



Using Data to Transform an Industry

How the Ottawa Paramedic Service gained greater data insights that lead to life-saving results

The Challenge: Static Data, Static Plans

For the Ottawa Paramedic Service, the stakes of its decisions couldn't be higher—life and death are literally on the line. That's why making intelligent use of real-time data is so critical to its success.

"We rely on data to make the most efficient transport and transfer care possible," Greg Furlong, Deputy Chief of Ottawa Paramedic Services said.

As a performance-driven organization, the Ottawa Paramedic Service knows that every second counts. When an emergency call hits the Ottawa 911 call center, paramedics need to get to the patient's side as quickly as possible, yet relied on a reactive dispatch procedure for proactive care.

"One of the challenges we face is timely access to data. Consuming it and sharing it back out with people who need to be aware. Whether that's a frontline paramedic, supervisors or command staff.", Furlong said.

Hospitals had little access to information about when ambulances would be arriving, what injuries the patient had sustained, and what treatment had already been provided by paramedics. To pre-emptively mitigate risk, they were often reduced to a manual process susceptible to delays, calling other hospitals and the dispatch service to determine system performance and patient status.

With million rows of data being generated every week, the Ottawa Paramedic Service knew they could do more than plan for the next 24-hour period. They needed a way to improve patient response times, and effectively plan resourcing availability.

Challenge

- Static data
- Siloed data
- Reactive forecasting

Solution

Qlik Sense®

Results

- Smarter decisions driven by real-time data
- Quicker ambulance response times
- Improved patient care

The Solution: Pushing Data into Real Time with Qlik

The Ottawa Paramedic Service no longer relies on static plans or individual intuition. The teams are able to make critical decisions founded in real-time data that lead to informed 911 dispatches and faster patient transport.

"The biggest change in our process is that everyone is now aware of how the system is performing at any given time. Access to this data powers how we do business." Furlong said.

Now, the Ottawa Paramedic Service is able to deploy ambulances with greater precision and send patients to the best hospital for their condition. It reimagined its processes, becoming an agile, flexible service that could react to events in real time. And it achieved stronger risk/reward balance, recognizing potential problems faster and forming the best possible solution.

"For the first time we are looking at real-time data to make coverage recommendations."

Greg Furlong, Deputy Chief, Ottawa Paramedic Services

Key Solution Features

Olik enables the Ottawa Paramedic Service to create synchronized, real-time dashboards for hospitals and dispatchers, transforming their approach to patient transport and care. Thanks to the team's dedication to data efficiency and agility, there is now comprehensive visibility, from ambulance location and system delays, to patient injury, status, and expected arrival. This allows the service to act on current, relevant data, and make choices that directly lead to the best possible outcomes for patients.

"We're able to make changes on the fly. We can look at the coverage maps, and predict what our response capacity is, and allow the analytics to actually decide on vehicle movement to improve coverage, and improve response time.", Furlong said.

As an early adopter in data management and utilization in healthcare, Ottawa Paramedic Service is shifting the culture for their neighboring municipalities. Medicine is largely an evidence-based field, where paramedics, doctors, and nurses handle and digest vast amounts of data on a daily basis. The ability to harness this data in a meaningful, actionable way is paramount to decision-making in critical situations. With access to real-time data and stronger intelligence, the Ottawa Paramedic Service is leading healthcare providers toward a more data-driven culture, where treatment is based on a single source of truth, not a best guess.

"One of the measurements of success is the adoption of the data consumption methodology we're doing here in Ottawa. We're constantly sharing the work with our peers, and receiving very positive feedback from municipalities across Ontario who are learning the value of data, and looking to update to a similar process," Furlong said.

Finally, Qlik enabled the Ottawa Paramedic Service to consolidate disparate sources of data to exponentially speed up analytics at the corporate level. The process of examining and manually interpreting the millions of rows of data generated by the service once took hours, days, or even weeks. Now leaders are able to see the whole picture instantaneously, allowing them to make confident, intelligent policy adjustments in mere minutes.

The Benefits: Smarter Dispatch, Faster Response

Now data is transparent across dispatch, ambulances, and hospitals, allowing the Ottawa Paramedic Service to develop more effective plans that lead to faster response times and healthier patient outcomes. They're now able to get the right patient to the right hospital for the quickest care.

"We're very early in our data journey and really leveraging the full power of what we can do with analytics. The future is bright in terms of the next evolution for us," Furlong said.

As a result, the service has moved closer to its goal of reducing response time by five minutes—that's 38,000 more minutes a year to get the sick and injured to the best available caregiver. This gives the Ottawa hospitals more preparation time and allows them to better prepare for specific injuries. All of this data is available on a single dashboard—no more searching to uncover which ambulance is where.

"Now there's awareness across the entire organization as to how the system is performing, where the resources are located, and where the pain points exist," Furlong said.

Conclusion: Real-Time Data, A Real-Time Life-Saver

Improving patient care starts with access to the right data at the right time. The Ottawa Paramedic Service recognized this, and digitally transformed their fundamental processes, leading to to smarter patient routing, faster response times and improved visibility across the board. With a data-driven system in place, the Ottawa Paramedic Service is now making fast, confident decisions that lead to higher levels of care—and ultimately, save more lives.

Discover how data can spark your business's digital transformation at qlik.com

