

Band-Aid fixes getting us nowhere

Hamilton Spectator – Code Red Series
Apr 12, 2010 |

Jessica Bartley scrunches up her face and thinks for a second.

The discussion had turned to how frequently health care services are used in Hamilton, and Bartley, a 28-year-old paramedic who works in the city's lower-central core, was asked to guess the highest number of times she's transported the same person to a hospital emergency department during the past year.

Six times in a year? A dozen? Two dozen?

"Oh, much more than that," she said, as she tried to quickly do the math in her head.

How about 40 or 50 times in a year?

"Yeah, that's probably about right."

A check of ambulance records shows there were two private residences in the lower-central core that each required more than 100 responses by Hamilton's Emergency Medical Services last year, according to platoon manager Justin Pyke. For privacy reasons, he could not reveal the specific addresses.

"I've heard other medics who have worked a lot longer than I have say they've watched people grow up, met their families, watched them go downhill through life to the point where they die," Bartley added.

The Spectator's landmark health mapping project shows there are massive differences between Hamilton's 130 neighbourhoods when it comes to the consumption of hospital and ambulance services. The comprehensive analysis also shows clear connections between the use of health care services and social factors, such as poverty and education.

Those who are the poorest and the least educated are also those who, in general, are the biggest consumers of health care services.

That's important because there are enormous costs associated with the health disparities that exist between Hamilton's neighbourhoods.

"We need to provide incentives so that the hospital is not by default the option, which it is now," said Neil Johnston, a Hamilton health researcher

who has collaborated on this project with The Spectator for three years and acted as the chief data analyst. "Right now, there isn't an alternative to that.

"I'm not blaming the hospitals," added Johnston, an expert in analyzing and mapping health data. "It's that they have become, by default, where people go, and there's nowhere else to put them. And it's that nowhere-else-to-put-them part where we need to find alternatives."

According to figures obtained from Ontario's health ministry, the cost of an acute-care hospital bed in Hamilton is \$1,299 per day, an emergency room visit costs \$259, and an ambulance trip is listed as \$785.

Combining those numbers with the project data, The Spectator calculated the cost of basic hospital service use at the neighbourhood level.

The differences are astounding.

In one inner-city neighbourhood, bounded by Wellington Street North, Cannon Street East, Wentworth Avenue North and Main Street East, the total cost for hospital bed, emergency room and ambulance use was \$9.15 million for the two years of data collected.

That represents \$2,060 in costs for every person living in the neighbourhood.

At the other extreme is the wedge-shaped Flamborough neighbourhood that extends between Highway 8 and Middletown Road to Gore Road to the edge of Flamborough.

In that rural neighbourhood, the costs for the same services were just over \$523,000. That's \$138 per person, equal to about one trip to the emergency room every four years or so.

More importantly, it means there's a difference of \$8.63 million in hospital, ER and ambulance costs between the top and bottom neighbourhoods in Hamilton.

Johnston calls the money spent "a wasted opportunity."

"We're quite prepared to spend limitless amounts of money to Band-Aid this," he said. "It doesn't do anything about curing this in the long term. It's a complete revolving door. There's no improvement in health."

A closer look at the hospital data shows the same pattern of disparities exists across a number of measures:

* In the neighbourhood bounded by Sherman Avenue North, the harbourfront, Ottawa Street North and the rail line near Barton Street, the rate of emergency room visits was 1,291 per 1,000 residents during the two years covered.

In the rural neighbourhood between Governors Road, Highway 8 and the Flamborough border, the emergency room visit rate was 97 per 1,000 residents -- 13 times less than the highest neighbourhood.

* In the inner-city neighbourhood bounded by Wellington Street North, Cannon Street East, Wentworth Avenue North and Main Street East, the rate of urgent hospital admissions was 112 per 1,000 residents.

Urgent hospital admissions are like the canary in the coal mine -- a sign of poor health that requires instant hospitalization.

In this neighbourhood, it means one in nine people required urgent hospitalization in an acute-care bed.

At the other end of the spectrum, the Flamborough neighbourhood between Highway 8 and Middletown Road to the edge of Flamborough had an urgent hospital admission rate of just 10 per 1,000 residents.

* That same Flamborough neighbourhood had a rate of 46 days of acute-care hospital bed use per 1,000 people between the ages of 16 and 69.

At the other extreme, the rate was 729 acute-care bed days used per 1,000 people in the same age range for the inner-city neighbourhood bounded by James Street North, Cannon Street East, Wellington Avenue North and King Street East. That's a difference of 16 times from top to bottom.

* There are three neighbourhoods in Hamilton where more than 20 per cent of the people who showed up at an emergency room reported having no family physician.

At the other extreme, the rate of no family physician being reported in the Stoney Creek neighbourhood bounded by Millen Road, Highway 8, Jones Road and the escarpment was 2.8 per cent.

Drill down into these gaping differences in health care use and some of the connections to social and economic factors become obvious.

Of the 10 neighbourhoods with the highest rates of emergency room visits, six of them are also among the bottom 10 neighbourhoods with the lowest median income per person.

Six of the highest ER visit rates are also among the top 10 neighbourhoods with the highest rates of adults who don't have a high school or postsecondary diploma, and five of them are among the top 10 neighbourhoods with the highest rates of people living below the poverty line.

Strip out the neighbourhoods heavily influenced by student populations, and the data show that six of the top 10 neighbourhoods reporting no family physician are also among the top 10 highest rates of people living below the poverty line.

Five of the 10 highest rates of no family physician are also among the top 10 highest rates of emergency room visits.

At the other end of the scale, the 10 neighbourhoods with the lowest rates of emergency room visits are all located in Flamborough and Ancaster, and seven of them are among the top 10 for highest median family incomes.

The irony is that the Hamilton neighbourhoods with the best health outcomes -- found in Flamborough and Ancaster, in general -- are the ones located farthest from the city's hospitals, while those with the worst health outcomes are the neighbourhoods that sit in the shadow of Hamilton's two inner-city hospitals.

Meet Dr. Agostino Bellissimo.

Dig deeper into the numbers and you'll end up on Bellissimo's doorstep -- literally and figuratively. Bellissimo is the chief of emergency medicine at Hamilton's St. Joseph's Healthcare, so he understands the complex collisions that occur every day between health and a host of social and economic factors.

"Emergency departments are the final catch-all for anyone who can't get care elsewhere," said Bellissimo.

How and why a person ends up in an emergency room can sometimes be a chain reaction of factors, few of which may be directly health-related, including lack of transportation, language barriers and lack of a family physician.

Take, for instance, the 10 neighbourhoods with the highest rates of emergency room visits.

Nine of them are either within walking distance or a very short cab ride of Hamilton General Hospital, St. Joseph's Hospital or St. Joseph's urgent care centre in the east end.

In general, these neighbourhoods also rank high for reporting no family physician and high rates of poverty.

To Bellissimo, those high rates of ER use are understandable, given the context of what else is happening in those neighbourhoods.

"They're showing up there as a walk-in clinic," he said simply. "That's where they know to go because it's open 24 hours a day.

"It's hard to access care on weekends and after hours, and then if you don't have a family doctor, you can't access care during the day.

"It's frustrating because you don't feel that you're doing anything long-term to help them," Bellissimo added.

"If a patient is coming back that frequently, it means in a sense we -- either emerg or society or whatever -- have failed in that treatment because coming to an emergency department is not an ideal way to live your life."

Having patients show up in emergency departments rather than doctors' offices is costly in other ways, according to Dr. Walter Owsianik, who has a long-established family practice in Hamilton's North End.

Emergency departments need to be cautious because they aren't familiar with a patient's history, he noted, and caution costs money.

"If you know the patients, it's a lot easier to take care of them," said Owsianik. "When they go to emerg, you have to spend a lot of money and sort of cover your ass to do everything because you don't know them that well."

It also becomes clear that reducing the use of health care services -- and by extension, lowering costs -- means attacking a number of problems that don't appear to have a clear connection to health.

The challenge, said Johnston, the project collaborator, is "reducing the need that people perceive they have to use these services in an open-ended manner.

"But that means there have to be alternatives that are more attractive to them," he said. "They will take the line of least resistance.

"The health care-medical care system has become the last resort."

DOCTOR-SHORTAGE DATA DOESN'T ADD UP

Doctor shortages, doctor locations and patients who report no family doctor

have little correlation.

That's one of the anomalies that has come to light in The Spectator's analysis of hospital data as part of the health mapping project.

Stoney Creek has been identified as the part of Hamilton suffering from the most acute shortage of family physicians.

But The Spectator's analysis shows that Stoney Creek has five of the 10 Hamilton neighbourhoods with the lowest rates of people reporting no family physician.

In fact, there are no Stoney Creek neighbourhoods among the top 65 highest rates of patients reporting no family physician out of Hamilton's 130 neighbourhoods.

The numbers suggest there's little connection between the presence or absence of family doctors in a neighbourhood and whether or not the people in the neighbourhood actually have access to a doctor.

Seven of the 10 neighbourhoods with the lowest rates of people reporting no family physician have no family doctors practising in their neighbourhoods.

At the other extreme, the neighbourhood with the highest percentage of people reporting no family physician also has the third-highest rate of family doctors practising per 1,000 people.

The second-most disadvantaged neighbourhood in The Spec's overall rankings has nine family doctors practising within its tiny inner-city area of half a square kilometre. Yet it reports the fourth-highest rate of people who show up in the emergency room reporting no family MD.

HOW WE DID IT

The Spectator, in collaboration with health researcher Neil Johnston, obtained nearly 400,000 anonymized records representing hospital admissions and emergency room visits for every person listing Hamilton as a home address, for the period April 1, 2006, to March 31, 2008.

The records were grouped into geographic areas called census tracts, roughly equivalent to city neighbourhoods. Census tracts are used by Statistics Canada to measure a wide variety of social, economic and health variables within urban regions of Canada. For this project, there were 130 usable census tracts for the amalgamated City of Hamilton.

Twelve health variables and 12 social and economic variables were

chosen. With the help of McMaster University mapping expert Patrick DeLuca, maps were created for each variable, showing the differences between Hamilton's 130 neighbourhoods. Also created was a death statistics map and an overall ranking map.

The maps, rankings and rates were then analyzed to examine the connections between health and socioeconomic variables in Hamilton's neighbourhoods.