

3 PANDEMIC PLANNING AND PREPAREDNESS IN THE CONTEXT OF HOMELESSNESS: THE CASE OF VICTORIA, BRITISH COLUMBIA

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Introduction

As a result of inadequate housing and income, people experiencing homelessness face multiple health challenges, including poor health outcomes and lack of access to health care services (Frankish, Hwang, & Quantz, 2005; Hwang et al., 2011; Hwang et al., 2010). As a consequence of their living situations, people experiencing homelessness are more vulnerable to transmission of disease, especially during public health crises such as pandemics (O’Sullivan & Bourgoin, 2010). For example, they may not have access to clean water for hand washing, or may be forced to sleep in overcrowded spaces. Since 2000, there have been several public health emergencies that have compromised the health and well-being of many communities, raising legal, political and ethical concerns (Gostin & Berkman, 2007; Wilson, 2006). In this case study, we look at the response in Victoria, British Columbia (BC) to the 2009 H1N1 crisis, with a focus on lessons learned for cross-sector collaboration in addressing public health emergencies in the context of homelessness. We begin by describing homelessness in Victoria, and the policy context for addressing public health emergencies in the city and province. Then, drawing on data collected from policy-makers, service providers and those experiencing homelessness, we describe that city’s response to the H1N1 threat, including pandemic planning, communication of H1N1 information, prevention efforts (including the delivery and uptake of vaccinations), and potential and actual impacts on health and social services provision.

Background

Victoria, BC is located at the southern end of Vancouver Island on the west coast of Canada. Today the city itself has a population of approximately 83,200, and the surrounding capital region is home to 372,463 people (BC Stats, 2015a, 2015b). The population of Victoria and the surrounding area were similar in 2009, when the city's population was 83,000, and the surrounding capital region was home to around 360,000 people (BC Stats, 2009). In 2013, an estimated 1,000 people were homeless or unstably housed on one night with 1,769 individuals experiencing homelessness in a year (Pauly, Cross, Vallance, & Stiles, 2013). In February 2016, 1,387 people were enumerated during a one-night point-in-time count (Albert, Penna, Pagan, & Pauly, 2016).

In 2009, emergency shelters for people experiencing homelessness in Victoria were operating over capacity, at a 103% occupancy rate, and the total number of overnight stays at these shelters increased by 2.4%, from 66,027 stays in 2008–2009 to 67,595 stays in 2009–2010 (Austen & Pauly, 2010; Pauly et al., 2013). In 2013, shelters were similarly over capacity, operating at 111% with the placement of additional mats on the floors of emergency shelters.

Victoria suffers from a serious housing affordability problem. In 2009–2010, access to affordable rental housing was extremely limited. The overall vacancy rate for the region was 1.4%, though the vacancy rate for bachelor units renting for less than \$700 per month was 1.3%, and the rate for one-bedroom units in the same rent range was 0.8%. For many, BC income assistance in 2009 was not sufficient to cover the cost of housing in Victoria with the rental portion being \$375 per month (Austen & Pauly, 2010). This situation was unchanged as this chapter was being written, with the cost of rent typically consuming more than 30% of the income of people receiving social assistance benefits or working for minimum wage (Pauly et al., 2013). In 2012–2013, bachelor and one-bedroom units costing less than \$700 remained scarce, with vacancy rates of 1% or less (Pauly et al., 2013). Due to the scarcity of housing, many people are driven into emergency shelters and onto the streets.

Past research has documented that homelessness increases vulnerability to poor health outcomes, such as exacerbating prior health conditions, increasing the chances of contracting diseases and lowering life expectancy overall (Badiaga et al., 2009; Frankish et al., 2005). A public health emergency, such as a pandemic, serves to exacerbate the vulnerabilities faced by people experiencing homelessness. Overcrowded emergency shelter spaces can act as vehicles for rapid transmission of infection, and the possible closure during a pandemic of important services like soup kitchens and harm reduction sites can leave people without access to basic resources (O’Sullivan & Bourgoin, 2010). As such, H1N1 had the potential to increase risks for people experiencing homelessness in Victoria and throughout Canada. By examining the response to the H1N1 threat in one Canadian city, our intention is to provide insights for cross-sector collaborations that aim to reduce the vulnerability of homeless populations in the event of a public health emergency.

Provincial and Municipal Roles in Pandemic Planning

In British Columbia, responsibility for public health rests mainly with the health authorities and the Ministry of Health. In 2009, BC had five regional health authorities and another health authority responsible for specialized health care services (the Provincial Health Services Authority).¹ In 2005, the British Columbia Pandemic Influenza Advisory Committee (including representatives from the provincial government and provincial and national health organizations) produced the *BC Pandemic Influenza Preparedness Plan* (British Columbia Pandemic Influenza Advisory Committee, 2005). This document sets out the roles and responsibilities of different organizations in the event of an influenza pandemic, as well as the expected impact of a pandemic, and provides templates for further planning and reporting. The plan identifies people who are homeless as a hard-to-reach population that may need to be targeted for priority vaccination. The health authorities also had general plans in case of an influenza pandemic (for example, Vancouver Coastal Health, 2006; Vancouver Island Health Authority, 2009b). In 2009,

¹ BC’s First Nations Health Authority did not become fully active until 2013.

several Ministries and provincial organizations were involved in planning for the H1N1 pandemic. These included:

- The BC Centre for Disease Control (BCCDC);
- BC Housing;
- The Ministry of Health;
- The Ministry of Healthy Living and Sport;
- The Ministry of Housing and Social Development;
- The Regional BC Health Authorities;
- Provincial Health Services Authority.

Concurrent with the planning done by the above-mentioned ministries and organizations for the general response to influenza pandemic, specific work was also undertaken by provincial and municipal organizations. BC Housing, a provincial Crown agency with responsibility for subsidized housing, produced plans and reports relevant to pandemic planning, including the *BC Housing Pandemic Continuity Plan* (BC Housing, 2009). This document focused on staffing levels and business continuation plans for homeless-serving agencies. As it became clear in the first half of 2009 that H1N1 could pose a serious risk to British Columbians, health organizations updated their pandemic plans (BC Ministry of Health, 2009; Vancouver Island Health Authority, 2009b) and created plans specific to those who are homeless (Vancouver Coastal Health, 2007; Vancouver Island Health Authority, 2009a).² These later documents focus on infection control, identification of H1N1 and service continuity planning. They identify social contact as a particular challenge for managing H1N1 in shelters, recommending that a distance between people of 1 to 2 meters be maintained. The Vancouver Island Health Authority (VIHA) document focuses mostly on how to identify H1N1 and limit its spread, but also identifies a possible increased risk of complications in people who are homeless, due to the higher prevalence of chronic illness in that group.

² Some health authorities had created plans specific to people experiencing homelessness prior to H1N1 in 2009, as Vancouver Coastal Health did in 2007.

While the City of Victoria does emergency planning, it was not heavily involved in the public health response to H1N1. In fact, municipalities, which often bear the burden of homelessness, were relatively uninvolved in this process in BC.

Data Overview

We used a mixed-methods case study design to investigate the development of pandemic responses in the context of homelessness in one Canadian city, Victoria, BC (Yin, 2013)³ Consistent with a case study design, we incorporated multiple sources of data: 1) interviews with policy makers and service providers in the homelessness sector; 2) surveys and interviews with clients of these services; and 3) a review of relevant documents from ministries, government organizations and local health authorities.

Qualitative semi-structured interviews were conducted with policy-makers and service providers and 32 client surveys were also completed. In June and July 2010, we interviewed six policy-makers from different levels of government and seven service providers from Victoria-based homelessness serving agencies. The policy-maker interviews covered participants' experiences planning for and managing H1N1, with a specific focus on 'at-risk' and/or 'vulnerable' groups. The service providers worked in Victoria-based organizations delivering services for people experiencing homelessness, and were involved in preparing for and responding to H1N1. This group included managers/coordinators, front-line emergency shelter workers and health care staff from five agencies service both youth and adults. The agencies ranged from shelters serving nearly 100 people per night, to temporary seasonal accommodations serving a small number of people per night, to large drop-in centres, to a health clinic. Combined, these agencies provide a wide range of services: food and shelter; health care, dental care and mental health services; employment, income and tenancy advocacy; and outreach to people who are homeless or marginally housed.

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.

All interviews were recorded, transcribed and analyzed in NVivo software using content analysis (Graneheim & Lundman, 2004).

Structured surveys were undertaken with 44 clients of these homelessness services, 32 of whom completed the whole survey. The attrition rate was mainly due to the length of the survey. All surveys were completed with the support of a research assistant. Client participants were eligible to be surveyed if they had used emergency homeless shelters or drop-in programs during 2009. Clients who completed the survey ranged in age from 24 to 65 years. Youth under the age of 24 were neither the focus of the study nor specifically recruited, however, qualitative interviews with youth service providers were conducted.

The surveys explored the study participants' perceptions of experiences during the H1N1 pandemic of 2009. Survey data was inputted, organized and analyzed using SPSS. Partially completed surveys were excluded from the data sample, yielding a total sample of 32 completed surveys that were used in writing this chapter. We provide below an overview of the findings in relation to planning for vulnerable populations, communicating and coordinating information, preventing the spread of disease, and the impact on the provision of health and social services. We then highlight learnings to strengthen cross-sector collaborations in addressing future infectious disease pandemics and the crisis of homelessness.

The findings presented in this chapter are organized into three main sections. First, we explore how planning for H1N1 commenced in the health and homelessness sectors. Second, we discuss how information regarding H1N1 was disseminated from public health officials, to community-based homeless-serving agencies, among homeless serving agencies, and finally to clients of homeless-serving agencies. Third, we discuss efforts to address the spread of H1N1 and attend to affected individuals. As part of this discussion, we also illustrate how H1N1 affected the delivery of health and support services in Victoria, BC. Drawing on these findings, we close this chapter by highlighting lessons learned from the Victoria experience for cross-collaboration in future public health emergencies and in the public health crisis of homelessness.

Planning for ‘Vulnerable Populations’

Within the health sector

Interviews with policy-makers indicated that emergency planning for ‘vulnerable populations’ was a priority. Provincially, certain groups were identified as being at high risk for harms related to H1N1. These included pregnant women, people with underlying health conditions, young children and Aboriginal peoples (Office of the Provincial Health Officer, 2010). The province did not explicitly include people experiencing homelessness as a high-risk group. However, VIHA identified that marginalized people were particularly vulnerable, thereby including people who were homeless (Vancouver Island Health Authority, 2009a). This prioritization was largely because public health officials understood people experiencing homelessness, “as being more at risk in certain instances to emergencies and disasters” (policy-maker), in that there is, as another interviewee noted, a “lack of support networks, so if they did end up becoming sick but weren’t sick enough to be hospitalized, [they] just can’t go and convalesce on the street” (policy-maker). That is to say, people who are homeless do not have access to adequate shelter and often have less access to primary care, in turn making them more susceptible to pandemic-related harms as compared to the housed population (Badiaga et al., 2009; Hwang, 2001). Officials were concerned that if people experiencing homelessness became infected, they would not be able to access either respite shelter or the primary care needed to take care of their own health and prevent further spread of the virus. This understanding of structural vulnerability of people experiencing homelessness was a central feature that contributed to planning specifically for homeless populations.

Given the identified structural vulnerability to harms faced by homeless populations (and other vulnerable populations), policy-makers worked to develop plans and education materials relevant to vulnerable populations as quickly as possible. This meant working at a faster pace than usual. Interviewees highlighted factors that either enabled or impeded working quickly in preparing and responding to H1N1. An enabling factor was the work to improve inter-ministry collaboration that had been undertaken prior to H1N1. Many of the people involved in developing the plans and

educational materials for H1N1 had been working together on a provincial working group well before the virus emerged. The existence of a cross-sector committee fostered learning and relations across departments and ministries, with one interviewee noting, “Just for the fact that we knew how to work together before was leaps and bounds easier to engage in something” (policy-maker). This prior groundwork enabled the committee to respond to H1N1 more quickly, as some of the required committees and working processes were already in place.

As for impeding factors, some policy makers noted the contemporaneous general challenge of working across ministries and between governmental organizations. For example, each ministry has its own process for approving documents intended for public release. This meant the plans for vulnerable populations were developed by an inter-ministerial working group, but finalizing a document required review and approval by multiple people from multiple ministries, thus slowing down the process. This challenge was referred to as “dual approval” by one of the policy-makers, who stated, “Just all those basic things where you have to get approval through your hierarchy and when you’re going through two hierarchies on something, it makes it slow” (policy-maker). Despite general ministry structures impeding a quicker response, the existence of the working group shows how ongoing intergovernmental collaboration enables more responsive planning in such crisis situations. Moreover, interviewees felt that some of the processes and connections built through this experience could be restored with relative ease if they were needed in the future.

Within the homelessness sector

Prior to early fall of 2009, most community-based organizations serving people experiencing homelessness did not have a specific plan for a serious influenza outbreak. However, larger organizations had detailed emergency plans. As one interviewee stated, “We were prepared for having low staffing levels; we were prepared for needing to be nimble in terms of how we organized things to meet whatever emergency need came up” (service provider). Only one organizational plan specifically addressed a pandemic infectious disease outbreak. Nevertheless, organizations’ leaders believed they could adapt existing emergency plans to include specific pandemic

considerations. One interviewee described this as “formalizing previous protocols we had in place, just putting them all together in one and making them really clear” (service provider).

Before the H1N1 outbreak, most of the service providers were not aware of or familiar with pandemic plans developed by public health officials. Organizations began their planning efforts when it became clear, in late summer of 2009, that H1N1 might become a serious health emergency. Organizations accessed a variety of planning resources through the Internet, including protocols, sample plans and templates from BC Housing, BCCDC, the World Health Organization, VIHA and other health authorities in BC. Larger organizations in the homelessness sector that were part of the health authority-led Pandemic Planning and Homeless Population Committee could access support directly from this committee. One interviewee mentioned that individuals in the community with emergency planning expertise offered to help, but the organization already had more than enough information through VIHA and BC Housing. In general, service providers felt well supported in developing their plans.

Some service providers reported providing pandemic planning to help organizations in other areas, or providing H1N1 information to other organizations in Victoria, “We were getting calls from various other parts of BC to talk with them about, you know, just what we’ve come up with and where we’re at and sharing little things” (service provider). Larger organizations with more human resource and infrastructure capacity were more readily able to participate in planning efforts than smaller agencies with limited resources, though all were serving people viewed as ‘vulnerable’ by public health officials. The support needed to develop high-quality pandemic and business continuity plans varied with organizational size and capacity. Thus, highlighting a need for ‘customized’ assistance according to agency’s size and capacity, rather than taking a one-size-fits-all approach.

Agency-specific plans addressed protocols for screening clients for H1N1, plans for infected clients, and instructions about hygiene around hand washing/sanitizing and coughing. Also included were protocols for reducing services in the case of significant staff shortages. Larger organizations planned to call

in off-duty staff as well as managers, and had plans for service reduction if staff levels dropped below certain thresholds. Smaller organizations had less elaborate plans that relied on calling in off-duty staff and drawing on a pool of volunteers if needed. Overall, interviewees were very concerned about potential staff shortages, especially if it meant they would have to decrease services. One interviewee said they would ask for volunteers from among their client group if that was necessary to keep the service open, noting there were no additional monies to cover the extra staff needed in the event of staff shortages. Although interviewees thought it was unlikely they would have to close their services completely, they expected, if this happened, that clients would go to other similar organizations if those were still operating. However, it was noted by some interviewees that certain groups, especially youth, have limited options for health and emergency shelter services already, so service closures would have a greater impact on those groups.

Planning specific to women, youth, families and children was limited. In part, this was based on the perspective that service agencies' usual client populations are already at high risk for health problems, as articulated by one service provider: "Anybody who's homeless is high risk, right... they can't access regular nutrition or they don't have a home to go to" (service provider). So from that perspective, there was less need to differentiate between groups of people when planning, because any H1N1 plan would be addressing 'high risk' groups, be it single men or pregnant women. That said, one organization circulated information about pregnancy and vaccination, as well as risks to children, yet this was mainly for staff who might be caring for young family members. This highlights important questions about the need for both universal and targeted approaches to reducing structural risk for everyone, and the need to address specific considerations across the lifespan.

Coordinating and Communicating Information and Messages

One of the most important aspects of responding to H1N1 was working to ensure that accurate, up-to-date information about H1N1 was being communicated continuously, particularly among service providers and

their clients. In late summer and fall of 2009, H1N1 was frequently in the news, and many rumours were circulating about the illness. At the same time, public health officials were changing their advice based on new information as they acquired it, as well as changing who was eligible for vaccination as more vaccine became available. Given the potential for misinformation to be spread through the community, public health officials felt it was important that “there’s one place everyone can go to, to get information” (policy-maker).

Although not part of the formal health care system, community-based homeless-serving agencies were viewed as a key part of public health’s response to H1N1, as these agencies generally had established connections with people experiencing homelessness. To involve these agencies in planning and response efforts, public health officials from the health authority (VIHA) initiated a Pandemic Planning and Homeless Population Committee (PPHPC) for Victoria, and invited prominent local service providers to participate, in order to foster an exchange of information between public health and homeless-serving agencies. The meetings were eventually replaced by weekly emails among participating members. Hence, through the PPHPC, public health officials were able to directly pass on consistent, up-to-date and accurate information to the participating service providers, which helped the providers to more effectively respond to the potential pandemic, and to provide consistent messages to their staff and clients. Participation in the PPHPC allowed providers to be up to date and consistent with advice given by VIHA in the media, reinforcing the feeling among staff and many clients that the organizations had a handle on H1N1 and could be trusted to respond to it appropriately. Service providers also turned independently to other health authority and government webpages, and to the media.

Outside the PPHPC, communication between homeless-serving agencies was facilitated by pre-existing partnerships. Smaller organizations not involved with the PPHPC were left out somewhat, meaning they could not easily access the information disseminated to other organizations. Smaller agencies subsequently relied on partnerships with larger service providers to access information, as detailed by one interviewee: “Each of the smaller

agencies is generally attached to someone who's larger, who's sort of in their specific area dealing with homelessness, so I don't think there was anyone who was missed, and certainly Victoria had a wealth of information around about it" (service provider). These usual working relationships between services were useful for sharing information during the H1N1 outbreak (for example, in one case where agencies share one building).

Agencies in the homelessness sector prepared their staff to respond to H1N1 through ongoing communication, but provided minimal additional training. Information about H1N1 was communicated to staff through staff meetings (both regular staff meetings and meetings specifically about H1N1), email, individual discussions, an information binder and a message board. A key message communicated to staff members was to look after their own health, for example, by staying home if they were ill, so as not to affect the health of their clients. In regard to staff training, most organizations did not provide additional training to staff for dealing with H1N1, believing that it was not needed. In larger organizations, staff already had training around infectious disease, with interviewees noting that it was part of their standard operations: "We're very experienced in dealing with people that... present and they have different diseases, different flus. That's business as usual. The only thing that was unusual with this H1N1 was the strain that had a potential to be, you know, fairly severe" (service provider). Preparations for H1N1 mainly involved reviewing existing procedures along with any new protocols specific to H1N1 at staff meetings and in one-to-one discussions. For example, in some organizations, staff members were asked to watch for certain symptoms or ask everyone if they had used hand sanitizer when they entered the shelter.

The ongoing work of managing anxieties among staff was an important part of responding to H1N1. Although service providers did their best to give up-to-date and consistent information, rumours still circulated, and not everyone was reassured by the available information. Staff concerns included the fear of contracting H1N1, especially as their clients had been identified as a high-risk group — which to some meant the clients were more likely to pass the illness to others. However, as concerning as H1N1 was for most people, not all staff were concerned about the illness. One service provider observed:

“There was kind of a split. I mean, I think there was a group of staff that felt like it was an overreaction and, you know, that there was probably much ado about nothing. And then there was a group of staff that felt that there was potentially something quite serious and that there was a significant threat” (service provider). Shelter staff often encounter infectious diseases, among other challenges, in their work daily, so not everyone saw H1N1 as a qualitatively different threat from everyday dangers. Nevertheless, service providers took staff concerns seriously, and felt that passing on the information they were getting from the health authority to their staff helped reduce anxiety by countering some of the unfounded rumours about H1N1.

Homeless-serving organizations translated information they received from VIHA and other sources into the context of services for people who are homeless. According to regular practice in these agencies, information was communicated to clients through a variety of methods, including posters and pamphlets for people with low literacy, and conversations directly with agency staff and street nurses. As part of their protocols, agencies set up hand sanitizer stations in their facilities, and some interviewees mentioned management directing front-line staff to discourage certain kinds of social interaction among clients, including hugging and shaking hands: “We did explain to them that we wanted them to sanitize their hands just to decrease the spread of germs. We also didn’t want to create undue panic in our population because it can certainly get out of hand” (service provider).

Service providers noted that clients were concerned about H1N1, but not more so than they usually were about contracting other illnesses. Reflecting on this, one service provider stated: “There was surprisingly very little [concern], you know. It was more the health care professionals and my staff who were a little more, you know, had a heightened awareness” (service provider). Staff also relied on peer-to-peer communication, acknowledging that if they explained information to respected clients, that information would then be shared via word of mouth. Complementing staff efforts, VIHA street nurses regularly visited many of the agencies, in some cases weekly, and were available to help disseminate information about H1N1 to clients. Generally, information provided by both emergency shelter/drop-in centre

staff and street nurses dealt with how to recognize the symptoms of H1N1 and how to stop the spread of the disease. Clients who had specific concerns were able to speak one-to-one with agency staff or a street nurse.

Approximately half the 32 clients surveyed reported they received information about H1N1 from staff at drop-in centres, and just over three-quarters from staff at emergency shelters, often in the form of printed materials, but also through one-to-one conversations. Information received focused on general preventive practices (hand washing, covering mouth when sneezing, etc.) but also on vaccines and vaccination clinics. Importantly, staff referred clients to street nurses for further information when they could not adequately answer questions or concerns. In the survey findings, most clients who received information from agency staff found it to be useful. Most clients identified that health care providers were a “very important” and “reliable” source of information about H1N1, while slightly less than half reported that agency staff was a very important source of information. Overall, clients were more receptive to information that came from sources they trusted, such as a staff member they knew particularly well or a street nurse who had helped them in the past.

When surveyed, clients expressed differing preferences about the best way to get information to them in the event of a pandemic (health care professionals, posters, media and agency staff were all equally identified as preferred sources, though health care providers were said to be the most reliable source). This suggests that a diversity of communication methods is needed to effectively disseminate information. Tellingly, when asked how agencies could have better handled H1N1, a key recommendation by clients was to have more health care workers available for clients to talk to, along with more face-to-face communication of information in general. Other recommendations to improve communication in future situations were to organize information workshops (with stipends and food for participants), train clients to be ‘peer communicators’ of H1N1 information, and better prepare agency staff to answer clients’ questions and concerns.

Prevention Measures: Stopping the Spread

Most service providers said they found it difficult to find or afford supplies such as masks, gloves and hand sanitizer to prevent and contain the spread of infection. One provider stated: “Supplies were a huge concern....I mean, we were getting really close to the shelter opening and where and how were we going to find masks and gloves and hand sanitizer was brutal to have to find. I mean you could call around everywhere and there’s just none available; and, you know, to get it in the quantities that you’re going to need it” (service provider). The difficulty in finding and affording supplies was due to the demand for these items and the additional cost involved in buying supplies over and above usual operational requirements. The interviewees did eventually find the supplies and the money to buy them, and had a lot of unused supplies after H1N1 was over.

In partnership with VIHA, organizations prepared for the delivery of vaccines. At first, a limited number of vaccine doses were available, but as a high-risk group, homeless clients were prioritized to be immunized. Collectively, organizations planned how to best deliver vaccinations. Street nurses visited shelters and a daytime drop-in program to provide vaccination to anyone who wanted it. This strategy proved successful, as street nurses already had well-developed relationships with many people experiencing homelessness. Service providers reported that among adult clients, vaccination was very popular, and a few interviewees mentioned there was more client interest than expected in being vaccinated. In fact, the uptake of H1N1 vaccination was reportedly higher than in regular influenza vaccine drives, with one provider stating they “usually give out 100...probably about 180 to 200 flu vaccines normally, and we gave out, with the H1N1 and then the regular flu vaccine, we gave out probably 700 to 800 doses” (service provider).

According to service providers, early access to vaccination seems to have been interpreted one of two ways by clients: either they were pleased by what they saw as special priority access to care, or suspicious that an unproven vaccine was being given to them first as a test. Slightly fewer than half the 32 clients surveyed received the H1N1 vaccine. That is comparable to vaccination rates for the general population in Canada and in BC. Statistics

Canada estimates that 41% of Canadians aged 12 and older received the vaccine by April 2010. Among ‘high-risk’ groups in Canada, 54.8% of individuals were vaccinated. In BC, 35.6% of the general population was vaccinated (Statistics Canada, 2015). For those who did not have the vaccination, the main reasons were to avoid the risk of side effects, concern about catching H1N1 through the vaccine, or because they did not trust vaccinations in general or avoided vaccinations altogether. Clients who were vaccinated reported they were able to access vaccination easily in the fall of 2009 (October to December). Suspicion about the vaccine was particularly high among youth. While data collected in this study on the topic is limited (i.e., no youth were interviewed), an interviewee from a youth-serving agency reported that, despite the efforts of staff and street nurses, nearly all the youth accessing the shelter were suspicious of the vaccine and refused it.

When immunizations became available for staff, they were able to access vaccination at public clinics and, in some cases, through their organization. Organizations encouraged their staff to be vaccinated, though it was not required. However, as one interviewee stated, “Had the pandemic actually progressed to the point where it was truly a bigger pandemic, it would be possible that we would actually say, ‘In order to be working you would have to have the immunization’ and those who really didn’t want to for various reasons would just sort of be on leave until such time as it was past” (service provider). Other organizations would also have considered mandatory vaccination if the H1N1 outbreak had been more severe. Mandatory vaccination for staff raises a range of ethical issues, as some staff may object to such requirements. Recognizing the importance of vaccinations, organizations are often advised by the health authority that they can resolve these challenges by stating immunizations are voluntary, but people not choosing to be immunized must, for example, wear a mask (or another protective device).

In the end, few clients were infected with H1N1. Weekly, all the organizations that were part of VIHA’s PPHPC reported the number of clients and staff with H1N1 to the rest of the group, as a way of tracking the progress of the disease and the need for respite care. Standard protocol at most locations

was to first assess whether the client had symptoms of H1N1, isolate them if they had influenza-like symptoms and, in some cases, provide masks to people showing symptoms. Clients were sent to a clinic for assessment or testing if necessary.

H1N1 resembles many other illnesses, so it was difficult for staff to identify it accurately. Clients are often exposed to other types of illnesses, experience a compromised immune system and show symptoms similar to those of H1N1. Many of the clients surveyed reported having influenza or other illnesses during the course of H1N1 in 2009: slightly fewer than half the 32 clients reported they had had influenza or a chest infection. A similar number of people did not know if they had become infected with H1N1, despite having had some form of sickness.

Although they ended up not being needed, an ongoing challenge in stopping the spread was the availability of ‘sick rooms,’ where clients could stay throughout the day to reduce potential disease spread to others. Managers at adult emergency shelters and other services agreed to send people who might have H1N1 to one of the shelters where there was a ‘sick room’ separate from the rest of the shelter. That shelter also provided Tamiflu, an anti-viral medication, and staff would remind people to take it, something they never do with other medicines. In severe cases, clients would be taken to hospital. There was some discussion of using other large facilities, such as gyms, to house people with H1N1 if many people became ill, but interviewees did not know if these plans were ever finalized and, in any case, were not needed. Youth did not have access to a daytime indoor sick room if needed.

Impact on health and social service provision

Clients’ well-being was a major issue for staff. In interviews with service providers, the main challenges they identified concerned their ability to provide adequate services for clients. Concerns were two-fold. First, staff recognized there was a pre-existing lack of services for clients to adequately meet their needs if they became infected by H1N1, such as limited sick rooms and daytime indoor facilities. One service provider stated: “We don’t have the ability to house them during the day. So, you know, the thought of actually having to throw a really sick kid out on the street and say, ‘Well,

here's a blanket,' you know, and 'Here's how to get to the clinic' was really quite disturbing to the staff and myself" (service provider). Interviewees from youth-serving agencies were especially concerned about their clients, and generally acknowledged the lack of services for homeless youth in the Victoria region. The other area of concern was the potential that services, which were already limited, would have to be scaled back even further in the event of reduced staff coverage.

Interviewees realized that if H1N1 had been worse, they could begin "losing some of our front-line staff" (service provider). If they became ill, staff were encouraged to stay home, as part of the precautions around H1N1. Consequently, there would not have been enough staff to adequately support clients at a time when they needed services more than usual. Staff members, who had a limited number of paid sick days in the year, were also concerned for themselves. Staff concern, as one interviewee put it, "started to settle in when people thought, 'Well you're asking me to stay at home, but I don't have any vacation or sick leave left, so am I going to get paid?'" (service provider). Staff members worried they would use all their sick leave and have to take unpaid days off, which some could not afford. This issue remained latent, since H1N1 never became serious enough to affect staffing. However, given that organizations did not receive additional funding to weather H1N1, staff concerns may have been realized with a more serious outbreak.

Service providers, due to the nature of shelters, had trouble adhering to guidelines recommended by public health officials to keep people 1 to 2 meters apart (Vancouver Island Health Authority, 2009a). Clearly, the guidelines were not entirely suitable to the context of space shortages faced by many community-based homeless-serving agencies: the agencies simply did not have the space to implement the recommended distances. One shelter used bunk beds, some temporary shelters provided mats on the floor and services providing food generally did so in large common eating areas. Having large numbers of people using shared washrooms was also a concern. Some organizations had plans to spread people out more by opening up other spaces, though this would be challenging, because more staff would be needed to monitor the extra areas. Another consideration was to reduce the number of people served, in order to adhere to the guidelines. Interviewees working

in clinics expressed concern about lack of space in waiting rooms, the need to isolate people showing symptoms while they were waiting to be seen by a doctor, and inadequate ventilation in waiting and examination areas. Staff working in temporary shelters with rotating locations had challenges setting up hand sanitizer stations and isolation areas in each new location.

Overall, these problems highlight the lack of adequate space that is a chronic rather than acute problem in the homelessness sector. For example, one shelter for some time prior to H1N1 had been sheltering approximately twice as many people as the facility was designed to accommodate. Nevertheless, service providers felt they had done the best with what they had, as summarized in one provider's reflection: "I can't imagine we could have done anything more than....we only had the resources that were available, we had, you know, we were well connected to the whole issue and we had lots of support from each other, from the health authority" (service provider). This statement suggests the persistent issue of inadequate space and resources to properly serve this sector's clients, whether in the context of an H1N1-like event or not.

If H1N1 had resulted in reduced services for people experiencing homelessness, the ability of people to meet their basic needs would most likely have been severely compromised. Clients reported a high degree of reliance on services to meet many of their basic needs, including hygiene, nutrition and health care. More than half the 32 clients surveyed ate meals at least several times a week at an emergency shelter and/or a drop-in centre, with a smaller number eating meals at these services once a day. They also relied heavily on these facilities for basic hygiene needs. Virtually all clients interviewed reported being able to wash their hands several times a day, most were able to eat from clean surfaces every day, more than three-quarters were able to shower at least once a day and half were able to wash their clothes at least several times a week. Most of these basic hygiene and nutrition needs were met through services offered at emergency shelters or drop-in programs. As for health care, more than half the clients surveyed received health care services from a community health clinic. This high degree of reliance on services shows that a reduction in service would have had an immediate negative effect on clients.

Clients surveyed expressed some concern about contracting H1N1, although perhaps not more than their usual concerns about contracting infectious diseases. Fewer than half reported specific concerns about becoming infected with H1N1. Clients who accessed these services were generally concerned instead about getting sick with the range of illnesses and infectious diseases to which they believe they are regularly exposed at such services. H1N1 was only one illness among many potential illnesses to which they are regularly exposed. Nevertheless, clients spoke of a dilemma: they were concerned about contracting sickness at service sites, but also concerned about where they could go during the day if they were too sick to be outdoors.

If the H1N1 outbreak had become more widespread, clients would have been in even more vulnerable circumstances. Approximately three-quarters of clients surveyed indicated that an H1N1 increase would have affected their views about drop-in centres and emergency shelters. Slightly more than half reported they would have avoided emergency shelters and drop-in centres. One reason clients commonly reported they would still visit the services, even under more severe circumstances, was because they needed a place to stay and had no other choice, which ties into the dilemma about where to go if they were too sick to be outdoors. The few clients surveyed who had some form of housing reported they could avoid the services by simply remaining at home, an option not available to unhoused people.

Overall, most service providers believed they were now relatively well prepared to respond to a pandemic, and they were reassured by the health authority's reaction to H1N1. However, interviewees acknowledged that it is the ongoing systemic issue of homelessness — in large part due to a lack of affordable housing — that increases the vulnerability of people experiencing homelessness during a pandemic. They reported that H1N1 was “an emergency that’s in your face,” and addressing this can be easier “than to deal with an emergency that’s slowly growing and growing and getting harder and harder over time,” a reference to the long-term work of “getting people housed and supported and a part of their communities” (service provider). If another public health emergency arises, “you’ve got all the same vulnerable people” and, “you’ve got no infrastructure” to actually deal with the underlying causes of their vulnerability (service provider).

While H1N1 was identified as a public health crisis that required responsive action, it is equally important for public health and other sectors to recognize the underlying causes of vulnerability are, in fact, produced by the public health crisis of homelessness.

Discussion and Key Learnings

Most interviewees thought the planning and response to H1N1 went well, and suggested few changes to plans and protocols, given the limited available resources. Foundational to the response was the high degree of cross-sector collaboration between health and other sectors provincially, regional collaboration between public health and the homelessness sector, and collaboration between agencies within the homelessness sector. At both the provincial and regional levels, public health played a key role in coordinating the response and providing current and up-to-date information. Smaller homeless-serving agencies, which were not part of the regional collaboration, had concerns about getting access to information and resources to prepare for and respond to the pandemic. They were more likely to rely on larger homeless-serving agencies.

Understanding the context of homelessness and service provision to people who are homeless is important for successful implementation of public health guidelines. As noted above, public health played a key role in the Victoria response, and collaboration between public health and the homelessness sector was an important facilitator. In addition to raising awareness among service providers about the need for emergency plans to address pandemic diseases, certain new protocols put in place for H1N1 were retained afterward, such as having more hand sanitizer available for clients and staff, increased awareness of coughing protocols (i.e., coughing into one's arm instead of one's hands), and a greater focus on hand washing. At the same time, the burden of implementing appropriate public health responses placed additional stress on service providers. Implementing public health interventions in potentially overcrowded and communal living spaces such as emergency shelters makes implementing such guidelines as keeping people 1 to 2 meters apart or providing private

spaces to prevent disease transmission structurally difficult. Service providers were very concerned about their ability to control the spread of H1N1 under such conditions, and also about the potential need for extra space and resources to prevent the spread. However, it is not clear who would bear the cost of these interventions.

Communication of information to clients was a critical component of response efforts. Clear information was quickly disseminated by public health officials to service providers, who then translated it into materials suitable for people with low literacy. No single method was relied on to disseminate all information but a key trusted source were health care providers. Given the importance of communicating meaningful information through relevant channels, an area for future consideration and expansion is to include people who have experienced homelessness as part of best practices in disseminating information (Norman & Pauly, 2013). This is particularly important for people who may not regularly access homeless-serving agencies or may even avoid these locations for a variety of reasons, including the advent of a pandemic.

Several key factors facilitated the vaccination drive. First, clients of homelessness services were prioritized for early vaccination. Second, information about H1N1 and the vaccine was widely distributed to clients at popular services in a variety of ways, and clients were able to ask questions and raise concerns to both agency staff and street nurses if necessary. Third, vaccination clinics were held at services already frequented by people experiencing homelessness. Finally, vaccinations were administered by street nurses who had already built relationships and trust with clients. However, clients did recommend that services have more health care workers available to discuss vaccination issues with clients. Additionally, given the concerns expressed by service provider interviewees about low uptake among youth, a youth-specific vaccination strategy created with participation by youth with experience of homelessness may be required for future scenarios. As recommended by clients interviewed, peer resources should also be considered. Having youth peers available to talk with other clients can be an effective way to disseminate health information and support vaccination efforts.

Future planning efforts should consider how to best deliver vaccinations in more severe influenza pandemics. Many clients indicated they would avoid service facilities if the outbreak of H1N1 had been more severe. This suggests the strategy of facility-based vaccination delivery may be unsuccessful in the event of a more severe pandemic because of lower attendance at service facilities. As an alternative, mobile vaccination programs may need to be considered, for example, by delivering vaccinations in public places frequented by people affected by homelessness, such as parks.

Service providers and clients recognized that H1N1 is not a unique threat to health, as clients experiencing homelessness face daily health threats due to the structural conditions in which they live (i.e., poverty and lack of affordable housing). Inadequate and overcrowded conditions in shelters and drop-in programs are ongoing problems that increase the vulnerability of homeless people to poor health far beyond the H1N1 threat. Ongoing communication and partnerships during H1N1 to plan and deliver services highlighted the possible ways cross-sector collaboration can be used to best respond to a public health crisis, specifically demonstrating the role of public health to lead the response. While public health has considerable responsibility around preventing the spread of communicable diseases, its mandate also extends to addressing the broader social conditions, including homelessness, that shape citizens' vulnerability to poor health (Butler-Jones, 2008). A few interviewees identified the importance of preventing homelessness as an underlying source of vulnerability, but very little emphasis was placed on this after the threat of the pandemic passed. This may have been a missed opportunity for further action on the root causes of homelessness.

Conclusion

Clearly, in addressing threats such as a pandemic or homelessness itself, a cross-sector response is needed. This case study illustrates the value of potential partnerships between health and other sectors. Communication between all organizations regarding key messages is crucial, to ensure a consistent understanding of key prevention strategies and actions, thereby

unifying the response. The homelessness sector is generally focused on responding to crises as they occur, and is often too under-resourced to participate in planning and action that extend beyond responding to immediate concerns.

The threat of H1N1 highlighted some of the challenges people who are homeless face daily. This includes lack of space and resources or access to services needed for health and well-being, as well as vulnerability resulting from social conditions. A key factor in the response to H1N1 was the importance of public health taking a lead role in planning and coordinating services and communicating information. Public health's mandate to prevent the spread of communicable diseases facilitated its leadership role in a pandemic, but public health must also ask what its role is in response to the ongoing crisis of homelessness. As part of preventing a wide range of diseases and poor health in people experiencing homelessness, public health has an important role in addressing the root causes underlying the structural vulnerabilities impacting people who are experiencing and at risk for homelessness.

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