

New Brunswick Department of Health - gazing into the OPOR eye



Orion Health Case Study



NEW BRUNSWICK DEPARTMENT OF HEALTH

New Brunswick,
Canada

www2.gnb.ca

Population 756,800

Organisation Type Provincial Health Information Exchange

Products Implemented Concerto, Clinical Data Repository

Key Benefits

- Single shared view of patient information
- Secure access to up-to-date and relevant patient information
- 100% availability of dispense records for prescription medications, and laboratory and diagnostic imaging reports
- More effective care through better informed decision-making

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ANNIE DOUCET,
EHR Business Lead, DOH



The Customer

In 2003, New Brunswick Department of Health took its first steps towards creating a province-wide electronic health record (EHR) system – an essential building block for reaching the Province’s ultimate vision of creating a ‘One Patient, One Record’ (OPOR) care system. The EHR would link all care resources across the Province so that a patient’s record would contain all information from hospitals, pharmacies, laboratories and diagnostic imaging into a single up-to-date record available to authorised clinicians when needed.

Connecting the Province was no small task, as patient records were fragmented across New Brunswick, with data located at many sites in a variety of systems and formats. The Province needed to connect eight Regional Health Authorities (which has since been combined and reduced to two) and 51 total healthcare facilities. And as Canada’s only official bilingual province, the system needed to be fully functional in both French and English.

The Challenge

To make the OPOR vision a reality, the Government of New Brunswick began by announcing their Provincial Health Plan 2008-2012, Transforming New Brunswick's Health-care, which not only called for the restructuring of healthcare delivery and governance but also the investment in new and enhanced healthcare services. In 2007, the Province announced that, in collaboration with Canada Health Infoway, it would begin the implementation of a provincial EHR. They selected Orion Health as their vendor of choice to provide its Concerto, Clinical Data Repository (CDR) Provider Registry and Rhapsody Integration Engine.

With Rhapsody and CDR serving as the foundation to the EHR, New Brunswick took a phased approach to the integration. The first system labs came online on October 15, 2010 and all zones were on by July 27, 2011. In addition, the first zone with diagnostic imaging was brought in on December 7, 2011 and reached completion in all zones in mid-2012. Other phases included integrating Electronic Medical Records, the Provider Index (a centralised table of New Brunswick providers including optometrists, dentists, surgeons, pharmacists and physicians) and community pharmacies.

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The Solution

Rhapsody product has enabled the Province to create a reliable, 'fit for purpose' integration foundation to work from. Rhapsody has evolved to be able to support the different messaging standards during the expansion of the EHR.

As Dave Barr, Senior Systems Analyst for the OPOR Support team stated, "With messages there's room for broad interpretation, making it even more vital that the integration engine is capable of properly reading the message. Not only was Rhapsody up to the task, but it was able to deploy rapidly as well."

In one instance, the Province needed to consolidate and migrate five years' worth of data from an older CDR into a newer version. Using Rhapsody as a data transformation tool for this two-year project, New Brunswick was able to extract data out of the old CDR, transform it to a new specification and securely migrate 90 million messages to the new CDR. Execution of the message transformation was completed in just two weeks; all while still maintaining the order integrity of each message suite – something many other products would not be able to do.

Rhapsody has also ensured that it is future-proofed for New Brunswick's needs of tomorrow. Rhapsody's continual updates enabled the Province to take advantage of HL7v3 and poised it to use the latest health data exchange modeling standard, FHIR.

The Results

With help from Orion Health, New Brunswick's province-wide EHR system has improved access to patient information, helping to create a more effective and efficient healthcare system. In late 2013 New Brunswick began the process of integrating with the provincial EMRs. The first clinic came online November 6, 2013 using Rhapsody as the hub for integration with the provincial registries as well as the Clinical Viewer. Since then, New Brunswick has onboarded 141 clinics and continues to connect physician offices today. This integration is another key component to the One Patient One Record initiative.

Within the last year 100 per cent of finalised laboratory and specific cardiology reports were made available in the Clinical Viewer. Recently in 2016, the Province announced that they had connected 100 per cent of the dispense records for prescription medications from community pharmacies into the Drug Information System via the Rhapsody Integration Engine, which connected a total of 226 community pharmacies. In the same year, New Brunswick also built views for medication summary profiles and monitored drugs within the Clinical Viewer.

"Previously in primary health, quarterly reports used to take weeks to put together. We needed to send out requests to all care sources and they would each individually have to try to standardise the information they were sending. Now, thanks to the system, the data is already standardised and we can put together the reports more efficiently," explained Annie Doucet, EHR Business Lead.

New Brunswick's continued EHR success was recognised in 2013 with a KIRA Innovation Award for Technological Advancement and/or Innovation (Public Sector). This award recognised the development team and their success in linking all hospitals in the Province to create a single viewable patient record in the language of the clinician's choice. And with the number of new access requests to the EHR more than doubling in 2016 (compared to the previous year), it's clear that New Brunswick's EHR is delivering what healthcare providers want.



Future Development

Not only has New Brunswick experienced success with its OPOR vision, but it is already looking to the future. The Province's next overall phase will include the integration of transcribed reports, the development of 15-20 report categories and expanded image access for the imaging ECG readings. The Province will leverage Rhapsody and Orion Health's Clinical Viewer to implement a Prescription Monitoring Program that helps monitor drug use. Additionally, New Brunswick will expand its integration with the Province's Cancer Network through the development of an interface from the CDR to the Cancer Registry Information System through Rhapsody.

In the long-term, the Province is looking for opportunities for cross-jurisdictional collaboration in the Maritimes. By sharing information on immunisations, disease outbreaks, and other types of public/community health, the region can collaboratively manage their population's health. Thanks in part to Orion Health, New Brunswick has a foundation that is well poised to make these initiatives a reality.

Orion Health

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