

**Report to/Rapport au :**

**Community and Protective Services Committee  
Comité des services communautaires et de protection**

**June 21, 2012  
21 juin 2012**

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CITY WIDE / À L'ÉCHELLE DE LA VILLE

Ref N°: ACS2012-COS-EPS-0028

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**SUBJECT: OTTAWA PARAMEDIC SERVICE – 2011 ANNUAL REPORT**

**OBJET : RAPPORT ANNUEL DE 2011 DU SERVICES PARAMÉDIC  
D'OTTAWA**

**REPORT RECOMMENDATION**

**That the Community and Protective Services Committee receive this report for information.**

**RECOMMANDATION DU RAPPORT**

**Que le Comité des services communautaires et de protection prenne connaissance du présent rapport à titre d'information.**

**EXECUTIVE SUMMARY**

The 2011 Annual Report will highlight the design of Ottawa's performance based Paramedic Service. The performance based Paramedic Service is founded on five key hallmarks: clinical excellence, response time reliability, patient and community satisfaction, economic efficiency and performance accountability. The simultaneous achievement of these principles is the foundation for continued service excellence.

The Ottawa Paramedic Service regularly exceeds industry quality standards and sets best practices that are recognized internationally. The mandate of the Ottawa Paramedic Service extends beyond the boundaries of the City of Ottawa. It is responsible for dispatching across 10,000 square kilometres of Eastern Ontario, which includes Cornwall, Stormont Dundas and Glengarry as well as the United Counties of

Prescott and Russell. Also, the Service participates and responds to several large-scale, high profile events.

This report confirms that the Ottawa Paramedic Service remains innovative and reliable despite systemic health care system challenges and rising service demand. Since 2001 service demand has consistently increased year-over-year. The Ottawa Paramedic Service anticipates that a continued rise in service demand is inevitable given Ottawa's demographics, which include an aging population and population growth.

Despite the challenge of a 6.4% increase in service demand bringing the total number of responses to 116,688, the average response time performance has improved to 8 minutes 8 seconds in high-density areas. This progress can be attributed to the enhanced resource prioritization and deployment strategies, as well as the development of strategic programs related to community medicine and the "depart and chart" protocol.

In order to meet increased call demand the Ottawa Paramedic Service has focused on enhancing several mitigation strategies:

1. The expansion of the Paramedic Rapid Response Unit (PRU)
2. The renewed funding for the Off-Load Nurse pilot project
3. The "Depart then Chart" Protocol
4. Advancements within community medicine (i.e. public access defibrillators).

The Service continues to maintain and develop these programs and initiatives in order to efficiently manage its resources without negatively impacting the quality of patient care.

The demographics of the aging population will continue to drive increases in overall response volumes, the Paramedic Service continues to seek out new and innovative measures to reduce response times and meet the needs of residents of Ottawa.

## RÉSUMÉ

Le rapport annuel 2011 abordera la conception du Service paramédic d'Ottawa, qui est axé sur le rendement et qui mise sur cinq éléments clés : l'excellence clinique, la fiabilité des délais d'intervention, la satisfaction des malades et de la collectivité, l'efficacité sur le plan économique et la responsabilité à l'égard du rendement. L'application simultanée de ces principes est à la base de l'excellence continue du service.

Le Service paramédic d'Ottawa dépasse régulièrement les normes de l'industrie en matière de qualité, et ses pratiques exemplaires sont reconnues à l'échelle internationale. Son mandat s'étend au-delà des frontières de la Ville d'Ottawa; en effet, il assure la répartition des services dans un secteur de 10 000 kilomètres carrés dans l'Est de l'Ontario, ce qui comprend Cornwall, les Comtés unis de Stormont, Dundas et Glengarry, ainsi que les Comtés unis de Prescott et Russel. De plus, il coordonne plusieurs événements d'envergure en plus d'y être présent.

Le rapport confirme que le Service paramédic d'Ottawa demeure une organisation novatrice et fiable malgré les problèmes du système de santé et l'augmentation constante du volume d'appels depuis 2001. Le Service paramédic d'Ottawa s'attend à une augmentation constante du volume d'appels étant donné la situation démographique d'Ottawa, dont la population est croissante et vieillissante.

Malgré les difficultés liées à l'augmentation de 6,4 % des appels traités, ce qui porte leur nombre à 116 688, le délai d'intervention moyen s'est amélioré et s'établit maintenant à 8 minutes et 8 secondes dans les secteurs à forte densité. Ce progrès peut être attribué à une meilleure hiérarchisation et un meilleur déploiement des ressources, ainsi qu'à l'élaboration de programmes stratégiques pour la médecine communautaire et d'un protocole sur la nécessité de quitter l'hôpital avant de remplir les rapports.

En raison de l'augmentation du volume d'appels, le Service paramédic d'Ottawa se concentre sur l'amélioration de plusieurs stratégies d'atténuation, parmi lesquelles :

1. L'expansion du programme d'intervention rapide des paramédics (PRU);
2. Le renouvellement du financement du projet pilote de réduction de la charge de travail du personnel infirmier;
3. Le protocole sur la nécessité de quitter l'hôpital avant de remplir les rapports;
4. Les avancées en médecine communautaire (par exemple, l'accès public aux défibrillateurs).

Le Service continue de gérer et d'améliorer ces programmes et ces initiatives afin d'assurer une gestion efficace des ressources sans compromettre la qualité des soins prodigués.

Le vieillissement de la population entraînera inévitablement une augmentation des appels traités; c'est pourquoi le Service paramédic d'Ottawa cherche constamment des solutions innovantes pour réduire les délais d'intervention et répondre aux besoins des résidents de la ville d'Ottawa

## BACKGROUND

In 2001, the new City of Ottawa assumed responsibility for the delivery of Paramedic Services as defined by the Ambulance Act of Ontario. The City was given the opportunity to improve the quality of paramedic services provided to the community.

Since 2001, the Service has emerged as a leader, both provincially and nationally, in progressive paramedic service delivery. Through the professionalism and dedication of technicians, communication officers, paramedics and administrative staff, a dynamic organizational culture of service excellence has been created.

The design of Ottawa's performance based Paramedic Service is founded on five key hallmarks: clinical excellence, response time reliability, patient and community satisfaction, economic efficiency and performance accountability. The simultaneous achievement of these principles is the foundation for continued service excellence.

At its meeting of October 28, 2004, the Emergency and Protective Services Committee directed as follows:

“That staff report back to Committee and Council prior to budget every year on performance trends, mitigation strategies and associated financial impacts to ensure the service can maintain its baseline performance targets.”

## DISCUSSION

The Ottawa Paramedic Service is dedicated to its community and patients by providing progressive paramedic care in the nation's capital. The service strives to be a dynamic leader in delivering and improving paramedicine, continuously seeking new knowledge and applying innovation. As an employer, the Ottawa Paramedic Service champions a safe and supportive work environment based on the core values of trust, integrity and respect.

The Ottawa Paramedic Service's [Quality Service Model](#) serves to focus efforts towards achieving success in the five key hallmark areas simultaneously. To achieve success, the service depends upon each and every one of their employees to be aware of, understand, believe in and contribute to our commitment to quality service.

The five key hallmarks of the Quality Service Model are:

### **Clinical Excellence**

When the Ottawa Paramedic Service receives a call for service, an entire team of dedicated, highly qualified people contributes to excellence in care delivery: the paramedics, communications officers, equipment & supply technicians who maintain vehicles and patient care equipment, trainers, quality assurance staff and administrative staff. That doesn't happen by accident. The Service recruits the best people, trains them properly, stays current with best practices in service delivery, offers all staff members continuous learning and professional development, and constantly reviews events to learn from them. All these steps ensure that patients and their families receive excellent care.

To ensure that all standards of practice are met, the Ottawa Paramedic Service conducts ongoing randomized retrospective audits and real-time observations of call taking/dispatching and patient care. Audits and field observations recognise excellent care as well as areas for improvement, which are addressed in system-wide training or individual coaching. The Service works closely with the Regional Paramedic Program for Eastern Ontario (RPPEO) and continually collaborates on clinical quality assurance and educational opportunities to highlight trends in patient care protocols. The Ottawa Paramedic Service continually measures and evaluates to exceed standards and establish new leading practices.

### **Response Time Reliability**

The Ottawa Paramedic Service must achieve reliable response times to ensure the best patient outcomes for all types of medical emergencies. To ensure the most effective and efficient use of existing resources, and provide a reliable level of emergency

responsiveness to the residents and visitors of Ottawa, the Ottawa Paramedic Service matches available paramedic resources to the hourly and daily fluctuations in call demand.

The strategic placement of paramedic posts (fixed and mobile), call prioritization, and the use of single responder Paramedic Rapid Response Units assist in achieving response time targets. Response time performance is regularly monitored, analyzed and reported to the service management team, Ottawa City Council and the Ontario Ministry of Health and Long Term Care.

### **Patient and Community Satisfaction**

The Ottawa Paramedic Service takes a "service excellence" approach to each and every patient and public contact; searching for small yet meaningful ways to relay care and compassion. Because of the dignity and respect with which patients, their families, friends and bystanders are cared for, the Ottawa Paramedic Service is seen as a trusted and respected organization.

Patient and community satisfaction is ensured by responding to public inquiries, compliments and complaints through the Customer Service Line and website; and by raising awareness about the Ottawa Paramedic Service through public education, such as how and when to call 9-1-1 and what to expect when paramedics arrive. Further, the Public Education and Information Officer ensures that the community is made aware of the daily work and challenges faced by paramedics, communications officers and technicians.

### **Economic Efficiency**

The Ottawa Paramedic Service is committed to exploring and implementing new and more efficient ways to improve the quality of the service - enhancing resource prioritization, introducing new technologies and continuing to work closely with our health and emergency services partners.

Along with its Emergency and Protective Services partners and Ottawa Police, the Paramedic Service is taking part in the collaboration and efficiency opportunities projects which include fleet management, tiered response, supply management and a facilities master plan.

### **Performance Accountability**

The Ottawa Paramedic Service is committed to establishing an accountable, open and transparent public safety service. This accountability ensures the highest level of care is delivered to patients and that we operate an efficient and trustworthy public service.

As a commitment to openness and transparency, the Service continuously collects, monitors and analyzes operational and clinical performance data in order to support management decision-making and publicly report on performance through reports like this one. Under the *Ambulance Act*, the Ministry of Health and Long Term Care can inspect any aspect of the service. Every 3 years the Paramedic Service undergoes a rigorous Service review from the Ministry of Health and Long Term Care in order for the

City of Ottawa to maintain a license to operate a Paramedic Service. This ensures transparency in the commitment to deliver a reliable and efficient Paramedic Service.

## **Awards and Recognition**

In 2011, four Ottawa Paramedics were awarded the Governor General's Exemplary Service Medal. Deputy Chief Pierre Poirier, Superintendent Paul Morneau and Paramedics Michael Martin and John Rathier were recognized for having completed 20 years of exemplary service, characterized by good conduct, industry and efficiency, in the provision of pre-hospital emergency medical services to the public.

Ottawa Paramedic, Christopher Bugelli was awarded the N.H. McNally Award for bravery after rescuing a man from a frozen creek in March 2011. The award recognizes acts of conspicuous bravery by pre-hospital professionals in the performance of their duties. It is named in honour of Dr. Norman McNally, the father of Ontario's ambulance system and has a rich history of acknowledging individuals who risked their lives to rescue or protect others from harm.

## **Inaugural Swearing-in Ceremony**

In 2011 Ottawa Paramedic Service organized formal graduation ceremonies at Ottawa Paramedic Service Headquarters for new paramedics finishing their orientation and mentorship assignments. In the presence of their families and attended by the Chair of the Community and Protective Services Committee, Councillor Mark Taylor, Ottawa Paramedic Service executive and distinguished guests, the new paramedics pledged an oath of service and received their Service ID as well as their rank epaulettes.

## **Clinical Research**

The Paramedic Service continues to be innovative by ensuring that medical best practices are being applied and that it remains current with the latest research. The Ottawa Paramedic Service is currently involved in:

### **Canadian C-Spine Study**

Ottawa Paramedics participated in the national out-of-hospital validation study of the Canadian C-Spine Rule from 2002 to 2006. The Canadian C-Spine Rule (CCR) was designed to clear a patient's cervical spine and avoided unnecessary cervical spine immobilizations. The results of the validation study revealed that the CCR could be applied by paramedics in the out of hospital environment without missing any important cervical spine injuries. It also suggested that the adoption of the CCR by paramedics could significantly reduce the number of out-of hospital cervical spine immobilizations, reducing discomfort, pressure sores, anxiety and related costs. Before we can implement the Canadian C-spine Rule in the out of hospital setting on a large scale, its safety and potential impact must be measured. An implementation study has been developed and as of January 11, 2011, Ottawa paramedics have been able to use the

rule to clear the cervical spine of selected patients and are the only paramedic service nationally involved in this landmark study.

### **Paramedic and Community Care Team Study**

The Paramedic and Community Care Team (PACCT) uses a risk assessment tool to identify elders who are at the highest risk for recurrent emergency department (ED) use, hospitalization or death within 30 days. The program is designed to allow paramedics to refer these patients to the Champlain Community Care Access Centre (CCAC). The objective of the PACCT study is to increase the quality of life of vulnerable older patients while decreasing recurrent ED visits and/or paramedic calls by linking the patient with available community services that better match their needs and are capable of providing interventions such as mobility devices, chronic disease management and personal support workers.

### **Stroke Study**

The Ottawa Paramedic Service has partnered with other regional paramedic services to evaluate all out of hospital patients who present with possible acute stroke. For each eligible patient, paramedics will prospectively evaluate and collect a new Acute Stroke Protocol criteria on the associated Paramedic Prompt Card. In-hospital and outcome data for the patients transported to the stroke centres will be collected as well. Their outcomes will be compared to those of a retrospective cohort of Champlain and Southeastern Ontario stroke patients who are entered in the Canadian Stroke Registry during the previous 12-month period.

### **Continuous Chest Compression (CCC) Study**

The CCC study is part of the Resuscitation Outcomes Consortium (ROC) research trials. ROC is clinical trial network focusing on research in the area of out of hospital cardiopulmonary arrest and severe traumatic injury. The ROC consists of seven U.S. and three Canadian Regional Clinical Centers. The primary aim of the CCC study is to compare survival at hospital discharge after continuous chest compressions versus standard cardiopulmonary resuscitation with interrupted chest compressions in patients with out-of-hospital cardiac arrest.

## **OPERATIONS DIVISION**

### **Response Volume**

Response volume has increased significantly since 2001. Over the past decade, the demand for paramedic service has more than doubled and has surpassed the original annual projections of a 2% increase.

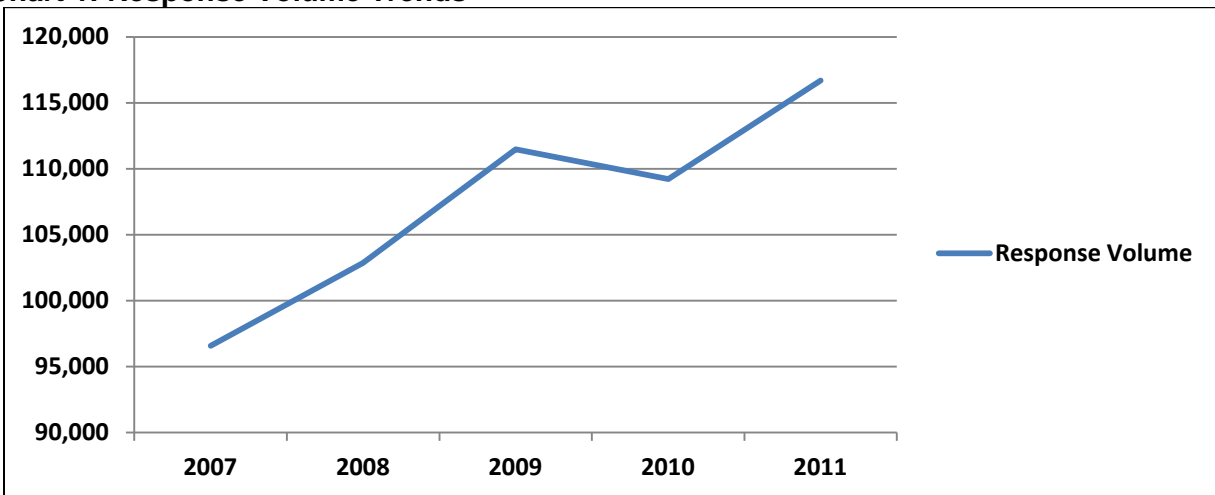
The Ottawa Paramedic Service anticipates that the rise in service demand will continue due to the demographic realities that are facing Ottawa. These demographics include not only population growth but the aging population as well. These demographics are significant to the Service because the older adults are the highest consumers of pre-hospital care.

The table below demonstrates that over 2011, a net increase in response volume of 6.4%.

**Table 1: Response Volume Trends<sup>1</sup>**

Call Type		Responses By Year				
		2007	2008	2009	2010	2011
Emergency	Code 4	72,049	78,908	79,116	77,238	85,218
	Code 3	13,061	14,420	23,648	23,837	23,982
Non-Emergency	Code 2	6,853	5,505	4,399	3,899	3,319
	Code 1	2,594	2,120	1,712	1,956	2,080
Stand-by	Code 8	2,024	1,905	2,603	2,288	2,089
<b>Totals</b>		<b>96,581</b>	<b>102,858</b>	<b>111,478</b>	<b>109,218</b>	<b>116,688</b>

**Chart 1: Response Volume Trends**



<sup>1</sup> Source: MOHLTC ADDAS March 26, 2012



The aging demographics of the City of Ottawa are going to continue to drive the response volume of the Paramedic Service in the coming years. Based on the 2011 census data 33.3% of the City of Ottawa population is over the age of 50 yet this age group accounts for 53% of our response volume. Over the next 10 years an additional 15.6% of Ottawa residents will join the 50+ age demographic.

**Table 2: Percentage of incidents by age and percentage of population by age**

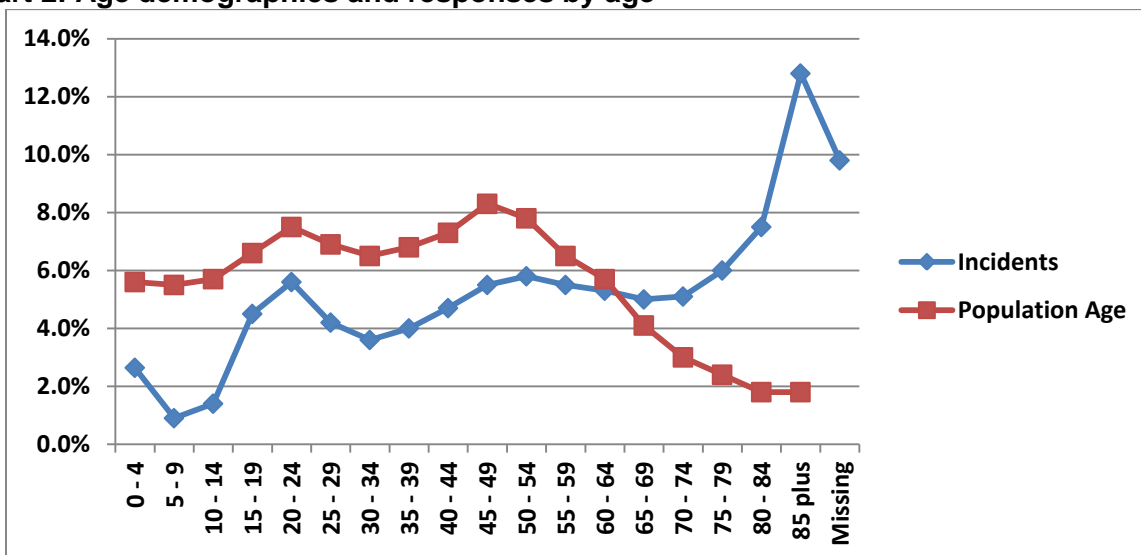
<b>Incidents By Age Group</b>		
<b>Age Group</b>	<b>Response Volume<sup>2</sup></b>	<b>Population Volume<sup>3</sup></b>
0 - 4	2.6%	5.6%
5 - 9	0.9%	5.5%
10 - 14	1.4%	5.7%
15 - 19	4.5%	6.6%
20 - 24	5.6%	7.5%
25 - 29	4.2%	6.9%
30 - 34	3.6%	6.5%
35 - 39	4.0%	6.8%
40 - 44	4.7%	7.3%
45 - 49	5.5%	8.3%
50 - 54	5.8%	7.8%
55 - 59	5.5%	6.5%
60 - 64	5.3%	5.7%
65 - 69	5.0%	4.1%
70 - 74	5.1%	3.0%
75 - 79	6.0%	2.4%
80 - 84	7.5%	1.8%
85 plus	12.8%	1.8%
Missing	9.8%	
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

<sup>2</sup> Source: Ottawa Paramedic Service Rampart CST Clinical Database

<sup>3</sup> Source: Statistics Canada. 2012. *Ottawa, Ontario (Code 3506008) and Ontario (Code 35) (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released May 29, 2012.*

<http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>  
(accessed May 30, 2012).

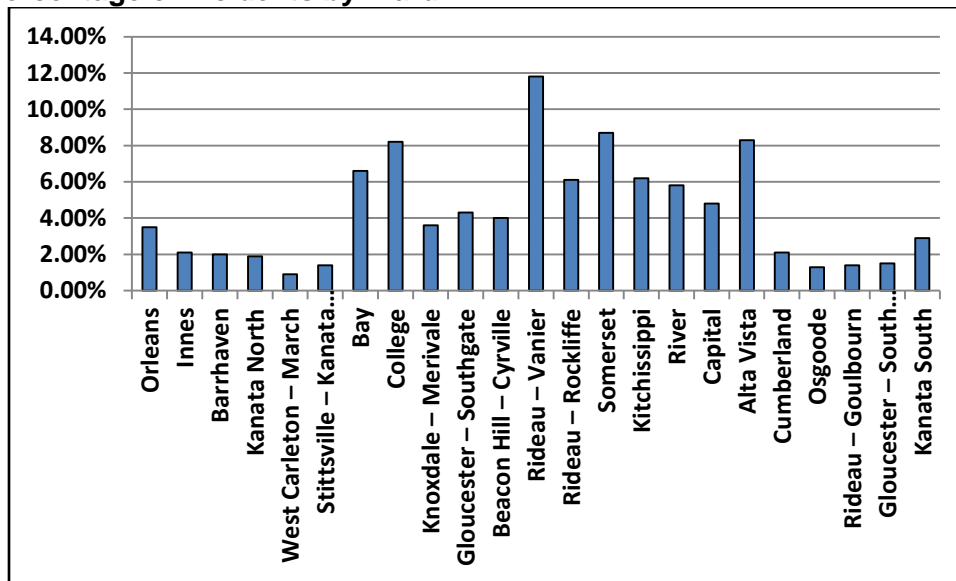
**Chart 2: Age demographics and responses by age**



**Table 3: Percentage of Incidents by Ward 2011<sup>2</sup>**

Clinical Incidents by City Ward	Rate
Orleans	3.5%
Innes	2.1%
Barrhaven	2.0%
Kanata North	1.9%
West Carleton – March	0.9%
Stittsville – Kanata West	1.4%
Bay	6.6%
College	8.2%
Knoxdale – Merivale	3.6%
Gloucester – Southgate	4.3%
Beacon Hill – Cyrville	4.0%
Rideau – Vanier	11.8%
Rideau – Rockliffe	6.1%
Somerset	8.7%
Kitchissippi	6.2%
River	5.8%
Capital	4.8%
Alta Vista	8.3%
Cumberland	2.1%
Osgoode	1.3%
Rideau – Goulbourn	1.4%
Gloucester – South Nepean	1.5%
Kanata South	2.9%
Outside City Wards	0.3%
No Address / Could Not GEO Code	0.3%
<b>Total Incidents</b>	<b>100.0%</b>

**Chart 3: Percentage of Incidents by Ward<sup>2</sup>**



### Response Time

The current response time targets were first set by the Regional Council in the year 2000. After amalgamation, Ottawa City Council re-affirmed the targets in 2001. Currently the standard set targets are as follows, at the 90<sup>th</sup> percentile as per legislated requirements:

- 8:59 in high-density areas
- 15:59 in low-density areas

Notwithstanding the increase in response volume, throughout 2011 the response time performance improved in both the high and low-density areas, by 14 seconds in high-density areas and 22 seconds in low-density areas. The percentile rank has also improved significantly in both areas and this progress can be attributed to the enhanced resource prioritization and deployment strategies.

The tables below compares response time performance for the last five years for both high-density and low-density areas.

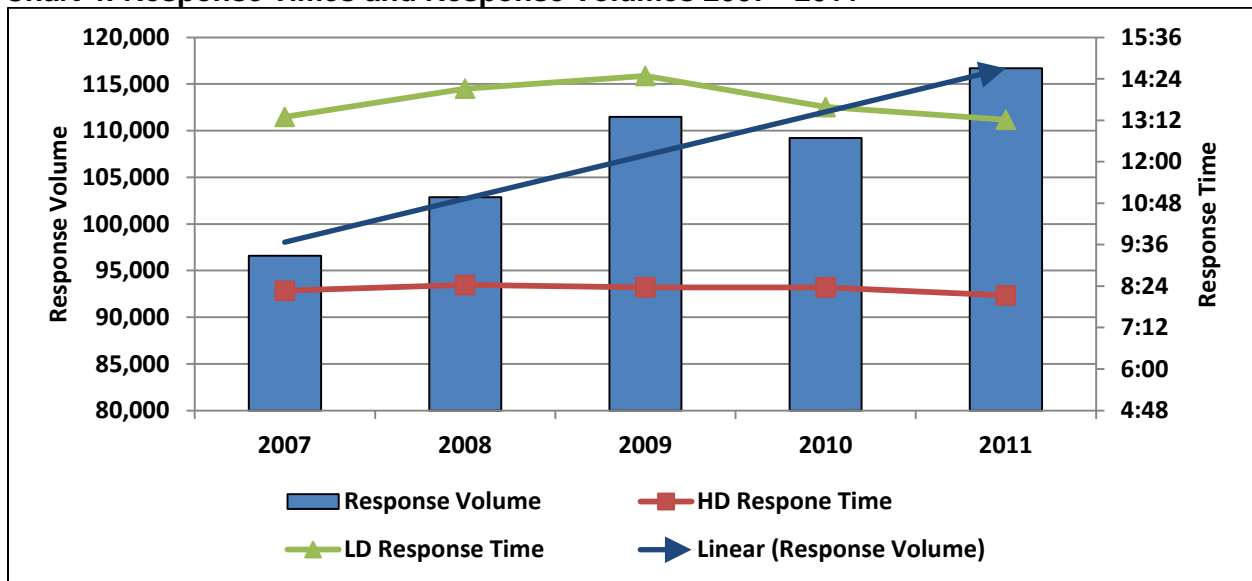
The time indicated denotes T0-T4 (9-1-1 call received to arrival on scene)

**Table 4: High and Low-Density Response Times<sup>1</sup>**

RESPONSE TIME PERFORMANCE - HIGH DENSITY					
Year	2007	2008	2009	2010	2011
Average Response Time	8:16	8:26	8:22	8:22	8:08
Percentile Rank of 8:59	66.2%	64.1%	64.7%	64.3%	67.0%

RESPONSE TIME PERFORMANCE - LOW DENSITY					
Year	2007	2008	2009	2010	2011
Average Response Time	13:18	14:07	14:29	13:35	13:13
Percentile Rank of 15:59	73.7%	66.8%	65.9%	71.1%	74.9%

**Chart 4: Response Times and Response Volumes 2007 - 2011**



## Patient Outcomes

The improved response times achieved by the Ottawa Paramedic Service have translated into improved patient outcomes for the residents and visitors to the City of Ottawa. Over the past 10 years the Paramedic Service has more than tripled the survival rate for sudden cardiac arrest patients from 3.3% in 2001 to 12.3% in 2011<sup>4</sup>.

In 2011 the Ottawa Paramedic Service identified and transported 234 patients suffering from a ST-Elevation Myocardial Infarction (specific type of heart attack) directly to the Ottawa Heart Institute bypassing local emergency departments saving valuable time and improving the quality of life for these patients. The Paramedic Service is a world leader in the recognition, treatment and transport of STEMI patients.

The table below shows the types of calls that Ottawa Paramedics are responding too.

**Table 5: Percentage of Clinical Incidents and Assessments by Type**

Clinical Incidents/Assessments Type	2011
Cardiovascular	8.8%
Respiratory	6.2%
Psychiatric	8.2%
Gastrointestinal	8.6%
Neurological	11.9%
Pediatric	0.8%
Injury	13.0%
Trauma	0.4%
MVC	5.1%
OBS/GYNE	1.1%
Others (Environmental, Other Medical)	35.8%
<b>Totals</b>	<b>100%</b>

## New Response Time Reporting Framework

Recently amendments have been made to the *Ambulance Act* that no longer sets response time targets at the 90<sup>th</sup> percentile. The forthcoming legislative changes to response time reporting will establish a new structure for how Paramedic Services in Ontario report on performance. More specifically, response time reporting will correspond with the Canadian Triage Acuity Scale (CTAS), which is an industry standard. The amended regulation has a greater emphasis on reporting response times for sudden cardiac arrest (SCA) patients and requires a defibrillator be on-scene within 6-minutes for sudden cardiac arrest patients and that a paramedic arrives on scene within 8-minutes for high acuity patients.

The Ottawa Paramedic Service must establish and submit no later than October 1, 2012 to the Ministry of Health and Long Term Care its response time performance plan for

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<sup>4</sup> Ottawa Base Hospital Program 2003 Annual Report & Regional Paramedic Program on Eastern Ontario Vital Signs Absent Patient 2011 Report

the next calendar year. Staff will submit a report regarding this new annual response time performance plan to Committee and Council in September 2012 seeking approval for the recommended response time targets.

## Mitigation Strategies

The Ottawa Paramedic Service continues to develop mitigation strategies to offset increased service demand as well as to support the challenges related to response time performance. The Service focuses on the following strategies:

### Off-Load Nurse Program

The provincial benchmark to off-load a patient at the hospital is set at 30 minutes at the 90<sup>th</sup> percentile. Off-load delay is a hospital emergency department issue, it is best described as paramedics continuing to monitor patients that have been transported but there are no available beds in the department to accept transfer of care. In 2011, Ottawa Paramedics spent over 40,000 hours in excess of that 30 minute target. These delays significantly impact the delivery of service and create critical levels of ambulance availability because paramedics are tied up in hospitals waiting to be cleared.

This off-load issue exists both Provincially and Nationally. The City and Ministry of Health and Long Term Care (MOHLTC) have collaboratively worked together to find temporary measures to ease hospital wait times. As a result, the Off-Load Nurse pilot program has allowed the Paramedic Service to contract nursing services from the local emergency departments to provide care for paramedic patients. This initiative allows paramedics to transfer the patient to the off-load nurse in order to return more quickly to the community and be available to respond to the next request for service. In 2011, the Province committed another \$1.2 million for the 2011/12 fiscal year for the continuance of the pilot project.

The table below shows the results of the Off-Load Nurse Program from inception.

**Table 6: Total savings from Off-load Nurse Program and value of time lost**

Year	Time Gained* by OLN (in hours)	Total Savings Gained by OLN
2009	5120	\$998,400
2010	11159	\$2,176,005
2011	15202.47	\$2,964,481

- OMBI unit hour cost (\$195) was used to calculate time lost and time gained.

The on-going provincial funding for off-load nurses helps to stabilize against the effects of wait times at hospitals. However, this issue will only escalate as service demand grows.

## Depart and Chart Protocol

In April 2011, the Ottawa Paramedic Service implemented an innovative strategy to further minimize the impact of off-load delays. The implementation of the Depart and Chart protocol is expected to return over 7,500 unit hours annually to the road.

Prior to this new protocol many paramedic units were trapped in an endless cycle of off load delays at local emergency departments instead of being available for medical response. The results of this new strategy ensure paramedics only remain at a local hospital emergency department to document high acuity patient care where delegated medical acts were provided to the patient. For all other calls paramedics depart the hospital then chart their patient care while at a post.

Electronic paramedic call reports (ePCR) are still being completed meeting all professional standards and legislated requirements. This strategy was necessary as the off-load delay problem in Ottawa is growing worse year by year and is currently the longest in Ontario (2010 OMBI data).

## Paramedic Rapid Response Units (PRU)

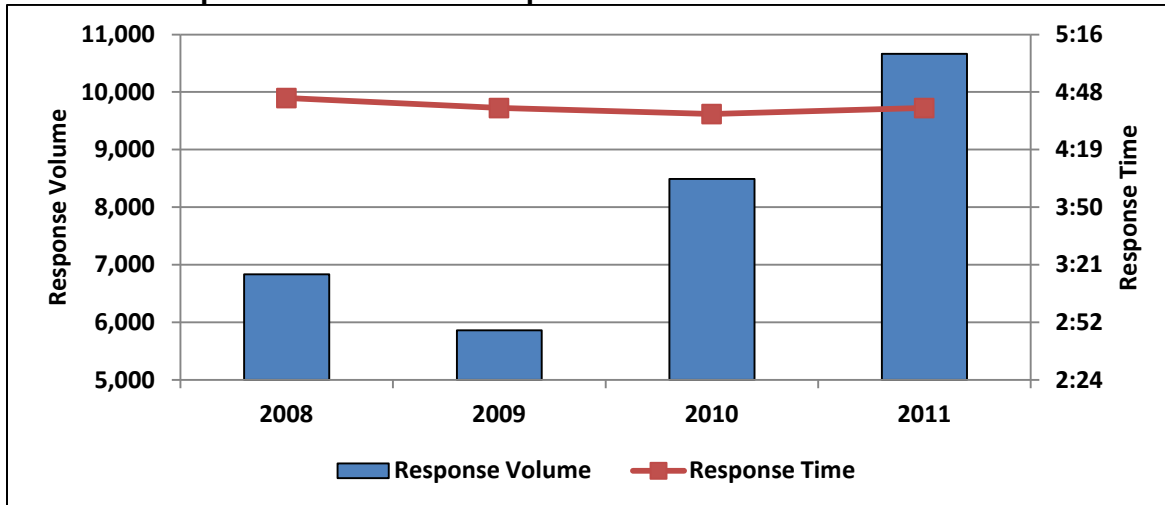
The Paramedic Response Unit is a single responder unit staffed by a Primary Care Paramedic. The primary function is to provide a first paramedic responder capacity, arriving rapidly on scene in less than 5 minutes and initiating patient care. A transport unit is subsequently dispatched to provide back up if transport is required. This allows the Paramedic responder to downgrade or defer the transport unit, thereby allowing the paramedic crew (ambulance) to respond to the next emergency call. Also, it allows continual coverage in the assigned area, as it does not transport patients to hospital and is immediately available upon clearing a call. The PRU's are not subject to off-load delays at hospitals and therefore remain readily available in their assigned area. The single paramedic rapid responder initiative developed by the Ottawa Paramedic Service is the industry's best practice for deployment and has been adopted by many other paramedic services in Ontario and across Canada.

The table below displays the total responses and average response time for the Paramedic Response Units for code times T2-T4 (notification of paramedic crew to arrival on scene).

**Table 7: PRU response volumes and response times**

Paramedic Response Unit (PRU)				
Year	2008	2009	2010	2011
Response Volume	6,832	5,863	8,488	10,666
Average Response Time	4:45	4:40	4:37	4:40

**Chart 7: PRU response volumes and response times**



The main objective of the PRU program is being accomplished. In 2011, the Ottawa Paramedic Service has enhanced the deployment of PRU as a result of its benefits. The program has had a positive impact to overall response times and patient outcomes in Ottawa.

### **Recruitment**

The 23 FTEs that were hired in 2010 have helped to ease the effects of increased service demand and off-load delays. The new recruits from 2010 have enhanced performance throughout 2011. Furthermore, the 2011 budget process provided for an additional 24 FTEs due to growth. The hiring of these positions is being phased-in as follows: 12 FTEs were completed in the spring and the remaining 12 in the fall.

## **COMMUNICATIONS DIVISION**

### **Central Ambulance Communications Centre (CACC) Certification**

The Ottawa Central Ambulance Communications Centre is responsible not only for the City of Ottawa but also receives 9-1-1 calls and dispatches paramedic units for over 10,000 square kilometres of Eastern Ontario. This includes Cornwall, Stormont, Dundas and Glengarry as well as the United Counties of Prescott and Russell.

Central Ambulance Communications Centres are often the initial access point to Ontario's emergency health services system for many victims of illness or injury. The Ottawa Paramedic Service was successful in achieving the certification of its Central Ambulance Communications Centre from the Ministry of Health and Long Term Care in October 2011.

CACCs prioritize the urgency of requests, determine the appropriate destination hospital to meet patient needs and provide callers with pre-arrival first aid instructions. The centres deploy, coordinate and direct the movement of all ambulances and emergency



response vehicles within geographic catchment areas to ensure an integrated healthcare system.

Computer-aided wide-area central dispatching and technology, such as automatic vehicle location using global positioning systems, helps the dispatcher to determine and assign the closest available and most appropriate ambulance to each emergency.

### **3D Consolidation**

The new Communications facility was instrumental in allowing the Ottawa Paramedic Service to commence with a 3D method of dispatching calls for service - deploy, dispatch and destination. This consolidation has allowed for a more even distribution of work for the Communications Officers. This, in turn, has assisted with decreasing response times, even with the increase in call volume.

## **PROFESSIONAL STANDARDS DIVISION**

### **Community Medicine**

Initiatives related to community medicine are an essential part of service delivery for the Ottawa Paramedic Service. Training in Cardiopulmonary Resuscitation (CPR), First Aid and Safety/Safe Behaviour are important to protecting the health and safety for residents and visitors to the City of Ottawa.

In 2011, the Ottawa Paramedic Service has completed 821 courses, which have included over 12,000 participants. This represents a 26% increase from the previous year. The monumental growth of these initiatives further enhances the safety in communities across Ottawa and represents an important link in the Heart and Stroke Foundations "Chain of Survival".

### **New Electronic Paramedic Care Report (ePCR)**

In 2011, the Ottawa Paramedic Service continued its evaluation of new electronic patient care records systems as part of a Request for Proposal process that was approved in 2010. Through the first quarter of 2011 a dedicated team of paramedic staff (frontline, training, logistics and quality assurance) reviewed the responses.

In the spring, through a public RFP process the contract was awarded to Medusa Medical Technologies based out of Halifax, Nova Scotia.

Currently, Medusa Medical software is utilized in four Canadian provinces with over 5,400 trained users completing over 800,000 call reports annually. This application was chosen for its front-end ease of use and back-end reporting capabilities using industry leading Cognos Business tools.

## Public Access Defibrillator Program

The Public Access Defibrillator Program is one of the largest and most extensive in North America. The program consists of defibrillators that are purchased by the City and other funding partners such as the Heart and Stroke Foundation. The Ottawa Paramedic Service performs maintenance and provides medical oversight to all the defibrillators within the program, which includes City and external sites.

The table below shows the number of public access defibrillators that have been installed and are maintained by the Ottawa Paramedic Service.

**Table 8: Public Access Defibrillators (PADs)**

Funded By	Location Types	Number of Defibrillators Supplied
City of Ottawa	Ottawa Police Service	179
	Ottawa Fire Services	84
	City Facilities	80
	Pools & Beaches	46
	Other Public Places (i.e. YM/YWCA, etc.)	37
	Community Centres	30
	Ottawa Public Libraries	26
	OC Transpo Mobile Supervisors & Transit Law	25
	Arenas	19
	Home Loaner Program	7
	Rural First Aid Community Groups	7
<b>City of Ottawa Total</b>		<b>540</b>
Heart & Stroke Foundation	Community Centres	30
	City Facilities	22
	Elementary Schools	20
	Arenas	12
	Pools	3
<b>Heart &amp; Stroke Foundation Total</b>		<b>87</b>
Act Foundation	High Schools	53
<b>Act Foundation Total</b>		<b>53</b>
The Maharaja's Ball	Churches, Shelters & Community Centres	18
<b>The Maharaja's Ball Total</b>		<b>18</b>
Private Purchased	Private Oversight (i.e. Private Sector Research Co., Ontario and Federal Government Agencies, Universities, etc.)*	91
<b>Private Purchased Total</b>		<b>91</b>
<b>Grand Total</b>		<b>789</b>

\*These organizations have purchased their own AED and have the Ottawa Paramedic Service perform maintenance and act as their medical oversight.

Throughout 2011 there have been several instances that demonstrate the critical role that community medicine plays in our City. The following two examples exemplify its importance:

1. On April 5<sup>th</sup>, the quick actions of two facility operators at Tom Brown arena helped save the life of a man who collapsed while playing hockey. As fellow players quickly began to perform CPR, Mr. Brian Neilsen and Mr. Eric Dessureault used an automated external defibrillator to save the man's life. On April 27<sup>th</sup>, Mayor Jim Watson presented both men with the City of Ottawa Award.
2. On May 13<sup>th</sup>, an Ottawa Police officer helped save a man's life by performing CPR and using a defibrillator from his cruiser.

The Ottawa Paramedic Service will continue to uphold the high standards that have been set for the Community Medicine program. The self-sustaining model is considered as an industry best-practice and the results of the program have been felt in communities across the City.

## **TECHNICAL SERVICES DIVISION**

### **Special Operations/Major Events**

Paramedic Bike, Marine, Tactical/CBRNE, Police Support and USAR Special Operations teams participated in numerous internal and joint allied agency training events as well as deployments in 2011 in support of bringing paramedic care to patients inside the inner cordon.

In 2011, the Ottawa Paramedic Service has dealt with several major events. Throughout these events the Service has demonstrated its commitment to providing both residents and visitors of Ottawa with the highest quality of care. The following are examples of large-scale events that have either been pre-planned or were unexpected:

1. The Royal Visit
2. Canada Day
3. Bluesfest
4. Capital Hoedown
5. Kingfisher Lake Evacuees
6. Various weather events
7. Occupy Ottawa
8. Congo and Greenpeace protests

The Ottawa Paramedic Service provided strategically planned coverage for one of Ottawa's largest Canada Day celebrations, as a result of the visit from the Duke and Duchess of Cambridge, while maintaining safe service levels across the entire City. The service also provided emergency response to Bluesfest during an extreme storm.

Furthermore, as a result of Northern Ontario forest fires, the service provided health assessment and medical triage to the Kingfisher Lake evacuees while they were provided with refuge in the City of Ottawa.

## **Next Steps**

A new framework has been established within the amended Land Ambulance Act, in regards to response time reporting. This new legislative reporting regime will begin in the fall of 2012. These amendments include that a defibrillator be on-scene within 6-minutes for patients that are in sudden cardiac arrest and that a paramedic arrive on scene within 8-minutes for high acuity patients. Staff will report back in the fall of 2012 with its recommended Response Time Performance Plan.

## **Conclusion**

Over the course of this year, the Ottawa Paramedic Service has demonstrated its commitment to enhancing its services, which improves the quality of patient care. The 2011 Annual Report has revealed overall growth, performance improvements and the progression of comprehensive programs and initiatives.

The Paramedic Service has achieved shorter response times in both high and low density areas in spite of significant increase in response volumes. This improvement can be attributed to enhanced resources, effective management and innovative strategies.

## RURAL IMPLICATIONS

There are no specific rural implications with this report.

## CONSULTATION

No specific public consultations were undertaken in the production of this report.

## COMMENTS BY THE WARD COUNCILLOR(S)

Not applicable to this City-wide report.

## LEGAL IMPLICATIONS

There are no legal impediments to receiving the information in this report.

## RISK MANAGEMENT IMPLICATIONS

There are no risk management implications associated with this report.

## FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

## ACCESSIBILITY IMPACTS

There are no accessibility impacts associated with this report.

### TECHNOLOGY IMPLICATIONS

There are no technology implications associated with this report.

### TERM OF COUNCIL PRIORITIES

This report has no direct impact on the Term of Council Priorities.

### SUPPORTING DOCUMENTATION

Document 1 – Definition of Terms

### DISPOSITION

The Ottawa Paramedic Service will action any direction received as part of consideration of this report.

## Definition of Terms

<b>CACC:</b>	Central Ambulance Communications Centre - dispatch and call taking centre for paramedic 911 calls.
<b>Code 1:</b>	A non-urgent call which may be delayed without being physically detrimental to the patient.
<b>Code 2:</b>	Any call which must be done at a specific time due to the limited availability of special treatment or diagnostic/receiving facilities.
<b>Code 3:</b>	Any call which may be answered with moderate delay. All patients classified in this priority group are stable or under professional care and are not in immediate danger.
<b>Code 4:</b>	This call refers to situations of a life or limb threatening nature and time is critical.
<b>Code 8:</b>	Stand-by Call. Vehicle or ambulance crew utilization to provide emergency coverage or for anticipation of a call.
<b>High-Density:</b>	High-density call areas are defined as areas with greater than or equal to 24 calls per square kilometre per year in groups of 6 contiguous square kilometres.
<b>Low-Density:</b>	Low-density call areas are defined as areas that do not meet the high-density criterion (see High-Density).
<b>OLN:</b>	Off-load nurse is a triage nurse in Emergency Departments that allow paramedics to transfer a patient more quickly in order to be available to respond to the next request for service.
<b>Percentile:</b>	A percentile is the value of a variable below which a certain percent of observations fall.
<b>Percentile Rank:</b>	The percentile rank of a score is the percentage of scores in its frequency distribution which are lower than it.
<b>PRU:</b>	Paramedic Rapid Response Unit is a single responder staffed by a Primary Care Paramedic that provides a first responder capacity, arriving rapidly on scene and initiating patient care.
<b>T0:</b>	Time when the Communications Officer initially answers the telephone to commence call taking.

- T1:** Time at which the Communications Officer has elicited sufficient address and problem/nature information from the caller to be able to code and commit request for service to be assigned a paramedic resource.
- T2:** Notification of Paramedic Crew.
- T3:** Paramedic Crew is mobile and proceeding to the call's location.
- T4:** Paramedic Crew arrival on-scene