

# Medical Response

*Includes:*

- *Medical Response*
- *Medical Transfers*

## Service Overview

### DESCRIPTION

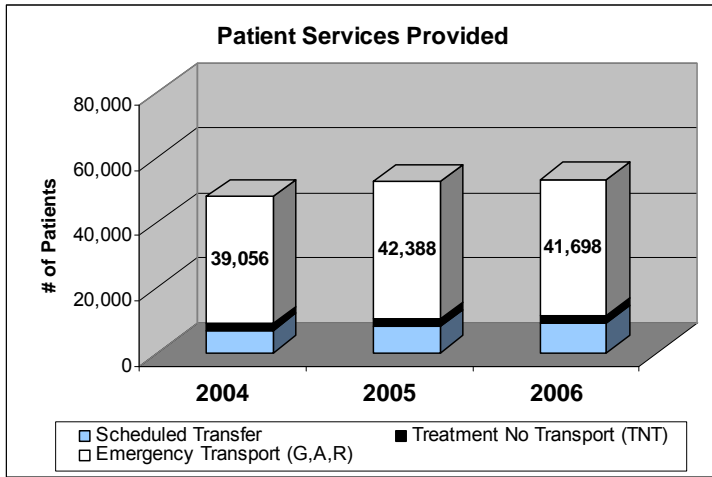
To provide quick, proficient primary response to all medical emergency situations, including the provision of pre-hospital patient care, patient transport to hospital, patient transfer services between facilities, and standby at critical police and fire rescue incidents, and special events.

### KEY GOALS

1. Improve capacity to effectively respond to medical emergencies in a manner that is financially sustainable for the citizens of Winnipeg.
2. Improve quality of medical service provided.
3. Expand the quality improvement process to quantify and improve customer satisfaction.
4. Pursue partnerships to enhance delivery of medical service.
5. Ensure a respectful work environment and positive public image.

### SERVICE LEVEL STATISTICS

Description	2003	2004	2005	2006	4 Year Average
Ambulance Units Dispatched	53,528	55,191	60,135	62,903	57,939
First Responder / Fire Medic Units Dispatched	21,943	23,398	28,399	31,982	26,431
Total Patients Treated	45,659	48,010	52,737	55,320	50,432
Scheduled Inter-facility Patient Transfers	7,321	6,948	8,042	9,261	7,893
Patients Treated at Scene (and not transported)	2,386	2,006	2,307	2,242	2,235

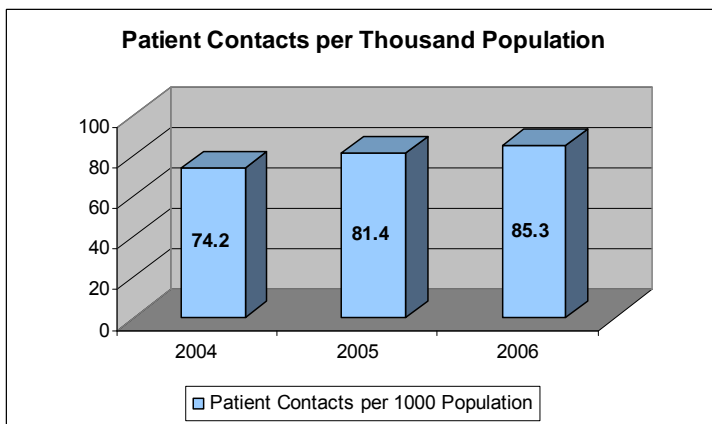


In some of the 53,842 incidents that resulted in patient treatment, more than one patient was treated at the scene (e.g. motor vehicle collision). A total of 55,320 patients were treated in 2006.

41,698 or 75% of these patients required emergency transportation to hospital.

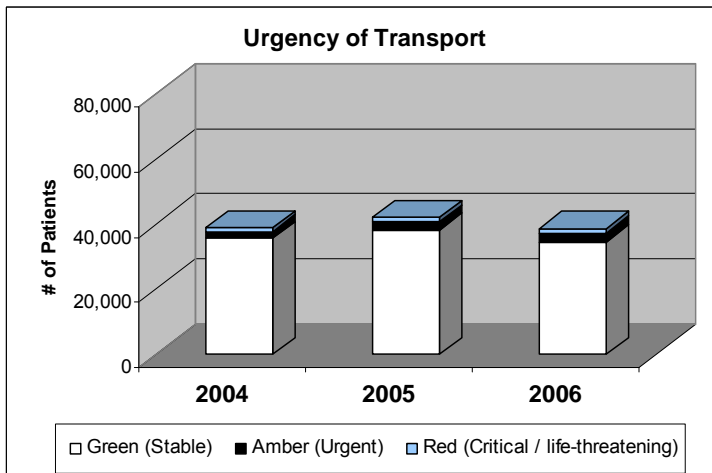
Treatment No Transport means the paramedics were able to treat the patient on scene (e.g. administer glucose to a diabetic patient).

Scheduled Transfers are arranged through the WFPS Communications Centre by hospitals and personal care homes to transfer patients between facilities (e.g. for medical testing at another facility).



The number of patient contacts per thousand population demonstrates how medical calls for service are increasing as a result of a variety of reasons including an aging population.

The impact of this increase is compounded as the overall population in Winnipeg is also increasing.



Patients requiring emergency transport to hospital are coded to classify the criticality of their condition.

In 2006, 9% of patients were classified as critical or urgent.

## Strategic Direction

### LINK TO PLAN WINNIPEG

1A-03	Promote a Safe Downtown
1B-02	Promote Neighbourhood Safety
4A-03	Expand Capacity to Address Safety
4A-05	Provide Support for People at Risk
4A-06	Provide Emergency Response Services
4A-07	Prepare for Disasters and Emergencies
4C-01	Support Effective Public Health Services

### SYNOPSIS OF POLICY DIRECTION

The Fire Paramedic Service promotes safe, healthy lifestyles while protecting the health of the citizens through education and an affordable, quality, medical response. Since Council merged the fire and ambulance departments in 1997, the FPS has continuously improved service delivery models to increase capacity and sustainability. The department now staffs 24-hour firefighter paramedic first responder vehicles to augment the existing ambulance resources.

Pre-hospital medical care is provided by the WFPS through a funding agreement with the Winnipeg Regional Health Authority. This contractual relationship is overseen by the WFPS/WRHA Joint Operating Committee, which meets monthly, with a mandate to optimize the delivery of care, monitor day-to-day operations, and discuss funding or other issues with political ramifications such as staffing, services and policies.

The WFPS provides pre-hospital care at the Canadian Medical Association-defined National Occupational Competency Profiles of Primary Care Paramedic and Advanced Care Paramedic. The WFPS and its paramedics are licensed under the provincial *Land Emergency Medical Response System Regulation* as Technician-Paramedic and Technician-Paramedic-Advanced.

### KEY FACTORS INFLUENCING SERVICE DELIVERY

#### Global Threats

In the post 9-11 era, the increased potential for terrorist activities requires expenditure of resources and training to equip medical responders to effectively cope with chemical, biological, radiological, nuclear, explosive incidents, in addition to developing Urban Search and Rescue capabilities.

The increased threat of a pandemic (e.g. SARS, bird flu) requires additional investments in equipment, technology, and training to enable early identification of an outbreak, in addition to preparing and protecting responders.

The emergence of these large-scale threats requires additional resources to participate in joint training operations with other federal and provincial bodies to ensure effective cooperation and management in large-scale emergencies (e.g. Manitoba Emergency Measures Organization, Manitoba Health, Winnipeg Airport Authority, Canadian Forces, Winnipeg Police Service, Office of the Fire Commissioner, Social Services, etc).

The increased incidence and sophistication of illegal drug operations requires ongoing education and training of all personnel in regard to Hazardous Materials protocols, and current treatment protocols.

Proliferation of chemical and toxic products requires more awareness and protection for medical responders.

#### Technology Advancements

The advent of ever-increasing knowledge, technology and protocols for providing patient care, has resulted in technologies previously only provided in the emergency room to be available from emergency responders (e.g. defibrillation). The costs of the new technology coupled with the costs to train staff for its use are significant.

Increased use of cell phones for 9-1-1 reporting has a negative impact on the ability to process calls and differentiate between multiple reports for the same incident.

The move to Provincially-owned fleet ambulances provides modern, well-maintained ambulance units.

The implementation of an electronic patient care reporting system in the WFPS will greatly improve the ability to record and report patient care information, provide access to reference materials in the field, and promote electronic record-keeping.

The interrelation between technology and response times is directly proportional. Technological advances in dispatch systems have enabled a shorter time span between the placement of the 9-1-1 call and responder arrival. Access to Automatic Vehicle Location technology facilitates more efficient 'closest unit' dispatch of units.

#### Neighborhood Growth/Demographics

Population increases in Winnipeg over the last several years, have been higher than previously experienced, causing an increase in demand.

The population in Winnipeg is aging, which has resulted in increased calls for emergency medical service and inter-facility transfer services.

Due to neighborhood growth over the last decade, existing station locations no longer match current demographics, and new stations may be required to provide adequate coverage in new neighborhoods.

Socioeconomic distinctions between neighborhoods of the city influence the volume and type of EMS calls.

There is a need to educate members of the public concerning healthy lifestyles and injury prevention because of the increased risk for specific injury potential and health problems.

### **Health Care**

While Fire Departments across North America have long been involved in the provision of pre-hospital emergency medical care, their level of training and intervention has been increasing over the last decade.

Increasing hospital turnaround times significantly impact ambulance resources, which experience an average wait time of 43 minutes at hospital to offload a patient.

Winnipeg Regional Health Authority destination policies designed to distribute patients among facilities, often result in longer patient transports to more distant facilities.

The Winnipeg Regional Health Authority has centralized specific programs which has increased the number of patient transports between facilities.

The health care system is moving toward shorter hospital stays, and support for more in-home care, which has resulted in an increased demand for emergency medical response and the complexity of care required. In addition, more palliative care patients are being cared for at home.

In the growing senior community in Winnipeg, the use of personal medical alarms is becoming more prevalent, resulting in more calls for service (particularly accidental activations). In addition, anecdotal evidence suggests that seniors request assistance more frequently for low priority situations such as personal assistance.

There can be inappropriate public reliance on EMS to fulfill a social services role, for example: increased number of calls for non-medical assistance; the use of the EMS system as a primary medical provider; and as a source of non-emergency transportation.

The recent introduction of new provincial licensing regulations requires additional training for many personnel and numerous changes to administrative processes related to licensure.

Through partnerships with other agencies and levels of government, the FPS provides support for at-risk

individuals. The Community Outreach Patrol recently initiated through partnerships with Winnipeg Police Service, the Winnipeg Regional Health Authority, and Main Street Project to protect at-risk persons and facilitate access to appropriate resources.

Personal Health Information Act and Freedom of Information Protection of Privacy Act regulations impact our ability to share information internally, result in increased storage space (both electronically and paper) and require protection of private information.

### **Public Expectations and Relations**

Uniformed personnel are held to a higher standard of public trust and need to recognize that their job goes beyond the basic skill sets required to perform their specified duties. A community relations/public education function is a vital component of their jobs and requires greater appreciation of cultural, ethnic and gender differences.

The demand for Fire and EMS services at public and private functions is increasing.

In the interest of risk management there is increased emphasis on continuous quality improvement activities, proper documentation and personal accountability.

### **Safety/Environmental Regulations**

Federal and Provincial guidelines require changes to emergency response methodologies in light of the recent increased threat of terrorism.

In addition, the presence of the Canadian Science Centre for Human and Animal Health (virology lab) requires additional joint exercises to safeguard the public and responders in an emergency, and ensure an effective response.

Exposure hazards to paramedics have required an increased emphasis on safety equipment and procedures.

## **SUMMARY OF GOALS AND STRATEGIES**

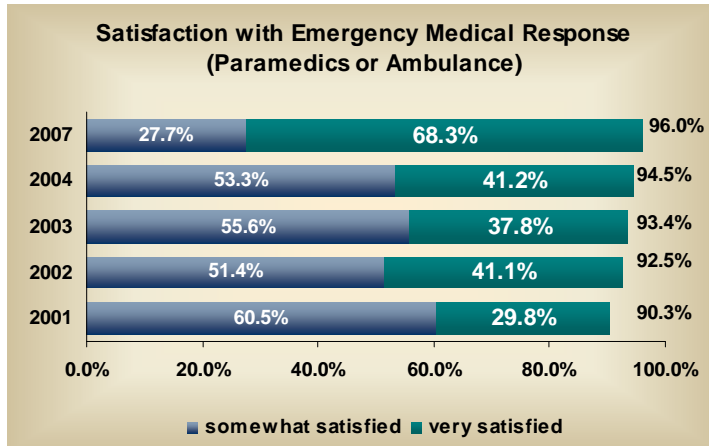
### **1. Improve capacity to effectively respond to medical emergencies in a manner that is financially sustainable for the citizens of Winnipeg.**

- Equip and deploy firefighter paramedics to deliver medical care on fire apparatus at the Primary Care Paramedic level.
- Integrate Fire and EMS Communications Centres with continued shift supervision to improve dispatch process and response times.
- Implement re-engineered Computer-Aided Dispatch system, with integrated Automatic Vehicle Location technology to identify and dispatch the closest appropriate units and personnel.

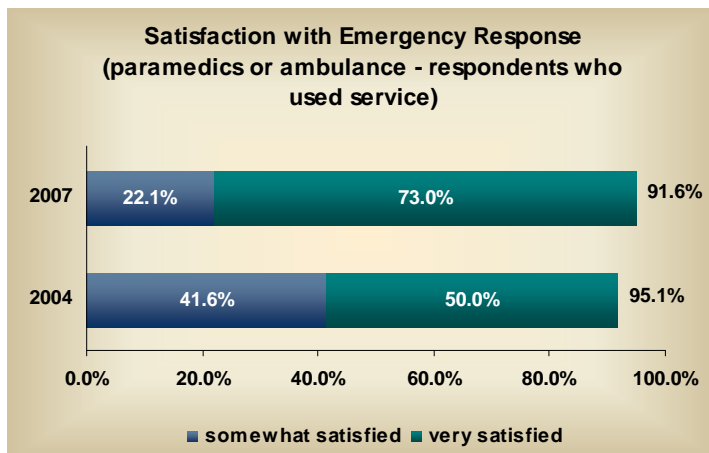
- Define and report response and system performance benchmarks.
  - Expand training capacity and apply new training methods and procedures for emerging areas of service delivery. Develop partnerships with organizations and institutions to deliver training programs.
  - Partner with Winnipeg Police Service and Downtown BIZ to establish Community Outreach Patrol to reduce resource impacts due to the management of intoxicated and at-risk individuals.
  - Achieve accreditation for Medical Priority Dispatch System.
  - The department is pursuing provincial funding for Chemical, Biological, Radiological, Nuclear and Urban Search and Rescue.
- 2. Improve quality of medical service provided.**
- Implement Electronic Patient Care Reporting (E-PCR) software to achieve efficiencies and improve the quality of patient data collected.
  - Update medical protocols to reflect current competencies.
  - Increase training and enhance the medical quality improvement process to include first responders and firefighter paramedics to reduce risks in the area of medical response.
  - Provide continuing medical education to all medical responders.
  - Increase number of Advanced Care Paramedics.
  - Continue delivery of Intermediate Care Paramedic training program.
  - Increase the number of fire apparatus that are equipped and staffed with firefighter paramedics to deliver medical care at the Primary Care Paramedic level.
  - Participate on standards committees and other relevant boards.
- 3. Expand the quality improvement process to quantify and improve customer satisfaction.**
- Implement Customer Complaint Reporting and Resolution Process.
  - Define and report performance benchmarks for customer inquiries and complaints.
  - Communicate new approaches and efficiencies with the citizens.
- 4. Pursue partnerships to enhance delivery of medical service.**
- Continue Joint Operations Committee (WRHA) to collaborate on solutions to medical issues that arise.
  - Continue working relationship with Winnipeg Police Service in regard to medical related issues.
  - Continue to expand Public Access Defibrillation Program.
  - Continue cooperative disaster training with the Virology Lab .
- Develop partnerships with organizations and institutions to deliver training programs. (Manitoba Emergency Services College, Red River Community College, etc.).
  - Support partnership with Winnipeg Police Service and Downtown BIZ for Community Outreach Patrol to assist in management of intoxicated and at-risk individuals.
- 5. Ensure a respectful work environment and positive public image.**
- Standardize recruitment process.
  - Commit to respectful workplace philosophy and training.
  - Employee recognition and Awards Day.

# Performance Information

## CITIZEN SATISFACTION

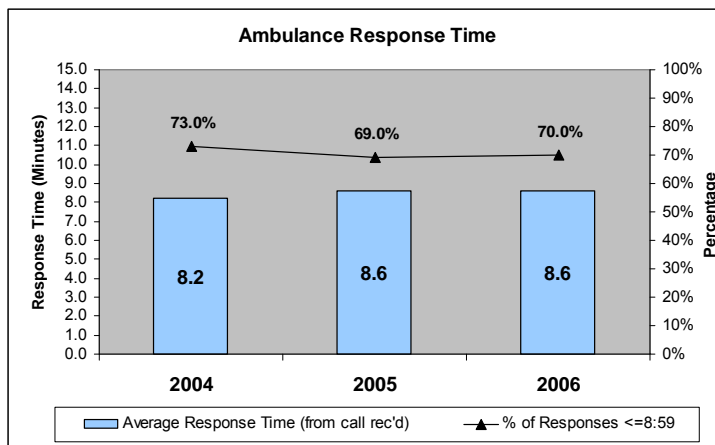


Citizens continue to be very satisfied with emergency medical response such as paramedics or ambulance.



Approximately 96% of citizens who used emergency medical response such as paramedics or ambulance are satisfied with its services.

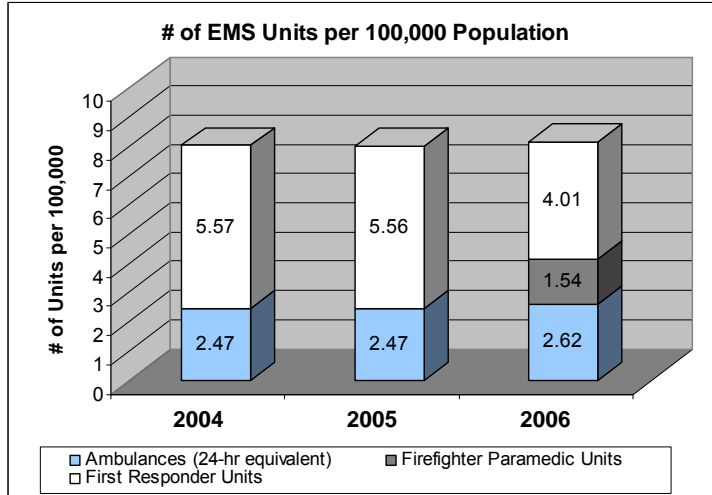
## EFFECTIVENESS MEASURES



In 2006, the average ambulance unit response time (from time of call to arrival at scene) to emergency medical incidents was 8.6 minutes. This represents an increase in the average response time since 2004 of 24 seconds.

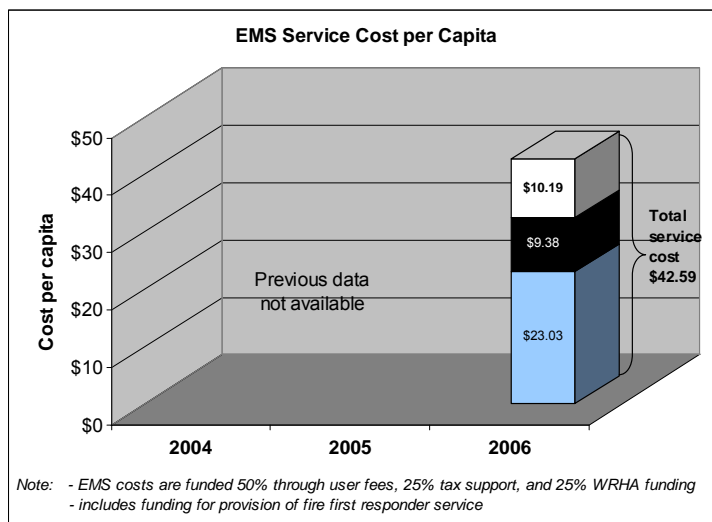
One response guideline requires ambulance arrival at the scene within 8 minutes, 59 seconds (<540 seconds) of an emergency call, 90% of the time. In 2006, this occurred 70% of the time, a decrease of 3% since 2004. The reasons for this increased response time are due mainly to the increased demands on the system. By adding more ambulances, reducing hospital wait times or achieving other efficiencies, these times may be improved.

## EFFICIENCY MEASURES



The addition of one 24-hour equivalent ambulance in 2006 increased the ratio of ambulances to population. The increase in skill provision on fire apparatus to Primary Care Paramedic, allows fire units to provide paramedical care in situations where transport to hospital is not required. In addition, this increases the ratio of paramedic-staffed units to 4.16 per 100,000 population.

Ambulance utilization rate is driven by call volume increases experienced as a result of increases in both number and age of population as well as increasing hospital wait times; since 2002, the average hospital wait time for an ambulance to offload a patient has increased by 9 minutes.



While the cost per capita for the EMS service in Winnipeg in 2006 is \$42.59, only \$10.19 (24%) is provided through tax support.

These costs may not be comparable to other EMS-only services in Canada, as costs for the medical component of the fire system are included (firefighter paramedics, fire medics, first responders).