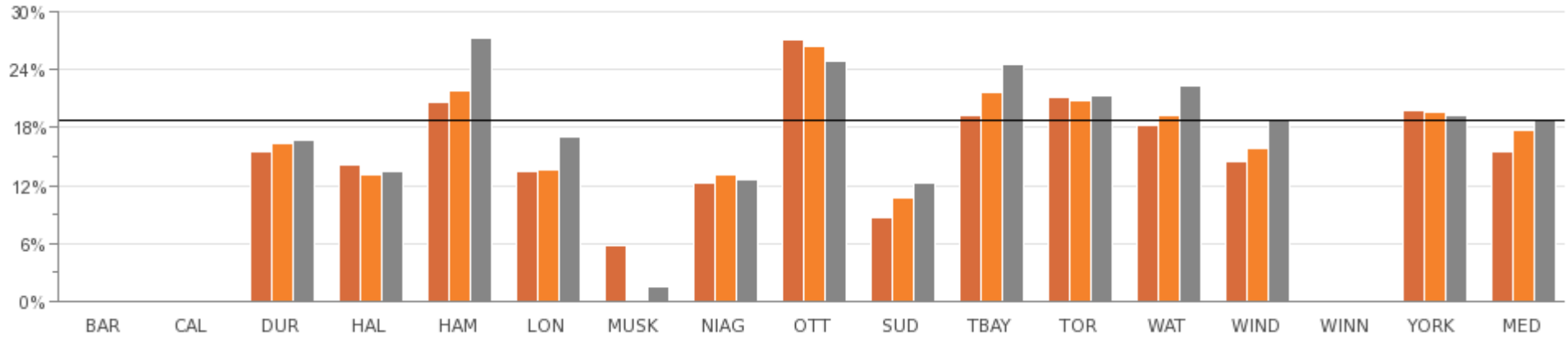
Note: Responsive time is the time from a phone call being received by EMS unit to when they arrive on scene.

Note: Code 4 refers to the highest priority calls.

Note: 90th percentile means that 90% of all calls of the service have a dispatch time within the period reflected in the graph.

What percent of time do ambulances spend at the hospital?

Fig 6.4 Percent of Ambulance Time Lost to Hospital Turnaround



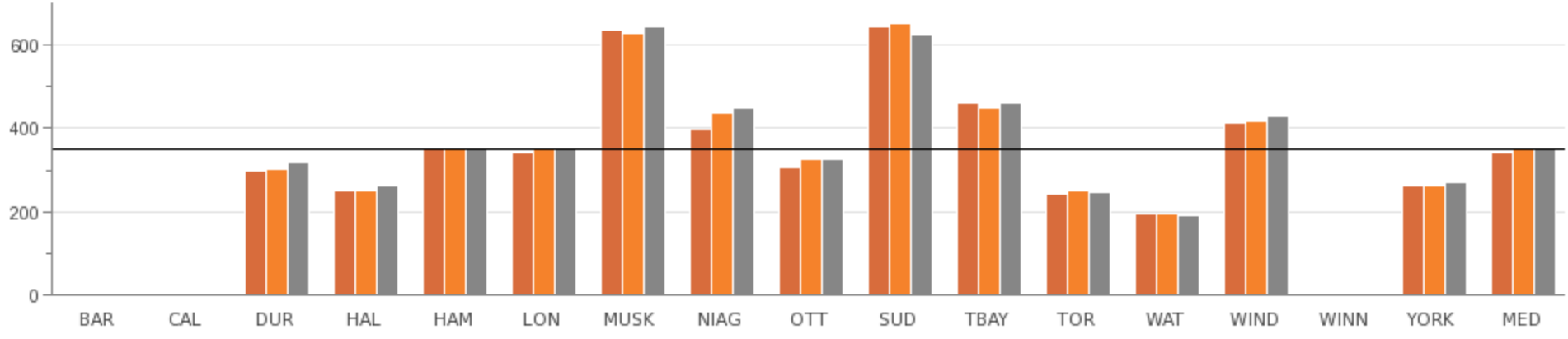
2009	N/A	N/A	15.5%	14.1%	20.7%	13.4%	5.7%	12.2%	27.2%	8.6%	19.3%	21.1%	18.3%	14.4%	N/A	19.8%	15.5%
2010	N/A	N/A	16.3%	13.1%	21.8%	13.6%	N/A	13.1%	26.4%	10.8%	21.6%	20.8%	19.2%	15.8%	N/A	19.6%	17.8%
2011	N/A	N/A	16.7%	13.4%	27.3%	17.0%	1.4%	12.6%	25.0%	12.2%	24.5%	21.4%	22.3%	18.7%	N/A	19.3%	18.7%

Source: EMDS150 (Community Impact)

Comment: Time spent in hospital includes the time it takes to transfer a patient, delays in transfer care due to lack of hospital resources (off-load delay), paperwork and other activities. The more time paramedics spend in the hospital process equates to less time they are available on the road.

How many hours of ambulance service are provided in the community for every 1,000 people?

Fig 6.5 EMS Actual Weighted Vehicle In-Service Hours per 1,000 Population

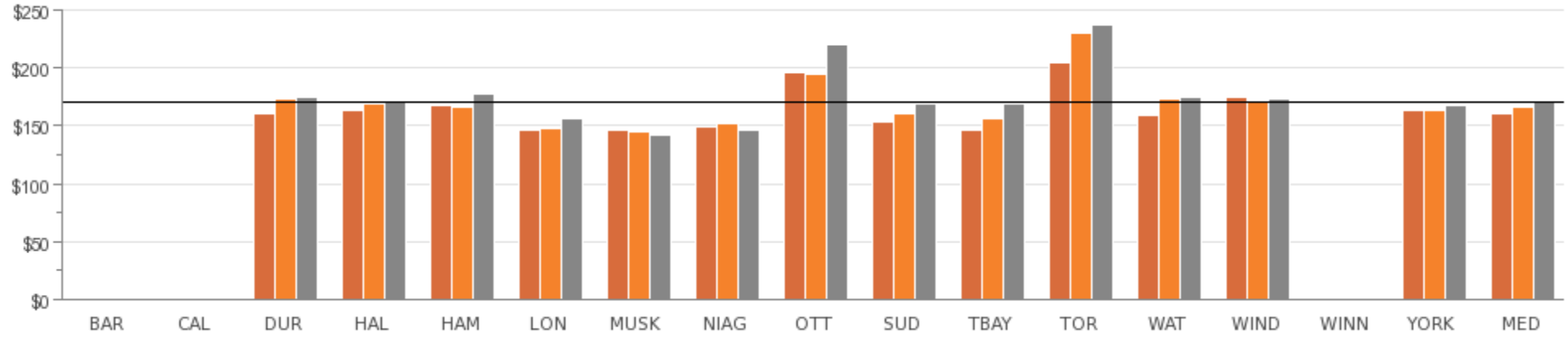


2009	N/A	N/A	297	251	349	343	638	399	307	644	462	244	196	412	N/A	264	343
2010	N/A	N/A	303	249	354	349	628	438	326	652	450	249	193	417	N/A	263	349
2011	N/A	N/A	316	264	350	354	645	450	325	627	461	246	192	428	N/A	269	350

Source: EMDS225A (Service Level)

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

Fig 6.6 EMS Operating Cost per Actual Weighted Vehicle In-Service Hour



2009	N/A	N/A	$160	$164	$168	$146	$147	$149	$196	$154	$147	$205	$159	$175	N/A	$163	$160
2010	N/A	N/A	$174	$169	$166	$148	$145	$152	$195	$161	$157	$230	$173	$171	N/A	$164	$166
2011	N/A	N/A	$175	$171	$177	$156	$142	$147	$221	$169	$169	$238	$175	$173	N/A	$168	$171

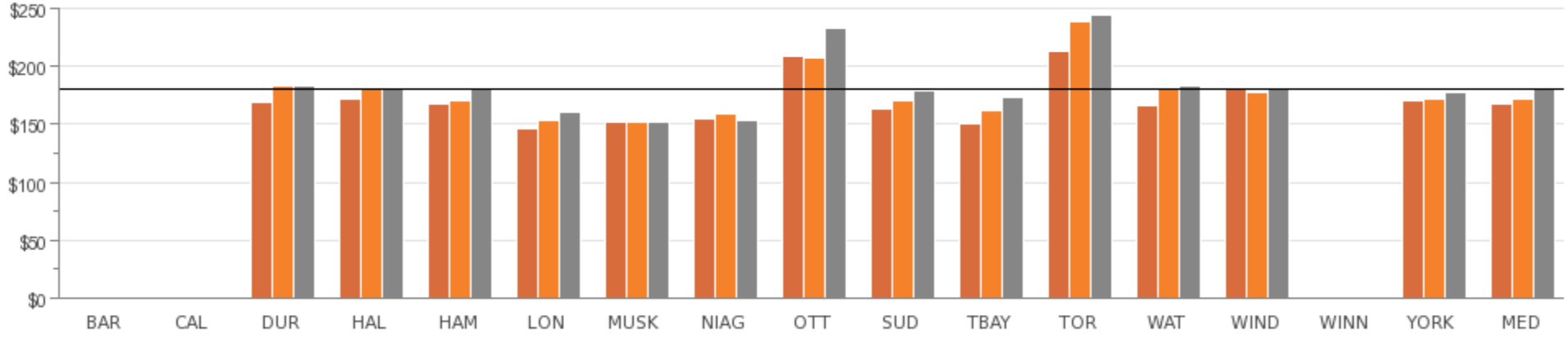
Source: EMDS305A (Efficiency)

Note: Hours refers to only the hours that vehicles are available for service.

Note: Costs include administrative, medical supply, building operating, supervision and overhead.

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

Fig 6.7 OMBI EMS Total Cost per Actual Weighted Vehicle In-Service Hour (includes amortization)



2009	N/A	N/A	$169	$172	$168	$146	$152	$155	$209	$163	$151	$213	$166	$182	N/A	$170	$168
2010	N/A	N/A	$183	$180	$170	$153	$152	$159	$208	$171	$162	$239	$181	$178	N/A	$172	$172
2011	N/A	N/A	$183	$181	$182	$161	$152	$153	$234	$179	$174	$245	$183	$181	N/A	$177	$181

Source: EMDS305AT (Efficiency)

Note: Hours refers to only the hours that vehicles are available for service.

Note: Costs include administrative, medical supply, building operating, supervision and overhead.

Note: Calculation includes amortization.