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Report To:	DSB Program Planning Committee
From:	Michael MacIsaac, Chief of EMS
Date:	March 26, 2014
Re:	Community Paramedicine

RECOMMENDATION

This report is provided to the Manitoulin-Sudbury District Services Board as introductory information on the burgeoning topic of Community Paramedicine. Furthermore, that upon review of this report DSB staff will be instructed to prepare a submission to the Ministry of Health & Long Term Care regarding the recent funding announcement.

REPORT

This report will provide information regarding the topic of Community Paramedicine. Within the province of Ontario there is said to be 14 Community Paramedicine programs in place with varying degrees of involvement. Community Paramedicine encompasses many different programs involving non-traditional paramedic roles mostly developed through partnerships with other health agencies. In recent months, there has been a greater impetus to look at Community Paramedicine programs due to an announcement by the Ministry of Health & Long Term Care (MOHLTC) that they were providing $6 million in one-time funding to go towards new and existing programs within the province. A Stakeholder led steering committee has been struck with the role of guiding the implementation of programs utilizing the aforementioned funding.

BACKGROUND

The Emergency Medical Services Chiefs of Canada (EMSCC) made the following statement in 2012:

> *"In an effort to maximize efficiencies in patient care and resources, many paramedic services are finding innovative programs and best practices to address the non-emergent primary care needs of seniors and other vulnerable members of their respective communities. One such innovative program is* ***Community Paramedicine****; where paramedics are engaged in non-traditional roles to assist in the health care of the population. According to the International Roundtable, Community Paramedicine is a model of care whereby paramedics apply their training and skills in "non-traditional" community-based environments, often outside the usual emergency response and transportation model."*

Also in 2012, the Minister of Health appointed director of gerontology at Mount Sinai and University Health Network hospitals, Dr. Samir Sinha, to lead the provinces seniors care strategy. In his report to the Minister, Living Longer, Living Well, he made the following recommendation:

> *Networks such as Local Health Integration Networks (LHINs) and local municipal Emergency Medical Services (EMS) programs should explore the development and expansion of Community Paramedicine programs across Ontario, especially in northern and rural communities. These programs could better support high-users of EMS to avoid emergency department (ED) visits and hospitalizations and potentially delay entry into a long-term care home as well.*

Dr. Sinha has been a key player in promoting Community Paramedicine and has successfully gained the support of the Minister of Health in obtaining her buy-in and funding for Community Paramedicine programs. Furthermore, in relation to the potential future of Paramedicine he states:

> *Evidence is showing that Community Paramedicine Programs can meaningfully reduce 911 demands on paramedic services which can thus reduce emergency department visits. Establishing Community Referrals by EMS Programs could become a standard of care across Ontario.*

There are many components to a Community Paramedicine program. Some such examples of programs being offered around the country include: referral programs, wellness clinics, public education, regular training of allied agencies, public access defibrillation programs, public CPR clinics and ad hoc home visits (including 12-Lead ECG acquisition and interpretation, blood glucose testing, obtaining oxygen saturation levels, wound care, intravenous therapy and medication administration, expanded drug administration, antibiotic therapy, and delivery of vaccinations). Some regions have also filled gaps in healthcare by creating teams made up of paramedics in conjunction with other practitioners to operate clinics and mobile health buses.

The MOHLTC recently engaged a consultant group on this matter. As part of the review, they have been able to categorize the many programs into five distinct channels. They are:

1. Paramedic Referrals - appear to be the most frequent form of Community Paramedicine in Ontario. Often referred to as Community Referrals by EMS (CREMS), this program typically assess a client identified through a 911 call or through a referral from another health provider. Based on the assessment the Community Paramedicine will refer the patient to another health service, frequently a Community Care Access Centre (CCAC). There appears to be significant variation in the amount and form of follow-up by Community Paramedicine after referral.

2. Circle of Care Partnerships - involve a formal partnership between the Community Paramedicine program and other health or social service providers. Examples of these partnerships include Family Health Teams, Geriatric Emergency Management (GEM) Nurses, Healthlinks, Assisted Community Living Programs.

The programs can include shared care, referrals to/from Community Paramedicine program and other providers, sharing of patient information and common assessment protocols. Community Paramedicine providers become an extension of the Circle of Care through home visits and other activities.

3. Community Paramedicine Clinics - include a wide range of activities ranging from blood pressure and glucose monitoring to immunization. The frequency of clinics can also range from regularly scheduled (e.g. monthly) events to seasonal or ad hoc. The settings for these clinics have included community centres, pharmacies, senior centres, shelters and local restaurants. The goal of the Wellness clinics is to provide early identification of health problems, referrals, health teaching and preventative interventions. These clinics can be run solely by Community Paramedicine practitioners or in partnership (e.g. Public Health, Diabetes Outreach). In some cases, clinic attendees may also be linked to other Community Paramedicine programs.

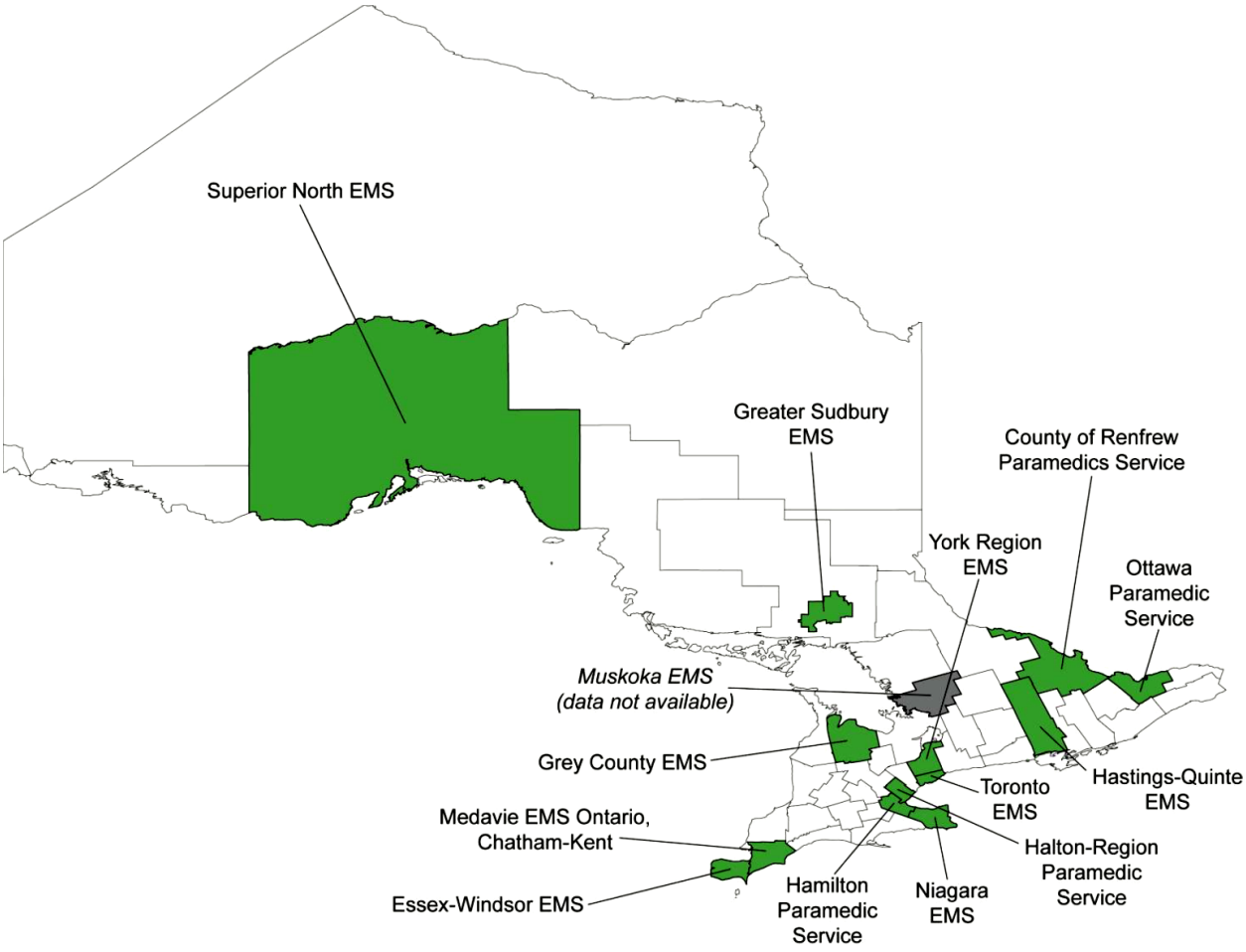
4. Community Paramedicine Directed Home Services - include Community Paramedicine led activities to intended to monitor a patient's health and living status and may also include interventions/ assessments/treatments such as blood pressure monitoring, assistance with physiotherapy exercises and other activities. These visits may be ad hoc (when paramedic in neighborhood) or scheduled. They may also result in referrals as needed. In some programs, these services are offered in institutional settings or in conjunction with a Family Practice or Health Team. These services may be triggered by analyses of frequent 911 callers.

5. Community Paramedicine Community Education includes a wide range of health promotion/education activities conducted by some Community Paramedicine services. These may include CPR training, falls prevention, home safety etc. Public Access Defibrillation (PAD) programs can also be included here. While Community Paramedicine programs also offer these services in home visits and clinic settings the Community Education activities are classified as different in that they are only focused on education and not early identification or intervention.

HISTORY

While the paramedic profession is still relatively young, Community Paramedicine is obviously far younger. In 1999, Toronto EMS started one of the first Community Paramedicine Programs in Ontario focusing on health prevention and injury prevention. In 2005 delegates from Australia, Scotland, the USA, and Canada met at the first International Roundtable on Community Paramedicine in Nova Scotia to share ideas on integrating rural EMS providers into rural health care delivery systems.

There are currently 14 services (a mix of urban and rural) providing organized Community Paramedic programs in the province (approximately 24%). In Ontario, some formal programs began up to 15 years ago but there was a sudden increase in the last six years due to rapidly increasing call volumes and the recognized successes of Community Paramedic programs worldwide.



An interesting note, if you include Public Access Defibrillation Programs and Public Relations events such as CPR clinics and education presentations (both of which are included in the broader definition of Community Paramedicine) the number of services providing Community Paramedicine initiatives would be closer to 100%. This is a very important point to note as injury and illness prevention and community response (PAD and Tiered programs) can ultimately save more lives and potentially reduce overall healthcare costs.

OBJECTIVES OF COMMUNITY PARAMEDICINE

There are many goals of Community Paramedicine programs that effect broader healthcare including:

- Improved patient access to the right services
- Improved health outcomes among older adults with chronic conditions, functional impairments, and social frailty
- Improved patient transitions across service providers/sectors
- Increased patient and caregiver satisfaction
- Optimized Health Human Resource (HHR) potential
- Decreased demand for emergency department visits among non-urgent cases
- Decreased demand for hospital admissions
- Delayed/decreased demand for long-term care home placements
- Improved cost-effectiveness

From an EMS perspective, Community Paramedicine aims to reduce future EMS call volumes (thus mitigating future budgetary increases). Additionally, becoming a greater partner in the overall healthcare system helps to provide a superior service to our communities as well as reducing the impact of aging demographics on the greater healthcare system.

Seniors account for nearly 50% of annual healthcare spending and use EMS five times more than non-seniors (60% of paramedic response) use. Currently, seniors account for 14% of the population. This will balloon to 24% over the next 20 years, tripling the cost to provide long-term care and increasing EMS call volumes (and therefore budgets) proportionally. Participating in Community Paramedicine programs reducing 911 calls, reducing emergency department visits, reducing hospitalizations, and reducing the demand for long-term beds (aging at home) will provide for a more effective healthcare system within our area.

EVIDENCE OF SUCCESS

Although there are many success stories in Community Paramedicine, there are very few that have researched and documented financial savings, not to say that savings are not realized, but that to measure actual savings is a difficult task due to the number of parameters that need to be analysed. York Region is currently conducting a major research study together with Sunnybrook Base Hospital with results due in 2015. The two studies that have actually reviewed financial impact on healthcare took place in Nova Scotia and England.

Islands of Long and Brier, Nova Scotia, two very remote communities, were unable to lure physicians to work in the area. This forced those seeking medical care to take a ferry to the mainland and then drive 35 minutes to a hospital. They implemented several Community Paramedic Programs in these communities. The old clinics were refurbished and staffed by paramedics and then later a Nurse Practitioner joined them in a team. Researchers identified a direct annual health care costs reduced from $2,380 to $1,375 per person (over the three years of the study). Reducing annual health care costs by 42% will allow policy makers the flexibility to reinvest the savings into other community programs.

Sheffield ambulance service in Great Britain increased the skillset of their Community Paramedics and focused on treat and release rather than treat, transport and referral of patients. The study was double blind and the results showed 63% fewer ER visits, 40% less admissions and 86% increase in satisfaction between the two study groups. They identified a trend to lower overall healthcare costs but were unable to state exact numbers due to the multiple measures. They did identify an increase in paramedic on task time.

As earlier identified, it is difficult to establish a direct savings to EMS and we look forward to the results from York Region. Savings to the overall healthcare dollar has been identified and is a very important point as the funding model to be discussed below emphasizes leveraging of partnerships with other healthcare organizations for the sustainability of Community Paramedic Programs.

MOHLC FUNDING ANNOUNCEMENT

In January 2014, the Minister of Health announced a $6 million one-time allocation of funding. On March 7th, a meeting was held in Toronto to explain the progress to date on Ontario wide Community Paramedicine programs and detail how the funding would be allocated. As previously mentioned a steering committee has been struck, made up of 50% EMS representation, whose aim was to put a plan in place for this funding. A scoring matrix has been established against which applications will be measured. The maximum amount of any one proposal is $300,000 and there are multiple stakeholders (17 different listed groups with many local sub groups) who can apply for this funding. The one commonality with any proposal is that there must be the signature of the local EMS Chief on each submission. Of greatest concern however is the short timeframe for submission. Proposals must be submitted by the end of business on April 17th.

ONGOING FUNDING PARAMETERS

At this point in time, there are no funding concerns. The only area that could require funding is in area of managerial productivity needed for the development and implementation of the program. It is hoped that this will be offset by a successful application bid for the provincial one-time funding noted above. On an ongoing basis, staff delivering the program will be on duty participating during periods of inactivity.

WHAT OUR NEIGHBOURS ARE DOING

The official stance of the EMSCC is to support developing both rural and urban Community Paramedicine programs in association with provincial and territorial regulators, the medical community, and social networks. This includes expanding the scope of paramedic practice to non-traditional roles and thereby improving mobile health services.

The Ontario Association of Paramedic Chiefs (OAPC) official stance is to *"support Community Paramedicine initiatives as a pillar in the development of a new Ontario Senior's Care Strategy."* They also "*further support better integration of paramedics into the delivery of health care".*

A survey of all ambulance services (100% response) in April of 2013 indicated that 43% of the services would have a Community Paramedicine program in place by the end of the year. Although this has not happened as of yet, with the announcement of one-time funding, the likelihood of meeting or exceeding that number this year is high.

Locally in the northeast, only Greater Sudbury EMS has an operating Community Paramedicine program with paramedic referral vetted through a quality assurance process involving investigation and analysis of data. Additionally, they are also involved with the Emergency Department Outreach Service (EDOS) program in a supportive nature through their community flow car.

Out of the 14 services providing Community Paramedic Programs, 48 specific programs exist. The programs are developed according to the needs of each community exhibited in the chart below.

	Inadequate access to primary care services	Inadequate access to specific health care professionals in the community	Insufficient availability of programs designed to provide health care services in the home	Lack of programs designed to target prevention and management of chronic diseases	Insufficient access to health care organizations	Insufficient access to more supportive living services	Inability to access services from community health and social services organizations	Insufficient public education programs	Services to at-risk or vulnerable populations	Prolonged response times for paramedic response
Medavie EMS Ontario, Chatham- Kent	X	X	X			X			X	X
Halton Region Paramedic Services			X							
Hastings- Quinte Emergency Medical Service			X	X		X		X	X	X
County of Renfrew Paramedics Service	X	X	X	X	X	X	X	X	X	X
Grey County EMS										
Niagara EMS	X	X	X	X		X			X	
Ottawa Paramedic Service		X	X	X		X	X		X	
Superior North EMS	X	X	X	X	X	X	X	X	X	X
Greater Sudbury Emergency Services	X	X	X		X	X	X	X	X	
Essex- Windsor EMS	X	X	X	X	X	X	X	X	X	
York Region EMS	X	X	X	X		X			X	X
Hamilton Paramedic Service	X	X	X	X		X		X	X	X
Toronto EMS	X	X	X			X	X		X	X
Total	**9**	**10**	**12**	**8**	**4**	**11**	**6**	**6**	**11**	**7**

CONCLUSION

In conclusion, the Manitoulin-Sudbury DSB has been involved in a community wellness program for almost eight years since the inception of the PAD Program. In addition to this, the EMS Training Department has collaborated with the Heart and Stroke Foundation and assisted with CPR clinics for youth in elementary schools in several of our First Nations Communities. Lastly, there have been many occasions where our paramedic staff have volunteered to provide displays and education at elementary schools, career fairs and even held open houses at their stations, all with a history that predates the PAD program.

Community Paramedicine is the evolution of the profession, a coming of age, and another step from technician to health care professional. From a service standpoint, Community Paramedicine has the potential to reduce future call volumes thus mitigating future needs for enhancements to deployment and therefore reducing potential budgetary increases. This also translates to overall savings within the healthcare system in general by helping

seniors stay safe in their homes longer as well as diverting patients away from emergency departments (right care, right time, and right place). When the demographics of baby boomers becoming seniors is considered, a small investment now could amount to major future savings. When it comes to utilizing the skills of the Paramedics within the community, an ounce of prevention can be worth a pound of cure.

Of all of the benefits considered, the most important one is the ability to provide a superior service to the members of our community. With the above in mind, the timing is right to move forward in looking to become more involved in this new role for paramedics.

DSB staff will prepare a submission to the Ministry of Health & Long Term Care for the development of a Community Paramedicine program within the Manitoulin-Sudbury DSB jurisdiction. The proposal will include a funding request for establishing all the necessary policies, procedures, and framework in order to establish a Community Paramedicine program that would utilize on duty Paramedics participating during periods of inactivity.