

County of Simcoe Paramedic Services

Comprehensive Deployment Review of Paramedic Services



KEY BENEFITS

- Evidence-based plan for phased operational changes over the next ten years
- Evaluated a variety of scenarios in terms of current and future demand
- Supplied modelling tool to CSPS allowing any future changes to service protocols, deployments or demand to be assessed in-house



Developing a 10-year master plan for stations and vehicle deployments

KEY FACTS

Population = 305,000

Area Covered = 4,841 km²

Annual Incidents = 46,000

Stations = 17

ABOUT CSPS

The County of Simcoe Paramedic Services (CSPS) was created to achieve response time reliability, clinical sophistication, economic efficiency and customer satisfaction within the County structure. CSPS employs over 300 staff, which include full and part time paramedics, supervisors and administrative support staff.

THE CHALLENGE

CSPS required an operational master plan using research, best practices, existing data and related reports to fulfil two main objectives:

- Establish a 10-year plan encompassing deployment, resources and facility planning.

- Provide a predictive modelling tool to evaluate a range of outcomes based on real or theoretical change.

ORH'S APPROACH

ORH completed a comprehensive data collection and analysis exercise before forecasting future demand using the projected population age and gender structure. Key 'growth hotspots' were included to reflect population intensification and new development.

Using optimization and simulation modelling, ORH identified optimum locations and their resource and capacity requirements against the future profile of demand.

RESULTS

ORH recommended an optimal 23-site configuration at the 10-year planning horizon, including a 'hub and spoke' system within the City of Barrie, supported by a 38% increase in deployed ambulance hours. This compared favourably to

a 47% increase if CSPS used only current sites, demonstrating that the optimized configuration allowed a more efficient use of resources.

Further modelling by ORH addressed the deployment of different vehicle types including Rapid Response Units.



We found the staff of ORH professional, knowledgeable and easy to work with. The final report they supplied to us is extremely valuable to our operational and strategic planning as well as our long term financial planning for staffing and facilities. The modelling tool can be effectively used by our staff to test operational approaches. It is quite a new feeling to be able to provide our council with specific expected impacts when discussing operational approaches.

Andrew Robert
Director and Chief
County of Simcoe Paramedic Services



**Emergency
Service Planning
Case Study**

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About ORH

PLAN. PREPARE. PERFORM.

ORH helps emergency services around the world to optimize resource use and respond in the most effective and efficient way.



We have set the benchmark for emergency service planning, with a proven approach combining rigorous scientific analysis with experienced, insightful consultancy. Our expert team uses sophisticated modeling techniques to identify opportunities for improvement and uncover hidden capacity. Simulating future scenarios ensures that solutions are objective, evidence-based and quantified.

Every organization faces a unique set of challenges, so remaining independent and flexible allows us to deliver an appropriate solution every time. The outputs of our work enable clients to make robust, data-driven decisions and explain them clearly to stakeholders.

ORH's approach is always tailored to the needs of the client. Above all, we are committed to getting it right, for the good of our clients and the people who rely on their services.

ORH WORKS WITH PARAMEDIC SERVICES TO:

- **Project future demand and the implications for resources**
- **Optimize response locations**
- **Assess pre-hospital CTAS standards**
- **Benchmark services to identify efficiencies**
- **Determine the potential for new vehicle types or response models**
- **Evaluate options for standby moves**

For dispatch centres, ORH provides its DCT software to support dynamic decision making and enable effective and efficient resource use.



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