

Providing emergency room patients with instant information on follow-up care



About MUHC

Located in Montreal, Canada, the McGill University Health Centre (MUHC) offers one of the most comprehensive university health centres in North America. Its research division is the largest medical and life sciences facility of its kind in Canada, generating over \$100 million in research funding per year from external sources. More than 11,500 healthcare professionals and other personnel work at MUHC to receive nearly 696,000 ambulatory visits, over 170,000 emergency department visits, and 38,000 inpatients each year.

As the partner to the 17th highest-ranking university in the world, the McGill University Health Centre (MUHC) has earned an international reputation for excellence in its clinical program, research and teaching. The centre's specialties include pediatrics, medicine, surgery, neurosciences, mental health, women's health, and cancer care.

Challenges

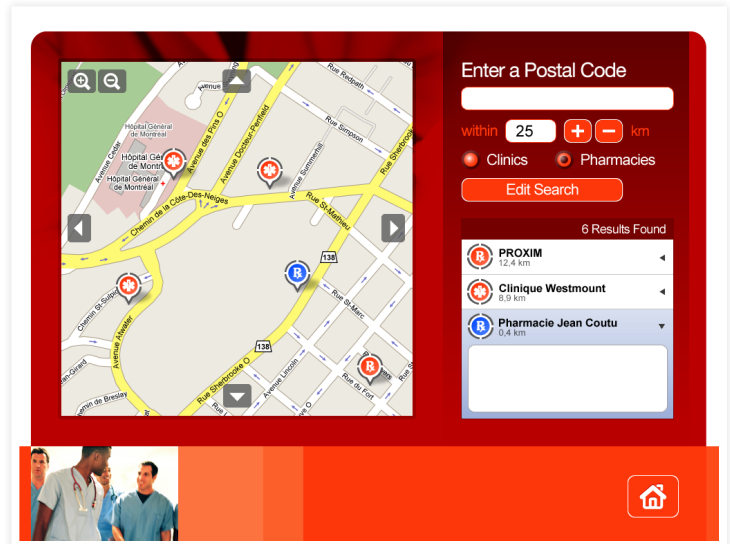
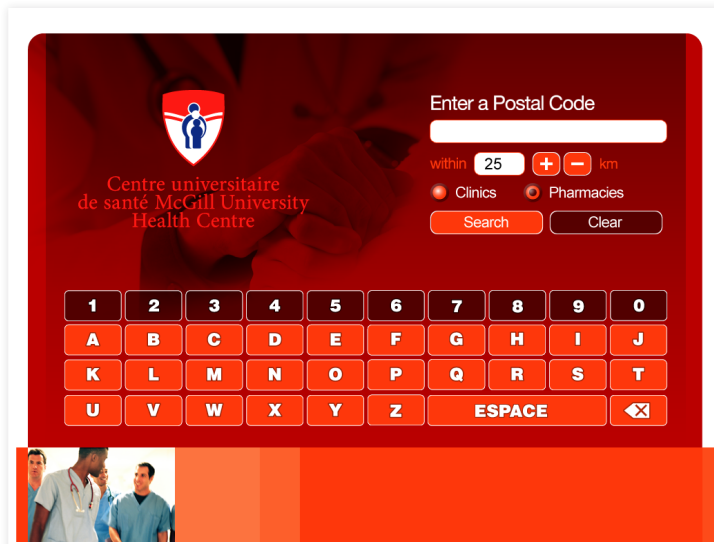
The MUHC's mission, like many healthcare facilities, is to provide patients and their families with compassionate care of the highest quality and safety. But with over 856,000 ambulatory visits and 170,000 drop-in visits coming through its doors every year, the centre's emergency room workers face many challenges when dealing with high volumes of patients – especially during peak periods, such as flu season.

Nurses, in particular, must carefully balance the time they spend with incoming, patients-in-need versus outgoing patients. Priority, naturally, is given to incoming patients, while outgoing patients, once treated, are provided with guidance as to how to obtain follow-up care, such as where to purchase their medication or how to obtain follow-up services from a local clinic.

“Patients would frequently ask nurses and admitting staff where the nearest pharmacy was, or the location of the closest clinic to their home for follow-up care or alternative clinics for care,” said Barbara Cooke, a former nurse at the emergency room who now works as the Nursing Resource Manager for MUHC.

“It was impossible for our team to know about every resource on the island of Montreal.”

The requests forced Cooke and her colleagues to search for the information online or pull out large, print directories. This took time away from assisting other patients, and sometimes they could not find the information in time because they had to return their attention to patients with more critical needs.



The interactive kiosks, located in busy emergency ward reception areas, enable patients to search for nearby clinics and pharmacies by simply entering their postal code.

Solution

When Cooke saw an internal announcement asking staff for innovative ideas on how to improve patient care, she immediately knew what to suggest: an interactive kiosk that would enable patients to find the follow-up care that they needed on their own. The kiosk would sit in the emergency room and be accessible to patients at all times.

Cooke's idea to equip two of MUHC's hospitals, the Montreal General Hospital and the Royal Victoria Hospital, with an interactive kiosk was accepted. She turned to Integration New Media, a Montreal-based, rich Internet application developer and Adobe partner, to design the solution.

Developed using Adobe Flash and Flex, and packaged as an Adobe AIR application, the kiosks enable patients to search for nearby clinics and pharmacies by simply entering their postal code. Search results are plotted on an interactive map of the city of Montreal that also indicates the local bus and metro (subway) routes. Each location is marked with a color-coded symbol indicating the type of resource. When patients touch a symbol, they are presented with the name, type, location, hours of operation, and contact information for the resource.

Because the kiosks sit in the busy reception areas of the two hospitals' emergency wards, they feature a sturdy, touch-screen device without any external keyboard or mouse. This limits user access to other elements of the system and reduces

maintenance requirements. Hospital security protocols also demanded that the kiosks be free-standing, and that they function without internet connectivity.

Results

The interactive kiosks at the Montreal General Hospital and the Royal Victoria Hospital have provided thousands of patients with instant information on follow-up care since spring 2010. The kiosks run 24 hours a day / seven days a week, allowing hospital staff to focus on their core duties: delivering care to patients with critical needs. Staff redirects patient requests to this responsive and reliable resource, whose simple user interface has been designed to accommodate a wide variety of patients with different levels of technical competency. The combined Adobe Flash, Flex and AIR applications enabled INM to develop the kiosks with the same richness and interactivity of a rich web application, without requiring an internet connection.

For more information:

Integration New Media (INM)
www.INM.com
info@INM.com
+1 514 871 1333