

Bridging the preparedness divide

A framework for health equity in Ontario's
Emergency Management Programs

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A Framework for Health Equity in Ontario's Emergency Management Programs

*"The rich died and the poor died alike"*¹

- Reverend Eakin on the sinking of the Titanic in 1912

*"Perhaps no observation during the great influenza epidemic of 1918-1919 was more common than the familiar comment that "the flu hit the rich and the poor alike." ... Like many conclusions based on general impressions, this observation was true only in part ... there were marked and consistent differences in its incidence - with respect both to morbidity and to mortality - among persons of different economic status ... Apparently the lower the economic level the higher was the attack rate."*²

- Edgar Sydenstricker on the Spanish Flu in 1931

*"The heat wave was a particle accelerator for the city: It sped up and made visible the hazardous social conditions that are always present but difficult to perceive. Yes, the weather was extreme. But the deep sources of the tragedy were the everyday disasters that the city tolerates, takes for granted, or has officially forgotten."*³

- Eric Klinenberg on the Chicago Heat Wave in 1995

An Equity Lens on Health

During the past year, the Ontario health system has made definitive commitments to health equity. More research and policy support is now directed to the task of reducing health disparities among social groups than we have previously seen.

Concurrently, there is a surge of commitment and new funding for emergency management programs in Ontario, both within and separate from our health system. There is significantly more capacity in Ontario to mitigate against, prepare for, respond to, and recover from emergencies such as an infectious disease outbreak than there was five years ago.

¹ Biel, S. (1996) Down with the Old Canoe: A Cultural History of the Titanic Disaster W.W. Norton & Co. p.45

² Sydenstricker, E. (1931) The incidence of influenza among persons of different economic status during the epidemic of 1918. Public Health Reports, 46(4) p.154

³ Klinenberg, E. (2002) Dying alone: An interview with Eric Klinenberg. Retrieved from www.press.uchicago.edu/Misc/Chicago/443213in.html

This paper will demonstrate that it is both critical and possible for these two trends – attention to equity in health planning, and an increased capacity to address emergencies – to be connected. It will argue that the most vulnerable and health disadvantaged communities are most threatened during emergencies, and that commitments made between emergencies ought not to be put aside in times of crisis. Rather, there is no time when these commitments are more important.

A Commitment to Health Equity

Dr Michael Rachlis (2007) outlined the recent history of commitments and achievements in the implementation of a health equity agenda in Ontario’s health system. He cites the stated goal of the equity strategy as:

“to minimize systematic and remedial disparities in health and social well-being between[sic.]groups of people who have different levels of underlying social advantage.”⁴

It is recognized that differences in health and wellbeing can only partly be attributed to health system factors, but that as the Federal / Provincial / Territorial Health Disparities Task Group noted:

“The health sector has an important role to play in mitigating the causes and effects of other determinants of health through interventions with disadvantaged individuals, populations and communities.”⁵

Rachlis notes that in 2006, the Ontario Health Care Quality Council identified equity as one of nine attributes of a high performing health system.⁶

Further innovative equity work undertaken by the Wellesley Institute’s Dr. Bob Gardner set the foundation for a new equity strategy for the Toronto Central Local Health Integration Network. This paper will use the definition of health disparities from Gardner (2008) as

*“...differences in health outcomes that are **avoidable, unfair, and systematically** related to social inequality and disadvantage.”⁷ [emphasis in original]*

An Increase in Health Emergency Management Capacity

⁴ As cited in Rachlis, M. (2007) Delivering equity: Community-based models for access and integration in Ontario’s health system. <http://wellesleyinstitute.com/files/healthequity/DeliveringEquityReport.pdf> p.7

⁵ As cited in Rachlis, M. (2007) Delivering equity: Community-based models for access and integration in Ontario’s health system. p.1

⁶ Rachlis, M. (2007) Delivering equity: Community-based models for access and integration in Ontario’s health system. p.6

⁷ Gardner, B. (2008) Health equity discussion paper. Retrieved from http://www.torontocentrallhin.on.ca/uploadedFiles/Home_Page/Report_and_Publications/Health%20Equity%20Discussion%20Paper%20v1.0.pdf p.4

Concurrent with the rise of attention and commitment to health equity, our health system has made considerable progress in developing emergency management capacity.

In December of 2003, the Ministry of Health established an Emergency Management Unit to plan and coordinate provincial responses to emergencies that affect and impact health. In 2004, the province released the Ontario Health Plan for an Influenza Pandemic, and has updated it annually since. The plan outlines preparedness requirements for most of the health system. In 2008, the Ministry of Labour announced a new influenza pandemic compliance strategy that provided legal teeth to some preparedness requirements for our health system.

This pandemic influenza plan is the only emergency plan outlining responsibilities throughout the health system that the Emergency Management Unit has released. For this reason, there is particular emphasis on pandemic influenza in the examples and discussion in this paper. An all-hazards Ministry plan – the Ministry Emergency Response Plan, was updated in 2007.

The policy aftermath of SARS also led to the establishment of Ontario’s Agency for Health Protection and Promotion, which is currently building its infrastructure to play a leadership role in health emergencies. Meanwhile, health organizations of all stripes are fit-testing employees for respirators, stockpiling personal protective equipment, and developing plans for a range of health emergencies.

This very positive momentum is unlikely to change soon. Lalonde was undoubtedly correct in saying “disaster management is certainly one of the competencies that organizations in the health sector will have to develop in the years to come.”⁸

An Opportunity

A health equity lens has not yet consciously and consistently been applied to the major initiatives of the health system’s emergency management programs; however, there is clear recognition that this is needed, and the preliminary groundwork for such thinking has been done.

For example, the Ministry Emergency Response Plan recognizes the “Health and safety of health care workers and affected Ontarians, *particularly vulnerable populations*”⁹ [my emphasis] as a priority in the Ministry’s response to a health emergency. What is missing is a description of how vulnerable populations will be identified, how they can be included in planning, and what an effective strategy for meeting their health and safety needs could look like.

The Ontario Health Plan for an Influenza Pandemic similarly recognizes the need to address health inequalities. The plan states:

“The [Ministry of Health and Long-Term Care], the Ministry of Community and Social Services, and local social service providers are developing a strategy to support vulnerable Ontarians and help ensure

⁸ Lalonde, C. (2007) Primary healthcare organizations facing a disaster: The Quebec experience. Disaster Prevention and Management, 16 1 p.43

⁹ Ministry of Health and Long-Term Care (2007) Ministry Emergency Response Plan p.52

*timely access to influenza assessment services.*¹⁰

The plan establishes equity as an ethical principle guiding the implementation of the plan; however, the brief discussion is essentially limited to health care access for patients and the obligation of health care institutions to ensure a sufficient supply of materials¹¹. There is also particular focus on the issues of antiviral and vaccine access.

Similarly, Toronto Public Health's influenza pandemic plan, by far the most comprehensive local plan in the country, states

*“in the next phase of planning, TPH will address the issues related to serving vulnerable populations such as immuno-compromised individuals, the frail elderly and the homeless.”*¹²

It is time, then, for Ontario's health care planners to develop and implement models of health equity applicable to emergency management, including frameworks for identifying and engaging vulnerable people within emergency management programs.

A recent analysis of the impact of race and ethnicity on disaster impact found “It is important that groups are not left out of the disaster-reduction process; people who are marginalized in the early stages are marginalized later – they need to be part of the planning from the beginning.”¹³

Emergencies Exacerbate Preexisting Vulnerability

Emergencies are no longer understood as rare, unpredictable events where chaos reigns. Emergencies are quite common, and the way in which emergencies play out is rooted in social patterns established during non-emergency times. Furedi described disasters as “a normal feature of societies who are unable to deal with the hazards they confront.”¹⁴

Vulnerability during emergencies is predictable because it is firmly rooted in preexisting vulnerability. Fothergill and Maestas wrote “People's vulnerability to natural hazards is determined not so much by the event itself but, by social, economic and political processes”¹⁵. Blumenshine and associates illustrate this

¹⁰ Ministry of Health and Long-Term Care (2008) Ontario Health Plan for an Influenza Pandemic p. 11-2

¹¹ Ministry of Health and Long-Term Care (2008) Ontario Health Plan for an Influenza Pandemic p. 2-9 – 2-10

¹² Toronto Public Health (2007) Toronto Public Health Plan for an Influenza Pandemic. P.8-2

¹³ Fothergill, A. & Maestas, E.G.M. (1999) Race, ethnicity and disasters in the United States: A review of the literature. Disasters, 23(2) p.16

¹⁴ Furedi, F. (2007) The changing meaning of disaster. Area: Journal of the Royal Geographic Society, 39 (4) p.487

¹⁵ Fothergill, A. & Maestas, E.G.M. (1999) Race, ethnicity and disasters in the United States: A review of the literature. Disasters, 23(2) p.156-157

point by stating that in the Katrina disaster “deaths, injuries, and illness occurred disproportionately among low-income persons in New Orleans because of economic and logistic constraints on their ability to respond to government recommendations.”¹⁶ Similarly, Furedi wrote “Vulnerability is not a state of being that emerges in response to a disaster – it is something that precedes it.”¹⁷

This is certainly not to suggest that crises and emergencies are business-as-usual events. Images of New Orleans underwater, Toronto plunged into darkness, or lineups of people looking for water in Walkerton show the immensity of the challenges emergencies can bring. Rather, the observations outlined above suggest that inequities during emergencies are “*avoidable, unfair and systematically related to social inequality and disadvantage.*”¹⁸

¹⁶ Blumenshine, P., Reingold, A., Ergarter, S., Mockenhaupt, R., Braverman, P. & Marks, J. (2008) Pandemic influenza planning in the United States from a health disparities perspective. Emerging Infectious Diseases, 14(5) 709

¹⁷ Furedi, F. (2007) The changing meaning of disaster. Area: Journal of the Royal Geographic Society, 39 (4) p.488

¹⁸ Gardner (2008) Gardner, B. (2008) Health equity discussion paper. Retrieved from http://www.torontocentrallhin.on.ca/uploadedFiles/Home_Page/Report_and_Publications/Health%20Equity%20Discussion%20Paper%20v1.0.pdf p.4

A Model of Vulnerability

Blumenshine and associates provide a model of differential vulnerability related to pandemic influenza.¹⁹ The authors describe that there are disparities among social groups in (1) the likelihood of exposure to the influenza virus, (2) the likelihood of contracting influenza if exposed and (3) the likelihood of receiving timely and effective treatment.

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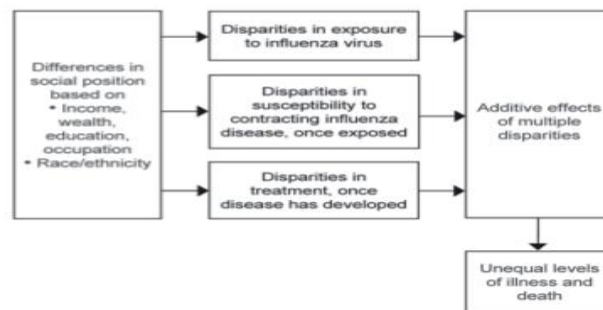


Figure. Possible sources of disparities during a pandemic influenza outbreak.

The model (herein referred to as Blumenshine’s model) can help identify which groups are vulnerable, and therefore, according to the Ministry Emergency Response Plan, which groups are particular priorities.

It is noteworthy that the Canadian Pandemic Influenza Plan for the Health Sector identifies priority groups for vaccine access in the expected situation of shortages. Significantly, none of the groups identified in the social determinants based Blumenshine model (those at high risk of exposure, those at high risk of infection, and those at high risk of not receiving timely / adequate treatment) are specifically included.

The list does include people at “increased risk of poor outcome due to the disease”.²¹ The examples provided (pregnant women, adults and children with chronic health conditions) suggest that the term “high risk” is understood to be based on health status factors that would lead to poor outcomes if an infection were to occur. This is consistent with the language in a previous version of the plan of a priority

¹⁹ Blumenshine, P., Reingold, A., Ergarter, S., Mockenhaupt, R., Braverman, P. & Marks, J. (2008) Pandemic influenza planning in the United States from a health disparities perspective. *Emerging Infectious Diseases*, 14(5) 710

²⁰ Blumenshine, P., Reingold, A., Ergarter, S., Mockenhaupt, R., Braverman, P. & Marks, J. (2008) Pandemic influenza planning in the United States from a health disparities perspective. *Emerging Infectious Diseases*, 14(5) 710

²¹ Public Health Agency of Canada (2008) Canadian Pandemic Influenza Plan for the Health Sector. Retrieved from www.phac-aspc.gc.ca/cpip-pclpci/ann-d-eng.php#33

group as “persons at high risk of severe or fatal outcomes **following influenza infection.**” [my emphasis]

The Blumenshine model is useful because it points out that people at high risk of exposure and people at high risk of infection upon exposure, often essentially because of their social position, ought to have priority for a preventative measure such as a vaccine. In addition, the likelihood of receiving timely and adequate treatment is a factor that ought to be included when predicting outcome following an infection (and there are systematic disparities in access to treatment and care in general).

These ideas are not to suggest that people in prisons, homeless shelters, overcrowded housing or people whose jobs entail exposure to the public during such an emergency must be top priority for vaccine; however, unless factors such as exposure are listed as a consideration for prioritization, aggressive targeted campaigns for these groups are highly unlikely to emerge. As Blumenshine and associates point out, “social disparities in vaccine coverage are likely to occur in the absence of careful planning to prevent them.”²²

Blumenshine’s model points out the importance of prioritizing people unlikely to receive adequate treatment and who often have more complex and higher needs for treatment and support. There is a wealth of literature on which groups do not receive equal access to health services in Ontario. In order to demonstrate the possible impact of the uptake of Blumenshine’s model, this paper will briefly focus on two of these groups: non-citizen residents²³, and Aboriginal people²⁴.

In adopting Blumenshine’s model, and prioritizing health care access for people who face barriers, statements such as the following would no longer have a place in the Ontario Health Plan for an Influenza Pandemic:

*“The MOHLTC will inform the organizations responsible for distributing / administering antivirals about their legal obligations to provide antivirals **to all citizens**”²⁵ [my emphasis].*

*“The MOHLTC will work with local public health units to educate public health staff about their legal obligation to provide vaccine **to all citizens**”²⁶ [my emphasis].*

As Ontario’s Health Insurance Act states that health insurance “is available to all residents of Ontario”²⁷

²² Blumenshine, P., Reingold, A., Ergerter, S., Mockenhaupt, R., Braverman, P. & Marks, J. (2008) Pandemic influenza planning in the United States from a health disparities perspective. Emerging Infectious Diseases, 14(5) p.711

²³ Asanin, J. & Wilson, K. (2008) “I spent nine years looking for a doctor”: Exploring access to health care among immigrants in Mississauga, Ontario, Canada Social Science & Medicine, 66(6) p.1271-1283

²⁴ Shah, C.P. (2005) Health status report of Aboriginal people in Ontario. Retrieved from www.aht.ca/files/HlthStatusAboEdFinal1.pdf p.7

²⁵ Ministry of Health and Long-Term Care (2008) Ontario Health Plan for an Influenza Pandemic p.20-5

²⁶ Ministry of Health and Long-Term Care (2008) p. 20-6

²⁷ Ontario (2007) Health Insurance Act

[whether they are citizens or not], the statements in the health plan represent not only a threat to health equity, and to broader public health, but are also factually incorrect. Adapting Blumenshine’s model would lead planners away from such problems in emergency plans.

Ontario’s Aboriginal people face differences in risk of exposure, risk of infection upon exposure and risk of inadequate / untimely treatment. Aboriginal people fared extraordinarily poorly in the influenza pandemic of 1918-1919. The mortality rate among white Canadians was 6.1 / 1000. The mortality among Aboriginal people was >30 / 1000.²⁸

Far too many of the same risk factors exist today.

Spanish Flu – Identified Reasons Why Aboriginal People Were at Higher Risk of Serious Illness and Death¹	Current Status of Ontario’s Aboriginal Population
High rates of tuberculosis as a result of residential schools	In Ontario, “Age standardized tuberculosis rates are eight to nine times higher within the First Nations population compared to the Canadian population.” ¹
High rates of lung and respiratory disease, particularly among children	Rates of pertussis among Aboriginal people are three times higher than the general population. Lung cancer rates in the Aboriginal population have doubled since 1980. ¹
Poor access to health care	50% of First Nations in Ontario state that they do not receive the same level of healthcare as the general Canadian Population. ¹
Inadequate housing	16% of people who use shelters in Toronto are Aboriginal. 24% of people living on the street in Toronto are Aboriginal. ¹
Influenza can led to pneumonia. 40 – 50% of people who had both influenza and pneumonia died.	“Compared with the general population, First Nations people have four times the rate of hospital admissions for pneumonia. ¹

Despite these enormous health inequities, there is no information in The Canadian Pandemic Influenza Plan for the Health Sector, The Ontario Health Plan for an Influenza Pandemic or The Toronto Public Health Plan for an Influenza Pandemic specific for urban or rural Aboriginal people. “Generic plans assume Aboriginal populations to be part of mainstream populations, therefore these plans do not speak to

²⁸ Mamelund, S.E. (n.d.) Geography may explain the adult mortality from the 1918-1920 influenza pandemic p.2-3 & 12. Retrieved from www.ed.lu.se/papers/mamelund.pdf p.12

the unique needs of the urban / rural Aboriginal populations (First Nations, Métis and Inuit)²⁹. Adapting a Blumenshine-type model would correct these problems in preparedness plans by pointing out the need for targeted programs.

It is important to note that Blumenshine's model is undoubtedly applicable to hazards beyond pandemic influenza, where exposure to the hazard, likelihood of harm caused by exposure and likelihood of receiving adequate care for the harm can be considered for any hazard. The model can easily be adapted for Ontario's hazards.

Components of a Health Equity Model

The following is a proposal for the components of a health equity based approach to emergency planning. Many have argued that although there are good standards, there are no established best practices in the field of health emergencies³⁰, or even an agreed upon set of principles for the field.³¹ These ideas are intended to stimulate dialogue, research and experimentation, and should be considered extensions of or additions to the programs that are in place in Ontario. These components are intended to assist in bridging the "preparedness divide"³² among population groups.

The components for equity-based emergency preparedness are:

- 1) A clear commitment from public authorities that emergency management programming needs to include health equity considerations.
- 2) A multi-sectoral approach to emergency management
- 3) A parallel process for personal preparedness campaigns
- 4) An active and well-resourced role for the primary health care system

Standards and expectations

Under the Emergency Management and Civil Protection Act, all ministries are required to develop emergency plans and to implement associated public education. These plans are required to include Hazard Identification and Risk Assessments (HIRAs)³³. The inclusion of a HIRA is also a Canadian

²⁹ Noojimawin Health Authority (2008) An Emergency Preparedness Resource Toolkit for Aboriginal Organizations in Ontario p.5

³⁰ California Preparedness Education Network (2007) General disaster preparedness for primary healthcare providers. Retrieved from www.calpen.org/documents/Cal-PENModule1Standardized-revised3-07.ppt

³¹ Etkin, D. & Davis, I. (2007) The search for principles of disaster management. Retrieved from <http://training.fema.gov/EMIWeb/edu/docs/emprinciples/The%20Search%20for%20Principles%20of%20Disaster%20Management.doc>

³² Light, P.C. (2005) Homeland security's extreme makeover. *Christian Science Monitor*, October 12 p.9

³³ Ontario (2007) Emergency Management and Civil Protection Act

Standards Association standard for all public, private and non-profit organizations in their emergency management programs.³⁴

This requirement is an opportunity for action for the health sector to advocate an equity-based approach. It is in policy requirements such as this that the message can be sent that a reduction in health disparities that occur during and after emergencies is both critical and possible. In reviewing health equity strategies and practices in leading Canadian regional health authorities, Kouri has found that

*“Explicitness by [public authorities] on the goal of reducing health inequities is an important characteristic. It is a sign of commitment, as well as a way of explaining to the public the importance of the issues and raising awareness and understanding.”*³⁵

Similarly, Saunders and Monet wrote “Statements from public officials announcing how important it is to exercise just and equitable distribution of resources and services during an influenza pandemic can also curtail injustice.”³⁶

The health sector can demonstrate how this can be done by adding an analysis to HIRAs that specifies which groups face increased vulnerabilities because of specific hazards and risks. This would answer the question *who* is at risk as well as what the risks are. Blumenshine’s model, as adapted to Ontario’s health equity strategies and plans, should be used to do this analysis.

Similarly, in public health emergency plans, an analysis of who could be particularly threatened by various public health measures could be an important step in reducing disparities during emergencies. The current Ontario Health Plan for an Influenza Pandemic does not do this. It states: “People who are symptom-free may be asked to maintain a modified quarantine, that is: they can leave the home to obtain essential supplies (e.g., food for the family) but not go to work”³⁷. This statement suggests that an analysis of how quarantine will affect precarious and low-income workers has not been considered, despite the fact that low-income people are more likely to experience problems adhering to public health recommendations.³⁸

An analysis of measures such as closure of schools must include an analysis of the loss of school-based food programs.

Public sector leaders can be unequivocal in their expectations that a health equity objective and analysis

³⁴ Canadian Standards Association (2008) Emergency Management and Business Continuity Programs (Z1600-08)

³⁵ Kouri (2008) Addressing health disparities: Best practices from regional health authorities. Retrieved from: <http://wellesleyinstitute.com/files/addressinghealthdisparities.pdf> p.3

³⁶ Saunders, G.L. & Monet, T. (2007) Eliminating injustice towards disadvantaged populations during an influenza pandemic. *North Carolina Medical Journal*, 68(1) p.47

³⁷ Ministry of Health and Long-Term Care (2008) Ontario Health Plan for an Influenza Pandemic p.6-4

³⁸ Blendon, R.J., Koonin, L.M., Benson, J.M., Cetron, M.S., Pollard, W.E., Mitchell, E.W., Weldon, K.J. & Herrmann, M.J. (2008) Public response to community mitigation measures for pandemic influenza. *Emerging Infectious Diseases*, 14(5) p.782

must be part of emergency management programs. This analysis should include identification of specific vulnerabilities. For example, people with mental illnesses may have greater needs for support during an emergency. Isolated seniors may need to be identified and checked on. Working with these vulnerable populations, public sector leaders can identify the legislative and other changes that may be needed and develop an action plan with timelines for implementation.

A multi-sectoral approach

Kouri stressed the importance of multi-sectoral strategies regarding non-medical determinants of health in a health equity strategy.³⁹ This is also true in emergency management programs.

For example, to follow up on the issue of work and quarantine, it is critical that public health authorities coordinate quarantine programs with income supports. Currently, employees under quarantine orders can apply for Employment Insurance, but the two-week waiting period applies (employers can cover this period with sick benefits, but access to such benefits is inequitable within the labour market). One problem with this is that the two-week waiting period is far longer than any expected quarantine period for expected outbreaks.

Similarly, Ontario recently amended the Employment Standards Act to provide job security in the form of an unpaid leave for people following quarantine orders, but this only applies during a declared provincial emergency.⁴⁰ One problem with this is that the Ontario Health Plan for an Influenza Pandemic says that the ability to make orders such as quarantine is used “to mitigate an incident such as an outbreak of infectious disease from escalating to the level of a provincial emergency.”⁴¹ In other words, there may be no protection for employees under quarantine orders because they will occur before an emergency is declared. It is easy to see how people will fall through the cracks in this system and it is critical that there is a multi-sectoral coordinated approach to policy problems such as this.

Multi-sectoral approaches are often used to identify new resources. For example, closed schools can be used as sites for emergency community services.

Even within healthcare, coordination is an enormous challenge. This challenge may have been exacerbated with the implementation of Local Health Integration Networks, who fund major components of the health care systems, but are not geographically aligned with public health units and who have no role in emergency management.⁴²

³⁹ Kouri (2008) Addressing health disparities: Best practices from regional health authorities. Retrieved from: <http://wellesleyinstitute.com/files/addressinghealthdisparities.pdf> p.6

⁴⁰ Ontario (2008) Employment Standards Act

⁴¹ Ministry of Health and Long-Term Care (2008) Ontario Health Plan for an Influenza Pandemic p. 2-13.

⁴² Ministry of Health and Long-Term Care (2007) Ministry Emergency Response Plan p.35

A parallel process for personal preparedness

Canada's emergency management program used to have as its first fundamental principle "It is up to the individual to know what to do in an emergency."⁴³ The flaws in the principle are enormous, because of individuals who are unable ever to know such a thing, to the huge schism between knowing what to do and being able to implement it, to the fact that most authority decisions are appropriately made during an emergency, not in advance. The statement no longer appears in official Canadian documents (it still does at the provincial level)⁴⁴, but the message of individual preparedness remains consistent.

The campaign of encouraging individuals and families to develop a 72-hour stockpile is coordinated among federal⁴⁵, provincial⁴⁶ and municipal⁴⁷ emergency management programs. This is a worthwhile but insufficient campaign. Groenewold examined levels of food insecurity in the light of a comparable American 72-hour stockpile campaign, noting such campaigns are unrealistic, unfair and inequitable⁴⁸ because some people cannot afford to develop such stockpiles. Further, he suggested that such campaigns foster mistrust of public authorities among those who are most vulnerable. Similarly, Waugh concluded that the response to Katrina failed in part because the affected population was more vulnerable than responders assumed.⁴⁹

This critique is consistent with Gardner's finding that "There is some evidence that general or universal health promotion programs can widen disparities as their messages tend to be taken up more by the more affluent and educated."⁵⁰ In this case, the disparity is the Preparedness Divide.

⁴³ Chagarlamundi, P. (1998) Geomantics in emergency planning and management: Canadian forest fire management experience. Retrieved from www.gisdevelopment.net/aars/acrs/1998/ts5/ts5004.asp

⁴⁴ Emergency Management BC (n.d.) Emergency Management in B.C. Retrieved from www.pep.gov.bc.ca/management/Emergency_Management_in_BC.pdf

⁴⁵ Public Safety Canada (2008) Your emergency preparedness guide: 72 hours: Is your family prepared? Retrieved from www.getprepared.gc.ca/fl/guide/national-eng.pdf

⁴⁶ Emergency Management Ontario (2009) At home. Retrieved from www.emergencymanagementontario.ca/english/prepare/athome/athome.html

⁴⁷ Toronto (n.d.) Preparing your emergency kit. Retrieved from www.toronto.ca/wes/techservices/oem/news/preparing_esk/preparing_esk.htm

⁴⁸ Groenewold, M., Guernsey, J. & Weitzel, J. (2008) Incorporating social justice principles & addressing health equity through public health preparedness. Webinar retrieved from <http://webcasts.naccho.org/session-archived.php?id=1398>

⁴⁹ Waugh, W. (2006) The political costs of failure in the Katrina and Rita disasters. *Annals of the American Academy of Political and Social Science*, 604 p.20

⁵⁰ Gardner, B. (2008) Health equity discussion paper. Retrieved from <http://wellesleyinstitute.com/health-equity-strategy-toronto-central-lhin> p.33

A health equity approach to planning will consider access to food during a large health emergency as a public resources priority, not something that can be reassigned to small community agencies. Statements such as the following will no longer be included in the Ontario Health Plan for an Influenza Pandemic:

“When [community mental health and addictions] agencies are serving clients who are dependent on food banks, they should work with the food banks to ensure that clients will be able to get food during a pandemic.”⁵¹

Similarly, the health sector can provide leadership by putting force behind statements such as the following in Emergency Management Ontario’s Emergency Preparedness Guide for People with Disabilities / Special Needs require a parallel process: “Request that an emergency evacuation chair be installed on the floor you live or work on preferably close to the stairwell.”⁵² Putting this into practice requires actions such as contributing such chairs to identified buildings, or incenting / requiring building owners to have them available under certain circumstances.

A parallel process can be put into place for these types of campaigns for people who will not be able to implement recommendations. Regarding food security, this could include identifying food-insecure neighbourhoods and prioritizing them for response in food distribution. For campaigns encouraging people to have flashlights, radios, batteries and smoke alarms, it could mean collaborating with local community service providers to distribute these items to community members. A similar model could be put into place for first-aid training for community members in areas of concentrated poverty.

An active and well-resourced role for primary care

Gardner identified primary care as a critical site for the reduction of health disparities.⁵³ Lalonde identified the features of successful primary care organizations in the Quebec Ice Storm of 1998: highly qualified staff (including training in disaster response), quick mobilization, priority to the protection of highly vulnerable persons, a broad vision of the mandate, an expansion of the tasks normally assumed by professionals, and the strategic positioning of home care services.⁵⁴

The Ontario Health Plan for an Influenza Pandemic was updated in 2008 with a significantly expanded role for primary care, suggesting that public authorities are aware of the potential of the sector to make a great contribution.⁵⁵ However, there are currently significant concerns about primary care’s ability to

⁵¹ Ministry of Health and Long-Term Care (2008) Ontario Health Plan for an Influenza Pandemic p.16-10

⁵² Emergency Management Ontario (2007) Emergency Preparedness Guide for People with Disabilities / Special Needs. p.18

⁵³ Gardner (2008) Gardner, B. (2008) Health equity discussion paper. Retrieved from http://www.torontocentralhin.on.ca/uploadedFiles/Home_Page/Report_and_Publications/Health%20Equity%20Discussion%20Paper%20v1.0.pdf p.26

⁵⁴ Lalonde, C. (2007) Primary healthcare organizations facing a disaster: The Quebec experience. Disaster Prevention and Management, 16 1 p.47-48

⁵⁵ Ministry of Health and Long-Term Care (2008) Ontario Health Plan for an Influenza Pandemic

perform these tasks. Based on the attributes identified by Lalonde, large, multidisciplinary community-based primary care models such as community health centres are undoubtedly most capable of providing effective response and most able to assist the public and vulnerable populations with preparedness. The current focus on co-location of services with community health centres in hubs is very promising for emergency preparedness. With the proper resources, these primary care organizations could also provide leadership in local coordination.

Currently, however, primary care, especially private physicians' offices, and home care may be the major health sectors least likely to have adequate personal equipment, access to prophylactic antiviral medications and access to information. A health equity approach among planners will include supporting the primary care sector as a partner in the reduction of health disparity.

Conclusion

The concurrent focus on health equity and emergency management provides an opportunity to bring these fields together in a way that has not yet occurred in Ontario. Considering difference in vulnerability based on exposure to risks, likelihood of harm based on exposure and likelihood of receiving adequate care for harms would be very useful for the health sector. Preliminary priorities for action are:

- A clear expectation and modeling from public authorities that emergency management programming needs to include health equity considerations.
- A multi-sectoral approach to emergency management
- A parallel process for personal preparedness campaigns
- An active and well-resourced role for the primary health care system