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Managing Toronto Citywide Health Crises Through 2-1-1 Services

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Abstract: Information and referral systems such as 2-1-1 can be key partners in responding to community-wide health crises and other emergency and disaster events. This paper describes the experience of Toronto 2-1-1 dealing with the 2003 severe acute respiratory syndrome (SARS) epidemic and later that year the Great Northeastern Blackout. It shares five lessons learned from these experiences and describes how they have shaped the current approach to emergency and disaster response at Toronto 2-1-1 (now 2-1-1 Central Region Ontario).

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Introduction

Within its first 14 months of operation, Toronto 2-1-1 faced two citywide health crises that would reshape its role in the local community and lead to the establishment of seven other 2-1-1 centers across Ontario. This paper describes from an insider perspective Toronto 2-1-1's response to an outbreak of severe acute respiratory syndrome (SARS) and to the Great Northeastern Blackout. Five lessons learned from these experiences are discussed, and subsequent changes in Toronto 2-1-1's role in the community and functions in emergency response situations are described.

Managing Fear and Fallout: Severe Acute Respiratory Syndrome in Toronto

On February 14, 2003, the WHO reported in its weekly newsletter that an atypical pneumonia had claimed five lives since the previous November in Guangdong Province, China. Another 300 people, about one third of them healthcare workers, were reported to have been infected.¹ SARS appeared in a few locations in North America in early March, and began to spread in Toronto. On March 14, the Ontario Ministry of Health and Long-Term Care alerted healthcare providers about four cases resulting in two deaths within a single family in Toronto.² As other cases surfaced, fear spread across the city, especially in

Toronto's many Asian communities where travel to China, Taiwan, and Hong Kong was frequent.³ Incomplete, rapidly changing, and sometimes conflicting public information about SARS compounded this fear.

Toronto 2-1-1 began to receive calls from people wanting to know how they could tell if they were healthy and how the epidemic might affect their lives and the availability of certain services. As the outbreak continued, calls became more frequent. Anyone who sneezed on a train or arrived with a cough from overseas produced nervous reactions. News reports of infected people having traveled on suburban trains, of temporary closures of hospitals to visitors, and, most ominously, a second outbreak of SARS in May shortly after the first outbreak seemingly had been brought under tight control in late April, all generated reactions from Toronto 2-1-1 callers.

Many callers were seeking clarification of opinions they had heard in media reports and from their own social contacts. People wondered what "temporary quarantine" meant. Could they be sent home from work and lose pay if they exhibited symptoms? They wanted to find out more about facilities that were closed to visitors when fear of infections arose, such as seniors residences where a loved one was staying.

Unsettled callers to Toronto 2-1-1 were not acting irrationally, but were anxious because news and "facts" regarding the outbreak seemed to be fluid. Information and referral specialists recalled in their narratives that Toronto 2-1-1 helped defuse callers' anxiety, shared ideas and common-sense advice, and reassured callers that they could call back at any time. With a few deft questions, Toronto 2-1-1 specialists kept many of them from rushing to a hospital emergency ward, which was not the best place to be during the SARS epidemic. As dedicated SARS phone lines were established in Toronto, the information/referral specialists referred callers to these resources.

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For example, the Public Health Units and Community Care Access Centres set up a phone line to counsel those in self-isolation (officially quarantined) and supported many in need of groceries, medicine, and other supplies with delivery service. The Ministry of Health's SARS INFOLine fielded more than 50,000 calls relating to SARS, and Telehealth Ontario faced extraordinary SARS-related call volume, at times reaching 10,000 calls per day.²

But the greatest role for Toronto 2-1-1 actually came in the aftermath of the immediate health crisis and lasted long after SARS had been controlled in Toronto. On April 23, the WHO advised against all but essential travel to Toronto, noting that a small number of people from Toronto appeared to have "exported" SARS to other parts of the world. The WHO advisory was followed immediately by similar advisories by several governments to their citizens. These warnings had substantial nonhealth consequences for much of Toronto, but the hospitality industry was hit especially hard by the resulting loss of tourism. Most conferences and conventions scheduled for Toronto were cancelled; the hotel occupancy rate in Toronto dropped to half the normal rate; and tour operators reported large declines in business.

As tourism declined, there was immediate fallout for hospitality workers. According to Toronto's Hotel and Restaurant Employees Union—Local 75, one third of workers in the industry lost their jobs. Others were working reduced shifts. Many displaced workers were not receiving unemployment benefits. In response, Toronto 2-1-1 formed public-private partnerships with members of the retail and hotel sectors, as well as labor unions, education and employment centers, food pantries and social service agencies to centralize support for displaced hospitality workers. Toronto 2-1-1 provided an accessible information line for people who needed to access these services, and helped establish HospitalityWorks.ca, an online partner site to 211Toronto.ca.⁴

The information and referral specialists who work at 2-1-1 services are trained to probe beyond a caller's presenting issue to identify deeper surrounding concerns, and they specialize in referrals to social services in the local community. Thus, they were well suited to help the hospitality workers in the most efficient way possible. Although a worker might have called because she lost her job, Toronto 2-1-1's holistic approach would uncover the myriad consequences of unemployment for her and her family, and in a single call connect the worker to as many needed resources as possible.

The Great Northeastern Blackout

As the main period of the SARS health crisis was winding down, a second defining event for Toronto 2-1-1 was

about to begin. At 4:10PM on August 14, electrical power suddenly shut down in eight Northeastern U.S. states and the province of Ontario. It was a momentous disruption, with 50 million people losing power for up to 2 days in the biggest blackout in North American history.

Unlike storm-related power outages, the cause of the blackout was not immediately apparent to those affected. Within minutes, people started to call Toronto 2-1-1. Was it a terrorist attack? What areas of the city were affected? Were stores open? Was the transit system operating? Callers reported (in a postblackout survey) feeling stressed, confused, isolated, unprepared, worried, uncertain, and alone; call volume increased by 300% compared to the same period the prior week.⁵

In the early stages of the blackout, Toronto 2-1-1's response included sharing the latest government advisories in clear and simple language, and helping callers understand the scope of the blackout beyond their personal situation. Like the rest of the city, Toronto 2-1-1's information and referral center was without power, and like Toronto 2-1-1's callers, its staff members were experiencing the same inconveniences, complications, difficulties, and uncertainty about their families and loved ones. Anyone without a transistor or car radio might not know that the blackout was not only citywide but provincewide and beyond. Nor would they know when and where power was sporadically returning.

Anecdotal information indicated that receiving up-to-date news about services when calling Toronto 2-1-1 not only informed callers but also helped divert some calls from the seriously taxed 911 service. Placing callers' concerns in the broader context of a regional blackout seemed to help many callers gain perspective and reduce their sense of isolation. This perspective was especially credible coming from information and referral specialists who also were personally affected by the blackout, yet still on the job amidst the turmoil.

But as the hours rolled on and night fell without restoration of power, call volume increased and callers' anxiety intensified. The nature of inquiries shifted from curiosity and information seeking to deeper concerns, especially about health-related issues. Chief among these concerns were the health and safety of seniors and the disabled, those at greatest risk for heat-related illness, and those with certain medical conditions.

Toronto is a city of high-rises. It has almost 2000 buildings with more than ten stories, second only to New York City in North America. Most of these buildings are residential, and the elevators were not working. Many calls to Toronto 2-1-1 came from elderly and disabled people "trapped" in their apartments on the upper floors of high-rise buildings. They described how they had no way to get food or drinks and that caregivers, helpers, and daily meal

programs could not come to visit. Without TV to update them on the situation, they felt especially isolated and vulnerable.

Others had medical needs that were jeopardized by the loss of power. How long will my refrigerated medicines keep? Can I still get my dialysis today? My respiratory ventilator isn't working. Are hospitals open? Are medical appointments cancelled? The summer heat had to be considered, as well. Without air-conditioning, many poorly ventilated apartments could become hot-and-humid health hazards. Callers also were concerned about food safety. How long without refrigeration until their food spoiled? As in the SARS outbreak, some callers had employment-related concerns. Might reductions in public services, such as transportation, affect their job security if they could not make it to their jobs? How would they manage financially with lost wages from time off from work during the blackout?

Working with flashlights, candles, a battery-powered radio, and printed copies of the online referral directory, Toronto 2-1-1 staff talked with each of these callers, asking probing questions and reaching mutual agreement on the extent to which the medical or isolation conditions constituted an immediate and severe threat. When it did, the Toronto 2-1-1 staff provided either a referral to a medical resource that was operational, located a service that was able to provide home visits at that time, or provided the latest information on areas of the city where hospitals were operating on emergency power or where power had been restored. Large numbers of callers also were referred to Public Health lines and home support agencies, and informed about distribution centers where they could go to get water.

Toronto 2-1-1 staff offered reassurances that no action would be taken against a caller for not being able to do what normally was expected of her, such as reporting to work or a doctor's appointment. Toronto 2-1-1 encouraged callers to be part of the solution, too. Callers were asked to check on the disabled and seniors in their area. Callers with a gas stove were encouraged to help others who did not have a means of cooking food.

Limitations

The preceding accounts of Toronto 2-1-1's response to these events are based on narratives from those who were working during one or both of the crises, including 2-1-1 staff and other key stakeholders in the community. Although the recollections undoubtedly reflect certain perspectives or even biases that might not be present in an independent investigation of the events, they also have the advantage of first-hand experience, that is, an insider's viewpoint from people who "were there." Until now,

these narratives have not been collected in any historical form. With this in mind, the current paper offers five lessons learned from Toronto 2-1-1's response to the SARS epidemic and Great Northeastern Blackout.

Lessons Learned

Lesson 1

A 2-1-1 information and referral system brings unique support and capacity to a coordinated emergency response effort. Its professionally trained specialists are adept at calming anxious callers, can link to a wide range of health and social services, and may even help reduce unnecessary and expensive visits for emergency medical care or inappropriate calls to emergency phone systems such as 911. At the time of the SARS outbreak, the relatively new Toronto 2-1-1 system was *not* part of the city's emergency response plan; by the end, it had become a major player in a cross-sector collaboration to respond to consequences of the crisis. Over the past year and a half, a provincewide Business Continuity and Emergency response coordination has been in development among Ontario's seven 2-1-1 operators and coordinated by the Ontario 2-1-1 Services Corporation.

Lesson 2

Roles for 2-1-1s in emergency response should match their strengths. These include both its content expertise and approach. For example, its information and referral specialists are not authorities on specific disease etiology or epidemiology, but are empathic listeners, skilled at gathering information from callers and expert in matching caller needs with a wide range of support, especially in the areas of employment, housing, and financial assistance. All 2-1-1 information and referral specialists are trained in accordance with the *Standards for Professional Information and Referral* set by the Alliance of Information and Referral Systems (AIRS), a North American accreditation, certification, and testing body. AIRS training includes call-handling protocols, use of resource databases, and a comprehensive overview of critical social, human, health- and government-services programs. The organization also provides ongoing monitoring and supervision of 2-1-1 staff that includes call recording and monitoring, mentoring and coaching, and learning from case examples of caller interactions.

During the blackout, callers consistently expressed appreciation for Toronto 2-1-1's live-answer system and empathic orientation.⁵ Although it is not unusual for callers to 2-1-1 to be experiencing acute stress and anxiety, these states are heightened by the fear, uncertainty,

and isolation that can accompany crisis events. Many callers thanked Toronto 2-1-1 for providing the avenue to talk to a real person 24 hours a day during these times, a feature not uniformly available in other emergency response systems. The strength of live-answer, empathy, active listening, validation, and “being there” are key elements of de-escalating diffuse fears.

Lesson 3

A 2-1-1 system can be a sentinel for public misunderstanding and information needs. SARS-related calls to Toronto 2-1-1 were as likely to be generated by confusing information about the outbreak as by the outbreak itself. During the blackout, Toronto 2-1-1 was hearing from hundreds of callers every hour about specific concerns resulting from the loss of power. A strong, two-way communication network between 2-1-1 systems and public health officials could help focus and refine public communication in times of emergency. Reciprocal sharing also is needed. Early on in the SARS outbreak, Toronto 2-1-1’s management and information and referral specialists were sometimes left to interpret confusing and rapidly changing public information without the benefit of official correspondence from public health leaders. Coordinating diverse bodies to respond to public need is a key element of the newly emerging Business Continuity Planning in this sector.

Lesson 4

A 2-1-1 system needs to be nimble in adapting their tracking system to emerging crises. During and after the SARS outbreak, SARS-related calls to Toronto 2-1-1 were recorded in its standard taxonomy of human needs and resources (e.g., health, employment, housing). As expected, call volume in these broad categories increased substantially during and after the outbreak. But without a SARS-specific heading, the value of these data for surveillance and evaluation are limited. The 2-1-1 systems should plan for rapid implementation of adjuncts to their data systems to accommodate important but unexpected events.

During the blackout period, much of the standard call tracking was disabled because computers were down. Although it is appropriate for a service agency such as 2-1-1 to focus on responding to as many calls as possible during such a period, even a minimal paper-tracking system likely would yield valuable information for future planning. Having such systems in place should be a priority for 2-1-1s. New call-tracking software and protocols help define the calls related to emergent needs more readily.

Lesson 5

Emergency response plans can always improve and should evolve with every emergency experience. In the Blackout, a combination of good planning and dedicated staff assured that Toronto 2-1-1 service continued, albeit with flashlights, candles, and printed copies of 2-1-1’s resource directory. Yet in order to maintain service with a rotation of extended shifts, many staff needed to find accommodations with family or friends who lived near Toronto 2-1-1 because they could not get home and back quickly or efficiently in a power outage. At a systems level, many 2-1-1s also are exploring communication technology that can automatically roll excess calls from a heavily taxed 2-1-1 system to 2-1-1 systems elsewhere that are experiencing lower demand. Experiences such as those in Toronto provide valuable lessons for improved planning. A new, provincial, and likely national telephone system will provide a strong support for overflow during local or regional crises. This emerging solution will be developed over the next 2–3 years.

Epilogue: 2-1-1 Service’s Evolving Role in Emergency Response in Toronto and Ontario

What started in 2002 as Toronto 2-1-1 has grown into 2-1-1 Ontario, with seven 2-1-1 units across the province. The SARS and Blackout crises of 2003 led to many important changes for Toronto 2-1-1 and the newer 2-1-1s elsewhere in Ontario. These 2-1-1 systems now have in place or are working on emergency response plans with their local municipalities and other agencies. The broad goal is an integrated approach with a clearly defined chain of command, roles, responsibilities, and communication protocols among multitier services. The emergency response plans are based on cross-sector capacity in which 2-1-1 plays a critical role as a central point for the aggregation and dissemination of authoritative information through multiple channels: phone, web, and social media.

The 2011 Goderich, Ontario, tornado that left one person dead and caused more than \$75 million in damages demonstrated how a well-integrated 2-1-1 phone, social media, and Internet service can become the focal point for emergency information. The 2-1-1 system’s in-the-moment crisis information included updates on Red Cross needs, donation needs and drop-off sites, gathering centers, alternative shelters, and aggregated information about the latest availability and location of services that often can change from hour to hour during crises. The Ontario 2-1-1 system shares an aggregated, unified, and constantly updated database that all 2-1-1 operators as well as the public can access on the Internet. Updated

information on emergent or ephemeral situations such as regional forest fires or local flood-service response is shared among the operators, particularly with Toronto 2-1-1, which provides after-hours service. Toronto 2-1-1 also has partnered with Toronto Public Health to disseminate timely citywide heat alerts during the summer's hottest days and shares data with Toronto Social Development to analyze and better understand social and community needs and resources.

Multiple steps have been taken to strengthen Toronto 2-1-1's infrastructure and capacity to respond to future crises in Ontario. In 2010–2011, funding was secured to purchase and install a rooftop gas-powered generator linked to the gas utility at Toronto 2-1-1. To bridge the time gap between power failure and generator start-up, battery back-up for critical equipment also was purchased and installed. In 2012, a joint Business Continuity Plan is being developed that will enable 2-1-1s in the province to back each other up as well as support processes in the event of an emergency. A similar cooperative relationship is already in place, with Toronto 2-1-1 providing after-hours bilingual (English and French) information and referral for six other 2-1-1s across the province.

Toronto 2-1-1's experience with citywide health crises such as SARS and the Great Northeastern Blackout demonstrates the unique and important role 2-1-1s can play during disaster response. It also illustrates how 2-1-1s can adapt on the fly to unique circumstances of unexpected events, and quickly establish community partnerships to address emerging issues. Finally, learning from these experiences to improve future service is critical. It is a hope that sharing this information with other 2-1-1 systems

and the communities they serve will generate more useful ideas and practical solutions for the times ahead when facing similar events.

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