



# Business Plan 2020/2021



A vital part of Ontario's health care system, Ornge provides high quality air ambulance service and medical transport to people who are ill and critically injured.

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**Mission:** To provide Ontario’s patients with safe and timely care, transport, and access to health services

**Vision:** A trusted and responsive partner in extending the reach of healthcare in Ontario

**Values:** Safety, Excellence, Integrity, Preparedness, Compassion

## Mandate

### About Ornge

Ornge is Ontario's provider of air ambulance and related services. Air ambulance services are part of a province-wide system of patient care that links communities to hospitals, enabling access to specialized care for the people of Ontario. Ornge has more than 600 employees, including paramedics, pilots, communications officers, aircraft maintenance engineers, along with a team of educators, researchers and support staff. Ornge is accountable to the Ministry of Health (MOH) through a Performance Agreement, and is almost exclusively funded by MOH.

### Overview of Services

Ornge's core business is providing timely patient transportation involving a range of paramedical services, by air and by land, including:

- Emergent and urgent inter-facility transport
- Emergent scene response
- Repatriation of inter-facility patients
- Non-urgent transport based on geographic and population needs
- Support for healthcare in remote communities through new and innovative approaches
- Provincial Transfer Authorization Centre (PTAC) authorization in support of public health objective
- Transportation related to organ transplant under contract with the Trillium Gift of Life Network (TGLN), Ontario's organ and tissue donation agency.

Ornge owns and operates a fleet of fixed and rotor wing aircraft, including Leonardo AW139 helicopters, Pilatus PC-12 airplanes, and Crestline land ambulances. Service coverage extends over more than a million square kilometres into remote communities in Ontario. More than 20,000 patient-related transports are performed each year.

## Operational Model

Patient care and transportation operations are delivered by highly skilled paramedics, pilots, communications officers and aircraft maintenance engineers. Ornge aircraft are staffed with two pilots and two paramedics, and Ornge land ambulances are staffed with two paramedics. Services and personnel are dispatched through a central communications facility, the Operations Control Centre (OCC). The OCC works with Central Ambulance Communications Centres<sup>1</sup> and sending and receiving hospitals to facilitate patient transportation. Transport Medicine Physicians are available 24/7 to provide medical guidance to paramedics in the field and to make triage decisions when there are multiple requests for resources. In addition, corporate staff provide necessary support for operations and most work out of Ornge's head office in Mississauga.

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<sup>1</sup> Central Ambulance Communications Centres are the dispatch centres for municipal land ambulances.

## Base Locations

Ornge has 12 bases located in 11 centres across the province from which patient care and transportation services are delivered on a 24/7 basis<sup>2</sup>.

Base	Staffed Asset
<b>Air</b>	
London	1 Helicopter
Ottawa	1 Helicopter
Toronto	2 Helicopters
Sudbury	1 Helicopter
Moosonee	1 Helicopter
Kenora	1 Helicopter
Thunder Bay	1 Helicopter 2 Airplanes
Sioux Lookout <sup>2</sup>	1 Airplane
Timmins <sup>2</sup>	1 Airplane
<b>Land</b>	
Ottawa Land	1 Land Ambulance
Peterborough	1 Land Ambulance
Mississauga	2 Land Ambulances

## Service Delivery Partners

Ornge contracts with:

- Standing Agreement air carriers who perform non-urgent patient transports and some advanced care patient transports by airplane, largely in the North.
- Toronto Paramedic Services who deliver critical care land ambulance services within the GTA and are dispatched by Ornge's Operations Control Centre.

In addition, for many patient transports, Ornge relies on municipal paramedic services for ground transportation between airport and hospital. Paramedic service partners are crucial to the success of Ontario's air ambulance program.

## Base Hospital

Ornge provides MOH-mandated Base Hospital services, including approving training and education for paramedics, providing them with certification and medical delegation, and ensuring that the quality of patient care is delivered in accordance with accepted medical practice and all applicable laws.

## Third Party Relationships

In addition to our service delivery partners (noted above), Ornge works closely with provincial and federal regulators and healthcare partners, and maintains relationships with a range of stakeholders, including the Ontario Association of Paramedic Chiefs, the Paramedic Chiefs of Canada, the Ontario Base Hospital Group and others. A summary of key relationships is as follows:

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<sup>2</sup> The Sioux Lookout and Timmins bases are staffed using a peak hours model, with overlapping shifts providing 24 service hours. Peterborough and Mississauga land ambulances are 12/7.

Ministry of Health	Regulatory and oversight relationship
Transport Canada	Regulatory relationship (helicopter and airplane operations, and maintenance)
Central Ambulance Communications Centres	Key partners in arranging patient transport
CritiCall Ontario Critical Care Services Ontario eHealth Ontario	Key operational and policy partners
Hospitals and Nursing Stations	Clients - Sending and receiving facilities
Trillium Gift of Life Network	Client - Ornge is a contracted service delivery partner for the Trillium Gift of Life Network
OPSEU, OPEIU, Unifor	Union stakeholders representing communications staff, helicopter and airplane pilots, aircraft maintenance engineers and paramedics
Suppliers	E.g. aircraft and components, aviation and other maintenance services, fuel, flight simulation and training; medical equipment, consumables and pharmaceuticals, medical transport services, corporate services such as banking, communications, human resources, insurance and legal

## Strategic Foundation

In 2020, under the leadership of its new CEO, Ornge will engage in a strategic planning process that builds upon our organizational alignment around:

- Safety
- Service to patients
- Efficiency and effectiveness
- Coordination and integration with system partners
- Stewardship
- Being a learning and engaged organization

## Current Operating Environment

### Environmental Scan

Ornge monitors its operating environment for changes and emerging trends, especially those involving healthcare and aviation, and as needed adapts to changing circumstances. Current considerations:

- Ornge is keeping abreast of a number of healthcare system modernization initiatives including First Nations Health Transformation, the Ministry of Health's work on emergency health services modernization, consolidation of LHINs and implementation of Ontario Health Teams.
- The government's new Public Safety Radio Network and expansion of One Number to Call to a broader group of inter-facility patients will bring process changes aimed at improved system coordination. Province-wide expansion of community paramedicine continues to bring new opportunities for patient care within the community.

- Capacity challenges for municipal paramedic services and resulting local delays in non-urgent transfers between airport and hospital continue. Discussion on new approaches to system coordination is taking place during consultations on emergency health services modernization.
- Evolution in healthcare practices has ongoing implications for patient transport. Notable examples include increasing use of clot removal for stroke patients, extracorporeal membrane oxygenation (ECMO), telemedicine and point-of-care testing.
- More broadly, emerging technologies such as robotics and artificial intelligence, and advancements in medical and aviation equipment/technology continue to be an area of interest.
- The global pilot shortage continues to affect air carriers across the country, requiring an ongoing focus on pilot recruitment and retention.
- Viability of landing sites continues to be an area of concern, including the viability of small municipal airports and the potential for urban encroachment on helipads in heavily populated areas.

### Risks and Mitigations

In keeping with Enterprise Risk Management best practices, Ornge identifies, monitors and manages risks throughout the year, with a view to minimizing the organization’s risk profile. Summary of certain risks as they pertain to operations:

Risk	Mitigation
Transportation Critical Event – Risk of an accident during air or land transportation.	Ornge maintains robust mitigations including extensive standardization and training programs. Initial pilot training and annual training programs are overseen by Transport Canada. Monitoring of safety standards and practices through an active safety reporting system is part of Ornge’s safety management system which is also overseen by Transport Canada. For land transportation, driver training is provided.
Unavailable to Respond to a Service Request – The main reasons why Ornge may be unable to service a request are adverse weather, volume of other requests, staffing issues and mechanical issues.	Steps are taken to deploy assets efficiently and thereby minimize the challenges associated with volume and weather. Systems and processes are in place to plan routine maintenance and minimize downtime associated with aircraft maintenance. Staffing with certainty is a key priority. An On Call staffing model helps to address unplanned absences, and pilot recruitment/retention activities are continual in response to the global fixed wing (airplane) pilot shortage.
Clinical Risk – Low volume, high acuity patients present a clinical risk.	Chart audits are routinely performed and clinical metrics reviewed to assess compliance with clinical standards. Continuing Medical Education addresses issues identified in clinical metrics, including high acuity skills.
Automation – As Ornge moves from manual processes to integrated and automated solutions, new opportunities and challenges are encountered	Processes are being utilized to assess the current state and identify and assess new technology opportunities. Continued development on the IT road map to reflect the future state IT requirements. IT redundancy and disaster recovery measures are in place, including procedures to revert to contingency operations where there is an interruption with the existing electronic information. Systems are monitored and security

Risk	Mitigation
	audits are performed.
Future Cost Increases	Managing within the funding envelope requires a careful use of resources and ongoing efforts to find efficiencies within the operation, as well as maintaining an open and transparent relationship with the MOH with respect to value for money and funding needs.

## Key Achievements for 2019-2020

Throughout the year, Ornge successfully completed several major projects including installation of power-load stretchers on Ornge’s helicopters and land ambulances, and implementation of standardized medication and airway bags, new video laryngoscopy equipment and new scheduling software. These projects are evidence of our organization’s commitment to give our frontline providers the tools they need, and were driven by frontline input and supported by frontline contributions from planning to implementation. An overview of these and other operational achievements is as follows:

### Service to Patients

- *Patient Surveys:* Extended the patient satisfaction survey to include transports performed by contracted service providers.
- *Stretchers:* Installed new power-load stretchers on the helicopter and CCLA fleets, improving patient comfort and transport capability for bariatric patients, and ergonomics for lifting.
- *Critical Care Land Ambulance (CCLA) Trials:* Initiated process innovation trials involving CCLA deployment:
  - A trial of deploying CCLA on Modified Scene Call requests in the Ottawa area.
  - In partnership with Sunnybrook and St. Michael’s hospitals, a trial of a new prior-day booking process for pre-planned critical care patient repatriations in the GTA, aimed at helping to alleviate bed allocation pressures.
- *Peak Hours:* Confirmed a peak hours staffing model at two northern air bases to more closely match service availability with demand.

### Clinical

- *Airway Management:* Significantly improved first-attempt intubation success rates by implementing new video laryngoscopes and a new airway management algorithm. Increased the frequency of training opportunities on airway management – monthly airway management practice cases, annual simulation cases and some access to cadaver courses.
- *Infusions:* Rolled-out new infusion pumps and new drug library. Aligned standard dosing ranges in Ornge’s medical directives with the infusion ranges in the new infusion pumps to minimize the risk of medication errors.

- *Point of Care Testing:* Three point of care initiatives to improve patient care and help with determining the most appropriate receiving facility:
  - iSTAT blood testing devices are in the process of being rolled-out across the Ornge fleet.
  - Infra-Scanner to detect clinically relevant intracranial bleeding is being trialed with the aim of improving time to definitive care, and allowing hospital trauma team leaders to reduce the time to operative intervention.
  - Wi-Fi enabled ultrasound is being trialed, with the aim of improving patient care by allowing the Ornge physician to see images and provide real-time feedback on image acquisition.
- *Electronic Health Records:* Worked with eHealth Ontario on connecting Ornge's Transport Medicine Physicians through the Connecting Ontario platform.
- *Chart Audits:* Progress toward a more electronic approach to chart audits.
- *Paramedic Education:* Developed a new education program (starts in 2020-2021) that leverages technology and simulation, increasing the number of students that can be trained simultaneously and permitting more frequent, smaller continuing education experiences.

### Transportation

- *Instrument Approaches:* Received Transport Canada certification for high precision instrument approaches (LPV limit certification) allowing safe landing in lower cloud ceilings, improving our ability to reach patients in marginal weather.
- *Call Acceptance:* Implemented new call acceptance protocol for flights to remote airports, also aimed at improving our ability to reach patients in marginal weather.
- *Night Vision Goggles (NVG):* Successful audit of Ornge's NVG program and application to Transport Canada for advanced user status.
- *Aircraft Weight:* Made progress toward reducing aircraft weight and adjust aircraft loading, aimed at improving our ability to transport an escort with the patient. Implemented electronic weight and balance calculators.
- *Electronic Flight Bags:* Implemented electronic flight bags allowing for a paperless cockpit and reducing aircraft weight.
- *Pilot Recruitment/Retention:* Ongoing focus on pilot recruitment and retention given the worldwide pilot shortage.

### Safety

- *Standardized Medication and Airway Bags:* Implemented standardized medication bags and airway bags across every base and vehicle type, including contracted service providers. Design, modification and field trials led by frontline paramedics with anticipated benefits for patient safety.
- *Flight Safety:* Completed flight data analysis hardware installation on most of Ornge's airplane fleet. Ongoing implementation of Ornge's flight risk assessment program.
- *Aircraft Maintenance Safety:* New tool bags for aircraft maintenance engineers with tool shadowing foam to assist with identifying absent tools and improve safety.
- *Cross-Disciplinary:* Held internal forum on safety and standardization involving Ornge's Operations Control Centre, aviation maintenance, paramedic operations and flight operations.

### Logistics/Communication

- *Telephone Numbers:* Implemented new Operations Control Centre telephone numbers, reducing the number of lines from 14 to three lines with the aim of improving stakeholder experience, modernizing technology, and improving effectiveness.



- *Electronic Patient Care Record (ePCR)*: Various modifications to improve ease of use and support clinical quality assurance. Made progress on linkages between dispatch and ePCR software.
- *Dispatch System*: Implemented decision support software for same-day patient transports based on transport time data plus real-time tools.
- *Provincial Transfer Authorization Centre (PTAC) System*: Worked with hospital partners to automate PTAC requests by facilitating online accounts for all users and eliminating faxes.
- *Scheduling System*: Completed transfer from legacy scheduling software to a new system.
- *Skype*: Implemented Skype for Business across all bases and head office to reduce travel.

## Key Priorities for 2020-2021

In the coming year, Ornge will participate in a number of initiatives being led by the Ministry of Health, including implementation of the new Public Safety Radio Network, participation in Emergency Health Services Modernization consultations, and expansion of the One Number to Call aimed at streamlining the process followed by a referring physician in seeking specialist consult and arranging inter-facility patient transport. In addition, Ornge will focus on a variety of operational priorities, highlights of which are as follows:

### Service to Patients

- *Stretchers*: Work with aviation engineers to consider the feasibility of expanding power loading stretcher capabilities onto the fixed-wing fleet.
- *Single Level of Care and Resource Availability*: Implement further training and staffing initiatives that promote service availability and level of care.
- *Special Operations Team*: Develop a proposal for a Special Operations Team to support highly complex patient transports.

### Clinical

- *Ventilators*: Initiate acquisition of new ventilators for Ornge fleet and contracted partners.
- *Blood*: Continue with efforts to develop a program for carrying blood on board the aircraft.
- *Paramedic Education*: Continue implementing new initial education program, and revamped approach to continuing medical education that features training capabilities at two Ornge bases for more frequent, smaller continuing education experiences.
- *Electronic Health Records*: Continue working with partners in eHealth Ontario on establishing a means to share our electronic patient record with all receiving facilities.
- *Chart Audits*: Continue implementing an electronic approach to streamlining chart audit processes.
- *Medical Fellow*: Onboard Ornge's first-ever Medical Fellow.

### Transportation

- *Helipad Operations*: Commission a technical review of H1 helipad certification requirements in relation to the operational requirements of Ornge's helicopters.
- *Night Vision Goggles*: Consider reducing certain limitations on helicopter night operations (contingent on Ornge's application to Transport Canada for status as an advanced user of NVGs).
- *Aircraft Weight*: Continue with initiatives to reduce aircraft weight for the helicopter and airplane fleets in order to provide greater operational flexibility in accommodating a patient escort.

- *Unmanned Aerial Vehicle (UAV) Analysis:* In collaboration with northern partners, analyze potential applications for UAV technology in support of health care services for remote areas.
- *Pilot Recruitment/Retention:* Ongoing focus on pilot staffing levels.

### Safety

- *Electronic Inventory Control for Medications:* Move forward with plans for implementation of electronic, access-controlled systems for inventory management focused initially on high-alert and federally controlled medications to align with Accreditation Canada and Health Canada standards.
- *Fatigue Management:* Refine Ornge's fatigue management program by conducting an analysis to guide staff on optimal sleep patterns based on shift patterns.
- *Flight Data Analysis:* Use results of flight data analysis to improve training on unusual events and inform company Standard Operational Procedures. Complete installation of flight data analysis hardware on helicopter fleet.
- *All Canada Aeromedical Transport (ACAT):* Host the fourth annual ACAT aviation safety symposium for air ambulance providers across the country.

### Logistics/Communication

- *Dispatch System:* Continue with efforts to integrate Ornge's dispatch system with other systems to reduce data entry and streamline processes.
- *Booking Portal for Hospitals:* Develop technical specifications for an electronic platform for hospital staff to use in booking non-urgent, low acuity patient transfers.
- *Trial Status Boards:* Develop and trial status board for Central Ambulance Communications Centres (CACC) and a status board for CitiCall Ontario that displays real-time transport information.

## Information Technology Plan

The primary IT goal is to support frontline operations by maintaining 24/7 communication links between the Operations Control Centre (OCC) and a range of stakeholders, including our crews, Transport Medicine Physicians, sending and receiving health care facilities, Central Ambulance Communications Centres, EMS services and other healthcare service providers. Ornge manages a range of technology tools, including:

- Dispatch software, including decision support software
- Dispatch telecommunication technology, including telephony
- Data base platforms

In addition, Ornge manages a range of business applications that support administrative functions. Business continuity and cyber security remain the highest priority.

In the coming year, the main areas of focus will be:

- System improvements that support operational efficiency, with major initiatives such as e-Invoicing, e-Expenses, e-Forms, implementation of document management software, and other system integrations that help to reduce data entry and streamline processes.
- Electronic integration with healthcare partners, such as the non-urgent patient booking portal for hospitals and status boards, as mentioned above.

- Long-term technology planning, including consideration of new technologies such as robotics, cloud services and artificial intelligence, and continued development of an IT road map that aligns with the organization’s next strategic plan.
- Enhancing and maintaining the existing disaster recovery capabilities.
- Improved technology for communication with frontline and other service providers, including participating in the government’s Public Safety Radio Network initiative.

## Public and Stakeholder Relations Plan

Ornge’s Corporate Communications and Public Affairs is a team of professional communicators which provides responsive, proactive and reactive communications advice and support to internal stakeholders, promotes the organization as a leading provider of air ambulance and related services, and engages external audiences and stakeholders to build awareness and understanding of our work.

### Current Strategic Communication Priorities

#### *Internal Engagement*

Corporate communication continues to innovate when it comes to reaching internal groups across our provincial organization in order to help build a cohesive, motivated staff. The department takes the lead on the facilitation, production and distribution of several internal e-newsletters distributed on a weekly (“The Briefing”) monthly or quarterly (“Operations Quarterly,” “The Explorer,” “Base Hospital Chronicle”) basis. New livestreaming technology is being introduced to town hall meetings; this technology also offers new opportunities for webinars and other educational tools. In partnership with Human Resources, Corporate Communications offered recognition for long-serving Ornge employees through the Years of Service program, which was introduced in late 2019.

#### *External Engagement*

Ornge’s social media and web platforms continue to be destinations for a variety of audiences: members of the public interested in medical transport, paramedic services and hospitals partners, past patients and others. Patient stories are being presented in high-quality videos, and then distributed on various channels. Such stories offer an important reminder of the importance and impact of the Ornge mission. Ornge continues to establish strong relationships with media across Ontario through regular outreach, responses to inquiries and participation in charitable initiatives such as the CHUM CP24 Christmas Wish campaign. The reach of these initiatives is tracked and evaluated using analytical tools.

#### *Partner-Stakeholder Education and Communications*

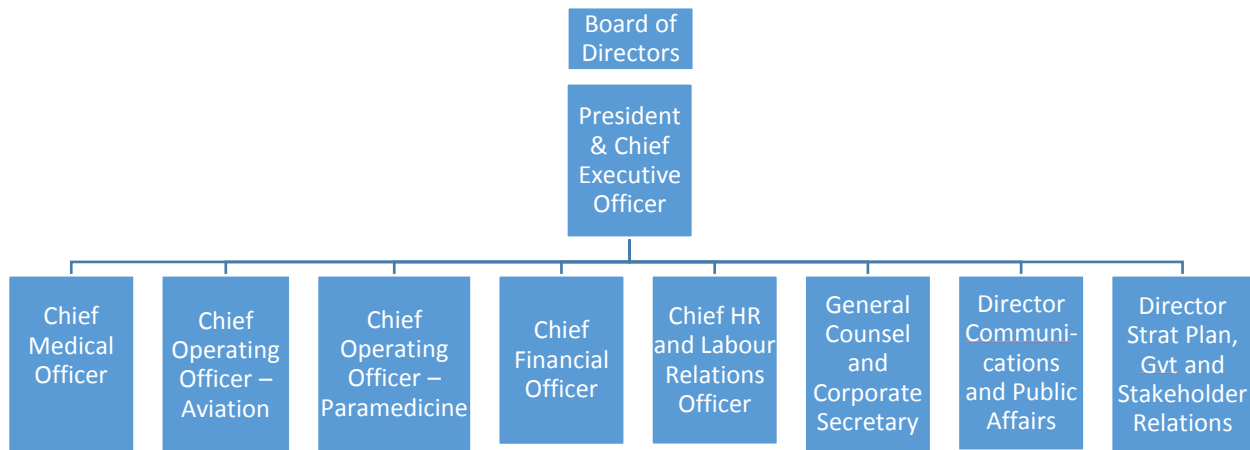
As partners in ensuring access to health services, Ornge interacts with hospitals and paramedic services partners every day on an operational level. As such, it is important for front line healthcare professionals to have the latest information with respect to Ornge’s processes, procedures, safety practices and other elements of our service. Working closely with paramedic operations personnel, the Corporate Communications department assists with this process through the production of videos, animated tutorials, as well as the development of website content and targeted campaigns.

## Performance Measures

Ornge prepares a quality improvement plan every year, following the guidelines set by Health Quality Ontario. Highlights are as follows:

Performance Indicator	2019-2020 Target
<b>Patient-Centred Care:</b> % of respondents who selected a positive score in response to the question: “Overall how would you rate the quality of care you received from Ornge?”, as it pertains to Standing Agreement carrier transports	70%
<b>Equitable Care:</b> % of Ornge staff who have completed eLearning module on diversity and cultural sensitivity	90%
<b>Effective Care:</b> % non-intubated trauma patients with a pain score of <4	70%
<b>Efficient Care:</b> % of Emergent 1 cases where TMP pre-patches with paramedic	35%
<b>Staff Safety:</b> % Hand hygiene annual education completed and compliance based on chart documentation	90%, 92%

## Organizational Chart



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