

# Improving Provincial Healthcare through Citizen Engagement

The New Brunswick Health Council (NBHC) promotes the concept that citizens should have a right to play a role in the decision-making that affects their healthcare system. In keeping with this philosophy, the organization engages citizens in meaningful dialogue, regularly informs citizens on health system performance and recommends improvements to health system partners.

Primary health care, which can be described as the first level of contact with the health system, (such as a visit to the family doctor), is a key element in maintaining and improving the overall health of Canadians. Accordingly, NBHC launched a Primary Health Care Survey in which over 14,000 respondents across the province were asked about their experiences with personal family doctors, nurse practitioners, emergency departments, walk-in clinics and other aspects of the healthcare system.

The objective of the survey was to evaluate citizens' experience of health services against the criteria set out

by the New Brunswick Health Council Act as measured by accessibility, equity, appropriateness, safety, efficiency and effectiveness. GIS technology played an integral role in the successful execution of the survey, enabling NBHC to effectively target participants, tailor marketing efforts and create meaningful maps to communicate survey results.

Potential participants were selected through stratified random sampling based on geographic location. This ensured adequate representation from each of the seven health regions across the province. To gain insights into the needs of smaller communities, NBHC developed 28 primary healthcare communities within the seven regions, based on New Brunswick census subdivisions. This would enable individual communities to compare their experiences with overall provincial results and identify variations across communities.

Leveraging ArcGIS Desktop, Postal Code Conversion Files and the census subdivisions from Statistics Canada, NBHC mapped out target participants within each of the communities and health regions. To raise awareness for the survey, the organization then launched a comprehensive communications plan that included me-

dia releases, newspaper ads and radio announcements. Several weeks after the survey launched, households that had successfully participated in the survey were also mapped through ArcGIS.

"By mapping out our participant demographic data across the province, we were able to deliver precise, actionable information to our communications team," said Karine LeBlanc Gagnon,

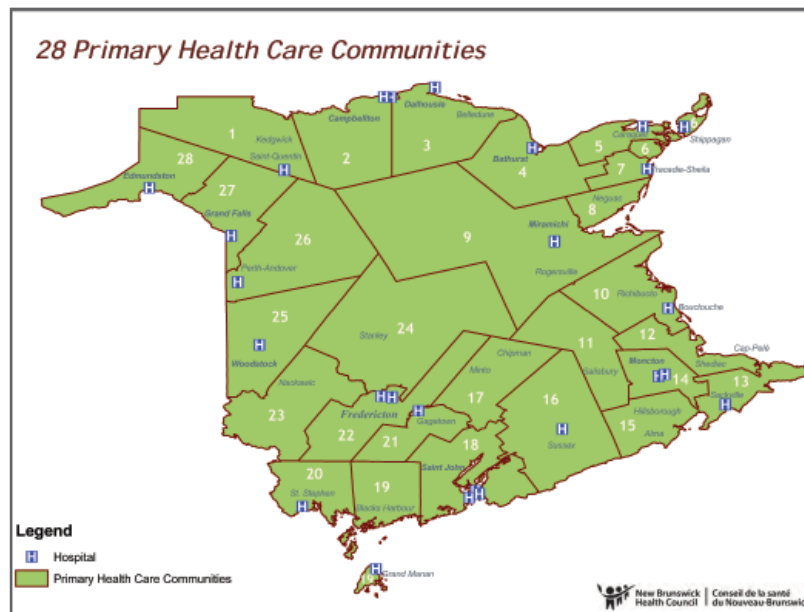
The accessibility score combined responses to the questions "has a personal family doctor," "has access to a primary healthcare team" and "can get an appointment with a personal family doctor on the same day or next day." The satisfaction score represented a combination of service ratings for family doctors, nurse practitioners, emergency departments, ambulances, specialists, after-hours clinics and other aspects of the health system. Finally, the health score reflected the respondent's outlook on their own overall health.

Once the survey was complete, scores were mapped and colour-coded to identify whether the community had scored within the top 25th, middle 50th or bottom 25th percentile. Data layers representing hospitals, safety-related issues in the community and results of the NBHC's 2010 Acute Care Survey were also mapped to reveal variations across communities with respect to harm or errors experienced while in care.

Based on this data, two areas were identified that require greater focus and attention across the province of New Brunswick. The first was risk factors for chronic diseases such as smoking, lack of physical activity, obesity, high blood pressure, alcohol consumption, stress and diet. The second was a need for enhanced education to help residents self-manage their diseases and prevent further illness. The survey will be repeated every three years to measure performance improvements within each of the primary care communities.

This information is now publicly available through the NBHC Web site and will be leveraged at an upcoming provincial Primary Health Care Summit – the first event of its kind in New Brunswick. Key decision makers including local government officials, primary care service providers and community groups will be provided with information based on findings revealed through the survey data.

"GIS transforms complex data into easy to understand visuals so that changes to our healthcare system can be based on fact and not perception," said Michelina Mancuso, Executive Director of Performance Measurement, NBHC. "By revealing healthcare experiences at the community level, decision-makers and program planners can define priorities and work towards improving the quality and accessibility of primary care where it is most needed." ■



Primary health care communities were mapped across New Brunswick's seven health regions, to gain insights into the needs of smaller communities.

Information Analyst, NBHC. "As a result, we were able to identify underperforming zones and realign our communication efforts to ensure we could reach our quotas and complete our project on time."

Within a period of three months, over 100,000 households were contacted by phone, representing approximately one third of all New Brunswick households. Once a household was contacted, participants were subject to a telephone interview process that followed the Computerized-Assisted Telephone Interviewing (CATI) method. The

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NBHC**

CATI method ensures that only valid question responses are entered and that the correct flow of questioning is followed. Drawing from the collected data, each of the 28 primary care communities were rated based on three main scores – accessibility, satisfaction and health.