



ONTARIO ASSOCIATION
OF PARAMEDIC CHIEFS

EHS MODERNIZATION: Submission by the Ontario Association of Paramedic Chiefs

March 20, 2020



At the centre of health care, public health, public safety and aging.

Introduction

The Ontario Association of Paramedic Chiefs is the voice of paramedic leadership in Ontario.

Our members include chiefs from all 52 upper tier or single city municipalities or District Social Services Administration Board (DSSAB) operated services, the six First Nations services and Ornge. We also oversee the work of 8,800 primary, advanced and critical care paramedics.

Ours is a critical voice in the province's efforts to modernize Emergency Health Services, end hallway health care, and transform the healthcare system. We use evidence and best practices to guide our decisions on a daily basis. As such, the Ministry can be confident the recommendations that follow are based on research and successes found in Ontario, Canada and internationally.

Paramedicine is health care, and paramedics are like no other health professional.

Paramedics are healthcare professionals. We have a broad scope of skills to deliver quality care at the scene through to the transfer of care. We are on the front lines with patients during their most vulnerable moments. Our services sit at the centre of health care, public health, public safety and aging.



Paramedics are doing our part

It is important to recognize that since 2000, when paramedic services were downloaded, municipalities and District Social Services Administration Boards (DSSABs) have invested significantly to build high performing paramedic services. Each service ensures residents have access to high quality and timely paramedic services that meet local needs.

These investments have been borne by municipal taxpayers. They include, but are not limited to, the following:

- construction of stations and other facilities and associated annual operating costs
- increased staffing
- initiatives to reduce response times and offload delay
- enhancing clinical skills of primary care paramedics and advanced care paramedics to expand their scope of practice in order to improve patient outcomes in the field
- investing in information technology projects, such as automated vehicle locating, on-board network connected computers, electronic patient care reports, scheduling software, inventory software, automated dispensing systems for medical equipment, supplies and medication, and credential management software.
- providing education to upgrade primary care paramedics to advanced care paramedics
- rolling out public access defibrillation and cardiopulmonary resuscitation (CPR) and other public education programs.
- creating and implementing specialized tactical paramedic, marine paramedic and bike paramedic teams
- Community Paramedic programs to support vulnerable residents, including community referrals by EMS, CP@Clinic, CP@home, remote patient monitoring and the provision of influenza vaccines to high risk populations
- clinical research trials
- participation in numerous local community partnerships, most recently the formation of Ontario Health Teams

These efforts and commitments are working. We are making progress. All modernization efforts need to build on these successes and continue the positive movement forward.

Paramedic services have access to a rich system of medical evidence.

Our services are proud to lead and participate in pre-hospital and emergency healthcare-specific research. In the recent past, paramedic services have been a key stakeholder or conducted studies that have resulted in many efficiencies or improvements to patient care. Some highlights include:

- improved resuscitation outcomes
- validation of medications and new clinical guidelines for trauma and cardiac arrest through the Resuscitation Outcomes Consortium and the Canadian Resuscitation Outcomes Consortium
- provincial bypass protocols for STEMI, Stroke and Trauma patients

Bringing paramedic services into the circle of care, expands the data being used to make informed decisions and is another step forward in improving processes and leading to better patient outcomes.

Modernization means legislative and regulatory changes.

It is important to recognize that modernization will require legislative and regulatory changes. Current legislation is outdated and, in fact, a barrier to needed change. They keep paramedics separate from the rest of the healthcare system and prevent province-wide systems of efficiency. They do not put patients at the centre of health care.

For example, the current response time performance plan requirements contained in legislation focus on response, not patient outcomes. They aren't working and should be removed or modernized.

Changes are needed not only to the *Ambulance Act* and Reg. 257 but other pieces of legislation with accountabilities related to paramedicine, such as revisions to the *Personal Health Information Protection Act*.

As modernization efforts are rolled out, the OAPC calls on the province to take strong leadership in creating new legislation that breaks down silos, improves data sharing, opens the door to accreditation and allows alternate destinations to ensure patients can access the high quality of care they need and expect at each step in their journey. Many of these changes the OAPC has been advocating to previous governments for nearly two decades. We are hopeful, through this review and consultation, this government will take action. This is the time.

The changing landscape

As the Ministry considers its modernization efforts, it must remember that paramedics face greater challenges in the field than ever before. New legislation, protocols and systems need to be nimble and take into account that the landscape has shifted and will continue to shift in the delivery of emergency healthcare. These changes include:

- increased call volumes
- growing mental health needs
- the opioid crisis
- an aging population
- increased traffic congestion
- infrastructure intensification and growth: taller buildings
- direct impacts of emerging infectious diseases on paramedic services

Putting patients first

All of us, paramedic services and the province, want the same thing: coordinated and connected care that puts patients first.

Paramedic services across Ontario have been doing our part. We look forward to continuing to partner and work with the provincial government to see this vision achieved.

Overarching Principles

This submission is organized around key themes identified in the province's EHS Modernization Discussion Paper as well as by Ontario's paramedic chiefs. Recommendations are guided by six key, overarching principles.

- We all serve one patient through one healthcare system. Modernization should make paramedic services an efficient and proactive part of the healthcare system. We can help achieve Ontario's vision for coordinated and connected care.
- Paramedic services are at the centre of health care, public health, and public safety. As both first responders and an integral part of provincial health care, paramedic services must remain municipally or DSSAB operated with appropriate provincial funding that reflects patient needs and respects municipal taxpayers.
- Today, paramedics offer seamless, highly skilled care across Ontario. Modernization should keep what is working well and fix what needs fixing by looking to best practices and proven solutions. There is no need to reinvent the wheel.
- Municipal paramedic services are innovative and have created strong local partnerships. These need to be recognized and protected because they are working well.
- Municipal governments, DSSABs and paramedic leadership are committed to running efficient services and will continue to look for ways to work collaboratively with other services and the province to reduce costs where possible.
- Paramedics have the skills, mobile outreach within the community and a breadth of medical evidence to support health care. Modernization can leverage this unique position to reduce hallway medicine and achieve broader goals, like offsetting the high costs of hospital use.

Improving Dispatch

Modernization starts with a reformed dispatch system. Better systems will reduce hallway medicine and improve patient care by putting the right resources in the right place, at the right time considering local needs.

Improving dispatch is the number one priority. Central Ambulance Communications Centres (CACC) need to be nimble and evolve into a system navigator to ensure that patients get the right care for their needs. Given the municipal and DSSAB role in paramedic services, the province needs to view municipalities and DSSABs as equal partners for dispatch to be effective and to use resources efficiently.

The inability to retain consistent, reliable staffing is a significant concern in CACCs. The province needs to address high attrition rates that are currently being tolerated, but are unacceptable. By working with municipalities and DSSABs solutions can be found, which may include looking at options to change governance structures locally if appropriate.

Improving dispatch will be achieved in four ways: expediting technology improvements, supporting real-time data sharing, establishing stronger quality assurance and accountability structures, and increasing staffing.

The goals of a modernized dispatch need to be:

- Accessible to cutting edge and connected technology
- A realigned system that acts as a "navigator" for patient's accessing Ontario's health care system
- Resourced through proven technology to reduce in call processing and overall incident response times
- Enhancement to the roles of communications personnel
- Developed through integrated continuous quality improvement mechanisms
- Accountable

Technology

- Implement robust call triaging software that will allow the centre to act as a "System Navigator" ensuring that callers needs are properly assessed, triaged and supported with the appropriate resource.
- Implement predictive analytics and decision support software that better supports staff and enhances system performance, leading to improved efficiency, effectiveness, better use of resources and ensures that the overall system operates as efficiently as possible.
- Expand software to include functionality that alerts paramedics within the first few seconds of a call entering the communication centre, like that used in Niagara Region.
 - Note: The current provincial system mandates a two-minute response time to notify paramedics. Often that standard is closer to three to four minutes. Early alerts/notifications to paramedics would save valuable time, increase performance, and reduce the reliance on manual processes in the communications centre.

- Ensure that in-vehicle computers directly link to the Communication Centre and can receive real time information, mapping and updates. This would also cut down on work load of ambulance communication officers and save radio "air time".
- Deploy bio-surveillance software within the Communications Centre that could detect in real time:
 - Opioid events and clusters
 - Public Health Outbreaks (Influenza/COVID-19/food borne illness)
 - Local events – violent crime clusters, major events
 - Other trackable events
- Implement software that links paramedic services, dispatch and hospitals to a centralized information sharing system to better align all key stakeholders and emergency service partners in real time. A common technology platform would ensure interoperability and provide for better data sharing and improved reporting.
- The province must stay current with the advances in dispatch technology. The Ministry cannot afford to resist change nor allow bureaucratic barriers to slow progress. This information could be linked in real time to the Provincial Emergency Operations Centre, local Public Health Units, Hospitals, other agencies as designated. This would provide the Province with much need live intelligence reporting to deal with many emerging and ongoing issues.
- Fast track technology improvements as a critical investment in improved care and the better use of resources.
- Proven technology to support improved decision-making is readily available and in place in Toronto and Niagara.

Real-time data sharing

- Ensure full paramedic access to a single electronic patient record that is shared across the healthcare sector, so all health professionals work seamlessly towards the continuity of care for patients, while still protecting privacy. This concept of “one patient, one chart” would help ensure the province’s goal of coordinated and connected care.
- Improve the triage system not only with the rollout of MPDS, but also by including a clinician in the dispatch centre. This will reduce risk for patients and paramedics, and use resources more wisely. It would also provide more consistency province-wide in how calls are triaged.
- Dispatch needs to be a system navigator for patients. These improvements will help get us there.

Quality Assurance and Accountability

- Rigorous dispatch quality assurance programs should be in place to measure performance. This greater oversight of dispatch is needed to ensure patient need is more consistently aligned with the response.
- Implement stringent lines of accountability and a reporting framework so municipalities are better engaged and consulted on the governance of Land Ambulance Dispatch Centres that control their day-to-day operations.
- The province should further examine and explore with municipalities and DSSABs whether system efficiencies can be achieved through better consolidation of dispatch centres with improved technologies.
- Explore the most practical governance model for delivery and oversight which could include direct municipal oversight, a municipal partnership model or a provincial model which ensures

local resources are in the right place at the right time responding to the needs of the community.

- Establish a Quality Model to improve communication and accountability between dispatch and operations.
- As the Medical Priority Dispatch System (MPDS) is being deployed, the province should pursue Accredited Center of Excellence status from the National/International Academies of Emergency Dispatch.
- An accreditation model for paramedic services, rather than direct provincial oversight and management, would ensure consistency and unbiased assessment against a set of standards, with regular renewals. The accreditation model is used extensively across the healthcare system in Ontario.
- As MPDS is rolled out, all aspects of the protocol must be deployed by the Ministry, including the MPDS inter-facility transfer protocol.
- Integrate operations with dispatch by including an operations commander at the centre. This will ensure resources are deployed in the most efficient manner. (Good models include Toronto Paramedic Services and the use of Road Sergeants by Ontario Provincial Police in Provincial Communications Centres.)
- Work with us to establish a standardized provincial platform for tiered response agreements and deployment plans. These will relieve pressures on Ambulance Communications Officers, increase efficiencies and improve accountability in dispatch. Standardized plans will reduce layers of bureaucracy by removing the need for multiple individual response plans at each centre. They will also better clarify the role of fire services.
- The dispatch system should use a common provincial infrastructure and be fully funded by the province.

Staffing

- More dispatch staff resources and frontline supervision on the dispatch floor are needed to meet the needs of the public and paramedic services.
- Identify the number of incoming calls a centre can expect to manage efficiently as a critical component to ensuring sufficient staffing levels.
- Supervision needs to be provided 24/7.
- Address the fundamental reasons for high attrition rates and inability to hire appropriate replacement staff in Ministry operated CACCs.

Dispatch model examples include Niagara Region (clinician model), Toronto (MPDS, decision support, call diversion), and Ottawa (dashboard interoperability).

Refer to Appendix 1: *Review of the Ontario Ambulance Communications Delivery Model:* Deloitte, June 2017

Reducing Offload Delays

Paramedic services are needed in the field, not sitting in a hospital. Hospital transfer of care times must be established and measured consistently across the province and hospitals held to account by providing financial incentives when issues are addressed or penalties imposed when not.

- Offload delays are a symptom of a broken system. Proper system navigation is a significant part of the cure. Developing alternatives that would see patients treated by paramedics at the scene and referred for community-based care or transferred to a more appropriate type of healthcare facility would reduce pressures on hospital emergency rooms.
- Financial incentives are an important part of the solution to help address offload delays. Working with paramedic services and hospitals, offload delay time standards should be established. Another solution could be through allocation of municipal capital funding to hospitals granted based on meeting specific performance criteria. These would motivate senior hospital leadership to work with us to improve processes. (York Region is an example)
- Address root causes of hospital capacity and flow to get paramedics back on the road to serve the community sooner. Part of this can include looking at more protocols to expand the decision-making abilities of paramedics to determine to which hospital to send patients. Other enhancements should be made to the Patient Priority System to increase efficiencies and properly address the needs of the patient.
- Dedicated Offload Nurses (DON) play a role in addressing offload delays and was introduced as a stop gap measure in 2007 so that other measures could be put into place. This did not come to fruition. The ability to keep pace with the increase in volume within the ER and from paramedic services has not kept up. Paramedic services are responsible to negotiate wages and conditions for transferring patients directly with the hospitals. Offload delay is a symptom of a broader healthcare issue and a temporary solution does not work. DON funding can be a partner to other strategies that need to be put into place and provided to all paramedic services.
- Set up a consistent reporting mechanism to measure offload delays to ensure consistent data and accuracy across the province. Offload delays must be addressed across the province, not site by site.
- There needs to be local flexibility in how alternative models of care are used, based on what services are available in the community and their capacity to accept patients.
- Look at other strategies to improve initial triage so more options are available and decisions can be made where to best place patients transported by paramedics (examples – move to waiting room, place in Gerry chair, etc.)

Refer to Appendix 2: British Columbia Emergency Health Services *Clinical Response Model* Fact Sheet, July 2018

Managing Interfacility Transfers

Interfacility transfers are a provincial healthcare responsibility and should be treated equitably across the province.

- Hospitals and other healthcare facilities need plans and resources in place to transfer non-urgent patients to other facilities. This is especially needed in remote and northern communities. Cost incentives and penalties would ensure that municipal property taxpayers aren't indirectly funding a provincial healthcare service through the use of ambulances for these services.
- Invest in dedicated Critical Care Land Resources to better support patient movement throughout Ontario's healthcare system. Investment in transport services needs to be considered to relieve the current pressures on ORNGE and municipal systems.
- All non-urgent transfers serviced by paramedic services must be funded 100% by the province.
- Following the Vancouver model, give the CACC responsibility for dispatching private stretcher transfer companies. This ensures the right resource gets assigned to meet the patient's needs and reduces pressure on paramedic services. These private services must also be regulated with provincial oversight, which includes standards that ensure quality patient care and reduce patient risk.
- Provide oversight to ensure that low-acuity patients are not "up coded" to ensure an interfacility transfer. Adopting MPDS Transfer algorithms would also ensure calls are appropriately prioritized in a manner consistent with how 911 calls are prioritized.
- In some cases, hospitals are also calling both private and land ambulance services at the same time for transfers. This duplication cannot be allowed. It puts a burden on the system and on taxpayers.
- As the province finds solutions to manage interfacility transfers, current paramedic resources cannot be negatively impacted.

Improving Coordination, Fostering Innovation and Efficiency

Put patients at the centre of solutions. Open the door to greater data sharing and expanded partnerships and service agreements, so all health professionals work seamlessly to direct patients to the care they need, relieving undue pressure on emergency departments.

New models of care, expanding scope of practice and using enhanced technology will fill gaps in the healthcare system.

Data sharing

- Remove barriers to ensure paramedics are in the circle of care and have full access to real-time data and personal health information that will improve response and patient care. This requires the province to formally provide clear statements and set clear expectations with all partners that data-sharing, including patient outcomes, is allowed and the protection of privacy is inherent and should not be a burden amongst the healthcare partners. It also requires upgraded technology across the system, and legislative/regulatory changes, such as to the Personal Health Information Protection Act (PHIPA). Paramedics must be deemed to be included in the "circle of care".
- Systems are needed to better coordinate information sharing between paramedics, emergency departments, Ontario Health Teams, Primary Care, and other partners, like CitiCall and Ornge.
- Access to patient outcome data would lead to increased understanding of paramedic response success, better decisions and improved processes and protocols. Again, this requires legislative/ regulatory changes to support access to the information.

Partnership and Integration with Ontario Health Teams

- Paramedics belong as part of Ontario Health Teams (OHT). They are uniquely positioned at the centre of health care and public health and safety. Current efforts to collaborate and be innovative can be leveraged to improve efficiency and address healthcare challenges.
- Through a written statement, the Ministry of Health should encourage Ontario Health Teams to engage paramedic services so they can explore opportunities to leverage paramedic clinical expertise as part of the local OHT service delivery mandates. (Note: Some services have already signed on to OHTs. This practice should be expanded to all.)
- Several healthcare providers are at the table to expand service partnerships to allow direct transfer of patients. Fast track these partnership agreements as a win to system modernization, efficiency and improved patient care, system navigation and outcomes.

Community Paramedicine

- Community Paramedicine keeps people out of hospitals and reduces hallway medicine. It allows people to be cared for in their homes and communities, where they should receive care.
- Community paramedicine should be expanded province wide, with flexibility at the local level. It should also be fully funded by the province and not cost-shared, as it is a healthcare service not an emergency response. A modest investment in community paramedics can mitigate growth in 911 calls, reduce readmissions and visits to hospitals, and support patients' navigation through the system.

- The province needs to support community paramedics to be better integrated into the healthcare system, such as working with primary care, Family Health Teams and Ontario Health Teams.
- Community paramedics can be used as mobile healthcare providers seeing patients through both scheduled and unscheduled visits, even supporting transportation when necessary.
- Using community paramedics to provide patient monitoring and assessment, as well as to help people navigate health care and social supports is a cost-efficient way to divert patients from acute care.
 - It can be particularly helpful for those who are frequent users of 911 ambulance services or with mental health issues.
 - It can support more people to live longer independently, reducing pressures in long-term care.
 - It can be used to transition patients requiring alternative levels of care within hospitals back into the community while awaiting a permanent LTC placement/bed. This could be used as an interim option for Ontario as it continues to deal with a shortage in LTC beds in Ontario.

Refer to Appendix 3: Community Paramedicine, OAPC

Innovation

- Innovation needs to promote patient dignity and respect, recognizing that an emergency response can at times exacerbate patient issues. Paramedics need more tools beyond hospital triage.
- Leverage evolving technology to improve care in innovative ways. Initiatives such as bringing OTN “virtual care” on scene or into long-term care homes would help deal with low-acuity issues like flu, back pain, gastrointestinal pain, onsite.
- The system should be nimble enough to allow for future innovation and technology when they become available, such as the use of drones and FaceTime to facilitate care and medical advice. This would also include new products or research initiatives.
- Allowing self-regulation for paramedics under the Regulated Health Professionals Act will effectively protect the public interest and break down silos between paramedics and other health professionals.
- Expand paramedic scope of practice by allowing medics to initiate referrals, perform live birth registrations and prescribe some medications as examples. This will further relieve pressure on acute care.
- Work with the Ministry of Labour to support mental health programs to care for those that care for others. Mental wellness is critical for all staff on the frontline of emergency health services, both the municipally employed paramedics and provincially employed dispatch staff. There is a collective responsibility to provide the supports, resources and benefits to maintain their mental health. Recognize that a larger than expected subset of the workforce is off due to post-traumatic stress disorder. This has an impact on the municipal tax base and on resource capacity.
- Support collaboration efforts to partner with universities and other partners to help research and address mental health issues in emergency responders across the board, including fire, police and paramedics.

Efficiency

- Support municipalities and DSSABs with resources and incentives to review internal processes and find efficiencies. Together we can reduce non-frontline costs and look for opportunities to increase collaboration amongst services where possible.
- Look at joint buying powers for paramedic ubiservices to find efficiencies.

Health Equity

All Ontarians deserve access to the health services they need no matter where they live. This can be achieved by involving key stakeholders in decision-making and increasing partnerships, collaboration and training. It can also be achieved by alternative funding models beyond the "50/50" cost share.

Cultural Diversity

Ontario is a multi-cultural province. All diverse communities must be recognized. Resources and training are needed to ensure the needs of all Ontarians are respectfully and effectively met, and cultural barriers are removed.

- Enhance language and cultural training for paramedics based on the communities they serve.
- Use technology to support multi-lingual needs in the field.
- Engage religious and cultural leaders in helping inform how to administer care that is respectful and effective.

First Nations

All First Nations should have equitable access to emergency health services.

Modernization of Emergency Health Services for First Nations communities starts with funding preventive programs that address social determinants of health and provide alternate transportation in the north to access health care. These are direct factors resulting in high First Nations ambulance call volumes in relation to population sizes.

- Provide First Nations services with reliable, timely, and stable funding from the province and multi-year capital plans to operate efficiently and effectively.
- Consult with First Nations to find solutions, such as through a joint task force.
- Engage with and learn from health agencies currently working with First Nations communities.
- Conduct more robust research with First Nations communities to increase data and inform evidence-based decisions that will drive solutions and funding models that better meet the healthcare needs of these communities.
 - Conduct a comprehensive healthcare needs assessment that includes Emergency Health Services, of all First Nations communities in Ontario to better understand gaps in accessing equitable healthcare. Based on findings Increase the number of first response teams where necessary, especially in the North.
 - Evaluate the current paramedic deployment and response rates into First Nations communities when compared to nonindigenous communities.
- Improve cultural understanding and sensitivity through training for paramedics and the engagement of a Community Indigenous Patient Navigator to bridge cultural differences between the healthcare system and First Nations communities.

- Explore developing First Nations paramedic services where there is no road access, only access through Ornge (James Bay vs. Northwest Ontario).
- Develop and appropriately fund primary care programs including, but not limited to, preventative CP programs.

Refer to Additional Documents section: *Truth and Reconciliation Commission of Canada: Calls to Action*, 2015

Francophone

Addressing francophone needs includes increased training and resources.

- Evaluate current resources to better understand language skills and capacity. Support French language learning for existing staff, especially in the French Designated Areas of Ontario, and in paramedic college programs.
- Support expanded francophone services in dispatch, using technology to ensure 24-hour access to meet language needs of francophone communities.

Rural/remote

Rural and remote communities face unique challenges. They do not have capacity to pay for the same level of service as urban areas. Therefore, preventive programs play a more substantive role. These communities also require additional and/or targeted resources.

- Retain the "50/50" cost share model as a minimum in all communities. However, alternative funding models, beyond the "50/50" cost-share must be considered for rural, remote, First Nations and northern communities. The current cost-share program is inadequate for these communities.
- When considering solutions to address healthcare needs in rural and remote communities, it is critical to reemphasize that the province needs to invest in community paramedicine. It is especially important to help fill gaps to improve patient care and outcomes where access to healthcare services is limited. Partnering with Ontario Health Teams would be especially helpful in ensuring community-based care.
- Invest in technology, faster internet access, and special equipment to access patients. This would reduce risk and improve both quality of care and efficiency, resulting in savings down the road.
- Pre-booked flights to transport multiple patients requiring regular treatment would improve access for northern communities and reduce costs.

College of Paramedics

Self-regulation through a Regulatory College facilitates modernization, which will result in improved patient care. It increases public trust, safety, transparency and accountability for paramedic services, as it does for all other healthcare professions.

- Ontario can learn from successful models within Canada, including Alberta, Saskatchewan, Manitoba, New Brunswick and Nova Scotia, as well as other jurisdictions abroad.

- A self-regulating college would put paramedics on par with other healthcare professionals.
- A college could direct needed and comprehensive paramedic service-related research to better inform evidence-based practice that drive improvements in patient outcomes and improve efficiencies.
- Patients across Ontario expect and deserve consistent service. A college would ensure consistent standards for skills and competencies, licensing and registration and conduct. It would ensure portability of credentials across Ontario.
- A college facilitates best practices, which improves patient care and outcomes, e.g. community paramedicine, family health teams, medics in dispatch, healthcare system navigators, and rural/remote specializations.
- A college lends a professional voice to inform policy, practice, and inter-professional practice.
- A college model would allow paramedics to oversee paramedics and increase individual accountability resulting in a higher standard of care. It would also reduce red tape and bureaucratic layers with the Ministry of Health and reduce pressure at base hospitals by replacing a layer of oversight from those physicians.
- A college could be phased in, starting with title protection, registration and conduct/competencies, while working toward full responsibilities over time.
- Development of a college would need to address questions around paramedic fees, labour union impacts and impact on local training budgets.

Refer to Appendices 4 to 6:

- OAPC *Paramedic Self-Regulation*: cover letter and submission to the HPRAC, July 2013
- Glen E Randall paper: *Understanding Professional Self-regulation*, November 2000

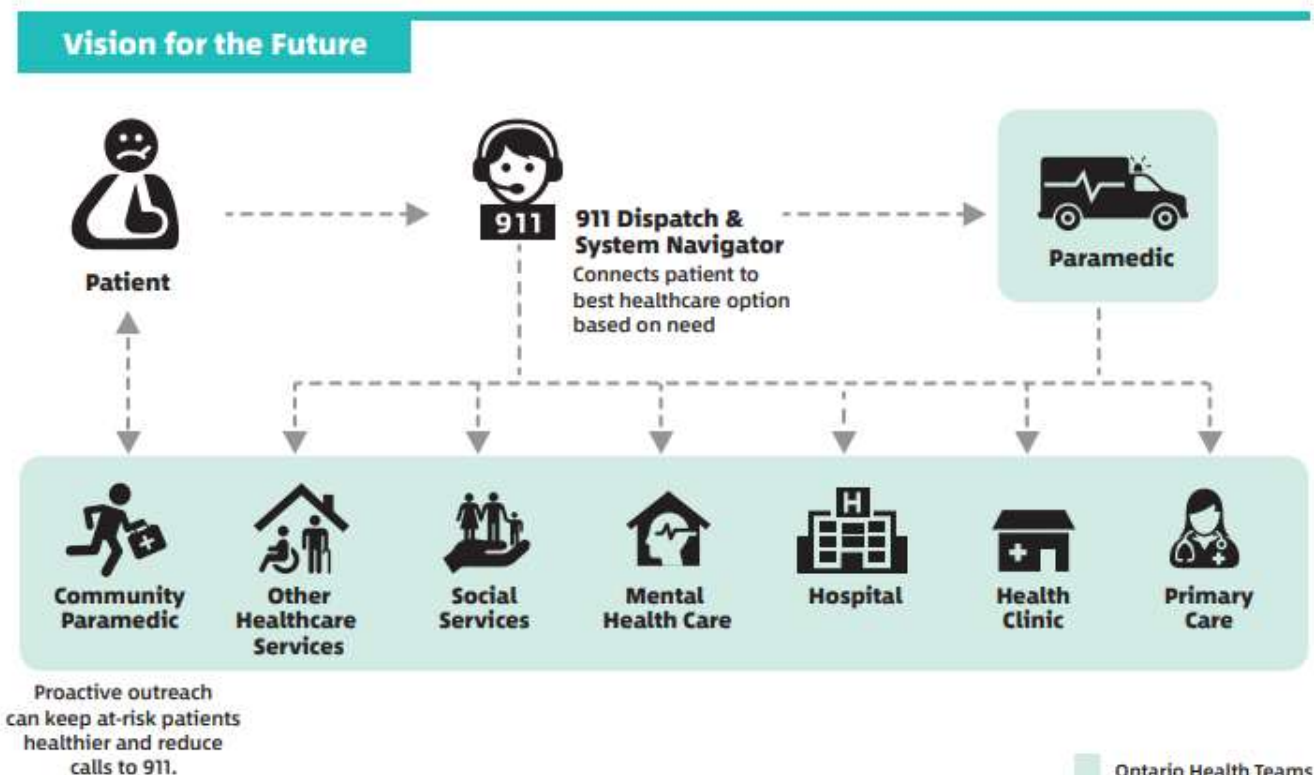
Final Thoughts: Redefining the Patient Journey

Emergency health services modernization should focus on the patient, their journey through the system and their outcome. Paramedicine is part of the care model. It is not a focus on patient transportation.

For many patients, 911 is their access to the healthcare system, and they use it when they are vulnerable and need care. They expect and deserve a system that works and is seamless.

Under the current system, all patients are taken to the hospital emergency department, resulting in backlogs and delays. Patients should be at the centre of solutions. Strengthening dispatch, offering alternative response models and improving coordination across healthcare will better meet patient needs and reduce pressure on the system.

Partnership and collaboration between paramedic services, health agencies and the Ministry of Health will be key. Neither partner can do this alone. Paramedic services need to be aligned as a partner in the health system.



Additional Resources

The recommendations provided in this submission build on previous work by the sector. The following links provide examples of this work and additional resources that may be useful to the consultation. Additional appendices follow, which include further relevant studies and documentation.

- [Recommendations from the Provincial Municipal Land Ambulance Dispatch Working Group](#)
Submission to the Minister of Health and Long-Term Care, May 28, 2015
- [Greater Toronto Area Emergency Medical Services Ambulance Communications and Dispatches Services Review, Final Report and Recommendations for the Regional Municipalities of Peel, Durham, Halton, York and the County of Simcoe](#)
Prepared by POMAX Public Safety, December 2009
- [Improving Access to Emergency Services: A System Commitment](#)
The Report of the Hospital Emergency Department and Ambulance Effectiveness Working Group, Submitted to the Honourable George Smitherman, Minister of Health and Long-Term Care Summer 2005
- [Truth and Reconciliation Commission of Canada: Calls to Action](#): specifically refer to pages 2-3 for sections related to health, 2015

Appendix 1

Review of the Ontario Ambulance Communications Delivery Model: Deloitte, June 2017

Appendix 2

Clinical Response Model Fact Sheet, British Columbia Emergency Health Services, July 2018

Appendix 3

Community Paramedicine: Ontario Association of Paramedic Chiefs, February 2020

Appendices 4 and 5

Paramedic Self-Regulation: Ontario Association of Paramedic Chiefs cover letter and submission to Health Professions Regulatory Advisory Council, July 2013

Appendix 6

Understanding Professional Self-regulation: Glen E. Randall BA, MA, MBA, PhD candidate, Founding Registrar of the College of Respiratory Therapists of Ontario (CRTO) 1993 - Nov 2000



Review of the Ontario Ambulance Communications Delivery Model

June 2017

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Background and Context

The Vision for Change

Vision for Change: *Patients First*

The government is committed to providing Ontarians with the right care, at the right time, in the right place, that is fiscally responsible and sustainable

- ***Patients First: Action Plan for Health Care*** was released in 2015 and is focused on the ongoing commitment to put people and patients first by improving the healthcare experience
- The plan highlights four key objectives for the next phase of health care system transformation
 1. **Access:** Improve access - providing faster access to the right care
 2. **Connect:** Connect services – delivering better coordinated and integrated care in the community, closer to home
 3. **Inform:** Support people and patients – providing the education, information and transparency they need to make the right decisions about their health
 4. **Protect:** Protect our universal public health care system – making decisions based on value and quality, to sustain the system for generations to come
- With the government's commitment to provide patients with the right care, at the right time, and in the right place, there is a growing need for Emergency Health Services to evolve and align with the strategic objectives of *Patients First*
- Emergency Health Services (EHS) is considered a key gateway to the broader health care system and system improvements are underway to align with *Patients First* and other health sector reforms including:
 - A multi-year transformation strategy
 - 2017-18 and 2018-19 planned technology system improvements, including: a new triage tool, upgraded CAD, bi-directional information sharing through central integrated platforms
- The transformation continues the progress towards improving the health system; it is acknowledged that EHS continues to make ongoing changes to operations, therefore findings and recommendations are based on a point in time.

Vision for Change: Enhancing Emergency Services in Ontario

In alignment with Patients First, Enhancing Emergency Services in Ontario (EESO) is a multi-year strategic reform of emergency health services

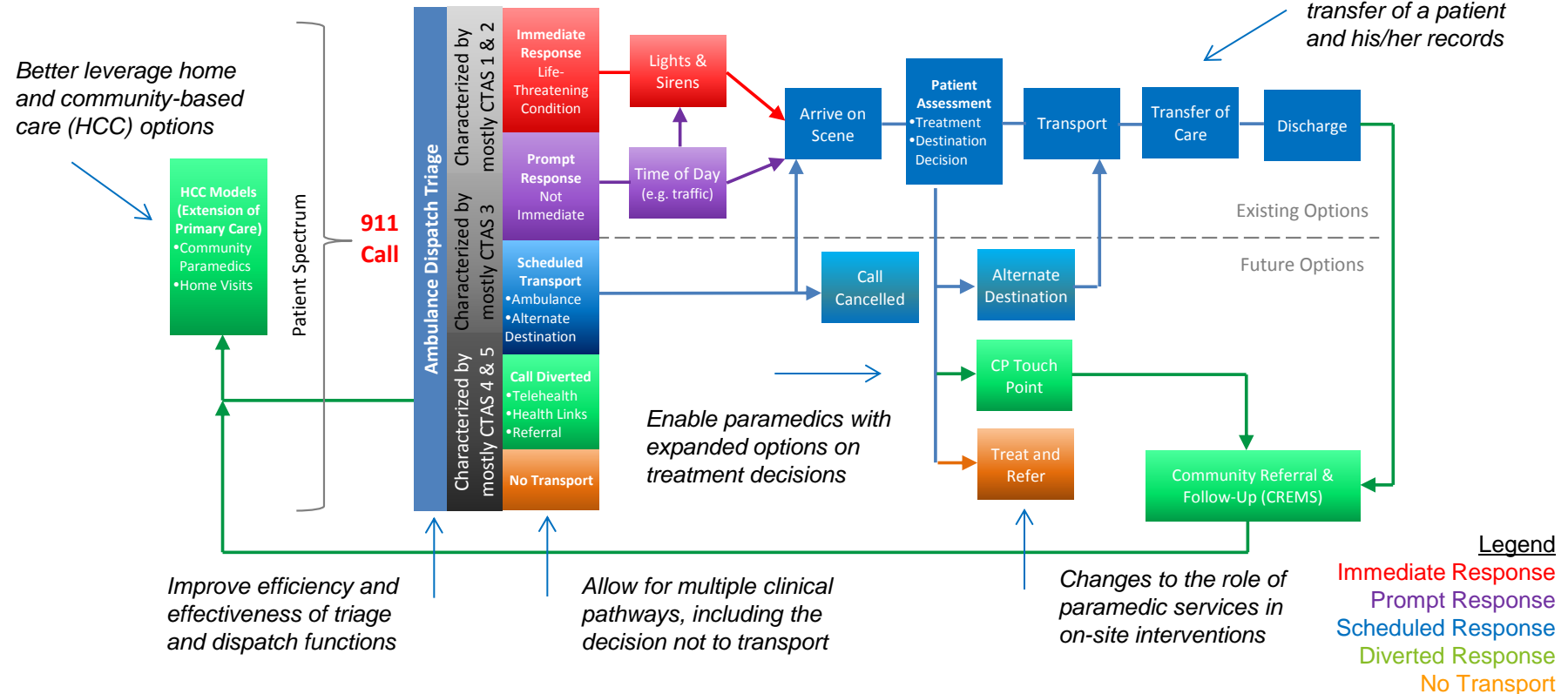
- **Enhancing Emergency Services in Ontario (EESO)** is a multi-year enterprise initiative that supports the strategic objectives of Patients First by proposing to *"improve and sustain quality co-ordinated care across the patient's journey, and implement more effective medical transportation and paramedic services with all health care delivery partners and providers in Ontario"*.
- The EHS system in Ontario is intended to provide timely response of pre-hospital and inter-facility care to address the needs of the sickest patients in 400+ municipalities and First Nations communities with 24/7/365 availability.
- EHS partners play a key role in the seamless delivery of land and air ambulance services, and helping improve access to the health care system.
- With this in mind, EESO is coordinating the EHS system transformation with a broad cross-section of service delivery components:
 - EESO vision for change is built on four key pillars of work: change, integrate, build and oversee .

The "911/811" Future State Roadmap of Ambulance Response

The future vision of patient interactions with the EHS/911 system supports a broader range of clinical pathways based on patient needs

- In alignment with Patients First, the future roadmap for EHS will enable access to the right care at the right time and in the right place.

The **911/811** future state roadmap shows one segment of the multi-year journey.



Background and context

The Emergency Health Services Branch is committed to improving the patient's journey through the health care system

- "Central Ambulance Communications Centres (CACCs) are often the **initial access point to Ontario's emergency health services** system for many patients who are ill or are injured".*
 - Functions of EHSB include the establishment of province-wide standards, funding and inspection of dispatch services, as well as providing education and training for ambulance communications officers (ACOs).
- The **CACC communication model includes both receiving calls and dispatching the appropriate emergency medical response**
 - Ambulance call takers receive calls from citizens and health service providers, prioritize the urgency of need and provide pre-hospital instructions to the caller
 - Ambulance dispatchers deploy emergency vehicles nearest to the scene to provide pre-hospital care and facilitate transport to the closest, most appropriate health care facility
 - Ambulance Communications Officers (ACOs) coordinate with Ornge Communications Centre (OCC) air and critical care land ambulance transports, which are not accessible through 911
- In 2013 the Auditor General of Ontario made several recommendations regarding ambulance dispatch in Ontario.
- In 2014 the Ontario Association of Paramedic Chiefs approached the Ministry with a range of requests related to changes to the ambulance dispatch model. The Association of Municipalities of Ontario had also requested discussions related to improving ambulance dispatch.
 - In response to these requests, the Minister of Health and Long-Term Care announced that the Ministry would assess improvements to the ambulance dispatch system. The ministry has since began implementing system improvements with three main objectives:
 - Focus on consistency and standardization,
 - Operational improvements focused on efficiency and effectiveness, and
 - Improving quality coordinated care for patients.

Background and context

The Emergency Health Services Branch is committed to improving the patient's journey through the health care system

- The **provision of air ambulance and related services** in Ontario is currently through **Ornge, a not-for-profit charitable organization**
 - Ornge Communications Officers, with the assistance of on-call doctors, centrally coordinates patient transports via aircraft or critical care land ambulance throughout the province.
- In March 2012, the Auditor General of Ontario released a special report, which raised issues around inadequate oversight of Ontario's air ambulance and related services
 - The Ministry and Ornge have since made significant strides in moving forward to restore public confidence in Ontario's air ambulance service, including the appointment of a permanent President and CEO as well as a new volunteer Board of Directors
 - Additionally, the ministry amended its performance agreement with Ornge to improve transparency and accountability through an increased emphasis on performance standards for operational and financial costs, increased reporting and disclosure of information
 - In July 2012, the ministry established the Air Ambulance Program Oversight Branch (now Air Ambulance Oversight Unit, within EHSB) to provide dedicated oversight over Ornge and to manage all current and future initiatives relating to the delivery of air ambulance related services in Ontario, including ensuring that terms and conditions of the amended Performance Agreement are successfully implemented.
- In July 2015, amendments to the *Ambulance Act* came into effect, which provide the government with the authority to take a number of actions including the ability to:
 - Appoint special investigators or a supervisor when it is in the public interest to do so, similar to the Ontario public hospitals
 - Appoint members to Ornge's board of directors
 - Prescribe terms in the performance agreement between the government and Ornge by regulation;
 - Provide whistle-blowing protection for staff who disclose information to an inspector, special investigator, supervisor, or the ministry

Purpose and Approach

Purpose of the Provincial Assessment

The purpose of this evaluation was to develop a series of options for the optimal delivery model for land and air ambulance communications in Ontario, which:

- Support a robust and flexible organization and delivery structure
- Improve the patient's journey through the health care system
- Ensure a sustainable health care system province-wide

There is currently work underway to reform the emergency health system. The ministry recognized that there are **opportunities for further growth and enhancement of the current system** to better align with *Patients First* and the EESO Future State Roadmap, and key foundational work has begun including planning for the implementation of a new medical algorithm.

Vision for Transformation of Emergency Health Services



The work undertaken to inform this report will be used to identify the next steps in the transformation of emergency health services in Ontario

Project Objectives and Scope

The project scope includes a variety of strategic and operational elements when considering the future needs of Ontarians

Specific objectives included:

- A review of current Emergency Medical Services (EMS) communication and dispatch models across the province;
- A jurisdictional scan evaluating various service delivery models and best practices for land and air ambulance systems outside of Ontario;
- Identification of opportunities to positively optimize resources and impact financial performance;
- Developing options for the optimal delivery model for land and air ambulance;
- Providing advice to the Director, EHSB, concerning the evolution of the organization including timelines, resource requirements, organization redesign and structure;
- Conducting an analysis of human resources (HR) data to determine the drivers for attrition and attendance issues within the land communications centres and field office support structure, and provide strategy/model options to effectively retain resources and enhance attendance

Project Approach and Activities Completed

A model framework guided the activities to shape the current state of ambulance communications and future state model options

Phase 1: Project Initiation and Current State

Key Activities:



ANALYSIS of CACC performance and HR data for land dispatch including dispatch times, call volumes, overtime, sick time and span of control



INTERVIEWS AND FOCUS GROUPS with key internal and external stakeholders



ONLINE SURVEY with ~550 respondents to understand current state and opportunities for future state



MODEL FRAMEWORK to guide categorization of insights from current state



Current State of Ambulance Communications

Phase 2: Identification of Priorities and Opportunities

Gap Analysis informed by:



EXAMINATION of practices across 6 jurisdictions in Canada, the USA, and the UK



CURRENT STATE AND LANDSCAPE of emergency communications in Ontario



Priorities and Opportunities for Future of Ambulance Communications

Phase 3: Development of Future State Model Options

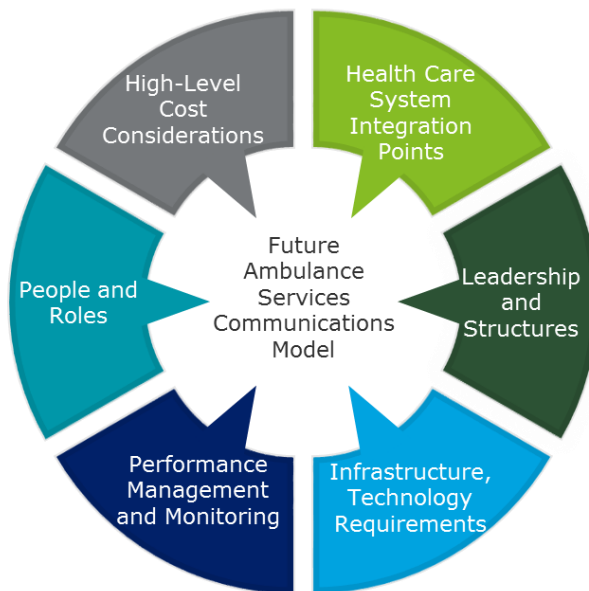


GUIDING PRINCIPLES to drive development of model options

Model Framework and Guiding Principles for Decision Making

We have established a framework to inform future potential models and guiding principles that will inform decision making around the future state

Model Framework



Leading Practices

Key Priorities and Business Process Improvements

Guiding Principles

- Greater value for Ontario citizens
 - Improved service quality and outcomes
 - Cost efficiency
- Improved utilization of Paramedic Services resources
- Promotes standardization of processes/practices
- Evidence informed and based on leading practices
- Promotes greater system integration
- Enhances future transformation potential for pre / post call stages of the process
- Ease and timeliness of implementation

Key priorities are driven from the synthesis of insights captured through the framework, jurisdictional practices, and guiding principles, to support an integrated, sustainable health system

Current State

Description of Today's Model

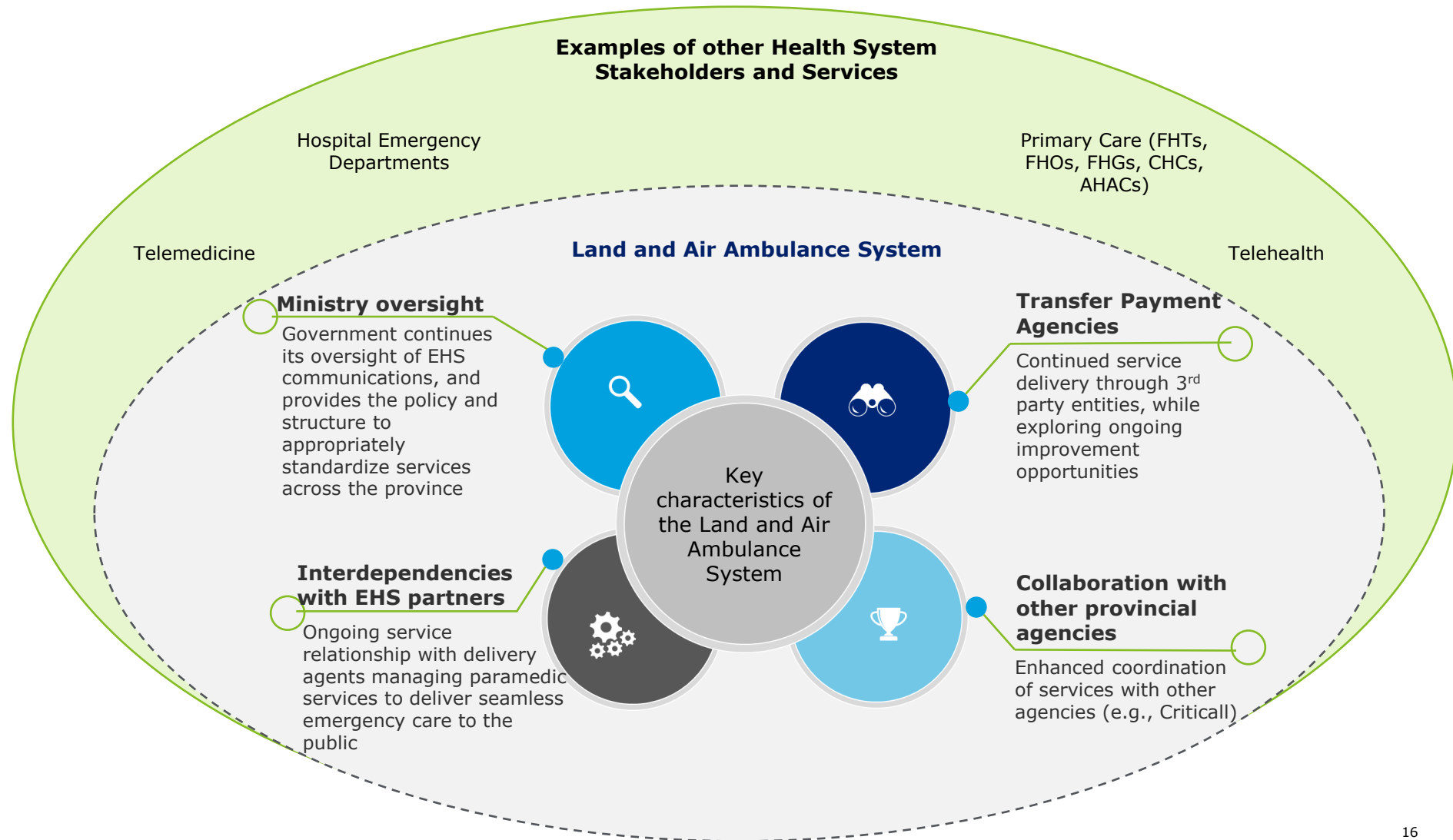
Current Model of Ambulance Communications in Ontario

Our understanding of the current model was informed through analysis of data, interviews with stakeholders, discussions with EHSB leadership and survey responses

Structure	<ul style="list-style-type: none"> • 22 Central Ambulance Communication Centres (CACCs) in Ontario, operating in a hybrid model <ul style="list-style-type: none"> – 11 operated directly by the Ministry – 6 operated by Hospitals – 4 operated by Municipalities – 1 private • CACCs communicate with 56 Paramedic Services (PS) providers across the province (50 Upper-tier Municipal services + 6 First Nations services) • Ornge Communications Centre - dispatches air ambulance and critical care land ambulance resources.
Funding	<ul style="list-style-type: none"> • The Ministry currently funds 100% of dispatch centre costs • Funding for Municipal PS providers is split 50/50 between Ministry and Municipalities • First Nations Paramedic Services are 100% Ministry funded • Ministry funds 100% of air ambulance and critical care land ambulance services (Ornge is provider)
Technology/ Supportive Tools	<ul style="list-style-type: none"> • Computer Aided Dispatch (CAD) technology is used at all CACCs and Ornge dispatch centre to support call taking, triage and dispatch, however varying versions of this technology are in use across CACCs • While Medical Priority Dispatch System (MPDS) is used to triage patients at Niagara and Toronto CACCs and, all other CACCs currently use Dispatch Priority Card Index (DPCI) II to inform prioritization of patient needs. • Ornge's Flight Vector triages patients using a 5-point scale for acuity

Landscape of Ambulance Communications in Ontario

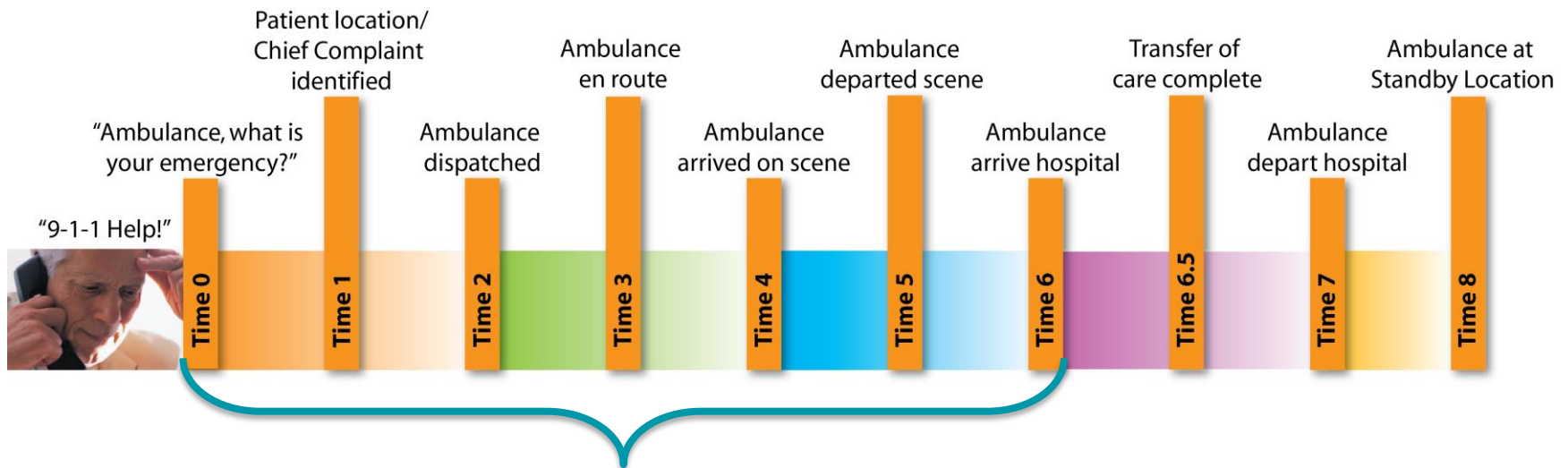
The current environment in which ambulance communications services exists includes direct partners, as well as elements of the broader health care system



Performance Indicators

Description of Land Ambulance Communication Services

Ambulance dispatch is a key part of the emergency response to a 9-1-1 call from the time a call is received by the communications centre, to the delivery of the patient at the appropriate health care facility



The Ambulance Communication Officer triages the call based on answers provided by caller to questions in the medical triage algorithm and remains in contact with the caller providing:

- Pre-arrival first aid and patient comfort instruction
- Reassessment of call priority, determining if further support (including air ambulance) is required
- Patient status updates to paramedics

Upon arrival of Paramedics on scene, the Ambulance Communication Officer may provide:

- Coordinated communication between paramedic and Regional Base Hospital if required
- Notifications to Emergency Department of incoming patient

Dispatch Performance Metrics – Land Ambulance

Dispatch performance is currently monitored through the response time standard data and posted publicly on the Ministry website

Time Intervals:

Time 0 – Call Received: time when the ambulance communications officer initially answers the telephone to commence call taking.

Time 2 – Crew Notified: time at which the ambulance communications officer has completed selecting which ambulance resource to assign and provided the ambulance crew with the response code and sufficient call location information (by base page, radio, telephone, belt page, PDA) to begin responding.

Time 4 – Arrived Scene: time at which the ambulance crew advises the ambulance communications officer (by radio or status messaging) that they have arrived at the call's location.

Dispatched Priority Code: 1, 2, 3, and 4

Code 1 – Deferrable Call: A non-emergency call which may be delayed without being physically detrimental to the patient.

Code 2 – Scheduled Call: A non-emergency call which must be done at a specific time due to the limited availability of special treatment or diagnostic/receiving facilities. Such scheduling is not done because of patient preference or convenience.

Code 3 – Prompt Call: An emergency call which may be responded with moderate delay. The patient is stable or under professional care and not in immediate danger.

Code 4 – Urgent Call: An emergency call requiring immediate response. The patient is life, limb or function threatened, in immediate danger and time is crucial.

Canadian Triage Acuity Scale (CTAS) Levels

CTAS Level 1: CTAS level assigned for resuscitation.

CTAS Level 2: CTAS level assigned for emergent.

CTAS Level 3: CTAS level assigned for urgent.

CTAS Level 4: CTAS level assigned for less urgent.

CTAS Level 5: CTAS level assigned for non urgent.

Dispatch Performance Metrics – Air Ambulance

Performance for Ornge is monitored according to dispatch and reaction time targets

Dispatch time targets:

Scene calls: Within 10 minutes of receipt of each call (T0), the caller will be advised on status of Ornge's ability to dispatch an aircraft

Acute care air transfers: Within 20 minutes of receipt (CO-Medical Patient Details Complete (T1)) of each call, the caller will be advised on status of Ornge's ability to dispatch an aircraft

CCLA Transfers: Within 20 minutes of receipt (CO-Medical Patient Details Complete (T1)) of each call, the caller will be advised on status of Ornge's ability to dispatch a CCLA vehicle

Reaction time targets:

Ornge aircraft, emergent and urgent calls: If aircraft is fueled, within 15 minutes of pilot's acceptance of the call, Air Traffic Control (ATC) clearance will be requested. If fuel is required, within 25 minutes of pilot's acceptance of the call, Air Traffic Control (ATC) clearance will be requested

SA carriers, emergent and urgent calls: Within one hour of agreed-upon departure time, ATC clearance will be requested

CCLA: Within 10 minutes of request for CCLA response, the CCLA will be mobile

Ornge Triage Acuity Scale

Ornge Triage Acuity Scale (OTAS) differs from CTAS and has been developed specifically for Ornge's transport environment

- OTAS is a 5-level triage acuity scale established by Ornge's Medical Advisory Committee replacing Ornge's 3-point scale (emergent, urgent and non-urgent) as of April 1, 2017
 - This scale is used in deployment decision-making for air ambulance

OTAS Levels and Best Effort Time to Receiver Facility*:

Level 1 - Resuscitation: 4 hours or less, without delay. OTAS 1 calls are to be dispatched without delay and are automatically approved for shift extension or duty out. The most appropriate Critical Care Land Ambulance (CCLA) will be dispatched or aircraft will be weather checked within 10 minutes of Patient Details Complete

Level 2 – Emergent: 6 hours or less. OTAS 2 calls require TMP approval for shift extension or duty out. The most appropriate CCLA will be dispatch or aircraft will be weather checked within 10 minutes of Patient Details Complete

Level 3 – Urgent: 12 hours or less. OTAS 3 calls are not approved for shift extension or duty out pursuant to the current Collective Agreement provisions

Level 4 – Less Urgent: 24 hours or less. OTAS 4 calls are not approved for shift extension or duty out pursuant to the current Collective Agreement provisions

Level 5 – Non-Urgent: 48 hours or less. OTAS 5 calls are planned using the Long Term Planning tool

*Each call is assessed based on circumstances (e.g., weather, patient needs, etc.) and is assessed against all other pending calls for the same/similar assets. Any one of these numerous factors could impact time to Receiver.

Performance and HR Data Analysis for Land Ambulance Dispatch

Performance and HR Data for Land Ambulance Dispatch

Our understanding of the current state was further informed through analysis of performance data for land ambulance and a review of available CACC HR data

Performance Data Findings

- Review of land ambulance performance data included analysis of call volumes, response times by CACC and Priority Code, and total spend from 2014-2016
- It was noted that call volumes have been steadily increasing by over 3% since 2014, with the distribution of call Priority Code remaining consistent
 - The distribution of call volumes across CACCs in Ontario is variable with several CACCs receiving less than 20,000 calls annually
 - Dispatch times across the province ranged from 2.0-3.3 minutes. Based on the overall data, there does not appear to be a direct correlation of performance relative to geography or call volumes.

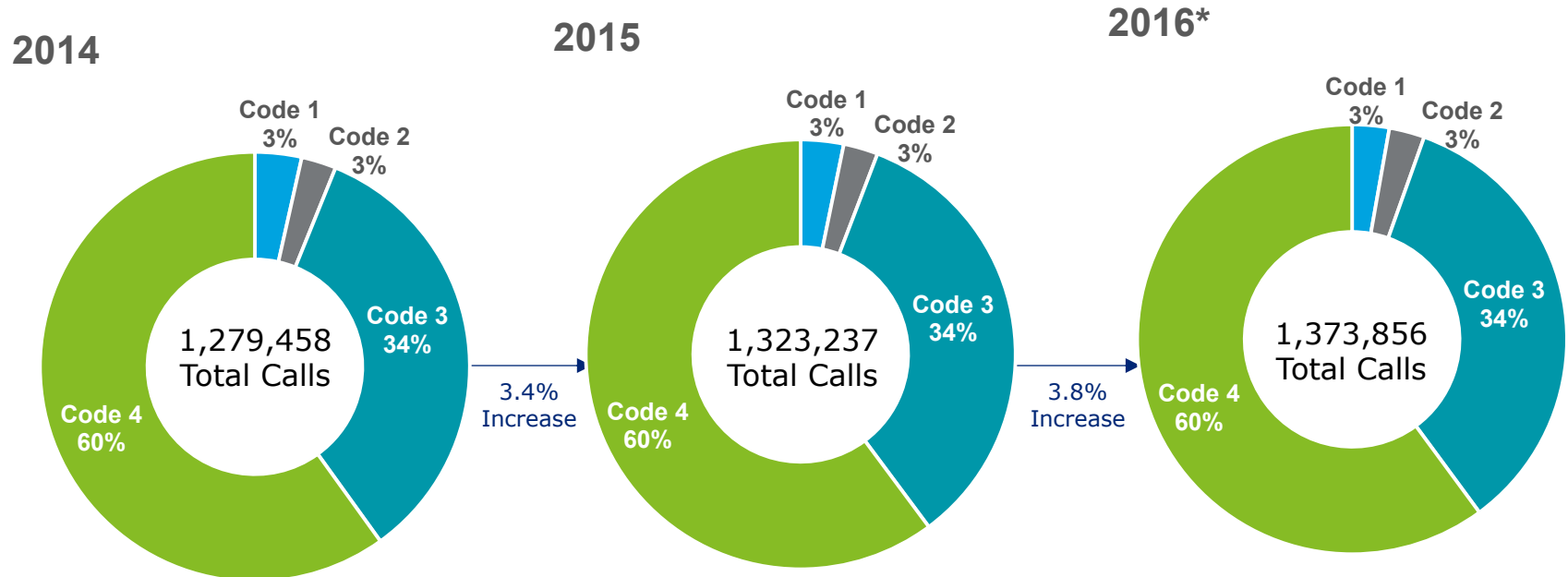
HR Data Findings

- Due to inconsistencies in data collection around attrition, sick time and overtime, we were unable to conduct a detailed analysis of HR data and identify strengths and challenges of the current HR management processes

The following slides provide a detailed view of the performance data analysis as well as a summary of data limitations. Methodology and further analysis can be found in the Appendix.

Ontario Volumes of Calls Received

CACC call volumes have been steadily increasing by over 3% year over year



When data from the Toronto CACC is excluded, the proportion of Code 4 calls increases to ~66% for each year

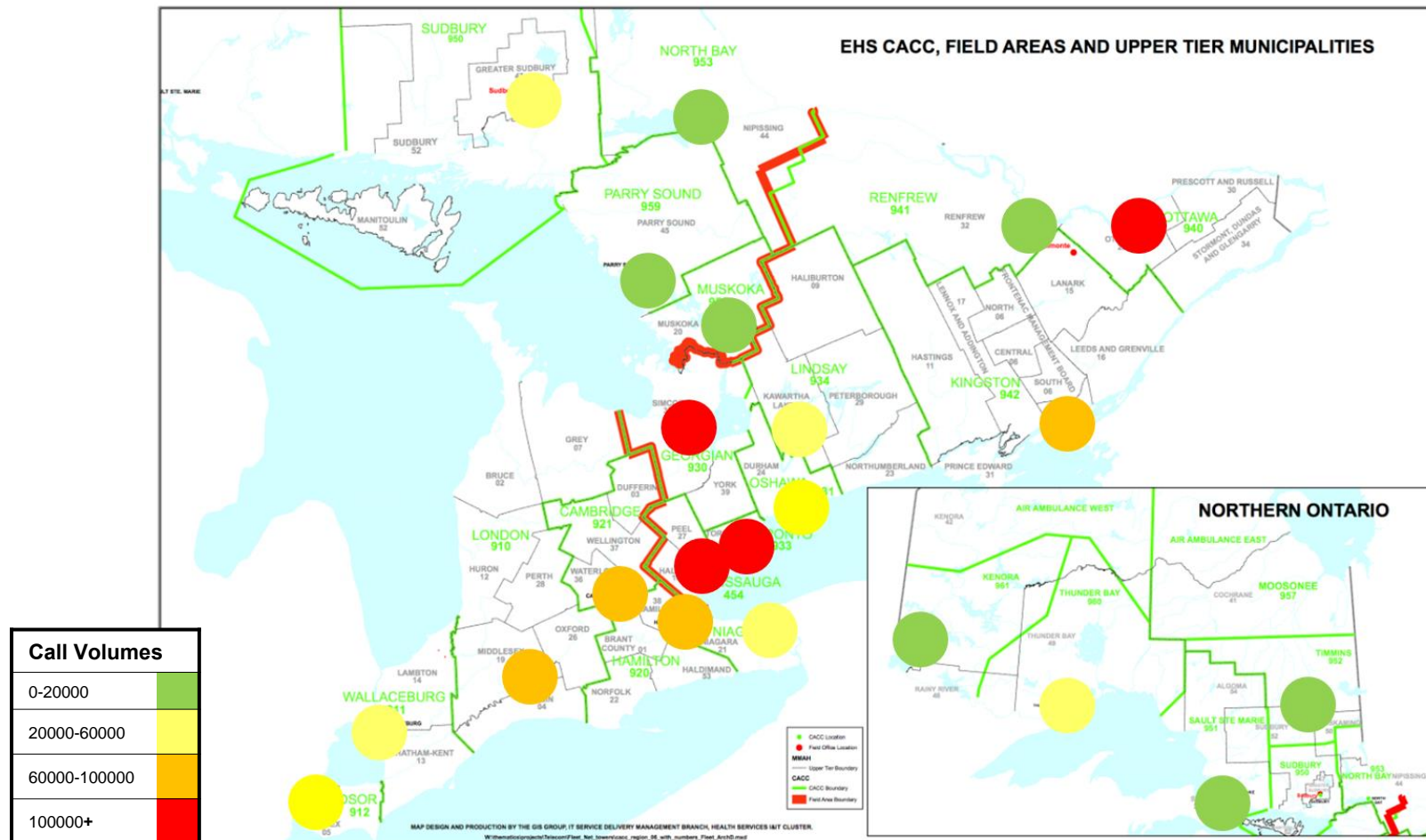
- The proportion of Code 1-4 calls has remained constant year over year from 2014 to 2016
- Majority of calls received are categorized as Code 4
- From 2015 to 2016, Parry Sound saw the largest increase in call volumes (9%) whereas Muskoka saw the largest decrease (8%)
- The Toronto CACC receives the largest number of calls on an annual basis (~273,000 in 2015), accounting for over 20% of total calls received in Ontario

Source: ARIS Reports

*Data from January-September 2016 was used to project the total volume for the year

Volumes of Calls Received by CACC in 2016*

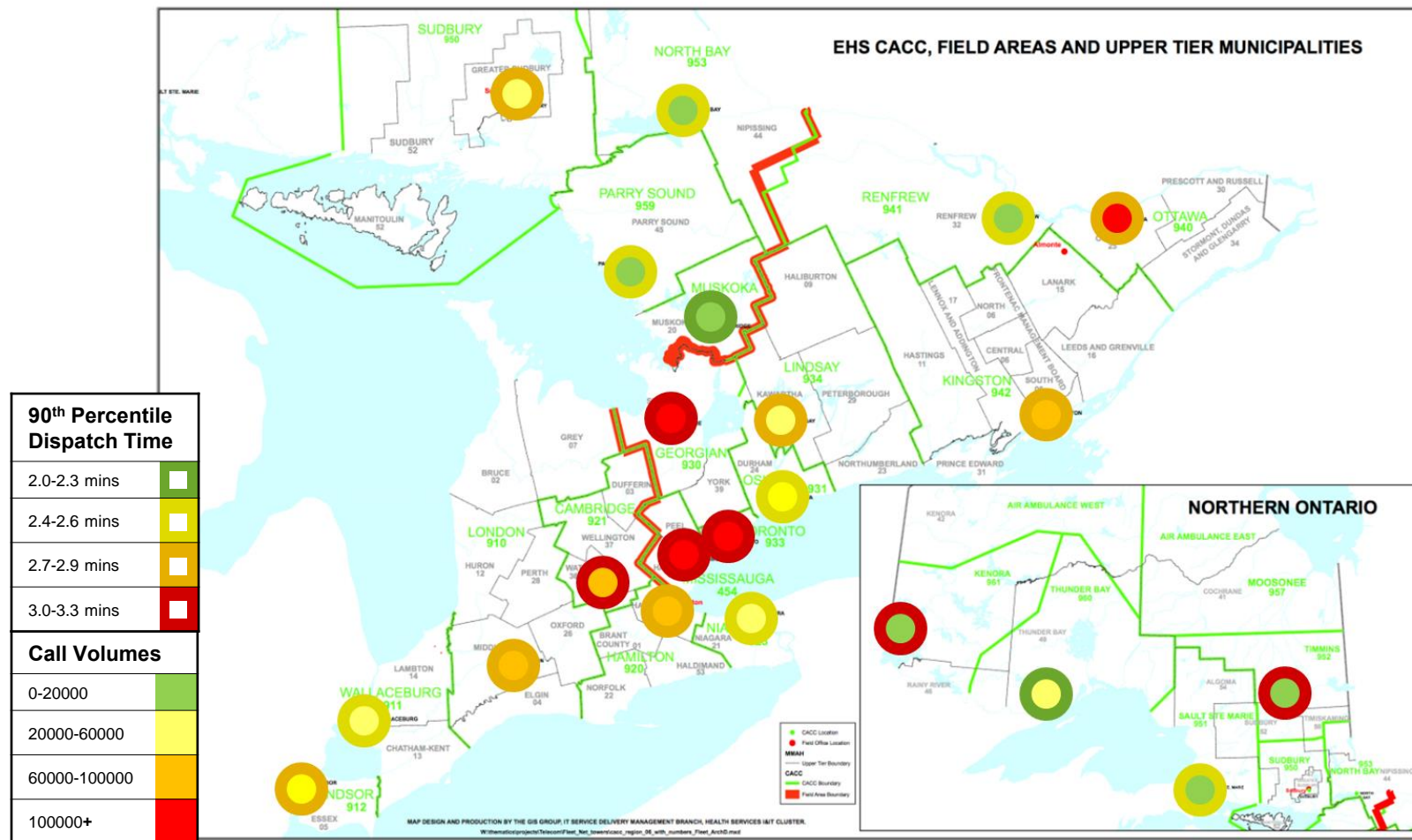
- Volumes of calls received by CACC ranged from 3,400 – 287,000 calls
- The Toronto, Mississauga, Ottawa and Georgian CACCs received the highest volumes of calls in Ontario
- 7/22 CACCs received call volumes <20,000



*Data from January-September 2016 was used to project the total volume for the year, call volumes represent Code 1-4 calls received

Volumes of Calls Received and Corresponding Dispatch Times by CACC in 2016*

- 90th percentile dispatch times across Ontario ranged from 2.0 – 3.3 minutes
- There appears to be no direct relationship between call volumes and dispatch times



Data Analysis Limitations

A review of performance and HR data revealed a number of challenges, limiting the ability to identify drivers for attrition and attendance issues in CACCs

We sought to review:

- CACC Performance
 - Dispatch and response times across CACCs based on assigned Priority Code
 - Volumes of calls received by CACC
 - Volume of calls dispatched by Priority Code
- CACC Financials
 - Actual expenditures by CACC
- Employee Data
 - Attrition rates across CACCs
 - Attendance issues and associated contributors including:
 - Total sick time per employee
 - Overtime hours worked per employee
 - Span of control

Our findings show:

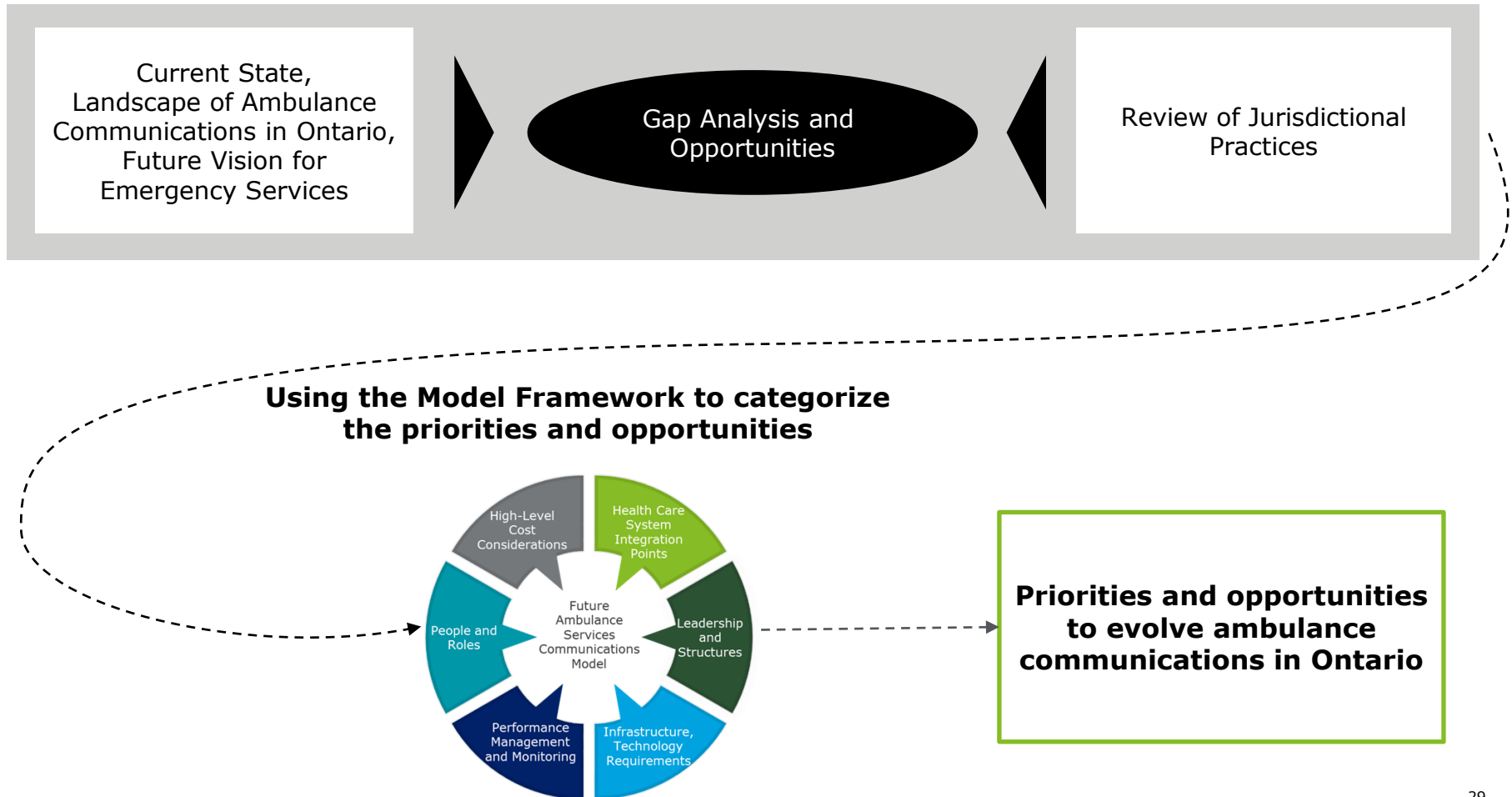
- Inability to compare calls received to calls dispatched due to variability in capturing data across CACCs
- Inability to track details of spend due to consolidated spend data vs. categorization and tracking of dollars
- Challenges in identification of attrition rates across CACCs due to variation in definitions and tracking
- Differences across CACCs in tracking sick time, overtime, and movement of employees within and outside of CACCs
- Inconsistent tracking of reasons for employees leaving CACCs

Due to the variability and inconsistencies in capturing performance and HR data, this review was unable to identify recommendations to retain resources and enhance attendance

Key Priorities for Transformation

Priorities to Inform the Future Model of Ambulance Communications

The synthesis of the current state findings, jurisdictional practices and future vision led to the creation of key priorities to enhance service delivery



Key Priorities for Transformation

The following key priorities are recommended to transform the existing dispatch model to align with the desired future vision for emergency services

The key priorities provide direction to shape the future of ambulance communications, regardless of the stage of transformation. It is recognized that, with the current technology system improvements and the EESO multi-year transformation strategy, the Emergency Health Services Branch has started the journey towards an evolved future and these priorities will allow EHSB to build upon the progress.

Performance Management and Monitoring

Comprehensive performance management

Enhance relevant benchmarks for clinical and service performance targets to drive system performance

- Implement advanced management reporting systems to enable measurement of tangible KPIs and identification of potential issues, including patient experience indicators
- Enhance dedicated support/business analysts to conduct more robust performance analysis and identification of trends to inform future planning decisions

Leadership and Structures

Clear service expectations and accountability

- Enhance the accountability frameworks by evolving service expectations and performance based contracts to increase accountability for dispatch services
- Identify appropriate organizational structure including direct governance, arms-length oversight, and/or contracted service agreements (may include private organizations)

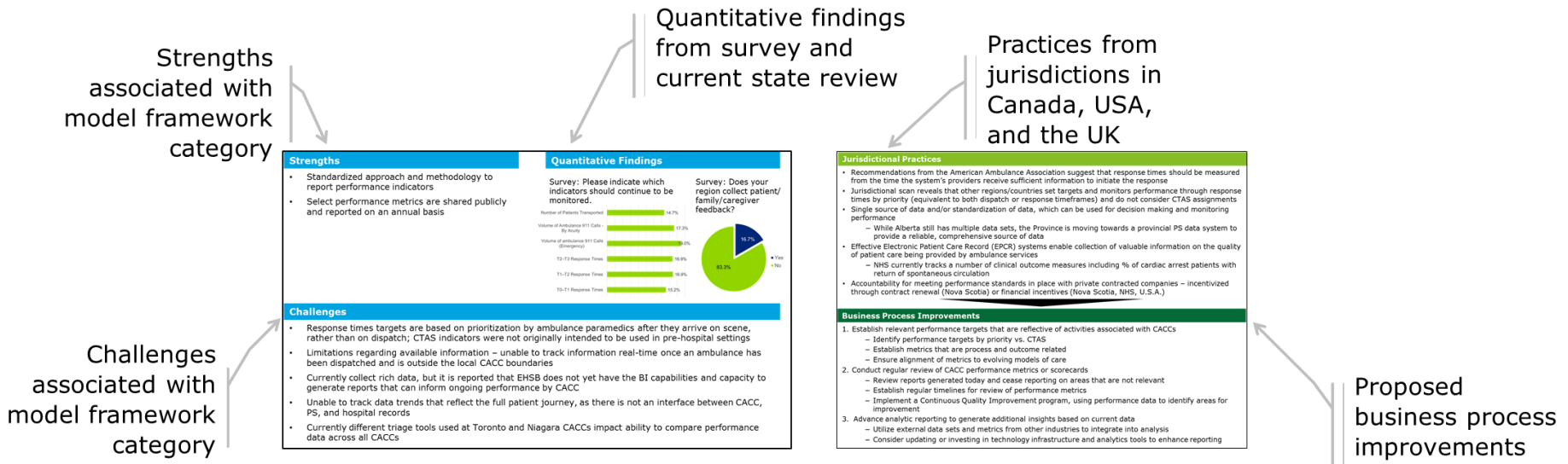
Key Priorities for Transformation continued

The following key priorities are recommended (and in some cases underway) to transform the existing dispatch model to align with the desired future vision for emergency services

Infrastructure, Technology Requirements	Integrated technology and information management practices <ul style="list-style-type: none"> • Integrate technology between dispatch centres, paramedics, and services that arrange air and inter-facility transportation to support seamless ambulance communication • Establish an integrated approach to information management to enable standardized reporting across all centres • Implement provincial standardization of triage methodologies and relevant technology platform to support accurate and consistent prioritization of calls
People and Roles	Focus on HR management and standardization across sites <ul style="list-style-type: none"> • Standardize policies and procedures across CACCs to enable a consistent approach to delivery of ambulance dispatch services • Advance HR management practices with a focus on leadership, succession and retention management • Achieve formal accreditation by a sector recognized entities, such as the International Academies of Emergency Dispatch
Health Care System Integration Points	Collaboration with partner organizations and existing structures to enhance emergency health services <ul style="list-style-type: none"> • Revisit roles for partner organizations regarding inter-facility transfers and other relevant services • Enhance future vision that includes integration with the broader health system to support the patient journey from pre-hospital to acute care

Suggested key priorities and business process improvements were informed by current state findings and jurisdictional practices

- The model framework guided the collection of current state data and identification of strengths and challenges with the current emergency health services system, which subsequently informed business process improvements
- The visual below illustrates the structure used to present findings and suggested improvements as highlighted on the following slides



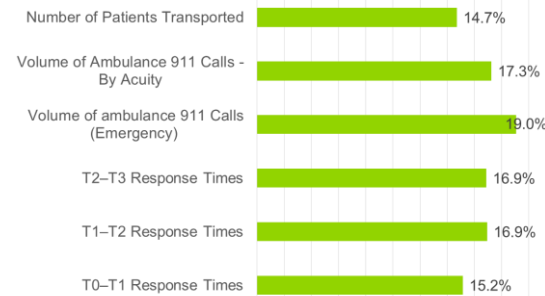
Performance Management and Monitoring

Strengths

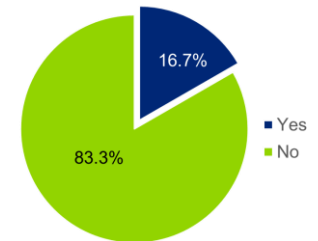
- Standardized approach and methodology to report performance indicators
- Select performance metrics are shared publicly and reported on an annual basis
- Ornge's CAD system enables accurate reporting of key performance indicators as outlined in the Ministry/Ornge performance agreement

Quantitative Findings

Survey: Please indicate which indicators should continue to be monitored.



Survey: Does your region collect patient/family/caregiver feedback?



Challenges

- CACC response times targets are based on prioritization by ambulance paramedics after they arrive on scene, rather than on dispatch; CTAS indicators were not originally intended to be used in pre-hospital settings
- Limitations regarding available information – unable to track information real-time once an ambulance has been dispatched and is outside the local CACC boundaries
- Lack of comparability between measured targets for land and air
- Currently collect rich data, but it is reported that EHSB does not yet have the advanced business intelligence (BI) capabilities and capacity to generate reports that can inform ongoing performance by CACC
- Unable to track data trends that reflect the full patient journey, as there is not an interface between CACC, Paramedic Services (PS), and hospital records. Although, Ornge has initiated work to track patients journey based on its unique data sets, the interface with land services is not yet captured
- Currently different triage tools used at Toronto and Niagara CACCs impact ability to compare performance data across all CACCs. This issue is mitigated in air ambulance due to a single system coordinated centrally, however it is not comparable to CACC data

Performance Management and Monitoring cont'd

Jurisdictional Practices

- Recommendations from the American Ambulance Association suggest that response times should be measured from the time the system's providers receive sufficient information to initiate the response as the time taken to collect information can be variable depending on circumstances
- Jurisdictional scan reveals that other regions/countries set targets and monitors performance through response times by priority (based on an advanced triage system) and do not consider CTAS assignments as these are assigned retrospectively
- Consistent use of a single source of data and/or standardization of data, which can be used for decision making and monitoring performance, as this allows for valid review of trends
 - While Alberta still has multiple data sets, the Province is moving towards a provincial PS data system to provide a reliable, comprehensive source of data
- Effective Electronic Patient Care Record (EPCR) systems enable collection of valuable information on the quality of patient care being provided by ambulance services
 - National Health Service (NHS) currently tracks a number of clinical outcome measures including % of cardiac arrest patients with return of spontaneous circulation, which is enabled through its EPCR system
- Relationships with privately contracted companies enable accountability through performance-based contracts and independent oversight to monitor performance and compliance – incentivized through contract renewal (Nova Scotia) or financial incentives (Nova Scotia, NHS, U.S.A.)
 - Medavie reports indicators, such as call processing times and overall response times, to oversight body, while further breakdown of indicators is reviewed internally to identify opportunities to improve services

Business Process Improvements

1. Enhance relevant performance targets that are reflective of activities associated with CACCs
 - Ensure alignment of metrics to evolving models of care
2. Enhance CACC and Ornge OCC performance metrics or scorecards
 - Review reports generated today and cease reporting on areas that are not relevant
3. Advance analytic reporting to generate additional insights based on current data
 - Consider updating or investing in technology infrastructure and analytics tools to enhance reporting
4. Improve the Quality Assurance framework/program to drive performance and quality in the service model

Leadership and Structures

Strengths

- Some support by leadership to front line staff in the form of training and mentorship
- For the smaller centres, inter-professional relationships are fostered between staff and management
- Each centre is familiar with the practices of municipality and service providers and can tailor local services to meet the needs of communities
- Ornge and CACCs regularly connect to collaborate on operations

Quantitative Findings

- 22 CACCs, 11 run by Ministry and 11 are non-Ministry CACCs
- Ornge OCC and OCC back-up location
- Municipalities currently fund 50% of ambulance services but not dispatch centres

Challenges

- With each of the interviews and focus groups conducted, **all participants** indicated that there are too many CACCs in the province and there is opportunity to consolidate, while maintaining quality service
- Varied standardization across the province with regards to practice and technology – different interpretations of policies due to large number of CACCs
 - This variation contributes to the inefficiencies when operating EHS systems
- With the current number of CACCs, it can be difficult to provide robust oversight and governance to introduce new programs or initiatives
- Some stakeholders reported the challenge with gaining full transparency provincially in understanding operations and expenditures by CACC, with the different accountability structures
- Within EHSB, it is reported that variation exists between the span of control at the supervisor or manager level, which impacts the ability to provide consistent oversight and performance management
- As some of the CACCs provide dispatch services other than PS (e.g., fire, police), a proportion of stakeholders report this can restrict access to ambulance service, as there are competing priorities
- Currently no established standard for management processes and operational functions, which could be achieved through accreditation

Leadership and Structures cont'd

Jurisdictional Practices

- Consolidation to reduce the overall number of land dispatch centres in various jurisdictions enabling achievement of efficiencies and ease of standardizing practices across centres
 - NHS moved from 31 dispatch centres in 2006 to 14 in 2016, in order to improve strategic capacity and achieve efficiency gains
 - Success of this initiative was largely due to advanced technology, which allowed dispatch centres to manage calls quicker and more efficiently, supported communication between dispatch centres, and enabled seamless transition of calls between dispatch centres; Challenges included concerns from community members that the dispatch centres were not in close proximity to them and fear of dispatch officers lacking local context knowledge
 - Similarly, Alberta attempted to consolidate the PS dispatch system, which was put on hold in March 2010
 - Reported benefits included the standardization of dispatch processes and consistent technology use across the province; Consolidating the PS dispatch system posed funding challenges for centres that previously dispatched multiple services (i.e., PS and fire), as these centres no longer received funding for their PS services
- Contracting private companies to provide ambulance dispatch services, using contracts to ensure accountability for meeting performance standards – e.g., Medavie in Canada
 - The trend for government, including other areas within the healthcare system, is to continue its evolution towards a stewardship model and empower other entities for direct service delivery, while maintaining 'arms-length' oversight; this model enables accountability for service provision and achievement of metrics to be placed on the service provider vs. the oversight body
- Achievement of accreditation by a national/international organization provides assurance that provider is aligned with recognized standards of excellence
- Centralized dispatch of air and land ambulance to enable transparency between providers and more efficient provision of transportation services – e.g., Manitoba, British Columbia, Nova Scotia

Business Process Improvements

1. Investigate opportunities to pursue accreditation for emergency dispatch communication across all CACCs and OCC from a recognized, international organization
2. Review current accountability frameworks and enhance service and performance expectations and monitoring

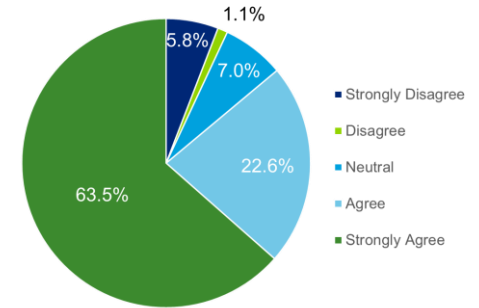
Infrastructure, Technology Requirements

Strengths

- Over the years, EHSB has invested in gradually improving technology to support communications
- MPDS system used in Niagara and Toronto is known to be reliable and accurate due to real time data and allocation of paramedics
- It is reported that a number of CACCs may have the physical infrastructure to take on additional capacity
- A data sharing agreement and technology solution enables information from CriteCall to be pushed to Ornge to help populate the CAD and inform patient transfers

Quantitative Findings

Survey: The current dispatch triage tool could be improved to contribute to an enhanced patient experience during a 911 call



Challenges

- Delays in obtaining important patient information due to incompatibility of patient care record from ambulance to hospitals
- The majority of survey participants who provided additional comments reported that the current triage system is "risk averse" and there are scenarios where the priority response does not fully align with the triage assessment
 - It is perceived that there are too many calls assigned a Priority Code 4
- It is reported variability exists across the province regarding the process to re-route public-safety answering point (PSAP) calls when dispatch does not field calls: mix of automated re-routing through telecommunications company vs. manual calling by PSAP staff. This poses a key risk to timeliness of access to service
- Each CACC has a designated back-up centre, however almost all areas use manual processes (phone, radio, and paper) to manage calls when systems go down, which poses risks during downtime situations
- All CACCs currently use the same CAD platform but not the same instance of it, which impacts the efficiencies where collaboration across CACCs is needed or in shifting to new service models in the future. Further, Ornge's CAD currently does not interface with the CACC CAD preventing integration

Infrastructure, Technology Requirements cont'd

Jurisdictional Practices

- Consistent advanced triage functionality across all dispatch centres enabling standardization of data collected, ease of integration across dispatch centres and comprehensive triage of emergency calls
 - MPDS is used in BC and Manitoba, enabling a standard of care protocol for medical emergency triage as well as pre-arrival instructions to patients/callers
 - MedStar in Forth Worth, Texas, and the Regional Emergency Medical Services Authority (REMSA) in Reno, Nevada are both accredited through the International Academy of Emergency Dispatch (IAED) and use MPDS as their triage tool
- CAD to CAD compatibility enabling communication between dispatch centres and across the continuum of patient care (Dispatch to ambulance to hospital)
 - Integrated CAD systems enable dispatchers to see location of ambulances, send information to mobile data terminals, and ensure that time stamps are accurately captured
- Seamless transfer of calls
 - Telecommunications company in NHS automatically re-routes calls where dispatch is unable to receive calls enabling timely response to emergency calls
 - In BC, peak demand rollover is seamless – unanswered calls go seamlessly to the backup centre

Business Process Improvements

1. Procure a standardized electronic triage system across all CACCs, in alignment with 2017-18 and 2018-19 system improvements
 - Procure a triage system with an advanced algorithm to assign priority status that reflects patient needs
2. Implement technology to allow seamless transition of calls to mitigate system or switch failure across all CACCs and Ornge's OCC
3. Implement advanced dispatch technology functionality that aligns with the future model of services
 - Consider standardizing CAD instance across CACCs to enable effective sharing of information
 - Implement a system to enable two-way communication with PS mobile data terminal and CAD system, thus enabling a combined rich data set of EPCR and CAD data, in alignment with proposed 2017 system improvements

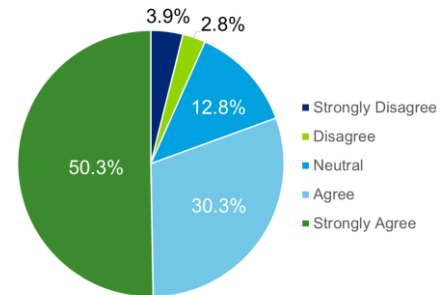
People and Roles

Strengths

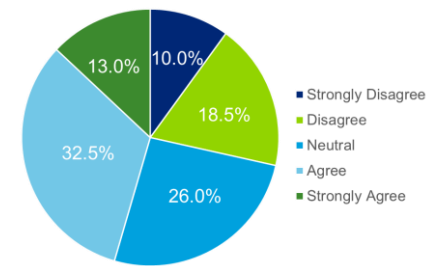
- Regional centres foster strong interpersonal support amongst peers
- While not consistent across all CACCs, it was reported that clear lines of communication exist between field offices and head office, though there is ongoing work required to strengthen these
- Interviews indicate there are knowledgeable front-line staff fielding and managing calls from the public

Quantitative Findings

Survey: There are opportunities to improve the pre-arrival instructions given to patients prior to the paramedics' arrival.



Survey: I believe that the current way dispatch staff are utilized supports timely ambulance responses.




- 34% of survey respondents strongly agree/agree that staff receive enough training to effectively perform their jobs

Challenges

- As managers are not staffed 24/7 across all CACCs, this can be challenging to sustain performance management-related activities, as it is reported that staff may not see their managers for an extended timespan
- Overall, forum for all CACC staff to connect does not exist and currently regularly scheduled staff meetings within CACCs does not occur
- It is perceived that there is variation among CACCs with regards to general HR practices, e.g., hiring, management of staff, operations
- There is variability in capturing HR-related data across CACCs including sick time, overtime, and attrition

People and Roles cont'd

Jurisdictional Practices

- Dedicated resources for 911 dispatch vs inter-facility transport to provide clearer roles and reduce competition for resources – e.g., British Columbia
 - Cross-training staff on other roles to provide alternate resources and cost efficiencies – e.g., Manitoba
 - Providing access to a supervisor/management 24/7 to provide support to front line staff and ensure consistent local operations – e.g., Manitoba
 - Focus on creating a workplace of excellence including providing effective education to ensure quality patient care through ongoing skills and knowledge evaluation – e.g., British Columbia
- 

Business Process Improvements

1. Focus on enhancing an engaged culture within the CACCs
 - E.g., establish annual in-person meetings, webinars, social media sites, SharePoint sites, and/or blogs to support regular engagement, encourage connecting with other regions and sharing lessons learned, formal certification of ACOs through accreditation process, increased support for Supervisors and Managers to improve management skills and abilities
2. Explore models that can support management functions 24/7
 - Consider cross-coverage models across CACCs, and unionized vs. non-unionized environments
3. Examine current education practices to determine changes that may be required to increase adoption of training (e.g., alternate approaches, peer-based learning models)
4. Advance HR management practices
 - Consider implementing an electronic scheduling system to better track staff utilization and inform predictive scheduling
 - Stronger focus on development of leadership, succession and retention management using informal/formal methods
 - Conduct a review of staff utilization – particularly attrition, sick time, and overtime – to better understand drivers; this may include collection of quality data to conduct analytics

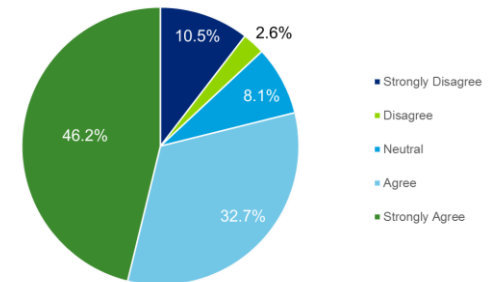
Health Care System Integration Points

Strengths

- Tiered response in place with police, fire, and ambulance to ensure that appropriate resources are dispatched for every call
- CritiCall and the CACCs have a well-established process to communicate and coordinate life and limb transfers
- Strong communication with Ornge, particularly for inter-facility transfers

Quantitative Findings

Survey: I believe there are opportunities to improve the integration between the ambulance dispatch centres and the broader healthcare system.



Challenges

- Currently minimal integration of data between ED, Ambulance, CACCs, and LHINs – majority of survey respondents identified the need for open communication channels between Dispatch Services, paramedics, CACCs and the MOHLTC
- For transport other than life or limb, hospitals do not consistently know who to contact for transport (i.e., air vs. land)
- Lack of integration with parallel call systems such as Telehealth Ontario and 811
- While CritiCall is able to push personal health information to Ornge to populate their Patient Transfer Authorization Centre (PTAC) and CAD, CACCs do not have access to view this information, which increases risk and could impact timeliness of communication
 - It is noted that preliminary integration efforts are underway to integrate Ornge's dispatch system with the CACCs; to date, a technical specifications document has been drafted for this work
- As there is variability among PS regarding their allocation plans, the CACCs must be cognizant of constraints when allocating PS to the airport for transport handoff with Ornge

Health Care System Integration Points cont'd

Jurisdictional Practices

- Emergency Communication Nurse System (ECNS) implemented with MPDS provides an algorithm to triage low-acuity calls and connect them to appropriate community resources or provide self-care instructions
 - This is currently in place Fort Worth, Texas, and Reno, Nevada, as well as in the UK and Australia
 - As there is a shared CAD, the model enables seamless transition to 9-1-1 dispatch to maintain the public safety, rather than repeating information and starting from the beginning
- Multiple centres in the USA and UK have air and land ambulance services dispatched from the same facility enabling a more coordinated dispatch for transports requiring both land and air services
- Within British Columbia, Emergency Health Services is responsible for the Ambulance Service as well as the Patient Transfer Network, which is a 24/7 services that collaborates with health care providers for an integrated approach to safe, efficient transfer of acute and critically ill patients
- Defining the vision for emergency response will support the shaping of the service model for the future
 - E.g., Perspectives on public safety as a priority vs. promoting an integrated health system

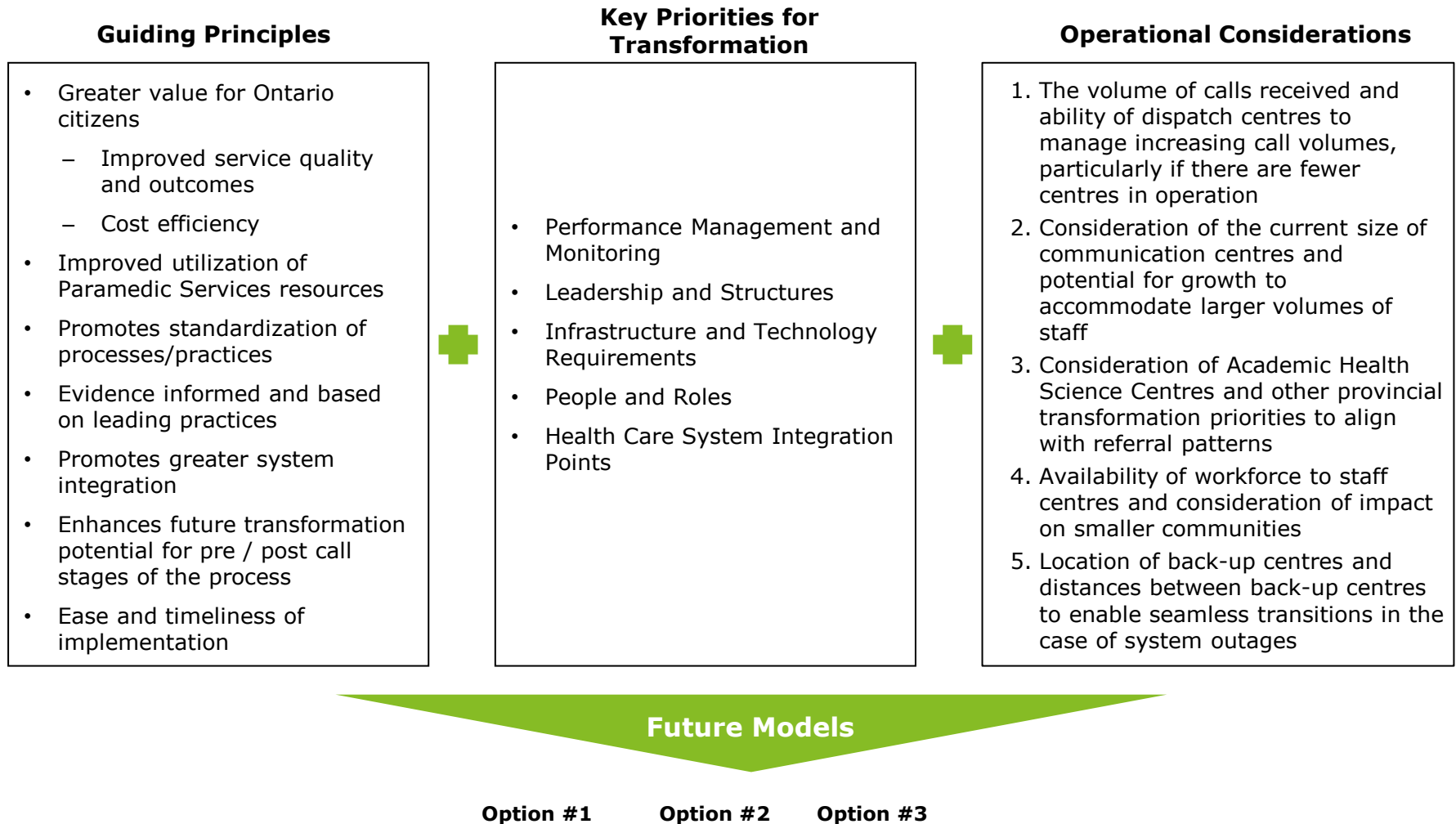
Business Process Improvements

1. In alignment with *Patients First* and EESO, establish a future vision of pre-hospital care to inform the roles and responsibilities of CACCs
 - Consider other referral options for the public for low acuity calls
2. Explore model options to strengthen the communication and coordination of critical care transport
3. Identify expanded support or guidance that ACOs can provide to patients and families to improve outcomes, as well as the patient experience

Future State Model Options

Development of Future State Models

The model framework and guiding principles inform the proposed future state models, and a set of operational criteria was developed to support discussions on siting and sizing of the dispatch centres



Descriptions of Model Options

Overview of potential future state models for ambulance communications

- As described earlier in the report, the implementation activities for the **Key Priorities for Transformation are required in all model options**
- Regardless of the number of CACCs that will be in operation, the future model will be **one, holistic interconnected system** that fosters coordinated collaboration with stakeholders across the emergency health services ecosystem (e.g., one number to call for help, regardless of the severity of the citizen's need)
- In selecting the future state model for ambulance communications, consideration must be given to the **future vision and the capabilities required** to support this vision

Option 1: Existing Dispatch Model Transformation

- Maintenance of 22 land ambulance dispatch centres across Ontario
- Current CACC boundaries and relationships with existing paramedic services
- Current relationships with air services provider remain in place
- Single or hybrid operational model – i.e. direct operation by Ministry, transfer-payment agency, or contractor, or a combination

Option 2: Regional Dispatch Model

- Regional centres for ambulance dispatch that may align with relevant patient flow patterns
 - Options to inform reduced number of centres include:
 - CACCs that align with three existing Field Offices
 - Alignment with Tertiary Centres in Ontario
 - Consolidation to align with distribution of call volumes
- Current relationships with air services provider remains in place
- Single or hybrid operational model - i.e. direct operation by Ministry, transfer-payment agency, or contractor, or a combination

Option 3: Centralized Dispatch Model

- Centralized dispatch services for land and air, with back-up site redundancies built-in
- Single operational model – i.e., direct operation by Ministry, transfer-payment agency, or contractor

Evaluating Future Model Options

The following pages highlight implications of the three proposed model options relative to the guiding principles, key priorities, and operational considerations

- The visual below illustrates the template used to describe the assessment of the future model options as presented on the following pages
 - Each model option was assessed based on alignment with guiding principles, key priorities, operational considerations and the future vision for emergency health services
 - Although model options may align with specific principles or priorities, the degree of alignment will vary with the number of communication centres

Degree of alignment
with Guiding Principles
for the proposed model
option

Implications related to Guiding Principles

- ✓ **Leading practice:** Existing backup contingency in the case of system failures as a result of multiple centres
- ✓ **Ease of Implementation:** With the focus on transformation within the existing dispatch model, required changes will be easier relative to the other model options
- **Value:** Inability to achieve economies of scale, as the number of centres will remain unchanged. Further, while staffing ratios can be optimized and standardized across sites, minimum staff requirements will limit the extent of efficiencies achieved
- **Utilization of Paramedic Service Resources:** More challenging to employ system status management with many centres vs. fewer
- **Standardization:** While processes and practices can be optimized and standardized across sites, this will require significant effort due to the large number of centres
- **Leading practice:** Other jurisdictions are moving towards consolidation of centres to better optimize resources and standardize processes
- **System integration:** Different dispatch centres for land and air will require increased coordination for complex transports
- **System Integration/Future Transformation:** Due to the limited organizational changes, it may be challenging to seamlessly position for further system integration opportunities

Implications related to Key Priorities for Transformation and Operational Considerations

- Effort and resources will be required to monitor and audit KPIs for 22 communications centres across the province vs. requirements with fewer centres
- Performance based contracts will contribute to increased accountability across centres. However, oversight may be complicated due to the variation across multiple centres
- With the technology improvements underway with the ESSO transformation strategy, triage of calls, bi-directional information sharing, and reporting will be enhanced, with all model options
- The model can achieve a level of standardization, however, the efforts and oversight required to evolve change may be easier to implement with fewer centres
- Local community partnerships can continue to be fostered to strengthen integrated services. However, the model will require regional or provincial entities to collaborate with multiple centres on deployment of future opportunities
- Operational Considerations: as there are no changes to siting or re-organization of dispatch centres, the current workforce, call patterns, and back-up contingency plans continue. Depending on other regional/provincial transformation initiatives underway, EHSB may need to explore impacts to current boundaries to align with integration opportunities

Degree of alignment
with Key Priorities
and Operational
Considerations

Option 1: Transformation of Existing Dispatch Model

Model characteristics relative to the guiding principles, key priorities for transformation, and operational considerations

Implications related to Guiding Principles

- ✓ **Leading practice:** Existing backup contingency in the case of system failures as a result of multiple centres
- ✓ **Ease of Implementation:** With the focus on transformation within the existing dispatch model, required changes will be easier relative to the other model options
- **Value:** Inability to achieve economies of scale, as the number of centres will remain unchanged. Further, while staffing ratios can be optimized and standardized across sites, minimum staff requirements will limit the extent of efficiencies achieved
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- Operational Considerations: as there are no changes to siting or re-organization of dispatch centres, the current workforce, call patterns, and back-up contingency plans continue. Depending on other regional/provincial transformation initiatives underway, EHSB may need to explore impacts to current boundaries to align with integration opportunities

Option 2: Regional Dispatch Model

Model characteristics relative to the guiding principles, key priorities for transformation, and operational considerations

Implications related to Guiding Principles

- ✓ **Value:** Trend towards achieving great economies of scale with fewer centres; efficiencies gained through consolidation of sites as minimum staffing levels are no longer required due to critical mass being achieved
- ✓ **Utilization of Paramedic Service Resources:** Easier to employ system status management with fewer centres
- ✓ **Leading practice:** Existing backup contingency in the case of system failures as a result of multiple centres
- ✓ **Leading practice:** Aligns with the movement in other jurisdiction around consolidation
- ✓ **System Integration/Future Transformation:** With fewer regional centres, the Branch is better positioned for further system integration opportunities
- **System integration:** Different dispatch centres for land and air will require increased coordination for complex transports
- **Ease of implementation:** Changes to organizational structures and staffing will require robust planning and efforts

Implications related to Key Priorities for Transformation and Operational Considerations

- Consolidating communications centres will increase the likelihood of success of standardized performance monitoring due to the reduced number of centres requiring monitoring
- Performance based contracts will contribute to increased accountability across centres. However, oversight will be less complicated with fewer centres
- With the technology improvements underway and with the ESSO transformation strategy, triage of calls, bi-directional information sharing, and reporting will be enhanced, with all model options
- Consolidation of centres will support a structure to better standardize policies and procedures, as well as reinforce HR management practices
- Although knowledge of local communities may not be as comprehensive due to consolidation of centres, there is still opportunity to tailor centres to meet the needs of the geographical region. The model will require regional or provincial entities to collaborate with multiple centres on deployment of future opportunities, albeit fewer centres
- Operational Considerations: The EHSB will need to conduct an assessment on the size and physical capacity of the current centres, to support discussions on siting options. The consolidation to fewer centres will have an impact to the workforce in smaller communities, though potential technology supports could allow for virtual workplaces in the future

Option 3: Centralized Dispatch Model

Model characteristics relative to the guiding principles, key priorities for transformation, and operational considerations

Implications related to Guiding Principles

- ✓ **Value:** Model enables achievement of great economies of scale with efficiencies gained through consolidation of sites as minimum staffing levels are no longer required due to critical mass being achieved
- ✓ **Utilization of Paramedic Service Resources:** System status management can be implemented in a seamless way with a centralized model
- ✓ **Leading practice:** Aligns with the movement in other jurisdiction around consolidation
- ✓ **System Integration/Future Transformation:** Implementation of future system integration opportunities may be easier with a common operational leadership to inform and implement transformation changes more broadly
- ✓ **System integration:** Consolidated land and air dispatch will support enhanced coordination for complex transports
- **Leading practice:** Challenge to ensure sufficient backup contingency with potential system failures and the ability to manage overflow
- **Ease of implementation:** Changes to organizational structures and staffing will require robust planning and efforts

Implications related to Key Priorities for Transformation and Operational Considerations

- Consolidating air and land communications centres will increase the likelihood of success of standardized performance monitoring due to the reduced number of centres requiring monitoring. Furthermore, efficiencies may be achieved through consolidated decision support for air and land dispatch.
- Performance based contracts will contribute to increased accountability across centres. However, oversight can be maintained consistently with a centralized model
- With the technology improvements underway and with the ESSO transformation strategy, triage of calls, bi-directional information sharing, and reporting will be enhanced, with all model options
- Consolidation of centres will provide an opportunity to revisit and standardize policies and procedures across all centres and enable a consistent, streamlined approach for air and land dispatch. HR management practices can be reinforced in a standardized way, which can build capacity in the leaders
- Knowledge of local communities to meet the needs of geographical regions may not be as comprehensive due to consolidation of centres
- Consolidation of air and land communications centres aligns with the future vision of integration with other services and the broader health system. A centralized approach may accelerate collaboration opportunities in the future with other provincial or regional partners
- Operational Considerations: The EHSB will need to conduct an assessment on the size and physical capacity of the current centres, to support discussions on siting options. The consolidation to fewer centres will have an impact to the workforce in smaller communities, though potential technology supports could allow for virtual workplaces in the future

A Future Landscape for Land Ambulance Communications

Provincial initiatives, including *Patients First* and EESO, will evolve the health system, allowing for new service models for communications

Innovation in Care Delivery Models

Future models will transform care delivery to participate in community prevention interventions such as home visits and wellness clinics, in alignment with the objectives of *Patients First*. The future state roadmap of ambulance response is for communications centres to play a role in triaging callers and initiating an integrated response including connecting them with **existing community services** that are **closer to home**, such as Telehealth and Health Links, thereby minimizing the use of acute care resources.

Disruptive Enabling Technologies

Evolving technology will play a role in ambulance communications through increased automation of communications, use of artificial intelligence and machine learning, advanced capabilities through telemedicine technology, and virtualized technology to transform service delivery and enable innovative workforce models. The planned 2017-18 and 2018-19 system improvements will focus on technology enabled bi-directional data sharing between dispatchers and paramedics and a comprehensive pre-hospital patient record.



Insights to Manage Performance and Inform Progressive Transformation

Use of analytics will help inform decision-making to improve services offered, patient outcomes and achieve an end-to-end perspective on the patient journey through pre-hospital care. As part of EESO, an accountability structure will be established for emergency health services and benchmarks to measure system performance will be identified. The use of analytics will inform predictive modeling and enable faster and improved access to care for patient and better resource planning.

Appendix

Summary of Survey, Focus Group, and Interview Participants

Stakeholder engagement informed our understanding of the current state of emergency communications in Ontario

Survey	<ul style="list-style-type: none"> • 558 survey responses were received from the following organizations: <ul style="list-style-type: none"> – MOHLTC – LHIN – CCSO – Criticall – Municipal Organizations – Ornge – Paramedic Services – CACC / ACC / OCC / ACS
Focus Groups	<ul style="list-style-type: none"> • 4 focus groups were conducted as follows: <ul style="list-style-type: none"> – OAPC – ED LHIN Leads – Ornge – EHSB SMT
Interviews	<ul style="list-style-type: none"> • 7 interviews were conducted, with individuals representing the following organizations: <ul style="list-style-type: none"> – Rama First Nation Paramedic Services – MOHLTC, Direct Services Division – James Bay Ambulance Services – MOHLTC, Health Services I&IT Cluster – Association of Municipalities Ontario – Criticall – MOHLTC, Emergency Health Services Branch Leadership

Performance and HR Data Methodology

The following methodology was used to analyze performance and HR data for CACCs as demonstrated on the following slides

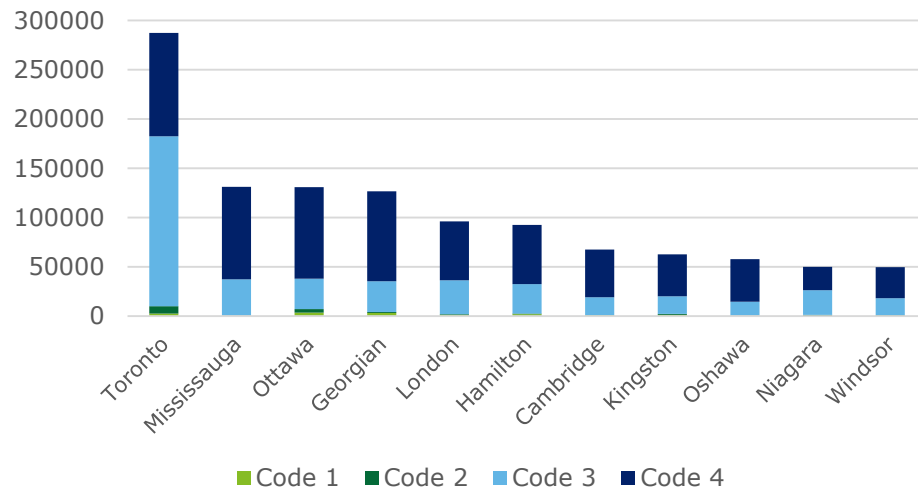
Call Volumes Received	<ul style="list-style-type: none"> • Data pulled from ARIS Report by Ministry • Includes Code 1-4 calls • Date range: Jan 1, 2014 – Sept 30, 2016
90th Percentile Dispatch Times	<ul style="list-style-type: none"> • Data pulled from ARIS Report by Ministry • Includes Code 4 calls • Calls with T0-T2 > 1800 seconds excluded • Calls share, double dispatch and unit transfer calls excluded
Actual Spend per CACC	<ul style="list-style-type: none"> • Data provided by Ministry for FY 14/15 and FY 15/16 • Includes CACC costs only, not costs associated with Paramedic Services
Sick Days	<ul style="list-style-type: none"> • Number of sick days provided by Ministry for Ministry-run CACCs and by individual CACCs for non-Ministry centres • Sick-time for part time employees was not included • Where sick-time was provided in hours, assumption was 8-hour shifts to convert to days • Date range: Apr 1, 2015 – Mar 31, 2016
Span of Control	<ul style="list-style-type: none"> • Employee data provided by Ministry for Ministry-run CACCs and by individual CACCs for non-Ministry centres • Date range: Apr 1, 2015 – Mar 31, 2016 • Number of employees determined based on data sent over • Span of control calculation as follows: <ul style="list-style-type: none"> • $(\# \text{ of full-time} + \text{part-time employees}) / \# \text{ of Operations Managers}$
Call Volumes/ Dispatcher	<ul style="list-style-type: none"> • Calculation as follows: <ul style="list-style-type: none"> • $\text{Call volumes received} / (\# \text{ of full-time employees} + \text{sum of FTE of part-time employees})$

Performance Data Analysis – Land Ambulance

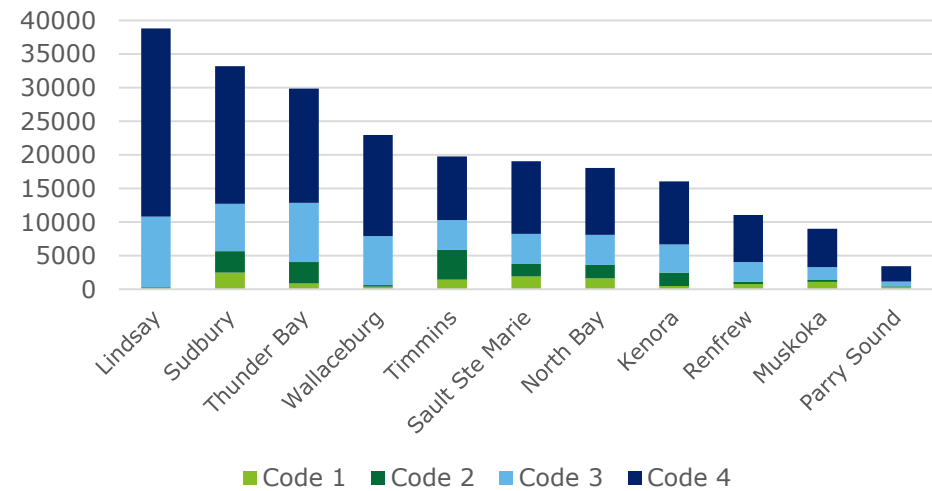
Volumes of Calls Received by Code (2016)

The majority of calls received were categorized as Code 4, with the exception of Toronto Niagara, and Timmins CACCs

CACCs with Call Volumes 40,000-300,000



CACCs with Call Volumes <40,000



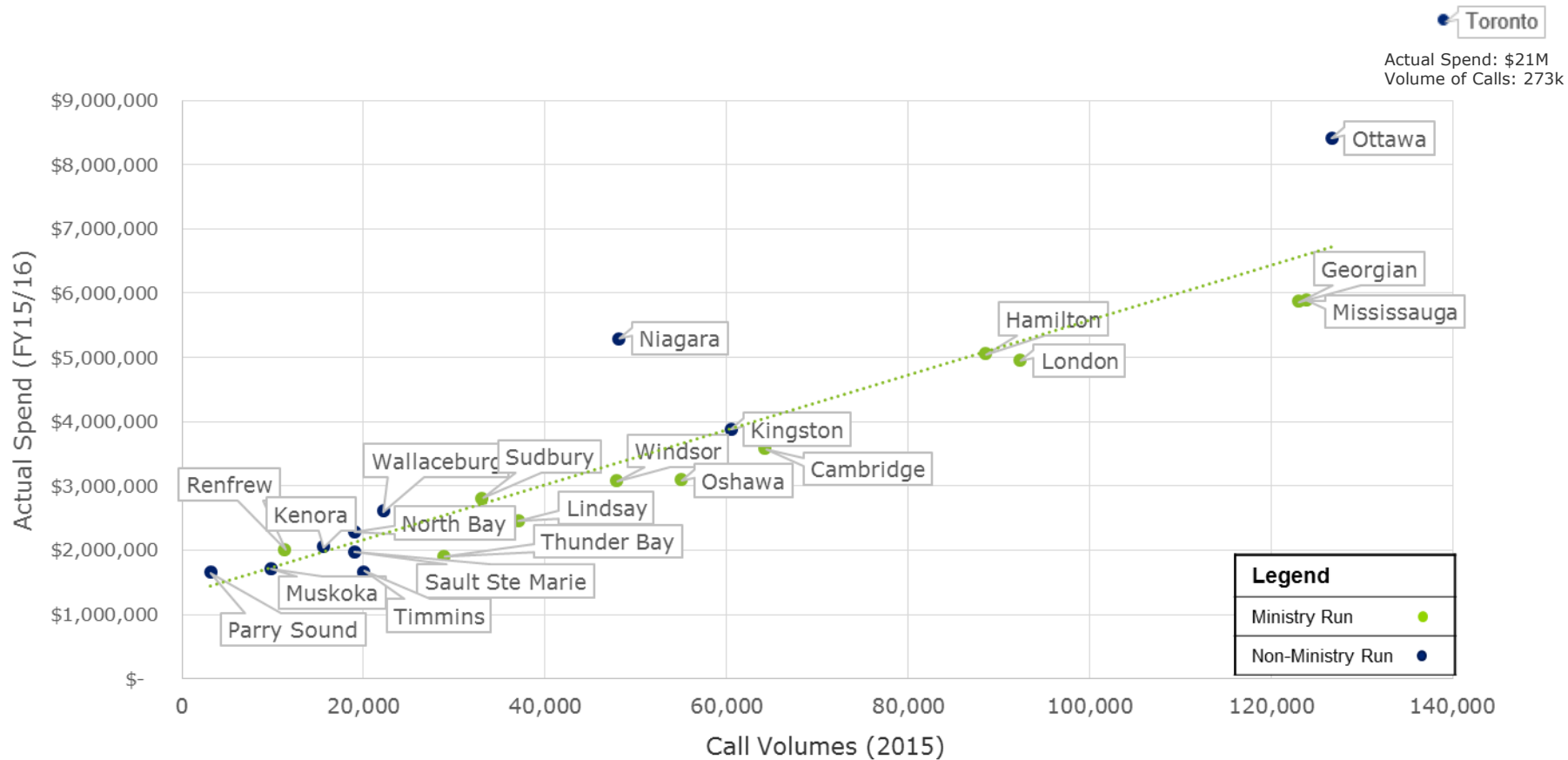
- The graphics illustrate the proportion of priority Code calls by CACC
- The majority of sites categorized the highest proportion of calls as Code 4 calls
- Toronto, Niagara, and Timmins were the only sites that categorized <50% of calls as Code 4
- Timmins had the greatest proportion of Code 2 calls (20% for 2016)

Source: ARIS Reports

*Data from January-September 2016 was used to project the total volume for the year

Actual Spend Per CACC and Corresponding Call Volumes*

Spend varied from \$1.7M to \$21M relative to the number of calls received



- Toronto CACC had the highest actual spend and highest call volumes in FY15/16, while Parry Sound had the lowest actual spend and call volume

Source: ARIS Reports

HR Data Analysis – Land Ambulance

HR Data Limitations

Analysis of HR data is limited by availability and quality of information across CACCs

- As part of the current state analysis, our team reviewed HR-related data to gain insights into the operational practices and outcomes to determine impacts to trends, such as attrition, sick time, and overtime use.
- While the data request distributed to the CACCs included standardized HR data points, a number of issues emerged in the process to inform comparisons across regions.

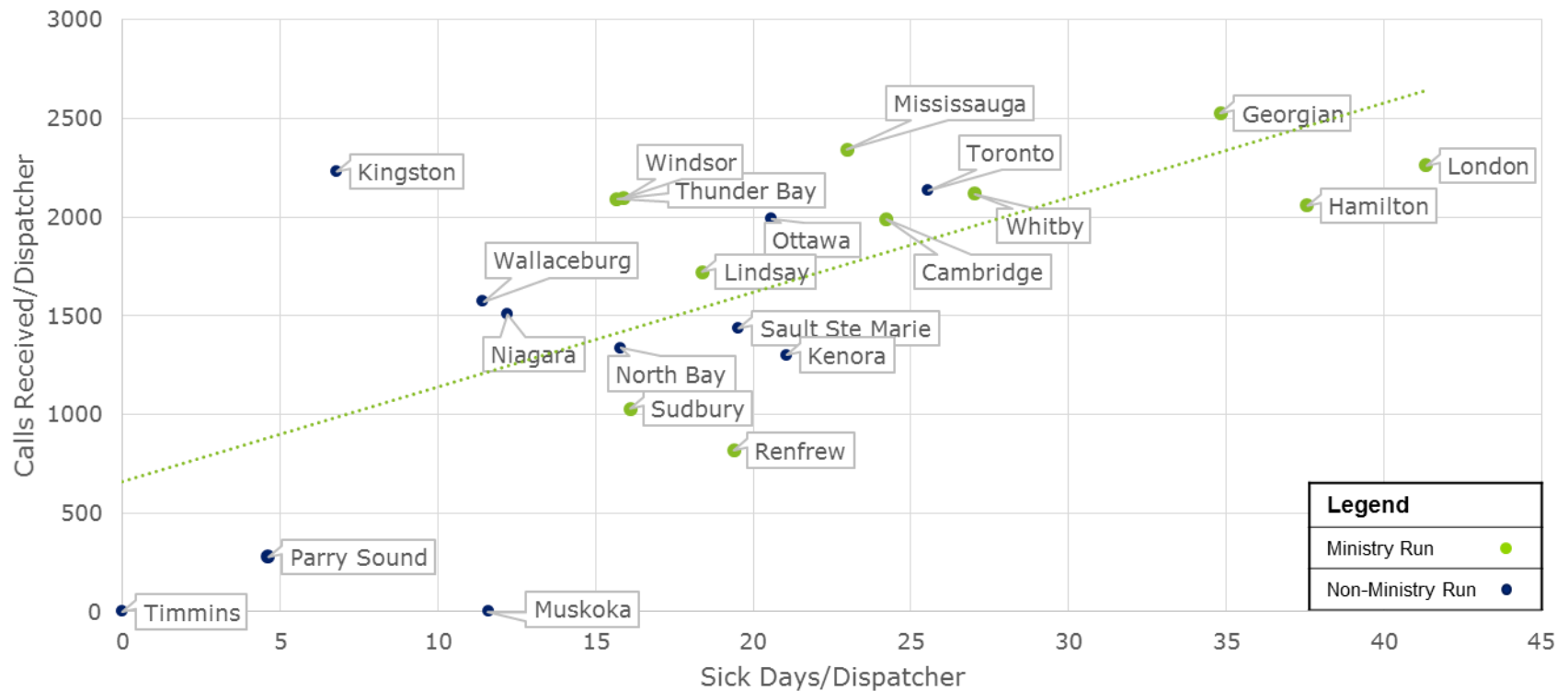
Limited standardization	Variation in methodology to capture data, including role categories, which poses challenges in comparing span of control and responsibilities
Data quality	<p>Limited availability to extract typical HR data easily (e.g., number of FTEs by role, overtime usage, turnover by employee vs. at an aggregate level, etc.), thus manual calculations required to generate data</p> <ul style="list-style-type: none"> • Unable to extract overtime data for MOH-operated CACCs



With the limitations to the available HR data, only targeted analyses can be conducted and comparisons of CACC performance should be considered directional in nature

Call Volumes and Corresponding Average Sick Days per Dispatcher by CACC*

Trend shows a correlation between increased sick time volume of calls per dispatcher

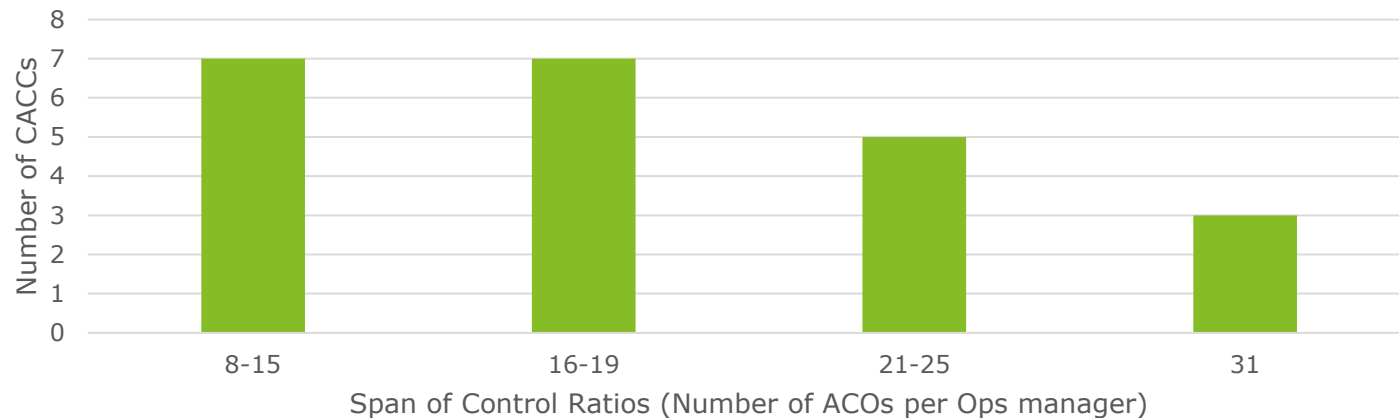


Note that on-call FTE information was not available for the Timmins and Muskoka CACCs, and number of sick days was not available for the Timmins CACC

Span of Control in CACCs

Ratios of Operational Managers to Dispatch Officers is variable across CACCs

- The number of Operations Managers in CACCs ranges from 1-6, and is proportional to call volumes and number of employees
- Regardless of CACC size, at least one Operations Manager is required on staff
- Span of control for Operations Managers ranged from a ratio of 1 Operations Manager:13 ACOs to 1 Operations Manager:31 ACOs, averaging ~19 ACOs per Operations Manager



Further investigation is required into an optimal ratio for span of control, however opportunities for efficiencies of scale with regards to staffing exist in larger CACCs

Jurisdictional Review

Summary of Review of Jurisdictional Practices

Key highlights from the review of ambulance communication models in different regions provide opportunities to consider for the future state

- All jurisdictions reviewed had a **single governance entity** for oversight of ambulance dispatch
 - Current dispatch models establish **government as the overall oversight body** with only municipalities, hospitals, or private companies operating as direct service providers
 - For jurisdictions with contracted out services (i.e., USA and Nova Scotia), **performance based contracts** with penalties and incentives are used to ensure accountability
 - Regular **review** of performance and a combination of **process and outcome measures** allow for evidence-based decision making and evaluation of service providers
- Use of a **standardized triage system** across all dispatch centres is common in most jurisdictions
- Jurisdictions with **CAD to CAD compatibility** have 'borderless' dispatch allowing dispatch of resources from neighbouring communities and seamless back-up in the event of a system failure
 - Advanced telecommunication systems automatically re-route calls when dispatch centres are not able to receive calls
- Many jurisdictions have moved to an **expanded role of ambulance dispatch centres** where low acuity calls are referred to existing community resources
 - Built-in referral criteria during triage for low acuity calls can optimize use of existing healthcare resources
- Clear criteria and roles for use of air ambulance and inter-facility transfers to streamline processes and ensure clear accountability in emergency health services system
 - Use of **integrated communication systems between service providers** to enable prompt and clear sharing of relevant patient information and performance data
- Advanced **management reporting systems** enable centralized capture of employee data and shift reports, with real-time updates to managers on performance at multiple levels

Jurisdictional Overview – Nova Scotia

Highlights	
Overview	<ul style="list-style-type: none"> Provision of emergency services governed by Nova Scotia EHS through a privately owned company – Emergency Medical Care (EMC) One Medical Communications Centre (MCC) dispatches 160 ambulances from 60 ambulance bases
Performance Management and Monitoring	<ul style="list-style-type: none"> EMC is obligated by a performance-based contract with the province Performance targets include response times and qualifications for paramedics
Leadership and Structures	<ul style="list-style-type: none"> The MCC, land ambulances, and air medical transport operation are all operated by EMC
Infrastructure, Technology Requirements	<ul style="list-style-type: none"> Standardized communication through Computer Aided Dispatch (CAD) with mapping capability and automatic vehicle location (AVL) through GPS Mobile terminals in trucks are able to communicate with CADs through specialized software
People and Roles	<ul style="list-style-type: none"> All EHS Paramedics and dispatchers are employed by EMC and are unionized
Health Care System Integration Points	<ul style="list-style-type: none"> Telecare – the government now contracts EMC to manage a standardized phone number where registered nurses provide advice to callers for their non-emergency scenarios <ul style="list-style-type: none"> While most RNs work out of their homes, EMC provides space for a contact centre that can house up to 5 nurses at any time

Jurisdictional Overview – British Columbia

Highlights	
Overview	<ul style="list-style-type: none"> British Columbia Ambulance Service (BCAS) is the sole ambulance service provider and is managed by BC Emergency Health Services Three dispatch centres in operation (Vancouver, Kamloops, and Vancouver Island), which dispatch both land and air ambulance In total, the three dispatch operations centres receive ~1900 requests for emergency response per day
Performance Management and Monitoring	<ul style="list-style-type: none"> Measures response times according to dispatch priority with a goal of achieving 9 minutes or less 75% of the time for "highest acuity" patients and 15 minutes or less 75% of the time for medium acuity
Leadership and Structures	<ul style="list-style-type: none"> Local presence of front line leadership to ensure dispatchers have immediate access to on site supervisors for assistance
Infrastructure, Technology Requirements	<ul style="list-style-type: none"> MPDS in place to triage calls at all BC dispatch centres Standardized CAD technology connects all dispatch centres, while mobile CAD technology connects ambulances with dispatch centres GPS/AVL in place in all ambulances
Health Care System Integration Points	<ul style="list-style-type: none"> Dispatch Operations Centre operates the provincial Patient Transfer Coordination Centre (PTCC) which is the Central coordination hub for all inter-facility transfers across the province <ul style="list-style-type: none"> Coordinates air and ground critical care transports primarily within BC, but will coordinate for international transfers if needed

Jurisdictional Overview – Alberta

Highlights	
Overview	<ul style="list-style-type: none"> AHS is responsible for PS services across the province Three dispatch centres – 2 operated by AHS and one by the City of Calgary Three satellite centres – 1 operated by AHS, one by City of Red Deer, and one by City of Lethbridge
Performance Management and Monitoring	<ul style="list-style-type: none"> Currently two different provincial PS data sets – challenges in using this data for comprehensive performance, quality and safety management PS dispatch software in place to measure response times for a specific period of time, service, or geographical area
Leadership and Structures	<ul style="list-style-type: none"> While AHS is responsible for PS services in Alberta, there have been challenges with consolidation of dispatch, leading to a mixed governance structure where some dispatch centres are operated by AHS and others are under contract
Infrastructure, Technology Requirements	<ul style="list-style-type: none"> All dispatch centres currently use the same CAD platform but not the same instance of it, resulting in challenges with communication between centres Majority of ambulances have on-board computers that communicate with the dispatch centre's CAD system, however there are still areas of the province that do not have this technology in place
People and Roles	<ul style="list-style-type: none"> Transition of PS system to AHS has resulted in more standardized staff training, however challenges included a loss of local community knowledge and challenges for staff adjusting to a new organizational culture
Health Care System Integration Points	<ul style="list-style-type: none"> Community Health and Pre-Hospital Support Program (CHAPS) allows Paramedics to refer patients to Home Care and other community services to reduce PS transport to emergency departments

Jurisdictional Overview – Manitoba

Highlights	
Overview	<ul style="list-style-type: none"> Regional Health Authorities (RHAs) are responsible for land ambulance service delivery – services are delivered directly by RHA or through contracts with affiliate agencies Two dispatch centres with different models – one solely for PS dispatch in northern and rural Manitoba and inter-facility transfers (Manitoba Medical Transport Coordination Centre - MTCC), the other for fire and PS calls originating in Winnipeg (Winnipeg Fire Paramedics Service - WFPS)
Performance Management and Monitoring	<ul style="list-style-type: none"> Current structure does not look at patient outcomes No accountability or performance requirements in place by oversight body, no apparent reporting in place
Leadership and Structures	<ul style="list-style-type: none"> Fire and ambulance service integration was supported by the City of Winnipeg and the Winnipeg Regional Health Authority (WRHA) Regional management of ambulance service dispatch
Infrastructure, Technology Requirements	<ul style="list-style-type: none"> AVL used to track location of all fire and PS vehicles, and the system dispatched to Electronic Patient Care Reports (EPCR) to all PS and supervisor vehicles CAD system not consistent between the two communication centres
People and Roles	<ul style="list-style-type: none"> Fire and PS dispatchers work under different collective agreements with a formal work sharing agreement
Health Care System Integration Points	<ul style="list-style-type: none"> MTCC is the dedicated dispatch centre for PS services as well as all inter-facility ambulance transfers for the province WFPS is responsible for dispatching all emergency and non-emergency calls for service for PS and fire originating in Winnipeg

Jurisdictional Overview – United States of America (select cities)

Highlights	
Overview	<ul style="list-style-type: none"> Ambulance dispatch in the United States is variable with some cities using “low-tech” approaches to dispatch, while others have very advanced technology in place Systems range from publicly operated PS structures to private/for profit PS, depending on the needs of the population
Performance Management and Monitoring	<ul style="list-style-type: none"> Both MedStar and RAA have set performance standards of responding to the highest priority calls within 9 minutes, 90 percent of the time Recommendations by the American Ambulance Association include having performance based contracts in place that measure clinical excellence, response-time reliability, economic efficiency, and customer satisfaction
Leadership and Structures	<ul style="list-style-type: none"> American Ambulance Association recommends arms length oversight for contracted emergency services to monitor performance against other high-performance systems, and ensuring established service requirements are met
Infrastructure, Technology Requirements	<ul style="list-style-type: none"> MedStar and RAA both have System Status Management (SSM) tools in place, which use predictive modeling to determine the best placement of available vehicles All systems utilize MPDS for ambulance dispatch triage levels – REMSA and RAA both use ProQA, which is the software version of MPDS
People and Roles	<ul style="list-style-type: none"> REMSA has monthly continuing education in place as well as online training modules to educate staff
Health System Integration Points	<ul style="list-style-type: none"> REMSA and MedStar: Low or no acuity 911 calls are transferred to a specially trained RN in the communications centre, who evaluates needs and connects patients to the best/most appropriate resource REMSA: Integrated land and air ambulance dispatch centres – simultaneous dispatch while providing care instructions to callers

Jurisdictional Overview – United Kingdom

Highlights	
Overview	<ul style="list-style-type: none"> NHS provides funding to Clinical Commissioning Groups, which come together to purchase ambulance services through NHS Trusts 13 ambulance services trusts throughout the UK, operated by different organizations
Performance Management and Monitoring	<ul style="list-style-type: none"> Performance of every NHS ambulance provider is measure and benchmarked by the government Numerous benchmarked targets including time to answer calls, time until treatment by an ambulance, call abandonment rate, as well as outcome measures for stroke and cardiac arrest
Leadership and Structures	<ul style="list-style-type: none"> Department of Health governs legislation on Ambulance Trusts Clinical Commissioning Groups funded by NHS to purchase ambulance services for their regions
Infrastructure, Technology Requirements	<ul style="list-style-type: none"> Standardized communication through Computer Aided Dispatch (CAD), Mobile Data Terminals AMPDS in place for identifying dispatch priority as well as NHS Pathways in some dispatch centres 999 calls are passed to British Telecom and then to designated emergency services – calls will be passed on to another ambulance dispatch centre if the initial centre does not respond <ul style="list-style-type: none"> PSAP is operated by British Telecom
People and Roles	<ul style="list-style-type: none"> Volunteer community first responders (CFRs) in place – members of the public who have received training to answer ambulance 999 calls and respond immediately within their local area, during their own time

Jurisdictional Overview – Medavie

Highlights

Overview	<ul style="list-style-type: none"> • Medavie is a health company, consisting of Medavie Health Services and Medavie Blue Cross • Medavie Health Services manages a number of subsidiary companies in emergency medical services (EMS), mobile integrated health, telehealth, medical communications, public safety delivery and clinical training • Medavie Health Services currently provides EMS services in six Canadian provinces and in Massachusetts in a number of different services models including end-to-end services in Nova Scotia; land and air ambulance services in New Brunswick; 911 call-taking services, pre-hospital emergency care and non-emergency transfers in Prince Edward Island; community paramedicine and call processing in Saskatoon; and ground ambulance services in a number of areas across Canada
Performance Management and Monitoring	<ul style="list-style-type: none"> • In Nova Scotia, Medavie operates under a performance based contract with annual performance reviews – while high level reporting is provided to the government (e.g., overall response times), this data is broken down and reviewed internally to identify limitations and mitigation strategies
Infrastructure, Technology Requirements	<ul style="list-style-type: none"> • Dispatch centres in Nova Scotia, New Brunswick and Saskatoon use MPDS to triage calls and have all achieved accreditation through the International Academies of Emergency Dispatch • Communication centres can coordinate sending patient information to receiving hospital facilities, often through fax; currently exploring virtual whiteboard technology for better integration of services with hospitals
People and Roles	<ul style="list-style-type: none"> • Contracts often have an Accreditation requirement to drive quality and safety in the system – focus of Accreditation is on ensuring that appropriate advice is provided to callers and sufficient information is obtained to dispatch resources

Jurisdictional Overview – Medavie

Highlights

People and Roles cont'd	<ul style="list-style-type: none"> Medavie has a number of subsidiaries that have achieved accreditation including <ul style="list-style-type: none"> Prairie EMS – the first private Ambulance operator in Alberta to receive Qmentum accreditation EHS in Nova Scotia – accredited by the Commission on Accreditation of Ambulance Services (CAAS), National Academies of Emergency Dispatch (NAED), and Commission on Accreditation of Medical Transport Systems (CAMTS)
Health Care System Integration Points	<ul style="list-style-type: none"> Have experience integrating EMS system with 811 in Nova Scotia, which is a provincial health care service offering 24/7 telecare service through a registered nurse (RN) <ul style="list-style-type: none"> Medical dispatch centres are used as a hub for appropriately triaging and coordinating incoming calls in order to optimize coordination and improve the accessibility and delivery of primary health care It is reported that this has reduced ambulance dispatch volumes by appropriately redirecting low priority calls
Lessons Learned	<ul style="list-style-type: none"> Important to identify a vision for service provision (i.e., public safety vs. alignment with health system transformation) and ensure that structure of emergency services aligns with vision Achieving true integration of a system requires uniformity and alignment across service providers; this will contribute to efficiencies in the system and allow for effective allocation of resources

FACT SHEET

June 2018

Clinical Response Model

- As of May 30, 2018 BC Emergency Health Services (BCEHS) has updated the system for how it assigns paramedics, ambulances and other resources to 9-1-1 calls.
- The new Clinical Response Model (CRM) is aimed at more accurately matching resources to the needs of the patient.
- It is one of the many changes being made as part of the three-year [BCEHS Action Plan](#) to improve patient care.
- The focus of the CRM is to get paramedics to the most critically ill and injured patients as quickly as possible, and to improve the health-care experience for all patients.
- The CRM replaced the Resource Allocation Plan (RAP), which assumes ambulance transport for every patient.
- As with the previous system, the condition of the patient is categorized by dispatch staff using the Medical Priority Dispatch System (MPDS). Once the condition is categorized, resource assignment is determined using the Clinical Response Model.
- The CRM uses a colour-coding system with some similarities to the colour system used in hospitals (see chart below).
- The CRM provides for six categories (vs. RAP's three) for assignment of resources for both emergency and non-emergency calls.
 - The RAP responses were: BLS 2 (Basic Life Support ambulance going non lights and sirens); BLS 3 (Basic Life Support ambulance going lights and sirens) or HL3 (Highest level paramedics and ambulances available going lights and sirens).
 - CRM responses include six colour codes. The colour indicates the resource and response type for an event and it also indicates the relative priority of the call, with Purple being the highest priority.
 - Calls that are assigned the colour Blue will not be immediately dispatched. Blue calls will be flagged for a patient callback and further clinical assessment by a nurse to determine if their need can be met without transportation.
 - At this time, no 9-1-1 calls will be categorized as Green. Including Green within the current Clinical Response Model allows for the future introduction of on-scene assessment and treatment protocols ("Treat and Release").
- BCEHS receives approximately 140,000 calls per year that are non-urgent. BCEHS estimates that slightly more than half of these calls could be resolved without ambulance transport.
 - About 3,500 of these calls are already transferred to nurses at HealthLinkBC.
- In 2017, the Emergency Health Services Act was updated to allow BCEHS to provide alternative clinical responses to patients calling 9-1-1.
- The BCEHS CRM has been implemented in other major jurisdictions resulting in improvements in the patient experience and clinical outcomes. Examples of the CRM system can be found in Scotland, Wales and Victoria, Australia.

FACT SHEET

Patient Condition	Colour
Immediately life threatening (Eg. Cardiac Arrest)	Purple
Immediately life threatening or time critical (Eg. Chest Pain)	Red
Urgent / Potentially serious, but not immediately life threatening (Eg. Abdominal Pain)	Orange
Non-urgent (not serious or life threatening) (Eg. Sprained Ankle)	Yellow
Non-urgent (not serious or life threatening). Possibly suitable for treatment at scene ** NOT Being implemented immediately	Green
Non-urgent (not serious or life threatening) Further clinical telephone triage and advice Referrals to HealthLink BC (8-1-1 calls)	Blue

Contact: BCEHS Communications
media@bcehs.ca

Media Line: 778-867-7472

Appendix 3: Community Paramedicine

Appendix 3

Community paramedicine programs currently running throughout the province vary in scope depending on the needs in the community (1). Some offer more in-depth or wider ranging services than others. The Ontario Association of Paramedic Chiefs recommends expanding community paramedicine throughout the province retaining flexibility at the local level.

It is important to note that partnership with other healthcare professionals and alignment with Ontario Health Teams, primary care and Family Health teams are keys to the success of community paramedicine programs. Through collaboration and integration with healthcare teams, community paramedics can play a pivotal role in achieving positive patient and system efficiency outcomes.

Positive findings to date

For 9-1-1 callers, community paramedicine programs can provide timely and appropriately resourced navigation to specialized services. They can also help reduce hallway healthcare with effective management of short to mid-term episodic care.

As part of a healthcare team, community paramedicine programs have been shown to:

- reduce costs (2-5) **Example:** Mean reduction in health utilization costs of 56% for enrolled patients (5)
- improve efficiency (4, 6, 7) **Example:** Mean reduction in case management time of greater than two hours per patient, with greater efficiency realized over longer enrollment periods (4)
- reduce hallway healthcare by:
 - shortening length of stay via early detection of deterioration using paramedic-led remote patient monitoring (4) **Example:** Mean reduction in hospital length of stay of 7.1 days for enrolled patients (4)
 - reducing readmissions by connecting 9-1-1 callers to preventative community-based services (4, 8-12) **Example:** 78% of enrolled patients were evaluated, treated, and remained at home (8)
 - reducing emergency department visits by reducing avoidable emergency department visits (4, 7, 9, 13) **Example:** Less than 6% of enrolled patients required treatment in the ED within 48h of calling 9-1-1 (9)
 - helping patients navigate the system (14-20) **Example:** Treatment and transport options were identified as contributing factors of improved health outcomes (17)

Community Paramedicine...

- **...is a mobilized service able to respond in real time to unexpected events.** Leveraging existing expertise community paramedicine is able to respond to 911 callers and clients in a highly agile manner that cannot be duplicated by other “mobile” health teams, which often require pre-planned scheduled visits. Community paramedics, as mobile healthcare providers, are able to see patients through both scheduled and unscheduled visits, supporting patients with care “in-place,” and assisting with transportation when necessary.
- **... is an adaptable element of patient-centered, integrated care.** Community paramedicine

programs work with multiple stakeholders across multiple disciplines and specialties to support, develop and implement care plans aimed at keeping people safe at home. Community paramedicine programs can include screening, assessment, and navigation to appropriate services for all major populations – chronic conditions, frequent fallers, frail elderly, palliative care at home patients, high risk emergency department discharges, and mental health & addictions.

- **... contributes to safe care transitions and supports other healthcare team members in ensuring a successful return to community settings.** Community paramedicine programs have been designed to include linkages with primary care providers, real-time notification processes, medication reviews, health promotion, patient and caregiver support and education, and integration and coordination with hospital discharge planners and/or home care coordinators.

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ONTARIO ASSOCIATION OF PARAMEDIC CHIEFS

1 Yonge Street, Suite 1801, Toronto, ON M5E 1W7

www.emsontario.ca

July 3, 2013

Health Professions Regulatory Advisory Council
56 Wellesley St W., 12th Floor
Toronto, Ontario, Canada M5S 2S3

Re: Paramedic Self-Regulation

The Ontario Association of Paramedic Chiefs (OAPC) submits this letter to the Health Professions Regulatory Advisory Council (HPRAC) to provide input as to whether paramedics should become a self-regulated profession. To this end, the OAPC seeks a meeting with the HPRAC to provide its perspective on the merits of paramedic self-regulation and the potential establishment of a college of paramedics.

The OAPC was chartered as the Association of Municipal Emergency Medical Services of Ontario (AMEMSO). Rebranded in 2012, it represents all fifty-two (52) Ontario EMS designated delivery agents (municipalities), some first nations EMS, and Ornge. The OAPC's members represent Ontario's EMS leadership: chiefs, deputy chiefs, and other leadership personnel. Through its body of work, it is now recognized as an authority on matters relating to the delivery of paramedic emergency medical service to the residents of Ontario.

The mission of the OAPC is: *"Promoting a culture of change surrounding paramedicine that is guided by evidence based decision-making and seeks best practices in the provision of service"*. In its pursuit of a world-class EMS system for Ontario, the OAPC has the following goals:

1. To be recognized as the leading authority for developing evidence based expertise in system design and delivery;
2. To be recognized as a trusted advocate for patients as an advisor towards the development of responsible public policy; and
3. To recognize performance excellence and provide "best practice" management tools and resources to its members.

Attached, we offer a summary of our key points in this regard, and we request further discussion on these points.

Sincerely,

Norm Gale
President

Copy: OAPC Membership

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

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



Appendix 5

ONTARIO ASSOCIATION OF PARAMEDIC CHIEFS PARAMEDIC SELF-REGULATION

Being recognized as the leading authority for developing evidence-based expertise in system design and delivery, the OAPC believes:

- The central issue related to paramedic self-regulation is that of improving patient safety
- That by establishing appropriate, evidence-based care guidelines, patients will receive equal access to the highest quality of paramedic care
- That a paramedic regulatory college would allow paramedics to deliver alternative models of paramedic care and that alternative care models will further enhance the lives, health and well-being of Ontarians
- That establishing a paramedic regulatory college would create system efficiencies and provide an opportunity to increase the efficiency of health care delivery and give the health care system greater flexibility and capacity
- That establishing a paramedic regulatory college will clearly define the lines of transfer of patient care between providers and that this definition will result in much improved, safer patient experience in their journey through the health care system

Being recognized as a trusted advocate for patients and as an advisor towards the development of responsible public policy, the OAPC believes:

- That clear definitions of responsibility for care improves patient safety
- The regulatory college of paramedics would provide for increased transparency in that there would be less political influence, processes would be streamlined and paramedic certification would have less influence on the funding provided to current base hospital programmes
- A centralised regulatory body would provide consistent over-sight to ensure that all paramedics across Ontario receive the same continuing medical education quality, quantity and requirements as well as a consistent approach to licensure - adding to the safety of the care provided by paramedics
- That establishing a paramedic regulatory college that replaces other regulatory agencies is most appropriate as a peer-based professional authority is best positioned to streamline existing processes and practices enhancing patient safety and continually improving paramedic patient care
- That paramedics in Ontario are currently heavily regulated by multiple agencies and that by managing the bureaucracy efficiencies will be found easily and naturally
- A clear definition of the profession would emerge from the formation of a regulatory college for paramedics



ONTARIO ASSOCIATION OF PARAMEDIC CHIEFS PARAMEDIC SELF-REGULATION

Recognising performance excellence and provide “best practice” management tools and resources to its members, the OAPC believes:

- That a paramedic regulatory college would be a responsive and agile system whereby current best practices could be implemented – ensuring care is up-to-date and most appropriate
- A centralised college of paramedics would ensure adequate over-sight of the profession ensuring all providers are engaged in the implementation of paramedic care best practices
- Peer review of any instances of complaints relating to paramedic care is a professional, appropriate and powerful tool to enhance and ensure patient safety
- A paramedic peer review structure within a regulatory college will bring forward clear research opportunities further bringing system efficiencies to the profession

Appendix 6

Understanding Professional Self-Regulation

Glen E. Randall BA, MA, MBA, PhD candidate, *Founding Registrar of the College of Respiratory Therapists of Ontario (CRTO) 1993 - Nov 2000*

In the course of daily life, people routinely come together to make business transactions in which they buy and sell products and services ranging from groceries to dental care. When making these transactions, some people may be disadvantaged as compared to others, due an imbalance of information and knowledge. While the average person will be able to determine when a piece of fruit has spoiled, they may have greater difficulty knowing if their car engine is beyond repair, or if they really require a root canal on a tooth. To address this problem, governments regulate a great deal of commercial activity within society, in order to create a more level playing field between experts and the general public.

Government has a wide range of mechanisms at its disposal to influence or control business transactions. When it comes to regulating transactions between the public and professionals, governments are expected to make sure that the public has some form of protection. For instance, government rules help to ensure that our legal system is fair, teachers are knowledgeable, accountants behave in an ethical manner, and physicians are competent. Examples of government regulation range from rules requiring informed consent when a member of the public has a medical procedure performed, to rules about insider trading for buying and selling stocks. Overall, it is believed that such rules create a fairer system. One of the most common approaches used by government to regulate the practice of professionals is through a system of professional self-regulation.

What is Professional Self-Regulation?

Professional self-regulation is a regulatory model which enables government to have some control over the practice of a profession and the services provided by its members. Self-regulation is based on the concept of an occupational group entering into an agreement with government to formally regulate the activities of its members¹. The agreement typically takes the form of the government granting self-regulatory status. This is done through a piece of legislation which provides a framework for the regulation of a specified profession, and identifies the extent of the legal authority that has been delegated to the profession's regulatory body.

The specific legal authority transferred from government to the profession's regulatory body varies with different regulatory models. In exchange for the benefits of professional status, the regulatory body of a profession is expected to develop, implement, and enforce various rules. These rules are designed to protect the public by ensuring that services from members of the profession are provided in a competent and ethical manner. This legal authority often includes: the right to set standards for who may enter the profession; the right to set standards of practice for those working in the profession; and the right to create rules for when and how members may be removed from the profession².

The self-regulatory model also generally requires that a regulatory body put in place a complaints and discipline system. Such a system permits members of the public to raise concerns about services a professional provides to them, as well as provides a process to investigate and, if necessary, discipline any member of a profession who fails to meet professional standards of practice. It is expected that all of a regulatory body's decisions and activities will be done in the "public interest." In other words, the primary purpose behind all regulatory body decisions is to protect the public from incompetent or unethical practitioners.

Approaches to professional self-regulation range from minimal to extensive control over a profession. Governments select from among different regulatory approaches, based on the nature of the activities performed by a profession's members, and the extent to which the public might be harmed if an incompetent member of a profession provided services. Professional self-regulation may take the form of licensure, certification or registration. While the process of *registration* can be as simple as a requirement to ensure that one's name is recorded on some official record, the processes of licensure and certification have more onerous requirements.

Licensure is one of the most restrictive forms of professional regulation. Specifically, licensure provides an occupational group with monopoly control over who can practice a profession. Only those individuals who have met specific requirements to enter a profession are issued a "license" to practice the profession. Entry requirements are generally quite detailed and often include attaining specified educational requirements and completion of some form of licensing examination.

Certification is essentially the stamp of approval given to an individual for meeting predetermined requirements. Certification is often associated with monopoly use of a specific title or professional designation. This model protects the public by providing information about qualifications so that the public can make an informed decision about who they want to receive services from.

In recent years, in order to improve their accountability to the public and limit the monopoly control that some professions had attained, many regulatory models around the world have undergone reform. These reforms have attempted to provide the public with access to a more transparent regulatory system, as well as greater choice in who can provide various services. As a result of this desire for transparency and choice, more sophisticated forms of regulation have evolved, which might be described as hybrid models - combining different features of licensure, certification and registration.

Ontario's health professions, for example, are regulated under the *Regulated Health Professions Act, 1991*³. This piece of legislation has created a new and innovative model for professional self-regulation which no longer gives professions an exclusive scope of practice. Rather, the legislation provides for overlapping scopes of practice, whereby different professionals may carry out the same activities. This overlap offers the public maximum flexibility to determine which professional he or she wants to provide a service.

At the same time, the regulatory model provides title protection for each of the professions, which allows the public the ability to identify which individuals possess which skills.

Jurisdictions around the world have been interested in this new hybrid model for professional self-regulation. This is especially true of other Canadian jurisdictions. This interest suggests that any new occupation, to receive professional self-regulation, can expect to have aspects of a hybrid model incorporated into its regulatory framework.

Why Have Self-Regulation?

In Ontario, professional self-regulation has been used as a means of controlling the practice of some professions for more than 200 years. Government authority delegated to these professions has provided them with a great deal of autonomy and authority in determining both how many, and who, would be allowed to enter each profession. This control has also allowed the professions to limit the supply of professionals, which has ultimately translated into higher incomes for individual members^{4 5 6}.

Today in Ontario, there are more than three-dozen self-regulating professions, ranging from physicians and lawyers to architects and veterinarians. The majority of these self-regulating professions are health professions. This high percentage makes sense since incompetent or unethical health professionals run a high risk of causing harm to the public. Nonetheless, practitioners of other occupations can also cause harm to the public. For example, incompetent engineers can cause buildings to collapse and unethical accountants could embezzle your life savings.

In the later half of the Twentieth century, criticism of the self-regulating professions became wide-spread. The public came to see the monopoly control these professions had as simply a means of increasing the personal wealth of their members, rather than as a way to protect the public from incompetent or unethical practitioners. During this time, formal models of self-regulation have undergone fairly dramatic transformations. The emphasis of self-regulation has shifted from a focus on protection of the profession, to a focus on protection of the public.

Despite this greater emphasis on making the self-regulating professions more responsive and accountable to the public, numerous occupational groups continue to seek government support to become self-regulated professions. This raises the questions: why is self-regulatory status so desirable and what exactly does a profession gain from this exercise? The reality is that when an occupational group is granted the privilege of self-regulation, it gains a great deal. This includes greater autonomy and control, professional prestige and, in many cases, financial rewards.

Greater autonomy and control translates into independence of individual members of a profession to carry out activities with less or no supervision. It also means more autonomy and control for the profession as a whole. Under professional self-regulation, the regulatory body for a profession is able to set entry requirements and standards for practicing the profession, rather than having government, or another profession, impose requirements on the profession. In addition, the regulatory body provides the profession with a means of gaining access to government, which allows it to express its point of view and even negotiate for additional authority.

Prestige comes from attaining "professional" status and all of the benefits that go along with that status. Financial rewards resulting from self-regulation are difficult to quantify and they generally take several years to accrue. The financial benefits to professionals stem, in part, from the increase in demand for the services of a profession due to the public's greater assurance that these professionals meet high standards.

Governments can also gain a great deal from allowing an occupational group to self-regulate. This form of regulation allows government to demonstrate that they have taken action to protect the public, but in a way that minimizes the government's role. Regulating through a regulatory body also allows for greater flexibility in the regulatory process as rules can often be developed more quickly. The government saves the expense of hiring experts to assist with creating unique rules and standards for the profession. The self-regulatory model also transfers the cost of regulating from government to the profession itself. Most importantly, the self-regulatory model helps to insulate government from the actions of individual members of a profession or the rules put in place by its regulatory body.

One of the most persuasive arguments in favour of self-regulation is that an occupational group has evolved over time and developed a specialized body of knowledge which makes members of the group experts. Because the knowledge these members have is so specialized, it would be difficult and expensive, for the government to determine and monitor standards of practice for the profession. It is therefore thought that members of a profession are in the best position to set standards and to evaluate whether they have been met.

The regulatory body of a profession has significant autonomy from government in regulating its profession. Nonetheless, since a regulatory body's legal authority is delegated from government, there needs to be some mechanism to ensure public accountability. This accountability of a profession is often facilitated through a reporting requirement to the government, usually through the Minister from the department which sponsored the legislation giving the group self-regulatory status. While the government generally has an arms-length relationship with the self-regulating profession -that is, it is not expected to interfere directly with the regulatory bodies decision making process - it often retains some ability to direct the regulatory body to do as it wishes under threat of removal of the profession's self-regulatory status.

Another common method of holding a regulatory body accountable to the public is through the appointment of members of the public to its governing Board. Some organizations may have only one token public member, while others can have a majority of the Board appointed by government. In Ontario, self-regulatory legislation for the health professions mandates that just under half of each Board is composed of public appointees. Some would argue that such a large proportion of Board members need to be public members in order to ensure that there is effective public participation and that the organization makes its decisions in the public interest, as well as remains accountable to the public. Others would argue that having such a large proportion of public representatives on a regulatory body's Board runs contrary to the principle of self-regulation. They would argue that only members of the profession, with specialized knowledge of the profession, are able to make decisions about the practice of the profession.

Qualifying for Self-Regulation

The move towards self-regulation is typically a long journey. In order to qualify for self-regulation, governments tend to consider several factors. First, government considers whether there is a risk of harm to the public from members of the occupational group. The basic philosophy of the self-regulatory model is that if there is no risk of harm to the public, there is no need for any form of government intervention, including self-regulation, which might limit who can provide a service. Under this circumstance, the greater choice of service provider the public has the better.

Second, the occupational group needs to be large enough to have adequate resources to implement a self-regulatory model. The resources required for self-regulation is quite significant. This means having adequate financial resources, as well as the commitment of enough members of the profession to assist with creating the standards and rules that will be necessary for the self-regulatory process to be implemented. Almost all self-regulating professions are expected to finance these activities through fees paid by members, who are required to maintain their memberships in order to practice the profession. As a result, it is uncommon for governments to allow smaller occupational groups to become self-regulated.

Lastly, the occupational group needs to have a defined body of knowledge that may be attained through specified education and does not overlap significantly with another occupational group. If the body of knowledge is too esoteric, or is already possessed by other occupational groups, it becomes impractical to set standards of practice for the profession.

What Does a Regulatory Body Do?

Regulatory bodies are expected to act in the public interest and not in the interest of the profession they regulate. In many situations, the public interest and the profession interest may be the same. In situations where they are not the same, it is the role of the professional association to represent the interests of the profession, while the regulatory body considers the public. Because of the conflict between making decisions in the interest of the public versus that of the profession, governments often requires a separation between regulatory body and professional association⁷. Despite this potential conflict, in some circumstances, such as the profession is newly regulated, fairly small, or the risk of harm to the public is relatively low, government may allow both the professional association and regulatory body to co-exist as one organization. Nonetheless, the public interest is expected to take precedence in making decisions related to regulatory functions. Failure to do so leaves the profession open to losing its self-regulatory status and potentially being regulated directed by government.

The main functions of a regulatory body include: (1) setting requirements for individuals to enter the profession; (2) setting requirements for the practice of the profession; (3) setting up a disciplinary process; and (4) setting up a process to evaluate the on-going competence of members. For most occupational groups that are seeking professional self-regulation, they have already determined entry requirements and have developed standards of practice. In most cases, these requirements will have evolved over time and become informally adopted within the profession, despite lacking the same legal authority they will have under a regulatory body. Likewise, more advanced occupational groups will also already have a process in place for removing undesirable members. However, under a self-regulatory model, this process will probably have to become more formal and transparent.

Finally, a new regulatory body will need to implement some mechanism to assess the on-going competence of members. Again, more advanced occupational groups may have some form of quality assurance already in place. Determining a method for evaluating continuing competence is often the most controversial activity performed by a regulatory body. There is controversy because quality assurance has such a dramatic impact on the individual members of a profession, due to the stress associated with complying with any requirements. Should a member fail to comply with the quality assurance process, or fail to meet current competency standards, the member might be compelled to undergo additional training or run the risk of being removed from the profession.

Quality assurance programs can also be controversial due to their high costs. One of the most common approaches to quality assurance has been to require a minimum number of education credits. This approach is the easiest to implement and is therefore often a starting point for new professions. Professions which use this approach are numerous and include health professions, lawyers, and real estate agents, to name a few. However, research questioning the value of this education credit approach is gaining support. While proponents see the education credit system as a good way of ensuring that professionals continue to expose themselves to ongoing education, critics argue that these system are too focused on the process of education without having any knowledge of whether professional actually learn anything when they attend educational events.

One of the most popular methods of overcoming the deficit of credit systems has been to require professionals to maintain a professional portfolio. This portfolio not only documents a professional's attendance at educational events, but also includes documentation of how those educational events relate to his or her specific educational needs as well as how what he or she learned is translated into the daily practice. While this professional portfolio approach to continuing competence is more proactive than the educational credit approach, it has been argued that it fails to adequately protect the public from members of the profession who are good at maintaining a professional portfolio but actually have not maintained their competence.

To address this dilemma, in some professions, where the potential risk of harm to the public is relatively high, the competence of professionals may be re-assessed on an ongoing basis. This may be done through a peer assessment process, where a professional is observed in his or her normal work environment, or a more formal assessment process, which re-evaluates competence in simulated environments. Examples of professions which undergo this more intensive assessment of their continuing competence include physicians, pharmacists and airline pilots. Where the potential risk of harm to the public is not as high, more cost effective and less stressful approaches to assessing continuing competence may be more appropriate.

Conclusion

Attaining self-regulated status not only sends a message to society about the expertise and professionalism of an occupational group, but also provides members of the profession a priceless opportunity to gain control over their future and that of the entire profession. In the absence of self-regulation, at best, occupational groups can expect to be relegated to the status of second class citizens in a world which has come to highly value professionals. Making the move towards professional self-regulation is one which each occupational group will have to make after thoughtful deliberation. Ultimately, self-regulation has tremendous benefits – but with those benefits come costs and responsibilities.

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