



# MIDDLESEX – LONDON EMS 2014 PERFORMANCE REPORT

Middlesex – London Emergency Medical Services Authority

Tel: 519-679-5466  
Fax: 519-679-9509

340 Waterloo Street  
London, ON N6B 2N6

[www.mlems.ca](http://www.mlems.ca)

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# PERFORMANCE

## Number of Calls for Service Received

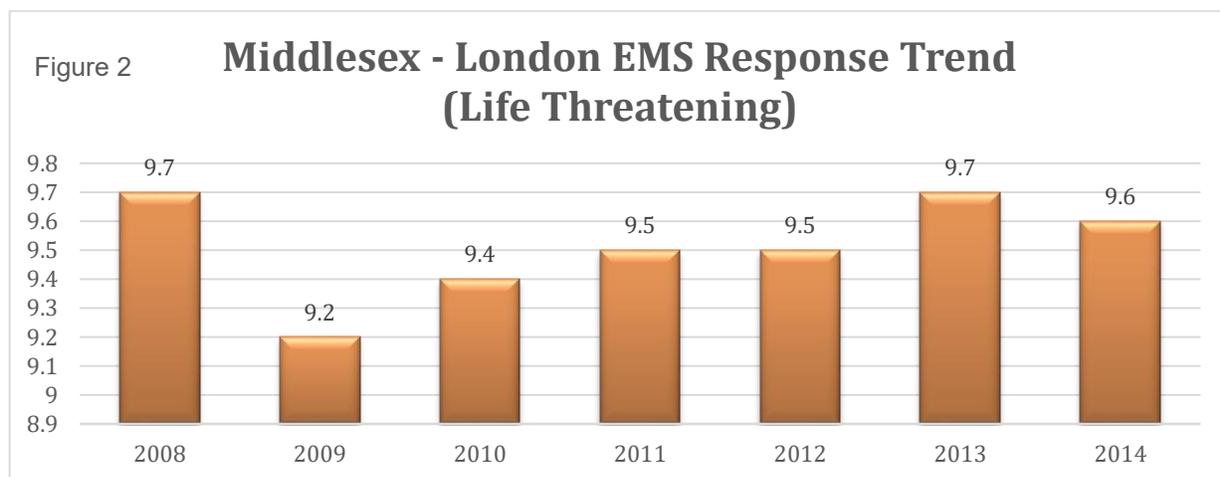
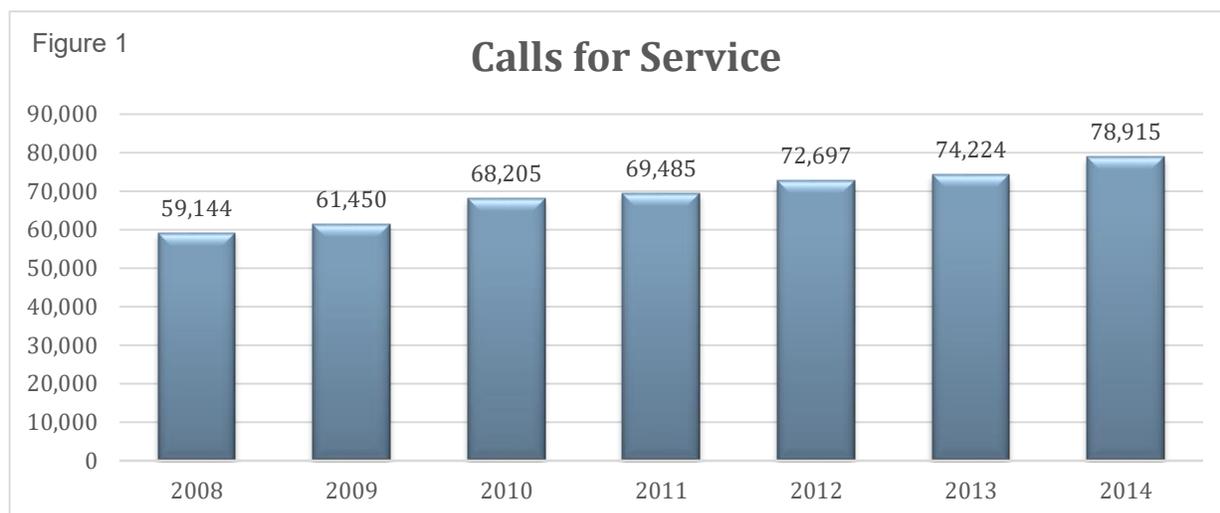
In 2014, the number of calls for service was **78,915** – an increase of **6.32%** over 2013 (See Figure 1), and an increase of over **29.81%** since 2008 where calls for service was at 59,144. Approximately **88.38 %** of the incidents attended by Middlesex – London EMS occur within the City of London.

## Response Time

*(Length of time for Middlesex – London EMS to arrive at an emergency scene)*

Figure 2 below shows Middlesex – London EMS' 90<sup>th</sup> percentile response time trend for life-threatening code "4" calls. 2014's response time has improved slightly to **9 min 36 sec** from 2013's time of **9 min 39 sec**.

*(Data obtained from the Ministry of Health, Ambulance Dispatch Reporting System "ADRS")*



# PERFORMANCE

## Number of Life Threatening Calls (Code 4)

In 2014, the number of life threatening calls dispatched was 31,709 – an increase of 6.6% over 2013 (See Figure 3)

## Ambulance Calls per Station

Figure 4 below shows the number of ambulance calls broken down by response station.

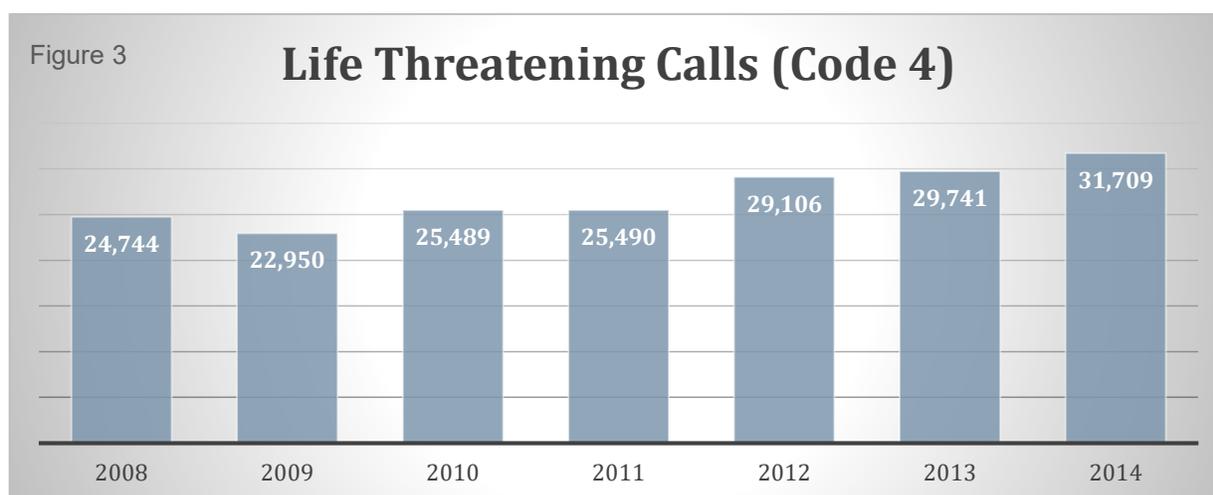


Figure 4

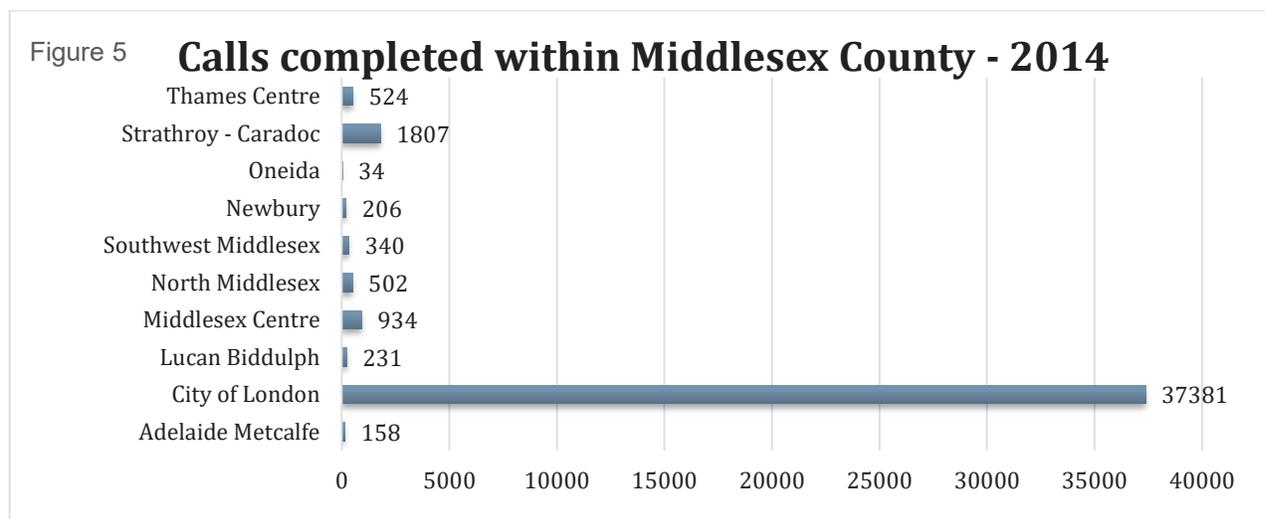
### ADRS Data - Calls Dispatched by London CACC - 2014

Service	Station	Station Name	Priority - 1	Priority - 2	Priority - 3	Priority - 4	Priority - 8	Total	
719 MIDDLESEX - LONDON EMS	1	LONDON - Waterloo St.	30	32	5,996	10,427	6,253	22,738	
	2	LONDON - Meg Dr.	15	6	1,784	3,247	2,902	7,954	
	3	LONDON - Oxford St. W.	0	1	656	1,181	718	2,556	
	4	LONDON - Trossack's Av.	12	17	1,777	3,095	2,350	7,251	
	6	GLENCOE	15	2	241	361	113	732	
	7	STRATHROY	18	12	757	1,317	1,253	3,357	
	8	PARKHILL	0	0	139	317	461	917	
	9	LUCAN	0	0	178	355	317	850	
	10	THAMES CENTRE - Nilestown	6	7	547	1,225	2,307	4,092	
	12	KOMOKA	3	0	427	872	1,653	2,955	
	13	LONDON - Colonel Talbot Rd.	5	0	1,067	1,985	2,826	5,883	
	14	LONDON - Hyde Park Rd.	3	2	934	1,653	3,671	6,263	
	15	LONDON - Trafalgar St.	18	40	1,394	2,786	2,042	6,280	
	16	LONDON - Horizon Dr.	4	5	1,772	2,888	2,418	7,087	
	719 MIDDLESEX - LONDON EMS - Total			129	124	17,669	31,709	29,284	78,915

# PERFORMANCE

## Calls completed within Middlesex County Boundaries

Priority 1-4 calls completed within the County of Middlesex broken down by lower-tier. Other calls were completed in neighbouring municipalities but are not listed here. (Data retrieved from iMedic ePCR)



## Average Chute Time for Life Threatening Calls (Code 4)

The Average Elapsed Time (T2 – T3) Crew Notified of Life Threatening Call to Crew Mobile on call (Reaction Time)

***Middlesex – London EMS Policy for Chute Time on Code 4 Calls is 1 minute***

***2014 Average Code 4 Chute Time for Middlesex – London EMS: 36 seconds***

## Dispatch Priority and Return Priority

In Figures 6 and 7, you can see the issues with Dispatch “over triage” of calls. In 2014, **64.27%** of the time, Paramedics are sent out Priority 4 (Lights and Sirens) to calls, to only return Priority 4, **20.53%** of the time.

## Top Dispatch Problems and Top Primary Problems

Figures 8 illustrates the Top Dispatch Problems (what the paramedics are told when they are assigned to the call by London CACC). Figure 9 illustrates the Top Primary Problems (what the actual problem is with the patient when the paramedics arrive on scene.) In 2014, the Top Dispatch Problems were for Respiratory Distress, General Illness/Weakness, Chest Pain, Trauma, Abdominal Pain and Motor Vehicle Collisions.

# PERFORMANCE

Figure 6

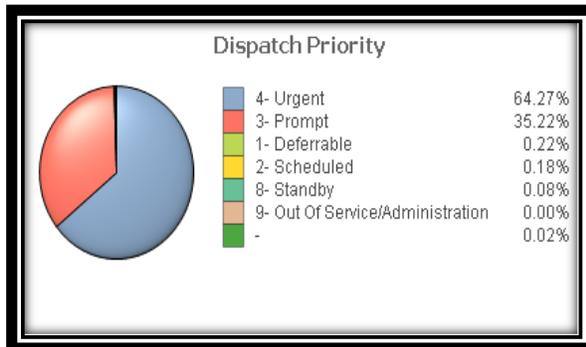


Figure 7

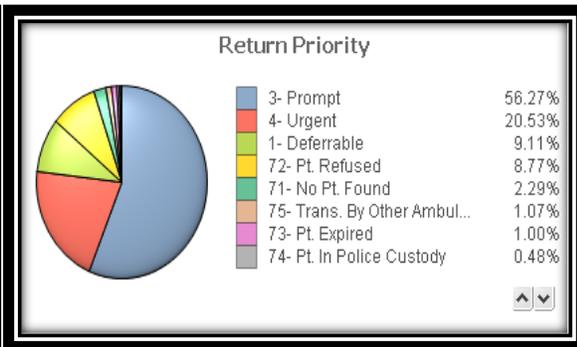


Figure 8

## Dispatch Problem



Figure 9

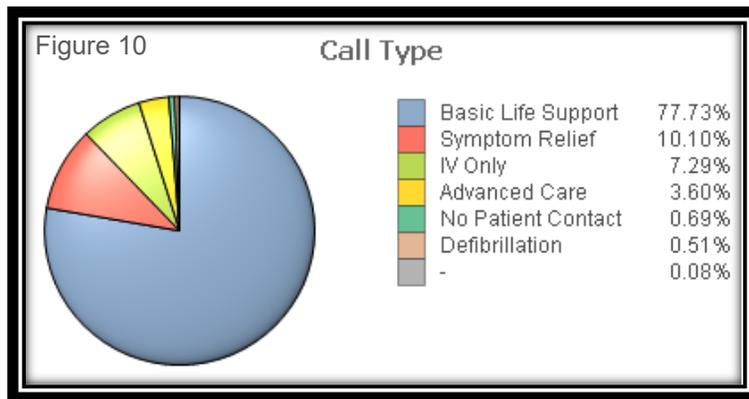
## Primary Problem



# EFFICIENCY AND COST INDICATORS

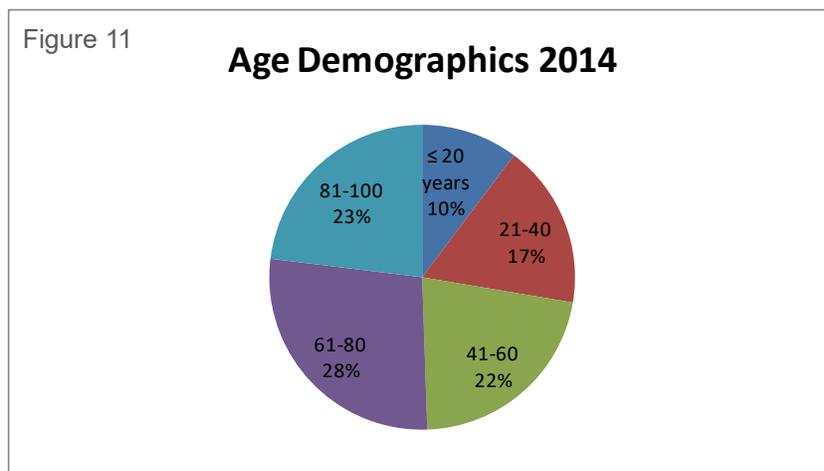
## Call Type

Figure 10 illustrates the types of calls that the paramedics are responding to. The majority of the calls (77.73%) were considered Basic Life Support Calls. For all of the calls in 2014, 3.6% were considered Advanced Care. Where the care seems to be most effective is in the areas of Primary Care Paramedics with enhanced skills of Symptom Relief and Intravenous Therapy Certification.



## Age Demographics

In 2014, of all the patients assessed by Middlesex – London EMS Paramedics, the majority of the patients are in the age category 61-80 years of age. Middlesex – London EMS is experiencing increasing EMS demand from an aging population. (Figure 11)



# EFFICIENCY AND COST INDICATORS

## Land Ambulance Response Time Standard

Ontario Regulation 368/10 as consolidated into O. Reg 257/00 requires ambulance service delivery agents to adopt municipally-developed response time plans for cardiac arrest patients and CTAS (Canadian Triage Acuity Scale) 1, 2, 3, 4 and 5 patients receiving emergency responses. As the designated delivery agent for ambulance service for Middlesex County and the City of London, the Council for Middlesex County adopted the performance plan respecting response times for 2014.

Middlesex – London EMS continues to monitor and **exceed all targeted response time standards.** (Figure 12)

(Data Source: iMedic Analytics)

Figure 12

JANUARY 1, 2014- DECEMBER 31, 2014	Target Response Time	% Achieved Target	Number of Calls that met response time	% Achieved
SUDDEN CARDIAC ARREST (defib on scene)	6 minutes	50%	233/294	79.25%
CTAS Level				
1	8 minutes	50%	958/1160	82.59%
2	8 minutes	50%	6408/8278	77.41%
3	8 minutes	50%	15062/22562	66.76%
4	12 minutes	50%	5187/5872	88.33%
5	12 minutes	50%	1596/1812	88.08%

# EFFICIENCY AND COST INDICATORS

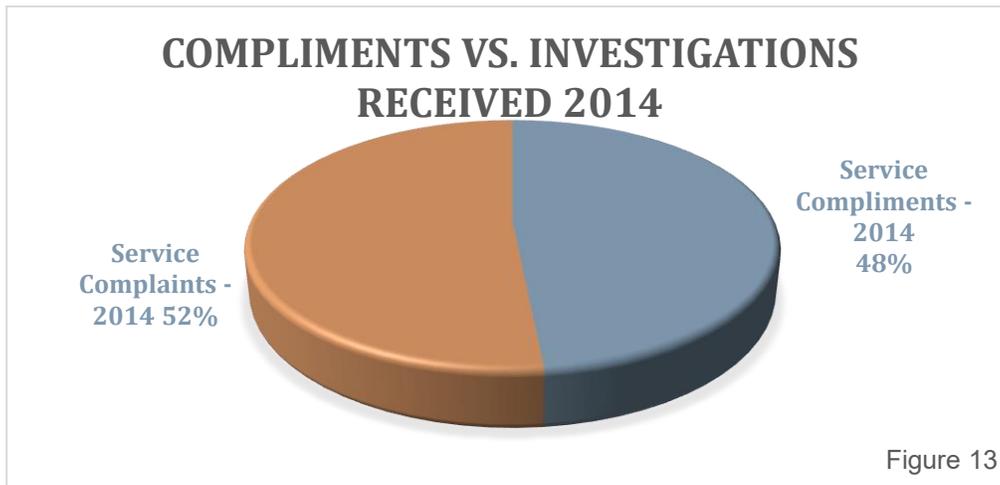
## Regulatory Compliance Division

The Regulatory Compliance Division is responsible for auditing and maintaining policies and procedures for the operation of Middlesex – London EMS and its related activities to prevent illegal, unethical, or improper conduct. This division manages and conducts all workplace investigations of complex and unique scale and works closely with the Ministry of Health and Long-Term Care, specifically the Investigations, Certification and Regulatory Compliance Group (ICRCG), Provincial Coroner’s Office, local and municipal Police Services, Special Investigations Unit (SIU) and any other external investigative body.

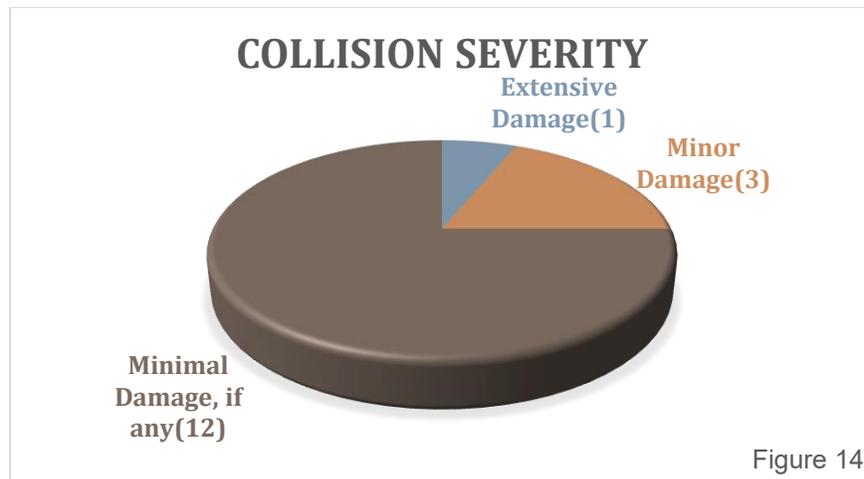
In 2014, Middlesex – London EMS received **82** complaints regarding service. Of the 82 incidents, 76% have been investigated and a conclusion has been reached and closed. 17% of the complaints have been investigated and found to be a non-issue due to a lack of definitive information. 7% of the complaints remain pending due to the complainant not wishing to cooperate further in the process.

The Regulatory Compliance Division also handles and processes all compliments that are received from the public or allied agencies. In 2014, MLEMS received **77** compliments for paramedic actions. See figure 13

Another aspect of investigations is Ambulance Collisions. In 2014, there were 16 reportable incidents involving Middlesex – London ambulances. Of the 16 incidents, 3 occurred while responding to the scene of a call and 3 occurred while returning to a hospital with a patient on board. See Figure 14 for a breakdown of collision severity.

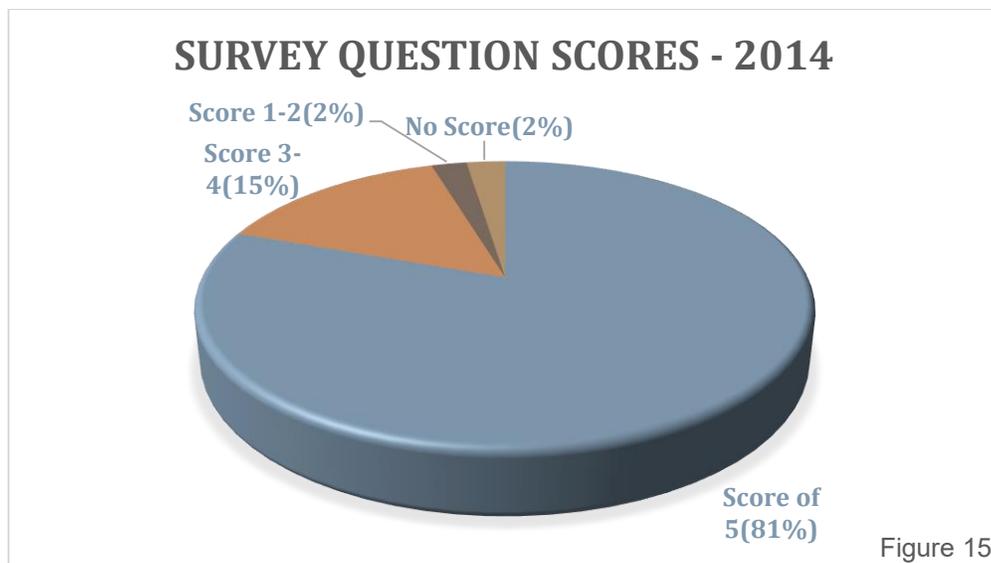


## EFFICIENCY AND COST INDICATORS



### Customer Survey

Middlesex – London EMS relies on valuable feedback from the community that we serve. Randomized customer surveys are sent out to clients who have utilized the EMS Service. In 2014, 520 surveys were sent out with 189 surveys being returned completed. Each survey has 10 questions, and they are scored on a scale of 1 – 5 with a score of 5 being excellent and a score of 1 being unacceptable. **96%** of the surveys came back with positive feedback. (Figure 15)



# EFFICIENCY AND COST INDICATORS

## Offload Delay

Over the course of 2014, Ambulance Offload Delay hours fluctuated throughout the year with a peak in April and a very significant drop over the summer months. Nearing the end of the year, an upwards trend has started to develop. (Figure 16)

Ambulance Offload delay means all minutes > 30 minutes in the Offload phase of patient transfer. Calculation = Time Arrive Hospital to Offload Time less 30 minutes.

Figure 17 indicates the number of equivalent 24 hour ambulance days which were lost to offload delays over the course of each month in 2014.

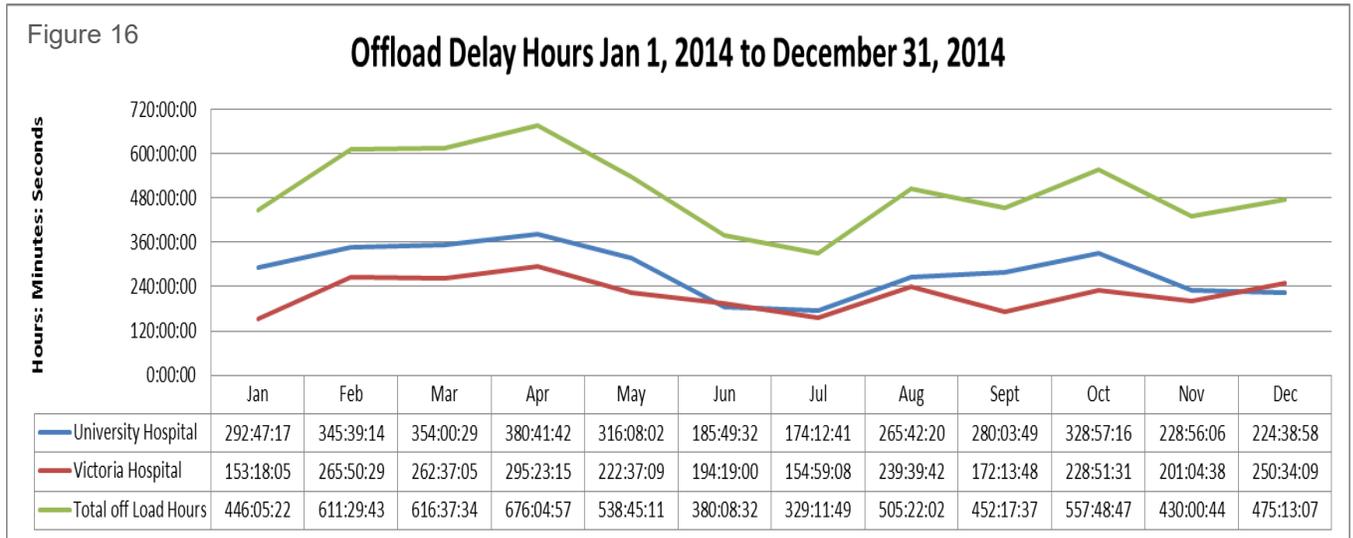


Figure 17

Indicator Definition	Rolling Monthly Results - 2014											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
The number of 24 hour ambulance days lost to offload delay over the course of a month	18.6	25.5	25.7	28.2	22.4	15.8	13.7	21	18.8	23.2	17.9	19.8

(Data Source: iMedic ePCR)

# COMMUNITY

## Public Education Programming

Our Public Education and Public Relations programming focus for 2014 was CPR Awareness and Emergency Preparedness. Our goal was achieved by focusing on presenting the Middlesex – London EMS “Cool-Aid Program” to multiple seniors groups and community events. Middlesex – London EMS Paramedics and staff spent **1,228 hours** volunteering their time and promoting public education. Prevention programming was geared towards youth in our community which focused on preparedness, awareness, and injury prevention.



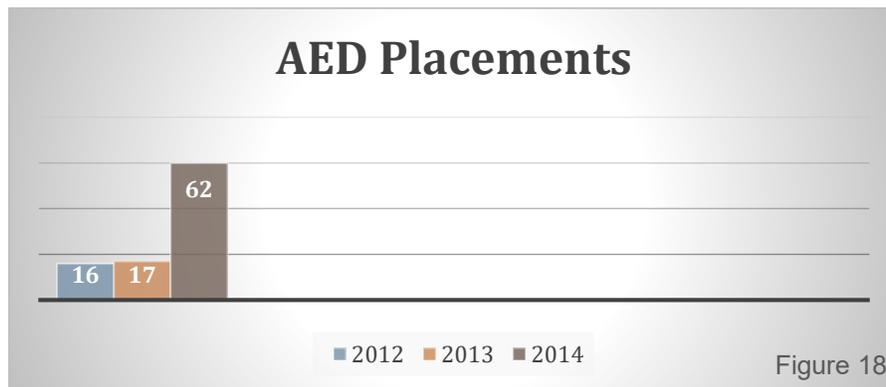
# COMMUNITY

## Continuing Education – CPR / First Aid

Continuing Education as a training partner with the Canadian Red Cross, Middlesex – London EMS offered **21 courses** ranging from full First Aid and CPR certification to recertification courses. Through these courses, Middlesex – London EMS successfully trained **112 people**. Corporate training sites included: Best Buy Canada, London Health Sciences Centre, and the London Convention Centre.

## Public Access Defibrillator Program

In 2014, **62** Public Access Defibrillators were implemented throughout the Middlesex – London area. With each AED installation, a CPR/AED awareness session was offered to ensure that facility staff / members / employees are comfortable and confident in the AED use. In 2014, **558** people participated in the MLEMS CPR/AED awareness sessions. Receiving facilities included: 38 London & District Catholic School Board Schools, Byron Legion, West Williams Community Centre, North Middlesex Community Centre, London Transit, London City Hall, Byron Community Centre, Market Tower, North London Sports Field, Victoria Park Band Shell, Cherryhill Mall, Berkshire Club just to name a few. (Figure



# CARDIAC ARREST SURVIVAL

## Post – Cardiac Arrest Survival

Each year, Middlesex – London EMS holds its Annual Cardiac Arrest Survival Day. This event is held each year to celebrate survivors of out-of-hospital Cardiac Arrest and to recognize the first responders who played a role in saving them. This event also give first responders an opportunity to meet the people they cared for and see how they've gotten on with their lives.

In 2014, Middlesex – London EMS Paramedics successfully resuscitated thirty-five (35) patients, who were able to be discharged from hospital after their cardiac event. On the Annual Survivor Day, Middlesex – London EMS was pleased to have twenty-two (22) of these patients come to the Event.



# PARAMEDICS

## New Employees

In 2014, Middlesex – London EMS welcomed 14 new Paramedics to our Emergency Services Team. Each paramedic has a minimum of two years post-secondary education in a Paramedic Program at a Community College. Orientation training with the new hires typically last 2 – 3 weeks. During their orientation, tours are completed with community partners such as London Health Sciences Centre – Delivery Room, and Cardiac Cath Lab.



# MISSION STATEMENT

## Middlesex – London EMS Mission Statement

*To deliver an efficient and high quality emergency response and care service to the population of Middlesex – London, with required provincial targets and standards as a minimum service level, and to contribute to the health of the community through active collaboration with other health care, community and emergency services partners.*



# GLOSSARY

**ADRS:** Ambulance Dispatch Reporting System

**AED:** Automatic External Defibrillator – An electronic device that applies an electric shock to restore the rhythm of a fibrillating heart.

**CACC:** Central Ambulance Communications Centre

**Chute Time:** The time it takes an ambulance to depart once notified of a call.

**Code 1 (Deferrable):** A routine call that may be delayed without detriment to the patient (e.g. a non-scheduled transferred; a minor injury).

**Code 2 (Scheduled):** A call which must be done at a specific time, for example because of special treatment or diagnostic facility requirement (e.g. inter-hospital transfers or a scheduled meet with an air ambulance).

**Code 3 (Prompt):** A call that should be performed without delay (e.g. serious injury or illness).

**Code 4 (Urgent):** A call that must be performed immediately where the patient's 'life or limb' may be at risk (e.g. Vital Signs Absent patient or unconscious head injury).

**CTAS Level:** The 'Canadian Triage & Acuity Scale' is used to assign a level of acuity to a patient. Acuity refers to the gravity of the situation – the potential for death and/or irreversible illness. CTAS is a tool that more accurately defines the patient's need for care. Assignment of the CTAS level is to be based upon not only the presenting complaint identified on the initial assessment made by the paramedic, but also on their examination findings, and response to treatment.

**Dispatch Priority Code:** The priority code number that is assigned to the call by the dispatcher. It identifies the priority under which the ambulance responds to the call location (e.g. an urgent response would be entered as Code 4).

**Dispatch Problem:** The problem given to the crew by the Ambulance Dispatcher indicating the nature of the problem of the call they are responding to.

**iMedic ePCR:** The electronic documentation software used to chart the Ambulance Call Report.

**Offload Delay:** Offload delay measures the offload of patients at local hospitals, which can impact the resources required and availability to respond to calls.

**Primary Problem:** The primary complaint of the patient upon assessment by the paramedic crew.

**Response Time:** Response time means the time measured from the time of notice is received to the earlier of either the arrival on-scene of a person equipped to provide any type of defibrillation to sudden cardiac arrest patients or the arrival on-scene of the ambulance crew.

**Return Priority Code:** The priority code number that is assigned to the call by the ambulance crew. It identifies the priority under which the patient is transported (e.g. a prompt return to a medical facility would be entered as a Code 3).