Health Professions Regulatory Advisory Council Application

Regulation of Paramedics under the *Regulated Health Professions Act, 1991*

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ONTARIO PARAMEDIC ASSOCIATION

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Introduction

> …the responsible and experienced members of a profession or occupation on whom the power of self-government is conferred should be in the best position to set the standards to be met and the qualifications of anyone who aspires to enter the profession or occupation (Casey, 2005, p. 16-1).

Self-regulation of paramedics in Ontario under the *Regulated Health Professions Act, 1991* (*RHPA*) has been an issue for many years, dating back at least to the 1998 report of the Land Ambulance Transition Task Force (LATT), which recommended this step "to address the key deficiency of the ambulance service regulatory framework" (1998, p. 7). The Task Force's reasons for recommending this step were to recognize:

- the enhanced need for consistent training and regulation of paramedics in a decentralized management system to ensure integration and accountability;
- the need to update the status and responsibilities of paramedics consistent with the evolution of the nature of their work – from untrained transportation provider to highly trained health professional;
- the need to remedy the inconsistency of giving self-regulatory status to professionals, such as opticians, who perform non-invasive acts but not to paramedics who are delegated to administer powerful drugs and perform invasive acts; and
- the nature of the responsibility given to paramedics to make decisions about pre-hospital care for, and to take action on patients who may be helpless or unconscious (1998, p. 7).

If anything, these needs have only grown more urgent since the LATT report was issued, as paramedic practice continues to evolve and the circumstances in which paramedics are called upon to deliver health care continue to extend, such as with recent initiatives in Canada and other countries to introduce Community Paramedic Programs (Nolan, Hillier & D'Angelo, 2012).

In considering self-regulation of paramedics under the *RHPA*, it is essential to recognize that "licensed" paramedics[1] (those working for Paramedic Services or Emergency Medical Services (EMS)) in Ontario are *not* currently unregulated (although practitioners

[1] Terminology used in Ontario's current regulatory system for paramedics is not consistent with the *RHPA*, nor entirely self-consistent. All paramedics are both "certified" and "registered" by the MOHLTC EHSB, but this does not give them a license to practice as paramedics, particularly in the performance of controlled acts. The latter requires employment by an Ambulance Service (i.e., EMS or Paramedic Service) and further "certification" by the medical director of a Base Hospital Program, which is thus somewhat akin to "registration" as used by regulatory Colleges under the *RHPA*. Paramedics who are not employed by an EMS cannot obtain the latter certification. Thus, "certification" and "certified" are ambiguous in this context, whereas "registration" and "registered" do not have the same meaning as they do under the *RHPA*, where they replace the use of "licence" found in the *Health Disciplines Act, 1974* that the *RHPA* superseded. In order to avoid unwieldy locutions, this application uses "licensed" and "unlicensed" (in quotation marks), to refer to paramedics working for EMS with Base Hospital Program certification and to paramedics not working for EMS, respectively. "Registered paramedics", on the other hand, will be used to refer to *all* paramedics regulated under the *RHPA* by a College of Paramedics.

who have satisfied educational requirements and the Ministry of Health and Long-Term Care (MOHLTC) Emergency Health Services Branch's (EHSB) certification requirements, but are not employed by an EMS, are *not* regulated). On the contrary, they are quite extensively regulated under the *Ambulance Act, 1990* by the MOHLTC EHSB, both directly and through their employer (the EMS) and the Base Hospital Program with which the EMS has a performance agreement. This application for self-regulation, therefore, must be understood as a *transformation* of the existing regulatory system for paramedics, rather than the introduction of such a system. "Licensed" paramedics are regulated under the *Ambulance Act* (which includes specification under *Ontario Regulation 257/00* of the controlled acts that paramedics are authorized to perform) because paramedic practice exhibits precisely the risk of harm that the Health Professions Regulatory Advisory Council (HPRAC) requires in order to consider other criteria relevant to self-regulation. In other words, the current regulatory system for "licensed" paramedics in Ontario exists for the same reason and with the same intent as does the system of self-regulation under the *RHPA*, namely, to protect the public interest.

The current application intends to show that self-regulation for paramedics under the *RHPA* is a more effective and appropriate way to protect the public interest and to enable successful interprofessional collaboration between paramedics and other regulated health professions. First, it would increase access to health care, by enabling the provision of registered paramedics beyond those employed by EMS (Nolan, Hillier & D'Angelo, 2012). Given the health human resource constraints that Ontario faces (similar to many developed regions) and the availability of newly MOHLTC EHSB-certified paramedics (around 750 per year), self-regulation would make it possible for the investment of time, money and effort on the part of both individual practitioners and educational institutions to contribute more effectively to addressing the healthcare needs of Ontario residents.

Second, paramedic self-regulation would increase public choice of healthcare provider, as registered paramedics would be able to provide health services within their scope of practice (including controlled acts) beyond prehospital environments, such as in community clinics. It would also provide ongoing opportunities for paramedics to maintain their clinical skills through predictable service provision, in contrast to the unpredictable nature of emergency ambulance calls, a particular concern for high-risk skills (Vrotsos, Pirrallo, Guse & Aufderheide, 2008).

Third, it would place greater emphasis on paramedics' responsibility for maintaining their competency and improving their own medical and related knowledge. The current system of continuing medical education and recertification is highly prescriptive, predominantly technical, heavily course-based, and oriented towards annual recertification. Self-regulated health professions such as physicians and nurses have far greater flexibility to determine how they maintain and enhance their professional abilities and knowledge. Here we touch on an important, although often understated aspect of self-regulation, which is that it is not just the *profession's* regulation of itself, but equally the *individual's* regulation of him or herself. In other words, the privilege granted by self-regulation extends from government through the regulatory College right down to the

individual practitioner. One of the primary concerns about self-regulation expressed by some paramedics in Ontario is that it entails another level of bureaucracy on top of what some see as an already highly bureaucratic system. The Ontario Paramedics Association's (OPA) view is that, by reducing bureaucratic layers, self-regulation under the *RHPA* through a College of Paramedics will improve the protection of the public, and concomitantly enhance the practice of paramedics throughout the province, while bringing paramedic practice fully into alignment with the health care system.

To reiterate, the basis for self-regulation set out in the current application is that the current system is complicated, inefficient, and fails to include paramedics working outside of an EMS. As such, it does not fully protect the public, nor is it properly aligned with the regulation of allied health professions. The OPA's view is that the details contained in this application make a compelling case for "the need to update the status and responsibilities of paramedics consistent with the evolution of the nature of their work".

It should be noted that this application does not include Emergency Medical Responders (EMR) as defined in the National Occupational Competency Profile (NOCP). In the OPA's view, their inclusion within a College of Paramedics would be inappropriate, as the standards of practice of EMRs does not reach the risk of harm threshold that self-regulation under the *RHPA* requires. In particular, EMRs are not certified to perform controlled acts.[2]

Risk of Harm

General Description of Services Provided by Paramedics

In general terms, the services provided by paramedics include: triage; initial and ongoing patient assessment and diagnostics through patient history, physical assessment and diagnostic tests; therapeutic treatment and interventions to stabilize patients using invasive and non-invasive modalities; scene management; and relocation and transportation of patients. These services are provided predominantly in the out-of-hospital environment, although they have started to be provided in non-traditional environments as well.

Paramedic practice is described in the Ontario Ministry of Training, Colleges and Universities' (MTCU) *Paramedic Program Standard* as follows:

> The practice of paramedicine requires high levels of accuracy, responsibility, and accountability and is founded on caring and compassion…the field of paramedicine has a strong physical requirement and is a high-stress occupation…
>
> The practice of paramedicine requires the ability to act independently,

[2] Note that "EMR" is different from "EMA", a legacy definition used in the Ambulance Act for grandfathering purposes that no longer has any corresponding entry-to-practice mechanism.

> simultaneous with the ability to work collaboratively with patients, other paramedics, other emergency services personnel, ambulance communications officers, physicians, nurses, and other allied health care personnel. Being able to effectively communicate with patients and families in stressful situations is critical to the role of the paramedic. (MTCU, 2008, p. 4)

Paramedic services are delivered according to the competencies and standards of a paramedic's level. As in all jurisdictions in Canada, Ontario has three levels of paramedic, which in this province are classified as Primary Care Paramedic (PCP), Advanced Care Paramedic (ACP) and Critical Care Paramedic (CCP). Each level builds on the competencies and skills of the prior level and encompasses its scope of practice. Each level also has a specific educational requirement, which again builds on the prior level.

Primary Care Paramedic (PCP)

A PCP responds to both emergency and non-emergency calls and provides basic medical care and transportation for patients. They work with another PCP or ACP partner and perform interventions with the equipment typically found on an ambulance. They constitute the largest group of paramedics in Canada and are expected to demonstrate excellent decision-making skills, based on sound knowledge and principles. In Ontario, PCPs can conduct patient assessments, provide basic airway management, administer oxygen, perform cardio pulmonary resuscitation (CPR), provide basic trauma care, and administer symptom relief medications by various routes and perform manual and semi-automated external defibrillation (SAED).

Advanced Care Paramedic (ACP)

The primary focus of the ACP is to provide advanced emergency medical care and transportation for critical and emergent patients and perform interventions with the basic and advanced equipment typically found on an ambulance. ACPs are expected to build upon the foundation of PCP competencies, and apply their added knowledge and skills to provide enhanced levels of assessment and care. ACPs may implement treatment measures that are invasive and/or pharmacological in nature. Competencies specific to ACPs include providing advanced airway management, performing laryngoscopy and removal of foreign body obstruction using forceps, providing basic field mechanical ventilation, conducting 12 lead ECG interpretation, administering a more extensive list of medications including intravenous medication, and performing manual defibrillation and other electrical therapies.

Critical Care Paramedic (CCP)

The CCP is expected to perform thorough assessments that include the interpretation of patient laboratory and radiological data. CCPs can implement treatment measures, typically those that are invasive and/or pharmacological in nature, both autonomously and after consultation with medical authorities. Competencies specific to CCPs include

administering a wide variety of drugs, performing advanced airway procedures such as needle thoracostomy and cricothyroidotomy, and interpreting x-rays and lab blood values. This is currently the highest level of paramedic in Canada.

Diagnostic Modalities

The general diagnostic competencies outlined in the National Occupational Competency Profile for Paramedics (NOCP) developed by the Paramedic Association of Canada comprise the following:

> 4.1. Conduct triage in a multiple-patient incident.
> 4.2. Obtain patient history.
> 4.3. Conduct complete physical assessment demonstrating appropriate use of inspection, palpation, percussion and auscultation.
> 4.4. Assess vital signs.
> 4.5. Utilize diagnostic tests (NOCP, 2011, p. 11)

Paramedics also utilize multiple diagnostic tools, equipment and tests which include: stethoscopes; blood pressure measuring devices; temperature probes; percussion, palpation, auscultation and inspection; recognized neurological tests including the Glasgow Coma Scale, Cincinnati Stroke Scale and the Canadian Triage and Acuity Scale; pulse oximetry; end-tidal carbon dioxide monitoring; glucometric testing; and electrocardiograms.

Paramedics in Ontario employ diagnostic modalities in accordance with their level of training and their level of authorization according to *Ontario Regulation 257/00* under the *Ambulance Act, 1990*. However, the specific diagnostic modalities employed by paramedics are not set out in statute, but rather in standards of practice or practice guidelines issued by both the MOHLTC and Base Hospital Programs. The MOHLTC is responsible for two documents, *Basic Life Support Patient Care Standards* (BLS), *Advanced Life Support Patient Care Standards* (ALS).[3] The former sets out "the Ministry of Health and Long-Term Care expectations with respect to how paramedics will interact with patients" at a basic life support level, which does not include controlled acts (2007, p. 1). The latter's purpose "is to guide the specifics of patient care that are to be undertaken consistent with the scope of practice of the three occupational levels of paramedics" (2011, p. 2).

The BLS specifies that "providers MUST focus on the following three aspects of patient care:

> a) Identifying serious disruptions to critical functions – airway, breathing, circulation and level of consciousness;
> b) Applying measures[4] to correct these disruptions as soon as feasible, and,

[3] Standards of practice for CCP are not detailed in any MOHLTC documents, but rather in the *Adult and Pediatric Medical Directives and Standing Orders* produced by Ornge, Ontario's primary provider of air ambulance and critical care land transport services.

[4] I.e., measures appropriate at the BLS standard.

c) Determining the need for, and where required, initiating rapid transport. Attempting to make a definitive diagnosis in the field may lead to unnecessary delays in treatment and transport. *Diagnosis is of secondary importance in field practice.*" (2007, p.7)[5]

The general principles of patient assessment in the BLS specify that a paramedic will first of all obtain patient consent or advise about the possible consequences of refusal of treatment (pp. 1-4, 1-13). If consent is granted, a "paramedic will…On all scene calls…assume the existence of serious, potentially life-, limb- and/or function-threatening conditions until assessment indicates otherwise" (p. 1-4) and, concurrent with or following the primary survey, "Establish the chief complaint…Elicit history of present illness or incident" (p. 1-5). More specifically, the paramedic will conduct a primary physical assessment to "note the patient's general appearance, degree of distress. Ensure manual C-spine protection if trauma is obvious, suspect or unknown. Assess airway patency, breathing, circulation and level of consciousness and identify critical findings…Determine the need for rapid transport…after completion of the primary survey…Initiate cardiac monitoring [for certain types of calls]….take vital signs…perform complete head to toe assessment or a limited head to toe assessment…if indicated, perform trauma assessments in medical patients, and medical assessments in trauma patients…Formulate a working assessment after the primary and/or secondary survey. List and prioritize problems" (pp. 1-5-1-7).

Paramedics' Areas of Practice

There are few areas of diagnosis, treatment, interventions or modalities that are performed exclusively by paramedics. Where paramedic practice differs from that of other health professions is, first, that it is performed predominantly in the out-of-hospital environment, which is often uncontrolled and can involve confined spaces, poor lighting, adverse weather and dangerous conditions. Second, in most cases, paramedics have to relocate their patients from the scene of incident and transport them to medical facilities, either by land or by air,[6] and provide ongoing assessment, monitoring and treatment enroute. Paramedics are the only healthcare professionals to provide such services on a routine basis and for this reason are considered by most health professionals to be the subject matter experts in transport medicine.

Out-of-hospital paramedic practice includes patient assessment, diagnosis and administration of treatment and interventions on the side of the highway, industrial sites, homes, businesses, public gathering spaces or anywhere an emergency occurs, with the aim of stabilizing patients either for transportation to a medical facility or to allow them to recover at home. Thus, another area of practice exclusive to paramedics is scene management, which includes assessment and control of risk factors, both physical and psychosocial. Furthermore, unlike most other health professionals, paramedics are also required to perform multiple-trauma triage, for example at the

[5] It is open to question whether this applies in all cases.

[6] Specialized training is required to work as a flight paramedic in the aeromedical environment. See p. 24 for further details.

scene of a mass casualty incident. Paramedic services are also performed unsupervised, save where communications with a Base Hospital Program physician are required to administer a particular treatment, as set out in medical directives.[7] And whereas emergency department (ED) doctors and nurses can call on the resources of their hospital as a whole, paramedics' treatment and interventions depend on the medication and equipment stock in their emergency response vehicle, which for practical and financial reasons is limited.

Paramedic practice also differs from that of all other health professions in the function of transporting patients from the scene of incident to medical care facilities. This involves skills that would not typically be recognized as medical in nature (e.g., safe emergency driving skills), but are nevertheless essential to the profession's effective delivery of services. It also necessitates another skill set, namely the ability to monitor patient condition in a moving land or air ambulance and to intervene if necessary to provide life support. Associated with this transportation function is the requirement to lift and move patients from the scene of the event to the land or air emergency response vehicle. Although other health professionals do transfer patients from hospital beds to stretchers and *vice* versa paramedics do so in the adverse conditions previously mentioned. Extrication of a patient from a confined space such as a motor vehicle collision is another area in which paramedics are recognized as experts. Finally, paramedics are also required to assess and manage the scene of an incident, sometimes with respect to forensic implications. These competencies are detailed in the NOCP (competencies 1.7, 2.1, 3.2, 3.3, 4.2f and 7).

"Licensed" paramedics assess and treat patients following approved and accepted medical protocols and guidelines. The general competencies for therapeutics set out in the NOCP are:

5.1. Maintain patency of upper airway and trachea.
5.2. Prepare oxygen delivery devices.
5.3. Deliver oxygen and administer manual ventilation.
5.4. Utilize ventilation equipment.
5.5. Implement measures to maintain hemodynamic stability.
5.6. Provide basic care for soft tissue injuries.
5.7. Immobilize actual and suspected fractures.
5.8. Administer medications.

Under each general competency, the NOCP lists a number of subcompetencies.

Several of the competency areas specified in the NOCP (pp. 10-11) are shared by all health professions. These include professional responsibilities, communication, health and safety (although fewer health professions need to practice safe lifting and moving

[7] Even though MOHLTC and Base Hospital Program medical protocols specify circumstances in which such communication (called "patching") is mandatory, in the event that such patching fails paramedics are authorized to perform the intervention concerned based on their clinical judgment.

techniques), integration and health promotion. The diagnostic and treatment modalities paramedics perform and the services they provide are shared by a number of regulated health professions, including physicians, nurses, nurse practitioners, respiratory therapists and midwives. In terms of controlled acts set out in the *RHPA*, these include: making and communicating assessments and provisional diagnoses to patients or personal representatives; conducting and interpreting diagnostic tests; performing procedures on tissue below the dermis; inserting airway devices into nasal passages and beyond the pharynx; administering substances by injection, and inhalation; administering drugs; applying a form of energy (e.g., transcutaneous cardiac pacing, cardioversion, defibrillation); and managing delivery of a baby.

The areas of practice of unregulated health professions and the services they provide may also include the competency areas of professional responsibilities, communication, health and safety (although fewer health professions need to practice safe lifting and moving techniques), integration and health promotion. However, there are few, if any, areas of paramedic practice involving assessment and diagnostics and therapeutics that unregulated health professions are allowed to perform, since these areas involve one or more controlled acts. Some "unlicensed" paramedics employed by non-emergency patient transfer and event medical services may perform some controlled acts under the license of a physician. Under the "Good Samaritan" provisions of the *RHPA* (s. 29(1)(a)), an individual can perform such acts on an emergency basis, which would also apply to individuals belonging to unregulated health professions. "Unlicensed" paramedics also provide patient transportation services.

Because of their scope of practice, "licensed" paramedics have not typically worked directly in conjunction with other health professions in the out-of-hospital environment save in two circumstances. First, for certain controlled acts, paramedics in Ontario are required to contact (or "patch to") a Base Hospital Program physician for authorization. The ALS provides the following details:

> In cases where a treatment option requires the prior authorization by the BHP (i.e. mandatory provincial patch point or mandatory BH patch point) AND the BHP cannot be reached despite reasonable attempts by the paramedic to establish contact, a paramedic may initiate the required treatment without the requisite online authorization if the patient is in severe distress and, in the paramedic's opinion, the medical directive would otherwise apply. Clinical judgment must be applied and an acceptable standard of care must be met (MOHLTC EHSB, 2011, p. 9). [8]

Second, after transportation to a medical facility, paramedics transfer their patients to the care of other health professions (typically ED nurses and physicians), which involves communication of all the relevant information gathered through assessment,

[8] Thus mandatory patching is similar to, or possibly identical with, obtaining a direct order to perform a controlled act, except that a "licensed" paramedic is also authorized to perform the act in case the patch fails. It is unclear under *O. Reg. 257/00* whether such acts are delegated by medical directive or by the patch itself.

diagnosis, treatment and monitoring in the form of a patient report. In the process of transfer of care, the paramedics remain responsible for safety and care of the patient while he or she remains on their stretcher, and for monitoring and reassessing the patient's status (see, for example, Sunnybrook-Osler Centre for Prehospital Care, 2006, pp. 79-80). Patients are also transferred to paramedic care for interfacility transfer when this is determined to be medically advisable.

Paramedics may also be called on to assist in the ED, for example, by maintaining application of their diagnostic instruments such as cardiac monitors, continuing treatments such as CPR and other resuscitation efforts along with the hospital team, or continuing interventions such as transcutaneous pacing or continuous positive airway pressure (CPAP) ventilation until hospital staff can prepare their own equipment. Overload in the ED has led to long wait times for such transfer, which then require paramedics to provide ongoing care for unstable patients, for which they are not typically trained (Atack & Maher, 2010, p. 97).

In recent years, there has been growing interest in making use of paramedics' skills and training to provide primary health care in non-emergency environments, in some cases as an adjunct to the work of other health professionals such as nurses and nurse practitioners. Community Paramedic Programs (CPPs) are "a model of care whereby paramedics apply their training and skills in "non-traditional" community-based environments (outside the usual emergency response/transport model)" (International Roundtable on Community Paramedicine website). CPPs are a relatively new and evolving model of health care delivery in Canada, which are being introduced to address health care access issues specific to the elderly and to chronic disease management. Health care services that CPPs offer include immunizations (influenza vaccination), clinics that monitor and record residents' monthly blood glucose, temperatures, heart rates and blood pressures, and referrals to community health services such as nursing and physiotherapy visits that can address specific needs.

One of the most well-known examples in Canada is the Long and Brier Island program in Nova Scotia, which was implemented to address a primary health service access issue in a remote location. Emergency Health Services (EHS) introduced a nurse practitioner (NP) – paramedic – physician model in which residents received primary care and emergency services from an on-site NP and paramedic and an off-site physician. A longitudinal study concluded that "the innovative model of care resulted in decreased cost, increased access, a high level of acceptance and satisfaction and effective collaboration among care providers" (Martin–Misener, Downe-Wamboldt, Cain & Girouard, 2009, p. 1). One study has shown in the U.K. context that this approach "is at least as safe as the standard care provided by EMS and the ED" (Mason, Knowles, Feeman & Snooks, 2008, p. 612).

Acts that entail a Risk of Harm to Patients

The out-of-hospital work environment presents service, practice and treatment challenges exclusive to paramedics. Assessing and treating patients in uncontrolled and weather-affected surroundings poses risks to patients and practitioners not faced by

other health professions. Multi-casualty triage, on-scene immobilization, patient relocation and emergency transport all involve risk of physical harm to patients.

The risk of harm to patients entailed by paramedics' scope of practice encompasses the majority, if not all, of the actions they perform and the services they provide. There are two aspects to this. On the one hand, there is the risk of harm inherent in many of the acts themselves, whether assessments, interventions, the administering of medications or electrical therapies, treatment modalities or services (Bass, p. 16, in Kapp, 2001). That is, an action such as endotracheal intubation or the administration of nitroglycerin carries with it a certain risk of harm because of the very nature of the act (i.e., invasive procedure, pharmacological treatment), which would be the case no matter the health profession of the person performing the act. In particular, it should be recognized that as the recipients of such actions are not in optimal health, they are therefore intrinsically more vulnerable to the harm that such actions can engender. The level of such risk may, of course, be elevated by external conditions, for example settings paramedics encounter frequently, such as the scene of trauma and patient transportation. Outcomes in which patients suffer harm as a result of such inherent risk are often referred to as "adverse events" (Sohn, 2013).

On the other hand, there is also *iatrogenic* risk of harm, i.e., the risk of harm entailed by sub-standard performance of such acts, which is often referred to as "medical error" (Sohn, 2013). Since the beginning of the 21st century, consideration of this type of risk and its reduction or mitigation has been brought under the general concept of patient safety. As defined by the World Health Organization's (WHO) Patient Safety programme, "Patient safety is the absence of preventable harm to a patient during the process of health care." (WHO website). This risk of harm relates to the performance of the individual providing medical care, and can involve a variety of medical errors, such as misdiagnosis, drug dosage errors, incorrect decision to treat, and provision of services such as patient interaction and patient handover that does not meet the required standard of care.[9] It should be emphasized here that the *risk* of harm entailed by a medical error does not mean a patient was actually harmed.

For paramedic practice, the unique environment in which services are delivered can again contribute to the impairment of patient safety. As the Canadian Patient Safety Institute (CPSI) pointed out in its 2008 report,

> Emergency medical services (EMS) personnel often work in small, poorly lit spaces in environments that are chaotic, unfriendly and challenging for emergent or urgent healthcare interventions; indeed, it is often the dangerous nature of the environment that has led to the call for help. Unlike a hospital, emergency scenes are often loud, cluttered, and

[9] Sohn further distinguishes between negligence, the "failure to meet a standard level of care" as a result of a "decisional error" and what he terms "system errors", i.e., "occasional, simple human error[s]" that happen "unintentionally" or "unwittingly", and thus cannot be deterred, but only safeguarded against. Evidence indicates that system errors constitute the majority of medical errors (Sohn, 2013, p. 50; see also Bigham et al., 2012, p. 6). Both decisional and system errors should also be distinguished from *intentional* acts of harm.

> unfamiliar places to pre-hospital care providers. In addition to these challenging environmental factors, emotional stressors are often heightened by the presence of panicked family members, curious bystanders and a lack of human and medical resources (p. 4).

Another factor unique to paramedic practice is the transportation function. Not only do patients have to be physically relocated from the place of incident to the ambulance, the same paramedics providing prehospital care are also responsible for transporting the patient to the nearest or most appropriate medical facility in all weather and road conditions, often under severe time pressures, and conducting ongoing patient monitoring and assessment as they do so. This can and does result in accidents that are harmful to patient, paramedics and bystanders alike. (CPSI, 2008. p. 7). Fatigue and stressful working conditions (e.g., managing multiple trauma scenes) can also contribute to the risk of harm to patients, as can the need to make clinical decisions under severe time constraints and often with limited information (Brice et al., 2012; Lu, Guenther, Wesley and Gallagher, 2013). Finally, the widening paramedic scope of practice seen in recent years also gives rise to greater risk of harm, as paramedics now deliver more complex treatments and administer a wider range of drugs, training for which may not always have kept pace (Bigham et al., 2012; Atack & Maher, 2010).

Despite the evident risk of harm in paramedic practice, there are relatively few studies on this issue. The CPSI study states that "Patient safety in the EMS setting has been poorly studied; there is a paucity of evidence, and very few experimental trials of interventions designed to make EMS safer" (CPSI, 2008, p. 3), and goes on to point out that "In contrast to hospital settings, there is a stunning lack of epidemiologic data pertaining to adverse events in the prehospital setting…" (p. 4). An article resulting from this study notes that “Despite its nature, EMS is seldom discussed in the patient safety literature” (Bigham et al., 2012, p. 21). The absence of a strong research base was also noted by the Emergency Medical Services Chiefs of Canada (EMSCC) in its 2006 report (pp. 14-15).[10] This lack of evidence is likely due to the fact that paramedicine has only relatively recently come to be seen as more strongly aligned with health care rather than primarily as a public safety service.

Key informants in the CPSI study identified “clinical judgment and the training required to make coherent decisions” as “the greatest risk to public safety” (2008, p. 3), rather than medication errors, poor driving skills, or any other substandard provision of paramedic services (see also Jensen, 2010, 2011a; Atack & Maher, 2010) (although another study found that, for out-of-hospital pediatric patients, “Medications…were frequently administered outside of the proper dose range” (Hoyle, Davis, Putman, Trytko, & Fales, 2012, p. 59)). The other patient safety themes identified by the CPSI study’s systematic literature review were field intubation, air operations safety and interfacility transportation, meaning that many patient safety issues are not well represented in the literature (2008, p. 1). The World Health Organization’s World Alliance for Patient Safety has developed a classification of 13 types of incidents that can lead to adverse events for patients, only three of which (clinical

[10] For further discussion, see “Body of Knowledge and Scope of Practice”.

process/procedures, medication and, arguably, infrastructure) appear in the literature surveyed by CPSI (World Health Organization, 2009, p. 32).

Lemonick's (2009) review of the literature regarding prehospital care concluded that "many of the current practices and protocols in EMS are not based on any level of scientific evidence" (p. 5). Along with incidents related to both air and land emergency response vehicles, this review discusses prehospital analgesia, EMS airway management, and CPR and advanced cardiac life support. He noted that "pain management in EMS continues to be woefully inadequate" (p. 9), that endotracheal intubation (ETI) was problematic (pp. 10-11), often leading to worse mortality, neurological and functional outcomes, and that ALS for cardiac arrest shows no significant benefits (pp. 12-13). However, such issues are at the systemic level, since they refer to standard paramedic prehospital practices, rather than due to a lack of competency on the part of practitioners. As will be discussed below, the OPALS study referred to by Lemonick showed precisely this systemic error with regard to the lack of apparent benefits of ALS in the case of cardiac arrest.

Other studies on systemic harm include that of Wang, Lave, Sirio and Yealy (2006), which examined the rate of ETI errors among EMS practitioners and concluded that "In the spirit of "first, do no harm", we might consider not intubating at all" (p. 507), and of Lossius, Røislien and Lockey (2012), which concluded that non-physicians perform worse than physicians in prehospital ETI, a complex procedure and invasive act that can lead to later health complications if performed incorrectly.

Risk to Public Safety from Lack of Regulation of "Unlicensed" Paramedics

"Licensed" paramedics in Ontario are not unregulated, but are regulated under the *Ambulance Act*, precisely because the medical care they provide poses a risk of harm to patients. "Unlicensed" paramedics are not allowed by the Act to perform controlled acts, since they are not supervised by the medical director of a Base Hospital Program. However, it may be the case that these practitioners do perform such acts under delegation from a non-Base Hospital Program physician. Although this would seem to violate O. Reg. 257/00, it is in fact permitted under the *RHPA* and the *Medicine Act*.

The OPA does not have access to data that show the extent to which public safety is at risk because "unlicensed" paramedics remain unregulated. However, the level of concern expressed in 2011 by the Ontario Ombudsman at the lack of regulation of non-emergency medical transportation services and its impact on patient safety provides some evidence on this issue. The Ombudsman's office indicated that it had received complaints about "inadequate equipment, lack of infection control, poorly maintained vehicles and insufficient training of staff" (Ontario Ombudsman, 2012).

HPRAC's jurisprudence review of English language case law in Canada resulted in a total of 42 cases, 22 of which involved the issue of competence. Only in five of these cases was it established that the paramedic(s) involved had not provided the appropriate standard of care (HPRAC, October 2012).

The Rate and Nature of Complaints of Harm

The OPA has no jurisdiction to receive or act on complaints, which is the joint and several responsibility of the MOHLTC EHSB and, through performance agreements, EMS and Base Hospital Programs. The data in Table 1 on frequency of investigations and source of complaints were provided by MOHLTC EHSB. However, no indication was provided as to what extent these complaints involved adverse events, system errors or negligence. It is notable that over a period of nearly six years, the MOHLTC EHSB conducted only one investigation into an issue of paramedic competency.

	Number of Paramedics Investigated 2007-2012					
Investigation Type	**2007**	**2008**	**2009**	**2010**	**2011**	**2012 (Jan-Nov)**
Quality of patient care	54	79	67	153	198	74
Possible Ambulance Act contravention	7	17	8	14	7	5
Coroner investigation				10		
Possible Criminal Code contravention	2		2	10	5	
Paramedic competency				1		
Total	**63**	**96**	**77**	**188**	**210**	**79**

Table 1. MOHLTC EHSB Data on Investigations, 2007-2012

In its communication with the OPA, the MOHLTC EHSB noted that "Recommendations and actions taken can include: Paramedic Remedial, Ambulance Act Charges, Service review of paramedic qualifications, Paramedic rewrite, Dismissal, Suspension w/o pay, Criminal Code Charges and Discipline". Table 2 shows data relating to the outcome of MOHLTC EHSB's investigations:

Year	# of Recommended Paramedic Rewrites
2008	3
2007	2
2010	2

Table 2. MOHLTC EHSB Paramedic Rewrite Information

The Auditor General of Ontario's 2005 Annual Report suggests that the number of complaints received by EMS may be much larger than that received by MOHLTC EHSB, stating that "one municipality reported receiving about 300 complaints in 2004" (p. 58). However, two Ontario EMS suggest that they receive relatively few complaints

(M. Nolan, personal communication, February 21, 2013; N. Gale, personal communication, March 12, 2013). Base Hospital Programs are perhaps the primary body responsible for receiving and investigating complaints to do with the performance of controlled acts, but were unable to provide the OPA with this information.

There are no voluntary disciplinary or investigations processes that apply to "licensed" paramedics working for EMS in Ontario. Although Base Hospital Program quality assurance involves self-report on the part of these paramedics, this procedure is mandatory, not voluntary. The OPA has no knowledge about processes that may apply to "unlicensed" paramedics working for private non-emergency medical transportation and event medical services companies.

Anticipated Effect of Regulation under the RHPA on the Current Risk of Harm

Self-regulation within a College of Paramedics under the *RHPA* would increase transparency, public accountability and competency within the profession, would include all paramedics, and would allow for greater interprofessional collaboration to determine standards and best practices in assessments, the use of diagnostic modalities, clinical treatment and patient care. This would reduce the risk of harm to patients from its current level, particularly with regard to individuals employed by private companies offering medical transportation and event medical services, who will be brought under a regulatory umbrella from which they are currently excluded. In addition, the increased transparency and public accountability resulting from self-regulation under the *RHPA* will further reduce the risk of harm presented by paramedic practice, in part by necessitating that paramedics take responsibility for maintaining the levels of competence required by their standards of practice and for their professional development. Since paramedics are in the best position to understand their training, continuing competency and professional development needs, regulation under the *RHPA* would allow their expertise to be harnessed to better protect the public interest.

Mechanisms in Place to Ensure the Delivery of Safe Care by Paramedics

"Licensed" paramedics in Ontario are supervised by a regulated health professional, namely, the medical director of the responsible Base Hospital Program. Statutory regulation under the *Ambulance Act* imposes a number of mechanisms to ensure delivery of safe care and quality of work performance. These include: education and certification requirements; continuing medical education (CME) and annual recertification requirements supervised by Base Hospital Programs through a performance agreement with the MOHLTC EHSB; and conduct and other operational requirements supervised by EMS. In addition, as discussed above, MOHLTC EHSB, Base Hospital Programs and EMS all conduct investigations of complaints. Paramedics found to have performed below required standards of practice by Base Hospital Programs may be asked to take remedial training, be temporarily deactivated, or even be decertified entirely. Figure 1 shows the current regulatory system and the mechanisms to ensure delivery of safe care it involves.

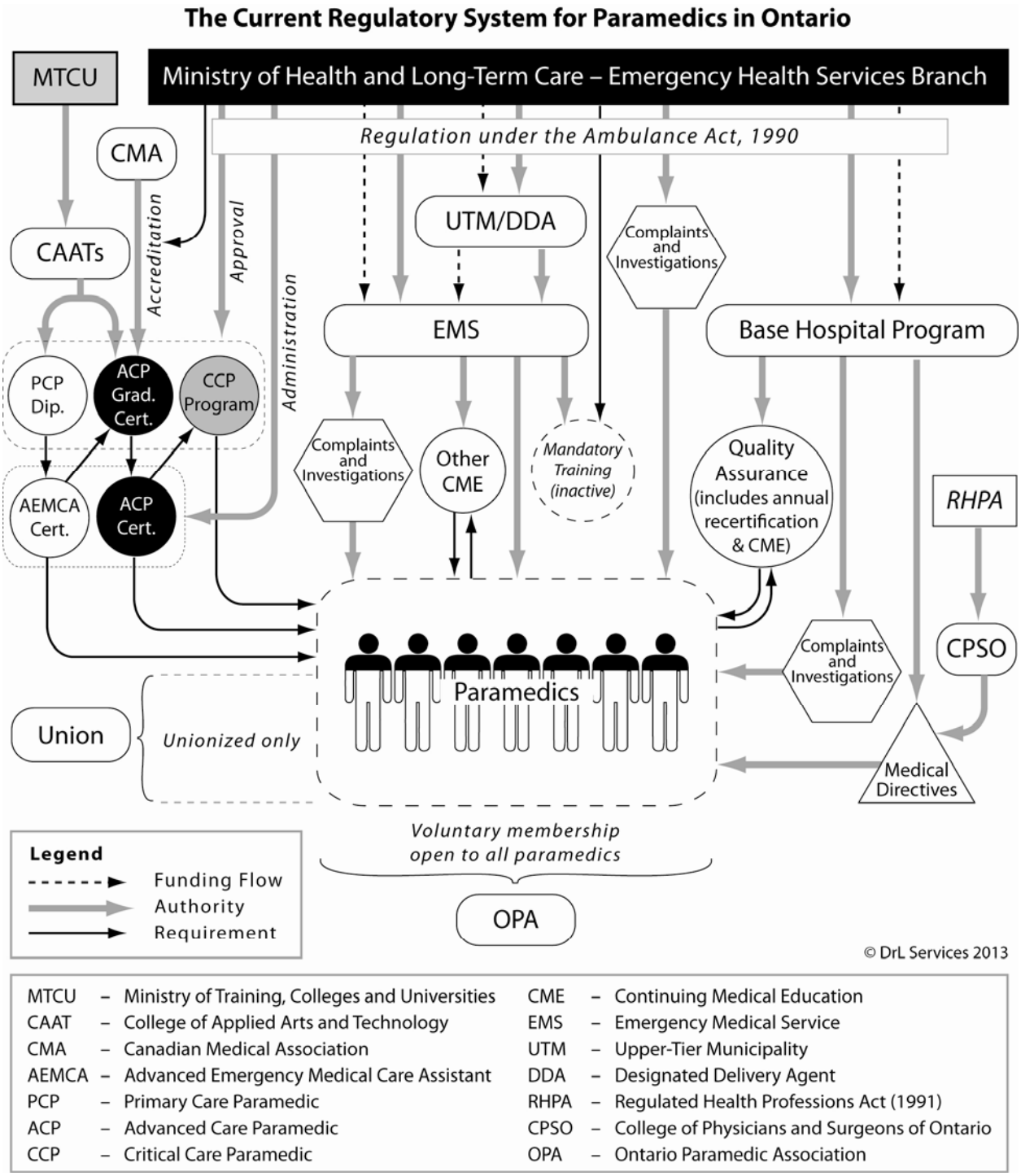


Figure 1. Diagram of the Current Regulatory System for Paramedics in Ontario

Supervision

The out-of-hospital environment in which "licensed" paramedics primarily deliver their services entails that these practitioners perform their duties without direct supervision, save when they are required to patch to a Base Hospital Program physician. Such

paramedics perform patient assessments and diagnoses, administer interventions and treatments to stabilize patients, and transport patients to medical facilities, in most cases, for further care under the indirect supervision of the medical director of a Base Hospital Program through medical directives and standing orders. As a result, paramedics require a wide range of skill and knowledge, both in terms of patients (neonatal to geriatric) and of the symptoms and conditions that may be encountered. The nature of emergency triage at the scene of medical trauma depends heavily on the clinical judgment and experience of each paramedic.

Typically, "licensed" paramedics work in teams of two, except during land transport, when one monitors and treats the patient as the other drives. In situations where a PCP with appropriate competencies is paired with an ACP, the latter may provide supervision to the former, for example in directing the PCP to initiate cannulation of a peripheral IV.[11] The relationship between PCPs and ACPs is usually one of collaboration whereby the responsibility for patient care is shared, recognizing that given their different scopes of practice, the ACP may assume a leadership role.

Contribution of Advances in Technology and Treatment to Risk of Harm

Paramedic scopes of practice have evolved rapidly just over the past twenty years and will continue to evolve in tandem with advances in emergency medicine. Advances in treatment and technology can contribute to potential risks of harm posed by paramedics in two respects. On the one hand, if such advances are not incorporated into paramedic practice in a timely way, procedures with a greater risk of harm may continue to be used, thereby meaning that such practice would fail to meet the highest standards of patient care. Yet incorporating such advances is complicated under the current regulatory system, since this would most likely require revision to medical directives and/or standing orders, which can be a time-consuming process (HPRAC, 2008a, p. 2).

Second, if such advances are incorporated into paramedic practice without sufficient training, performance at the required level may not be achieved, which has the potential to exacerbate the risk of harm to patients rather than reduce it. For example, paramedics are expected to be able to identify electrocardiographic changes consistent with an acute myocardial infarction and to be able to identify those patients who should be transported directly to a percutaneous coronary intervention center. Failure to correctly identify these patients is known to result in poorer outcomes. Patients in acute pulmonary edema or experiencing an acute exacerbation of chronic obstructive pulmonary disease (COPD) are now routinely managed with continuous positive airway pressure (CPAP) by ACPs and some PCPs. However, CPAP can have deleterious effects if not clinically indicated or outright contraindicated. Nevertheless, when protocols have been changed as with STEMI and Stroke Bypass, potential risks of harm have been reduced (Postma et al., 2011; Fosbøl et al., 2013; Cantor et al., 2012).

[11] However, this protocol is under revision.

Liability/insurance Protection

Liability/insurance protection is currently provided by the municipal EMS that employs the paramedic. Because "licensed" paramedics do not operate as independent practitioners, as is the case for some other health professions regulated under the *RHPA* (e.g., midwives and physiotherapists), there has been no requirement for them to obtain liability insurance coverage on an individual basis. And because such paramedics are at present regulated under the *Ambulance Act* rather than the *RHPA*, there is no current statutory requirement that individuals be covered by liability insurance. It is anticipated that the current provision of liability protection by EMS would remain with self-regulation of paramedics under the *RHPA*. Some private companies providing medical transportation and event medical services that employ "unlicensed" paramedics already provide liability protection to the levels required by the 2009 amendment to the *RHPA*.

Processes Undertaken to Determine Public Need for Regulation

The OPA has not undertaken any processes to determine the public need for regulation, since it views the current regulation of "licensed" paramedics under the *Ambulance Act* as evidence of the public need for regulation (although this may not be widely understood by the public). With respect to "unlicensed" paramedics, the fact that they are unregulated in Ontario has been an ongoing issue of concern, particularly in the context of non-emergency patient transportation services (LATT, 1998, p. 4; Ontario Ombudsman, 2012).

Professional Titles

The *Ambulance Act* does not restrict use of the titles of "paramedic", "Primary Care Paramedic", "Advanced Care Paramedic" and "Critical Care Paramedic". It simply defines "paramedic" to mean

> a person employed by…an ambulance service who meets the qualifications for an emergency medical attendant as set out in the regulations, and who is authorized to perform one or more controlled medical acts under the authority of a base hospital medical director…(*Ambulance Act, 1991*, s. 1(1)).

Ontario Regulation 257/00 ss. 7-8 sets out further requirements for paramedics at the three levels, including educational requirements and, in each case, the specification that the individual "be authorized by a medical director of a base hospital program to perform the controlled acts set out" in the relevant Schedule (Schedule 1 for PCPs, Schedule 2 for ACPs, and Schedule 3 for CCPs).

The *Ambulance Act* does not delimit the authorization of controlled acts by a medical director of a Base Hospital Program or the "provision of continuing medical education required to maintain the delegation of controlled acts to paramedics" only to paramedics employed by EMS (or "ambulance services"), but does define a Base Hospital Program as having the purpose of "providing medical advice relating to pre-hospital patient care

and transportation of patients to ambulance…services" and "providing quality assurance information and advice relating to pre-hospital patient care to ambulance services…" Therefore, the authorization (or "delegation") of controlled acts and provision of continuing medical education to such paramedics is *implicitly* delimited to "licensed" paramedics. Thus, there is a restriction of the title "paramedic" in the context of the Act, but not outside of that context.

To ensure continuity in protection of the public interest, the OPA recommends that the titles of "Primary Care Paramedic", "Advanced Care Paramedic" and "Critical Care Paramedic" be restricted to practitioners who meet the respective entry-to-practice requirements and are registered members in good standing of the College of Paramedics. This will serve to protect the public interest by ensuring the identification of qualified, competent practitioners and the prohibition against unqualified individuals acting in such capacities.

Circumstances requiring Referral to another Health Profession

While paramedics do not typically refer patients in the way that, for example, physicians do, they are required to make decisions based on patient assessment with respect to the most appropriate medical facility (e.g., with STEMI and Stroke Bypass) to which to transport the patient. In recent years, however Community Paramedic Programs involving a service called "Community Referrals by Emergency Medical Services" (CREMS) have been implemented by several EMS in Ontario (Evashkevich, n.d.). The intention of this service is to "link low acuity EMS patients to services other than the hospital emergency department, and that are better suited to meet the underlying needs of the patient" (Hamilton EMS, 2011). Because a large number of paramedic calls involve visits to patients' homes (Weiss, Ernst, Phillips & Hill, 2001; NEMSIS, 2013), paramedics have the unique opportunity to observe the patient's home context, to identify risks patients face, and to identify any need for additional healthcare support, such as physiotherapy or nursing visits.

Professional Autonomy

Autonomous Practice

In the out-of-hospital context, "licensed" paramedics conduct patient assessments and perform diagnostic modalities and controlled medical acts autonomously, with reference to general guidelines as to patient care standards (BLS) and advanced life support medical directives, but relying on their clinical judgment for specific performance. In certain cases, such as Stroke Bypass, protocols give paramedics greater autonomy in determining the most suitable medical facility to which to transport a patient.

Higher-level paramedics (i.e., ACP and CCP) are able to assess and perform diagnostic modalities and treatments for a wider range of patient conditions and symptoms. However the lower the level of care, the greater the autonomy. For example, PCPs deliver care entirely under standing orders, as is the case for almost all of the care that ACPs deliver. Only a small percentage of the care delivered by ACPs involves obtaining

a verbal order by patching to a Base Hospital Program physician, although in the event of a communication failure the ACP can provide care within their scope if they deem it to be in the best interest of the patient. CCPs provide the highest level of complex care and are routinely in contact with a Base Hospital physician for consultation and verbal orders as needed.

Accountability

Arguably, "licensed" paramedics are held equally accountable for all aspects of their practice, whether clinical, operational or conduct. Each of these is subject to some sort of complaint and investigations procedure, whether by MOHLTC EHSB, EMS or the Base Hospital Programs. However, there is less transparency with respect to some aspects of paramedic practice, and therefore less *public* accountability. As well, "unlicensed" paramedics are not accountable in the same way, an issue that was one of the subjects of the Ontario Ombudsman's investigation into non-emergency medical transportation services in 2011 (Ontario Ombudsman website).

Under the current regulatory system, "licensed" paramedics are highly regulated. For example, EHSB investigates complaints of a BLS nature and can decertify paramedics of any level by revoking their A-EMCA certificate. Base Hospital Programs perform clinical audits by reviewing, up to 100% of Ambulance Call Reports (required when controlled acts are performed). Paramedics are required to self-report to their Base Hospital any incidents in which they believe they have acted below the required standards of care (BLS and ALS), and may be subject to investigations by the Base Hospital Program, which can result in deactivation (temporary suspension) or even decertification. As well, these practitioners must undertake a set number of hours of continuing medical education and undergo recertification annually. However, these measures are typically less open to public scrutiny than has come to be expected in the evolution of Ontario's regulatory system for health care.

Self-regulation under a College of Paramedics would increase transparency and public accountability, through public involvement in the regulatory process, through the statutory requirement that a College engage in public outreach, and through the visibility of, and public access to, the complaints and disciplinary process.

Performance of Controlled Acts under Delegation

> Under the *RHPA*, regulated health care professionals can delegate any of their controlled acts without restriction. The recipient of such delegation may or may not be a member of the regulated profession. A College can set conditions, limitations or restrictions, or can prohibit their members both from delegating and receiving delegations. Once a controlled act has been delegated, the member delegating the act remains responsible and is accountable to the patient. This member has an ongoing duty to supervise (HPRAC, 2006, p. 284).

The issue of the conditions regulating "licensed" paramedics' performance of controlled acts has been ongoing, not because of concern regarding the level of competence in the performance of such acts, but rather because, under the current regulatory system, paramedics can only perform them under a form of delegation from the medical director of a Base Hospital Program. The approximately 7,000 "licensed" paramedics in Ontario are granted statutory authority to perform up to seven controlled acts, depending on their level, under the authorization of a medical director of a Base Hospital Program, who is ultimately responsible for their performance of such acts. This system is neither effective nor sufficiently transparent, since the authority and responsibility for controlled acts performed by "licensed" paramedics rests in the hands of one physician, who has sole authority to deactivate or decertify them, a state of affairs that involves too much responsibility and authority for one physician and fails to provide paramedics with a fair peer review system of performance evaluation.

Authorization of controlled acts (of which diagnosis is one under the *RHPA*) is somewhat unclear under the *Ambulance Act*, since the lists of controlled acts that may be performed by an Advanced Care Paramedic (Schedule 2) and a Critical Care Paramedic (Schedule 3) are also allowed to be performed, "if authorized", by a Primary Care Paramedic (Schedule 2) and an Advanced Care Paramedic (Schedule 3), respectively. The issue here, as elsewhere, is what "authorization" means beyond the authorization already specified in the *O. Reg. 257/00*, which sets out the educational, MOHLTC certification, and employment/Base Hospital Program oversight requirements for the different levels of paramedics. Unfortunately, neither the *Act* nor the *Regulation* defines "authorization", which thus provides a less clear distinction between paramedic levels than is desirable.

In terms of controlled acts, *O. Reg. 257/00* muddies the distinction between PCP and ACP on the one hand, and ACP and CCP on the other. In this regard, it should be noted that the *Ambulance Act* and its Regulations are unclear about the authorization of controlled acts in general. First, there is a significant inconsistency with the way controlled acts for paramedics are specified in the *RHPA* and the *Acts* governing health professions regulated under the *RHPA*, which refer to them only in general terms (e.g., "performing a procedure on tissue below the dermis", "administering a substance by injection or inhalation", etc.), whereas *O. Reg. 257/00* refers to *specific* acts (e.g., "peripheral intravenous therapy", "administration of glucagon, oral glucose…"). These are obviously not consonant, despite the fact that the latter fall under the more general categories specified in the *RHPA*.

Second, there are obvious gaps in the *Ambulance Act*, since nowhere does the *O. Reg. 257/00* allow for communicating a diagnosis, setting a splint or managing labour, yet "licensed" paramedics are often required to perform such acts.[12] Third, and perhaps most important, the concept of delegation under the current regulatory system for paramedics is at odds with the way delegated acts are understood in the Ontario system, even by the College of Physicians and Surgeons of Ontario, which, as the self-

[12] Arguably, "licensed" paramedics are *always* required to inform patients or their relatives/caregivers of the results of assessments and diagnostic tests, in order to obtain patient consent.

regulatory body for medical directors of Base Hospitals (who are physicians), has a clear policy regarding delegation. Essentially, delegation can only occur where the delegating authority has the authority to perform a controlled act, and delegates it to an individual *who does not have that authority*. A controlled act cannot be delegated to someone who already has the authority under his or her scope of practice (no delegation needed, or accepted, since the individual can perform the act under his or her own license), nor can it be delegated by someone to whom such an act is already delegated (i.e., no sub-delegation).[13]

For "licensed" paramedics, on the one hand, the *Ambulance Act, 1990* and *O. Reg. 257/00* indicate that the controlled acts that each level of "licensed" paramedic may perform already fall within their scope of practice, since the extension of controlled acts to lower levels of paramedics in the Schedules (Schedule 2 acts to PCPs, Schedule 3 acts to ACPs) depends on "authorization" that would seem to differ from that set out in the Regulation proper (i.e., ss. 8(1)(b), 8(2)(c) and 8(3)(c)). In other words, medical directors appear to authorize PCP and ACP to perform acts not just based on their level and competency at that level, but on other factors as well. This makes the distinction between the qualifications of the various levels in *O. Reg. 257/00* unclear, since the controlled acts can be authorized to those who do not appear to have the requirements that the Regulation itself sets out.

A further consideration is that this model of delegation (or, more properly, "authorization") relies on criteria specified only in the performance agreements between the MOHLTC and Base Hospital Programs on the one hand, and between EMS and Base Hospital Programs on the other, neither of which are publicly available, meaning that the criteria for regulation are not transparent. There is therefore a lack of public accountability. Again, this is in contrast to professions regulated under the *RHPA*, for which Colleges are required to make the Bylaws that govern such aspects publicly available. Arguably, it is not in the public interest for a health profession whose practices entail significant risk of harm to have its standards and criteria for performing controlled acts kept out of public view. As HPRAC has argued regarding the performance of controlled acts that are a routine part of a health care professional's practice,

[13] For some regulated health professions (e.g., RNs), the initiation of certain controlled acts that are within their scope of practice requires an *order* or *directive* (e.g., from a physician or NP). This is not considered to be delegation, however. The lack of clarity in the *Ambulance Act* lies in the way it authorizes paramedics to perform controlled acts under the authorization of a medical director of a Base Hospital Program. In other words, the Act specifies paramedics' scope of practice in terms of controlled acts, while at the same time implicitly denying that the performance of the indicated controlled acts falls within paramedics' scope of practice because they require authorization. Thus, it is not clear whether medical directors of Base Hospital Programs are delegating the performance of controlled acts to paramedics, or are ordering them through directives. If the latter obtains, this is not delegation at all, since a necessary aspect of delegation of a controlled act is that it does not fall within the scope of practice of the profession to which the act is being delegated. The conditions placed on delegation pertain to the delegator's ascertainment of the delegatee's competence to perform the particular act, rather than any statutory authorization that the delegatee can accept such delegation, which would in fact be incoherent. (Note that this is different from a *prohibition* against accepting delegation, as contained in some Regulations and College Bylaws under the *RHPA*.) Yet this appears to be exactly what the *Ambulance Act* aims to do.

> performing this function under one's own professional authority and accountability is preferable to delegation from another authorized health professional. It is also more transparent to the public and to other members of a collaborative health team providing patient care (2009, p. 153).

The profession of paramedicine has undergone significant evolution over the past two decades. The educational and training requirements for paramedics have increased substantially both in content and length, and have made it possible for controlled acts to come within paramedics' scopes of practice, albeit in a way that is no longer consonant with the Ontario regulatory system for health care, which has continued to evolve over the past two decades. Furthermore, the paramedic scope of practice has grown, as has the number and complexity of the transfers of function and controlled acts authorized by medical directors of Base Hospital Programs. On the other hand, paramedics are better educated and more aligned in the health care system than twenty years ago when the current process for authorization of controlled acts was enacted. It is unrealistic to expect the physician population to assume full responsibility for transfers of function currently practiced by paramedics.

As well, the ability for a medical director to meet the requirements set out in the regulations with respect to transfers of function is becoming increasingly difficult as the number of paramedics practicing under his/her medical license increases. The OPA's view is that it is unrealistic to expect this form of oversight to adequately protect the public and, in the circumstances, more responsibility ought to be shifted directly to the individual paramedic license holder, who would be subject to regulation by a College of Paramedics.

Educational Requirements for Entry to Practice

Programs Available in Ontario

Paramedic education in Ontario is the shared responsibility of two Ministries: MOHLTC and MTCU. MOHLTC is responsible for setting the skills required to qualify for registration as a PCP, ACP and CCP, for the credentialing program (e.g., administering the Advanced Emergency Medical Care Assistants (A-EMCA) and ACP exams, and for the Paramedic Equivalency Process for paramedics from other jurisdictions wishing to register in Ontario (MOHLTC EHSB website). As discussed above (see p. 2), MOHLTC regulates municipally delivered paramedic services in Ontario under the authority of the *Ambulance Act* and its regulations. *O. Reg. 257/00* Part III (in particular, ss. 7-8) sets out the qualifications that paramedics require.

MTCU, on the other hand, is responsible for setting the standards for paramedic programs delivered by Ontario Colleges of Applied Arts and Technology (CAATs) that lead to college diplomas. Graduates of such programs are eligible to write the MOHLTC A-EMCA certification examination (MTCU, 2008, p. 5). However, MOHLTC approves the list of programs provided by colleges and institutions, which also includes three

private career colleges that come under the authority of the Superintendent of Private Career Colleges and two non-educational institutions (Toronto EMS and Ornge), along with 18 of the 24 CAATS. Two colleges (Boréal and La Cité) deliver programs in French. Ontario has no paramedic programs that are not approved by MOHLTC. A notable difference between the standard-setting of the two Ministries is that MOHLTC is primarily concerned with *vocational standards*, whereas MTCU is also concerned with *essential employability skills* and *general education requirements*.

All paramedic education programs in Ontario include both theoretical and clinical/field components. The MOHLTC EHSB requires that PCP programs in Ontario include the following components: (i) a theory component of 800+ hours; (ii) a practical lab and hospital clinical component (300 hours); and (iii) a land ambulance field placement component (minimum 450 hours) (MOHLTC EHSB website). PCP educational programs in Ontario are two-year diploma programs that include courses in the following areas: Anatomy and Physiology; Psychopathology/Crisis Intervention; Pharmacology; Health Care Communication; Medico-Legal Aspects; Physical Education; Patient Care Laboratory; Patient Care Theory; Emergency Medicine; Emergency Vehicle Operation; Medical Directives; Clinical Practicum; and Field Practicum. These areas are the basis of MOHLTC EHSB's *Prehospital Emergency Care Syllabus* and constitute "the theory base and the performance skills from which Paramedic candidates will be evaluated" for the A-EMCA (MOHLTC EHSB, 2000, p. 1.1). Figure 2 shows how they form a unified approach to patient management.

Figure 2 MOHLTC EHSB's PCP Patient Management Model (Source: MOHLTC, 2000, p. 1.5)

The competencies that ACP programs are required by MOHLTC EHSB to include are:

1. Weekly student evaluation completed by a clinical supervisor. This should identify learning issues and show student progression.
2. Minimum 20 successful human intubations (signed off by anesthesia or equivalent). In addition, 2–5 pediatric airway management cases (+/- intubation).
3. Minimum 20 ED patient assessments reviewed by the clinical supervisor.
4. Minimum 20 complete patient charts (consistent with field or hospital practice).
5. Minimum 20 successful IV starts.
6. Completion of a daily journal (completed by the student).
7. Completion of a daily clinical skills tracking log.
8. Student feedback on clinical rotation (MOHLTC EHSB website).

ACP programs in Ontario are one-year graduate certificate programs that include courses in the following areas: Advanced Pharmacology; Advanced Care Skills (Cardiac, Airway Management, Respiratory, Medical Emergencies, Trauma); Professional Practice; Skills Practicum; Hospital Practicum; and ACP Ambulance Practicum.

Ornge's CCP program is a one-year program that includes courses in the following areas: Professional Practice; Fundamentals of Critical Care; Therapeutics and Diagnostics; Emergencies (Pulmonary, Cardiovascular and Hematological, Genitourinary and Reproductive, Gastrointestinal and Endocrine, Obstetrical, Traumatic and Toxicological, Neurovascular, Immunological and Environmental, Neonatal); Paediatrics; Preceptorship (Ornge, n.d.).

In addition to these programs, the MOHLTC also certifies paramedics to work on air ambulances as Flight Paramedics at each of the three levels. Training for this designation is offered by Ornge, followed by a MOHLTC-administered Aeromedical Theory Certification Examination that assesses the applicant's knowledge and skills in anatomy, physiology and pathophysiology, emergency procedures (aircraft and survival), flight operations, flight pathophysiology and legal issues (MOHLTC EHSB website).

Table 3 shows data provided by MOHLTC EHSB indicating that over the last five years, 93.5 to 98 percent of all those who successfully completed the MOHLTC EHSB's examinations for certification at the AEMCA and ACP levels (between 859 and 950 applicants) were educated in Ontario. There were very few international applicants at the PCP level, and none at the ACP level. Although these numbers are not determinative of the educational origin of paramedics in Ontario currently employed by EMS (since the rate at which such qualified individuals are entering the workforce far exceeds the growth rate in EMS employment and, it is hypothesized, the attrition rate), they are arguably a reasonable indicator of such an origin.

Origin of Education	2008	2009	2010	2011	2012	Total 2008-2012
PCP Ontario	98.5%	98.2%	95.0%	93.6%	94.0%	
PCP Other Canada	0.7%	1.2%	4.3%	4.9%	5.3%	
PCP International	0.8%	0.5%	0.8%	1.5%	0.8%	
Total PCP	**732**	**740**	**797**	**813**	**799**	**3881**
ACP Ontario	95.3%	95.1%	88.3%	92.8%	93.4%	
ACP Other Canada	4.7%	4.9%	11.7%	7.2%	6.6%	
ACP International	0.0%	0.0%	0.0%	0.0%	0.0%	
Total ACP	**127**	**144**	**137**	**139**	**151**	**698**
PCP + ACP Ontario	98.0%	97.7%	94.0%	93.5%	93.9%	
PCP + ACP Other Canada	1.3%	1.8%	5.4%	5.3%	5.5%	
PCP + ACP International	0.7%	0.5%	0.6%	1.3%	0.6%	

Table 3. Percentage of successful completions of MOHLTC EHSB AEMCA and ACP exams by place of education (Source: MOHLTC EHSB)

The OPA does not maintain statistics on the education and training of its members.

Accreditation of Programs

All of the CAAT programs listed on the MOHLTC EHSB website are approved by the Ministry. There are no known paramedic programs in Ontario that are unapproved. There is no accreditation requirement for CAAT programs, although these must conform to MTCU program standards. Private career colleges must be registered and have their programs approved by the MTCU's Superintendent of Private Career Colleges. As well, seven of the institutions offering PCP programs (i.e., 38%) and all 11 of those currently offering ACP Programs (i.e., 100%) are accredited by the CMA through its Conjoint Accreditation Program, the latter a MOHLTC EHSB requirement.[14] Four institutions offering PCP programs are registered with the CMA for eventual accreditation. The only institution in Ontario offering CCP education (Ornge) is approved by MOHLTC EHSB and accredited by the CMA. The CMA's accreditation for paramedic training programs draws on the NOCP for its criteria, thereby facilitating inter-jurisdictional recognition of paramedic qualifications (CMA, 2008, p. 3; CMA, September 2012; CMA, December 2012). However, Ontario's current paramedic standards are not entirely consonant with the NOCP, particularly since the latter introduced a new competency area ("Health Promotion and Public Safety") (NOCP, pp. 147-151).

[14] Although St. Clair College is listed on the MOHLTC EHSB website as an approved ACP program provider, it does not appear to currently offer this program, nor is it CMA-accredited.

In 2001, the Paramedic Association of Canada (PAC) developed the NOCP, defining the competencies required for entry to practice. The NOCP also serves to define the profession, promote national consistency in paramedic training and practice, and to facilitate labour mobility for practitioners. In November 2011, an updated NOCP was approved by PAC and adopted by the Canadian Organization of Paramedic Regulators (COPR), which comprises the self-regulating colleges and government or government-delegated regulators from each of the ten provinces, as a foundation document in the development of a national entry to practice examination for paramedics. COPR has also used the NOCP competencies as a basis for jurisdictional comparison in its work on labour mobility for the profession.

Each provincial paramedic regulator in Canada outlines the educational requirements for entry to practice in its jurisdiction. The CMA currently accredits 68 paramedicine education programs in the country based on the NOCP. The CMA requires programs to cross-reference all NOCP competencies to their program elements, including proof of didactic, simulation, clinical rotation and field preceptorship. Most Canadian paramedic education programs are now based on the NOCP, but not all are required to have CMA accreditation. Paramedic education programs exist in both the public and for-profit environment, although the majority of programs are now housed in college or technical school settings.

Program length for PCP education ranges from four months at the Justice Institute in British Columbia to two years in Ontario college settings and three years in Quebec. ACP education is taught in both public and employer settings across the country. CCP education is available only in a limited number of settings.

Requirements for Academic Credentials

Membership in the OPA is open to paramedics, paramedic students, and affiliate members. No academic credentials *per se* are required for membership, but the class of membership in effect depends on having satisfied educational requirements (e.g., for paramedics, having graduated from a college paramedic program).

Under the *Ambulance Act*, the Minister of Health and Long-Term Care is granted the power to make regulations "prescribing the qualifications of persons employed in ambulance services…and respecting the testing and examination, physical or otherwise, of such persons and their duties and obligations" (*Ambulance Act*, s. 22(1)(d)). *O. Reg. 257/00* further specifies the following in order to be employed by Ontario EMS (or "ambulance service operators"):

> An emergency medical care assistant shall, before January 1, 2002…have successfully completed an ambulance and emergency care program provided by a College of Applied Arts and Technology or have experience and qualifications that are approved as equivalent by the Director…(O. Reg. 257/00 s. 7(3)(a))

> An advanced emergency medical care assistant shall…have successfully completed an ambulance and emergency care program or a paramedic program provided by a College of Applied Arts and Technology or have experience and qualifications that are approved as equivalent by the Director…(O. Reg. 257/00 s. 7(4))

Qualification as an advanced emergency medical care assistant (AEMCA) is a prerequisite for designation as "paramedic".

There are no regulations governing "unlicensed" paramedics or companies that employ them, such as medical transportation and medical event services. Such companies therefore set their own requirements for academic credentials. Although they do employ "unlicensed" paramedics and, in some cases, "licensed" paramedics, they also employ individuals with First Responder certificates and other qualifications.

Other Jurisdictions

British Columbia's Ministry of Health Emergency Medical Assistants Licensing Board website states that individuals wishing to become paramedics "need to complete a training program recognized by the EMA Licensing Board and become certified before applying for your EMA licence or endorsement in B.C." (British Columbia Ministry of Health website). PCP, ACP and CCP programs must be accredited by CMA, but there are no *statutory* requirements for academic qualifications.

The Paramedic Academy at the Justice Institute of British Columbia is the sole provider of PCP and ACP education in the province. Its PCP course is an eight-month Certificate (one month independent online course, four months classroom component, three months availability for hospital and ambulance placements) comprising 669 hours. Prior completion of a 105-hour Emergency Medical Responder course or its equivalent is a prerequisite for enrollment. Its ACP Advance Diploma is a 20-month program comprising 1765 hours, 1040 of which involve clinical practice (Justice Institute of British Columbia website).

In Alberta, paramedics are in the process of regulatory transition, as they move from regulation under the *Health Disciplines Act* (HDA) and the *Emergency Medical Technicians Regulation* (Alberta Regulation 48/1993) (EMTR), with oversight by the Health Disciplines Board, to self-regulation under the *Health Professions Act* (HPA), with oversight provided by the Alberta College of Paramedics. The EMTR simply specifies that registration is open to an individual who "has successfully completed a program of study…that is approved by the Board" (EMTR s. 3(a)(i)). Applicants for EMT and EMT-P registration exams (corresponding to Ontario's AEMCA and ACP exams) must have successfully completed an approved educational program. (Alberta College of Paramedics website).

One institution offering approved programs is the Northern Alberta Institute of Technology (NAIT), which has both EMT and EMT-P programs. Successful completion of a 52-hour EMR course is a prerequisite for enrollment in the EMT program. The EMT

certificate program consists of 300 hours of EMT theory, 40 hours of hospital practicum, and 8 to 16 weeks of ambulance practicum. The EMT-P program includes 3 semesters of classroom education and 1364 hours of ambulance and hospital practicum.

In Saskatchewan, paramedics are regulated by the Saskatchewan College of Paramedics (SCoP) under the *Paramedics Act*. Educational requirements are specified in the SCoP's *Regulatory Bylaws* (SCoP, September 2012), which stipulate that a "person applying for initial registration as a member must…have successfully completed one of the following education programs": (i) "in the case of registration as an emergency medical technician (EMT) [corresponding to Ontario PCP], a Canadian Medical Association accredited emergency medical technician or primary care paramedic applied certificate program approved by council…" (s. 2(1)(c)(ii)); (ii) "in the case of registration as an emergency medical technician-advanced (EMT-A) [no Ontario equivalent], a Canadian Medical Association accredited emergency medical technician-advanced or intermediate care paramedic applied certificate program approved by council…" (s. 2(1)(c)(iii)); and (iii) "in the case of registration as an emergency medical technician-paramedic (EMT-P) [corresponding to Ontario ACP], a Canadian Medical Association accredited emergency medical technician-paramedic or advanced care paramedic diploma program approved by council…" (s. 2(1)(c)(iv)).

The SCoP website links to courses provided by the Saskatchewan Institute of Applied Science and Technology (SIAST) for CMA-accredited EMT certificate (now called "Primary Care Paramedic") and EMT-P (now called "Advanced Care Paramedic" diploma programs. SIAST's PCP certificate program is 28 weeks long and comprises 468 classroom hours and 338 clinical and field practicum hours. SAIST's ACP diploma program is 59 weeks long and comprises 712 classroom hours and 1016 clinical and field practicum hours (SIAST website.).

Varying Levels of Registration

An Ontario College of Paramedics will need three levels of registration, corresponding to the three levels of paramedics as at present and as detailed in the NOCP, i.e., PCP, ACP and CCP, since their scopes of practice differ.

Body of Knowledge and Scope of Practice

> Paramedicine is positioned at the intersection of health care, public health, and public safety. Owing its existence to each, the Paramedic is cross-trained in each of these areas. As a result, a synergy occurs among the knowledge from these three areas and the result is paramedicine, a unique body of knowledge which is exclusive of its origins. (Beebe & Myers, 2010, p. 4)

The unique environment in which paramedic practice takes place (i.e., out-of-hospital), is reflected in the profession's core body of knowledge, which can be seen as a combination of medical and patient safety knowledge and skills. The wide range of patients, medical emergencies, and external conditions paramedics encounter on a

daily basis entails that their core body of knowledge is equally comprehensive. Nevertheless, it is also an integrated body of knowledge that extends from pre-call ambulance preparation; through call response, scene management, patient assessment and treatment; to patient movement, transportation and transfer of care.

As is evident from the MOHLTC EHSB website, paramedics' core body of knowledge thus includes:

i) anatomy and physiology, from neonatal to geriatric
ii) pathophysiology
iii) disease and trauma processes
iv) diagnostic tests
v) emergency patient care
vi) airway management
vii) symptom relief
viii) pharmacology
ix) medication administration
x) cardiac resuscitation
xi) legal and ethical issues
xii) psychology/sociology;
xiii) supportive and therapeutic communications;
xiv) crisis intervention;
xv) patient assessment and treatment;
xvi) equipment safety and preparedness;
xvii) professional collaboration;
xviii) transportation factors;
xix) driving skills;
xx) documentation procedures;
xxi) radio and other communications protocols

The breadth of the paramedic core body of knowledge is evident in competency profiles and reference manuals. For example, the NOCP outlines eight areas of competence:

1. Professional Responsibilities;
2. Communication;
3. Health and Safety;
4. Assessment and Diagnostics (including pathophysiology);
5. Therapeutics;
6. Integration (full assessment and treatment);
7. Transportation;
8. Health Promotion and Public Safety;

Within each competency area are a number of specific competencies, under which are further sub-competencies. Assessment and Diagnostics, for example, has 51 sub-competencies, Therapeutics has 67, and Integration has 25. And although not all levels of paramedics are expected to *perform* the procedures described by these subcompetencies, the NOCP considers only 7 of the 143 just mentioned to be "not applicable" to PCPs, with a further four requiring only a "basic awareness". For the remaining 132 subcompetencies, a PCP is expected to demonstrate at least "academic understanding", and in most cases to have demonstrated proficiency in either a simulated, clinical or field setting. The NOCP requirements for ACPs and CCPs are, of course, higher.

Overlaps with other Regulated Professions

Paramedics' body of knowledge overlaps with that of several regulated health professions, including nurses, midwives, respiratory therapists and physicians. For example, nurses' body of knowledge includes anatomy and physiology, pathophysiology, pharmacology, patient care skills, and therapeutic communication (College of Nurses of Ontario, 2008), Midwives have specialized knowledge of anatomy and physiology, pharmacology, and assessment, diagnostic and therapeutic modalities as these relate to pregnancy. (College of Midwives of Ontario, 1994). Respiratory therapists' body of knowledge includes patient respiratory assessments and diagnostic testing, pharmacology, airway management, and IV procedures (National Alliance of Respiratory Therapy Bodies, 2011). Finally, physicians' body of knowledge includes patient assessment, anatomy and physiology, pharmacology, diagnostic and therapeutic modalities (Royal College of Physicians and Surgeons of Canada, 2005).

Evidence-based Practice

Evidence-based medical practice is a relatively new approach, involving the examination of studies reporting on randomized controlled trials, meta-analysis and other high levels of evidence. Since recognition of paramedicine as a health care, rather than predominantly a public safety, profession is of relatively recent origin, there are fewer evidence-based studies relating to paramedic practice than to other health professions such as nurses and physicians. In 2001, the U.S. National Association of EMS Physicians (an organization whose membership includes paramedics), produced a national EMS research agenda, pointing out that

> There is not enough high quality EMS-related research to drive improvements in patient outcome, and vast amounts of money are being spent for patient care with little rigorous evaluation of the effectiveness of that care (2001, p. 7).

A gap analysis conducted by the U.S. Emergency Medical Services for Children National Resource Centre concluded that "Evidence for treatments used in the prehospital setting is lacking" (2009, p. 6) and that

> The research of prehospital care has failed to keep pace with the research of other medical disciplines. Consequently many practical procedures and interventions used to care for and stabilize out-of-hospital emergencies lack a scientific base (p. 8).

In Canada, Jensen et al. (2011b) have argued that "The challenge for many health disciplines, including emergency medical services (EMS), is the scarcity of research from which best evidence can be derived" (p. 1). This evidence gap has been recognized by organizations such as EMSCC, PAC, CPSI, and academic institutions such as Dalhousie University and the University of Toronto. As a result, a number of research programs have been initiated and studies undertaken to address such gaps, such that "research on prehospital care is improving, and a growing collection of

evidence exists to support many interventions provided in the prehospital environment" (Jensen, Petrie, Cain &Travers, 2009, p. 668).

Despite these gaps, evidence-based medicine has had an impact in several areas of paramedic practice. One area this is evident is the Ontario Stroke System, which was developed by the MOHLTC and the Heart and Stroke Foundation of Ontario (HSFO) and implemented between 2000 and 2004 (Lewis et al., 2006, p. 50). As a result of research by the U.S. National Institute of Neurological Disorders and Stroke (NINDS) showing that rapid thrombolytic treatment significantly improves health outcomes of stroke patients (NINDS 1995), the HSFO developed a stroke strategy for Ontario, involving a system of appropriately resourced regional and district stroke centres with protocols for stroke patient care. An integral part of this strategy was that "The EMS system needs to be organized to treat stroke as a medical emergency of the highest priority" by "training EMS personnel to recognize acute stroke and the implementation of stroke management protocols" (HSFO, 2000, p. 84), in order to ensure that stroke patients were able to receive this treatment within the optimum timeframe. This led to the development in 2004 of a Paramedic Prompt Card for Acute Stroke Protocol by MOHLTC (revised 2011), which authorizes patient redirect or transport to a designated stroke centre, bypassing community hospitals or other medical facilities that may be closer but lack the resources for treating stroke (MOHLTC EHSB, February 2011). A study on the effects of this protocol in Toronto concluded that it "was immediately successful in its primary objective of improving tPA access for eligible patients with stroke" (Gladstone et al., 2009, p. 3843).

A similar protocol exists for ST-segment elevation myocardial infarction (STEMI), whereby paramedics who have 12-lead ECG acquisition within their scope of practice can patch directly to a cardiologist to activate the catheterization lab and bypass other medical facilities. However, this protocol is not implemented province-wide, as such resources are not available in all regions (Beausoleil, 2012, p. 7; see also Cardiac Care Network of Ontario, 2010).[15]

Paramedics participated in the Ottawa Hospital Research Institute's Ontario Prehospital Advanced Life Support Study (OPALS), a large-scale study of prehospital interventions and their impacts on different groups of adult patients. Results published in 2005 showed that in the case of out-of-hospital cardiac arrest "advanced life support programs showed no improvement in survival rates compared to basic life support with rapid defibrillation programs" (Stiell, 2005, p. I; see also Stiell et al., 2004). Results published in 2007, however, showed that the addition of out-of-hospital ALS interventions in cases of respiratory distress did lead to a decrease in the rate of death (Stiell et al., 2007). A third study, the OPALS Major Trauma Study, showed that in cases of major trauma, "systemwide implementation of full advanced life-support programs did not decrease mortality or morbidity for major trauma patients" (Stiell et al., 2008). Other studies have supported the OPALS conclusions (Isenberg & Bissel, 2005; Liberman &

[15] The most recent region in Ontario to introduce the STEMI Bypass protocol is that under the Central East Prehospital Care Program (CEPCP) (the Base Hospital Program), which implemented the protocol in January, 2013 (CEPCP website).

Roudsari, 2007; Seamon et al., 2013). A systematic review of the literature by Jensen et al. (2010) showed that "current evidence does not support a difference in outcome between TI [tracheal intubation] and AAT [alternative airway techniques]" (p. 139). In contrast, Stiver and Manley's study (2008) suggested that "on-scene stabilization and the quality of care in the field is as important as speed in improving outcomes following severe [traumatic brain injury]" (p. 5).

As a result of studies showing the benefits of out-of-hospital continuous positive airway pressure (CPAP) and the feasibility of its application by PCPs (Kosowsky et al., 2000, 2001; Kallio et al., 2003; Thompson, Petrie, Ackroyd-Stolarz & Bardua, 2008), this therapeutic technique was incorporated into the ALS as an auxiliary medical directive (ALS, pp. 3-4-3-6, 4-5-4-7). Further studies have confirmed the efficacy of this approach (Cheskes, Thomson & Turner, 2012; Dib, Matin & Luckert, 2012; Williams, Finn, Perkins & Jacobs, 2013; Williams, Boyle, Robertson & Giddings, 2013).

Paramedics are also participating in two studies by the Regional Paramedic Program for Eastern Ontario (RPPEO), one on the out-of-hospital use of the cervical spine rule (Vaillancourt et al., 2009) and the other a paramedic-driven study on airway management (RPPEO, n.d.), and in a study being conducted by the Resuscitation Outcomes Consortium (ROC) on continuous chest compressions versus standard CPR (ROC website).

Another initiative to address research gaps is the Canadian Prehospital Evidence Based Practice Project (EMSPEP), "a collaborative effort of Canada's EMS physicians, paramedics, Dalhousie University Division of EMS and Emergency Health Services NS". This was started in 1998, and aims "to catalogue EMS studies", "to be a resource for the development of local EMS protocols", and "to develop a process of using evidence to evaluate practice change suggestions made by paramedics" (EMSPEP website). The PEP database contains analyses of over 100 paramedic protocols with respect to studies that provide strong, fair or weak evidence that is either supportive, neutral or against the protocol. The aim is to enable paramedic practitioners "to see exactly what evidence backs the interventions you use in the field or possibly why certain interventions have been revoked over time. PEP identifies gaps in the knowledge…" (EMSPEP website). EMSPEP researchers, in collaboration with others, have recently outlined a methodology to develop a Canadian EMS research agenda similar to those in Australia and the U.S., to provide a foundation "to support an evidence-based approach to prehospital care" (Jensen et al., 2011b, p. 2). The project design comprises qualitative baseline interviews, a roundtable discussion among key informants and a Delphi consensus survey.

Rescu is a large-scale research project spearheaded by the University of Toronto's Division of Emergency Medicine that has established relationships with a number of Paramedic Services. This project focuses on issues related to trauma and cardiopulmonary resuscitation. One area this project is exploring is the use of "Therapeutic Hypothermia" (a proven technique for limiting brain damage in the case of cardiac arrest) in the out-of-hospital environment to initiate this therapy on a more timely

basis, thereby leading to lower incidences of brain damage, coma and mortality among cardiac arrest patients (Rescu website).

Standards of Practice set by the OPA or other Organizations

The OPA does not set standards of practice for either diagnostic/treatment modalities or services. Standards of practice for "licensed" paramedics are currently determined by MOHLTC EHSB with advice from the Base Hospital Programs, which also enforce the standards. The standards are contained in the BLS PCS (for PCP) and ALS PCS (for ACP).[16]

Continuous Professional Development

"Licensed" paramedics are required to undertake annual mandatory CME (24-40 hours for PCP, 40-80 hours for ACP, and over 80 hours for CCP). This includes both clinical and operational courses, the former provided by Base Hospital Programs, the latter by EMS. "Unlicensed" paramedics have no continuous professional development requirements, save those that may be required by their employer. The CME for "licensed" paramedics is oriented predominantly towards continuing competency rather than professional development. "Licensed" paramedics in Ontario more often pursue professional development through enrollment in education programs such as the ACP graduate certificate programs offered by Ornge, such as flight paramedic and CCP programs, or through university degree programs. Additional pathways for professional development include educational delivery and involvement with Base Hospital Programs.

Proposed Scope of Practice

The OPA does not propose that the scopes of practice of registered paramedics under an Ontario College of Paramedics would differ from the way they are at present, save with respect to controlled acts. The scope of practice for each level of paramedic registered with the College of Paramedics would correspond to the current scope of practice, respectively, and will be coherent with the way these are in the NOCP, with the exception that controlled acts no longer be performed under delegation from medical directors of Base Hospital Programs. Under a College of Paramedics, practitioners would be authorized to perform the seven controlled acts within their scope of practice that they currently perform, as discussed previously. It is the OPA's view that delegation of controlled acts by paramedics should be consistent with the *RHPA* (ss. 27-28) and *O. Reg. 107/96*. In particular, it is expected that ACPs and CCPs will be authorized to delegate controlled acts for didactic purposes in their roles as preceptors.

Registered paramedics should be authorized to perform the same diagnostic and treatment modalities as authorized to their level at present. The limitations of practice for paramedics regulated under the *RHPA* should be consistent with the limitations "licensed" paramedics currently face, except that the performance of controlled acts

[16] Since these are long documents (293 and 199 pages for the BLS and ALS, respectively), they have not been included with this application.

should no longer require authorization by the medical director of a Base Hospital.

The proposed scope of practice matches the current scope of practice of "licensed" paramedics in Ontario. As the current scope of practice serves to protect the public interest and provide adequate public protection, it is anticipated that there will be little change in this regard. However, the regulation of currently "unlicensed" paramedics within a College of Paramedics will further the public interest by providing greater public protection and increasing the public's choice of qualified, regulated health care providers. Since the proposed scope of practice is identical to the current scope of practice, overlaps with other currently regulated health professionals will stay the same, namely, with nurses, nurse practitioners, physicians, respiratory therapists, and midwives (see p. 8 for details).

Economic Impact of Regulation

Ontario College of Paramedics Business Plan

A business plan for the proposed Ontario College of Paramedics has been attached to this application as Appendix C.

Economic and Financial Implications

There is no anticipated initial impact on education and training programs, although this could change if it is determined that higher levels of paramedic education would better serve to protect the public interest. Such changes would have cost implications for both educational institutions and those seeking to enter the profession. The current regulatory system requires ACP programs to maintain CMA accreditation. Under the *RHPA* there may be a requirement for PCP and CCP programs also to maintain such accreditation. Although several PCP programs in Ontario are already CMA-accredited, if this were to be made mandatory it could have cost implications for educational institutions.

Extending the scope of regulation to include all currently "unlicensed" paramedics would allow greater opportunity for paramedics to provide health care services beyond the out-of-hospital environment (e.g., in the community working with public health, community clinics, and ER rooms), as is starting to be the case with Community Paramedic Programs. This would help to address the scarcity of human resources in the health care system. Self-regulation would also adjust continuous quality improvement (CQI) for paramedics to align it with the approaches used by other self-regulated Colleges in Ontario. It would reduce the onerous annual requirements paramedics currently face extensive CME hours and recertification, and also give paramedics the opportunity to broaden their medical and treatment knowledge. However, it is possible that in future CME would be offered by various institutions on a cost recovery basis, which could have cost implications for paramedics. It is anticipated that efficiencies will be realized as CQI activities will be centralized under one institution thereby eliminating overlap which presently occurs under the current regulatory regime (e.g., investigations and disciplinary actions).

Access to care would be improved under self-regulation, as currently "unlicensed" paramedics would be able to perform controlled acts and other services outside of EMS, thus enabling them to work within a provincially regulated scope of practice in non-traditional roles which will result in better use of clinical resources. It is also anticipated that there will be overall efficiencies and cost savings in the health care system as processes for mandatory functions will be streamlined and duplication will be eliminated.

It is anticipated that self-regulation would have no negative impact on service efficiency and costs, and could well have a positive impact as CME and other quality assurance processes would be streamlined, with a concomitant reduction in the time paramedics are required to spend on these activities compared to the current level.

As detailed in the OPA's College of Paramedics business plan (Appendix C), the number of paramedics already regulated under the *Ambulance Act* provides a realistic base for financial sustainability of a College of Paramedics.

In the profession in Ontario, there is a significant cohort of paramedics with senior management experience, acquired through their work as Chiefs, Deputy Chiefs and other positions in Ontario's 51 Paramedic Services (or EMS). Such experience involves administration and financial and human resources management. It also involves responsibility for continuing education (both operational and clinical) and for quality assurance (e.g., responding to complaints, hosting MOHLTC EHSB site inspections, etc.). Paramedics across the province are also well-versed in Base Hospital Program functions, from their work as Directors, Managers and Coordinators, and some have held senior management positions in the MOHLTC EHSB. A number of paramedics are currently active in professional associations such as the OPA, the OPA's regional chapters, the Paramedic Association of Canada, or the Ontario Association of Paramedic Chiefs, work that involves management skills and public communication abilities.

Many paramedics in Ontario have been or are involved in paramedic education programs at one of Ontario's CAATs or for private colleges and non-educational institutions such as Toronto EMS and Ornge, both as educators and as administrators. Such experience provides the profession with a large pool of people who understand the relationship of such programs to paramedic competencies and entry-to-practice requirements. In addition to their education in paramedic programs, a significant number of paramedics also possess undergraduate and graduate university degrees. Because of the very nature of their professional practice, paramedics are trained to be highly aware of public concerns, and develop the skills to communicate effectively with non-professionals. Finally, paramedics are well-versed in communicating to and interacting with other health care professionals, again as a result of the unique conditions of paramedic health care delivery. For these reasons, the OPA can state with confidence that the profession has the requisite experience to ensure it can successfully deliver the statutory functions required of a regulatory College of Paramedics.

Costs to Employers

Ontario EMS would not incur any additional employment costs as a result of paramedic self-regulation, as they already have systems in place to facilitate existing statutory continuing competence and recertification requirements. As one of the intentions of self-regulation is to shift responsibility and accountability for continuing competence to individual practitioners themselves, it is unlikely these employers would face additional costs on that account. Private medical transportation and event medical services companies that employ currently unlicensed paramedics could, however, see some of their costs increase if they were required to provide additional systems for CME and continuing competency.

Costs to Professionals' Time

At present, licensed paramedics in Ontario are required to complete 24 to 40 hours (PCP), 40 to 80 hours (ACP), and more than 80 hours (CCP) of CME annually. Base Hospital Programs provide 8 hours (PCP) or 24 hours (ACP) CME and administer annual recertification (a process that usually takes one 8-hour day). Such CME involves specific courses (e.g., Semi-Automatic External Defibrillation (SAED), Symptom Relief) and electives. The remaining CME hours are provided by EMS. CME compliance is seen by paramedics as the most time-consuming professional requirement. Although CME will still be required under self-regulation, it is anticipated that the time involved for registered paramedics to would be no greater, and may well be less (for example, if recertification is conducted on a risk basis, as is the case with other regulatory Colleges in Ontario).

Regulatory Mechanisms

"Unlicensed" paramedics in Ontario are not subject to any regulatory mechanism. "Licensed" paramedics, on the other hand, are subject to regulation under the *Ambulance Act, 1990*. The regulatory mechanism determined by the *Act* involves oversight by the MOHLTC EHSB, EMS, and the Base Hospital Program in the form of MOHLTC approval of educational programs, MOHLTC certification (in actual fact, both a certification and registration requirement), Base Hospital Program certification (in actual fact, the licensing requirement for paramedics employed by EMS), and quality assurance by MOHLTC EHSB (complaints and investigations), EMS (continuing medical education and complaints and investigations) and the Base Hospital Program (continuing medical education, annual recertification, and complaints and investigations. A diagram of the current regulatory mechanism is shown in Figure 1 of this application.

Paramedic Regulation under its own College

The OPA believes that paramedics in Ontario should be regulated under its own College, because the current regulatory approach is inconsistent with the regulation of other health professionals with whom paramedics, as an integral part of the Ontario health system, interact on a daily basis (particularly ER nurses and physicians), despite the fact that paramedics perform many of the same controlled acts. Indeed, as pointed

out by the Land Ambulance Transition Task Force in 1998, it is inconsistent that health professionals who only perform non-invasive acts are granted self-regulation, but the paramedics who are delegated to administer powerful drugs and perform invasive acts are not (LATT, 1998, p. 7).

A significant advantage to a self-regulation under a College of Paramedics will be the establishment of one regulator for all paramedics in Ontario, unlike the current system where regulatory responsibilities are shared by the MOHLTC, 51 EMS, and eight Base Hospital Programs. Despite best efforts, such a large number of actors in the regulatory system makes it inevitable that there will be discrepancies and inconsistencies in the requirements and expectations paramedics face in terms of demonstrating continuing competency and satisfying CME requirements. The inclusion of “unlicensed” paramedics would also be a significant advantage.

Health professions are regulated to ensure the public is protected when they seek or receive health care. Self-regulation is based on the concept that members of a profession, based on their knowledge, skills and judgment, are best suited to govern their profession in the public interest. With the advent of the NOCP, a defined and very specialized body of competency requirements has been accepted for entry into the practice of paramedicine. Paramedics are recognized as health care providers, generally working in uncontrolled environments with very little direct supervision. Taking all of this into consideration, coupled with the growth of the profession in the past decade, it is logical to suggest that self-regulation of paramedics through a College under the *RHPA* should ensure the public is adequately protected in this field.

Paramedic self-regulation under the *RHPA* would allow flexibility for the profession to adopt evidence-based best standards of practice and policy through interprofessional collaboration with other regulated health professions, and ensure accountability, transparency and public protection. A College of Paramedics would assure the public of the knowledge, skill, proficiency and competency of registered paramedics.

Alternative Forms of Regulation

The OPA does not consider regulation within an existing regulatory College a viable option. Out-of-hospital paramedic practice is unique in that it typically takes place in relatively uncontrolled environments, and paramedics responding to medical and traumatic emergencies are called upon to assess and treat patients independently whenever and wherever their emergency occurs. They are considered experts in the provision of this type of health care. As well, with an ever-growing number of practitioners (around 7000 “licensed” and up to 3,000 “unlicensed” paramedics at present), significant oversight of paramedic practice is required that only a College of Paramedics could adequately provide.

Given that “licensed” paramedics are already regulated, the OPA considers that it would be problematic to partner with any unregulated professions in seeking self-regulation. It is also unaware of any unregulated health professions that have a similar body of knowledge or scope of practice to paramedics. The OPA also considers that voluntary

self-regulation would be highly inappropriate for the profession and would not serve to protect the public interest, given the risk of harm paramedic practice involves. Accreditation is appropriate for educational programs, but not for governance of individual practice. The current regulatory system does function to protect the public interest, but is complicated and inefficient, and does not allow for adequate input on the part of paramedics.

Legislation in Other Jurisdictions

A list of the legislation regulating paramedics in other Canadian jurisdictions, in several U.S. states, and in Australia and the U.K. has been attached as Appendix D.

Leadership's Ability to Favour the Public Interest and Membership Support and Willingness of the Profession to be regulated

The OPA's mission statement is:

> To provide leadership and direction to Paramedics on a Provincial level through the pursuance of self-regulation and the promotion of the science of Paramedicine. We serve Paramedics and patients by advocating for the highest ethical, educational, and clinical standards (Ontario Paramedic Association website).

Since it was founded in the mid-1990s, the OPA has engaged in a number of activities aimed at improving the paramedic profession, including the "OPA Queen's Park Lobby Days", "Send The Pros Campaign", and regular participation on provincial and national EMS committees. In 2001, the OPA held its first provincial conference focusing on education & networking for paramedics. The OPA's "Paramedicine" conferences have grown to become the premier Paramedic education conference in Canada (Ontario Paramedic Association website). In recent years, the OPA has focussed on the following objectives:

- **Clinical Excellence:** The OPA will lobby the Ministry of Education and Training, and the Community Colleges to adopt the Paramedic Association of Canada's National Occupation Competency Profile (NOCP) as the minimum standard for education at each given scope of practice. The OPA will also lobby the Ministry of Education and Training to add the Advanced Care Paramedic Program to the list of programs that receive funding from the Provincial Government.

  The OPA will take a stronger leadership role in Continuing Medical Education (CME) for Paramedics and future Paramedics. We will attempt to hold quarterly one (1) day CME sessions at various locations across Ontario, education that is current, relevant and interesting. Beyond this the OPA hopes to provide increased opportunities for Paramedic students by offering EMCA/Centralized Testing preparation course.

- **Public Education and Awareness:** The OPA will attempt to use various media formats to better educate the public with respect to Paramedics and the role they play with the health care team. The OPA will prepare and make available to Chapters presentations that are suitable for children of all ages to be used during school visits (Ontario Paramedic Association website).

The Ontario Paramedic Association's Code of Ethics has been attached as Appendix E.

Complaints and Disciplinary Procedures

There are currently three separate complaints and disciplinary processes for "licensed" paramedics in Ontario, managed by EMS, MOHLTC EHSB and the Base Hospital Programs, the latter which have existed in one form or another since the *Ambulance Act, 1990* came into effect. Until January 1, 2001, ambulance services in the province were the sole responsibility of the MOHLTC EHSB; EMS complaints and disciplinary procedures would have come into effect after that date. The 21 Base Hospital Programs were realigned in 2008 to form seven Regional Base Hospital Programs (now eight, including Ornge). It is not known to what extent their current complaints and disciplinary processes differ from previously.

Data presented above show that very few complaints investigated by MOHLTC EHSB resulted in paramedic rewrite, or a form of corrective action. Anecdotal evidence indicates that the number of complaints EMS receive varies from one service to another, but more often concerns operational rather than clinical matters. The OPA has no data on Base Hospital Programs' complaints and disciplinary processes, nor on how effective these and other processes have been at identifying and correcting incidents of substandard care and other infractions.

There are no proactive, self-initiated complaints processes for "licensed" paramedics in Ontario. They are required to report incidents in which they believe they may have acted below the required standards of care, but this is part of ongoing quality assurance, rather than a complaints process.

Survey of Ontario Paramedics Support for Self-Regulation

In February – March 2013, the OPA conducted an online survey to determine the level of support among paramedics, paramedic educators and former paramedics. The number of valid responses was 1,821, more than 95% from paramedics. As shown in Figure 3, more than 54% of those surveyed strongly supported paramedic self-regulation under the *RHPA*. See Appendix F for survey details.

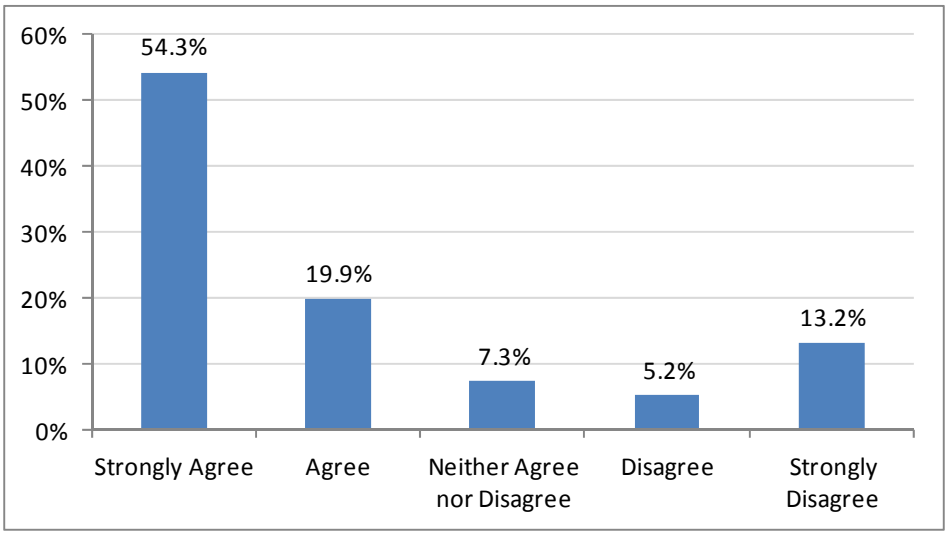


Figure 3. Ontario Paramedic Association 2013 Survey of Support for Self-Regulation (n=1,821)

Support from Related Organizations

The OPA has contacted the Base Hospital Programs, existing regulatory Colleges in Ontario, paramedic educators, and allied organizations and associations in other Canadian jurisdictions to determine their support for paramedic regulation under the *RHPA*, and received letters from a number of organizations (see Appendix G). Responses were received from the Saskatchewan College of Paramedics, the College of Midwives of Ontario, the College of Massage Therapists of Ontario, the Ontario Association of Paramedic Chiefs, and several paramedic educators. The Ontario Base Hospital Group has indicated that "provincial base hospital programs support the concept of a professional body for paramedics".

Number of Paramedics in Ontario

According to the MOHLTC EHSB, there are currently around 7,000 "EMS personnel" in Ontario. This number may include Ambulance Call Officers, as does a number supplied by HPRAC (n.d., p. 4) of 7,217. Although the OPA does not have an exact figure, it is reasonable to assume that there are around 7,000 "licensed" paramedics in Ontario. Informal information indicates that there may be up to 3,000 "unlicensed" paramedics. Approximately 1,500 "licensed" paramedics belong to the OPA.

Alignment with an Existing Regulatory College

The OPA's view is that it would be inappropriate, given the current regulatory system for "licensed" paramedics, for it to undertake actions to align the profession with any established health professions regulatory College. It would also be ineffective, given the complexity of the current regulatory system.

Proposed Fee Structure

The annual membership fee proposed is $500 for all levels of paramedics (i.e., PCP, ACP, and CCP). This is in line with the annual fees for other regulatory Colleges in Ontario. Sixteen of the 21 regulatory Colleges in Ontario have fees higher than $500, two have lower fees, and two have fees of $500. It is anticipated that this fee level will provide the necessary financial resources for the College to fulfill its statutory functions, while at the same time not placing undue hardship on members of the profession.

It is expected that initial registration, equivalence assessment, and entry-to-practice examination will be carried out on a cost-recovery basis.

Health System Impact

Interprofessional Collaboration

The issue of inter-professional collaboration has taken on increasing importance in Ontario's health care system in recent years because, as HPRAC has argued, there is

> a gradual trend toward breaking down the exclusive control or monopolies that some health professions have had in the delivery of care, to allow overlapping scopes of practice, and to move toward active cooperation among health professions to benefit the patient (2008b, p. 2).

This issue has its roots in the development of the regulatory system towards "a system of "licensed acts", rather than licensed professions" (HPRAC, 2008b, p. 3). Rather than license individual health care providers, this new system seeks to protect the public interest by regulating the acts these individuals perform that carry a risk of harm. One of the primary aims, then, is to examine ways in which regulated health professions can collaborate in developing standards of practice and practice guidelines where these professions share controlled acts. On the one hand, this aims to protect the public interest by ensuring that best practices are shared between the professions. On the other, it aims to improve the quality of, and potentially increase access to, health care by facilitating interaction and collaboration among different health professions in the provision of health care to patients.

Because of the unique nature of prehospital care, paramedics have typically had fewer opportunities for ongoing interaction with other health professions. Whereas nurses, physicians, respiratory therapists, medical laboratory technicians and so on may often work together in the hospital or clinical environment, paramedic interaction is more episodic in nature, occurring most often when patient care is handed over after arrival at the ED. Even though all "licensed" paramedics in Ontario currently work under delegation from the medical director of a Base Hospital Program, their interaction with physicians may be intermittent.

Nevertheless, interprofessional collaboration is a significant issue for paramedics, particularly because they perform controlled acts without direct supervision. The level of

education and training that paramedics undergo, along with their continuing competency requirements (which are more onerous than any of the health professions regulated under the *RHPA*), when combined with their experience working in uncontrolled environments, means that they have the necessary competencies to support and sustain interprofessional collaboration on practice standards and guidelines, particularly in the performance of controlled acts under such conditions. However, the lack of paramedic self-regulation in Ontario is a barrier to effective interprofessional collaboration.

HPRAC has argued that "[i]nterprofessional collaboration…is a broader concept than interprofessional care", which "takes place at the clinical level" (2009, p. 8). To date, paramedics have been more involved in the latter than the former.

As Community Paramedic Programs increase in prevalence to address inadequacies in the health care system that affect the level and quality of care some residents enjoy, paramedics are starting to interact more extensively with other health care providers, and are partners in efforts to seek effective solutions to patients' ongoing but non-emergent health problems. For example, the CREMS program, as discussed previously, enables paramedics to refer patients to CCACs so that they can access services such as occupational therapy, physiotherapy and nursing in their homes, rather than calling for emergency transport. The positive results of CREMS depend on the understanding paramedics have of the range of determinants of health and the services available to residents, as well as on their ability to understand underlying conditions and suggest alternatives to emergency transport. Such a program would be less effective if paramedics were not in a position to support interprofessional collaboration.

Another example where paramedics have shown that they possess the competencies necessary for interprofessional collaboration is the extended roles they have been asked to assume in parts of Nova Scotia, where access to physicians is problematic. The remoteness of Long and Brier Islands, in the Bay of Fundy, had made it difficult for the communities there to have a resident physician. As a result, residents were forced to use EMS and EDs for a wide range of medical issues. A Community Paramedic initiative was able to provide more timely health care access and treatment for less urgent conditions such as management of simple wounds and the administration of tetanus injections and flu immunizations, and was successful enough to be expanded to include a nurse practitioner and an offsite physician. This collaborative effort has seen a decrease in ED visits, and better access to and continuity of health care for residents. (Martin-Misener, Downe-Wamboldt, Cain, & Girouard, 2009).

Recently, in another small community in Nova Scotia, the lack of physicians had led to ER closures and long wait times for doctor's appointments, which has led to paramedics and nurses now staffing what are called "collaborative emergency centres" overnight, with an off-site physician to advise when needed. According to David Wilson, Nova Scotia's Minister of Health and Wellness, this initiative has led to a reduction in wait times for appointments with physicians (Morrison, 2013).

"Licensed" Paramedics collaborate most frequently with RNs, NPs and physicians in Emergency Departments, in the provision of interprofessional care. They also collaborate with physicians working for Base Hospital Programs in the provision of continuing medical education and the review of medical directives and protocols. Because they currently perform controlled acts under the authorization of the medical director of a Base Hospital Program, they are required to report incidents where they may have performed below the required standard of care, to provide all Ambulance Call Reports (involving controlled acts) for Base Hospital Program audit, to undergoing CME and recertification procedures as determined by the Base Hospital Program, and finally to cooperate in investigations that the Base Hospital Program chooses to execute. Therefore, the reporting structure is highly hierarchical.

Paramedics in Ontario have not had the opportunity to increase interprofessional collaboration as effectively as is desired, because they are not self-regulated, and the current regulatory system is overly complex and unwieldy. As HPRAC has argued,

> Enabling professionals to perform more tasks independently, consistent with their competence, will enhance their ability to work with others as part of the health care team. Existing professions will be able to take on new or altered roles in a collaborative environment as barriers that keep them from practicing to their full potential are removed (2008c, p. 9).

The OPA's view is that self-regulation within a College of Paramedics would remove such barriers for paramedics, thereby improving and increasing interprofessional collaboration by making it possible for the profession to engage effectively with other regulated health professions to establish best practices in the performance of controlled acts and other clinical treatments.

Labour Mobility

As stated on the MOHLTC EHSB website,

> The Emergency Health Services Branch of the Ministry of Health and Long-Term Care (MOHLTC) continues to be an active supporter of paramedic mobility in Canada. To this end, Ontario has a revised equivalency process for Primary Care Paramedics (PCP) and Advanced Care Paramedics (ACP) licensed/registered in other Canadian provinces and territories. This revised process meets the most recent updated requirements of the Labour Mobility Provisions (Chapter 7) of the Agreement on Internal Trade (AIT).
>
> The Ministry of Health and Long-Term Care (MOHLTC) AIT Paramedic Equivalency process ensures that paramedics who hold a valid license or certification in good standing from another Canadian province or territory as a PCP or ACP have employment opportunities in Ontario (MOHLTC EHSB website).

Despite these provisions, relatively few paramedics from other provinces apply for MOHLTC AIT Paramedic Equivalency (see Table 3). Self-regulation within a College of Paramedics would preserve and protect mobility between Canadian jurisdictions, and would seek to enhance it by streamlining the process and ensuring that requirements for entry-to-practice in Ontario are consonant with those in other jurisdictions, for example, through the use of the NOCP.

As discussed above, the NOCPs were developed by PAC as national entry to practice standards, and have been adopted as such by various jurisdictions across Canada, including Ontario for ACPs. The Canadian Organization of Paramedic Regulators is currently working on a national examination scheme.

To the best of the OPA's knowledge, there are no other Canadian jurisdictions in which paramedics are authorized to perform procedures and tasks beyond those sought by the OPA in this application, although the particular level at which a paramedic may perform a particular procedure or controlled act may differ, since other Canadian jurisdictions may use different level classifications from those in Ontario. This means that paramedic scopes of practice from other provinces may not map one-to-one onto those in Ontario. However, recent trends indicate that there is a growing convergence among Canadian jurisdictions as the use of the NOCP becomes more widespread.

Under the current regulatory system, paramedics trained in other provinces are not assessed for equivalency on the basis of their designation, but rather in terms of their competencies. It is anticipated that an Ontario College of Paramedics would maintain a similar approach.

Self-regulation within a College of Paramedics would increase the supply of licensed paramedics, as it would enable the many currently "unlicensed" paramedics to become registered.

Access to Care

The OPA's view is that the current regulatory system was enacted in order to enhance access to pre-hospital emergency medical care provided by "licensed" paramedics in a way that protects the public interest. Self-regulation within a College of Paramedics would enhance access to this type of care, as it would allow for more efficient and effective adoption of new treatments, technologies and best practices in collaboration with other regulated health professions. It would also increase the availability of registered paramedics to work in non-emergency settings such as community clinics, private medical transportation companies, event medical services, and so on, thereby increasing public access to qualified health care providers in such environments.

Health Human Resource Productivity

The OPA does not currently have the capacity to measure productivity. Individual Paramedic Services may do so, and MOHLTC EHSB measures the productivity of the ambulance component of EMS, but this information is not available to the OPA. Nevertheless, the inclusion of the large body of currently "unlicensed" paramedics under

a College of Paramedics would allow the time, effort, skills and knowledge of these individuals to contribute more extensively to the provision of health care for Ontario's residents. In addition, it would allow paramedics to collaborate more effectively with other regulated health professions, thereby increasing efficiency. Finally, registered paramedics would be able to participate more effectively in the provision of primary care. According to the National EMS Advisory Council (NEMSAC),

> EMS makes a difference with its expanding role in the healthcare system. EMS has the potential to provide improved patient outcomes and more customer satisfying primary care while offering clinically appropriate alternatives to hospital transport in addition to standard 9-1-1 responses. In a fully integrated healthcare system, EMS will provide preventive services, acute care, and overall community health (2009, p. 20).

Health Outcomes

The OPA does not currently have the capacity to measure health outcomes. However, it is evident that the provision of high-quality pre-hospital care by highly trained paramedics performing to best practices leads to more positive health outcomes for patients. NEMSAC's 2009 position statement reviewed the available evidence in a number of areas:

> There is a considerable body of evidence documenting the importance of prehospital care in the treatment of ST-segment elevation myocardial infarction (STEMI), stroke, respiratory emergencies, pediatric care and trauma. The literature also suggest that these improvements in patient outcomes are cost effective, and that prehospital care within the context of an EMS system contributes to downstream healthcare savings. (2009, p. 1).

As discussed above, several studies have investigated or are investigating health outcomes related to paramedic practice. There are various research studies underway involving paramedic organizations such as EMSCC and PAC, partnering with institutions such as Dalhousie University, that aim to look at various aspects of health outcomes. Regulation of paramedics under the *RHPA* would increase the number of paramedics available to work in non-emergency settings such as Community Paramedic Programs, which have been shown to improve health outcomes, as in the Long and Brier Islands study (Martin-Misener, Downe-Wamboldt, Cain, & Girouard, 2009). It would also allow for more efficient and effective adoption of new treatments, technologies and best practices in collaboration with other regulated health professions, thereby increasing public access to health care, promoting public choice of health care provider, improving the efficiency and effectiveness of the health care system overall, and enhancing patient safety, all of which serves to better protect the public interest.

Appendices

Appendix A. Glossary of Terms

"licensed" paramedic	paramedic in Ontario working for an EMS and therefore authorized by the medical director of a Base Hospital Program to perform controlled acts
"unlicensed" paramedic	paramedic in Ontario not working for an EMS and therefore not authorized to perform controlled acts

Abbreviations Used

ACP	advanced care paramedic
A-EMCA	advanced emergency medical care assistant
AGO	Auditor General of Ontario
ALS	*Advanced Life Support Patient Care Standards*
BLS	*Basic Life Support Patient Care Standards*
CAAT	College of Applied Arts and Technology
CCP	critical care paramedic
CMA	Canadian Medical Association
CME	continuing medical education
CPAP	continuous positive airway pressure
CPSI	Canadian Patient Safety Institute
ED	emergency department
EHSB	Emergency Health Services Branch
EMA	Emergency Medical Attendant
EMR	emergency medical responder
EMS	Emergency Medical Services
EMSCC	Emergency Medical Services Chiefs of Canada
EMSPEP	Canadian Prehospital Evidence Base Practice
ETI	endotracheal intubation
HPRAC	Health Professions Regulatory Advisory Council
LATT	Land Ambulance Transition Taskforce
MOHLTC	Ministry of Health and Long-Term Care
MTCU	Ministry of Training, Colleges and Universities
NAEMP	National Association of Emergency Medicine Physicians
NEMSAC	National EMS Advisory Council
NEMSIS	National EMS Information System
NINDS	National Institute of Neurological Disorders and Stroke
NOCP	National Occupational Competency Profile for Paramedics
OPA	Ontario Paramedic Association
PAC	Paramedic Association of Canada
PCP	primary care paramedic
STEMI	ST-segment elevation myocardial infarction

Appendix B. References

Alberta College of Paramedics website. Accessed on March 8, 2013 at http://www.collegeofparamedics.org/

Alberta College of Paramedics. 2011. 2011 Annual Report. Retrieved from http://www.collegeofparamedics.org/media/92061/annualreport2011.pdf

Ambulance Act, R,S.O., c. A.19 1991. Retrieved on December 1, 2012 from http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90a19_e.htm

Ambulance Act Ontario Regulation 257/00. Retrieved on December 1, 2012 from http://www.e-laws.gov.on.ca/html/regs/English/elaws_regs_0000257_e.htm

Atack, L. & Maher, J. (2010). Emergency medical and health providers' perceptions of key issues in prehospital patient safety. *Prehospital Emergency Care*, *14(1)*, 95-102. doi:10.3109/10903120903349887

Office of the Auditor General of Ontario. (2005). 2005 Annual Report. Retrieved from http://www.auditor.on.ca/en/reports_en/en05/en_2005 AR.pdf

Bass, M.J. (2001). Risk management, health care, and the geriatric patient population. In Kapp, M.B. *Ethics, law, and aging review volume 7: Liability issues and risk management in caring for older persons*. Springer, pp. 11-24

Beausoleil, J-M. (Spring 2012). A primer on EMS operations for physicians and medical trainees. 81(1), 6-8. *University of Western Ontario Medical Journal.* Retrieved from http://www.uwomj.com/wp-content/uploads/2012/06/2012_ER_Beausoleil.pdf

Bigham, B.L., Buick, J.E., Brooks, S.C., Morrison, M., Shojania, K.G., & Morrison, L.J. (2012). Patient safety in emergency medical services: a systematic review of the literature. *Prehospital Emergency Care 16(1)*, 20-35. doi: 10.3109/10903127.2011.621045

Brice, J. H., Studnek, J. R., Bigham, B. L., Martin-Gill, C., Custalow, C. B., Hawkins, E., & Morrison, L. J. (2012). EMS provider and patient safety during response and transport: Proceedings of an ambulance safety conference. *Prehospital Emergency Care*, *16(1)*, 3-19. doi: 10.3109/10903127.2011.626106

British Columbia Ministry of Health website. Retrieved on February 23, 2013, from http://www.health.gov.bc.ca/ema/getting-your-training/index.html

Canadian Medical Association website. Retrieved on December 14, 2012 from http://www.cma.ca/index.php?ci_id=50602&la_id=1

Canadian Medical Association [CMA]. (2008) Requirements for accreditation. Retrieved from http://www.cma.ca/multimedia/CMA/Content_Images/Inside_cma/Accreditation/pdf/requirements.pdf

Canadian Medical Association [CMA]. (December 2012). Guidelines for paramedic programs on the use of the Paramedic Association of Canada's (PAC) 2011 National Occupational Competency Profile (NOCP) in the Canadian Medical Association (CMA) conjoint accreditation process. Retrieved from http://www.cma.ca/multimedia/CMA/Content_Images/Inside_cma/Accreditation/pdf/2012_advisory_para_program_dec.pdf

Canadian Medical Association [CMA]. (September 2012). Guidelines for paramedic programs on the use of the Paramedic Association of Canada's (PAC) 2011 National Occupational Competency Profile (NOCP) in the Canadian Medical Association (CMA) conjoint accreditation process. Retrieved from http://www.cma.ca/ multimedia/CMA/Content_Images/Inside_cma/Accreditation/pdf/12_guidelines_NOCP_e.pdf

Canadian Prehospital Evidence Based Practice website. Retrieved from http://emspep.cdha.nshealth.ca/

Canadian Patient Safety Institute. (2008). *Patient safety in emergency medical services*. Retrieved from http://www.patientsafetyinstitute.ca/English/research/commisionedResearch/patientSafetyinEMS/Documents/Patient Safety in EMS Full Report.pdf

Cantor, W.J., Hoogeveen, P., Robert, A., Elliott, K., Goldman, L.E., Sanderson, E., Plante, S., Prabhakar, P., & Miner, S. (2012). Prehospital diagnosis and triage of ST-elevation myocardial infarction by paramedics without advanced care training. *American Heart Journal*, *164(2)*, 201-206. doi: 10.1016/j.ahj.2012.05.009

Cardiac Care Network of Ontario (September 2010). *Primary percutaneous coronary intervention: Optimizing access to primary PCI for ST elevation myocardial infarction.* Toronto, ON

Casey, J.T. (2005). *Regulation of professions in Canada*. Toronto:Carswell, p. 16-1. In Schultze, R. (2007). What does it mean to be a self-governing regulated profession? *Journal of Property Tax Assessment & Administration*, *4(3)*, p. 45

Central East Prehospital Care Program website. Accessed on March 9, 2013 at http://www.cepcp.ca/main/news.php?newschoice=44

Cheskes, S., Thomson, S., & Turner, L. (2012). Feasibility of continuous positive airway pressure by primary care paramedics. *Prehospital Emergency Care*, *16(4)*, 535--540. doi: 10.3109/10903127.2012.68930

College of Midwives of Ontario. (January 1994). Core competencies: A foundation for midwifery education. Retrieved from http://www.cmo.on.ca/downloads/communications/policies/H01-CoreCompetencies Jan94.pdf

College of Nurses of Ontario. 2008. National competencies in the context of entry-level Registered Nurse practice. Retrieved from http://www.cno.org/Global/docs/reg/41037_EntrytoPracitic-Final.pdf

Dib, J. E., Matin, S. A., & Luckert, A. (2012). Prehospital use of continuous positive airway pressure for acute severe congestive heart failure. *Journal of Emergency Medicine*, *42(5)*, 553-558. doi: 10.1016/j.jemermed.2011.06.002

Emergency Medical Services for Children National Resource Center, Children's National Medical Center. (2009). Gap analysis of EMS related research: Report to the Federal Interagency Committee on EMS. Retrieved from www.childrensnational.org/emsc

Emergency Medical Services Chiefs of Canada [EMSCC]. (2006). Defining the New Road Ahead. Retrieved from http://www.emscc.ca/docs/EMS-Strategy-Document.pdf

Evashkevich, M. (n.d.). Unpublished manuscript. *A health care strategy for Ontario: A broader role for community paramedics*. (Master's thesis, University of Victoria)

Fosbøl, E. L., Granger, C. B., Peterson, E. D., Lin, L., Lytle, B. L., Shofer, F. S., Lohmeier, C., Mears, G. D., Garvey, J. L., Corbett, C. C., Jollis, J. G., & Glickman, S. W. (2013). Prehospital system delay in ST-segment elevation myocardial infarction care: A novel linkage of emergency medicine services and inhospital registry data. *American heart journal, 165(3)*, 363-370. doi: 10.1016/j.ahj.2012.11.003

Gladstone, D.J., Rodan, L.H., Sahlas, D.J., Lee, L., Murray, B.J., Ween, J.E., Perry, J.R., Chenkin, J., Morrison, L.J., Beck, S. & Black, S.E. (2009). A citywide prehospital protocol increases access to stroke thrombolysis in Toronto. *Stroke*, *40(12)*, 3841-3844. doi: 10.1161/STROKEHA.108.540377

Hamilton Emergency Medical Services. (2011) *Information Report*. Retrieved from http://www.hamilton.ca/NR/rdonlyres/46161C60-30CB-423A-B1BC-48605663C066/0/Apr06EDRMS_n153868_v1_HES11003_CREMS_Pilot_Project_Halfway_Up.pdf

Health Professions Regulatory Advisory Council [HPRAC]. (April 2006). *Regulation of health professions in Ontario: New directions*. Retrieved from http://www.hprac.org/en/reports/resources/New_Directions_April_2006_EN.pdf

Health Professions Regulatory Advisory Council [HPRAC]. (January 2009). Critical links: Transforming and supporting patient care. Retrieved from

http://www.hprac.org/en/reports/resources/HPRACCriticalLinksEnglishJan_09.pdf

Health Professions Regulatory Advisory Council [HPRAC]. (n.d.). *Backgrounder for paramedics and emergency medical attendants (EMAs) referral*

Health Professions Regulatory Advisory Council [HPRAC]. (October 2012) *Paramedics: A jurisprudence review*

Health Professions Regulatory Advisory Council [HPRAC]. (November 2012). *A rapid literature review on patient safety and non-physician EMS providers*

Health Professions Regulatory Advisory Council [HPRAC]. (December 2012a). *A rapid literature review on the practice of the paramedic and emergency medical attendant professions*

Health Professions Regulatory Advisory Council [HPRAC]. (December 2012b). *Regulation of paramedics and emergency medical attendants: A jurisdictional review*

Health Professions Regulatory Advisory Council [HPRAC]. (March 2008a). *A report to the Minister of Health and Long-Term Care on the review of the scope of practice for Registered Nurses in the extended class (Nurse Practitioners)*. Retrieved from http://www.hprac.org/en/reports/resources/HPRACExtendedClassNurseReportENGMar08.pdf

Health Professions Regulatory Advisory Council [HPRAC]. (March 2008b). *An interim report to the Minister of Health and Long-Term Care on mechanisms to facilitate and support interprofessional collaboration among health colleges and regulated health professionals*. Retrieved from http://www.hprac.org/en/reports/resources/HPRAC-EnglishinterprofessionalCollaborationInterimReportMarch08.pdf

Health Professions Regulatory Advisory Council [HPRAC]. (September 2008c). *An interim report to the Minister of Health and Long-Term Care on mechanisms to facilitate and support interprofessional collaboration among health colleges and regulated health professionals*: *Phase II, Part I*. Retrieved from http://www.hprac.org/en/reports/resources/InterprofessionalCollaborationReportPhaseIIPartIENGSept08.pdf

The Heart and Stroke Foundation of Ontario [HSFO]. (June 2000). *Report of the Joint Stroke Strategy Working Group*. Retrieved from http://www.heartandstroke.on.ca/atf/cf/{33C6FA68-B56B-4760-ABC6-D85B2D02EE71}/strokereport.pdf

Hoyle, J.D., Davis, A.T., Putman, K.K., Trytko, J.A. & Fales, W.D. (2012). Medication dosing errors in pediatric patients treated by emergency medical services. *Prehospital Emergency Care*, *16(1)*, 59-66. doi: 10.3109/10903127.2011.614043

International Roundtable on Community Paramedicine website. Retrieved July 28, 2012 from http://www.ircp.info/AboutUs.aspx

Isenberg, D. L. & Bissell, R. (2005). Does advanced life support provide benefits to patients?: A literature review. *Prehospital and Disaster Medicine*, *20(4)*, 265-270. doi: 10.1017/S1049023X0000265X

Jensen, J.L., Blanchard, I.E., Bigham, B.L., Dainty, K.N., Socha, D., Carter, A., Brown, L.H., Craig, A.M., Travers, A.H., Brown, R., Cain, E. & Morrison, L.J. (2011b) Methodology for the development of a Canadian national EMS research agenda. *BMC Emergency Medicine*, *11(15)*, 1-7. doi: 10.1186/1471-227X-11-15

Jensen, J.L., Petrie, D.A., Cain, E. & Travers, A.H. (2009). The Canadian prehospital evidence-based protocols project: Knowledge translation in emergency medical services care. *Academic Emergency Medicine. 16(7)*, 668-673. doi: 10.1111/j.1553-2712.2009.00440.x

Jensen, J.L. (2011a). Paramedic clinical decision-making: Results of two Canadian studies. *International Paramedic Practice*, *1(2)*, 63-71

Jensen, J.L., Cheung, K.W., Tallon, J.M. & Travers, A.H. (2010). Comparison of tracheal intubation and alternative airway techniques performed in the prehospital setting by paramedics: a systematic review. *Canadian Journal of Emergency Medicine*, *12(2)*, 135-140

Jensen, J.L. (2010). *Paramedic clinical decision making*. (Masters thesis). Retrieved from http://dalspace.library.dal.ca/bitstream/handle/10222/12738/2010 04 14 JENSEN thesis PDF A format.pdf

Justice Institute of British Columbia website. Retrieved on February 23, 2013 from http://www.jibc.ca/programs-courses/schools-departments/school-health-sciences/paramedic-academy/

Kallio, T., Kuisma, M., Alaspaa, A., & Rosenberg, P. H. (2003). The use of prehospital continuous positive airway pressure treatment in presumed acute severe pulmonary edema. *Prehospital Emergency Care*, *7(2)*, 209-213

Kosowsky, J. M., Stephanides, S. L., Branson, R. D., & Sayre, M. R. (2001). Prehospital use of continuous positive airway pressure (CPAP) for presumed pulmonary edema: a preliminary case series. *Prehospital Emergency Care*, *5(2)*, 190-196.

Kosowsky, J.M., Gasaway, M.D., Stephanides, S.L., Ottaway, M., & Sayre, M.R. (2000). EMS transports for difficulty breathing: is there a potential role for CPAP in the prehospital setting?. *Academic Emergency Medicine*, *7(10)*, 1165. doi: 11111/j.1553-2712.2000.tb0127.x

Land Ambulance Transition Task Force. (1998). *Review of the Ambulance Regulation: Report of the Land Ambulance Transition Task Force to the Minister of Health*

and Red Tape Commission. Toronto, ON: Ministry of Health and Long-Term Care Emergency Health Services Branch. Retrieved from http://www.ambulance-transition.com/pdf_documents/land_amb_transition_taskforce_report_aug1999.pdf

Lemonick, D.M. (2009). Controversies in prehospital care. *American Journal of Clinical Medicine. 6(1)*, 5-17

Lewis, M., Trypuc, J., Lindsay, P., O'Callaghan, C. & Dishaw, A. (2006). Has Ontario's stroke system really made a difference? *Healthcare Quarterly*. *9(4)*, 50-59. Retrieved from http://cesnstroke.ca/documents/Has_the_OSS_Made_a_Difference.pdf

Liberman, M. & Roudsari, B. S. (2007). Prehospital trauma care: what do we really know? *Current Opinion in Critical Care*, *13(6)*, 691-696. doi: 10.1097/MCC/0b013e3282f1e77e

Lossius, H. M., Røislien, J., & Lockey, D. J. (2012). Patient safety in pre-hospital emergency tracheal intubation: a comprehensive meta-analysis of the intubation success rates of EMS providers. *Critical Care*, *16(1)*, R24. doi: 10.1186/cc11189

Lu, D.W., Guenther, E, Wesley, A.K. & Gallagher, T.H. (2013). Disclosure of harmful medical errors in out-of-hospital care. *Annals of Emergency Medicine*, *61(2)*, 215-221. doi: 10.1016/j.annemergmed.2012.07.004

Martin-Misener, R., Downe-Wamboldt, B., Cain, E. & Girouard, M. (2009). Cost effectiveness and outcomes of a nurse-practitioner-paramedic-family physician model of care: the Long and Brier Islands study. *Primary Health Care Research & Development*, *10*, 14-25. doi: 10.1017S1463423608000959

Mason, S., Knowles, E., Freeman, J & Snooks, H. (2008). Safety of paramedics with extended skills. *Academic Emergency Medicine 15*(7), 607-612. doi: 10.1111/j.1553-2712.2008.00156.x

The National Alliance of Respiratory Therapy Regulatory Bodies. (2011). 2011 *Respiratory therapy national competency profile*. Retrieved from http://www.nartrb.ca/eng/documents/2011NCPfinal.pdf

National EMS Advisory Council. (December 2009). *EMS makes a difference: Improved clinical outcomes and downstream healthcare savings*. Retrieved from http://www.naemsp.org/documents/nemsac-dec2009positionpaper.pdf

National Association of EMS Physicians. (December, 2001). *National EMS research agenda*. Retrieved from http://www.naemsp.org/Documents/EMSResearch Agenda Final Paper.pdf

National EMS Information System (NEMSIS). (2013). *Incident Location Type Q1-4 2011-13*. Retrieved on February 20, 2013, from NEMSIS database

The National Institute of Neurological Disorders and Stroke rt-PA Stroke Study Group (1995). Tissue plasminogen activator for acute ischemic stroke. *New England Journal of Medicine*, *333(24)*, 1581-1587. doi: 10.1056/NEJM199512143332401

Morrison, K. (2013, January 25). ERs without doctors?: New rural emergency centres rely on nurses and paramedics at night. *National Post*. Retrieved from http://news.nationalpost.com/2013/01/25/ers-without-doctors-new-rural-emergency-entres-rely-on-nurses-and-paramedics-at-night/)

Nolan, M., Hillier, T., & D'Angelo, C. (2012). *Community paramedicine in Canada.* Ottawa, ON: Emergency Medical Services Chiefs of Canada. Retrieved from http://www.ircp.info/Portals/22/Downloads/Policy/Comm Paramedicine in Canada.pdf

Ontario Ministry of Health and Long-Term Care Emergency Health Services Branch. (2000). *Prehospital emergency care syllabus version 2.0*. Retrieved from http://www.health.gov.on.ca/english/public/program/ehs/edu/pdf/pcp_syllabus.pdf

Ontario Ministry of Health and Long-Term Care Emergency Health Services Branch [MOHLTC EHSB] website. http://www.health.gov.on.ca/english/public/program/ehs/ehs_mn.html

Ontario Ministry of Health and Long-Term Care Emergency Health Services Branch [MOHLTC EHSB]. (January 2007). *Basic life support patient care standards version 2.0*. Retrieved from http://www.health.gov.on.ca/english/public/program/ehs/edu/pdf/bls_patient.pdf

Ontario Ministry of Health and Long-Term Care Emergency Health Services Branch [MOHLTC EHSB]. (November 2011). *Advanced life support patient care standards version 3.0*. Retrieved from http://www.health.gov.on.ca/english/public/program/ehs/edu/pdf/als_standards.pdf

Ontario Ministry of Health and Long-Term Care Emergency Health Services Branch [MOHLTC EHSB]. (February 2011). *Training bulletin: Revised paramedic prompt card for acute stroke protocol*. Retrieved from http://www.ambulance-transition.com/pdf_documents/training_bullletin_110_v1_revised_paramedic_prompt_card_for_acute_stroke_protocol_2011-02.pdf

Ontario Ministry of Training, Colleges and Universities [MTCU]. (June 2008). *Paramedic program standard*. Retrieved from http://www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/health/paramedic.pdf

Ontario Ombudsman website. *SORT investigations: Non-emergency medical transportation services*. Retrieved from http://www.ombudsman.on.ca/investigations/SORT-investigations/Completed/ Non-emergency-medical-transportation-services.aspx

Ontario Ombudsman. 2012. *Annual report 2011-2012 update: Non-emergency medical transportation services – Ministry of Health and Long-Term Care, Ministry of Transportation*. Retrieved from http://www.ombudsman.on.ca/Investigations/SORT-Investigations/Completed/Non-emergency-transportation-services/Case-update---Annual-Report-2010-2011-(1).aspx

Ontario Paramedic Association website. Retrieved on February 25, 2013 from http://www.ontarioparamedic.ca/about/code-of-ethics

Ornge Academy of Transport Medicine. 2011. *Critical care paramedic program model route*

Paramedic Association of Canada [PAC]. (October 2011). *National occupational competency profile for paramedics*. Retrieved from http://paramedic.ca/wp-content/uploads/2012/12/2011-10-31-Approved-NOCP-English-Master.pdf

Pike, M., & Gibbons, C. (n.d.). *Paramedic shortage: A call for action*. (National Human Resource Review). Halifax, NS: Nova Scotia Department of Health and Wellness Emergency Health Services Division. Retrieved on December 20, 2012, from http://www.gov.ns.ca/health/ehs/documents.asp/Paramedic HR paper.pdf

Postma, S., Dambrink, J.-H. E., de Boer, M.-J., Gosselink, A. T. M., Eggink, G. J., van de Wetering, H., Hollak, F., Ottervanger, J. P., Hoorntje, J. C. A., Kolkman, E., Suryapranata, H., & van 't Hof, A. W. J. (2011). Prehospital triage in the ambulance reduces infarct size and improves clinical outcome. *American Heart Journal, 161(2)*, 276-282. doi: 10.1016/j.ahj.2010.10.028

Regional Paramedic Program for Eastern Ontario. (n.d.) *RPPEO report*, *(1)1*

Rescu website. Accessed on March 9, 2013 at http://www.rescu.ca.

The Resuscitation Outcomes Consortium website. Accessed on March 9, 2103 at https://roc.uwctc.org/tiki/roc-background

Beebe, R.W.O. & Myers, J.C. 2010. *Professional paramedic volume I: Foundations of paramedic care*. Delmar, Cengage Learning, Clifton Park, NY

Beebe, R.W.O. & Myers, J.C., 2011. *Professional paramedic volume II: Medical emergencies, maternal health & pediatrics*. Delmar, Cengage Learning, Clifton Park, NY

The Royal College of Physicians and Surgeons of Canada. (2005). *The CanMEDS 2005 physician competency framework*. Retrieved from http://www.roylacollege.ca/portal/page/portal/rc/common/documents/canmeds/resource/publications/framework_full_e.pdf

Saskatchewan College of Paramedics (September 2012). *Regulatory bylaws*. Retrieved on February 23, 2013 from http://www.collegeofparamedics.sk.ca/docs/

resources/documents/Regulatory Bylaws Pursuant to The Paramedics Act as Amended July 2012_FINAL.pdf

Saskatchewan College of Paramedics. (2009). *Environmental scan and strategic planning Paper*. Retrieved on December 4, 2012, from http://www.collegeofparamedics.sk.ca/docs/strategic-plan/scop-environmental-scan.pdf

Saskatchewan College of Paramedics. (September 2012). *Scope of practice for paramedic professionals*. Retrieved on December 4, 2012 from http://www.collegeofparamedics.sk.ca/docs/home page documents/Scope of Practice_FINAL.pdf

Saskatchewan Institute of Applied Science and Technology website. Retrieved on February 23, 2013 from www.siast.sk.ca/programs_courses_descriptions/PCP.shtml

Saskatchewan Ministry of Health. *(*2012) *Guidelines for the treatment of emergent and non-emergent patients in the pre-hospital setting*. Retrieved on December 2, 2012 from http://www.health.gov.sk.ca/ems-protocol-manual

Seamon, M. J., Doane, S. M., Gaughan, J. P., Kulp, H., D'Andrea, A. P., Pathak, A. S., Santora, T. A., Goldberg, A. J., & Wydro, G. C. (2013). Prehospital interventions for penetrating trauma victims: A prospective comparison between Advanced Life *Support and Basic Life Support. Injury*. (in press). doi: 10.1016/j.injury.2012.12.020

Sohn, D.H. (2013). Negligence, genuine error, and litigation. *International Journal of General Medicine. 6,* 49-56. doi: 110.2147/IJGM.S24256

Stiell, I.G., Nesbitt, L.P., Pickett, W., Munkley, D., Spaite, D.W., Banek, J., Field, B., Luinstra-Toohey, L., Maloney, J., Dreye, J., Lyver, M., Campeau, T. & Wells, G.A. (2008). The OPALS major trauma study: Impact of advanced life-support on survival and morbidity. *Canadian Medical Association Journal*, *178(9)*, 1141-52. doi: 10.1503/cmaj/071154

Stiell, I.G., Spaite, D.W., Field, B., Nesbitt, L.P., Munkley, D., Maloney, J., Dreyer, J., Luinstra-Toohey, L., Campeau, T., Dagnone, E., Lyver, M. & Wells, G.A. (2007). Advanced life support for out-of-hospital respiratory distress. *The New England Journal of Medicine*, *356(21)*, 2156-64. doi: 1056/NEJMoa060334

Stiell, I.G., Wells, G.A., Field, B., Spaite, D.W., Nesbitt, L.P., De Maio, V.J., Nichol, G., Cousineau, D., Blackburn, J., Munkley, D., Luinstra-Toohey, L., Campeau, T., Dagnone, E. & Lyver, M. (2004). Advanced cardiac life support in out-of-hospital cardiac arrest. *The New England Journal of Medicine*. *351(7)*, 647-56. doi: 10.1056/NEJMoa040325

Stiell, I.G. (February 2005). Ontario pre-hospital advanced life support (OPALS) study. Canadian Health Services Research Foundation. Retrieved from http://www.cfhi-fcass.ca/Migrate/PDF/ResearchReports/OGC/stiell_e.pdf

Stiver, S. I. & Manley, G. T. (2008). Prehospital management of traumatic brain injury. *Neurosurgical Focus*, *25(4)*, E5. doi: 10.3171/FOC.2008.25.10.E5

Sunnybrook-Osler Centre for Prehospital Care. (2006). *Operational policy and procedure manual*. Retrieved from http://www.socpc.ca/pdf/P&PFinal20060718.pdf

Thompson, J., Petrie, D. A., Ackroyd-Stolarz, S., & Bardua, D. J. (2008). Out-of-hospital continuous positive airway pressure ventilation versus usual care in acute respiratory failure: a randomized controlled trial. *Annals of Emergency Medicine*, *52(3)*, 232-241. doi: 10.1016/j/annemergmed.2008.07.004

Vaillancourt, C., Stiell, I. G., Beaudoin, T., Maloney, J., Anton, A. R., Bradford, P., Cain, E., Travers, A., Stempien, M., Lees, M., Munkley, D., Battram, E., Banek, J., & Wells, G. A. (2009). The out-of-hospital validation of the Canadian C-Spine Rule by paramedics. *Annals of Emergency Medicine*, *54(5)*, 663-671. doi: 10.1016/j.annemergmed.2009.03.008

Vrotsos, K. M., Pirrallo, R. G., Guse, C. E., & Aufderheide, T. P. (2008). Does the number of system paramedics affect clinical benchmark thresholds?. *Prehospital Emergency Care*, *12(3)*, 302-306. doi: 10.1080/10903120802101355

Wang, H.E., Lave, J.R., Sirio, C.A. & Yealy, D.M. (2006). Paramedic intubation errors: Isolated events or symptoms of larger problems? *Health Affairs*, *25(2)*, 501-509. doi: 10.1377/hlthaff.25.2.501

Weiss, S.J., Ernst, A.A., Phillips, J., & Hill, B. (2001). Visits to home environments by emergency medical services: a statewide study. *Prehospital Emergency Care, 5(1)*, 19-22

World Health Organization website. Retrieved on March 3, 2013 from http://www.who.int/patientsafety/about/en/index.html

World Health Organization. (2009). *More than words: Conceptual Framework for the International Classification for Patient Safety version 1.1*. Retrieved from http://www.who.int/entity/patientsafety/implementation/taxonomy/icps_technical_report_en.pdf

Williams, B., Boyle, M., Robertson, N., & Giddings, C. (2013). When pressure is positive: A literature review of the prehospital use of continuous positive airway pressure. *Prehospital Disaster Medicine*, *28(1)*, 52--60. doi: 10.1017/S1049023X12001562

Williams, T.A., Finn, J., Perkins, G.D. & Jacobs, I.G. (2013). Prehospital continuous positive airway pressure for acute respiratory failure: A systematic review and meta-analysis. *Prehospital Emergency Care*, *17(2)*, 261-273. doi: 10.3109/10903127.2012.749967

Appendix C. College of Paramedics of Ontario Business Plan

College of Paramedics of Ontario

Business Plan

COLLEGE OF PARAMEDICS OF ONTARIO BUSINESS PLAN

The business plan demonstrates the understanding and appreciation of the cost of regulation on the profession. The plan outlines the profession's ability to support the mandatory functions and includes the estimated financial resources required to provide these functions, and the profession's ability to generate the necessary financial resources through registration and ancillary fees. In order for the College of Paramedics of Ontario to be economically self-sustainable, the College would require:

- Revenue generation to support the required expenditures and additional specific costs relating to the College of Paramedics
- Allocate expenses to meet the mandatory functions under the *Regulated Health Professions Act*.

MANDATORY FUNCTIONS UNDER *RHPA*

1. Establishing requirements for entry to practice
2. Developing and promoting practice standards
3. Administering quality assurance programs
4. Enforcing standards of practice and conduct
5. Participating in the legislative/regulatory processes
6. Collecting and sharing statistical information about members

FINANCIAL FRAMEWORK OF THE COLLEGE

In order to assess the viability and sustainability of the College, the 2011 Financial Statements with specific focus on the Statement of Operations were compared among the 11 existing self-regulated Colleges[17]. After normalizing revenues and expenditures for depreciation and passive investment income, each College was analyzed for annual financial self-sustainability. Expenditures were also studied to provide reasonable ranges on a per capita basis.

[17] College of Audiologists and Speech-Language Pathologists of Ontario, College of Chiropractors of Ontario, College of Dental Hygienists of Ontario, College of Dietitians of Ontario, College of Massage Therapists of Ontario, College of Medical Laboratory Technologists of Ontario, College of Medical Radiation Technologists of Ontario, College of Occupational Therapists of Ontario, College of Optometrists of Ontario, College of Physiotherapists of Ontario, Royal College of Dental Surgeons of Ontario

REVENUE GENERATION

MEMBERSHIP FIGURES

Current estimates put membership for paramedics providing both urgent and non-urgent care at 7,000 (MOHLTC EHSB website; HPRAC Backgrounder)

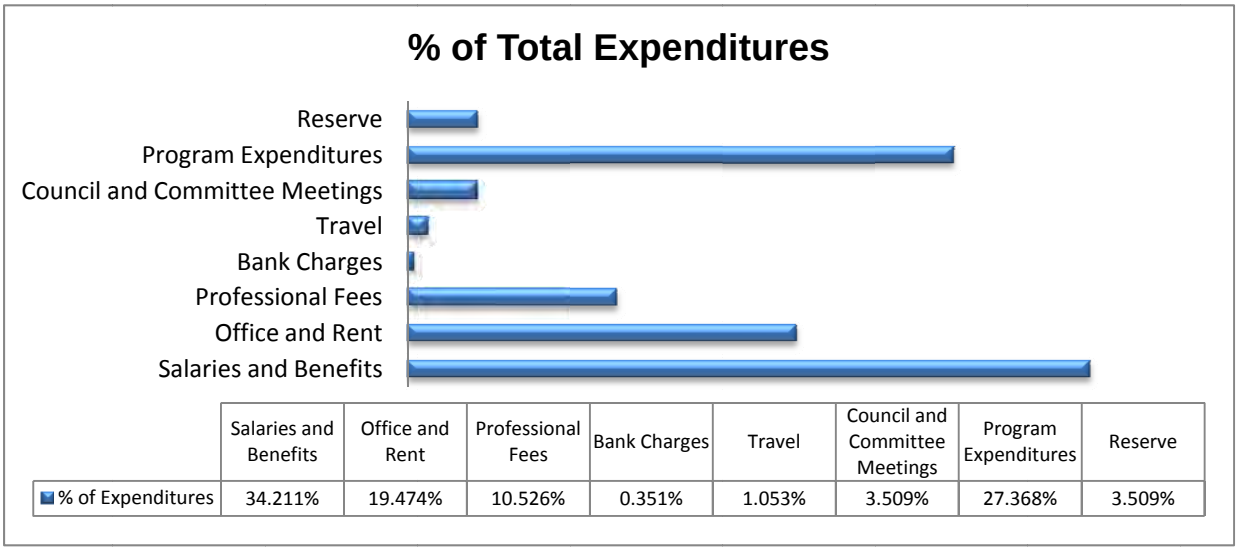
REVENUE COLLECTABILITY ADJUSTMENT

The existing regulated Colleges were examined on actual membership revenue collection on both a per capita basis and aggregate average. Exam fees and registration fees were also aggregated with membership revenues. The result was annual membership dues of $500 per member, which made the College of Medical Radiation Technologists of Ontario an ideal financial model. Furthermore, to account for partial memberships or deferred revenue, the collectability was assessed to be at 83%.[18]

EXPENDITURES

The distribution of normalized expenditures was studied among the Colleges on a percentage of total normalized expenditures and a per capita basis. After using the figures as a reference point, amounts were reallocated to adjust for functions that would be more specific to the College of Paramedics of Ontario.

PERCENTAGE DISTRIBUTIONS



	Salaries and Benefits	Office and Rent	Professional Fees	Bank Charges	Travel	Council and Committee Meetings	Program Expenditures	Reserve
% of Expenditures	34.211%	19.474%	10.526%	0.351%	1.053%	3.509%	27.368%	3.509%

[18] Based on the College of Medical Radiation Technologists of Ontario 2011 Statement of Operations to actual 6,707 members paying $530 per annual dues

BUDGETED STATEMENT OF OPERATIONS COLLEGE OF PARAMEDICS OF ONTARIO

Revenues		
Membership Fees		$ 2,900,000
Expenses		
Management Salaries	300,000	
Office Staff	500,000	
Health and Pension	175.000	
Total Salaries and Benefits		975,000
Rent	200,000	
Building Insurance	10,000	
Postage & Courier	60,000	
Stationary & Supplies	110,000	
Information Management	175,000	
Total Office and Rent		555,000
Legal Fees	50,000	
Liability Insurance	150,000	
Accounting and Audit Fees	30,000	
Honoraria	30,000	
Sub-contracts	40,000	
Total Professional Fees		300,000
Bank Charges		10,000
Travel		30,000
Council and Committee Meetings		100,000
Communications	150,000	
Quality Assurance	250,000	
Investigation and Hearings	230,000	
Other Programs	150,000	
Total Program Expenses		780,000
Reserve		100,000
Total Expenditures		$ 2,850,000
Excess Revenues over Expenditures		$ 50,000

Appendix D. Legislation in Other Jurisdictions

Canadian Legislation

Paramedics are self-regulated in Alberta, Saskatchewan and New Brunswick, and similar legislation has received royal assent in Nova Scotia. The Paramedic Association of Manitoba has filed an application for self-regulatory status in that province and is currently awaiting review.

The legislation regulating paramedics in other Canadian jurisdictions is as follows:

Manitoba: *Emergency Medical Response and Stretcher Transportation Act*, C.C.S.M. c. E83. *Land Emergency Medical Response System Regulation*, E83 – M.R. 22/2006. *Air Emergency Medical Response System Regulation*, E83 – M.R. 20/2006. *Stretcher Transportation Services Regulation*, E83 – M.R. 21/2006.

Alberta: *Emergency Health Services Act,* R.S.A. 2008, c. E-6.6 and *Emergency Health Services (Interim Regulation)*, Alta. Reg. 76/2009, *Staff, Vehicle and Equipment Regulation*, Alta. Reg. 45/1999, *Health Disciplines Act*, R.S.A. 2000, c. H-2; *Health Professions Act*, R.S.A. 2000, c. H-7. The *Emergency Medical Technicians Regulation*, Alta. Reg. 48/1993, defines scope of practice.

British Columbia: *Emergency and Health Services Act*, R.S.B.C. 1996, c. 182. The *Emergency Medical Assistants Regulation*, B.C. Reg. 210/2010 defines scope of practice.

New Brunswick: *Ambulance Services Act*, S.N.B. 1990, c A-7.3. The Paramedic Association of New Brunswick has been given the authority to define scope of practice in its bylaws.

Nova Scotia: *Emergency Health Services Act*, S.N.S. 2005, c. 5. Note that the *Paramedics Act*, S.N.S. 2005, c. 10 has been passed but has yet to be proclaimed in force. Scope of practice in this province is defined through the paramedic employer.

Prince Edward Island: *Public Health Act*, R.S.P.E.I. 1988, c P-30. The Emergency Medical Services Regulations, P.E.I. Reg. EC472/00, defines scope of practice in a schedule.

Quebec: *An Act respecting pre-hospital emergency services*, RSQ, c S-6.2 and *Regulation respecting the professional activities that may be engaged in within the framework of pre-hospital emergency services and care*, RRQ, c M-9, r 2;

Saskatchewan: *Paramedics Act*, S.S. 2007, c P-0.1 and *Ambulance Regulations*, RRS c A-18.1 Reg 1. The Saskatchewan Emergency Treatment Protocol Manual outlines a scope of practice for each license.

In Canada, five provinces (Alberta, British Columbia, Ontario, Prince Edward Island and Quebec) define scope of practice through regulations, Nova Scotia defines scope of

practice through the paramedic employer, New Brunswick sets out its scope of practice in a bylaw and Saskatchewan uses its protocol manual.

A comprehensive listing of relevant American and international legislation and a listing of their respective scope of practice statements is not available to the OPA. The relevant legislation in the five most populous U.S. States (California, Florida, Illinois, New York and Texas) and in North Dakota, and Minnesota is as follows

American Legislation

California Health and Safety Code, Division 2.5 (Emergency Medical Services) (a.k.a. the Emergency Medical Services System and the Prehospital Emergency Medical Care Personnel Act); California Code of Regulations, Title 22, Division 9, Chapter 4 (Emergency Medical Technical Paramedic), California Code of Regulations, Title 22, Division 9, Chapter 3 (Advanced Emergency Medical Technician); California Code of Regulations, Title 22, Division 9, Chapter 2 (Emergency Medical Technicians); California Code of Regulations, Title 22, Division 9, Chapter 8 (Prehospital EMS Air Regulations); California Code of Regulations Title 22, Division 9, Chapter 11 (EMS Continuing Education)

Florida Statutes, Chapter 64J-1 (Emergency Medical Services); Florida Statutes, Chapter 401, Part III (Medical Transportation Services)

Illinois Emergency Medical Services Systems Act, 210 ILCS 50

New York State Public Health Laws, Article 30 (Emergency Medical Services); New York State Emergency Medical Services Code, Title 10, Part 800

Texas Health and Safety Code, Title 9, Subtitle B, Chapter 773 (Emergency Medical Services); Texas Administrative Code, Title 1, Part 1, Chapter 157 (Emergency Medical Services - Part A)

North Dakota Statutes, chapter 23-27 (Emergency Medical Services Licenses)

Minnesota Statutes 2010, chapter 144E (Emergency Medical Services Regulatory Board) and Minnesota Rules, chapter 4690 (Ambulance Services)

International Legislation

Australia: *Public Health Act 2005* (Queensland); *Ambulance Service Act 1991* (Queensland); Health, Drugs and Poisons Regulation 1996 (Queensland)

United Kingdom: *Health Professions Order 2001*

Appendix E. Ontario Paramedic Association Code of Ethics

The practice of Paramedicine requires knowledge and compassion, along with concern and sensitivity for the well being of the patient. In keeping with this philosophy, every Paramedic shall:

- Maintain certification with their respective ambulance services and the governing base hospital(s).
- Conserve life, alleviate pain and suffering and promote health.
- Provide care based on human need with respect for human dignity, unrestricted by consideration of nationality, race, creed, colour, status, sex, religion, sexual orientation, type of illness, or mental or physical disability.
- Without fail, protect and maintain the patient's safety, dignity and privacy.
- Preserve and protect the confidentiality of any information, either medical or personal, acquired through professional contact with a patient, except where the disclosure of such information is necessary to the treatment of the patient and the safety of other health care professionals or is required by the employer or the law.
- Not use professional knowledge, skills, equipment or pharmaceuticals in any enterprise detrimental to the profession or the public well being.
- During the performance of her/his duties he or she will conduct themselves in a manner that will reflect credit upon the profession.
- Encourage the trust and confidence of the public through high standards of professional practice, conduct, competence and appearance (Ontario Paramedic Association website).

Appendix F. Ontario Paramedic Association 2013 Survey of Support for Paramedic Self-Regulation

Survey of Support for Paramedic Self-Regulation – Preliminary Report

March 13, 2013

Conducted by DeL Services

Sponsored by the Ontario Paramedic Association

Introduction

In November, 2012, the Health Professions Regulatory Advisory Council asked the Ontario Paramedic Association (OPA) to complete an application to regulate paramedics under the *Regulated Health Professions Act, 1991*, in response to a request from the Minister of Health and Long-Term Care. One component of this application asked that the OPA "describe any consultation process undertaken" to determine whether "members of the profession/association want self-regulation".

In order to determine the level of support for self-regulation among paramedics in Ontario, the OPA conducted an online survey using FluidSurveys (Chide.it Inc.).

Methodology

The survey was conducted between February 26 and March 11, 2013, and was publicized through the OPA's website, through Facebook and Twitter, on the website of associated organizations such as the Professional Paramedic Association of Ottawa and the Toronto Paramedic Association, and through an email and attachment sent on February 26, 2013 to the Chiefs of Ontario's 51 paramedic services with a request to forward it to all paramedic employees (see Annex 1).

The survey consisted of a preliminary question asking for respondents' permission to collect personal data (name, employer, and ID numbers), followed by a series of branching questions relating to professional status. Three short paragraphs explaining the OPA's position introduced the single survey question, which asked the respondent to "Please indicate your level of support for paramedic self-regulation under a College of Paramedics" using a five-point Likert item from "Strongly Agree" to "Strongly Disagree" (for questionnaire, see Annex 2). Finally, respondents were asked for their comments.

For validation purposes, respondents were asked to provide their name and either (i) paramedic service and OASIS number (for paramedics currently working for Emergency Medical Services (EMS)), (ii) name of employer and A-EMCA number (for paramedics working for companies other than EMS), (iii) name of educational institution for paramedic educators, or (iv) name of paramedic service for former paramedics.

Data were exported into Microsoft Excel (Redwood, CA, USA) for validation, analysis and formatting, and charts were constructed using all data. The survey was carried out by DrL Services, Ottawa, and was commissioned by the Ontario Paramedic Association.

Results

Responses were validated against the data requested, and to eliminate duplications. Eleven responses were eliminated because they lacked sufficient validation data, and 104 responses were found to be duplicates (i.e., 52 respondents had completed the survey twice). Analysis of the latter showed that responses of more than half of the respondents (29) could be retained,

as they had reiterated their previous preference or had attached a comment indicating a change of preference. Seventeen respondents were excluded from the analysis as their duplicate responses were contradictory without comment (e.g., shifting from Neither Agree nor Disagree to Agree/Strongly Agree or to Disagree/Strongly Disagree, or from Agree/Strongly Agree to Disagree/Strongly Disagree), thus the indicated preference could not be validly determined. A further six respondents revised their responses to shift them in one direction of the scale (e.g., from Agree to Strongly Agree or from Disagree to Strongly Disagree). These responses have been included in the final total showing aggregate preferences in one direction or the other (Figure 7).

1,821 unambiguous valid responses were received during the survey period, 1,731 (95.3%) from paramedics working for EMS, 34 (1.9%) from paramedics not working for EMS, 15 (0.8%) from paramedic educators and 37 (2.0%) from former paramedics. Of this total, 989 (54.3%) indicated Strongly Agree, 363 (19.9%) Agree, 133 (7.3%) indicated Neither Agree nor Disagree, 95 (5.25) indicated Disagree and 241 (13.2%) indicated Strongly Disagree) (Figure 1).

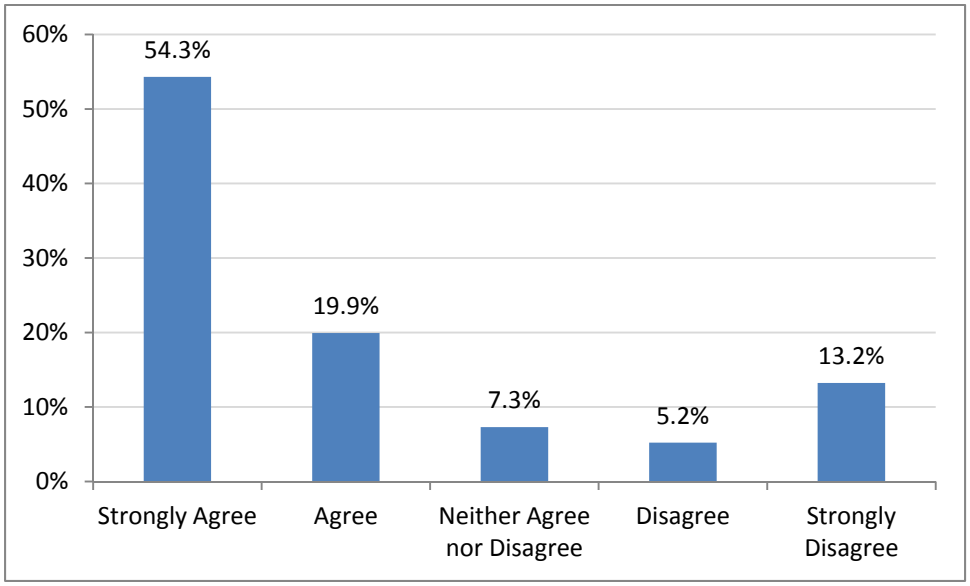


Figure 4. Ontario Paramedic Association 2013 Survey of Support for Self-Regulation – All Responses (n=1,821)

Figures 2 – 5 show the survey responses by each category of respondent.

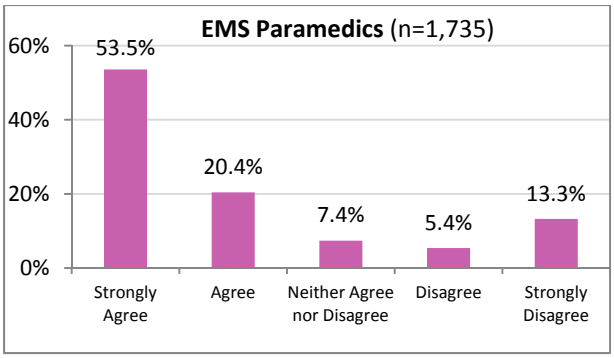


Figure 2

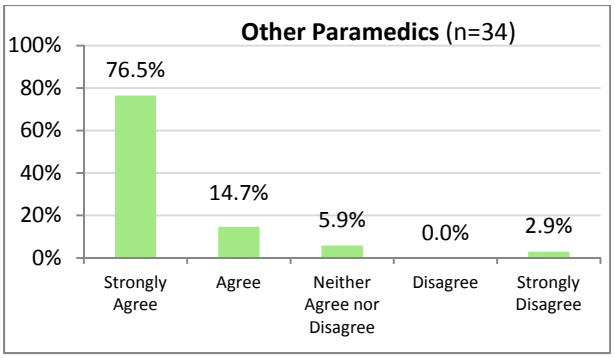


Figure 3

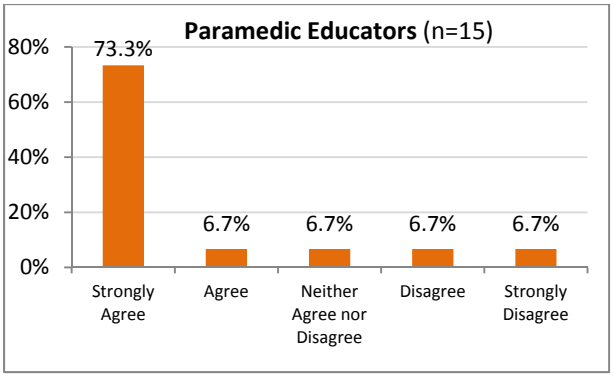


Figure 4

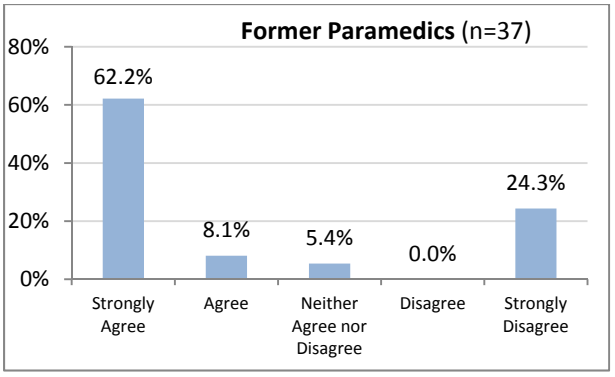


Figure 5

Figure 6 shows the aggregate data by response category. Given the ratio of responses, the paramedic category dominates the others.

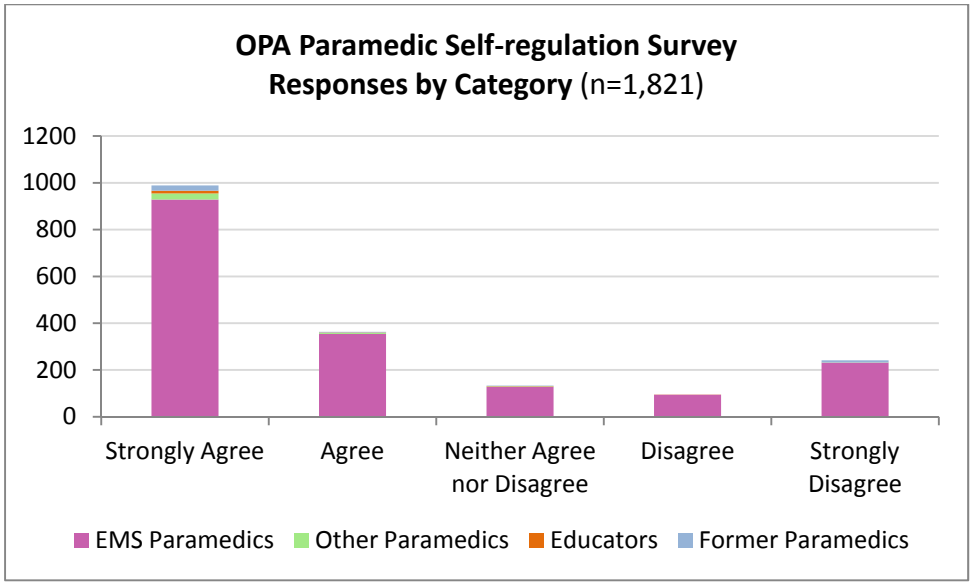


Figure 6

Figure 7 shows the survey responses aggregated in terms of those in favour (Agree/Strongly Agree), those neutral (Neither Agree nor Disagree) and those not in favour (Disagree/Strongly Disagree). (Note that for this aggregation, six responses have been included that were excluded from the above analyses, i.e., n=1827).

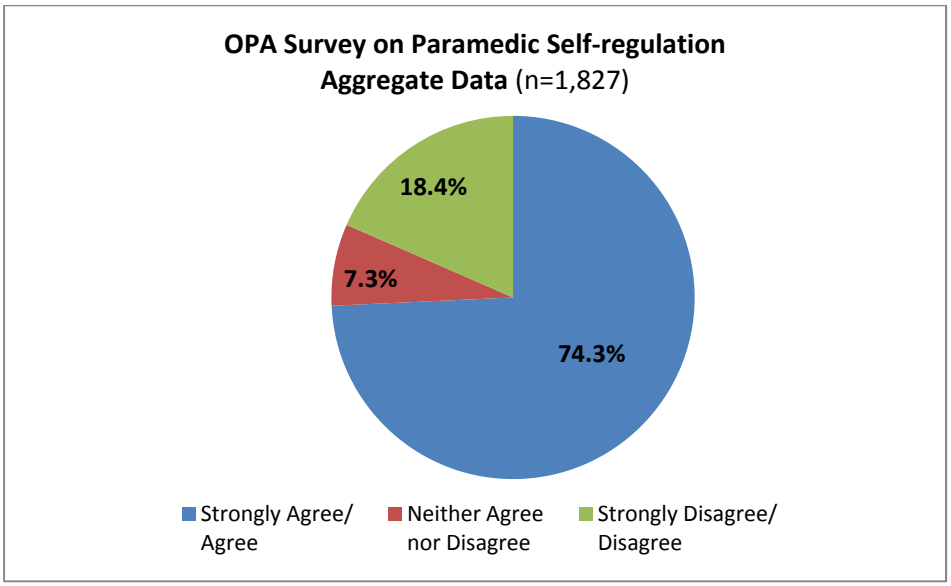


Figure 7

Discussion

Although the survey results show strong support for the question asked by the OPA, there are limitations to the survey. First, although there was a reasonably high rate of response among paramedics working for EMS (1,735 of an estimated total of 7,000, or almost 25%) as this is a preliminary report, the data have not yet been broken down by EMS or Paramedic Service. Therefore, the success of the OPA's distribution of the survey call letter to EMS has not yet been determined, and it is possible that responses from larger EMS, such as those in Toronto and Ottawa, are dominating the results. Second, there was no distribution of the call letter to private medical transportation and medical event services companies or to paramedic education institutions, as such contacts were not readily available in the timeframe within which the survey was constructed and publicized. Therefore, the low response rates from these groups, particularly the former, who it is estimated may number around 3,000, cannot be construed as representative, particularly as the survey addresses an issue that, it is believed, would be of great interest to that group.

Annex 1. OPA Letter to EMS

February 26, 2013
Attention: paramedics

Dear Colleagues,

As many of you are aware, the Ontario Paramedic Association (OPA) has been asked to submit an application for paramedics in Ontario to be regulated under the *Regulated Health Professions Act 1991* (RHPA). It has been the goal of the OPA and its members to seek professional status and protection of the title of "paramedic" for paramedics since 1995. Self-regulation of paramedics under the Regulated Health Professions Act has been an issue for many years. A 1998 report from the *Land Ambulance Transition Task Force* recommended this step "to address the key deficiencies of the ambulance service regulatory framework". The OPA proposes a streamlined system with a single regulatory body under which paramedics will be responsible for their own scope of practice.

As described by the Health Professions Regulatory Advisory Council, the regulatory framework of the RHPA is a "regulatory system that enables each of Ontario's thousands of health professionals to contribute to patient care to the full extent of their training and abilities, to collaborate with each other so that the efforts of all are deployed to produce the best possible results for patients, and to respond with up-to-date skills and a deep sensitivity to the rising expectations of today's health care consumers". At present there are over 20 health professions that have transitioned under this legislation including nurses, pharmacists, respiratory therapists and physicians, just to name a few.

You can visit the OPA's website to learn more about how self-regulation will affect paramedics:
http://www.ontarioparamedic.ca/professional_self-regulatio/paramedic_faqs/

To respond to the Minister's request, and to help our profession take the next step in establishing credibility in the health care system and in the public eye, we need to hear from you. We need to hear from as many paramedics as possible to indicate the profession's support for the formation of a new regulatory College. Please complete the OPA's online survey at:
http://fluidsurveys.com/s/opa-self-regulation/survey/

The survey will be available until **March 11, 2103** at **12:00 noon**.

Thank you for your participation.

Rob Theriault BHSc., EMCA, RCT(Adv.), CCP(f)
President, Ontario Paramedic Association
rob.theriault@ontarioparamedic.ca

Ontario Paramedic Association:
MAPLERIDGE RPO 1875 LANSDOWNE ST W POBOX 21016 PETERBOROUGH ONTARIO K9J 8M7
1-800-OPA-LINE

Annex 2. OPA Survey Questionnaire

ONTARIO PARAMEDIC ASSOCIATION - SURVEY ABOUT PARAMEDIC SELF-REGULATION

Welcome

Welcome to the Ontario Paramedic Association's survey about paramedic self-regulation in Ontario. We are interested in the opinions of all paramedics and paramedic graduates in Ontario.

Privacy Statement

In order to collect valid data, this survey asks for three pieces of personal information: your name, your OASIS # or AEMCA # (if not currently working for a paramedic service), and your employer. The Ontario Paramedic Association (OPA) is committed to keeping your personal information confidential, secure and private. This information will only be used to ensure that each response is valid, and will not be used for any other purpose or disclosed to any third parties.The data will be retained by the OPA using a secure password protected electronic file storage system until the Ministry of Health and Long-Term Care (MOHLTC) reaches a decision on the OPA's application or as necessary to comply with any legislative requirements, whichever is longer, after which time it will be destroyed.

Permission

I agree to allow the Ontario Paramedic Association to collect my personal information for the purposes of validating this survey. ("No" terminates the survey.)

- ○ Yes
- ○ No

Name (required)

First Name ☐

Last Name ☐

Employment information for validation purposes

Employment

Do you currently work for an Ontario paramedic service?

- ○ Yes
- ○ No

Name of Paramedic Service

Please provide the name(s) of the paramedic services for which you work.

Primary Paramedic Service (required)

Second Paramedic Service (optional)

Third Paramedic Service (optional)

OASIS Number

Please provide your OASIS number.

Other Paramedic Employment

Do you currently work for a private company that employs people with paramedic training (e.g., non-emergency medical transportation services, event medical services, etc.)?

- ○ Yes
- ○ No

Private Medical Services

Please provide the name of the company you work for and, if available, your A-EMCA number.

Name of Company

A-EMCA Number

Educational Institution

Do you currently work for an educational institution providing paramedic education?

- ○ Yes
- ○ No

Name of Educational Institution

Please provide the name of the educational institution you work for.

Other

Are you a former paramedic?

- ○ Yes
- ○ No

Previous Employment

Please provide the name of the Paramedic Service for which you used to work.

About Paramedic Self-Regulation

Dear Colleague,

As many of you are aware, the Ontario Paramedic Association (OPA) has been asked to submit an application for paramedics in Ontario to be regulated under the Regulated Health Professions Act 1991 (RHPA). It has been the goal of the OPA and its members to seek professional status and protection of the title of "paramedic" for paramedics since 1995. Self-regulation of paramedics under the Regulated Health Professions Act has been an issue for many years. A 1998 report from the Land Ambulance Transition Task Force recommended this step "to address the key deficiencies of the ambulance service regulatory framework".The OPA proposes a streamlined system with a single regulatory body under which paramedics will be responsible for their own scope of practice. As described by the Health Professions Regulatory Advisory Council, the regulatory framework of the RHPA is a "regulatory system that enables each of Ontario's thousands of health professionals to contribute to patient care to the full extent of their training and abilities, to collaborate with each other so that the efforts of all are deployed to produce the best possible results for patients, and to respond with up-to-date skills and a deep sensitivity to the rising expectations of today's health care consumers". At present there are over 20 health professions that have transitioned under this legislation including nurses, pharmacists, respiratory therapists and physicians, just to name a few.To respond to the Minister's request, and to help our profession take the next step in establishing credibility in the health care system and in the public eye, we need to hear from you. We need to hear from as many paramedics as possible to indicate the profession's support for the formation of a new regulatory College.

Please indicate your level of support for paramedic self-regulation under a College of Paramedics

- ○ Strongly Agree
- ○ Agree
- ○ Neither Agree nor Disagree
- ○ Disagree
- ○ Strongly Disagree

Do you have any comments?

Thank you for taking the time to look at our survey.

Appendix G. Letters of Support

SASKATCHEWAN COLLEGE OF PARAMEDICS

February 22, 2013

Ontario Paramedic Association
1875 Lansdowne St. W.
Peterborough, Ontario K9J 8M7

Dear Mr. Theriault,

I am writing to you in support of the efforts occurring in Ontario to obtain self-regulatory status for paramedics.

The Saskatchewan College of Paramedics supports the privilege of self-regulation for all paramedics in Canada, including Ontario. Self-regulation would ensure that Ontario paramedics have the ability to service and protect the public through the registration, licensing, educating and disciplining of members of their self-regulated college.

Sincerely,

Derek Dagenais
President

cc. Sheri Hupp, Executive Director

851 Argyle Street North • Regina, SK • S4R 8H1 • Phone: 1-306-585-0145 • Toll Free: 1-877-725-4202 • Fax: 1-306-543-6161
office@collegeofparamedics.sk.ca • www.collegeofparamedics.sk.ca

COLLEGE OF MIDWIVES OF ONTARIO
ORDRE DES SAGES-FEMMES DE L'ONTARIO

February 28, 2013

Rob Theriault
President, Ontario Paramedic Association
Mapleridge R. P. O.
P. O. Box #21016
Peterborough, ON K9J 8M7
rob.theriault@ontarioparamedic.ca

Dear Mr. Theriault,

I am writing to you to offer the College of Midwives of Ontario's support to the regulation of paramedics through the Regulated Health Professions Act (1991) (RHPA) in Ontario. We understand that this has been a long process for paramedics in the province and are pleased to hear that HPRAC is reviewing an application from your association in the coming weeks.

Paramedics and midwives work together across the province attending to women in labour when transport to hospital is required and at home births when extra hands and support are needed. Most recently, the College has engaged with local EMS units in consultation around birth centre planning; these contributions were extremely beneficial to all parties and have allowed for an understanding of the work that midwives and paramedics do and where they overlap.

Midwives have almost twenty years of experience in regulation in Ontario and the growth of the profession has served thousands of Ontario women and families. As the regulators of this profession we are able develop standards and policies that reflect changes in midwifery care and the health care system overall at a provincial level. The benefits of regulation are known to you and should be made available so that all Ontario residents can be assured of regulated paramedic services.

We hope to hear in the coming months that paramedics will be self-regulated in order to fulfill their work in protecting the public and enhancing access to health care across the province.

Kind regards,

Barb Borland, RM
President - CMO

cc: Robin Kilpatrick, Registrar, CMO

21 St. Clair Avenue East, Suite 303, Toronto, ON M4T1L9 **Tel** 416 640 2252 **Fax** 416 640 2257 **Email** president@cmo.on.ca

College of Massage Therapists of Ontario

March 7, 2013

Rob Theriault BHSc., EMCA, RCT(Adv.), CCP(f), President
Ontario Paramedic Association
Mapleridge RPO
1875 Lansdowne Street West
PO Box 21016
Peterborough ON K9J 8M7
rob.theriault@ontarioparamedic.ca

Via e-mail

Dear Rob:

Re: Paramedic Self-regulation

The College's Executive Committee has now had the opportunity to discuss your letter dated February 20, 2013 regarding self-regulation of paramedics in Ontario, under the provisions of the *Regulated Health Professions Act, 1991 (RHPA).*

The College of Massage Therapists of Ontario (the "College") is in support of the Ontario Paramedic Association and its application for self-regulation under the RHPA. The College is of the opinion that self-regulation of the paramedic profession is appropriate to ensuring that paramedic care is provided in accordance with standards and in a safe and ethical manner for all Ontarians and that the public retains access to the governance processes of paramedics.

Regards,

Corinne Flitton
Registrar and CEO
College of Massage Therapists of Ontario

ONTARIO ASSOCIATION OF PARAMEDIC CHIEFS
1 Yonge Street, Suite 1801, Toronto, ON M5E 1W7
www.emsontario.ca

March 9, 2013

Robert Theriault
President
Ontario Paramedic Association

Dear Mr Theriault:

Re: OAPC Position on Paramedics Self-Regulation

The Ontario Association of Paramedic Chiefs (OAPC) endorses self-regulation for paramedics.

This has been an important issue since the Land Ambulance Transition Taskforce recommended self-regulation for paramedics in its 1998 Review of the Ambulance Act and Regulations.

The OAPC asserts that paramedic self-regulation is a necessary and appropriate direction for Ontario's paramedics. The profession is ready for self-regulation, and it is in the best interests of our patients.

Sincerely,

Norm Gale
President

c: Dr Jason Prpic, Chair, MAC
Mr Robert Burgess, Chair, OBHG

President Norm Gale
Email: ngale@thunderbay.ca
Telephone: 807 625-3259

Executive Director Jim Price
Email: x.d@emsontario.ca
Telephone: 519 878-7367

ONTARIO BASE HOSPITALS

ONTARIO BASE HOSPITAL GROUP EXECUTIVE

January 28, 2013

Attention: Rob Theriault, President

Via Email/Regular Mail
rob.theriault@ontarioparamedic.ca

Ontario Paramedic Association
Mapleridge R. P. O.
P. O. Box #21016
Peterborough, ON K9J 8M7

Dear Mr. ~~Theriault~~ Rob:

Subject: Request for Information

Thank you for your letter dated January 17, 2013 wherein you requested information related to quality assurance activities and medical directives from the base hospital programs.

Following our recent discussions with you, representatives from the eight provincial base hospital programs held a teleconference to review your request. Unfortunately, we will not be able to provide you with the desired information in the time frame indicated in your letter.

The provincial base hospital programs support the concept of a professional body for paramedics and would like to meet with you to discuss the application and review process in greater detail.

We would be pleased to arrange this meeting at the earliest opportunity.

Sincerely,

Robert Burgess, BHSc, AEMCA, ACP, CQIA
Interim Chair, Ontario Base Hospital Group

cc: Dr. Jason Prpic, Chair, Provincial Medical Advisory Committee
OBHG Executive Members
Provincial MAC Members

GEORGIAN
COLLEGE

One Georgian Drive
Barrie, ON L4M 3X9
(T) 705.728.1968
(F) 705.722.5123
www.georgiancollege.ca

Monday, March 11, 2013

Attention: Rob Theriault
President, Ontario Paramedic Association

Dear Mr. Theriault,

I am writing to express my support for the Ontario Paramedic Association's (OPA) application to the Health Professions Regulatory Advisory Council (HPRAC) for self-regulation under the Regulated Health Professions Act (1991).

As a paramedic educator, I have a deep understanding of the challenges and complexities of a paramedic practice. Currently, paramedics are not regulated and although they have functioned well in providing safe client care, the opportunity exists to engage paramedics in new roles within the community and primary care. These new specialty roles will likely evolve in expanding paramedic practice within the community and in non-traditional settings. To have self-regulation would allow paramedics to participate more efficiently and effectively in health care delivery. A college of paramedics will also ensure competent, ethical, professional and compassionate care and be accountable to the public with the care they provide.

For these reasons, I believe that self-regulation for Ontario's paramedics is appropriate, and wholeheartedly support the OPA's application.

Sincerely,

Randi McDermott, RN
Coordinator, Paramedic Programs
Georgian College

ALGONQUIN COLLEGE | Police & Public Safety Institute

January 31, 2013

Attention: Rob Theriault
President, Ontario Paramedic Association

Dear Mr. Theriault

I am writing to express my support for the Ontario Paramedic Association's (OPA) application to the Health Professions Regulatory Advisory Council (HPRAC) for self-regulation under the *Regulated Health Professions Act (1991)*.

As a paramedic educator, I have a deep understanding of the challenges and complexities of paramedic practice. Although the current regulatory system has functioned well in ensuring patient safety in out-of-hospital emergency situations, as paramedic practice becomes increasingly aligned with primary health care delivery, new specialties evolve such as community paramedicine and more and more paramedic graduates work in non-traditional roles, self-regulation would allow paramedics to participate more efficiently and effectively in health care delivery. A college of paramedics will also ensure competent, ethical and compassionate care and give the public a greater say in the care they receive.

For these reasons, I believe that self-regulation for Ontario's paramedics' is essential and wholeheartedly support the OPA's application.

Sincerely,

Jim Whittle

Jim Whittle
Coordinator
Paramedic program
Algonquin College
1385 Woodroffe Ave.
Ottawa, ON, K2G 1V8
613-727-4723 ext.6047
whittlj@algonquincollege.com

CENTENNIAL COLLEGE

January 30, 2012

Attention: Rob Theriault
President, Ontario Paramedic Association

Dear Mr. Theriault

I am writing to express my support for the Ontario Paramedic Association's (OPA) application to the Health Professions Regulatory Advisory Council (HPRAC) for self-regulation under the *Regulated Health Professions Act (1991)*.

As a paramedic educator, I have a deep understanding of the challenges and complexities of paramedic practice. Although the current regulatory system has functioned well in ensuring patient safety in out-of-hospital emergency situations, as paramedic practice becomes increasingly aligned with primary health care delivery, new specialties evolve such as community paramedicine and more and more paramedic graduates work in non-traditional roles, self-regulation would allow paramedics to participate more efficiently and effectively in health care delivery. A college of paramedics will also ensure competent, ethical and compassionate care and give the public a greater say in the care they receive.

For these reasons, I believe that self-regulation for Ontario's paramedics is appropriate, and wholeheartedly support the OPA's application.

Sincerely,

Walter Tavares, ACP, PhD(c)
Coordinator of Paramedic Programs and Research
Centennial College
416-289-5000 ext 8018
wtavares@centennialcollege.ca

February 04, 2013

Attention: Rob Theriault
President, Ontario Paramedic Association

Dear Mr. Theriault

I am writing to express my support for the Ontario Paramedic Association's (OPA) application to the Health Professions Regulatory Advisory Council (HPRAC) for self-regulation under the *Regulated Health Professions Act (1991)*.

As a paramedic educator, I have a deep understanding of the challenges and complexities of paramedic practice. Although the current regulatory system has functioned well in ensuring patient safety in out-of-hospital emergency situations, as paramedic practice becomes increasingly aligned with primary health care delivery, new specialties evolve such as community paramedicine and more and more paramedic graduates work in non-traditional roles, self-regulation would allow paramedics to participate more efficiently and effectively in health care delivery. A college of paramedics will also ensure competent, ethical and compassionate care and give the public a greater say in the care they receive.

For these reasons, I believe that self-regulation for Ontario's paramedics is appropriate, and wholeheartedly support the OPA's application.

Sincerely,

Jessica Dykes, ACP-F

Professor/Coordinator, Confederation College

DURHAM COLLEGE
SUCCESS MATTERS

February 25, 2013

Attention: Rob Theriault
President, Ontario Paramedic Association

Dear Mr. Theriault

I am writing to express my support for the Ontario Paramedic Association's (OPA) application to the Health Professions Regulatory Advisory Council (HPRAC) for self-regulation under the *Regulated Health Professions Act (1991)*.

As a paramedic educator, I have a deep understanding of the challenges and complexities of paramedic practice. Although the current regulatory system has functioned well in ensuring patient safety in out-of-hospital emergency situations, as paramedic practice becomes increasingly aligned with primary health care delivery, new specialties evolve such as community paramedicine and more and more paramedic graduates work in non-traditional roles, self-regulation would allow paramedics to participate more efficiently and effectively in health care delivery. A college of paramedics will also ensure competent, ethical and compassionate care and give the public a greater say in the care they receive.

For these reasons, I believe that self-regulation for Ontario's paramedics is appropriate, and wholeheartedly support the OPA's application.

Sincerely,

Ralph Hofmann MA, BSc, ACP
Paramedic Program Coordinator
Durham College of Applied Arts and Technology
2000 Simcoe Street North, Oshawa, L1H7K4

Oshawa Campus
2000 Simcoe Street North
Oshawa, Ontario, Canada L1H 7K4
T: 905 721 2000
www.durhamcollege.ca

February 1, 2013

Attention: Rob Theriault
President, Ontario Paramedic Association

Dear Mr. Theriault

I am writing to express my support for the Ontario Paramedic Association's (OPA) application to the Health Professions Regulatory Advisory Council (HPRAC) for self-regulation under the *Regulated Health Professions Act (1991)*.

As a paramedic educator, I have a deep understanding of the challenges and complexities of paramedic practice. Although the current regulatory system has functioned well in ensuring patient safety in out-of-hospital emergency situations, as paramedic practice becomes increasingly aligned with primary health care delivery, new specialties evolve such as community paramedicine and more and more paramedic graduates work in non-traditional roles, self-regulation would allow paramedics to participate more efficiently and effectively in health care delivery. A college of paramedics will also ensure competent, ethical and compassionate care and give the public a greater say in the care they receive.

For these reasons, I believe that self-regulation for Ontario's paramedics is appropriate, and wholeheartedly support the OPA's application.

Sincerely,

Mary Osinga, BSc, CCP(F)

Critical Care Paramedic (f) for Ornge
Coordinator, Paramedic Program
Sir Sandford Fleming College
599 Brealey Drive, Rm 436C
Peterborough, Ontario
K9J 7B1
mosinga@flemingc.on.ca
705 749 5520 (ext1733)
(866) 353-6464
fax: (705) 749-5540
www.flemingc.on.ca

February 05, 2013

Attention: Rob Theriault
President, Ontario Paramedic Association

Dear Mr. Theriault

I am writing to express my support for the Ontario Paramedic Association's (OPA) application to the Health Professions Regulatory Advisory Council (HPRAC) for self-regulation under the *Regulated Health Professions Act (1991)*.

As a paramedic educator, I have a deep understanding of the challenges and complexities of paramedic practice. Although the current regulatory system has functioned well in ensuring patient safety in out-of-hospital emergency situations, as paramedic practice becomes increasingly aligned with primary health care delivery, new specialties evolve such as community paramedicine and more and more paramedic graduates work in non-traditional roles, self-regulation would allow paramedics to participate more efficiently and effectively in health care delivery. A college of paramedics will also ensure competent, ethical and compassionate care and give the public a greater say in the care they receive.

For these reasons, I believe that self-regulation for Ontario's paramedics is appropriate, and wholeheartedly support the OPA's application.

Sincerely,

Neil Freckleton, ACP

LOYALIST
MY COLLEGE • MY FUTURE

February 5, 2013

Attention: Rob Theriault
President, Ontario Paramedic Association

Dear Mr. Theriault

I am writing to express my support for the Ontario Paramedic Association's (OPA) application to the Health Professions Regulatory Advisory Council (HPRAC) for self-regulation under the *Regulated Health Professions Act (1991)*.

As a paramedic educator, I have a deep understanding of the challenges and complexities of paramedic practice. Although the current regulatory system has functioned well in ensuring patient safety in out-of-hospital emergency situations, as paramedic practice becomes increasingly aligned with primary health care delivery, new specialties evolve such as community paramedicine and more and more paramedic graduates work in non-traditional roles, self-regulation would allow paramedics to participate more efficiently and effectively in health care delivery. A college of paramedics will also ensure competent, ethical and compassionate care and give the public a greater say in the care they receive.

For these reasons, I believe that self-regulation for Ontario's paramedics is appropriate, and wholeheartedly support the OPA's application.

Sincerely,

Mr. F.W.J. (Kelly) Sheppard. D.H.Sc(c), M.Ed, BhlthSc, CCP, ACP, AEMCA.
Coordinator Pre Hospital Care & Paramedic Programs
Loyalist College Bancroft Campus
Ksheppard@loyalistc.on.ca
Phone (613) 332-1743, Ext 245
Fax (613) 332-4773

Loyalist College, Bancroft Campus
195 Hastings St. N .O. Box 10 Bancroft , On. K0L 1C0
www.loyalistbancroft.on.ca