From Blind Spots to A Clear View: How Three Hospitals Illuminated Their MEDITECH Data

Executive Summary

The Ontario Mental Health Cluster — comprising Ontario Shores Centre for Mental Health Sciences, Waypoint Centre for Mental Health Care, and The Royal Ottawa Mental Health Centre — shares a single MEDITECH EHR to streamline mental healthcare delivery across Ontario, Canada. As a pioneering collaboration among three leading institutions, the cluster exemplifies how partnership and innovation can elevate patient care.

Together, with the support of four Blue Elm solutions, the cluster has tackled four of the biggest data-related challenges healthcare organizations face when leveraging MEDITECH EHRs:

- Data accuracy
- Data latency
- Data access
- Data visibility

This case study explores how they did it — and the benefits they experienced as a result.

Organization Overview

The Ontario Mental Health Cluster ("the cluster") is made up of three Ontario, Canada-based hospitals that are widely recognized for their commitment to advancing mental healthcare delivery:

- Ontario Shores Centre for Mental Health Sciences — a public hospital that provides a range of specialized assessment and treatment services.
- Waypoint Centre for Mental Health Care — an academic and teaching hospital that provides specialized mental health, addiction, and geriatric care.
- The Royal Ottawa Mental Health Centre — a mental healthcare, teaching, and research hospital.

Driven by a shared vision to improve access, quality, and outcomes in mental health, the cluster stands as a model of what's possible when leading organizations unite behind data-driven care.

Challenge: Ensuring Data Accuracy

Problem: Like most MEDITECH hospitals, the cluster relies on the MEDITECH Data Repository (DR) for clinical and financial reporting. But the DR isn't always a fully complete or accurate copy of the MEDITECH transactional system, which raises concerns about report quality and accuracy.

"The data layer of the MEDITECH application isn't easy to access," explains Jeff MacDonald, Data & Analytics Cloud Architect for the Ontario Mental Health Cluster. "We're dependent on the DR, which isn't always a complete, up-to-the-minute copy."With the cluster leveraging the DR for more than 1,000 clinical and financial reports, missing or inaccurate data could have a negative impact on patient care, operations, and finances. For the Ontario Mental Health Cluster, which is known for providing outstanding care and compassionate care to patients, that risk was not something the organization was willing to accept.

Solution: To validate data integrity within the DR, the cluster implemented Blue Elm's DR Auditor™ solution in 2011. DR Auditor™ continuously compares data in the DR to the MEDITECH transactional system, sends custom alerts and audits to database administrators, and automatically requeues missing or inaccurate data within seconds.

"While MEDITECH has a built-in validation tool for the DR, it's spotty and not sufficient for our needs," says Ryan Pighin, MEDITECH System Administrator for the Ontario Mental Health Cluster. "With DR Auditor™, we can confidently rely on the DR."

Benefits:
- Reliable, validated data across systems
- Automatic correction of missing or mismatched records
- Greater confidence in DR-based reporting

Challenge: Data Latency and Visibility

Problem: While DR Auditor™ helped enhance data accuracy in the DR, the cluster still lacked insight into which data was delayed in transferring from the MEDITECH transactional system to the DR — and why it was delayed. Database administrators had no easy way to monitor transfer speeds or pinpoint bottlenecks, such as those affecting critical pharmacy data from NPR.

"We lacked visibility into what was latent — and what was driving the latency," explains Jennifer Roquim, Database Administrator for the Ontario Mental Health Cluster. "We needed a way to be more proactive in our monitoring so we could identify transfer delays before they caused problems."

Solution: In 2020, the cluster implemented another Blue Elm Solution, DR Dashboard™, to gain real-time visibility into data transfer jobs and latency problems. In addition to providing users with a dashboard view of this information, the solution issues email alerts to administrators when problems crop up.

"The alerts are extremely helpful," says Roquim. "We can advise end users that data may not be current and stay ahead of issues."

The real-time insights also enable proactive communication with MEDITECH for troubleshooting when latency problems occur. In addition, Roquim and other team members can take independent action to resolve issues, such as reorganizing transfer groups and separating less critical tables, so time-sensitive data moves first.

By taking such a proactive stance, the cluster demonstrated its commitment to ensuring clinicians and leaders always have the most current, accurate information possible.

Benefits:
- Real-time insights into data flow and transfer status
- Immediate visibility into space usage, database metrics, and table-set size
- Proactive resolution of latency problems

blue elm
A HARMONY HEALTHCARE IT COMPANY

Challenge: Gaining Direct Access to MEDITECH Data

Problem: Once concerns related to DR data accuracy and latency were addressed, the cluster faced a new obstacle: They found that some MEDITECH data in the transactional system was never syncing to the DR at all. Key information, for example, such as staffing and scheduling data, lived only in the transactional system.

"We had no means of getting at staffing and scheduling data — MEDITECH hadn't completed their development of having data flow from the application data layer into the Data Repository," MacDonald explains. "The only alternative was MEDITECH's NPR MAT reports, which the team wasn't very comfortable with, and which weren't well received from an end-user perspective."

Solution: In 2016, the cluster implemented OpenGate™, a Blue Elm solution that enables direct, real-time querying of MEDITECH's data layer. With OpenGate™, the cluster can automatically pull critical data into SQL Server and use familiar BI tools for analysis and reporting.

"It opened a path for us that felt like a dead end," says MacDonald. "Now we can pull data into SQL Server in real time and do all our BI development and build off that."

Beyond solving the initial challenge, OpenGate™ has created a new foundation for innovation for the cluster, as teams can use it to feed any MEDITECH data into SQL Server and leverage it for multiple purposes and reports. This flexibility empowers analysts and clinicians alike to explore new insights that improve operations, coordination, and care delivery.

Benefits:
- Direct access to MEDITECH data
- Integration with BI and analytics tools
- Foundation for real-time reporting and innovation

Challenge: Tracking Data Changes and History

Problem: When MEDITECH introduced its Social History Tool, the cluster discovered another challenge: They had no visibility into who changed patient demographic data, when, or what the previous values were.

"If one hospital updated a patient record and another changed it later, we couldn't see the history," says MacDonald. "There was no built-in solution the team could utilize."

Solution: Blue Elm developed Flux™ specifically for this challenge, with the cluster serving as beta testers. Flux™ captures and saves MEDITECH historical transactional changes in SQL Server or any industry-standard database.

"It allows for transparency," MacDonald explains. "We can see who changed values, provide context, and ensure communication happens between facilities."

Once implemented, the cluster quickly realized Flux™ could do much more. Beyond its original purpose, Flux™ now tracks sealed record access requests and monitors changes to dictionary tables — addressing issues the team once thought unsolvable.

"Flux™ enables us to get access to data that's not otherwise available," Roquim says. "Without it, we wouldn't be able to get audit information — who did what, when, and why."

Flux™ has helped strengthen collaboration and accountability across facilities, a reflection of the cluster's culture of transparency and shared responsibility.

Benefits:
- Full audit trails and change history
- Point-in-time visibility for historical comparisons
- Enhanced accountability and transparency

blue elm
A HARMONY HEALTHCARE IT COMPANY

A Partnership That Drives Innovation

Across 13 years and four solutions, the partnership between the Ontario Mental Health Cluster and Blue Elm has evolved into a model of collaboration and innovation.

> "
>
> Having a partner that is familiar with the architecture of these different types of systems is really paramount to getting the job done correctly. They need to know the processes to get that data out, extract it, and then be able to turn it around into a readable report from the system.
>
> **Jeff MacDonald**
> Data & Analytics Cloud Architect for the
> Ontario Mental Health Cluster

About Blue Elm

For more than 20 years, Blue Elm has provided MEDITECH data solutions to hospitals and technology vendors worldwide. Founded by former MEDITECH employees, we bring unmatched expertise in healthcare data conversions, extractions, and validation. Our solutions are trusted by 500+ organizations across multiple solutions and all MEDITECH platforms (Magic, C/S, and Expanse).

Rev. Jan 2026

blue elm
A HARMONY HEALTHCARE IT COMPANY