



Greater Sudbury Paramedic Services Update Report

Presented to: Emergency Services Committee on February 6, 2019

This report aims to provide the City of Greater Sudbury Emergency Services Committee with an update on good news stories and relevant statistics as well as recent business activities within the Paramedic Services Division of the Community Safety Department.

Greater Sudbury Paramedic Services is responsible for the delivery of a performance-based paramedic service that is in compliance with legislative and regulatory requirements, ensuring pre-hospital emergency medical care and transportation to those individuals suffering injury or illness focuses on clinical excellence, response time performance, patient outcomes, patient satisfaction, continuous quality improvement, and a healthy work environment conducive to professional growth.

Good News Stories

Exemplary Service Medal

Advanced Care Paramedic Scott Infanti received the Exemplary Services medal at the Ontario Association of Paramedic Chiefs Conference in September. The Emergency Medical Services Exemplary Service Medal is a National service medal that honours 20 years of exemplary service by professional pre-hospital emergency medical service personnel.

Every ten years, after a Paramedic receives the 20-year medal Paramedics are then eligible to receive an additional bar for Exemplary Service. This year ACP Paul Bradley, ACP Luke Leslie and ACP Gilles Masse all received their 30 year bar.

Community Safety Recognition Night

On October 4th, 2018 we held our Community Safety Recognition Event. The evening was an opportunity to honour the men and women from our Service for their years of work as well as present our peer recognition awards for the combined years of 2016/2017. Members of the community and citizens were also acknowledged for their continued partnerships with Paramedic Services. We were fortunate to have with us that evening a number of dignitaries and peers to help in presenting numerous pins, bars and medals in acknowledgement of the years of dedicated service provided by our administration and front-line workers on municipal, provincial and federal levels.

A number of awards were also distributed to Community Safety employees, community partners, businesses and citizens who demonstrated exemplary support to the Community Safety Department.

Paramedic Services Update Report – Wednesday, February 6, 2019



2016/2017 Community Partnership Award was given to Cartier Emergency First Response (EFR). The Cartier EFR Team has been responding to emergencies as far back as the 1980s. No matter what time of the day or night, they offer an extra hand of support by providing first aid to those in need and providing detailed updates to the responding emergency crews. That dedication to community as well as to fire and paramedic crews and police officers is invaluable and worthy of this award.

2016/2017 Citizen Valour Award was given to Dennis Wickie. On September 21, 2016, Mr. Dennis Wickie witnessed a plane crash on Fairbank Lake. He rescued one passenger from the downed plane and brought that person to his own residence. He then returned to the scene and dove into the frigid waters of the lake in an effort to rescue the pilot. Unfortunately, the plane sunk out of reach. Mr. Wickie's acts of bravery had a lasting impact on all the first responders who answered the call.

As previously noted, pins, bars and medals were awarded to Paramedic Services personnel in recognition of community milestones. Those not in attendance received their honours within their stations. The following is the list of recipients for 2016/17.

10 Year Service Pin

Jean-Paul Arsenault	Jonathan Blier	Kathryn Bobbie	Kris Desjardins
Alexandre Martel	Kristopher Purdy	Darren Sargent	Marc Ungar
James Urquhart			

15 Year Service Pin

Aaron Barney	Danielle Coutu	Lyndsay Fearnley-Ungar	Kirsten Kingsley
Curtis Labelle	Gaetan Lagrandeur	Stacey Lauzon	Summer MacIsaac
Terry Noel	Melissa Roney	Vincent Roy	Luc Simard
Daniel Theriault	Annik Thibault	Valerie Trottier	Patrick Trudeau

20 Year Service Pin

Patrick Davidson	Dennis Melanson
------------------	-----------------

30 Year Service Pin

Stephen Kutowy

Exemplary Service First Bar

Luke Leslie	Gilles Masse	Paul Bradley
-------------	--------------	--------------

Community Safety Administration 10 Year Service Pin

Line Dubreuil



Paramedic Week

In May of every year, one week is Paramedic Week across Canada. In 2018, running from May 28 to June 3, the theme was Health, the Community and You. The idea behind the theme was to highlight the expanding role of paramedics in the community as allied health professionals.

Paramedic Week was kicked off at a ceremony at our Headquarters in Azilda. Greater Sudbury Paramedic Services visited several local venues throughout the community, educating citizens on Paramedic Services. Paramedics were at the YMCA, Hanmer Valley Shopping Centre, Place Bonaventure Mall and the Real Canadian Superstore during the week.



Paramedics Rescue Woman from Burning Building

On November 2, 2018 Paramedics Jennyfer Leblanc, Channele Frappier-Doyon, Samantha Mclean and Susan Easter (not pictured) rescued a woman from a burning building.



The paramedics were responding to a medical call in the Minnow Lake neighbourhood when they saw smoke billowing from a nearby two-story apartment. They noticed a woman inside one of the apartment unit windows yelling for help. The woman was disoriented due to the flames and smoke. Paramedics yelled at the woman to open the window, which she did. Paramedic Easter ripped the screen off the window and grabbed the woman, pulling her out of the window. The woman was brought to safety and treated for her injuries. The Service commends all four paramedics for their quick response and actions.



Second Annual "Fill an Ambulance"

Sudbury Paramedics, along with Paramedic Students from Collège Boréal worked closely together to help the local food bank. This initiative was a huge success again this year. With the assistance of the community, 3586 pounds of food and \$\$2,736 in cash donations were collected.



Greater Sudbury Paramedic Services Statistics



Calls for Service / Unit Responses / Patients Transported by Year

27732

EMS Calls for Service

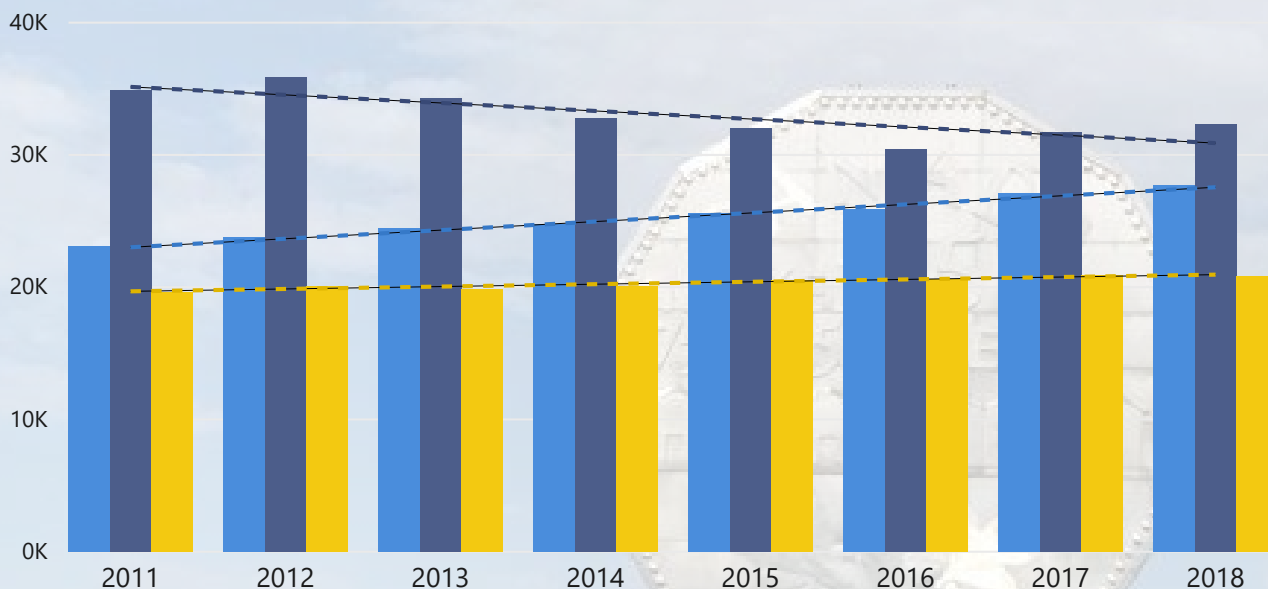
32316

EMS Unit Responses

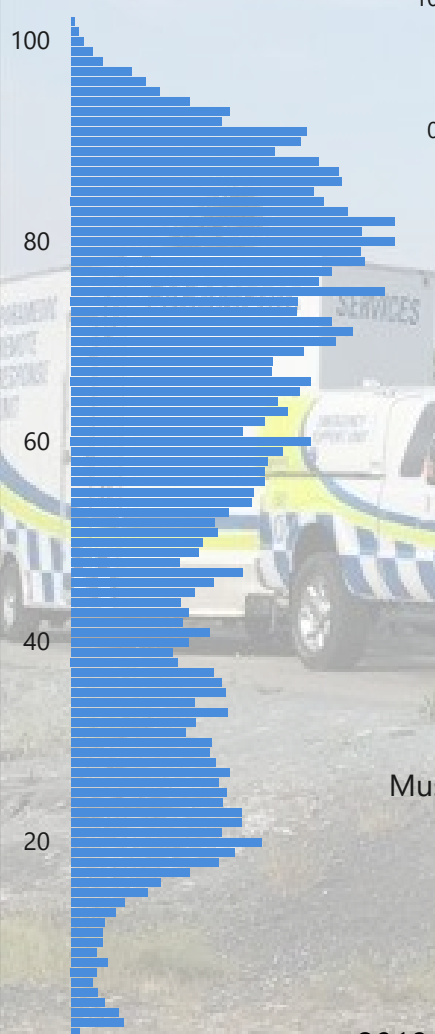
20832

EMS Patients Transported

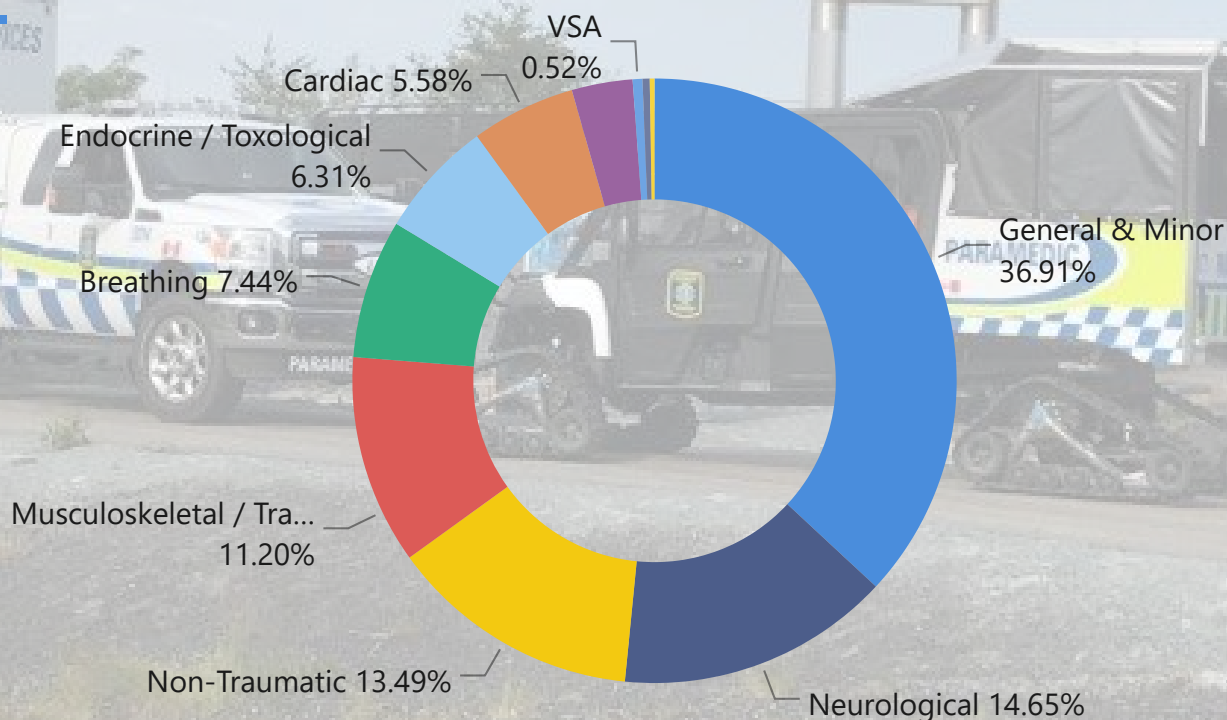
● EMS Calls for Service ● EMS Unit Responses ● EMS Patients Transported



2018 No. of Calls by Age

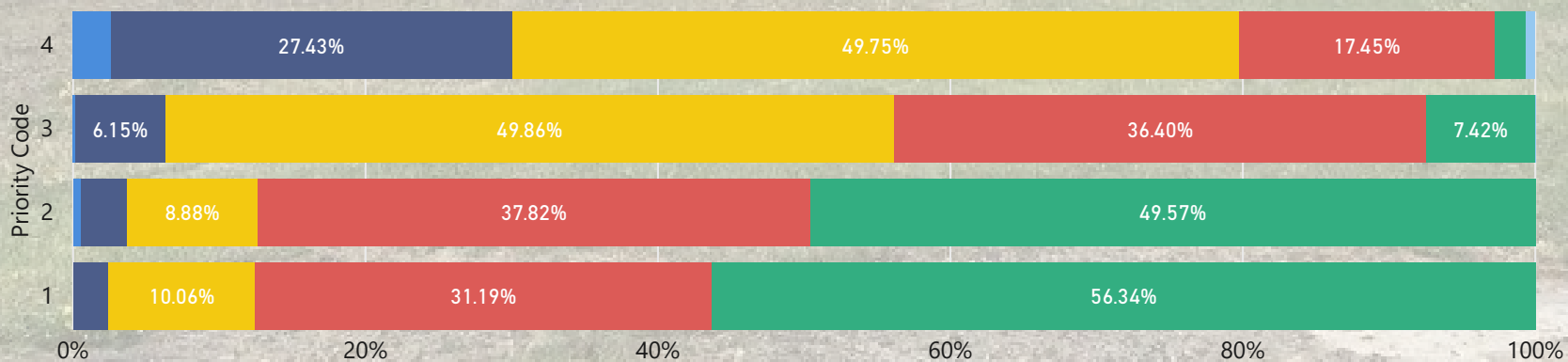


2018 Calls by Problem Group



2018 Patients Transported by Dispatch Priority vs. CTAS on Contact

CTAS on Contact ● 1 ● 2 ● 3 ● 4 ● 5 ● SCA





Paramedic Services Statistics Defined

Paramedic Calls for Service

A measure of unique calls received by Greater Sudbury Paramedic Service from the Ministry of Health and Long Term Care (MOHLTC) – Central Ambulance Communications Centre (CACC) that resulted in a response by Paramedics.

Paramedic Unit Responses

A measure of the number of Paramedic units dispatched by the CACC to service the emergencies. This number will typically be higher than calls for service as some calls necessitate the use of multiple ambulances, Paramedic Response Units, or Superintendent units.

Paramedic Patients Transported

The number of patients transported from a pick up location to a destination on both an emergency and non-emergency basis.

Calls for Service/Unit Response/Patients Transported by Year

A comparative chart detailing, since 2011, the three measures together.

2018 Number of Calls by Age

A clustered bar chart detailing the age of each patient encountered. The purpose of this chart is to detail the effects of the aging population in comparison to call volumes.

2018 Calls by Problem Group

A pie chart detailing the categorized primary problem of each patient who was transported. Paramedics detail in great granularity the primary problem as assessed and treated where possible. These primary problem codes have been rolled up into primary categories as detailed on the Patient Care Record and displayed here.

2018 Patients Transported by Dispatch Priority vs. CTAS on Contact

A metric consisting of a 100% stacked bar chart that measures the urgency at which Paramedics are dispatched by the CACC against the actual patient acuity at patient contact.

Ambulance Communications Officers (ACOs) at the CACC currently use a system called the Dispatch Priority Card Index (DPCI) when determining a patient priority. This system automatically generates a priority based on the series of questions answered by the caller of the emergency. Then, once on scene, Paramedics assign a detailed Canadian Triage Acuity Scale (CTAS) rating based on the patient's presenting condition acuity.



- **Code 1** “Deferrable” (no time factor) e.g. a non-scheduled transfer with no definitive time factor, a minor injury
- **Code 2** “Scheduled” (time is a factor) e.g. inter-hospital transfers for scheduled diagnostic tests, a scheduled meet with an air ambulance, patient transferred for a scheduled appointment.
- **Code 3** “Prompt” – transport without delay (serious injury or illness, e.g. stable fracture)
- **Code 4** “Urgent” – where the patients “life or limb” is at risk (e.g. Vital Signs Absent patient; unconscious).

CTAS is a widely recognized rating scale used within Canadian healthcare institutions. There are five different CTAS ratings.

- **CTAS 1:** Severely ill, requires RESUSCITATION
 - Requires resuscitation and includes conditions that are threats to life or imminent risk of deterioration, requiring immediate aggressive interventions (e.g. arrest, and major trauma or shock states).
- **CTAS 2:** Requires EMERGENT care and rapid medical intervention
 - Requires emergent care and includes conditions that are a potential threat to life or limb function, requiring rapid medical intervention or delegated acts (e.g., head injury, chest pain or internal bleeding).
- **CTAS 3:** Requires URGENT care
 - Requires urgent care and includes conditions that could potentially progress to a serious problem requiring emergency intervention, such as mild to moderate asthma, moderate trauma or vomiting and diarrhea in patients younger than two years.
- **CTAS 4:** Requires LESS-URGENT care
 - Requires less-urgent care and includes conditions related to patient age, distress or potential for deterioration or complications that would benefit from intervention, such as urinary symptoms, mild abdominal pain or earache.
- **CTAS 5:** Requires NON-URGENT care
 - Requires non-urgent care and includes conditions in which investigations or interventions could be delayed or referred to other areas of the hospital or health care system, such as sore throat, menses, conditions related to chronic problems or psychiatric complaints with no suicidal ideation or attempts.



Paramedic Operations

The operations section provides pre-hospital emergency medical care and transportation as well as non-urgent transportation between health-care facilities, the airport and residences.

Triennial Ambulance Service Review

The Ministry of Health and Long Term Care (MOHLTC) conducted their review of our Service on September 11-13, 2018. The purpose of the Ambulance Service Review is to ensure Ambulance Services are operated in a manner consistent with the Land Ambulance Certification Standards and in compliance with the legislation. Services are required to successfully complete the prescribed Ambulance Service Review certification process once every three (3) years in order to maintain their certification to operate the Service. Greater Sudbury Paramedic Services has successfully completed the Land Ambulance Certification Program and is awaiting to the MOHLTC Ambulance Service Review - Final Report. An information report regarding the results of the review will be tabled at the April Emergency Services Committee meeting.

Professional Development of the Platoon Superintendent (PS) Group

The Paramedic Services Division is committed to the professional development of our staff. One aspect of professional development for the PS group involves the Harvard Business Management program. This program is not unique to Paramedic Services as employees with other departments also participate in this program.

Over the past few months, Paramedic Services has also worked closely with Jack Miller & Associates, in conducting Profile Assessments. These assessments provide feedback to each PS, providing direction for their professional development plan. Based upon the individual assessments, a departmental plan will be developed for the entire PS team with a focus on effective teamwork. These professional development plans demonstrate the commitment to address one of the major Corporate themes of "Professional Growth", identified as an area for improvement from the employee survey completed earlier in 2018.

Diversion Protocol

Within the protocols of a pilot program with Health Sciences North Centre for Prehospital Care, Paramedics are able to offer an option of transport destination to appropriate 9-1-1 patients that divert them from the Emergency Department. This diversion strategy will assist our health care system by ensuring the patient receives the right care at the right time. The options of destination include; either the normal protocol to the Emergency Department, Withdrawal Management Services or Crisis Intervention Services. Additionally, there is the possibility to have the Crisis Intervention Mobile Team respond directly to the patients' homes.

Being the first in the province of Ontario to initiate an alternate destination diversion pilot program, Greater Sudbury Paramedic Services has been recognized by our peers around the province for our innovation. Municipalities such as Sault Ste. Marie, Hamilton and London have requested



information on our delivery model to assist in commencing their own diversion programs in efforts of bringing similar benefits to their regions.

With the opening up of the Ambulance Act and the potential for more destination options, Paramedic Services is currently looking at collaborating with other community care providers such as Primary Care Offices and those that provide cultural consideration as part of their care in an effort to expand our diversion pilot. The following are the numbers of patients diverted from the Emergency Department of the hospital in 2018:

- **89** to Withdrawal Management Services
- **47** to Crisis Intervention Services/Mobile Crisis Intervention Team

Diversion to appropriate care program aligns with the Ontario government's Patients First 4 Key Pillars; providing access to the right patient, connecting patients to the right care, providing education and protection of our health care system by ensuring the fiscally responsible path has been chosen.

Professional Standards

Professional Standards is responsible for the delivery of quality assurance programming consisting of clinical and service delivery auditing with the goal of improving patient safety and ensuring high quality clinical care thereby reducing risks. By also managing the electronic patient care record system, including quality assurance oversight, Professional Standards coordinates legal proceedings and maintains compliant handling of patient medical records within various legislative and regulatory requirements. Lastly, Professional Standards represents Paramedic Services amongst stakeholders within the community and participates in research studies to advance and ensure integration into the health-care framework.

Opioid Surveillance Working Group

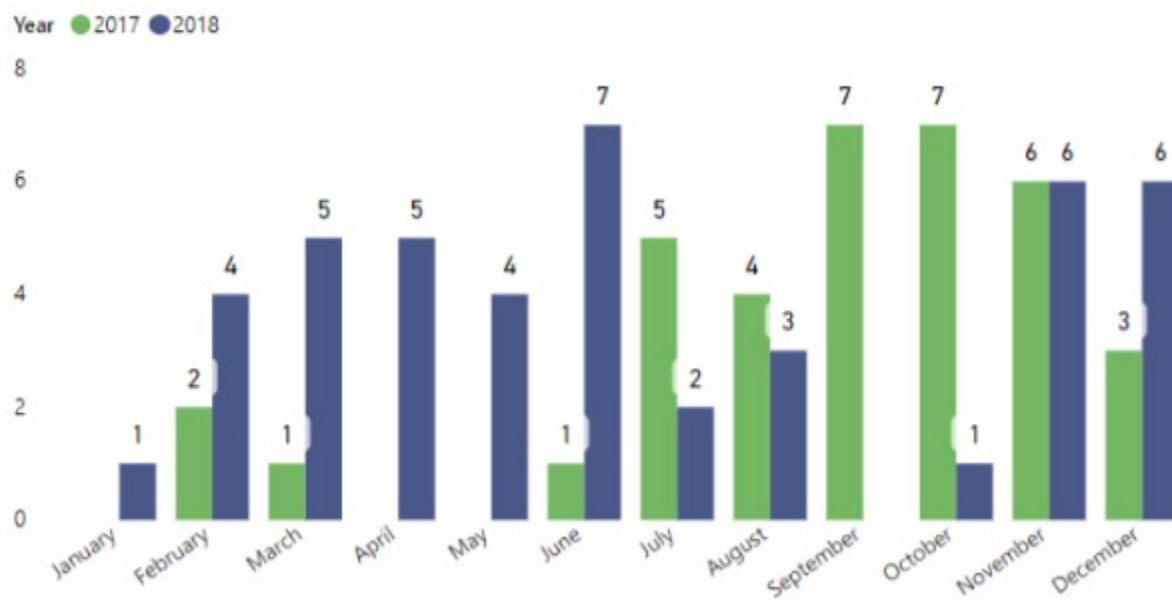
Paramedic Services sits on three levels of the Community Drug Strategy (CDS); CDS Steering Committee, CDS Treatment Pillar working group and CDS Surveillance working group. In 2018, the CDS Surveillance working group was tasked with developing an early alert system for opioid related emergencies in our community. Members of this group include Greater Sudbury Paramedic Services, Health Sciences North, Greater Sudbury Police Services and Public Health Sudbury and Districts (PHSD). A more detailed information report on this important initiative is also on tonight's agenda.



Paramedic Suspected Overdoses

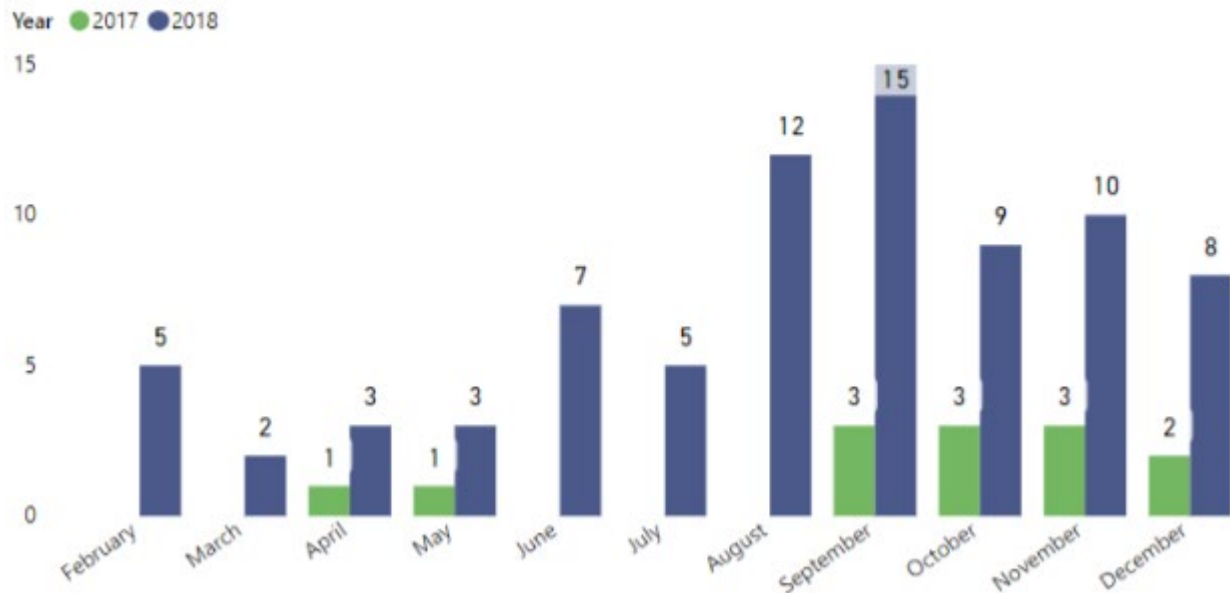


Naloxone Administration by Paramedic





Naloxone Administered by Non Paramedic



Logistic & Training

The Logistics Section provides cleaning, management and maintenance of the paramedic vehicle fleet, city heliports, specialized vehicles, and patient care equipment with the goal of ensuring vehicles and equipment are sanitized and stocked in accordance with all legislative requirements.

Training involves the development and delivery of paramedic education that includes: continuing medical education, orientation for new hires and those returning following extended absences, and remedial education to address identified gaps in knowledge, skill or critical decision making.

Additionally, participation on national and international clinical research initiatives aims at improving pre-hospital clinical care.

New/Improved Equipment

- **SKED** – patient extrication device added to PRU vehicles. Ability to easily extricate patients in locations where a normal stretcher cannot access. This sled-like unit rolls up neatly into a small space, is easily deployed, will make patient extrication more efficient and safer for all.
- **Replacement laptops** – Panasonic CF33 laptops have been procured and will be deployed to replace aged technology. These units were chosen due to stronger computing performance, longer battery life and ruggedness. We anticipate less downtime due to damage and technical performance.



- **Power Stair Chair Patient Extrication Equipment** – We are expecting improved safety for both employees and patients during extrication where staircases are involved. A more detailed information report on this project is also on tonight's agenda.
- **Vehicle suspension improvements** – investigating alternative leaf springs for the rear of the ambulances that could provide a smoother ride for patient comfort and safety. A low cost improvement that will be tested 2019, if successful this option could be included in future vehicle purchases.

Training Programs

- **safeTALK Suicide Awareness Certification Program** – is a program that complements the ASIST program delivered in early 2018 as part of our Post Traumatic Stress Disorder (PTSD) Prevention Plan. This program was delivered to all Platoon Superintendents and Peer Support Network Team members. This program prepares helpers to identify persons with thoughts of suicide and connect them to suicide first aid resources.
- **Working Minds for Families** – The Road to Mental Readiness (R2MR) Family program was delivered in late 2018 to families of Paramedics. This program for families of first responders is based on a program initially developed by the Department of National Defence and adapted for the special needs of a law enforcement/first responder audience. The main objectives of R2MR are to reduce the stigma of mental illnesses, increase awareness of mental health, and offer resources to maintain positive mental health and increase resiliency. The program teaches family members about the 'Big 4'. The Big 4 are a set of evidenced-based cognitive behavioural theory techniques that can help individuals cope with stress and improve their mental health and resiliency; positive self-talk, visualization, tactical breathing, and SMART goal setting.
- **Fall Training Sessions** – As the holiday season commenced, the training section completed delivery of our annual Fall Training rounds to all Paramedic staff. Topics in this training session included an intense review and practical application of objectives related to responding to and managing Multiple Casualty Incidents, CPR recertification, training on the Zoll Rapid Shock Study and training on the orientation and safe use of the recently purchased and deployed Ferno Powertraxx Stair Chairs. This power technology-lifting device was deployed in an effort to support the safety of both staff and patients while extricating patients involving stairs.

Community Paramedicine

The Community Paramedicine Section utilizes Paramedics in non-traditional roles providing home visits, clinical interventions, and preventative health initiatives with the goal of reducing demand for Emergency Department visits, hospital admissions and to keep our at risk aged population healthy and at home and attempting to aid our vulnerable populations by directing them to suitable community resources. There are two distinct programs; the Care Transitions Community Paramedicine Program and the Health Promotion Community Paramedic Program.



Care Transitions Community Paramedicine Program

The Care Transitions Community Paramedic (CTCP) Program has been active since January 12, 2015. This program is operationalized by two full time specially trained Advanced Care Paramedics who are able, through an expanded scope of practice, to provide education and medical interventions for three targeted chronic diseases; Congestive Heart Failure, Chronic Obstructive Pulmonary Disease and Diabetes. The education and interventions improve our patients' quality of life at home and decreases reliance on emergency response of Paramedic Services and readmissions to the hospital.

June 1 to December 31, 2018:

- **221** Current active patients received **1169** visits completed.
 - Phone consultations = **93**
 - Initial visits = **115**
 - Follow-up = **809**
 - Just in time (JIT) = **141**
- Medical Procedures
 - **109** Medication administrations
 - **159** iSTAT point of care blood testing
 - **156** Delegated Acts
 - **171** Capillary blood glucose testing
 - **69** On Call Physician consultations (via phone)
- Referrals to other care agencies = **136**
- Just in Time Visits (JIT) are more urgent visits that occur when the patient contacts the CTCP outside of the patients' scheduled appointment requesting assistance for a new symptom or an exacerbation of a medical condition. The paramedic will see this patient immediately before any of the scheduled appointments for the day.
- Challenge – From June 1 to December 31, 2018, out of total 213 available days the CTCP program was open **161** days and closed **52** days due to staffing challenges. This program currently has two FTE positions that work seven days a week, 12 hours per day. Solutions to staffing issues are currently being developed with the goal of training new Community Paramedics to assist in filling in for vacation, illness etc.
- Survey results from 2018 indicate 100 % would recommend the program and 100 % are satisfied with the service provided by CTCPs. We are currently working to complete further surveys and comments for future reports as extra modified worker staffing will allow.

Health Promotion Community Paramedic Program

The Health Promotion Community Paramedic (HPCP) program is a compilation of various prevention and health education initiatives that work to ensure our most vulnerable populations are linked to



community health services and can obtain healthy lifestyle education and prevention information. The initiatives provided include Paramedic Referrals to community agencies; Wellness Clinics targeting older adults and homeless populations; Rapid Mobilization Table (RMT) response; collaboration with community partner groups working toward healthy and safe communities; case management of frequent 9-1-1 users and annual Free Bystander Hands-Only CPR training sessions for our citizens. The goals of these initiatives are to ensure our vulnerable populations are able to remain living with their health at home for longer without reliance on Paramedic Services or the local Emergency Department.

June 1 to December 31, 2018 *:

- **282** Paramedic Referrals to NE LHIN Home and Community Care (previously known as CCAC)
- **96** Shelters Clinics
- **100** Older Adult Clinics (CP@Clinic)
- **44** Community Health Concern Reports (*June 1 to November 1, 2018)
- Rapid Mobilization Table
 - Originating agency = **14** presentations
 - Lead agency = **3** situations
 - Assisting agency = **119** situations
 - Engaged in **124** working group situation discussions out of a total of 253 RMT discussions occurring in 2018
 - Paramedic Services was involved in **49%** of total RMT discussions

CPR Blitz 2018

Paramedic Services held twenty-six CPR Blitz Sessions across the City throughout February/March and October/November/December 2018. During these sessions, **635** citizens were taught the lifesaving skill of Hands Only Bystander CPR and Automated External Defibrillator (AED) use. In order to be successful, Paramedics worked outside of their regular schedule to assist in teaching this life saving skill to the participants.

The survey results for these sessions were overwhelmingly positive. 100% of participants surveyed would take this course again and felt they would confidently know what to do if faced with witnessing a sudden cardiac arrest. In total, since 2014 Paramedic Services have taught **1422** citizens of the Greater City of Sudbury these lifesaving skills



Research Study Participation

Community Paramedicine Program- CP@Clinic Study

HPCP program has signed an extension and expansion Collaborative Research Agreement with McMaster University. We have expanded the older adult clinics into two Greater Sudbury Housing Corporation buildings in the south end area of Sudbury; while transitioning our previous buildings on maintenance visits (1x monthly). By the end of first quarter 2019 we plan to also complete expansion into two buildings in Capreol.

Community Paramedicine – CP@Home

The CP@Home Collective Research Agreement was also signed in late fall of 2018. This will be the first time this program will be run by our Community Paramedic Programs. This proactive research program in partnership with McMaster University, targets our frequent 9-1-1 users who rely on Paramedic Service to assist with unmet needs in their homes. HPCP provides in home visits, assessments, education and community program links/referrals to lessen the reliance on the emergency health care system and refocus help to derive from community health care services. This program is a sister program to CP@Clinic. Training will begin for our staff in early 2019.

Community Paramedicine – Common Assessments for Repeated Paramedic Service Encounters (CARPE)

In conjunction with McMaster University, Paramedic Services began participation in this research study in October 2018. The primary objective of this study is to investigate outcomes associated with older adults that are assessed in a Community Paramedicine Program. This includes frequent 9-1-1 calls, functional decline, social isolation, disease progression, and mortality. Through participation in this study we seek to determine if a Community Paramedic using a standardized assessment tool can identify risk factors associated with these outcomes. A standardized assessment tool that captures the full breadth of Paramedic observations will be important to improve care planning and for identifying changes in patient status.

Phase one which included training and orientation of Community Paramedics is complete, phase two will begin mid-January and intake of new clients will continue throughout the rest of the study, ending late spring 2019.

Paramedic Services – Zoll Rapid Shock Study

Paramedic Services began participating in an observational retrospective research study in December 2018, call the Zoll Rapid Shock Study. This study is designed to compare new and old software in our Zoll defibrillators, to see if this new software shortens the time between when paramedics stops CPR and shock delivery and then the time when CPR is resumed. We are very interested in this study because the best treatment for cardiac arrest is high quality CPR and rapid defibrillation. This study

Paramedic Services Update Report – Wednesday, February 6, 2019



will run for two years with the Principal Investigator being Emergency Services Medical Director, Dr. Jason Prpic.