Demands for these conventional EMS services are anticipated to increase due to demographic trends, including an aging population. In health care systems where the respective accountability for emergency departments and EMS reside in two different areas, the burden of triage wait times has predominantly shifted to EMS, requiring EMTs and paramedics to stay with their patients while they wait to be admitted For care. Thisoverloads EMS, leading to “red alerts” (the term used to describe situations where no ambulances are available) and increases the costs of EMS (through needing a surplus of ambulances and staff to compensate for the extra time spent waiting in the emergency departments).

Also, in Canada, the volume of EMS research is constrained by funding considerations, lack of a central data repository, and underdeveloped technology infrastructure. While improving EMS research is an important issue that will have an impact on the continued development of the Canadian health care system, EMS research continues to be under-funded and neglected. The result is that data collection is very uneven and varies depending on the individual service or jurisdiction. This inconsistency often creates an insufficient base for research and no common definition of the role of EMS in Emergency Medicine innovation. The lack of research restricts EMS’ ability to link itself to patient outcomes and prove its value in the health care system.

Our proposed solution would include the following:

1. A cloud-based service (SaaS) that logs the Patient Journey from the time the emergency call is recorded till the time the patient is admitted to the hospital. This will include recording of key events such as response time, pickup time, other patient information, arrival time at hospital, check in time and transfer of responsibility time. In order to minimize impact on work flow and reduce administrative workload for both EMS and ER employees. Reporting needs to be integrated with existing systems so that data is pushed out seamlessly to avoid double entry.

2. Hospital systems also to integrate with this SaaS and report information on current emergency load, wait times so that EMS technicians are routed to the hospital with the least work load for that moment unless it is a time sensitive emergency such as a heart attack or severe bleeding.

3. Once Hospital is identified, the hospital is notified electronically that this patient is on the way and the triage nurse, working with the paramedic, would triage the patient remotely and place patient in the corresponding queue.

4. Instead of each paramedic waiting with patients until responsibility has been transferred to the hospital, the corresponding municipality (or corresponding authority) would hire a permanent resident at the ER of every major hospital who would keep take over patients. This would allow paramedics to go back to their shift to do what they do best, i.e. save lives. This EMS ER resident would have access to the SaaS through a dashboard that allows him/her to track all current patients and report back to the system.

All of this could be monitored in real time and have a built-in logic that directs the series of actions and could be monitored in a centralized area, almost like an air traffic control centre. Creating

efficiency in the different levels of government with a prime example being
the ambulance responsibility of the municipality clashing with the hospital responsibility of the province. This solution would both increase quality of service as well as decrease the costs.