4 UNDERSTANDING PANDEMIC PREPAREDNESS BY HOMELESSNESS SERVICES IN THE CONTEXT OF AN INFLUENZA OUTBREAK: THE CALGARY RESPONSE

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Care of the homeless population during a pandemic is a serious concern. Why is this marginalized population so vulnerable during a pandemic? The more than 200,000 Canadians who access shelters or sleep outside per year (Gaetz, Donaldson, Richter, & Gulliver, 2013) are extremely susceptible to illnesses due to poor health, compromised immune systems, inadequate nutrition and barriers to accessing health services (Frankish, Hwang, & Quantz, 2005). Sleeping in shelters, which are often dangerously overcrowded and have poor air quality and limited infection control procedures, can result in increased exposure to illness. Sleeping outside of shelters poses a different kind of risk; in addition to the increased risk posed by exposure to the elements, rough sleeping lessens the educational information that individuals receive regarding protecting themselves and vaccinations. What can be done, therefore, to ensure that homeless individuals receive health-related information about dangers and appropriate care during a pandemic?

The proposal to examine pandemic preparedness in Calgary, Alberta was given new meaning and immediacy with the onset of an outbreak of a newly identified virus, H1N1, at the start of this project. Thus the overall objective to understand the local responses by health and municipal authorities as well as the service providers in the homelessness sector was subsumed under actual responses to the outbreak of a virulent strain of influenza as the study began. In this chapter, we report the lessons learned from key informants[2] and offer an organizing framework for pandemic preparedness developed from our findings.

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[1] Authors' note: We acknowledge and appreciate the work of Juliana Ramirez and Chantel Watson in the preparation of the preliminary reports and Dr. John Graham in support of this project.

[2] In this report we present findings from key respondents and do not identify individual organizations, at their request.

The Calgary Context

Calgary, a rapidly growing city with a population of over 1,000,000 at the time of the study, currently has over 1,250,000 residents. Most of this growth stems from those who were drawn to the city's economic prosperity, fueled by the oil and gas industry, through migration from economically struggling regions in Canada and international immigration. Population growth increased demand for housing, and the city experienced a concomitant surge in its homeless population, caused by high rents and an inadequate stock of affordable housing for low income (often service sector) workers. Interestingly, Calgary also has the largest single homeless shelter in North America, housing 1,200 individuals in one building on the edge of the downtown core. Additional shelters, accommodating from 50 to over 300 persons per night, along with other health and social services supports, are located within 10 city blocks of this core area. Rapid transit runs through the middle of this area and leads directly to a major hospital located on the east side of the city. The city core, a stretch of 1.5 km, is a "free transit" zone, which both encourages use of rapid transit by all sectors of society, and allows people who ordinarily could not afford public transit mobility across the downtown core. This confluence of services and accessibility in a small area results in a high density of homeless and marginalized people occupying the same public spaces used by employees of the business and energy sectors. The ready access to services also allows for ease of disease transmission, a reality that underscores the need for adequate planning in the event of the outbreak of any virulent disease.

A second aspect of the unique nature of Calgary stems from the provincial move to unify health service across all regions of Alberta under a "super-board" Alberta Health Services (AHS). At the time, the "super-board" was struggling to develop levels of accountability and to smooth interfaces across all levels of health care, from hospitals to outpatient clinics, laboratory services, home health care and ancillary care. Levels of administrative authority were frequently not clearly defined, resulting in slow responses to varying issues. The amalgamation also had several ripple effects on service planning and delivery. Public health officers appointed by local municipalities had a diminished presence (and were subsequently phased

out) as AHS staff assumed most of their roles and responsibilities, such as infection control, development of immunization protocols and procedures, isolation procedures and other duties, all of which impacted all health and health care-related organizations. Information dissemination on health matters, including responses to influenza outbreaks, came from central offices in Edmonton. Additionally, immunization protocols, including availability of vaccines, designation of priority populations, establishment of clinics, including numbers, locations and days and times of operation, were in the hands of senior health services administrative staff in Edmonton. At the time of the initial outbreak, this administrative hierarchy and distancing led to a disconnection between what the local community needed and what was offered. This had a direct impact on how local homelessness service providers could plan and negotiate for the needs of their clients.

The purpose of this study was to examine how the public sector, including municipal, health and service provider organizations responsible for homelessness services in Calgary, would respond to an emergency that is precipitated by a widespread outbreak of a dangerous and highly communicable disease. While not intended to reflect on the health system amalgamation, some of the repercussions of system unification were drawn into the study results. The study was guided by the following key research questions: 1) What has been the systems level impact of H1N1 on pandemic preparedness, planning and response in Calgary? and 2) How have agencies serving the homeless population responded to the H1N1 pandemic? To this end, the following research objectives were identified:

- Explore the state of pandemic planning;
- Understand pandemic planning in the context of H1N1;
- Examine the challenges of working with the homeless population in the event of a widespread medical emergency;
- Analyze the effectiveness of collaboration with other agencies, government and health care infrastructure; and
- Understand system vulnerabilities and articulate lessons learned.

Content analysis, a qualitative methodology often used in health research (Hsieh & Shannon, 2005), was used, as this approach is particularly useful to classify and analyze large amounts of information, such as is found in semi-

structured interviews, into manageable data components (Weber, 1990). When little is known about how individuals (e.g., homelessness service providers) process and work through a situation, but there are key issues involved, content analysis can help to uncover the common and underlying themes across multiple interviews. As a result, researchers are able to move beyond pure description of a situation or phenomena, such as Calgary's emergency response system's preparedness for a pandemic, to formulate an organizing framework for how homelessness service providers anticipated, experienced and prepared for a pandemic.

As a background, and as one of the documents that informed this analysis, we examined the Calgary Health Region (as it was then known) Pandemic Emergency Response Plan, which had been developed in 2005. This document presented the health region's proposed activities for a "worst-case scenario," a pandemic that would affect 35% of the population, thereby inundating health care providers and facilities. While this plan recognized major potential disruptions in availability of services, it based proposed activities on the assumption that most of those affected would be cared for outside of hospital, presumably by family members. Most significantly, it omitted mention of and consideration for its homeless population, which at the time numbered over 4,000 (*Calgary Homeless Foundation Report to Community*, 2010). One concern of our research was whether the health authority had subsequently revised its plan to include the needs of those experiencing homelessness.

As this was a qualitative study, face-to-face semi-structured interviews allowed the greatest opportunity to explore common themes and challenges, as well as individual and idiosyncratic issues. Thus the interviews had a multi-focused intent that was both inter- and intra-organizational, and ranged from individual interactions to structural themes. Interviewees were asked questions about their organization's structure, population served, pandemic planning for H1N1, external supports for pandemic planning, communication with other agencies, working with staff and clients, communicating with clients, vaccination of clients, how to manage infected clients, and key challenges and lessons learned from the 2009 H1N1 outbreak. (See Appendix D for Agency and Service Provider Interview.)

Study Protocols[3]

Interviews were conducted with 14 senior administrators in major homeless-serving organizations (primarily emergency shelters) and municipal and provincial health authorities. The interviews focused on the current status of pandemic planning at the individual (with the clients), organization and community levels. To capture interviewees' dominant concerns we used a purposive sampling approach. The investigators collated a list of key agencies and their potential key informants. These key informants were considered to be both knowledgeable about pandemic planning within their agency and to have considerable administrative authority in implementing targeted action plans in their agency and coordinating responses with other organizations. We used a broad set of criteria to guide interviewee selection to include:

- Representatives of each planning authority (provincial and city);
- Senior administrative status in one of the larger shelters and/or service providers;
- Knowledge of their agencies' homelessness programs; and
- Representation from organizations characterized by range of services, size of organization (number of clients/day), and demographic characteristics (age and gender) of clients served.

Of 17 invitations sent out, 14 individuals agreed to participate. Participants were assured that all interviews were confidential and no identifying information would be presented in reports. These reports were not subject to editorial veto by any participant. Ethical approval for this study was received from the University of Calgary Conjoint Faculties Ethics Research Board.

Face-to-face interviews averaging 90 minutes each were conducted at the interviewees' work locations and an interview guide of 25 questions was provided to interviewees prior to meeting. Relevant topics included: their organization's structure, population served, pandemic planning in the

[3] An overview of the project methodology can be found in the introductory chapter of this book. Findings from other cities, and comparisons, can be found in other chapters within this book.

context of H1N1, external supports for pandemic planning, inter- and intra-organizational communication, work with staff, work and communication with clients, vaccination of clients, how they managed infected clients, key challenges and lessons learned with H1N1, and planning in the event of a more serious future pandemic. A semi-structured interview approach provided opportunities for further exploration of relevant issues that arose during the interview. Interviews were either audio-recorded or detailed in extensive notes. These were then analyzed by examining transcripts to identify dominant themes. The major themes were labeled and grouped, with illustrative quotes, along with preliminary interpretations, and subsequently arranged into an organizing framework. Preliminary findings were reviewed and validated with the research team.

Lessons Learned About Preparedness In the Homelessness Services Sector

Two factors in particular formed a background to these interviews. First, while this project was intended to explore future preparedness for pandemics, the service providers' experiences with an H1N1 outbreak were still recent enough that interviewees used those as a reference point during the interviews. This had providential aspects as providers were more attuned to challenges that an outbreak of a virulent disease creates. However, the diminished lethality of the H1N1 virus (actual number of deaths) was less than that of the SARS (severe acute respiratory syndrome) outbreak in other regions in 2002–04. Thus these interviews and the conversations that they generated about a possible pandemic outbreak lost the intensity of concern that had been generated by the outbreak that SARS in other cities.

A second factor, the lack of other means to voice concerns, facilitated our interviews, as participants appreciated the opportunity to be involved in this project and were candid in their responses. Several noted that negative feedback about the issue of pandemic preparedness in the homelessness sector was a sensitive political issue. One respondent said, "I am pleased we have a forum to voice our concerns about this situation." This comment was repeatedly echoed by other interviewees, and was indicative of the

lack of debriefing and exploration of the experiences of the providers in the aftermath of the H1N1 outbreak in 2009. This sentiment also underscored the overall minimization of the issues resulting from an emergency situation affecting the entire population. However, underlying their concern for institutional preparedness was another concern: that responses could result in damage to themselves or to their agencies, as noted in this comment: "Politically, this is dangerous ground for us – *I do not want my name or the name of this agency on any documentation* (tone and volume change, as indicated by italics).

This reluctance to discuss problems in the public sector, for fear of employment repercussions, is not unique to the homelessness sector, but underscores that lack of candid discussion will hamper any efforts to improve protocols for future action. Further, some respondents discussed their perceptions of not being heard, and that concerns were not adequately raised within their own organizations or with other organizations. One respondent illustrated this frustration: "I am sick and tired of my concerns being constantly swept under the carpet."

Emerging Themes

A number of strong and noteworthy themes were voiced across organizations with respect to pandemic planning at the community level. The frequency and consistency with which these were raised allowed us to categorize themes, explore relationships among themes and develop an organizing framework. The quotes from respondents are representative of issues mentioned frequently during the interviews. Our results are presented in order of frequency, from most to least commonly discussed.

Theme #1:

The homeless population needs to be included in definitions of high-risk populations when planning for a pandemic disease.

People experiencing homelessness need to be considered a high-risk population due to their high rates of chronic illness, such as diabetes,

respiratory problems and heart and circulatory conditions, all of which require specialized treatments, medications and ameliorative living conditions, a fact that has subsequently received research attention (Frankish, Hwang, & Quantz, 2009; Hwang, Wilkins, Tjepkema, O'Campo, & Dunn, 2009). Interviewees emphasized that this vulnerability has not been well recognized. However, when planning for the needs of this sizable group of people, provincial and city plans need to include strategies that recognize these realities and their implications. In addition, interviewees were concerned about those individuals who do not use shelter services and are most vulnerable to the influences of disease and weather-related illnesses. While those who sleep rough are a small proportion of the total homeless population in Calgary, and comprise only about 5% of the total homeless population in Calgary, they use many costly health resources.

Interviewees suggested that pandemic planning for the homeless population differs from planning for the general public because of pre-existing health conditions in those experiencing homelessness:

> *Many of them are not in their best physical or mental health. Compound that with substance abuse issues and you can have a major pandemic outbreak. It is a very vulnerable population (...) They generally have other health issues, mental health issues. For them, it is hard to make a decision on whether or not to get the shot (...).*

When planning for an influenza pandemic, this vulnerable population will need to receive targeted preventive and palliative treatment and the response structure must be designed not only to attend to their needs, but also to justify to the general public the need for special treatment. As one of the interviewees commented, "It is challenging and it is very political. General population will wonder why special treatment to homeless population, as it was the case when a clinic was set up at the Drop In[4]...a lot of politics around."

[4] The Calgary Drop In Centre is the largest shelter in Canada. During the H1N1 outbreak a special clinic was set up there, but was not available to other shelters and their occupants who were in the immediate vicinity. This decision was not well received by other providers, who perceived it as politically influenced.

Since planning for vulnerable people can be viewed as a political process, stakeholders empowered to make decisions during the planning phase need to be aware of the idiosyncratic characteristics and needs of these vulnerable groups, and communicate decisions effectively. The following example illustrates a salient issue in the homelessness sector. Some clients who have chronic alcoholism drink alcohol-based hand sanitizers, also referred to as non-beverage alcohol, and its consumption can be physically very dangerous. As access to these sanitizers would cause further harm, the issue was avoided by ordering alcohol-free sanitizers, a response that would not readily be made in mainstream health services.

Theme #2:

A) Planning for the homeless population is very different from planning for the general population. B) This planning should be done with rather than for people experiencing homelessness, as this engagement will help ensure relevant and acceptable approaches.

Challenges in planning include the mobility of the homeless population, their inherent scepticism of "mainstream" individuals and services, and their perceptions of discrimination (Waegemakers Schiff, 2015), which make it difficult to engage with this population around health-related prevention and treatment as their lifestyles are often disconnected from mainstream society. For example, a common recommendation from health authorities in the event of an influenza outbreak is for infected individuals to isolate themselves from others. However, homeless people lack the physical and financial resources to secure food and shelter apart from others, unless they sleep rough.

Coordination of planning and including homeless people in planning services

In addition to tailored procedures that involve dissemination of information about health-related diseases, disease prevention activities and immunization availability, better coordination between pandemic planning for the general public and specific planning for the homeless population is also necessary. This needs to be differentiated from disaster planning which may affect the entire population suddenly and simultaneously with little advance warning.[5] When asked about the challenges of working with other stakeholders, one interviewee described the difficulty in getting health region, municipal government and disaster relief services authorities to understand the critical nuances between planning for the general population and planning for the homeless population. Interviewees remarked there is often a disconnect between the perceptions of the mainstream (general, housed population) and those who are homeless. This points to a need for different approaches and better coordination between responses to the mainstream and homeless populations:

> *Health official documents are more generic, but you have to think about a concentration of population. They see that more in schools and hospitals, for us is hundreds of people living in a common dining room, all coughing.*

Another interviewee also expanded on this lack of understanding by the general public about conditions homeless people live with on a daily basis with the following reflection on crowding in shelters:

> *I don't think these people understand how a shelter is like, they see the building, waterfront, they see the people wandering around, but they haven't been in there. They do not realize how close the people are to each other, at the lunch rooms for example.*

[5] The flood in June 2013 that inundated most of the downtown area of Calgary and forced evacuation of all residents and closure of all buildings is an example of a universal disaster affecting the entire population. In this type of instance, safety, shelter, safe drinking water and food are primary considerations and there is no fear of contagion.

While the latter comment alludes to the cramped and frequently overcrowded shelter conditions, it also serves as a reminder that shelter populations change on a daily basis and contact with infected people thus rotates and can include many individuals in a short period of time. Those in one shelter may move to another, or temporarily sleep rough or couch surf. These people are continually replaced by those in similar circumstances, thus increasing contacts and the potential spread of disease.

A specifically mentioned component of pandemic planning reflected the need for more engagement of the homeless population in these discussions, which could better inform the planning process. Some interviewees were concerned that planning authorities have a lack of knowledge about the special health needs of the homeless population and do not include service recipients in health interventions planning. At the provincial level, there was no direct consultation with representatives of the homeless population. At the local level, this was left to agencies and service providers.

Continuing post-hospital care

The lack of strategies to effectively coordinate and implement response plans provides another example of the failure to consider the homeless population in planning. When referring to continuity of care (for those who require convalescence beyond acute hospitalization) one interviewee suggested:

> *It was clear to operators that access to continued care was going to be hard to get in the event of a pandemic. (...) every shelter operator, to some extent, was going to be self-sufficient. This was part of the planning.*

Essentially, this comment reflects the common practice that those who are discharged from hospital, and need continued medical attention or a recuperative environment, return to the shelter from which they came, regardless of that facility's ability to provide continued care. The dilemma of where infirm people recuperate can be doubly problematic as those weakened by and recovering from influenza could be placed in an environment that lacks adequate follow-up care facilities or a sick bay for those in need of further rest and this further exposes them to other contagious illnesses.

Theme #3:

Pandemic preparedness planning before H1N1 was insufficient for the entire population, and this had a ripple effect in the homelessness services sector.

Lack of communication and imprecise planning were intertwined, and delayed information being disseminated. Many such instances involved details defining the scope of primary prevention and implementation initiatives such as vaccinations including: where and when influenza vaccination clinics were held; what specific groups would be priority populations; what times clinics were open; and anticipated wait times to receive a shot. Interventions in the case of an outbreak overlooked the important implications of conveying timely and precise information to agency staff, as well as the potential ripple effects of systemic services disruptions in the case of widespread infections among staff and clients.

Interagency coordination in the event of systems disruptions

Although the SARS outbreak in Vancouver and Toronto several years before had sounded an alarm bell for health care providers to attend to multiple aspects of emergency preparedness beyond immunizations, this message was largely minimized or ignored in the homelessness sector in Calgary. Belatedly, in November 2008, several homeless-serving organizations in Calgary initiated active pandemic planning discussions and asked important questions, such as, "What was the plan?" and "What if…" prior to the H1N1 outbreak in 2009. One respondent commented, "But people *stopped short* of the more difficult question: 'Where are we going to move people *out*? [italics ours]'" This comment is especially salient given the high proportion and density of homeless services and shelters in the downtown area, and the low vacancy rates in any buildings, either residential or commercial, that could be used for temporary accommodations. Some agencies participated in initial meetings, but their involvement was not maintained on a regular basis, despite that fact that Calgary homelessness agencies have a strong history of collaboration and sharing. This political will may have been impacted by the simultaneous and rapid evolution of the health services from local collaborations to a regional group and then to the AHS provincial entity that was quickly assuming many public health roles, leaving local agencies unsure as to levels of accountability and responsibility in the planning process.

Limited agency resources for advance planning

Another dynamic that influenced the failure of homeless-serving organizations to maintain active involvement in pandemic planning may reflect the scarce resources available. The constant challenge of meeting the basic daily needs of food, shelter and clothing for large numbers of people leaves most organizations with few staff or finances for long-range planning for an event that may never occur. Flagging attendance at meetings may have had less to do with a reluctance to collaborate and instead reflect work pressures that result in pandemic planning as a low priority. It was clear that sharing of information and resources and working together were perceived benefits from these meetings. However, there were also identified but unresolved gaps: procedures for staff safety during a pandemic; limited emergency action plans; and planning for staff absences because of illness.

Agency first response plans

At the onset of the H1N1 outbreak, all homelessness service providers had basic first aid plans and staff trained in first aid. Infection-control procedures in place included cleanliness (kitchen, bathroom, laundry), and isolation for clients exhibiting influenza/cold symptoms. However, isolation practices were a major challenge due to overcrowding and limited designated quarantine space. Staff were educated about how to identify individuals with possible symptoms of H1N1 (fever, cough, severe muscle aches, intense headaches), but identification of infected individuals was hindered, because many homeless individuals had one or more of these symptoms, especially cough, due to pre-existing conditions. Since coughing is a normal behaviour in shelters, both staff and clients may minimize its importance.

A compounding factor is that standard instructions for sick individuals such as staying home to rest, both for their own health and that of others around them, could not apply to homeless individuals who were often sheltered in close quarters with many others. Despite concerns about overcrowding and the risk of contagion, many interviewees stated that their agencies refused to turn their clients out on the street. Every agency representative agreed that the pandemic was less severe than feared and that they were “lucky” not to have been put in the situation where this choice (turning people away) would have had to be made.

Contingency planning in the event of a major system disruption

Planning in the event of a large-scale disruption of services because of contagious illness had not been carried out by most agencies. A few of the larger homelessness service providers (primarily shelters) had either business continuity/risk management plans in the event of an emergency, or a contract with another company to take over operations in case of emergency. Smaller agencies had more informal planning practices, such as a decision-tree process for closing or moving programs, staff rotation or sharing among programs, borrowing staff from other agencies, or hiring relief staff from temporary staffing firms. Only a few agencies were able to stockpile non-perishable food and supplies, as most did not have the necessary space or funding to do so. The shortcomings of some of these procedures, especially with respect to how to operationalize these plans, were recognized by many interviewees: "There is a process in place (for an emergency), not a good one…staff found it too formalizing, *it's hard to get our head around*, so it's been on the back shelf [italics ours]."

Overall, the primary concern of the homelessness service providers was not the primary prevention agenda of information and vaccinations that drives the health system, but the reality that service providers did not have a system of procedures in place in the event of a crisis-level pandemic. They were concerned about how to manage large numbers of ill clients, how to provide quarantine and palliative care, and if there would be agency closures due to staff or client illness. Staff shortages due to employee absences were problematic because of concerns around the expense, safety and suitability of replacement staff.

The use of temporary or relief staff had also not been well thought out. While people are often drawn to working with homeless people for altruistic reasons, and some come from lived experiences, many lack education and training in skills essential to working with homeless people (Waegemakers Schiff, 2015). Those not familiar with the organizational culture and climate of these organizations, or the demands that clients place on staff, may not be able to step readily into a temporary job. Working with homeless people

necessitates a predisposition to work with underserved people, knowledge of their potential psychosocial and health issues, and the interpersonal skills to work effectively with them. Often individuals do not have the requisite skills, even when the position is primarily administrative:

> *We had a young girl come in from a temp agency downtown to cover staff absenteeism, she lasted that one day and didn't return…we need to ensure relief staff are educated beforehand about the special needs of our clientele.*

Theme #4:

Communication from government and health care authorities during H1N1 was inadequate.

Almost all homelessness service providers identified a breakdown in channels of external communication. In terms of receiving information about the H1N1 virus and strategies to manage a potential outbreak, there were too few formal directives on basic policies or responses from public health officials during the first wave. Communication issues included: the lack of timeliness; the inappropriateness of information specific to front-line workers in the homelessness sector; difficulty accessing help via telephone; lack of clear guidelines for immunizations (what persons had priority and where clinics were established); and miscommunication regarding where to send infected clients. In response to the challenges in obtaining information for their agencies, workers relied on their own coping measures, which often included using internet sources to obtain information about H1N1. This was problematic in instances where workers did not have adequate background to determine reliable and accurate sources of information.

Communication timeliness

Receiving infection control and health-related information from AHS when it was needed was a significant issue. Interviewees stated that took several months after recognition of the emerging pandemic to receive the necessary information to manage H1N1 in their organization. Comments such as, "It was very reactive — there was not a lot of clarity with the information," and,

"The material was great, but too late," corroborate the issues of timeliness. Other comments reflected that the communication problems were part of the lack of organization within AHS, which was attempting to centralize its organization while dealing with a potential emerging health crisis: "Couldn't believe they stood up and stated they didn't have their own plans in place," and, "We felt people were caught off guard…scrambling."

By the time the second wave of influenza hit a year later, timeliness was no longer problematic, as AHS had shored up its own response and information protocols. The resulting improvements included timeliness and comprehensiveness in communications about primary prevention and vaccinations. However, improved communication did not necessarily translate in to information most salient for front-line workers and did not include the other care-related issues.

Inappropriateness of information for front-line workers

Respondents reported that the information received during the first seasonal outbreak was inappropriate, either because it did not address specific sub-populations within the homelessness sector, or because the information was written for health professionals and not front-line workers. This reflects a more substantive issue as lack of training has been noted in the homelessness literature (Waegemakers Schiff & Lane, 2016). Many workers have little or no training for their jobs and educational levels vary from a secondary school diploma to post baccalaureate education (Olivet, McGraw, Grandin, & Bassuk, 2010). Staff training in homelessness sector agencies is often minimal, and does not routinely extend to emergent issues such as highly contagious illnesses (Waegemakers Schiff, 2015). Agencies therefore needed resources that were easy to access, with clear messages written or imaged to allow rapid implementation in day-to-day operations. In terms of content, front-line staff needed information on how to manage an outbreak, rather than to understand the clinical pathology of the virus:

> *Pictures/images would have been more appropriate, rather than the reams of information we received — for example, try explaining how to read a thermometer and that a temperature of 40 degrees Celsius is emergency level. We need images saying red (on the thermometer reader), bad — get to the hospital; green, OK.*

To mitigate this knowledge gap, service providers accessed plans from other cities, such as Seattle, Toronto and Ottawa. Interviewees accessed the Internet, used their own initiative and listened to the media. Unfortunately, some of the self-education strategies were not effective because of staff's inability to distinguish between accurate and helpful information and that which had lots of publicity but little practical utility. Additionally, those staff doing the research often lacked the voice of authority that would catch the attention and respect of other staff.

Staff difficulty accessing helplines

Health Link Alberta is a 24-hour per day, 7 days per week telephone advice and health information service provided by AHS. Trained registered nurses provide information and advice to callers about health symptoms and concerns, and advise when an individual needs to seek additional care. Unfortunately, this helpline was not seen as accessible because AHS had failed to allocate sufficient staff to handle the volume of inquiries received or deal with requests for specific information from front-line staff. Since many front-line workers have minimal training in this area, their need to access accurate technical information is critical in a health crisis. When they have access only to general health information, their ability to deal with specific and multiple health concerns is seriously compromised.

Miscommunication regarding where to send infected clients for care

Knowing where to send infected clients is an important part of managing a pandemic, but there was considerable miscommunication about which agencies and services could accommodate infected clients. In this confusion, some smaller organizations mistakenly assumed that larger shelters had sufficient capacity to provide isolation beds for infected individuals who did not require a hospital level of care as some agencies had designated rooms for ill clients. This misassumption about which agencies had the capacity to deal with infected clients is noted in the following comment: "They [smaller agencies] kept referring the sick to us; we are *not* a contamination centre [italics ours]." However, while limited space could be allocated to provide segregated sleeping areas for those potentially infected, no single shelter had the capacity to deal with referrals from other shelters: "Had the pandemic been worse, we don't know what we would have done with our clients —

we are already at capacity." The problem of where to best care for infected individuals was an ongoing concern for smaller organizations that lacked the infrastructure to handle quarantine and medical issues. These concerns also point to a systemic lack of isolation and recuperative resources even when there is no contagious disease outbreak.

Internal communications

While external communication proved challenging, internal communication was generally described as more effective. The majority of homelessness service providers were pleased with their own internal communication strategies among staff and clients: "Staff were educated first and then messaged to clients; presentations, cards made up with things like what H1N1 was…preventative care." However, these self-reports of the effectiveness of organizational level communication may have been self-serving and should be interpreted in light of the absence of corroborating interviews with staff. Some comments by interviewees suggested that their administrators and managers did not always convey clear, precise, accurate and timely information to front-line staff, due to external factors (either lack of information or misinformation), or internal factors (deficient internal communication strategies), or both.

In summary, pandemic emergency response communication was poor on many levels. The urgent need to provide coordinated and consistent sector-relevant information was not well recognized at the provincial, regional or local levels. Interviewees indicated that health officials did not respond fast enough to the initial panic and there was a lack of a formal unified government crisis plan. The resultant confusion within and among agencies, in concert with sensationalist media coverage,[6] brought about a loss of trust in health system professionals and organizations regarding their capacity to respond to H1N1 among those in homelessness serving agencies.

Theme #5:

Access to infection mitigation and control resources during H1N1 was adequate.

While all agencies received printed material for clients, such as hygiene signage posters, these arrived after the infection had already erupted.

With the early warnings of a possible pandemic, all homelessness service providers topped up their supplies of infection-control items such as masks, gloves, hand sanitizers, cleaning fluids and other medical supplies. One interviewee suggested the need for a temporary central distribution point for resources during a pandemic. Other recommendations included increasing the supply of specific equipment, such as temperature strips/indicators. Although agencies had access to adequate medical resources, the H1N1 outbreak was mild, and it was unclear if there would have been adequate resources to cope with a higher infection rate.

Theme #6:

Primary prevention: immunization/vaccination procedures were highly unsatisfactory.

By far the most consistently cited specific concern focused on the availability and distribution of H1N1 vaccine. In Alberta, influenza vaccines are provided free of charge to the public, most often at public health vaccination clinics and doctors' offices. Vulnerable persons, including those with chronic health conditions, the elderly, pregnant women and young children have traditionally received vaccination priority. A large-scale immunization effort against H1N1 influenza was launched on October 25, 2009. All Albertans were offered vaccinations as the second wave of H1N1 hit the province. However, only four public health clinics in Calgary (as well as other clinics around the province), had the H1N1 vaccine available, and no clinic was located specifically in the city core, where people experiencing homelessness typically congregate: "Four centres for the million people in Calgary…it caused undue panic to everyone…for the homeless population, we could have been a centre (for vaccinations), we had all the facilities."

Health officials advised that high-risk clients, specifically those with chronic health conditions and pregnant women, should receive the H1N1 vaccine as quickly as possible. While officials also stated that healthy people who went to the clinics could also be vaccinated, in reality, only those who fell

[6] Globe and Mail. Mass health-worker absenteeism feared. Published on Monday, July 20, 2009.

into high-risk categories were encouraged to "line up for the shot." Although mass vaccination is considered an effective strategy to combat a pandemic, the Calgary response was inadequate: clinics were limited; doses of vaccine were in short supply; and line-ups, even for vulnerable populations, were extensive, and individuals could wait in line for several hours, often in harsh weather conditions. As a further complication, a week after beginning vaccinations, H1N1 immunization clinics were suspended immediately and indefinitely because of limited local and national availability of the vaccine.

All providers expressed alarm regarding how the provincial government and AHS handled the H1N1 influenza vaccination planning and delivery. One respondent noted:

> *When the vaccinations were first announced, we were told high-risk people should be the first to get vaccinated, but the province would not turn anyone away who wanted one. Then we were told that there was not enough of the H1N1 vaccine to meet the demands for everyone.*

This lack of foresight impacted the homelessness sector, as clinics were often at inconvenient locations, wait times were long and immunization schedules did not align with the demands of shelters that have strict sign-in, meal availability and "be in for the night" times: "Those line ups…it was inexcusable to me…our people have to be back at certain times or they'll miss dinner…they couldn't wait for forever, they don't have transportation to come and go as they please…"

Homelessness service providers were frustrated with the policy of not turning anyone away at clinics, as they felt this unfairly impacted their vulnerable population. Ironically, by making vaccination available to everyone, individuals who most needed the vaccination were excluded because of wait times and clinic hours (held into the evening, when shelters required people to be signed in). The vaccination policy exacerbated the inherent marginalization that many homeless people feel: "These people are used to being swept under the carpet, so this was no surprise to them."

Perhaps most upsetting was the Calgary Flames vaccination controversy. The Flames are a National Hockey League (NHL) franchise team whose players and their families received the H1N1 vaccine in late October 2009 at a special clinic, reserved for the team, an event that became the target of public ire. This clinic was held at the same time as other vaccination clinics at which lines were long, the supply of vaccine ran out, immunizations were suspended and many high-risk people went unvaccinated: "When we heard of the queue-jumping, I mean, with people waiting for hours, and then the Flames get it, we were in shock — again, we get shafted." Within 48 hours of learning about the Flames clinic, AHS conducted an investigation that resulted in the dismissal of two employees, but the investigative process took many weeks, and the immediate result was severe damage to public confidence in the impartiality of the system.

When clinics specifically intended for the homelessness sector were available, interviewees perceived inconsistencies with the vaccination rollout, with some agencies prioritized without a rationale being provided. Others saw a missed opportunity to increase efficiency in the distribution, as exemplified by the fact that despite the existence of clinical facilities in some agencies, they were not used as vaccination facilities: "We could have been a centre for distribution at the start, but we didn't get it till December, and by then we were past the point of being effective."

Of all the topics discussed in our interviews, the most contentious was the media report of the distribution of vaccinations, highlighted by long lines of people waiting to be vaccinated, lack of adequate vaccination opportunities for chronically ill and elderly people, health workers not turning up to provide vaccination, body-bags (but not vaccine) being sent to nearby First Nations Reserves and the "queue-jumping" of the Calgary Flames and their families. All these contributed to a loss of confidence and mistrust felt by homelessness organization providers in the health system's response to the H1N1 outbreak. All interviewees emphasized that people experiencing homelessness face many barriers to accessing preventive health care, which contributes to the spread of infections.

Theme #7:

Experiences from the current outbreak could provide the impetus to implement coordinated pandemic preparedness planning.

Some lessons were learned through the 2009 pandemic and changes were made; however, some respondents believed that pandemic preparedness had not gone far enough, and expressed apprehension, or foreboding, about future outbreaks. In response to warnings of a pandemic, all homelessness service providers had enhanced their basic public health and infection control procedures during the H1N1 outbreak, encouraged frequent hand-washing and use of hand sanitizer, use of masks and gloves by staff, and increased surface cleaning and disinfection. While pandemic preparedness was better than the prior year, and providers acknowledged that this was a reaction to the H1N1 outbreak, they expressed concern that crisis talks had yet to happen, and that they feared that not enough had been done to prepare for a large-scale pandemic: "We are more in control and we have a plan…we dodged a bullet; it was great to begin with, and we need more conversations about a crisis-level pandemic." And: "We only took our preparedness to a certain level and we were lucky we didn't have to go there. We are not ready as a community to go there yet."

Agencies need a plan aimed at maintaining their individual operations, at least at a minimal level, in the event of an emergency, pandemic or otherwise. While agency-level policies and practices resulting from the H1N1 outbreak were put in place, these remained independent of a coordinated pandemic planning strategy in Calgary. Although it is important for homelessness sector providers to have agency-specific policies and procedures, these should be synchronized with other sector providers, AHS, and the provincial homeless and housing ministry.

Organizing Principles for Pandemic Planning

Key themes from these interviews provide a conceptual framework for pandemic planning in the homelessness sector. This plan is focused on the recognition by provincial and local levels of government of the

vulnerabilities and special needs of the homeless population, and including them as a high-risk group when planning and implementing policies and procedures for any emergency situation, including a pandemic. The main principle of recognizing homeless people as a vulnerable population is to provide a guiding framework that circumscribes planning from multiple viewpoints: health care, activities of daily living and usual lifestyle. This prioritization has a number of implications for health care and homelessness service providers.

In health care, primary prevention efforts should include the homeless-serving sector among the first to be notified of potential communicable disease hazards in ways that are similar to those used to inform primary and continuing care facilities, staff and residents. This includes tailoring preventive strategies, such as immunizations, by offering clinics at locations and times most accessible and acceptable to homeless people. These principles are congruent with the contemporary emphasis on client-centred community-based health care (Stanhope & Lancaster, 2015). Organizationally, this entails prioritizing homelessness sector agencies to receive relevant information, protective equipment and medical supplies. Staff outbreak-specific training would also occur more expeditiously if the health vulnerabilities of homeless people and the needs of homelessness sector agencies were targeted as priorities. Because agencies lack the resources (physical and staffing) to respond to crises, they need additional financial, material and human resources for adequate pandemic planning and to deal with the myriad of complicating factors of hygiene and isolation in the event of an outbreak in their facilities. Some of these resources, such as planning and staff training, entail prior preparation, but additional issues arise when an outbreak forces a reduction of services, depletion of staff and difficulties addressing health care in a sick client population.

One area of civic planning for a pandemic involves procedures to be implemented that encourages or demands forced isolation of contagious or infected people from the general public. The city of Calgary has contingency plans for this scenario that include delivery of food and essential supplies to those confined to their homes in the event of a highly contagious illness. However, requiring self-isolation and provisioning supplies for people who

lack a home is not feasible for those who seek refuge in shelters. Another issue involves discharge planning for homeless people who are leaving hospitals during an outbreak. AHS policies do not force a patient who has been admitted to hospital from a continuing care facility (for example, nursing home, high-needs special-care home) to be discharged to that facility if there is a current outbreak of influenza in the facility. This practice ensures that people with vulnerable health status are not returned to a contagious environment. By considering homeless people who have been hospitalized as equally vulnerable, the same guidelines should inform discharge to shelters. These issues point to the need for a coordinated and collaborated plan with multiple services agencies.

Pandemic planning was at a tipping point when the H1N1 influenza outbreak occurred. The momentum generated from concern about H1N1 transmission provided a timely opportunity to collaborate and implement a coordinated pandemic response for Calgary. However, because the outbreak was relatively mild, the sense of urgency was lost. The danger in the sigh of relief when the agencies realized that "we had dodged the bullet" was that active practical preparations for a future outbreak may be lessened as the need for action is no longer perceived as urgent.

At the time of the original H1N1 outbreak, the health vulnerabilities of the homeless population, while documented, were not yet widely acknowledged in the public sector (Frankish et al., 2009). This lack of awareness was foundational to the minimal attention given to the homelessness sector for specialized approaches and interventions in the event of a pandemic. Lack of specialized preparation was fostered by a lack of understanding of the potential impact that such an ongoing event would have on service providers and their clientele. During the initial outbreak, agencies quickly began to develop a working knowledge of disease prevention and early intervention strategies, and started to grapple with the implications of a serious and/or prolonged outbreak. However, communication between and within organizations hampered the timely conveyance of accurate information, and staff were not always equipped to filter information obtained from the internet for accuracy and relevance. In the aftermath of the first wave, health authorities breathed a sigh of relief that the outbreak had been mild,

and made some adjustments to communication protocols for prevention and rapid immunization, but also reduced the intensity of efforts to address other ancillary issues that a more severe pandemic would present. An important positive impact of this experience was that homelessness sector organizations had an increased awareness and appreciation of the interdependence and connectedness of their services, and better understood the ways in which collaboration would promote an enhanced response in future outbreaks.

Limitations

There were some limitations in this study. The most obvious is that we were able to interview only one representative per organization, and so did not capture any diversity of experiences within organizations. The opinions of respondents may not be representative of all homelessness service providers and public officials in Calgary. Second, observations about the experiences of the interviewees' organizations may be biased, and thus these self-reports may have minimized some difficulties encountered. Additionally, while detailed interviews were conducted by experienced interviewers, there may be unreported variations in the depth and details of the content of these conversations. However, the recurrent themes apparent across respondents supports the existence of a consistent viewpoint on many issues that were raised.

Discussion and Recommendations

An immediate result of this investigation was the recognition that integration of pandemic preparedness planning across all homelessness service providers in Calgary is essential, and this integration must involve system-wide, multi-level discussions to engender a sense of mutual collaboration between homelessness service providers, community organizations and health officials and ensure that action points are met. Five recommendations that come from this study follow.

A) *Ensure that all agencies have a formalized pandemic plan in place* (tailored to specific groups in the sector: youth, families, singles, women, men, wet or dry, etc.) and do so in a way that achieves better connections with provincial and local health agencies. Additional pandemic planning should occur now and be conducted in ways that stimulate mutual aid, agency cooperation and access to shared resources. In addition, front-line workers and representatives of the homeless population should be involved in the development of guidelines and strategies for the dissemination of pandemic planning procedures, so that content is linked directly to the needs of a specific sub-group of the homeless population.

B) *AHS authorities should provide timely, accurate information about and delivery of services* such as immunizations, and access to these should occur in an equitable fashion, with homeless people included in the recognized "vulnerable populations." The most challenging consequence with the H1N1 outbreaks was the erosion of confidence in the health authorities. Thus, the generation of confidence in the provincial government system to lead a coordinated pandemic plan is therefore essential.

C) *Infrastructure funding for pandemic preparedness planning* is required to assist local authorities and homelessness service providers to coordinate a crisis-level contingency plan. Isolation and quarantine scenarios suggested include: a dedicated facility to isolate or quarantine people individually; grouping infected clients in a section of one or more shelters or designating entire shelters for infected persons; and designating supported accommodations for individuals discharged from hospital during an outbreak in the shelters.

D) *Interagency collaboration* is a significant positive step toward city-wide collaboration, transparency and sharing of resources. Continuation of interagency planning meetings would improve the city-wide information sharing network and service provision for many issues beyond pandemic preparedness. This would allow service providers to monitor and strengthen service provision, meet client needs in a more efficient and streamlined manner, and share information to allocate resources for any eventuality.

E) *Staff training* needs to include health- and pandemic-related precautions and interventions. Additionally, contingency plans for temporary staff that would be able to supplement regular staffing in the event of shortages due to illness need to be developed.

Conclusion

In this chapter, we described the results of the ways in which Calgary's homelessness services sector prepared for a potential H1N1 pandemic. While our exploration focused upon planning for future pandemics, agency respondents placed their observations in the context of a concurrent influenza outbreak. At the time, the health vulnerabilities of homeless people were unacknowledged outside the homelessness sector. Service providers believed they should have received more timely and consistent communication from the federal, provincial and local levels on how to prepare and implement procedures for a pandemic emergency situation. Some lessons learned, such as the availability of information on potential outbreaks, prevention efforts, immunization availability and important prevention strategies, such as hand sanitizers in public locations and throughout shelters, have resulted in changing practices. However, many details about the impact of a large-scale outbreak and its consequences for shelters, soup kitchens and emergency food providers — and for homeless people themselves — have not received comprehensive planning. Importantly, people experiencing homelessness were not involved in the planning process, which reduces the saliency of any plan. A final lesson learned from this study is that the relief of having avoided a crisis in the homelessness sector should spur inter-organizational collaborations to proactively prepare for future, more severe outbreaks of influenza and other highly contagious illnesses.

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