Legislative Assembly of Ontario

Assemblée législative de l'Ontario

STANDING COMMITTEE ON PUBLIC ACCOUNTS

OUTBREAK PREPAREDNESS AND MANAGEMENT

(Section 3.12, 2007 Annual Report of the Auditor General of Ontario)

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Legislative Assembly of Ontario

Assemblée législative de l'Ontario

The Honourable Steve Peters, MPP
Speaker of the Legislative Assembly

Sir,

Your Standing Committee on Public Accounts has the honour to present its Report and commends it to the House.

Norman W. Sterling, MPP
Chair

Queen's Park
February 2009

STANDING COMMITTEE ON PUBLIC ACCOUNTS

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1st Session, 39th Parliament

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CONTENTS

PREAMBLE

The Standing Committee on Public Accounts held hearings on the Auditor General's 2007 audit of the Ministry of Health and Long-Term Care's Outbreak Preparedness and Management on March 27, 2008. The audit findings were reported in s. 3.12 of the Auditor General's *2007 Annual Report*. The Committee has endorsed the Auditor's findings and recommendations.

This report constitutes the Committee's findings and recommendations. Background information on sections of the original audit report is followed by an overview of the hearings' main findings and, as appropriate, new recommendations. *Hansard*, the verbatim record of the hearings, should be consulted for the complete proceedings.

Acknowledgments

The Committee extends its appreciation to officials from the Ministry of Health and Long-Term Care (Ministry) for their attendance at the hearings. The Committee also acknowledges the assistance provided during the hearings and report writing deliberations by the Office of the Auditor General, the Clerk of the Committee, and staff at the Legislative Library's Research and Information Services.

Definition of Terms

Outbreak: the sudden appearance or increased incidence of a disease in a community. An outbreak may or may not spread more broadly to become an epidemic.[1]

Epidemic: An unusual increase, not necessarily within a short time, in the number of cases of a transmissible disease previously existing only at an endemic level in a region or population, or the appearance of an unusual number of cases of a disease which was not recognized as being endemic in a region or population.[2]

Outbreak Preparedness: outbreak preparedness is a province-wide effort, largely community-based – it involves many individuals and organizations, including the Ministry, other provincial ministries, the federal government, public health units, health-care providers, non-health organizations and services, and essential workers, to name a few.[3]

Pandemic Influenza: a pandemic is an epidemic that has spread so widely that many people in different countries are affected.[4] Unlike the seasonal flu, a pandemic influenza is one that can spread easily from person to person and cause serious illness because the population has little immunity to what would be a new virus.[5]

Vaccine: the primary public health intervention during pandemic influenza is vaccination. However, vaccine production requires the seed virus and therefore

cannot begin until the pandemic virus is already affecting humans. A pandemic vaccine may not be available until four to six months after the first case of pandemic influenza is identified.[6]

Antiviral: according to the federal government, antivirals, or anti-influenza drugs, are the only specific medical intervention that targets influenza and that may be available during the initial pandemic influenza response. Neuraminidase inhibitors, a type of antiviral drug, are known to slow down the spread of the disease during the first wave of the pandemic. These drugs reduce the duration and severity of symptoms and reduce complications and the use of antibiotics.[7]

Quarantine: this involves separating people from others if they have been exposed to the virus but are not ill.[8]

Isolation: this is used for people who are actively ill with an infectious disease.[9]

MERP: in accordance with the *Emergency Management and Civil Protection Act,* the Ministry developed a ministry emergency response plan (MERP) for its response to infectious-disease and other health emergencies. The MERP outlines what the Ministry will do in the event of any emergency that affects the health-care system and the health of Ontarians. It is intended to complement incident specific plans such as the OHPIP.[10]

OHPIP: the Ontario Health Plan for an Influenza Pandemic (OHPIP) is an incident specific plan that was introduced in 2004 and has since been updated every year. The plan, which concentrates on the emergency response actions of the health-care sector, outlines operational practices, frameworks, tools and measures to guide and support health-care-sector pandemic planning and actions.[11]

1. Audit Objectives and Main Findings

The audit objective was to assess whether the Ministry has satisfactory systems and procedures in place to:

- Identify and respond to infectious-disease outbreaks of public health significance on a timely basis, in accordance with applicable legislation and international best practices.
- Measure and report on the effectiveness of these activities.

The Auditor noted that the Ministry is drawing up detailed response plans for outbreaks of infectious diseases, stockpiling antiviral drugs and supplies and creating infection-control networks. The Auditor, however, noted that the following areas require attention:

- **Role of Public Health Units and Other Health-Care Stakeholders in a Pandemic:** the Ministry has a comprehensive health-care sector response plan for an influenza pandemic, but over one-third of public health units had not completed their local pandemic plans and some health-care stakeholders were unsure who is responsible for stockpiling critical supplies. The latter is both a provincial and local responsibility.
- **Critical Care Triage Tool**: this unique tool has neither been tested nor submitted for public consultation. It was developed to help physicians decide who should receive critical care during an influenza pandemic. The tool is important because the Ministry estimates that during a pandemic the demand for beds in intensive care units and ventilator-supported beds would exceed current capacity by 70% and 17% respectively.
- **Quarantine and Isolation Sites**: the availability of sites where a significant number of people could be quarantined or isolated for an extended period of time is limited; the Ministry had no plan to look for additional sites.
- **Temporary Community-Based Influenza Assessment Centres**: it is the responsibility of local public health units to establish these centres but 2007 data indicates the units either do not have operational plans for the centres, or are undecided whether to establish them.
- **Public Health Staffing Vacancies**: there are many staffing vacancies in the Ministry's public health area and in local public health units; some of the unfilled positions are critical during a human-health emergency.
- **Short-Term Warehousing of Pandemic Supplies**: there are four warehouses. One is located in Toronto, two in northern Ontario and one in eastern Ontario. The Auditor raised concerns regarding the decision not to locate a warehouse west of Toronto; the relatively limited storage capacity, in relation to population base, of the Toronto warehouse in comparison with northern facilities; and the lack of formal risk assessment in the decision to store pandemic supplies for southern Ontario in one location only.
- **Disease-Surveillance Information System**: there was a delay in Ontario introducing a new system. Ontario's system was fully implemented only in December 2005. By then the federal government indicated it would switch to a newer system. In some instances information in the current system was not captured consistently and in a timely manner. Duplicate cases are included in the data. The Auditor is concerned there may not be adequate time to ensure the accuracy of the data in the old system before switching to the newer system.
- **Health-Care Providers Contact Information**: Although the College of Physicians and Surgeons had this contact information, it can only be used in emergencies; therefore the Ministry had to purchase the information and it was incomplete.

The Auditor also noted that the Ministry had not collected $17 million from the federal government for its share of costs of the antiviral stockpile. The Ministry is in the process of discussions to recover the funds.

2. Committee Request for Ministry Response

The Committee requests that the Ministry provide the Committee Clerk with a written response within 120 calendar days of the tabling of this report with the Speaker of the Legislative Assembly, unless otherwise specified in a recommendation.

2.1 Committee Recommendations

1. **The Ministry of Health and Long-Term Care shall translate the entire Ontario Health Plan for an Influenza Pandemic (OHPIP) into French and advise local public health units of its bilingual availability.**

2. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on the number of public health units without pandemic plans that were able to complete their plans by year end 2008 and on measures that the Ministry has undertaken to assist those units that did not complete their plans by the year end 2008 deadline, to create plans. The Ministry should specify when it expects to receive the latter plans. The Ministry should ensure that once public health units complete their plans that the plans are posted on the public health units' websites. The Ministry should provide corresponding links on its website.**

3. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on steps taken to ensure that primary health care providers in remote locations, such as northern Ontario, are adequately prepared and are incorporated into planning for management of infectious disease outbreaks of public significance, including influenza pandemic outbreak management.**

4. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on steps taken to investigate the feasibility of creating a process during an influenza pandemic for assisting people who have been deemed not eligible for critical care, following application of the critical care triage tool.**

5. **While the Standing Committee on Public Accounts acknowledges the Ministry of Health and Long-Term Care's position that quarantine is not an effective strategy for an influenza pandemic, the Ministry shall report to the Committee on measures undertaken to ensure that public health units identify non-hospital sites for temporary isolation or quarantine use and should report on the number of units that have identified specific sites. The Ministry should also report to the Committee on progress in developing guidelines for local isolation/quarantine facilities. As well, the Ministry should report on its decision of whether or not to make participation in the Provincial Transfer Authorization Centre mandatory for tracking the movement of patients between health-care facilities.**

6. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on steps taken to identify isolation areas where health workers can go if they believe they may have been infected during an influenza pandemic and do not want to return home.**

7. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on the number of public health units that have completed plans for establishing temporary influenza assessment, treatment and referral centres, and on measures that the Ministry has undertaken to assist those units that do not have plans, to create plans.**

8. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on the number of public health units that have a full time medical officer of health and on the number of units that have a vacancy.**

9. **The Ministry of Health and Long-Term Care shall provide the Standing Committee on Public Accounts with a status report on steps taken to ensure that reliable and useful data is entered into its disease surveillance system, and a status report on the Ministry's progress in implementing the new Panorama system.**

10. **The Ministry of Health and Long-Term Care shall consult with the Ministry of Education and then provide guidance to local public health units in asking the units to ensure that they are consulting with local school boards on planning for school closures that may be required in the event of an infectious disease outbreak of public significance, including an influenza pandemic.**

11. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on progress in establishing communications tools that will enable members of the public, including those who do not have access to the internet, to quickly access relevant information, such as information on whom to contact and where to go, in the event of an influenza pandemic. The Ministry should also consider whether this information should be translated into other languages so that those who have neither English nor French as their first language can easily access the information.**

3. OVERVIEW

The World Health Organization (WHO) and the Ministry both believe that the risk of pandemic influenza is serious and that its impact on society would be much greater than that of SARS. Forecasts for Ontario predict that 5,000-12,000 people would die and 22,000-52,000 would be hospitalized during pandemic

influenza as opposed to the 44 dead and 312 hospitalized for SARS.[12] The Ministry said that its experience with SARS underscored the need to develop increasingly vigilant best practices in infection prevention and control, as well as outbreak preparedness.[13]

The *Emergency Management and Civil Protection Act* sets out the responsibilities of ministries and municipalities for emergency planning and preparedness. The *Health Protection and Promotion Act* establishes key responsibilities for health protection. It also sets out the roles for the Chief Medical Officer of Health, local boards of health and medical officers. *The Occupational Health and Safety Act* reflects the critical role of the Ministry of Labour during an emergency.[14]

In Ontario, health organizations' responsibilities for outbreak preparedness and management are as follows:

- The Ministry of Health and Long-Term Care formulates emergency plans concerning human health, disease and epidemics in Canada.
- The Ministry's Public Health Division responds to the immediate threat of infectious-disease outbreaks.
- Local medical officers of health and local boards of health of public health units are responsible for matters involving public health in their communities.[15]

Hospitals and long-term-care homes have responsibility for emergency plans for their own organizations.[16]

3.1 Avian Influenza (Bird Flu)

The Ministry of Health and Long-Term Care is represented on a committee that includes representatives from public health, the federal government and Ontario's Ministries of Natural Resources and Agriculture, Food and Rural Affairs (OMAFRA) to coordinate a response to avian influenza and to discuss other relevant issues, such as examining wild bird surveillance tools. OMAFRA has a plan for responding to an avian influenza outbreak; the Ministry has a complementary plan for dealing with human impacts. The Ministry has a GIS system for monitoring affected farms, vulnerable animal populations, and their proximity to wetlands, where wild birds land.[17]

4. Audit Observations and Recommendations

4.1 Ministry Initiatives Taken to Date

The Auditor noted that the Ministry has taken a number of initiatives since the SARS outbreak. The Ministry has created a Provincial Infectious Disease Advisory Committee, Regional Infection Control Networks, a new public health and protection agency, and an emergency management unit. It is also stockpiling drugs and pandemic supplies and is developing a unique critical-care triage tool.

However, the Auditor stated that improvements are needed in areas noted below.[18]

4.2 Planning and Coordination

The Ministry is ultimately responsible for ensuring Ontario's outbreak preparedness. The audit focused on the Ministry's responsibilities regarding preparation for and management of an infectious-disease outbreak. Those responsibilities include developing policy; setting strategic directions; ensuring compliance with standards and guidelines; and monitoring performance.

Response Plan

The Ministry has a ministry emergency response plan (MERP) to respond to infectious-disease and other health emergencies. The MERP is intended to complement incident specific plans such as the Ontario Health Plan for an Influenza Pandemic (OHPIP). The Auditor noted:

- The MERP measures for hazard identification and risk assessment had not been reviewed since 2005.
- The OHPIP was not, as required, translated into French.
- There is variance in the level of detail in OHPIP guidelines for the various health-care sector groups addressed in the plan.
- The OHPIP does not address all areas recommended by the national pandemic plan, such as assessing health-care personnel and facilities capacity.

The Auditor also noted that the Ministry has not conducted an enactment exercise with its response plan for infectious-disease outbreaks.[19]

Clarification of Roles and Responsibilities

The Ministry has specified each division's activities at various emergency levels in a pandemic but no training has been provided on procedures to follow during a pandemic. Past incidents, including the 2005 salmonella outbreak, indicate that the roles and responsibilities of public health units, health-care providers and the Ministry need to be further clarified. In the OHPIP the Ministry summarized planning activities by pandemic phase but the Ministry has not systematically summarized specific actions required of each stakeholder.[20]

Local Pandemic Planning

Local medical officers in public health units are to take the lead in co-ordinating the local health response to a pandemic. However, there is inadequate funding of public health units for pandemic preparation; more than one third of the units had not drawn up pandemic plans; and plan detail varied for those with plans.[21]

The Auditor recommended that the Ministry review both the OHPIP and the MERP to regularly update these documents as necessary. The Ministry should translate the OHPIP into French and periodically conduct simulation exercises. The Ministry should ensure that all parties understand their responsibilities in a pandemic (for example, by providing a checklist of planning activities by

pandemic phase and by organization in the next version of the OHPIP) and should develop a template to help public health units complete local pandemic plans.[22]

In its initial response the Ministry agreed that emergency plans and supporting documents should be reviewed and updated regularly. The annual updated OHPIP was released in July 2007. The executive summary was translated into French; the document is exempt from the *French Language Services Act*. By fall 2007 the MERP will be modified. The Ministry listed initiatives undertaken to test emergency plans, such as conducting and participating in exercises. The Ministry said that it will develop an exercise calendar to ensure that outbreak response, including field exercises, is tested regularly. The Ministry said that it does promote parties' understanding of their roles as further explained below.[23]

Committee Hearings

Response Plan

The Ministry stated that outbreak preparedness and management, particularly in the context of pandemic planning, is a shared responsibility. The relevant legislation, the MERP and the OHPIP together establish the roles, responsibilities, structures and procedures for Ontario's pandemic planning.[24] The Ministry said that the OHPIP clearly sets out roles and responsibilities for all parties and contains checklists and targeted fact sheets, which are made available for health workers.[25] The Ministry also produces booklets that describe the pandemic plan. One version is for health workers; another is for the public.[26]

The Ministry releases new versions of the OHPIP, incorporating relevant aspects of the best available clinical information. Over the past four years the Ministry has released four iterations of the OHPIP; a fifth is due out in summer 2008.[27] Each subsequent draft provides more detail and sometimes includes better tools.[28] Local authorities must keep their plans updated based on new OHPIP drafts.[29]

The OHPIP and emergency preparedness online resources are available on the Ministry website; in January 2008 this section of the website received 34,000 visits.[30] The Ministry also produces a monthly Pandemic Planner newsletter which is widely accessed and distributed.[31] The OHPIP is widely distributed in the health care system.[32] The Ministry gives, on average, 200 annual speeches and presentations on the OHPIP. The Ministry says that the plan is widely used across Canada and believes that it is also consulted internationally.[33]

Supplementary Information

After the audit hearings, the Auditor's office contacted the Ministry to ask whether the OHPIP would be translated into French and if not, to provide a rationale for this decision. The Ministry said that it is currently in discussions with the French Language Health Services office regarding the issue of OHPIP translation.

The Ministry also said that it is working with Emergency Management Ontario (EMO) to facilitate discussion between EMO and the French Language Health

Services office regarding language co-ordination. The Ministry is providing French language translations of the following:

- OHPIP executive summary; and
- OHPIP fact sheets.

The Ministry is also producing a French language OHPIP guide that will be published in time for the release of the 2008 version of OHPIP and will be available on a French language website.
The Ministry's rationale to date for not translating the entire OHPIP into French is as follows:

- the document is difficult to translate because it includes complicated medical terminology;
- the document is constantly updated and re-issued; and
- the Ministry says that the OHPIP is exempt from translation under the *French Language Services Act.*[34]

Sections 2 and 5 of the *French Language Services Act* state the following:

Provision of services in French

> 1. The Government of Ontario shall ensure that services are provided in French in accordance with this Act.

Right to services in French

> 5. (1) A person has the right in accordance with this Act to communicate in French with, and to receive available services in French from, any head or central office of a government agency or institution of the Legislature, and has the same right in respect of any other office of such agency or institution that is located in or serves an area designated in the Schedule.[35]

However Ontario Regulation 671/92 lists exemptions for the *French Language Services Act* as follows:

> 1. The following are exempt from the application of sections 2 and 5 of the Act:
>
> 1. Publications prepared by or for government agencies or institutions of the Legislature, or appendices to those publications, that are of a scientific, technical, reference, research or scholarly nature and that,
>
> i. although not restricted in circulation to the confines of the Government of Ontario,

are not normally available for general circulation to members of the public, or

ii. are normally consulted by members of the public with the assistance of public servants.[36]

Committee Recommendation

The Standing Committee on Public Accounts recommends that:

1. **The Ministry of Health and Long-Term Care shall translate the entire Ontario Health Plan for an Influenza Pandemic (OHPIP) into French and advise local public health units of its bilingual availability.**

Committee Hearings (Continued)

Clarification of Roles and Responsibilities

The Ministry said the OHPIP was tested during an exercise with over 200 stakeholders and that another major exercise will be held in fall 2008.[37] Smaller exercises also occur frequently in different parts.[38] A Ministry representative said that he anticipated the declaration of a provincial emergency in the event of a pandemic outbreak.[39]

The provincial emergency plans establish the Premier and cabinet as the executive authority in an emergency like a pandemic. Emergency Management Ontario (EMO), part of the Ministry of Community Safety and Correctional Services, has the primary responsibility for coordinating the province's emergency response.[40] EMO would bring together relevant ministries that need to alert their own sectors. Subsequently, representatives at the municipal level for such organizations as the fire and police forces would be contacted.[41]

The Ministry, through an order in council, is responsible for leading preparedness and response activities in the areas of human health, disease and epidemics, and health services during an emergency. The Chief Medical Officer of Health heads up the health response by providing direction to the health sector. Following SARS, the ministry created the emergency management unit to spearhead the ministry's responsibilities for health emergency preparedness and response.[42]

EMO works through the Chief Medical Officer of Health to provide direction to the health care system and in support of the Ministry.[43]

Local Pandemic Planning

There are 36 public health units in Ontario.[44] These units are responsible for developing community plans in partnership with local health providers. Boards of health are required to conduct activities to support the identification and management of various community outbreaks.[45]

As of September 2007, the Ministry said that 70% of public health units had pandemic plans in place. The remaining units are expected to complete their plans

by the end of 2008. The Ministry's emergency management unit is working with health units to develop a best-practices template and tools.[46]

The Ministry said that in general, rural or smaller health units are the ones that are having greater difficulty in completing their pandemic planning.[47] Geography is one challenge for these units. The units are generally small, but cover large areas. Additionally, access to the rest of the health sector is not as robust for these units as it is for others.[48] The Ministry stressed, however, that all health units in the province are developing plans.

Ministry staff members are working closely with those units experiencing difficulties.[49] Over the summer, Ministry staff will address specific issues of relevance to those units without plans and will either assist directly or broker assistance for the units.[50] Each public health unit has more than one hospital in its catchment area.[51] The Ontario Hospital Association is helping to support small hospitals and rural hospitals. The Association has distributed a kit to these sites which contains strategies relevant for the local response.[52]

Some communities, for example in the north, do not have hospitals.[53] The Ministry said that in communities where only primary care, such as a nursing station or a physician, is available, health units will need to engage the local physicians in discussions to determine what to do in the event of a pandemic outbreak. The Ministry said that this time consuming work still needs to be completed in many communities. Relationships must be developed; discussions, conducted; agreement, sought; consensus, achieved; and, then the process and outcome must be documented.[54] (The OHPIP has a chapter for long-term-care sites that was developed in conjunction with long-term-care operators.)[55]

At the provincial level, a working group of primary care providers has been meeting over the winter to define what their roles would be during a pandemic. The group includes nurse practitioners and primary care providers, with representation from the north. A second group is looking at additional options for supporting a response to a flu pandemic. Medical officers of health will often travel to communities in the north for discussions with physicians based there, to facilitate coordination and, with other staff members, to provide updates on the OHPIP.[56]

Some First Nations communities in Ontario receive services directly from the federal government. The Chief Medical Officer of Health said that First Nations representatives from these communities are invited to be part of their health units' pandemic planning exercises and that federal officers with jurisdiction in these areas are also invited to participate.[57] The OHPIP includes a chapter for First Nations communities (both those that receive services from the federal government and those that receive services from the Ontario government).[58]

The Ministry has not considered a redistribution of catchment areas as a means of addressing the difficulties of some units in establishing plans. The Ministry said that as the larger health units formulate plans, the process becomes easier for

subsequent units because experience can be transferred. All units have received additional staffing in recent years to address the needs of pandemic planning. [59]

The Ministry said that if a flu pandemic occurred in a region with no pandemic plan that the Ministry would step in. The Chief Medical Officer always has the statutory authority to intervene in the event of an inadequate response.[60]

Supplementary Information

The Chief Medical Officer of health derives statutory authority to intervene in the event of an inadequate response from the *Health Protection and Promotion Act.* Sections 77.1 (1) and (2) of the Act state that:

> 77.1 (1) If the Chief Medical Officer of Health is of the opinion that a situation exists anywhere in Ontario that constitutes or may constitute a risk to the health of any persons, he or she may investigate the situation and take such action as he or she considers appropriate to prevent, eliminate or decrease the risk.
>
> (2) For the purpose of subsection (1), the Chief Medical Officer of Health,
>
> (a) may exercise anywhere in Ontario,
>
> (i) any of the powers of a board of health, including the power to appoint a medical officer of health or an associate medical officer of health, and
>
> (ii) any of the powers of a medical officer of health; and
>
> (b) may direct a person whose services are engaged by a board of health to do, anywhere in Ontario, whether within or outside the health unit served by the board of health, any act,
>
> (i) that the person has power to do under this Act, or
>
> (ii) that the medical officer of health for the health unit served by the board of health has authority to direct the person to do within the health unit.[61]

The Auditor's office contacted the Ministry after the audit hearings to ask the Ministry whether there was any reason that the Ministry should not be required to post links to public health unit pandemic plans on its website. The Ministry said that many public health unit pandemic plans are currently posted on public health unit websites. The Ministry has no objection to providing links to these plans.[62]

Committee Recommendations

The Standing Committee on Public Accounts recommends that:

2. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on the number of public health units without pandemic plans that were able to complete their plans by year end 2008 and on measures that the Ministry has undertaken to assist those units that did not complete their plans by the year end 2008 deadline, to create plans. The Ministry should specify when it expects to receive the latter plans. The Ministry should ensure that once public health units complete their plans that the plans are posted on the public health units' websites. The Ministry should provide corresponding links on its website.**

3. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on steps taken to ensure that primary health care providers in remote locations, such as northern Ontario, are adequately prepared and are incorporated into planning for management of infectious disease outbreaks of public significance, including influenza pandemic outbreak management.**

4.3 Health-System Resources

In the OHPIP, the Ministry provided instructions to health-care providers for influenza pandemic planning in cases of limited resources and increased demand.

Acute Care in Hospitals

In a pandemic, the Ministry expects the demand for intensive-care unit and ventilator-supported beds to be greater than availability. The OHPIP's last resort strategy for managing a surge in demand is triage, to maximize survival within the population. The Ministry began developing a unique critical-care triage tool in 2006 but had no plans for public consultation on the tool despite contentious (such as age-related) criteria, nor has the tool been tested.[63]

The Auditor recommended that in order to ensure that access to acute care in an outbreak is fair and equitable to all Ontarians, the Ministry should consider the need for public consultation, particularly since its recently developed critical-care triage tool may be the first one developed anywhere in the world. The Ministry should work closely with the medical community to test and refine the tool and should establish a plan for responding to various levels of surges in patients needing critical care.[64]

In its initial response the Ministry agreed with the recommendation for public consultation on the tool and is exploring how best to achieve this. Results from a pilot study to test the best method of gauging the tool's efficacy and accuracy were expected by March 2008. The Ministry was implementing a Surge Capacity Management Program to provide tools and sharing of best practices. The

Champlain Local Health Integration Network is the demonstration region. A province-wide rollout of the program is anticipated in 2008-09.[65]

Committee Hearings

Acute Care in Hospitals

The Ministry's critical care triage tool has been made public for two years and has been included in two different iterations of the OHPIP.[66] The Ministry stated that it supports the Auditor's recommendation for public consultation on the tool and that consultations are now underway.[67] One consultation in North Bay has been completed; a second is planned for the Greater Toronto Area (GTA).[68]

The Ministry said the consultation process is quite intensive. In North Bay people were selected at random to reflect the population. The selection included representatives from the First Nations and Francophone populations. During the day long consultation, the Ministry provided participants with information on pandemics, educated them about the critical care triage tool, and asked participants to break into small groups to answer questions on relevant issues. Preliminary results from the consultation were not yet available.[69] The Ministry said that the consultation process will improve the public's understanding of the critical care triage tool and will provide the Ministry with valuable input regarding how the tool is received by Ontarians.[70]

The Ministry is also conducting a pilot study on the tool in one critical care unit. After people have been admitted to the unit and are discharged "one way or another," their files are given to two assessors who determine whether each person would have been admitted to critical care had the triage tool been applied. The assessors then compare this to each person's outcome (for example, whether each person survived or died).[71] The pilot is an attempt to assess the efficacy of the critical care triage tool by proxy. The Ministry said that in life and death situations in a critical care unit, the tool cannot be tested directly on people.[72]

The Ministry said that one of the messages that it needs to work hard to convey to the public is that if someone is not a candidate for critical care in the hospital, this does not mean that the person is not a candidate for treatment. There will always be treatment available through a flu centre, an emergency department, etc.[73]

The Committee asked whether an appeals process exists. The Ministry said that if a person is not deemed eligible for critical care through application of the tool, that there is no opportunity for an appeal though the person could seek a second opinion elsewhere.[74] The Ministry said that the critical care tool is a clinical tool. The decision-making regarding who receives critical care is still a physician's decision. The purpose of the tool is to help clarify the clinical criteria that physicians, in a more equitable way, will use to reach decisions over care.[75] Discussions are underway to determine whether the professional who is caring for the patient, or whether a professional who is not directly involved, should assess the patient's case. Currently, before a patient is admitted to critical care, the patient will be assessed by a critical care team.[76]

The Ministry noted the following:

- The critical care tool has been identified as a promising practice by the Centre for Infectious Disease Research and Policy at the University of Minnesota, which peer reviews practices that can enhance public health preparedness.
- British Columbia has adopted the tool for inclusion in its pandemic plan.[77]

Committee Recommendation

The Standing Committee on Public Accounts recommends that:

4. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on steps taken to investigate the feasibility of creating a process during an influenza pandemic for assisting people who have been deemed not eligible for critical care, following application of the critical care triage tool.**

Committee Hearings (Continued)

The Ministry is also focusing on surge capacity planning and management for critical care. A pilot project in the Champlain LHIN is currently underway to develop surge capacity for an event, such as a train derailment.[78] This pilot will assist in determining the following: how to expand the capacity of an institution to provide the necessary level of care in the event of a pandemic; issues relating to human and supply resources; and the impact on factors such as hospital admission policy.[79] The Ministry said that the Champlain pilot will inform the future rollout of a province-wide system for surge capacity development.[80] The Ministry also noted that in 2003 it created the emergency medical assistance team, or EMAT, a 56-bed acute care mobile field unit that can be deployed anywhere in the province within 24 hours when local providers are overwhelmed due to an emergency.[81]

Summary of Audit Report (Continued)

Isolation and Quarantine

The Ministry has established a critical-care bed and resource registry that contains information on the inventory of negative-pressure rooms and isolation beds across the province.[82] In February 2007, the Ministry established a real-time critical-care information system in nine hospitals and expected to extend this to all hospitals with critical-care beds by March 2008.

The Auditor noted that the Ministry has not identified suitable temporary isolation facilities for outbreaks. In other jurisdictions holiday camps, schools, dormitories and hotels have been identified as possible quarantine sites.[83]

Transfer of Patients with Infectious Diseases

The Ministry established the Provincial Transfer Authorization Centre in 2003 to track the movement of patients between health-care facilities in order to prevent the spread of infectious diseases. The Centre was not used during the outbreak of

Legionnaires' disease in 2005. The Auditor was informed that participation in the Centre's program was strictly voluntary.[84]

Influenza Assessment, Treatment, and Referral Centres

During an influenza pandemic local authorities are to establish up to 750 temporary community-based influenza assessment, treatment and referral centres (assessment centres). The Auditor noted that half the public health units had no operational plan to establish the centres and that the remainder was undecided about whether to establish the centres. The Ministry had not made decisions on legal, licensing and scope-of-practice issues and on the division of funding roles and responsibilities between the Ministry and municipalities for the centres.[85]

The Auditor recommended that the Ministry should ensure that local public health units identify suitable non-hospital quarantine sites, give due consideration to making participation in the Provincial Transfer Authorization Centre (Centre) compulsory, and resolve the legal, licensing, scope-of-practice and funding aspects of community-based influenza assessment, treatment and referral centres. The Ministry should monitor the establishment of the centres by public health units and make alternative arrangements in advance if it is likely that certain public health units will not have established the required centres.[86]

In its initial response the Ministry agreed with the importance of providing infection-prevention and -control services in a local-level outbreak and listed steps taken to enhance isolation resources, such as creating 13 Regional Infection Control Networks and funding 122 additional infection-control practitioners in acute-care hospitals. The Ministry agreed guidelines for local quarantine facilities would be developed, mandatory participation in the Centre would be evaluated, and legal, licensing, scope-of-practice, and funding issues related to a significant outbreak would be addressed. As of May 2007, 60% of public health units were working on the development of local assessment, treatment and referral centres.[87]

Committee Hearings

Isolation and Quarantine

The Ministry said that it is not in agreement with the Auditor General's recommendation regarding quarantine. The Ministry does not believe that a quarantine strategy will be effective in slowing the spread of an influenza pandemic. During a pandemic, the virus will be community-based, and quarantine is not likely to be effective beyond the very early stages.[88]

The Ministry also noted that the OHPIP includes a description of voluntary isolation. People with influenza-like symptoms will be asked to isolate themselves and avoid contact with others. In addition, depending on the severity of the virus, the OHPIP also includes provisions for asking healthy individuals who have come into contact with others exhibiting influenza-like symptoms to voluntarily quarantine themselves at home until the incubation period is over.[89]

The Ministry said that it will be developing quarantine guidelines for infectious disease outbreaks other than a pandemic.[90]

Influenza Assessment, Treatment, and Referral Centres

In 2006 the OHPIP set out a strategy for public health units to establish plans for influenza assessment centres to ensure that hospitals and other primary care providers were able to offer a range of services for treating individuals.[91] The intention is that people will be told, if exhibiting certain symptoms, to go to the flu centre, not their family doctor. This will ensure both an expedited response for the person and will also enable the physician to carry on with regular business.[92] The flu centres are recommended; the Ministry said that it would need to be told what the alternative arrangement would be in the absence of a centre plan.[93] The Ministry said that a recent survey of health units confirms that a majority of public health units is already working on flu centre planning. The decision for the location for flu centres is made at the local level as people at this level are in the best position to know their own community needs.[94]

Committee Recommendations

The Standing Committee on Public Accounts recommends that:

5. **While the Standing Committee on Public Accounts acknowledges the Ministry of Health and Long-Term Care's position that quarantine is not an effective strategy for an influenza pandemic, the Ministry shall report to the Committee on measures undertaken to ensure that public health units identify non-hospital sites for temporary isolation or quarantine use and should report on the number of units that have identified specific sites. The Ministry should also report to the Committee on progress in developing guidelines for local isolation/quarantine facilities. As well, the Ministry should report on its decision of whether or not to make participation in the Provincial Transfer Authorization Centre mandatory for tracking the movement of patients between health-care facilities.**

6. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on steps taken to identify isolation areas where health workers can go if they believe they may have been infected during an influenza pandemic and do not want to return home.**

7. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on the number of public health units that have completed plans for establishing temporary influenza assessment, treatment and referral centres, and on measures that the Ministry has undertaken to assist those units that do not have plans, to create plans.**

Summary of Audit Report (Continued)

Human Resources in Public Health

There are a significant number of staff vacancies in the Ministry's public health area as well as in public health units that are partly funded by the Ministry. Nearly one third of the public health units do not have a full-time medical officer of health (MOH). The Ontario Medical Association has warned that the lack of MOHs is putting the province's health in serious peril.[95]

Human Resources in the Health-care Sector

According to the Ministry, in a pandemic up to 25% of health-care workers may be absent from work. The Ministry developed a database of over 1,000 health-care professionals who expressed a willingness to volunteer their services during a health emergency but it has not maintained the database since 2005.
Part of the Ministry's pandemic strategy is to recruit health-care retirees and other volunteers. They would fill out a questionnaire enabling local planners to identify areas of expertise. The Ministry has not monitored use of these questionnaires. The Auditor believes that proper monitoring of local planning is necessary.[96]

The Auditor recommended that the Ministry should take effective measures to fill the large number of vacancies of MOHs in public health units and of other positions in the Ministry's Public Health Division and public health laboratories. The Ministry, in conjunction with professional associations and regulatory colleges, should maintain up-to-date registries of volunteer health-care providers who would be available to assist during outbreaks. The Ministry should also monitor the success of local public health units in recruiting health-care retirees and other volunteers who could help in an outbreak situation.[97]

In its initial response the Ministry said that it accepted the need to fill the ongoing vacancies and agreed that plans for health-human-resources needs in an emergency must be in place. The Ministry listed steps undertaken to achieve these goals including a proposal made to regulatory colleges on how their members can volunteer in any emergency. The Ministry will modify its next quarterly survey of public health units to capture local human-resource-strategy information.[98]

Committee Hearings

Human Resources in Public Health

The Ministry agreed with the Auditor's concerns and said that about one-third of public health units were without full-time MOHs and that close to 100 public health division and laboratory positions were vacant in the Ministry. The Ministry established HealthForceOntario in 2006 to address the growing demand for health professionals. The public health division has been working closely with HealthForceOntario to meet specific demands for public health professionals.[99]

The Chief Medical Officer of Health said that the market is tight and that there are shortages across the country. The Ministry is having discussions on a variety of related issues with the colleges, such as scope of practice and licensing, and is continuing education sessions for students going through medical training to

highlight the benefits of working in public health. People are applying for positions but the market remains competitive and the Ministry is still unable to fill a number of specialty positions. One added complication is that people are retiring. The Chief Medical Officer of Health described the situation as a "revolving door".[100] However, he said that there were some MOHs coming up the ranks and that the situation was slightly better than at the time of the audit.[101]

The government has allocated funding for five new positions through the physician re-entry program for physicians interested in pursuing specialized education to become a MOH. The Ministry has also enhanced funding for the MOH in training program. These efforts have resulted in two acting MOHs applying for bursaries to pursue their master's degrees in public health.[102]

Human Resources in the Health-care Sector

In a pandemic influenza, health workers will become ill not necessarily specifically from their work environments but because this is a disease that will have spread in the community.[103] One measure that the Ministry is considering to ensure adequate human resources during a pandemic would be to move health workers into areas of need, in what it described as "a cautious and prudent way". (There are associated legal, regulatory and liability issues.) The Ministry has initially engaged in discussions with colleges over this possible measure.[104]

The Ministry is also looking at scopes of practice. In the face of a pandemic there are rigid rules governing who can do what to whom and when. The Ministry, in collaboration with the colleges, is examining whether those regulatory or policy barriers need to be relaxed somewhat during a pandemic in order to expedite care and service in areas, such as vaccination.[105]

The Ministry does not believe that keeping a database of volunteers is effective and said that it is difficult to maintain a current database of this nature.[106] Instead, the Ministry plans to further engage the health regulatory colleges to identify strategies for how their members can volunteer during emergency situations.[107]

Committee Recommendation

The Standing Committee on Public Accounts recommends that:

8. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on the number of public health units that have a full time medical officer of health and on the number of units that have a vacancy.**

4.4 Medical Interventions

To help prepare for an influenza pandemic, the federal government co-ordinated the purchase and contributed to the funding of vaccines and antiviral drugs. The Ministry supplements those preparations by buying and distributing vaccines, antiviral drugs, certain personal protective equipment, and clinical supplies.

Vaccines

The federal government has a contract for an influenza vaccine with a Quebec manufacturer. In the first phases of a pandemic the vaccine would be available in limited supplies only. This means that prioritization within the population is necessary. The federal government will issue recommendations for priority groups once the virus emerges. The federal pandemic plan advises each province to develop more refined estimates of priority groups ahead of the pandemic.

The Auditor noted that the Ministry had not completed the enumeration and mapping of priority groups. There were no security arrangements for transporting the vaccine and no provisions for risk assumption by the Ministry or the manufacturer for loss or theft during transport. There was also no pandemic risk assessment of warehousing and distribution capabilities. The federal government was partnering with the province for syringes and needles but no contract was in place (one was expected by 2008). The vaccine requires two doses but there was no system to manage immunization schedules and track such issues as adverse reactions.[108]

Antiviral Drugs

According to the federal government, antivirals, or anti-influenza drugs, are the only specific medical intervention that targets influenza and that may be available during the initial pandemic response. Ontario had nearly completed stockpiling quantities for 25% of its population (a national guideline) by March 31, 2007. The Ontario antivirals are currently stored in a single location. An efficient distribution system is necessary.

The Auditor noted concerns regarding a lack of guidelines for delivery and administration, storage conditions, and inventory tracking systems for the antivirals. The Ministry only began negotiations to collect the $17 million from the federal government for its share of the cost of the antiviral stockpile after the Auditor noted lack of action in collecting the funds owing.[109]

Personal Protective Equipment and Medical Supplies

As of March 31, 2007 the Ministry had obtained more than 60% of the required quantities of personal protective equipment and medical supplies, such as masks, gloves, gowns and hand sanitizers. The Ministry planned to have all items stockpiled by 2008. The funding to stockpile additional numbers of N95 respirators (which may be needed instead of surgical masks) had not been approved at the time of the audit.[110]

Instructions Provided to the Health-care Sector on Local Stockpiling

The Ministry provided quantity formulas in the OHPIP so that the workers in the broader health-care sector would know what quantities of supplies to buy (health-care workers are responsible for obtaining their own four-week stock of protective equipment; the Ministry is to provide supplies for an additional four weeks).

The Auditor noted that the Ministry had not specified that supplies, such as masks for patients and gowns for non-clinical staff, need to be purchased. The Ministry

did not notify those concerned that they could buy the supplies at the government-negotiated rate once the provincial stockpile was complete.[111]

Status of Stockpiling in Local Communities

Many health-care providers had not completed their stockpiles of personal protective equipment. Half of the public health units did not have four-week stockpiles for their sites. The Ministry had not followed-up on an OHPIP steering committee recommendation to circulate a communique to health-care facilities emphasizing their stockpiling responsibilities.[112]

Storage and Distribution

In 2007 the Ministry entered into a three-year $14 million agreement with a private-sector warehousing firm for short-term storage of the provincial stock of personal protective equipment at four locations across Ontario. As noted in the summary in section 1, the Auditor raised concerns regarding the location and capacity of the warehouses. The Ministry also lacked documentation for its analysis of alternative ways to meet storage needs and had no plans for such issues as the distribution, reordering and security of its stock of pandemic personal equipment.[113]

The Auditor recommended that the Ministry should store, distribute, monitor and administer antivirals, vaccines, and personal protective equipment so that they are accessible to people when needed. The Ministry should emphasize to the broader health-care sector the importance of local stockpiling of personal protective equipment. It should also ensure that it recovers money owed to it by the federal government for its share of the cost of the national antiviral stockpile.[114]

In its response, the Ministry said that it supported this recommendation. The Ministry initiated work in spring 2007 to determine how best to deliver pharmaceuticals and other supplies from geographically dispersed sites to the local level for inclusion in the 2008 OHPIP. Negotiations are underway with the federal government over funds owed to Ontario.[115]

Committee Hearings

Vaccines

The Ministry has an annual influenza vaccination program. Both health units and local providers are involved. It is now possible to vaccinate a large percentage of Ontario's population in a short time during the annual campaign. [116]

In a pandemic, the vaccine will be manufactured in Quebec; it will take four to six months for the vaccine to be ready after the virus has been identified. The purpose of the vaccination is to provide people with protection against contracting the disease. The Chief Medical Officer of Health said one question is whether vaccinations that people have been receiving on a regular, annual basis will provide them with some degree of protection in the event of a pandemic.[117]

The Ministry has conducted exercises, through the annual vaccination program, to see how well equipped it is to move quickly in carrying out mass vaccination

programs. The Ministry is inviting selected health units to use their annual vaccination campaigns as opportunities to test the system. The Ministry introduces "wrinkles in the process" so that the units are able to challenge and test themselves in terms of their ability to respond. Findings from these exercises will be collated and shared with all health units.

People will not be expected to sign individual consent forms in a pandemic. The approach is that if people come for a vaccination, then they imply consent.[118]

The Ministry is working on a transportation plan to ensure delivery of both the vaccine and antiviral drugs.[119] It is difficult to estimate the impact on infrastructure because it depends on the size of the outbreak, the virulence of the disease, and its transmissibility. The Ministry anticipates that the entire population will not be ill at the same time, but that one region may be affected for several weeks, illness will then ebb, and then spread to another part of the province.[120]

Anti-viral Drugs

Antiviral medications are used to treat illnesses associated with viral infections brought about by an influenza pandemic. The antivirals are used only when people are ill.[121] (The federal government and the provinces are considering the possible use of antivirals as a preventative measure; there is no scientific unanimity on this issue.)[122]

There is a commitment in place that antivirals and vaccines will be made available through Ontario supplies to those First Nations and Inuit in the province who receive their health services directly from the federal government.[123] The Ministry said that an agreement was expected to be in place by March 31 for recovery of the $17 million owed to Ontario by the federal government for the federal cost-share portion of Ontario's antiviral stockpile.[124]

Antiviral medication costs $23.33 for a treatment course of 10 pills over five days. The shelf life of the drug is five years. The Ministry said that none of the drug is currently out of date. The Ministry is working with Public Health Agency Canada and Health Canada to establish whether, based on a scientific decision, the shelf life of the drug may be extended. Individuals with a prescription are able to purchase antivirals from a drugstore.[125]

The Chief Medical Officer of Health said that the stockpiled antiviral is constantly being assessed to determine whether there are any resistant influenza strains emerging for that particular drug.[126] In the event of an influenza pandemic, there will quickly be microbiological testing to determine whether the pandemic strain is sensitive to all types of antiviral drugs or to particular ones. So far the main drug stockpiled in Ontario has proven to be robust in most of the influenza cases that have occurred.[127]

It is anticipated that the influenza pandemic strain would be an H1N1. Ontario's stockpiled drug is known to be effective against this. However, the Ministry is proceeding cautiously and is ensuring that other options are also available. The

Ministry hopes that the pandemic will not occur here first. If it occurs elsewhere, those affected will be given antivirals and the effectiveness of the pills will be known "one way or another".[128] If the stockpiled antivirals are not effective, it would be difficult to find other antivirals quickly. Under these circumstances it might simply be necessary to wait until the vaccine is ready to inoculate people, coping in the interim through normal clinical care and treatment.[129]

Personal Protective Equipment and Medical Supplies

The Ministry said that it is in the process of completing its stockpile of necessary medical equipment, such as masks, gowns, and gloves, for use during a pandemic or other health emergencies. The Ministry is also acquiring 55 million N95 respirators (special form fitted masks) for health care workers in close contact with patients during an influenza pandemic. Ontario is one of the few Canadian jurisdictions to stockpile this type of respirator in such quantities. Over 60% of the N95 stockpile was expected to be in place by the end of March 2008.[130]

The Ministry said that it is purchasing the equivalent of 10 years' normal use of N95 respirators. Limitations in building the stockpile relate, in large measure, to the availability of the product.[131] The Ministry said that the companies involved in production now know the Ministry's requirements and are beginning to adjust accordingly. The Ministry is also discussing how to ensure, in future years, that the stockpile is renewed in portions, instead of all at once.[132] By law, the masks must be individually fit to each person's face. The Ministry said that healthcare workers need to know their fit and said that testing is part of an ongoing process.

The Ministry has implemented a hospital-based hand hygiene program for health care workers and has developed pandemic networks across the province. These measures are intended to promote the health and safety of health care workers.[133]

4.5 Situation Monitoring and Assessment

The Ministry's primary means of disease surveillance is to monitor and analyze disease and outbreak data in the integrated Public Health Information System (iPHIS).

Public Health Information System

The Auditor noted that Ontario delayed introducing the iPHIS. The system was already 15 years old when implemented in Ontario. The federal government will stop supporting the system, beginning in 2008. The Ministry is planning to acquire a newer system, which costs $60 million, pending funding approval.

The Auditor also noted quality issues, including the fact that in some cases data in the iPHIS was both inconsistent and incomplete. Ministry employees said 2-3 week delays in iPHIS case entries by public health units adversely affected their work, and that public health laboratory information system data was not available through the Ministry's disease surveillance system. Inconsistencies in data entry were linked to a lack of adequate guidelines for public health units from the Ministry. Duplicate records were also an issue. The Auditor is concerned that if inaccurate data is transferred to a new system in 2008 that this could compromise

decision-making during a crisis. Potential under-reporting of diseases by physicians is an additional concern.[134]

Surveillance Activities During Large-scale Outbreaks

The iPHIS has not been tested in a pandemic scenario. The Ministry said that policies and procedures for surveillance during a pandemic were being developed and that staff would be trained in 2007.[135]

The Auditor recommended that the Ministry should expedite its setting of standards for the timely reporting of diseases and for the completeness and integrity of disease data that public health units enter in the iPHIS. The Ministry should also make plans to ensure that any new surveillance system is implemented only after proper quality assurance and after sufficient consultation with and training for users.[136]

In its initial response the Ministry supported the recommendation and noted steps undertaken to address these issues, including the development of standards for timely reporting and data completeness and integrity, and an improvement in the timeliness of case entry into the iPHIS.[137]

Committee Hearings

Public Health Information System

The iPHIS is a software application that supports the processes used by public health experts both in the Ministry and health units to track and respond to cases, contacts and outbreaks of infectious disease that occur across the province.[138] For those First Nations communities that receive services directly from the federal government, the Ministry has worked out a relationship with Health Canada and the First Nations and Inuit health branch so that when reportable disease results are sent to the local MOH, either the information will be incorporated into iPHIS at that time, or the relevant counterpart in the First Nations community will report results in aggregate to the Ministry.[139] A new surveillance solution that is part of the public health division's surveillance operational plan for a pandemic is expected to be completed this fall. This solution will supplement the surveillance data reporting currently done through the iPHIS in the event of an epidemic.[140]

The Ministry is leading what it describes as a cutting-edge form of surveillance called syndromic surveillance, which uses non-traditional and real-time sources to identify infectious disease clusters faster than through normal channels. The Ministry also said that the next generation of the surveillance system, Panorama, is under development. Ontario is playing a leadership role in its development and implementation. The system will improve reporting and the capability to manage large outbreaks across the country. Panorama is jointly supported by all Canadian jurisdictions and Canada Health Infoway, and builds on the current iPHIS. It will be implemented in three releases during 2009 and 2010. Ontario will be one of the first provinces to implement the new system.[141]

Surveillance Activities During Large-scale Outbreaks

The Chief Medical Officer of Health said that the iPHIS system in Ontario has been "retooled" for live-time case reporting. At a specified point, cases of diseases will be assigned outbreak numbers. There are different definitions of different reportable diseases that will provoke, through the iPHIS system, an outbreak definition. Once an outbreak occurs, the MOH or internal communications will be notified, and the situation will be assessed to determine whether assistance is required from central authorities or from nearby health units. If the outbreak spreads beyond a local area, the province will step in to take on a greater coordinating role. The system facilitates ongoing, real-time assessment.[142]

Committee Recommendation

The Standing Committee on Public Accounts recommends that:

9. **The Ministry of Health and Long-Term Care shall provide the Standing Committee on Public Accounts with a status report on steps taken to ensure that reliable and useful data is entered into its disease surveillance system, and a status report on the Ministry's progress in implementing the new Panorama system.**

4.6 Prevention and Reduction of Transmission

Provincial Infectious Disease Advisory Committee

In 2004 the Ministry formed the Provincial Infectious Disease Advisory Committee (PIDAC) for expert advice on infectious diseases. The Auditor noted that the full responsibilities of PIDAC should be determined. The Ministry said that a memorandum of understanding was under development with PIDAC to help clarify PIDAC's role in a health emergency.[143]

Infection Control in the Health-care Sector

The Ministry established 13 Regional Infection Control Networks (RICNs); one more was planned by the end of 2007. The Auditor's examination of infection control in the health-care sector found that the Ministry had no data on the amount of infection-prevention and -control resources available to each RICN. The Auditor noted a lack of survey data on infection-control professional (ICP)-to-bed ratios in long-term-care facilities and discrepancies among ratios in acute-care hospitals (40% of these hospitals had too few ICPs). Other concerns focused on factors, including certification requirements for ICPs employed in RICNs. In 2007 the Ministry proposed developing province-wide infectious-disease protocols, to be completed by the end of 2007.[144]

Public Health Measures

The Ministry said that it was working with public health units on criteria for implementing public health measures (such as closing schools and day care centres) during outbreaks and would include these in the 2007 OHPIP release.[145]

The Auditor recommended that the Ministry should collect and analyze data on the sufficiency of infection-control resources in all health care settings. The

Ministry should also establish standards for the infection-control resources required in all health-care settings, follow up to ensure that these standards are being complied with, and finalize the protocols for surveillance and management of infectious diseases at the public health units.[146]

In its initial response the Ministry said that it supports the recommendations to buttress health-sector infection prevention and control. The Ministry listed steps undertaken to implement the recommendations, such as soliciting technical advice from PIDAC on infection-control resources in non-acute settings and developing 49 core competencies for infection prevention and control that were to be in place, with local training, by spring 2008.[147]

Committee Hearings

Infection Control in the Health-care Sector

The Ministry noted that it has created RICNs, funded 137 additional infection control practitioners in acute-care hospitals, created 180 communicable disease positions in local health units, and has developed infection-control guidelines in hospital construction and renovations planning and design.[148]

Public Health Measures

The Ministry said that one of the public health measures that has been used to respond to outbreaks has been to close down institutions with a lot of people. The Committee asked about school closures. The Ministry said that guidelines exist describing circumstances under which closing schools would be beneficial. The Ministry of Education has been involved in developing these guidelines and will proceed with its own pandemic planning. The Ministry says that it knows that this work is underway through its communication with many school boards.[149]

Committee Recommendation

The Standing Committee on Public Accounts recommends that:

10. The Ministry of Health and Long-Term Care shall consult with the Ministry of Education and then provide guidance to local public health units in asking the units to ensure that they are consulting with local school boards on planning for school closures that may be required in the event of an infectious disease outbreak of public significance, including an influenza pandemic.

4.7 Communication

The Ministry has undertaken outbreak preparedness communications initiatives including negotiations with broadcast networks to run special Ministry-produced advertisements at short notice and the establishment of a 24-hour information cycle outlining when and with whom the Ministry would communicate. The Ministry has not tested the strategy or formalized an information-sharing agreement between Ontario and other levels of government.[150]

On-call Services

The Ministry's on-call services were developed piecemeal. A consultant hired to review these services noted deficiencies, including no monitoring of response times. The Auditor noted that staffing levels at the physician on-call service fell by half to four in the year before the audit. The Ministry had no procedure manuals for its staff. The Ministry has established a steering committee for the redesign and implementation of a new public health call system. The Auditor will review this in its follow-up in two years.[151]

Important Health Notices

The Ministry was unable to obtain physician contact information from the College of Physicians and Surgeons of Ontario, since this information would only be provided in "urgent and compelling" health emergencies. Instead, the Ministry purchased information from a private-sector vendor. The information was incomplete (for example, the purchased list had 800 fewer physicians than Ministry records) meaning some doctors could not receive the Ministry's Important Health Notices (IHNs) on emerging events with public health significance. The Ministry said that improvements to the notice distribution system were underway and should be completed by 2008.[152]

The Auditor recommended that the Ministry should test its public communication strategy with all members of the health-care system and the media.[153] In its initial response the Ministry said that it supported this recommendation and that plans existed to engage the health care sector by the end of 2007.[154]

Committee Hearings

Communication

The Committee asked how the Ministry will manage public panic in the event of an outbreak.[155] The Ministry said that the key will be having the right information and having the communication capacity and tools available for public communication.[156] The structure and the process that the government as a whole has set up since SARS are meant to address some of these concerns. Roles and responsibilities have been defined to ensure that there are clear and consistent messages to the public. Fear, to a large extent, will depend on what the virus is and what specific actions are required as a result of it.[157]

The Chief Medical Officer said that risk assessment, risk management and risk communication must all be integrated. The public needs clear information that is consistent and correct. Part of the challenge is to quickly gather the information and to make sure that the surveillance data is timely and accurate, and that the messaging is consistent. The Ministry is working closely with communications offices at local levels as well as centrally.[158]

The Ministry said that one goal is to establish a website that the public could access to find key information during a pandemic such as the phone numbers and addresses for local services. In some current print and electronic material (on its website), the Ministry provides advice on pandemic response. The website will

eventually include a feature enabling a user to tick off symptoms and then receive a response that says, "For this, do whatever."[159]

Committee Recommendation

The Standing Committee on Public Accounts recommends that:

11. **The Ministry of Health and Long-Term Care shall report to the Standing Committee on Public Accounts on progress in establishing communications tools that will enable members of the public, including those who do not have access to the internet, to quickly access relevant information, such as information on whom to contact and where to go, in the event of an influenza pandemic. The Ministry should also consider whether this information should be translated into other languages so that those who have neither English nor French as their first language can easily access the information.**

4.8 Performance Reporting

The Ministry has not collected data on the areas suggested by Dr. David Walker in his post-SARS report and has not established a target date for developing these indicators.[160] The Auditor noted that some other jurisdictions set benchmarks and measured outbreak preparedness and management activities in areas of professional development, communication materials and research studies.[161]

The Auditor recommended that the Ministry should collect data and establish reasonable benchmarks for relevant performance measures of outbreak preparedness and management activities, and report regularly to the public on these performance indicators.[162] In its initial response the Ministry said that it supported the recommendation and that updating *Ontario Public Health Standards*, developing supporting protocols, and establishing a performance-management framework are the first steps in achieving regular public reporting on outbreak preparedness and response.[163]

NOTES

[1] Lovell Becker, *International Dictionary of Medicine and Biology* (New York: Wiley, 1986), p. 2045.
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[3] Ontario, Office of the Auditor General, *2007 Annual Report* (The Office: Toronto, 2007), p. 278.
[4] MacPherson, Gordon, *Black's Medical Dictionary* (London: A&C Black, 1999), p. 409.
[5] Office of the Auditor General, *2007 Annual Report*, p. 274.
[6] Ibid., p. 288.
[7] Ibid., p. 289.
[8] Ibid., p. 284.
[9] Ibid.
[10] Ibid., p. 278.
[11] Ibid.
[12] Ibid., p. 274.
[13] Ontario, Legislative Assembly, Standing Committee on Public Accounts, *Hansard: Official Report of Debates,* 39th Parliament, 1st Session (27 March 2008): P-71.
[14] Ibid., P-72.
[15] Office of the Auditor General, *2007 Annual Report*, p. 274.
[16] Standing Committee on Public Accounts, *Official Report of Debates*, p. P-72.
[17] Ibid., p. P-80.
[18] Office of the Auditor General, *2007 Annual Report,* pp. 277-278.
[19] Ibid., pp. 278-280.
[20] Ibid., pp. 280-281.
[21] Ibid., p. 281.
[22] Ibid.
[23] Ibid., pp. 281-282.
[24] Standing Committee on Public Accounts, *Official Report of Debates*, pp. P-71-72.
[25] Ibid., p. P-72.
[26] Ibid., p. P-75.
[27] Ibid., p. P-72.
[28] Ibid., p. P-74.
[29] Ibid., pp. P-74-75.
[30] Ibid., p. P-72.
[31] Ibid.
[32] Ibid., p. P-74.
[33] Ibid., p. P-75.
[34] Information that Research and Information Services received by telephone from the Office of the Auditor General, June 19, 2008.
[35] *French Language Services Act*, R.S.O. 1990, c. F.32, ss. 2 and 5. Internet site at http://www.iijcan.org/on/laws/sta/f-32/20080515/whole.html, accessed June 19, 2008.
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[37] Standing Committee on Public Accounts, *Official Report of Debates*, p. P-72.
[38] Ibid., p. P-78.
[39] Ibid.
[40] Ibid., p. P-72.
[41] Ibid., p. P-78.
[42] Ibid., p. P-72.
[43] Ibid., p. P-78.
[44] Ibid., p. P-85.
[45] Ibid., p. P-72.
[46] Ibid.
[47] Ibid., p. P-74.
[48] Ibid., p. P-75.
[49] Ibid., p. P-74.

[50] Ibid., p. P-75.
[51] Ibid.
[52] Ibid.
[53] Ibid.
[54] Ibid., p. P-76.
[55] Ibid., pp. P-75-76.
[56] Ibid., p. P-76.
[57] Ibid., p. P-83.
[58] Ibid.
[59] Ibid., p. P-74.
[60] Ibid., p. P-77.
[61] *Health Protection and Promotion Act.* R.S.O 1990, c. H.7, s. 77.1. Internet site at http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90h07_e.htm#BK82, accessed June 19, 2008.
[62] Information received by telephone from the Office of the Auditor General, June 19, 2008
[63] Office of the Auditor General, *2007 Annual Report*, p. 283.
[64] Ibid., pp. 283-284.
[65] Ibid., p. 284.
[66] Standing Committee on Public Accounts, *Official Report of Debates*, p. P-81.
[67] Ibid., p. P-72.
[68] Ibid., p. P-82.
[69] Ibid.
[70] Ibid., p. P-72.
[71] Ibid., p. P-82.
[72] Ibid.
[73] Ibid., p. P-81.
[74] Ibid.
[75] Ibid.
[76] Ibid., p. P-82.
[77] Ibid., p. P-72.
[78] Ibid., p. P-82.
[79] Ibid., p. P-81.
[80] Ibid., p. P-72.
[81] Ibid., pp. P-72-73.
[82] Negative-pressure rooms are rooms with low air pressure used for isolating patients with air-borne infectious diseases.
[83] Office of the Auditor General, *2007 Annual Report*, pp. 284-285.
[84] Ibid., p. 285.
[85] Ibid.
[86] Ibid., pp. 285-286.
[87] Ibid., p. 286.
[88] Standing Committee on Public Accounts, *Official Report of Debates*, p. P-73.
[89] Ibid.
[90] Ibid.
[91] Ibid.
[92] Ibid., p. P-81.
[93] Ibid., p. P-85.
[94] Ibid., p. P-73.
[95] Office of the Auditor General, *2007 Annual Report*, pp. 286-287.
[96] Ibid., p. 287.
[97] Ibid., p. 288.
[98] Ibid.
[99] Standing Committee on Public Accounts, *Official Report of Debates*, p. P-73.
[100] Ibid., p. P-85.
[101] Ibid.
[102] Ibid., p. P-73.
[103] Ibid., p. P-83.
[104] Ibid.

[105] Ibid.
[106] Ibid., p. P-73.
[107] Ibid., p. P-74.
[108] Office of the Auditor General, *2007 Annual Report*, pp. 288-289.
[109] Ibid., pp. 289-290.
[110] Ibid., p. 290.
[111] Ibid.
[112] Ibid., pp. 290-291.
[113] Ibid., pp. 291-292.
[114] Ibid., p. 292.
[115] Ibid.
[116] Standing Committee on Public Accounts, *Official Report of Debates*, p. P-79.
[117] Ibid., p. P-84.
[118] Ibid., p. P-79.
[119] Ibid., pp. P-79-80.
[120] Ibid., p. P-80.
[121] Ibid., p. P-84.
[122] Ibid., p. P-83.
[123] Ibid.
[124] Ibid., p. P-73.
[125] Ibid., p. P-80.
[126] Ibid., p. P-83.
[127] Ibid., p. P-84.
[128] Ibid.
[129] Ibid.
[130] Ibid., p. P-74.
[131] Ibid., p. P-85.
[132] Ibid., p. P-86.
[133] Ibid., pp. P-71 and P-83.
[134] Office of the Auditor General, *2007 Annual Report*, pp. 293-294.
[135] Ibid., p. 294.
[136] Ibid.
[137] Ibid.
[138] Standing Committee on Public Accounts, *Official Report of Debates*, p. P-73.
[139] Ibid., p. P-82.
[140] Ibid., p. P-73.
[141] Ibid.
[142] Ibid., pp. P-77 and P-78.
[143] Office of the Auditor General, *2007 Annual Report*, p. 295.
[144] Ibid., pp. 295-296.
[145] Ibid., p. 296.
[146] Ibid.
[147] Ibid.
[148] Standing Committee on Public Accounts, *Official Report of Debates*, p. P-71.
[149] Ibid., p. P-79.
[150] Office of the Auditor General, *2007 Annual Report*, pp. 296-297.
[151] Ibid., p. 297.
[152] Ibid., pp. 297-298.
[153] Ibid., p. 298.
[154] Ibid.
[155] Standing Committee on Public Accounts, *Official Report of Debates*, p. P-77.
[156] Ibid.
[157] Ibid.
[158] Ibid.
[159] Ibid., p. P-81.

[160] Office of the Auditor General, *2007 Annual Report*, p. 298. The report referred to is the *Report of the Expert Panel on SARS and Infectious Disease Control* by Dr. David Walker (released April 2004).
[161] Ibid.
[162] Ibid.
[163] Ibid.