



**Paramedic Association of Canada
and
The Ambulance Paramedics of B.C.**

**SUBMISSION TO THE HON. JOHN MANLEY, PC, MP
MINISTER OF FINANCE, CANADA**

EARLY RETIREMENT PROVISIONS FOR PARAMEDICS

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Prepared with the assistance of
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1. INTRODUCTION

a) The Proponents

This Submission is being presented by the Paramedics' Association of Canada ("PAC") in co-operation with CUPE Local 873, Ambulance Paramedics of British Columbia, ("Local 873"). There are approximately **17,200 Paramedics in Canada**¹, of which 14,000 are affiliated through PAC. Whenever and wherever there is a public or private risk to life or limb, or someone is seriously ill and needs emergency treatment and transport to a hospital, or transfer from one hospital to another, Paramedics are there to perform these duties.

The Emergency Medical Services Chiefs of Canada ("EMSCC"), representing the various emergency medical services employing paramedics across Canada, also support this Submission. See Tab I.

Who is PAC?

PAC is a national professional organization comprised of **pre-hospital practitioners, employers, regulators and branches of government**, that exists to promote quality care through co-operative working relationships among organizations (e.g. the Canadian Medical Association; the Canadian Association of Emergency Physicians; the Canadian EMS Chiefs and Directors and Provincial EMS Regulators) with national Emergency Medical Services ("EMS") interests. PAC has divisional chapters in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, Yukon, and the Canadian Armed Forces. Its mission is accomplished by allowing PAC to serve as a nexus for consensus building among all member practitioners, employers and regulators.

Who is Local 873?

Established in 1963, Local 873 first began with members from Metropolitan Ambulance, which serviced Vancouver, Burnaby and New Westminster. In 1974, The B.C. Government appointed the members of Local 873 to provide all pre-hospital care for the Province. Since those humble beginnings, Local 873 has grown to over 3,000 members and serves the entire population of British Columbia, which spreads across approximately 366,255 square miles.

b) The Problem

The purpose of this Submission is to present the case for inclusion of Paramedics into the legislated definition of "public safety occupation," based upon the interest of public safety. **The *Income Tax Act ("ITA")* does not permit an unreduced early retirement pension to be provided to Paramedics at age 55.** These restrictions have resulted in

¹ <http://www.jobfutures.ca/noc/3234p4.shtml>. *Ambulance Attendants and Other Paramedical Occupations (NOC 3234)*, Job Futures. Human Resources Development Canada.

lower pensions for Paramedics, because they generally cannot keep working past age 55 (with a steep drop-off from age 50) given the rigours of the occupation.

Although there seems to be an acknowledgement that the common meaning of "public safety occupation" would probably include the occupation of Paramedics, it is not included on the list of those who are legislated recipients of this benefit even though the risks are the same. **This is, in the Proponents' opinion, the result of a misunderstanding and lack of awareness among public policy decision-makers of the true nature and demands of the Paramedic occupation, work environment and their link to public safety.**

c) The Solution

Including Paramedics in the legislated definition would allow them to qualify for early retirement at age 55, which is afforded to certain public safety occupations, with whom Paramedics work along side. This can easily be accomplished by adding Paramedics to the definition of "public safety occupation" in subsection 8500 (1) of the ITA Regulations.

d) The Cost

There is no direct cost consequence to the Government by extending, to Paramedics, the enhanced early retirement benefits available to currently defined "public safety occupations." The early retirement provisions would be borne out by the respective pension plans. The only cost to Government **may be** in forgone tax revenue. The dollar estimate would be based upon a cost to Government of 14 cents for every additional dollar contributed into a pension plan. This cost results from the fact that the employer contribution is in effect tax-free.

2. LEGISLATIVE BACKGROUND

a) The Income Tax Act and Retirement Benefits for "Public Safety Occupations"

The current registration rules for registered pension plans in Canada were introduced in 1990 pursuant to Bill C-52, the last major pension tax reform legislation which formalized discretionary practices of allowing unreduced early retirements for certain individuals, including "**public safety occupations**". Under the current "**post-reform**" regulatory regime, no actuarial reduction in pension benefits is required if lifetime retirement benefits commenced to be paid to a member on or after **the earliest of**:

- The day the member attains **age 60**,
- The day on which the member has **30 years of early retirement eligibility service**; or
- The day on which the **aggregate of the member's age and years of early retirement eligibility service is equal to 80**.

However, where a plan member is employed in a "public safety occupation", the ITA Regulations create an exception. This allows unreduced early retirement benefits to commence at a younger age, and with a lower number of years of service, than any other occupation governed by the registered plan provisions of the ITA.

Where a member is employed in a "public safety occupation", lifetime retirement benefits, without reduction, can commence to be paid on or after **the earliest of:**

- the day the member attains **age 55**,
- the day on which the member has **25 years of early retirement eligible service**, or
- the day on which the aggregate of the **member's age and years of early retirement eligibility service is equal to 75**.

Subsection 8500(1) of the Regulations to the ITA defines "**public safety occupation**":

"Public Safety Occupation means the occupation of:

- Firefighter,
- Police Officer,
- Corrections Officer,
- Air Traffic Controller, or
- Commercial Airline Pilot."

The only other group of individuals who qualify for the "enhanced" early retirement benefits afforded to public safety occupations, are those who have had their employment terminated pursuant to an "approved downsizing program²."

Where a pension commences prior to the earliest of the eligible early retirement dates, the level of an individual's lifetime retirement benefits must be **reduced by at least three percent per year that the commencement date precedes the earliest day on which an unreduced benefit could have been paid**. In fact, Ontario Paramedics suffer a penalty of 5% or more depending on the plan and the age and service profile of the member³. The net effect of the punitive provisions is to create a significant economic incentive to Paramedics to continuing employment, and in doing so may increase the risk to their own health and to that of public safety.

The enhanced early retirement rule for public safety occupations introduced by Bill C-52 replaced the requirement in paragraph 10(c) of the Information Circular 72-13R8 that required that the cost of a pension payable in cases of early retirement not exceed the cost of a maximum pension payable from the earlier of age 60, or the member's normal

² ITA Regulation Ss. 8505(4).

³ ITA Regulations Ss. 7(l) and (ii)

retirement age, or the member's normal retirement age under the Plan, as a single life annuity with a 10 year guarantee.

However, paragraph 10(a)(iii) of the Information Circular permitted, in some cases, the payment of full benefits before normal retirement age and the crediting of deemed years of service in situations where early retirement is imposed for "reasons such as technological change". The application of the rule was described as "highly discretionary and difficult to administer"⁴. In the Technical Note, Revenue Canada then noted:

"Accordingly, no equivalent provision is included in the new registration rules. However, it is anticipated that the reduced pay and temporary absence rules will provide plan sponsors with some flexibility to create special early retirement arrangements where the need exists. In addition, the downsizing rules in section 8505 will enable special benefits to be provided to individuals who are terminating employment as a consequence of a downsizing program acceptable to Revenue Canada."⁵

b) Passage of Legislated Definition of "Public Safety Occupation"

The Canada Customs and Revenue Agency ("CCRA") has recently pronounced on the intention behind the enhanced early retirement provisions available for public safety occupations, as follows:

"The more generous early retirement eligibility criteria for public safety occupations recognize work situations where the limitations associated with ageing are common and have the potential to significantly endanger the safety of the general public. **These special rules are intended to assist employers who, out of concern for public safety, wish to encourage or require employees in these occupations to retire early.** The special rules are not provided on the basis of the riskiness of the occupation itself."⁶

Legislative History - Intent

A review of the legislative history of these provisions suggests that the legislative intent was clearly to provide special early retirement benefits to individuals

⁴ Carswell Tax Partner, July 31, 1991, Technical Note (2002-Release 9) page 1 of 2.

⁵ *Ibid.*

⁶ Canada Customs Revenue Agency, Technical Interpretation (external) 2002-0119025-"Public Safety Occupation – Attendance (February 20, 2002). The same formulation of the purpose of the legislative exemption was included in correspondence from the Minister of Finance's office in October 2000 addressing this issue.

employed in "public protection occupations" "...and in employment where considerations of public safety require early retirement to receive full pensions from the earliest of: age 55, after 30 years of service, or age plus service equalling 75."⁷

There was a recognition by the government when Bill C-52 was introduced, that there were pressures to expand the definition of "public safety occupation" to include other occupations which shared similar characteristics. Specifically, senior advisors to the Minister of Finance were concerned about occupations such as, miners and loggers, which had **similar risk characteristics** as the "public protection employees" such as the Armed Forces, RCMP, Police, Firefighters and Air Traffic Controllers.

Notwithstanding the apparent concern about the expansion of the group to include other occupations with similar risk characteristics, the early drafts of the legislation make clear that the drafters intended **the risk to the public safety** requires that individuals in said occupations to retire early without penalty. The draft ITA provision initially considered by the Minister, provided as follows:

- "(e) where a lifetime retirement benefits may commence to be paid under the provision to a member at any time before the earliest of,
 - (i) the day on which the member attains,
 - A. in the case of a member employed by a participating employer of the plan in a prescribed occupation that requires early retirement for reasons of public safety (in this paragraph referred to as a 'public safety occupation'), 55 years of age, or
 - B. In any other case, 60 years of age,
 - (ii) the day on which the member has 30 years of pensionable service under the plan,
 - (iii) the day on which the aggregate of the member's years of pensionable service under the plan and his age is equal to,
 - A. In the case of a member employed by a participating employer of the plan in a public safety occupation, 75, or
 - B. in any other case, 80,..."⁸

It appears that as a result of complaints lodged by the RCMP and various Police Forces across the country whose benefit plans already provided a more generous early retirement benefit, the draft legislation was amended to permit early retirement without

⁷ Memo dated April 30, 1987 from Stanley H. Hartt to the Minister of Finance, subject "Pension Issues" at p. 3.

⁸ Government of Canada, *A Better Pension System, "Draft Amendments to the Income Tax and Income Tax Regulations Relating to Saving for Retirement"* March 28, 1988 at p. 32.

reduction after a minimum of 25 years of service for those individuals in public safety occupations.

c) **Mandatory Retirement Within "Public Safety Occupations"**

Intent of the "Public Safety Occupation" Exemption

It appears from the legislative history, the Bill C-52 explanatory notes, as well as committee and legislative debates, that the primary intent of the "public safety occupation" exemption related to a recognition that individuals in the prescribed occupations shared a unique characteristic - **their continued employment beyond a certain age would put the public at risk**. However, notwithstanding these concerns regarding the "**public's**" safety, these individuals faced an economic disincentive from retiring at an earlier age. These provisions eliminated the disincentive for these professions to retire early, for the sake of the public safety.

However, these same materials also point to a second, and complimentary objective of these provisions as providing **economic compensation or redress for the imposition of mandatory early retirement in some occupations, namely Firefighters, Police and Military Officers**.

In general, the regulatory regime currently in place appears to have been codification of generally accepted plans of retirement for different groups of Canadians. Included in the contemplation were those *forced* to retire early, and those thought to comprise a hazard to public safety if not allowed to retire by a certain age.

This accurately summarizes the two distinct, but not mutually exclusive, objectives of the enhanced early retirement provisions. This is also obvious from the particular category of occupations, which were selected as prescribed "public safety occupations". In particular, if one considers the case of Corrections Officers, Air Traffic Controllers, and Commercial Airline Pilots, **the currently defined "public safety occupations" do not universally face mandatory early retirement**.

The "dual purpose" understanding of the legislative intent behind the "public safety occupation" provision of Bill C-52 is also corroborated by the comments of the Finance Committee members who were responsible for the review of the Bill. In particular, there are several statements and comments made by the Chair, Don Blenkarn, which are quite illustrative.

"The Chairman: Okay. What are you going to do about the people retired from the Army, the Police Force, the Fire Department, **who are compulsorily retired because of health reasons or because of age restrictions on their jobs**, when they are retired and obviously the pension they get is not really designed to be a full pension? It is a pension they have to take because they get it."⁹

⁹ Minutes of Proceedings of the Standing Committee on Finance of Tuesday, January 30, 1990, p. 86

The Chairman also referred to concern regarding representations made by the Federal Government to retiring Army Officers regarding compensation for their loss. The Chairman stated:

"When they retired from the Armed Forces they may or may not have had a choice, but they certainly retired on the representation that they could roll this money over. That was a pledge given to them by presumably their commanding officer and military pension advisor, a Government of Canada employee, employed by us."¹⁰

The dual nature of the legislative intent in the public safety occupations is also confirmed by comments and statements made by Keith Horner, with the Social Tax Transfer, Personal Tax Analysis Division of the Department of Finance.

"It is a generous provision to provide that, but the **reason it was accommodated was that they are forced to retire**, and there is a special accommodation made in the regulations for a broader class of people, which are defined in the regulations as public safety employees, and that is Police officer, fire officers, air traffic controllers, pilots, corrections officers, I believe, who are permitted to get an actuarially unreduced pension after 25 years of service or at age 55 rather than after 30 years of service, or age 60, which is the general rule.

So there has been an attempt to limit the generosity of pensions for people who retire early to reasonable levels **while recognizing that some people have to retire early and in some cases when people are forced to retire early they do not have much option to go back to work. So we have tried to draw a reasonable compromise.**"¹¹

The legislative intent gleaned from these passages and Bill C-52's history, suggests that further additions, if any, to the list of prescribed "public safety occupations" should not be limited solely to similarly situated professions where mandatory retirement is commonly imposed as a term of employment. While this group was intended to be covered by the early retirement exemption, the **primary class of occupations the provisions were intended to assist are those where the public interest favours encouraging employees in this occupation to retire early to avoid risks to public health and safety** occasioned by the physical and mental health of the employee. In these occupations, there is established evidence that **older age bears some correlation to deteriorating health (particularly the ability to meet the physical demands of the job), and therefore an increased risk to the public serviced by these professions.**

¹⁰ *ibid.* p. 87

¹¹ *ibid.*, p. 86: 69-70

3. EXPANSION OF THE "PUBLIC SAFETY OCCUPATION" DEFINITION

When Bill C52 was being drafted, there was an expressed concern by some individuals working on the Bill with the Government, that there would be pressure to extend the special early retirement provisions conferred upon public safety occupations to other occupations which displayed similar risk characteristics such as miners, loggers, etc. Clearly the purpose of the legislation was not to provide special early retirement provisions to any occupation which posed risks to its members. Rather, the enhanced early retirement benefits were to be provided only to those individuals, who as a result of the physical, mental, and environmental qualities of their jobs, and because they are entrusted with the public care and protection in carrying out their duties, their continued employment beyond a certain retirement age would pose a risk to the public they are intended to serve and protect.

Adding the Paramedic occupation does not undermine the narrow focus or the intent of this legislation. While Paramedics may share some characteristics with other occupations, particularly other professions within the health care industry, the occupation is unique. Unlike other health care professionals, Paramedics do not work in a controlled environment such as a hospital.

Paramedics are Similar to Police Officers and Firefighters

What makes the occupational profile of the Paramedics more akin to Police Officers, Firefighters, than to nurses, doctors, and other health care professionals is:

- the interaction of job related stresses, both physical and mental associated with the delivery of health care, typically in emergency situations, and
- the unregulated, unpredictable, and often hazardous environmental conditions under which Paramedics are required to deliver their services to the public.

It is this combination of occupational and environmental factors that magnifies the risk to the public if individuals, because of retirement disincentives were to continue working in their occupations until the age of 60. A further occupational comparison of public safety occupations is more specifically described in section 6 of the Submission.

The U.S. Experience

In the United States, federal statutes conferring benefits on "public safety officers" includes Paramedics. In fact, under the *Federal Law Enforcement Dependence Assistance Act* ("FLEDA"), which among other things provides educational assistance to spouses and children of Police, fire and emergency public safety officers killed in the line of duty, and public safety officers permanently and totally disabled by injuries sustained in the line of duty. In 1998 then President Clinton, pursuant to the *Police, Fire and Emergency Officers Education Assistance Act* of 1998, expanded FLEDA:

"...to provide college scholarships to the dependants of all public safety officer slain or incapacitated in the line of duty. In addition to the families of slain state and local law enforcement officers, this new law will benefit the families of firefighters, correctional officers, and rescue and ambulance squad members."¹²

It is of interest to note that the list of occupations falling within the definition of "public safety officers" under this US legislation is virtually identical to the prescribed list under the Canadian ITA definition of "public safety occupation" save for the absence of Rescue and Ambulance Squad Members and Commercial Airline Pilots.

Moreover, more directly related to enhanced early retirement benefits, the United States Internal Revenue Code ("IRC") confers an opportunity to receive enhanced early retirement benefits to individuals in "certain public safety occupations" through early withdrawals of retirement savings (prior to age 59 ½) without penalties.¹³

The tax advantage is conferred upon those individuals providing "qualified services" defined in the IRC as follows:

Section 457(e)(11) (c) Qualified Services

"For purposes of this paragraph, the term "qualified services" means the fire fighting and prevention services, **emergency medical services, and ambulance services.**"

4. AN UNDERSTANDING OF EMS

EMS practitioners provide patient care and transportation covering a wide variety of injuries and medical conditions. Today, advanced and computerized dispatching systems linked with "911" ensures that ambulance Paramedics are at the scene within minutes.

Paramedics are the most visible EMS staff on the streets. The nature of this public service demands teamwork and people skills, including compassion and empathy under physical and emotional stress. In many cases, the initial emergency care provided by Paramedics will be the deciding factor between life and death, temporary or permanent disability, a brief confinement or prolonged hospitalization for a patient. In a critical situation, unexpected and shocking events, for which most people would not be prepared, require that Paramedics demonstrate competent leadership ability.

¹² US Newswire, "Whitehouse Fact Sheet On Honouring, Protecting Law Enforcement", November 13, 1998.

¹³ David Rajnes, "State and Local Retirement Plans: Innovation and Renovation", Employee Benefit Institute (EBRI Issue Brief Number 235, July 2001) p.23

a) Early Intervention by Paramedics

The role of Paramedics is to respond to emergencies, provide medical services and transport patients to medical facilities. The transition of Paramedics into expanded EMS has led to an increasing scope of practice for Paramedics. Paramedics now have the education, the training, and the ability to offer more economical solutions to out-of-hospital patients. Paramedics treat people in the field and help decrease hospital stays for such persons as diabetics, asthmatics, etc. Not only is the Paramedic providing “street side” health care, but they also successfully integrate their professional attributes into emergency departments, outpatient clinics, and remote treatment centres.

b) Emergency Environment and Public Safety

In responding to emergencies, Paramedics may not always be given an advanced understanding of the extent of the physical environment and subsequent emergency issues, to which they will be exposed. While identified with the health care community due to the medical care scope of their practice, **Paramedics serve along side Police and Firefighters in attending at, and dealing with emergency situations and settings.** Paramedics must be prepared to respond to unfolding emergency situations and settings beyond the medical situations to which they are initially responding. They will often be required to work within an emergency setting that is being dealt with by other "public safety occupations". Their physical ability to endure the challenges of a diverse working environment has an impact on both public safety and the safety of the patient.

5. THE PARAMEDICS OCCUPATION: NOT JUST DRIVERS

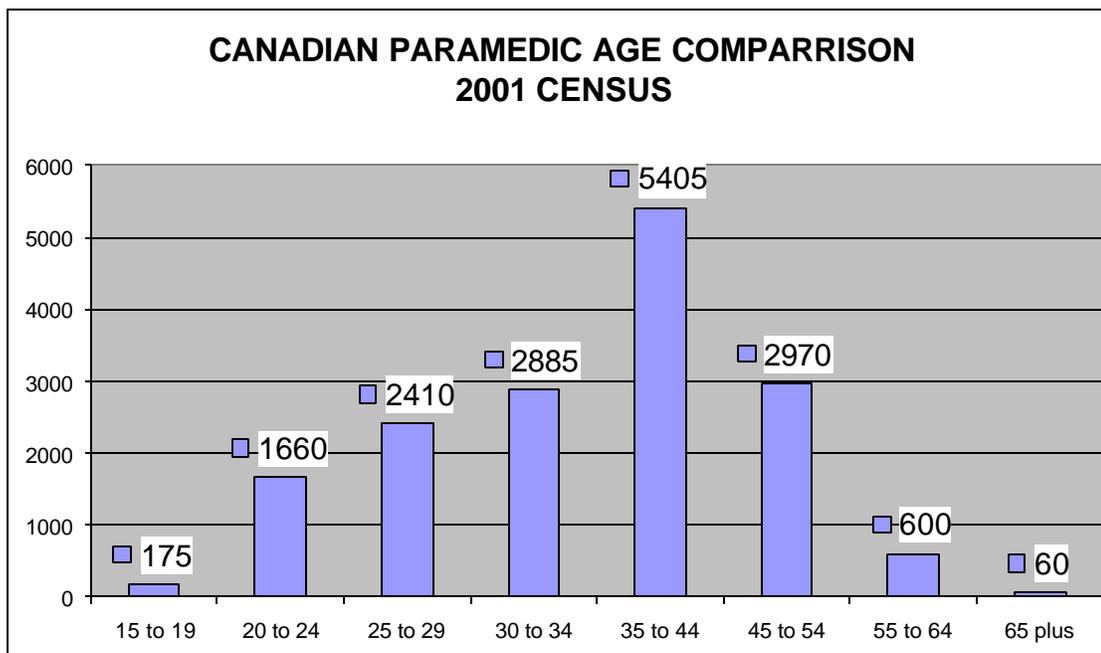
a) Employment Numbers

Human resource Development Canada has identified, for its occupational analysis purposes, **17,200 Paramedics in Canada. PAC and its affiliates groups represent** approximately 14,000 Paramedics throughout Canada.¹⁴

b) Demographic Profile

The average age of the workforce is 36, with a majority of paramedics between the ages of 25- 44. The demographic profile of the Paramedic occupation, as outlined in the following **chart and data from Statistics Canada under Tab 2,** presents a marked change in employment associated with age.

¹⁴ This number is based upon the 2003 membership data of PAC.



Source: 2001 Census – Statistics Canada Product 97F0012XCB01022¹⁵

It is important to note that Paramedics over age 55 represent less than 4% of the occupation's national workforce. If we consider the demographic data broken down along Statistics Canada's 164 metropolitan census areas, we are faced with a more striking fact – in most parts of Canada paramedics do not work past the age of 55. In fact only 30 of the 164 census areas have paramedics working past age 55.

c) Practitioner Levels - Comprehensive Service Delivery

PAC introduced the following practitioner levels in March 2000¹⁶, together with an initial competency profile for each. This was done to promote national consistency in Paramedic training and practice, and to enhance job mobility for practitioners. The profiles include requirements related to the physical skills of lifting patients and performing certain other physical acts, which are also more broadly enumerated further in our submission. The following is a summary of the practitioner levels:

- **Emergency Medical Responder ("EMR")** – May be responsible for initial assessments, the provision of safe and prudent care, and the transport of a patient to the most appropriate health care facility. The EMR competency profile does not include controlled or delegated medical acts.

¹⁵ Although the 2001 Census shows about 16,165 paramedics in Canada, it did not capture additional persons identified by PAC in more direct contact of its members throughout Canada.

¹⁶ National Occupational Competency Profiles for Paramedic Practitioners, June 2001. Paramedic Association of Canada 2001. p. 1-3

- **Primary Care Paramedic ("PCP")** – Expected to demonstrate excellent decision-making skills, based on sound knowledge and principles, the PCP competency profile includes controlled or delegated medical acts such as semi-automated defibrillation and the administration of certain medications.
- **Advanced Care Paramedic ("ACP")** – ACPs 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.
- **Critical Care Paramedic ("CCP")** – The highest level of Paramedic certification available, the CCP is expected to perform thorough assessments that include the interpretation of patient laboratory and radiological data. CCPs high levels of decision-making and differential discrimination skills relating to patient care, result in their implementing treatment measures both autonomously and after consultation with medical authorities.

The competencies at each practitioner level are cumulative, in that each level includes, and exceeds, the competencies of the previous level. Furthermore the competencies defined in these profiles are the minimum required at each practitioner level. **Employment jurisdictions can, and frequently do, exceed these requirements.** Full descriptions of the above practitioner levels are found under **Tab 3**

d) Paramedic Practice and Training¹⁷

The practice of paramedicine in Canada is regulated by each province or, in the case of federal jurisdictions such as the military, by an appropriate federal authority.

Each regulator is free to determine the scope of practice and practitioner classification system that applies in its jurisdiction. Similarly, the regulator may approve training program(s) that are a prerequisite to employment.

A number of regulators are aligning their practitioner classifications with PAC's levels.

In addition to complying with local regulatory requirements, many training programs across the country have elected to participate in the voluntary national accreditation process for Paramedic training administered by the Canadian Medical Association ("CMA"). CMA issues Requirements for Accreditation that includes an expectation that a program ensures that its graduates possess the competencies determined by the national professional association.

CMA accredits Paramedic programs at the PCP, ACP and CCP levels. In order to be eligible for CMA accreditation, programs must identify the level that applies to them and must demonstrate that their graduates meet (or exceed) every specific competency listed in corresponding profile contained in this document.

¹⁷ Ibid. p 3-4

e) Emergency Response Responsibilities

Paramedics are part of:

- hazardous material ("Hazmat") teams,
- Emergency Response Teams ("EMT") in conjunction with Police (i.e. Swat Teams),
- heavy urban rescue teams,
- riot squads,
- marine response units, and
- search and rescue teams.

The accompanying PowerPoint presentation depicts Paramedics in various working environments and emergency situations in co-operation with Police and Firefighters.

f) Call Volumes

The following is a survey of call volumes for emergency medical services within Canadian jurisdictions:

- **Ontario** – 1.1 million in 2000, with more than 900,000 patients transported
- **British Columbia** – Over 400,000 requests for ground and air service. Paramedics respond to a call every 1.25 minutes, every day.¹⁸
- **Manitoba** – 103,000
- **New Brunswick** –64,752 total calls
- **Newfoundland and Labrador** – approximately 47,000
- **Nova Scotia** – approximately 95,000 calls
- **Prince Edward Island** – for fiscal year 2000/2001, a total of 8,490 calls were reported by ambulance services
- **Saskatchewan** – 74,000 calls covering 7.5 million kilometres. 1,450 air ambulance and medevac flights

¹⁸ On the Front Line, A review of the BC Ambulance Service. Ambulance Paramedics of British Columbia CUPE Local 873, March 2002. p. 2

Certain Similarities between Paramedics, Police and Firefighters

It is important to note that the vast majority of fire services "First Respond" to medical calls in a tiered response format. If they get to the call before the Paramedics, they perform first aid until the **Paramedics arrive who then provide advanced life support ("ALS")**. When assessing call volumes, it is a well-known fact that "First Responding" to medical calls makes up the majority of fire service calls.

Examples of calls, to which Paramedics would attend with Police, are domestic disputes, assaults, motor vehicle accidents, psychiatric emergencies, overdoses, and alcohol abuse, to mention only a few situations. **It is clear that there is a correlation in the nature of the physical environment faced by these occupations as well as public safety.**

g) Physical, Psychological and Cognitive Demands

The work of a Paramedic requires a high level of medical, psychological and physical fitness. The Canadian Classification and Dictionary of Occupations ("CCDO") characterises the strength required for this work as "Very Heavy", i.e. lifting objects in excess of 100 pounds, with frequent lifting and/or carrying of objects weighing 50 pounds or more. The terms lifting, carrying, pushing and pulling are the primary strength physical requirements and, generally speaking, a worker engaged in one of these activities can be engaged in all. Physical activity requirements of "Very Heavy" expresses both the physical requirement of the occupation and the physical capacity the candidate must have to meet these requirements¹⁹.

Considering the impact of exposure to traumatic events on Paramedics, helps define the condition under which Paramedics interact with the public. The data behind these psychological and cognitive demands is the result of collaboration between Toronto EMS Staff Psychologist, Dr. Gerry Golderberg, and researchers at the University of Toronto, headed by Dr. Cheryl Regehr. Their findings have recently been published in the peer reviewed scientific/medical journals, *Canadian Journal of Psychiatry*²⁰ and *American Journal of Orthopsychiatry*.²¹ The study is insightful for what it says about both the physical and psychological exposure faced by Paramedics. The following table sets out exposure to critical events and the trauma resulting from the exposure. The table also contains comparative data provided by Dr. Regehr relating to types of exposures experienced by firefighters in the line of duty.

¹⁹ See also Work Futures (HRDC); Job Demand Analysis, BC, by Bruce Head, Oct. 18, 1999.

²⁰ "Posttraumatic Symptoms and Disability in Paramedics," *Canadian Journal of Psychiatry*, Vol. 47, No. 10 December 2002, pp.953-958.

²¹ "Exposure to Human Tragedy, Empathy, and Trauma in Ambulance Paramedics," *American Journal of Orthopsychiatry*, Vol. 72 No. 4 December 2002

Type of Exposure	Paramedics		Firefighters ²²	
	% Exposed	% Exposed Reporting Distress	% Exposed	% Exposed Reporting Distress
Loss of Patient	84.9%	35.6%	32%	31%
Line of duty death	27.9%	58.3%	36%	22%
Violence against self	69.8%	30.0%	18%	21%
Violence against others	93.0%	23.7%	23%	59%
Near death experience	55.8%	48.0%	10%	13%
Death of a child	84.9%	78.0%	60%	38%
Multiple Casualties	90.7%	33.3%	12%	5%

As is demonstrated in the data, Paramedics must respond to public safety matters, involving the public, in the course of their duties. While the study notes that Paramedics are learning to deal with these stresses, the long term effect and repeated exposure to such stresses shows an impact on the ongoing capabilities of the Paramedic to continue in the occupation.

The following is an overview of the occupational demands on Paramedics:

i) Physical Demands

Paramedics must be able to:

- Perform very heavy work, requiring lifting and carrying of patients and equipment, frequently weighing a minimum of 240 pounds between two people, sometimes in adverse conditions, on all surfaces, stairs and inclines,
- Crouch, stoop, bend, kneel, twist, push, pull and reach above and below shoulder level with both arms to assist patients,
- Co-ordinate eye-hand function in drawing up medications, administering IVs, taking blood pressure readings and operating medical equipment,
- Operate mobile equipment and have a Class 4 license,
- Communicate verbally or in writing with patients, other health care

²² Cheryl Regehr, PhD

personnel, the public and co-workers,

- Work extended hours with shift work and overtime,
- Work in outdoor conditions in all kinds of weather.

ii) Psychological and Cognitive Demands

Paramedics are required to:

- Work in emergency situations dealing with human crisis, **where errors in judgement or attention could have life-threatening or grave consequences**
- Pay intense attention to detail and assume a high level of responsibility and accountability
- Maintain a high degree of self-supervision and supervise inexperienced Paramedic partners
- Perform multiple simultaneous tasks
- Drive Code 3 (emergency flashing lights and sirens, often up to 25 km past the speed limit), communicating with dispatch and/or emergency departments by radio or cell phone, while communicating with their partner, who may be attending a critical patient
- Drive at all hours and in all weather conditions
- Perform under strict deadline pressures to respond to emergency requests
- Attend combative, intoxicated or psychologically disturbed patients
- Be prepared for regular exposure to situations, which have the potential to cause critical incident stress

h) Work Environment

i) Environmental conditions

Paramedics work in an unregulated inside climate (ambulance) and out in uncontrolled weather due to seasonal weather patterns while attending to patients. **They are exposed to variance in temperature, humidity and ventilation**, as they are required to work between the unregulated inside climate of the ambulance and in extreme outdoor weather conditions.

Lighting includes the following:

- natural light or at night with glare from road surfaces
- indoor with fluorescent artificial light

- flash light
- traffic lights
- in an ambulance with com lights

Ground surfaces observed include the following:

- matting on the floor of the ambulance
- concrete and asphalt surfaces
- debris strewn surfaces – broken glass at MVA
- flat, sloped or uneven surfaces
- on steps
- wood, carpet, tile and linoleum surfaces
- dirt, sand, gravel and grass surfaces
- slippery, wet or dry surfaces

ii) Equipment – typical day-to-day

Further to the chaotic and unpredictable environmental conditions that Paramedics face daily, they are also required to use and manoeuvre specialized and heavy equipment during the course of their duties. The following tools and equipment, along with the associated weight, are those typically used by Paramedics. This list does not include specialized equipment associated with the extra emergency responsibilities performed by Paramedics as part of specialized emergency response teams:

- wheeled stretcher – 34 kg
- chair-cot – 9 kg
- claim-shell stretcher – 11 kg
- # 9 stretcher (airvac) – 7 kg
- spine board – 7 kg
- ALS defibrillator (L/1000 physio-control) – 11 kg
- jump kit – 7 to 8 kg
- 14 kg drug kit that can be split into two single handle drug kits each weighing approximately 7 to 8 KGs
- oxygen tank – 7 to 9 kg
- suction kit – 2.5 kg
- stethoscope/latex or non-alergin gloves
- blood pressure cuff
- blood sugar monitor
- portable radio monitor or cell phone

- small spray containers of saline or antibacterial liquid
- patient health/data sheets + clip board
- flash light

Equipment used at the ambulance station:

- bucket and mop
- large oxygen canisters – 34 kg
- largest oxygen canisters – 59 kg
- hand dolly for oxygen canister transfer – 12 kg

iii) Discomforts

Paramedics are additionally exposed to the following **environmental discomforts** in the performance of their duties

- **Noise** – intermittent to continuous noise below and above conversation levels when in the ambulance on route to a patient location with the siren on and when attending to a patient at the site of a motor vehicle accident.
- **Vibration** – intermittent to continuous full body vibration when driving to patient location or when transporting patient to hospital. The level of vibration is dependent on the road surface.
- **Odours** – potential for attending to, treating and transporting a patient with bacterial infection or burn with exposure to vomit or other body fluids and mild to moderate noxious odours from idling cars and commercial vehicles. May be required to transport deceased and or decaying body.
- **Wetness** – exposure to wet weather when attending to a patient outside, when moving a patient between a building structure to ambulance, while attending to patient in water or at scene of fire.

iv) Hazards

Hazards that are present in this workplace environment that Paramedics may be exposed to are as follows:

- **Dangerous chemical substances** – frequent to constant exposure to oxygen gas and potential exposure to exhaust fumes while working at the site of a motor vehicle accident. Potential exposure to chemical, gas, propane or battery acid spills when attending a patient at a MVA and worksite, industrial or construction site.
- **Biological Agents** – exposure to infectious bacteria, viruses, parasites or fungi/moulds as a result of indirect contact with or direct handling of blood and body fluids, infectious material or micro-organisms and around areas that drug users frequent (exposure to contaminated “sharps”).

- **Equipment, machinery and tools** – driving in excess of posted road speeds or assisting to navigate the ambulance and working in close proximity to motor vehicles when attending a patient at the site of a motor vehicle accident. Potential for working in confined space, industrial or construction sites, and constant use of stretchers, chair cots, and other emergency response equipment. Use of IV's (sharps), defibrillators and other Paramedical equipment.
- **Radiation** – working in direct or indirect sunlight with non-ionising radiation.
- **Dangerous Locations** – attending to a patient at industrial or construction work sites, on roadways at MVA's, or in confined spaces.

i) "In the line of duty" Injuries

Paramedics are required to lift, carry, push/pull and transfer equipment and/or patients on every call.

It is not uncommon for a Paramedic to lift their half of over 300 lbs.²³ Given that the role of the Paramedic is essentially universal, and that trends in work related injuries are similar in both Ontario and in British Columbia, it is fair to say that trends in other provinces of Canada are also very likely to be similar. It would therefore be fair to say, that given the strenuous nature and volume of the work where lifting and transferring patients is a daily activity, and given the ageing workforce, there is a strong likelihood that the frequency and severity of injuries will increase over the next 10 years. In BC there are currently only 509 Paramedics either 50 years old or older and 1592 Paramedics 40 years old or older. In Ontario there are 190 Paramedics 55 years and older and 1970 Paramedics in the 35-54 years of age category. This increase has the potential to dramatically affect claim costs (wage loss, medical, rehabilitation, and pensions) in the future.

In BC approximately 1200 safety related incidents are reported by Paramedics every year. 67% of these result in a WCB claim with direct costs associated with the claims mounting to more than \$4.6 million in the year 2000. Injury incidents can be broken down into a number of large categories: overexertion (musculoskeletal injuries); motor vehicle incidents; exposures (contact with pathogen or environmental hazards); incidents involving being hit by objects etc, slipping, tripping and falling; and stress. The following is a breakdown of the data by injury category.²⁴

Over-exertion injuries, primarily caused by lifting, pushing, carrying, and transferring patients account for

- 35% of the incidents,

²³ Strategic Focus for the Organizational Health and Safety Branch, Letter to Mr. Tony Arimare Director, Labour Relations BC Ambulance Service, August 31, 2001 p 3

²⁴ Ibid.

- 49% of the claims, and
- over 60% of the costs associated with those claims.

Motor vehicle incidents make up

- 20% of the incidents, but only
- 5% of the claims, and
- 3% of the costs for those claims.

Exposures comprise

- 16% of all incidents,
- 17% of claims (predominately medical only), and
- 1% of claim costs.

Slips/Trips/Falls account for

- 13% of incidents,
- 16% of claims, and
- 5% of costs are attributed to slips/trip/falls etc.

In Ontario more than 2500 WSIB claims are filed by Paramedics every year. Similar to B.C., the **most common type of incidents in these claims are overexertion injuries**. These account for approximately 70% of all claims made by Paramedics. These injuries are caused by kneeling, carrying, patient transfer to-or-from a bed or stretcher, pushing or pulling, lifting, climbing and repetitive motion²⁵, in other words performing the day to day job of a Paramedic. Also to be considered is that these injuries are occurring within a context where a Paramedic's occupational performance is important to the care and safety of the patient. Overexertion injuries also account for the highest average claim costs at just over \$33,500 per claim and the highest average benefit days lost, just over 250 days a year, compared with all other injury types.

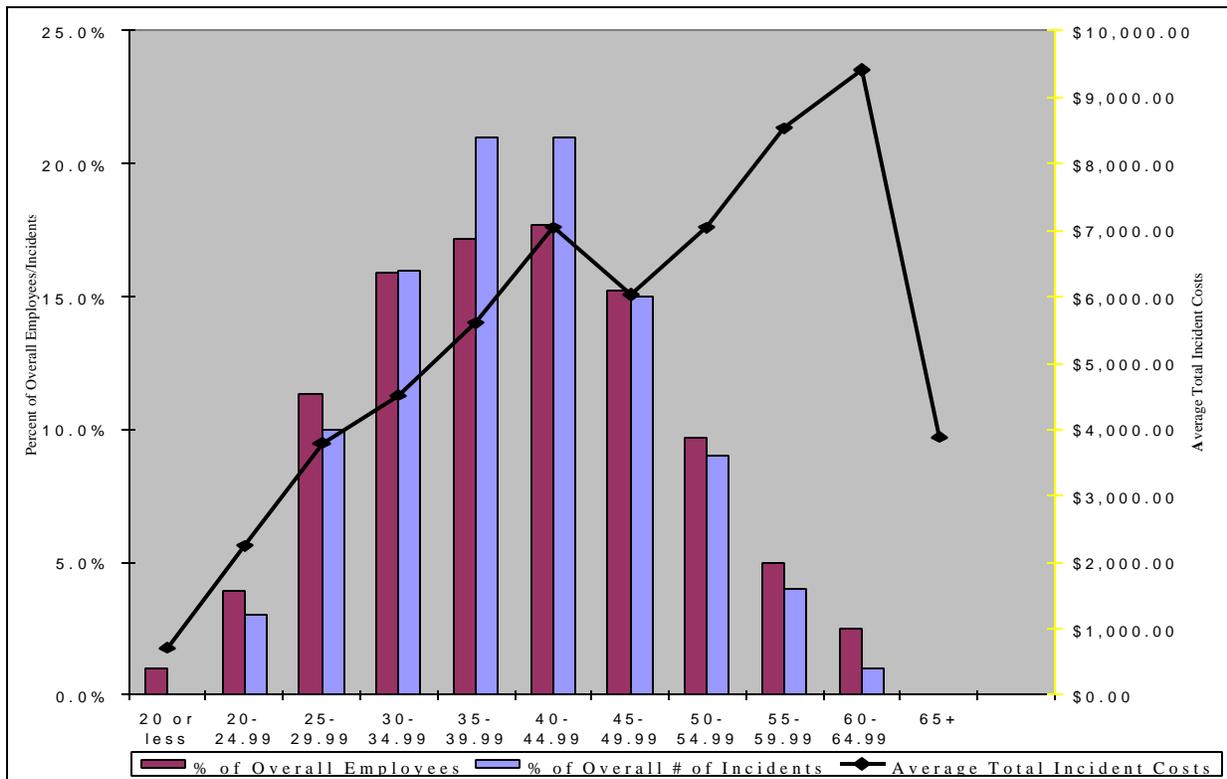
While the number of incidents begins to decrease at ages 45-50 and continues to decrease into retirement age, (as does the number of Paramedics aged 45 years and older), the wage loss costs begin to increase. Medical costs also begin to increase significantly after the age of 55, as it frequently takes Paramedics later in their career longer to recover from injury. This is the result of several factors such as age, fitness, and **repeated injuries to the same parts of the body**.²⁶

²⁵ Paramedic Staff Occupational Safety & Health Training Program, Controlling Workplace Hazards. *Paramedic Academy Justice Institute of BC*. p 7

²⁶ *Ibid*, p. 9

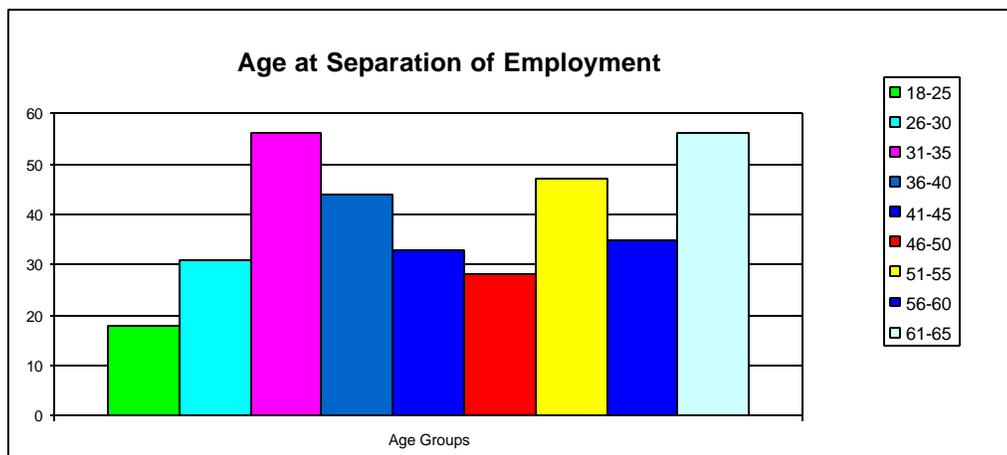
EARLY RETIREMENT PROVISIONS FOR PARAMEDICS

**Percentage of Overall Employees/Accident Incidents/Per Incident Costs
1996 – 2001**



Source: BCAS Organizational Health and Safety Branch

Consistent with the demographic profile of the Paramedics occupation, statistics from the City of Toronto EMS demonstrate a significant level of separation from employment in the age 51-55 category.



Source: Toronto EMS 1996 - 2002 Statistics Human Resources Integrated Disability Management.

It is quite obvious when we combine the age demographics with the injury statistics, that the nature of this job is not conducive to longevity. **Simply put, the physical demands of the Paramedic occupation leads to their bodies prematurely wearing out, all to the risk of the public.** See Tabs 4 and 5 for illustrative graphs.

The numbers speak for themselves. As a worker's age increases, the severity of those injuries increase both in terms of average medical costs and in terms of average time loss. The longer a worker stays working as a Paramedic, the average costs for time loss increases.

j) "In the line of duty" Fatalities

In a recent report "USA – Occupational fatalities in emergency medical services: A hidden crisis", it was stated in part:

"Results: The Census of Fatal Occupational Injuries database documented 91 EMS provider occupational fatalities. The National EMS Memorial Service database contained 70 fatalities, and the Fatality Analysis Reporting System identified 8 ground-transportation EMS occupational fatalities. There was also wide variation in fatality counts by cause of injury. Using the highest cause-specific count from each of the databases, we estimate that there were at least 67 ground transportation-related fatalities, 19 air ambulance crash fatalities, 13 deaths resulting from cardiovascular incidents, 10 homicides, and 5 other causes, resulting in 114 EMS worker fatalities during these 6 years. We estimated a rate of 12.7 fatalities per 100,000 EMS workers annually, which compares with 14.2 for Police, 16.5 for Firefighters, and a national average of 5.0 during the same time period.

Conclusion: This study identifies an occupational fatality rate for EMS workers that exceeds that of the general population and is comparable with that of other emergency public service workers²⁷."

6. COMPARATIVE ANALYSIS WITH CURRENTLY LEGISLATED PUBLIC SAFETY OCCUPATIONS

a) Physical, Psychological and Cognitive Comparative Analysis

HealthServ Professionals (BC) Inc. was engaged to prepare a comparative analysis (the "Analysis") of the Paramedic, Police Officer and Firefighter occupations, (dated January 27, 2003 and attached under **Tab 10**). The Analysis was undertaken by Nikki Taylor, RN, OHN, BScN, an Occupational Health Consultant and R. Douglas Hamm, MD, CCFP, FRCP(C), CCBOM, a Specialist in Occupational Medicine. The Analysis

²⁷ Presented at the National Occupational Research Symposium, Pittsburgh, PA, Oct. 2000, and the New York State Vital Signs Conference, Albany NY, Oct. 2001, by Brian J. Maguire, Katherine L. Hunting, Gordon S. Smith and Nadine R. Levick

provides the following summary of the three occupations and finds them to be considerably similar on all levels.

"When comparing the EMA2 Paramedic JDA with the Firefighter Probationer JDA and the Task Bank of a General Duty Constable, **there are many similarities in the three jobs.**

When comparing the **psychological and cognitive demands**, the Paramedic, Firefighter and Police Officer all perform multiple simultaneous tasks. They all work in emergency situations dealing with human crises, **where errors in judgement or attention to detail could have life-threatening or public safety consequences.** Paramedics, Firefighters, and Police Officers are all exposed to deceased or dying adults or children and/or catastrophic events with the **potential to cause critical incident stress and post-traumatic stress disorder.**

They all must drive code 3 in excess of posted speeds and navigate through traffic while communicating with dispatch. All are required to drive in variable or extreme weather conditions in day or night in isolated rural or urban areas. Paramedics, along with Firefighters and Police Officers, attend to **combative, intoxicated or psychologically disturbed people.** All three positions **normally work shift work** - two days followed by two nights. These shifts are normally 12 hours but may vary.

When comparing the **physical activity demands** of a Paramedic with a Firefighter and Police Officer there are **many similarities identified in the JDA's and the Job Bank.** They all require good physical strength in order to lift heavy weights. In the Paramedic and Firefighter JDA, both are required to lift heavy weights greater than 100 lbs. They all face uncontrolled ergonomic demands such as forceful motion and awkward movements as a routine part of their job.

The Paramedic requires frequent, constant or sustained standing, walking, climbing and the ability to balance on stairs, slopes and on all types of surfaces including inclines which may be dark, cluttered or slippery, while carrying, pushing and pulling a patient, lifting devices and/or equipment. The Firefighter, as per the JDA, is required to do all these tasks but do not perform them as frequently as a Paramedic. "

When comparing the National Occupational Classification ("NOC") of an Ambulance Attendant, Firefighter, and Police Officer, the Analysis found key areas of similarity in the physical requirements and the environmental conditions of the three occupations.

b) **Cross Occupational Injuries, Claims and Benefits**

In addition to the occupational analysis, we draw attention to data on cross occupational injuries, claims and benefits. These are set out in Appendices VI-VIII. Statistics from two of Canada's largest jurisdictions, which account for over 7,000 Paramedics, demonstrate comparable injury data across occupations. Since Paramedics share similar work environments with Police Officers and Firefighters, it is not unusual that they would experience similar injuries. That is in fact the case. In comparison to Police Officers and Firefighters, Paramedics have fewer claims than Police Officers, but more claims than Firefighters in both Ontario and BC. On average, however, Paramedics lost more benefit days than did the other two groups across all injury categories. Paramedics sustain a significant number of injuries involving motor vehicles. While the numbers of claims are less than those of Police, they are double those reported by Firefighters. As noted earlier, Paramedics are often more likely to be exposed to certain traumatic events such as witnessing and being the victim of aggression, witnessing abuse against children and women as well as to fatalities.

7. **CURRENT RETIREMENT OPTIONS FOR PARAMEDICS**

a) **Retirement Benefits**

The following is a sample of collectively bargained early retirement benefits that are currently available to Paramedics. The samples chosen represent four different provinces, and specifically, Paramedics who are members of CUPE in those provinces.

Ontario

i) Ontario Municipal Employees' Retirement System ("OMERS")

The OMERS Plan is a contributory defined benefit plan covering approximately 312,000 current and former employees of municipal governments and other government agencies, with close to 1,000 participating employers. There is no distinct or special treatment for CUPE Paramedics covered by OMERS.

The normal retirement age defined in the Plan for Paramedics and most of OMERS members is 65. Police and Firefighters are entitled to have normal retirement at age 60. Paramedics under the OMERS Plan can retire as early as age 55 without a penalty if they have:

- At least 30 years of service; or
- A 90 factor (age + service).

A Factor 85 early retirement benefit is conferred upon Police Officers and Firefighters whose normal retirement age is 60²⁸.

²⁸ www.omers.ca/the plan (Jan. 20, 2003). There are current temporary early retirement windows available under OMERS providing unreduced benefits for members with a service and age factor of less than 90. These are set to expire in 2003 and 2004.

EARLY RETIREMENT PROVISIONS FOR PARAMEDICS

As of 2004, a Paramedic who takes early retirement who does not qualify under the factor 90 early retirement provisions, faces a penalty of 5% per year that they are short of the lesser of:

- Normal retirement age,
- Early retirement factor, or
- 30 years of service.

ii) The Hospitals of Ontario Pension Plan ("HOOPP")

HOOPP is also a defined benefit plan of a two-tiered benefit formula. The formula provides 1% of the "average annualized earnings" up to the YMPE, plus 2% of average annualized earnings above YMPE. Early retirement reductions are applied unless the member has completed 30 or more years of membership. HOOPP does provide a bridge benefit for those who retire between age 55 and 64 which supplements the basic HOOPP pension until government pension payments begin. The bridge benefit in effect equals an additional 0.5% of average annualized earnings to bump up the overall pension benefit formula to a 2% of earnings. However, the bridge benefit, as well as the lifetime pension, is reduced unless the member has 30 years of plan membership or is at least age 60 at the time of retirement.

For those who retire early without reaching the early retirement milestones, they are penalized by receiving only a percentage of their lifetime pension, including the retirement benefit, based on the HOOPP Early Retirement Table reproduced below.

The table is based on the combination of age and years of [Plan membership](#).²⁹

²⁹ www.hoopp.com. Temporary transition benefits set to expire in 2005 are not referred to in the Brief.

EARLY RETIREMENT PROVISIONS FOR PARAMEDICS

Years of Plan Membership*	Percentage of Pension Payable					
	Age 55**	Age 56	Age 57	Age 58	Age 59	Age 60+
2-14	70.0%	76.0%	82.0%	88.0%	94.0%	100%
15	77.5%	82.0%	86.5%	91.0%	95.5%	100%
16	79.0%	83.2%	87.4%	91.6%	95.8%	100%
17	80.5%	84.4%	88.3%	92.2%	96.1%	100%
18	82.0%	85.6%	89.2%	92.8%	96.4%	100%
19	83.5%	86.8%	90.1%	93.4%	96.7%	100%
20	85.0%	88.0%	91.0%	94.0%	97.0%	100%
21	86.5%	89.2%	91.9%	94.6%	97.3%	100%
22	88.0%	90.4%	92.8%	95.2%	97.6%	100%
23	89.5%	91.6%	93.7%	95.8%	97.9%	100%
24	91.0%	92.8%	94.6%	96.4%	98.2%	100%
25	92.5%	94.0%	95.5%	97.0%	98.5%	100%
26	94.0%	95.2%	96.4%	97.6%	98.8%	100%
27	95.5%	96.4%	97.3%	98.2%	99.1%	100%
28	97.0%	97.6%	98.2%	98.8%	99.4%	100%
29	98.5%	98.8%	99.1%	99.4%	99.7%	100%
30	100%	100%	100%	100%	100%	100%

*Completed years **Age at retirement

Alberta

i) The Local Authority Pension Plan ("LAPP")

Like the other plans, Paramedics covered by LAPP are not afforded any special treatment. Normal retirement age is 65. Unreduced early retirement pension benefits are available to all members at age 55, provided they have combined years of services plus age of 85. The penalty imposed on members who retire early, and who otherwise do not qualify under the 85 factor, is 3% for each year or part year that the member retires prior to age 65.

LAPP is a contributory plan with members contributing 4.025% up to the YMPE plus 5.9% of any portion of the member's pensionable salary over the YMPE. Effective, January 1, 2003, contribution rates have been increased by 0.5% for members and employers.

British Columbia

i) British Columbia Public Service Pension Plan (the "PSPP")

This is a jointly trustee pension plan covering public sector employees in British Columbia, including members of the British Columbia Ambulance Service. Unlike the other plans reviewed above, the PSPP confers enhanced early retirement benefits on members of the British Columbia Ambulance Service, which was negotiated by CUPE Local 873 in 1995. The provision allows Paramedics to retire as early as age 55 without penalty or reduction where the member has age plus years of contributory service equal to 80.

Where the members age plus years of contributory service is less than the 80 factor, but the individual has 10 or more years of contributory service, then he/she is entitled to an unreduced pension at age 60, and otherwise, faces a penalty of 3% per year based on the lesser of:

- 50 minus age; or
- 80 minus the age, plus the contributory service.

For a member who has achieved factor 80, but wishes to retire prior to age 55, is subject to a pension reduction of 3% per year starting at age 50 for each year under age 55.

New Brunswick

i) The New Brunswick CUPE Paramedics' Pension Plan (the "New Brunswick Plan")

For members of the New Brunswick Plan who terminated employment after December 31, 1999, eligible members may retire at age 60 without penalty or reduction, provided he/she has completed at least 5 years of continuous employment. While members who retire with less than 60 years of age, a 3/12 percent for each complete month between the attainment of age 60 and the age as of the date of retirement is imposed. The New Brunswick Plan does, however, provide a "bridge benefit" by way of an additional monthly pension payable from the early retirement date to age 65, an amount equal to the number of years of the member's pensionable service times \$18.

b) **Retirement Patterns**

As this information is not tracked, the best source is to examine the Paramedic demographics shown under **Tab 2**, as referenced in section 5 b) of this Submission. Based on this information and by reference to the description of the Paramedic occupation, **the irresistible conclusion is that Paramedics retire at a high rate before age 55.**

8. POSSIBLE ALTERNATIVE SOLUTIONS – ARE THEY REALISTIC?

In October 2000, Finance Canada (the "Department") responded to a request by the Toronto Ambulance Services to include Paramedics as a "public safety occupation", suggesting that there are options available to provide these persons with comparable benefits to those presently classified as a "public safety occupation". The options identified are two-fold.

- a) Namely, the Department suggested that existing pension plans may be amended to at least provide early retirement benefits at the minimum levels permissible under the ITA, and otherwise looking at improvements that could be made to Paramedics' Pension Plans within the existing restrictions for registered pension plans.

Firstly, the issue we are dealing with has nothing to do with negotiating different early retirement benefits, as **this is a subject matter of collective bargaining**. In any event, we note that in respect of the OMERS Plan, for example, even though police and firefighters are "public safety occupations", they have yet to negotiate the maximum early retirement benefits negotiable under the *ITA*. The issue at hand, is simply to **establish a level playing field for those occupations whose characteristics qualify as a "public safety occupation"**, which, as submitted herein, should include Paramedics. Negotiating higher benefits is therefore not the answer.

- b) The other option suggested by the Department is the ability of employers to provide special early retirement benefits outside of a Registered Pension Plan, under a "pay-as-you-go" or pre-funded unregistered arrangement.

The Department suggested that employers in the industry top up the benefits available to their employees by establishing a funded or non-funded supplemental plan to, in effect, give the Paramedics the same enhanced early retirement benefits that the Firefighters, Police Officers, commercial airline pilots and other public safety occupations enjoy under the ITA Rules.

A supplementary retirement arrangement is considerably different from legislatively guaranteed early retirement benefits provided under a registered pension plan. From an employee's perspective, these arrangements are not covered by provincial or federal pension standards legislation, and are therefore not subject to the same minimum funding and/or benefits security provisions afforded to registered pension plans. In fact, there are no minimum funding or security requirements for supplemental pension plans period.

The benefit promise payable in retirement to Paramedics, as well as all employees, on a pay-as-you-go basis is only as secure as the employer who has made the promise. As the employees of Confederation Life found when they attempted to secure their unfunded supplementary benefits promised to them by their employer, any employer, organization or entity is vulnerable to financial collapse. This is a risk that is not borne by any other Canadian beneficiary of a registered pension plan, and certainly not faced by those included in the list of

"public safety occupations". As described by a leading management pension consulting firm in the *Mercer Pension Manual*:

"...the receipt of these pension benefits is subject to the financial ability of the employer to pay the benefits when due. This financial ability can be affected by several unforeseen factors, including bankruptcy, insolvency, changes in control, a sale of the business, corporate restructuring or even a change of heart by future management³⁰."

The other alternative with respect to supplementary arrangements is to fund the otherwise insecure pension promise. **However, such plans are not granted the same tax advantages as Registered Pension Plans** and, are a more expensive vehicle for providing retirement benefits. The ITA defines such an arrangement as a "retirement compensation arrangement" ("RCA").

RCA's are not subject to regular income taxes, but are subject to what is referred to as a "refundable tax". The amount is roughly equal to 50% of all contributions made to the RCA and 50% of the income of the trust.

The refundable tax is then recovered as benefits are paid out of the RCA. As a result of the computation of the refundable tax, the rate of recovery is effectively 50 cents for every dollar of benefit paid³¹.

The inherent inefficiencies and costs of such a regime does not make a funded pay-as-you-go arrangement option comparable to the benefit afforded "public safety occupations" in the ITA, given the adverse cost and tax consequences, which ultimately impacts on an employer's ability to deliver benefits promised.

9. CONCLUSION

This Submission leads to one overriding conclusion, Paramedics are in every way a **"Public Safety Occupation" equal to and in certain areas more so than those occupations currently defined as such in the ITA Regulations**, specifically subsection 8500 (1). **Their inclusion is consistent with the intent of the Act** and as such cannot be viewed as precedent setting for other occupations, which unlike the Paramedics, simply do not share the same occupational characteristics as other "Public Safety Occupations", such as Police Officers and Firefighters.

While Paramedics play a role in health care delivery through pre-hospital care they operate and function fully in the emergency services environment where the performance of their duties and the consequences of their actions and decisions have an impact not only on their safety, but also that of the public. Akin to Police Officers and Firefighters, Paramedics must function in an unregulated, unpredictable and often hazardous environment to deliver service to the public. They also share the same job

³⁰ Mercer Human Resource Consulting Limited, *The Mercer Pension Manual* (Carswell: Scarborough, ON, 1994) at pp. 15-16.

³¹ *Ibid.* at pp. 15-18.1

related stresses, both physical and mental. In fact, Paramedics are leaving the occupation in significant numbers, beginning at age 51, after what workplace injury statistics show is a physically and psychologically demanding career. And those who remain are prone to more severe and costlier workplace injuries. Under these conditions public safety may be jeopardized where Paramedics, and other public safety employees, are required or induced to continue working beyond an age when they may not be physically capable of safely performing their duties. **This is precisely the type of public risk that the Public Safety Occupation amendments to the ITA were intended to address.**

The review of the legislative history of the "Public Safety Occupation" definition clearly shows that the absence of Paramedics from the definition was an omission. **The application of these early retirement entitlement benefits to Paramedics is a matter of parity and recognition of the occupational relationship between them and the currently defined occupations.** Inclusion of Paramedics in the definition is the only option to redress this matter. That is not to say that the legislative change will automatically confer upon Paramedics across the country the enhanced early retirement benefits available to "Public Safety Occupations". As one can see from the sample of benefit provisions currently in place for Police Officers and Firefighters under the OMERS or HOOP plans, for example, inclusion in the definition of "Public Safety Occupation" has not automatically lead to their receiving the maximum early retirement benefits permissible under the *ITA*. This is a matter of collective bargaining between Paramedics and their employers, which can take into consideration specific occupational characteristics, including injury risks, job demands, and human resources issues specific to each employer and their employees. Extending eligibility for enhanced early retirement benefits to Paramedics is simply about creating a level playing field for Paramedics, and an opportunity for their employers to address through bargaining the occupational health and related public safety concerns surrounding the ability of older Paramedics to deliver their services to the public safely.

In summary, the current early retirement entitlements force Paramedics to choose between risking their long-term health by continuing in the profession to avoid early retirement penalties, or substantially compromising their post-retirement financial security. The risk to the public of this choice is twofold. First, some Paramedics who continue to work to avoid the economic penalties of early retirement may not be physically, emotionally or psychologically capable of performing their duties safely. Second, the incongruence between the unreduced early retirement benefits and when Paramedic are actually leaving the workforce creates a further risk of unpredictable shortages of experienced Paramedics.

EMSCC Letter of Support

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Emergency Medical Services Chiefs of Canada

Our Mission: To Advance And Align EMS In Canada

Directeurs des services médicaux d'urgence du Canada

January 12, 2003



Ernie Mothus, Chair
Public Safety Occupation Project
Paramedic Association of Canada
Association des paramédics du Canada
Unit 294, 230 – 1210 Summit Drive
Kamloops, BC, V2C 6M1

Dear Mr. Mothus:

Re: Public Safety Occupation Project, Changes to Income Tax Act

The Emergency Medical Services Chiefs of Canada support, in principle, the Paramedic Association of Canada's project to include paramedics in the definition of Public Safety Occupations as defined in the legislation. It must be made clear, however, that our support in principle for this for this important initiative not be construed as an affirmative response within the context of collective bargaining by our member organizations. Each of our members has unique financial and jurisdictional issues, all of which must be addressed within the context of the local collective bargaining process.

Paramedics work in the same challenging environments as the five named occupations: Police, Fire, Corrections, Airline Pilots, and Air Traffic Controllers. We believe it is in the best interest of the communities we serve, and the profession as a whole, to include paramedics in the definition of the act. In order to continue to provide quality care paramedics must maintain a high level of physical and mental fitness. Paramedicine has the same, if not more, occupational demands than that of many of the Public Safety Occupations currently designated within the act.

The Emergency Medical Services Chiefs of Canada look forward to continue working with the Paramedic Association of Canada move this project forward.

Sincerely yours,

Steve Rapanos
President, Emergency Medical Services Chiefs of Canada

c: EMSCC Board Members

EMCC Board Members

Service Profile

City or Province	Chief/Director	Staff	Estimated Budget	Governance Service Type	Population Served
Ottawa EMS	Anthony Di Monte	350	26M	Municipal/Public	1M
MD Ambulance Saskatoon	Dave Dutchak	85	4.2M	Health District Private Contracted	225,000
Toronto EMS	Ron Kelusky	1135	112M	Municipal/Public	2.5M
Urgences Sante; Montreal	Raynald Simard	1300	75M	Health/Public	2.5M
British Columbia, Ambulance Service	Paul Gotto	3300	192M	Provincial/ Public	4M
EHS Nova Scotia	Michael McKeage'	900	58M	Provincial/Contracted	950,000M
Winnipeg Fire Paramedic Service	Shoemaker, Wes	208	20M	Municipal/Public	630,000
Grande Prairie Regional EMS	Don Hunt	75	4.8M	Municipal/Public	72,000
Regina Health District	Glen Perchie	85	4.8	Health/Public	200,000
Medicine Hat EMS	Howard Snodgrass	50	2.8	Municipal/Public	1M
Calgary EMS	Tom, Sampson	325	26M	Municipal/Public	1M
Edmonton EMS	Steve, Rapanos	322	22M	Municipal/Public	900,000
TOTAL ESTIMATE		8,135	\$547.6M		14,977,000

January 20, 2003

Paramedic Demographics

**2001 Census – Statistics Canada
97F0012XCB01022**

(attached in its original form)

Paramedic Training and Certification in Canada

Paramedic training and certification in Canada currently exists on four levels. Each level is cumulative and the qualifications as described below are the minimum expectations at those levels. **Employment jurisdictions can, and frequently do, exceed these requirements.**

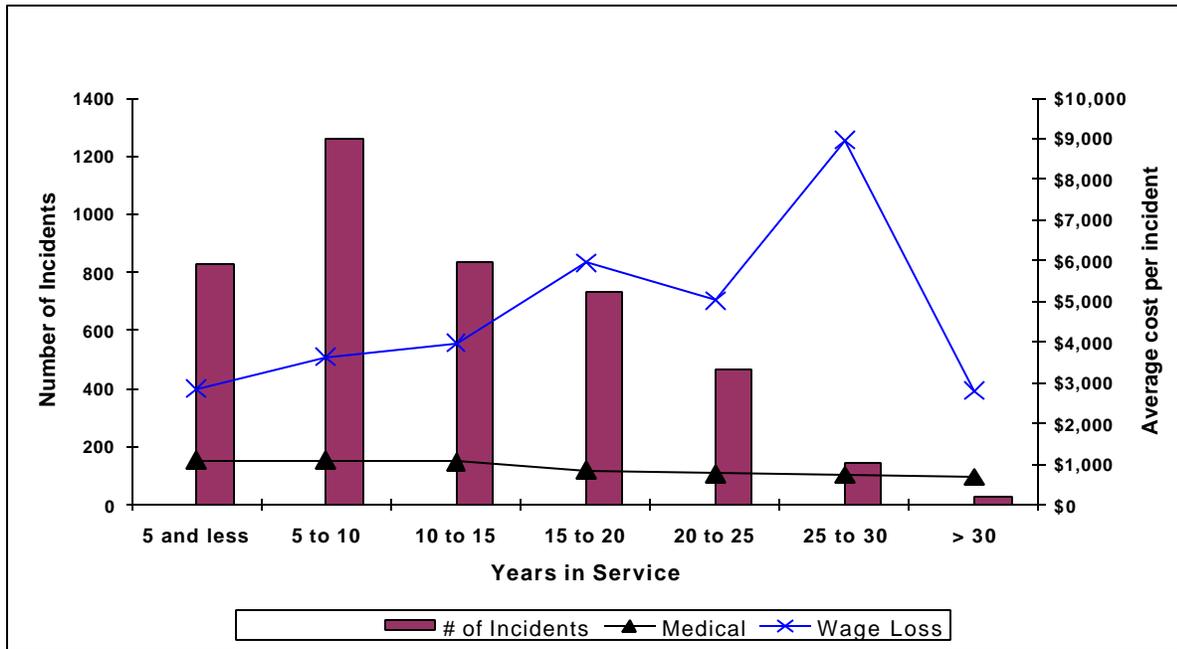
The **Emergency Medical Responder (EMR)** has successfully completed a recognized training program in emergency patient care and transportation. EMRs are part of the foundation upon which Canadian emergency medical systems are built. They are often associated with volunteer emergency services organizations in rural and remote areas, and may be the sole provider of emergency services in some communities. EMRs may be responsible for initial assessments, the provision of safe and prudent care, and the transport of a patient to the most appropriate health care facility. "First Responders" (as found in a tiered response, industrial and/or recreational setting) may be included within the EMR level, although in many settings First Responders do not provide patient transport. The EMR competency profile does not include controlled or delegated medical acts.

The **Primary Care Paramedic (PCP)** has successfully completed a recognized educational program in paramedicine at the primary care level. PCPs may be volunteer or career Paramedics associated with urban, suburban, rural, remote, industrial, air ambulance and/or military services. PCPs constitute the largest group of paramedic practitioners in Canada. They are expected to demonstrate excellent decision-making skills, based on sound knowledge and principles. Controlled or delegated medical acts identified in the PCP competency profile include semi-automated defibrillation and the administration of certain medications.

The **Advanced Care Paramedic (ACP)** has successfully completed a recognized educational program in paramedicine at the advanced care level. Such programs often require prior certification at the PCP level (or equivalent). ACPs are most often employed by urban, suburban, air ambulance and/or military services. Currently, relatively few ACPs are found in rural areas. 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. This includes the added responsibilities and expectations related to an increased number of controlled or delegated medical acts available. Controlled or delegated medical acts identified in the ACP competency profile include advanced techniques to manage life-threatening problems affecting patient airway, breathing, and circulation. ACPs may implement treatment measures that are invasive and/or pharmacological in nature.

The **Critical Care Paramedic (CCP)** has successfully completed a recognized educational program in paramedicine at the critical care level. This is currently the highest level of Paramedic certification available. CCPs are most often associated with large urban and/or air ambulance services, and are not found in all provinces. The CCP is expected to perform thorough assessments that include the interpretation of patient laboratory and radiological data. CCPs' high levels of decision-making and differential discrimination skills relating to patient care, result in their implementing treatment measures both autonomously and after consultation with medical authorities. Many controlled or delegated medical acts are available to the CCP. Those identified in the CCP competency profile include the use of invasive hemodynamic monitoring devices and advanced techniques to manage life-threatening problems affecting patient airway, breathing, and circulation. CCPs typically implement treatment measures that are invasive and/or pharmacological in nature.

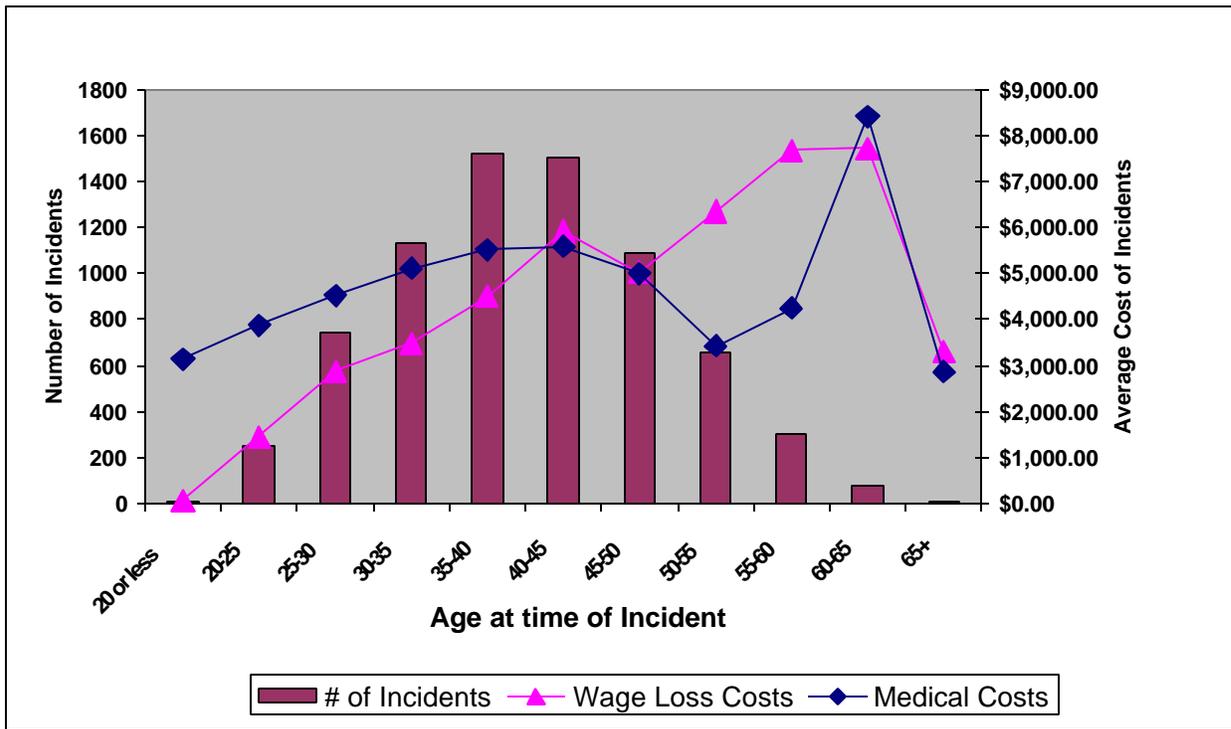
Number and Cost of Incidents by Five Year Increments of Service



Years in Service	# of Incidents	Average Cost per Incident	
		Medical	Wage Loss
5 and less	827	\$1,098	\$2,865
5 to 10	1263	\$1,091	\$3,631
10 to 15	836	\$1,061	\$3,986
15 to 20	730	\$845	\$5,959
20 to 25	467	\$778	\$5,017
25 to 30	144	\$739	\$8,975
> 30	29	\$697	\$2,798

Source: BC Ministry of Labour, August 2002

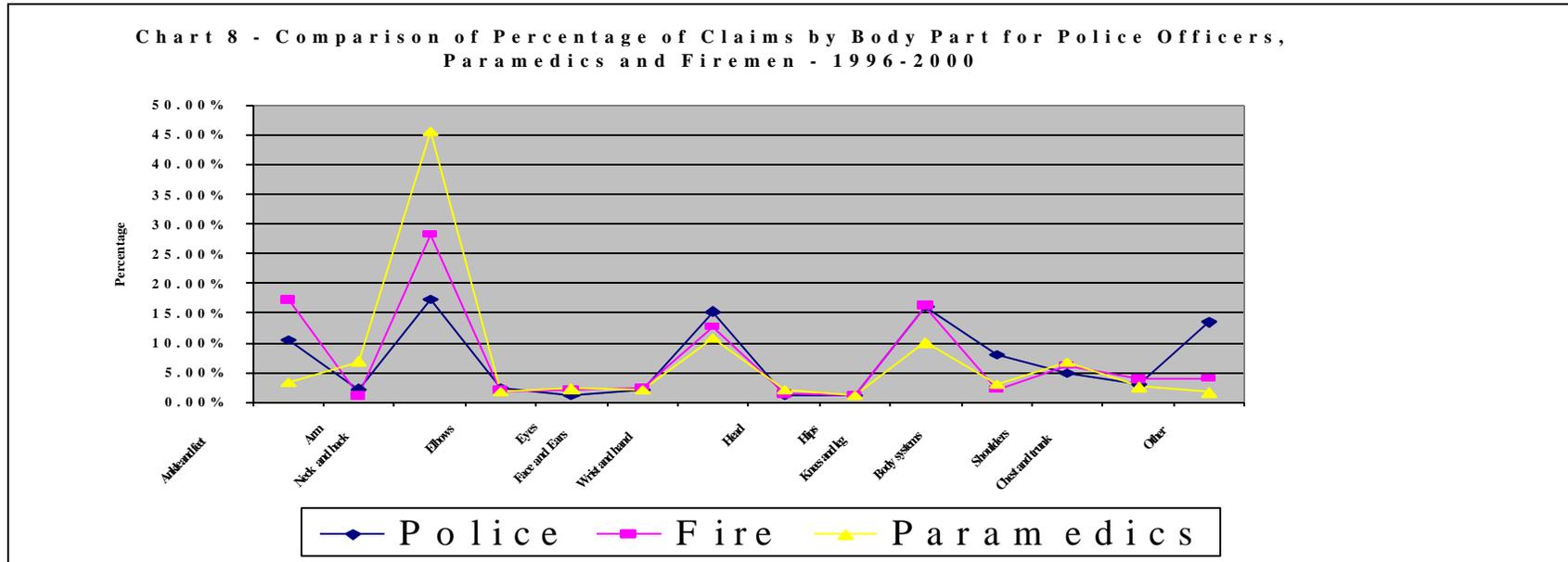
Number and Cost of Incidents by Five Year Increments in Age



Age at Time of Incident	# of Incidents	Average Cost of Incidents	
		Medical	Wage Loss
20 or less	8	627.85	77.5014
20-25	254	776.2862	1469.505
25-30	739	905.354	2890.742
30-35	1135	1022.852	3490.827
35-40	1520	1102.507	4501.807
40-45	1502	1119.044	5917.626
45-50	1089	998.8113	5029.112
50-55	658	685.2751	6351.679
55-60	301	848.1355	7687.411
60-65	77	1682.862	7729.004
65+	6	574.4125	3315.858

Source: BC Ministry of Labour, August 2002

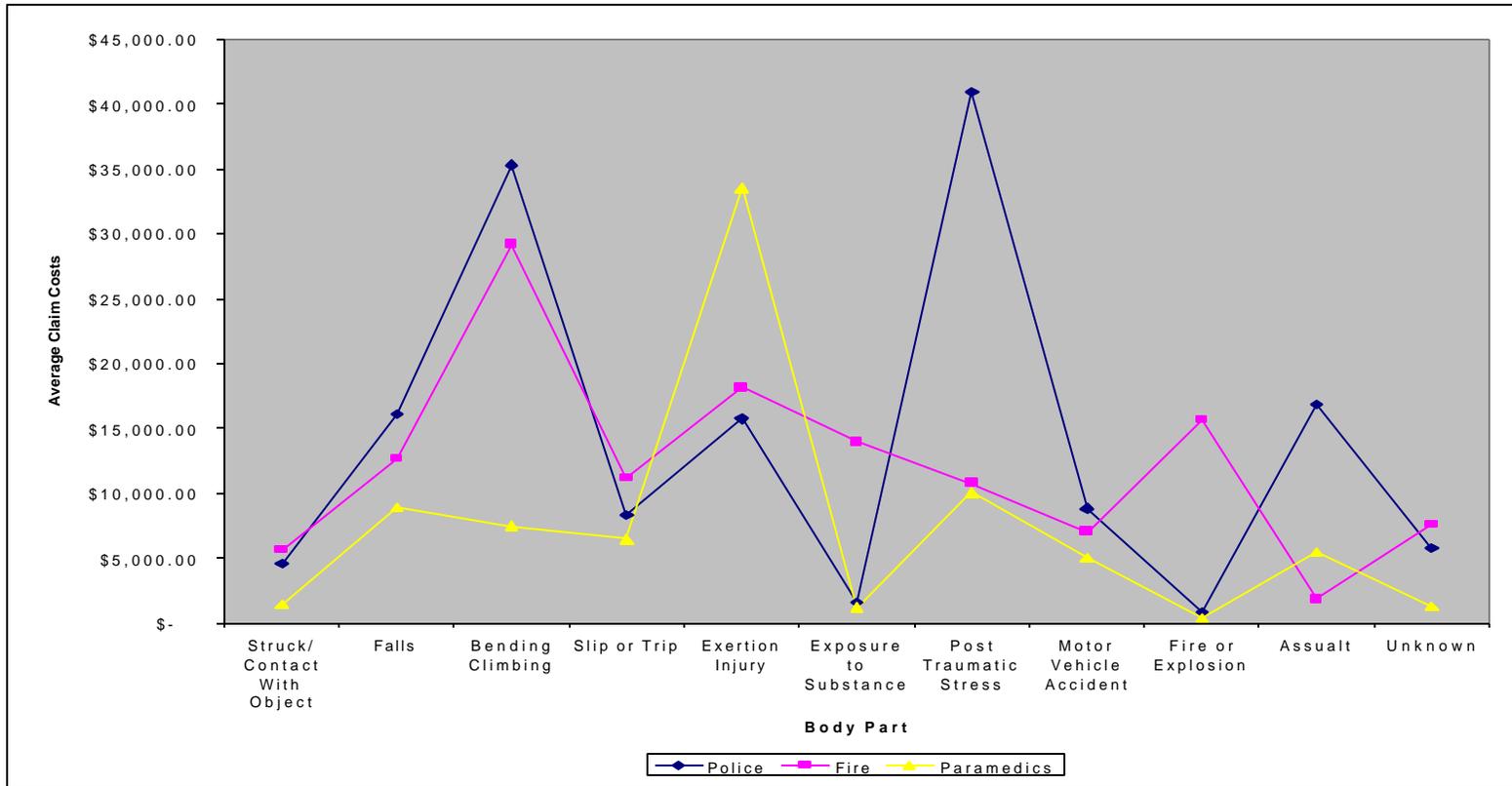
Comparison of Percentage of Claims by Body Part for Police Officers, Paramedics & Firemen



	Ankle & Feet	Arm	Neck & Back	Elbows	Eyes	Face & Ears	Wrist & Hand	Head	Hips	Knees & Leg	Body Systems	Shoulders	Chest & Trunk	Other
Police	10.45	2.19	17.31	2.49	1.29	2.09	15.32	1.19	1.09	16.22	8.06	4.98	2.89	13.53
Fire	17.21	1.05	28.16	1.89	2.05	2.32	12.68	1.37	1.16	16.16	2.16	6.05	3.84	3.89
Paramedic	3.40	6.90	45.53	1.73	2.25	2.09	10.75	2.13	1.19	10.08	2.96	6.74	2.64	1.63

Source: BC Ministry of Labour August 2002

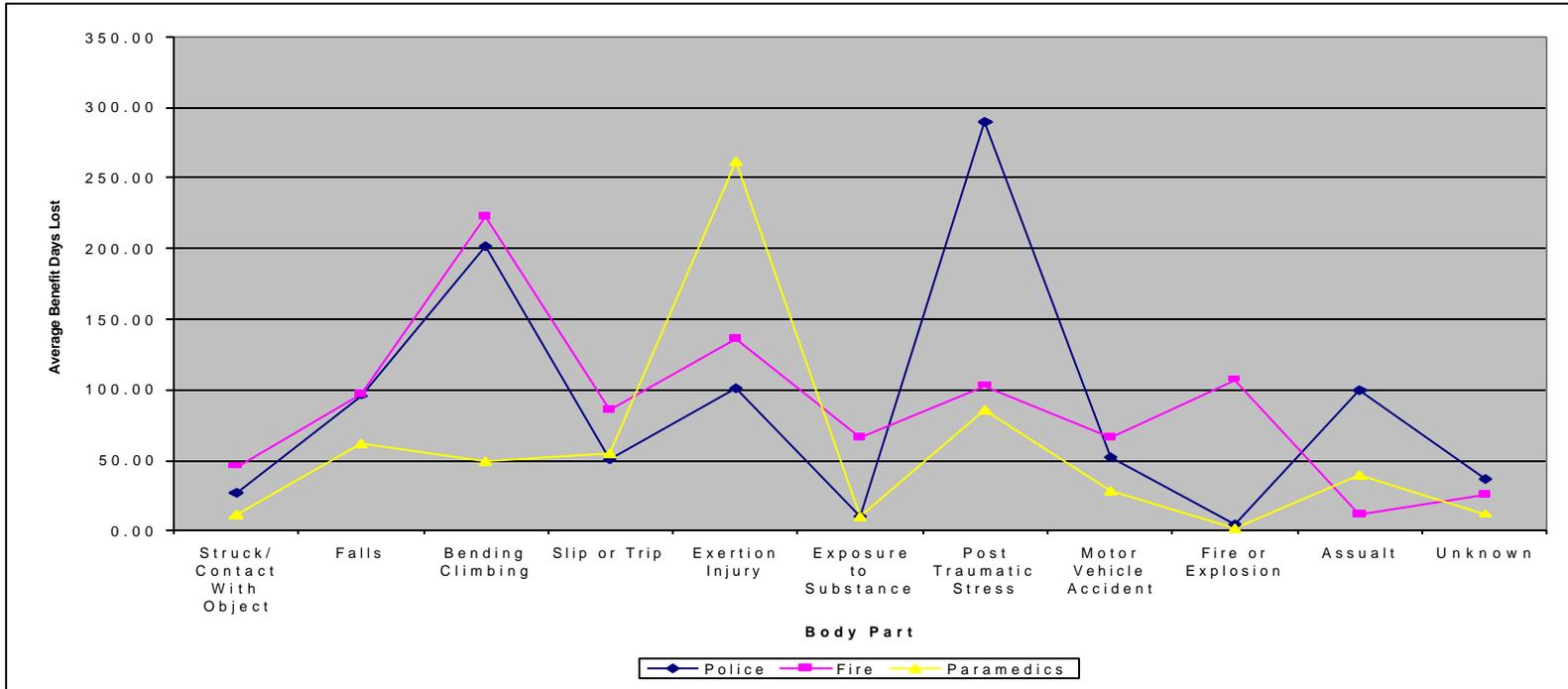
Average Awarded Claim Costs



	Struck /Contact With Object	Falls	Bending Climbing	Slip or Trip	Exertion Injury	Exposure To Substance	Post Traumatic Stress	Motor Vehicle Accident	Fire or Explosion	Assault	Unknown
Police	\$4,633.38	\$16,105.59	\$35,301.24	\$8,376.44	\$15,731.57	\$1,616.04	\$40,875.56	\$8,850.43	\$815.10	\$16,888.15	\$5,747.60
Fire	\$5,673.89	\$12,692.50	\$29,163.26	\$11,182.14	\$18,135.44	\$13,946.05	\$10,788.78	\$7,042.66	\$15,688.63	\$1,859.44	\$7,552.08
Paramedics	\$1,466.84	\$8,951.73	\$7,492.54	\$6,475.01	\$33,549.83	\$1,236.81	\$10,068.63	\$5,020.83	\$390.73	\$5,468.80	\$1,335.24

Source: Ontario Work Place Safety and Insurance Board Statistics for 199, 2000, 2001.

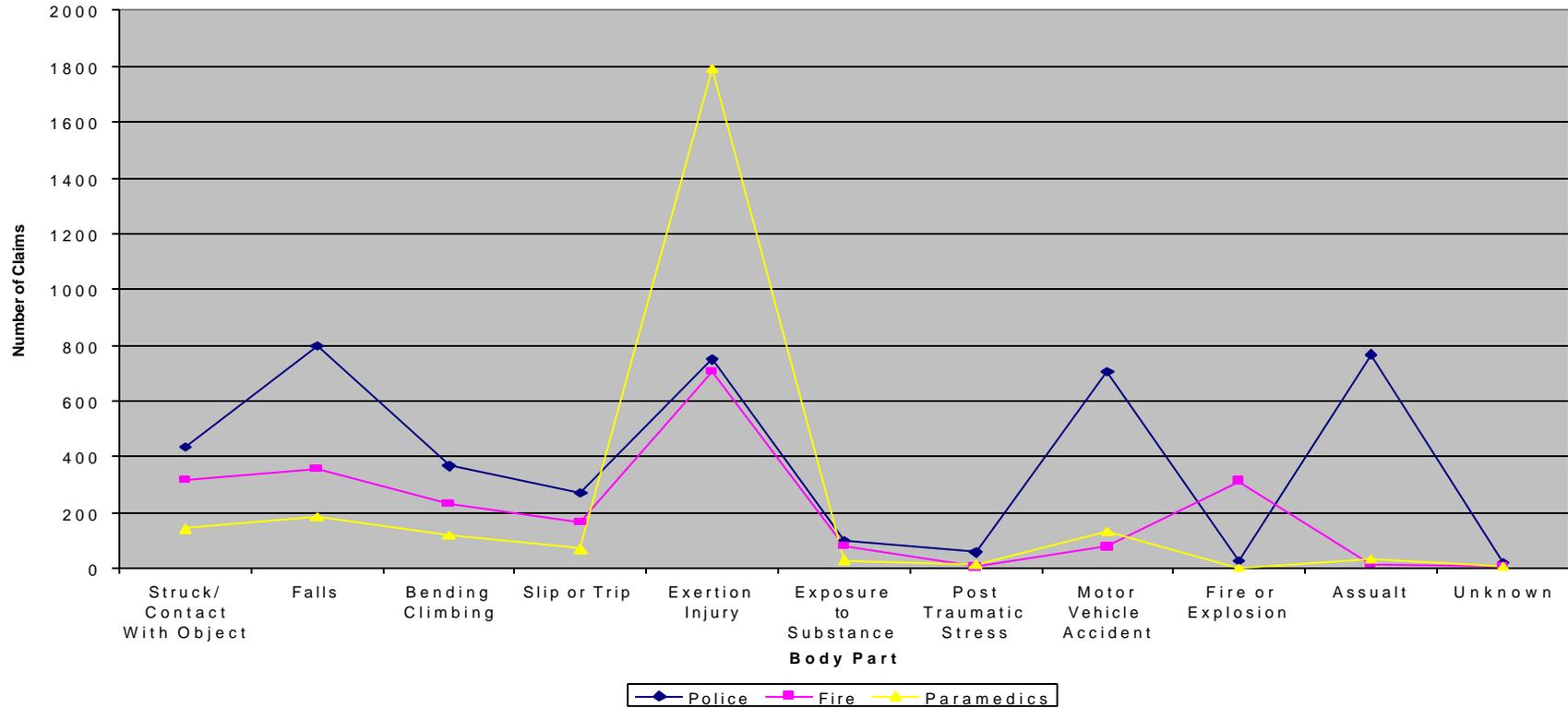
Average Benefit Days Lost Due to Workplace Injury



	Struck /Contact With Object	Falls	Bending Climbing	Slip or Trip	Exertion Injury	Exposure To Substance	Post Traumatic Stress	Motor Vehicle Accident	Fire or Explosion	Assault	Unknown
Police	26.93	96.03	201.59	50.71	101.18	10.62	290.20	52.65	4.70	100.16	37.00
Fire	46.04	96.57	222.64	86.29	135.91	66.05	103.25	65.92	107.39	12.09	25.75
Paramedics	11.16	62.68	49.66	54.50	261.55	9.81	85.57	28.70	1.33	39.96	12.33

Source: Ontario Work Place Safety and Insurance Board Statistics for 1999, 2000, 2001.

Total Claims in Category



	Struck/ Contact With Object	Falls	Bending Climbing	Slip or Trip	Exertion Injury	Exposure To Substance	Post Traumatic Stress	Motor Vehicle Accident	Fire or Explosion	Assault	Unknown
Police	436	799	367	272	749	100	57	704	25	767	21
Fire	318	358	233	166	707	82	5	77	313	12	9
Paramedics	143	187	120	70	1793	30	12	131	3	35	8

Source Ontario Work Place Safety and Insurance Board Statistics for 1999, 2000, 2001.

COMPARATIVE ANALYSIS

**Ambulance Attendant,
Police Officer, and
Firefighter Positions**

for

**Bryon Longeway, Ernie Mothus and Tom Manz
of the
Paramedic Association of Canada
2270-21331 Gordon Way
Richmond, BC V6W 1J9**

by

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Occupational Health Consultant

and

R. Douglas Hamm, MD, CCFP, FRCP(C), CCBOM

Specialist in Occupational Medicine

January 27, 2003

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INTRODUCTION

HEALTHSERV Professionals (BC) Inc. has been asked by the Paramedic Association of Canada to review and compare the Physical and Psychological Job Demands of an Ambulance Attendant, Police Officer and Firefighter. In order to do this we will be reviewing the National Occupational Classification of all three positions and reviewing the Job Demand Analysis (JDA) done for the EMA2 Paramedic and the Firefighter Probationer positions, and the provided Task Bank Job Description of a General Duty Constable.

The National Occupational Classification (NOC) is a symptomatic taxonomy of occupations in the Canadian labor market. It is based on extensive occupational research, analysis and consultation conducted across the country. The NOC is intended for use in compiling, analyzing and communicating information about occupations. Occupational information is important for employment equity, human resource planning, occupational supply and demand analysis, the provisions of the labor market and other programs and services.

NOC POSITION SUMMARY

Listed below is a summary of the National Occupational Classification (NOC) for the Ambulance Attendant, Police Officer and Firefighter positions:

AMBULANCE ATTENDANT

This unit group includes workers who administer pre-hospital emergency medical care to patients and transport them to hospitals or other medical facilities for further medical care. They are employed by private ambulance services, hospitals, fire departments, government departments and agencies, manufacturing firms, mining companies and other private sector establishments.

Main Duties

Workers in this unit group perform some or all of the following duties:

- assess extent of injuries or illness of trauma victims, patients with respiratory disease and stress, overdose and poisoning victims, industrial accident victims and other ill or injured individuals to determine emergency medical treatment
- administer pre-hospital emergency care to patients, such as cardiopulmonary resuscitation (CPR), oxygen, bandaging and splinting

- establish and maintain intravenous treatment (IV), apply adjunctive equipment for ventilation and circulation complications, administer medications and provide other advanced emergency treatment to patients
- transport patients by air, land or water to hospital or other medical facility for further medical care
- document and record nature of injuries and treatment provided
- assist hospital personnel with provision of medical treatment, if necessary
- maintain ambulances and emergency care equipment and supplies
- may train and supervise other workers in this unit group

Physical Requirements

Vision	Total visual field
Color Discrimination	Relevant
Hearing	Other Sounds
Body Position	Other positions
Limb Coordination	Multiple limb coordination
Strength	Heavy

Environmental Conditions

Location

- regulated inside climate
- unregulated inside climate
- outside
- in a vehicle or cab

Hazards

- biochemical agents
- equipment, machinery, tools

Discomforts

- noise

POLICE OFFICER

Police Officers protect the public, detect and prevent crime and perform other activities directed at maintaining law and order. They are employed by municipal and federal governments, some provincial governments and the Armed Forces. This unit group includes Military Police, Ports Canada Police and Railway Police.

Main Duties

Police Officers perform some or all of the following duties:

- patrol assigned areas to maintain public safety and order and to enforce laws and regulations
- investigate crimes and accidents, secure evidence, interview witnesses, compile notes and reports and provide testimony in courts of law
- arrest criminal suspects
- provide emergency assistance to victims of accidents, crimes and natural disasters
- participate in crime prevention, public information and safety programs
- may supervise and coordinate the work of other police officers

Physical Requirements

Vision	Total visual field
Color Discrimination	Relevant
Hearing	Verbal interaction with others
Body Positioning	Sitting, standing and walking
Limb Co-ordination	Multiple limb coordination
Strength	Heavy

Environmental Conditions

Location

- regulated inside climate
- outside
- in a vehicle or cab

Hazards

- equipment, machinery, tools
- dangerous locations

Discomforts

- none

FIREFIGHTER

Firefighters carry out fire fighting and fire prevention activities, and assist in other emergencies. They are employed by municipal, provincial and federal governments and by large industrial establishments that have internal fire fighting services.

Main Duties

Firefighters perform some or all of the following duties:

- respond to fire alarms and other calls for assistance, such as automobile and industrial accidents
- rescue victims from burning buildings and accident sites
- control and extinguish fires using manual and power equipment, such as axes, water hoses, aerial ladders and hydraulic equipment
- administer first-aid and other assistance
- ensure proper operation and maintenance of fire fighting equipment
- inform and educate the public on fire prevention
- train to maintain high level of physical fitness
- may supervise and coordinate the work of other firefighters

Physical Requirements

Vision	Total visual field
Color Discrimination	Not relevant
Hearing	Verbal interaction with others
Body Positioning	Other positions
Limb Co-ordination	Multiple limb coordination
Strength	Heavy

Environmental Conditions

Location

- regulated inside climate
- unregulated inside climate
- outside

Hazards

- dangerous chemical substances
- equipment, machinery, tools
- electricity
- flying particles, falling objects
- fire steam, hot surfaces
- dangerous locations

Discomforts

- noise
- odors
- non toxic dusts
- wetness

NOC COMPARISON OF PHYSICAL REQUIREMENTS AND ENVIRONMENTAL CONDITIONS

When comparing the NOC of an Ambulance Attendant, Firefighter and Police Officer, the main similarities are identified in the physical requirements and the environmental conditions of the job.

There are six categories that are assessed when determining the physical requirements of a job. These categories are Vision, Color Discrimination, Hearing, Body Positioning, Limb Co-ordination and Strength.

VISION

Is defined as the use of sight in the work performed. The scale is organized in terms of the visual field involved in the performance of the work.

1 Close visual acuity

Some or all work activities are performed close to the worker. The scope of the visual field is confined and requires close attention to detail.

2 Near vision

Work activities are performed near the worker. The scope of the visual field is broader than in close visual acuity.

3 Near and far vision

Some work activities involve the monitoring of processes, objects or situations in the work environment that are far from the worker. Other work activities involve near vision.

4 Total visual field

Work activities involve the whole field of vision - Near and far - as well as depth perception and peripheral vision

The Ambulance Attendant, Police Officer and Firefighter all require a total visual field in order to perform the duties of their jobs. An example of the use of total visual field is when driving an ambulance, fire truck or police car.

COLOUR DISCRIMINATION

0 Not relevant

Colour discrimination is not relevant in the performance of the work.

1 Relevant

The Police officer and Ambulance Attendant both require colour discrimination in order to perform the duties of their job. The Firefighter does not require colour discrimination in order to carry out the duties of their job.

HEARING

Is defined as the use of hearing in the work performed. The levels of this scale are organized in terms of the type of auditory discrimination involved in the performance of the work.

1 Limited

Hearing is limited to short and/or infrequent verbal interactions in order to perform the work.

2 Verbal interaction

Work activities involve communication with colleagues, clients and/or the public on a regular basis.

3 Other sound discrimination

Work activities involve the identification, assessment and/or production of sound.

Verbal interaction is included in this level.

The Ambulance Attendant, Firefighter and Police Officer, as per the NOC, must be able to verbally interact in order to communicate with colleagues, clients, and the public on a regular basis.

The Ambulance Attendants are also involved in the identification, assessment and/or production of sound including verbal interaction. An example of this is during patient triage procedures such as when listening for blood pressure or chest sounds.

BODY POSITION

Primary type of posture or body movement involved in performing the work. These postures or body movements range from simple to complex and from sedentary to mobile.

1 Sitting

Work activities primarily involve sitting. Standing and/or walking may occur but is incidental to the work being performed.

2 Standing and/or walking

Work activities primarily involve standing or walking.

3 Sitting, standing, walking

This scale involves work activities in combinations and varying degrees of Sitting and Standing and/or walking.

4 Other body positions

Work activities involve body postures other than, or in addition to, sitting and standing and/or walking such as bending, stooping, kneeling and crouching.

The Police Officer requires the ability to sit, stand and walk.

The Ambulance Attendant and Firefighter both require other body positions in addition to sitting, standing or walking such as bending, stooping, kneeling and crouching. An example of this is when an Ambulance Attendant is transporting a patient they must be able to fully stoop over by bending from the waist from an unsupported kneeling, sitting or standing position and reach down, out and away.

LIMB COORDINATION

Use of limbs in performing work.

0 Not relevant

Work activities do not involve co-ordination of limbs.

1 Upper limb co-ordination

Work activities involve co-ordination of upper limbs.

2 Multiple limb co-ordination

Work activities are carried out by co-ordinating the movements of upper limb(s) simultaneously with lower limb(s).

The Ambulance Attendant, Police Officer and Firefighter all require multiple limb co-ordination in order to perform the duties of their job. For example, an Ambulance Attendant must be able to walk up and down stairs when stepping up and down and in and out of the ambulance and when leaning over and lifting a patient in a difficult or confined space.

STRENGTH

Use of strength in the handling of loads such as pulling, pushing, lifting and/or moving objects during the work performed.

1 Limited

Work activities involve handling loads up to 5 kg.

2 Light

Work activities involve handling loads of 5 kg but less than 10 kg.

3 Medium

Work activities involve handling loads between 10 kg and 20 kg.

4 Heavy

Work activities involve handling loads more than 20 kg.

The Ambulance Attendant, Police Officer and Firefighter all require the strength to handle loads more than 20 kg in order to perform the duties of their job. An example of this is transporting a patient in a chair cot down stairs.

ENVIRONMENTAL CONDITIONS

LOCATION

The work performed is carried out indoors in a regulated environment, indoors in an unregulated environment, outdoors or in a vehicle. In many occupations, the main duties may be performed in more than one location. Therefore, a group may have more than one location code.

1 Regulated inside climate

A normal controlled environment such as an office, hospital or school.

2 Unregulated inside climate

An inside work environment where the temperature or humidity may be considerably different from normal room conditions. In some groups, the nature of the duties affects the temperature or humidity of the work environment.

3 Outside

An outdoor work environment where the worker is exposed to variations in weather conditions and seasonal weather patterns.

4 In a vehicle or cab

An interior space in any form of vehicle or in the cab of heavy equipment operated by the worker.

When comparing environmental conditions, the Ambulance Attendant and Firefighter are exposed to similar types of locations. They both require working outside and in a regulated and unregulated inside climate. Ambulance Attendants are also required to work in a vehicle or cab.

Police Officers are required to work in locations with a regulated inside climate, outside and in a vehicle or cab but not in an unregulated inside climate like the Ambulance Attendants and Firefighters.

HAZARDS

Potential hazards to which the worker may be exposed. The codes provide an indication of the type(s) of hazard(s) most likely to be present in the workplace environment. They are not a measure of frequency, duration or degree of exposure to

hazards, but an indication of the presence of absence of a particular hazard in the work environment.

1 Dangerous chemical substances

Exposure to any chemical that may endanger health through inhalation, absorption or ingestion, contact with skin or eyes, or any chemical with the potential for fire or explosion. Substances may be in forms such as solids, liquids, gases, aerosols or particles.

2 Biological agents

Exposure to infectious bacteria and viruses as a result of indirect contact with, or direct handling of, infectious materials or micro-organisms that may cause illness.

3 Equipment, machinery, tools

Working near or with equipment, instruments, machinery or power/hand tools that may be a potential source of accident or injury.

4 Electricity

Exposure to electrical circuitry, high tension wires, transformers or other equipment that may be a potential source of electrical shock.

5 Radiation

Exposure to ionizing radiation such as x-rays and radioactive substances or non-ionizing radiation such as radio frequencies and infrared, ultraviolet or visible light that may affect health adversely.

6 Flying particles, falling objects

Exposure to flying particles and falling objects in the work environment that pose the risk of bodily injury. Flying particles refer to particles such as wood chips, metal particles and rock chips generated by handling, crushing, grinding, rapid impact or explosion of materials.

7 Fire, steam, hot surfaces

Exposure to fire (rather than exposure to flammable substances that may ignite), to emissions of steam or to intensely hot surfaces that are potential sources of injury.

8 Dangerous locations

Working in locations that are inherently treacherous and are potential sources of injury. Such work locations include construction sites, underground sites, erected support structures and marine environments.

Environmental hazards as per the NOC are greatest for the Firefighters where they could come in contact with dangerous chemical substances, equipment, machinery, tools, electricity, flying particles, falling objects, fire, steam, hot surfaces, and dangerous locations.

The environmental hazards for an Ambulance Attendant as per the NOC include being exposed to biochemical agents, equipment, machinery, and tools.

The environmental hazards identified as per the NOC for the Police Officers are equipment, machinery, tools and dangerous locations.

DISCOMFORTS

Work conditions that create disturbances but are not hazardous. In general, these conditions create discomfort, but are not direct sources of injury. In extreme instances, however, these conditions may cause injury.

1 Noise

Work that produces sufficient noise - constant or intermittent - to cause marked distraction or possible loss of hearing.

2 Vibration

Work that produces an oscillating or quivering motion of the body.

3 Odors

The presence of noxious, intense or prolonged odours in the work environment.

4 Non-toxic dusts

The presence of non-poisonous airborne particles such as textile dust, flour, sand, sawdust and feathers in the work environment.

5 Wetness

Work that involves contact with water or other liquids.

The discomforts identified as per the NOC for the Firefighter include exposure to noise, odours, non-toxic dusts and wetness. Discomforts for an Ambulance attendant as identified by the NOC include exposure to noise. There were no discomforts identified as per the NOC for a Police Officer.

POSITION COMPARISON:

Ambulance Attendant, Police Officer, Firefighter

HEALTHSERV has been asked to compare the EMA2 Paramedic (Ambulance Attendant) Job Demand Analysis done in 1999, with the Firefighter Probationer Job Demand Analysis done by HEALTHSERV in 1997, and the provided integrated Task Bank for the Royal Canadian Mounted Police (R.C.M.P) General Duty Constable done by the Research Branch of the Human Resources Directorate of the R.C.M.P.

A Job Demand Analysis is a formal process that collects, analyzes and interprets the ergonomic, physical, psychosocial and environmental requirements of a job. An experienced Occupational Health Nurse, Physiotherapist or Kinesiologist performs the Job Demand Analysis. Job information is collected by interviewing employees and supervisors, observing and video-taping job activities, and reviewing job description information, reference literature, and the National Occupational Classification (NOC).

The Job Demand Analysis (JDA) is used to define the Bona Fide Occupational Requirements (BFOR's) for a specific job. BFOR's are recognized by Human Rights as a standard for defining job placement criteria.

We will first summarize each job and then compare the EMA2 Paramedic JDA with the Firefighter JDA and the provided General Duty Constable Integrated Task Bank:

For definition of Continuous, Frequent and Occasional please refer to Appendix 1.

British Columbia Ambulance Service: EMA2 Paramedic JDA Summary

General EMA2 Job Duties:

- determine who is attendant and driver
- pre-drive equipment and ambulance inventory check-out
- drive ambulance in variable and extreme conditions – weather, traffic, dangerous speeds
- read street maps and assist partner to navigate ambulance
- locate and operate controls and switches in ambulance cab
- operate and maintain ambulance emergency care equipment including stores in ambulance and jump kit including oxygen mask, bag & mask, suction, etc.
- take calls from dispatch and note address
- determine nature of call based on the code

- respond to call
- pull stretcher, chair-cot, spine board, automated defibrillator, oxygen tank and jump kit out of back of ambulance
- attend patient and triage for transport to hospital
- take vital signs, medical history and medications, identify/investigate the cause of the medical emergency
- IV administer and maintenance
- initiate patient treatment based on plausible diagnosis
- assess the extent of patients' injuries or illness, establishing and maintaining treatment and monitoring patient in preparation to transport, plan for transport
- document and record treatments and monitoring data and complete required reports
- communicate with other professionals groups that have responded to the call including the fire department and or other emergency response crew(s)
- interview bystanders or witnesses and establish mechanism of illness or injury and any other associated medical issues
- establish lift technique with other responders and move patient onto stretcher
- secure patient for transportation
- attend patient and monitor vital signs during transportation to hospital
- triage and transfer patient in emergency
- slide patient off stretcher with spine board onto hospital bed
- replace linens, blankets and other equipment including oxygen tank
- inform dispatch of time for availability
- disseminate injury, accident or medical information to hospital staff as warranted
- replenish materials or equipment when they run out
- maintain, clean, store, select and prepare for transport and use equipment and supplies required for monitoring, treating and transporting patient in the ambulance

Hours of Work

The BCAS EMA2 paramedic is a full time position with paramedics working a 12 hour shift with a rotation of 2 days on, 2 nights on, 4 days off. Shift lengths are between 10 and 14 hours depending on the call out, station crew assignment and paramedic. Overtime work occurs occasionally, such as, when a callout occurs near the end of a shift and extends beyond the regular hours.

General Psychological and Cognitive Demands

The EMA 2 paramedic must be able to:

- perform multiple simultaneous tasks
 - work in emergency situations dealing with human crisis, where errors in judgement or attention to detail could have life-threatening consequence
 - pay intense attention to detail and assume a high level of responsibility and accountability
 - treat patient with some drugs including IV application and maintenance
 - apply and take recordings of ECG with automated defibrillator
 - maintain a high degree of self-supervision and occasionally direct or work with less qualified or inexperienced emergency response personnel
 - drive code 3 in excess of posted speeds and navigate through traffic while communicating with dispatch, emergency departments by radio or cell phone and/or with partner who may be attending to patient in ambulance
 - drive ambulance in variable or extreme weather conditions, at all times of day or night and in isolated rural or urban areas
 - fly in aircraft, travel in boats and other mobile equipment with excessive noise, distractions and multiple environmental stimuli while attending to the patient
 - perform job duties under strict deadline pressures during emergency response activity
 - attend combative, intoxicated or psychologically disturbed patients
- be exposed to deceased or dying adults or children and/or catastrophic events with the potential to cause critical incident stress and post traumatic stress disorder
- risk exposure to infectious diseases (TB, AIDS, Hepatitis, etc.)

Physical Activity Demands

- frequent to constant standing, sitting and stepping in and out of ambulance
- frequent walking up and down multiple flights of stairs and walking on flat, cluttered or uneven surfaces
- frequent, constant or sustained stand, walk, climb and balance on stairs, slopes and all kinds of surfaces, stairs and inclines, which may be dark, cluttered or slippery, while carrying, pushing and pulling patients, lifting devices and equipment (including walking downstairs backwards)
- frequent to constant very heavy work requiring lifting, carrying, pushing, pulling of patients equipment, frequently weighing a minimum of 240 lbs. between two people, from floor to shoulder height
- occasional to frequent sustained power gripping of stretcher, spine-board, chair-cots, oxygen tank and other emergency response equipment required during medical treatment
- occasional to sustained static body postures including significant muscular strength, endurance and joint mobility (including CPR procedures)
- occasional to frequent fingering and handling of medical supplies and equipment
- constant/repetitive bilateral reaching down, out and below shoulder
- constant/repetitive bending from the waist when reaching out, down and away from shoulder while attending to a patient either at the call site or during transportation to the hospital
- frequent, constant or sustained crouch, stoop, bend, kneel, crawl, twist, push, pull and reach above and below shoulder level with one or both arms, to lift, carry, push and pull self, patient, equipment and /or lifting device, sometimes in adverse conditions, in order to access, attend to and move patients
- constant – average spinal and external joint range of motion, limb co-ordination and general dexterity of hands, wrists and fingers
- constant – co-ordinate eye-hand function in preparing medications – drawing fluid medications into syringe, initiating or maintaining IV's, taking blood pressure and blood sugar readings and operating medical equipment
- frequent to constant – palpate and feel with fingers during patient assessment
- frequent to constant – operate medical equipment and manipulate parts of equipment rapidly, accurately and precisely
- constant – operate communication equipment and drive ambulance

- visually access patients, read dials, displays, printouts, walk and drive with sufficient visual acuity, peripheral vision, colour vision and depth perception
- constant – communicate verbally with partner, patient(s), public, other emergency responders and health care professionals
- frequent – communicate in writing when filling out forms
- be available for on-call by pager
- work extended hours with shift work and overtime without scheduled breaks

Firefighter Probationer JDA Summary

General Firefighter Job Duties:

The Firefighter, when engaged in hazardous activity, works under direct supervision. Firefighters are responsible for rapid and efficient performance in emergency conditions of considerable hazard. Recruits undergo four weeks of training before assignment. During a six month probationary period, recruits attend training to develop thorough knowledge of all equipment and apparatus, fire fighting techniques, standing operating procedures and guidelines. Continuously, throughout a Firefighters career, ongoing training and maintenance of skills occurs. As directed by the superior officer, responsibilities of a Firefighter include responding to emergency situations such as:

- low or high rise residential, commercial or industrial fires
- hazardous substance incidents
- overwater fire fighting and water rescue calls
- trench, excavation, embankment rescue and urban heavy rescue
- dangerous electrical emergencies
- fire alarms
- calls to assist people whose lives are endangered or require extrication
- bomb treats
- disasters
- assisting the BC Ambulance Service with First Response medical aid
- assisting with mutual aid to surrounding municipalities

- lays and connects hoses to hydrants and pump trucks and attaches appropriate nozzles
- directs water streams from hoses or sprays chemical on fires
- carries, positions, raises and climbs ladders
- carries equipment and/or people up and down ladders
- cuts openings in building walls, floors, ceilings and roofs for access and ventilation
- uses equipment rapidly and efficiently such as: power tools, hand tools, bars, chain saws, hooks and ropes
- drags, carries or leads occupants from dangerous situations such as a burning building
- protects property from smoke and water damage
- drives and operates motor driven apparatus, fire rescue boats and specialized vehicles
- cleans and maintains equipment, quarters, buildings and grounds
- participates in regularly scheduled training sessions and drills (evolutions)
- participates in demonstrations and courses in fire fighting techniques
- provides first aid to the public
- receives and records emergency and fire alarm calls
- assists in dispatching personnel, equipment and apparatus to the scene
- enters information into alarm room computer
- monitors and responds to radio traffic
- communicates with support agencies

Hours of Work

Firefighters work shifts of 12 hours rotating for a 42 hour work week. Two day shifts from 0800 to 1800 hours are followed by two night shifts from 1800 to 0800 hours. Firefighters usually have four days off between shifts. Overtime is occasional. Scheduled breaks occur during all Fire Fighting activities.

General Psychological and Cognitive Demands

Firefighter Probationers must work as a member of a team, in co-operation with others and occasionally alone during fire watch. The work can be life threatening. These workers are exposed to a high level of environmental stimuli while requires attention to detail to perform multiple tasks. Facing life and death decisions and performance of complex tasks during life and property threatening emergencies are required. Exposure to critical incidents with grotesque sights, sounds and smells associated with major trauma and burn victims can occur. Exposure to confrontational situations with potential for violence can occur when responding to a bomb threat or when assisting in a medical aid call. Duties are clear once the situation is understood. Day to day work is moderately intensive with highly intensive peaks when responding to emergencies. Constructive feedback is regularly given. Firefighters expressed that the shift work caused family and social challenges.

Physical Activity Demands

Lifting, carrying, pushing and pulling are the primary “strength” characteristics and generally speaking, a worker engaged in one can be engaged in all. Continuous means more than two thirds of the shift. Frequently means more than one third of the shift, occasionally means less than one third of the shift if engaged in fire fighting activities.

- lifting objects in excess of 45 kg or 100 lbs. occasionally with frequent lifting and/or carrying objects weighing 22.7 kg (50 lbs.) or more, eg. carrying victims/patients down ladders, ladders to a building
- raising or lowering objects from one level to another including upward pulling is occasionally required, eg. using ladders, pumps, and hoses
- carrying/transporting objects occasionally up or down stairs, ramps and ladders.
- exerting force upon an object so that the object moves away or moves toward, is occasionally required, eg. moving cars, creating access/egress and performing salvage and overhaul tasks
- climbing and/or balancing - the emphasis is placed on body agility and equilibrium frequently required when ascending or descending the fire fighting vehicles, ladders, stairs and ramps, or working on roofs
- stooping is bending the body downward and forward by bending the spine at the waist which occurs when laying and connecting hoses
- kneeling is required when performing first responder tasks of assessment and treatments, e.g. CPR
- crouching occurs when accessing or preparing equipment/tools for use

- crawling, moving about on the hands and feet is required when searching for victims in smoke filled rooms and when leading victims to safety
- reaching, handling, fingering and feeling are frequently required, eg. operating equipment, handing equipment to others, coupling hoses, switching oxygen tanks, operating aerial equipment and toggle switches on motorized apparatus, connecting and disconnecting hydraulic lines, assessing patients operating alarm room equipment, and when using a keyboard
- reaching above the shoulders is occasionally required when reaching for the deluge gun stored on top of the fire truck, when climbing up onto vehicles and when retrieving equipment from the vehicles
- reaching below shoulders is frequently required while lowering equipment from the fire trucks and working with hoses
- neck extension, flexion and rotation are required frequently to do identified tasks
- shoulder forward flexion, adduction and extension are required frequently to do identified tasks
- elbow flexion, and extension are frequently required to do identified tasks
- wrist extension greater than 45 degrees is required frequently while performing CPR
- forearm pronation and supination are required frequently when laying, coupling and uncoupling hoses
- handling, seizing, holding, grasping and turning are required frequently to use all identified equipment
- fingering, picking and pinching are occasionally required to manipulate switches, assess patients
- conveying detailed, important verbal information and instructions to others accurately, loudly and quickly is required occasionally
- hearing is required continuously to receive detailed information and to make fine discriminations in sound
- hand-eye-foot control is required occasionally to operate equipment
- hand-arm controlling is required frequently to operate equipment
- smell is required frequently
- walking is required frequently
- standing is required frequently

- sitting is required occasionally
- reading and writing is required occasionally to read and write standard operating procedures and guidelines, instructions, reports and memos, and to read labels.

Royal Canadian Mounted Police

General Duty Constable Integrated Task Bank Job Summary

(summarized from information provided)

General Job Duties:

- problem identification and resolution
- patrol, attend to calls, apprehend suspects
- maintain order, diffuse problems
- protect public safety and security
- provide general assistance to the public
- conduct investigations
- enhance highway safety
- conduct traffic accident investigations
- provide air travel related security
- prepare and complete paperwork
- assemble evidence
- testify in court
- community relations, community education promotion of RCMP image
- assist RCMP administration and other agencies
- maintain equipment

Hours of Work

The General Duty Constable in the RCMP can be posted anywhere in Canada and must be prepared to work any hour of the day or night, to work shifts longer than eight hours and to be on call in case a need arises.

General Psychological and Cognitive Demands

Memory Skills

- observational acuity such as remembering details of people, appearances, scenes of events or occurrences
- keyboarding skills for computer use
- organizational skills to keep files orderly and up to date
- evaluating and organizing information
- able to analyze situations
- ability to do multiple things simultaneously for example drive at speeds in excess of speed limit, answer radio, operate emergency equipment, lights, sirens, while driving in and out of traffic
- oral fact finding

Interpersonal Skills

- getting along with people exercising detachment
- calming down excited and angry people
- mediation and facilitation skills

Oral Communication Skills

- proficiency in either official language
- being assertive
- conversing with people on their language level listening skills, giving feedback, showing empathy
- Oral communication skills to accurately and succinctly explain situations to people
- Skills in sensing what to say and how to say it in sensitive situations

Writing Skills

- for note taking and reports
- to accurately describe occurrences briefly and clearly

Adaptive Skills

- ability to adapt to different living circumstances and different communities
- skills in dealing with authority over you as well as using one's authority as a police officer
- emotional stability to deal with crisis situations involving danger and serious injury and death
- ability to deal with unexpected developments in crisis situations
- able to adapt manner, language self preservation to person addressed
- accepting and appreciating ethnic and cultural differences
- managing time
- self motivation

Physical Skills

- good physical condition
- able to physically restrain people
- physical strength for example drag people/bodies out of cars
- firearms usage
- perceptual motor skills for driving at high speeds
- first aid
- endurance

SUMMARY OF POSITION COMPARISON

When comparing the EMA2 Paramedic JDA with the Firefighter Probationer JDA and the Task Bank of a General Duty Constable, there are many similarities in the three jobs.

When comparing the psychological and cognitive demands, the Paramedic, Firefighter and Police Officer all perform multiple simultaneous tasks. They all work in emergency situations dealing with human crises, where errors in judgement or attention to detail could have life-threatening or public safety consequences. Paramedics, Firefighters, and Police Officers are all exposed to deceased or dying adults or children and/or catastrophic events with the potential to cause critical incident stress and post traumatic stress disorder.

They all must drive code 3 in excess of posted speeds and navigate through traffic while communicating with dispatch. All are required to drive in variable or extreme weather conditions in day or night in isolated rural or urban areas. Paramedics along with Firefighters and Police Officers attend to combative, intoxicated or psychologically disturbed people. All three positions normally work shift work - two days followed by two nights. These shifts are normally 12 hours but may vary.

When comparing the physical activity demands of a Paramedic with a Firefighter and Police Officer there are many similarities identifies in the JDA's and the Job Bank. They all require good physical strength in order to lift heavy weights. In the Paramedic and Firefighter JDA, both are required to lift heavy weights greater than 100 lbs. They all face uncontrolled ergonomic demands such as forceful motion and awkward movements as a routine part of their job.

The Paramedic requires frequent, constant or sustained standing, walking, climbing and the ability to balance on stairs, slopes and on all types of surfaces including inclines which may be dark, cluttered or slippery, while carrying, pushing and pulling a patient, lifting devices and/or equipment. The Firefighter, as per the JDA, is required to do all these tasks but do not perform them as frequently as a Paramedic. I was not able to compare the General Duty Constable's frequency of performing skills, as this information was not available.

KEY PHYSICAL AND MENTAL CHANGES ASSOCIATED WITH AGING

HEALTHSERV has also been asked to identify key physical and mental changes associated with aging and to comment on the functional impact of aging in the older paramedic. The following section summarizes well-known findings regarding physiological changes in aging.

PHYSIOLOGICAL CHANGES IN AGING

In the aging adult, organ systems undergo decremental changes in structure and function, e.g. (from American Fitness, Sept/Oct 1997):

- aerobic capacity decreases 10% per decade (see the following graphs)
- pulmonary function decreases (see the following graphs)

- maximal cardiac output decreases
- muscular strength is reduced
- substantial loss of muscle mass
- number of muscle fibers decrease 10% per decade
- size of muscle fibers decrease
- movement time and reaction time decrease
- bone mass decreases
- body fat increases

Changes In Vision

Beginning the fourth decade, the pupil begins to decrease in size and in response time to light. Because of these changes, it is estimated that older adults require three times the amount of illumination to see as well as a younger person. Also, focusing takes longer with an increase in near-sightedness, making smaller print harder to read.

Another normal change is thickening and yellowing of the lens of the eye. This results in light diffraction, increased sensitivity to glare, decreased depth perception, and more difficulty in distinguishing pastel colours, especially blues and greens.

Changes in Hearing

As we age we experience a decrease in sensitivity to high frequency tones and a decreased discrimination of similar pitches. These changes are usually the result of normal changes to the bones and cochlear hair cells of the inner ear.

Since hearing is essential for social interaction and safety, untreated hearing loss is perhaps the most socially disabling of all sensory impairments. It is an invisible disability that may be covered up or denied.

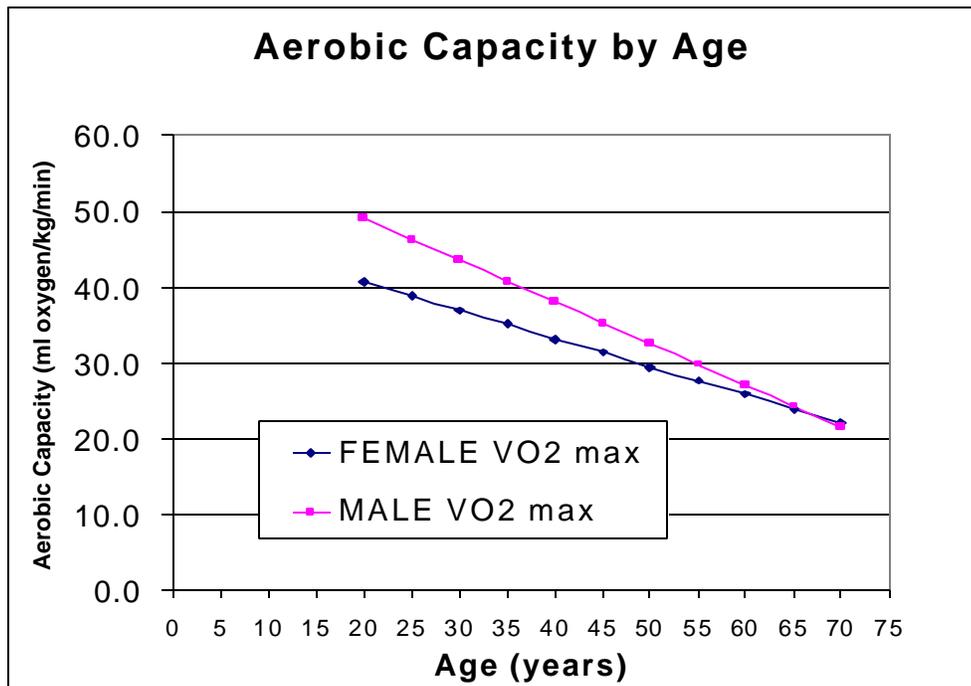
Changes in Sense of Smell

Taste and smell are interrelated and important for eating as well as checking for hazards in the environment. Older adults have some decrease in the ability to taste resulting from a reduction in the total number of taste buds and some individuals also experience a decline in their sense of smell, but this is usually from non-normal conditions such as blockage or disease of the olfactory receptors in the upper sinus.

Changes in the Cardiovascular System

As noted, there is a steady decrease in aerobic capacity with aging. The rate of such change is of course highly variable, depending on exercise patterns. Individuals who have decreased activity that is accompanied by weight gain are much more likely to experience cardiovascular problems than those who are able to remain active and mobile.

Ageing workers are also subject to pathological changes in the cardiovascular system for example:



- calcification of the heart valves
- loss of elasticity in artery walls (arteriosclerosis or "hardening of the arteries")
- intra-artery deposits (atherosclerosis)

Consequences of these cardiovascular changes include:

- hypertension with an increased risk of stroke
- heart attacks
- congestive heart failure

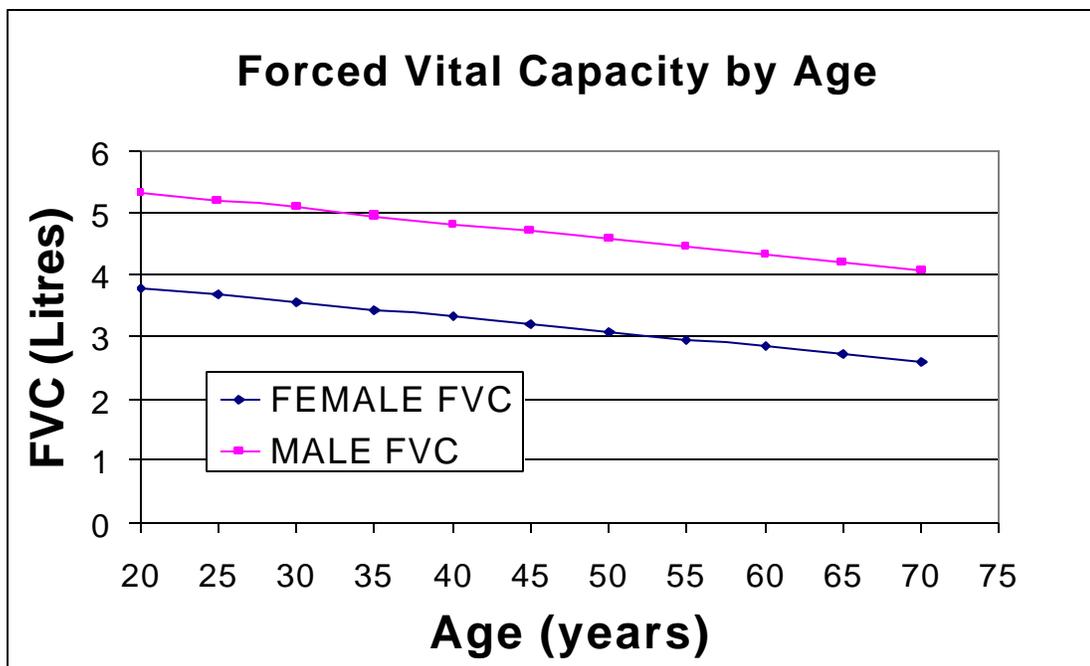
For employees in safety sensitive physically demanding work, such as police, fire fighting, and ambulance work, the cardiovascular effects of aging may impact

occupational functioning depending on the specific job demands and the degree of cardiovascular de-conditioning or pathology.

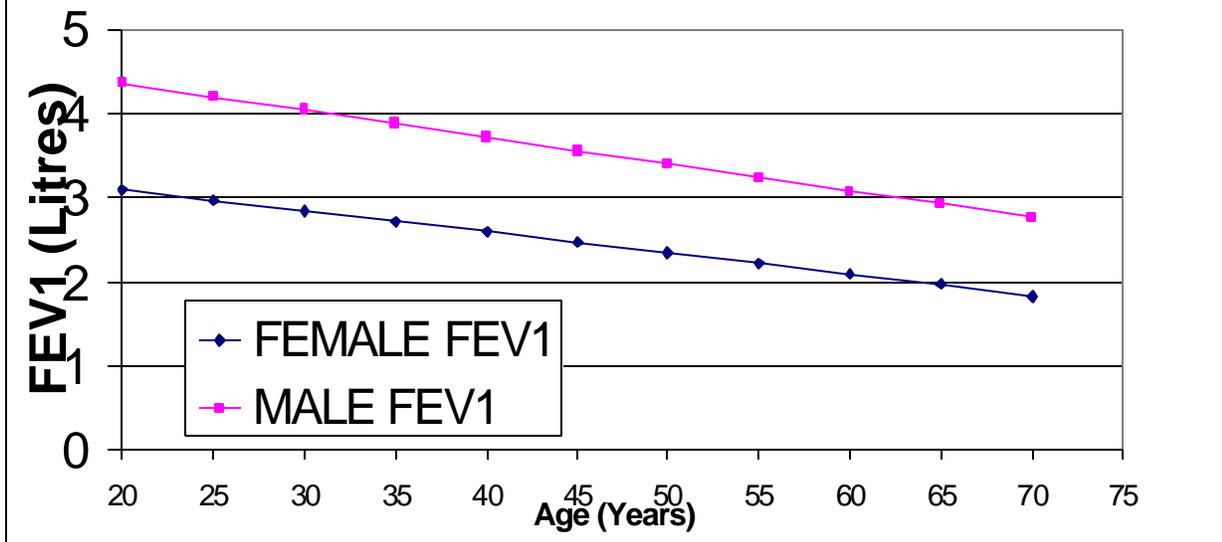
Changes in the Respiratory System

As with the cardiovascular system, there is also a reduction in the efficiency of the respiratory system during ageing. The airways and lung tissue become less elastic with reduced ciliar activity, resulting in decreased oxygen uptake and exchange.

These changes worsen if the individual smokes or lives in a polluted environment. The result of these changes can include lowered stamina with increased shortness of breath and fatigue on exertion. The graphs demonstrate normal decrements in pulmonary function with ageing – such changes may be accelerated by pathological changes due to obstructive lung disease, asthma or other lung disease.



Forced Expiratory Volume 1 Second (FEV1) by Age



Changes in the Nervous System

After the age of 25, everyone loses nerve cells. Gradually over time, this may result in changing response times and co-ordination. The brain also shrinks in size, which does not significantly affect functioning except in the most extreme cases. These changes may also affect sleeping patterns somewhat by decreasing the length of total sleep time and REM sleep.

As noted, ageing adults undergo changes in dark adaptation, contrast sensitivity, visual acuity, neurovestibular function, selective attention, increased reaction time, and psychomotor performance. However, the vocational significance of such changes is uncertain since adults also engage in compensatory behaviours, which draw upon experience, motivation, and task modifications. In particular, intellectual changes in ageing are very difficult to relate to occupational functioning for similar reasons.

Overall, although many physiological changes can be well defined during ageing, the actual effect on individual vocational functioning is highly dependent on personal factors and compensations. Those in police, fire fighting, and ambulance work may be placed in situations where their physical demands challenge and may even exceed such physiological limits.

DEFINITION OF CONTINUOUS FREQUENT AND OCCASIONAL³²

Constant or Continuous

For the purpose of the job description, continuous is described as a major task or activity carried out over 67% - 100% of the day.

For reporting it can also be defined as a task or activity that is unchanging or uninterrupted in time.

Frequent

For the purpose of the job description, frequent is described as a task or activity carried out over 34% - 66% of the day.

For reporting it can also be defined as a task or activity that is carried out often (34% - 66% of the duration of task), but not on a continuous basis.

Occasional

For the purpose of the job description, occasional is described as a task or activity carried out over 1% - 33% of the day.

For reporting it can also be defined as a task or activity that is carried out infrequently or at separated intervals (1% - 33% of the duration of task).

³² Canadian Classification and Dictionary of Occupations – a systematic and comprehensive arrangement of occupational descriptions.

ABOUT HEALTHSERV PROFESIONALS (BC) INC.

Established in 1985, HEALTHSERV Professionals (BC) Inc. has 17 years of experience assessing ill and injured workers and successfully developing and managing early return to work programs. HEALTHSERV has developed a national network of occupational health service professionals across Canada. It assists organizations to achieve their objectives through the provision of customized, integrated occupational health services and disability management programs.

HEALTHSERV currently provides national Occupational Health Services to various organizations throughout Canada. Our team of Occupational Health Physicians, Consultants, and Occupational Health Nurses have extensive experience managing return to work programs and providing cost effective, comprehensive, disability management services to all industries including forestry, mining, manufacturing, transportation, education, government (municipal, provincial, federal), unions, ICBC, WCB and national disability insurance carriers.

With a strong focus on cost containment measures for all aspects of occupational health, HEALTHSERV provides clients with enhanced disability management and safety records, and improved bottom line performance. HEALTHSERV professionals provide the crucial interface which effectively coordinates the efforts and goals of each stakeholder in the health management team.

There is an old saying "an ounce of prevention is worth a pound of cure". HEALTHSERV recognizes that prevention is an important part of any disability management program. It offers a range of services designed to accomplish this. Job Demand Analysis can be used to identify the Bona Fide Occupational Requirements (BFOR's) of a job. BFOR's can be used to develop Pre-placement screening criteria, enabling the employer to effectively identify individuals who are physically capable to perform a specific job. Our Health Surveillance and Annual / Executive Health programs help individuals identify potential health concerns early on. Early identification enables individuals to take appropriate measures to address these issues to prevent potential further complications.

Early intervention is the key to successful rehabilitation of the ill or injured individual. HEALTHSERV provides a range of disability management / return to work services to facilitate early intervention and rehabilitation of workers in a cost-effective manner. Our Occupational Health Physicians and Occupational Health Nurses have extensive "hands on" experience dealing with workers, supervisors, unions, company "joint rehabilitation committees", community resources, etc., to coordinate rehabilitation and manage safe and timely return to work.

ABOUT THE AUTHORS

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Nikki Taylor comes to HEALTHSERV with a broad range of experience in provision of Occupational Health services both in Canada and the United States. Nikki's expertise has benefited large and small organizations as she has coordinated occupational health programs and provided direct disability management for ill and injured workers in both industry and insurance settings. She is also well versed in program development, health education, Job Demand Analyses, Ergonomic Assessment, and health promotion. Nikki is an experienced Case Manager, currently managing a provincial Occupational Health contract for 3300 employees.

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Occupational Health Physician

Dr. Hamm received his MD in 1973, CCFP in 1976 and FRCPC (Occupational Medicine) in 1991. He has served as an occupational medical consultant to industry, the legal community and WCB, including dealing with complex claims related to chronic pain, exposures and chemical sensitivities, head injury, psychiatric issues and prolonged rehabilitation. Prior to joining HEALTHSERV, Dr. Hamm was Assistant Professor at the University of Calgary and then Director of the BC Government Employee Health Services where he provided and managed occupational health services for 40,000 BC public service employees. Dr. Hamm has authored several papers in occupational medicine and has served as an expert witness in personal injury matters. He is qualified as a Specialist in Occupational Medicine by the Royal College of Physicians and Surgeons of Canada and also has Certification in Occupational Medicine from the Canadian Board of Occupational Medicine. He is licensed to practice medicine in Alberta and British Columbia.