

Appendix 1:

Canadian Community Paramedicine Programs

Nova Scotia:

The first Canadian program was developed on Long and Brier Islands isolated communities off the coast of Nova Scotia and has demonstrated cost savings with a 40% reduction in EMS transport to the Emergency Department as well as 28% reduction in Doctor's visits. The annual ambulance call volume for the islands was 150 calls per year. There was the capacity to utilize Paramedics to address the non-urgent medical concerns of citizens. Community Paramedics, Nurse Practitioners, with an offsite collaborating physician, provide the day to day medical assessment, chronic disease monitoring and management including expanded scope of practice that permits minor procedures such as diagnostic testing. An at home Vital signs, Interview, Safety Inspection Treatment (VISIT) program was undertaken by community Paramedics to provide the opportunity for additional services to be made available to citizens of these small isolated islands. This proactive wellness monitoring and education program has resulted in an increase of overall health of islanders and cost savings for the health care system.

Nova Scotia continues to expand the Community Paramedic Program to other areas tailored to meet the local needs. In Cape Breton a Collaborative Emergency Care Program (CEC) involves a Registered Nurse (RN) and Paramedic staffing the Emergency Department during the overnight hours. The team is supported by an on-line oversight physician. The RN and Paramedic treat general malaise (earaches, sore throats, colds), minor trauma (lacerations, simple fractures), allergies, back pain, minor diabetic issues and perform fall assessments. The additional training for paramedics for extended skill set includes suturing, slab casting and otoscope skills. The patients are assessed with one of three decisions being made:

- 1) Treat and release outright
- 2) Treat and release with scheduled primary care appointment
- 3) Transport for definitive care

Toronto:

The Toronto EMS Community Paramedic Program was created in the fall of 1999. The program is a non-emergency community-based service with a focus on health promotion and injury prevention. Toronto has been at the forefront with a number of innovative community programs. Toronto was the first Emergency Medical Service (EMS) to provide influenza immunization to the homeless, vulnerable and house-bound population. They have also assisted the Public Health Unit in large immunization programs.

The Community Referrals by Emergency Medical Service (CREMS) program has been extremely successful since its inception in early spring 2006. This program involves front line responding Paramedics identifying patients that are in need of additional health care or support services. Verbal consent is obtained and referrals are made to the appropriate Community Care Access Centre (CCAC) for further assessment and determination of what kind of services can be provided to meet the patient's needs. In the event a patient does not provide verbal consent and the Paramedics determine that additional support could assist the patient, a follow up visit

with a Community Paramedic is scheduled and the opportunity to discuss health options often results in a referral.

The CREMS program was piloted in Toronto and demonstrated success in community referral for patients that benefit from the services coordinated through the local CCAC. The program includes a community Paramedic that follows up with the patients that “refuse” immediate referral and they are often able to convince the patient that a connection to CCAC would be advantageous to address their mobility or assist with the challenges of daily living. A 73.8% reduction of 911 calls from target population in 2010 not only resulted in patient satisfaction, improved quality of living but clearly demonstrated a direct positive cost avoidance savings for Toronto EMS.

Injury prevention programs such as Partners Promoting Window and Balcony Safety for Children program has been spearheaded by Toronto EMS. This program provides education, use of safety devices and tips to help prevent falls of children. In addition hot and cold weather response plans have been successful in preventing emergencies associated with temperature extremes.

Renfrew County

Renfrew County Paramedic Service partnered with the Local Health Integration Network (LHIN) and community stakeholders to develop the “Aging at Home Strategy” for seniors in Deep River. The goal of the program was to allow seniors to live at home as long as possible with a “team approach” that includes Paramedics, personal support workers, housekeeping and maintenance. Most seniors required only minimal assistance to be able to stay in their homes. Currently thirty-two (32) seniors are being monitored in their home and recent data indicates, of this group, there has been a 50% decrease in emergency calls. The Paramedic’s role is to improve the quality of life and prevent emergency calls by taking vital signs, identifying and removing hazards, ensuring medications are taken as prescribed by physicians and educating patients on their medical conditions. The non-emergency vehicle (that carries essential equipment) can transport patients to the Deep River Hospital for appointments and non-emergency reasons. In this situation lengthy waiting lists for admission to long-term care facilities provided an opportunity for paramedics to assist in positively impacting this new reality.

In addition to the Aging at home Strategy in Deep River program previously described, Renfrew County has a number of other Community Paramedicine Programs including Wellness Clinics that provide residents, with challenges accessing a primary care provider, the opportunity for monthly assessments. The assessments include the monitoring of; blood glucose, temperature, heart rate and blood pressures that are recorded on a monthly basis. The records are provided to the patient to bring to their physician to help diagnose health problems in early stages.

Renfrew County also has a Heart Wise Exercise Program developed in partnership with the University of Ottawa Heart Institute. The purpose is to identify Community Exercise Programs that would benefit from an on-site Automatic External Defibrillator (AED) and staff training in its use as well as in Cardiopulmonary Resuscitation (CPR). Paramedics participate in community mass training for the AED and CPR in conjunction with healthy living workshops.

In low density call volume areas, Paramedics assist the community by providing Ad hoc

home visits to seniors between calls. These visits provide an opportunity for paramedics to assist seniors in accident proofing their home and educate them in injury prevention strategies to keep older adults safely at home for longer period of time.

York EMS

The Expanding Paramedicine in the Community (EPIC) clinical trial currently being undertaken (commenced June 2013) by York County EMS, is the second randomized control trial of Community Paramedicine in the world. In the EPIC trial a select group of Advanced Care Paramedics were given additional training in chronic disease management. The EPIC study will enroll 500 patients with a history or combination of the three most common chronic diseases (Diabetes Mellitus (DM), Congestive Heart Failure (CHF) and Chronic Obstructive Pulmonary Disease(COPD)) The “Control “ group will not receive the care of Community Paramedics and will serve as baseline data. The “Intervention” group will be treated by Paramedics, under the medical oversight of a primary care physician, in the home. This group of patients will be visited at home by the Community Paramedics through regularly scheduled visits and upon request of the family health team for patients experiencing exacerbations of their condition. The Community Paramedics are not working out of Emergency vehicles and not responding to 911 calls. They will however have all the equipment to provide emergency treatment if required and contact dispatch to initiate emergency vehicle response when necessary.

The additional training was provided by Centennial College that has developed a curriculum based on the UK Community Paramedic training program. The program focused on primary health care and chronic disease management.

York EMS has also developed a Community Clinical Program for health assessments at Emergency Shelters to address the homeless that often suffer from chronic disease that is poorly managed such as diabetes. This program provides the Paramedic an opportunity to interact with the marginalized population and address issues prior to escalation to a possible life threatening emergency.

Saskatoon

The Saskatoon Health Bus is an inter-professional mobile primary Health Centre staffed by a Nurse Practitioner and Paramedic. There is no charge for services and no appointment necessary. The bus often provides care to the marginalized population diagnosing and treating common illnesses and injuries. They provide testing, education and counseling for pregnancy, sexually transmitted infections and birth control, chronic disease monitoring, wound care management and suturing and suture removal for minor lacerations. In addition, the health bus assists patients to connect with community services such as; mental health and addictions services.

These are but a few successful programs currently in Canada that utilize the expertise and training of paramedics to provide non acute care in the community.