THE CHALLENGE

The Edmonton North Primary Care Network's original referral application was constructed to connect referrals between member doctors and specialists. As the referral department's needs grew, increased functionality of the software had become critical. Evaluating the performance of the coordinators was difficult to complete and control, and monitoring departmental throughput became a recent factor in benchmarking results. The last version of the system had simply outlived its purpose. Spieker Point was challenged to develop a custom solution that would meet these needs and enable them to manage their growth.

THE SOLUTION

The project began our early-stage engagement investigation phase that provided a basis for determining direction going forward. We needed to have a full understanding of the Edmonton North PCN Referral Department, so we worked closely with the department to outline their current process. The key challenge laid in determining whether a process stemmed from best practices or derived from the design of their current software. Once we had their processes mapped out, we proposed a number of solutions for improvement – many that could be solved with the new software. We also worked with their IT consultant to gain an understanding of the state of data that would need to be transferred from the old system. From there we provided strategies for data migration and a rollout plan for when it was time for the new system to go live.

The electronic health record database (known as the Specialist Database) works as a conduit for referrals between Member Doctors and Specialists and is being adopted by PCNs across the province. After 16 months of development, the system now includes:

- Referral Management – a centralized hub to oversee everything associated with the life of the referral
- Advanced Search Engines – users have the ability to search for general or specific information regarding a patient, member, referral or specialist.
- Real-time Analytics – dashboards provide up to the minute performance metrics and reporting features while bringing all the advantages of visual information
- Multi-tenant Application – allows each PCN to have their information contained, coupled with the ability to run reports across all PCNs at the highest user level

THE COMPANY

Customer
Edmonton North Primary Care Network

Category
Custom Software

Industry
Healthcare

Services
Process Improvement
Software Development
Analytics

- Strict data formatting rules – the system only allows validated healthcare numbers, which reduces the likelihood of duplicate patient records

- Conforms to Health Information Act – security requirements ensure that the system is compliant, and some of those functions include role-based permissions and detail auditing of patient history (seeing who viewed what and when)

THE BENEFITS

- Coordinator metrics are now visible on an individual dashboard resulting in a self-sufficient process

- Up-to-the-minute performance metrics of the coordinators, and this was made available on the managers dashboard—providing visibility into the health of the department

- Accurate record keeping tremendously increased the confidence in the data and reporting

- Member doctors now have the ability to log into the system to view the status of their referrals resulting in stronger relationships

- Secure and compliant to Health Information Act with exceptional record integrity including auditing of patient and referral record viewing

- A much smoother process maintaining and managing the life of a referral

ARCHITECT'S COMMENTS

"As part of the Health Information Act, there are provisions regarding the protection of personal records and the monitoring and auditing of users making changes to the record. This posed interesting challenges, since individual PCN offices could not access records built by other PCNs. The workarounds got complex, as they had to be developed in the software, and not through the database.

Also, as users of the system work on records, the system has to log every activity in order to deter unnecessary searches/views and preserve integrity. The system also stores every change to a record, creating an archive that ended the possibility of a record ever being deleted from the system

Working through the Health Information Act was very interesting, and that extra layer made me proud of the work we did for PCNs across the province."

Warren Wong, Senior Architect